

1746/Eledior Ave., Suite 100, Evine, CA 9261 1-1049/2614-1022 (EDX 1949-2614); 370-1014 E. Cooley Ch., Suite A, Colton, CA 92014 (999, 370-4661 1481 199, 370-10146 9464 Chestokske Dr., Suite 895, San Delgo, CA 97120 (858) 505-8596 EAX (658) 515-6469 9850 Sorah 515t St., Suite 8-120, Phoenis, AZ 65044 (480) 780-6653 EAX (480) FAX (4

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Project 1D: Alfa Outfall 012 - During Test

Report Number: 10D2047

Sampled: 04/28/05 Received: 04/28/05

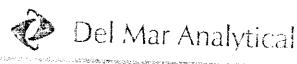
DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	_	Dilution Factor F		Date Analyze	Data ed Qualifiers
Sample ID: IOD2047-01 (DRAFT: Reporting Units: mg/l	Outfall 012 - W	(ater)							REV COUNT
Total Recoverable Hydrocarbons	EPA 418.1	5D30026	0.31	1.0	5.6	1	04/30/05	04/30/05	

AMEC VALIDATED



DRAFT REPORT
DRAFT REPORT
DATA SUBJECT TO CHANGE



3745317-663 (Ave., Stiffe 100, Invine, CA 927 (4, 1949) 267-1022 (FAX 9-40) (1963), 1 2014 E. Coulev En., Suite A. Colton, CA 92324 (968) 377 4667 (As major 376 days 9274 Chesaprake Dr., Suite 305 San Diego, CA 92177 (658) 369-8596 FAX (838) 501.003 9830 South 318 St., Suite 8-120, Phoenix, AZ 83024 (480) 785-0943 FAX (480) 785-061 2520 E. Sunset Rd. #3, Las Vogas, NV 89120 (102) 798-3620 FAV (702) 798-362

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project (D: Quarterly Outfall 018

Report Number: IOD2049

Sampled: 04/28:05

Received: 04/28/05

DRAFT: INORGANICS

				NOWNE	ter ter					
Analyte	Method	Batch	Limit	Reporting Limit	Sample Result	Diluti Facto	on Date or Extracted	Date L Analys	e I)ata
Sample ID: 10D2049-01 (DRAF) Reporting Units: mg/l	Γ: Outfall 018 -	Water) - con	t.						REY	out
Ammonia-N (Distilled) Biochemical Oxygen Demand Chloride Nitrate/Nitrite-N Oil & Grease Sulfate Surfactants (MBAS) Total Dissolved Solids Total Suspended Solids	EPA 350.2 EPA 405.1 EPA 300.0 EPA 413.1 EPA 300.0 EPA 425.1 EPA 160.1 EPA 160.2	5E02067 5D29091 5D28116 5D28116 5E04036 5D28116 5D28122 5D29129 5E04071	0.30 0.59 0.26 0.075 0.94 0.90 0.044 10	0.50 2.0 0.50 0.15 5.0 2.5 0.10 10	ND 9.7 30 0.17 ND 85 0.059 320 48	1 1 1 5 1 1 1	04/29/05 04/28/05 04/28/05 05/04/05 04/28/05 04/28/05 04/29/05	05/02/05 05/04/05 04/29/05 04/29/05 05/04/05 04/29/05 04/29/05 05/04/05	u	DNG
Sample ID: IOD2049-01 (DRAFT Reporting Units: mi/l/hr Total Settleable Solids Sample ID: IOD2049-01 (DRAFT: Reporting Units: NTU	EPA 160.5	5D29094	0.10	0.10	ND	1		04/29/05	u	
Turbidity	EPA 180.1	5D29110	0.080	2.0	42	2	04/29/05	04/29/05		
Sample ID: IOD2049-01 (DRAFT: Reporting Units: ug/l Foral Cyanide Perchlorate Sample ID: IOD2049-01 (DRAFT:	EPA 335.2 EPA 314.0	5D29078 5D29065	2.2 0.80	5.0 4.0	ND ND	1	04/29/05 04/29/05	04/29/05	L*	
Reporting Units: umhos/em Specific Conductance	EPA 120.1	5D29130	1.0	1.0	450	Ţ	04/29/05 (04/29/05	And the second s	

AMEC VALIDATED



*Analysis Not Validated

DRAFT REPORT DRAFT REPORT DATA SUBJECT TO CHANGE

APPENDIX G

Section 2

Outfall 002

Del Mar Analytical Laboratory Reports

AMEC Data Validation Reports

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing

ena/Boeing Project: Quarterly Outfall 002

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly

Sampled: 04/01/05 Received: 04/01/05

Issued: 05/06/05 09:06

NELAP #01108CA California ELAP#1197 CSDLAC #10117

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 Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain of Custody, I page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 5°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 Del Mar

Analytical 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: The Sulfate result for sample IOD0069-01RE1 is a confirmation and the aliquot used was taken from the

original container and re-prepared for the analysis. The Sulfate result for sample IOD0069-01RE2 is a

confirmation and the aliquot used was taken from a different unpreserved container.

LABORATORY ID CLIENT ID MATRIX
IOD0069-01 Outfall 002 Water

IOD0069-02 Trip Blank Water

Reviewed By:

Del Mar Analytical, Irvine

Michell Harper

MWH-Pasadena/Boeing

Project ID: Quarterly Outfall 002

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly

Report Number: IOD0069

Sampled: 04/01/05 Received: 04/01/05

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: IOD0069-01 (Outfall 00	2 - Water)				Samn	led: 04/0	1 /05		
Reporting Units: ug/l					Samp	ncu. 94/9	1105		
Benzene	EPA 624	5D09012	0.28	2.0	ND	1	04/09/05	04/09/05	
Trichlorotrifluoroethane (Freon 113)	EPA 624	5D09012	1.2	5.0	ND	ì	04/09/05	04/09/05	
Carbon tetrachloride	EPA 624	5D09012	0.28	5.0	ND	1	04/09/05	04/09/05	
Chloroform	EPA 624	5D09012	0.33	2.0	ND	1	04/09/05	04/09/05	
1,1-Dichloroethane	EPA 624	5D09012	0.27	2.0	ND	*	04/09/05	04/09/05	
1,2-Dichloroethane	EPA 624	5D09012	0.28	2.0	ND	1	04/09/05	04/09/05	
1,1-Dichloroethene	EPA 624	5D09012	0.32	3.0	ND	i	04/09/05	04/09/05	
Ethylbenzene	EPA 624	5D09012	0.25	2.0	ND	1	04/09/05	04/09/05	
Tetrachloroethene	EPA 624	5D09012	0.32	2.0	ND	1	04/09/05	04/09/05	
Toluene	EPA 624	5D09012	0.36	2.0	ND	1	04/09/05	04/09/05	
1,1,1-Trichloroethane	EPA 624	5D09012	0.30	2.0	ND	1	04/09/05	04/09/05	
1,1,2-Trichloroethane	EPA 624	5D09012	0.30	2.0	ND	1	04/09/05	04/09/05	
Trichloroethene	EPA 624	5D09012	0.26	5.0	ND	1	04/09/05		
Trichlorofluoromethane	EPA 624	5D09012	0.34	5.0	ND	1	04/09/05	04/09/05	
Vinyl chloride	EPA 624	5D09012	0.26	5.0	ND	1	04/09/05	04/09/05	
Xylenes, Total	EPA 624	5D09012	0.52	4.0	ND	1	04/09/05	04/09/05	
Surrogate: Dibromofluoromethane (80		·- · · · · -	0.52	1.0	112 %		04/03/03	04/09/05	
Surrogate: Toluene-d8 (80-120%)	Ź				102 %				
Surrogate: 4-Bromofluorobenzene (80	-120%)				101 %				
Sample ID: IOD0069-02 (Trip Blank	- Water)				Sample	ed: 04/01	/05		
Reporting Units: ug/l									
Benzene	EPA 624	5D09012	0.28	2.0	ND	Į	04/09/05	04/09/05	
Trichlorotrifluoroethane (Freon 113)	EPA 624	5D09012	1.2	5.0	ND	1	04/09/05	04/09/05	
Carbon tetrachloride	EPA 624	5D09012	0.28	5.0	ND	1	04/09/05	04/09/05	
Chloroform	EPA 624	5D09012	0.33	2.0	ND	1	04/09/05	04/09/05	
I,1-Dichloroethane	EPA 624	5D09012	0.27	2.0	ND	1	04/09/05	04/09/05	
1,2-Dichloroethane	EPA 624	5D09012	0.28	2.0	ND	1	04/09/05	04/09/05	
1,1-Dichloroethene	EPA 624	5D09012	0.32	3.0	ND	1	04/09/05	04/09/05	
Ethylbenzene	EPA 624	5D09012	0.25	2.0	ND	1	04/09/05	04/09/05	
Tetrachloroethene	EPA 624	5D09012	0.32	2.0	ND	1	04/09/05	04/09/05	
Toluene	EPA 624	5D09012	0.36	2.0	ND	ī	04/09/05	04/09/05	
1,1,1-Trichloroethane	EPA 624	5D09012	0.30	2.0	ND	1	04/09/05	04/09/05	
1,1,2-Trichloroethane	EPA 624	5D09012	0.30	2.0	ND	9		04/09/05	
Trichloroethene	EPA 624	5D09012	0.26	5.0	ND			04/09/05	
Trichlorofluoromethane	EPA 624	5D09012	0.34	5.0	ND			04/09/05	
Vinyl chloride	EPA 624	5D09012	0.26	5.0	ND			04/09/05	
Xylenes, Total	EPA 624	5D09012	0.52	4.0	ND			04/09/05	
Surrogate: Dibromofluoromethane (80-	120%)			-	106%	•	S 11 0 21 0 D	0 1107100	
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-)	120%)				100 %				

Del Mar Analytical, Irvine



MWH-Pasadena/Boeing

Project ID: Quarterly Outfall 002

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Repo

Attention: Bronwyn Kelly

Sampled: 04/01/05

Report Number: IOD0069

Received: 04/01/05

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: IOD0069-01 (Outfall 002 - Wa	ter)				Samn	led: 04/01	1/05		
Reporting Units: ug/l						11 11			
Bis(2-ethylhexyl)phthalate	EPA 625	5D03010	1.1	5.0	1.1	0.952	04/03/05	04/11/05	B, J
2,4-Dinitrotoluene	EPA 625	5D03010	0.23	9.0	ND	0.952	04/03/05	04/11/05	, u
N-Nitrosodimethylamine	EPA 625	5D03010	0.22	8.0	ND	0.952	04/03/05	04/11/05	
Pentachlorophenol	EPA 625	5D03010	0.78	8.0	ND	0.952	04/03/05	04/11/05	
2,4,6-Trichlorophenol	EPA 625	5D03010	0.10	6.0	ND	0.952	04/03/05	04/11/05	
Surrogate: 2-Fluorophenol (30-120%)					60 %			- 1. 1. 2. 00	
Surrogate: Phenol-d6 (35-120%)					63 %				
Surrogate: 2,4,6-Tribromophenol (45-120%))				81%				
Surrogate: Nitrobenzene-d5 (45-120%)					63 %				
Surrogate: 2-Fluorobiphenyl (45-120%)					69 %				
Surrogate: Terphenyl-d14 (45-120%)					78 %				



MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Pasadena, CA 91101

Project ID: Quarterly Outfall 002

300 North Lake Avenue, Suite 1200

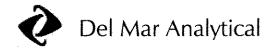
Report Number: IOD0069

Sampled: 04/01/05

Received: 04/01/05

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD0069-01 (Outfall 002 - W	ater) - cont.				Samp	led: 04/0	1/05		
Reporting Units: ug/l									
alpha-BHC	EPA 608	5D05047	0.0010	0.010	ND	0.962	04/05/05	04/05/05	C-1
Surrogate: Decachlorobiphenyl (45-120%)				114%				
Surrogate: Tetrachloro-m-xylene (35-115)	(6)				85 %				



MWH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Quarterly Outfall 002

300 North Lake Avenue, Suite 1200

| Sampled: 04/01/05 | Report Number: IOD0069 | Received: 04/01/05

Attention: Bronwyn Kelly

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD0069-01 (Outfall 0	02 - Water) - cont.				Samp	led: 04/01	1/05		
Reporting Units: ug/l									
Copper	EPA 200.8	5D01113	0.49	2.0	2.2	1	04/01/05	04/03/05	
Lead	EPA 200.8	5D01113	0.13	1.0	ND	1	04/01/05	04/03/05	
Mercury	EPA 245.1	5D05050	0.063	0.20	0.11	1	04/05/05	04/05/05	J



MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 002

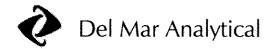
Report Number: IOD0069

Sampled: 04/01/05 Received: 04/01/05

INORGANICS

			, ~ x x x x x						
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD0069-01 (Outfall 0	02 - Water) - cont.				6				
Reporting Units: mg/l	,				Samp	led: 04/0	1/05		
Ammonia-N (Distilled)	EPA 350.2	5D05076	0.30	0.50	ND	1	04/05/05	04/02/02	
Biochemical Oxygen Demand	EPA 405.1	5D02036	0.59	2.0	ND	1	04/03/03	04/05/05	
Chloride	EPA 300.0	5D01057	2.6	5.0	41	10	04/02/03	04/07/05	
Nitrate/Nitrite-N	EPA 300.0	5D01057	0.072	0.26	ND	1	04/01/05	04/01/05 04/01/05	
Oil & Grease	EPA 413.1	5D03014	0.94	5.0	ND	1	04/01/03	04/01/05	
Sulfate	EPA 300.0	5D01057	1.8	5.0	310	10	04/03/03	04/03/03	
Surfactants (MBAS)	SM5540-C	5D01119	0.044	0.10	0.068	10	04/01/05		*
Total Dissolved Solids	SM2540C	5D06089	10	10	770	1	04/01/03	04/01/05	J
Total Suspended Solids	EPA 160.2	5D05071	10	10	ND	1	04/06/03	04/06/05	
Sample ID. IODOSCO AIDEL (O. 16	11 000 TV		••		ND	1	04/03/03	04/05/05	
Sample ID: IOD0069-01RE1 (Outfa	# 002 - Water)				Sampl	led: 04/01	/05		
Reporting Units: mg/I Sulfate	EPA 300.0	5D06048	1.8	5.0	300	10	04/06/05	04/06/05	N-1
Sample ID: IOD0069-01RE2 (Outfa	ll 002 - Water)				6 1	1 04/04	ω <u>-</u>		
Reporting Units: mg/l					Sampl	ed: 04/01	/05		
Sulfate	EPA 300.0	5D06048	1.8	5.0	310	10	04/06/05	04/06/05	N-1
Sample ID: IOD0069-01 (Outfall 00)	2 - Water)				Samul	ed: 04/01.	/0.5		
Reporting Units: ml/l/hr					թաււրո	cu. 04/01,	103		
Total Settleable Solids	EPA 160.5	5D01087	0.10	0.10	ND	1	04/01/05	04/01/05	
Sample ID: IOD0069-01 (Outfall 002 Reporting Units: NTU	? - Water)				Sample	ed: 04/01/	/05		
Turbidity	EPA 180.1	5D02038	0.040	1.0	0.89	1	04/02/05	04/02/05	J
Sample ID: IOD0069-01 (Outfall 002	- Water)				Sample	d: 04/01/	05		·
Reporting Units: ug/l Total Cyanide	ED L CARA								
Perchlorate	EPA 335.2	5D01123	2.2	5.0	ND	1	04/01/05	04/01/05	
retenorate	EPA 314.0	5D04053	0.80	4.0	ND	1	04/04/05	04/04/05	
Sample ID: IOD0069-01 (Outfall 002	- Water)				Come to	3. 6464 ·	n. #*		
Reporting Units: umhos/cm	•				Jampie	d: 04/01/0	03		
Specific Conductance	EPA 120.1	5D06092	1.0	1.0	1100	1	04/06/05	04/06/05	

Del Mar Analytical, Irvine



MWH-Pasadena/Boeing

Project ID: Quarterly Outfall 002

300 North Lake Avenue, Suite 1200

Sampled: 04/01/05 Received: 04/01/05

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: IOD0069

SHORT HOLD TIME DETAIL REPORT

Sample ID: Outfall 002 (IOD0069-01) - Wate	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 160.5	2	04/01/2005 09:20	04/01/2005 17:55	04/01/2005 19:00	04/01/2005 20:00
EPA 180.1	2	04/01/2005 09:20	04/01/2005 17:55	04/02/2005 08:00	04/02/2005 08:30
EPA 300.0	2	04/01/2005 09:20	04/01/2005 17:55	04/01/2005 21:00	04/01/2005 21:36
EPA 405.1	2	04/01/2005 09:20	04/01/2005 17:55	04/02/2005 12:29	04/07/2005 07:30
SM5540-C	2	04/01/2005 09:20	04/01/2005 17:55	04/01/2005 20:06	04/01/2005 20:37

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 002

Report Number: IOD0069

Sampled: 04/01/05 Received: 04/01/05

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 5D09012 Extracted: 04/09/05	<u>.</u>									CHIEFE	Quanners
Blank Analyzed: 04/09/2005 (5D09012-B	LKI										
Benzene	ND	2.0	0.28	ug/I							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	1.2	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	0.33	ug/I ug/I							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	3.0	0.32	ug/i							
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	0.26	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Surrogate: Dibromofluoromethane	28.2			ug/l	25.0		113	80-120			
Surrogate: Toluene-d8	25.4			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	25.9			ug/l	25.0		104	80-120			
LCS Analyzed: 04/09/2005 (5D09012-BS1	}										
Benzene	25.4	2.0	0.28	ug/I	25.0		102	70-120			
Carbon tetrachloride	29.2	5.0	0.28	ug/i	25.0		117	70-120			
Chloroform	28.0	2.0	0.33	ug/l	25.0		112	75-130			
I,I-Dichloroethane	27.1	2.0	0.27	ug/i	25.0		108	70-135			
1,2-Dichloroethane	28.7	2.0	0.28	ug/l	25.0		115	60-150			
1,1-Dichloroethene	25.6	3.0	0.32	ug/l	25.0		102	75-135			
Ethylbenzene	24.5	2.0	0.25	ug/l	25.0		98	80-120			
Tetrachloroethene	24.4	2.0	0.32	ug/l	25.0		98	75-125			
Toluene	25.4	2.0	0.36	ug/l	25.0		102	75-120			
1,1,1-Trichloroethane	31.4	2.0	0.30	ug/l	25.0		126	75-140			
1,1,2-Trichloroethane	27.4	2.0	0.30	ug/l	25.0		110	70-125			
Trichloroethene	26.9	5.0	0.26	ug/l	25.0		108	80-120			
Trichlorofluoromethane	30.3	5.0	0.34	ug/l	25.0		121	65-145			
Vinyl chloride	24.6	5.0	0.26	ug/l	25.0		98	50-130			
Surrogate: Dibromofluoromethane	27.3		-	ug/l	25.0			80-120			
Dol Moss Amalystical Fortice							102	UV-140			

Del Mar Analytical, Irvine

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 002

Report Number: IOD0069

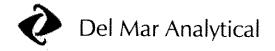
Sampled: 04/01/05 Received: 04/01/05

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD	Data
Batch: 5D09012 Extracted: 04/09/05					20,01	Iteaut	/GREAC	Limits	RFD	Limit	Qualifiers
	_										
LCS Analyzed: 04/09/2005 (5D09012-BS											
Surrogate: Toluene-d8	25.3			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	26.6			ug/l	25.0		106	80-120			
Matrix Spike Analyzed: 04/09/2005 (5D0	9012-MS1)				Sou	rce: IOD(148-04				
Benzene	27.9	2.0	0.28	ug/l	25.0	ND	112	70-120			
Carbon tetrachloride	32.3	5.0	0.28	ug/l	25.0	ND	129	70-145			
Chloroform	30.9	2.0	0.33	ug/l	25.0	ND	124	70-135			
1,1-Dichloroethane	33.2	2.0	0.27	ug/l	25.0	3.2	120	65-135			
1,2-Dichloroethane	30.9	2.0	0.28	ug/l	25.0	ND	124	60-150			
1,1-Dichloroethene	33.5	3.0	0.32	ug/l	25.0	5.1	114	65-140			
Ethylbenzene	27.0	2.0	0.25	ug/l	25.0	ND	108	70-130			
Tetrachloroethene	26.8	2.0	0.32	ug/l	25.0	ND	107	70-130			
Toluene	28.3	2.0	0.36	ug/l	25.0	ND	113	70-120			
1,1,1-Trichloroethane	35.2	2.0	0.30	ug/l	25.0	ND	141	75-140			MI
1,1,2-Trichloroethane	29.1	2.0	0.30	ug/l	25.0	ND	116	60-135			MI
Trichloroethene	47.2	5.0	0.26	ug/l	25.0	20	109	70-125			
Trichlorofluoromethane	33.7	5.0	0.34	ug/l	25.0	ND	135	55-145			
Vinyl chloride	28.1	5.0	0.26	ug/l	25.0	ND	112	40-135			
Surrogate: Dibromofluoromethane	27.5			ug/l	25.0	- 120	110	80-120			
Surrogate: Toluene-d8	25.5			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	26.4			ug/l	25.0		106	80-120			
Matrix Spike Dup Analyzed: 04/09/2005 (5D09012-MS	D 1)			Sour	ce: IOD01	140 na				
Benzene	26.2	2.0	0.28	ug/l	25.0	ND		70 120	_		
Carbon tetrachloride	30.5	5.0	0.28	ug/l	25.0		105	70-120	6	20	
Chloroform	28.7	2.0	0.33	ug/l	25.0	ND	122	70-145	6	25	
1,1-Dichloroethane	30.9	2.0	0.27	ug/i ug/l	25.0	ND	115	70-135	7	20	
1,2-Dichloroethane	28.2	2.0	0.28	ug/l	25.0	3.2	111	65-135	7	20	
1,1-Dichloroethene	31.0	3.0	0.32	4	25.0	ND	113	60-150	9	20	
Ethylbenzene	25.6	2.0	0.25	ug/l		5.1	104	65-140	8	20	
Tetrachloroethene	25.3	2.0	0.32	ug/l	25.0	ND	102	70-130	5	20	
Toluene	26.7	2.0	0.36	ug/l	25.0	ND		70-130	6	20	
1,1,1-Trichloroethane	32.4	2.0	0.30	ug/l	25.0	ND		70-120	6	20	
1,1,2-Trichloroethane	26.1	2.0	0.30	ug/l	25.0	ND		75-140	8	20	
Trichloroethene	45.2	5.0	0.26	ug/l	25.0	ND		60-135	11	25	
Trichlorofluoromethane	30.9	5.0	0.26	ug/l	25.0	20		70-125	4	20	
	20.7	J. U	U.34	ug/l	25.0	ND	124	55-145	9	25	

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300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Project ID: Quarterly Outfall 002

Report Number: IOD0069

Sampled: 04/01/05

Received: 04/01/05

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

	}	Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 5D09012 Extracted: 04/09/05	•										
Matrice C. C. D. L. L. L. D. (1997)											
Matrix Spike Dup Analyzed: 04/09/2005	(5D09012-MSI) 1)			Sou	rce: IOD(0148-04				
Vinyl chloride	26.3	5.0	0.26	ug/l	25.0	ND	105	40-135	7	30	
Surrogate: Dibromofluoromethane	26.7			ug/l	25.0		107	80-120			
Surrogate: Toluene-d8	25.0			ug/l	25.0		100	80-120			
Surrogate: 4-Bromofluorobenzene	26.1			ug/l	25.0		104	80-120			

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Pasadena, CA 91101

Attention: Bronwyn Kelly

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Report Number: IOD0069

Sampled: 04/01/05 Received: 04/01/05

METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC		RPD	Limit	Qualifiers
Batch: 5D03010 Extracted: 04/03/0	5_										Z marrier o
Blank Analyzed: 04/11/2005 (5D03010-E	BLK1)										
Bis(2-ethylhexyl)phthalate	1.12	5.0	1.1	ug/l							J
2,4-Dinitrotoluene	ND	9.0	0.23	ug/l							J
N-Nitrosodimethylamine	ND	8.0	0.22	ug/I							
Pentachlorophenol	ND	8.0	0.78	ug/l							
2,4,6-Trichlorophenol	ND	6.0	0.10	ug/l							
Surrogate: 2-Fluorophenol	12.2			ug/l	20.0		61	30-120			
Surrogate: Phenol-d6	<i>13.1</i>			ug/l	20.0		66	35-120			
Surrogate: 2,4,6-Tribromophenol	14.8			ug/l	20.0		74	45-120			
Surrogate: Nitrobenzene-d5	6.44			ug/l	10.0		64	45-120			
Surrogate: 2-Fluorobiphenyl	6.76			ug/l	10.0		68	45-120			
Surrogate: Terphenyl-d14	7.58			ug/l	10.0		76	45-120			
LCS Analyzed: 04/11/2005 (5D03010-BS	1)										M-NR1
Bis(2-ethylhexyl)phthalate	8.04	5.0	1.1	ug/l	10.0		80	60-130			MI-MKI
2,4-Dinitrotoluene	6.48	9.0	0.23	ug/l	10.0		65	60-120			r
N-Nitrosodimethylamine	6.24	8.0	0.22	ug/l	10.0		62	40-120			J J
Pentachlorophenol	7.66	8:0	0.78	ug/l	10.0		77	50-120			J J
2,4,6-Trichlorophenol	7.56	6.0	0.10	ug/l	10.0		76	60-120			J
Surrogate: 2-Fluorophenol	11.3			ug/I	20.0		56	30-120			
Surrogate: Phenol-d6	12.4			ug/l	20.0		62	35-120			
Surrogate: 2,4,6-Tribromophenol	15.8			ug/l	20.0		79	45-120			
Surrogate: Nitrobenzene-d5	6.44			ug/l	10.0		64	45-120			
Surrogate: 2-Fluorobiphenyl	6.92			ug/l	10.0		69	45-120			
Surrogate: Terphenyl-d14	7.84			ug/l	10.0		78	45-120			
LCS Dup Analyzed: 04/11/2005 (5D03010	-BSD1)										
Bis(2-ethylhexyl)phthalate	8.70	5.0	1.1	ug/l	10.0		87	60-130	8	20	
2,4-Dinitrotoluene	6.36	9.0	0.23	ug/l	10.0		64	60-120	2	20	J
N-Nitrosodimethylamine	6.34	8.0	0.22	ug/l	10.0		63	40-120	2	20	J
Pentachlorophenol	7.82	8.0	0.78	ug/l	10.0		78	50-120	2	25	J
2,4,6-Trichlorophenol	7.42	6.0	0.10	ug/l	10.0			60-120	2	20	J
Surrogate: 2-Fluorophenol	11.5			ug/l	20.0			30-120	4	20	
Surrogate: Phenol-d6	11.8			ug/l	20.0			35-120			
Surrogate: 2,4,6-Tribromophenol	16.1			ug/l	20.0			45-120			
Surrogate: Nitrobenzene-d5	6.00			ug/l	10.0			45-120 45-120			
Surrogate: 2-Fluorobiphenyl	6.50			ug/l	10.0			45-120 45-120			

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Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 002

Report Number: IOD0069

Sampled: 04/01/05 Received: 04/01/05

METHOD BLANK/QC DATA

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

Analyte Batch: 5D03010 Extracted: 04/03/05	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup Analyzed: 04/11/2005 (5D0301) Surrogate: Terphenyl-d14	0-BSD1) 7.92			ug/l	10.0		79	45-120			



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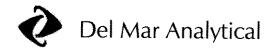
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Received: 04/01/05

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5D05047 Extracted: 04/05/05											
Blank Analyzed: 04/05/2005 (5D05047-B	LK1)										
alpha-BHC	ND	0.010	0.0010	ug/l							
Surrogate: Decachlorobiphenyl	0.488			ug/l	0.500		98	45-120			
Surrogate: Tetrachloro-m-xylene	0.380			ug/l	0.500		76	35-115			
LCS Analyzed: 04/05/2005 (5D05047-BS	1)										
alpha-BHC	0.468	0.010	0.0010	ug/l	0.500		94	45-115			
Surrogate: Decachlorobiphenyl	0.534			ug/l	0.500		107	45-120			
Surrogate: Tetrachloro-m-xylene	0.353			ug/l	0.500		71	35-115			
LCS Dup Analyzed: 04/05/2005 (5D0504°	7-BSD1)										
alpha-BHC	0.489	0.010	0.0010	ug/l	0.500		98	45-115	4	30	
Surrogate: Decachlorobiphenyl	0.532			ug/l	0.500		106	45-120	•	50	
Surrogate: Tetrachloro-m-xylene	0.387			ug/l	0.500		77	35-115			



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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5D01113 Extracted: 04/01/05	-										
Blank Analyzed: 04/03/2005 (5D01113-Bl	LKI)										
Copper	ND	2.0	0.49	ug/l							
Lead	ND	1.0	0.13	ug/l							
LCS Analyzed: 04/03/2005 (5D01113-BS1	.)										
Copper	79.4	2.0	0.49	ug/l	80.0		99	85-115			
Lead	90.4	1.0	0.13	ug/l	80.0		113	85-115			
Matrix Spike Analyzed: 04/03/2005 (5D01	(113-MS1)				Sour	rce: IOC2	2431-01				
Copper	73.1	2.0	0.49	ug/l	80.0	2.2	89	70-130			
Lead	83.0	1.0	0.13	ug/l	80.0	0.42	103	70-130			
Matrix Spike Dup Analyzed: 04/03/2005 (5D01113-MS	SD1)			Sour	ce: IOC2	431-01				
Copper	81.0	2.0	0.49	ug/l	80.0	2.2	98	70-130	10	20	
Lead	89.4	1.0	0.13	ug/l	80.0	0.42	111	70-130	7	20	
Batch: 5D05050 Extracted: 04/05/05											
Blank Analyzed: 04/05/2005 (5D05050-BL	K1)										
Mercury	ND	0.20	0.063	ug/l							
LCS Analyzed: 04/05/2005 (5D05050-BS1))										
Mercury	6.91	0.20	0.063	ug/l	8.00		86	85-115			
Matrix Spike Analyzed: 04/05/2005 (5D05	050-MS1)				Sour	ce: IOD0	113-01				
Mercury	2.36	0.20	0.063	ug/l	8.00	ND	30	70-130			M2
Matrix Spike Dup Analyzed: 04/05/2005 (5	5D05050-MS	D1)			Sourc	ce: IOD0	113-01				
Mercury	2.37	0.20	0.063	ug/1	8.00	ND	30	70-130	0	20	M2

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Attention: Bronwyn Kelly

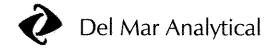
METHOD BLANK/QC DATA

INORGANICS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 5D01057 Extracted: 04/01/05											
	•										
Blank Analyzed: 04/01/2005 (5D01057-B	LK1)										
Chloride	ND	0.50	0.26	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.072	mg/l							
Sulfate	ND	0.50	0.18	mg/l							
LCS Analyzed: 04/01/2005 (5D01057-BS)	1)										
Chloride	4.84	0.50	0.26	mg/l	5.00		97	90-110			
Sulfate	9.75	0.50	0.18	mg/l	10.0		98	90-110			
Matrix Spike Analyzed: 04/01/2005 (5D0	1057-MS1)				Sour	rce: IOC2	2368-01				
Chloride	59.1	2.5	1.3	mg/l	5.00	55	82	80-120			
Sulfate	79.1	2.5	0.90	mg/l	10.0	72	71	80-120			M-HA
Matrix Spike Dup Analyzed: 04/01/2005	(5D01057-MS)	D1)			Sour	rce: IOC2	368-01				
Chloride	59.9	2.5	1.3	mg/l	5.00	55	98	80-120	1	20	
Sulfate	80.9	2.5	0.90	mg/l	10.0	72	89	80-120	2	20	M-HA
Batch: 5D01119 Extracted: 04/01/05											
	•										
Blank Analyzed: 04/01/2005 (5D01119-BI	LK1)										
Surfactants (MBAS)	ND	0.10	0.044	mg/l							
LCS Analyzed: 04/01/2005 (5D01119-BS1)										
Surfactants (MBAS)	0.250	0.10	0.044	mg/l	0.250		100	90-110			
Matrix Spike Analyzed: 04/01/2005 (5D01	119-MS1)				Sour	ce: IOD0	055-01				
Surfactants (MBAS)	0.248	0.10	0.044	mg/l	0.250	0.053	78	50-125			

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Project Manager



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Report Number: IOD0069

Sampled: 04/01/05

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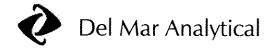
METHOD BLANK/QC DATA

INORGANICS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 5D01119 Extracted: 04/01/05											
Matrix Spike Dup Analyzed: 04/01/2005	`	,			Sou	rce: IOD(
Surfactants (MBAS)	0.243	0.10	0.044	mg/l	0.250	0.053	76	50-125	2	20	
Batch: 5D01123 Extracted: 04/01/05	<u>.</u>										
Blank Analyzed: 04/01/2005 (5D01123-Bl	LK1)										
Total Cyanide	ND	5.0	2.2	ug/l							
LCS Analyzed: 04/01/2005 (5D01123-BS1	l)										
Total Cyanide	206	5.0	2.2	ug/l	200		103	90-110			
Matrix Spike Analyzed: 04/01/2005 (5D0)	1123-MS1)				Sou	rce: IOC2	2294-01				
Total Cyanide	132	5.0	2.2	ug/l	200	5.4	63	70-115			M2
Matrix Spike Dup Analyzed: 04/01/2005 ((5D01123-MS)	D1)			Sour	rce: IOC2	294-01				
Total Cyanide	110	5.0	2.2	ug/l	200	5.4	52	70-115	18	15	M2, R-3
Batch: 5D02036 Extracted: 04/02/05	•										
Blank Analyzed: 04/07/2005 (5D02036-BI	LK1)										
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 04/07/2005 (5D02036-BS1)										
Biochemical Oxygen Demand	210	100	30	mg/l	198		106	85-115			
LCS Dup Analyzed: 04/07/2005 (5D02036	-BSD1)										
Biochemical Oxygen Demand	209	100	30	mg/l	198		106	85-115	Ĭ	20	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5D02038 Extracted: 04/02/05	<u></u>										
Blank Analyzed: 04/02/2005 (5D02038-B	LK1)										
Turbidity	0.0400	1.0	0.040	NTU							J
Duplicate Analyzed: 04/02/2005 (5D0203	8-DUP1)				Sour	rce: IOD0	069-01				
Turbidity	0.850	1.0	0.040	NTU		0.89			5	20	J
Batch: 5D03014 Extracted: 04/03/05	**										
Blank Analyzed: 04/03/2005 (5D03014-Bl	LK1)										
Oil & Grease	ND	5.0	0.94	mg/l							
LCS Analyzed: 04/03/2005 (5D03014-BS)	.)										
Oil & Grease	19.9	5.0	0.94	mg/l	20.0		100	65-120			
LCS Dup Analyzed: 04/03/2005 (5D03014	•										
Oil & Grease	20.9	5.0	0.94	mg/I	20.0		104	65-120	5	20	
Batch: 5D04053 Extracted: 04/04/05											
Blank Analyzed: 04/04/2005 (5D04053-BI	-K1)										
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 04/04/2005 (5D04053-BS1)										
Perchlorate	50.3	4.0	0.80	ug/l	50.0		101	85-115			
Matrix Spike Analyzed: 04/04/2005 (5D04	(053-MS1)				Sour	ce: IOD0	095-01				
Perchlorate	52.3	4.0	0.80	ug/l	50.0	3.0	99	80-120			



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METHOD BLANK/QC DATA

INORGANICS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 5D04053 Extracted: 04/04/05	~										
Matrix Spike Dup Analyzed: 04/04/2005	(5D04053-MS	D1)			Sou	rce: IOD(095-01				
Perchlorate	52.9	4.0	0.80	ug/l	50.0	3.0	100	80-120	1	20	
Batch: 5D05071 Extracted: 04/05/05	•										
Blank Analyzed: 04/05/2005 (5D05071-BI	LK1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 04/05/2005 (5D05071-BS1)										
Total Suspended Solids	965	10	10	mg/l	1000		96	85-115			
Duplicate Analyzed: 04/05/2005 (5D05071	-DUP1)				Sour	ce: IOD0	140-01				
Total Suspended Solids	ND	10	10	mg/l		ND				10	
Batch: 5D05076 Extracted: 04/05/05											
Blank Analyzed: 04/05/2005 (5D05076-BL	.K1)										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 04/05/2005 (5D05076-BS1))										
Ammonia-N (Distilled)	10.6	0.50	0.30	mg/l	10.0		106	80-115			
Matrix Spike Analyzed: 04/05/2005 (5D05	076-MS1)				Sour	ce: IOD0(069-01				
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0	ND	101	70-120			
Matrix Spike Dup Analyzed: 04/05/2005 (5	5D05076-MSD	1)			Sourc	ce: IOD0(69-01				
Ammonia-N (Distilled)	9.80	0.50	0.30	mg/l	10,0	ND	98	70-120	3	15	



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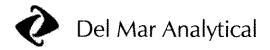
Report Number: IOD0069

Sampled: 04/01/05 Received: 04/01/05

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 5D06048 Extracted: 04/06/05											***************************************
Blank Analyzed: 04/06/2005 (5D06048-B	LK1)										
Sulfate	ND	0.50	0.45	mg/l							
LCS Analyzed: 04/06/2005 (5D06048-BS)	l)										
Sulfate	9.46	0.50	0.45	mg/l	10.0		95	90-110			M-3
Batch: 5D06089 Extracted: 04/06/05	**										
Blank Analyzed: 04/06/2005 (5D06089-Bl	LK1)										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 04/06/2005 (5D06089-BS1	.)										
Total Dissolved Solids	1030	10	10	mg/l	1000		103	90-110			
Duplicate Analyzed: 04/06/2005 (5D06089	D-DUP1)				Sour	ce: IOD0	157-06				
Total Dissolved Solids	326	10	10	mg/l		310			5	10	
Batch: 5D06092 Extracted: 04/06/05	•										
Duplicate Analyzed: 04/06/2005 (5D06092	-DUP1)				Sour	ce: IOD0	137-01				
Specific Conductance	743	1.0	1.0	umhos/cm	~~**	740			0	5	



Project ID: Quarterly Outfall 002 MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Sampled: 04/01/05 Pasadena, CA 91101 Report Number: IOD0069 Received: 04/01/05

Attention: Bronwyn Kelly

CALIBRATION CHECK CRITERIA

The % recovery for the following individual compounds fell outside the ± 15% criteria, however the average % recovery of all compounds in the calibration check solution was within ± 15%, thus meeting the overall calibration check criteria.

Calibration Check

Compound Footnote % Recovery Lab Number Batch alpha-BHC 1 121 IOD0069-01 5D05047

Footnotes:

- The calibration demonstrated a high bias for this compound. Samples were flagged to indicate a possible high bias in the result
- The calibration demonstrated a low bias for this compound. Samples were flagged to indicate a possible low bias in the result for this compound.

MWH-Pasadena/Boeing

Project ID: Quarterly Outfall 002

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: IOD0069

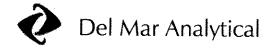
Sampled: 04/01/05 Received: 04/01/05

Attention: Bronwyn Kelly

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
IOD0069-01	413.1 Oil and Grease	Oil & Grease	mg/l	0	5.0	10,00
IOD0069-01	608-Pest Boeing 001/002 Q (LL)	alpha-BHC	ug/l	0.00074	0.010	0.0100
IOD0069-01	624-Boeing 001/002 Q (Fr113+X)	1,1-Dichloroethene	ug/l	0	3.0	3.20
IOD0069-01	624-Boeing 001/002 Q (Frl 13+X)	Trichloroethene	ug/l	0	5.0	5.00
IOD0069-01	625-Boeing 001/002 Q-LL	2,4,6-Trichlorophenol	ug/l	0	6.0	6.50
IOD0069-01	625-Boeing 001/002 Q-LL	2,4-Dinitrotoluene	ug/l	0	9.0	9.10
IOD0069-01	625-Boeing 001/002 Q-LL	Bis(2-ethylhexyl)phthalate	ug/l	1.10	5.0	4.00
IOD0069-01	625-Boeing 001/002 Q-LL	N-Nitrosodimethylamine	ug/l	0	8.0	8.10
IOD0069-01	625-Boeing 001/002 Q-LL	Pentachlorophenol	ug/l	0	8.0	8.20
IOD0069-01	BOD	Biochemical Oxygen Demand	mg/l	0.46	2.0	20
IOD0069-01	Chloride - 300.0	Chloride	mg/l	41	5.0	150
IOD0069-01	Copper-200.8	Copper	ug/l	2.20	2.0	7.10
IOD0069-01	Cyanide-335.2 5ppb	Total Cyanide	ug/l	-2	5.0	4.30
IOD0069-01	Lead-200.8	Lead	ug/l	0.092	1.0	2.60
IOD0069-01	MBAS - SM5540-C	Surfactants (MBAS)	mg/l	0.068	0.10	0.50
IOD0069-01	Mercury - 245.1	Mercury	ug/l	0.11	0.20	0.20
IOD0069-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	0.035	0.26	8.00
IOD0069-01	Perchlorate 314.0	Perchlorate	ug/l	0	4.0	6.00
IOD0069-01	Sulfate-300.0	Sulfate	mg/l	310	5.0	300
IOD0069-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	770	10	950
IOD0069-01RE1		Sulfate	mg/l	300	5.0	300
IOD0069-01RE2		Sulfate	mg/l	310	5.0	300
IOD0069-02	624-Boeing 001/002 Q (Fr113+X)	1,1-Dichloroethene	ug/l	0	3.0	3.20
IOD0069-02	624-Boeing 001/002 Q (Fr113+X)	Trichloroethene	ug/l	0	5.0	5.00



MWH-Pasadena/Boeing

Project ID: Quarterly Outfall 002

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: IOD0069

Sampled: 04/01/05 Received: 04/01/05

DATA QUALIFIERS AND DEFINITIONS

В	Analyte was detected in the associated Method Blank.
---	--

C-1 Calibration Verification recovery was above the method control limit for this analyte, however the average %

difference for all analytes met method criteria. See Calibration Summary form.

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 unknown quality.

 $\mathbf{M}\mathbf{I}$ The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

M2 The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

M-3 Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was

accepted based on acceptable recovery in the Blank Spike (LCS).

M-HA Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery

information. See Blank Spike (LCS).

M-NR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike

Duplicate.

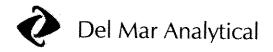
See case narrative.

N-1

The RPD exceeded the method control limit due to sample matrix effects. R-3

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

RPD Relative Percent Difference



MWH-Pasadena/Boeing

Project ID: Quarterly Outfall 002

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: IOD0069

Sampled: 04/01/05 Received: 04/01/05

Attention: Bronwyn Kelly

Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	Nelac	California
EPA 120.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	N/A	X
EPA 335.2	Water	X	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
SM2540C	Water	X	X
SM5540-C	Water	X	X

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

Subcontracted Laboratories

Alta Analytical California Cert #1640

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed:

1613-Dioxin-HR Samples: IOD0069-01

Analysis Performed:

EDD + Level 4

Samples: IOD0069-01

CHAIN OF CUSTODY FORM

Del Mar Analytical version 02/17/05

Comments $\mathsf{Temp} \, _{\mathcal{O}}^{\omega} \mathcal{O}_{\mathcal{S}}$ Field readings: Page 1 of 1 24 TAT 24 TAT 24 TAT 24 TAT 罪の公 Tumaround Time: (check)
72 Hours 5 days Sample Integrity_(Check) Intact On ice: normal Perchiorate Only 72 Hours pertachiorophenoi (EPA 625) ethylhexyl)phthalate, NDMA Metals Only 72 Hours Dinitrotoluene, Bis(2-2,4,6 Trichlorophenol, 2,4 ANALYSIS REQUIRED 24 Hours 48 hours Alpha BHC (608) × M-sinommA × Conductivity × Turbidity, TDS, TSS, Perchlorate × CI-' 804' NO3+NO5-N' Surfactants (MBAS) × BOD5(20 degrees C) × Cyanide (total recoverable) × Oil & Grease (EPA 413.1) × TCDD (and all congeners) × 3 Date/Time: Dafe/Time: Freon 113 × VOCs 624 + xylenes + Settleable Solids × Total Reoverable Metals: Cu, Pb, Hg, × 13A, 13B 3A,3B,3C 14A, 14B, 14C 10A, 10B 12A, 12B 5A, 5B 4A,4B 9A,9B 8A,8B ₹ ά *-- Bottle Preservative Received By Received By H2S04 Boeing-SSFL NPDES Quarterly Outfall 002 HN03 IIN 33 NaOH None None None None None None None None 宁 호 8:12 Phone Number: (626) 568-6691 626) 568-6515 Fax Number: 4-1-05 MIS Sampling Date/Time Project: 4-1-6 Date/Time: Date/Time: Date/Time: Cont. 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Project Manager: Bronwyn Kelly ~ Sampler: //// 1004 Container Type 1L Amber 11. Amber 1L Amber Poly-500
ml
Poly-1
litter
Poly-500
ml
Poly-500
ml
Poly-500
ml
Poly-500
ml Glass-Amber VOAs Poly-1 VOAs Client Name/Address MWH-Pasadena Sample Matrix ₹ ₹ ≥ ≥ s S ≥ > ≤ ≤ ₹ ₹ ≥ ₹ \$ Refinadished By Relinquished Description Outfall 002 Outfall 002-Ouffall 002 Outfall 002 Outfall 002 Outfall 002 Outfall 002 Outfall 002 Outfall 002 Outfail 002 Outfall 002 Outfall 002 Outfall 002 Outfall 002 Trip Blank

X128

690000

April 27, 2005

MWH- Pasadena / Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Attention:

Bronwyn Kelly

Project:

Quarterly Outfall 002

Sampled: 04/01/05

Del Mar Analytical Number: IOD0069

Dear Ms. Kelly:

Alta Analytical Laboratories performed the EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans for the project referenced above. Please use the following cross-reference table when reviewing your results.

MWH ID	Del Mar ID	Alta ID
Outfall 002	IOD0069-01	26003-001

Attached is the original report from the subcontract laboratory. If you have any questions or require further assistance, please do not hesitate to contact me at (949) 261-1022, extension 215.

Sincerely yours,

DEL MAR ANALYTICAL

Project Manager

Enclosure



April 18, 2005

Alta Project I.D.: 26003

Ms. Michele Harper Del Mar Analytical, Irvine 17461 Derian Avenue, Suite 100 Irvine, CA 92614

Dear Ms. Harper,

Enclosed are the results for the one aqueous sample received at Alta Analytical Laboratory on April 05, 2005 under your Project Name "IOD0069". 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, Alta's current certifications, and copies of the raw data (if requested).

Alta Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-933-1640 or by email at mmaier@altalab.com. Thank you for choosing Alta as part of your analytical support team.

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Sincerely,

Martha M. Maier

Director of HRMS Services

Marken Marco



nelap



Section I: Sample Inventory Report
Date Received: 4/5/2005

Alta Lab. ID

Client Sample ID

26003-001

IOD0069-01

Page 2 of 227



17461 Derian Ave. Suite 108, Irvine, CA 92614 1014 E. Cooley Dr., Suite A. Colton, CA 92324

Ph (909) 370-4667

Ph (949) 261-1022 Fax (949) 261-1228 Fax (909) 370-1046

9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 9830 South-51st Street, Suite 8-120, Phoenix, AZ 85044

Ph (619) 505-9596 Fax (619) 505-9689 Ph (480) 785-0043 Fax (480) 785-0851

2520 E. Surseet Rd., Suite #3, Las Vegas, NV 89120

Ph (702) 798-3620

Fax (702) 798-3621

SURCONTRACT ORDER - PROJECT # JOD0069

SUBCONTRACT ORDI	ER-TROJECT #TODOGO
SENDING LABORATORY: Del Mar Analytical, Irvine 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 261-1228 Project Manager: Michele Harper	RECEIVING LABORATORY: Alta Analytical 1104 Windfield Way El Dorado Hills, CA 95762 Phone: (916) 933-1640 Fax: (916) 933-0940
Standard TAT is requested unless specific due date is requested	=> Due Date: Initials:
Analysis Expiration	Comments
Sample ID: IOD0069-01 Water Sampled: 04/01/05 09:20 1613-Dioxin-HR 04/08/05 09:20 EDD + Level 4 04/29/05 09:20	Instant Nofication J flags, 17 congeners, no TEQ, sub to Alta Excel EDD email to pm,Include Std logs for Lvl IV
Containers Supplied: 1 L Amber (IOD0069-01G) 1 L Amber (IOD0069-01H)	

	•	SAMPLI	E INTEGRITY:		
All containers intact: Yes Custody Seals Present: Yes		labels/COC agree: s Preserved Properly	·	Samples Received On Ice:: Samples Received at (temp):	☐ Yes ☐ No
MAR	4-04-05	1700	Lettens Klen	ediet 4/5/05	0900
Keleased By	Date	Time	Received By	Date	Time
Released By	Date	Time	Received By	Date	Time

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA AMEC Earth & Environmental Package ID T711DF42 550 South Wadsworth Boulevard Task Order 313150010 Suite 500 SDG No. Multiple Lakewood, CO 80226 No. of Analyses 3 Laboratory Alta Date: May 4, 2005 Reviewer H. Chang Reviewer's Signature Analysis/Method Dioxin&Furans/1613 **ACTION ITEMS**^a Case Narrative **Deficiencies** 2. Out of Scope Analyses **Analyses Not Conducted** Missing Hardcopy **Deliverables** Incorrect Hardcopy **Deliverables Deviations from Analysis** Detects below the calibration range were qualified "J." Protocol, e.g., EMPCs were qualified "UJ." **Holding Times** GC/MS Tune/Inst. Perform Calibrations Blanks Surrogates Matrix Spike/Dup LCS Field QC Internal Standard Performance Compound Identification and Quantitation System Performance COMMENTS^b ^a Subcontracted analytical laboratory is not meeting contract and/or method requirements. ^b Differences in protocol have been adopted by the laboratory but no action against the laboratory is required.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.	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.
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.
ΩΊ	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 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. (Note: Analyte may or may not be present).

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 us for the calibration was incorrect
С	Calibration %RSD or %D were noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within conti
В	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was n within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
Ī	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
4	Not applicable.	ICP Serial Dilution %D were not with control limits.
А	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
·	Presumed contamination from trip blank.	Not applicable.
-	False positive – reported compound was not present. Not applicable.	
	False negative – compound was present but not reported.	Not applicable.
	Presumed contamination from FB, or ER.	Presumed contamination from FB or ER.
	Reported result or other information was incorrect.	Reported result or other information wa
	TIC identity or reported retention time has been changed.	Not applicable.
	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.
	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
NQ	The compound was detected between the MDL and the RL and, by definition, is considered an estimated value.	The compound was detected between the MDL and the RL and, by definition, is considered an estimated value.
	Unusual problems found with the data that have been described in Section 2.#, "Data Validation Findings." The number following the asterisk (*) will indicate the subsection where a description of the problem can be found (eg. *1 would indicate a sample was not within temperature limits).	Unusual problems found with the data that have been described in Section 2.#, "Data Validation Findings." The number following the asterisk (*) will indicate the subsection where a description of the problem can be found (eg. *1 would indicate a sample was not within temperature limits).



DATA VALIDATION REPORT

NPDES Monitoring

ANALYSIS: DIOXINS/FURANS

SAMPLE DELIVERY GROUPS: IOD0069, IOD0114, IOD0649

Prepared by

AMEC—Denver Operations
550 South Wadsworth Boulevard, Suite 500
Lakewood, Colorado 80226

SDG No.: Analysis:

NPDES Multiple D/F

1. INTRODUCTION

Task Order Title:

NPDES Monitoring

Contract Task Order #:

313150010

Sample Delivery Group #:

Multiple

Project Manager:

B. McIlvaine

Matrix:

Water

Analysis:

Dioxins/Furans

QC Level:

Level IV

No. of Samples:

3

No. of Reanalyses/Dilutions:

0 H. Chang

Reviewer: Date of Review:

May 4, 2005

The samples listed in Table 1 were validated based on the guidelines outlined in the AMEC Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 1), EPA Method 1613, and the National National Functional Guidelines For Chlorinated Dioxin/Furan Data Review (8/02). Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

Project: SDG No.: Analysis: NPDES Multiple D/F

DATA VALIDATION REPORT

Table 1. Sample Identification

Laboratory ID (Del Mar)	Laboratory ID (Alta)	Matrix	COC Method
IOD0069-01	26003-001	water	1613
IOD0114-01	26004-001		1613
IOD0649-01	26036-001		1613
	(Del Mar) IOD0069-01 IOD0114-01	(Del Mar) (Alta) IOD0069-01 26003-001 IOD0114-01 26004-001	(Del Mar) (Alta) IOD0069-01 26003-001 water IOD0114-01 26004-001 water

Project: SDG No.: Analysis: NPDES Multiple D/F

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

2.1.1 Sample Preservation, Handling, and Transport

All of the samples in these SDGs were received at Del Mar Analytical within the temperature limits of 4°C $\pm 2^{\circ}\text{C}$. The samples were shipped to Alta for dioxin/furan analyses and were received below the temperature limits of 4°C $\pm 2^{\circ}\text{C}$ at 0.1°C and 1°C ; however, as the samples were not noted to have been frozen or damaged, no qualifications were required. According to the laboratory login sheets, all samples were received intact and in good condition at both laboratories. No qualifications were required.

2.1.2 Chain of Custody

The COCs and transfer COCs were legible and signed by the appropriate field and laboratory personnel, and accounted for the analyses presented in these SDGs. As the samples were couriered directly to Del Mar Analytical, custody seals were not required. The coolers received by Alta had custody seals present and intact; however, custody seals were not present on the sample containers. The EPA IDs were added to the sample result summaries by the reviewer. No qualifications were required.

2.1.3 Holding Times

The samples were extracted and analyzed within a year of collection. No qualifications were required.

2.2 INSTRUMENT PERFORMANCE

Following are findings associated with instrument performance:

2.2.1 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 (see section 2.3.2). 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%. No qualifications were required.

2.2.2 Mass Spectrometer Performance

The mass spectrometer performance was acceptable with the static resolving power greater than 10,000. No qualifications were required.

Project: SDG No.: NPDES

DATA VALIDATION REPORT SDC

SDG No.: Analysis: Multiple D/F

2.3 CALIBRATION

2.3.1 Initial Calibration

There was one initial calibration, analyzed 08/30/04. The calibration consisted of six concentration level standards (CS0 through CS5) analyzed to verify instrument linearity. The initial calibration was acceptable with %RSDs ≤20% for the 16 native compounds (calibration by isotope dilution) and ≤35% for the one native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the QC limits listed in Method 1613 for all standards. A representative number of %RSDs were verified from the raw data, and no calculation or transcription errors were noted. No qualifications were required.

2.3.2 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. A representative number of %Ds were verified from the raw data, and no calculation or transcription errors were noted. No qualifications were required.

WDM and isomer specificity compounds were added to the VER standards instead of being analyzed separately, as noted in section 2.2.1 of this report. No adverse effect was observed with this practice.

2.4 BLANKS

One method blank (6707-MB001) was extracted and analyzed with the samples in these SDGs. There were no target compound detects reported in the method blank. A review of the method blank raw data and chromatograms indicated no false negatives. No qualifications were required.

2.5 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

One Ongoing Precision Recovery (OPR) sample (6707-OPR001) was extracted and analyzed with the samples in these SDGs. All recoveries were within the acceptance criteria listed in Table 6 of Method 1613. No qualifications were required.

2.6 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were not performed in these SDGs. Evaluation of method accuracy was based on the OPR results. No qualifications were required.

DATA VALIDATION REPORT

Project: SDG No.: Analysis:

NPDES Multiple D/F

2.7 FIELD QC SAMPLES

Following are findings associated with field QC:

2.7.1 Field Blanks and Equipment Rinsates

The samples in these SDGs had no associated field QC samples. No qualifications were required.

2.7.2 Field Duplicates

No field duplicate samples were identified for these SDGs.

2.8 INTERNAL STANDARDS

The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613. No qualifications were required.

2.9 COMPOUND IDENTIFICATION

The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613. The compound identifications were verified from the raw data and no false negatives or positives were noted. No qualifications were required.

2.10 COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Compound quantitation was verified from the raw data. The laboratory calculated and reported compound-specific detection limits. Any reported EMPC was qualified as an estimated nondetect, "UJ." Any detects below the lower method calibration level (MCL) were qualified as estimated, "J." The results and reporting limits were reported in ug/L. No further qualifications were required.



	Sample ID;	IO-69000OI	1 Outfall	8 9				т ^б ольн у трано шарура й (шта комутерую шараала напометрую куры а размен	ALIA
	Client Data	An emperature of the second of presents of the second of t	***************************************						EPA Method 1613
	Project	Del Mar Analytical, Irvine	lytical, Irvine		Matrix:	γ	Laboratory Data	· · · · · · · · · · · · · · · · · · ·	
ر رو پور		1-Apr-05 0920			Sample Size.	7 910'1	QC Batch No.: 26003-001	Date Received: Date Extracted:	5-Apr-05
	Analyte	Cone, (I	(Ug/L)	DL a	FMPCb	Q Ite	Date Analyzed DB-5: 18-Apr-05	Date Analyzed DB-225: NA	DB-225: NA
-ತ-	2,3,7,8-TCDD		MD	0.00000			Labeled Standard	%R LCL-UCLd	CL ^d Oualifiers
**************************************	1,2,3,7,8-PeCDD		2 2	0.0000000000000000000000000000000000000	8 5		IS 13C-2,3,7,8-TCDD	48.1 25 - 164	ſ
** industry of a second	1,2,3,4,7,8-HxCDD	QC	R	0.000000	- c	To be to the same	13C-1,2,3,7,8-PeCDD	46.6 25 - 181	5 &
der andersegate agency	1.2,3,6,7,8-HxCDD)D	g	0.0000028	י פ		13C-1,2,3,4,7,8-HxCDD		-
	1,2,3,7,8,9-HxCDD	O.	SP	0.00000288	· ~		13C-1,2,3,6,7,8-HxCDD	48.6 28 - 130	30
	1,2,3,4,6,7,8-HpCDD	QQ.	S	0.0000038		******	15C-1,2,3,4,6,7,8-HpCDD	33.8 23 - 140	9
2 ★.	OCDO		ND		0.00000		I3C-OCDD	29.3 17 - 157	57
ゴ ・	2,3,7,8-TCDF		S	0.00000191		<u> </u>	13C-2,3,7,8-TCDF	48.6 24 - 169	69
	1,2,3,7,8-PeCDF		S	\$0.000000	- س		13C-1,2,3,7,8-PeCDF	43.5 24 - 185	
	2,3,4,7,8-PeCDF		Q	0.000005	J . F		13C-2,3,4,7,8-PeCDF	45.4 21 - 178	×.
	1,2,3,4,7,8-HxCDF	لئر	ON ON	0.0000023	. ~		13C-1,2,3,4,7,8-HxCDF		2
	1.2,3,6,7,8-HxCDF	££.	S	0.00000000	t s	****	13C-1,2,3,6,7,8-HxCDF		
	2,3,4,6,7,8-HxCDF	نت	Q	0.00000000	₹ ~		13C-2,3,4,6,7,8-HxCDF		. 9
	1,2,3,7,8,9-HxCDF	£L.	S	0.0000010			13C-1,2,3,7,8,9-HxCDF		
**************************************	1,2,3,4,6,7,8-HpCDF	DF	Q	0.0000000		***************************************	13C-1,2,3,4,6,7,8-HpCDF		~~
	1,2,3,4,7,8,9-HpCDF	, in	S S	0.00000285			13C-1,2,3,4,7,8,9-HpCDF	35.6 26-138	∞
	OCDF		N	0.00000608				32.7 17-157	
adodin a sengan yan	Totals	The same of the sa	elektriken den de kanada de		The second secon		37Cl-2,3,7,8-TCDD	78.8 35-197	7
e e e e e e e e e e e e e e e e e e e	Total TCDD	· Maradania marana (Africa de desta de marada de m	MIS				Footnotes	America de America (Augusta)	The same of the sa
*********	Total PeCDD		2 £	0.0000015				A THE REAL PROPERTY OF THE PRO	And the state of t
	Total HxCDD		? S	0.0000000					
	Total HpCDD		Q	0.00000200		ল	 Sample specific estimated detection limit. 		
	Total FCDF		S	0.00000000			 b. Estimated maximum possible concentration. 		•••
	Total PeCDF		ND	0.00000280		<u>ن</u>	c. Method detection limit.		
	Total HxCDF	,	QN QN	0.00000114		ਚ	d. Lower courtol limit - upper control limit.		······································
	rotal tipe DF		SO.	0.00000253					
_	Analysi JMH			THE REAL PROPERTY AND PROPERTY			endy yes a substitute of the s	Prodity (see a souther de security de soute de la marchadam per a constant de security (marchadam per a consta	
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Project 26003



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Data		I	Samule Boto	***************************************		EPA	EPA Method 1613
Name: Del Mar Analytical, Irvine Project. 1OD0114 Date Collected: 2-Apr-65 Time Collected: 0846	Del Mar Analytical, Irvine 10D0114 2-Apr-05 0846	o)	Matrix: Sample Size;	Aqueous 1.018 L	Laboratory Data 26004-001 QC Batch No.: 6707	Date Received: Date Extracted:	5-Apr-05
Code Analyte Conc. (Ug/L)	į		DI a EMBCb		Date Analyzed DB-5; 18-Apr-05	Date Analyzed DB-225: NA	25: NA
2,3,7,8-TCDD	Andreas and angles of september of the s			Quanners	Labeled Standard	%R LCL-UCLd	Ouslifiere
QC	2 2		0.00000141	-	IS 13C-2,3,7,8-TCDD	57.0 25 - 164	
1,2,3,4,7,8-HxCDD ND			0.00000284		13C-1,2,3,7,8-PeCDD		
QX	QX		0.00000295		13C-1,2,3,4,7,8-HxCDD	58.3 32 - 141	
QN	QN	_	0.00000289		13C-1,2,3,6,7,8-HxCDD	64.7 28 - 130	
.6,7,8-HpCDD ND	S	Ç	0.00000314	Maryland parame	13C-1,2,3,4,6,7,8-HpCDD	47.8 23 - 140	
ND		0	0.0000144		130, 23, 20, 20, 21	٠	
		0	0.00000162		13C-12378-Pactor	- '	***************************************
ON S		o (0.00000244		13C-2,3,4,7,8-PeCDF	54.0 24-185	
2 8	2 8	J. C	0.00000212		13C-1,2,3,4,7,8-HxCDF	61.6 26-152	
S	2	6	0.00000058	***************************************	13C-1,2,3,6,7,8-HxCDF		
ND	ND	0.0	0.00000012		13C-2,3,4,6,7,8-HxCDF	62.5 28 - 136	
S	S	0.0	0.00000142		13C-1,2,3,7,8,9-HxCDF	49.3 29 - 147	- Control of the Cont
QN	Q	0.0	0.00000212		13C-1,2,3,4,6,7,8-HpCDF	47.7 28 - 143	**************************************
1,2,3,4,7,8,9-HpCDF ND 0.0 OCDF NF 0.0	9 5	0.0	0.00000267	-	13C-0CDF	49.2 26-138	
**************************************	**************************************	0.0	0.00000576	21	CRS 37CI-2,3,7,8-TCDD	83.1 35 - 197	
					Footnotes	Andrew Adrian Market Commenter of the Co	
2 8		o	0.00000141			AND THE PROPERTY OF THE PROPER	
2 N		3 2	0.00000161 0.00000789				
QN Q		0.0	0.00000314	- A	a. Sample specific estimated detection limit.		
		0.0	0.00000162		 Extingated maximum possible concentration. Method deterring time; 		
Q		0	0.00000227		Ower control limit		
Total HpCDF ND ND			0,000000760 0,00000336		The second of th		
Analyse: JMH		']			of the state of th	Amerika den de	The second secon
					Approximed By:		

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	Sample D:	IOD0649-01	01 Outfall col	8		To the first of the second	A CONTRACTOR OF THE PROPERTY O	AND THE REAL PROPERTY OF THE P	e esta de la comunicación de la manticación de la manticación de la comunicación de la co
	Client Data	The state of the s	ANALYSIS OF THE PROPERTY OF TH		***************************************	***************************************			EPA Method 1613
	Name	Del Mar An	Del Mar Analytical Irvine	⊘ 1	Sample Data		Laboratory Data	AVORTONIA DE LA CONTRACTOR DE LA CONTRAC	
	Project Date Collected:	1000649 9-Apr-(15		Z Š	Matrix: Sample Size:	Aqueous		Date Received:	12-Apr-05
्ट ट		0945	A 1999) for yellow payed Arms and a ready commission on			1.000 L	Date Analyzed DD 5: 10 4: 02	Date Extracted:	16-Apr-05
Saga	Analyte	Conc.	(Ug/L)	DL a l	EMPCb	Onalifiare	16-Apr-05	Date Analyzed DB-225: NA)B-225: NA
	2,3,7,8-TCDD	endinowidino do mario de almado proceso.	S	0.000000		C nametro	Labeled Standard	%R LCL-UCL ^d	Ld Oualifiers
	1,2,3,7,8-PeCDD	_	£	0.000000			IS 13C-2,3,7,8-TCDD	49.4 25 - 164	
	1,2,3,4,7,8-HxCDD	QC	S	0.00000326			L3C-1,2,3,7,8-PeCDD	46.0 25 - 181	
*************	1.2,3,6,7,8-HxCDD	Q	S	0.00000333			13C-1,2,3,4,7,8-HxCDD	46.9 32 - 141	
	1,2,3,7,8,9-HxCDD	Q	NO	0.00000328			13C-1,2,3,6,7,8-HxCDD	52.3 28 - 130	
-2	1,2,3,4,6,7,8-HpCDD	OU.	QN	0.00000581		***************************************	13C-1,2,3,4,6,7,8-HpCDD	35.9 23 - 140	
S Z	OCDD		0.0000263			1	13C-0CDD	28.5 17-157	~
	2,3,7,8-TCDF		Z	0.00000134		•••	13C-2,3,7,8-TCDF	52.6 24 - 169	
	1,2,3,7,8-PeCDF		ND	0.00000338			13C-1,2,3,7,8-PeCDF		
	2,3,4,7,8-PeCDF		S	0.00000303			13C-2,3,4,7,8-PeCDF		
	1,2,3,4,7,8-HxCDF	iž.	ND	0.00000303		-	13C-1,2,3,4,7,8-HxCDF	•	
	1,2,3,6,7,8-HxCDF	يسلسؤ	S	0.0000000000000000000000000000000000000		·	13C-1,2,3,6,7,8-HxCDF	54.2 26 - 123	
	2,3,4,6,7,8-HxCDF	لتن	ON N	0.00000113			13C-2,3,4,6,7,8-HxCDF		-
************	1,2,3,7,8,9-HxCDF	<u>L</u> L	S	0.0000034		M.A.	13C-1,2,3,7,8,9-HxCDF	39.4 29 - 147	
	1,2,3,4,6,7,8-HpCDF	DF	QN	0.00000340			13C-1,2,3,4,6,7,8-HpCDF	36.0 28 - 143	-
	1,2,3,4,7,8,9-HpCDF	DF	S	0.00000200			13C-1,2,3,4,7,8,9-HpCDF	37.8 26-138	
	OCDF		NO	0.00000526			I3C-OCDF	32.7 17-157	
an Yek digenya aya	Totals		· Ten contact de la fact de la fa				3/Cl-2,3,7,8-TCDD	78.5 35 - 197	
	Total TCDD	Mineral Management of the Control of	CN	0.00000			Footnotes		
Al Alter Sassager, Aspen	Total PeCDD		S	0.00000171				With the same of t	
********	Total HxCDD		2	0.00000320		1/			
-	Total HpCDD		Q	0.00000581		· · ·	 a. Sample specific estimated detection limit. 		
	Total TCDF		S	0.00000134			 Estimated maximum possible concentration. 		-
*	Total PeCDF		S	0.00000320			c. Method detection limit,		
· ·	Total HxCDF		S	0.00000123		-	d. Lower control limit - upper control limit.		
	Total HpCDF	al tampé como piéces de major est company de control de la company de control de la control de la control de l	S	0.00000282					
₹.	Analys: JMH					***************************************			

nlys:: JMH

Approved By:

Martha M. Maier 19-Apr-2005 13:04

AMEC VALIDATED LEVEL IN

Project 26036

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA AMEC Earth & Environmental Package ID _T711VO96 550 South Wadsworth Boulevard Task Order 313150010 Suite 500 SDG No. IOD0069 Lakewood, CO 80226 No. of Analyses 2 Laboratory Del Mar Date: May 3, 2005 Reviewer M. Pokorny Reviewek's Signature Analysis/Method Volatiles ACTION ITEMS^a Case Narrative

Deficiencies	
2. Out of Scope	
Analyses	
3. Analyses Not Conducted	
o. maryses 140t Contancied	
4. Missing Hardcopy	
Deliverables	
5. Incorrect Hardcopy	
Deliverables	
6. Deviations from Analysis	
Protocol, e.g.,	
Holding Times	
GC/MS Tune/Inst. Perform	
Calibrations	
Blanks	
Surrogates	
Matrix Spike/Dup LCS	
Field QC	
Internal Standard Performance	
Compound Identification and	
Quantitation	
System Performance	
OMMENTS ^b	Acceptable as reviewed.
	meeting contract and/or method requirements.



DATA VALIDATION REPORT

NPDES Monitoring

ANALYSIS: VOLATILES

SAMPLE DELIVERY GROUP: IOD0069

Prepared by

AMEC Denver Operations 550 South Wadsworth Boulevard, Suite 500 Lakewood, Colorado 80226

Analysis:

NPDES IOD0069 VOC

1. INTRODUCTION

Task Order Title:

NPDES Monitoring

Contract Task Order #:

313150010

SDG#:

IOD0069

Project Manager:

B. McIlvaine

Matrix: Water

Analysis:

Volatiles

QC Level:

Level IV

No. of Samples:

2

No. of Reanalyses/Dilutions:

0

Reviewer:

M. Pokorny

Date of Review:

May 3, 2005

The samples listed in Table 1 were validated based on the guidelines outlined in the AMEC Data Validation Procedure for Levels C and D Volatile Organics (DVP-2, Rev. 2), EPA Method 624, EPA SW-846 Method 8260B, and the National Functional Guidelines For Organic Data Review (2/94). Any deviations from these procedures are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the summary forms as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

1

Project: SDG: Analysis:

NPDES IOD0069 VOC

Table 1. Sample identification

	Client ID	EPA ID	Lab No.	Matrix	Method
	Outfall 002	Outfall 002	IOD0069-01	water	(34
	Til rat i		102000701	water	624
Ĺ	Trip Blank	Trip Blank	IOD0069-02	water	624

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

The following are findings associated with sample management:

2.1.1 Sample Preservation, Handling, and Transport

The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. The COC noted that the samples were received intact; however, information regarding absence of headspace was not provided. No qualifications were required.

2.1.2 Chain of Custody

The COC was signed and dated by both field and laboratory personnel. The COCs accounted for the analyses presented in this SDG. As the samples were couriered directly to the laboratory, custody seals were not required. No qualifications were required.

2.1.3 Holding Times

The samples were analyzed within 14 days of collection. No qualifications were required.

2.2 GC/MS TUNING

The ion abundance windows shown on the quantitation reports were consistent with those specified in EPA Method 624, and all ion abundances were within the established windows. The samples and associated QC were analyzed within 12 hours of the BFB injection times. The Form Vs were verified from the raw data and no discrepancies between the summary forms and the raw data were noted. No qualifications were required.

2.3 CALIBRATION

Two initial calibrations dated 03/04/05 and 03/16/05 (trichlorotrifluoroethane only) were associated with this SDG. The average RRFs were ≥0.05 for all compounds listed on the sample result summaries. The %RSDs were ≤35% for the target compounds. Two continuing calibrations associated with the sample analyses were analyzed 04/09/05 (09:41 and 10:13). The RRFs were ≥0.05 in the continuing calibrations. The %Ds for the continuing calibrations associated with the site sample were all ≤20%. A representative number of %RSDs and average RRFs from the initial calibrations, and %Ds and RRFs from the continuing calibrations were recalculated from the raw data, and no calculation or transcription errors were found. No qualifications were required.

3

NPDES IOD0069 VOC

2.4 BLANKS

One water method blank (5D09012-BLK1) was associated with the sample analyses. There were no detects above the MDLs for the target compounds listed on the sample result summaries. The method blank raw data showed no evidence of false negatives. No qualifications were required.

2.5 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

One water blank spike (5D09012-BS1) was associated with the sample analyses. All recoveries were within the laboratory-established QC limits. A representative number of recoveries were recalculated from the raw data and no calculation or transcription errors were found. No qualifications were required.

2.6 SURROGATE RECOVERY

The surrogates were recovered within the QC limits of 80-120% in the samples and associated QC. A representative number of surrogate recoveries were recalculated from the raw data and no calculation or transcription errors were found. No qualifications were required.

2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

No MS/MSD analyses were associated with this SDG. Evaluation of method accuracy was based on blank spike results. No qualifications were required.

2.8 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 sample. Following are findings associated with field QC samples:

2.8.1 Trip Blanks

Sample Trip Blank (IOD0069-02) was the trip blank associated with this SDG. No target compounds were reported in the Trip Blank. No qualifications were required.

2.8.2 Field Blanks and Equipment Rinsates

There were no field QC samples associated with this SDG. No qualifications were required.

2.8.3 Field Duplicates

There were no field duplicate samples associated with this SDG.

Analysis:

NPDES IOD0069 VOC

2.9 INTERNAL STANDARDS PERFORMANCE

Internal standard area counts and retention times for the samples in this SDG were within the control limits established by the continuing calibration standards: +100%/-50% for internal standard areas and ± 0.50 minutes for retention times. A representative number of internal standard areas and retention times were verified from the raw data, and no calculation or transcription errors were noted. No qualifications were required.

2.10 COMPOUND IDENTIFICATION

Target compound identification was verified at a Level IV data validation. The laboratory analyzed for volatile target compounds by EPA Method 624. Chromatograms, retention times, and spectra for the samples and QC were examined and no target compound identification problems were noted. No qualifications were required.

2.11 COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

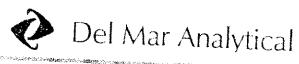
Compound quantification is verified at a Level IV data validation. The reporting limits were supported by the lowest concentrations of the initial calibration standards and by the MDL study. Compound quantitation was verified by recalculating any sample detects and a representative number of blank spike and surrogate recoveries from the raw data. Results were reported in $\mu g/L$ (ppb). No calculation or transcription errors were noted. No qualifications were required.

2.12 TENTATIVELY IDENTIFIED COMPOUNDS

The laboratory did not provide TICs for this SDG. No qualifications were required.

2.13 SYSTEM PERFORMANCE

A review of the chromatograms and other raw data showed no identifiable problems with system performance. No qualifications were required.



17461 Derlan Ave., Suite 100, Irvino, CA 92614 (549) 261-1022 FAX (449) 260-32 1014 E. Ccolev Dr., Suite A. Collon, CA 92324 (909) 7/8-4667 FAX (949) 37(k-10) 5484 Chesipeake Dr., Suite 805 San Diego, C4 92123 (858) 565-8596 TAX (858) 505-961 9830 South 53 d St., Suite 8-120, Phoenix, AZ 85044 (1807 785-0643 FAX (480) 785-081 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-361 and the contract the second confidence of the confidence and second second second in the contract of the contr

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Project ID: Quarterly Outfall 002

Sampled: 04/01/05 Received: 04/01/05

Report Number: IOD0069

DRAFT: PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	******	MDL Limit	Reporting Limit	g Sample Result	Dil: Fa	ution Date ctorExtracted	Dai		Data
Sample ID: IOD0069-01 (DRA	FT: Outfall 002	- Wateri						Analy	zed Qua	
chits. ug/l					Sam	oled:	04/01/05		REV	
Benzene	EPA 624	5D09012							QUAL	- L
Trichlorotrifluoroethane (Freon 113)) EPA 624	· · · · · · · · · · · · · · · · · · ·		2.0	ND		1 04/09/05	04/00/04	5 ()	
Carbon tetrachloride	EPA 624			5.0	ND	j	04/09/05	04/00/02		
Chloroform				5.0	ND]		04/09/03	?	İ
1,1-Dichloroethane	EPA 624	5D09012		2.0	ND	Ī	04/09/03	04/09/05	·	1
1,2-Dichloroethane	EPA 624	5D09012	0.27	2.0	ND	1	~ 1.05.05	04/09/05		
1,1-Dichloroethene	EPA 624	5D09012	0.28	2.0	ND		0 1/07:00	04/09/05		
Ethylbenzene	EPA 624	5D09012	0.32	3.0	ND	1	~ 0.00100	04/09/05		
Terrachloroethene	EPA 624	5D09012	0.25	2.0		1	0 1.07/03	04/09/05	į	
Toluene	EPA 624	5D09012	0.32		ND	1	0.000,00	04/09/05		
	EPA 624	5D09012		2.0	ND	1		04/09/05	1	Plant was
1.1,1-Trichloroethane	EPA 624	5D09012	0.36	2.0	ND	Į	04/09/05	04/09/05	l	and the same
1,1,2-Trichloroethane	EPA 624	5D09012	0.39	2.0	ND	1	04/09/05	04/09/05	****	
Trichloroethene	EPA 624		0.30	2.0	ND	1	04/09/05	04/00/02 04/00/08		
Trichlorofluoromethane	EPA 624	5D09012	0.26	5.0	ND	1	04/09/05 (04/09/03		
Vinyl chloride		5D09012	0.34	5.0	ND	1	04/09/05 (04/09/05		
Xylenes, Total	EPA 624	5D09012	0.26	5.0	ND	1	04/00/05 (34/09/05]	
Surrogate: Dibromofluoromethane	EPA 624	5D09012	0.52	4.0	ND	1	04/09/05 (14/09/05	-	
Surrogate: Toluene-d8 (80-120%)	(80-120%)				112 %	i	04/09/05 (14/09/05	V	
Surrogate: 4-Bromofluorobenzene	48.4				102 %					
Sample ID: IOD0069-02 (DRAFT	: Trip Blank - V	Vatori			101 %				**************************************	
D					-					
F Chits. Up/	, —	· · dici y			Sample	d: ()	4/01/05			
Benzene	EPA 624	5.70 O.0	0.20			d: 0-	4/01/05		The second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a section in the second section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section in the section is a section in the	
Benzene Trichlorotrifluorocthane (Freen 113)	EPA 624	5D09012	0.28	2.0	ND	d: 0-		4/09/05	/\	
Benzene Trichlorotrifluorocthane (Freon 113) Carbon tetrachloride	EPA 624 EPA 624	5D09012 5D09012	1.2	5.0			04/09/05 04	4/09/05 4/09/05	U	
Benzene Trichlorotrifluorocthane (Freon 113) Carbon tetrachloride Chloroform	EPA 624 EPA 624 EPA 624	5D09012 5D09012 5D09012	1.2 0.28	5.0 5.0	ND	1	04/09/05 04 04/09/05 04	4/09/05	U	
Benzene Trichlorotrifluoroethane (Freon 113) Carbon tetrachloride Chloroform 1,1-Dichloroethane	EPA 624 EPA 624 EPA 624 EPA 624	5D09012 5D09012 5D09012 5D09012	1.2 0.28 0.33	5.0 5.0 2.0	ND ND	I	04/09/05 04/09/05 04/09/05 04/09/05 04/09/05	4/09/05 4/09/05		
Benzene Trichlorotrifluorocthane (Freon 113) Carbon tetrachloride Chloroform 1,1-Dichloroethane 1,2-Dichloroethane	EPA 624 EPA 624 EPA 624 EPA 624 EPA 624	5D09012 5D09012 5D09012 5D09012 5D09012	1.2 0.28 0.33 0.27	5.0 5.0	ND ND ND]	04/09/05 04/09/05 04/09/05 04/09/05 04/09/05 04/09/05 04/09/05	1/09/05 1/09/05 1/09/05		
Benzene Trichlorotrifluorocthane (Freon 113) Carbon tetrachloride Chloroform 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethane	EPA 624 EPA 624 EPA 624 EPA 624 EPA 624 EPA 624	5D09012 5D09012 5D09012 5D09012 5D09012	1.2 0.28 0.33 0.27 0.28	5.0 5.0 2.0	ND ND ND ND ND		04/09/05 04 04/09/05 04 04/09/05 04 04/09/05 04	1/09/05 1/09/05 1/09/05 1/09/05		
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DRAFT REPORT

DATA SUBJECT TO CHANGE

AMEC VALIDATED

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA AMEC Earth & Environmental Package ID T711WC137 550 South Wadsworth Boulevard Task Order 313150010 Suite 500 SDG No. IOD0069 Lakewood, CO 80226 No. of Analyses 1/2 reanalyses Laboratory Del Mar Analytical Date: 05/02/05 Reviewer L. Jarusewic Reviewer's Signature Analysis/Method General Minerals auseure ACTION ITEMS^a Case Narrative **Deficiencies** Out of Scope Analyses **Analyses Not** Conducted Missing Hardcopy **Deliverables** Incorrect Hardcopy **Deliverables Deviations from** Qualifications were applied for: Analysis Protocol, e.g., 1) Detects below the reporting limit 2) Reanalyses rejected, "R," in favor of original analysis **Holding Times** GC/MS Tune/Inst. Performance Calibrations Blanks Surrogates Matrix Spike/Dup LCS Field OC Internal Standard Performance Compound Identification and Quantitation System Performance COMMENTS^b

^b Differences in protocol have been adopted by the laboratory but no action against the laboratory is required.

^a Subcontracted analytical laboratory is not meeting contract and/or method requirements.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.	The material was analyzed for, but was no detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
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.
ŊJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
IJ	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.
	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. (Note: Analyte may or may not be present).

Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding
S	Surrogate recovery was outside QC limits.	Holding times were exceeded.
		The sequence or number of standards use for the calibration was incorrect
С	Calibration %RSD or %D were noncompliant,	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within contro
В	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not
Q	MS/MSD recovery was poor or RPD high.	within control limits.
E	Not applicable.	MS recovery was poor.
	Internal standard performance was unsatis- factory,	Duplicates showed poor agreement. ICP ICS results were unsatisfactory.
1	Not applicable.	ICP Serial Dilution %D were not within
A	Tuning (BFB or DFTPP) was noncompliant.	control limits.
	Presumed contamination from trip blank.	Not applicable,
	False positive – reported compound was not present. Not applicable.	Not applicable.
	False negative - compound was present but not reported.	Not applicable.
	Presumed contamination from FB, or ER.	Dyagonya
	Reported result or other information was incorrect.	Presumed contamination from FB or ER. Reported result or other information was
	TIC identity or reported retention time has been changed.	incorrect, Not applicable.
	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.
	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
,	The compound was detected between the MDL and the RL and, by definition, is considered an estimated value.	The compound was detected between the MDL and the RL and, by definition, is considered an estimated value.

Unusual problems found with the data that have been described in Section 2.#, "Data Validation Findings." The number following the asterisk (*) will indicate the subsection where a description of the problem can be found (eg. *1 would indicate a sample was not within temperature limits).

Unusual problems found with the data that have been described in Section 2.#, "Data Validation Findings." The number following the asterisk (*) will indicate the subsection where a description of the problem can be found (eg. *1 would indicate a sample was not within temperature limits).



DATA VALIDATION REPORT

NPDES Monitoring

ANALYSIS: GENERAL MINERALS

SAMPLE DELIVERY GROUP: IOD0069

Prepared by

AMEC—Denver Operations 550 South Wadsworth Boulevard, Suite 500 Lakewood, Colorado 80226

SDG No.: Analysis:

NPDES IOD0069

General Minerals

1. INTRODUCTION

Task Order Title:

NPDES Monitoring

Contract Task Order #:

313150010 IOD0069

Sample Delivery Group #:

B. McIlvaine

Project Manager:

Matrix: Analysis:

Water

General Minerals

QC Level:

Level IV

No. of Samples:

1

Reanalyses/Diliutions: Reviewer:

2 L. Jarusewic

Date of Review:

May 2, 2005

The sample listed in Table 1 was validated based on the guidelines outlined in the AMEC Data Validation Procedures SOP DVP-6, Rev. 2, USEPA Methods for Chemical Analysis of Water and Wastes Method 300.0, 350.2, 120.1, and 180.1, and validation guidelines outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (2/94). Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

Project:

DATA VALIDATION REPORT

SDG No.:

Analysis:

IOD0069 General Minerals

NPDES

Table 1. Sample identification

		T		<u> </u>
Client ID	EPA ID	Laboratory ID	Matrix	COC Method
Outfall 002	Outfall 002	IOD0069-01	Water	General Minerals
Outfall 002RE1	Outfall 002RE1	IOD0069-01RE1	Water	Sulfate
Outfall 002RE2	Outfall 002RE2	IOD0069-01RE2	Water	Sulfate

Project: SDG No.: NPDES IOD0069

Analysis:

General Minerals

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

2.1.1 Sample Preservation, Handling, and Transport

The sample in this SDG was received at the laboratory within the temperature limits of $4^{\circ}C \pm 2^{\circ}C$. No preservation problems were noted by the laboratory. No qualifications were required.

2.1.2 Chain of Custody

The COC was signed and dated by field and laboratory personnel. The COC accounted for all analyses presented in this SDG. The laboratory reanalyzed sulfate for Outfall 002, but did not change the client IDs; therefore, the reviewer appended the client IDs for the reanalyses with the "RE1" and "RE2" suffices. No sample qualifications were required.

2.1.3 Holding Times

The holding times were assessed by comparing the date of collection with the dates of analyses. The 28-day analytical holding time for ammonia, sulfate, and conductivity and the 48-hour holding time for turbidity were met. No qualifications were required.

2.2 CALIBRATION

For the applicable analyses, the initial calibration correlation coefficients were ≥0.995. Initial and continuing calibration information was acceptable with recoveries within the control limits of 90-110%. For ammonia, no information regarding the standardization of the titrant was provided; however, as the LCS recovery was within the CCV control limits, no qualifications were required. No qualifications were required.

2.3 BLANKS

Turbidity was detected in the method blank (5D02038-BLK1) for Outfall 002 at 0.040 NTU; however, the turbidity method blank result was insufficient to qualify the Outfall 002 result. The remaining method blank and CCB results reported on the summary forms and in the raw data for the blank analyses associated with the samples were nondetects at the reporting limit. No qualifications were required.

2.4 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

The ammonia and sulfate laboratory control sample recoveries were within the laboratory-established control limits. The LCS is not applicable to turbidity or conductivity. No qualifications were required.

Project:

ct: NPDES

SDG No.: Analysis: IOD0069 General Minerals

DATA VALIDATION REPORT

2.5 SURROGATES RECOVERY

Surrogate recovery is not applicable to the analyses presented in this SDG.

2.6 LABORATORY DUPLICATES

MS/MSD analyses were performed on Outfall 002 for ammonia and the RPD was within the control limit of \leq 15%. A laboratory duplicate was performed on Outfall 002 for turbidity and the RPD was within the control limit of \leq 20%. No qualifications were required.

2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were performed on Outfall 002 for ammonia. The recoveries were within the laboratory-established control limits and no qualifications were required.

2.8 FURNACE ATOMIC ABSORPTION QC

Furnace atomic absorption was not utilized for the analyses of this sample; therefore, furnace atomic absorption QC is not applicable.

2.9 ICP SERIAL DILUTION

ICP serial dilution is not applicable to the analyses presented in this data validation report.

2.10 SAMPLE RESULT VERIFICATION

A Level IV review was performed for the sample in this data package. Calculations were verified, and the sample results reported on the Form I were verified against the raw data. No transcription errors or calculation errors were noted. Turbidity detected below the reporting limit was qualified as estimated, "J." The laboratory reanalyzed Outfall 002 for sulfate. The reanalyses results, Outfall 002RE1 and Outfall 002RE2, were similar to the original result; therefore, the reanalyses, Outfall 002RE1 and Outfall 002RE2, were rejected, "R," in favor of the original analysis result. No further qualifications were required.

2.11 FIELD QC SAMPLES

Field QC samples are evaluated, and if necessary, qualified based only on laboratory blanks. Any remaining detects are used to evaluate the associated samples. The following are findings associated with field QC samples:

Project:

SDG No.: Analysis:

NPDES IOD0069 General Minerals

DATA VALIDATION REPORT

2.11.1 Field Blanks and Equipment Rinsates

The sample in this SDG had no associated field QC samples. No qualifications were required.

2.11.2 Field Duplicates

There were no field duplicate pairs associated with this SDG.



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MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Project ID: Quarterly Outfall 002

Report Number: IOD0069

Sampled: 04/01/05 Received: 04.01/05

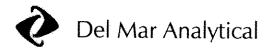
				1 1 1 1 1 2 2 2 1 1 1 1 2 2 2 2 2 2 2 2	Company of the State of the Sta	Propagate various and construction of the		
		DRAF	T: IN	ORGANI	CS	Proposition of the second of t	त्यार्थक्यात्रक्षात्रक्षात्रक्षात्रक्षात्रक्षात्रक्षात्रक्षात्रक्षात्रक्षात्रक्षात्रक्षात्रक्षात्रक्षात्रक्षात	Problems of the second
Analyte	Method	Batch	MDL Limit		Sample	Dilution Date	Date	Data
Sample ID: IOD0069-01 (DRAF	T: Outfall 602	VX 2 s dem and		LHHI	Kesult	Factor Extracted	Analyzed Q	ualifiers .
		mater)			Samp	oled: 04/01/05	ASYL.	gut
Ammonia-N (Distilled) Sulfate	EPA 350.2	5D05076	0.20		_		CANALL STATES	
	EPA 300.0	SDAMASZ		0.50	ND	1 04/05/05	04/05/05	
Sample ID: IOD0069-01RE1 (DI	PART. Qutfa	OOZRE1	1.0	5.0	310	10 04/01/05	04/01/05	
Porting Onto: May	Carr. Genan e	- Water)			Samn	led: 04/01/05		
Sulfate	EPA 300.0	STACO.A				.ca. 04/01/03		
Sample ID: IOD0069-01RE2 (DE	Outfall	5D06048 OO2RE2	1.8	5.0	300	10 04/06/05 (04/06·05 R	
Reporting Units: mg/l	CAFT: Official Di	2 - Water)			Samul)4/00/05 /	門リ
Sulfate	Tin t took				Sampi	ed: 04/01/05		
Sample ID. Toposco	EPA 300.0	5D06048	1.8	5.0	310	10 04/06/05 0		
Sample ID: IOD0069-01 (DRAFT Reporting Units: NTU	: Outfall 002 - y	vater)				05	14/06/05 K	N(I)
Turbidity		•			Sample	ed: 04/01/05		
•	EPA 180.1	5D02038	0.040	1.0	n on		-	6
Sample ID: IOD0069-01 (DRAFT	DRAFT. Outen none			٧.٠	0.89	1 04/02/05 0	4/02/05 J	DNO
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	acces			Sampled: 04/01/05			
Specific Conductance	EPA 120.1	5D06092	1.0	N 30		•		
			1.0	0.1	1100	1 04/06/05 04	1/06/05	
05								
11.05								

J 5.1.05

AMEC VALIDATED

LEVEL IV

DRAFT REPORT DRAFT REPORT DATA SUBJECT TO CHANGE



17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing

Project: Routine Outfall 002 300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Sampled: 04/08/05

Received: 04/08/05

Issued: 05/18/05 11:47

NELAP #01108CA California ELAP#1197 CSDLAC #10117

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 Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain of Custody, I page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

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

> LABORATORY ID CLIENT ID IOD0609-01

Outfall 002

IOD0609-02 Trip Blank Water

Water

MATRIX

Reviewed By:

Del Mar Analytical, Irvine Michele Harper

Michele Harper

Project Manager



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MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Project ID: Routine Outfall 002

Report Number: IOD0609

Sampled: 04/08/05 Received: 04/08/05

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilutio Factor	n Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD0609-01 (Outfall 002	- Water)							-	
Reporting Units: ug/l									
Benzene	EPA 624	5D11027	0.28	2.0	ND	1	04/11/05	0.414.4.02	
Carbon tetrachloride	EPA 624	5D11027	0.28	5.0	ND ND	1	04/11/05		
Chloroform	EPA 624	5D11027	0.33	2.0		1	04/11/05	04/11/05	
1,1-Dichloroethane	EPA 624	5D11027	0.27	2.0	ND ND	1 1	04/11/05	04/11/05	
1,2-Dichloroethane	EPA 624	5D11027	0.28	2.0	ND ND		04/11/05	04/11/05	
1,1-Dichloroethene	EPA 624	5D11027	0.32	3.0	ND ND	1	04/11/05	04/11/05	
Ethylbenzene	EPA 624	5D11027	0.25	2.0	ND ND	l 1	04/11/05	04/11/05	
Tetrachloroethene	EPA 624	5D11027	0.32	2.0	ND	1	04/11/05	04/11/05	
Toluene	EPA 624	5D11027	0.36	2.0	ND	II.	04/11/05	04/11/05	
1,1,1-Trichloroethane	EPA 624	5D11027	0.30	2.0	ND		04/11/05	04/11/05	
1,1,2-Trichloroethane	EPA 624	5D11027	0.30	2.0	ND	1	04/11/05	04/11/05	
Trichloroethene	EPA 624	5D11027	0.26	5.0	ND ND	1	04/11/05	04/11/05	
Trichlorofluoromethane	EPA 624	5D11027	0.24	5.0	ND ND	1	04/11/05	04/11/05	
Vinyl chloride	EPA 624	5D11027	0.26	5.0		1	04/11/05	04/11/05	
Xylenes, Total	EPA 624	5D11027	0.52	4.0	ND	1	04/11/05	04/11/05	
Surrogate: Dibromofluoromethane (80-	120%)	3511021	0.52	4.0	ND 105 %	1	04/11/05	04/11/05	
Surrogate: Toluene-d8 (80-120%)					100 %				
Surrogate: 4-Bromofluorobenzene (80-1	(20%)				97%				
Sample ID: IOD0609-02 (Trip Blank -	Water)								
Reporting Units: ug/l									
Benzene	EPA 624	5D11027	0.28	2.0	ND	1	04/11/05	04/11/05	
Carbon tetrachloride	EPA 624	5D11027	0.28	5.0	ND	1	04/11/05	04/11/05	
Chloroform	EPA 624	5D11027	0.33	2.0	ND	1	04/11/05	04/11/05	
1,1-Dichloroethane	EPA 624	5D11027	0.27	2.0	ND	l	04/11/05	04/11/05	
1,2-Dichloroethane	EPA 624	5D11027	0.28	2.0	ND	1	04/11/05	04/11/05	
1,1-Dichloroethene	EPA 624	5D11027	0.32	3.0	ND	1	04/11/05	04/11/05	
Ethylbenzene	EPA 624	5D11027	0.25	2.0	ND	ı	04/11/05	04/11/05	
Tetrachloroethene	EPA 624	5D11027	0.32	2.0	ND	1	04/11/05	04/11/05	
Toluene	EPA 624	5D11027	0.36	2.0	ND	1	04/11/05		
1,1,1-Trichloroethane	EPA 624	5D11027	0.30	2.0	ND	1	04/11/05	04/11/05 04/11/05	
1,1,2-Trichloroethane	EPA 624	5D11027	0.30	2.0	ND	1	04/11/05		
Trichloroethene	EPA 624	5D11027	0.26	5.0	ND	I	04/11/05	04/11/05	
Trichlorofluoromethane	EPA 624	5D11027	0.34	5.0	ND	1		04/11/05	
Vinyl chloride	EPA 624	5D11027	0.26	5.0	ND	1	04/11/05	04/11/05	
Xylenes, Total	EPA 624	5D11027	0.52	4.0	ND	1		04/11/05	
Surrogate: Dibromofluoromethane (80-1)			J-24	т.⊍	103 %	i	04/11/05	04/11/05	
Surrogate: Toluene-d8 (80-120%)	,				103 % 100 %				
Surrogate: 4-Bromofluorobenzene (80-12	20%)				100 % 98 %				
	•				FO 70				

Del Mar Analytical, Irvine

Michele Harper Project Manager



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MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

Report Number: IOD0609

Sampled: 04/08/05

Received: 04/08/05

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: IOD0609-01 (Outfall 002 - Wa	ter)								
Reporting Units: ug/l									
Bis(2-ethylhexyl)phthalate	EPA 625	5D12052	1.1	5.0	1.3	0.962	04/12/05	04/18/05	Ŧ
2,4-Dinitrotoluene	EPA 625	5D12052	0.23	9.0	ND	0.962	04/12/05	04/18/05	J
N-Nitrosodimethylamine	EPA 625	5D12052	0.22	8.0	ND	0.962	04/12/05	04/18/05	
Pentachlorophenol	EPA 625	5D12052	0.78	8.0	ND	0.962	04/12/05	04/18/05	
2,4,6-Trichlorophenol	EPA 625	5D12052	0.10	6.0	ND	0.962	04/12/05	04/18/05	
Surrogate: 2-Fluorophenol (30-120%)					62 %	0.702	04/12/05	04/16/03	
Surrogate: Phenol-d6 (35-120%)					67 %				
Surrogate: 2,4,6-Tribromophenol (45-120%)					84 %				
Surrogate: Nitrobenzene-d5 (45-120%)					68 %				
Surrogate: 2-Fluorobiphenyl (45-120%)					72 %				
Surrogate: Terphenyl-d14 (45-120%)					78 %				



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MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Project ID: Routine Outfall 002

Report Number: IOD0609

Sampled: 04/08/05

Received: 04/08/05

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD0609-01 (Outfall 002 - Wa Reporting Units: ug/l alpha-BHC Surrogate: Decachlorobiphenyl (45-120%)	EPA 608	5D11052	0.0010	0.010	ND	0.957	04/11/05	04/11/05	
Surrogate: Tetrachloro-m-xylene (35-115%)					83 % 65 %				

Del Mar Analytical, Irvine Michele Harper Project Manager



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MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Project ID: Routine Outfall 002

Sampled: 04/08/05

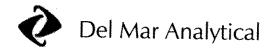
Attention: Bronwyn Kelly

Report Number: IOD0609

Received: 04/08/05

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD0609-01 (Outfall 002 Reporting Units: ug/l	- Water) - cont.								
Copper Lead Mercury	EPA 200.8 EPA 200.8 EPA 245.1	5D08115 5D08115 5D11070	0.49 0.13 0.063	2.0 1.0 0.20	2.2 0.16 ND	1	04/08/05 04/08/05 04/11/05	04/09/05 04/09/05 04/11/05	J



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MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Project ID: Routine Outfall 002

Report Number: IOD0609

Sampled: 04/08/05 Received: 04/08/05

INORGANICS

			· · · · · · · · · · · · · · · · · · ·	EXITOS					
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD0609-01 (Outfall 00	2 - Water) - cont.							•	
Reporting Units: mg/l	,								
Ammonia-N (Distilled)	EPA 350.2	5D12076	0.30	0.50	0.84	1	04/12/02	D # (5 D /O #	
Biochemical Oxygen Demand	EPA 405.1	5D09035	0.59	2.0	0.62	1	04/12/05	04/12/05	
Chloride	EPA 300.0	5D08047	2.6	5.0	45	1 10	04/09/05	04/14/05	J
Nitrate/Nitrite-N	EPA 300.0	5D08047	0.072	0.26	ND		04/08/05	04/08/05	
Oil & Grease	EPA 413.1	5D11073	0.94	5.0	ND ND	1	04/08/05	04/08/05	
Sulfate	EPA 300.0	5D08047	1.8	5.0	360	10	04/11/05	04/11/05	
Surfactants (MBAS)	SM5540-C	5D08110	0.044	0.10	ND	10	04/08/05	04/08/05	
Total Dissolved Solids	SM2540C	5D12099	10	10	840	1	04/08/05	04/08/05	
Total Suspended Solids	EPA 160.2	5D12082	10	10	ND	1	04/12/05	04/12/05	
Completty topogramma or a		02,12002	10	10	ND	Ì	04/12/05	04/12/05	
Sample ID: IOD0609-01RE1 (Outfal	l 002 - Water)								
Reporting Units: mg/l Sulfate	EPA 300.0	5D14046	1.8	5.0	350	10	04/14/05	04/14/05	
Sample ID: IOD0609-01 (Outfall 002	- Water)								
Reporting Units: ml/l/hr	,								
Total Settleable Solids	EPA 160.5	5D09036	0.10	0.10	ND	1	04/09/05	04/09/05	
Sample ID: IOD0609-01 (Outfall 002	- Water)								
Reporting Units: NTU	,								
Turbidity	EPA 180.1	5D09037	0.040	1.0	2.5	1	04/09/05	04/09/05	
Sample ID: IOD0609-01 (Outfall 002	- Water)								
Reporting Units: ug/l									
Total Cyanide	EPA 335.2	5D08112	2.2	5.0	ND	1	04/09/05	04/12/05	
Perchlorate	EPA 314.0	5D11068	0.80	4.0	ND	1	04/08/05 04/11/05	04/12/05	
Samula ID: IOD0600 01 (O. 45.11 000			3.00	1.0	1425	í	U4/11/U3	04/11/05	
Sample ID: IOD0609-01 (Outfall 002 Reporting Units: umhos/cm	- water)								
Specific Conductance	FD4 120 :	FD 10100							
obsesse conductanet	EPA 120.1	5D13108	1.0	1.0	1200	1	04/13/05	04/13/05	

Del Mar Analytical, Irvine Michele Harper

Project Manager



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9830 South 51st St., Suite 8-120, Phoenix, AZ 85044 (480) 765-0043 FAX (480) 765-0651
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

Report Number: IOD0609

Sampled: 04/08/05 Received: 04/08/05

SHORT HOLD TIME DETAIL REPORT

Sample ID: Outfall 002 (IOD0609-01) - Wate	Hold Time (in days) r	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 160.5	2	04/08/2005 11:35	04/08/2005 18:00	04/09/2005 12:00	04/09/2005 13:00
EPA 180.1	2	04/08/2005 11:35	04/08/2005 18:00	04/09/2005 11:00	04/09/2005 12:00
EPA 300.0	2	04/08/2005 11:35	04/08/2005 18:00	04/08/2005 20:00	04/08/2005 23:15
EPA 405.1	2	04/08/2005 11:35	04/08/2005 18:00	04/09/2005 19:00	04/14/2005 15:00
SM5540-C	2	04/08/2005 11:35	04/08/2005 18:00	04/08/2005 19:24	04/08/2005 21:31

Del Mar Analytical, Irvine Michele Harper Project Manager



17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Project ID: Routine Outfall 002

Report Number: IOD0609

Sampled: 04/08/05 Received: 04/08/05

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 5D11027 Extracted: 04/	11/05									23,111,10	Quantitis
Blank Analyzed: 04/11/2005 (5D110	027-BLK1)										
Benzene	ND	2.0	0.28	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	0.32	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/i							
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	-							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Surrogate: Dibromofluoromethane	26.1	4.0	0.52	ug/l	25.0						
Surrogate: Toluene-d8	24.8			ug/l	25.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	24.4			ug/l	25.0		99	80-120			
•				ug/l	25.0		98	80-120			
LCS Analyzed: 04/11/2005 (5D11027	7-BS1)										
Benzene	24.3	2.0	0.28	ug/l	25.0		97	70-120			
Carbon tetrachloride	27.8	5.0	0.28	ug/l	25.0		111	70-140			
Chloroform	26.0	2.0	0.33	ug/l	25.0		104	75-130			
1,1-Dichloroethane	25.5	2.0	0.27	ug/l	25.0		102	70-135			
1,2-Dichloroethane	24.1	2.0	0.28	ug/I	25.0		96	60-150			
1,1-Dichloroethene	24.2	3.0	0.32	ug/l	25.0		97	75-135			
Ethylbenzene	24.8	2.0	0.25	ug/l	25.0		99	80-120			
Tetrachloroethene	25.1	2.0	0.32	ug/l	25.0		100	75-125			
Toluene	24.3	2.0	0.36	ug/l	25.0		97	75-120			
1,1,1-Trichloroethane	28.9	2.0	0.30	ug/l	25.0		116	75-140			
1,1,2-Trichloroethane	21.0	2.0	0.30	ug/l	25.0		84	70-125			
Trichloroethene	25.4	5.0	0.26	ug/l	25.0		102				
Frichlorofluoromethane	27.0	5.0	0.34	ug/l	25.0		102	80-120			
/inyl chloride	22.9		0.26	ug/l	25.0			65-145			
Surrogate: Dibromofluoromethane	26.3	2.0	n de C	ug/l ug/l	25.0		92	50-130			
Surrogate: Toluene-d8	25.0			ug/l ug/l	25.0 25.0			80-120			
Del Mar Analytical, Irvine				ugi	مان شد		100	80-120			

Michele Harper Project Manager



MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Project ID: Routine Outfall 002

Report Number: IOD0609

Sampled: 04/08/05 Received: 04/08/05

> Data Qualifiers

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

		Reportin	g		Spike	Source		%REC		RPD
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit
Batch: 5D11027 Extracted: 04/1	1/05									
LCS Analyzed: 04/11/2005 (5D1102	7-BS1)									
Surrogate: 4-Bromofluorobenzene	24.4			ug/l	25.0		98	80-120		
Matrix Spike Analyzed: 04/11/2005	(5D11027-MS1)				Son	rce: IOD()609 <u>-</u> 01			
Benzene	24.7	2.0	0.28	ug/l	25.0	ND	99	70-120		
Carbon tetrachloride	28.2	5.0	0.28	ug/l	25.0	ND	113	70-120		
Chloroform	26.3	2.0	0.33	ug/l	25.0	ND	105	70-143		
1,1-Dichloroethane	26.1	2,0	0.27	ug/l	25.0	ND	103	65-135		
1,2-Dichloroethane	25.8	2.0	0.28	ug/i	25.0	ND ND	103	60-150		
1,1-Dichloroethene	24.5	3.0	0.32	ug/l	25.0	ND ND	98	65-140		
Ethylbenzene	25.0	2.0	0.25	ug/l	25.0	ND ND	100			
Tetrachloroethene	24.9	2.0	0.32	ug/I	25.0	ND	100	70-130		
Toluene	25.0	2.0	0.36	ug/l	25.0	ND ND		70-130		
1,1,1-Trichloroethane	29.1	2.0	0.30	ug/l	25.0	ND ND	100	70-120		
1,1,2-Trichloroethane	22.9	2.0	0.30	ug/l	25.0	ND ND	116 92	75-140		
Trichloroethene	25.7	5.0	0.26	ug/i	25.0	ND ND		60-135		
Trichlorofluoromethane	27.0	5.0	0.34	ug/l	25.0	ND ND	103	70-125		
Vinyl chloride	22.2	5.0	0.26	ug/l	25.0		108	55-145		
Surrogate: Dibromofluoromethane	26.3	0.0	0.20	ug/l	25.0 25.0	ND	89	40-135		
Surrogate: Toluene-d8	25.4			ug/l ug/l	25.0 25.0		105	80-120		
Surrogate: 4-Bromofluorobenzene	25.0			ug/l	25.0 25.0		102 100	80-120 80-120		
Matrix Spike Dup Analyzed: 04/11/20)05 (5D11027-M	SDD				IODA		50-120		
Benzene	24.3	2.0	0.28			ce: IOD00				
Carbon tetrachloride	28.0	5.0	0.28	ug/l	25.0	ND	97	70-120	2	20
Chloroform	25.7	2.0	0.28	ug/l	25.0	ND	112	70-145	I	25
1.1-Dichloroethane	25.4	2.0		ug/l	25.0	ND	103	70~135	2	20
1,2-Dichloroethane	25.5	2.0	0.27	ug/l	25.0	ND	102	65-135	3	20
1,1-Dichloroethene	23.8	3.0	0.28	ug/l	25.0	ND	102	60-150	1	20
Ethylbenzene	24.7		0.32	ug/l	25.0	ND	95	65-140	3	20
Tetrachloroethene	25.0	2.0	0.25	ug/l	25.0	ND	99	70-130	****	20
Toluene	24.6	2.0	0.32	ug/l	25.0	ND	100	70-130	0	20
1,1,1-Trichloroethane	24.0	2.0	0.36	ug/l	25.0	ND	98	70-120	2	20
1,1,2-Trichloroethane		2.0	0.30	ug/I	25.0	ND		75-140	1	20
Trichloroethene	23.0	2.0	0.30	ug/l	25.0	ND		60-135	0	25
Trichlorofluoromethane	25.4	5.0	0.26	ug/l	25.0	ND	102	70-125	*****	20
Vinyl chloride	26.2	5.0	0.34	ug/l	25.0	ND		55-145	3	25
· maj i wissou i ilid	21.7	5.0	0.26	ug/l	25.0	ND	87	40-135	2	30

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

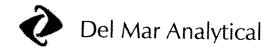
Report Number: IOD0609

Sampled: 04/08/05 Received: 04/08/05

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte Batch: 5D11027 Extracted: 04/11/	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup Analyzed: 04/11/200	95 (5D11027-N	fSD1)			Sou	rce: IOD	0609-01				
Surrogate: Dibromofluoromethane	26.3			ug/l	25.0		105	80-120			
Surrogate: Toluene-d8	25.3			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	25.0			ug/l	25.0		100	80-120			



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METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%RFC	%REC	RPD	RPD Limit	Data
Batch: 5D12052 Extracted: 04/12/0	5_					***************************************	, orași	***************************************	KI D	Limit	Qualifiers
Blank Analyzed: 04/18/2005 (5D12052-1	BLK1)										
Bis(2-ethylhexyl)phthalate	ND	5.0	1.1	ug/l							
2,4-Dinitrotoluene	ND	9.0	0.23	ug/l							
N-Nitrosodimethylamine	ND	8.0	0.22	ug/l							
Pentachlorophenol	ND	8.0	0.78	ug/l							
2,4,6-Trichtorophenol	ND	6.0	0.10	ug/l							
Surrogate: 2-Fluorophenol	14.0		0110	ug/l	20.0		70	20.120			
Surrogate: Phenol-d6	15.4			ug/l	20.0		77	30-120			
Surrogate: 2,4,6-Tribromophenol	15.8			ug/l	20.0		79	35-120			
Surrogate: Nitrobenzene-d5	7.72			ug/l	10.0		79	45-120			
Surrogate: 2-Fluorobiphenyl	8.10			ug/l	10.0		81	45-120			
Surrogate: Terphenyl-d14	8.16			ug/l	10.0		82	45-120			
LCS Analyzed: 04/18/2005 (5D12052-BS	1)			ug.	10,0		04	45-120			
Bis(2-ethylhexyl)phthalate	*, 8.16	5.0	1 1	16	10.0						M-NRI
2,4-Dinitrotoluene	7.00	9.0	1.1 0.23	ug/l	10.0		82	60-130			
N-Nitrosodimethylamine	6.86	8.0		ug/l	10.0		70	60-120			J
Pentachlorophenol	6.98	8.0	0.22 0.78	ug/l	10.0		69	40-120			J
2,4,6-Trichlorophenol	7.48	6.0		ug/l	10.0		70	50-120			J
Surrogate: 2-Fluorophenol	12.3	0.0	0.10	ug/l	10.0		75	60-120			
Surrogate: Phenol-d6	13.5			ug/l	20.0		62	30-120			
Surrogate: 2,4,6-Tribromophenol	16.6			ug/l	20.0		68	35-120			
Surrogate: Nitrobenzene-d5	6.74			ug/l	20.0		83	45-120			
Surrogate: 2-Fluorobiphenyl	6.94			ug/l	10.0		67	45-120			
Surrogate: Terphenyl-d14	7.94			ug/l	10.0		69	45-120			
				ug/l	10.0		79	45-120			
LCS Dup Analyzed: 04/18/2005 (5D12052	!-BSD1)										
Bís(2-ethylhexyl)phthalate	7.78	5.0	1.1	ug/l	10:0		78	60-130	5	20	
2,4-Dinitrotoluene	6.96	9.0	0.23	ug/l	10.0		70	60-120	1	20	ε
N-Nitrosodimethylamine	6.50	8.0	0.22	ug/l	10.0		65	40-120	5	20	f
Pentachlorophenol	6.36	8.0	0.78	ug/l	10.0		64	50-120	9	25	J J
2,4,6-Trichlorophenol	7.28	6.0	0.10	ug/l	10.0			60-120	3	20	J
Surrogate: 2-Fluorophenol	11.7			ug/l	20.0			30-120	3	20	
Surrogate: Phenol-d6	13.0			ug/l	20.0			35-120 35-120			
Surrogate: 2,4,6-Tribromophenol	15.4			ug/l	20.0			35-120 45-120			
Surrogate: Nitrobenzene-d5	6.62			ug/l	10.0			45-120 45-120			
Surrogate: 2-Fluorobiphenyl	7.08			ug/l	10.0			45-120 45-120			

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Report Number: IOD0609

Sampled: 04/08/05

Received: 04/08/05

METHOD BLANK/QC DATA

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

Analyte Batch: 5D12052 Extracted: 04/12/05	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup Analyzed: 04/18/2005 (5D1205). Surrogate: Terphenyl-d14	2-BSD1) 7.40			ug/l	10.0		74	45-120			



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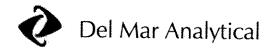
Report Number: IOD0609

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 5D11052 Extracted: 04/11/0	5_										
Blank Analyzed: 04/11/2005 (5D11052-E	NY 424\										
alpha-BHC	ND	0.010	0.0010	ug/l							
Surrogate: Decachlorobiphenyl	0.509			ug/l	0.500		102	45-120			
Surrogate: Tetrachloro-m-xylene	0.370			ug/l	0.500		74	35-115			
LCS Analyzed: 04/11/2005 (5D11052-BS	31)										M-NR1
alpha-BHC	0.511	0.010	0.0010	ug/l	0.500		102	45-115			147-141/7
Surrogate: Decachlorobiphenyl	0.499			ug/l	0.500		100	45-120			
Surrogate: Tetrachloro-m-xylene	0.479			ug/l	0.500		96	35-115			
LCS Dup Analyzed: 04/11/2005 (5D1105	2-BSD1)										
alpha-BHC	0.408	0.010	0.0010	ug/l	0.500		82	45-115	22	30	
Surrogate: Decachlorobiphenyl	0.457			ug/l	0.500		91	45-120		Ψ.υ	
Surrogate: Tetrachloro-m-xylene	0.364			ug/l	0.500		73	35-115			



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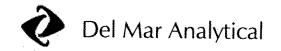
METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 5D08115 Extracted: 04/08/05	-									*******	Quamicis
Blank Analyzed: 04/09/2005 (5D08115-Bl	LK1)										
Copper	ND	2.0	0.49	ug/l							
Lead	ND	1.0	0.13	ug/l							
LCS Analyzed: 04/09/2005 (5D08115-BS1)										
Copper	76.0	2.0	0.49	ug/l	80.0		95	85-115			
Lead	83.8	1.0	0.13	ug/l	80.0		105	85-115			
Matrix Spike Analyzed: 04/09/2005 (5D08	8115-MS1)				Sour	rce: IOD(609-01				
Copper	72.6	2.0	0.49	ug/l	80.0	2.2	88	70-130			
Lead	81.2	1.0	0.13	ug/l	80.0	0.16	101	70-130			
Matrix Spike Dup Analyzed: 04/09/2005 (5D08115-MS	D1)			Sour	rce: IOD0	609-01				
Copper	74.9	2.0	0.49	ug/l	80.0	2.2	91	70-130	3	20	
Lead	78.5	1.0	0.13	ug/l	80.0	0.16	98	70-130	3	20	
Batch: 5D11070 Extracted: 04/11/05											
Blank Analyzed: 04/11/2005 (5D11070-BL	I /1)										
Mercury	ND	0.20	0.063	ug/l							
LCS Analyzed: 04/11/2005 (5D11070-BS1)	+										
Mercury	8.12	0.20	0.063	ug/l	8.00		102	85-115			
Matrix Spike Analyzed: 04/11/2005 (5D11)	970-MS1)				Sour	ce: IOD0.	309-01				
Mercury	8.53	0.20	0.063	ug/l	8,00	ND		70-130			
Matrix Spike Dup Analyzed: 04/11/2005 (5	D11070-MS	D1)			Sourc	ce: IOD03	309-01				
Mercury	8.58	0.20	0.063	ug/l	8.00	ND		70-130	I	20	

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Project Manager



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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 5D08047 Extracted: 04/08/05	_										
Blank Analyzed: 04/08/2005 (5D08047-BI	wn										
Chloride	ND	0.50	0.36								
Nitrate/Nitrite-N	ND ND	0.30	0.26	mg/l							
Sulfate	ND	0.50	0.072 0.18	mg/l mg/l							
I CO 1 I A O COO COO CO		0.50	0.10	111871							
LCS Analyzed: 04/08/2005 (5D08047-BS1)										
Chloride	4.81	0.50	0.26	mg/l	5.00		96	90-110			M-3
Sulfate	9.72	0.50	0.18	mg/l	10.0		97	90-110			M-3
Batch: 5D08110 Extracted: 04/08/05											
Blank Analyzed: 04/08/2005 (5D08110-BL	.K1)										
Surfactants (MBAS)	ND	0.10	0.044	mg/l							
LCS Analyzed: 04/08/2005 (5D08110-BS1))										
Surfactants (MBAS)	0.240	0.10	0.044	mg/l	0.250		96	90-110			
Matrix Spike Analyzed: 04/08/2005 (5D08	110-MS1)				Sour	ce: IOD0	609-01				
Surfactants (MBAS)	0.141	0.10	0.044	mg/l	0.250	ND	56	50-125			
Matrix Spike Dup Analyzed: 04/08/2005 (5	5D08110-MS1	D1)			Sour	ce: IOD0	609-01				
Surfactants (MBAS)	0.130	0.10	0.044	mg/l	0.250	ND	52	50-125	8	20	
Batch: 5D08112 Extracted: 04/08/05											
Blank Analyzed: 04/12/2005 (5D08112-BLI	K1)										
Total Cyanide	ND	5.0	2.2	ug/I							



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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5D08112 Extracted: 04/08/05	•										Quanners
LCS Analyzed: 04/12/2005 (5D08112-BS1)										
Total Cyanide	192	5.0	2.2	ug/l	200		96	90-110			
Matrix Spike Analyzed: 04/12/2005 (5D08	3112-MS1)				Sour	rce: IOD0	609-01				
Total Cyanide	144	5.0	2.2	ug/l	200	ND	72	70-115			
Matrix Spike Dup Analyzed: 04/12/2005 (5D08112-MSI	D1)			Sour	ce: IOD0	609-01				
Total Cyanide	145	5.0	2.2	ug/l	200	ND	72	70-115	1	15	
Batch: 5D09035 Extracted: 04/09/05											
Blank Analyzed: 04/14/2005 (5D09035-BL	K1)										
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 04/14/2005 (5D09035-BS1))										
Biochemical Oxygen Demand	216	100	30	mg/l	198		109	85-115			
LCS Dup Analyzed: 04/14/2005 (5D09035-	BSD1)										
Biochemical Oxygen Demand	208	100	30	mg/l	198		105	85-115	4	20	
Batch: 5D09037 Extracted: 04/09/05											
Blank Analyzed: 04/09/2005 (5D09037-BL)	K1)										
Turbidity	ND	1.0	0.040	NTU							
Duplicate Analyzed: 04/09/2005 (5D09037-	DUP1)				Sourc	e: IOD06	09-01				
Turbidity	2.49	1.0	0.040	NTU		2.5			0	20	



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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Oualifiers
Batch: 5D11068 Extracted: 04/11/05	•									********	Quantity 3
Blank Analyzed: 04/11/2005 (5D11068-Bl	LK1)										
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 04/11/2005 (5D11068-BS1	.)										
Perchlorate	50.6	4.0	0.80	ug/l	50.0		101	85-115			
Matrix Spike Analyzed: 04/11/2005 (5D1)	1068-MS1)				Soui	rce: IOD0	662-01				
Perchlorate	49.6	4.0	0.80	ug/l	50.0	1.7	96	80-120			
Matrix Spike Dup Analyzed: 04/11/2005 (5D11068-MS	(D1)			Sour	rce: IOD0	662-01				
Perchlorate	49.8	4.0	0.80	ug/l	50.0	1.7	96	80-120	0	20	
Batch: 5D11073 Extracted: 04/11/05											
Blank Analyzed: 04/11/2005 (5D11073-BL	.K1)										
Oil & Grease	ND	5.0	0.94	mg/l							
LCS Analyzed: 04/11/2005 (5D11073-BS1)			-							
Oil & Grease	15.9	5.0	0.94	mg/l	20.0		80	65-120			M-NR1
LCS Dup Analyzed: 04/11/2005 (5D11073-	·BSD1)			_							
Oil & Grease	18.9	5.0	0.94	mg/l	20.0		94	65-120	17	20	
Batch: 5D12076 Extracted: 04/12/05									••	20	
Blank Analyzed: 04/12/2005 (5D12076-BL	-										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							



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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5D12076 Extracted: 04/12/05	•										
LCS Analyzed: 04/12/2005 (5D12076-BS1)										
Ammonia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0		98	80-115			
Matrix Spike Analyzed: 04/12/2005 (5D12	076-MS1)				Sone	ce: IOD0	K40 61				
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0	0.84	93	70-120			
Matrix Spike Dup Analyzed: 04/12/2005 (5D12076_MST	11)		U	e	ce: IOD0		, 0 1200			
Ammonia-N (Distilled)	10.6	0.50	0.30	mg/l	10.0	0.84	98 98	70-120	5	15	
Batch: 5D12082 Extracted: 04/12/05						0.04	70	70-120	3	13	
DATACES. OF 12/03											
Blank Analyzed: 04/12/2005 (5D12082-BL	K1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 04/12/2005 (5D12082-BS1)	ı										
Total Suspended Solids	961	10	10	mg/l	1000		96	85-115			
Duplicate Analyzed: 04/12/2005 (5D12082-	DUP1)				Source	ce: IOD0	74901				
Total Suspended Solids	ND	10	10	mg/l	504.	ND	10-01			10	
Batch: 5D12099 Extracted: 04/12/05											
Blank Analyzed: 04/12/2005 (5D12099-BL)	K1)										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 04/12/2005 (5D12099-BS1)											
Total Dissolved Solids	978	10	10	mg/l	1000		98	90-110			



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Report Number: IOD0609

Sampled: 04/08/05 Received: 04/08/05

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5D12099 Extracted: 04/12/05	-										
Duplicate Analyzed: 04/12/2005 (5D1209) Total Dissolved Solids Batch: 5D13108 Extracted: 04/13/05	720	10	10	mg/l	Sour	720	335-01		0	10	
Duplicate Analyzed: 04/13/2005 (5D13108 Specific Conductance Batch: 5D14046 Extracted: 04/14/05	3190	1.0	1.0	umhos/cm	Sour	3200	494-01		0	5	
Blank Analyzed: 04/14/2005 (5D14046-BL Sulfate	. K1) ND	0.50	0.45	mg/l							
LCS Analyzed: 04/14/2005 (5D14046-BS1 Sulfate	9.87	0.50	0.45	mg/i	10.0		99	90-110			M-3

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Project ID: Routine Outfall 002

Report Number: IOD0609

Sampled: 04/08/05 Received: 04/08/05

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
IOD0609-01	413.1 Oil and Grease	Oil & Grease	mg/l	-2	5.0	10.00
IOD0609-01	608-Pest Boeing 001/002 Q (LL)	alpha-BHC	ug/l	0	0.010	0.0100
IOD0609-01	624-Boeing 001/002 Q (Fr113+X)	1,1-Dichloroethene	ug/l	Ö	3.0	3.20
IOD0609-01	624-Boeing 001/002 Q (Fr113+X)	Trichloroethene	ug/l	0	5.0	5.00
IOD0609-01	625-Boeing 001/002 Q-LL	2,4,6-Trichlorophenol	ug/l	0	6.0	6.50
IOD0609-01	625-Boeing 001/002 Q-LL	2,4-Dinitrotoluene	ug/l	Ő	9.0	9.10
IOD0609-01	625-Boeing 001/002 Q-LL	Bis(2-ethylhexyl)phthalate	ug/l	1.30	5.0	4.00
IOD0609-01	625-Boeing 001/002 Q-LL	N-Nitrosodimethylamine	ug/l	0	8.0	4.00 8.10
IOD0609-01	625-Boeing 001/002 Q-LL	Pentachlorophenol	ug/l	0	8.0	8.20
IOD0609-01	BOD	Biochemical Oxygen Demand	mg/l	0.62	2.0	20
IOD0609-01	Chloride - 300.0	Chloride	mg/l	45	5.0	20 150
IOD0609-01	Copper-200.8	Copper	ug/l	2.20	2.0	
IOD0609-01	Cyanide-335.2 5ppb	Total Cyanide	ug/l	-4	5.0	7.10
IOD0609-01	Lead-200.8	Lead	ug/l	0.16	1.0	4.30
IOD0609-01	MBAS - SM5540-C	Surfactants (MBAS)	mg/l	0.029	0.10	2.60
IOD0609-01	Mercury - 245.1	Mercury	ug/I	0.041	0.10	0.50
IOD0609-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	0.041	0.26	0.20
IOD0609-01	Perchlorate 314.0	Perchlorate	ug/l	0.013	4.0	8.00
IOD0609-01	Sulfate-300.0	Sulfate	mg/l	360	4.0 5.0	6.00
IOD0609-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	840		300
IOD0609-01RE1	Sulfate-300.0	Sulfate	mg/l	350	10	950
IOD0609-02	624-Boeing 001/002 Q (Fr113+X)	1,1-Dichloroethene	-		5.0	300
IOD0609-02	and the same of th	Trichloroethene	ug/l	0	3.0	3.20
	2 (6-1-12)		ug/l	0	5.0	5.00



MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

Report Number: IOD0609

Sampled: 04/08/05 Received: 04/08/05

DATA QUALIFIERS AND DEFINITIONS

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 unknown quality.

M-3 Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was

accepted based on acceptable recovery in the Blank Spike (LCS).

M-NR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike

Duplicate.

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

RPD Relative Percent Difference



MWH-Pasadena/Boeing

Project ID: Routine Outfall 002

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: IOD0609

Sampled: 04/08/05 Received: 04/08/05

Attention: Bronwyn Kelly

Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	Nelac	California
EPA 120.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	N/A	X
EPA 335.2	Water	X	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
SM2540C	Water	X	X
SM5540-C	Water	X	X

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

Subcontracted Laboratories

Alta Analytical California Cert #1640

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR

Samples: IOD0609-01

Analysis Performed: EDD + Level 4

Samples: IOD0609-01

CHAIN OF CUSTODY FORM Del Mar Analytical version 02/17/05

TJIJ609 Field readings: 1emp = 26 Comments 24 TAT 24 TAT 24 TAT 24 TAT 10 Days Sample integrity: (Check) integrity On key beutachlorophenol (EPA 625) 7 um around Time: (check) 24 Hours 5 De Perchiorate Only 72 Hours ethylhexyl)phthalate, NDMA Dinitrotoluene, Bis(2-× Metals Only 72 Hours 2,4,6 Trichlorophenol, 2,4 Alpha BHC (608) × 72 Hours 48 Hours ANALYSIS REQUIRED **M-sinommA** × Conductivity Turbidity, TDS, TSS, × Perchlorate CI-' 204' NO3+NO5-N' × Surfactants (MBAS) BOD5(20 degrees C) × Cyanide (total recoverable) × Oil & Grease (EPA 413.1) のこん × TCDD (and all congeners) × VOCs 624 + xylenes × × Date/Time: Date/Time: Date/Time: P Settleable Solids × Cn' bp' Ha' × × Total Recoverable Metals: 10A, 10B 12A, 12B 13A, 13B 4A, 148, 3A, 3B, 3C 4A, 4B 5A, 5B 8A, 8B 9A, 9B Bottle 4 ₹ Ö **₹** N Φ Preservative Boeing-SSFL NPDES Routine Outfall 002 Received By Received By Received By H2SO4 4-8-05,1:35 HNO3 HNO3 NaOH None None None None None None 950Z Son ᄗ Ξ 626) 568-6515 Ş Phone Number (626) 568-6691 Fax Number Sampling Date/Time 4-805 11:10 65 /800 **Project:** Date/Time: Date/Time: Date/Time: # C G G G Project Manager: Bronwyn Kelly 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 N Container Type 1L Amber 1L Amber ml Poly-500 ml 1L Amber Paly-500 ml Poly-500 Sampler: //CLLOCL Poly-500 Poly-500 Poly-1 Mer Poly-1 Poly-1 Mer Glass-VOAs Amber Pody-1 #er 1-VOAs Ē Ē Client Name/Address MWH-Pasadena Sample Matrix ≥ ₹ ≥ ₹ ≥ ≥ ≥ ₹ ≥ ₹ S š ₹ ≤ ≥ Relingueshed By elinquished By, Relinquished By Description Sample Outfall 002 Outfall 002-Outfall 002 Outfall 002 Trip Blank S



17461 Derian Ave., Irvine CA 92696 (949) 261-1022 TAX (949) 261-1228 1014 E. Cooky Dr., Suite A, Colton, CA 92324 (909) 270-4667 FAX (949) 261-1225 1014 E. Cooky Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 507-8596 FAX (858) 505-9689 9630 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

May 16, 2005

MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Attention:

Bronwyn Kelly

Project:

Routine Outfall 002

Sampled: 04/08/05

Del Mar Analytical Number: IOD0609

Dear Ms. Kelly:

Alta Analytical Laboratories performed the EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans for the project referenced above. Please use the following cross-reference table when reviewing your results.

MWH ID	Del Mar ID	Alta ID
Outfall 002	IOD0609-01	26037-001

Attached is the original report from the subcontract laboratory. If you have any questions or require further assistance, please do not hesitate to contact me at (949) 261-1022, extension 215.

Sincerely yours,

DEL MAR ANALYTICAL

Michele Harper

Project Manager

Enclosure



April 29, 2005

Alta Project I.D.: 26037

Ms. Michele Harper Del Mar Analytical, Irvine 17461 Derian Avenue, Suite 100 Irvine, CA 92614

Dear Ms. Harper,

Enclosed are the results for the one aqueous sample received at Alta Analytical Laboratory on April 12, 2005 under your Project Name "IOD0609". 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, Alta's current certifications, and copies of the raw data (if requested).

Alta Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-933-1640 or by email at mmaier@altalab.com. Thank you for choosing Alta as part of your analytical support team.

Sincerely,

Martha M. Maier

Director of HRMS Services

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Mic employeen habituatio executive sha the report berein accertate the respiecement at higher wild 45. he thinse qualicately per methods linte centre smaller and he reproduce a complete administrative service appropriate (4.27).





Section I: Sample Inventory Report

Date Received:

4/12/2005

Alta Lab. ID

Client Sample ID

26037-001

IOD0609-01



SECTION II

Project 26037



Method Blank						EPA Method 1613	1613
Matrix: Aqueous		QC Batch No.: 67	6730	Lab Sample: 0-MB001			
Sample Size: 1.000 L		Date Extracted: 22	22-Apr-05	Date Analyzed DB-5: 28-Apr-05	Date An	Date Analyzed DB-225: NA	
Analyte Conc. (ug/L)	L)	DL a EMPC b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d Qualifiers	fiers
2,3,7,8-TCDD N	ND	0.00000134	dedresses villenses servindenses taken messes taken messes taken messes taken messes taken messes taken messes	IS 13C-2,3,7,8-TCDD	6.79	25 - 164	
1,2,3,7,8-PeCDD NJ	ON ON	0.00000176		13C-1,2,3,7,8-PeCDD	75.2	25 - 181	
1,2,3,4,7,8-HxCDD N	N N	0.00000175		13C-1,2,3,4,7,8-HxCDD	72.7	32 - 141	
		0.00000174		13C-1,2,3,6,7,8-HxCDD	T.77	28 - 130	
1,2,3,7,8,9-HxCDD ND	Ö	0.00000164		13C-1,2,3,4,6,7,8-HpCDD	85.0	23 - 140	••••
1,2,3,4,6,7,8-HpCDD ND	Ω	0.00000210		13C-OCDD	57.8	17 - 157	
OCDD	0	0.00000515		13C-2,3,7,8-TCDF	0.79	24 - 169	
2,3,7,8-TCDF ND	Ω	0.00000167		13C-1,2,3,7,8-PeCDF	71.1	24 - 185	
1,2,3,7,8-PeCDF	9	0.00000261		13C-2,3,4,7,8-PeCDF	72.9	21 - 178	
2,3,4,7,8-PeCDF ND	Q	0.00000215		13C-1,2,3,4,7,8-HxCDF	8.99	26 - 152	
1,2,3,4,7,8-HxCDF ND	0	0.000000651		13C-1,2,3,6,7,8-HxCDF	71.1	26 - 123	
	Θ	0.000000644		13C-2,3,4,6,7,8-HxCDF	75.1	28 - 136	
	О	0.000000705		13C-1,2,3,7,8,9-HxCDF	72.4	29 - 147	
1,2,3,7,8,9-HxCDF	D	0.00000121		13C-1,2,3,4,6,7,8-HpCDF	9.6/	28 - 143	
1,2,3,4,6,7,8-HpCDF ND	Q	0.000000002		13C-1,2,3,4,7,8,9-HpCDF	85.7	26 - 138	
1,2,3,4,7,8,9-HpCDF ND	Ω	0.00000109		13C-OCDF	67.3	17 - 157	
OCDF	D	0.00000334		CRS 37CI-2,3,7,8-TCDD	76.0	35 - 197	
Totals				Footnotes		renne ambei vien eine de dem spiegebieden von er effektiver et stampejumpe verteurge	
Total TCDD ND	D	0.00000134					
Total PeCDD ND	Q	0.00000176					•
Total HxCDD ND	Ω	0.00000171		a. Sample specific estimated detection limit.			
Total HpCDD ND	D	0.00000210	***************************************	b. Estimated maximum possible concentration.			······································
Total TCDF ND	D	0.00000167	 	c. Method detection limit.			
Total PeCDF ND	D	0.00000237		d. Lower control limit - upper control limit.			
Total HxCDF ND	Ω	0.000000783					
Total HpCDF ND	Q	0.0000000986					
						der og etter state for en som er sen som er sen som er sen som er sen	-

Analyst: JMH

Approved By:

William J. Luksemburg 29-Apr-2005 08:31

Project 26037



OPR Results	Processing the supple of the standard of the s					EPA	EPA Method 1613	
Matrix: Aqueous		QC Batch No.:	6730	Lab	Lab Sample: 0-OPR001			
Sample Size: 1.000 L		Date Extracted:	22-Apr-05	Da	Date Analyzed DB-5: 28-Apr-05	Date Analyzed DB-225:		Y Y
Analyte	Spike Conc.	Spike Conc. Conc. (ng/mL)	OPR Limits	_	Labeled Standard	%R	TCL-UCL	
2,3,7,8-TCDD	10.0	72.6	6.7 - 15.8	IS	13C-2,3,7,8-TCDD	66.7	25 - 164	- Limer von consider
1,2,3,7,8-PeCDD	50.0	48.7	35 - 71	·····	13C-1,2,3,7,8-PeCDD	76.5	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	46.8	35 - 82		13C-1,2,3,4,7,8-HxCDD	73.3	32 - 141	*******
1,2,3,6,7,8-HxCDD	50.0	48.5	38 - 67	u	13C-1,2,3,6,7,8-HxCDD	78.0	28 - 130	A
1,2,3,7,8,9-HxCDD	50.0	48.9	32 - 81	***************************************	13C-1,2,3,4,6,7,8-HpCDD	88.6	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	47.9	35 - 70		13C-0CDD	72.2	17 - 157	
ocop	100	95.0	78 - 144		13C-2,3,7,8-TCDF	67.7	24 - 169	
2,3,7,8-TCDF	10.0	10.2	7.5 - 15.8		13C-1,2,3,7,8-PeCDF	74.1	24 - 185	
1,2,3,7,8-PeCDF	50.0	48.8	40 - 67		13C-2,3,4,7,8-PeCDF	77.2	21 - 178	
2,3,4,7,8-PeCDF	50.0	48.5	34 - 80		13C-1,2,3,4,7,8-HxCDF	67.4	26 - 152	- 1
1,2,3,4,7,8-HxCDF	50.0	48.3	36 - 67		13C-1,2,3,6,7,8-HxCDF	8.89	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	48.4	42 - 65		13C-2,3,4,6,7,8-HxCDF	73.9	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	47.7	35 - 78		13C-1,2,3,7,8,9-HxCDF	74.4	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	47.8	39 - 65		13C-1,2,3,4,6,7,8-HpCDF	75.4	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	47.6	41 - 61		13C-1,2,3,4,7,8,9-HpCDF	90.3	26 - 138	
1,2,3,4,7,8,9-HpCDF	20.0	49.2	39 - 69		13C-0CDF	80.1	17-157	
OCDF	100	. 95.8	63 - 170	CRS	CRS 37CI-2,3,7,8-TCDD	74.7	35 - 197	

Analyst: JMH

Approved By:

William J. Luksemburg 29-Apr-2005 08:31



Sample ID:	10-6090GOI				mana devenia, nigrative especiale de la companya d	EPA Method 1613
Client Data	Andread and the state of the st	n d d variantes es en es di Abrenes es en de describertos de vector de partir de vector de partir de vector de	Sample Data		Laboratory Data	
Name: Project	Del Mar Analytical, Irvine		Matrix:	Aqueous	Lab Sample: 26037-001	Date Received: 12-Apr-05
Date Collected	8-Apr-05		Sample Size:	0.954 L	QC Batch No.: 6730	Date Extracted: 22-Apr-05
Time Collected:	1135				Date Analyzed DB-5: 28-Apr-05	Date Analyzed DB-225; NA
Analyte	Conc. (ug/L)	DI a	EMPCb	Qualifiers	Labeled Standard	%R LCL-UCL ^d Oualifiers
2,3,7,8-TCDD	QN	0.0000145	45		IS 13C-2,3,7,8-TCDD	65.4 25 - 164
1,2,3,7,8-PeCDD	QN	0.00000110	10		13C-1,2,3,7,8-PeCDD	
1,2,3,4,7,8-HxCDD	ON ON	0.00000171	7.1		13C-1,2,3,4,7,8-HxCDD	
1,2,3,6,7,8-HxCDD	QN Q	0.00000167	29		13C-1,2,3,6,7,8-HxCDD	88.6 28 - 130
1,2,3,7,8,9-HxCDD	QN Q	0.00000159	59		13C-1,2,3,4,6,7,8-HpCDD	
1,2,3,4,6,7,8-HpCDD	DD 0.00000333	33		¥	13C-OCDD	
OCDD	0.0000165			¥	13C-2,3,7,8-TCDF	•
2,3,7,8-TCDF	a a	0.00000159	59		13C-1,2,3,7,8-PeCDF	
1,2,3,7,8-PeCDF	QN	0.00000212	12		13C-2,3,4,7,8-PeCDF	
2,3,4,7,8-PeCDF	QN	0.00000171	71		13C-1,2,3,4,7,8-HxCDF	
1,2,3,4,7,8-HxCDF	F ND	0.000000783	783		13C-1,2,3,6,7,8-HxCDF	
1,2,3,6,7,8-HxCDF	F ND	0.000000813	813		13C-2,3,4,6,7,8-HxCDF	79.4 28 - 136
2,3,4,6,7,8-HxCDF	DN H	0.000000053	953		13C-1,2,3,7,8,9-HxCDF	79.3 29 - 147
1,2,3,7,8,9-HxCDF	F ND	0.00000156	56		13C-1,2,3,4,6,7,8-HpCDF	
1,2,3,4,6,7,8-HpCDF	DF ND	0.00000105	0.5		13C-1,2,3,4,7,8,9-HpCDF	
1,2,3,4,7,8,9-HpCDF	OF NO	0.00000124	24		13C-OCDF	66.2 17 - 157
OCDF	ON	0.00000341	41		CRS 37CI-2,3,7,8-TCDD	
Totals					Footnotes	
Total TCDD	S	0.00000145	45		AND THE REAL PROPERTY OF THE P	Andrea de la constitución de la
Total PeCDD	R	0.00000110	10			
Total HxCDD	2	0.00000165	65		a. Sample specific estimated detection limit.	
Total HpCDD	0.0000062				b. Estimated maximum possible concentration.	Avind
Total TCDF	CN	0.00000159	59		c. Method detection limit.	
Total PeCDF	Q	0.00000191	16		d. Lower control limit - upper control limit.	
Total HxCDF	N	0.000000997	766			
Total HpCDF	2	0.00000113	~			

Analyst: JMH

Approved By:

William J. Luksemburg 29-Apr-2005 08:31

 $x_{2}, x_{3}, x_{4}, x_{5},



APPENDIX

Project 26037



DATA QUALIFIERS & ABBREVIATIONS

В	This compound was also detected in the method blank.
D	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 Lower Calibration Limit of the instrument.
P	Homologue totals include any coplanar PCBs detected at concentrations less than the reporting 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.

The control limits are "interim limits only" until in-house limits are utilized.

CURRENT CERTIFICATIONS



NELAP — (Primary AA: California, Certificate No. 02102CA)

Department of the Navy

U.S. Army Corps of Engineers

U.S. EPA Region 5

Bureau of Reclamation — Mid-Pacific Region — (MP-470, Res-1.10)

Commonwealth of Kentucky — (Certificate No. 90063)

Commonwealth of Virginia — (Certificate No. 00013)

State of Alaska, Department of Environmental Conservation — (Certificate No. OS-00197)

State of Arizona — (Certificate No. AZ0639)

State of Arkansas, Department of Health — (Approval granted through CA certification)

State of Arkansas, Department of Environmental Quality

State of California — (Certificate No. 1640)

State of Colorado

State of Connecticut — (Certificate No. PH-0182)

State of Florida — (Certificate No. 87456)

State of Louisiana, Department of Health and Hospitals — (Certificate No. LA000014)

State of Louisiana, Department of Environmental Quality

State of Maine

State of Michigan (Certificate No. 81178087)

State of Mississippi — (Approval granted through CA certification)

State of Nevada — (Certificate No. CA413)

State of New Jersey — (Certificate No. CA003)

State of New York, Department of Health — (Certificate No. 11411)

State of North Carolina — (Certification No. 06700)

State of North Dakota, Department of Health — (Certificate No. R-078)

State of New Mexico

State of Oklahoma - (D9919)

State of Oregon – (Certificate No. CA413)

State of Pennsylvania — (Certificate No. 68-490)

State of South Carolina — (Certificate No. 87002001)

State of Tennessee — (Certificate No. 02996)

State of Texas — (Certificate No. TX247-1000A

State of Utah — (Certificate No. E-201)

State of Washington - (Certification No. C091)

State of Wisconsin — (Certificate No. 998036160)

State of Wyoming — (USEPA Region 8 Ref: 8TMS-Q)



17461 Derian Ave. Suite 100, Irvine, CA 92014 1014 E. Cooley Dr., Suite A, Colton, CA 92324

9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 9830 South 51st Street, Suite 8-120, Phoenix, AZ 85044 Ph (909) 370-4667

Fax (909) 370-1046 Fax (619) 505-9689

Ph (619) 505-9596 Fax (619) Ph (480) 785-0043 Fax (480)

Fax (480) 785-0861 Fax (702) 798-3621

SUBCONTRACT ORDER - PROJECT # IOD0609

SEND	ING LABORATORY:	RECEIVI	NG LABORATORY:
Del Mar Analytical, Irvine 17461 Derian Avenue. Sur Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 261-1228 Project Manager: Michele	ite 100	Alta Analytical 1104 Windfield Way El Dorado Hills, CA 95762 Phone :(916) 933-1640 Fax: (916) 673-0106	26037 0.1°C
Standard TAT is reques	ted unless specific due date is requeste Expiration	ed => Due Date: Comments	Initials:
Sample ID: IOD0609-01 V 1613-Dioxin-HR EDD + Level 4	Water Sampled: 04/08/05 11:35 04/15/05 11:35 05/06/05 11:35	Instant Nofication J flags, 17 congeners, no TEQ, sul Excel EDD email to pm,Include S	o to Alta td logs for Lvl IV
Containers Supplied: 1 L Amber (IOD0609-01C 1 L Amber (IOD0609-01F			

	 				SAMPLE	INT	EGRI	ΓY:				
All containers intact: Custody Scals Present:	Yes Yes		No No		labels/COC agree: Preserved Properly:		Yes Yes			Samples Received On Ice:: Samples Received at (temp):	☐ Yes	D No
020	_	<u></u>		4-11-05	17000	B	th	L M	ÉY.	Benedict	4/19/cs	-0415
Released By				Date	Time	Recei	ived B	У	,	Date	T	ime
Released By Project 26037	 			Date	Time	Rece	ived B	у		Date		ime ge 10 of 230 Page 1 of 1

Attachment 10.B.1

SAMPLE LOG-IN CHECKLIST

AL.	TA Project No.: <u>26037</u>			
1.	The state of the s	n: ω on: ω	R-2	}-
2.	Time / Date logged in: 1655 4 10/05 Initials 6 Location	on: W)R-	2
3.	Samples Arrived By: (circle) FedEx UPS World Courier Other:	-		
4.	Shipping Preservation: (circle) Ice Blue Ice Dry Ice / None Temp °C .)			
5.	Shipping Container(s) Intact"? If not, describe condition in comment section.	YES	NO .	NA
6.	Shipping Container(s).Custody Seals Present? Intact? If not intact, describe condition in comment section.	V	/	
7.	Shipping Documentation Present? (circle) Shipping Label Tracking Number 790977419517	V		
8.	Sample Custody Seal(s) Present? No. of Seals or Seal No. Intact? If not intact, describe condition in comment section.			V
9,	Sample Container Intact? If no, indicate sample condition in comment section.			
10	. Chain of Custody (COC) or other Sample Documentation Present?	1/		
1	. COC/Documentation Acceptable? If no, complete COC Anomaly Form.	1		
1:	2. Shipping Container (circle): ALTA Client Retain or Return or D	Disposed		
1:	3. Container(s) and/or Bottle(s) Requested?		<u> レ</u>	1
1	Drinking Water Sample? (HRMS Only) If yes, Acceptable Preservation? Y or N Preservation Info From? (circle) COC or Sample Container or None Noted			

Comments:

Sampler's initial foundon sample labels

ALTA Analytical Laboratory El Dorado Hills, CA 95762