Steve Lafflam
Division Director
Safety, Health & Env. Affairs
Rocketdyne Propulsion & Power

The Boeing Company 6633 Canoga Avenue P.O. Box 7922 Canoga Park, CA 91009-7922

### CERTIFIED MAIL

November 12, 2004 In reply refer to 2004RC3152

g Boeing Regional Water Quality Control Board Los Angeles Region 320 West 4<sup>th</sup> Street, Suite 200 Los Angeles, CA 90013

Attention: Information Technology Unit

Reference: Compliance File CI-6027 and NPDES No. CA0001309

Subject: 3<sup>rd</sup> Quarter 2004 (July, August, September 2004) NPDES

Monitoring Report Submittal – Santa Susana Field Laboratory

Dear Sir/Madam,

The Boeing Company, Rocketdyne (Rocketdyne) hereby submits the enclosed discharge monitoring report (DMR) for the Santa Susana Field Laboratory (SSFL) for the 3<sup>rd</sup> Quarter 2004. This DMR is provided for the outfalls authorized by NPDES Permit No. CA0001309 revised July 1, 2004.

### **DISCHARGE STATUS**

Precipitation during the 3<sup>rd</sup> quarter 2004 is shown on Table A-1, Appendix A. Due to dry weather during the 3<sup>rd</sup> quarter 2004, there were no discharges from the Outfall 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, or 018. There was no discharge associated with the domestic sewage treatment plants (STPs) Outfalls 015, 016, 017 as the STP wastes were shipped off site and appropriately managed. There was no discharge associated with the Bravo (Outfall 013) or APTF (Outfall 014) Test Stands. There was discharge associated with activity at the Alfa Test Stand (Outfall 012). Monitoring data collected at Outfall 012 after the August 20<sup>th</sup> 2004 effective date of the above referenced permit is summarized in Appendix C.

### LIQUID WASTE SHIPMENTS

The liquid waste shipments for the 3<sup>rd</sup> quarter 2004 are summarized in Table B-1, provided as Appendix B. This summary is provided as required under the NPDES permit (CA0001309).

### DISCHARGE ANALYSES, DATA VALIDATION

All analyses of sampled discharge were conducted at a laboratory certified for such analysis by the appropriate agency in accordance with current EPA guidelines, procedures, or as specified in the monitoring program. Data validation was performed on the analytical results, and all quality control elements were found to be within acceptable limits for all analytical methods reported with the exception of three individual results for outfall 012. The result for Naphthalene on 9/9/04 was qualified do to a low surrogate recovery. The non-detect result for n-Nitrosodimethylamine (NDMA) was rejected

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because the low surrogate recovery could not confirm the presence or absence of the constituent. The 9/29/04 pH result was qualified due to the exceedance of the 24 hour hold time. Boeing has requested that the Lab review these results and implement corrective actions to prevent a reoccurrence. Complete copies of the analytical data and the subsequent data validation are located in Appendix D.

### SUMMARY OF NON-COMPLIANCE

Boeing has no issues of non-compliance to report for the 3<sup>rd</sup> quarter 2004.

### **FACILITY CONTACT**

If there are any questions regarding this report or it enclosures, you may contact Mr. Bill McIlvaine of Rocketdyne at (818) 586-9228.

### **CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation.

Executed on the 12th of November 2004 at the Boeing Company, Rocketdyne, Santa Susana Field Laboratory Facility.

Sincerely,

Steve Lafflam
Division Director

Safety, Health and Environmental Affairs

WM:bjc Enclosure

Appendices: A 3<sup>rd</sup> Quarter 2004 Rainfall Data Summary/Flow Data

B Liquid Waste Shipment Summary Table

C Discharge Monitoring Data Summary Table-Outfall 012

D Analytical Data

cc: Robert Marshall, California State University - Northridge, Library

Dale Redfield, Simi Valley Library

Lynn Light, Platt Branch, Los Angeles Library

SHEA-100824



### APPENDIX A $3^{\rm rd}~{\rm QUARTER}~2004~{\rm RAINFALL}~{\rm DATA}~{\rm SUMMARY/FLOW}~{\rm DATA}$

# TABLE A-1 THE BOEING COMPANY-ROCKETDYNE NPDES PERMIT NUMBER CA0001309 DAILY RAINFALL SUMMARY July 2004

Station: AREA4

Parameter: Rain Month/Year: July 2004

		months only 2004								HOUR	PF	DAY										
Day	00	01	02 03	04	05	90	07	08	60	10	F	12	13	14	15	16 1	17 18	8 19	20	21	22	23
-	0	0	0	0			0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0			0	0
က	0	0	0	0	0		0		0	0	0	0	0	0	0	0	0	0	0	0		0
4	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0			0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
80	0	0	0	0			0 0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
6	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
10	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0		0	0 0	0
=	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
13	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0			0 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0			0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
16	0	0	0	0	0		0 0	0	0	0	0	0	0	0	0	0	0	0	0	) 0	0 0	0
17	0	0	0	0		0 0	0 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
18	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
19	0	0	0	0			0 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
20	0	0	0	0			0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
21	0	0	0	0	0	0 0	0 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
22	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
26	0	0	0	0	0	0 0	0 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0 0	0 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0 0	0 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
30	0	0	0	0	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0			0
31	0	0	0	0			0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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# TABLE A-2 THE BOEING COMPANY-ROCKETDYNE NPDES PERMIT NUMBER CA0001309 DAILY RAINFALL SUMMARY August 2004

Station: AREA4

Parameter: Rain Month/Year: August 2004

										HOUR	P	DAY											
Day	8	01	02 0	03 04	1 05	90	20	80	60	10	13	12	13	14	15	16	. 11	18 1	6	20 21	1 22	<u> </u>	23
-	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
က	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0 0	0 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	) 0	0 0	0 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0 0	0 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	०
56	0	0	0	0	0	0	) 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	0	0	0	0	0	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ा
59	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ा
31	0	0	0	0	0	0	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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# TABLE A-3 THE BOEING COMPANY-ROCKETDYNE NPDES PERMIT NUMBER CA0001309 DAILY RAINFALL SUMMARY September 2004

Station: AREA4

Parameter: Rain Month/Year: September 2004

	- 11										HOUR	P	DAY											
Day	00	01 0	02 0	03	04	05	90	02	80	60	10	=	12	13	14	15	16	17	18	19	20	21	22	23
-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
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### APPENDIX B LIQUID WASTE SHIPMENTS SUMMARY TABLES

# TAB 1-1 THE BOEING COMPANY - ROCKETDYNE NPDES PERMIT CA0001309 LIQUID WASTE SHIPMENTS JULY 2004

DATE SHIPPED	TYPE OF LIQUID	QTY.	CNITS	TRANSPORTER	DESTINATION
7/2/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/2/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
7/7/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/7/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/12/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
7/12/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/12/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/14/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
7/14/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/15/2004	Waste Oil / Water (N/R) Waste Mixed Solvents	27	LBS.	ONYX ENVIRONMENTAL SERVICES 1704 WEST FIRST ST AZUSA CA	ONYX ENVIRONMENTAL SERVICES 1704 WEST FIRST ST AZUSA CA
	Waste Hydronen Peroxide Solu 10-20	50	LBS.		
	Waste H2O2, aqueous (20-40%)	42	LBS.		
	Waste Trace MMH in Water Waste Corr Lig Acid Inorg Bulk Mixed Acids w/HF	236	LBS.		
	Waste Mixed Acids - no metals Waste 201 Alkalina Cleaning Soln KOH NaOH	3374	LBS.		
	Waste Sol Antifreeze (N/R)	71	LBS.		
	Waste Oil / Water (N/R)	462	LBS.		
	Waste Oil / Water (N/R)	14	LBS.		
	Waste Laboac Ox Lig.	09	LBS.		
	Waste Labbac Ox Solid	ည	LBS.		
	Waste Labpac Mercury Thiocyanate	-	LBS.		
	Waste Labbac Corr Liq, Acidic Inorg	40 م	LBS.		
7/15/2004	Waste Lappac Corr Liq, Basic, morg Waste Lappac Corr Liq, Basic, Org	2 2	LBS.	ONYX ENVIRONMENTAL SERVICES	ONYX ENVIRONMENTAL SERVICES

TAB, ,-1
THE BOEING COMPANY - ROCKETDYNE
NPDES PERMIT CA0001309
LIQUID WASTE SHIPMENTS
JULY 2004

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# THE BOEING COMPANY - ROCKETDYNE NPDES PERMIT CA0001309 LIQUID WASTE SHIPMENTS AUGUST 2004

DATE SHIPPED	TYPE OF LIQUID	оту.	UNITS	TRANSPORTER	DESTINATION
8/2/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/2/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/4/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/4/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/9/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/9/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/11//2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/11/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/11/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/16/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/16/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/18 <b>/2</b> 004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/18/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/23/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/23 <b>/2</b> 004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/25 <b>/2</b> 004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson

THE BOEING COMPANY - ROCKETDYNE
NPDES PERMIT CA0001309
LIQUID WASTE SHIPMENTS
AUGUST 2004

TION	augus	augus	arson	augus
DESTINATION	LACSD Saugus	LACSD Saugus	LACSD Carson	LACSD Saugus
TRANSPORTER	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES. CA.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD, LOS ANGELES. CA.
OTY. UNITS	GAL.	GAL.	GAL.	GAL.
οπγ.	2000	2000	2000	2000
TYPE OF LIQUID	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT
DATE SHIPPED	8/25/2004	8/25/2004	8/30/2004	8/30/2004

TAB →3

THE BOEING COMPANY - ROCKETDYNE

NPDES PERMIT CA0001309

LIQUID WASTE SHIPMENTS

SEPTEMBER 2004

DATE	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
9/1/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/1/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/3/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/3/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/8/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/8/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/9/2004	B/1301 non-haz rinse water	4800	GAL	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.
9/13/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/13/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/14/2004	Alfa Kerosene Oil, Water Bulk	5160	LBS	ONYX ENVIRONMENTAL SERVICES 1704 WEST FIRST ST AZUSA, CA	ONYX ENVIRONMENTAL SERVICES 1704 WEST FIRST ST AZUSA, CA
9/15/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/15/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/15/2004	Waste Oil / Water (N/R)	47	LBS.	ONYX ENVIRONMENTAL SERVICES 1704 WEST FIRST ST AZUSA, CA	ONYX ENVIRONMENTAL SERVICES 1704 WEST FIRST ST AZUSA, CA
9/16/2004	Southwest non-haz water form B/4055 cooling pit	2950	GAL	MP ENVIRONMENTAL SERVICES INC. 3400 MANOR ST., BAKERSFIELD, CA.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.
9/20/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/20/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC.	LACSD Carson

# TABI -3 THE BOEING COMPANY - ROCKETDYNE NPDES PERMIT CA0001309 LIQUID WASTE SHIPMENTS SEPTEMBER 2004

DATE	Cirio La Lava	1	Call		
	יייר כר בימטוט	3	0 20	4120 BANDINI BLVD. LOS ANGELES. CA.	DESTINATION
9/22/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	10000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/22/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/24/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/24/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/27/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/27/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/29/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	2000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/29/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson

### APPENDIX C

### SUMMARY TABLES, DISCHARGE MONITORING DATA OUTFALL 012

### THE BOEING COMPANY - ROCKETDYNE SANTA SUSANA FIELD LAB NPDES PERMIT CA0001309 OUTFALL - 012 ALFA TEST STAND 20 AUGUST 2004 - 31 AUGUST 2004

		SAMPLE DATE
ANALYTE	UNITS	8/21/2004
MISC		
Temperature	°F	76
Flow (volume discharged)	gallons	55,000*
Ammonia-N	mg/l	0.84
Biochemical Oxygen Demand (BOD 5 day)	mg/l	6.0
Oil & Grease	mg/l	2.1 DNQ
pН	pH Units	7.96
Total Dissolved Solids	mg/l	400
Total Settleable Solids	ml/l/hr	ND<0.10
Total Suspended Solids	mg/l	24
Turbidity	NTU	38
PERCHLORATE		
Perchlorate	ug/l	ND<4.0
SEMI VOLATILES		
Naphthalene	ug/l	73
N-Nitrosodimethylamine (NDMA)	ug/l	ND<20
ТРН		
EFH (C13 - C22)	mg/l	4.5
GRO (C4 - C12)	mg/l	1.5
TRPH	mg/l	12
VOLATILES		
1,2,3-Trichloropropane	ug/l	ND<10
Ethylene dibromide (EDB)	ug/l	ND<2.0
1,4-Dioxane	ug/l	ND<1.0
Di-isopropyl ether (DIPE)	ug/l	ND<5.0
Methyl tertiary butyl ether (MTBE)	ug/l	ND<5.0
Tertiary butyl alcohol (TBA)	ug/l	ND<25

### Notes:

\* = estimated flow volume based on run time

NTU = nephelometric turbidity units

mg/l = milligrams per liter

ug/l = micrograms per liter

ml/l/hr = milliliter per liter per hour

EFH = extractable fuel hydrocarbons by Method 8015

GRO = gasoline range organics by Method 8015

TRPH = total recoverable petroleum hydrocarbons by Method 418.1

ND < = Non Detect analyte was not detected above the Laboratory Method Detection

Limit (MDL). The MDL is the value shown

DNQ = Detected, but not quantified

### THE BOEING COMPANY - ROCKETDYNE SANTA SUSANA FIELD LAB NPDES PERMIT CA0001309 OUTFALL - 012

### ALFA TEST STAND 1 SEPTEMBER 2004 - 30 SEPTEMBER 2004

				SAMPLE DA	ГE	
ANALYTE	UNITS	9/2/2004	9/9/2004	9/15/2004	9/24/2004	9/29/2004
MISC						
Temperature	°F	90.9	85.5	85.2	81.5	81.9
Flow (volume discharged)	gallons	55,000*	55,000*	55,000*	55,000*	55,000*
Ammonia-N	mg/l	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Biochemical Oxygen Demand (BOD 5 day)	mg/l	2.7	1.6 DNQ	2.5	2.8	1.8 DNQ
Oil & Grease	mg/l	4.8 DNQ	<5.0	1.8 DNQ	< 5.0	0.95 DNQ
pН	pH Units	8.28	8.03	7.99	8.09	8.27 J (h)
Total Dissolved Solids	mg/l	340	330	310	330	350
Total Settleable Solids	ml/l/hr	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
Total Suspended Solids	mg/l	14	20	17	120	20
Turbidity	NTU	29	39	35	27	25
PERCHLORATE						
Perchlorate	ug/l	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
SEMI VOLATILES						
Naphthalene	ug/l	37.8	18.4 J (s)	32.3	20.9	28.4
N-Nitrosodimethylamine (NDMA)	ug/l	ND<20.0	ND<19 R (s)	ND<20.0	ND<20.0	ND<20.0
ТРН						
EFH (C13 - C22)	mg/l	2.2	0.97	1.2	1.0	1.1
GRO (C4 - C12)	mg/l	0.70	0.20	0.90	0.28	1.2
TRPH	mg/l	10	1.4	5.9	5.1	5.0
VOLATILES						
1,2,3-Trichloropropane	ug/l	ND<10	ND<10	ND<10	ND<10	ND<10
Ethylene dibromide (EDB)	ug/l	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,4-Dioxane	ug/l	1.6	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Di-isopropyl ether (DIPE)	ug/l	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Methyl tertiary butyl ether (MTBE)	ug/l	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Tertiary butyl alcohol (TBA)	ug/l	ND<25	ND<25	ND<25	ND<25	ND<25

### Notes:

\* = estimated flow volume based on run time

NTU = nephelometric turbidity units

mg/l = milligrams per liter

ug/l = micrograms per liter

ml/l/hr = milliliter per liter per hour

EFH = extractable fuel hydrocarbons by Method 8015

GRO = gasoline range organics by Method 8015

TRPH = total recoverable petroleum hydrocarbons by Method 418.1

J = estimated value

ND< = Non Detect analyte was not detected above the Laboratory Method Detection Limit (MDL). The MDL is the value shown

R = sample results are rejected. The presence or absence of the analyte cannot be verified.

DNQ = Detected, but not quantified

(s) = qualifier due to surrogates phenol-d6 and p-terphenol-d14 recovery below 10%

(h) = qualifier due to holding time exceedance of 24 hours

### APPENDIX D ANALYTICAL LABORATORY REPORTS AND CHAIN-OF-CUSTODY



### DATA VALIDATION REPORT

### **NPDES Monitoring**

**ANALYSIS: VOLATILES** 

SAMPLE DELIVERY GROUP: INH1290

Prepared by

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

Revision 1

### 1. INTRODUCTION

Task Order Title:

**NPDES Monitoring** 

Contract Task Order #:

313150011

SDG#:

INH1290

Project Manager:

B. McIlvaine

Matrix:

Water

Analysis:

Volatiles

QC Level:

Level IV

1

No. of Samples:

No. of Reanalyses/Dilutions: 0

Reviewer:

K. Shadowlight

Date of Review:

October 4, 2004

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) 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 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:
DATA VALIDATION REPORT
Analysis:

### Table 1. Sample identification

NPDES INH1290 VOC

Client ID	EPA ID	Lab No.	Matrix	Method
Outfall 012	Outfall 012	INH1290-1	water	8260B/SIM

 Project:
 NPDES

 SDG:
 INH1290

 DATA VALIDATION REPORT
 Analysis:
 VOC

### 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 sample in this SDG was received at both laboratories within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . No sample receipt information was recorded on the COC, however, laboratory sample receipt checklists from both laboratories (see below) noted that the sample was received intact and without headspace. No qualifications were required.

### 2.1.2 Chain of Custody

The COCs were signed by field and laboratory personnel and accounted for the analyses presented in this SDG. The 8260 analysis was subcontracted to Del Mar Analytical in Phoenix Arizona. The transfer COC was signed and dated by the appropriate laboratory personnel. There was no information regarding custody seals on the cooler. No qualifications were required.

### 2.1.3 Holding Times

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

### 2.2 GC/MS TUNING

The ion abundance windows shown on the quantitation report were consistent with those specified in the EPA Method 8260B. All ion abundances were within the established windows and were therefore acceptable. The sample 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

One initial calibration, dated 08/29/04, was associated with this SDG. The average RRF for 1,4-dioxane was  $\geq 0.05$  and the %RSD was  $\leq 15\%$ . One continuing calibration, dated 08/31/04, was associated with this SDG. The RRF for 1,4-dioxane was  $\geq 0.05$  and the %D was  $\leq 20\%$ .

The %RSD and average RRF for 1,4-dioxane in the initial calibration, and the %D and RRF for 1,4-dioxane in the continuing calibration were recalculated from the raw data, and no calculation or transcription errors were found. No qualifications were required.

Project: SDG:

**NPDES** INH1290 VOC

### DATA VALIDATION REPORT

Analysis:

### 2.4 BLANKS

One water method blank was associated with this SDG. Target compound 1,4-dioxane was not reported in the method blank. The method blank raw data showed no evidence of a false negative. No qualifications were required.

### 2.5 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

One water blank spike was associated with this SDG. The laboratory analyzed a blank spike/blank spike duplicate pair with this SDG; however, the blank spike was also used as the continuing calibration verification standard (CCV). As a single analysis cannot be reported as both a CCV and an LCS, the reviewer chose to report the blank spike analysis as the CCV, and the blank spike duplicate analysis was treated as a single LCS. The recovery was recalculated from the raw data and no calculation or transcription errors were found. No qualifications were required.

### 2.6 SURROGATE RECOVERY

The sample and QC were fortified with dibromofluoromethane. The surrogate was within the laboratory QC limits of 80-135%. The surrogate recovery for this sample was recalculated from the raw data and no calculation or transcription errors were found. No qualifications were required.

### 2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were not performed for this SDG. 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

There was not a trip blank associated with this SDG. 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. Field duplicate samples are required at a rate of 10% per matrix for site samples only and may not be present in every data package. No qualifications were required.

Project: NPDES SDG: INH1290

DATA VALIDATION REPORT Analysis: VOC

### 2.9 INTERNAL STANDARDS PERFORMANCE

Internal standard area counts and retention times for this SDG were within the control limits established by the continuing calibration standards, of +100%/-50% for internal standard areas and  $\pm0.50$  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 target compound 1,4-dioxane by SW-846 Method 8260B using the single ion monitoring mode (SIM). Chromatograms, retention times, and spectra for the sample 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 undated MDL supplied by the laboratory. As 1,4-dioxane was not detected in the sample, compound quantitation was verified by recalculating blank spike and surrogate recoveries from the raw data. 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.



17461Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-329 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-104 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-968 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-085 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-362

WH-Pasadena/Boeing

ر North Lake Avenue, Suite 1200

Pasadena, CA 91101

Analyte

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Sampled: 08/21/04 Received: 08/21/04

Report Number: INH1290

DRAFT: 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

MDL Reporting Sample Dilution Date Batch Limit Limit Result Factor Extracted

Date Data Analyzed Qualifiers

Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) - cont.

Reporting Units: ug/l

1,4-Dioxane

Surrogate: Dibromofluoromethane (80-135%)

**EPA 8260B** 

Method

P4H3105 0.49

1.0

ND 104%

**LKAFT REPORT** DRAFT REPORT DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80226 303.935.6505, Fax 303.935.6575

### **DATA ASSESSMENT FORM**

<u>Project Title:</u> NPDES Monitoring <u>Project Manager:</u> B. McIlvaine

Analysis/Method: Volatiles by Method 624

QC Level: V<sup>1</sup>

SDG: INH1290 Matrix: Water

No. of Samples: 2
No. of Reanalyses/Dilutions: 0

Date Reviewed: October 3, 2004
Reviewer: K. Shadowlight

Reviewer: K. Shadowlight
Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012, Trip Blank

### **Data Validation Findings**

	Findings	Qualifications
1. Sample Management	The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding the custody seals on the coolers.  The samples were analyzed within 14 days of sample collection.	No qualifications were required.
4. Method Blanks	Two method blanks were analyzed with this SDG. There were no target compounds reported in either of the method blanks.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike/blank spike duplicate pair and one blank spike were analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits for the blank spikes and the RPDs were within QC limits for the blank spike/blank spike duplicate pair.	No qualifications were required.
6. <u>Surrogates</u>	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.

Project: NPDES SDG: INH1290 Analysis: VOC

	Findings	Qualifications
7. MS/MSDs Outfall 012	Sample Outfall 012 was analyzed as the MS/MSD pair for this SDG. The recoveries and RPDs for the target compounds were within the laboratory QC limits.	None.
8. Field QC Samples  TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. Other	No TICs were reported by the laboratory for the samples in this SDG.	None.
Comments	None	None.

 $<sup>^{1}</sup>$  Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-329: 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1044 (948) 484 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) 785-085 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-362

fWH-Pasadena/Boeing

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

### DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		n Date Extracted	•	Data ed Qualifiers
Sample ID: INH1290-01 (DRAF Reporting Units: ug/l	T: Outfall 012 - W	ater)	•						Rual Pun
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4H31009	0.32	2.0	ND	1	08/31/04	08/31/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4H31009	0.32	5.0	ND	1	08/31/04	08/31/04	and the same
1,2,3-Trichloropropane	EPA 624 MOD.	4H31009	0.85	10	ND	1	08/31/04	08/31/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4H31009	0.25	5.0	ND	1	08/31/04	08/31/04	
tert-Butanol (TBA)	EPA 624 MOD.	4H31009	3.1	25	ND	1	08/31/04	08/31/04	1
Surrogate: Dibromofluoromethane	e (80-120%)				98 %				g g
Surrogate: Toluene-d8 (80-120%)					103 %				
Surrogate: 4-Bromofluorobenzene	(80-120%)				103 %				/)
Sample ID: INH1290-02 (DRAF) Reporting Units: ug/l	Γ: Trip Blank - W	ater)						!	Qual Vug
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4103020	0.32	2.0	ND	1	09/03/04	09/03/04	(A
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4103020	0.32	5.0	ND	1	09/03/04	09/03/04	1
1,2,3-Trichloropropane	EPA 624 MOD.	4103020	0.85	10	ND	1	09/03/04	09/03/04	and the second s
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4103020	0.25	5.0	ND	1	09/03/04	09/03/04	
Butanol (TBA)	EPA 624 MOD.	4103020	3.1	25	ND	1	09/03/04	09/03/04	<b>4</b>
surrogate: Dibromofluoromethane	(80-120%)				99 %				-
Surrogate: Toluene-d8 (80-120%)					101 %				4500
Surrogate: 4-Bromofluorobenzene	(80-120%)				95 %				





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### **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M

QC Level: V<sup>1</sup>

SDG: INH1290 Matrix: Water

No. of Samples: 1 Dilutions/Reanalyses: 0

<u>Date Reviewed</u>: October 3, 2004 <u>Reviewer</u>: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012

### **Data Validation Findings**

	Findings	Qualifications
1. Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.  According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.	No qualifications were required.
3. Method Blanks	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was <25%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.

Project: NPDES SDG: INH1290 Analysis: EFH

	Findings	Qualifications
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. Field QC Samples  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. Other	The laboratory analyzed for n-alkane range C13-C22.  The sample was analyzed at a 4× dilution in order to report target compound EFH (C13-C22) within linear range of the calibration. The sample result and reporting limit were appropriately adjusted for the dilution.	No qualifications were required.
Comments	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None.

Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

Attention: Brownwyn Kelly

DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

MDL Reporting Sample Dilution Date Data

Method Batch Limit Limit Result Factor Extracted Analyzed Qualifiers

Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) - cont.

Reporting Units: mg/l

Analyte

EFH (C13 - C22) EPA 8015B 4H24061 0.33 2.0 4.5 3.88 08/24/04 08/26/04

Surrogate: n-Octacosane (45-125%) 91 %



DRAFT REPORT
DATA SUBJECT TO CHANGE



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### DATA ASSESSMENT FORM

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M

QC Level: V1

SDG: INH1290

Matrix: Water

No. of Samples: 2

Dilutions/Reanalyses: 0

<u>Date Reviewed</u>: October 3, 2004

Reviewer: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012, Trip Blank

### **Data Validation Findings**

	Findings	Qualifications
1. Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.  According to the sample result summary forms, the samples were analyzed within 14 days of collection.	No qualifications were required.
3. Method Blanks	One water method blank was analyzed with this SDG. Target compound GRO (C8-C12) was not reported in the method blank.	No qualifications were required.
4. LCS/BS	One water blank spike was analyzed with this SDG. The recovery of GRO (C4-C12) was within the laboratory QC limits of 70-135%.	No qualifications were required.
5. Surrogates	The surrogate recovery for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.

Project: NPDES SDG: INH1290 Analysis: EFH

	Findings	Qualifications
7. Field QC Samples  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. Other	The laboratory analyzed for gasoline range organics (C4-C12).  Sample Outfall 012 was analyzed at a 10× dilution in order to report target compound GRO (C4-C12) within linear range of the calibration. The sample result and reporting limit were appropriately adjusted for the dilution.	No qualifications were required.
Comments	A cursory review of the sample chromatograms and quantitation reports were performed by the reviewer.	None.

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		n Date Extracted	Date Analyzed	Data   Qualifiers
Sample ID: INH1290-01 (DRAF Reporting Units: ug/l	•	ater) - con 4H30005		1000	1500	10	08/20/04	08/20/04	
GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%	EPA 8015 Mod.	4030003	500	1000	1 <b>500</b> 90 %	10	08/30/04	08/30/04	
Sample ID: INH1290-02 (DRAF Reporting Units: ug/l	Γ: Trip Blank - W	ater)							Objects and Automorphisms
GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%	EPA 8015 Mod.	4H30005	50	100	ND 94 %	1	08/30/04	08/30/04	4







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### DATA ASSESSMENT FORM

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Semivolatiles by EPA Method 625

QC Level: V

<u>SDG</u>: INH1290

Matrix: Water

No. of Samples: 1
No. of Reanalyses/Dilutions: 0

Date Reviewed: October 3, 2004

Reviewer: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012

### **Data Validation Findings**

	Findings	Qualifications
1. Sample Management	The COC was signed by both the field and laboratory personnel. No sample receipt information was recorded on the COC; however, a laboratory sample receipt checklist noted that the sample containers were received intact and that custody seals were not present on the cooler. The cooler temperature was recorded at 6°C, within the temperature limits of 4 ±2°C.  According to the extraction and analysis dates on the sample result form, the sample was extracted within seven days of sample collection and analyzed within 40 days of extraction.	No qualifications were required.
4. Method Blanks	One water method blank were extracted and analyzed with this SDG. NDMA and naphthalene were not reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One water LCS/LCSD pair was extracted and analyzed with this SDG. The recoveries and RPDs for target compounds NDMA and naphthalene were within the laboratory QC limits.	No qualifications were required.

Project: NPDES SDG: INH1290 Analysis: SVOA

	Findings	Qualifications
6. Surrogates	The surrogate recoveries were within the laboratory QC limits.	No qualifications were required.
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG. Evaluation of method accuracy and precision was based on the blank spike/blank spike duplicate results.	No qualifications were required.
8. Field QC Samples ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	No qualifications were required.
9. Other	The water sample results were adjusted for sample volume.  TICs were not reported by the laboratory for this SDG.	No qualifications were required.
Comments	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None

Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

Project ID: Alfa Outfall 012 - During Test dena/Boeing

ake Avenue, Suite 1200 CA 91101

Brownwyn Kelly

Sampled: 08/21/04 Received: 08/21/04 Report Number: INH1290

						•	•			
	Method	Batch	MDL Limit	Reporting Limit	Sample Result			Date Analyzed	Dai I Qualit	
	FT: Outfall 012 - V	Water)						N.	ua\	Ru
	EPA 625	4H24040	4.5	10	73	0.971	08/24/04	08/31/04	The state of the s	
ethylamine	EPA 625	4H24040	3.7	20	ND	0.971	08/24/04	08/31/04	(L	San
	(20%)				62 %					Carrier Carrier
<del>-</del>					68 %					de .
4,6-Tribromopheno	l (50-125%)	•			101 %					
					83 %					
Fluorobiphenyl (45	i-120%)				<i>78 %</i>					
					118%					
	ng Units: ug/l  nethylamine  Fluorophenol (35-1  henol-d6 (45-120%)  4,6-Tribromopheno  itrobenzene-d5 (45-  Fluorobiphenyl (45	INH1290-01 (DRAFT: Outfall 012 - Variety of the control of the con	INH1290-01 (DRAFT: Outfall 012 - Water)  INH1290-01 (DRAFT: Outfall 012 - Water)  EPA 625 4H24040  EPA 625 4H24040  Fluorophenol (35-120%)  henol-d6 (45-120%)  4,6-Tribromophenol (50-125%)  itrobenzene-d5 (45-120%)  Fluorobiphenyl (45-120%)	Method Batch Limit  INH1290-01 (DRAFT: Outfall 012 - Water)  ng Units: ug/l  EPA 625 4H24040 4.5  nethylamine EPA 625 4H24040 3.7  —Fluorophenol (35-120%)  henol-d6 (45-120%)  4,6-Tribromophenol (50-125%)  itrobenzene-d5 (45-120%)  —Fluorobiphenyl (45-120%)	Method Batch Limit Limit  INH1290-01 (DRAFT: Outfall 012 - Water)  INH1290-01 (DRAFT: Outfall 012 - Water)  INH1290-01 (DRAFT: Outfall 012 - Water)  EPA 625 4H24040 4.5 10  Inethylamine EPA 625 4H24040 3.7 20  Inethylamine EPA 625 4H	Method         Batch         Limit         Limit         Result           INH1290-01 (DRAFT: Outfall 012 - Water)           Ing Units: ug/l         EPA 625         4H24040         4.5         10         73           Inethylamine         EPA 625         4H24040         3.7         20         ND           Inethylamine         EPA 625         4H24040         3.7         20         ND           Inethylamine         Fluorophenol (35-120%)         62 %         68 %           Inethylamine         62 %         68 %     <	Method         Batch         Limit         Result         Factor           INH1290-01 (DRAFT: Outfall 012 - Water)	Method   Batch   Limit   Limit   Result   Factor Extracted	Method   Batch Limit Limit   Result   Factor Extracted   Analyzed	Method   Batch Limit Limit   Result   Factor Extracted   Analyzed Quality







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# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M

QC Level:  $V^1$ 

SDG: INH1290

Matrix: Water

No. of Samples:

1 Dilutions/Reanalyses: 0

Date Reviewed: October 3, 2004

Reviewer: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012

		Findings	Qualifications
1.	Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.  According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.	No qualifications were required.
3.	Method Blanks	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4.	LCS/BS	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was <25%.	No qualifications were required.
5.	Surrogates	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.

Project: NPDES SDG: INH1290 Analysis: EFH

	Findings	Qualifications
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. Field QC Samples  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. Other	The laboratory analyzed for n-alkane range C13-C22.  The sample was analyzed at a 4× dilution in order to report target compound EFH (C13-C22) within linear range of the calibration. The sample result and reporting limit were appropriately adjusted for the dilution.	No qualifications were required.
Comments	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None.

 $<sup>^{1}</sup>$  Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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/IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Surrogate: 2-Fluorophenol (35-120%)

Surrogate: Nitrobenzene-d5 (45-120%) Surrogate: 2-Fluorobiphenyl (45-120%)

Surrogate: Terphenyl-d14 (45-135%)

Surrogate: 2,4,6-Tribromophenol (50-125%)

Surrogate: Phenol-d6 (45-120%)

Attention: Brownwyn Kelly

Sampled: 08/21/04

Received: 08/21/04 Report Number: INH1290

62 %

68 %

101% 83 %

78% 118%

DRAFT: ACID & BASE/NEUTRALS BY GC/MS (EPA 625)										
Analyte	Method	Batch	MDL Limit	Reporting Limit	-		Date Extracted	Date Analyzed	Dat Quali	
Sample ID: INH1290-01 (DR. Reporting Units: ug/l	AFT: Outfall 012 - V	Vater)						R	ua\	Rus
Naphthalene	EPA 625	4H24040	4.5	10	73	0.971	08/24/04	08/31/04		
N-Nitrosodimethylamine	EPA 625	4H24040	3.7	20	ND	0.971	08/24/04	08/31/04	W	TANK Edit



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IWH-Pasadena/Boeing

500 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Sampled: 08/21/04 Report Number: INH1290 Received: 08/21/04

# DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

			MDL	Reporting	-	Dilution		Date	Data	
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	•	ed Qualifiers	
Sample ID: INH1290-01 (DRAF) Reporting Units: ug/l	Г: Outfall 012 - W	ater)	•						Rual Pu	ea O
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4H31009	0.32	2.0	ND	1	08/31/04	08/31/04	u l	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4H31009	0.32	5.0	ND	1	08/31/04	08/31/04		
1,2,3-Trichloropropane	EPA 624 MOD.	4H31009	0.85	10	ND	1	08/31/04	08/31/04	100	
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4H31009	0.25	5.0	ND	1	08/31/04	08/31/04	Picture Colonia	
tert-Butanol (TBA)	EPA 624 MOD.	4H31009	3.1	25	ND	1	08/31/04	08/31/04	4	
Surrogate: Dibromofluoromethane	: (80-120%)				98 %				and the second	
Surrogate: Toluene-d8 (80-120%)					103 %					
Surrogate: 4-Bromofluorobenzene	(80-120%)				103 %				12. 17	
Sample ID: INH1290-02 (DRAF) Reporting Units: ug/l	Γ: Trip Blank - W	ater)							Dual VU	0
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4103020	0.32	2.0	ND	1	09/03/04	09/03/04	L	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4103020	0.32	5.0	ND	1	09/03/04	09/03/04		
1,2,3-Trichloropropane	EPA 624 MOD.	4103020	0.85	10	ND	1	09/03/04	09/03/04	and the state of t	
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4103020	0.25	5.0	ND	1	09/03/04	09/03/04	Telephone September 1	
Butanol (TBA)	EPA 624 MOD.	4103020	3.1	25	ND	1	09/03/04	09/03/04	*	
warrogate: Dibromofluoromethane	(80-120%)				99 %				e e e e e e e e e e e e e e e e e e e	
Surrogate: Toluene-d8 (80-120%)	•				101 %				and a	
Surrogate: 4-Bromofluorobenzene	(80-120%)				95 %					



Project: NPDES SDG: INH1290 Analysis: Gen. Min.

	Findings	Qualifications
5. LCS/BS	All recoveries were within the laboratory- established control limits. The LCS is not applicable to total settleable solids or pH.	No qualifications were required.
	No LCS for turbidity was listed; however, the reviewer checked the raw data to confirm that a calibration check sample had been analyzed.	
6. <u>Duplicates</u> None	None	Not applicable
7. MS/MSDs None	None	Not applicable
10. Other	Oil and grease reported below the reporting limit was qualified by the laboratory as "J."	Oil and grease was qualified as estimated, "J."
11. Field QC Samples None	None	Not applicable
Comments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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#### DATA ASSESSMENT FORM

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: General Minerals

QC Level: V1

SDG: INH1290

Matrix: Water

No. of Samples: 1

Date Reviewed: September 30, 2004

Reviewer: P. Meeks

Reference: USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94), EPA Methods 150.1, 160.2, 160.5, 180.1, 350.2,

405.1, 413.1, 418.1, and SM2540C

Samples Reviewed: Outfall 012

·	Findings	Qualifications
1. Sample Management	The sample was received within the temperature limits of 4°±2°C. The COC accounted for the sample and analyses presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day analytical holding time for ammonia, total recoverable hydrocarbons, and oil and grease, the seven-day holding time for total suspended solids and total dissolved solids, the 48-hour holding time for biological oxygen demand, turbidity, and total settleable solids, and the 24-hour holding time for pH were met.	No qualifications were required.
3. Method Blanks	No detects were reported in any of the method blanks. The method blank is not applicable to total settleable solids or pH.	No qualifications were required.



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

∠00 North Lake Avenue, Suite 1200

Attention: Brownwyn Kelly

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

# DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

MDL Reporting Sample Dilution Date Analyte Method Batch Limit Limit Result Factor Extracted Analyzed Qualifiers Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) Reporting Units: mg/l **Total Recoverable Hydrocarbons** 1.0 08/25/04 08/25/04 EPA 418.1 4H25069 0.31 12

DRAFT REPORT DRAFT REPORT DATA SUBJECT TO CHANGE



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TWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

J00 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Brownwyn Kelly

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

DR	AFT:	INO	RGA	NICS
				****

Analyte	Method	Batch	MDL Limit	Reporting Limit	-		n Date Extracted	Date Analyz		)ata alifi	-
Sample ID: INH1290-01 (DRAFT Reporting Units: mg/l	: Outfall 012 - V	Vater) - con	t.						Rev Qual		Qual Code
Ammonia-N (Distilled)	EPA 350.2	4H30095	0.30	0.50	0.84	1	08/30/04	08/30/04			
Biochemical Oxygen Demand	EPA 405.1	4H21041	0.59	2.0	6.0	1	08/21/04	08/26/04			
Oil & Grease	EPA 413.1	4H24051	0.94	5.0	2.1	1	08/24/04	08/24/04	$\mathcal{I}$	J	
Total Dissolved Solids	SM2540C	4H24094	10	10	400	1	08/24/04	08/24/04			
Total Suspended Solids	EPA 160.2	4H23056	10	10	24	1	08/23/04	08/23/04			
Sample ID: INH1290-01 (DRAFT Reporting Units: ml/l/hr Total Settleable Solids	EPA 160.5	<b>Vater)</b> 4H21059	0.10	0.10	ND	. 1	08/21/04	08/21/04	U	er den skylmingen beginningen bestellt.	
Sample ID: INH1290-01 (DRAFT Reporting Units: NTU	: Outfall 012 - V	Vater)									
Turbidity	EPA 180.1	4H21051	0.20	1.0	38	1	08/21/04	08/21/04			
Sample ID: INH1290-01 (DRAFT Reporting Units: pH Units	: Outfall 012 - V	Vater) 4H21049	N/A	NA	7.96	1	08/21/04	08/21/04			
			14/21	, 2122	7.50	•	00/21/01	00/21/01			
Sample ID: INH1290-01 (DRAFT Reporting Units: ug/l	: Outfall 012 - V	Vater)									
Perchlorate	EPA 314.0	4H23025	0.80	4.0	ND	1	08/23/04	08/24/04	*		
				,		,				1	

\* Analysis not validated

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#### DATA ASSESSMENT FORM

Project Title: NPDES Monitoring
Project Manager: B. McIlvaine

Analysis/Method: Perchlorate by 314.0

QC Level: V1

SDG: INH1290 Matrix: Water No. of Samples: 1

Date Reviewed: September 30, 2004

Reviewer: P. Meeks

Reference: USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94)

Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The sample was received within the temperature limits of 4°±2°C. The COC accounted for the sample and analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day perchlorate analytical holding time was met.	No qualifications were required.
3. Method Blanks	Perchlorate was not detected in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u> None	None	Not applicable
7. MS/MSDs None	None	Not applicable
10. <u>Other</u>	None	Not applicable
11. Field QC Samples None	None	Not applicable
Comments	A cursory review of the perchlorate chromatograms was performed and no false negative was noted.	Not applicable

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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TWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Brownwyn Kelly

Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

		חם א בייו	r. TNIC	DRGANIC	~c					
		DIAL								
				Reporting	-			Date		
Analyte	Method	Batch	Limit	Limit	Result	Factor	rExtracted	Analyz	ed Quali	fiers
Sample ID: INH1290-01 (DRAFT: Reporting Units: mg/l	Outfall 012 - V	Water) - con	t.						هما	Code
Ammonia-N (Distilled)	EPA 350.2	4H30095	0.30	0.50	0.84	1	08/30/04	08/30/04	*	
Biochemical Oxygen Demand	EPA 405.1	4H21041	0.59	2.0	6.0	1		08/26/04	3	
Oil & Grease	EPA 413.1	4H24051	0.94	5.0	2.1	1	08/24/04	08/24/04	l j	r
Total Dissolved Solids	SM2540C	4H24094	10	10	400	1	08/24/04	08/24/04		
Total Suspended Solids	EPA 160.2	4H23056	10	10	24	1	08/23/04	08/23/04		
Sample ID: INH1290-01 (DRAFT: Reporting Units: ml/l/hr Total Settleable Solids	Outfall 012 - V	<b>Water)</b> 4H21059	0.10	0.10	ND	1	08/21/04	08/21/04		
Sample ID: INH1290-01 (DRAFT: Reporting Units: NTU	Outfall 012 - V	Vater)								
Turbidity	EPA 180.1	4H21051	0.20	1.0	38	1	08/21/04	08/21/04		
Sample ID: INH1290-01 (DRAFT: Reporting Units: pH Units	Outfall 012 - V	Vater)								
	EPA 150.1	4H21049	N/A	NA	7.96	1	08/21/04	08/21/04	$\downarrow$	
Sample ID: INH1290-01 (DRAFT: Reporting Units: ug/l	Outfall 012 - V	Vater)							•	
Perchlorate	EPA 314.0	4H23025	0.80	4.0	ND	1	08/23/04	08/24/04	U	

\* Analysis not validated





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# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: 1,4-Dioxane by Method 8260B SIM

QC Level: V1

SDG: INI0174 Matrix: Water

No. of Samples: 1
No. of Reanalyses/Dilutions: 0

Date Reviewed: November 2, 2004

Reviewer: K. Shadowlight
Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The 1,4-dioxane analysis was subcontracted to Del Mar Analytical in Phoenix. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. According to the case narrative for this SDG, the sample was received intact, and the cooler temperature was above the temperature limits of 4 ±2°C, at 9°C at Del Mar Analytical; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The cooler was received within the temperature limits at Del Mar in Phoenix. There was no information regarding the custody seals on the cooler.  The sample was analyzed within 14 days of sample collection.	No qualifications were required.
4. Method Blanks	One method blank was analyzed with this SDG. 1,4-Dioxane was not reported in the method blank.	No qualifications were required.

Project: NPDES SDG: INI0174 Analysis: VOC

	Findings	Qualifications
5. LCS/BS	One blank spike/ blank spike duplicate pair was analyzed with this SDG. The recoveries and RPD for 1,4-dioxane were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate was recovered within the laboratory QC limits.	No qualifications were required.
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG.	None.
8. Field QC Samples  TB: None ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	None.
9. Other	No TICs were reported by the laboratory for this SDG.	None.
Comments	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None.

 $<sup>^{1}</sup>$  Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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Del Mar Analytical - Irvine

Attention: Michele Harper

17461 Derian Ave. Suite 100

Irvine, CA 92614

Project ID: INI0174

Report Number: PNI0133

Sampled: 09/02/04

Received: 09/04/04

#### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data	
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifier	·s
Sample ID: PN10133-01 (IN10174-01 Reporting Units: ug/l	- Water)							fe G	m/	Rygli
1,4-Dioxane Surrogate: Dibromofluoromethane (80-1)	EPA 8260B	P410706	0.49	1.0	1.6 102 %	1	09/07/04	09/07/04		
Surrogate. Dioromojiaoromethane (00-1	3370)				102 70				j	





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# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Volatiles by Method 624

OC Level: V1

SDG: INI0174 Matrix: Water

No. of Samples: 2

No. of Reanalyses/Dilutions: 0

<u>Date Reviewed</u>: November 3, 2004 <u>Reviewer</u>: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012, Trip Blank

	Findings	Qualifications
1. Sample Management	The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact. The cooler temperature was above the temperature limits of 4°C ±2°C, at 9°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. There was no information regarding custody seals on the cooler.  The samples were analyzed within 14 days of sample collection.	No qualifications were required.
4. Method Blanks	One method blank was analyzed with this SDG. There were no target compounds reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike was analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.

Project: NPDES SDG: INI0174 Analysis: VOC

	Findings	Qualifications
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG.	None.
8. Field QC Samples  TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. Other	No TICs were reported by the laboratory for the samples in this SDG.	None.
Comments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

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MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0174

Sampled: 09/02/04 Received: 09/02/04

Attention: Bronwyn Kelly

# DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	n Date Extracted	Date Analyze	Data d Qualifiers	
Sample ID: INI0174-01 (DRAFT Reporting Units: ug/l	: Outfall 012 - Wa	iter)			Samj	pled: 09	/02/04	(	Qual /	
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I13030	0.32	2.0	ND	1	09/13/04	09/14/04	( WI )	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I13030	0.32	5.0	ND	1		09/14/04		ï
1,2,3-Trichloropropane	EPA 624 MOD	4I13030	0.85	10	ND	1	09/13/04	09/14/04	1 1 1 1	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4113030	0.25	5.0	ND	1	09/13/04	09/14/04	1   1	l
tert-Butanol (TBA)	EPA 624 MOD	4113030	3.1	25	ND	1	09/13/04	09/14/04		l
Surrogate: Dibromofluoromethane	(80-120%)				84 %				V V	/
Surrogate: Toluene-d8 (80-120%)					104 %				l	
Surrogate: 4-Bromofluorobenzene	(80-120%)				98 %					
Sample ID: INI0174-02 (DRAFT: Trip Blank - Water)					Samp	oled: 09	/02/04			
Reporting Units: ug/l 1,2-Dibromoethane (EDB)	EPA 624 MOD	4113017	0.32	2.0	NID	1	00/12/04	00/12/04	u	
Methyl-tert-butyl Ether (MTBE)				2.0	ND	1		09/13/04	4	
, ,	EPA 624 MOD	4113017	0.32	5.0	ND	1		09/13/04		
1,2,3-Trichloropropane	EPA 624 MOD	4113017	0.85	10	ND	i		09/13/04		
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4]13017	0.25	5.0	ND	1		09/13/04		
tert-Butanol (TBA)	EPA 624 MOD	4113017	3.1	25	ND	1	09/13/04	09/13/04	V	
rrogate: Dibromofluoromethane	(80-120%)				106 %				Į.	
rrogate: Toluene-d8 (80-120%)	(0.0 1.4.0.4)				100 %				'	
Surrogate: 4-Bromofluorobenzene	(80-120%)				94 %					

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# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Semivolatiles by EPA Method 625

QC Level: V1

SDG: INI0174 Matrix: Water

No. of Samples: 1

No. of Reanalyses/Dilutions: 0

<u>Date Reviewed</u>: November 3, 2004 <u>Reviewer</u>: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

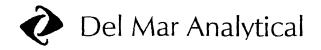
Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The semivolatiles were subcontracted to Star Analytical. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. No sample receipt information was recorded on the COC; however, the transfer COC noted that the sample containers were received intact and that custody seals were present on the cooler. The cooler temperature was above the temperature limits of $4 \pm 2^{\circ}$ C, at 9°C at Del Mar Analytical; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The cooler was received within the temperature limits at Star Analytical.  According to the extraction and analysis dates on the sample result form, the sample was extracted within seven days of sample collection and analyzed within 40 days of extraction.	No qualifications were required.
4. Method Blanks	One water method blank was extracted and analyzed with this SDG. NDMA and naphthalene were not reported in the method blank.	No qualifications were required.

Project: NPDES SDG: INI0174 Analysis: SVOA

		T
	Findings	Qualifications
5. <u>LCS/BS</u>	One water LCS/LCSD pair was extracted and analyzed with this SDG. The recoveries and RPDs for target compounds NDMA and naphthalene were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	Two of the three acid surrogate recoveries were below QC limits; however, only the base neutral (BN) surrogates are evaluated for these target compounds. The BN surrogate recoveries were within the laboratory QC limits.	No qualifications were required.
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG. Evaluation of method accuracy and precision was based on the blank spike/blank spike duplicate results.	No qualifications were required.
8. Field QC Samples ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	No qualifications were required.
9. Other	TICs were not reported by the laboratory for this SDG.	No qualifications were required.
Comments	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/02/04 Received: 09/02/04 Report Number: INI0174

Attention: Bronwyn Kelly

# DRAFT: Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyze	Dated Qualit	
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water) - cont. Reporting Units: ug/L				Samp	oled: 09/	02/04	_	PM 1	Vua ba	
Naphthalene	EPA 625	V410802	1.31	10.0	37.8	1	09/07/04	09/16/04		1
N-Nitrosodimethylamine	EPA 625	V4I0802	1.37	20.0	ND	1	09/07/04	09/16/04	U	)
Surrogate: 2-FP (40.8-88.4%)					36.2 %				S-0	)4
Surrogate: Phenol-d6 (31.7-86.6%	6)				35.7%					
Surrogate: 2,4,6-TBP (58-109%)					50.0 %				S-C	)4
Surrogate: Nitrobenzene-d5 (47.1-	-99.2%)				79.6%					
Surrogate: 2-FBP (44.7-89.6%)					74.2 %					
Surrogate: p-Terphenyl-d14 (45.7	-117%)				91.7%					



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#### **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M

QC Level: V1

SDG: INI0174 Matrix: Water

No. of Samples: 1
Dilutions/Reanalyses: 0

<u>Date Reviewed</u>: November 2, 2004

Reviewer: M. Pokorny

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012 (INI0174-01)

	Findings	Qualifications
1. Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature above the limits of 4°C ± 2°C at 9°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. No custody seal information was provided by the laboratory.  According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.	No qualifications were required.
3. Method Blanks	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. LCS/BS	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was ≤25%.	No qualifications were required.

Project: NPDES SDG: INI0174 Analysis: EFH

	Findings	Qualifications
5. Surrogates	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. Field QC Samples  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. Other	The laboratory analyzed for n-alkane range C13-C22.	No qualifications were required.
Comments	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

Attention: Bronwyn Kelly

#### DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	-		Date Extracted	Date Analyzed	Data Qualifiers ZE	,R <i>e</i> asci
Sample ID: INI0174-01 (DRAFT: C Reporting Units: mg/l	Outfall 012 - Wa	ater) - cont	•		Samj	pled: 09/	02/04		QUAL	C 00) E
EFH (C13 - C22) Surrogate: n-Octacosane (45-125%)	EPA 8015B	4103069	0.082	0.50	2.2 73 %	0.952	09/03/04	09/10/04		

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# **DATA ASSESSMENT FORM**

<u>Project Title</u>: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M

OC Level: V1

SDG: INI0174

Matrix: Water

No. of Samples: 2

Dilutions/Reanalyses: 0

Date Reviewed: November 2, 2004

Reviewer: M. Pokorny

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012 (INI0174-01), Trip Blank (INI0174-02)

	Findings	Qualifications
1. Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature above the limits of 4°C ± 2°C at 9°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. No custody seal information was provided by the laboratory.  According to the sample result summary forms, the samples were analyzed within 14 days of collection.	No qualifications were required.
3. Method Blanks	One water method blank was analyzed with this SDG. Target compound GRO (C4-C12) was not reported in the method blank.	No qualifications were required.
4. LCS/BS	One water blank spike was analyzed with this SDG. The recovery of GRO (C4-C12) were within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recoveries for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.

Project: NPDES SDG: INI0174 Analysis: TFH

	Findings	Qualifications
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. Field QC Samples  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. Other	The laboratory analyzed for gasoline range organics (C4-C12).  Sample Outfall 012 was reanalyzed and reported at a 2X dilution. A notation on the raw data indicated the dilution was performed for "post QC purposes only".	No qualifications were required.
Comments	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiera CE	QUAL
Sample ID: INI0174-01 (DRAFT:	Outfall 012 - Wa	ter) - cont	•		Samp	pled: 09/(	2/04		QUAL	COD
Reporting Units: mg/l GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%)	EPA 8015 Mod.	4110008	0.10	0.20	0.70 94 %	2	09/10/04	09/10/04	X	*/
Sample ID: INI0174-02 (DRAFT:	Trip Blank - Wat	ter)			Samj	pled: 09/(	2/04			i.
Reporting Units: mg/l GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%)	EPA 8015 Mod.	4110008	0.050	0.10	ND 82 %	1	09/10/04	09/10/04	U	h ir ir
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550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026 303.935.6505, Fax 303.935.6575

#### **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: General Minerals

QC Level: V1

**SDG**: INI0174

Matrix: Water

No. of Samples: 1

Date Reviewed: November 3, 2004

Reviewer: A. Lang

Reference:

USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94)

Samples Reviewed:

Outfall 012

	Findings	Qualifications
1. Sample Management	The sample was received outside the temperature limits of 4°±2°C, at 9°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The COC matched the sample and accounted for the analyses presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The analytical holding times were met for all analyses.	No qualifications were required.
3. Method Blanks	There were no detects in the method blanks.	No qualifications were required.
5. <u>LCS/BS</u>	The recoveries were within the laboratory-established control limits.	No qualifications were required
6. <u>Duplicates</u>	A duplicate was performed for TDS only. The RPD was within the laboratory- established control limits.	No qualifications were required.
7. MS/MSDs	None	None
10. Other	Oil and Grease reported below the reporting limit was qualified as estimated, "J," by the laboratory.	None

Project: NPDES SDG: INI0174 Analysis: Gen. Min.

	Findings	Qualifications
11. Field QC Samples	None	None
Comments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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Sampled: 09/02/04

WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Analyte

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Sampled: 09/02/04

Report Number: INI0174

Received: 09/02/04

DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Reporting Sample Dilution Date MDL Date Data Method Limit Analyzed Qualifiers Batch Result FactorExtracted

Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)

Reporting Units: mg/l

**Total Recoverable Hydrocarbons** EPA 418.1 4103070 0.31 1.0 09/03/04 09/03/04

AMEC VALIDATED

DRAFT REPORT AFT REPORT . LA SUBJECT TO CHANGE EVILV

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, INIO174 < Page 2 of 37> except in full, without written permission from Del Mar Analytical.



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

500 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

DRAFT: INORGANICS

		DIAN.	1. 1116	JNGANI	<b>_3</b>					$\sim$	·
Analyte	Method	Batch	MDL Limit	Reporting Limit	-	Dilution Factor E		Date Analyzed	Data Qualifiers		1
Sample ID: INI0174-01 (DRAFT: 0 Reporting Units: mg/l	Outfall 012 - W	ater)			Samj	pled: 09/0	2/04				
Ammonia-N (Distilled)	EPA 350.2	4107084	0.30	0.50	ND	1	09/07/04	09/07/04	***************************************	<del>u</del>	$\vdash$
Biochemical Oxygen Demand	EPA 405.1	4103065	0.59	2.0	2.7	1	09/03/04	09/08/04			
Oil & Grease	EPA 413.1	4107068	0.94	5.0	4.8	1	09/07/04	09/07/04	J	J	
Total Dissolved Solids	SM2540C	4109084	10	10	340	1	09/08/04	09/08/04		•	
Total Suspended Solids	EPA 160.2	4103068	10	10	14	1	09/03/04	09/03/04			
Sample ID: INI0174-01 (DRAFT: 0 Reporting Units: ml/l/hr	Outfall 012 - W	ater)			Samj	oled: 09/0	2/04				
Total Settleable Solids	EPA 160.5	4103067	0.10	0.10	ND	1	09/03/04	09/03/04		il	
Sample ID: INI0174-01 (DRAFT: 0 Reporting Units: NTU	Outfall 012 - W	ater)			Sam	pled: 09/0	2/04				
Turbidity	EPA 180.1	4103095	0.20	1.0	29	1	09/03/04	09/03/04			
Sample ID: INI0174-01 (DRAFT: 0 Reporting Units: pH Units	Outfall 012 - W	ater)			Samj	pled: 09/0	12/04				
pH	EPA 150.1	4103066	N/A	NA	8.28	1	09/03/04	09/03/04			
iple ID: INI0174-01 (DRAFT: 0 Reporting Units: ug/l	Outfall 012 - W	ater)			Samı	pled: 09/0	2/04			_	888
Perchlorate	EPA 314.0	4108050	0.80	4.0	ND	1	09/08/04	09/08/04	+	.bt	

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AMEC VALIDATED

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DRAFT REPORT **AFT REPORT** 

**FA SUBJECT TO CHANGE** 

# **DATA VALIDATION**



### PEER REVIEW

AMEC Pkg ID#: T711WC14		
Analysis: perchlorate		
SDG#: INI0174	Reviewer: A. Lang	Rev Date: November 5, 2004
Matrix: Water	2nd Rev:	2nd Rev Date:
Rev Type: transcription	Tech edit:	Tech edit Date:
	Synectics Approval:	Approval Date:  Entry Date: 11/8/0 4  Ver Date: 11/8/04
QC Level: Level V	Data Entry: Verification:	Entry Date: 11/8/19
# Samples: 1	Verification: K. S. Line 16	Ver Date: 11 (8/6) 49
# RE/DL:	Ship:	Ship Date:

#### **Check List Items:**

Writeup:	Form Is:
☐ Qualifications in text match Synectics/Form Is	☐ "U" / "J" lab codes carried over/present in Synectics
☐ Spell check	☐ Appropriate qual codes used
☐ Pagination, appropriate headers/footers	☐ Form I/Synectics IDs match sample ID table
☐ Correct project site name/manager on cover and introduction pages	Other:
macaution pages	☐ "AMEC Validated" Stamp on Form Is
	☐ QC Level Stamp on Form Is, Level
	Contract Compliance Screen
Required Edits/Changes: Rell   Sec	Tou Itext
• • •	



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#### DATA ASSESSMENT FORM

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Perchlorate by 314.0

QC Level: V1

**SDG**: INI0174

Matrix: Water

No. of Samples:

Date Reviewed: November 3, 2004

Reviewer: A. Lang

Reference:

USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94)

Samples Reviewed:

Outfall 012

	Findings	Qualifications
1. Sample Management	The sample was received outside the temperature limits of 4°±2°C, at 9°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The COC accounted for the sample and analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day perchlorate analytical holding time was met.	No qualifications were required.
3. Method Blanks	Perchlorate was not detected in the method blank.	No qualifications were required.
5. LCS/BS	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u> None	None	Not applicable
7. MS/MSDs None	None	Not applicable
10. Other	None	Not applicable
11. Field QC Samples None	None	Not applicable
Comments	A cursory review of the perchlorate chromatograms was performed and no false negative was noted.	Not applicable

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

#### DRAFT: INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit		Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (DRAFT Reporting Units: mg/l	: Outfall 012 - W	ater)			Samj	pled: 09/	02/04		Qual 1
Ammonia-N (Distilled)	EPA 350.2	4107084	0.30	0.50	ND	1	09/07/04	09/07/04	1
<b>Biochemical Oxygen Demand</b>	EPA 405.1	4103065	0.59	2.0	2.7	1	09/03/04	09/08/04	
Oil & Grease	EPA 413.1	4107068	0.94	5.0	4.8	1	09/07/04	09/07/04	3
Total Dissolved Solids	SM2540C	4109084	10	10	340	1	09/08/04	09/08/04	
Total Suspended Solids	EPA 160.2	4103068	10	10	14	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (DRAFT Reporting Units: ml/l/hr	: Outfall 012 - W	ater)			Sami	pled: 09/	02/04		
Total Settleable Solids	EPA 160.5	4103067	0.10	0.10	ND	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (DRAFT Reporting Units: NTU	: Outfall 012 - W	ater)			Sam	pled: 09/	02/04		
Turbidity	EPA 180.1	4103095	0.20	1.0	29	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (DRAFT Reporting Units: pH Units	: Outfall 012 - W	ater)			Samj	pled: 09/	02/04		
pН	EPA 150.1	4103066	N/A	NA	8.28	1	09/03/04	09/03/04	
iple ID: INI0174-01 (DRAFT Reporting Units: ug/l	: Outfall 012 - W	ater)			Sam	pled: 09/	/02/04		
Perchlorate	EPA 314.0	4108050	0.80	4.0	ND	1	09/08/04	09/08/04	u

\* analysis unot validated

# AMEC VALIDATED

DRAFT REPORT **\FT REPORT** 

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# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: 1,4-Dioxane by Method 8260B SIM

QC Level: V

SDG: INI0560 Matrix: Water

No. of Samples: 1
No. of Reanalyses/Dilutions: 0

<u>Date Reviewed</u>: November 2, 2004 <u>Reviewer</u>: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The 1,4-dioxane analysis was subcontracted to Del Mar Analytical in Phoenix. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. According to the case narrative for this SDG, the sample was received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding the custody seals on the cooler.  The sample was analyzed within 14 days of sample collection.	
4. Method Blanks	One method blank was analyzed with this SDG. 1,4-Dioxane was not reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike/ blank spike duplicate pair was analyzed with this SDG. The recoveries and RPD for 1,4-dioxane were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate was recovered within the laboratory QC limits.	No qualifications were required.

Project: NPDES SDG: INI0560 Analysis: VOC

	Findings	Qualifications
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG.	None.
8. Field QC Samples  TB: None ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	None.
9. Other	No TICs were reported by the laboratory for this SDG.	None.
Comments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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Del Mar Analytical - Irvine

Attention: Michele Harper

'461 Derian Ave. Suite 100

uvine, CA 92614

Project ID: INI0560

Report Number: PNI0352

Sampled: 09/09/04

Received: 09/14/04

#### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyze	0 -
Sample ID: PNI0352-01 (INI0560- Reporting Units: ug/l	01 - Water)								Pual Pun
1,4-Dioxane Surrogate: Dibromofluoromethane	EPA 8260B (80-135%)	P4I1414	0.49	1.0	ND 127 %	1	09/14/04	09/14/04	u



Project Manager

<sup>\*</sup> Mar Analytical - Phoenix

<sup>.</sup>ı Baker



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80226 303.935.6505, Fax 303.935.6575

## **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Volatiles by Method 624

QC Level: V<sup>1</sup>

SDG: INI0560 Matrix: Water

No. of Samples: 2

No. of Reanalyses/Dilutions: 0

<u>Date Reviewed</u>: November 3, 2004 <u>Reviewer</u>: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012, Trip Blank

	Findings	Qualifications
1. Sample Management	The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding custody seals on the cooler.  The samples were analyzed within 14 days of sample collection.	No qualifications were required.
4. Method Blanks	One method blank was analyzed with this SDG. There were no target compounds reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike was analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits.	No qualifications were required.
6. Surrogates	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG.	None.

Project: NPDES SDG: INI0560 Analysis: VOC

	Findings	Qualifications
8. Field QC Samples  TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. Other	No TICs were reported by the laboratory for the samples in this SDG.	None.
Comments	None	None.

 $<sup>^{1}</sup>$  Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/09/04 Pasadena, CA 91101 Received: 09/09/04 Report Number: INI0560

Attention: Bronwyn Kelly

## DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		n Date Extracted	Date Analyze	Data d Qualifiers
Sample ID: INI0560-01 (DRAFT Reporting Units: ug/l	: Outfall 012 - Wa	ter)			Samp	oled: 09/	09/04		Qual 1
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I17021	0.32	2.0	ND	1	09/17/04	09/17/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I17021	0.32	5.0	ND	1	09/17/04	09/17/04	1 1
1,2,3-Trichloropropane	EPA 624 MOD	4I17021	0.85	10	ND	1	09/17/04	09/17/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4117021	0.25	5.0	ND	1	09/17/04	09/17/04	1 1
tert-Butanol (TBA)	EPA 624 MOD	4117021	3.1	25	ND	1	09/17/04	09/17/04	1
Surrogate: Dibromofluoromethane	(80-120%)				94 %			•	1
Surrogate: Toluene-d8 (80-120%)					101 %				l
Surrogate: 4-Bromofluorobenzene	(80-120%)				98 %				
Sample ID: INI0560-02 (DRAFT	: Trip Blank - Wa	ter)			Samp	pled: 09	/09/04		
Reporting Units: ug/l 1,2-Dibromoethane (EDB)	EPA 624 MOD	4117021	0.32	2.0	ND	1	00/17/04	09/17/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4117021	0.32	5.0	ND	1		09/17/04	1
1,2,3-Trichloropropane	EPA 624 MOD	4117021	0.85	10	ND	1		09/17/04	1 1
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I17021	0.25	5.0	ND	1		09/17/04	1 1
tert-Butanol (TBA)	EPA 624 MOD	4117021	3.1	25	ND	i		09/17/04	
rogate: Dibromofluoromethane		1217021	J.1		104 %	•	03/11/01		
surrogate: Toluene-d8 (80-120%)					102 %				1
Surrogate: 4-Bromofluorobenzene					104 %	•			





## DATA VALIDATION REPORT

# **NPDES Monitoring**

ANALYSIS: SEMIVOLATLES

SAMPLE DELIVERY GROUP: INI0560

Prepared by

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

Project: SDG No.: NPDES

Analysis:

INI0560 SVOC

## 1. INTRODUCTION

Task Order Title:

**NPDES Monitoring** 

Contract Task Order #:

313150010

Sample Delivery Group #:

DATA VALIDATION REPORT

INI0560

Project Manager:

B. McIlvaine

Matrix:

Water

Analysis:

Semivolatiles

QC Level:

Reviewer:

Level IV

No. of Samples:

es: 1

Reanalyses/Dilutions:

K. Shadowlight

Date of Review:

November 02, 2004

The samples listed in Table 1 were validated based on the guidelines outlined in the AMEC Data Validation Procedure for Levels C and D Semivolatile Organics (DVP-3, Rev. 2), EPA Method 1625C, and the National Functional Guidelines For Organic 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: NPDES SDG No.: INI0560 Analysis: SVOC

DATA VALIDATION REPORT

## Table 1. Sample identification

Client ID	North Creek Analytical ID	Del Mar ID	Matrix	COC Method
Outfall 012	B4I0406-01	INI0560-01	water	625

Project: SDG No.: NPDES INI0560 SVOC

DATA VALIDATION REPORT

SDG No.: Analysis:

#### 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 Del Mar Analytical Laboratory within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . The semivolatile analysis was subcontracted to North Creek Analytical and the transfer COC noted that the sample was received within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . The sample containers were received intact and in good condition. No qualifications were required.

#### 2.1.2 Chain of Custody

The COC from the field to Del Mar Laboratory was signed by both field and laboratory personnel and the transfer COC from Del Mar Analytical to North Creek Analytical was signed by personnel from both laboratories. The COC did not indicate whether custody seals were present and intact on the cooler upon receipt at either of the laboratories. No qualifications were required.

#### 2.1.3 Holding Times

The sample was extracted within the holding time of seven days from the date of collection and analyzed within 40 days of extraction. No qualifications were required.

#### 2.2 GC/MS TUNING

The DFTPP tunes met the criteria specified in Method 625, and the sample was analyzed within 12 hours of the DFTPP injection time. No qualifications were required.

#### 2.3 CALIBRATION

The initial calibration associated with this SDG was analyzed 09/22/04, and the continuing calibration associated with the sample analysis was analyzed 09/24/04. The average RRFs in the initial calibration were  $\geq 0.05$  for target compounds n-nitrosodimethylamine (NDMA) and naphthalene, and the %RSDs were within the method QC limit of  $\leq 35\%$ . The RRFs in the continuing calibration were  $\geq 0.05$ , and the %Ds were within the method QC limit of  $\leq 20\%$  for both target compounds. A representative number of %RSDs for the initial calibration and %Ds for the continuing calibration were checked from the raw data, and no calculation or transcription errors were noted. No qualifications were required.

Project: SDG No.: NPDES INI0560

Analysis:

SVOC

#### 2.4 BLANKS

DATA VALIDATION REPORT

One method blank (4I16041-BLK) was extracted and analyzed with this SDG. There were no detects for naphthalene or NDMA in the method blank. Review of the method blank raw data revealed no false negatives. No qualifications were required.

#### 2.5 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

One LCS/LCSD (4I16041-BS1/BSD1) was extracted and analyzed with the samples of this SDG. The recoveries for naphthalene, the only spike compound, were within the control limits of 25-133% and the RPD was ≤30%. A representative number of recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

#### 2.6 SURROGATE RECOVERY

Surrogates phenol-d6 and p-terphenyl-d14 were recovered below 10% in sample Outfall 012; therefore, the detect for naphthalene was qualified as estimated, "J," and the nondetect for NDMA was rejected, "R," in the sample. Two additional acid surrogates were recovered below QC limits but ≥10%. The remaining sample surrogate recoveries were within the laboratory-established QC limits. A representative number of recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No further qualifications were required.

#### 2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were not performed for this SDG. Evaluation of method accuracy and precision was based on the LCS/LCSD results. No qualifications were required.

#### 2.8 FIELD QC SAMPLES

Following are findings associated with field QC:

#### 2.8.1 Field Blanks and Equipment Rinsates

The sample in this SDG had no associated field blank or equipment rinsate samples. No evaluation of possible field contamination was performed. No qualifications were required.

#### 2.8.2 Field Duplicates

There were no field duplicate pairs associated with this SDG. Qualifications are not routinely assigned based on field duplicate results.

Project: NPDES SDG No.: INI0560

DATA VALIDATION REPORT Analysis: SVOC

#### 2.9 INTERNAL STANDARDS

The internal standard area counts were within the method control limits established by the continuing calibration standards: -50%/+100% for internal standard areas and ±30 seconds for retention times. A representative number of area recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

#### 2.10 COMPOUND IDENTIFICATION

The laboratory analyzed for target compounds naphthalene and NDMA by Method 625. Review of the raw data did not indicate any compound identification problems. No qualifications were required.

#### 2.11 COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Compound quantitation was verified from the raw data; however, a calculation error was noted for the naphthalene detect in sample Outfall 012. The result for naphthalene was edited on the result summary by the reviewer to reflect the recalculated result. The reporting limits for naphthalene and NDMA were supported by the low level of the initial calibration and the method detection limit study (MDL). Results were reported in  $\mu g/L$  (ppb). The reviewer noted the laboratory did not adjust the reporting limits to reflect the sample volume extracted. Reporting limits were manually corrected by the reviewer. No further qualifications were required.



Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99208-5302 509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverlon, OR 97008-7132

503.906.9200 fax 503.906.9210 Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588 Anchorage 2000 W. International Airport Road, Suits A10, Anchorage, AK 99502-1119

907:363:9200 Tex 907:363:9210

Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100 Irvine, CA/USA 92614-5817

Project: Michele Harper Project Number: INIO560 Project Manager: Michele Harper

Amended Report Issued: 10/26/04 16:38

## Acid and Base/Neutral Extractables by EPA Method 625 North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limi	7	Dilution	Batch	Prepared	Analyzed	Method	Notes
INI0560-01 (B4I0406-01) Wat	er Sampled: 09/0	9/04 13:5	Receiv	ed: 09/16/	04 09:15				Rev	, lac
Naphthalene	18.4 <b>15.7</b>	0.941	95 10.	- ug/l	1	4116041	09/16/04	09/24/04	EPA 625	J S,\$
N-Nitrosodimethylamine	ND	1.56	19.0 20:	<b>b</b> - •	•	•	•	• .	•	R/Sit
Surrogate: 2-FBP	60.3 %		49	122			•			
Surrogate: 2-FP	13.7 %		20	111		•		•	•	
Surrogate: Nitrobenzene-d5	66.0 %		50	120		*		•	•	
Surrogate: Phenol-d6	0.0399 %		12	120		•	#	•	•	
Surrogate: p-Terphenyl-d14	3.68 %		10	138		•	•	•	•	
Surrogate: 2,4,6-TBP	12.9 %		22	131		•		•	•	

Kulospy

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody documents. This analytical report must be reproduced in its entirery.

Sandra Yakamavich, Project Manager

North Creek Analytical, Inc. **Environmental Laboratory Network**  Page 2 of



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026 303.935.6505, Fax 303.935.6575

## **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring
Project Manager: B. McIlvaine

Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M

OC Level: V¹
SDG: INI0560
Matrix: Water
No. of Samples: 1
Dilutions/Reanalyses: 0

<u>Date Reviewed</u>: November 2, 2004 <u>Reviewer</u>: M. Pokorny

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012 (INI0560-01)

	Findings	Qualifications
1. Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.  According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.	No qualifications were required.
3. Method Blanks	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was ≤25%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.

Project: NPDES SDG: INI0560 Analysis: TFH

	Findings	Qualifications
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. Field QC Samples  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. Other	The laboratory analyzed for n-alkane range C13-C22.	No qualifications were required.
Comments	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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AWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

QUA 1

QUAL

DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

MDL Reporting Sample Dilution Date Analyzed Qualifiers Batch Limit Method Limit Result Factor Extracted Analyte REV

Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water) - cont.

Reporting Units: mg/l

Surrogate: n-Octacosane (45-125%)

EFH (C13 - C22)

EPA 8015B

4I13058 0.082

0.50

0.97

Sampled: 09/09/04

09/13/04 09/15/04 1.01

90%

AMEC VALIDATED

EVEL V

**PRAFT REPORT** \FT REPORT **LATA SUBJECT TO CHANGE** 



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026 303.935.6505, Fax 303.935.6575

## **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M

QC Level: V1

SDG: INI0560
Matrix: Water
No. of Samples: 2
Dilutions/Reanalyses: 0

<u>Date Reviewed</u>: November 2, 2004 <u>Reviewer</u>: M. Pokorny

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012 (INI0560-01), Trip Blank (INI0560-02)

	Findings	Qualifications
1. Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature within the limits of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . No custody seal information was provided by the laboratory.	No qualifications were required.
	According to the sample result summary forms, the samples were analyzed within 14 days of collection.	
3. Method Blanks	One water method blank was analyzed with this SDG. Target compound GRO (C4-C12) was not reported in the method blank.	No qualifications were required.
4. LCS/BS	One water blank spike was analyzed with this SDG. The recovery of GRO (C4-C12) was within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recoveries for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.

Project: NPDES SDG: INI0560 Analysis: TFH

	Findings	Qualifications
7. Field QC Samples  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. Other	The laboratory analyzed for gasoline range organics (C4-C12).	No qualifications were required.
Comments	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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AWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

Attention: Bronwyn Kelly

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	-		Date Extracted	Date Analyzed	Data Qualifiers	QUAL
Sample ID: INI0560-01 (DRAFT Reporting Units: mg/l	: Outfall 012 - Wa	ter) - cont	•		Samp	pled: 09/0	09/04		QUAL	CCAi
GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%	EPA 8015 Mod.	4116006	0.050	0.10	<b>0.20</b> 107 %		09/16/04	09/16/04		
Sample ID: INI0560-02 (DRAFT Reporting Units: mg/l	: Trip Blank - Wa	ter)			Samj	pled: 09/0	9/04			
GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%	EPA 8015 Mod.	4116006	0.050	0.10	ND 86 %	1	09/16/04	09/16/04	U	

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EVEL V

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## **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine Analysis/Method: General Minerals

QC Level: V1

<u>SDG</u>: INI0560

Matrix: Water

No. of Samples: 1

Date Reviewed: November 3, 2004

Reviewer: A. Lang

Reference: USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94)

Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The samples were received within the temperature limits of 4°±2°C. The COC matched the sample and accounted for the analyses presented in this SDG. According to the case narrative for this SDG, the samples were received intact. There was no information regarding custody seals. The analytical holding times were met for all the analyses.	No qualifications were required.
3. Method Blanks	There were no detects in the method blanks.	No qualifications were required.
5. LCS/BS	The recoveries were within the laboratory-established control limits.	No qualifications were required.
6. <u>Duplicates</u>	None	None
7. MS/MSDs	None	None
10. Other	Biological oxygen demand reported below the reporting limit was qualified as estimated, "J," by the laboratory.	None
11. Field QC Samples	None	None

Project: NPDES SDG: INI0560 Analysis: Gen. Min.

	Findings	Qualifications
Comments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI0560

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

DR.	Δ	$\mathbf{F}$	٠.	IN	JO	R	C	Δ1	JI	CS
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Analyte	Method	Batch	MDL Limit	Reporting Limit	•		Date Extracted	Date Analyzed	Data Qualifiers	Russ
Sample ID: INI0560-01 (DRAFT: 0	Outfall 012 - Wa	iter)								
Reporting Units: mg/l										1
Ammonia-N (Distilled)	EPA 350.2	4115091	0.30	0.50	ND	1	09/15/04	09/15/04		u
Biochemical Oxygen Demand	EPA 405.1	4110075	0.59	2.0	1.6	1	09/10/04	09/15/04	J	J
Oil & Grease	EPA 413.1	4115083	0.94	5.0	ND	1	09/15/04	09/15/04		u
Total Dissolved Solids	SM2540C	4110097	10	10	330	1	09/10/04	09/10/04		
Total Suspended Solids	EPA 160.2	4110076	10	10	20	1	09/10/04	09/10/04		
Sample ID: INI0560-01 (DRAFT: C Reporting Units: ml/l/hr	Outfall 012 - Wa	iter)			Samj	oled: 09/	09/04			
Total Settleable Solids	EPA 160.5	4110077	0.10	0.10	ND	1	09/10/04	09/10/04	(	u
Sample ID: IN10560-01 (DRAFT: C Reporting Units: NTU	Outfall 012 - Wa	iter) 📏 🤄			Samj	oled: 09/	09/04			
Turbidity	EPA 180.1	4110086	0.20	1.0	39	1	09/10/04	09/10/04		
Sample ID: INI0560-01 (DRAFT: 0 Reporting Units: pH Units	Outfall 012 - Wa	iter)			Samj	oled: 09/	09/04			
p zx	EPA 150.1	4I10047	N/A	NA	8.03	1	09/10/04	09/10/04		
Saple ID: INI0560-01 (DRAFT: C Reporting Units: ug/l	Outfall 012 - Wa	iter)			Samj	oled: 09/	09/04			
Perchlorate	EPA 314.0	4I13037	0.80	4.0	ND	1	09/13/04	09/13/04	Ļ	XX

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AWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Sampled: 09/09/04

Received: 09/09/04

DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

MDL Reporting Sample Dilution Date Batch Limit Result Factor Extracted

Data Analyzed Qualifiers

Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)

Method

Reporting Units: mg/l

Analyte

Total Recoverable Hydrocarbons EPA 418.1

4I17090 0.31

Report Number: INI0560

1.0

Sampled: 09/09/04

09/17/04 09/17/04

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## **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager:

B. McIlvaine

Analysis/Method: Perchlorate by 314.0

QC Level: V<sup>1</sup>

SDG: INI0560

Matrix: Water

No. of Samples: 1

Date Reviewed: November 3, 2004

Reviewer: A. Lang

Reference: USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review (2/94)

Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The sample was received within the temperature limits of 4°±2°C. The COC accounted for the sample and analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day perchlorate analytical holding time was met.	No qualifications were required.
3. Method Blanks	Perchlorate was not detected in the method blank.	No qualifications were required.
5. LCS/BS	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u> None	None	Not applicable
7. MS/MSDs None	None	Not applicable
10. Other	None	Not applicable
11. Field QC Samples None	None	Not applicable
Comments	A cursory review of the perchlorate chromatograms was performed and no false negative was noted.	Not applicable

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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IWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

#### **DRAFT: INORGANICS**

		<b>-</b>	MDL	Reporting	-			Date	Data	
Analyte	Method	Batch	Limit	Limit	Result	Factor!	Extracted	Analyzed	Qualifiers	•
Sample ID: INI0560-01 (DRAFT: 6 Reporting Units: mg/l	Outfall 012 - W	ater)			Samp	oled: 09/	09/04		Su	ne s
Ammonia-N (Distilled)	EPA 350.2	4115091	0.30	0.50	ND	1	09/15/04	09/15/04		V
Biochemical Oxygen Demand	EPA 405.1	4110075	0.59	2.0	1.6	1	09/10/04	09/15/04	J	7
Oil & Grease	EPA 413.1	4I15083	0.94	5.0	ND	1	09/15/04	09/15/04		1 1
Total Dissolved Solids	SM2540C	4110097	10	10	330	1	09/10/04	09/10/04		1 1
Total Suspended Solids	EPA 160.2	4110076	10	10	20.	1	09/10/04	09/10/04		1 1
Sample ID: INI0560-01 (DRAFT: 0 Reporting Units: ml/l/hr	Outfall 012 - W	ater)			Samp	oled: 09/	09/04			
Total Settleable Solids	EPA 160.5	4110077	0.10	0.10	ND	1	09/10/04	09/10/04		
Sample ID: INI0560-01 (DRAFT: 0 Reporting Units: NTU	Outfall 012 - Wa	ater) 😘			Samp	oled: 09/	09/04			
Turbidity	EPA 180.1	4110086	0.20	1.0	39	1	09/10/04	09/10/04		
Sample ID: INI0560-01 (DRAFT: 0 Reporting Units: pH Units	Outfall 012 - Wa	ater)			Samp	oled: 09/	09/04			
rtt	EPA 150.1	4110047	N/A	NA	8.03	1	09/10/04	09/10/04	\	$V \mid$
Reporting Units: ug/l	Outfall 012 - Wa	ater)			Samı	oled: 09/	09/04		`	
Perchlorate	EPA 314.0	4I13037	0.80	4.0	ND	1	09/13/04	09/13/04	Ĺ	1

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## **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: 1,4-Dioxane by Method 8260B SIM

QC Level: V<sup>1</sup>

**SDG**: INI0927

Matrix: Water

No. of Samples: 1

No. of Reanalyses/Dilutions: 0

Date Reviewed: October 29, 2004

Reviewer: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The 1,4-dioxane analysis was subcontracted to Del Mar Analytical in Phoenix. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. According to the case narrative for this SDG, the sample was received intact and the cooler temperature was above the temperature limits of 4°C ±2°C at 18°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The samples were received within temperature limits at Phoenix. There was no information regarding the custody seals on the cooler.  The sample was analyzed within 14 days of sample collection.	No qualifications were required.
4. Method Blanks	One method blank was analyzed with this SDG. Target compound 1,4-dioxane was not reported in the method blank.	No qualifications were required.

Project: NPDES SDG: INI0927 Analysis: VOC

	Findings	Qualifications
5. LCS/BS	One blank spike/ blank spike duplicate pair was analyzed with this SDG. The recoveries and RPD for 1,4-dioxane were within the laboratory QC limits.	No qualifications were required.
6. Surrogates	The surrogate was recovered above the laboratory QC limits.	As 1,4-dioxane was not reported in the sample, no qualifications were required for the elevated recovery.
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG.	None.
8. Field QC Samples  TB: None ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	None.
9. Other	No TICs were reported by the laboratory for this SDG.	None.
Comments	None	None.

 $<sup>^{1}</sup>$  Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Analyte

Report Number: INI0927

Sampled: 09/15/04 Received: 09/15/04

DRAFT: 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

MDL Reporting Sample Dilution Date Result Factor Extracted Batch Limit Limit

Analyzed Qualifiers

Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water) - cont.

Reporting Units: ug/l

1,4-Dioxane

Surrogate: Dibromofluoromethane (80-135%)

**EPA 8260B** P4I2316

Method

1.0

ND 156%

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## **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Volatiles by Method 624

OC Level: V1

SDG: INI0927

Matrix: Water

No. of Samples: 2
No. of Reanalyses/Dilutions: 0

Date Reviewed: October 29, 2004

Reviewer: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012, Trip Blank

	Findings	Qualifications
1. Sample Management	The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact and the cooler temperature was above the temperature limits of 4°C ±2°C at 18°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. There was no information regarding the custody seals on the cooler.  The samples were analyzed within 14 days of sample collection.	No qualifications were required.
4. Method Blanks	One method blank was analyzed with this SDG. There were no target compounds reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike was analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits.	No qualifications were required.
6. Surrogates	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.

Project: NPDES SDG: INI0927 Analysis: VOC

		Findings	Qualifications
7.	MS/MSDs	There were no MS/MSD analyses associated with this SDG.	None.
8.	Field QC Samples  TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9.	Other	No TICs were reported by the laboratory for the samples in this SDG.	None.
Co	mments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

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MWH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/15/04 Report Number: INI0927 Received: 09/15/04

Attention: Bronwyn Kelly

## DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	-	Dilution Factor E	Date Extracted	Date Analyzed	Data Qualifie	
Sample ID: IN10927-01 (DRAFT) Reporting Units: ug/l	: Outfall 012 - Wa	ter)						fe Q	v c	2
1,2-Dibromoethane (EDB)	EPA 624 MOD	4124024	0.32	2.0	ND	1	09/24/04	09/24/04	48	X
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I24024	0.32	5.0	ND	1	09/24/04	09/24/04	11	,
1,2,3-Trichloropropane	EPA 624 MOD	4124024	0.85	10	ND	1	09/24/04	09/24/04	1 1	/
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4124024	0.25	5.0	ND	1	09/24/04	09/24/04	1 1	1
tert-Butanol (TBA)	EPA 624 MOD	4124024	3.1	25	ND	1	09/24/04	09/24/04	\b	X
Surrogate: Dibromofluoromethane	(80-120%)				115%					
Surrogate: Toluene-d8 (80-120%)					107%					
Surrogate: 4-Bromofluorobenzene	(80-120%)				105 %					
Sample ID: INI0927-02 (DRAFT: Reporting Units: ug/l	: Trip Blank - Wa	ter)								
1,2-Dibromoethane (EDB)	EPA 624 MOD	4124024	0.32	2.0	ND	1	09/24/04	09/24/04	u	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4124024	0.32	5.0	ND	1	09/24/04	09/24/04	1 1	
1,2,3-Trichloropropane	EPA 624 MOD	4124024	0.85	10	ND	1	09/24/04	09/24/04		
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4124024	0.25	5.0	ND	1	09/24/04	09/24/04	1 1	
tert-Butanol (TBA)	EPA 624 MOD	4124024	3.1	25	ND	1	09/24/04	09/24/04	1	
rrogate: Dibromofluoromethane	(80-120%)				108 %				- 1	
ırrogate: Toluene-d8 (80-120%)					107 %					
Surrogate: 4-Bromofluorobenzene	(80-120%)				102 %					
-										

- Rev 1. v. 04





AFT REPORT L. AFT REPORT DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026 303.935.6505, Fax 303.935.6575

## **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Semivolatiles by EPA Method 625

QC Level: V<sup>1</sup>

**SDG**: INI0927

Matrix: Water 1

No. of Samples: No. of Reanalyses/Dilutions: 0

Date Reviewed: October 29, 2004

Reviewer: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The semivolatiles were subcontracted to Star Analytical. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. No sample receipt information was recorded on the COC; however, the transfer COC noted that the sample containers were received intact and that custody seals were not present on the cooler. The cooler temperature was above the temperature limits of 4 ±2°C, at 18°C at Del Mar Analytical; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The samples were received within the temperature limits at Star Analytical.  According to the extraction and analysis dates on the sample result form, the sample was extracted within seven days of sample collection and analyzed within 40 days of extraction.	No qualifications were required.
4. Method Blanks	One water method blank was extracted and analyzed with this SDG. NDMA and naphthalene were not reported in the method blank.	No qualifications were required.

Project: NPDES SDG: INI0927 Analysis: SVOA

	T	1
	Findings	Qualifications
5. <u>LCS/BS</u>	One water LCS/LCSD pair was extracted and analyzed with this SDG. The recoveries and RPDs for target compounds NDMA and naphthalene were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate recoveries were within the laboratory QC limits.	No qualifications were required.
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG. Evaluation of method accuracy and precision was based on the blank spike/blank spike duplicate results.	No qualifications were required.
8. Field QC Samples ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	No qualifications were required.
9. Other	TICs were not reported by the laboratory for this SDG.	No qualifications were required.
Comments	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/15/04

Pasadena, CA 91101

Report Number: INI0927

Received: 09/15/04

DRAFT: Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		n Date Extracted	Date Analyze	Data d Qualifiers
Sample ID: INI0927-01 (DRAF Reporting Units: ug/L	T: Outfall 012 - W	ater) - cont	•					•	fer Prairie
Naphthalene	EPA 625	V4I2115	1.31	10.0	32.3	1	09/21/04	09/23/04	
N-Nitrosodimethylamine	EPA 625	V4I2115	1.37	20.0	ND	1	09/21/04	09/23/04	ul
Surrogate: 2-FP (40.8-88.4%)					51.5 %				
Surrogate: Phenol-d6 (31.7-86.6)	%)				41.8 %				·
Surrogate: 2,4,6-TBP (58-109%)					81.0%				
Surrogate: Nitrobenzene-d5 (47.1					68.7 %				
Surrogate: 2-FBP (44.7-89.6%)	,				67.3 %				
Surrogate: p-Terphenyl-d14 (45.)	7-117%)				82.9 %				





RAFT REPORT LAFT REPORT DATA SUBJECT TO CHANGE



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## **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M

OC Level: V1

<u>SDG</u>: INI0927

Matrix: Water

No. of Samples: 1 Dilutions/Reanalyses: 0

Date Reviewed: October 29, 2004

Reviewer: M. Pokorny

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012 (INI0927-01)

	Findings	Qualifications
1. Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature above the limits of 4°C ± 2°C at 18°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. No custody seal information was provided by the laboratory.  According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.	No qualifications were required.
3. Method Blanks	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was <25%.	No qualifications were required.

Project: NPDES SDG: INI0927 Analysis: EFH

	Findings	Qualifications
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. Field QC Samples  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. Other	The laboratory analyzed for n-alkane range C13-C22.	No qualifications were required.
Comments	A cursory review of the sample chromatograms and quantitation reports were performed by the reviewer.	None.

Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

MDL Reporting Sample Dilution Date Analyzed Qualifiers QUA Analyte Method Batch Limit Limit Result Factor Extracted

Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water) - cont.

Reporting Units: mg/l

EPA 8015B 4I19040 0.082 0.50 0.962 09/19/04 09/24/04 EFH (C13 - C22) 1.2

87% Surrogate: n-Octacosane (45-125%)



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AFT REPORT L.KAFT REPORT DATA SUBJECT TO CHANGE



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## **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M

OC Level: V1

SDG: INI0927 Matrix: Water

No. of Samples: 2 Dilutions/Reanalyses: 0

> <u>Date Reviewed</u>: October 29, 2004 <u>Reviewer</u>: M. Pokorny

> > Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012 (INI0927-01), Trip Blank

	Findings	Qualifications
1. Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature above the limits of 4°C ± 2°C at 18°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. No custody seal information was provided by the laboratory.  According to the sample result summary forms, the samples were analyzed within 14 days of collection.	No qualifications were required.
3. Method Blanks	Two water method blanks were analyzed with this SDG. Target compound GRO (C4-C12) was not reported in the method blanks.	No qualifications were required.
4. LCS/BS	Two water blank spikes were analyzed with this SDG. The recoveries of GRO (C4-C12) were within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.

Project: NPDES SDG: INI0927 Analysis: EFH

	Findings	Qualifications
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. Field QC Samples  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. Other	The laboratory analyzed for gasoline range organics (C4-C12).	No qualifications were required.
Comments	A cursory review of the sample chromatograms and quantitation reports were performed by the reviewer.	None.

Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor E	Date Extracted	Date Analyzed	Data Qualifier	's Q
Sample ID: INI0927-01 (DRAFT	: Outfall 012 - Wa	ter) - cont	•					4	QUAL	0
Reporting Units: mg/l									-1	1/
GRO (C4 - C12)	EPA 8015 Mod.	4128034	0.050	0.10	0.90	1	09/28/04	09/28/04	7	17/
Surrogate: 4-BFB (FID) (60-135%	5)				90 %				,	′
Sample ID: IN10927-02 (DRAFT Reporting Units: mg/l	: Trip Blank - Wa	ter)								
GRO (C4 - C12)	EPA 8015 Mod.	4127006	0.050	0.10	ND	1	09/27/04	09/27/04	$\mathcal{O}$	1
Surrogate: 4-BFB (FID) (60-135%	s) ·				84 %					
		>								i

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**AFT REPORT** LAFT REPORT DATA SUBJECT TO CHANGE



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# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: General Minerals

QC Level: V1

**SDG**: INI0927

Matrix: Water

1

No. of Samples:

Date Reviewed: November 3, 2004

Reviewer:

A. Lang

Reference:

USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94)

Samples Reviewed:

Outfall 012

	Findings	Qualifications
1. Sample Management	The sample was received outside the temperature limits of 4°±2°C, at 18°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The COC matched the sample and accounted for the analyses presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The analytical holding times were met for all analyses.	No qualifications were requied.
3. Method Blanks	There were no detects in the method blanks.	No qualifications were required.
5. LCS/BS	The recoveries were within the laboratory-established control limits.	No qualifications were required
6. <u>Duplicates</u>	A duplicate was performed for turbidity only. The RPD was within the laboratory-established control limits.	No qualifications were required.
7. MS/MSDs	None	None
10. Other	Biological oxygen demand reported below the reporting limit was qualified as estimated, "J," by the laboratory.	None

Project: NPDES SDG: INI0927 Analysis: Gen. Min.

	Findings	Qualifications
11. Field QC Samples	None	None
Comments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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AWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

Attention: Bronwyn Kelly

DRAFT: INORGANICS									2	
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers	1. 3.
Sample ID: INI0927-01 (DRAFT: C Reporting Units: mg/l	Outfall 012 - W	ater)	•						-	W.
Ammonia-N (Distilled)	EPA 350.2	4123096	0.30	0.50	ND	1	09/23/04	09/23/04		u
Biochemical Oxygen Demand	EPA 405.1	4116100	0.012	0.040	2.5	1	09/16/04	09/21/04		1
Oil & Grease	EPA 413.1	4120075	0.94	5.0	1.8	1	09/20/04	09/20/04	J	7
Total Dissolved Solids	SM2540C	4117133	10	10	310	1	09/17/04	09/17/04		-
Total Suspended Solids	EPA 160.2	4I16102	10	10	17	1	09/16/04	09/16/04		
Sample ID: IN10927-01 (DRAFT: C Reporting Units: ml/l/hr Total Settleable Solids	Outfall 012 - W  EPA 160.5	ater) 4116097	0.10	0.10	ND	1	09/16/04	09/16/04	·	i
Sample ID: INI0927-01 (DRAFT: C Reporting Units: NTU		ater) 🛴	0.20		25					
Turbidity	EPA 180.1	4I16095	0.20	1.0	35	1	09/16/04	09/16/04		1
Sample ID: INI0927-01 (DRAFT: C Reporting Units: pH Units	Outfall 012 - W	ater)								
$\mathbf{H}$	EPA 150.1	4116049	N/A	NA	7.99	1	09/16/04	09/16/04		Í
.nple ID: INI0927-01 (DRAFT: C Reporting Units: ug/l		,			J.				. 1	,
Perchlorate	EPA 314.0	4116047	0.80	4.0	ND	1	09/16/04	09/16/04	K.	-

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PRAFT REPORT **AFT REPORT** DATA SUBJECT TO CHANGE



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fWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

Attention: Bronwyn Kelly

DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Data Reporting Sample Dilution Date

Analyzed Qualifiers Analyte Method Batch Limit Result Factor Extracted

Sample ID: IN10927-01 (DRAFT: Outfall 012 - Water)

Reporting Units: mg/l

0.31 09/17/04 09/17/04 EPA 418.1 4117090 1.0 5.9 **Total Recoverable Hydrocarbons** 

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DRAFT REPORT **FT REPORT** DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026 303.935.6505, Fax 303.935.6575

# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Perchlorate by 314.0

QC Level: V1

**SDG**: INI0927

Matrix: Water

No. of Samples: 1

Reviewer: A. Lang

Date Reviewed: November 3, 2004

Reference: USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94)

Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The sample was received outside the temperature limits of 4°±2°C, at 18 °C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The COC accounted for the sample and analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day perchlorate analytical holding time was met.	No qualifications were required.
3. Method Blanks	Perchlorate was not detected in the method blank.	No qualifications were required.
5. LCS/BS	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u> None	None	Not applicable
7. MS/MSDs Outfall 012	The recoveries were within the laboratory-established control limits of 80-120%.	No qualifications were required.
10. Other	None	Not applicable
11. Field QC Samples None	None	Not applicable
Comments	A cursory review of the perchlorate chromatograms was performed and no false negative was noted.	Not applicable

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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**1WH-Pasadena/Boeing** 

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

### DRAFT: INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (DRAFT: C	Outfall 012 - Wa	iter)							-
Ammonia-N (Distilled)	EPA 350.2	4123096	0.30	0.50	ND	1	09/23/04	09/23/04	
Biochemical Oxygen Demand	EPA 405.1	4I16100	0.012	0.040	2.5	1		09/21/04	
Oil & Grease	EPA 413.1	4120075	0.94	5.0	1.8	1		09/20/04	1
Total Dissolved Solids	SM2540C	4I17133	10	10	310	1		09/17/04	•
Total Suspended Solids	EPA 160.2	4116102	10	10	17	i		09/16/04	
Sample ID: INI0927-01 (DRAFT: C Reporting Units: ml/l/hr Total Settleable Solids	EPA 160.5	4116097	0.10	0.10	ND	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (DRAFT: C Reporting Units: NTU Turbidity	Puttali 012 - Wa EPA 180.1	4I16095	0.20	1.0	35	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (DRAFT: C Reporting Units: pH Units	Outfall 012 - Wa	ter) 4116049	N/A	NA	7.99	1	00/16/04	00/16/04	
nple ID: INI0927-01 (DRAFT: C Reporting Units: ug/l			N/A	NA	1.99		09/10/04	09/16/()4	ķ
Perchlorate	EPA 314.0	4116047	0.80	4.0	ND	1	09/16/04	09/16/04	



DRAFT REPORT **AFT REPORT** 

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# DATA ASSESSMENT FORM

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: 1,4-Dioxane by Method 8260B SIM

QC Level: V1

<u>SDG</u>: INI1518

Matrix: Water

No. of Samples: 1

No. of Reanalyses/Dilutions: 0

<u>Date Reviewed</u>: October 29, 2004

Reviewer: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The 1,4-dioxane analysis was subcontracted to Del Mar Analytical in Phoenix. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. According to the case narrative for this SDG, the sample was received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding the custody seals on the cooler.  The sample was analyzed within 14 days of sample collection.	No qualifications were required.
4. Method Blanks	One method blank was analyzed with this SDG. Target compounds 1,4-dioxane was not reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike/ blank spike duplicate pair was analyzed with this SDG. The recoveries and RPD for 1,4-dioxane were within the laboratory QC limits.	No qualifications were required.

Project: NPDES SDG: INI1518 Analysis: VOC

		Findings	Qualifications
6.	Surrogates	The surrogate recovery for the sample analysis was within the laboratory QC limits.	No qualifications were required.
7.	MS/MSDs	There were no MS/MSD analyses associated with this SDG.	None.
8.	Field QC Samples  TB: None ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	None.
9.	Other	No TICs were reported by the laboratory for this SDG.	None.
Co	mments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/24/04

Pasadena, CA 91101

Analyte

Report Number: INI1518

Received: 09/24/04

DRAFT: 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Data MDL Reporting Sample Dilution Date Date Result Factor Extracted Analyzed Qualifiers Method Batch Limit Limit

Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water) - cont.

Reporting Units: ug/l

1.0 ND **EPA 8260B** P4I2801 0.49 1,4-Dioxane

104 % Surrogate: Dibromofluoromethane (80-135%)



RAFT REPORT DRAFT REPORT DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80226 303.935.6505, Fax 303.935.6575

# **DATA ASSESSMENT FORM**

<u>Project Title</u>: NPDES Monitoring <u>Project Manager</u>: B. McIlvaine

Analysis/Method: Volatiles by Method 624

QC Level: V1

SDG: INI1518 Matrix: Water

No. of Samples: 2

No. of Reanalyses/Dilutions: 0

<u>Date Reviewed</u>: October 29, 2004 <u>Reviewer</u>: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012, Trip Blank

	Findings	Qualifications
1. Sample Management	The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding the custody seals on the coolers.  The samples were analyzed within 14 days of sample collection.	No qualifications were required.
4. Method Blanks	One method blank was analyzed with this SDG. There were no target compounds reported in the method blank.	No qualifications were required.
5. LCS/BS	One blank spike was analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits.	No qualifications were required.
6. Surrogates	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG.	None.

Project: NPDES SDG: INI1518 Analysis: VOC

	Findings	Qualifications
8. Field QC Samples  TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. Other	No TICs were reported by the laboratory for the samples in this SDG.	None.
Comments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

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IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/24/04 Pasadena, CA 91101 Received: 09/24/04 Report Number: INI1518

Attention: Bronwyn Kelly

# DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

DIA	ri. VOLAIII	TE ONG	WILL	SDIGC	1) STAT	LIA 02.	+ MIOD	•)		
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyze	l Qua	ata lifiers
Sample ID: INI1518-01 (DRAFT Reporting Units: ug/l	: Outfall 012 - Wa	iter)						Ç	Qua 1	Qua
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J03010	0.32	2.0	ND	1	10/03/04	10/03/04	U	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J03010	0.32	5.0	ND	1	10/03/04	10/03/04	1	
1,2,3-Trichloropropane	EPA 624 MOD	4J03010	0.85	10	ND	1	10/03/04	10/03/04	- 1	1
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J03010	0.25	5.0	ND	1	10/03/04	10/03/04	1.	
tert-Butanol (TBA)	EPA 624 MOD	4J03010	3.1	25	ND	1	10/03/04	10/03/04	V	
Surrogate: Dibromofluoromethane	e (80-120%)				97%					1
Surrogate: Toluene-d8 (80-120%)					99 %					
Surrogate: 4-Bromofluorobenzene	(80-120%)				102 %			1.	2 ,	1 01
Sample ID: INI1518-02 (DRAFT Reporting Units: ug/l	: TRIP BLANK -	Water)						d K	w ual	bde
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J03010	0.32	2.0	ND	1	10/03/04	10/03/04	U	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J03010	0.32	5.0	ND	1	10/03/04	10/03/04	1	
1,2,3-Trichloropropane	EPA 624 MOD	4J03010	0.85	10	ND	1	10/03/04	10/03/04		
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J03010	0.25	5.0	ND	1	10/03/04	10/03/04		
t-Butanol (TBA)	EPA 624 MOD	4J03010	3.1	25	ND	1	10/03/04	10/03/04	V	
Surrogate: Dibromofluoromethane	e (80-120%)				98 %					J
Surrogate: Toluene-d8 (80-120%)					98 %					
Surrogate: 4-Bromofluorobenzene	(80-120%)				109 %					





# DATA VALIDATION REPORT

# **NPDES Monitoring**

ANALYSIS: SEMIVOLATLES

SAMPLE DELIVERY GROUP: INI1518

Prepared by

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

Project:

NPDES INI1518

SDG No.: Analysis:

SVOC

### 1. INTRODUCTION

Task Order Title: NPDES Monitoring

Contract Task Order #: 313150010 Sample Delivery Group #: INI1518 Project Manager: B. McIlvaine

DATA VALIDATION REPORT

Matrix: Water

Analysis: Semivolatiles
QC Level: Level IV

No. of Samples: 1 Reanalyses/Dilutions: 0

Reviewer: K. Shadowlight

Date of Review: November 02, 2004

The samples listed in Table 1 were validated based on the guidelines outlined in the AMEC Data Validation Procedure for Levels C and D Semivolatile Organics (DVP-3, Rev. 2), EPA Method 1625C, and the National Functional Guidelines For Organic 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:

**NPDES** 

SDG No.:

INI1518

Analysis:

SVOC

# Table 1. Sample identification

DATA VALIDATION REPORT

Client ID				
	Star Analytical ID	Del Mar ID	Matrix	COC Method
Outfall 012	V409273-01	INI1518-01	water	625

Project: NPDES SDG No.: INI1518 Analysis: SVOC

DATA VALIDATION REPORT

#### 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 Del Mar Analytical Laboratory within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . The semivolatile analysis was subcontracted to Star Analytical and the transfer COC noted that the sample was received within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . The sample containers were received intact and in good condition. No qualifications were required.

#### 2.1.2 Chain of Custody

The COC from the field to Del Mar Laboratory was signed by both field and laboratory personnel and the transfer COC from Del Mar Analytical to Star Analytical was signed by personnel from both laboratories. The COC did not indicate whether custody seals were present and intact on the cooler upon receipt at either of the laboratories. No qualifications were required.

#### 2.1.3 Holding Times

The sample was extracted within the holding time of seven days from the date of collection and analyzed within 40 days of extraction. No qualifications were required.

#### 2.2 GC/MS TUNING

The DFTPP tunes met the criteria specified in Method 625, and the samples were analyzed within 12 hours of the DFTPP injection time. No qualifications were required.

#### 2.3 CALIBRATION

The initial calibration associated with this SDG was analyzed 10/05/04, and the continuing calibration associated with all sample analysis was analyzed 10/06/04. The average RRFs in the initial calibration were  $\geq 0.05$  for target compounds n-nitrosodimethylamine (NDMA) and naphthalene, and the %RSDs were within the method QC limit of  $\leq 35\%$ . The RRFs in the continuing calibration were  $\geq 0.05$ , and the %Ds were within the method QC limit of  $\leq 20\%$  for both target compounds. A representative number of %RSDs for the initial calibration and %Ds for the continuing calibration were checked from the raw data, and no calculation or transcription errors were noted. No qualifications were required.

T711SV4 3 Revision 1

Project: SDG No.: Analysis: NPDES INI1518 SVOC

DATA VALIDATION REPORT

2.4 BLANKS

One method blank (V4J0501-BLK1) was extracted and analyzed with this SDG. There were no detects for naphthalene or NDMA in the method blank. Review of the method blank raw data revealed no false negatives. No qualifications were required.

2.5 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

One LCS/LCSD (V4J0501-BS1/BSD1) was extracted and analyzed with the samples of this SDG. The recoveries and RPDs for naphthalene and NDMA were within the laboratory QC limits. A representative number of recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

2.6 SURROGATE RECOVERY

The sample surrogate recoveries were within the laboratory-established QC limits. A representative number of recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were not performed for this SDG. Evaluation of method accuracy and precision was based on the LCS/LCSD results. No qualifications were required.

2.8 FIELD QC SAMPLES

Following are findings associated with field QC:

2.8.1 Field Blanks and Equipment Rinsates

The sample in this SDG had no associated field blank or equipment rinsate samples. No qualifications were required.

2.8.2 Field Duplicates

There were no field duplicate pairs associated with this SDG; however, the laboratory performed a duplicate analysis of sample Outfall 012 and the calculated RPD naphthalene was within the QC limits of ≤30%. Qualifications are not routinely assigned based on field duplicate results.

Project: NPDES SDG No.: INI1518 Analysis: SVOC

DATA VALIDATION REPORT

#### 2.9 INTERNAL STANDARDS

The internal standard area counts were within the control limits established by the continuing calibration standards: +100/-50% for internal standard areas and ±30 seconds for retention times. A representative number of area recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

#### 2.10 COMPOUND IDENTIFICATION

The laboratory analyzed for target compounds naphthalene and NDMA by Method 625. Review of the raw data did not indicate any compound identification problems. No qualifications were required.

### 2.11 COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Compound quantitation was verified from the raw data, and no calculation errors were noted. The reporting limits for naphthalene and NDMA were supported by the low level of the initial calibration and the method detection limit study (MDL). Results were reported in  $\mu g/L$  (ppb). No qualifications were required.



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MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/24/04 Received: 09/24/04 Report Number: INI1518

Pasadena, CA 91101 Attention: Bronwyn Kelly

# DRAFT: Semivolatile Organic Compounds by EPA Method 625

			MDL	Reporting	Sample	Dilution	Date	Date		ata
Analyte	Method	Batch	Limit	Limit	Result	FactorI	Extracted	Analyze	d Qual	lifiers
Sample ID: INI1518-01 (DRA Reporting Units: ug/L	AFT: Outfall 012 - W	<sup>/</sup> ater) - cont	•					d K	en Pual	Pua
Naphthalene	EPA 625	V4J0501	1.31	10.0	20.9	1	09/30/04	10/06/04		1
N-Nitrosodimethylamine	EPA 625	V4J0501	1.37	20.0	ND	1	09/30/04	10/06/04	ч	
Surrogate: 2-FP (40.8-88.4%)					46.8 %					1
Surrogate: Phenol-d6 (31.7-86	5.6%)				39.6 %					
Surrogate: 2,4,6-TBP (58-109)	%)				87.5 %					i
Surrogate: Nitrobenzene-d5 (4	(7.1-99.2%)				58.0 %					
Surrogate: 2-FBP (44.7-89.6%	6)				51.4%					
Surrogate: p-Terphenyl-d14 (4	15.7-117%)				74.9 %					





550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026 303.935.6505, Fax 303.935.6575

# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M

QC Level:  $V^1$ 

SDG: INI1518

Matrix: Water

No. of Samples: 1 Dilutions/Reanalyses:

Date Reviewed: November 2, 2004

Reviewer: M. Pokorny

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012 (INI1518-01)

	Findings	Qualifications
1. Sample Managem	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.  According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.	No qualifications were required.
3. Method Blanks	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was ≤25%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.

Project: NPDES SDG: INI1518 Analysis: TFH

	Findings	Qualifications
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. Field QC Samples  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. Other	The laboratory analyzed for n-alkane range C13-C22.	No qualifications were required.
Comments	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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fWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1518

Batch

Sampled: 09/24/04

Received: 09/24/04

Attention: Bronwyn Kelly

Analyte

EFH (C13 - C22)

DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Limit

MDL Reporting Sample Dilution Date

Result Factor Extracted

Date Data

QUAL

Analyzed Qualifiers

Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water) - cont.

Reporting Units: mg/l

Surrogate: n-Octacosane (45-125%)

EPA 8015B

Method

4128066 0.082

0.50

Limit

0.962 09/28/04 09/30/04

1.0 91 %

AMEC VALIDATED

LEVEL V

AFT REPORT

DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026 303.935.6505, Fax 303.935.6575

# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M

OC Level: V1

**SDG**: INI1518

Matrix: Water

No. of Samples: 2

Dilutions/Reanalyses: 0

Date Reviewed: November 2, 2004

Reviewer: M. Pokorny

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012 (INI1518-01), Trip Blank (INI1518-02)

	Findings	Qualifications
1. Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.  According to the sample result summary	No qualifications were required.
	forms, the samples were analyzed within 14 days of collection.	
3. Method Blanks	Two water method blanks were analyzed with this SDG. Target compound GRO (C4-C12) was not reported in the method blanks.	No qualifications were required.
4. LCS/BS	Two water blank spikes were analyzed with this SDG. The recoveries of GRO (C4-C12) were within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.

Project: NPDES SDG: INI1518 Analysis: TFH

	Findings	Qualifications
7. Field QC Samples  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. Other	The laboratory analyzed for gasoline range organics (C4-C12).	No qualifications were required.
Comments	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

 $<sup>^{1}</sup>$  Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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1WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INI1518

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Sampled: 09/24/04

Received: 09/24/04

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

							,		
Method	Batch	MDL Limit	Reporting Limit				Date Analyzed	~ · · · · · · · · ·	_
: Outfall 012 - Wa	ter) - cont	•						-	CODE
EPA 8015 Mod.	4J08013	0.050	0.10	0.28 92 %	1	10/08/04	10/08/04		
: TRIP BLANK -	Water)								:
EPA 8015 Mod.	4J04011	0.050	0.10	ND 97 %	1	10/04/04	10/04/04	U	ed Aug
	EPA 8015 Mod.  TRIP BLANK -	: Outfall 012 - Water) - cont EPA 8015 Mod. 4J08013 : TRIP BLANK - Water) EPA 8015 Mod. 4J04011	Method Batch Limit : Outfall 012 - Water) - cont.  EPA 8015 Mod. 4J08013 0.050 : TRIP BLANK - Water)  EPA 8015 Mod. 4J04011 0.050	Method Batch Limit Limit  : Outfall 012 - Water) - cont.  EPA 8015 Mod. 4J08013 0.050 0.10  : TRIP BLANK - Water)  EPA 8015 Mod. 4J04011 0.050 0.10	Method         Batch         Limit         Limit         Result           : Outfall 012 - Water) - cont.           EPA 8015 Mod. 4J08013 0.050 0.10 0.28 92 %           : TRIP BLANK - Water)           EPA 8015 Mod. 4J04011 0.050 0.10 ND	Method         Batch         Limit         Result         Factor F           : Outfall 012 - Water) - cont.           EPA 8015 Mod.         4J08013         0.050         0.10         0.28         1           (i)         92 %           : TRIP BLANK - Water)           EPA 8015 Mod.         4J04011         0.050         0.10         ND         1	Method         Batch         Limit         Result         Factor Extracted           : Outfall 012 - Water) - cont.           EPA 8015 Mod. 4J08013         0.050         0.10         0.28         1         10/08/04           (i)         92 %           : TRIP BLANK - Water)           EPA 8015 Mod. 4J04011         0.050         0.10         ND         1         10/04/04	Method         Batch         Limit         Result         Factor Extracted         Analyzed           : Outfall 012 - Water) - cont.             1         10/08/04<	Method Batch Limit Limit Result Factor Extracted Analyzed Qualifiers に Outfall 012 - Water) - cont.  EPA 8015 Mod. 4J08013 0.050 0.10 0.28 1 10/08/04 10/08/04 92 %  : TRIP BLANK - Water)  EPA 8015 Mod. 4J04011 0.050 0.10 ND 1 10/04/04 10/04/04 し

AMEC VALIDATED



TAFT REPORT AFT REPORT DATA SUBJECT TO CHANGE



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# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: General Minerals

QC Level: V1

**SDG**: INI1518

Matrix: Water

No. of Samples: 1

Reviewer:

Date Reviewed: November 3, 2004

A. Lang

Outfall 012

Reference:

USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94)

Samples Reviewed:

	Findings	Qualifications
1. Sample Management	The sample was received within the temperature limits of 4°±2°C. The COC matched the sample and accounted for the analyses presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The analytical holding times were met for all the analyses.	No qualifications were required.
3. Method Blanks	Oil & Grease was detected in the method blank at 1.10 µg/L, but it was not detected in the site sample. There were no detects in the remaining method blanks.	No qualifications were required.
5. LCS/BS	The recoveries were within the laboratory-established control limits.	No qualifications were required.
6. <u>Duplicates</u>	Duplicate analyses were performed for turbidity and pH only. The RPDs were within the laboratory-established control limits.	No qualifications were required
7. MS/MSDs	A matrix spike was performed for ammonia only. The spike recovery was within the laboratory-established control limits.	No qualifications were required
10. Other	None	None

Project: NPDES SDG: INI1518 Analysis: Gen. Min.

	Findings	Qualifications
11. Field QC Samples	None	None
Comments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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IWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

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Dien 1: monomites							14			
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifier	s
Sample ID: IN11518-01 (DRAFT: C Reporting Units: mg/l	Outfall 012 - Wa	iter)								Des
Ammonia-N (Distilled)	EPA 350.2	4128067	0.30	0.50	ND	1	09/28/04	09/28/04		u
Biochemical Oxygen Dengand	EPA 405.1	4124083	0.59	2.0	2.8	1	09/24/04	09/29/04		
Oil & Grease	EPA 413.1	4130073	0.94	5.0	ND	1	09/30/04	09/30/04		u
Total Dissolved Solids	SM2540C	4128091	10	10	330	1	09/28/04	09/28/04		
Total Suspended Solids	EPA 160.2	4127082	10	10	120	1	09/27/04	09/27/04		
Sample ID: INI1518-01 (DRAFT: C Reporting Units: ml/l/hr Total Settleable Solids	Outfall <b>012 -</b> Wa EPA 160.5	ater) 4124107	0.10	0.10	ND	1	09/24/04	09/24/04		u.
Sample ID: INI1518-01 (DRAFT: C Reporting Units: NTU Turbidity	Outfall 012 - Wa EPA 180.1	4125045	0.20	1.0	27	1	09/25/04	09/25/04		
Sample ID: INI1518-01 (DRAFT: C Reporting Units: pH Units	Outfall 012 - Wa	ater) 4125039	N/A	NA	8.09	1	09/25/04	09/25/04		
mple ID: INI1518-01 (DRAFT: C Reporting Units: ug/l										
Perchlorate	EPA 314.0	4125033	0.80	4.0	ND	1	09/25/04	09/25/04	-	X

\* analysis mot validated

# AMEC VALIDATE

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1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1518

Pasadena, CA 91101

Attention: Bronwyn Kelly

Sampled: 09/24/04 Received: 09/24/04

# DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

MDL Reporting Sample Dilution Date Date Data Sample Dilution Date Date Date Date Analyte Method Batch Limit Limit Result Factor Extracted Analyzed Qualifiers

Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)

Reporting Units: mg/l

Total Recoverable Hydrocarbons EPA 418.1 4J01062 0.31 1.0 5.1 1 10/01/04 10/01/04

AMEC VALIDATED

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I FT REPORT
DATA SUBJECT TO CHANGE



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# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager:

B. McIlvaine

Analysis/Method: Perchlorate by 314.0

QC Level:

٧¹

SDG: INI1518

Matrix: Water

No. of Samples: 1

Date Reviewed: November 3, 2004

Reviewer: A. Lang

Reference:

USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94)

Samples Reviewed: Outfall 012

	Findings	Qualifications
1. Sample Management	The sample was received within the temperature limits of 4°±2°C. The COC accounted for the sample and analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day perchlorate analytical holding time was met.	No qualifications were required.
3. Method Blanks	Perchlorate was not detected in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u>	None	Not applicable
7. MS/MSDs None	None	Not applicable
10. Other	None	Not applicable
11. Field QC Samples None	None	Not applicable
Comments	A cursory review of the perchlorate chromatograms was performed and no false negative was noted.	Not applicable

Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

DRA	FT.	INOF	CAN	SOID
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			MOST	<b>n</b>		70.11	<b></b>	<b>75</b> .	20.4	63
		<b>~</b> .	MDL		_			Date	Data	. 1
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers	3
Sample ID: IN11518-01 (DRAFT: (Reporting Units: mg/l	Outfall 012 - W	ater)								Y.
Ammonia-N (Distilled)	EPA 350.2	4128067	0.30	0.50	ND	1	09/28/04	09/28/04		1
Biochemical Oxygen Demand	EPA 405.1	4124083	0.59	2.0	2.8	1	09/24/04			
Oil & Grease	EPA 413.1	4I30073	0.94	5.0	ND	1	09/30/04			
Total Dissolved Solids	SM2540C	4128091	10	10	330	1	09/28/04	09/28/04		
Total Suspended Solids	EPA 160.2	4127082	10	10	120	1	09/27/04	09/27/04		1
Sample ID: INI1518-01 (DRAFT: 0 Reporting Units: ml/l/hr Total Settleable Solids	Outfall 012 - W: EPA 160.5	ater) 4I24107	0.10	0.10	ND	1	09/24/04	09/24/04		
Sample ID: INI1518-01 (DRAFT: C Reporting Units: NTU		•								
Turbidity	EPA 180.1	4125045	0.20	1.0	27	1	09/25/04	09/25/04		
Sample ID: INI1518-01 (DRAFT: 0 Reporting Units: pH Units	Outfall 012 - Wa	ater)								
рҢ	EPA 150.1	4125039	N/A	NA	8.09	1	09/25/04	09/25/04		/
. aple ID: INI1518-01 (DRAFT: 6 Reporting Units: ug/l	Outfall 012 - W	ater)								V
Perchlorate	EPA 314.0	4125033	0.80	4.0	ND	1	09/25/04	09/25/04	l	۲

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AMEC VALIDATED

LEVEL V

DP AFT REPORT FT REPORT DATA SUBJECT TO CHANGE



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# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: 1,4-Dioxane by Method 8260B SIM

QC Level: V1

SDG: INI1882 Matrix: Water

No. of Samples: 1
No. of Reanalyses/Dilutions: 0

<u>Date Reviewed</u>: November 2, 2004 <u>Reviewer</u>: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012

# **Data Validation Findings**

	Findings	Qualifications
1. Sample Management	The 1,4-dioxane analysis was subcontracted to Del Mar Analytical in Phoenix. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. According to the case narrative for this SDG, the sample was received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding the custody seals on the cooler.  The sample was analyzed within 14 days of sample collection.	
4. Method Blanks	One method blank was analyzed with this SDG. 1,4-Dioxane was not reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike/ blank spike duplicate pair was analyzed with this SDG. The recoveries and RPD for 1,4-dioxane were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate was recovered within the laboratory QC limits.	No qualifications were required.

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Project: NPDES SDG: INI1882 Analysis: VOC

	Findings	Qualifications		
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG.	None.		
8. Field QC Samples  TB: None ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	None.		
9. Other	No TICs were reported by the laboratory for this SDG.	None.		
Comments	None	None.		

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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Del Mar Analytical - Irvine

Attention: Michele Harper

461 Derian Ave. Suite 100

Irvine, CA 92614

Project ID: INI1882

Report Number: PNJ0024

Sampled: 09/29/04

Received: 10/02/04

# 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	<i>(</i> ()	
Sample ID: PNJ0024-01 (INI1882- Reporting Units: ug/l	01 - Water)								Roy Pust	u.
1,4-Dioxane Surrogate: Dibromofluoromethane	EPA 8260B (80-135%)	P4J0202	N/A	1.0	ND 105 %	1	10/02/04	10/02/04	U	



A Mar Analytical - Phoenix Ken Baker Project Manager



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80226 303.935.6505, Fax 303.935.6575

# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Volatiles by Method 624

OC Level: V1

SDG: INI1882 Matrix: Water

No. of Reanalyses/Dilutions: 2

<u>Date Reviewed</u>: November 3, 2004

Reviewer: K. Shadowlight

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012, Trip Blank

	Findings	Qualifications
1. Sample Management	The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding custody seals on the cooler.  The samples were analyzed within 14 days of sample collection.	No qualifications were required.
4. Method Blanks	One method blank was analyzed with this SDG. There were no target compounds reported in the method blank.	No qualifications were required.
5. LCS/BS	One blank spike was analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits.	No qualifications were required.
6. Surrogates	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.
7. MS/MSDs	There were no MS/MSD analyses associated with this SDG.	None.

Project: NPDES SDG: INI1882 Analysis: VOC

	Findings	Qualifications
8. Field QC Samples  TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. Other	No TICs were reported by the laboratory for the samples in this SDG.	None.
Comments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1882

Sampled: 09/29/04

Attention: Bronwyn Kelly

Received: 09/30/04

# DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

			MDL	Reporting	Sample	Dilution	Date	Date	Dat	ta
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyze		fiers
Sample ID: INI1882-01 (DRAFT Reporting Units: ug/l	: Outfall 012 - Wa	iter)						R	v Jud	Pux 60
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J06029	0.32	2.0	ND	1	10/06/04	10/07/04	u	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J06029	0.32	5.0	ND	1	10/06/04	10/07/04	1	
1,2,3-Trichloropropane	EPA 624 MOD	4J06029	0.85	10	ND	1	10/06/04	10/07/04		
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J06029	0.25	5.0	ND	1	10/06/04	10/07/04		1
tert-Butanol (TBA)	EPA 624 MOD	4J06029	3.1	25	ND	1	10/06/04	10/07/04	<b>1</b>	
Surrogate: Dibromofluoromethane	(80-120%)				108 %				_	l
Surrogate: Toluene-d8 (80-120%)					102 %					
Surrogate: 4-Bromofluorobenzene	(80-120%)				105 %					
Sample ID: INI1882-02 (DRAFT Reporting Units: ug/l	: Trip Blank - Wa	ter)								
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J06029	0.32	2.0	ND	1	10/06/04	10/07/04	u	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J06029	0.32	5.0	ND	1	10/06/04	10/07/04	1	
1,2,3-Trichloropropane	EPA 624 MOD	4J06029	0.85	10	ND	1	10/06/04	10/07/04		
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J06029	0.25	5.0	ND	1	10/06/04	10/07/04		
ert-Butanol (TBA)	EPA 624 MOD	4J06029	3.1	25	ND	1	10/06/04	10/07/04	1	
Jurrogate: Dibromofluoromethane	(80-120%)				106 %					
Surrogate: Toluene-d8 (80-120%)					97%					
Surrogate: 4-Bromofluorobenzene	(80-120%)				106 %					





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#### **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Semivolatiles by EPA Method 625

OC Level: V1

SDG: INI1882 fatrix: Water

Matrix: Water amples: 1

No. of Samples: 1
No. of Reanalyses/Dilutions: 0

<u>Date Reviewed</u>: November 3, 2004

Reviewer: K. Shadowlight Reference: National Function

: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012

# **Data Validation Findings**

	Findings	Qualifications
1. Sample Management	The semivolatiles were subcontracted to Star Analytical. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. No sample receipt information was recorded on the COC; however, the transfer COC noted that the sample containers were received intact and that custody seals were not present on the cooler. The cooler temperature was within the temperature limits of 4 ±2°C at both laboratories.  According to the extraction and analysis dates on the sample result form, the sample was extracted within seven days of sample collection and analyzed within 40 days of extraction.	Due to the nonvolatile nature of the analytes, no qualifications were required.
4. Method Blanks	One water method blank was extracted and analyzed with this SDG. NDMA and naphthalene were not reported in the method blank.	No qualifications were required.

Project: NPDES SDG: INI1882 Analysis: SVOA

	Findings	Qualifications
5. <u>LCS/BS</u>	One water LCS/LCSD pair was extracted and analyzed with this SDG. The recoveries and RPDs for target compounds NDMA and naphthalene were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate recoveries were within the laboratory QC limits.	No qualifications were required.
7. MS/MSDs	A matrix spike was performed for sample Outfall 012. The recoveries were within the control limits of 70-130%.	No qualifications were required.
8. Field QC Samples ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	No qualifications were required.
9. Other	TICs were not reported by the laboratory for this SDG.	No qualifications were required.
Comments	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None

Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI1882

Sampled: 09/29/04 Received: 09/30/04

# DRAFT: Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyze	Data d Qualifiers
Sample ID: INI1882-01 (DRA Reporting Units: ug/L	FT: Outfall 012 - W	/ater) - cont.	•						Rul Pu
Naphthalene	EPA 625	V4J0615	1.31	10.0	28.4	1	10/06/04	10/07/04	
N-Nitrosodimethylamine	EPA 625	V4J0615	1.37	20.0	ND	1	10/06/04	10/07/04	u l
Surrogate: 2-FP (40.8-88.4%)	•				53.0 %				- 1
Surrogate: Phenol-d6 (31.7-86.	6%)				46.6 %				J
Surrogate: 2,4,6-TBP (58-109%	ó)				93.5 %				
Surrogate: Nitrobenzene-d5 (47	'.1-99.2%)				74.4 %				
Surrogate: 2-FBP (44.7-89.6%)	•				67.3 %				
Surrogate: p-Terphenyl-d14 (45	5.7-117%)				81.9 %				





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# **DATA ASSESSMENT FORM**

<u>Project Title</u>: NPDES Monitoring Project Manager: B. McIlvaine

Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M

OC Level: V<sup>1</sup>
SDG: INI1882
Matrix: Water

No. of Samples: 1 Dilutions/Reanalyses: 0

<u>Date Reviewed</u>: November 2, 2004 <u>Reviewer</u>: M. Pokorny

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012 (INI1882-01)

#### **Data Validation Findings**

		Findings	Qualifications
1.	Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.  According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.	No qualifications were required.
3.	Method Blanks	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4.	<u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was ≤25%.	No qualifications were required.
5.	<u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.

Project: NPDES SDG: INI1882 Analysis: TFH

	Findings	Qualifications
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. Field QC Samples  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. Other	The laboratory analyzed for n-alkane range C13-C22.	No qualifications were required.
Comments	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None.

Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04 Received: 09/30/04

Attention: Bronwyn Kelly

DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

MDL Reporting Sample Dilution Date Data Method Batch Limit Result FactorExtracted Analyzed Qualifiers Limit DIA

Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) - cont.

Reporting Units: mg/l

Analyte

EPA 8015B 4J01040 0.082 0.50 EFH (C13 - C22) 1.1 0.971 10/01/04 10/05/04 84 %

Surrogate: n-Octacosane (45-125%)

AMEC VALIDATED

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LFT REPORT DATA SUBJECT TO CHANGE



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# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M

QC Level: V<sup>1</sup>

SDG: INI1882 Matrix: Water

No. of Samples: 2 Dilutions/Reanalyses: 0

<u>Date Reviewed</u>: November 2, 2004

Reviewer: M. Pokorny

Reference: National Functional Guidelines for Organic Data Review (2/94)

Samples Reviewed: Outfall 012 (INI1882-01), Trip Blank (INI1882-02)

# **Data Validation Findings**

	Findings	Qualifications
1. Sample Management	The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature within the limits of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . No custody seal information was provided by the laboratory.	No qualifications were required.
	According to the sample result summary forms, the samples were analyzed within 14 days of collection.	
3. Method Blanks	Two water method blanks were analyzed with this SDG. Target compound GRO (C4-C12) was not reported in the method blanks.	No qualifications were required.
4. LCS/BS	Two water blank spikes were analyzed with this SDG. The recoveries of GRO (C4-C12) was within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.
6. MS/MSDs None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.

Project: NPDES SDG: INI1882 Analysis: TFH

	Findings	Qualifications
7. Field QC Samples  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. Other	The laboratory analyzed for gasoline range organics (C4-C12).  Sample Outfall 012 was analyzed only at a 10× dilution. The laboratory was basing dilutions on sample petroleum odor.  The sample result and reporting limit were appropriately adjusted for the dilution.	No qualifications were required.
Comments	A cursory review of the sample chromatograms and quantitation reports were performed by the reviewer.	None.

 $<sup>^{1}</sup>$  Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor E		Date Analyzed	Data Qualifiers (\$\int E^{}\$	QUAL
Sample ID: INI1882-01 (DRAFT: Reporting Units: mg/l GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%)	EPA 8015 Mod.	ter) - cont 4J07125	0.50	1.0	1.2 102 %		10/07/04	10/07/04	QUAL	CODI
Sample ID: INI1882-02 (DRAFT: Reporting Units: mg/l GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%)	EPA 8015 Mod.	ter) 4J07007	0.050	0.10	ND 95 %	1	10/07/04	10/07/04	$\cup$	

# AMEC VALIDATED



AFT REPORT ∟KAFT REPORT DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026 303.935.6505, Fax 303.935.6575

#### **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: General Minerals

QC Level: V1

**SDG**: INI1882

Matrix: Water

No. of Samples: 1

Date Reviewed: November 3, 2004

Reviewer: A. Lang

Reference: USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94)

Samples Reviewed: Outfall 012

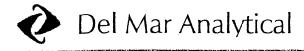
# **Data Validation Findings**

	Findings	Qualifications
1. Sample Management	The sample was received within the temperature limits of 4°±2°C, at 4°C. The COC matched the sample and accounted for the analyses presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The analytical holding times were met for all analyses except pH, which was analyzed outside the 24 hour holding time.	The pH result was qualified "J."
3. Method Blanks	There were no detects in the method blanks.	No qualifications were required.
5. LCS/BS	The recoveries were within the laboratory- established control limits.	No qualifications were required.
6. <u>Duplicates</u>	None	None
7. MS/MSDs	None	None
10. Other	Biological oxygen demand and oil and grease reported below the reporting limit was qualified as estimated, "J," by the laboratory.	None

Project: NPDES SDG: IN11882 Analysis: Gen. Min.

	Findings	Qualifications
11. Field QC Samples	None	None
Comments	None	None.

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

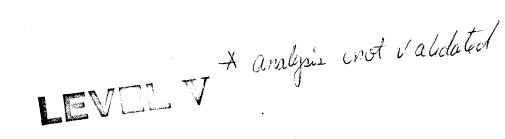
300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04 Received: 09/30/04

DRAFT: INORGANICS											
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifier		
Sample ID: INI1882-01 (DRAFT: Reporting Units: mg/l	: Outfall 012 - W	ater)								<b>A</b>	
Ammonia-N (Distilled)	EPA 350.2	4J05066	0.30	0.50	ND	1	10/05/04	10/05/04		il	
Biochemical Oxygen Demand	EPA 405.1	4J01058	0.59	2.0	1.8	1	10/01/04	10/06/04	J	7	
Oil & Grease	EPA 413.1	4J05067	0.94	5.0	0.95	1	10/05/04	10/05/04	J	J	
Total Dissolved Solids	SM2540C	4J05065	10	10	350	1	10/05/04			İ	
Total Suspended Solids	EPA 160.2	4I30104	10	10	20	1	09/30/04	09/30/04		Ì	
Sample ID: INI1882-01 (DRAFT: Reporting Units: ml/l/hr	Outfall 012 - W	ater)									
Total Settleable Solids	EPA 160.5	4J01059	0.10	0.10	ND	1	10/01/04	10/01/04		u	
Sample ID: INI1882-01 (DRAFT: Reporting Units: NTU	Outfall 012 - W	ater)									
Turbidity	EPA 180.1	4J01064	0.20	1.0	25	1	10/01/04	10/01/04		1	
Sample ID: INI1882-01 (DRAFT: Reporting Units: pH Units	Outfall 012 - W	ater)									
	EPA 150.1	4J01049	N/A	NA	8.27	1	10/01/04	10/01/04	,	J 1	
Sample ID: INI1882-01 (DRAFT: Reporting Units: ug/l	Outfall 012 - W	ater)									
Perchlorate	EPA 314.0	4I30050	0.80	4.0	ND	1	09/30/04	09/30/04		<b>X</b>	



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. WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Total Recoverable Hydrocarbons

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI1882

4J01062

EPA 418.1

Sampled: 09/29/04

10/01/04 10/01/04

Received: 09/30/04

#### DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

MDL Reporting Sample Dilution Date Analyzed Qualifiers Analyte Method Batch Limit Result FactorExtracted Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: mg/l

0.31

1.0

5.0



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FT REPORT JT REPORT DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026 303.935.6505, Fax 303.935.6575

# **DATA ASSESSMENT FORM**

Project Title: NPDES Monitoring

Project Manager: B. McIlvaine

Analysis/Method: Perchlorate by 314.0

QC Level: V<sup>1</sup>

**SDG**: INI1882

Matrix: Water

No. of Samples: 1

Date Reviewed: November 3, 2004

Reviewer: A. Lang

Reference:

USEPA Contract Laboratory Program National Functional Guidelines For

Inorganic Data Review (2/94)

Samples Reviewed: Outfall 012

# **Data Validation Findings**

	Findings	Qualifications
1. Sample Management	The sample was received within the temperature limits of 4°±2°C, at 4°C. The COC matched the sample and accounted for the analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28 day analytical holding time for perchlorate was met.	No qualifications were required.
3. Method Blanks	Perchlorate was not detected in the method blank.	No qualifications were required.
5. LCS/BS	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u>	None	Not applicable
7. MS/MSDs Outfall 012	A matrix spike was analyzed on sample the sample in this SDG. The recovery was within the control limits of 80-120%.	None
10. Other	None	Not applicable
11. Field QC Samples	None	Not applicable

Project: NPDES SDG: INI1882 Analysis: Gen. Min.

	Findings	Qualifications
Comments	None	Not applicable

<sup>&</sup>lt;sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

#### **DRAFT: INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit		Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (DRAFT: Reporting Units: mg/l	Outfall 012 - W	ater)							for Sual
Ammonia-N (Distilled)	EPA 350.2	4J05066	0.30	0.50	ND	1	10/05/04	10/05/04	*
Biochemical Oxygen Demand	EPA 405.1	4J01058	0.59	2.0	1.8	1	10/01/04	10/06/04	J f
Oil & Grease	EPA 413.1	4J05067	0.94	5.0	0.95	1	10/05/04	10/05/04	J
Total Dissolved Solids	SM2540C	4J05065	10	10	350	1	10/05/04	10/05/04	
Total Suspended Solids	EPA 160.2	4I30104	10	10	20	1	09/30/04	09/30/04	
Sample ID: INI1882-01 (DRAFT: Reporting Units: ml/l/hr		•							
Total Settleable Solids	EPA 160.5	4J01059	0.10	0.10	ND	1	10/01/04	10/01/04	1 1
Sample ID: INI1882-01 (DRAFT: Reporting Units: NTU	Outfall 012 - W	ater) 🐪							
Turbidity	EPA 180.1	4J01064	0.20	1.0	25	1	10/01/04	10/01/04	1 1
Sample ID: IN11882-01 (DRAFT: Reporting Units: pH Units	Outfall 012 - W	ater)							
	EPA 150.1	4J01049	N/A	NA	8.27	1	10/01/04	10/01/04	الما
Sample ID: INI1882-01 (DRAFT: Reporting Units: ug/l	Outfall 012 - W	ater)							.,
Perchlorate	EPA 314.0	4130050	0.80	4.0	ND	1	09/30/04	09/30/04	u

\* Aralysis met validated

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#### LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing

Project: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Brownwyn Kelly

Sampled: 08/21/04 Received: 08/21/04 Issued: 10/12/04 16:55

#### NELAP #01108CA CA 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(s) of Custody, 2 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

#### SAMPLE CROSS REFERENCE

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

LABORATORY ID CLIENT ID MATRIX
INH1290-01 Outfall 012 Water
INH1290-02 Trip Blank Water

Reviewed By:

`Mar Analytical, Irvine nele Harper

Michele Harper



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Attention: Brownwyn Kelly

Received: 08/21/04

#### CORRECTIVE ACTION REPORT

Department: Extractions

Date: 08/30/2004

Method: EPA 625

Matrix: Water

QC Batch: 4H24040

#### Identification and Definition of Problem:

The percent recoveries for Benzidine, Hexachlorocyclopentadiene, Hexachloroethane, and 2,4-Dimethylphenol in the LCS and/or LCSD were below method acceptance limits. The target compounds for this sample, however, are N-Nitrosodimethylamine and Naphthalene and therefore this corrective action does not apply.

#### Determination of the Cause of the Problem:

A definitive cause for the QC failure has not been determined.

#### Corrective Action Taken:

All results reported for these compounds are potentially biased low and can be considered estimates only.

Quality Assurance Approval:

Michele Harper

I Mar Analytical, Irvine chele Harper

Project Manager

Michele Harper

Date: 10/12/2004 04:19 PM



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

Attention: Brownwyn Kelly

#### TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (Outfall 012 - W	ater)								
Reporting Units: mg/l Total Recoverable Hydrocarbons	EPA 418.1	4H25069	0.31	1.0	12	1	08/25/04	08/25/04	



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Brownwyn Kelly

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (Outfall 012 - V Reporting Units: mg/l	vater) - cont.								
EFH (C13 - C22) Surrogate: n-Octacosane (45-125%)	EPA 8015B	4H24061	0.33	2.0	<b>4.5</b> 91 %	3.88	08/24/04	08/26/04	



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

Attention: Brownwyn Kelly

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (Outfall 012	- Water) - cont.								
Reporting Units: ug/l GRO (C4 - C12) Surrogate: 4-BFB (F1D) (60-135%)	EPA 8015 Mod.	4H30005	500	1000	1 <b>500</b> 90 %	10	08/30/04	08/30/04	
Sample ID: INH1290-02 (Trip Blank Reporting Units: ug/l GRO (C4 - C12) Surrogate: 4-BFB (F1D) (60-135%)	- Water) EPA 8015 Mod.	4H30005	50	100	ND 94 %	1	08/30/04	08/30/04	



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WH-Pasadena/Boeing

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (Outfall 012	- Water)								
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4H31009	0.32	2.0	ND	1	08/31/04	08/31/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4H31009	0.32	5.0	ND	1	08/31/04	08/31/04	
1,2,3-Trichloropropane	EPA 624 MOD.	4H31009	0.85	10	ND	1	08/31/04	08/31/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4H31009	0.25	5.0	ND	1	08/31/04	08/31/04	
tert-Butanol (TBA)	EPA 624 MOD.	4H31009	3.1	25	ND	1	08/31/04	08/31/04	
Surrogate: Dibromofluoromethane (80	-120%)				98 %				
Surrogate: Toluene-d8 (80-120%)					103 %				
Surrogate: 4-Bromofluorobenzene (80-	120%)				103 %				
Sample ID: INH1290-02 (Trip Blank	- Water)								
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4103020	0.32	2.0	ND	1	09/03/04	09/03/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4103020	0.32	5.0	ND	1	09/03/04	09/03/04	
1,2,3-Trichloropropane	EPA 624 MOD.	4103020	0.85	10	ND	1	09/03/04	09/03/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4103020	0.25	5.0	ND	1	09/03/04	09/03/04	
-t-Butanol (TBA)	EPA 624 MOD.	4103020	3.1	25	ND	1	09/03/04	09/03/04	
rogate: Dibromofluoromethane (80-	-120%)				99 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-	120%)				95 %				



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WH-Pasadena/Boeing

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### 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: INH1290-01 (Outfall 012	2 - Water)								
Reporting Units: ug/l									
Naphthalene	EPA 625	4H24040	4.5	10	73	0.971	08/24/04	08/31/04	
N-Nitrosodimethylamine	EPA 625	4H24040	3.7	20	ND	0.971	08/24/04	08/31/04	
Surrogate: 2-Fluorophenol (35-120%)	<b>5)</b>				62 %				
Surrogate: Phenol-d6 (45-120%)					68 %				
Surrogate: 2,4,6-Tribromophenol (50-	-125%)				101 %				
Surrogate: Nitrobenzene-d5 (45-120%	6)				83 %				
Surrogate: 2-Fluorobiphenyl (45-120)	%)				<i>78 %</i>				
Surrogate: Terphenyl-d14 (45-135%)					118 %				



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INH1290

Attention: Brownwyn Kelly

Sampled: 08/21/04 Received: 08/21/04

		I	NORG	ANICS					
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (Outfall 012	- Water) - cont.								
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4H30095	0.30	0.50	0.84	1	08/30/04	08/30/04	
Biochemical Oxygen Demand	EPA 405.1	4H21041	0.59	2.0	6.0	1	08/21/04	08/26/04	
Oil & Grease	EPA 413.1	4H24051	0.94	5.0	2.1	1	08/24/04	08/24/04	J
Total Dissolved Solids	SM2540C	4H24094	10	10	400	1	08/24/04	08/24/04	
Total Suspended Solids	EPA 160.2	4H23056	10	10	24	1	08/23/04	08/23/04	
Sample ID: INH1290-01 (Outfall 012 Reporting Units: ml/l/hr	- Water)								
Total Settleable Solids	EPA 160.5	4H21059	0.10	0.10	ND	1	08/21/04	08/21/04	
Sample ID: INH1290-01 (Outfall 012 Reporting Units: NTU	- Water)								
Turbidity	EPA 180.1	4H21051	0.20	1.0	38	1	08/21/04	08/21/04	
Sample ID: INH1290-01 (Outfall 012 Reporting Units: pH Units	- Water)								
~U	EPA 150.1	4H21049	N/A	NA	7.96	1	08/21/04	08/21/04	
лріе ID: INH1290-01 (Outfall 012	- Water)								
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4H23025	0.80	4.0	ND	1	08/23/04	08/24/04	

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

Attention: Brownwyn Kelly

#### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: INH1290-01 (Outfall 012 - V	Vater) - cont.								
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4H3105	0.49	1.0	ND	1	08/31/04	08/31/04	
Surrogate: Dibromofluoromethane (80-13	15%)				104 %				



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Brownwyn Kelly

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 012 (INH1290-01) - Wa	ter				
EPA 150.1	1	08/21/2004 12:00	08/21/2004 15:05	08/21/2004 15:00	08/21/2004 16:15
EPA 160.5	2	08/21/2004 12:00	08/21/2004 15:05	08/21/2004 16:08	08/21/2004 16:08
EPA 180.1	2	08/21/2004 12:00	08/21/2004 15:05	08/21/2004 15:30	08/21/2004 16:00
EPA 405.1	2	08/21/2004 12:00	08/21/2004 15:05	08/21/2004 16:00	08/26/2004 12:30

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Brownwyn Kelly Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### METHOD BLANK/QC DATA

#### TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

	Reporting			Spike	Source		%REC		RPD	Data	
Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers	
-											
K1)											
ND	1.0	0.31	mg/l								
										M-NR1	
4.62	1.0	0.31	mg/l	5.00		92	65-120				
LCS Dup Analyzed: 08/25/04 (4H25069-BSD1)											
4.21	1.0	0.31	mg/l	5.00		84	65-120	9	20		
	- K1) ND 4.62 BSD1)	Result Limit  -  K1)  ND 1.0  4.62 1.0  BSD1)	Result Limit MDL	Result         Limit         MDL         Units           K1)         ND         1.0         0.31         mg/l           4.62         1.0         0.31         mg/l           BSD1)	Result         Limit         MDL         Units         Level	Result         Limit         MDL         Units         Level         Result           K1)         ND         1.0         0.31         mg/l           4.62         1.0         0.31         mg/l         5.00           BSD1)	Result         Limit         MDL         Units         Level         Result         %REC           K1)         ND         1.0         0.31         mg/l           4.62         1.0         0.31         mg/l         5.00         92           BSD1)	Result         Limit         MDL         Units         Level         Result         %REC         Limits           K1)         ND         1.0         0.31         mg/l         - <td>Result         Limit         MDL         Units         Level         Result         %REC         Limits         RPD           K1)         ND         1.0         0.31         mg/l         -&lt;</td> <td>Result         Limit         MDL         Units         Level         Result         %REC         Limits         RPD         Limit           K1)         ND         1.0         0.31         mg/l         5.00         92         65-120           BSD1)         BSD1)         65-120         65-120         BSD1         BSD1         65-120</td>	Result         Limit         MDL         Units         Level         Result         %REC         Limits         RPD           K1)         ND         1.0         0.31         mg/l         -<	Result         Limit         MDL         Units         Level         Result         %REC         Limits         RPD         Limit           K1)         ND         1.0         0.31         mg/l         5.00         92         65-120           BSD1)         BSD1)         65-120         65-120         BSD1         BSD1         65-120	

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WH-Pasadena/Boeing

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### METHOD BLANK/QC DATA

#### **EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4H24061 Extracted: 08/24/04	<u> </u>										
Blank Analyzed: 08/25/04 (4H24061-BL	K1)										
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.222			mg/l	0.200		111	45-125			
LCS Analyzed: 08/25/04 (4H24061-BS1)											M-NR1
EFH (C13 - C40)	0.618	0.50	0.082	mg/l	0.775		80	40-115			
Surrogate: n-Octacosane	0.240			mg/l	0.200		120	45-125			
LCS Dup Analyzed: 08/25/04 (4H24061-	BSD1)										
EFH (C13 - C40)	0.529	0.50	0.082	mg/l	0.775		68	40-115	16	25	
rogate: n-Octacosane	0.206			mg/l	0.200		103	45-125			

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Brownwyn Kelly Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H30005 Extracted: 08/30/04	<u>L</u>										
Blank Analyzed: 08/30/04 (4H30005-BL)	<b>K</b> 1)										
GRO (C4 - C12)	ND	100	50	ug/l							
Surrogate: 4-BFB (FID)	9.91			ug/l	10.0		99	60-135			
LCS Analyzed: 08/30/04 (4H30005-BS1)											
GRO (C4 - C12)	205	100	50	ug/l	220		93	70-135			
Surrogate: 4-BFB (FID)	11.0			ug/l	10.0		110	60-135			
Matrix Spike Analyzed: 08/30/04 (4H300	005-MS1)				Source: INH1541-03						
GRO (C4 - C12)	211	100	50	ug/l	220	ND	96	60-135			
Surrogate: 4-BFB (FID)	10.4			ug/l	10.0		104	60-135			
trix Spike Dup Analyzed: 08/30/04 (4H30005-MSD1)					Sou	rce: INH1	1541-03				
್ರಗO (C4 - C12)	210	100	50	ug/l	220	ND	95	60-135	1	20	
Surrogate: 4-BFB (FID)	10.2			ug/l	10.0		102	60-135			

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Brownwyn Kelly

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4H31009 Extracted: 08/31/0	<u>4</u>										
	<b>TP4</b> \										
Blank Analyzed: 08/31/04 (4H31009-BI				_							
Acetone	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
-Butylbenzene	ND	5.0	0.25	ug/l							
Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	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	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/i							
2,2-Dichloropropane	ND	2.0	0.29	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
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WH-Pasadena/Boeing

Attention: Brownwyn Kelly

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### METHOD BLANK/QC DATA

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data	
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers	
Batch: 4H31009 Extracted: 08/31	/04											
DL . L . L L												
Blank Analyzed: 08/31/04 (4H31009-	BLK1)											
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l								
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l								
Ethylbenzene	ND	2.0	0.25	ug/l								
Hexachlorobutadiene	ND	5.0	0.38	ug/l								
2-Hexanone	ND	10	2.6	ug/l								
Isopropylbenzene	ND	2.0	0.25	ug/l								
p-Isopropyltoluene	ND	2.0	0.28	ug/l								
Methylene chloride	ND	5.0	0.48	ug/l								
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l								
**thyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l								
athalene	ND	5.0	0.41	ug/l								
n-Propylbenzene	ND	2.0	0.14	ug/l								
Styrene	ND	2.0	0.16	ug/l								
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l								
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l								
Tetrachloroethene	ND	2.0	0.32	ug/l								
Toluene	ND	2.0	0.36	ug/l								
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l								
1,2,4-Trichlorobenzene	ND	5.0	0.48	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	2.0	0.26	ug/l								
Trichlorofluoromethane	ND	5.0	0.34	ug/l								
1,2,3-Trichloropropane	ND	10	0.85	ug/l								
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l								
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l								
Vinyl chloride	ND	5.0	0.26	ug/l								
o-Xylene	ND	2.0	0.24	ug/l								
m,p-Xylenes	ND	2.0	0.52	ug/l								
Xylenes, Total	ND	4.0	0.52	ug/l								
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l								
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l								
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l								
tert-Butanol (TBA)	ND	25	3.1	ug/l								
Surrogate: Dibromofluoromethane	24.2			ug/l	25.0		97	80-120				

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

Attention: Brownwyn Kelly

#### **METHOD BLANK/QC DATA**

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Accelorate	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Analyte		Limit	MIDL	Units	Level	Result	76REC	Limits	KFD	Liiiii	Quanners
Batch: 4H31009 Extracted: 08/31/0	<u>4</u>										
	T74\										
Blank Analyzed: 08/31/04 (4H31009-BI				а	25.0		102	00.120			
Surrogate: Toluene-d8	25.5			ug/l	25.0		102 99	80-120			
Surrogate: 4-Bromofluorobenzene	24.8			ug/l	25.0		99	80-120			
LCS Analyzed: 08/31/04 (4H31009-BS1	)										
Acetone	14.8	10	4.5	ug/l	25.0		59	30-120			
Benzene	21.8	2.0	0.28	ug/l	25.0		87	70-120			
Bromobenzene	24.0	5.0	0.27	ug/l	25.0		96	80-120			
Bromochloromethane	24.2	5.0	0.32	ug/l	25.0		97	65-135			
Bromodichloromethane	23.5	2.0	0.30	ug/l	25.0		94	70-140			
Bromoform	20.2	5.0	0.32	ug/l	25.0		81	55-135			
nomethane	23.0	5.0	0.34	ug/l	25.0		92	60-140			
utanone (MEK)	18.6	10	3.8	ug/l	25.0		74	40-135			
n-Butylbenzene	25.8	5.0	0.17	ug/l	25.0		103	75-130			)
sec-Butylbenzene	25.1	5.0	0.25	ug/l	25.0		100	75-125			
tert-Butylbenzene	25.2	5.0	0.22	ug/l	25.0		101	75-125			
Carbon tetrachloride	24.2	5.0	0.28	ug/l	25.0		97	70-140			
Chlorobenzene	23.8	2.0	0.36	ug/l	25.0		95	80-125			
Chloroethane	22.4	5.0	0.33	ug/l	25.0		90	60-145			
Chloroform	22.8	2.0	0.33	ug/l	25.0		91	75-130			
Chloromethane	19.7	5.0	0.30	ug/l	25.0		79	40-145			
2-Chlorotoluene	24.4	5.0	0.28	ug/l	25.0		98	75-125			
4-Chlorotoluene	24.5	5.0	0.29	ug/l	25.0		98	75-125			
Dibromochloromethane	22.7	2.0	0.28	ug/l	25.0		91	65-145			
1,2-Dibromo-3-chloropropane	17.3	5.0	0.92	ug/l	25.0		69	50-135			
1,2-Dibromoethane (EDB)	22.2	2.0	0.32	ug/l	25.0		89	75-125			
Dibromomethane	22.2	2.0	0.36	ug/l	25.0		89	75-130			
1,2-Dichlorobenzene	23.6	2.0	0.32	ug/l	25.0		94	80-120			
1,3-Dichlorobenzene	24.2	2.0	0.35	ug/l	25.0		97	80-120			
1,4-Dichlorobenzene	23.7	2.0	0.37	ug/l	25.0		95	80-120			
Dichlorodifluoromethane	21.0	5.0	0.79	ug/l	25.0		84	10-160			
1,1-Dichloroethane	23.9	2.0	0.27	ug/l	25.0		96	70-135			
1,2-Dichloroethane	21.9	2.0	0.28	ug/l	25.0		88	60-150			
1,1-Dichloroethene	22.7	5.0	0.32	ug/l	25.0		91	75-135			
cis-1,2-Dichloroethene	23.2	2.0	0.32	ug/l	25.0		93	70-125			
trans-1,2-Dichloroethene	24.1	2.0	0.27	ug/l	25.0		96	70-130			
1,2-Dichloropropane	23.5	2.0	0.35	ug/l	25.0		94	70-120			

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 08/21/04 Report Number: INH1290 Received: 08/21/04 Pasadena, CA 91101

Attention: Brownwyn Kelly

#### METHOD BLANK/QC DATA

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

	Desult	Reporting	MDI	TT-:4-	Spike	Source	0/ DEC	%REC	RPD	RPD	Data Qualifiers
Analyte	Result	Limit	MDL	Units	Level	Resuit	%REC	Limits	KPD	Limit	Quanners
Batch: 4H31009 Extracted: 08/31/04	<u> </u>										
LCS Analyzed: 08/31/04 (4H31009-BS1)											
1,3-Dichloropropane	21.7	2.0	0.30	ug/l	25.0		87	70-130			
2,2-Dichloropropane	22.4	2.0	0.29	ug/l	25.0		90	65-150			
1,1-Dichloropropene	24.1	2.0	0.28	ug/l	25.0		96	75-130			
cis-1,3-Dichloropropene	23.8	2.0	0.22	ug/l	25.0		95	75-130			
trans-1,3-Dichloropropene	22.6	2.0	0.24	ug/l	25.0		90	75-135			
Ethylbenzene	24.7	2.0	0.25	ug/l	25.0		99	80-120			
Hexachlorobutadiene	23.9	5.0	0.38	ug/l	25.0		96	65-140			
2-Hexanone	16.9	10	2.6	ug/l	25.0		68	40-140			
Isopropylbenzene	25.9	2.0	0.25	ug/l	25.0		104	75-125			
*copropyltoluene	24.8	2.0	0.28	ug/l	25.0		99	75-125			
nylene chloride	21.2	5.0	0.48	ug/l	25.0		85	60-135			
4-Methyl-2-pentanone (MIBK)	17.4	10	2.5	ug/l	25.0		70	40-140			
Methyl-tert-butyl Ether (MTBE)	23.2	5.0	0.32	ug/l	25.0		93	55-145			
Naphthalene	20.1	5.0	0.41	ug/l	25.0		80	50-145			
n-Propylbenzene	25.5	2.0	0.14	ug/l	25.0		102	75-130			
Styrene	26.2	2.0	0.16	ug/l	25.0		105	80-135			
1,1,1,2-Tetrachloroethane	24.4	5.0	0.27	ug/l	25.0		98	70-145			
1,1,2,2-Tetrachloroethane	20.0	2.0	0.24	ug/l	25.0		80	60-135			
Tetrachloroethene	25.2	2.0	0.32	ug/l	25.0		101	75-125			
Toluene	23.3	2.0	0.36	ug/l	25.0		93	75-120			
1,2,3-Trichlorobenzene	22.7	5.0	0.45	ug/l	25.0		91	65-135			
1,2,4-Trichlorobenzene	24.2	5.0	0.48	ug/l	25.0		97	70-140			
1,1,1-Trichloroethane	24.7	2.0	0.30	ug/l	25.0		99	75-140			
1,1,2-Trichloroethane	21.7	2.0	0.30	ug/l	25.0		87	70-125			
Trichloroethene	24.7	2.0	0.26	ug/l	25.0		99	80-120			
Trichlorofluoromethane	24.3	5.0	0.34	ug/l	25.0		97	65-145			
1,2,3-Trichloropropane	19.4	10	0.85	ug/l	25.0		78	60-130			
1,2,4-Trimethylbenzene	25.3	2.0	0.23	ug/l	25.0		101	75-125			
1,3,5-Trimethylbenzene	25.2	2.0	0.26	ug/l	25.0		101	75-125			
Vinyl chloride	24.6	5.0	0.26	ug/l	25.0		98	50-130			
o-Xylene	24.3	2.0	0.24	ug/l	25.0		97	75-125			
m,p-Xylenes	49.4	2.0	0.52	ug/l	50.0		99	75-120			
Di-isopropyl Ether (DIPE)	24.8	5.0	0.25	ug/l	25.0		99	65-135			
Ethyl tert-Butyl Ether (ETBE)	23.8	5.0	0.28	ug/l	25.0		95	60-140			
tert-Amyl Methyl Ether (TAME)	23.2	5.0	0.33	ug/l	25.0		93	60-140			

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Brownwyn Kelly Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### METHOD BLANK/QC DATA

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H31009 Extracted: 08/31/04	\$										
	<del></del>										
LCS Analyzed: 08/31/04 (4H31009-BS1)	)										
tert-Butanol (TBA)	143	25	3.1	ug/l	125		114	70-140			
Surrogate: Dibromofluoromethane	24.4			ug/l	25.0		98	80-120			
Surrogate: Toluene-d8	25.3			ug/l	<i>25.0</i>		101	80-120			
Surrogate: 4-Bromofluorobenzene	24.5			ug/l	25.0		98	80-120			
Matrix Spike Analyzed: 08/31/04 (4H31	009-MS1)				Sou	rce: INH	1290-01				
Acetone	24.1	10	4.5	ug/l	25.0	10	56	10-150			
Benzene	32.5	2.0	0.28	ug/l	25.0	8.1	98	70-120			
Bromobenzene	26.3	5.0	0.27	ug/l	25.0	ND	105	65-130			
Bromochloromethane	28.2	5.0	0.32	ug/l	25.0	ND	113	65-140			
nodichloromethane	29.1	2.0	0.30	ug/l	25.0	1.5	110	70-140			
.omoform	23.1	5.0	0.32	ug/l	25.0	ND	92	55-140			
Bromomethane	26.4	5.0	0.34	ug/l	25.0	ND	106	50-145			
2-Butanone (MEK)	21.4	10	3.8	ug/l	25.0	ND	86	30-145			
n-Butylbenzene	26.9	5.0	0.17	ug/l	25.0	ND	108	70-140			
sec-Butylbenzene	26.7	5.0	0.25	ug/l	25.0	ND	107	70-130			
tert-Butylbenzene	26.9	5.0	0.22	ug/l	25.0	ND	108	70-130			
Carbon tetrachloride	27.9	5.0	0.28	ug/l	25.0	ND	112	70-145			
Chlorobenzene	26.7	2.0	0.36	ug/l	25.0	ND	107	80-125			
Chloroethane	25.7	5.0	0.33	ug/l	25.0	ND	103	50-145			
Chloroform	27.3	2.0	0.33	ug/l	25.0	1.0	105	70-135			
Chloromethane	22.9	5.0	0.30	ug/l	25.0	ND	92	35-145			
2-Chlorotoluene	26.5	5.0	0.28	ug/l	25.0	ND	106	70-140			
4-Chlorotoluene	26.4	5.0	0.29	ug/l	25.0	ND	106	70-140			
Dibromochloromethane	26.6	2.0	0.28	ug/l	25.0	0.81	103	65-145			
1,2-Dibromo-3-chloropropane	19.2	5.0	0.92	ug/l	25.0	ND	77	45-155			
1,2-Dibromoethane (EDB)	25.8	2.0	0.32	ug/l	25.0	ND	103	70-130			
Dibromomethane	26.4	2.0	0.36	ug/l	25.0	ND	106	65-140			
1,2-Dichlorobenzene	25.6	2.0	0.32	ug/l	25.0	ND	102	75-130			
1,3-Dichlorobenzene	26.3	2.0	0.35	ug/l	25.0	ND	105	75-130			
1,4-Dichlorobenzene	25.9	2.0	0.37	ug/l	25.0	ND	104	80-120			
Dichlorodifluoromethane	23.5	5.0	0.79	ug/l	25.0	ND	94	10-160			
1,1-Dichloroethane	27.6	2.0	0.27	ug/l	25.0	ND	110	65-135			
1,2-Dichloroethane	25.4	2.0	0.28	ug/l	25.0	ND	102	60-150			
1,1-Dichloroethene	26.2	5.0	0.32	ug/l	25.0	ND	105	65-140			
cis-1,2-Dichloroethene	27.4	2.0	0.32	ug/l	25.0	0.68	107	65-130			

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Brownwyn Kelly Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

## METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H31009 Extracted: 08/31/04	<b>,</b>										
	<b>-</b>										
Matrix Spike Analyzed: 08/31/04 (4H31	009-MS1)				Sou	rce: INH	1290-01				
trans-1,2-Dichloroethene	28.1	2.0	0.27	ug/l	25.0	ND	112	65-135			
1,2-Dichloropropane	27.4	2.0	0.35	ug/l	25.0	ND	110	65-130			
1,3-Dichloropropane	24.6	2.0	0.30	ug/l	25.0	ND	98	65-140			
2,2-Dichloropropane	27.1	2.0	0.29	ug/l	25.0	ND	108	60-150			
1,1-Dichloropropene	27.7	2.0	0.28	ug/l	25.0	ND	111	65-140			
cis-1,3-Dichloropropene	28.4	2.0	0.22	ug/l	25.0	ND	114	70-140			
trans-1,3-Dichloropropene	26.6	2.0	0.24	ug/l	25.0	ND	106	70-140			
Ethylbenzene	28.7	2.0	0.25	ug/l	25.0	0.63	112	70-130			
Hexachlorobutadiene	24.7	5.0	0.38	ug/l	25.0	ND	99	65-140			
'Iexanone	21.1	10	2.6	ug/l	25.0	ND	84	20-145			
ropylbenzene	28.1	2.0	0.25	ug/l	25.0	ND	112	70-130			
p-Isopropyltoluene	25.7	2.0	0.28	ug/l	25.0	ND	103	70-130			
Methylene chloride	25.1	5.0	0.48	ug/l	25.0	0.64	98	60-135			
4-Methyl-2-pentanone (MIBK)	20.9	10	2.5	ug/l	25.0	ND	84	40-145			
Methyl-tert-butyl Ether (MTBE)	26.9	5.0	0.32	ug/l	25.0	ND	108	50-155			
Naphthalene	90.3	5.0	0.41	ug/l	25.0	74	65	50-150			
n-Propylbenzene	27.7	2.0	0.14	ug/l	25.0	0.25	110	70-135			
Styrene	26.9	2.0	0.16	ug/l	25.0	ND	108	55-145			
1,1,1,2-Tetrachloroethane	28.1	5.0	0.27	ug/l	25.0	ND	112	70-145			
1,1,2,2-Tetrachloroethane	22.4	2.0	0.24	ug/l	25.0	ND	90	60-145			
Tetrachloroethene	28.7	2.0	0.32	ug/l	25.0	ND	115	70-130			
Toluene	29.6	2.0	0.36	ug/l	25.0	2.6	108	70-120			
1,2,3-Trichlorobenzene	25.2	5.0	0.45	ug/l	25.0	ND	101	60-140			
1,2,4-Trichlorobenzene	26.3	5.0	0.48	ug/l	25.0	ND	105	60-140			
1,1,1-Trichloroethane	29.0	2.0	0.30	ug/l	25.0	ND	116	75-140			
1,1,2-Trichloroethane	25.3	2.0	0.30	ug/l	25.0	ND	101	60-135			
Trichloroethene	29.1	2.0	0.26	ug/l	25.0	0.85	113	70-125			
Trichlorofluoromethane	27.6	5.0	0.34	ug/l	25.0	ND	110	55-145			
1,2,3-Trichloropropane	20.8	10	0.85	ug/l	25.0	ND	83	55-140			
1,2,4-Trimethylbenzene	26.4	2.0	0.23	ug/l	25.0	1.0	102	60-125			
1,3,5-Trimethylbenzene	26.1	2.0	0.26	ug/l	25.0	0.38	103	70-130			
Vinyl chloride	28.2	5.0	0.26	ug/l	25.0	ND	113	40-135			
o-Xylene	27.7	2.0	0.24	ug/l	25.0	0.67	108	65-125			
m,p-Xylenes	56.3	2.0	0.52	ug/l	50.0	1.0	111	65-130			
Di-isopropyl Ether (DIPE)	28.6	5.0	0.25	ug/l	25.0	ND	114	65-140			

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INH1290

Sampled: 08/21/04

Pasadena, CA 91101 Attention: Brownwyn Kelly Received: 08/21/04

#### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte Res	Report	•	. Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4H31009 Extracted: 08/31/04										-
Matrix Spike Analyzed: 08/31/04 (4H31009-M	<b>1</b> S1)			Sou	urce: INH	1290-01				
Ethyl tert-Butyl Ether (ETBE) 27	.6 5.0	0.28	ug/l	25.0	ND	110	60-140			
tert-Amyl Methyl Ether (TAME) 27	.0 5.0	0.33	ug/l	25.0	ND	108	55-145			
tert-Butanol (TBA)	7 25	3.1	ug/l	125	ND	126	65-145			
Surrogate: Dibromofluoromethane 24	.8		ug/l	25.0		99	80-120			
Surrogate: Toluene-d8 25.	9		ug/l	25.0		104	80-120			
Surrogate: 4-Bromofluorobenzene 25.	5		ug/l	25.0		102	80-120			
Matrix Spike Dup Analyzed: 08/31/04 (4H310	09-MSD1)			Sou	urce: INH	1290-01				
Acetone 24.	6 10	4.5	ug/l	25.0	10	58	10-150	2	35	
Benzene 33.	0 2.0	0.28	ug/l	25.0	8.1	100	70-120	2	20	
mobenzene 26.	7 5.0	0.27	ug/l	25.0	ND	107	65-130	2	20	
smochloromethane 28.	8 5.0	0.32	ug/l	25.0	ND	115	65-140	2	25	
Bromodichloromethane 30.	2 2.0	0.30	ug/l	25.0	1.5	115	70-140	4	20	
Bromoform 24.	6 5.0	0.32	ug/l	25.0	ND	98	55-140	6	25	
Bromomethane 27.	6 5.0	0.34	ug/l	25.0	ND	110	50-145	4	25	
2-Butanone (MEK) 23.	2 10	3.8	ug/l	25.0	ND	93	30-145	8	40	
n-Butylbenzene 27.	7 5.0	0.17	ug/l	25.0	ND	111	70-140	3	20	
sec-Butylbenzene 27.	6 5.0	0.25	ug/l	25.0	ND	110	70-130	3	20	
tert-Butylbenzene 27.	7 5.0	0.22	ug/l	25.0	ND	111	70-130	3	20	
Carbon tetrachloride 28.	5 5.0	0.28	ug/l	25.0	ND	114	70-145	2	25	
Chlorobenzene 27.	6 2.0	0.36	ug/l	25.0	ND	110	80-125	3	20	
Chloroethane 26.	8 5.0	0.33	ug/l	25.0	ND	107	50-145	4	25	
Chloroform 27.	6 2.0	0.33	ug/l	25.0	1.0	106	70-135	1	20	
Chloromethane 23.	2 5.0	0.30	ug/l	25.0	ND	93	35-145	1	25	
2-Chlorotoluene 27.	5.0	0.28	ug/l	25.0	ND	108	70-140	2	20	
4-Chlorotoluene 27.	5.0	0.29	ug/l	25.0	ND	108	70-140	2	20	
Dibromochloromethane 27.	4 2.0	0.28	ug/l	25.0	0.81	106	65-145	3	25	
1,2-Dibromo-3-chloropropane 20.0	5.0	0.92	ug/l	25.0	ND	80	45-155	4	30	
1,2-Dibromoethane (EDB) 26.	1 2.0	0.32	ug/l	25.0	ND	104	70-130	1	25	
Dibromomethane 26.0	5 2.0	0.36	ug/l	25.0	ND	106	65-140	1	25	
1,2-Dichlorobenzene 25.5	2.0	0.32	ug/l	25.0	ND	104	75-130	1	20	
1,3-Dichlorobenzene 26.3	3 2.0	0.35	ug/l	25.0	ND	107	75-130	2	20	
1,4-Dichlorobenzene 26.2	2.0	0.37	ug/l	25.0	ND	105	80-120	1	20	
Dichlorodifluoromethane 24.4	5.0	0.79	ug/l	25.0	ND	98	10-160	4	30	
1,1-Dichloroethane 28.1	2.0	0.27	ug/l	25.0	ND	112	65-135	2	20	
1,2-Dichloroethane 25.6	2.0	0.28	ug/l	25.0	ND	102	60-150	1	20	

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INH1290 Re

Attention: Brownwyn Kelly

Sampled: 08/21/04 Received: 08/21/04

#### METHOD BLANK/QC DATA

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting				Source				RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H31009 Extracted: 08/31	1/04										
Matrix Spike Dup Analyzed: 08/31/04	4 (4H31009-MSI	D1)			Sou	rce: INH	1290-01				
1,1-Dichloroethene	26.9	5.0	0.32	ug/l	25.0	ND	108	65-140	3	20	
cis-1,2-Dichloroethene	28.1	2.0	0.32	ug/l	25.0	0.68	110	65-130	3	20	
trans-1,2-Dichloroethene	28.5	2.0	0.27	ug/l	25.0	ND	114	65-135	1	20	
1,2-Dichloropropane	28.1	2.0	0.35	ug/l	25.0	ND	112	65-130	3	20	
1,3-Dichloropropane	25.3	2.0	0.30	ug/l	25.0	ND	101	65-140	3	25	
2,2-Dichloropropane	27.4	2.0	0.29	ug/l	25.0	ND	110	60-150	1	25	
1,1-Dichloropropene	28.3	2.0	0.28	ug/l	25.0	ND	113	65-140	2	20	
cis-1,3-Dichloropropene	29.0	2.0	0.22	ug/l	25.0	ND	116	70-140	2	20	
trans-1,3-Dichloropropene	27.3	2.0	0.24	ug/l	25.0	ND	109	70-140	3	25	
~ 'vlbenzene	29.3	2.0	0.25	ug/l	25.0	0.63	115	70-130	2	20	
achlorobutadiene	23.1	5.0	0.38	ug/l	25.0	ND	92	65-140	7	20	
2-Hexanone	25.4	10	2.6	ug/l	25.0	ND	102	20-145	18	35	
Isopropylbenzene	28.8	2.0	0.25	ug/l	25.0	ND	115	70-130	2	20	
p-Isopropyltoluene	26.9	2.0	0.28	ug/l	25.0	ND	108	70-130	5	20	
Methylene chloride	25.8	5.0	0.48	ug/l	25.0	0.64	101	60-135	3	20	
4-Methyl-2-pentanone (MIBK)	22.6	10	2.5	ug/l	25.0	ND	90	40-145	8	35	
Methyl-tert-butyl Ether (MTBE)	27.4	5.0	0.32	ug/l	25.0	ND	110	50-155	2	25	
Naphthalene	88.8	5.0	0.41	ug/l	25.0	74	59	50-150	2	30	
n-Propylbenzene	28.1	2.0	0.14	ug/l	25.0	0.25	111	70-135	1	20	
Styrene	28.4	2.0	0.16	ug/l	25.0	ND	114	55-145	5	30	
1,1,1,2-Tetrachloroethane	28.7	5.0	0.27	ug/l	25.0	ND	115	70-145	2	20	
1,1,2,2-Tetrachloroethane	22.7	2.0	0.24	ug/l	25.0	ND	91	60-145	1	30	
Tetrachloroethene	29.2	2.0	0.32	ug/l	25.0	ND	117	70-130	2	20	
Toluene	30.3	2.0	0.36	ug/l	25.0	2.6	111	70-120	2	20	
1,2,3-Trichlorobenzene	24.4	5.0	0.45	ug/l	25.0	ND	98	60-140	3	20	
1,2,4-Trichlorobenzene	25.5	5.0	0.48	ug/l	25.0	ND	102	60-140	3	20	
1,1,1-Trichloroethane	29.6	2.0	0.30	ug/l	25.0	ND	118	75-140	2	20	
1,1,2-Trichloroethane	26.1	2.0	0.30	ug/l	25.0	ND	104	60-135	3	25	
Trichloroethene	29.7	2.0	0.26	ug/l	25.0	0.85	115	70-125	2	20	
Trichlorofluoromethane	28.3	5.0	0.34	ug/l	25.0	ND	113	55-145	3	25	
1,2,3-Trichloropropane	21.3	10	0.85	ug/l	25.0	ND	85	55-140	2	30	
1,2,4-Trimethylbenzene	27.1	2.0	0.23	ug/l	25.0	1.0	104	60-125	3	25	
1,3,5-Trimethylbenzene	26.9	2.0	0.26	ug/l	25.0	0.38	106	70-130	3	20	
Vinyl chloride	29.6	5.0	0.26	ug/l	25.0	ND	118	40-135	5	30	
o-Xylene	28.7	2.0	0.24	ug/l	25.0	0.67	112	65-125	4	20	
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17461Derian 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

WH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

| Sampled: 08/21/04 | Report Number: INH1290 | Received: 08/21/04

Attention: Brownwyn Kelly

#### METHOD BLANK/QC DATA

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H31009 Extracted: 08/31/04	<u>1</u>										
	_										
Matrix Spike Dup Analyzed: 08/31/04 (4	4H31009-MS	D1)			Sou	rce: INH	1290-01				
m,p-Xylenes	57.9	2.0	0.52	ug/l	50.0	1.0	114	65-130	3	25	
Di-isopropyl Ether (DIPE)	29.1	5.0	0.25	ug/l	25.0	ND	116	65-140	2	25	
Ethyl tert-Butyl Ether (ETBE)	28.2	5.0	0.28	ug/l	25.0	ND	113	60-140	2	25	
tert-Amyl Methyl Ether (TAME)	27.5	5.0	0.33	ug/l	25.0	ND	110	55-145	2	30	
tert-Butanol (TBA)	157	25	3.1	ug/l	125	ND	126	65-145	0	25	
Surrogate: Dibromofluoromethane	24.7			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	25.8			ug/l	25.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	25.5			ug/l	25.0		102	80-120			
Batch: 4103020 Extracted: 09/03/04											
.₄nk Analyzed: 09/03/04 (4I03020-BLk	<b>(1)</b>										
Acetone	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							

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WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I03020 Extracted: 09	0/03/04										
Butter (100020 Entraction											
Blank Analyzed: 09/03/04 (4I030	)20-BLK1)										
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	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	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/l							
^ ?-Dichloropropane	ND	2.0	0.29	ug/l							
Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	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	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

Attention: Brownwyn Kelly

#### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4I03020 Extracted: 09/03/04											
Dutoni 1200020 Envious op. 100	-										
Blank Analyzed: 09/03/04 (4I03020-BL	K1)										
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
-Butanol (TBA)	ND	25	3.1	ug/l							
ogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Toluene-d8	25.4			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	23.7			ug/l	25.0		95	80-120			
LCS Analyzed: 09/03/04 (4I03020-BS1)											
Acetone	13.1	10	4.5	ug/l	25.0		52	30-120			
Benzene	24.2	2.0	0.28	ug/l	25.0		97	70-120			
Bromobenzene	23.8	5.0	0.27	ug/l	25.0		95	80-120			
Bromochloromethane	25.0	5.0	0.32	ug/l	25.0		100	65-135			
Bromodichloromethane	24.9	2.0	0.30	ug/l	25.0		100	70-140			
Bromoform	20.6	5.0	0.32	ug/l	25.0		82	55-135			
Bromomethane	26.2	5.0	0.34	ug/l	25.0		105	60-140			
2-Butanone (MEK)	18.9	10	3.8	ug/l	25.0		76	40-135			
n-Butylbenzene	24.0	5.0	0.17	ug/l	25.0		96	75-130			
sec-Butylbenzene	23.9	5.0	0.25	ug/l	25.0		96	75-125			
tert-Butylbenzene	24.5	5.0	0.22	ug/l	25.0		98	75-125			
Carbon tetrachloride	25.1	5.0	0.28	ug/l	25.0		100	70-140			
Chlorobenzene	23.8	2.0	0.36	ug/l	25.0		95	80-125			
Chloroethane	25.0	5.0	0.33	ug/l	25.0		100	60-145			
Chloroform	24.6	2.0	0.33	ug/l	25.0		98	75-130			
Chloromethane	24.0	5.0	0.30	ug/l	25.0		96	40-145			
2-Chlorotoluene	23.6	5.0	0.28	ug/l	25.0		94	75-125			
4-Chlorotoluene	24.0	5.0	0.29	ug/l	25.0		96	75-125			
Dibromochloromethane	24.0	2.0	0.28	ug/l	25.0		96	65-145			
1,2-Dibromo-3-chloropropane	23.3	5.0	0.92	ug/l	25.0		93	50-135			
1,2-Dibromoethane (EDB)	23.6	2.0	0.32	ug/l	25.0		94	75-125			

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Brownwyn Kelly Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

## METHOD BLANK/QC DATA

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I03020 Extracted: 09/03/04											
LCS Analyzed: 09/03/04 (4I03020-BS1)											
Dibromomethane	24.1	2.0	0.36	ug/l	25.0		96	75-130			
1,2-Dichlorobenzene	23.8	2.0	0.32	ug/l	25.0		95	80-120			
1,3-Dichlorobenzene	23.5	2.0	0.35	ug/l	25.0		94	80-120			
1,4-Dichlorobenzene	23.7	2.0	0.37	ug/l	25.0		95	80-120			
Dichlorodifluoromethane	27.0	5.0	0.79	ug/l	25.0		108	10-160			
1,1-Dichloroethane	24.5	2.0	0.27	ug/l	25.0		98	70-135			
1,2-Dichloroethane	23.9	2.0	0.28	ug/l	25.0		96	60-150			
1,1-Dichloroethene	24.5	5.0	0.32	ug/l	25.0		98	75-135			
cis-1,2-Dichloroethene	24.3	2.0	0.32	ug/l	25.0		97	70-125			
ns-1,2-Dichloroethene	24.4	2.0	0.27	ug/l	25.0		98	70-130 <sup>-</sup>			
Dichloropropane	23.8	2.0	0.35	ug/l	25.0		95	70-120			
1,3-Dichloropropane	22.9	2.0	0.30	ug/l	25.0		92	70-130			
2,2-Dichloropropane	25.0	2.0	0.29	ug/l	25.0		100	65-150			
1,1-Dichloropropene	24.0	2.0	0.28	ug/l	25.0		96	75-130			
cis-1,3-Dichloropropene	24.6	2.0	0.22	ug/l	25.0		98	75-130			
trans-1,3-Dichloropropene	24.6	2.0	0.24	ug/l	25.0		98	75-135			
Ethylbenzene	24.0	2.0	0.25	ug/l	25.0		96	80-120			
Hexachlorobutadiene	22.9	5.0	0.38	ug/l	25.0		92	65-140			
2-Hexanone	18.5	10	2.6	ug/l	25.0		74	40-140			
Isopropylbenzene	24.7	2.0	0.25	ug/l	25.0		99	75-125			
p-Isopropyltoluene	23.3	2.0	0.28	ug/l	25.0		93	75-125			
Methylene chloride	24.0	5.0	0.48	ug/l	25.0		96	60-135			
4-Methyl-2-pentanone (MIBK)	20.2	10	2.5	ug/l	25.0		81	40-140			
Methyl-tert-butyl Ether (MTBE)	23.1	5.0	0.32	ug/l	25.0		92	55-145			
Naphthalene	22.4	5.0	0.41	ug/l	25.0		90	50-145			
n-Propylbenzene	23.7	2.0	0.14	ug/l	25.0		95	75-130			
Styrene	25.4	2.0	0.16	ug/l	25.0		102	80-135			
1,1,1,2-Tetrachloroethane	25.1	5.0	0.27	ug/l	25.0		100	70-145			
1,1,2,2-Tetrachloroethane	28.0	2.0	0.24	ug/l	25.0		112	60-135			
Tetrachloroethene	24.0	2.0	0.32	ug/l	25.0		96	75-125			
Toluene	24.6	2.0	0.36	ug/l	25.0		98	75-120			
1,2,3-Trichlorobenzene	22.4	5.0	0.45	ug/l	25.0		90	65-135			
1,2,4-Trichlorobenzene	23.5	5.0	0.48	ug/l	25.0		94	70-140			
1,1,1-Trichloroethane	23.9	2.0	0.30	ug/l	25.0		96	75-140			
1,1,2-Trichloroethane	24.1	2.0	0.30	ug/l	25.0		96	70-125			

<sup>1</sup> Mar Analytical, Irvine

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

Attention: Brownwyn Kelly

#### **METHOD BLANK/QC DATA**

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting		A.	Spike	Source	*/	%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4103020 Extracted: 09/03/04											
LCS Analyzed: 09/03/04 (4I03020-BS1)											
Trichloroethene	22.4	2.0	0.26	ug/l	25.0		90	80-120			
Trichlorofluoromethane	26.5	5.0	0.34	ug/l	25.0		106	65-145			
1,2,3-Trichloropropane	22.6	10	0.85	ug/l	25.0		90	60-130			
1,2,4-Trimethylbenzene	25.0	2.0	0.23	ug/l	25.0		100	75-125			
1,3,5-Trimethylbenzene	25.0	2.0	0.26	ug/l	25.0		100	75-125			
Vinyl chloride	26.8	5.0	0.26	ug/l	25.0		107	50-130			
o-Xylene	23.6	2.0	0.24	ug/l	25.0		94	75-125			
m,p-Xylenes	47.8	2.0	0.52	ug/l	50.0		96	75-120			
Di-isopropyl Ether (DIPE)	24.1	5.0	0.25	ug/l	25.0		96	65-135			
vl tert-Butyl Ether (ETBE)	22.4	5.0	0.28	ug/l	25.0		90	60-140			
Amyl Methyl Ether (TAME)	22.6	5.0	0.33	ug/l	25.0		90	60-140			
tert-Butanol (TBA)	141	25	3.1	ug/l	125		113	70-140			
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Toluene-d8	<i>25.3</i>			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	24.3			ug/l	25.0		97	80-120			
Matrix Spike Analyzed: 09/03/04 (41030)	20-MS1)				Sou	rce: INH1	1484-14				
Acetone	14.9	10	4.5	ug/l	25.0	ND	60	10-150			
Benzene	25.1	2.0	0.28	ug/l	25.0	ND	100	70-120			
Bromobenzene	24.7	5.0	0.27	ug/l	25.0	ND	99	65-130			
Bromochloromethane	25.7	5.0	0.32	ug/l	25.0	ND	103	65-140			
Bromodichloromethane	25.6	2.0	0.30	ug/l	25.0	ND	102	70-140			
Bromoform	20.5	5.0	0.32	ug/l	25.0	ND	82	55-140			
Bromomethane	26.3	5.0	0.34	ug/l	25.0	ND	105	50-145			
2-Butanone (MEK)	18.5	10	3.8	ug/l	25.0	ND	74	30-145			
n-Butylbenzene	25.0	5.0	0.17	ug/l	25.0	ND	100	70-140			
sec-Butylbenzene	24.5	5.0	0.25	ug/l	25.0	ND	98	70-130			
tert-Butylbenzene	25.2	5.0	0.22	ug/l	25.0	ND	101	70-130			
Carbon tetrachloride	24.9	5.0	0.28	ug/l	25.0	ND	100	70-145			
Chlorobenzene	24.5	2.0	0.36	ug/l	25.0	ND	98	80-125			
Chloroethane	25.9	5.0	0.33	ug/l	25.0	ND	104	50-145			
Chloroform	26.0	2.0	0.33	ug/l	25.0	ND	104	70-135			
Chloromethane	24.3	5.0	0.30	ug/l	25.0	ND	97	35-145			
2-Chlorotoluene	24.4	5.0	0.28	ug/l	25.0	ND	98	70-140			
4-Chlorotoluene	24.8	5.0	0.29	ug/l	25.0	ND	99	70-140			
Dibromochloromethane	24.3	2.0	0.28	ug/l	25.0	ND	97	65-145			

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INH1290

Attention: Brownwyn Kelly

Sampled: 08/21/04

Received: 08/21/04

#### METHOD BLANK/QC DATA

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I03020 Extracted: 09/03/04	4										
Datem. 1103020 Datemental 03/100/0	<del>-</del>										
Matrix Spike Analyzed: 09/03/04 (4103	020-MS1)				Sou	rce: INH	1484-14				
1,2-Dibromo-3-chloropropane	24.0	5.0	0.92	ug/l	25.0	ND	96	45-155			
1,2-Dibromoethane (EDB)	24.0	2.0	0.32	ug/l	25.0	ND	96	70-130			
Dibromomethane	24.9	2.0	0.36	ug/l	25.0	ND	100	65-140			
1,2-Dichlorobenzene	24.7	2.0	0.32	ug/l	25.0	ND	99	75-130			
1,3-Dichlorobenzene	24.4	2.0	0.35	ug/l	25.0	ND	98	75-130			
1,4-Dichlorobenzene	24.5	2.0	0.37	ug/l	25.0	ND	98	80-120			
Dichlorodifluoromethane	26.7	5.0	0.79	ug/l	25.0	ND	107	10-160			
1,1-Dichloroethane	25.8	2.0	0.27	ug/l	25.0	ND	103	65-135			
1,2-Dichloroethane	24.8	2.0	0.28	ug/l	25.0	ND	99	60-150			
'-Dichloroethene	25.0	5.0	0.32	ug/l	25.0	ND	100	65-140			
,,2-Dichloroethene	26.6	2.0	0.32	ug/l	25.0	1.3	101	65-130			
trans-1,2-Dichloroethene	25.6	2.0	0.27	ug/l	25.0	ND	102	65-135			
1,2-Dichloropropane	24.9	2.0	0.35	ug/l	25.0	ND	100	65-130			
1,3-Dichloropropane	23.3	2.0	0.30	ug/l	25.0	ND	93	65-140			
2,2-Dichloropropane	27.5	2.0	0.29	ug/l	25.0	ND	110	60-150			
1,1-Dichloropropene	25.0	2.0	0.28	ug/l	25.0	ND	100	65-140			
cis-1,3-Dichloropropene	24.9	2.0	0.22	ug/l	25.0	ND	100	70-140			
trans-1,3-Dichloropropene	24.6	2.0	0.24	ug/l	25.0	ND	98	70-140			
Ethylbenzene	24.7	2.0	0.25	ug/l	25.0	ND	99	70-130			
Hexachlorobutadiene	24.2	5.0	0.38	ug/l	25.0	ND	97	65-140			
2-Hexanone	18.2	10	2.6	ug/l	25.0	ND	73	20-145			
Isopropylbenzene	25.9	2.0	0.25	ug/l	25.0	ND	104	70-130			
p-Isopropyltoluene	24.1	2.0	0.28	ug/l	25.0	ND	96	70-130			
Methylene chloride	25.1	5.0	0.48	ug/l	25.0	ND	100	60-135			
4-Methyl-2-pentanone (MIBK)	20.1	10	2.5	ug/l	25.0	ND	80	40-145			
Methyl-tert-butyl Ether (MTBE)	23.8	5.0	0.32	ug/l	25.0	ND	95	50-155			
Naphthalene	23.5	5.0	0.41	ug/l	25.0	ND	94	50-150			
n-Propylbenzene	24.5	2.0	0.14	ug/l	25.0	ND	98	70-135			
Styrene	25.3	2.0	0.16	ug/l	25.0	ND	101	55-145			
1,1,1,2-Tetrachloroethane	25.8	5.0	0.27	ug/l	25.0	ND	103	70-145			
1,1,2,2-Tetrachloroethane	30.0	2.0	0.24	ug/l	25.0	ND	120	60-145			
Tetrachloroethene	24.5	2.0	0.32	ug/l	25.0	ND	98	70-130			
Toluene	25.6	2.0	0.36	ug/l	25.0	ND	102	70-120			
1,2,3-Trichlorobenzene	24.1	5.0	0.45	ug/l	25.0	ND	96	60-140			
1,2,4-Trichlorobenzene	25.1	5.0	0.48	ug/l	25.0	ND	100	60-140			

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WH-Pasadena/Boeing

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Departing

Sampled: 08/21/04

Received: 08/21/04

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#### METHOD BLANK/QC DATA

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

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	I	Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I03020 Extracted: 09/03/04											
Matrix Spike Analyzed: 09/03/04 (41030)	20-MS1)				Sour	rce: INH	1484-14				
1,1,1-Trichloroethane	25.0	2.0	0.30	ug/l	25.0	ND	100	75-140			
1,1,2-Trichloroethane	24.9	2.0	0.30	ug/l	25.0	ND	100	60-135			
Trichloroethene	22.5	2.0	0.26	ug/l	25.0	ND	90	70-125			
Trichlorofluoromethane	27.5	5.0	0.34	ug/l	25.0	ND	110	55-145			
1,2,3-Trichloropropane	22.7	10	0.85	ug/l	25.0	ND	91	55-140			
1,2,4-Trimethylbenzene	25.7	2.0	0.23	ug/l	25.0	ND	103	60-125			
1,3,5-Trimethylbenzene	25.8	2.0	0.26	ug/l	25.0	ND	103	70-130			
Vinyl chloride	28.5	5.0	0.26	ug/l	25.0	0.27	113	40-135			
o-Xylene	24.5	2.0	0.24	ug/l	25.0	ND	98	65-125			
~Xylenes	49.0	2.0	0.52	ug/l	50.0	ND	98	65-130			
sopropyl Ether (DIPE)	25.1	5.0	0.25	ug/l	25.0	ND	100	65-140			
Ethyl tert-Butyl Ether (ETBE)	23.0	5.0	0.28	ug/l	25.0	ND	92	60-140			
tert-Amyl Methyl Ether (TAME)	23.0	5.0	0.33	ug/l	25.0	ND	92	55-145			
tert-Butanol (TBA)	148	25	3.1	ug/l	125	ND	118	65-145			
Surrogate: Dibromofluoromethane	25.9			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	25.4			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	24.4			ug/l	25.0		98	80-120			
Matrix Spike Dup Analyzed: 09/03/04 (4)	(03020-MSD1)				Sour	ce: INH1	484-14				
Acetone	15.4	10	4.5	ug/l	25.0	ND	62	10-150	3	35	
Benzene	25.5	2.0	0.28	ug/l	25.0	ND	102	70-120	2	20	
Bromobenzene	24.9	5.0	0.27	ug/l	25.0	ND	100	65-130	1	20	
Bromochloromethane	26.7	5.0	0.32	ug/l	25.0	ND	107	65-140	4	25	
Bromodichloromethane	26.0	2.0	0.30	ug/l	25.0	ND	104	70-140	2	20	
Bromoform	20.5	5.0	0.32	ug/l	25.0	ND	82	55-140	0	25	
Bromomethane	26.6	5.0	0.34	ug/l	25.0	ND	106	50-145	1	25	
2-Butanone (MEK)	19.9	10	3.8	ug/l	25.0	ND	80	30-145	7	40	
n-Butylbenzene	25.3	5.0	0.17	ug/l	25.0	ND	101	70-140	1	20	
sec-Butylbenzene	25.1	5.0	0.25	ug/l	25.0	ND	100	70-130	2	20	
tert-Butylbenzene	25.7	5.0	0.22	ug/l	25.0	ND	103	70-130	2	20	
Carbon tetrachloride	25.0	5.0	0.28	ug/l	25.0	ND	100	70-145	0	25	
Chlorobenzene	25.3	2.0	0.36	ug/l	25.0	ND	101	80-125	3	20	
Chloroethane	26.8	5.0	0.33	ug/l	25.0	ND	107	50-145	3	25	
Chloroform	26.5	2.0	0.33	ug/l	25.0	ND	106	70-135	2	20	
Chloromethane	24.0	5.0	0.30	ug/l	25.0	ND	96	35-145	1	25	
2-Chlorotoluene	24.9	5.0	0.28	ug/l	25.0	ND	100	70-140	2	20	

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WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

#### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4I03020 Extracted: 09/03/04											
Datem 1100020 Extracted 07,00,0	•										
Matrix Spike Dup Analyzed: 09/03/04 (	4103020-MSD	1)			Sou	rce: INH	1484-14				
4-Chlorotoluene	25.1	5.0	0.29	ug/l	25.0	ND	100	70-140	1	20	
Dibromochloromethane	24.8	2.0	0.28	ug/l	25.0	ND	99	65-145	2	25	
1,2-Dibromo-3-chloropropane	24.0	5.0	0.92	ug/l	25.0	ND	96	45-155	0	30	
1,2-Dibromoethane (EDB)	25.0	2.0	0.32	ug/l	25.0	ND	100	70-130	4	25	
Dibromomethane	25.2	2.0	0.36	ug/l	25.0	ND	101	65-140	1	25	
1,2-Dichlorobenzene	24.8	2.0	0.32	ug/l	25.0	ND	99	75-130	0	20	
1,3-Dichlorobenzene	24.8	2.0	0.35	ug/l	25.0	ND	99	75-130	2	20	
1,4-Dichlorobenzene	25.1	2.0	0.37	ug/l	25.0	ND	100	80-120	2	20	
Dichlorodifluoromethane	26.8	5.0	0.79	ug/l	25.0	ND	107	10-160	0	30	
Dichloroethane	26.1	2.0	0.27	ug/l	25.0	ND	104	65-135	1	20	
Dichloroethane	25.1	2.0	0.28	ug/l	25.0	ND	100	60-150	1	20	
1,1-Dichloroethene	25.8	5.0	0.32	ug/l	25.0	ND	103	65-140	3	20	
cis-1,2-Dichloroethene	27.1	2.0	0.32	ug/l	25.0	1.3	103	65-130	2	20	
trans-1,2-Dichloroethene	26.0	2.0	0.27	ug/l	25.0	ND	104	65-135	2	20	
1,2-Dichloropropane	25.5	2.0	0.35	ug/l	25.0	ND	102	65-130	2	20	
1,3-Dichloropropane	24.4	2.0	0.30	ug/l	25.0	ND	98	65-140	5	25	
2,2-Dichloropropane	27.8	2.0	0.29	ug/l	25.0	ND	111	60-150	1	25	
1,1-Dichloropropene	25.2	2.0	0.28	ug/l	25.0	ND	101	65-140	1	20	
cis-1,3-Dichloropropene	25.0	2.0	0.22	ug/l	25.0	ND	100	70-140	0	20	
trans-1,3-Dichloropropene	24.7	2.0	0.24	ug/l	25.0	ND	99	70-140	0	25	
Ethylbenzene	25.7	2.0	0.25	ug/l	25.0	ND	103	70-130	4	20	
Hexachlorobutadiene	24.1	5.0	0.38	ug/l	25.0	ND	96	65-140	0	20	
2-Hexanone	19.0	10	2.6	ug/l	25.0	ND	76	20-145	4	35	
Isopropylbenzene	26.1	2.0	0.25	ug/l	25.0	ND	104	70-130	1	20	
p-Isopropyltoluene	24.6	2.0	0.28	ug/l	25.0	ND	98	70-130	2	20	
Methylene chloride	25.3	5.0	0.48	ug/l	25.0	ND	101	60-135	1	20	
4-Methyl-2-pentanone (MIBK)	20.7	10	2.5	ug/l	25.0	ND	83	40-145	3	35	
Methyl-tert-butyl Ether (MTBE)	24.7	5.0	0.32	ug/l	25.0	ND	99	50-155	4	25	
Naphthalene	23.3	5.0	0.41	ug/l	25.0	ND	93	50-150	1	30	
n-Propylbenzene	25.0	2.0	0.14	ug/l	25.0	ND	100	70-135	2	20	
Styrene	25.7	2.0	0.16	ug/l	25.0	ND	103	55-145	2	30	
1,1,2-Tetrachloroethane	26.6	5.0	0.27	ug/l	25.0	ND	106	70-145	3	20	
1,1,2,2-Tetrachloroethane	30.9	2.0	0.24	ug/l	25.0	ND	124	60-145	3	30	
Tetrachloroethene	25.4	2.0	0.32	ug/l	25.0	ND	102	70-130	4	20	
Toluene	26.0	2.0	0.36	ug/l	25.0	ND	104	70-120	2	20	

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WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

#### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I03020 Extracted: 09/03/0-	4_										
Matrix Spike Dup Analyzed: 09/03/04	(4103020-MSI	<b>D1</b> )			Sou	rce: INH	1484-14				
1,2,3-Trichlorobenzene	23.6	5.0	0.45	ug/l	25.0	ND	94	60-140	2	20	
1,2,4-Trichlorobenzene	24.7	5.0	0.48	ug/l	25.0	ND	99	60-140	2	20	
1,1,1-Trichloroethane	26.0	2.0	0.30	ug/l	25.0	ND	104	75-140	4	20	
1,1,2-Trichloroethane	25.4	2.0	0.30	ug/l	25.0	ND	102	60-135	2	25	
Trichloroethene	22.8	2.0	0.26	ug/l	25.0	ND	91	70-125	1	20	
Trichlorofluoromethane	28.1	5.0	0.34	ug/l	25.0	ND	112	55-145	2	25	
1,2,3-Trichloropropane	23.2	10	0.85	ug/l	25.0	ND	93	55-140	2	30	
1,2,4-Trimethylbenzene	26.3	2.0	0.23	ug/l	25.0	ND	105	60-125	2	25	
1,3,5-Trimethylbenzene	26.3	2.0	0.26	ug/l	25.0	ND	105	70-130	2	20	
yl chloride	29.1	5.0	0.26	ug/l	25.0	0.27	115	40-135	2	30	
ylene	25.5	2.0	0.24	ug/l	25.0	ND	102	65-125	4	20	
m,p-Xylenes	50.9	2.0	0.52	ug/l	50.0	ND	102	65-130	4	25	
Di-isopropyl Ether (DIPE)	25.8	5.0	0.25	ug/l	25.0	ND	103	65-140	3	25	
Ethyl tert-Butyl Ether (ETBE)	23.8	5.0	0.28	ug/l	25.0	ND	95	60-140	3	25	
tert-Amyl Methyl Ether (TAME)	23.6	5.0	0.33	ug/l	25.0	ND	94	55-145	3	30	
tert-Butanol (TBA)	153	25	3.1	ug/l	125	ND	122	65-145	3	25	
Surrogate: Dibromofluoromethane	26.0			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	25.6			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	24.4			ug/l	25.0		<i>9</i> 8	80-120			

<sup>&#</sup>x27; Mar Analytical, Irvine chele Harper Project Manager

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WH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

Attention: Brownwyn Kelly

#### METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H24040 Extracted: 0	8/24/04										
Blank Analyzed: 08/27/04 (4H24	040-BLK1)										
Acenaphthene	ND	10	4.3	ug/l							
Acenaphthylene	ND	10	3.2	ug/l							
Aniline	ND	10	2.9	ug/l							
Anthracene	ND	10	3.2	ug/l							
Benzidine	ND	20	5.2	ug/l							
Benzoic acid	ND	20	2.6	ug/l							
Benzo(a)anthracene	ND	10	3.7	ug/l							
Benzo(b)fluoranthene	ND	10	2.7	ug/l							
Benzo(k)fluoranthene	ND	10	3.4	ug/l							
nzo(g,h,i)perylene	ND	10	5.3	ug/l							
zo(a)pyrene	ND	10	3.5	ug/l							
Benzyl alcohol	ND	20	2.5	ug/l							
Bis(2-chloroethoxy)methane	ND	10	3.9	ug/l							
Bis(2-chloroethyl)ether	ND	10	4.4	ug/l							
Bis(2-chloroisopropyl)ether	ND	10	4.6	ug/l							
Bis(2-ethylhexyl)phthalate	ND	50	5.2	ug/l							
4-Bromophenyl phenyl ether	ND	10	4.6	ug/l							
Butyl benzyl phthalate	ND	20	3.5	ug/l							
4-Chloroaniline	ND	10	6.0	ug/l							
2-Chloronaphthalene	ND	10	4.0	ug/l							
4-Chloro-3-methylphenol	ND	20	3.5	ug/l							
2-Chlorophenol	ND	10	4.2	ug/l							
4-Chlorophenyl phenyl ether	ND	10	3.0	ug/l							
Chrysene	ND	10	2.8	ug/l							
Dibenz(a,h)anthracene	ND	20	4.7	ug/l							
Dibenzofuran	ND	10	2.6	ug/l							
Di-n-butyl phthalate	ND	20	2.8	ug/l							
1,3-Dichlorobenzene	ND	10	4.1	ug/l							
1,4-Dichlorobenzene	ND	10	3.9	ug/l							
1,2-Dichlorobenzene	ND	10	4.5	ug/l							
3,3-Dichlorobenzidine	ND	20	11	ug/l							
2,4-Dichlorophenol	ND	10	4.1	ug/l							
Diethyl phthalate	ND	10	3.1	ug/l							
2,4-Dimethylphenol	ND	20	4.4	ug/l							
Dimethyl phthalate	ND	10	3.6	ug/l							

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NH-Pasadena/Boeing

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

## METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H24040 Extracted: 08/24/0	<u>4</u>										
Disable Assets and 00/27/04 (41124040 DI	171)										
Blank Analyzed: 08/27/04 (4H24040-BI		20	5.1	/1							
4,6-Dinitro-2-methylphenol	ND ND	20 20	5.3	ug/l							
2,4-Dinitrophenol	ND ND	10	3.3 4.2	ug/l							
2,4-Dinitrotoluene		10	3.2	ug/l							
2,6-Dinitrotoluene	ND ND	20	3.2 4.7	ug/l							
Di-n-octyl phthalate				ug/l							
Fluoranthene	ND	10 10	4.2 3.9	ug/l							
Fluorene	ND			ug/l							
Hexachlorobenzene	ND	10	4.8	ug/l							
Hexachlorobutadiene	ND	10	4.2	ug/l							
achlorocyclopentadiene	ND	20	3.4	ug/l							
achloroethane	ND	10	4.2	ug/l							
Indeno(1,2,3-cd)pyrene	ND	20	5.4	ug/l							
Isophorone	ND	10	3.7	ug/l							
2-Methylnaphthalene	ND	10	3.0	ug/l							
2-Methylphenol	ND	10	3.7	ug/l							
4-Methylphenol	ND	10	3.8	ug/l							
Naphthalene	ND	10	4.5	ug/l							
2-Nitroaniline	ND	20	3.9	ug/l							
3-Nitroaniline	ND	20	4.5	ug/l							
4-Nitroaniline	ND	20	4.9	ug/l							
Nitrobenzene	ND	20	4.2	ug/l							
2-Nitrophenol	ND	10	4.2	ug/l							
4-Nitrophenol	ND	20	6.6	ug/l							
N-Nitrosodiphenylamine	ND	10	4.0	ug/l							
N-Nitroso-di-n-propylamine	ND	10	3.6	ug/l							
Pentachlorophenol	ND	20	4.0	ug/l							
Phenanthrene	ND	10	3.3	ug/l							
Phenol	ND	10	4.0	ug/l							
Pyrene	ND	10	3.9	ug/l							
1,2,4-Trichlorobenzene	ND	10	4.4	ug/l							
2,4,5-Trichlorophenol	ND	20	3.6	ug/l							
2,4,6-Trichlorophenol	ND	20	4.1	ug/l							
1,2-Diphenylhydrazine/Azobenzene	ND	20	5.0	ug/i							
N-Nitrosodimethylamine	ND	20	3.7	ug/l							
Surrogate: 2-Fluorophenol	118			ug/l	200		59	35-120			

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

Attention: Brownwyn Kelly

## METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H24040 Extracted: 08/24/04	ļ										
	_										
Blank Analyzed: 08/27/04 (4H24040-BL	K1)										
Surrogate: Phenol-d6	130			ug/l	200		65	45-120			
Surrogate: 2,4,6-Tribromophenol	116			ug/l	200		58	50-125			
Surrogate: Nitrobenzene-d5	67.9			ug/l	100		68	45-120			
Surrogate: 2-Fluorobiphenyl	71.1			ug/l	100		71	45-120			
Surrogate: Terphenyl-d14	104			ug/l	100		104	45-135			
LCS Analyzed: 08/27/04 (4H24040-BS1)	•										
Acenaphthene	89.3	10	4.3	ug/l	100		89	55-120			
Acenaphthylene	83.3	10	3.2	ug/l	100		83	55-120			
Aniline	80.4	10	2.9	ug/l	100		80	30-120			
ıracene	101	10	3.2	ug/l	100		101	60-120			
Lonzidine	ND	20	5.2	ug/l	100			20-180			L2
Benzoic acid	53.4	20	2.6	ug/l	100		53	30-125			
Benzo(a)anthracene	109	10	3.7	ug/l	100		109	65-120			
Benzo(b)fluoranthene	101	10	2.7	ug/l	100		101	50-125			
Benzo(k)fluoranthene	121	10	3.4	ug/l	100		121	50-125			
Benzo(g,h,i)perylene	103	10	5.3	ug/l	100		103	35-160			
Benzo(a)pyrene	105	10	3.5	ug/l	100		105	55-125			
Benzyl alcohol	93.0	20	2.5	ug/l	100		93	40-130			
Bis(2-chloroethoxy)methane	96.8	10	3.9	ug/l	100		97	55-120			
Bis(2-chloroethyl)ether	93.5	10	4.4	ug/l	100		94	50-120			
Bis(2-chloroisopropyl)ether	103	10	4.6	ug/l	100		103	50-120			
Bis(2-ethylhexyl)phthalate	108	50	5.2	ug/l	100		108	65-125			
4-Bromophenyl phenyl ether	102	10	4.6	ug/l	100		102	55-125			
Butyl benzyl phthalate	107	20	3.5	ug/l	100		107	60-125			
4-Chloroaniline	77.3	10	6.0	ug/l	100		77	55-120			
2-Chloronaphthalene	88.6	10	4.0	ug/l	100		89	60-120			
4-Chloro-3-methylphenol	85.0	20	3.5	ug/l	100		85	60-120			
2-Chlorophenol	80.7	10	4.2	ug/l	100		81	45-120			
4-Chlorophenyl phenyl ether	89.2	10	3.0	ug/l	100		89	55-120			
Chrysene	112	10	2.8	ug/l	100		112	65-120			
Dibenz(a,h)anthracene	83.9	20	4.7	ug/l	100		84	40-160			
Dibenzofuran	91.8	10	2.6	ug/l	100		92	60-120			
Di-n-butyl phthalate	103	20	2.8	ug/l	100		103	65-125			
1,3-Dichlorobenzene	44.2	10	4.1	ug/l	100		44	40-120			
1,4-Dichlorobenzene	47.5	10	3.9	ug/l	100		48	40-120			

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.WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INH1290

Attention: Brownwyn Kelly

Sampled: 08/21/04 Received: 08/21/04

#### METHOD BLANK/QC DATA

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

	<b>.</b>	Reporting	1477	<b>**</b> •.	Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H24040 Extracted: 08/24/04	<u>L</u>										
LCS Analyzed: 08/27/04 (4H24040-BS1)											
1,2-Dichlorobenzene	51.8	10	4.5	ug/l	100		52	40-120			
3,3-Dichlorobenzidine	55.2	20	11	ug/l	100		55	50-170			
2,4-Dichlorophenol	84.5	10	4.1	ug/l	100		84	55-120			
Diethyl phthalate	90.8	10	3.1	ug/l	100		91	60-120			
2,4-Dimethylphenol	38.1	20	4.4	ug/l	100		38	35-120			
Dimethyl phthalate	91.5	10	3.6	ug/l	100		92	60-120			
4,6-Dinitro-2-methylphenol	75.8	20	5.1	ug/l	100		76	55-120			
2,4-Dinitrophenol	62.6	20	5.3	ug/l	100		63	40-140			
2,4-Dinitrotoluene	94.9	10	4.2	ug/l	100		95	60-140			
^ <-Dinitrotoluene	95.5	10	3.2	ug/l	100		96	65-125			
1-octyl phthalate	113	20	4.7	ug/l	100		113	60-130			
Fluoranthene	100	10	4.2	ug/l	100		100	55-125			
Fluorene	91.8	10	3.9	ug/l	100		92	60-120			
Hexachlorobenzene	101	10	4.8	ug/l	100		101	50-120			
Hexachlorobutadiene	53.4	10	4.2	ug/l	100		53	45-120			
Hexachlorocyclopentadiene	8.02	20	3.4	ug/l	100		8	10-130			L2, J
Hexachloroethane	38.4	10	4.2	ug/l	100		38	40-120			<i>L2</i>
Indeno(1,2,3-cd)pyrene	85.8	20	5.4	ug/l	100		86	35-150			
Isophorone	99.0	10	3.7	ug/l	100		99	55-120			
2-Methylnaphthalene	78.7	10	3.0	ug/l	100		79	50-120			
2-Methylphenol	80.9	10	3.7	ug/l	100		81	45-120			
4-Methylphenol	81.9	10	3.8	ug/l	100		82	45-120			
Naphthalene	73.7	10	4.5	ug/l	100		74	50-120			
2-Nitroaniline	103	20	3.9	ug/l	100		103	60-130			
3-Nitroaniline	85.0	20	4.5	ug/l	100		85	50-140			
4-Nitroaniline	88.0	20	4.9	ug/l	100		88	45-160			
Nitrobenzene	96.7	20	4.2	ug/l	100		97	50-120			
2-Nitrophenol	84.8	10	4.2	ug/l	100		85	55-120			
4-Nitrophenol	81.8	20	6.6	ug/l	100		82	50-135			
N-Nitrosodiphenylamine	94.8	10	4.0	ug/l	100		95	60-120			
N-Nitroso-di-n-propylamine	96.5	10	3.6	ug/l	100		96	50-120			
Pentachlorophenol	85.7	20	4.0	ug/l	100		86	50-125			
Phenanthrene	101	10	3.3	ug/l	100		101	55-120			
Phenol	90.8	10	4.0	ug/l	100		91	45-120			
Pyrene	109	10	3.9	ug/l	100		109	50-120			
-				-							

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Brownwyn Kelly Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

#### METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4H24040 Extracted: 08/24/0	<u>4</u>										
· · · · · · · · · · · · · · · · ·											
LCS Analyzed: 08/27/04 (4H24040-BS1				_							
1,2,4-Trichlorobenzene	61.9	10	4.4	ug/l	100		62	50-120			
2,4,5-Trichlorophenol	86.7	20	3.6	ug/l	100		87	60-120			
2,4,6-Trichlorophenol	88.3	20	4.1	ug/l	100		88	60-120			
1,2-Diphenylhydrazine/Azobenzene	118	20	5.0	ug/l	100		118	60-120			
N-Nitrosodimethylamine	97.0	20	3.7	ug/l	100		97	40-120			
Surrogate: 2-Fluorophenol	156			ug/l	200		78	35-120			
Surrogate: Phenol-d6	171			ug/l	200		86	45-120			
Surrogate: 2,4,6-Tribromophenol	171			ug/l	200		86	50-125			
Surrogate: Nitrobenzene-d5	92.5			ug/l	100		92	45-120			
rogate: 2-Fluorobiphenyl	<i>87.3</i>			ug/l	100		87	45-120			
ogate: Terphenyl-d14	104			ug/l	100		104	45-135			
LCS Dup Analyzed: 08/27/04 (4H24040	-BSD1)										M-NR1
Acenaphthene	85.7	10	4.3	ug/l	100		86	55-120	4	20	
Acenaphthylene	81.7	10	3.2	ug/l	100		82	55-120	2	20	
Aniline	67.3	10	2.9	ug/l	100		67	30-120	18	25	
Anthracene	97.1	10	3.2	ug/l	100		97	60-120	4	20	
Benzidine	ND	20	5.2	ug/l	100			20-180		35	L2
Benzoic acid	65.0	20	2.6	ug/l	100		65	30-125	20	30	
Benzo(a)anthracene	108	10	3.7	ug/l	100		108	65-120	1	20	
Benzo(b)fluoranthene	107	10	2.7	ug/l	100		107	50-125	6	25	
Benzo(k)fluoranthene	119	10	3.4	ug/l	100		119	50-125	2	20	
Benzo(g,h,i)perylene	81.9	10	5.3	ug/l	100		82	35-160	23	25	
Benzo(a)pyrene	103	10	3.5	ug/l	100		103	55-125	2	25	
Benzyl alcohol	87.1	20	2.5	ug/l	100		87	40-130	7	20	
Bis(2-chloroethoxy)methane	88.0	10	3.9	ug/l	100		88	55-120	10	20	
Bis(2-chloroethyl)ether	88.3	10	4.4	ug/l	100		88	50-120	6	20	
Bis(2-chloroisopropyl)ether	94.3	10	4.6	ug/l	100		94	50-120	9	20	
Bis(2-ethylhexyl)phthalate	102	50	5.2	ug/l	100		102	65-125	6	20	
4-Bromophenyl phenyl ether	96.6	10	4.6	ug/l	100		97	55-125	5	25	
Butyl benzyl phthalate	95.9	20	3.5	ug/l	100		96	60-125	11	20	
4-Chloroaniline	71.5	10	6.0	ug/i	100		72	55-120	8	25	
2-Chloronaphthalene	86.1	10	4.0	ug/l	100		86	60-120	3	20	
4-Chloro-3-methylphenol	81.6	20	3.5	ug/l	100		82	60-120	4	25	
2-Chlorophenol	74.1	10	4.2	ug/l	100		74	45-120	9	25	
4-Chlorophenyl phenyl ether	86.7	10	3.0	ug/l	100		87	55-120	3	20	

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Brownwyn Kelly

Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

#### METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H24040 Extracted: 08/24/0	<u>4</u>										
LCS Dup Analyzed: 08/27/04 (4H24040	-BSD1)										M-NR1
Chrysene	109	10	2.8	ug/l	100		109	65-120	3	20	
Dibenz(a,h)anthracene	65.2	20	4.7	ug/l	100		65	40-160	25	25	
Dibenzofuran	89.4	10	2.6	ug/l	100		89	60-120	3	20	
Di-n-butyl phthalate	98.4	20	2.8	ug/l	100		98	65-125	5	20	
1,3-Dichlorobenzene	70.8	10	4.1	ug/l	100		71	40-120	46	25	R-7
1,4-Dichlorobenzene	71.1	10	3.9	ug/l	100		71	40-120	40	25	R-7
1,2-Dichlorobenzene	72.4	10	4.5	ug/l	100		72	40-120	33	25	R-7
3,3-Dichlorobenzidine	67.1	20	11	ug/l	100		67	50-170	19	25	
2,4-Dichlorophenol	77.7	10	4.1	ug/l	100		78	55-120	8	20	
- 'athyl phthalate	88.1	10	3.1	ug/l	100		88	60-120	3	20	
Dimethylphenol	21.1	20	4.4	ug/l	100		21	35-120	57	25	L2, R-2
Dimethyl phthalate	88.9	10	3.6	ug/l	100		89	60-120	3	20	
4,6-Dinitro-2-methylphenol	81.0	20	5.1	ug/l	100		81	55-120	7	25	
2,4-Dinitrophenol	72.0	20	5.3	ug/l	100		72	40-140	14	25	
2,4-Dinitrotoluene	94.7	10	4.2	ug/l	100		95	60-140	0	20	
2,6-Dinitrotoluene	93.1	10	3.2	ug/l	100		93	65-125	3	20	
Di-n-octyl phthalate	111	20	4.7	ug/l	100		111	60-130	2	20	
Fluoranthene	102	10	4.2	ug/l	100		102	55-125	2	20	
Fluorene	89.1	10	3.9	ug/l	100		89	60-120	3	20	
Hexachlorobenzene	94.0	10	4.8	ug/l	100		94	50-120	7	20	
Hexachlorobutadiene	71.0	10	4.2	ug/l	100		71	45-120	28	25	R-7
Hexachlorocyclopentadiene	7.26	20	3.4	ug/l	100		7	10-130	10	30	J, L2
Hexachloroethane	70.3	10	4.2	ug/l	100		70	40-120	59	25	R-2
Indeno(1,2,3-cd)pyrene	66.2	20	5.4	ug/l	100		66	35-150	26	25	R-7
Isophorone	93.1	10	3.7	ug/l	100		93	55-120	6	20	
2-Methylnaphthalene	78.7	10	3.0	ug/l	100		79	50-120	0	20	
2-Methylphenol	70.4	10	3.7	ug/l	100		70	45-120	14	20	
4-Methylphenol	71.6	10	3.8	ug/l	100		72	45-120	13	20	
Naphthalene	76.5	10	4.5	ug/l	100		76	50-120	4	20	
2-Nitroaniline	99.1	20	3.9	ug/l	100		99	60-130	4	20	
3-Nitroaniline	85.9	20	4.5	ug/l	100		86	50-140	1	25	
4-Nitroaniline	92.9	20	4.9	ug/l	100		93	45-160	5	20	
Nitrobenzene	86.0	20	4.2	ug/l	100		86	50-120	12	25	
2-Nitrophenol	80.9	10	4.2	ug/l	100		81	55-120	5	25	
4-Nitrophenol	90.6	20	6.6	ug/l	100		91	50-135	10	25	

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WH-Pasadena/Boeing

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

## METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4H24040 Extracted: 08/24/0	4										
LCS Dup Analyzed: 08/27/04 (4H24040	-BSD1)										M-NR1
N-Nitrosodiphenylamine	86.7	10	4.0	ug/l	100		87	60-120	9	20	
N-Nitroso-di-n-propylamine	87.6	10	3.6	ug/l	100		88	50-120	10	20	
Pentachlorophenol	89.3	20	4.0	ug/l	100		89	50-125	4	25	
Phenanthrene	97.0	10	3.3	ug/l	100		97	55-120	4	20	
Phenol	84.0	10	4.0	ug/l	100		84	45-120	8	25	
Pyrene	96.9	10	3.9	ug/l	100		97	50-120	12	25	
1,2,4-Trichlorobenzene	74.8	10	4.4	ug/l	100		75	50-120	19	20	
2,4,5-Trichlorophenol	87.1	20	3.6	ug/l	100		87	60-120	1	20	
2,4,6-Trichlorophenol	85.4	20	4.1	ug/l	100		85	60-120	3	20	
-Diphenylhydrazine/Azobenzene	112	20	5.0	ug/l	100		112	60-120	5	25	
itrosodimethylamine	85.1	20	3.7	ug/l	100		85	40-120	13	20	
Surrogate: 2-Fluorophenol	142			ug/l	200		71	35-120			
Surrogate: Phenol-d6	159			ug/l	200		80	45-120			
Surrogate: 2,4,6-Tribromophenol	158			ug/l	200		<i>79</i>	50-125			
Surrogate: Nitrobenzene-d5	82.5			ug/l	100		82	45-120			
Surrogate: 2-Fluorobiphenyl	80.8			ug/l	100		81	45-120			
Surrogate: Terphenyl-d14	94.6			ug/l	100		95	45-135			

'Mar Analytical, Irvine ¿hele Harper Project Manager

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WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Project ID: Alfa Outfall 012 - During Test

Sampled: 08/21/04

Pasadena, CA 91101

Attention: Brownwyn Kelly

Received: 08/21/04 Report Number: INH1290

#### METHOD BLANK/QC DATA

#### **INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4H21041 Extracted: 08/21/04	<u> </u>										
Blank Analyzed: 08/26/04 (4H21041-BL											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 08/26/04 (4H21041-BS1)	ı										
Biochemical Oxygen Demand	194	100	30	mg/l	198		98	85-115			
LCS Dup Analyzed: 08/26/04 (4H21041-	BSD1)										
Biochemical Oxygen Demand	192	100	30	mg/l	198		97	85-115	1	20	
Batch: 4H21049 Extracted: 08/21/04	<u>-</u>										
nuplicate Analyzed: 08/21/04 (4H21049-	DUP1)				Sou	rce: INH	1230-01				
-	7.46	NA	N/A	pH Units		7.45			0	5	
Batch: 4H21051 Extracted: 08/21/04	_										
Blank Analyzed: 08/21/04 (4H21051-BL)	K1)										
Turbidity	ND	1.0	0.20	NTU							
Duplicate Analyzed: 08/21/04 (4H21051-	DUP1)				Sou	rce: INH	1234-01				
Turbidity	ND	1.0	0.20	NTU		ND				20	
Batch: 4H23025 Extracted: 08/23/04	-										
Blank Analyzed: 08/23/04 (4H23025-BLI	K1)										
Perchlorate	ND	4.0	0.80	ug/l							

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.WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Brownwyn Kelly Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

# METHOD BLANK/QC DATA

#### **INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4H23025 Extracted: 08/23/04	_										
LCS Analyzed: 08/23/04 (4H23025-BS1)											
Perchlorate	49.3	4.0	0.80	ug/l	50.0		99	85-115			
Matrix Spike Analyzed: 08/23/04 (4H230	25-MS1)				Sou	rce: INH	1091-02				
Perchlorate	54.7	4.0	0.80	ug/l	50.0	5.4	99	80-120			
Matrix Spike Dup Analyzed: 08/23/04 (4	H23025-MSD	1)			Sou	rce: INH	1091-02				
Perchlorate	54.5	4.0	0.80	ug/l	50.0	5.4	98	80-120	0	20	
Batch: 4H23056 Extracted: 08/23/04	-										
Plank Analyzed: 08/23/04 (4H23056-BLH	<b>(1)</b>										
il Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 08/23/04 (4H23056-BS1)											
Total Suspended Solids	1050	10	10	mg/l	1000		105	85-115			
Duplicate Analyzed: 08/23/04 (4H23056-1	DUP1)				Sour	rce: INH1	1036-01				
Total Suspended Solids	ND	10	10	mg/l		ND				10	
Batch: 4H24051 Extracted: 08/24/04											
Blank Analyzed: 08/24/04 (4H24051-BLk	<b>(1)</b>										
Oil & Grease	ND	5.0	0.94	mg/l							
LCS Analyzed: 08/24/04 (4H24051-BS1)											M-NR1
Oil & Grease	18.9	5.0	0.94	mg/l	20.0		94	65-120			

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WH-Pasadena/Boeing

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

#### METHOD BLANK/QC DATA

#### **INORGANICS**

	D14	Reporting	MDI	WT . *4.	Spike	Source	A/ DEG	%REC	n.n.n.	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4H24051 Extracted: 08/24/04	<u>-</u>										
	man 4)										
LCS Dup Analyzed: 08/24/04 (4H24051-	•			_							
Oil & Grease	19.8	5.0	0.94	mg/l	20.0		99	65-120	5	20	
Batch: 4H24094 Extracted: 08/24/04	-										
Blank Analyzed: 08/24/04 (4H24094-BL)	K1)										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 08/24/04 (4H24094-BS1)											
Total Dissolved Solids	1040	20	20	mg/l	1000		104	90-110			
Puplicate Analyzed: 08/24/04 (4H24094-	DUP1)				Sour	ce: INH1	316-01				
al Dissolved Solids	439	10	10	mg/l		450			2	10	
Batch: 4H30095 Extracted: 08/30/04	_										
Blank Analyzed: 08/30/04 (4H30095-BLI	<b>(1)</b>										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 08/30/04 (4H30095-BS1)											
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0		101	80-115			
Matrix Spike Analyzed: 08/30/04 (4H300	95-MS1)				Sour	ce: INH1	504-01				
Ammonia-N (Distilled)	12.0	0.50	0.30	mg/l	10.0	ND	120	70-120			
Matrix Spike Dup Analyzed: 08/30/04 (41	H30095-MSI	01)			Sour	ce: INH1	504-01				
Ammonia-N (Distilled)	11.8	0.50	0.30	mg/l	10.0	ND	118	70-120	2	15	

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WH-Pasadena/Boeing

Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

# METHOD BLANK/QC DATA

#### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: P4H3105 Extracted: 08/31/0	<u>4</u>										
Blank Analyzed: 08/31/04 (P4H3105-BI	.K1)										
1,4-Dioxane	ND	1.0	0.49	ug/l							
Surrogate: Dibromofluoromethane	1.01			ug/l	1.00		101	80-135			
LCS Analyzed: 08/31/04 (P4H3105-BS1	)										
1,4-Dioxane	9.70	1.0	0.49	ug/l	10.0		97	70-130			
Surrogate: Dibromofluoromethane	1.03			ug/l	1.00		103	80-135			
LCS Dup Analyzed: 08/31/04 (P4H3105	-BSD1)										
1,4-Dioxane	10.4	1.0	0.49	ug/l	10.0		104	70-130	7	20	
Surrogate: Dibromofluoromethane	1.06			ug/l	1.00		106	80-135			
rix Spike Analyzed: 08/31/04 (P4H3	105-MS1)				Sou	rce: PNH	0737-06				
1,4-Dioxane	15.5	1.0	0.49	ug/l	10.0	3.7	118	70-130			
Surrogate: Dibromofluoromethane	0.940			ug/l	1.00		94	80-135			
Matrix Spike Dup Analyzed: 08/31/04 (I	24H3105-MS	SD1)			Sou	rce: PNH	0737-06				
1,4-Dioxane	14.4	1.0	0.49	ug/l	10.0	3.7	107	70-130	7	20	
Surrogate: Dibromofluoromethane	0.930			ug/l	1.00		93	80-135			



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly

Report Number: INH1290

Sampled: 08/21/04 Received: 08/21/04

**DATA QUALIFIERS AND DEFINITIONS** 

J Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of unknown quality.

Laboratory Control Sample recovery was below method control limits. **L2** 

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

Duplicate.

The RPD exceeded the method control limit. R-2

R-7 LFB/LFBD RPD exceeded the method control limit. Recovery met acceptance criteria.

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

RPD Relative Percent Difference

#### ADDITIONAL COMMENTS

#### For GRO (C4-C12):

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

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

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



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 08/21/04

Pasadena, CA 91101

Report Number: INH1290 Received: 08/21/04

Attention: Brownwyn Kelly

# **Certification Summary**

#### Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD.	Water	X	X
EPA 625	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV 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.

#### bcontracted Laboratories

Del Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907 9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed: EPA 8260B Samples: INH1290-01

\ Mar Analytical, Irvine chele Harper Project Manager



2852 Alton Ave., Irvine, CA 92626

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Ph (949) 261-1022 Ph (909) 370-4867

Fax (949) 261-1226 Fax (909) 370-1046

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

Ph (619) 505-9596

Fax (619) 505-9689 Fax (480) 785-0851 Fax (702) 798-3821

# **SUBCONTRACT ORDER - PROJECT # INH1290**

SENDING LABORATORY:

Del Mar Analytical, Irvine

2852 Alton Parkway Irvine, CA 92606

Phone: (949) 261-1022 Fax: (949) 261-1228

Project Manager: Michele Harper

**RECEIVING LABORATORY:** 

Del Mar Analytical - Phoenix 9830 S. 51st Street, Suite B-120

Phoenix, AZ 85044 Phone: (480) 785-0043

Fax: (480) 785-0851

Analysis

Expiration

09/04/04 12:00

Due

Comments

Sample ID: INH1290-01 Water

Sampled: 08/21/04 12:00

09/01/04 12:00

Boeing-permit, sub to DMAP, J flags

Dioxane-8260B-out Containers Supplied:

40 ml VOA w/HCL (INH1290-01K)

40 ml VOA w/HCL (INH1290-01L)

40 ml VOA w/HCL (INH1290-01M)

PN4 0664-01

			,	SAMPLI	E INTEGRI	TY:				/
All containers intact: Custody Seals Present		No No		e labels/COC agree; es Preserved Properly.	Yes Yes		•	Received On Ice:: Received at (temp):	الم الم	No No
1		<b>→</b>	8-23-04	(1700				8/24	0	8
Released by	7	50	Date	Time	Received By	5 m	D	Date 8 / 24/a		Time
leased By			Date	Time	Received By	Y		Date	6	Time

JNH1290

Del Mar Analytical version 5 8/12/04	Analy	tical versig	ภา 5 8/1;		CHAIN O		F CUSTODY FORM	Y F(	SRN SRN	_						1 }	INH1290	290
Client Name/Address	Address:			Project:				ANAL	YSIS	ANALYSIS REQUIRED	IRED							
MWH-Pasadena 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101	idena Avenue, 91101	Suite 1200		Boeing-SSFL NF During Test A Project Number: MWH-	Boeing-SSFL NPDES <b>During Test Alfa Outfall 012</b> Project Number: MWH-	ES A Outfall (	12				-TCP,			Hq ,22.	ec.	9		
Project Manager: Bronwyn Kelly	ger: Bro	nwyn Kelly		Phone Number: (626) 568-6691	umber:				*		£,2,1		e		Hydro	nalene sisylsi		
M.	octock			Fax Number: (626) 568-6515	ber: 8-6515			Dioxan Seable	se6-g	5-diese seno 2	(1) (EDB,	3E, DP 3E, DP	chlorate	1-sinon	oT=,H	itid <b>s</b> M ns AM(		
Sample Description	Sample Matrix	Container Type	Cont.	Sampling Date/Time	) Preservative	ative	Bottle #				413 413		Perc		4AT 가9역	+ND 952		
Outfall 012	3	1L Amber	-	121/01-	12.00		14				×			-				
Outfall 012 duplicate	*	1L Amber	-		HC HC	1 sto	, 18				×							
Outfall 012	٨	Plastic 1 L Amber	reer		오		<b>ZA</b>								×			
Outfall 012 duplicate	>	-Plastic ( C. Almiden	widen		HCL		28								×			
Outfall 012	>	VOAs	-		I		₩				×							
Outfall 012 duplicate	>	VOAs	7		HCL		3B, 3C				×					·		
Outfall 012	M	VOAs	-		HCI		44		×		-	_		-				
Outfall 012 duplicate	*	VOAs	2		HCL		4B, 4C		×									
Outfall 012	8	VOAs	-		호		5A	×				_						
Outfall 012 duplicate	>	VOAs	2		HCL		5B, 5C	×										
Outfall 012	8	1L Amber	-		None		<b>6</b> A					-				×		
Outfall 012 duplicate	>	1L Amber	-		None		68									×		
Outfall 012	>	1L Amber	-		None		7A			×								
Outfall 012 duplicate	×	1L Amber	-		None		78			×								
Outfall 012	٨	500 ml Poly	-		H2S04		8				H			×				
Outfall 012	>	1L Poly	-		None		₩				$\dashv$	×						
Outfall 012	≥	1L Poly	-		None	-	\$	×			_	-						
Outfall 012	>	1L Poly	-	P	None							$\dashv$	×	×				
Trip Blank	>	VOAs	4	>	모	12 <u>k</u>	12B, 12C, 12D		×	$\frac{1}{2}$	<u> </u>	+	$\perp$					\
Relinguished By	1		Date/Time		Received Ru	100		Date (Time	] 			H			maround Tim	o (chack)		
	M	A)	77	<i>*</i>	385	Jan San San San San San San San San San S	Shra	8-21-04	せる			5/	705		Same Day 72 Hours	72 Ho	urs	
Relinquished By	\ <u>-</u>		Date/Time:	ne:	Received By	d By	-	Date/Time	.: 26:						24 Hours	5 days		- المرا المرا
Homple	<del>\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ </del>	h012.8	4	1505	- (		1		8	)  )2/8	170	5)	(\$0\$)		Perchlorate Only 72 Hours	72 Hours		)
Relinquished By			Date/Time	Je:	Received By	d By		Date/Time	Æ					Ž.	Metals Only 72 Hours	Hours		
														Ŭ Ē	Sample Integrity: (Check) Intact On Ice	(Check) On k	<i>x x x x x x x x x x</i>	Ue

# CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA AMEC Earth & Environmental Package ID T711VO3 550 South Wadsworth Boulevard Task Order 313150010 Suite 500 SDG No. INH1290 Lakewood, CO 80226 No. of Analyses 1 Laboratory Del Mar Analytical Date: October 4, 2004 Reviewer K. Shadowlight Reviewer's Signature Analysis/Method 1,4-dioxane by 8260B/SIM ACTION ITEMS\* 1. Case Narrative Deficiencies

AC'	FION ITEMS <sup>a</sup>	
1.	Case Narrative	
	Deficiencies	
2.	Out of Scope	
	Analyses	
3.	Analyses Not Conducted	
4.	Missing Hardcopy	
	Deliverables	
5.	Incorrect Hardcopy	
	Deliverables	
6.	<b>Deviations from Analysis</b>	
	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	
COI	MMENTS <sup>b</sup>	Acceptable as reviewed.
* Su	abcontracted analytical laboratory is not r	neeting contract and/or method requirements.

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

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#### LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Sampled: 09/02/04 Received: 09/02/04

Issued: 11/08/04 15:18

#### NELAP #01108CA CA 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(s) of Custody, 4 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

#### SAMPLE CROSS REFERENCE

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

LABORATORY ID

INI0174-01

INI0174-02

CLIENT ID

Outfall 012

Trip Blank

MATRIX Water

Water

Reviewed By:

Mar Analytical, Irvine nele Harper

Michele Harper



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INI0174

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Attention: Bronwyn Kelly

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#### TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (Outfall 012 - V	Vater)				Samp	led: 09/02	2/04		
Reporting Units: mg/l									
Total Recoverable Hydrocarbons	EPA 418.1	4103070	0.31	1.0	10	1	09/03/04	09/03/04	



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#### EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (Outfall 012 - V	Vater) - cont.				Samp	led: 09/02	2/04		
Reporting Units: mg/l EFH (C13 - C22)	EPA 8015B	4103069	0.082	0.50	2.2	0.952	09/03/04	09/10/04	
Surrogate: n-Octacosane (45-125%)	2111 00102	.105005	0.002	0.50	73 %	0.552	03/03/01	03/10/01	



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WH-Pasadena/Boeing

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Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (Outfall 012 -	Water) - cont.				Samp	led: 09/02	2/04		
Reporting Units: mg/l	ED 4 001534 1	471.0000				_			
GRO (C4 - C12)	EPA 8015 Mod.	4110008	0.10	0.20	0.70	2	09/10/04	09/10/04	
Surrogate: 4-BFB (FID) (60-135%)					94 %				
Sample ID: INI0174-02 (Trip Blank -	Water)				Samp	led: 09/02	2/04		
Reporting Units: mg/l	ED 4 001537 1	471.0000				_			
GRO (C4 - C12)	EPA 8015 Mod.	4I10008	0.050	0.10	ND	1	09/10/04	09/10/04	
Surrogate: 4-BFB (FID) (60-135%)					82 %				



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Pasadena, CA 91101

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Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyta	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution	Date Extracted	Date	Data Qualifiers
Analyte	Methou	Daten	Limit	Limit	Result	Factor	Extracted	Analyzed	Quantiers
Sample ID: INI0174-01 (Outfall 012 -	Water)				Samp	led: 09/02	2/04		
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I13030	0.32	2.0	ND	1	09/13/04	09/14/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I13030	0.32	5.0	ND	1	09/13/04	09/14/04	
1,2,3-Trichloropropane	EPA 624 MOD	4I13030	0.85	10	ND	1	09/13/04	09/14/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I13030	0.25	5.0	ND	1	09/13/04	09/14/04	
tert-Butanol (TBA)	EPA 624 MOD	4I13030	3.1	25	ND	1	09/13/04	09/14/04	
Surrogate: Dibromofluoromethane (80-	-120%)				84 %				
Surrogate: Toluene-d8 (80-120%)					104 %				
Surrogate: 4-Bromofluorobenzene (80-	120%)				98 %				
Sample ID: INI0174-02 (Trip Blank -	Water)				Samp	led: 09/02	2/04		
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I13017	0.32	2.0	ND	1	09/13/04	09/13/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4113017	0.32	5.0	ND	1	09/13/04	09/13/04	
1,2,3-Trichloropropane	EPA 624 MOD	4I13017	0.85	10	ND	1	09/13/04	09/13/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I13017	0.25	5.0	ND	1	09/13/04	09/13/04	
ter Butanol (TBA)	EPA 624 MOD	4I13017	3.1	25	ND	1	09/13/04	09/13/04	
zate: Dibromofluoromethane (80-	120%)				106 %				
Surrogate: Toluene-d8 (80-120%)					100 %				
Surrogate: 4-Bromofluorobenzene (80-1	120%)				94 %				



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WH-Pasadena/Boeing

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#### **INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (Outfall 012	- Water)				Samp	led: 09/02	2/04		
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4107084	0.30	0.50	ND	1	09/07/04	09/07/04	
Biochemical Oxygen Demand	EPA 405.1	4103065	0.59	2.0	2.7	1	09/03/04	09/08/04	
Oil & Grease	EPA 413.1	4107068	0.94	5.0	4.8	1	09/07/04	09/07/04	J
Total Dissolved Solids	SM2540C	4109084	10	10	340	1	09/08/04	09/08/04	
Total Suspended Solids	EPA 160.2	4103068	10	10	14	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (Outfall 012 -	- Water)				Samp	led: 09/02	2/04		
Reporting Units: ml/l/hr									
Total Settleable Solids	EPA 160.5	4103067	0.10	0.10	ND	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (Outfall 012 - Reporting Units: NTU	·Water)				Samp	led: 09/02	2/04		
Turbidity	EPA 180.1	4103095	0.20	1.0	29	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (Outfall 012 - Reporting Units: pH Units	Water)				Samp	led: 09/02	2/04		
nH	EPA 150.1	4103066	N/A	NA	8.28	1	09/03/04	09/03/04	
inple ID: INI0174-01 (Outfall 012 - Reporting Units: ug/l	Water)				Sampl	led: 09/02	/04		
Perchlorate	EPA 314.0	4108050	0.80	4.0	ND	1	09/08/04	09/08/04	



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Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

#### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (Outfall 012	- Water) - cont.				Samp	led: 09/02	2/04		
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4I0706	0.49	1.0	1.6	1	09/07/04	09/07/04	
Surrogate: Dibromofluoromethane (&	80-135%)				102 %				



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Received: 09/02/04

# Semivolatile Organic Compounds by EPA Method 625

Report Number: INI0174

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (Outfall 012 - Wa	ter) - cont.				Samp	led: 09/0	2/04		
Reporting Units: ug/L									
Naphthalene	EPA 625	V4I0802	1.31	10.0	37.8	1	09/07/04	09/16/04	
N-Nitrosodimethylamine	EPA 625	V4I0802	1.37	20.0	ND	1	09/07/04	09/16/04	
Surrogate: 2-FP (40.8-88.4%)					36.2 %				S-04
Surrogate: Phenol-d6 (31.7-86.6%)					35.7 %				
Surrogate: 2,4,6-TBP (58-109%)					50.0 %				S-04
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					79.6 %				
Surrogate: 2-FBP (44.7-89.6%)					74.2 %				
Surrogate: p-Terphenyl-d14 (45.7-117%)					91.7%				



WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

| Sampled: 09/02/04 | Report Number: INI0174 | Received: 09/02/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

# SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 012 (INI0174-01) - Water					
EPA 150.1	1	09/02/2004 14:40	09/02/2004 18:30	09/03/2004 06:00	09/03/2004 07:00
EPA 160.5	2	09/02/2004 14:40	09/02/2004 18:30	09/03/2004 18:45	09/03/2004 20:00
EPA 180.1	2	09/02/2004 14:40	09/02/2004 18:30	09/03/2004 13:30	09/03/2004 14:00
EPA 405.1	2	09/02/2004 14:40	09/02/2004 18:30	09/03/2004 21:28	09/08/2004 11:00

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0174

Pasadena, CA 91101 Attention: Bronwyn Kelly Sampled: 09/02/04 Received: 09/02/04

### METHOD BLANK/QC DATA

# TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte <u>Batch: 4I03070 Extracted: 09/03/04</u>	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Blank Analyzed: 09/03/04 (4103070-BLK Total Recoverable Hydrocarbons	(1) ND	1.0	0.31	mg/l							
LCS Analyzed: 09/03/04 (4I03070-BS1) Total Recoverable Hydrocarbons	4.94	1.0	0.31	mg/l	5.00		99	65-120			M-NR1
LCS Dup Analyzed: 09/03/04 (4I03070-B Total Recoverable Hydrocarbons	<b>SD1)</b> 4.72	1.0	0.31	mg/l	5.00		94	65-120	5	20	

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#### METHOD BLANK/QC DATA

# **EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I03069 Extracted: 09/03/04											
Blank Analyzed: 09/05/04 (4I03069-BLk	(1)										
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.148			mg/l	0.200		74	45-125			
LCS Analyzed: 09/05/04 (4I03069-BS1)											M-NR1
EFH (C13 - C40)	0.572	0.50	0.082	mg/l	0.775		74	40-115			
Surrogate: n-Octacosane	0.176			mg/l	0.200		88	45-125			
LCS Dup Analyzed: 09/05/04 (4I03069-E	SD1)										
EFH (C13 - C40)	0.531	0.50	0.082	mg/l	0.775		69	40-115	7	25	
rogate: n-Octacosane	0.155			mg/l	0.200		<i>78</i>	45-125			

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### METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I10008 Extracted: 09/10/04											
Blank Analyzed: 09/10/04 (4I10008-BLK	(1)										
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.00865			mg/l	0.0100		87	60-135			
LCS Analyzed: 09/10/04 (4I10008-BS1)											M-3
GRO (C4 - C12)	0.198	0.10	0.050	mg/l	0.220		90	70-135			
Surrogate: 4-BFB (FID)	0.0104			mg/l	0.0100		104	60-135			

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# METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

	I	Reporting			Spike	Source		%REC		RPD	Data
Analyte R	esult	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13017 Extracted: 09/13/04											
Blank Analyzed: 09/13/04 (4I13017-BLK1)											
Acetone	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
Butylbenzene	ND	5.0	0.22	ug/l							
_arbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ΝD	2.0	0.33	ug/l							
Chloromethane	ΝD	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ΝD	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane N	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	1D	2.0	0.37	ug/l							
Dichlorodifluoromethane N	1D	5.0	0.79	ug/l							
1,1-Dichloroethane	ID	2.0	0.27	ug/l							
1,2-Dichloroethane	ID	2.0	0.28	ug/l							
1,1-Dichloroethene N	ID	5.0	0.32	ug/l							
cis-1,2-Dichloroethene N	ID	2.0	0.32	ug/l							
trans-1,2-Dichloroethene N	ID	2.0	0.27	ug/l							
1,2-Dichloropropane N	ID	2.0	0.35	ug/l							
1,3-Dichloropropane N	TD	2.0	0.30	ug/l							
2,2-Dichloropropane N	D	2.0	0.29	ug/l							
1,1-Dichloropropene N	D	2.0	0.28	ug/l							

#### Pol Mar Analytical, Irvine

hele Harper

WH-Pasadena/Boeing

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Received: 09/02/04

### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13017 Extracted: 09/13/04	_										
	_										
Blank Analyzed: 09/13/04 (4I13017-BL)	K1)										
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
hthalene	ND	5.0	0.41	ug/l							
Propylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	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	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Surrogate: Dibromofluoromethane	25.8			ug/l	25.0		103	80-120			

#### Tel Mar Analytical, Irvine

chele Harper Project Manager

WH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0174

Sampled: 09/02/04

Attention: Bronwyn Kelly

Received: 09/02/04

### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13017 Extracted: 09/13/04											
Batter 111501; Eatherton 07/10/01	3										
Blank Analyzed: 09/13/04 (4I13017-BLF	<b>(1)</b>										
Surrogate: Toluene-d8	24.4			ug/l	25.0		98	80-120			
Surrogate: 4-Bromofluorobenzene	23.0			ug/l	25.0		92	80-120			
LCS Analyzed: 09/13/04 (4I13017-BS1)											
Acetone	11.2	10	4.5	ug/l	25.0		45	30-120			
Benzene	23.4	2.0	0.28	ug/l	25.0		94	70-120			M-3
Bromobenzene	22.4	5.0	0.27	ug/l	25.0		90	80-120			
Bromochloromethane	23.8	5.0	0.32	ug/l	25.0		95	65-135			
Bromodichloromethane	23.6	2.0	0.30	ug/l	25.0		94	70-140			
Bromoform	18.7	5.0	0.32	ug/l	25.0		75	55-135			
momethane	26.8	5.0	0.34	ug/l	25.0		107	60-140			
utanone (MEK)	16.1	10	3.8	ug/l	25.0		64	40-135			
n-Butylbenzene	23.1	5.0	0.17	ug/l	25.0		92	75-130			
sec-Butylbenzene	22.7	5.0	0.25	ug/l	25.0		91	75-125			
tert-Butylbenzene	22.9	5.0	0.22	ug/l	25.0		92	75-125			
Carbon tetrachloride	25.1	5.0	0.28	ug/l	25.0		100	70-140			
Chlorobenzene	22.9	2.0	0.36	ug/l	25.0		92	80-125			
Chloroethane	25.2	5.0	0.33	ug/l	25.0		101	60-145			
Chloroform	24.5	2.0	0.33	ug/l	25.0		98	75-130			
Chloromethane	22.1	5.0	0.30	ug/l	25.0		88	40-145			
2-Chlorotoluene	22.5	5.0	0.28	ug/l	25.0		90	75-125			
4-Chlorotoluene	23.0	5.0	0.29	ug/l	25.0		92	75-125			
Dibromochloromethane	22.5	2.0	0.28	ug/l	25.0		90	65-145			
1,2-Dibromo-3-chloropropane	19.7	5.0	0.92	ug/l	25.0		79	50-135			
1,2-Dibromoethane (EDB)	21.4	2.0	0.32	ug/l	25.0		86	75-125			
Dibromomethane	21.5	2.0	0.36	ug/l	25.0		86	75-130			
1,2-Dichlorobenzene	22.6	2.0	0.32	ug/l	25.0		90	80-120			
1,3-Dichlorobenzene	22.6	2.0	0.35	ug/l	25.0		90	80-120			
1,4-Dichlorobenzene	22.7	2.0	0.37	ug/l	25.0		91	80-120			
Dichlorodifluoromethane	21.7	5.0	0.79	ug/l	25.0		87	10-160			
1,1-Dichloroethane	24.5	2.0	0.27	ug/l	25.0		98	70-135			
1,2-Dichloroethane	21.4	2.0	0.28	ug/l	25.0		86	60-150			
1,1-Dichloroethene	23.5	5.0	0.32	ug/l	25.0		94	75-135			
cis-1,2-Dichloroethene	24.0	2.0	0.32	ug/l	25.0		96	70-125			
trans-1,2-Dichloroethene	24.3	2.0	0.27	ug/l	25.0		97	70-130			
1,2-Dichloropropane	22.8	2.0	0.35	ug/l	25.0		91	70-120			

al Mar Analytical, Irvine

:hele Harper

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

IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/02/04 Report Number: INI0174 Received: 09/02/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

## METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13017 Extracted: 09/13/04	-										
LCS Analyzed: 09/13/04 (4I13017-BS1)											
1,3-Dichloropropane	20.2	2.0	0.30	ug/l	25.0		81	70-130			
2,2-Dichloropropane	28.2	2.0	0.29	ug/l	25.0		113	65-150			
1,1-Dichloropropene	22.9	2.0	0.28	ug/l	25.0		92	75-130			
cis-1,3-Dichloropropene	23.6	2.0	0.22	ug/l	25.0		94	75-130			
trans-1,3-Dichloropropene	23.4	2.0	0.24	ug/l	25.0		94	75-135			
Ethylbenzene	23.0	2.0	0.25	ug/l	25.0		92	80-120			
Hexachlorobutadiene	22.1	5.0	0.38	ug/l	25.0		88	65-140			
2-Hexanone	15.6	10	2.6	ug/l	25.0		62	40-140			
Isopropylbenzene	23.8	2.0	0.25	ug/l	25.0		95	75-125			
n-Isopropyltoluene	22.3	2.0	0.28	ug/l	25.0		89	75-125			
thylene chloride	23.4	5.0	0.48	ug/l	25.0		94	60-135			
Methyl-2-pentanone (MIBK)	17.0	10	2.5	ug/l	25.0		68	40-140			
Methyl-tert-butyl Ether (MTBE)	21.9	5.0	0.32	ug/l	25.0		88	55-145			
Naphthalene	20.1	5.0	0.41	ug/l	25.0		80	50-145			
n-Propylbenzene	22.7	2.0	0.14	ug/l	25.0		91	75-130			
Styrene	24.6	2.0	0.16	ug/l	25.0		98	80-135			
1,1,1,2-Tetrachloroethane	24.5	5.0	0.27	ug/l	25.0		98	70-145			
1,1,2,2-Tetrachloroethane	25.4	2.0	0.24	ug/l	25.0		102	60-135			
Tetrachloroethene	23.0	2.0	0.32	ug/l	25.0		92	75-125			
Toluene	23.8	2.0	0.36	ug/l	25.0		95	75-120			M-3
1,2,3-Trichlorobenzene	21.3	5.0	0.45	ug/l	25.0		85	65-135			
1,2,4-Trichlorobenzene	22.8	5.0	0.48	ug/l	25.0		91	70-140			
1,1,1-Trichloroethane	25.4	2.0	0.30	ug/l	25.0		102	75-140			
1,1,2-Trichloroethane	21.7	2.0	0.30	ug/l	25.0		87	70-125			
Trichloroethene	20.9	2.0	0.26	ug/l	25.0		84	80-120			
Trichlorofluoromethane	24.2	5.0	0.34	ug/l	25.0		97	65-145			
1,2,3-Trichloropropane	19.3	10	0.85	ug/l	25.0		77	60-130			
1,2,4-Trimethylbenzene	23.6	2.0	0.23	ug/l	25.0		94	75-125			
1,3,5-Trimethylbenzene	23.8	2.0	0.26	ug/l	25.0		95	75-125			
Vinyl chloride	21.5	5.0	0.26	ug/l	25.0		86	50-130			
o-Xylene	22.6	2.0	0.24	ug/l	25.0		90	75-125			
m,p-Xylenes	45.6	2.0	0.52	ug/l	50.0		91	75-120			
Di-isopropyl Ether (DIPE)	23.3	5.0	0.25	ug/l	25.0		93	65-135			
Ethyl tert-Butyl Ether (ETBE)	23.4	5.0	0.28	ug/l	25.0		94	60-140			
tert-Amyl Methyl Ether (TAME)	23.2	5.0	0.33	ug/l	25.0		93	60-140			

# Pel Mar Analytical, Irvine

chele Harper

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0174

Sampled: 09/02/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

Received: 09/02/04

## METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Result   Limit   MDL   Units   Level   Result   %REC   Limits   RPD   Limit   Qualifiers
LCS Analyzed: 09/13/04 (4I13017-BS1)         tert-Butanol (TBA)       133       25       3.1       ug/l       125       106       70-140       M-3         Surrogate: Dibromofluoromethane       25.5       ug/l       25.0       102       80-120         Surrogate: Toluene-d8       24.8       ug/l       25.0       99       80-120
LCS Analyzed: 09/13/04 (4I13017-BS1)         tert-Butanol (TBA)       133       25       3.1       ug/l       125       106       70-140       M-3         Surrogate: Dibromofluoromethane       25.5       ug/l       25.0       102       80-120         Surrogate: Toluene-d8       24.8       ug/l       25.0       99       80-120
tert-Butanol (TBA)     133     25     3.1     ug/l     125     106     70-140     M-3       Surrogate: Dibromofluoromethane     25.5     ug/l     25.0     102     80-120       Surrogate: Toluene-d8     24.8     ug/l     25.0     99     80-120
Surrogate: Dibromofluoromethane         25.5         ug/l         25.0         102         80-120           Surrogate: Toluene-d8         24.8         ug/l         25.0         99         80-120
Surrogate: Toluene-d8 24.8 ug/l 25.0 99 80-120
Surrogate: A Bromoflyorohanzana 24.0 va/l 25.0 06. 80.120
Dat 10 gate. 7-11 offino futuro controlle 27.0 ug/t 25.0 90 00-120
Matrix Spike Analyzed: 09/13/04 (4I13017-MS1) Source: INI0211-01
Acetone 20.4 10 4.5 ug/l 25.0 10 42 10-150
Bromobenzene 23.4 5.0 0.27 ug/l 25.0 ND 94 65-130
Bromochloromethane 25.1 5.0 0.32 ug/l 25.0 ND 100 65-140
Bromodichloromethane 24.5 2.0 0.30 ug/l 25.0 ND 98 70-140
moform 19.7 5.0 0.32 ug/l 25.0 ND 79 55-140
momethane 28.9 5.0 0.34 ug/l 25.0 ND 116 50-145
2-Butanone (MEK) 20.8 10 3.8 ug/l 25.0 ND 83 30-145
n-Butylbenzene 24.2 5.0 0.17 ug/l 25.0 ND 97 70-140
sec-Butylbenzene 23.7 5.0 0.25 ug/l 25.0 ND 95 70-130
tert-Butylbenzene 24.0 5.0 0.22 ug/l 25.0 ND 96 70-130
Carbon tetrachloride 25.4 5.0 0.28 ug/l 25.0 ND 102 70-145
Chlorobenzene 23.2 2.0 0.36 ug/l 25.0 ND 93 80-125
Chloroethane 27.7 5.0 0.33 ug/l 25.0 ND 111 50-145
Chloroform 25.7 2.0 0.33 ug/l 25.0 ND 103 70-135
Chloromethane 23.8 5.0 0.30 ug/l 25.0 ND 95 35-145
2-Chlorotoluene 23.6 5.0 0.28 ug/l 25.0 ND 94 70-140
4-Chlorotoluene 23.9 5.0 0.29 ug/l 25.0 ND 96 70-140
Dibromochloromethane 23.0 2.0 0.28 ug/l 25.0 ND 92 65-145
1,2-Dibromo-3-chloropropane 22.4 5.0 0.92 ug/l 25.0 ND 90 45-155
1,2-Dibromoethane (EDB) 22.8 2.0 0.32 ug/l 25.0 ND 91 70-130
Dibromomethane 22.4 2.0 0.36 ug/l 25.0 ND 90 65-140
1,2-Dichlorobenzene 23.5 2.0 0.32 ug/l 25.0 ND 94 75-130
1,3-Dichlorobenzene 23.4 2.0 0.35 ug/l 25.0 ND 94 75-130
1,4-Dichlorobenzene 23.6 2.0 0.37 ug/l 25.0 ND 94 80-120
Dichlorodifluoromethane 24.5 5.0 0.79 ug/l 25.0 ND 98 10-160
1,1-Dichloroethane 25.2 2.0 0.27 ug/l 25.0 ND 101 65-135
1,2-Dichloroethane 39.0 2.0 0.28 ug/l 25.0 19 80 60-150
1,1-Dichloroethene 25.1 5.0 0.32 ug/l 25.0 ND 100 65-140
cis-1,2-Dichloroethene 25.0 2.0 0.32 ug/l 25.0 ND 100 65-130
trans-1,2-Dichloroethene 25.4 2.0 0.27 ug/l 25.0 ND 102 65-135

ે l Mar Analytical, Irvine

:hele Harper

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0174

Attention: Bronwyn Kelly

Pasadena, CA 91101

Sampled: 09/02/04 Received: 09/02/04

#### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4I13017 Extracted: 09/13/04											
Matrix Spike Analyzed: 09/13/04 (4I1301	7-MS1)				Sou	rce: INI0	211-01				
1,2-Dichloropropane	23.8	2.0	0.35	ug/l	25.0	ND	95	65-130			
1,3-Dichloropropane	20.7	2.0	0.30	ug/l	25.0	ND	83	65-140			
2,2-Dichloropropane	28.3	2.0	0.29	ug/l	25.0	ND	113	60-150			
1,1-Dichloropropene	23.1	2.0	0.28	ug/l	25.0	ND	92	65-140			
cis-1,3-Dichloropropene	24.1	2.0	0.22	ug/l	25.0	ND	96	70-140			
trans-1,3-Dichloropropene	24.2	2.0	0.24	ug/l	25.0	ND	97	70-140			
Ethylbenzene	30.6	2.0	0.25	ug/l	25.0	8.0	90	70-130			
Hexachlorobutadiene	22.9	5.0	0.38	ug/l	25.0	ND	92	65-140			
2-Hexanone	18.5	10	2.6	ug/l	25.0	ND	74	20-145			
Isopropylbenzene	24.7	2.0	0.25	ug/l	25.0	ND	99	70-130			
opropyltoluene	23.2	2.0	0.28	ug/l	25.0	ND	93	70-130			
ethylene chloride	24.9	5.0	0.48	ug/l	25.0	ND	100	60-135			
4-Methyl-2-pentanone (MIBK)	19.9	10	2.5	ug/l	25.0	ND	80	40-145			
Methyl-tert-butyl Ether (MTBE)	79.9	5.0	0.32	ug/l	25.0	60	80	50-155			
Naphthalene	22.8	5.0	0.41	ug/l	25.0	0.45	89	50-150			
n-Propylbenzene	23.5	2.0	0.14	ug/l	25.0	ND	94	70-135			
Styrene	24.9	2.0	0.16	ug/l	25.0	ND	100	55-145			
1,1,1,2-Tetrachloroethane	24.6	5.0	0.27	ug/l	25.0	ND	98	70-145			
1,1,2,2-Tetrachloroethane	27.4	2.0	0.24	ug/l	25.0	ND	110	60-145			
Tetrachloroethene	23.4	2.0	0.32	ug/l	25.0	ND	94	70-130			
1,2,3-Trichlorobenzene	22.7	5.0	0.45	ug/l	25.0	ND	91	60-140			
1,2,4-Trichlorobenzene	23.9	5.0	0.48	ug/l	25.0	ND	96	60-140			
1,1,1-Trichloroethane	26.5	2.0	0.30	ug/l	25.0	ND	106	75-140			
1,1,2-Trichloroethane	22.9	2.0	0.30	ug/l	25.0	ND	92	60-135			
Trichloroethene	21.4	2.0	0.26	ug/l	25.0	ND	86	70-125			
Trichlorofluoromethane	25.6	5.0	0.34	ug/l	25.0	ND	102	55-145			
1,2,3-Trichloropropane	21.3	10	0.85	ug/i	25.0	ND '	85	55-140			
1,2,4-Trimethylbenzene	27.3	2.0	0.23	ug/l	25.0	3.1	97	60-125			
1,3,5-Trimethylbenzene	25.7	2.0	0.26	ug/l	25.0	1.0	99	70-130			
Vinyl chloride	22.6	5.0	0.26	ug/i	25.0	ND	90	40-135			
o-Xylene	61.7	2.0	0.24	ug/l	25.0	43	75	65-125			
m,p-Xylenes	85.6	2.0	0.52	ug/l	50.0	44	83	65-130			
Di-isopropyl Ether (DIPE)	23.2	5.0	0.25	ug/l	25.0	ND	93	65-140			
Ethyl tert-Butyl Ether (ETBE)	25.0	5.0	0.28	ug/i	25.0	0.37	99	60-140			
tert-Amyl Methyl Ether (TAME)	26.4	5.0	0.33	ug/l	25.0	ND	106	55-145			

#### **P∘l** Mar Analytical, Irvine

hele Harper

WH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

Attention: Bronwyn Kelly

### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4I13017 Extracted: 09/13/04	Į.										
Daten. 4113017 Extracted. 05/13/04	<b>_</b>										
Matrix Spike Analyzed: 09/13/04 (4I130	017-MS1)				Sou	rce: INI0	211-01				
Surrogate: Dibromofluoromethane	25.4			ug/l	25.0		102	80-120			
Surrogate: Toluene-d8	24.5			ug/l	25.0		98	80-120			
Surrogate: 4-Bromofluorobenzene	23.1			ug/l	25.0		92	80-120			
Matrix Spike Dup Analyzed: 09/13/04 (	4I13017-MSI	<b>D1</b> )			Sou	rce: INI0	211-01				
Acetone	28.1	10	4.5	ug/l	25.0	10	72	10-150	32	35	
Bromobenzene	24.1	5.0	0.27	ug/l	25.0	ND	96	65-130	3	20	
Bromochloromethane	26.0	5.0	0.32	ug/l	25.0	ND	104	65-140	4	25	
Bromodichloromethane	25.1	2.0	0.30	ug/l	25.0	ND	100	70-140	2	20	
Bromoform	24.2	5.0	0.32	ug/l	25.0	ND	97	55-140	21	25	
nomethane	27.4	5.0	0.34	ug/l	25.0	ND	110	50-145	5	25	
atanone (MEK)	29.5	10	3.8	ug/l	25.0	ND	118	30-145	35	40	
n-Butylbenzene	24.4	5.0	0.17	ug/l	25.0	ND	98	70-140	1	20 .	
sec-Butylbenzene	23.9	5.0	0.25	ug/l	25.0	ND	96	70-130	1	20	
tert-Butylbenzene	24.1	5.0	0.22	ug/l	25.0	ND	96	70-130	0	20	
Carbon tetrachloride	25.4	5.0	0.28	ug/l	25.0	ND	102	70-145	0	25	
Chlorobenzene	24.3	2.0	0.36	ug/l	25.0	ND	97	80-125	5	20	
Chloroethane	26.2	5.0	0.33	ug/l	25.0	ND	105	50-145	6	25	
Chloroform	25.5	2.0	0.33	ug/l	25.0	ND	102	70-135	1	20	
Chloromethane	22.9	5.0	0.30	ug/l	25.0	ND	92	35-145	4	25	
2-Chlorotoluene	24.0	5.0	0.28	ug/l	25.0	ND	96	70-140	2	20	
4-Chlorotoluene	24.1	5.0	0.29	ug/l	25.0	ND	96	70-140	1	20	
Dibromochloromethane	26.0	2.0	0.28	ug/l	25.0	ND	104	65-145	12	25	
1,2-Dibromo-3-chloropropane	30.2	5.0	0.92	ug/l	25.0	ND	121	45-155	30	30	
1,2-Dibromoethane (EDB)	27.3	2.0	0.32	ug/l	25.0	ND	109	70-130	18	25	
Dibromomethane	25.4	2.0	0.36	ug/l	25.0	ND	102	65-140	13	25	
1,2-Dichlorobenzene	24.3	2.0	0.32	ug/l	25.0	ND	97	75-130	3	20	
1,3-Dichlorobenzene	23.7	2.0	0.35	ug/l	25.0	ND	95	75-130	1	20	
1,4-Dichlorobenzene	24.1	2.0	0.37	ug/l	25.0	ND	96	80-120	2	20	
Dichlorodifluoromethane	22.6	5.0	0.79	ug/l	25.0	ND	90	10-160	8	30	
1,1-Dichloroethane	25.1	2.0	0.27	ug/l	25.0	ND	100	65-135	0	20	
1,2-Dichloroethane	46.6	2.0	0.28	ug/l	25.0	19	110	60-150	18	20	
1,1-Dichloroethene	24.2	5.0	0.32	ug/l	25.0	ND	97	65-140	4	20	
cis-1,2-Dichloroethene	24.5	2.0	0.32	ug/l	25.0	ND	98	65-130	2	20	
trans-1,2-Dichloroethene	24.9	2.0	0.27	ug/l	25.0	ND	100	65-135	2	20	
1,2-Dichloropropane	24.3	2.0	0.35	ug/l	25.0	ND	97	65-130	2	20	

~ Mar Analytical, Irvine

hele Harper

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13017 Extracted: 09/13/04											
Matrix Spike Dup Analyzed: 09/13/04 (	4I13017-MSD	1)			Sou	rce: INI0	211-01				
1,3-Dichloropropane	24.6	2.0	0.30	ug/l	25.0	ND	98	65-140	17	25	
2,2-Dichloropropane	29.4	2.0	0.29	ug/l	25.0	ND	118	60-150	4	25	
1,1-Dichloropropene	23.9	2.0	0.28	ug/l	25.0	ND	96	65-140	3	20	
cis-1,3-Dichloropropene	25.1	2.0	0.22	ug/l	25.0	ND	100	70-140	4	20	
trans-1,3-Dichloropropene	26.2	2.0	0.24	ug/l	25.0	ND	105	70-140	8	25	
Ethylbenzene	32.7	2.0	0.25	ug/l	25.0	8.0	99	70-130	7	20	
Hexachlorobutadiene	23.4	5.0	0.38	ug/l	25.0	ND	94	65-140	2	20	
2-Hexanone	28.5	10	2.6	ug/l	25.0	ND	114	20-145	43	35	R
Isopropylbenzene	25.1	2.0	0.25	ug/l	25.0	ND	100	70-130	2	20	
n-Isopropyltoluene	23.5	2.0	0.28	ug/l	25.0	ND	94	70-130	1	20	
hylene chloride	24.4	5.0	0.48	ug/l	25.0	ND	98	60-135	2	20	
Methyl-2-pentanone (MIBK)	28.4	10	2.5	ug/l	25.0	ND	114	40-145	35	35	
Methyl-tert-butyl Ether (MTBE)	92.2	5.0	0.32	ug/l	25.0	60	129	50-155	14	25	
Naphthalene	29.4	5.0	0.41	ug/l	25.0	0.45	116	50-150	25	30	
n-Propylbenzene	23.9	2.0	0.14	ug/l	25.0	ND	96	70-135	2	20	
Styrene	26.2	2.0	0.16	ug/l	25.0	ND	105	55-145	5	30	
1,1,1,2-Tetrachloroethane	26.2	5.0	0.27	ug/l	25.0	ND	105	70-145	6	20	
1,1,2,2-Tetrachloroethane	36.2	2.0	0.24	ug/l	25.0	ND	145	60-145	28	30	
Tetrachloroethene	24.6	2.0	0.32	ug/l	25.0	ND	98	70-130	5	20	
1,2,3-Trichlorobenzene	25.2	5.0	0.45	ug/l	25.0	ND	101	60-140	10	20	
1,2,4-Trichlorobenzene	25.0	5.0	0.48	ug/l	25.0	ND	100	60-140	4	20	
1,1,1-Trichloroethane	26.0	2.0	0.30	ug/l	25.0	ND	104	75-140	2	20	
1,1,2-Trichloroethane	26.3	2.0	0.30	ug/l	25.0	ND	105	60-135	14	25	
Trichloroethene	21.9	2.0	0.26	ug/l	25.0	ND	88	70-125	2	20	
Trichlorofluoromethane	25.2	5.0	0.34	ug/l	25.0	ND	101	55-145	2	25	
1,2,3-Trichloropropane	27.7	10	0.85	ug/l	25.0	ND	111	55-140	26	30	
1,2,4-Trimethylbenzene	27.8	2.0	0.23	ug/l	25.0	3.1	99	60-125	2	25	
1,3,5-Trimethylbenzene	26.1	2.0	0.26	ug/l	25.0	1.0	100	70-130	2	20	
Vinyl chloride	21.2	5.0	0.26	ug/l	25.0	ND	85	40-135	6	30	
o-Xylene	65.6	2.0	0.24	ug/l	25.0	43	90	65-125	6	20	
m,p-Xylenes	91.7	2.0	0.52	ug/l	50.0	44	95	65-130	7	25	
Di-isopropyl Ether (DIPE)	24.6	5.0	0.25	ug/l	25.0	ND	98	65-140	6	25	
Ethyl tert-Butyl Ether (ETBE)	26.5	5.0	0.28	ug/l	25.0	0.37	105	60-140	6	25	
tert-Amyl Methyl Ether (TAME)	28.4	5.0	0.33	ug/l	25.0	ND	114	55-145	7	30	
Surrogate: Dibromofluoromethane	25.4			ug/l	25.0		102	80-120			

Analytical, Irvine thele Harper

**1WH-Pasadena/Boeing** 

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

1 Toject ID. 7 Ma Outlan 012 During 103

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

## METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4I13017 Extracted: 09/13/04	_										
Matrix Spike Dup Analyzed: 09/13/04 (4		1)				rce: INI0					
Surrogate: Toluene-d8	25.2			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	24.3			ug/l	25.0		97	80-120			
Batch: 4I13030 Extracted: 09/13/04	•										
Blank Analyzed: 09/13/04 (4I13030-BLK	<b>71</b> )										
Acetone (4113030-DEE	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
omodichloromethane	ND	2.0	0.30	ug/l							
moform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	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	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							

### **Pel Mar Analytical, Irvine**

hele Harper

. .oject Manager

IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/02/04 Report Number: INI0174 Received: 09/02/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

# METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13030 Extracted: 09/1	3/04										
	<del></del>										
Blank Analyzed: 09/13/04 (4I13030	-BLK1)										
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/l							
2,2-Dichloropropane	ND	2.0	0.29	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
ropylbenzene	ND	2.0	0.25	ug/l							
r-isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	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	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/i							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							

#### Pel Mar Analytical, Irvine

:hele Harper rroject Manager

WH-Pasadena/Boeing

Attention: Bronwyn Kelly

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300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

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# METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13030 Extracted: 09/13/04											
Blank Analyzed: 09/13/04 (4I13030-BLI	<b>(1)</b>										
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	0.470	5.0	0.33	ug/l							J
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Surrogate: Dibromofluoromethane	28.6			ug/l	25.0		114	80-120			
Surrogate: Toluene-d8	26.9			ug/l	25.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	28.1			ug/l	25.0		112	80-120			
LCS Analyzed: 09/13/04 (4I13030-BS1)											
Acetone	27.8	10	4.5	ug/l	25.0		111	30-120			
vzene	25.7	2.0	0.28	ug/l	25.0		103	70-120			
mobenzene	25.5	5.0	0.27	ug/l	25.0		102	80-120			
Bromochloromethane	28.8	5.0	0.32	ug/l	25.0		115	65-135			
Bromodichloromethane	28.7	2.0	0.30	ug/l	25.0		115	70-140			
Bromoform	30.6	5.0	0.32	ug/l	25.0		122	55-135			
Bromomethane	29.1	5.0	0.34	ug/l	25.0		116	60-140			
2-Butanone (MEK)	31.1	10	3.8	ug/l	25.0		124	40-135			
n-Butylbenzene	25.3	5.0	0.17	ug/l	25.0		101	75-130			
sec-Butylbenzene	24.6	5.0	0.25	ug/l	25.0		98	75-125			
tert-Butylbenzene	24.7	5.0	0.22	ug/l	25.0		99	75-125			
Carbon tetrachloride	28.4	5.0	0.28	ug/l	25.0		114	70-140			
Chlorobenzene	25.4	2.0	0.36	ug/l	25.0		102	80-125			
Chloroethane	26.9	5.0	0.33	ug/l	25.0		108	60-145			
Chloroform	27.8	2.0	0.33	ug/l	25.0		111	75-130			
Chloromethane	26.0	5.0	0.30	ug/l	25.0		104	40-145			
2-Chlorotoluene	24.4	5.0	0.28	ug/l	25.0		98	75-125			
4-Chlorotoluene	24.8	5.0	0.29	ug/l	25.0		99	75-125			
Dibromochloromethane	28.4	2.0	0.28	ug/l	25.0		114	65-145			
1,2-Dibromo-3-chloropropane	31.1	5.0	0.92	ug/l	25.0		124	50-135			
1,2-Dibromoethane (EDB)	28.3	2.0	0.32	ug/l	25.0		113	75-125			
Dibromomethane	29.8	2.0	0.36	ug/l	25.0		119	75-130			
1,2-Dichlorobenzene	25.4	2.0	0.32	ug/l	25.0		102	80-120			
1,3-Dichlorobenzene	24.6	2.0	0.35	ug/l	25.0		98	80-120			
1,4-Dichlorobenzene	25.1	2.0	0.37	ug/l	25.0		100	80-120			
Dichlorodifluoromethane	30.5	5.0	0.79	ug/l	25.0		122	10-160			
1,1-Dichloroethane	26.8	2.0	0.27	ug/l	25.0		107	70-135			

nel Mar Analytical, Irvine

:hele Harper

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

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Sampled: 09/02/04

Received: 09/02/04

Pasadena, CA 91101 Attention: Bronwyn Kelly

### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13030 Extracted: 09/13/04											
LCS Analyzed: 09/13/04 (4I13030-BS1)											
1,2-Dichloroethane	30.5	2.0	0.28	ug/l	25.0		122	60-150			
1,1-Dichloroethene	26.6	5.0	0.32	ug/l	25.0		106	75-135			
cis-1,2-Dichloroethene	25.7	2.0	0.32	ug/l	25.0		103	70-125			
trans-1,2-Dichloroethene	26.8	2.0	0.27	ug/l	25.0		107	70-130			
1,2-Dichloropropane	26.2	2.0	0.35	ug/l	25.0		105	70-120			
1,3-Dichloropropane	27.9	2.0	0.30	ug/l	25.0		112	70-130			
2,2-Dichloropropane	26.9	2.0	0.29	ug/l	25.0		108	65-150			
1,1-Dichloropropene	26.2	2.0	0.28	ug/l	25.0		105	75-130			
cis-1,3-Dichloropropene	28.1	2.0	0.22	ug/l	25.0		112	75-130			
trans-1,3-Dichloropropene	29.6	2.0	0.24	ug/l	25.0		118	75-135			
lbenzene	25.6	2.0	0.25	ug/l	25.0		102	80-120			
exachlorobutadiene	25.0	5.0	0.38	ug/l	25.0		100	65-140			
2-Hexanone	32.4	10	2.6	ug/l	25.0		130	40-140			
Isopropylbenzene	24.9	2.0	0.25	ug/l	25.0		100	75-125			
p-Isopropyltoluene	24.5	2.0	0.28	ug/l	25.0		98	75-125			
Methylene chloride	25.4	5.0	0.48	ug/l	25.0		102	60-135			
4-Methyl-2-pentanone (MIBK)	31.0	10	2.5	ug/l	25.0		124	40-140			
Methyl-tert-butyl Ether (MTBE)	30.0	5.0	0.32	ug/l	25.0		120	55-145			
Naphthalene	28.0	5.0	0.41	ug/l	25.0		112	50-145			
n-Propylbenzene	24.7	2.0	0.14	ug/l	25.0		99	75-130			
Styrene	26.9	2.0	0.16	ug/l	25.0		108	80-135			
1,1,1,2-Tetrachloroethane	27.3	5.0	0.27	ug/l	25.0		109	70-145			
1,1,2,2-Tetrachloroethane	33.6	2.0	0.24	ug/l	25.0		134	60-135			
Tetrachloroethene	26.1	2.0	0.32	ug/l	25.0		104	75-125			
Toluene	25.8	2.0	0.36	ug/l	25.0		103	75-120			
1,2,3-Trichlorobenzene	27.9	5.0	0.45	ug/l	25.0		112	65-135			
1,2,4-Trichlorobenzene	27.4	5.0	0.48	ug/l	25.0		110	70-140			
1,1,1-Trichloroethane	27.8	2.0	0.30	ug/l	25.0		111	75-140			
1,1,2-Trichloroethane	28.0	2.0	0.30	ug/l	25.0		112	70-125			
Trichloroethene	26.4	2.0	0.26	ug/l	25.0		106	80-120			
Trichlorofluoromethane	28.1	5.0	0.34	ug/l	25.0		112	65-145			
1,2,3-Trichloropropane	27.8	10	0.85	ug/l	25.0		111	60-130			
1,2,4-Trimethylbenzene	25.2	2.0	0.23	ug/l	25.0		101	75-125			
1,3,5-Trimethylbenzene	25.3	2.0	0.26	ug/l	25.0		101	75-125			
Vinyl chloride	26.5	5.0	0.26	ug/l	25.0		106	50-130			

" I Mar Analytical, Irvine

hele Harper rroject Manager



WH-Pasadena/Boeing

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300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

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Received: 09/02/04

### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13030 Extracted: 09/13/04	_										•
LCS Analyzed: 09/13/04 (4I13030-BS1)					•••						
o-Xylene	24.6	2.0	0.24	ug/l	25.0		98	75-125			
m,p-Xylenes	50.1	2.0	0.52	ug/l	50.0		100	75-120			
Di-isopropyl Ether (DIPE)	28.0	5.0	0.25	ug/l	25.0		112	65-135			
Ethyl tert-Butyl Ether (ETBE)	28.3	5.0	0.28	ug/l	25.0		113	60-140			
tert-Amyl Methyl Ether (TAME)	30.0	5.0	0.33	ug/l	25.0		120	60-140			
tert-Butanol (TBA)	121	25	3.1	ug/l	125		97	70-140			
Surrogate: Dibromofluoromethane	27.9			ug/l	25.0		112	80-120			
Surrogate: Toluene-d8	26.9			ug/l	25.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	27.9			ug/l	25.0		112	80-120			
trix Spike Analyzed: 09/13/04 (4I130	30-MS1)				Sou	rce: INI0	162-05				
tone	22.5	10	4.5	ug/l	25.0	ND	90	10-150			
Benzene	25.3	2.0	0.28	ug/l	25.0	ND	101	70-120			
Bromobenzene	24.5	5.0	0.27	ug/l	25.0	ND	98	65-130			
Bromochloromethane	24.4	5.0	0.32	ug/l	25.0	ND	98	65-140			
Bromodichloromethane	25.8	2.0	0.30	ug/l	25.0	ND	103	70-140			
Bromoform	23.8	5.0	0.32	ug/l	25.0	ND	95	55-140			
Bromomethane	29.0	5.0	0.34	ug/l	25.0	ND	116	50-145			
2-Butanone (MEK)	22.3	10	3.8	ug/l	25.0	ND	89	30-145			
n-Butylbenzene	27.6	5.0	0.17	ug/l	25.0	ND	110	70-140			
sec-Butylbenzene	26.5	5.0	0.25	ug/l	25.0	ND	106	70-130			
tert-Butylbenzene	26.5	5.0	0.22	ug/l	25.0	ND	106	70-130			
Carbon tetrachloride	28.8	5.0	0.28	ug/l	25.0	ND	115	70-145			
Chlorobenzene	25.4	2.0	0.36	ug/l	25.0	ND	102	80-125			
Chloroethane	26.7	5.0	0.33	ug/l	25.0	ND	107	50-145			
Chloroform	26.9	2.0	0.33	ug/l	25.0	ND	108	70-135			
Chloromethane	25.6	5.0	0.30	ug/l	25.0	ND	102	35-145			
2-Chlorotoluene	25.6	5.0	0.28	ug/l	25.0	ND	102	70-140			
4-Chlorotoluene	25.8	5.0	0.29	ug/l	25.0	ND	103	70-140			
Dibromochloromethane	24.0	2.0	0.28	ug/l	25.0	ND	96	65-145			
1,2-Dibromo-3-chloropropane	23.7	5.0	0.92	ug/l	25.0	ND	95	45-155			
1,2-Dibromoethane (EDB)	22.4	2.0	0.32	ug/l	25.0	ND	90	70-130			
Dibromomethane	23.5	2.0	0.36	ug/l	25.0	ND	94	65-140			
1,2-Dichlorobenzene	24.7	2.0	0.32	ug/l	25.0	ND	99	75-130			
1,3-Dichlorobenzene	25.0	2.0	0.35	ug/l	25.0	ND	100	75-130			
1,4-Dichlorobenzene	25.0	2.0	0.37	ug/l	25.0	ND	100	80-120			

#### Pel Mar Analytical, Irvine

:hele Harper

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0174 Pasadena, CA 91101

Attention: Bronwyn Kelly

Sampled: 09/02/04

Received: 09/02/04

### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Amelinto	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Analyte		Limit	WEDE	Omto	Devel	Result	/UKEC	Limits	KI D	Limit	Quamicis
Batch: 4I13030 Extracted: 09/13/	<u>04                                    </u>										
Matrix Spike Analyzed: 09/13/04 (41)	13030-MS1)				Sou	rce: INI0	162-05				
Dichlorodifluoromethane	30.4	5.0	0.79	ug/l	25.0	ND	122	10-160			
1.1-Dichloroethane	26.1	2.0	0.27	ug/l	25.0	ND	104	65-135			
1,2-Dichloroethane	25.0	2.0	0.28	ug/l	25.0	ND	100	60-150			
1,1-Dichloroethene	26.1	5.0	0.32	ug/l	25.0	ND	104	65-140			
cis-1,2-Dichloroethene	24.7	2.0	0.32	ug/l	25.0	ND	99	65-130			
trans-1,2-Dichloroethene	26.5	2.0	0.27	ug/l	25.0	ND	106	65-135			
1,2-Dichloropropane	24.2	2.0	0.35	ug/l	25.0	ND	97	65-130			
1,3-Dichloropropane	22.7	2.0	0.30	ug/l	25.0	ND	91	65-140			
2,2-Dichloropropane	29.0	2.0	0.29	ug/l	25.0	ND	116	60-150			
¹ 1-Dichloropropene	26.4	2.0	0.28	ug/l	25.0	ND	106	65-140			
.,3-Dichloropropene	25.0	2.0	0.22	ug/l	25.0	ND	100	70-140			
uans-1,3-Dichloropropene	24.3	2.0	0.24	ug/l	25.0	ND	97	70-140			
Ethylbenzene	26.8	2.0	0.25	ug/l	25.0	ND	107	70-130			
Hexachlorobutadiene	27.4	5.0	0.38	ug/l	25.0	ND	110	65-140			
2-Hexanone	22.7	10	2.6	ug/l	25.0	ND	91	20-145			
Isopropylbenzene	26.7	2.0	0.25	ug/l	25.0	ND	107	70-130			
p-Isopropyltoluene	26.4	2.0	0.28	ug/l	25.0	ND	106	70-130			
Methylene chloride	23.2	5.0	0.48	ug/l	25.0	ND	93	60-135			
4-Methyl-2-pentanone (MIBK)	21.4	10	2.5	ug/l	25.0	ND	86	40-145			
Methyl-tert-butyl Ether (MTBE)	24.3	5.0	0.32	ug/l	25.0	ND	97	50-155			
Naphthalene	21.5	5.0	0.41	ug/l	25.0	ND	86	50-150			
n-Propylbenzene	26.7	2.0	0.14	ug/l	25.0	ND	107	70-135			
Styrene	15.1	2.0	0.16	ug/l	25.0	ND	60	55-145			
1,1,1,2-Tetrachloroethane	26.6	5.0	0.27	ug/l	25.0	ND	106	70-145			
1,1,2,2-Tetrachloroethane	26.9	2.0	0.24	ug/l	25.0	ND	108	60-145			
Tetrachloroethene	27.4	2.0	0.32	ug/l	25.0	ND	110	70-130			
Toluene	25.4	2.0	0.36	ug/l	25.0	ND	102	70-120			
1,2,3-Trichlorobenzene	24.7	5.0	0.45	ug/l	25.0	ND	99	60-140			
1,2,4-Trichlorobenzene	26.0	5.0	0.48	ug/l	25.0	ND	104	60-140			
1,1,1-Trichloroethane	28.0	2.0	0.30	ug/l	25.0	ND	112	75-140			
1,1,2-Trichloroethane	22.1	2.0	0.30	ug/l	25.0	ND	88	60-135			
Trichloroethene	26.3	2.0	0.26	ug/l	25.0	ND	105	70-125			
Trichlorofluoromethane	28.1	5.0	0.34	ug/l	25.0	ND	112	55-145			
1,2,3-Trichloropropane	20.9	10	0.85	ug/l	25.0	ND	84	55-140			
1,2,4-Trimethylbenzene	25.4	2.0	0.23	ug/l	25.0	ND	102	60-125			

# ે Mar Analytical, Irvine

hele Harper Project Manager WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

Attention: Bronwyn Kelly

## METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13030 Extracted: 09/13/04	<u>L</u>										
Matrix Spike Analyzed: 09/13/04 (4I13)	030-MS1)				Sou	rce: INI0	162-05				
1,3,5-Trimethylbenzene	26.6	2.0	0.26	ug/l	25.0	ND	106	70-130			
Vinyl chloride	26.8	5.0	0.26	ug/l	25.0	ND	107	40-135			
o-Xylene	25.4	2.0	0.24	ug/l	25.0	ND	102	65-125			
m,p-Xylenes	51.8	2.0	0.52	ug/l	50.0	ND	104	65-130			
Di-isopropyl Ether (DIPE)	25.8	5.0	0.25	ug/l	25.0	ND	103	65-140			
Ethyl tert-Butyl Ether (ETBE)	25.1	5.0	0.28	ug/l	25.0	ND	100	60-140			
tert-Amyl Methyl Ether (TAME)	25.0	5.0	0.33	ug/l	25.0	ND	100	55-145			
tert-Butanol (TBA)	135	25	3.1	ug/l	125	ND	108	65-145			
Surrogate: Dibromofluoromethane	26.1			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	26.6			ug/l	25.0		106	80-120			
ogate: 4-Bromofluorobenzene	27.0			ug/l	25.0		108	80-120			
Matrix Spike Dup Analyzed: 09/13/04 (	4I13030-MSD	1)			Sou	rce: INI0	162-05				
Acetone	21.2	10	4.5	ug/l	25.0	ND	85	10-150	6	35	
Benzene	25.5	2.0	0.28	ug/l	25.0	ND	102	70-120	1	20	
Bromobenzene	24.2	5.0	0.27	ug/l	25.0	ND	97	65-130	1	20	
Bromochloromethane	22.8	5.0	0.32	ug/l	25.0	ND	91	65-140	7	25	
Bromodichloromethane	25.0	2.0	0.30	ug/l	25.0	ND	100	70-140	3	20	
Bromoform	22.2	5.0	0.32	ug/l	25.0	ND	89	55-140	7	25	
Bromomethane	29.3	5.0	0.34	ug/l	25.0	ND	117	50-145	1	25	
2-Butanone (MEK)	23.0	10	3.8	ug/l	25.0	ND	92	30-145	3	40	
n-Butylbenzene	27.7	5.0	0.17	ug/l	25.0	ND	111	70-140	0	20	
sec-Butylbenzene	26.8	5.0	0.25	ug/l	25.0	ND	107	70-130	1	20	
tert-Butylbenzene	26.8	5.0	0.22	ug/l	25.0	ND	107	70-130	1	20	
Carbon tetrachloride	29.4	5.0	0.28	ug/l	25.0	ND	118	70-145	2	25	
Chlorobenzene	25.1	2.0	0.36	ug/l	25.0	ND	100	80-125	1	20	
Chloroethane	28.0	5.0	0.33	ug/l	25.0	ND	112	50-145	5	25	
Chloroform	25.7	2.0	0.33	ug/l	25.0	ND	103	70-135	5	20	
Chloromethane	26.3	5.0	0.30	ug/l	25.0	ND	105	35-145	3	25	
2-Chlorotoluene	25.5	5.0	0.28	ug/l	25.0	ND	102	70-140	0	20	
4-Chlorotoluene	25.7	5.0	0.29	ug/l	25.0	ND	103	70-140	0	20	
Dibromochloromethane	22.9	2.0	0.28	ug/l	25.0	ND	92	65-145	5	25	
1,2-Dibromo-3-chloropropane	21.7	5.0	0.92	ug/l	25.0	ND	87	45-155	9	30	
1,2-Dibromoethane (EDB)	21.6	2.0	0.32	ug/l	25.0	ND	86	70-130	4	25	
Dibromomethane	23.0	2.0	0.36	ug/l	25.0	ND	92	65-140	2	25	
1,2-Dichlorobenzene	23.8	2.0	0.32	ug/l	25.0	ND	95	75-130	4	20	

chele Harper



WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INI0174

Sampled: 09/02/04 Received: 09/02/04

### METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13030 Extracted: 09/13/04											
	•										
Matrix Spike Dup Analyzed: 09/13/04 (	4I13030-MSD1	1)			Sou	rce: INI0	162-05				
1,3-Dichlorobenzene	24.7	2.0	0.35	ug/l	25.0	ND	99	75-130	1	20	
1,4-Dichlorobenzene	24.5	2.0	0.37	ug/l	25.0	ND	98	80-120	2	20	
Dichlorodifluoromethane	30.6	5.0	0.79	ug/l	25.0	ND	122	10-160	1	30	
1,1-Dichloroethane	25.6	2.0	0.27	ug/l	25.0	ND	102	65-135	2	20	
1,2-Dichloroethane	23.9	2.0	0.28	ug/l	25.0	ND	96	60-150	4	20	
1,1-Dichloroethene	26.3	5.0	0.32	ug/l	25.0	ND	105	65-140	1	20	
cis-1,2-Dichloroethene	24.3	2.0	0.32	ug/l	25.0	ND	97	65-130	2	20	
trans-1,2-Dichloroethene	26.4	2.0	0.27	ug/l	25.0	ND	106	65-135	0	20	
1,2-Dichloropropane	23.7	2.0	0.35	ug/l	25.0	ND	95	65-130	2	20	
<sup>1</sup> 3-Dichloropropane	21.9	2.0	0.30	ug/l	25.0	ND	88	65-140	4	25	
Dichloropropane	30.8	2.0	0.29	ug/l	25.0	ND	123	60-150	6	25	
1,1-Dichloropropene	27.0	2.0	0.28	ug/l	25.0	ND	108	65-140	2	20	
cis-1,3-Dichloropropene	24.1	2.0	0.22	ug/l	25.0	ND	96	70-140	4	20	
trans-1,3-Dichloropropene	23.5	2.0	0.24	ug/l	25.0	ND	94	70-140	3	25	
Ethylbenzene	26.8	2.0	0.25	ug/l	25.0	ND	107	70-130	0	20	
Hexachlorobutadiene	26.4	5.0	0.38	ug/l	25.0	ND	106	65-140	4	20	
2-Hexanone	21.2	10	2.6	ug/l	25.0	ND	85	20-145	7	35	
Isopropylbenzene	27.0	2.0	0.25	ug/l	25.0	ND	108	70-130	1	20	
p-Isopropyltoluene	26.2	2.0	0.28	ug/l	25.0	ND	105	70-130	1	20	
Methylene chloride	21.8	5.0	0.48	ug/l	25.0	ND	87	60-135	6	20	
4-Methyl-2-pentanone (MIBK)	20.4	10	2.5	ug/l	25.0	ND	82	40-145	5	35	
Methyl-tert-butyl Ether (MTBE)	23.4	5.0	0.32	ug/l	25.0	ND	94	50-155	4	25	
Naphthalene	19.7	5.0	0.41	ug/l	25.0	ND	79	50-150	9	30	
n-Propylbenzene	26.9	2.0	0.14	ug/l	25.0	ND	108	70-135	1	20	
Styrene	3.09	2.0	0.16	ug/l	25.0	ND	12	55-145	132	30	M2, R-3
1,1,1,2-Tetrachloroethane	25.7	5.0	0.27	ug/l	25.0	ND	103	70-145	3	20	
1,1,2,2-Tetrachloroethane	25.9	2.0	0.24	ug/l	25.0	ND	104	60-145	4	30	
Tetrachloroethene	27.8	2.0	0.32	ug/l	25.0	ND	111	70-130	1	20	
Toluene	25.8	2.0	0.36	ug/l	25.0	ND	103	70-120	2	20	
1,2,3-Trichlorobenzene	23.4	5.0	0.45	ug/l	25.0	ND	94	60-140	5	20	
1,2,4-Trichlorobenzene	24.8	5.0	0.48	ug/l	25.0	ND	99	60-140	5	20	
1,1,1-Trichloroethane	27.8	2.0	0.30	ug/l	25.0	ND	111	75-140	1	20	
1,1,2-Trichloroethane	21.2	2.0	0.30	ug/l	25.0	ND	85	60-135	4	25	
Trichloroethene	26.6	2.0	0.26	ug/l	25.0	ND	106	70-125	1	20	
Trichlorofluoromethane	28.5	5.0	0.34	ug/l	25.0	ND	114	55-145	1	25	

~ l Mar Analytical, Irvine hele Harper:

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0174

Sampled: 09/02/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

Received: 09/02/04

### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I13030 Extracted: 09/13/04	<u> </u>										
Matrix Spike Dup Analyzed: 09/13/04 (	(4I13030-MSI	<b>D1</b> )			Sou	rce: INI0	162-05				
1,2,3-Trichloropropane	20.2	10	0.85	ug/l	25.0	ND	81	55-140	3	30	
1,2,4-Trimethylbenzene	23.7	2.0	0.23	ug/l	25.0	ND	95	60-125	7	25	
1,3,5-Trimethylbenzene	26.2	2.0	0.26	ug/l	25.0	ND	105	70-130	2	20	
Vinyl chloride	28.0	5.0	0.26	ug/l	25.0	ND	112	40-135	4	30	
o-Xylene	25.1	2.0	0.24	ug/l	25.0	ND	100	65-125	1	20	
m,p-Xylenes	51.5	2.0	0.52	ug/l	50.0	ND	103	65-130	1	25	
Di-isopropyl Ether (DIPE)	24.5	5.0	0.25	ug/l	25.0	ND	98	65-140	5	25	
Ethyl tert-Butyl Ether (ETBE)	23.7	5.0	0.28	ug/l	25.0	ND	95	60-140	6	25	
tert-Amyl Methyl Ether (TAME)	23.0	5.0	0.33	ug/l	25.0	ND	92	55-145	8	30	
t-Butanol (TBA)	133	25	3.1	ug/l	125	ND	106	65-145	1	25	
ogate: Dibromofluoromethane	25.3			ug/l	25.0		101	80-120			
surrogate: Toluene-d8	26.7			ug/l	25.0		107	80-120			
Surrogate: 4-Bromofluorobenzene	26.7			ug/l	25.0		107	80-120			



**IWH-Pasadena/Boeing** 

300 North Lake Avenue, Suite 1200

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

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

### METHOD BLANK/QC DATA

#### **INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
•	Result	Zimit	WIDE	Cints	Licver	Result	/UKEC	Limits	KI D	Limit	Qualifiers
Batch: 4103065 Extracted: 09/03/04											
Blank Analyzed: 09/08/04 (4I03065-BLK	<b>(1)</b>										
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 09/08/04 (4I03065-BS1)											
Biochemical Oxygen Demand	219	100	30	mg/l	198		111	85-115			
LCS Dup Analyzed: 09/08/04 (4I03065-E	SD1)										
Biochemical Oxygen Demand	215	100	30	mg/l	198		109	85-115	2	20	
Batch: 4103066 Extracted: 09/03/04											
Duplicate Analyzed: 09/03/04 (4I03066-I	OUP1)				Sou	rce: INI0	166-01				
	8.40	NA	N/A	pH Units		8.38			0	5	
ваtch: 4103068 Extracted: 09/03/04											
Blank Analyzed: 09/03/04 (4I03068-BLK	(1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/03/04 (4I03068-BS1)											
Total Suspended Solids	987	10	10	mg/l	1000		99	85-115			
Duplicate Analyzed: 09/03/04 (4I03068-D	UP1)				Sou	rce: INIO	163-01				
Total Suspended Solids	600	10	10	mg/l		600			0	10	
Batch: 4103095 Extracted: 09/03/04											
Blank Analyzed: 09/03/04 (4103095-BLK	1)										
Turbidity	ND	1.0	0.20	NTU							

Pel Mar Analytical, Irvine

hele Harper

. 10ject Manager

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

### METHOD BLANK/QC DATA

#### **INORGANICS**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4103095 Extracted: 09/03/04											
D 1	\TTD4\				<b>G</b>	YNTYO	120 01				
Duplicate Analyzed: 09/03/04 (4I03095-I	-	1.0	0.20	NUTTI	Sou	rce: INI0	128-01		,	20	
Turbidity	2.45	1.0	0.20	NTU		2.3			6	20	
Batch: 4107068 Extracted: 09/07/04											
Blank Analyzed: 09/07/04 (4I07068-BLK	(1)										
Oil & Grease	ND	5.0	0.94	mg/l							
LCS Analyzed: 09/07/04 (4I07068-BS1)											M-NR1
Oil & Grease	18.7	5.0	0.94	mg/l	20.0		94	65-120			
LCS Dup Analyzed: 09/07/04 (4107068-B	SD1)										
& Grease	17.9	5.0	0.94	mg/l	20.0		90	65-120	4	20	
Batch: 4I07084 Extracted: 09/07/04											
Blank Analyzed: 09/07/04 (4I07084-BLK	1)										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 09/07/04 (4I07084-BS1)											
Ammonia-N (Distilled)	10.6	0.50	0.30	mg/l	10.0		106	80-115			
Matrix Spike Analyzed: 09/07/04 (410708	4-MS1)				Sour	rce: INIO	082-01				
Ammonia-N (Distilled)	10.4	0.50	0.30	mg/l	10.0	ND	104	70-120			
Matrix Spike Dup Analyzed: 09/07/04 (4)	(07084-MSD	1)			Sour	ce: INI00	082-01				
Ammonia-N (Distilled)	10.4	0.50	0.30	mg/l	10.0	ND	104	70-120	0	15	



1WH-Pasadena/Boeing

Attention: Bronwyn Kelly

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300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

## METHOD BLANK/QC DATA

#### **INORGANICS**

	I	Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4108050 Extracted: 09/08/04											
Blank Analyzed: 09/08/04 (4I08050-BLk	71)										
Perchlorate	ND	4.0	0.80	ug/l							
	112	4.0	0.00	ug i							
LCS Analyzed: 09/08/04 (4I08050-BS1)											
Perchlorate	51.1	4.0	0.80	ug/l	50.0		102	85-115			
Matrix Spike Analyzed: 09/08/04 (41080	50-MS1)				Sou	rce: INIO	332-01				
Perchlorate	58.6	4.0	0.80	ug/l	50.0	6.0	105	80-120			
Matrix Spike Dup Analyzed: 09/08/04 (4	108050-MSD1)				Sou	rce: INI0	332-01				
Perchlorate	58.3	4.0	0.80	ug/l	50.0	6.0	105	80-120	1	20	
Patch: 4109084 Extracted: 09/08/04											
ısılank Analyzed: 09/08/04 (4109084-BLK											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 09/08/04 (4I09084-BS1)											
Total Dissolved Solids	1000	10	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 09/08/04 (4I09084-D	OUP1)				Sour	ce: INI01	174-01				
Total Dissolved Solids	350	10	10	mg/l		340			3	10	

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI0174

Sampled: 09/02/04 Received: 09/02/04

### METHOD BLANK/QC DATA

### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: P4I0706 Extracted: 09/07/04	-										
Blank Analyzed: 09/07/04 (P4I0706-BL)	K1)										
1,4-Dioxane	ND	1.0	0.49	ug/l							
Surrogate: Dibromofluoromethane	1.00			ug/l	1.00		100	80-135			
LCS Analyzed: 09/07/04 (P4I0706-BS1)											
1,4-Dioxane	9.57	1.0	0.49	ug/l	10.0		96	70-130			
Surrogate: Dibromofluoromethane	0.950			ug/l	1.00		95	80-135			
LCS Dup Analyzed: 09/07/04 (P4I0706-	BSD1)										
1,4-Dioxane	9.80	1.0	0.49	ug/l	10.0		98	70-130	2	20	
Surrogate: Dibromofluoromethane	0.990			ug/l	1.00		99	80-135			
trix Spike Analyzed: 09/07/04 (P4I07	06-MS1)				Sou	rce: PNI0	131-01				
,Dioxane	21.0	1.0	0.49	ug/l	10.0	12	90	70-130			
Surrogate: Dibromofluoromethane	0.990			ug/l	1.00		99	80-135			
Matrix Spike Dup Analyzed: 09/07/04 (F	410706-MSE	01)			Soui	rce: PNI0	131-01				
1,4-Dioxane	21.4	1.0	0.49	ug/l	10.0	12	94	70-130	2	20	
Surrogate: Dibromofluoromethane	1.04			ug/l	1.00		104	80-135			

WH-Pasadena/Boeing

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

300 North Lake Avenue, Suite 1200

Report Number: INI0174

Sampled: 09/02/04

Kej

Received: 09/02/04

# METHOD BLANK/QC DATA

### Semivolatile Organic Compounds by EPA Method 625

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: V4I0802 Extracted: 09/07/0	<u>4</u>										
Blank Analyzed: 09/16/04 (V4I0802-BI	.K1)										
Naphthalene	ND	10.0	1.31	ug/L							
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L							
Surrogate: 2-FP	101			ug/L	200		51	40.8-88.4			
Surrogate: Phenol-d6	<i>88.3</i>			ug/L	200		44	31.7-86.6			
Surrogate: 2,4,6-TBP	150			ug/L	200		75	58-109			
Surrogate: Nitrobenzene-d5	80.0			ug/L	100		80	47.1-99.2			
Surrogate: 2-FBP	80.4			ug/L	100		80	44.7-89.6			
Surrogate: p-Terphenyl-d14	101			ug/L	100		101	45.7-117			
LCS Analyzed: 09/16/04 (V4I0802-BS1)	)										
hthalene	150	10.0	1.31	ug/L	200		75	42.8-96.5			
.fitrosodimethylamine	129	20.0	1.37	ug/L	200		65	14.1-97.3			
Surrogate: 2-FP	132			ug/L	200		66	40.8-88.4			
Surrogate: Phenol-d6	102			ug/L	200		51	31.7-86.6			
Surrogate: 2,4,6-TBP	180			ug/L	200		90	58-109			
Surrogate: Nitrobenzene-d5	<i>79.0</i>			ug/L	100		79	47.1-99.2			
Surrogate: 2-FBP	77.5			ug/L	100		78	44.7-89.6			
Surrogate: p-Terphenyl-d14	86.6			ug/L	100		87	45.7-117			
LCS Dup Analyzed: 09/16/04 (V4I0802-	BSD1)										
Naphthalene	156	10.0	1.31	ug/L	200		78	42.8-96.5	4	15	
N-Nitrosodimethylamine	113	20.0	1.37	ug/L	200		57	14.1-97.3	13	32.5	
Surrogate: 2-FP	108			ug/L	200		54	40.8-88.4			
Surrogate: Phenol-d6	93.2			ug/L	200		47	31.7-86.6			
Surrogate: 2,4,6-TBP	190			ug/L	200		95	58-109			
Surrogate: Nitrobenzene-d5	80.2			ug/L	100		80	47.1-99.2			
Surrogate: 2-FBP	77.6			ug/L	100		<i>78</i>	44.7-89.6			
Surrogate: p-Terphenyl-d14	92.0			ug/L	100		92	45.7-117			

WH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0174

Sampled: 09/02/04 Received: 09/02/04

Attention: Bronwyn Kelly

# METHOD BLANK/QC DATA

### Semivolatile Organic Compounds by EPA Method 625

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: V4I0802 Extracted: 09/	07/04										
Duplicate Analyzed: 09/16/04 (V4	I0802-DUP1)				Sou	rce: INI0	174-01				
Naphthalene	37.6	10.0	1.31	ug/L		37.8			1	30	
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L		ND				30	
Surrogate: 2-FP	65.1			ug/L	200		33	40.8-88.4			S-04
Surrogate: Phenol-d6	75.2			ug/L	200		38	31.7-86.6			
Surrogate: 2,4,6-TBP	107			ug/L	200		54	<i>58-109</i>			S-04
Surrogate: Nitrobenzene-d5	72.5			ug/L	100		73	47.1-99.2			
Surrogate: 2-FBP	67.9			ug/L	100		68	44.7-89.6			
Surrogate: p-Terphenyl-d14	80.8			ug/L	100		81	45.7-117			
Matrix Spike Analyzed: 09/16/04	(V4I0802-MS1)				Sou	rce: V409	027-01				
hthalene	131	10.0	1.31	ug/L	200	ND	66	70-130			M-01
itrosodimethylamine	105	20.0	1.37	ug/L	200	ND	53	70-130			M-01
Surrogate: 2-FP	86.9			ug/L	200		43	40.8-88.4			
Surrogate: Phenol-d6	74.1			ug/L	200		<i>37</i>	31.7-86.6			
Surrogate: 2,4,6-TBP	101			ug/L	200		51	58-109			S-04
Surrogate: Nitrobenzene-d5	67.1			ug/L	100		67	47.1-99.2			
Surrogate: 2-FBP	66.7			ug/L	100		67	44.7-89.6			
Surrogate: p-Terphenyl-d14	75.1			ug/L	100		75	45.7-117			



**1WH-Pasadena/Boeing** 

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Sampled: 09/02/04 Report Number: INI0174 Received: 09/02/04

# **DATA QUALIFIERS AND DEFINITIONS**

J Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of unknown quality.

M-01 Spike recovery outside control limits due to sample matrix interference.

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

R The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.

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

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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

**RPD** Relative Percent Difference

#### ADDITIONAL COMMENTS

#### For GRO (C4-C12):

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

#### r'or Extractable Fuel Hydrocarbons (EFH, DRO, ORO):

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

**Pel Mar Analytical, Irvine** hele Harper . . oject Manager



**IWH-Pasadena/Boeing** 

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/02/04
Report Number: INI0174 Received: 09/02/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

## **Certification Summary**

#### Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV 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**

el Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907

9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed:

EPA 8260B

Samples: INI0174-01

Star Analytical, Inc. CA ELAP Cert #1849

14500 Trinity Boulevard, Suite 106 - Fort Worth, TX 76155

Method Performed: EPA 625

Samples: INI0174-01

hele Harper rroject Manager



1014 E. Cooley Dr., Suite A, Colton, CA 92324 9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 9830 South 51st Street, Suite B-120, Phoenix, AZ 85044

Ph (619) 505-9596 Ph (480) 785-0043 Ph (702) 798-3620

Ph (909) 370-4687 Fax (909) 370-1048 Fax (480) 785-0851 Fax (702) 798-3821

# **SUBCONTRACT ORDER - PROJECT # INI0174**

#### 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:

Del Mar Analytical - Phoenix

9830 S. 51st Street, Suite B-120

Phoenix, AZ 85044

Phone: (480) 785-0043 Fax: (480) 785-0851

Analysis	Expiration	Due	Comments
Sample ID: INI0174-01	Water Sampled	: 09/02/04 14:40	-
Dioxane-8260B-out	09/16/04 14:40	09/14/04 12:00	Boeing-permit, sub to DMAP, J flags PNI 0133 - 01
Containers Supplied:			
40 ml VOA w/HCL (IN	I0174-01K)		
40 ml VOA w/HCL (IN	I0174-01L)		
40 ml VOA w/HCL (IN	I0174-01M)		

				SAMPLI	E INTEGRI	TY:				
	ritact: Yes Present: Yes			: labels/COC agree: s Preserved Properly:			-	eived On Ice:: eived at (temp):	XI Yes	No
7		>	79.3	-04 178	0	Fe	ک 5×			
Released By			Date	Time	Received By	7		Date	T	ime
leased By	1-ed	EX	Date	Time	Received B	MBi	سالمه	Q U U		<u>040</u> 5
leased by			Date	Time	Race Po	9	9	Date	_	Page 1 of 1



SENDING LABORATORY:

17461 Derian Ave. Suite 100, Irvine, CA 92614 1014 E. Cooley Dr., Suite A, Colton, CA 92324 9484 Chesapeake Drive, Suite 806, San Diego, CA 92123

9830 South 51st Street, Suite 8-120, Phoenix, AZ 85044

**RECEIVING LABORATORY:** 

Ph (909) 370-4667 Ph (619) 505-9596

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

Ph (702) 798-3620

Fax (480) 785-0851 Fax (702) 798-3621

# **SUBCONTRACT ORDER - PROJECT # INI0174**

Del Mar Analytical, Irvine			Star Analytical,	IncSUB	
17461 Derian Avenue. Sui			1 1	oulevard, Suite 119	
Irvine, CA 92614			Fort Worth, TX	•	
Phone: (949) 261-1022			Phone :(817) 57		
Fax: (949) 261-1228			Fax:	1 0000	
Project Manager: Michele I	Llarnar		l l'ax.		
rroject Manager. Whenever	Tarper				
Standard TAT is requeste	ed unless specific due	date is requested	=> Due Date:	9/14/04	Initials:
Analysis	Expiration		Comments		
Sample ID: INI0174-01 W 625+NDMA+Hydrazine	fater Sampled: 0 09/09/04 14:40	9/02/04 14:40	Boeing, permit & PP	(see project notes), J flags	
Containers Supplied: 1 L Amber (INI0174-01P) 1 L Amber (INI0174-01Q)		_	P6834	<b>-</b> 7	
				•	
		SAMPLE	INTEGRITY:		
All containers intact: 💆 Yes	. □ No Sam	ple labels/COC agree:	Yes No	Samples Received On Ice::	<b>27</b> Yes □ No
Custody Seals Present: Yes		oles Preserved Properly:		Samples Received at (temp):	5.5
		i	/ 11 0		
Vn Barle	9-3-04	1700	On Huly	- UALOH	(100
Released By	Date	Time R	eceived By	Date	Time
eased By	Date	Time R	eceived By	Date	Time

Star Analytica' mple Receipt Log

	ple Sample Control													_	Page of
m sample containers	Sample Sample Sample Matrix Date Time	L Shep 14th													
Information collected from sample containers	Client Sample Identification	10-75/DIM					19					NS:		1/1200/ P	Work Order Number
	Sample Sample Number Letter(s)	0/ A-B										Additional Comments and/or Problems, Resolutions:		\	
	Container Qty(s) & Description(s)	2-16 Amber . ( enone )										Additional Comments a		2/90	Date of Log-In
Mar-lovine	, an U		3) Method of Receipt: Tracking # 1787>17 AR0	Airborne 6	Time Received at/by Lab	g Completed By Packing Material used?	No Sample Temp. S. Coler Temp. S. C.	7) Chain of Costody filled out property?  [Date: No NA	B) Does Information on custody/traffic reports agree     with lp/6/mation on sample lacs/labels?	N D	9) Containers supplied by Labr .  The Containers supplied by Labr .	10) Correct Appropriate containers used?	's intact?	12) Containers property preserved?  Thes  No  N/A	e in VOAs?  No GHN/A
3	1) Client Name 2) Seal(s) Inta	\$ 8 ₹ 8 8 ¥	3) Method	<b>—</b>	4) Date &	5) Receipt Lo 6) Ice used?	\$ &	7) Chain of	8) Does in		9) Containe	10) Correct	11) Container's intact?	12) Contaip	13) Headspace in VOAs?

**CHAIN OF CUSTODY FORM** Del Mar Analytical version 5 8/12/04

			5			5	20100	-										
Cilent Name/Addiess.	radi ess.			roject.	֓֞֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	C L	•	ANAL	Sist	ANALYSIS REQUIRED	함	}		-				
MWH-Pasadena	dena			During 7	boeing-SSFL NPDES During Test – Alfa Outfall 012	<b>DES</b> <b>fa Outfa</b>	II 012								su		INTOINE	1//_
300 North Lake Avenue, Suite 1200 Pasadena, CA 91101	91101	Suite 1200		Project Number:	lumber:						,9DT.	(A					CTIT	<u></u>
Project Manager.	ger: Bron	Bronwyn Kelly		Phone Number: (626) 568-6691 Fax Number:	umber: 3-6691 ber:			828-ansx ble Solids		it iə[\ləsəi	rease (EF	DPE, TB.	rate	r, ZDS, T.	:Total Reconstruction Total Hydro 18.1)	ohthalene analysis		an the section of the
101	3	- 1		$\stackrel{\smile}{-}$	3-6515						(t. 13)	3E'	ojųs	uou	='H	JBN AM		
Sample Description	Sample Matrix	Container Type	Cont.	Sampling Date/Time		Preservative	Bottle #		108		413 413	TM	Pero	ımA	Petr	+ND 952		
Outfall 012	8	1L Amber	-	107	HCI		1A	$\vdash$	L		×	-	T	-		$\perp$		
Outfall 012 duplicate	×	1L Amber	-		HCL		18	_			×	-		-				
Outfall 012	(d) M	Presticit om	-		오		7A				-	-	1		×			
Outfall 012 duplicate	<b>⑤</b> ≥	Plackd Lambi	-		로		28	_			_	-		-	×			
Outfall 012	8	VOAs	-		오	-	VE				×	+	#	-		_		
Outfall 012 duplicate	3	VOAs	2		五		3B, 3C				×	-		-		$\perp$		
Outfall 012	W	VOAs	_		오	-	44		×			+	#			}		
Outfall 012 duplicate	8	VOAs	7		로		4B, 4C		×		-	-	#			$\frac{1}{1}$	-	
Outfall 012	8	VOAs	-		오		SA	×	L		-	-	1	+		$\frac{1}{2}$	1	
Outfall 012 duplicate	×	VOAs	2		호		5B, 5C	×	_		-	+	1			$\frac{1}{1}$		
Outfall 012	×	1L Amber	-		None		6A		_	$oldsymbol{\perp}$	-	+	#	-		>		
Outfall 012 duplicate	3	1L Amber	-		None		<b>6B</b>				-	-				< ×		
Outfall 012	3	1L Amber	+	<u></u> -	None		<b>A</b> Y			×	-	+		-				
Outfall 012 duplicate	*	1L Amber	-		None		78			×		-	#	-		+		
Outfall 012	>	500 ml Poly	-		H2S04		₩	$\perp$		$\downarrow$	-	+	#	×	-	+	†; 	
Outfall 012	>	1L Poly	-		None	-	¥6				-	×	#	-		+	7	
Outfall 012	3	1L Poly	-		None		10A	×			-	-	t	-		+	\	
Outfall 012	3	1L Poly	-		None		11A				-	-	×	×		+		
Trip Blank	3	VOAs	4	<b>A</b>	HCI	1	12A, 12B, 12C, 12D		×		×		<u> </u>	-	-	$\dagger$		
<u>.</u>												-				-		
Kemmeneday		2.2	Date/Time:	ime: / ^ _ / O	Received By	\$ \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	}	Date/Fime	ime:		'	;		- 8	Turnaround Time: (check) Same Day 72 Hours	e: (check) 72 h	fours	
Relinquished By	7	7	Date/Time:	2   2	十	Received By	29	い 大 手 ず に			3	3		7	24 Hours	5 days	N.	
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12/	3	1	70	183							:				Perchlorate Only 72 Hours	72 Hours		
Kelinquished By	0		Date/Time:	ïne:	Recei	Received By		Date/Time	ime:					2	Metals Only 72 Hours	fours		
					3		Knavan	o⁻ ∕	7	Z	73	05B1		<i>s</i>	Sample Integrity: (Check)	: (Check)	000	
And the state of t					,				Ţ					=	Viact V	Ö	.	



### LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

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

Revised: 11/12/04 11:33

#### NELAP #01108CA CA 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(s) of Custody, 2 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

#### CASE NARRATIVE

SAMPLE RECEIPT:

Samples were received intact, at 6°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. The surrogate recoveries of 2-FP, Phenol-d6, p-Terphenl-d14, and 1,4,6-TBP for sample INI0560-01 were below the established control limits. The sample was not re-extracted due to insufficient sample volume. Also, the surrogate recovery for 2-FP in the Blank Spike for QC Batch 4I16041 was below the established control

limit. The sample was not re-extracted due to insufficient sample volume.

ADDITIONAL

INFORMATION:

The report was revised to correct the value reported for Naphthalene by EPA 625.

LABORATORY ID

CLIENT ID

MATRIX

INI0560-01

Outfall 012

Water

INI0560-02

Trip Blank

Water

Reviewed By:

el Mar Analytical, Irvine

Michele Harper

Michele Harper Project Manager



MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INI0560

Sampled: 09/09/04

Attention: Bronwyn Kelly

Received: 09/09/04

# TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (Outfall 012 -	Water)				Samp	oled: 09/09	9/04		
Reporting Units: mg/l Total Recoverable Hydrocarbons	EPA 418.1	4117090	0.31	1.0	1.4	1	09/17/04	09/17/04	



MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

### EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (Outfall 012 - V			Samp	led: 09/0	9/04				
Reporting Units: mg/I									
EFH (C13 - C22)	EPA 8015B	4I13058	0.082	0.50	0.97	1.01	09/13/04	09/15/04	
Surrogate: n-Octacosane (45-125%)					90 %				



MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/09/04

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0560

Received: 09/09/04

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (Outfall 012 -	· Water) - cont.				Samp	oled: 09/09	9/04		
Reporting Units: mg/l GRO (C4 - C12) Surrogate: 4-BFB (F1D) (60-135%)	EPA 8015 Mod.	4I16006	0.050	0.10	<b>0.20</b> 107 %	1	09/16/04	09/16/04	
Sample ID: INI0560-02 (Trip Blank -	Water)				Samp	led: 09/09	0/04		
Reporting Units: mg/l GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%)	EPA 8015 Mod.	4I16006	0.050	0.10	ND 86 %	1	09/16/04	09/16/04	



MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly

Sampled: 09/09/04 Report Number: INI0560 Received: 09/09/04

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (Outfall 012	- Water)				Samp	led: 09/0	9/04		
Reporting Units: ug/l					_				
1,2-Dibromoethane (EDB)	EPA 624 MOD	4117021	0.32	2.0	ND	1	09/17/04	09/17/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4117021	0.32	5.0	ND	1	09/17/04	09/17/04	
1,2,3-Trichloropropane	EPA 624 MOD	4117021	0.85	10	ND	1	09/17/04	09/17/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4117021	0.25	5.0	ND	1	09/17/04	09/17/04	
tert-Butanol (TBA)	EPA 624 MOD	4I17021	3.1	25	ND	1	09/17/04	09/17/04	
Surrogate: Dibromofluoromethane (80	)-120%)				94 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-	-120%)				98 %				
Sample ID: INI0560-02 (Trip Blank -	Water)				Samp	led: 09/09	9/04		
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I17021	0.32	2.0	ND	1	09/17/04	09/17/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I17021	0.32	5.0	ND	1	09/17/04	09/17/04	
1,2,3-Trichloropropane	EPA 624 MOD	4117021	0.85	10	ND	1	09/17/04	09/17/04	
i-isopropyl Ether (DIPE)	EPA 624 MOD	4117021	0.25	5.0	ND	1	09/17/04	09/17/04	
rt-Butanol (TBA)	EPA 624 MOD	4117021	3.1	25	ND	1	09/17/04	09/17/04	
Surrogate: Dibromofluoromethane (80	-120%)				104 %				
Surrogate: Toluene-d8 (80-120%)					102 %				
Surrogate: 4-Bromofluorobenzene (80-	-120%)				104 %				



MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/09/04

Pasadena, CA 91101

Report Number: INI0560

Received: 09/09/04

#### **INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (Outfall 012 -	Water)				Samp	led: 09/0	9/04		
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4115091	0.30	0.50	ND	1	09/15/04	09/15/04	
Biochemical Oxygen Demand	EPA 405.1	4110075	0.59	2.0	1.6	1	09/10/04	09/15/04	J
Oil & Grease	EPA 413.1	4115083	0.94	5.0	ND	1	09/15/04	09/15/04	
Total Dissolved Solids	SM2540C	4110097	10	10	330	1	09/10/04	09/10/04	
Total Suspended Solids	EPA 160.2	4I10076	10	10	20	1	09/10/04	09/10/04	
Sample ID: INI0560-01 (Outfall 012 - '	Water)				Samp	led: 09/0	9/04		
Reporting Units: ml/l/hr									
Total Settleable Solids	EPA 160.5	4I10077	0.10	0.10	ND	1	09/10/04	09/10/04	
Sample ID: INI0560-01 (Outfall 012 - Neporting Units: NTU	Water)				Samp	led: 09/0	9/04		
Turbidity	EPA 180.1	4I10086	0.20	1.0	39	1	09/10/04	09/10/04	
Sample ID: INI0560-01 (Outfall 012 - V	Water)				Samp	led: 09/0	9/04		
I .	EPA 150.1	4I10047	N/A	NA	8.03	1	09/10/04	09/10/04	
Sample ID: INI0560-01 (Outfall 012 - V Reporting Units: ug/l	Water)				Samp	led: 09/0	9/04		
Perchlorate	EPA 314.0	4I13037	0.80	4.0	ND	1	09/13/04	09/13/04	



MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/09/04

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0560

Received: 09/09/04

### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (Outfall 012			Samp	oled: 09/09	9/04				
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4I1414	0.49	1.0	ND	1	09/14/04	09/14/04	
Surrogate: Dibromofluoromethane (80	0-135%)				127 %				



MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

### Acid and Base/Neutral Extractables by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01RE1 (Outfall 012	- Water) - cont.				Samp	led: 09/09	0/04		X
Reporting Units: ug/l									
Naphthalene	EPA 625	4116041	0.941	10.0	18.4	0.952	09/16/04	09/24/04	
N-Nitrosodimethylamine	EPA 625	4116041	1.56	20.0	ND	0.952	09/16/04	09/24/04	
Surrogate: 2-FBP (49-122%)					60.3 %				
Surrogate: 2-FP (20-111%)					13.7 %				
Surrogate: Nitrobenzene-d5 (50-120%)					66.0 %				
Surrogate: Phenol-d6 (12-120%)					0.0399 %	6			
Surrogate: p-Terphenyl-d14 (10-138%)					3.68 %				
Surrogate: 2,4,6-TBP (22-131%)					12.9 %				



MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INI0560

Rec

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

Attention: Bronwyn Kelly

#### SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 012 (INI0560-01) - Wate	r				
EPA 150.1	1	09/09/2004 13:55	09/09/2004 17:50	09/10/2004 06:30	09/10/2004 07:30
EPA 160.5	2	09/09/2004 13:55	09/09/2004 17:50	09/10/2004 14:00	09/10/2004 16:00
EPA 180.1	2	09/09/2004 13:55	09/09/2004 17:50	09/10/2004 13:30	09/10/2004 14:30
EPA 405.1	2	09/09/2004 13:55	09/09/2004 17:50	09/10/2004 13:00	09/15/2004 09:30



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300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Sampled: 09/29/04

Received: 09/30/04

Report Number: INI1882

#### SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 012 (INI1882-01) - Water					
EPA 150.1	1	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 09:00	10/01/2004 10:00
EPA 160.5	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 13:00	10/01/2004 14:00
EPA 180.1	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 08:00	10/01/2004 08:50
EPA 405.1	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 13:10	10/06/2004 11:00



IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/29/04
Report Number: INI1882 Received: 09/30/04

Pasadena, CA 91101 Attention: Bronwyn Kelly

# METHOD BLANK/QC DATA

### **TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte  Batch: 4J01062 Extracted: 10/01/04	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Blank Analyzed: 10/01/04 (4J01062-BLK Total Recoverable Hydrocarbons	(1) ND	1.0	0.31	mg/l							
LCS Analyzed: 10/01/04 (4J01062-BS1) Total Recoverable Hydrocarbons	4.21	1.0	0.31	mg/l	5.00		84	65-120			M-NR1
LCS Dup Analyzed: 10/01/04 (4J01062-E Total Recoverable Hydrocarbons	<b>3SD1)</b> 4.46	1.0	0.31	mg/l	5.00		89	65-120	6	20	

WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

#### METHOD BLANK/QC DATA

### EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4J01040 Extracted: 10/01/04											
Blank Analyzed: 10/04/04 (4J01040-BLF	<b>K1</b> )										
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.156			mg/l	0.200		<i>78</i>	45-125			
LCS Analyzed: 10/04/04 (4J01040-BS1)											M-NR1
EFH (C13 - C40)	0.724	0.50	0.082	mg/l	0.775		93	40-115			
Surrogate: n-Octacosane	0.201			mg/l	0.200		100	45-125			
LCS Dup Analyzed: 10/04/04 (4J01040-E	BSD1)										
EFH (C13 - C40)	0.615	0.50	0.082	mg/l	0.775		79	40-115	16	25	
Surrogate: n-Octacosane	0.162			mg/l	0.200		81	45-125			

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

#### METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J07007 Extracted: 10/07/04	_										
Blank Analyzed: 10/07/04 (4J07007-BL)	K1)										
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.0101			mg/l	0.0100		101	60-135			
LCS Analyzed: 10/07/04 (4J07007-BS1)											
GRO (C4 - C12)	0.233	0.10	0.050	mg/l	0.220		106	70-135			
Surrogate: 4-BFB (FID)	0.0127			mg/l	0.0100		127	60-135			
Matrix Spike Analyzed: 10/07/04 (4J070	007-MS1)				Sou	rce: INI10	679-04				
GRO (C4 - C12)	0.264	0.10	0.050	mg/l	0.220	0.054	95	60-135			
Surrogate: 4-BFB (FID)	0.0120			mg/l	0.0100		120	60-135			
trix Spike Dup Analyzed: 10/07/04 (4	J07007-MSD1	)			Sour	rce: INI16	579-04				
.J (C4 - C12)	0.273	0.10	0.050	mg/l	0.220	0.054	100	60-135	3	20	
Surrogate: 4-BFB (FID)	0.0127			mg/l	0.0100		127	60-135			
Batch: 4J07125 Extracted: 10/07/04											
Blank Analyzed: 10/07/04 (4J07125-BLF	<b>ζ1</b> )										
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.0112			mg/l	0.0100		112	60-135			
LCS Analyzed: 10/07/04 (4J07125-BS1)											
GRO (C4 - C12)	0.240	0.10	0.050	mg/l	0.220		109	70-135			
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			
Matrix Spike Analyzed: 10/07/04 (4J071)	25-MS1)				Sour	ce: INI15	27-05				
GRO (C4 - C12)	0.233	0.10	0.050	mg/l	0.220	ND	106	60-135			
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			



1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/29/04

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Received: 09/30/04

#### METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J07125 Extracted: 10/07/0	<u>)4</u>										
Matrix Spike Dup Analyzed: 10/07/04	(4J07125-MSI	<b>D1</b> )			Sou	rce: INI1	527-05				
GRO (C4 - C12)	0.237	0.10	0.050	mg/l	0.220	ND	108	60-135	2	20	
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			

1WH-Pasadena/Boeing

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300 North Lake Avenue, Suite 1200

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Sampled: 09/29/04

Received: 09/30/04

### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
•		Limit	MIDE	Units	Level	Result	/OKEC	Limits	KID	Limit	Quaimiers
Batch: 4J06029 Extracted: 10/06/04	<u> </u>										
Blank Analyzed: 10/06/04 (4J06029-BL	K1)										
Acetone	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
Butylbenzene	ND	5.0	0.22	ug/l							
_arbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	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	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/l							
2,2-Dichloropropane	ND	2.0	0.29	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							

#### Pol Mar Analytical, Irvine

hele Harper

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1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

Pasadena, CA 91101 Attention: Bronwyn Kelly

#### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06	5/04										
Blank Analyzed: 10/06/04 (4J06029	-BLK1)										
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
ohthalene	ND	5.0	0.41	ug/l							
ropylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l						•	
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	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	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Surrogate: Dibromofluoromethane	26.3			ug/l	25.0		105	80-120			

### Pel Mar Analytical, Irvine

hele Harper

r roject Manager



**1WH-Pasadena/Boeing** 

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1882

Sampled: 09/29/04

Attention: Bronwyn Kelly

Received: 09/30/04

#### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

	<b>7</b> 0 . <b>1</b> .	Reporting		<b></b>	Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04	<u> </u>										
Blank Analyzed: 10/06/04 (4J06029-BL	K1)										
Surrogate: Toluene-d8	25.9			ug/l	25.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	26.2			ug/l	25.0		105	80-120			
LCS Analyzed: 10/06/04 (4J06029-BS1)	)										
Acetone	24.5	10	4.5	ug/l	25.0		98	30-140			
Benzene	24.0	2.0	0.28	ug/l	25.0		96	70-120			
Bromobenzene	23.5	5.0	0.27	ug/l	25.0		94	80-120			
Bromochloromethane	25.4	5.0	0.32	ug/l	25.0		102	65-135			
Bromodichloromethane	25.0	2.0	0.30	ug/l	25.0		100	70-140			
Bromoform	23.2	5.0	0.32	ug/l	25.0		93	55-135			
momethane	25.8	5.0	0.34	ug/l	25.0		103	60-140			
utanone (MEK)	26.4	10	3.8	ug/l	25.0		106	40-135			
n-Butylbenzene	23.7	5.0	0.17	ug/l	25.0		95	75-130			
sec-Butylbenzene	23.2	5.0	0.25	ug/l	25.0		93	75-125			
tert-Butylbenzene	23.1	5.0	0.22	ug/l	25.0		92	75-125			
Carbon tetrachloride	26.0	5.0	0.28	ug/l	25.0		104	70-140			
Chlorobenzene	23.6	2.0	0.36	ug/l	25.0		94	80-125			
Chloroethane	25.8	5.0	0.33	ug/l	25.0		103	60-145			
Chloroform	25.2	2.0	0.33	ug/l	25.0		101	75-130			
Chloromethane	25.1	5.0	0.30	ug/l	25.0		100	40-145			
2-Chlorotoluene	23.0	5.0	0.28	ug/l	25.0		92	75-125			
4-Chlorotoluene	23.6	5.0	0.29	ug/l	25.0		94	75-125			
Dibromochloromethane	25.4	2.0	0.28	ug/l	25.0		102	65-145			
1,2-Dibromo-3-chloropropane	24.0	5.0	0.92	ug/l	25.0		96	50-135			
1,2-Dibromoethane (EDB)	25.0	2.0	0.32	ug/l	25.0		100	75-125			
Dibromomethane	25.3	2.0	0.36	ug/l	25.0		101	75-130			
1,2-Dichlorobenzene	23.3	2.0	0.32	ug/l	25.0		93	80-120			
1,3-Dichlorobenzene	23.2	2.0	0.35	ug/l	25.0		93	80-120			
1,4-Dichlorobenzene	23.4	2.0	0.37	ug/l	25.0		94	80-120			
Dichlorodifluoromethane	24.2	5.0	0.79	ug/l	25.0		97	10-160			
1,1-Dichloroethane	25.1	2.0	0.27	ug/l	25.0		100	70-135			
1,2-Dichloroethane	25.8	2.0	0.28	ug/l	25.0		103	60-150			
1,1-Dichloroethene	25.2	5.0	0.32	ug/l	25.0		101	75-135			
cis-1,2-Dichloroethene	23.8	2.0	0.32	ug/l	25.0		95	70-125			
trans-1,2-Dichloroethene	25.4	2.0	0.27	ug/l	25.0		102	70-130			
1,2-Dichloropropane	24.5	2.0	0.35	ug/l	25.0		98	70-120			

#### Pal Mar Analytical, Irvine

hele Harper

r 10ject Manager

**IWH-Pasadena/Boeing** 

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04

Attention: Bronwyn Kelly

Received: 09/30/04

#### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04											
	_										
LCS Analyzed: 10/06/04 (4J06029-BS1)											
1,3-Dichloropropane	24.8	2.0	0.30	ug/l	25.0		99	70-130			
2,2-Dichloropropane	26.0	2.0	0.29	ug/l	25.0		104	65-150			
1,1-Dichloropropene	24.6	2.0	0.28	ug/l	25.0		98	75-130			
cis-1,3-Dichloropropene	24.7	2.0	0.22	ug/l	25.0		99	75-130			
trans-1,3-Dichloropropene	25.6	2.0	0.24	ug/l	25.0		102	75-135			
Ethylbenzene	24.0	2.0	0.25	ug/l	25.0		96	80-120			
Hexachlorobutadiene	23.2	5.0	0.38	ug/l	25.0		93	65-140			
2-Hexanone	26.3	10	2.6	ug/l	25.0		105	40-140			
Isopropylbenzene	23.8	2.0	0.25	ug/l	25.0		95	75-125			
p-Isopropyltoluene	23.4	2.0	0.28	ug/l	25.0		94	75-125			
hylene chloride	25.3	5.0	0.48	ug/l	25.0		101	60-135			
Methyl-2-pentanone (MIBK)	27.0	10	2.5	ug/l	25.0		108	40-140			
Methyl-tert-butyl Ether (MTBE)	26.2	5.0	0.32	ug/l	25.0		105	55-145			
Naphthalene	23.7	5.0	0.41	ug/l	25.0		95	50-145			
n-Propylbenzene	23.6	2.0	0.14	ug/l	25.0		94	75-130			
Styrene	24.5	2.0	0.16	ug/l	25.0		98	80-135			
1,1,1,2-Tetrachloroethane	25.2	5.0	0.27	ug/l	25.0		101	70-145			
1,1,2,2-Tetrachloroethane	24.9	2.0	0.24	ug/l	25.0		100	60-135			
Tetrachloroethene	24.2	2.0	0.32	ug/l	25.0		97	75-125			
Toluene	24.0	2.0	0.36	ug/l	25.0		96	75-120			
1,2,3-Trichlorobenzene	23.9	5.0	0.45	ug/l	25.0		96	65-135			
1,2,4-Trichlorobenzene	24.1	5.0	0.48	ug/l	25.0		96	70-140			
1,1,1-Trichloroethane	25.6	2.0	0.30	ug/l	25.0		102	75-140			
1,1,2-Trichloroethane	24.5	2.0	0.30	ug/l	25.0		98	70-125			
Trichloroethene	24.0	2.0	0.26	ug/l	25.0		96	80-120			
Trichlorofluoromethane	26.9	5.0	0.34	ug/l	25.0		108	65-145			
1,2,3-Trichloropropane	24.5	10	0.85	ug/l	25.0		98	60-130			
1,2,4-Trimethylbenzene	23.6	2.0	0.23	ug/l	25.0		94	75-125			
1,3,5-Trimethylbenzene	23.8	2.0	0.26	ug/l	25.0		95	75-125			
Vinyl chloride	25.8	5.0	0.26	ug/l	25.0		103	50-130			
o-Xylene	23.2	2.0	0.24	ug/l	25.0		93	75-125			
m,p-Xylenes	47.2	2.0	0.52	ug/l	50.0		94	75-120			
Di-isopropyl Ether (DIPE)	25.9	5.0	0.25	ug/l	25.0		104	65-135			
Ethyl tert-Butyl Ether (ETBE)	25.4	5.0	0.28	ug/l	25.0		102	60-140			
tert-Amyl Methyl Ether (TAME)	26.4	5.0	0.33	ug/l	25.0		106	60-140			

### Pol Mar Analytical, Irvine

hele Harper

r 10ject Manager



WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI1882

Sampled: 09/29/04 Received: 09/30/04

#### METHOD BLANK/QC DATA

#### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04											
Daten. 4000025 Extracted. 10/00/01	•										
LCS Analyzed: 10/06/04 (4J06029-BS1)											
tert-Butanol (TBA)	126	25	3.1	ug/l	125		101	70-140			M-3
Surrogate: Dibromofluoromethane	<i>26.1</i>			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	26.0			ug/l	25.0		104	80-120			
Matrix Spike Analyzed: 10/06/04 (4J060	29-MS1)				Sou	rce: INJ0	203-01				
Acetone	36.2	10	4.5	ug/l	25.0	15	85	10-150			
Benzene	23.3	2.0	0.28	ug/l	25.0	ND	93	70-120			
Bromobenzene	22.7	5.0	0.27	ug/l	25.0	ND	91	65-130			
Bromochloromethane	24.6	5.0	0.32	ug/l	25.0	ND	98	65-140			
modichloromethane	24.6	2.0	0.30	ug/l	25.0	ND	98	70-140			
moform	22.2	5.0	0.32	ug/l	25.0	ND	89	55-140			
Bromomethane	25.4	5.0	0.34	ug/l	25.0	ND	102	50-145			
2-Butanone (MEK)	25.5	10	3.8	ug/l	25.0	ND	102	30-145			
n-Butylbenzene	23.1	5.0	0.17	ug/l	25.0	ND	92	70-140			
sec-Butylbenzene	22.6	5.0	0.25	ug/l	25.0	ND	90	70-130			
tert-Butylbenzene	22.5	5.0	0.22	ug/l	25.0	ND	90	70-130			
Carbon tetrachloride	25.3	5.0	0.28	ug/l	25.0	ND	101	70-145			
Chlorobenzene	23.0	2.0	0.36	ug/l	25.0	ND	92	80-125			
Chloroethane	25.3	5.0	0.33	ug/l	25.0	ND	101	50-145			
Chloroform	24.2	2.0	0.33	ug/l	25.0	ND	97	70-135			
Chloromethane	24.8	5.0	0.30	ug/l	25.0	ND	99	35-145			
2-Chlorotoluene	22.1	5.0	0.28	ug/l	25.0	ND	88	70-140			
4-Chlorotoluene	22.6	5.0	0.29	ug/l	25.0	ND	90	70-140			
Dibromochloromethane	24.5	2.0	0.28	ug/l	25.0	ND	98	65-145			
1,2-Dibromo-3-chloropropane	23.2	5.0	0.92	ug/l	25.0	ND	93	45-155			
1,2-Dibromoethane (EDB)	24.0	2.0	0.32	ug/l	25.0	ND	96	70-130			
Dibromomethane	24.6	2.0	0.36	ug/l	25.0	ND	98	65-140			
1,2-Dichlorobenzene	22.8	2.0	0.32	ug/l	25.0	ND	91	75-130			
1,3-Dichlorobenzene	22.4	2.0	0.35	ug/l	25.0	ND	90	75-130			
1,4-Dichlorobenzene	22.8	2.0	0.37	ug/l	25.0	ND	91	80-120			
Dichlorodifluoromethane	24.4	5.0	0.79	ug/l	25.0	ND	98	10-160			
1,1-Dichloroethane	24.0	2.0	0.27	ug/l	25.0	ND	96	65-135			
1,2-Dichloroethane	25.2	2.0	0.28	ug/l	25.0	ND	101	60-150			
1,1-Dichloroethene	17.5	5.0	0.32	ug/l	25.0	ND	70	65-140			
cis-1,2-Dichloroethene	23.2	2.0	0.32	ug/l	25.0	ND	93	65-130			

Mar Analytical, Irvine

hele Harper

rroject Manager



WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI1882

Sampled: 09/29/04 Received: 09/30/04

### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04											
Matrix Spike Analyzed: 10/06/04 (4J0602	29-MS1)				Sou	rce: INJ0	203-01				
trans-1,2-Dichloroethene	24.3	2.0	0.27	ug/l	25.0	ND	97	65-135			
1,2-Dichloropropane	23.9	2.0	0.35	ug/l	25.0	ND	96	65-130			
1,3-Dichloropropane	23.7	2.0	0.30	ug/l	25.0	ND	95	65-140			
2,2-Dichloropropane	22.0	2.0	0.29	ug/l	25.0	ND	88	60-150			
1,1-Dichloropropene	24.0	2.0	0.28	ug/l	25.0	ND	96	65-140			
cis-1,3-Dichloropropene	23.9	2.0	0.22	ug/l	25.0	ND	96	70-140			
trans-1,3-Dichloropropene	24.8	2.0	0.24	ug/l	25.0	ND	99	70-140			
Ethylbenzene	23.4	2.0	0.25	ug/l	25.0	ND	94	70-130			
Hexachlorobutadiene	21.6	5.0	0.38	ug/l	25.0	ND	86	65-140			
?-Hexanone	25.4	10	2.6	ug/l	25.0	ND	102	20-145			
ropylbenzene	23.1	2.0	0.25	ug/l	25.0	ND	92	70-130			
<sub>P</sub> -1sopropyltoluene	22.6	2.0	0.28	ug/l	25.0	ND	90	70-130			
Methylene chloride	23.5	5.0	0.48	ug/l	25.0	ND	94	60-135			
4-Methyl-2-pentanone (MIBK)	25.8	10	2.5	ug/l	25.0	ND	103	40-145			
Methyl-tert-butyl Ether (MTBE)	34.6	5.0	0.32	ug/l	25.0	9.8	99	50-155			
Naphthalene	21.8	5.0	0.41	ug/l	25.0	ND	87	50-150			
n-Propylbenzene	22.8	2.0	0.14	ug/l	25.0	ND	91	70-135			
Styrene	19.5	2.0	0.16	ug/l	25.0	ND	78	55-145			
1,1,1,2-Tetrachloroethane	24.6	5.0	0.27	ug/l	25.0	ND	98	70-145			
1,1,2,2-Tetrachloroethane	24.0	2.0	0.24	ug/l	25.0	ND	96	60-145			
Tetrachloroethene	23.4	2.0	0.32	ug/l	25.0	ND	94	70-130			
Toluene	23.3	2.0	0.36	ug/l	25.0	ND	93	70-120			
1,2,3-Trichlorobenzene	21.5	5.0	0.45	ug/l	25.0	ND	86	60-140			
1,2,4-Trichlorobenzene	22.2	5.0	0.48	ug/l	25.0	ND	89	60-140			
1,1,1-Trichloroethane	24.5	2.0	0.30	ug/l	25.0	ND	98	75-140			
1,1,2-Trichloroethane	23.9	2.0	0.30	ug/l	25.0	ND	96	60-135			
Trichloroethene	23.6	2.0	0.26	ug/l	25.0	ND	94	70-125			
Trichlorofluoromethane	26.2	5.0	0.34	ug/l	25.0	ND	105	55-145			
1,2,3-Trichloropropane	23.6	10	0.85	ug/l	25.0	ND	94	55-140			
1,2,4-Trimethylbenzene	22.4	2.0	0.23	ug/l	25.0	ND	90	60-125			
1,3,5-Trimethylbenzene	22.8	2.0	0.26	ug/l	25.0	ND	91	70-130			
Vinyl chloride	26.3	5.0	0.26	ug/l	25.0	ND	105	40-135			
o-Xylene	22.4	2.0	0.24	ug/l	25.0	ND	90	65-125			
m,p-Xylenes	46.1	2.0	0.52	ug/l	50.0	ND	92	65-130			
Di-isopropyl Ether (DIPE)	25.0	5.0	0.25	ug/l	25.0	ND	100	65-140			

#### ~ \ Mar Analytical, Irvine

hele Harper Project Manager

1WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

#### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

	Reporting				Spike			%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/0	<u>)4</u>										
M ( 12 Cultur Amelianda 10/06/04 (410	(020 MC1)				C	rce: INJ0	202 01				
Matrix Spike Analyzed: 10/06/04 (4J0		5.0	0.00	4				60.140			
Ethyl tert-Butyl Ether (ETBE)	24.7	5.0	0.28	ug/l	25.0	ND	99	60-140			
tert-Amyl Methyl Ether (TAME)	25.2	5.0	0.33	ug/l	25.0	ND	101	55-145			
Surrogate: Dibromofluoromethane	25.9 25.2			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	25.3 25.0			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	25.9			ug/l	25.0		104	80-120			
Matrix Spike Dup Analyzed: 10/06/04	(4J06029-MSI				Sou	rce: INJ0	203-01				
Acetone	41.5	10	4.5	ug/l	25.0	15	106	10-150	14	35	
Benzene	23.4	2.0	0.28	ug/l	25.0	ND	94	70-120	0	20	
Bromobenzene	22.8	5.0	0.27	ug/l	25.0	ND	91	65-130	0	20	
omochloromethane	25.1	5.0	0.32	ug/l	25.0	ND	100	65-140	2	25	
modichloromethane	24.7	2.0	0.30	ug/l	25.0	ND	99	70-140	0 ·	20	
Bromoform	22.6	5.0	0.32	ug/l	25.0	ND	90	55-140	2	25	
Bromomethane	25.9	5.0	0.34	ug/l	25.0	ND	104	50-145	2	25	
2-Butanone (MEK)	25.7	10	3.8	ug/l	25.0	ND	103	30-145	1	40	
n-Butylbenzene	22.9	5.0	0.17	ug/l	25.0	ND	92	70-140	1	20	
sec-Butylbenzene	22.5	5.0	0.25	ug/l	25.0	ND	90	70-130	0	20	
tert-Butylbenzene	22.2	5.0	0.22	ug/l	25.0	ND	89	70-130	1	20	
Carbon tetrachloride	24.9	5.0	0.28	ug/l	25.0	ND	100	70-145	2	25	
Chlorobenzene	23.0	2.0	0.36	ug/l	25.0	ND	92	80-125	0	20	
Chloroethane	26.2	5.0	0.33	ug/l	25.0	ND	105	50-145	3	25	
Chloroform	24.3	2.0	0.33	ug/l	25.0	ND	97	70-135	0	20	
Chloromethane	25.1	5.0	0.30	ug/l	25.0	ND	100	35-145	1	25	
2-Chlorotoluene	21.9	5.0	0.28	ug/l	25.0	ND	88	70-140	1	20	
4-Chlorotoluene	22.4	5.0	0.29	ug/l	25.0	ND	90	70-140	1	20	
Dibromochloromethane	24.8	2.0	0.28	ug/l	25.0	ND	99	65-145	1	25	
1,2-Dibromo-3-chloropropane	24.1	5.0	0.92	ug/l	25.0	ND	96	45-155	4	30	
1,2-Dibromoethane (EDB)	24.3	2.0	0.32	ug/l	25.0	ND	97	70-130	1	25	
Dibromomethane	24.9	2.0	0.36	ug/l	25.0	ND	100	65-140	1	25	
1,2-Dichlorobenzene	22.8	2.0	0.32	ug/l	25.0	ND	91	75-130	0	20	
1,3-Dichlorobenzene	22.2	2.0	0.35	ug/l	25.0	ND	89	75-130	1	20	
1,4-Dichlorobenzene	22.7	2.0	0.37	ug/l	25.0	ND	91	80-120	0	20	
Dichlorodifluoromethane	24.0	5.0	0.79	ug/l	25.0	ND	96	10-160	2	30	
1,1-Dichloroethane	24.1	2.0	0.27	ug/l	25.0	ND	96	65-135	0	20	
1,2-Dichloroethane	25.3	2.0	0.28	ug/l	25.0	ND	101	60-150	0	20	
1,1-Dichloroethene	17.3	5.0	0.32	ug/l	25.0	ND	69	65-140	1	20	

### Pol Mar Analytical, Irvine

hele Harper

r roject Manager



IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/29/04
Report Number: INI1882 Received: 09/30/04

Pasadena, CA 91101 Attention: Bronwyn Kelly

#### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04											
Matrix Spike Dup Analyzed: 10/06/04 (4	J06029-MSD1	)			Sou	rce: INJ0	203-01				
cis-1,2-Dichloroethene	23.3	2.0	0.32	ug/l	25.0	ND	93	65-130	0	20	
trans-1,2-Dichloroethene	24.3	2.0	0.27	ug/l	25.0	ND	97	65-135	0	20	
1,2-Dichloropropane	23.9	2.0	0.35	ug/l	25.0	ND	96	65-130	0	20	
1,3-Dichloropropane	24.0	2.0	0.30	ug/l	25.0	ND	96	65-140	1	25	
2,2-Dichloropropane	21.5	2.0	0.29	ug/l	25.0	ND	86	60-150	2	25	
1,1-Dichloropropene	23.8	2.0	0.28	ug/l	25.0	ND	95	65-140	1	20	
cis-1,3-Dichloropropene	24.1	2.0	0.22	ug/l	25.0	ND	96	70-140	1	20	
trans-1,3-Dichloropropene	24.8	2.0	0.24	ug/l	25.0	ND	99	70-140	0	25	
Ethylbenzene	23.0	2.0	0.25	ug/l	25.0	ND	92	70-130	2	20	
<sup>11</sup> exachlorobutadiene	22.4	5.0	0.38	ug/l	25.0	ND	90	65-140	4	20	
exanone	25.8	10	2.6	ug/l	25.0	ND	103	20-145	2	35	
asopropylbenzene	22.6	2.0	0.25	ug/l	25.0	ND	90	70-130	2	20	
p-Isopropyltoluene	22.2	2.0	0.28	ug/l	25.0	ND	89	70-130	2	20	
Methylene chloride	23.7	5.0	0.48	ug/l	25.0	ND	95	60-135	1	20	
4-Methyl-2-pentanone (MIBK)	26.6	10	2.5	ug/l	25.0	ND	106	40-145	3	35	
Methyl-tert-butyl Ether (MTBE)	35.0	5.0	0.32	ug/l	25.0	9.8	101	50-155	1	25	
Naphthalene	23.6	5.0	0.41	ug/l	25.0	ND	94	50-150	8	30	
n-Propylbenzene	22.3	2.0	0.14	ug/l	25.0	ND	89	70-135	2	20	
Styrene	10.1	2.0	0.16	ug/l	25.0	ND	40	55-145	64	30	M2, R-3
1,1,1,2-Tetrachloroethane	24.3	5.0	0.27	ug/l	25.0	ND	97	70-145	1	20	
1,1,2,2-Tetrachloroethane	25.0	2.0	0.24	ug/l	25.0	ND	100	60-145	4	30	
Tetrachloroethene	23.3	2.0	0.32	ug/l	25.0	ND	93	70-130	0	20	
Toluene	23.3	2.0	0.36	ug/l	25.0	ND	93	70-120	0	20	
1,2,3-Trichlorobenzene	23.7	5.0	0.45	ug/l	25.0	ND	95	60-140	10	20	
1,2,4-Trichlorobenzene	23.2	5.0	0.48	ug/l	25.0	ND	93	60-140	4	20	
1,1,1-Trichloroethane	24.2	2.0	0.30	ug/l	25.0	ND	97	75-140	1	20	
1,1,2-Trichloroethane	24.4	2.0	0.30	ug/l	25.0	ND	98	60-135	2	25	
Trichloroethene	23.6	2.0	0.26	ug/l	25.0	ND	94	70-125	0	20	
Trichlorofluoromethane	26.7	5.0	0.34	ug/l	25.0	ND	107	55-145	2	25	
1,2,3-Trichloropropane	24.0	10	0.85	ug/l	25.0	ND	96	55-140	2	30	
1,2,4-Trimethylbenzene	21.6	2.0	0.23	ug/l	25.0	ND	86	60-125	4	25	
1,3,5-Trimethylbenzene	22.0	2.0	0.26	ug/l	25.0	ND	88	70-130	4	20	
Vinyl chloride	26.2	5.0	0.26	ug/l	25.0	ND	105	40-135	0	30	
o-Xylene	22.5	2.0	0.24	ug/l	25.0	ND	90	65-125	0	20	
m,p-Xylenes	45.1	2.0	0.52	ug/l	50.0	ND	90	65-130	2	25	

Mar Analytical, Irvine hele Harper Project Manager



[WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

Pasadena, CA 91101 Attention: Bronwyn Kelly

#### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04	<u>-</u>										
Matrix Spike Dup Analyzed: 10/06/04 (	4J06029-MSD1	.)			Sou	rce: INJ0	203-01				
Di-isopropyl Ether (DIPE)	25.0	5.0	0.25	ug/l	25.0	ND	100	65-140	0	25	
Ethyl tert-Butyl Ether (ETBE)	25.0	5.0	0.28	ug/l	25.0	ND	100	60-140	1	25	
tert-Amyl Methyl Ether (TAME)	25.8	5.0	0.33	ug/l	25.0	ND	103	55-145	2	30	
Surrogate: Dibromofluoromethane	26.0			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	25.6			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	25.8			ug/l	25.0		103	80-120			



WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

### METHOD BLANK/QC DATA

#### **INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I30050 Extracted: 09/30/04											
Blank Analyzed: 09/30/04 (4I30050-BLK	(1)										
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 09/30/04 (4I30050-BS1)											
Perchlorate	51.4	4.0	0.80	ug/l	50.0		103	85-115			
Matrix Spike Analyzed: 09/30/04 (4I300	50-MS1)				Sou	rce: INI1	819-01				
Perchlorate	56.4	4.0	0.80	ug/l	50.0	5.4	102	80-120			
Matrix Spike Dup Analyzed: 09/30/04 (4	I30050-MSD1	)	Source: INI1819-01								
Perchlorate	57.7	4.0	0.80	ug/l	50.0	5.4	105	80-120	2	20	
itch: 4I30104 Extracted: 09/30/04											
Blank Analyzed: 09/30/04 (4I30104-BLK	(1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/30/04 (4I30104-BS1)											
Total Suspended Solids	1020	10	10	mg/l	1000		102	85-115			
Duplicate Analyzed: 09/30/04 (4I30104-D	UP1)		Source: INI1880-01								
Total Suspended Solids	ND	10	10	mg/l		ND				10	
Batch: 4J01049 Extracted: 10/01/04											
Duplicate Analyzed: 10/01/04 (4J01049-D	UP1)				Sour	ce: INI18	59-01				
pH	5.80	NA	N/A	pH Units		5.82			0	5	

rroject Manager

WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

#### METHOD BLANK/QC DATA

#### **INORGANICS**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J01058 Extracted: 10/01/04	,										
Blank Analyzed: 10/06/04 (4J01058-BLK	71)										
· ·	•	2.0	0.50								
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 10/06/04 (4J01058-BS1)											
Biochemical Oxygen Demand	209	100	30	mg/l	198		106	85-115			
LCS Dup Analyzed: 10/06/04 (4J01058-E	BSD1)										
Biochemical Oxygen Demand	210	100	30	mg/l	198		106	85-115	1	20	
Batch: 4J01064 Extracted: 10/01/04											
Blank Analyzed: 10/01/04 (4J01064-BLK	(1)										
bidity	ND	1.0	0.20	NTU							
Duplicate Analyzed: 10/01/04 (4J01064-D	OUP1)				Sour	rce: INI18	887-01				
Turbidity	ND	1.0	0.20	NTU		ND				20	
Batch: 4J05065 Extracted: 10/05/04											
Blank Analyzed: 10/05/04 (4J05065-BLK	(1)										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 10/05/04 (4J05065-BS1)											
Total Dissolved Solids	992	10	10	mg/l	1000		99	90-110			
Duplicate Analyzed: 10/05/04 (4J05065-D	UP1)				Sour	ce: INI18	31-01				
Total Dissolved Solids	424	10	10	mg/l		430			1	10	

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1882

Sampled: 09/29/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

Received: 09/30/04

#### METHOD BLANK/QC DATA

#### **INORGANICS**

Analyte	I Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Oualifiers
Batch: 4J05066 Extracted: 10/05/04											
Blank Analyzed: 10/05/04 (4J05066-BLK	(1)										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 10/05/04 (4J05066-BS1)											
Ammonia-N (Distilled)	9.24	0.50	0.30	mg/l	10.0		92	80-115			
LCS Dup Analyzed: 10/05/04 (4J05066-B	SD1)										
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0		95	80-115	3	15	
Matrix Spike Analyzed: 10/05/04 (4J0506	66-MS1)				Sour	rce: INI17	708-01				
Ammonia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0	ND	98	70-120			
atrix Spike Dup Analyzed: 10/05/04 (4.	(05066-MSD1)				Sour	rce: INI17	708-01				
monia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0	ND	98	70-120	0	15	
Batch: 4J05067 Extracted: 10/05/04											
Disable Assets and 10/05/04 /41050/5 DI IZ	•										
Blank Analyzed: 10/05/04 (4J05067-BLK Oil & Grease	ND	5.0	0.94	mg/l							
											3.6 ND4
LCS Analyzed: 10/05/04 (4J05067-BS1) Oil & Grease	19.3	5.0	0.94	mg/l	20.0		96	65-120			M-NR1
		2.0			20.0		70	- III			
LCS Dup Analyzed: 10/05/04 (4J05067-B) Oil & Grease	20.0	5.0	0.94	mg/l	20.0		100	65-120	4	20	

1WH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/29/04

Attention: Bronwyn Kelly

Report Number: INI1882

Received: 09/30/04

#### METHOD BLANK/QC DATA

### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: P4J0202 Extracted: 10/02/04	<u>4</u>										
Blank Analyzed: 10/02/04 (P4J0202-BL	.K1)										
1,4-Dioxane	ND	1.0	N/A	ug/l							
Surrogate: Dibromofluoromethane	1.05			ug/l	1.00		105	80-135			
LCS Analyzed: 10/02/04 (P4J0202-BS1)	)										
1,4-Dioxane	11.4	1.0	N/A	ug/l	10.0		114	70-130			
Surrogate: Dibromofluoromethane	1.00			ug/l	1.00		100	80-135			
LCS Dup Analyzed: 10/02/04 (P4J0202-	-BSD1)										
1,4-Dioxane	10.2	1.0	N/A	ug/l	10.0		102	70-130	11	20	
Surrogate: Dibromofluoromethane	1.04			ug/l	1.00		104	80-135			
trix Spike Analyzed: 10/02/04 (P4J0)	202-MS1)				Sou	rce: PNI0	910-01				
Dioxane	11.5	1.0	N/A	ug/l	10.0	ND	115	70-130			
Surrogate: Dibromofluoromethane	1.05			ug/l	1.00		105	80-135			
Matrix Spike Dup Analyzed: 10/02/04 (1	P4J0202-MS1	D1)			Sou	rce: PNI0	910-01				
1,4-Dioxane	10.8	1.0	N/A	ug/l	10.0	ND	108	70-130	6	20	
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-135			



4WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INI1882

Attention: Bronwyn Kelly

Sampled: 09/29/04 Received: 09/30/04

#### METHOD BLANK/QC DATA

### Semivolatile Organic Compounds by EPA Method 625

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: V4J0615 Extracted: 10/06/04	<u>1</u>										
Blank Analyzed: 10/07/04 (V4J0615-BL	K1)										
Naphthalene	ND	10.0	1.31	ug/L							
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L							
Surrogate: 2-FP	106			ug/L	200		53	40.8-88.4			
Surrogate: Phenol-d6	94.7			ug/L	200		47	31.7-86.6			
Surrogate: 2,4,6-TBP	172			ug/L	200		86	58-109			
Surrogate: Nitrobenzene-d5	66.2			ug/L	100		66	47.1-99.2			
Surrogate: 2-FBP	64.6			ug/L	100		65	44.7-89.6			
Surrogate: p-Terphenyl-d14	76.1			ug/L	100		76	45.7-117			
LCS Analyzed: 10/07/04 (V4J0615-BS1)	)										
ohthalene	132	10.0	1.31	ug/L	200		66	38.5-85.1			
Vitrosodimethylamine	110	20.0	1.37	ug/L	200		55	14.1-97.3			
Surrogate: 2-FP	106			ug/L	200		53	40.8-88.4			
Surrogate: Phenol-d6	102			ug/L	200		51	31.7-86.6			
Surrogate: 2,4,6-TBP	179			ug/L	200		90	58-109			
Surrogate: Nitrobenzene-d5	70.1			ug/L	100		70	47.1-99.2			
Surrogate: 2-FBP	66.7			ug/L	100		67	44.7-89.6			
Surrogate: p-Terphenyl-d14	82.0			ug/L	100		<i>82</i>	45.7-117			
LCS Dup Analyzed: 10/07/04 (V4J0615-	BSD1)										
Naphthalene	131	10.0	1.31	ug/L	200		66	38.5-85.1	1	17.3	
N-Nitrosodimethylamine	95.6	20.0	1.37	ug/L	200		48	14.1-97.3	14	32.5	
Surrogate: 2-FP	99.1			ug/L	200		50	40.8-88.4			
Surrogate: Phenol-d6	96.8			ug/L	200		48	31.7-86.6			
Surrogate: 2,4,6-TBP	181			ug/L	200		91	58-109			
Surrogate: Nitrobenzene-d5	73.3			ug/L	100		73	47.1-99.2			
Surrogate: 2-FBP	68.4			ug/L	100		68	44.7-89.6			
Surrogate: p-Terphenyl-d14	80.3			ug/L	100		80	45.7-117			

rroject Manager

WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1882

Sampled: 09/29/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

Received: 09/30/04

#### METHOD BLANK/QC DATA

### Semivolatile Organic Compounds by EPA Method 625

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: V4J0615 Extracted: 10/06/0-	4_										
Duplicate Analyzed: 10/07/04 (V4J0615	-DUP1)				Sou	rce: V410	0018-01				
Naphthalene	9.96	10.0	1.31	ug/L		9.06			9	30	Ja
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L		ND				30	
Surrogate: 2-FP	95.6			ug/L	200		48	40.8-88.4			
Surrogate: Phenol-d6	86.9			ug/L	200		43	31.7-86.6			
Surrogate: 2,4,6-TBP	157			ug/L	200		<i>79</i>	58-109			
Surrogate: Nitrobenzene-d5	71.8			ug/L	100		72	47.1-99.2			
Surrogate: 2-FBP	67.7			ug/L	100		68	44.7-89.6			
Surrogate: p-Terphenyl-d14	81.4			ug/L	100		81	45.7-117			
Matrix Spike Analyzed: 10/07/04 (V4J0	615-MS1)				Sou	rce: INI1	882-01				
hthalene	161	10.0	1.31	ug/L	200	28.4	66	70-130			A-04
itrosodimethylamine	85.6	20.0	1.37	ug/L	200	ND	43	70-130			A-04
Surrogate: 2-FP	99.5			ug/L	200		50	40.8-88.4			
Surrogate: Phenol-d6	<i>98.1</i>			ug/L	200		49	31.7-86.6			
Surrogate: 2,4,6-TBP	154			ug/L	200		77	58-109			
Surrogate: Nitrobenzene-d5	78.0			ug/L	100		78	47.1-99.2			
Surrogate: 2-FBP	70.2			ug/L	100		70	44.7-89.6			
Surrogate: p-Terphenyl-d14	78.3			ug/L	100		<i>78</i>	45.7-117			



**1WH-Pasadena/Boeing** 

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04 Received: 09/30/04

Attention: Bronwyn Kelly

### **DATA QUALIFIERS AND DEFINITIONS**

A-04	The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.
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.
Ja	The reported result is an estimated value. The reported result is above the Method Detection Limit but below the standard Reporting Limit.
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-NR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
R-3	The RPD exceeded the method control limit due to sample matrix effects.

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

RPD Relative Percent Difference

#### ADDITIONAL COMMENTS

#### For GRO (C4-C12):

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak. or Extractable Fuel Hydrocarbons (EFH, DRO, ORO):

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

Pol Mar Analytical, Irvine hele Harper r roject Manager



1WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/29/04

Pasadena, CA 91101

Report Number: INI1882

Received: 09/30/04

### **Certification Summary**

#### Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV 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**

el Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907

9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed:

EPA 8260B

Samples: INI1882-01

Star Analytical, Inc. CA ELAP Cert #1849

14500 Trinity Boulevard, Suite 106 - Fort Worth, TX 76155

Method Performed:

**EPA 625** Samples: INI1882-01

Pol Mar Analytical, Irvine hele Harper r roject Manager



17461 Derian Ave. Suite 100, Irvine, CA 92614 1014 E. Cooley Dr., Suite A, Colton, CA 92324

9484 Chesapeeke Drive, Suite 805, San Diego, CA 92123 9630 South 51st Street, Suite B-120, Phoenix, AZ 85044

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

Ph (949) 261-1022 Fax (949) 261-1228 Ph (909) 370-4667 Fax (909) 370-1046

Ph (619) 505-9596

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

Ph (480) 785-0043 Fax (480) 785-0651 Ph (702) 798-3620 Fax (702) 798-3621

## **SUBCONTRACT ORDER - PROJECT # INI1882**

#### 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:

Del Mar Analytical - Phoenix

9830 S. 51st Street, Suite B-120

Phoenix, AZ 85044 Phone :(480) 785-0043

Fax: (480) 785-0851

Analysis Expiration Due Comments

Sample ID: INI1882-01 Water Sampled: 09/29/04 14:00

Dioxane-8260B-out 10/13/04 14:00 10/11/04 12:00 Boeing-permit, sub to DMAP, J flags PN30034-01

Containers Supplied:
40 ml VOA w/HCL (INI1882-01K)
40 ml VOA w/HCL (INI1882-01L)
40 ml VOA w/HCL (INI1882-01M)

				SAMPL	E INTEGRI	TY:				
All containers intact: Custody Seals Present	Yes Yes			sample labels/COC agree: amples Preserved Property	Yes Yes	□ No	Samples Receiv		A Yes	20 C
Macs -	Shir	n aus	04-04 an	1700		Fa	ر کر			
Released By	•		Date	Time	Received By	y		Date	Ti	me
reased By	کر		1 0 · 2 ·	04 041 C	Received By	men	Quall	Nate Pate	\' b \\	<u> </u>
•								2	P	age 1 of 1

**CHAIN OF CUSTODY FORM** Del Mar Analytical version 5 8/12/04

Comments Temp = 74. JNH 1873 Page 1 of 1 Field readings: 10 Days Normal Sample Integrity: (Check) Intact On Ice: Perchlorate Only 72 Hours\_ Tum around Time: (check) 24 Hours 5 De Metals Only 72 Hours\_ Settleable Solids × Turbidity, TDS, TSS, PH 72 Hours 48 Hours ANALYSIS REQUIRED × Perchlorate × sib \w × Ammonia-N, Titr. (350.2) 625 Naphthalene +MDM+ analysis × × BOD2(S0 degrees C) × 624 (EDB, 1,2,3-TCP, MTBE, DPE, TBA) × × × (F.814 A93) Petroleum Hydrocarbons × × TRPH,=Total Rec. 10000/6 9/3 3 /64/ Date/Time: 1,4-Dioxane-8260B × × Date/Time: Date/Time leuf fe[\leseib-2 f 08 × × × 8015-gas × × ò Oil & Grease (EPA 413.1) × Hurawan 12A, 12B, 12C, 12D, 12E, 12f Bottle # 2B, 2C 4B, 4C 6B, 6C 10A 4 Ş ۲ 8 ₹ 8 34 8 ξ **2B** 8A 88 stawy. Boeing-SSFL NPDES During Test -- Outfall 012 Preservative Received By THE STATE OF THE S ) THE HECK Received By H2S04 None None None None None None None 오 豆 오 ᄗ 오 오 오 ᄗ Alpha Test Stand Phone Number: (626) 568-6691 (626) 568-6515 Sampling
Date/Time 9.24.04 Fax Number: Date/Time: 9-34 0 4 O9: ST. Date/Time: Cont. 9 70 Project Manager: Bronwyn Kelly 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Container 500ml Poly туре 1L Amber 1L Poly 1L Poly 1L Poly VOAs VOAs VOAs VOAs VOAs VOAs VOAs 3 Ò Rick Banaga Sample Matrix Client Name/Address: **MWH-Pasadena** ≥ ≥ ₹ ≥ ≥ ₹ ≥ ≥ ₹ ≥ ≥ ≥ ₹ ≥ ₹ ≥ ₹ ≷ Relinquished By Relinquished By Relinquished By Description Sample Sampler: Outfall 012 duplicate Outfall 012 Trip Blank duplicate duplicate duplicate duplicate duplicate duplicate



MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

#### METHOD BLANK/QC DATA

### TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I17090 Extracted: 09/17/04											
Blank Analyzed: 09/17/04 (4I17090-BLK	(1) ND	1.0	0.31	ma/l							
LCS Analyzed: 09/17/04 (4I17090-BS1)	ND	1.0	0.51	mg/l							M-NR1
Total Recoverable Hydrocarbons	4.06	1.0	0.31	mg/l	5.00		81	65-120			
LCS Dup Analyzed: 09/17/04 (4I17090-E Total Recoverable Hydrocarbons	3.81	1.0	0.31	mg/l	5.00		76	65-120	6	20	

**Del Mar Analytical, Irvine** Michele Harper Project Manager



MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

#### METHOD BLANK/QC DATA

### EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I13058 Extracted: 09/13/04											
Blank Analyzed: 09/14/04 (4I13058-BLF	<b>(1)</b>										
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.143			mg/l	0.200		72	45-125			
LCS Analyzed: 09/14/04 (4I13058-BS1)											M-NR1
EFH (C13 - C40)	0.533	0.50	0.082	mg/l	0.775		69	40-115			
Surrogate: n-Octacosane	0.128			mg/l	0.200		64	45-125			
LCS Dup Analyzed: 09/14/04 (4I13058-I	BSD1)										
7FH (C13 - C40)	0.546	0.50	0.082	mg/l	0.775		70	40-115	2	25	
rrogate: n-Octacosane	0.128			mg/l	0.200		64	45-125			



MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

### METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I16006 Extracted: 09/16/04											
Blank Analyzed: 09/16/04 (4I16006-BLF	<b>(1)</b>										
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.00913			mg/l	0.0100		91	60-135			
LCS Analyzed: 09/16/04 (4I16006-BS1)											
GRO (C4 - C12)	0.218	0.10	0.050	mg/l	0.220		99	70-135			
Surrogate: 4-BFB (FID)	0.0106			mg/l	0.0100		106	60-135			
Matrix Spike Analyzed: 09/16/04 (4I160)	06-MS1)				Sou	rce: INI0	503-01				
GRO (C4 - C12)	0.197	0.10	0.050	mg/l	0.220	ND	90	60-135			
"urrogate: 4-BFB (FID)	0.0104			mg/l	0.0100		104	60-135			
Matrix Spike Dup Analyzed: 09/16/04 (4I16006-MSD1)					Sou	rce: INI0	503-01				
GRO (C4 - C12)	0.204	0.10	0.050	mg/l	0.220	ND	93	60-135	3	20	
Surrogate: 4-BFB (FID)	0.0105			mg/l	0.0100		105	60-135			

MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I17021 Extracted: 09/17/04	_										
Blank Analyzed: 09/17/04 (4I17021-BL)											
Acetone	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
:-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	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	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/l							
2,2-Dichloropropane	ND	2.0	0.29	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
1,1 Diemoropropene		2.0	3.20	~₽·							

#### el Mar Analytical, Irvine

Michele Harper Project Manager

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

#### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4I17021 Extracted: 09/17/04	_										
	-										
Blank Analyzed: 09/17/04 (4I17021-BL)	K1)										
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
<sup>4</sup> -Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
ethyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	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	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Surrogate: Dibromofluoromethane	25.2			ug/l	25.0		101	80-120			

#### **Del Mar Analytical, Irvine**

Michele Harper Project Manager

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI0560

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

### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4I17021 Extracted: 09/17/04							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			2	Q
Daten: 411/021 Extracted: 09/17/04	-										
Blank Analyzed: 09/17/04 (4I17021-BL)	K1)										
Surrogate: Toluene-d8	25.5			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	26.1	•		ug/l	25.0		104	80-120			
LCS Analyzed: 09/17/04 (4I17021-BS1)											
Acetone	14.7	10	4.5	ug/l	25.0		59	30-120			
Benzene	24.3	2.0	0.28	ug/l	25.0		97	70-120			
Bromobenzene	25.2	5.0	0.27	ug/l	25.0		101	80-120			
Bromochloromethane	24.9	5.0	0.32	ug/l	25.0		100	65-135			
Bromodichloromethane	24.8	2.0	0.30	ug/l	25.0		99	70-140			
romoform	22.7	5.0	0.32	ug/l	25.0		91	55-135			
comomethane	27.2	5.0	0.34	ug/l	25.0		109	60-140			
2-Butanone (MEK)	21.6	10	3.8	ug/l	25.0		86	40-135			
n-Butylbenzene	25.2	5.0	0.17	ug/l	25.0		101	75-130			
sec-Butylbenzene	24.5	5.0	0.25	ug/l	25.0		98	75-125			
tert-Butylbenzene	24.4	5.0	0.22	ug/l	25.0		98	75-125			
Carbon tetrachloride	24.8	5.0	0.28	ug/l	25.0		99	70-140			
Chlorobenzene	24.3	2.0	0.36	ug/l	25.0		97	80-125			
Chloroethane	25.6	5.0	0.33	ug/l	25.0		102	60-145			
Chloroform	24.5	2.0	0.33	ug/l	25.0		98	75-130			
Chloromethane	25.0	5.0	0.30	ug/l	25.0		100	40-145			
2-Chlorotoluene	23.8	5.0	0.28	ug/l	25.0		95	75-125			
4-Chlorotoluene	23.6	5.0	0.29	ug/l	25.0		94	75-125			
Dibromochloromethane	24.3	2.0	0.28	ug/l	25.0		97	65-145			
1,2-Dibromo-3-chloropropane	21.6	5.0	0.92	ug/l	25.0		86	50-135			
1,2-Dibromoethane (EDB)	23.6	2.0	0.32	ug/l	25.0		94	75-125			
Dibromomethane	24.1	2.0	0.36	ug/l	25.0		96	75-130			
1,2-Dichlorobenzene	24.0	2.0	0.32	ug/l	25.0		96	80-120			
1,3-Dichlorobenzene	23.7	2.0	0.35	ug/l	25.0		95	80-120			
1,4-Dichlorobenzene	24.0	2.0	0.37	ug/l	25.0		96	80-120			
Dichlorodifluoromethane	30.3	5.0	0.79	ug/l	25.0		121	10-160			
1,1-Dichloroethane	25.1	2.0	0.27	ug/l	25.0		100	70-135			
1,2-Dichloroethane	24.0	2.0	0.28	ug/l	25.0		96	60-150			
1,1-Dichloroethene	24.2	5.0	0.32	ug/l	25.0		97	75-135			
cis-1,2-Dichloroethene	24.2	2.0	0.32	ug/l	25.0		97	70-125			
trans-1,2-Dichloroethene	25.2	2.0	0.27	ug/l	25.0		101	70-130			
1,2-Dichloropropane	24.7	2.0	0.35	ug/l	25.0		99	70-120			

#### Del Mar Analytical, Irvine

Michele Harper

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI0560

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

### METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4I17021 Extracted: 09/17/04				·	20,01	1100411	702220	2	****	2311111	Qualificis
Daten. 4117021 Extracted. 07/17/04	•										
LCS Analyzed: 09/17/04 (4I17021-BS1)											
1,3-Dichloropropane	23.4	2.0	0.30	ug/l	25.0		94	70-130			
2,2-Dichloropropane	24.6	2.0	0.29	ug/l	25.0		98	65-150			
1,1-Dichloropropene	24.8	2.0	0.28	ug/l	25.0		99	75-130			
cis-1,3-Dichloropropene	24.4	2.0	0.22	ug/l	25.0		98	75-130			
trans-1,3-Dichloropropene	24.6	2.0	0.24	ug/l	25.0		98	75-135			
Ethylbenzene	24.9	2.0	0.25	ug/l	25.0		100	80-120			
Hexachlorobutadiene	24.6	5.0	0.38	ug/l	25.0		98	65-140			
2-Hexanone	21.9	10	2.6	ug/l	25.0		88	40-140			
Isopropylbenzene	24.7	2.0	0.25	ug/l	25.0		99	75-125			
sopropyltoluene	24.0	2.0	0.28	ug/l	25.0		96	75-125			
Methylene chloride	23.8	5.0	0.48	ug/l	25.0		95	60-135			
4-Methyl-2-pentanone (MIBK)	22.0	10	2.5	ug/l	25.0		88	40-140			
Methyl-tert-butyl Ether (MTBE)	25.4	5.0	0.32	ug/l	25.0		102	55-145			
Naphthalene	23.2	5.0	0.41	ug/l	25.0		93	50-145			
n-Propylbenzene	25.1	2.0	0.14	ug/l	25.0		100	75-130			
Styrene	26.1	2.0	0.16	ug/l	25.0		104	80-135			
1,1,1,2-Tetrachloroethane	24.9	5.0	0.27	ug/l	25.0		100	70-145			
1,1,2,2-Tetrachloroethane	23.1	2.0	0.24	ug/l	25.0		92	60-135			
Tetrachloroethene	25.1	2.0	0.32	ug/l	25.0		100	75-125			
Toluene	25.1	2.0	0.36	ug/l	25.0		100	75-120			
1,2,3-Trichlorobenzene	24.0	5.0	0.45	ug/l	25.0		96	65-135			
1,2,4-Trichlorobenzene	24.8	5.0	0.48	ug/l	25.0		99	70-140			
1,1,1-Trichloroethane	25.4	2.0	0.30	ug/l	25.0		102	75-140			
1,1,2-Trichloroethane	23.8	2.0	0.30	ug/l	25.0		95	70-125			
Trichloroethene	24.8	2.0	0.26	ug/l	25.0		99	80-120			
Trichlorofluoromethane	25.5	5.0	0.34	ug/l	25.0		102	65-145			
1,2,3-Trichloropropane	22.7	10	0.85	ug/l	25.0		91	60-130			
1,2,4-Trimethylbenzene	24.7	2.0	0.23	ug/l	25.0		99	75-125			
1,3,5-Trimethylbenzene	24.9	2.0	0.26	ug/l	25.0		100	75-125			
Vinyl chloride	23.8	5.0	0.26	ug/l	25.0		95	50-130			
o-Xylene	24.0	2.0	0.24	ug/l	25.0		96	75-125			
m,p-Xylenes	50.4	2.0	0.52	ug/l	50.0		101	75-120			
Di-isopropyl Ether (DIPE)	25.3	5.0	0.25	ug/l	25.0		101	65-135			
Ethyl tert-Butyl Ether (ETBE)	25.0	5.0	0.28	ug/l	25.0		100	60-140			
tert-Amyl Methyl Ether (TAME)	25.4	5.0	0.33	ug/l	25.0		102	60-140			

#### **Del Mar Analytical, Irvine**

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

## METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I17021 Extracted: 09/17/0	4										
	<del></del>										
LCS Analyzed: 09/17/04 (4I17021-BS1	)										
tert-Butanol (TBA)	132	25	3.1	ug/l	125		106	70-140			
Surrogate: Dibromofluoromethane	25.4			ug/l	25.0		102	80-120			
Surrogate: Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	25.7			ug/l	25.0		103	80-120			
Matrix Spike Analyzed: 09/17/04 (4117	7021-MS1)				Sou	rce: INI0	501-04RI	E1			
Acetone	25.0	10	4.5	ug/l	25.0	6.6	74	10-150			
Benzene	56.6	2.0	0.28	ug/l	25.0	34	90	70-120			
Bromobenzene	27.0	5.0	0.27	ug/l	25.0	ND	108	65-130			
romochloromethane	26.3	5.0	0.32	ug/l	25.0	ND	105	65-140			
Bromodichloromethane	25.5	2.0	0.30	ug/l	25.0	ND	102	70-140			
Bromoform	27.0	5.0	0.32	ug/l	25.0	ND	108	55-140			
Bromomethane	28.0	5.0	0.34	ug/l	25.0	ND	112	50-145			
2-Butanone (MEK)	30.9	10	3.8	ug/l	25.0	ND	124	30-145			
n-Butylbenzene	28.0	5.0	0.17	ug/l	25.0	ND	112	70-140			
sec-Butylbenzene	26.4	5.0	0.25	ug/l	25.0	1.1	101	70-130			
tert-Butylbenzene	25.3	5.0	0.22	ug/l	25.0	ND	101	70-130			
Carbon tetrachloride	24.7	5.0	0.28	ug/l	25.0	ND	99	70-145			
Chlorobenzene	25.3	2.0	0.36	ug/l	25.0	ND	101	80-125			
Chloroethane	26.9	5.0	0.33	ug/l	25.0	ND	108	50-145			
Chloroform	24.3	2.0	0.33	ug/l	25.0	ND	97	70-135			
Chloromethane	25.9	5.0	0.30	ug/l	25.0	ND	104	35-145			
2-Chlorotoluene	25.1	5.0	0.28	ug/l	25.0	ND	100	70-140			
4-Chlorotoluene	25.0	5.0	0.29	ug/l	25.0	ND	100	70-140			
Dibromochloromethane	27.0	2.0	0.28	ug/l	25.0	ND	108	65-145			
1,2-Dibromo-3-chloropropane	29.5	5.0	0.92	ug/l	25.0	ND	118	45-155			
1,2-Dibromoethane (EDB)	28.0	2.0	0.32	ug/l	25.0	ND	112	70-130			
Dibromomethane	26.8	2.0	0.36	ug/l	25.0	ND	107	65-140			
1,2-Dichlorobenzene	24.5	2.0	0.32	ug/l	25.0	ND	98	75-130			
1,3-Dichlorobenzene	24.6	2.0	0.35	ug/l	25.0	ND	98	75-130			
1,4-Dichlorobenzene	25.2	2.0	0.37	ug/l	25.0	ND	101	80-120			
Dichlorodifluoromethane	30.1	5.0	0.79	ug/l	25.0	ND	120	10-160			
1,1-Dichloroethane	25.0	2.0	0.27	ug/l	25.0	ND	100	65-135			
1,2-Dichloroethane	39.9	2.0	0.28	ug/l	25.0	15	100	60-150			
1,1-Dichloroethene	24.7	5.0	0.32	ug/l	25.0	ND	99	65-140			
cis-1,2-Dichloroethene	24.4	2.0	0.32	ug/l	25.0	ND	98	65-130			

### Del Mar Analytical, Irvine

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI0560

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

### METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting	MATERIA	** •.	Spike	Source	0/775	%REC	222	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4117021 Extracted: 09/17/04	-										
No. 4 .: Co.: Les Amalemade 00/17/04 (41170	(21 M(C1)				e au	rce: INI0	501 0 <i>4</i> D1	P.1			
Matrix Spike Analyzed: 09/17/04 (4I170	•	2.0	0.27	/1							
trans-1,2-Dichloroethene	25.7	2.0	0.27	ug/l	25.0	ND	103	65-135			
1,2-Dichloropropane	26.1	2.0	0.35	ug/l	25.0	ND	104	65-130			
1,3-Dichloropropane	26.0	2.0	0.30	ug/l	25.0	ND	104	65-140			
2,2-Dichloropropane	23.2	2.0	0.29	ug/l	25.0	ND	93	60-150			
1,1-Dichloropropene	25.5	2.0	0.28	ug/l	25.0	ND	102	65-140			
cis-1,3-Dichloropropene	26.2	2.0	0.22	ug/l	25.0	ND	105	70-140			
trans-1,3-Dichloropropene	26.5	2.0	0.24	ug/l	25.0	ND	106	70-140			
Ethylbenzene	28.3	2.0	0.25	ug/l	25.0	2.0	105	70-130			
Hexachlorobutadiene	25.0	5.0	0.38	ug/l	25.0	ND	100	65-140			
Hexanone	30.6	10	2.6	ug/l	25.0	ND	122	20-145			
Isopropylbenzene	26.9	2.0	0.25	ug/l	25.0	0.90	104	70-130			
p-Isopropyltoluene	25.1	2.0	0.28	ug/l	25.0	0.38	99	70-130			
Methylene chloride	25.0	5.0	0.48	ug/l	25.0	ND	100	60-135			
4-Methyl-2-pentanone (MIBK)	30.6	10	2.5	ug/l	25.0	ND	122	40-145			
Methyl-tert-butyl Ether (MTBE)	31.0	5.0	0.32	ug/l	25.0	2.4	114	50-155			
Naphthalene	41.6	5.0	0.41	ug/l	25.0	11	122	50-150			
n-Propylbenzene	27.1	2.0	0.14	ug/l	25.0	1.8	101	70-135			
Styrene	27.6	2.0	0.16	ug/l	25.0	ND	110	55-145			
1,1,1,2-Tetrachloroethane	26.1	5.0	0.27	ug/l	25.0	ND	104	70-145			
1,1,2,2-Tetrachloroethane	29.1	2.0	0.24	ug/l	25.0	ND	116	60-145			
Tetrachloroethene	26.1	2.0	0.32	ug/l	25.0	ND	104	70-130			
Toluene	26.6	2.0	0.36	ug/l	25.0	0.92	103	70-120			
1,2,3-Trichlorobenzene	27.3	5.0	0.45	ug/l	25.0	ND	109	60-140			
1,2,4-Trichlorobenzene	26.8	5.0	0.48	ug/l	25.0	ND	107	60-140			
1,1,1-Trichloroethane	24.6	2.0	0.30	ug/l	25.0	ND	98	75-140			
1,1,2-Trichloroethane	27.5	2.0	0.30	ug/l	25.0	ND	110	60-135			
Trichloroethene	25.5	2.0	0.26	ug/l	25.0	ND	102	70-125			
Trichlorofluoromethane	25.0	5.0	0.34	ug/l	25.0	ND	100	55-145			
1,2,3-Trichloropropane	27.2	10	0.85	ug/l	25.0	ND	109	55-140			
1,2,4-Trimethylbenzene	48.9	2.0	0.23	ug/l	25.0	26	92	60-125			
1,3,5-Trimethylbenzene	38.1	2.0	0.26	ug/l	25.0	12	104	70-130			
Vinyl chloride	22.4	5.0	0.26	ug/l	25.0	ND	90	40-135			
o-Xylene	27.7	2.0	0.24	ug/l	25.0	2.4	101	65-125			
m,p-Xylenes	56.8	2.0	0.52	ug/l	50.0	4.4	105	65-130			
m,p-Ayrenes Di-isopropyl Ether (DIPE)	48.8	5.0	0.32	ug/l	25.0	26	91	65-140			
Di-isopropyi Emer (Dirc)	40.0	3.0	0.43	ug/i	23.0	20	71	02-140			

### Del Mar Analytical, Irvine

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

### METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I17021 Extracted: 09/17/04											
Matrix Spike Analyzed: 09/17/04 (411702	21-MS1)				Sou	rce: INI0	501-04RI	E1			
Ethyl tert-Butyl Ether (ETBE)	26.1	5.0	0.28	ug/l	25.0	ND	104	60-140			
tert-Amyl Methyl Ether (TAME)	27.4	5.0	0.33	ug/l	25.0	ND	110	55-145			
tert-Butanol (TBA)	155	25	3.1	ug/l	125	15	112	65-145			
Surrogate: Dibromofluoromethane	24.5			ug/l	25.0		98	80-120			
Surrogate: Toluene-d8	26.2			ug/l	25.0		105	80-120			
Surrogate: 4-Bromofluorobenzene	25.6			ug/l	25.0		102	80-120			
Matrix Spike Dup Analyzed: 09/17/04 (4	117021-MSI	<b>D1</b> )			Sou	rce: INI0	501-04RI	E1			
Acetone	24.1	10	4.5	ug/l	25.0	6.6	70	10-150	4	35	
enzene	56.1	2.0	0.28	ug/l	25.0	34	88	70-120	1	20	
romobenzene	26.0	5.0	0.27	ug/l	25.0	ND	104	65-130	4	20	
Bromochloromethane	25.8	5.0	0.32	ug/l	25.0	ND	103	65-140	2	25	
Bromodichloromethane	25.1	2.0	0.30	ug/l	25.0	ND	100	70-140	2	20	
Bromoform	26.0	5.0	0.32	ug/l	25.0	ND	104	55-140	4	25	
Bromomethane	26.2	5.0	0.34	ug/l	25.0	ND	105	50-145	7	25	
2-Butanone (MEK)	29.4	10	3.8	ug/l	25.0	ND	118	30-145	5	40	
n-Butylbenzene	27.6	5.0	0.17	ug/l	25.0	ND	110	70-140	1	20	
sec-Butylbenzene	26.2	5.0	0.25	ug/l	25.0	1.1	100	70-130	1	20	
tert-Butylbenzene	25.5	5.0	0.22	ug/l	25.0	ND	102	70-130	1	20	
Carbon tetrachloride	23.9	5.0	0.28	ug/l	25.0	ND	96	70-145	3	25	
Chlorobenzene	25.3	2.0	0.36	ug/l	25.0	ND	101	80-125	0	20	
Chloroethane	25.0	5.0	0.33	ug/l	25.0	ND	100	50-145	7	25	
Chloroform	23.6	2.0	0.33	ug/l	25.0	ND	94	70-135	3	20	
Chloromethane	23.8	5.0	0.30	ug/l	25.0	ND	95	35-145	8	25	
2-Chlorotoluene	25.6	5.0	0.28	ug/l	25.0	ND	102	70-140	2	20	
4-Chlorotoluene	25.4	5.0	0.29	ug/l	25.0	ND	102	70-140	2	20	
Dibromochloromethane	26.5	2.0	0.28	ug/l	25.0	ND	106	65-145	2	25	
1,2-Dibromo-3-chloropropane	30.0	5.0	0.92	ug/l	25.0	ND	120	45-155	2	30	
1,2-Dibromoethane (EDB)	27.1	2.0	0.32	ug/l	25.0	ND	108	70-130	3	25	
Dibromomethane	26.2	2.0	0.36	ug/l	25.0	ND	105	65-140	2	25	
1,2-Dichlorobenzene	24.6	2.0	0.32	ug/l	25.0	ND	98	75-130	0	20	
1,3-Dichlorobenzene	24.9	2.0	0.35	ug/l	25.0	ND	100	75-130	1	20	
1,4-Dichlorobenzene	25.0	2.0	0.37	ug/l	25.0	ND	100	80-120	1	20	
Dichlorodifluoromethane	26.9	5.0	0.79	ug/l	25.0	ND	108	10-160	11	30	
1,1-Dichloroethane	24.1	2.0	0.27	ug/l	25.0	ND	96	65-135	4	20	
1,2-Dichloroethane	37.9	2.0	0.28	ug/l	25.0	15	92	60-150	5	20	

### **Del Mar Analytical, Irvine**

Michele Harper

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI0560

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

### METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I17021 Extracted: 09/17/04	-										
Matrix Spike Dup Analyzed: 09/17/04 (4	4117021-MS	D1)			Sou	ırce: INI0	501-04RI	<b>E</b> 1			
1,1-Dichloroethene	23.9	5.0	0.32	ug/l	25.0	ND	96	65-140	3	20	
cis-1,2-Dichloroethene	24.1	2.0	0.32	ug/l	25.0	ND	96	65-130	1	20	
trans-1,2-Dichloroethene	25.4	2.0	0.27	ug/l	25.0	ND	102	65-135	1	20	
1,2-Dichloropropane	25.8	2.0	0.35	ug/l	25.0	ND	103	65-130	1	20	
1,3-Dichloropropane	25.7	2.0	0.30	ug/l	25.0	ND	103	65-140	1	25	
2,2-Dichloropropane	22.1	2.0	0.29	ug/l	25.0	ND	88	60-150	5	25	
1,1-Dichloropropene	24.6	2.0	0.28	ug/l	25.0	ND	98	65-140	4	20	
cis-1,3-Dichloropropene	25.6	2.0	0.22	ug/l	25.0	ND	102	70-140	2	20	
trans-1,3-Dichloropropene	25.6	2.0	0.24	ug/l	25.0	ND	102	70-140	3	25	
hylbenzene	27.2	2.0	0.25	ug/l	25.0	2.0	101	70-130	4	20	
Hexachlorobutadiene	25.2	5.0	0.38	ug/l	25.0	ND	101	65-140	1	20	
2-Hexanone	29.9	10	2.6	ug/l	25.0	ND	120	20-145	2	35	
Isopropylbenzene	26.5	2.0	0.25	ug/l	25.0	0.90	102	70-130	1	20	
p-Isopropyltoluene	25.1	2.0	0.28	ug/l	25.0	0.38	99	70-130	0	20	
Methylene chloride	23.7	5.0	0.48	ug/l	25.0	ND	95	60-135	5	20	
4-Methyl-2-pentanone (MIBK)	28.8	10	2.5	ug/l	25.0	ND	115	40-145	6	35	
Methyl-tert-butyl Ether (MTBE)	30.8	5.0	0.32	ug/l	25.0	2.4	114	50-155	1	25	
Naphthalene	41.5	5.0	0.41	ug/l	25.0	11	122	50-150	0	30	
n-Propylbenzene	27.8	2.0	0.14	ug/l	25.0	1.8	104	70-135	3	20	
Styrene	27.0	2.0	0.16	ug/l	25.0	ND	108	55-145	2	30	
1,1,1,2-Tetrachloroethane	25.7	5.0	0.27	ug/l	25.0	ND	103	70-145	2	20	
1,1,2,2-Tetrachloroethane	29.0	2.0	0.24	ug/l	25.0	ND	116	60-145	0	30	
Tetrachloroethene	26.4	2.0	0.32	ug/l	25.0	ND	106	70-130	1	20	
Toluene	26.2	2.0	0.36	ug/l	25.0	0.92	101	70-120	2	20	
1,2,3-Trichlorobenzene	26.9	5.0	0.45	ug/l	25.0	ND	108	60-140	1	20	
1,2,4-Trichlorobenzene	26.8	5.0	0.48	ug/l	25.0	ND	107	60-140	0	20	
1,1,1-Trichloroethane	23.4	2.0	0.30	ug/l	25.0	ND	94	75-140	5	20	
1,1,2-Trichloroethane	26.9	2.0	0.30	ug/l	25.0	ND	108	60-135	2	25	
Trichloroethene	25.2	2.0	0.26	ug/l	25.0	ND	101	70-125	1	20	
Trichlorofluoromethane	22.7	5.0	0.34	ug/l	25.0	ND	91	55-145	10	25	
1,2,3-Trichloropropane	27.9	10	0.85	ug/l	25.0	ND	112	55-140	3	30	
1,2,4-Trimethylbenzene	48.5	2.0	0.23	ug/l	25.0	26	90	60-125	1	25	
1,3,5-Trimethylbenzene	36.8	2.0	0.26	ug/l	25.0	12	99	70-130	3	20	
Vinyl chloride	20.8	5.0	0.26	ug/l	25.0	ND	83	40-135	7	30	
o-Xylene	26.8	2.0	0.24	ug/l	25.0	2.4	98	65-125	3	20	

#### Del Mar Analytical, Irvine

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

## METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I17021 Extracted: 09/17/04	•										
Matrix Spike Dup Analyzed: 09/17/04 (4	H17021-MS	D1)			Sou	rce: INI0	501-04RI	E1			
m,p-Xylenes	55.2	2.0	0.52	ug/l	50.0	4.4	102	65-130	3	25	
Di-isopropyl Ether (DIPE)	47.4	5.0	0.25	ug/l	25.0	26	86	65-140	3	25	
Ethyl tert-Butyl Ether (ETBE)	25.8	5.0	0.28	ug/l	25.0	ND	103	60-140	1	25	
tert-Amyl Methyl Ether (TAME)	27.2	5.0	0.33	ug/l	25.0	ND	109	55-145	1	30	
tert-Butanol (TBA)	160	25	3.1	ug/l	125	15	116	65-145	3	25	
Surrogate: Dibromofluoromethane	24.0			ug/l	25.0		96	80-120			
Surrogate: Toluene-d8	26.0			ug/l	25.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	25.4			ug/l	25.0		102	80-120			



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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: 4I10047 Extracted: 09/10/04	1100411	2	DE	Circs	Bever	Result	70REC	Limits	KI D	Limit	Quamiers
	OXID4)				-	*****					
Duplicate Analyzed: 09/10/04 (4I10047-1	7.12	NA	N/A	pH Units	Sou	rce: INI0: 7.10	513-01		0	5	
Batch: 4I10075 Extracted: 09/10/04											
Blank Analyzed: 09/15/04 (4I10075-BLk	(1)										
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 09/15/04 (4I10075-BS1) Biochemical Oxygen Demand	200	2.0	0.59	mg/l	198		101	85-115			
CS Dup Analyzed: 09/15/04 (4I10075-Esiochemical Oxygen Demand	200	2.0	0.59	mg/l	198		101	85-115	0	20	
Batch: 4I10076 Extracted: 09/10/04											
Blank Analyzed: 09/10/04 (4I10076-BLK	(1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/10/04 (4I10076-BS1)											
Total Suspended Solids	1030	10	10	mg/l	1000		103	85-115			
Duplicate Analyzed: 09/10/04 (4I10076-D					Source: INI0420-01						
Total Suspended Solids	ND	10	10	mg/l		ND				10	
Batch: 4I10086 Extracted: 09/10/04											
Blank Analyzed: 09/10/04 (4I10086-BLK Turbidity	1) ND	1.0	0.20	NTU							
Blank Analyzed: 09/10/04 (4I10086-BLK	•	1.0	0.20	NTU							

**Del Mar Analytical, Irvine** 



MWH-Pasadena/Boeing

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Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

### METHOD BLANK/QC DATA

### **INORGANICS**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I10086 Extracted: 09/10/04											
<b>Duplicate Analyzed: 09/10/04 (4I10086-I</b>	OUP1)				Sou	rce: INI0	530-01				
Turbidity	0.490	1.0	0.20	NTU		0.46			6	20	J
Batch: 4I10097 Extracted: 09/10/04											
Blank Analyzed: 09/10/04 (4I10097-BLK	[1]										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 09/10/04 (4I10097-BS1)											
Total Dissolved Solids	996	10	10	mg/l	1000		100	90-110			
uplicate Analyzed: 09/10/04 (4I10097-I	UP1)				Sou	rce: INI0	540-01				
otal Dissolved Solids	3370	10	10	mg/l		3400			1	10	
Batch: 4I13037 Extracted: 09/13/04											
Blank Analyzed: 09/13/04 (4I13037-BLK	1)										
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 09/13/04 (4I13037-BS1)											
Perchlorate	55.2	4.0	0.80	ug/l	50.0		110	85-115			
Matrix Spike Analyzed: 09/13/04 (4I1303	7-MS1)		Source: INI0575-01								
Perchlorate	65.8	4.0	0.80	ug/l	50.0	10	112	80-120			
Matrix Spike Dup Analyzed: 09/13/04 (4)	[13037-MSD]	1)			Sou	rce: INI0	575-01				
Perchlorate	65.9	4.0	0.80	ug/l	50.0	10	112	80-120	0	20	



MWH-Pasadena/Boeing

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Received: 09/09/04

### METHOD BLANK/QC DATA

### **INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I15083 Extracted: 09/15/04											
Blank Analyzed: 09/15/04 (4115083-BLK	(1)										
Oil & Grease	ND	5.0	0.94	mg/l							
LCS Analyzed: 09/15/04 (4I15083-BS1)											M-NR1
Oil & Grease	16.7	5.0	0.94	mg/l	20.0		84	65-120			
LCS Dup Analyzed: 09/15/04 (4I15083-E	BSD1)										
Oil & Grease	16.3	5.0	0.94	mg/l	20.0		82	65-120	2	20	
Batch: 4I15091 Extracted: 09/15/04											
lank Analyzed: 09/15/04 (4I15091-BLK	1)										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 09/15/04 (4I15091-BS1)											
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0		95	80-115			
Matrix Spike Analyzed: 09/15/04 (4I1509	91-MS1)				Sou	rce: INI0	777-02				
Ammonia-N (Distilled)	8.96	0.50	0.30	mg/l	10.0	ND	90	70-120			
Matrix Spike Dup Analyzed: 09/15/04 (4I15091-MSD1)					Sou	rce: INI0	777-02				
Ammonia-N (Distilled)	8.68	0.50	0.30	mg/l	10.0	ND	87	70-120	3	15	



MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI0560

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

## METHOD BLANK/QC DATA

### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: P4I1414 Extracted: 09/14/04	-										
Blank Analyzed: 09/14/04 (P4I1414-BLI	<b>K</b> 1)										
1,4-Dioxane	ND	1.0	0.49	ug/l							
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-135			
LCS Analyzed: 09/14/04 (P4I1414-BS1)											
1,4-Dioxane	10.0	1.0	0.49	ug/l	10.0		100	70-130			
Surrogate: Dibromofluoromethane	1.00			ug/l	1.00		100	80-135			
LCS Dup Analyzed: 09/14/04 (P4I1414-	BSD1)										
1,4-Dioxane	9.82	1.0	0.49	ug/l	10.0		98	70-130	2	20	
Currogate: Dibromofluoromethane	1.03			ug/l	1.00		103	80-135			
Matrix Spike Analyzed: 09/14/04 (P4I14	14-MS1)				Sou	rce: PNI	306-03				
1,4-Dioxane	10.8	1.0	0.49	ug/l	10.0	ND	108	70-130			
Surrogate: Dibromofluoromethane	1.07			ug/l	1.00		107	80-135			
Matrix Spike Dup Analyzed: 09/14/04 (F	(P4I1414-MSD1)				Sou	rce: PNI	306-03				
1,4-Dioxane	10.8	1.0	0.49	ug/l	10.0	ND	108	70-130	0	20	
Surrogate: Dibromofluoromethane	1.12			ug/l	1.00		112	80-135			

**Del Mar Analytical, Irvine** Michele Harper Project Manager

MWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

# METHOD BLANK/QC DATA

## Acid and Base/Neutral Extractables by EPA Method 625

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I16041 Extracted: 09/16/04	-										
Blank Analyzed: 09/23/04 (4I16041-BLI	<b>(1)</b>										
Naphthalene	ND	10.0	0.941	ug/l							
N-Nitrosodimethylamine	ND	20.0	1.56	ug/l							
Surrogate: 2-FBP	33.7			ug/l	50.0		67	49-122			
Surrogate: 2-FP	23.8			ug/l	50.0		48	20-111			
Surrogate: Nitrobenzene-d5	31.6			ug/l	50.0		63	50-120			
Surrogate: Phenol-d6	21.4			ug/l	50.0		43	12-120			
Surrogate: p-Terphenyl-d14	39.8			ug/l	50.0		80	10-138			
Surrogate: 2,4,6-TBP	28.6			ug/l	50.0		57	22-131			
CS Analyzed: 09/23/04 (4I16041-BS1)											X
Naphthalene	65.8	10.0	0.941	ug/l	100		66	25-133			
Surrogate: 2-FBP	33.1			ug/l	50.0		66	49-122			
Surrogate: 2-FP	4.64			ug/l	50.0		9	20-111			
Surrogate: Nitrobenzene-d5	33.2			ug/l	50.0		66	50-120			
Surrogate: Phenol-d6	8.44			ug/l	50.0		17	12-120			
Surrogate: p-Terphenyl-d14	43.4			ug/l	50.0		87	10-138			
Surrogate: 2,4,6-TBP	24.6			ug/l	50.0		49	22-131			
LCS Dup Analyzed: 09/23/04 (4I16041-I	BSD1)										X
Naphthalene	79.7	10.0	0.941	ug/l	100		80	25-133	19	30	
Surrogate: 2-FBP	36.3			ug/l	50.0		73	49-122			
Surrogate: 2-FP	13.6			ug/l	50.0		27	20-111			
Surrogate: Nitrobenzene-d5	38.4			ug/l	50.0		77	50-120			
Surrogate: Phenol-d6	16.5			ug/l	50.0		33	12-120			
Surrogate: p-Terphenyl-d14	47.7			ug/l	50.0		95	10-138			
Surrogate: 2,4,6-TBP	32.1			ug/l	50.0		64	22-131			

**Del Mar Analytical, Irvine** 



MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0560

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

Pasadena, CA 91101 Attention: Bronwyn Kelly

## DATA QUALIFIERS AND DEFINITIONS

J Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the

Method Detection Limit (MDL). The user of this data should be aware that this data is of unknown quality.

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

Duplicate.

X See case narrative.

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

RPD Relative Percent Difference

#### ADDITIONAL COMMENTS

#### For GRO (C4-C12):

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

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

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



MWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/09/04

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0560

Received: 09/09/04

### **Certification Summary**

#### Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV 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.

#### **ibcontracted** Laboratories

Del Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907

9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed: EPA 8260B

Samples: INI0560-01

North Creek Analytical, Bothell-SUB NELAP Accreditation #01115CA and CA ELAP Cert #2294

11720 North Creek Pkwy., North, Ste. 400 - Bothell, WA 98011

EPA 625 Method Performed: Samples: INI0560-01RE1

Outfall 012 duplicate Relinquished By Outfall 012 Outfall 012 duplicate Outfall 012 Outfall 012 duplicate Outfall 012 duplicate Outfall 012 Outfall 012 Sampler: Project Manager: Bronwyn Kelly MWH-Pasadena Client Name/Address: Relinquished By Trip Blank duplicate Outfall 012 Outfall 012 Outfall 012 Outfall 012 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Del Mar Analytical Version 5 8/12/04 Sample Description mic Buy ≶ ٤ ٤ ≶ ≶ ٤ ٤ ٤ ≶ ≶ ≶ ≶ ≶ ≶ ≶ Sample Matrix ≶ ≶ ≶ ٤ 1L Amber 1L Poly 1L Poly VOAs 1L Poly VOAs SŸOA VOAs VOAs 500 ml Pojy 1L Amber 1L Amber VOAs VOAs 1L Amber 1L Amber 1L Amþer 1L Amber 1L Amber Container Type Date/Time Date/Time Date/Time: Cont f 2 05:41 Project: Fax Number: Phone Number (626) 568-6691 **During Test -- Alfa Outfall 012** Boeing-SSFL NPDES Sampling Date/Time (626) 568-6515 HC Preservative None HC None H2S04  $\Xi$ HCL 띥 HCL HC HCL None None None None None 띥 띥 Received By Received By ΩH 12A, 12B, 12C, 12D Bottle 3B, 3C 5B 4B, 4C 11A 10A 5A 9A 8A 88 βĄ \$ 3 **7**B **7**A 28 2A  $\vec{\Sigma}$ 18 , 5C Date/Time:
PSU (750 ANALYSIS REQUIRED Date/Time: Date/Time: × 1,4-Dioxane-8260B  $\times$ 70-65 × Settleable Solids × 8015-gas  $\times$ × × × 8015-diesel/jet fuel Oil & Grease (EPA × × 413.1) 624 (EDB, 1,2,3-TCP, × × MTBE, DPE, TBA) 1510 BOD5(20 degrees C)  $\times$ Perchlorate × Turbidity, TDS, TSS, pH Ammonia-N, Titr. (350.2)  $\times$ w/ dist Sample Integrity: (Check)
Intact On Ice: Perchlorate Only 72 Hours 24 Hours Turnaround Time: (check)
Same Day \_\_\_\_\_\_ 72 Hours Metals Only 72 Hours\_ 48 hours TRPH,=Total Rec. Petroleum Hydrocarbons × × (EPA 418.1) 625 Naphthalene × × +NDMA analysis 5 days normal

2950 TNT

CHAIN OF CUSTODY FORM

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Turnaround Time: (check)
Same Day 72 Hours Sample Integrity (Check) Intact On Ice: 5 days Perchlorate Only 72 Hours +NDMA analysis Metals Only 72 Hours × × 625 Naphthalene (f.814 A93) Petroleum Hydrocarbons × × 24 Hours 48 hours TRPH,=Total Rec. tsib \w × Ammonia-N, Titr. (350.2) Hq, RST, ROT, ytibidauT × 05C) Forb Perchlorate × 210 BOD5(20 degrees C) × MTBE, DPE, TBA) × × 624 (EDB, 1,2,3-TCP, ANALYSIS REQUIRED (1.514 × A93) essend & liO leuf fesel/jet fuel × × 20-65 8015-gas × × × Date/Time: Settleable Solids × 1,4-Dioxane-8260B × × 12A, 12B, 12C, 12D 3B, 3C 4B, 4C 5C11A Bottle 10A ₹ 18 2B 34 4 5A 8 ΖΑ δ 68 ۲ 8 5B, Project: Boeing-SSFL NPDES During Test -- Alfa Outfall 012 Received By Preservative Received By H2S04 None None None None None None None 되 (626) 568-6515 덮 宁 도 오 건 겊 덮 모 (626) 568-6691 모 Phone Number Fax Number: Sampling Date/Time 19:20 Date/Time: Del Mar Analytical version 5 8/12 # of Cont. ~ N 2 707 Project Manager: Bronwyn Kelly 500 ml Poly MWH-Pasadena 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Container 1L Amber 1L Poly 1L Poly 1L Poly VOAs VOAs VOAs VOAs VOAs VOAs VOAs Sample Matrix Client Name/Address: ie Pers ≥ 3 ≥ ≥ ≥ ₹ ₹ ≥ ≥ ≥ ≥ ₹ 3 ≥ ≥ ≥ ≥ ≥ ≥ Relinquished By Relinquished By Sample Description Outfall 012 Sampler: Outfall 012 Trip Blank duplicate duplicate duplicate duplicate duplicate duplicate

### LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing

Project: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly

Sampled: 09/15/04 Received: 09/15/04 Issued: 11/08/04 15:54

#### NELAP #01108CA CA 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(s) of Custody, 2 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

#### SAMPLE CROSS REFERENCE

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

LABORATORY ID CLIENT ID MATRIX
IN10927-01 Outfall 012 Water
IN10927-02 Trip Blank Water

Reviewed By:

Mar Analytical, Irvine Aele Harper

Michele Harper



.WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

Attention: Bronwyn Kelly

## TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (Outfall 012 - V Reporting Units: mg/l	Water)								
Total Recoverable Hydrocarbons	EPA 418.1	4117090	0.31	1.0	5.9	1	09/17/04	09/17/04	

Mar Analytical, Irvine .nele Harper Project Manager



IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0927 Sampled: 09/15/04
Received: 09/15/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

## EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (Outfall 012 - Ware Reporting Units: mg/l	ater) - cont.								
EFH (C13 - C22) Surrogate: n-Octacosane (45-125%)	EPA 8015B	4119040	0.082	0.50	1.2 87 %	0.962	09/19/04	09/24/04	

Mar Analytical, Irvine Thele Harper Project Manager



/IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/15/04 Pasadena, CA 91101 Report Number: INI0927 Received: 09/15/04

Attention: Bronwyn Kelly

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (Outfall 012 - Reporting Units: mg/l GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%)	EPA 8015 Mod.	4I28034	0.050	0.10	<b>0.90</b> 90 %	1	09/28/04	09/28/04	
Sample ID: INI0927-02 (Trip Blank - Reporting Units: mg/l GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%)	Water) EPA 8015 Mod.	4127006	0.050	0.10	ND 84 %	1	09/27/04	09/27/04	

AWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/15/04 Pasadena, CA 91101 Report Number: INI0927 Received: 09/15/04

Attention: Bronwyn Kelly

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

				`	•		,		
			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: INI0927-01 (Outfall 012	- Water)								
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4124024	0.32	2.0	ND	1	09/24/04	09/24/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4124024	0.32	5.0	ND	1	09/24/04	09/24/04	
1,2,3-Trichloropropane	EPA 624 MOD	4124024	0.85	10	ND	1	09/24/04	09/24/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I24024	0.25	5.0	ND	1	09/24/04	09/24/04	
tert-Butanol (TBA)	EPA 624 MOD	4124024	3.1	25	ND	1	09/24/04	09/24/04	
Surrogate: Dibromofluoromethane (8	0-120%)				115 %				
Surrogate: Toluene-d8 (80-120%)					107 %				
Surrogate: 4-Bromofluorobenzene (80	0-120%)				105 %				
Sample ID: INI0927-02 (Trip Blank	- Water)								
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4124024	0.32	2.0	ND	1	09/24/04	09/24/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I24024	0.32	5.0	ND	1	09/24/04	09/24/04	
1,2,3-Trichloropropane	EPA 624 MOD	4I24024	0.85	10	ND	1	09/24/04	09/24/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I24024	0.25	5.0	ND	1	09/24/04	09/24/04	
-Butanol (TBA)	EPA 624 MOD	4I24024	3.1	25	ND	1	09/24/04	09/24/04	
rogate: Dibromofluoromethane (80	0-120%)				108 %				
Surrogate: Toluene-d8 (80-120%)	•				107 %				
Surrogate: 4-Bromofluorobenzene (80	-120%)				102 %				

Mar Analytical, Irvine Jhele Harper Project Manager



IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

Attention: Bronwyn Kelly

INORGANICS									
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (Outfall 012 - W	Vater)								
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4123096	0.30	0.50	ND	1	09/23/04	09/23/04	
Biochemical Oxygen Demand	EPA 405.1	4I16100	0.012	0.040	2.5	1	09/16/04	09/21/04	
Oil & Grease	EPA 413.1	4I20075	0.94	5.0	1.8	1	09/20/04	09/20/04	J
Total Dissolved Solids	SM2540C	4117133	10	10	310	1	09/17/04	09/17/04	
Total Suspended Solids	EPA 160.2	4116102	10	10	17	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (Outfall 012 - W Reporting Units: ml/l/hr Total Settleable Solids	Vater) EPA 160.5	4116097	0.10	0.10	ND	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (Outfall 012 - W	ater)								
Reporting Units: NTU Turbidity	EPA 180.1	4I16095	0.20	1.0	35	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (Outfall 012 - W	ater)								
Reporting Units: pH Units	EPA 150.1	4116049	N/A	NA	7.99	1	09/16/04	09/16/04	
ample ID: INI0927-01 (Outfall 012 - W Reporting Units: ug/l	'ater)								
Perchlorate	EPA 314.0	4I16047	0.80	4.0	ND	1	09/16/04	09/16/04	



MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

## 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (Outfall 012 Reporting Units: ug/l	2 - Water) - cont.								
1,4-Dioxane Surrogate: Dibromofluoromethane (	EPA 8260B	P4I2316	0.49	1.0	ND 156 %	1	09/23/04	09/23/04	<b>Z</b> 2



AWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/15/04

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0927

Received: 09/15/04

## Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (Outfall 012 - W	ater) - cont.								
Reporting Units: ug/L									
Naphthalene	EPA 625	V4I2115	1.31	10.0	32.3	1	09/21/04	09/23/04	
N-Nitrosodimethylamine	EPA 625	V4I2115	1.37	20.0	ND	1	09/21/04	09/23/04	
Surrogate: 2-FP (40.8-88.4%)					51.5 %				
Surrogate: Phenol-d6 (31.7-86.6%)					41.8 %				
Surrogate: 2,4,6-TBP (58-109%)					81.0 %				
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					68.7 %				
Surrogate: 2-FBP (44.7-89.6%)					67.3 %				
Surrogate: p-Terphenyl-d14 (45.7-117%)					82.9 %				

Mar Analytical, Irvine
Le Harper
Project Manager



AWH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

### SHORT HOLD TIME DETAIL REPORT

County ID, Outfall 012 (INV0027 01). Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 012 (INI0927-01) - Water	r				
EPA 150.1	1	09/15/2004 15:45	09/15/2004 18:25	09/16/2004 06:30	09/16/2004 07:30
EPA 160.5	2	09/15/2004 15:45	09/15/2004 18:25	09/16/2004 13:00	09/16/2004 14:30
EPA 180.1	2	09/15/2004 15:45	09/15/2004 18:25	09/16/2004 15:00	09/16/2004 16:00
EPA 405.1	2	09/15/2004 15:45	09/15/2004 18:25	09/16/2004 14:15	09/21/2004 11:00

AWH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

| Sampled: 09/15/04 | Report Number: INI0927 | Received: 09/15/04

Attention: Bronwyn Kelly

### METHOD BLANK/QC DATA

### **TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I17090 Extracted: 09/17/04	,										
Blank Analyzed: 09/17/04 (4I17090-BLF	<b>(1)</b>										
Total Recoverable Hydrocarbons	ND	1.0	0.31	mg/l							
LCS Analyzed: 09/17/04 (4I17090-BS1)											M-NR1
Total Recoverable Hydrocarbons	4.06	1.0	0.31	mg/l	5.00		81	65-120			
LCS Dup Analyzed: 09/17/04 (4I17090-I	SD1)										
Total Recoverable Hydrocarbons	3.81	1.0	0.31	mg/l	5.00		76	65-120	6	20	

Mar Analytical, Irvine chele Harper Project Manager



VH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

### METHOD BLANK/QC DATA

### EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I19040 Extracted: 09/19/04											
Blank Analyzed: 09/20/04 (4I19040-BLF	<b>(1)</b>										
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.147			mg/l	0.200		74	45-125			
LCS Analyzed: 09/21/04 (4I19040-BS1)											M-NR1
EFH (C13 - C40)	0.465	0.50	0.082	mg/l	0.775		60	40-115			J
Surrogate: n-Octacosane	0.147			mg/l	0.200		74	45-125			
LCS Dup Analyzed: 09/21/04 (4I19040-I	BSD1)										
EFH (C13 - C40)	0.492	0.50	0.082	mg/l	0.775		63	40-115	6	25	J
zate: n-Octacosane	0.0975			mg/l	0.200		49	45-125			

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<sup>.</sup>ele Harper Project Manager

.WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

### METHOD BLANK/QC DATA

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

	]	Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I27006 Extracted: 09/27/04											
	•										
Blank Analyzed: 09/27/04 (4127006-BLI	<b>K1</b> )										
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.00916			mg/l	0.0100		92	60-135			
LCS Analyzed: 09/27/04 (4I27006-BS1)											
GRO (C4 - C12)	0.202	0.10	0.050	mg/l	0.220		92	70-135			
Surrogate: 4-BFB (FID)	0.0112			mg/l	0.0100		112	60-135			
Matrix Spike Analyzed: 09/27/04 (4I270	06-MS1)				Sour	rce: INIO	928-01				
GRO (C4 - C12)	0.247	0.10	0.050	mg/l	0.220	0.050	90	60-135			
Surrogate: 4-BFB (FID)	0.0110			mg/l	0.0100		110	60-135			
rix Spike Dup Analyzed: 09/27/04 (4	127006-MSD1)				Sour	rce: INI09	928-01				
GRO (C4 - C12)	0.245	0.10	0.050	mg/l	0.220	0.050	89	60-135	1	20	
Surrogate: 4-BFB (FID)	0.0109			mg/l	0.0100		109	60-135			
Batch: 4I28034 Extracted: 09/28/04											
Blank Analyzed: 09/28/04 (4I28034-BLK	(1)										
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.0106			mg/l	0.0100		106	60-135			
LCS Analyzed: 09/28/04 (4I28034-BS1)											
GRO (C4 - C12)	0.268	0.10	0.050	mg/l	0.220		122	70-135			
Surrogate: 4-BFB (FID)	0.0105			mg/l	0.0100		105	60-135			
Matrix Spike Analyzed: 09/28/04 (4I2803	84-MS1)				Sour	ce: INI10	00-02				
GRO (C4 - C12)	0.395	0.10	0.050	mg/l	0.220	0.19	93	60-135			
Surrogate: 4-BFB (FID)	0.00982			mg/l	0.0100		98	60-135			

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Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0927

Attention: Bronwyn Kelly

Pasadena, CA 91101

Sampled: 09/15/04 Received: 09/15/04

### METHOD BLANK/QC DATA

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

	]	Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I28034 Extracted: 09/28/04	-										
Matrix Spike Dup Analyzed: 09/28/04 (4	4I28034-MSD1)	)			Sour	rce: INI1	000-02				
GRO (C4 - C12)	0.395	0.10	0.050	mg/l	0.220	0.19	93	60-135	0	20	
Surrogate: 4-BFB (FID)	0.0102			mg/l	0.0100		102	60-135			

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Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/15/04 Received: 09/15/04 Report Number: INI0927 Pasadena, CA 91101

Attention: Bronwyn Kelly

# METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I24024 Extracted: 09/24/	04										
Blank Analyzed: 09/24/04 (4I24024-B	BLK1)										
Acetone	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
Butylbenzene	ND	5.0	0.25	ug/l							
Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	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	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/l							
2,2-Dichloropropane	ND	2.0	0.29	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
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Project ID: Alfa Outfall 012 - During Test

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Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

## METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4124024 Extracted: 09/2	24/04										
Blank Analyzed: 09/24/04 (4I24024	4-BLK1)										
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	0.610	5.0	0.48	ug/l							J
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
hyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
بhthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	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	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Surrogate: Dibromofluoromethane	27.2			ug/l	25.0		109	80-120			

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IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0927

Sampled: 09/15/04 Received: 09/15/04

### METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I24024 Extracted: 09/24/04											
Blank Analyzed: 09/24/04 (4I24024-BLF	<b>(1)</b>										
Surrogate: Toluene-d8	26.7			ug/l	25.0		107	80-120			
Surrogate: 4-Bromofluorobenzene	26.3			ug/l	25.0		105	80-120			
LCS Analyzed: 09/24/04 (4I24024-BS1)											
Acetone	17.4	10	4.5	ug/l	25.0		70	30-120			
Benzene	25.5	2.0	0.28	ug/l	25.0		102	70-120			
Bromobenzene	23.8	5.0	0.27	ug/l	25.0		95	80-120			
Bromochloromethane	24.1	5.0	0.32	ug/l	25.0		96	65-135			
Bromodichloromethane	27.5	2.0	0.30	ug/l	25.0		110	70-140			
P-omoform	24.3	5.0	0.32	ug/l	25.0		97	55-135			
nomethane	25.5	5.0	0.34	ug/l	25.0		102	60-140			
∠-Butanone (MEK)	24.6	10	3.8	ug/l	25.0		98	40-135			
n-Butylbenzene	26.6	5.0	0.17	ug/l	25.0		106	75-130			
sec-Butylbenzene	23.4	5.0	0.25	ug/l	25.0		94	75-125			
tert-Butylbenzene	22.5	5.0	0.22	ug/l	25.0		90	75-125			
Carbon tetrachloride	25.6	5.0	0.28	ug/l	25.0		102	70-140			
Chlorobenzene	24.8	2.0	0.36	ug/l	25.0		99	80-125			
Chloroethane	24.4	5.0	0.33	ug/l	25.0		98	60-145			
Chloroform	24.8	2.0	0.33	ug/l	25.0		99	75-130			
Chloromethane	19.9	5.0	0.30	ug/l	25.0		80	40-145			
2-Chlorotoluene	24.8	5.0	0.28	ug/l	25.0		99	75-125			
4-Chlorotoluene	25.3	5.0	0.29	ug/l	25.0		101	75-125			
Dibromochloromethane	22.8	2.0	0.28	ug/l	25.0		91	65-145			
1,2-Dibromo-3-chloropropane	21.3	5.0	0.92	ug/l	25.0		85	50-135			
1,2-Dibromoethane (EDB)	24.8	2.0	0.32	ug/l	25.0		99	75-125			
Dibromomethane	26.8	2.0	0.36	ug/l	25.0		107	75-130			
1,2-Dichlorobenzene	24.3	2.0	0.32	ug/l	25.0		97	80-120			
1,3-Dichlorobenzene	24.1	2.0	0.35	ug/l	25.0		96	80-120			
1,4-Dichlorobenzene	24.7	2.0	0.37	ug/l	25.0		99	80-120			
Dichlorodifluoromethane	23.2	5.0	0.79	ug/l	25.0		93	10-160			
1,1-Dichloroethane	24.6	2.0	0.27	ug/l	25.0		98	70-135			
1,2-Dichloroethane	25.0	2.0	0.28	ug/l	25.0		100	60-150			
1,1-Dichloroethene	23.9	5.0	0.32	ug/l	25.0		96	75-135			
cis-1,2-Dichloroethene	23.1	2.0	0.32	ug/l	25.0		92	70-125			
trans-1,2-Dichloroethene	24.8	2.0	0.27	ug/l	25.0		99	70-130			
1,2-Dichloropropane	27.4	2.0	0.35	ug/l	25.0		110	70-120			

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Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

Pasadena, CA 91101 Attention: Bronwyn Kelly

## METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I24024 Extracted: 09/24/04											
LCS Analyzed: 09/24/04 (4I24024-BS1)											
1,3-Dichloropropane	24.2	2.0	0.30	ug/l	25.0		97	70-130			
2,2-Dichloropropane	31.2	2.0	0.29	ug/l	25.0		125	65-150			
1,1-Dichloropropene	25.6	2.0	0.28	ug/l	25.0		102	75-130			
cis-1,3-Dichloropropene	24.8	2.0	0.22	ug/l	25.0		99	75-130			
trans-1,3-Dichloropropene	24.2	2.0	0.24	ug/l	25.0		97	75-135			
Ethylbenzene	26.4	2.0	0.25	ug/l	25.0		106	80-120			
Hexachlorobutadiene	24.9	5.0	0.38	ug/l	25.0		100	65-140			
2-Hexanone	24.8	10	2.6	ug/l	25.0		99	40-140			
Isopropylbenzene	24.8	2.0	0.25	ug/l	25.0		99	75-125			
opropyltoluene	22.0	2.0	0.28	ug/l	25.0		88	75-125			
.hylene chloride	22.0	5.0	0.48	ug/l	25.0		88	60-135			
4-Methyl-2-pentanone (MIBK)	20.6	10	2.5	ug/l	25.0		82	40-140			
Methyl-tert-butyl Ether (MTBE)	27.0	5.0	0.32	ug/l	25.0		108	55-145			
Naphthalene	22.2	5.0	0.41	ug/l	25.0		89	50-145			
n-Propylbenzene	26.5	2.0	0.14	ug/l	25.0		106	75-130			
Styrene	24.2	2.0	0.16	ug/l	25.0		97	80-135			
1,1,1,2-Tetrachloroethane	23.9	5.0	0.27	ug/l	25.0		96	70-145			
1,1,2,2-Tetrachloroethane	26.2	2.0	0.24	ug/l	25.0		105	60-135			
Tetrachloroethene	25.4	2.0	0.32	ug/l	25.0		102	75-125			
Toluene	26.5	2.0	0.36	ug/l	25.0		106	75-120			
1,2,3-Trichlorobenzene	23.7	5.0	0.45	ug/l	25.0		95	65-135			
1,2,4-Trichlorobenzene	24.6	5.0	0.48	ug/l	25.0		98	70-140			
1,1,1-Trichloroethane	25.8	2.0	0.30	ug/l	25.0		103	75-140			
1,1,2-Trichloroethane	24.3	2.0	0.30	ug/l	25.0		97	70-125			
Trichloroethene	23.9	2.0	0.26	ug/l	25.0		96	80-120			
Trichlorofluoromethane	26.0	5.0	0.34	ug/l	25.0		104	65-145			
1,2,3-Trichloropropane	22.6	10	0.85	ug/l	25.0		90	60-130			
1,2,4-Trimethylbenzene	23.8	2.0	0.23	ug/l	25.0		95	75-125			
1,3,5-Trimethylbenzene	24.2	2.0	0.26	ug/l	25.0		97	75-125			
Vinyl chloride	23.3	5.0	0.26	ug/l	25.0		93	50-130			
o-Xylene	23.4	2.0	0.24	ug/l	25.0		94	75-125			
m,p-Xylenes	47.8	2.0	0.52	ug/l	50.0		96	75-120			
Di-isopropyl Ether (DIPE)	24.0	5.0	0.25	ug/l	25.0		96	65-135			
Ethyl tert-Butyl Ether (ETBE)	25.0	5.0	0.28	ug/l	25.0		100	60-140			
tert-Amyl Methyl Ether (TAME)	25.8	5.0	0.33	ug/l	25.0		103	60-140			

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Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0927 Sampled: 09/15/04
Received: 09/15/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

## METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I24024 Extracted: 09/24/04											
LCS Analyzed: 09/24/04 (4I24024-BS1)											
tert-Butanol (TBA)	118	25	3.1	ug/l	125		94	70-140			
Surrogate: Dibromofluoromethane	25.9			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	27.1			ug/l	25.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	25.4			ug/l	25.0		102	80-120			
Matrix Spike Analyzed: 09/24/04 (4I240)	24-MS1)				Sou	rce: INI0	919-06				
Acetone	34.2	10	4.5	ug/l	25.0	12	89	10-150			
Benzene	27.8	2.0	0.28	ug/l	25.0	ND	111	70-120			
Bromobenzene	25.7	5.0	0.27	ug/l	25.0	ND	103	65-130			
romochloromethane	27.5	5.0	0.32	ug/l	25.0	ND	110	65-140			
nodichloromethane	31.5	2.0	0.30	ug/l	25.0	ND	126	70-140			
Bromoform	29.7	5.0	0.32	ug/l	25.0	ND	119	55-140			
Bromomethane	29.5	5.0	0.34	ug/l	25.0	ND	118	50-145			
2-Butanone (MEK)	29.3	10	3.8	ug/l	25.0	ND	117	30-145			
n-Butylbenzene	29.3	5.0	0.17	ug/l	25.0	ND	117	70-140			
sec-Butylbenzene	26.2	5.0	0.25	ug/l	25.0	ND	105	70-130			
tert-Butylbenzene	25.1	5.0	0.22	ug/l	25.0	ND	100	70-130			
Carbon tetrachloride	30.2	5.0	0.28	ug/l	25.0	ND	121	70-145			
Chlorobenzene	27.6	2.0	0.36	ug/l	25.0	ND	110	80-125			
Chloroethane	27.7	5.0	0.33	ug/l	25.0	ND	111	50-145			
Chloroform	28.6	2.0	0.33	ug/l	25.0	ND	114	70-135			
Chloromethane	22.5	5.0	0.30	ug/l	25.0	ND	90	35-145			
2-Chlorotoluene	27.5	5.0	0.28	ug/l	25.0	ND	110	70-140			
4-Chlorotoluene	28.2	5.0	0.29	ug/l	25.0	ND	113	70-140			
Dibromochloromethane	27.5	2.0	0.28	ug/l	25.0	ND	110	65-145			
1,2-Dibromo-3-chloropropane	27.0	5.0	0.92	ug/l	25.0	ND	108	45-155			
1,2-Dibromoethane (EDB)	26.0	2.0	0.32	ug/l	25.0	ND	104	70-130			
Dibromomethane	30.1	2.0	0.36	ug/l	25.0	ND	120	65-140			
1,2-Dichlorobenzene	26.6	2.0	0.32	ug/l	25.0	ND	106	75-130			
1,3-Dichlorobenzene	26.4	2.0	0.35	ug/l	25.0	ND	106	75-130			
1,4-Dichlorobenzene	27.3	2.0	0.37	ug/l	25.0	ND	109	80-120			
Dichlorodifluoromethane	29.1	5.0	0.79	ug/l	25.0	ND	116	10-160			
1,1-Dichloroethane	28.3	2.0	0.27	ug/l	25.0	ND	113	65-135			
1,2-Dichloroethane	30.1	2.0	0.28	ug/l	25.0	ND	120	60-150			
1,1-Dichloroethene	27.0	5.0	0.32	ug/l	25.0	ND	108	65-140			
cis-1,2-Dichloroethene	26.3	2.0	0.32	ug/l	25.0	ND	105	65-130			

Mar Analytical, Irvine

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/IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

## METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I24024 Extracted: 09/2	24/04										
Matrix Spike Analyzed: 09/24/04 (	(4I24024-MS1)				Sou	rce: INI0	919-06				
trans-1,2-Dichloroethene	27.8	2.0	0.27	ug/l	25.0	ND	111	65-135			
1,2-Dichloropropane	26.7	2.0	0.35	ug/l	25.0	ND	107	65-130			
1,3-Dichloropropane	28.2	2.0	0.30	ug/l	25.0	ND	113	65-140			
2,2-Dichloropropane	36.1	2.0	0.29	ug/l	25.0	ND	144	60-150			
1,1-Dichloropropene	28.8	2.0	0.28	ug/l	25.0	ND	115	65-140			
cis-1,3-Dichloropropene	27.0	2.0	0.22	ug/l	25.0	ND	108	70-140			
trans-1,3-Dichloropropene	27.3	2.0	0.24	ug/l	25.0	ND	109	70-140			
Ethylbenzene	29.4	2.0	0.25	ug/l	25.0	ND	118	70-130			
Hexachlorobutadiene	27.6	5.0	0.38	ug/l	25.0	ND	110	65-140			
exanone	23.5	10	2.6	ug/l	25.0	ND	94	20-145			
propylbenzene	27.3	2.0	0.25	ug/l	25.0	ND	109	70-130			
p-Isopropyltoluene	24.4	2.0	0.28	ug/l	25.0	ND	98	70-130			
Methylene chloride	26.8	5.0	0.48	ug/l	25.0	0.79	104	60-135			
4-Methyl-2-pentanone (MIBK)	23.6	10	2.5	ug/l	25.0	ND	94	40-145			
Methyl-tert-butyl Ether (MTBE)	31.4	5.0	0.32	ug/i	25.0	ND	126	50-155			
Naphthalene	24.6	5.0	0.41	ug/l	25.0	ND	98	50-150			
n-Propylbenzene	29.4	2.0	0.14	ug/l	25.0	ND	118	70-135			
Styrene	26.2	2.0	0.16	ug/l	25.0	ND	105	55-145			
1,1,1,2-Tetrachloroethane	27.6	5.0	0.27	ug/l	25.0	ND	110	70-145			
1,1,2,2-Tetrachloroethane	27.2	2.0	0.24	ug/l	25.0	ND	109	60-145			
Tetrachloroethene	28.2	2.0	0.32	ug/l	25.0	ND	113	70-130			
Toluene	28.4	2.0	0.36	ug/l	25.0	ND	114	70-120			
1,2,3-Trichlorobenzene	26.3	5.0	0.45	ug/l	25.0	ND	105	60-140			
1,2,4-Trichlorobenzene	27.2	5.0	0.48	ug/l	25.0	ND	109	60-140			
1,1,1-Trichloroethane	29.4	2.0	0.30	ug/l	25.0	ND	118	75-140			
1,1,2-Trichloroethane	27.1	2.0	0.30	ug/l	25.0	ND	108	60-135			
Trichloroethene	26.1	2.0	0.26	ug/l	25.0	ND	104	70-125			
Trichlorofluoromethane	31.5	5.0	0.34	ug/l	25.0	ND	126	55-145			
1,2,3-Trichloropropane	25.9	10	0.85	ug/l	25.0	ND	104	55-140			
1,2,4-Trimethylbenzene	26.4	2.0	0.23	ug/l	25.0	ND	106	60-125			
1,3,5-Trimethylbenzene	26.6	2.0	0.26	ug/l	25.0	ND	106	70-130			
Vinyl chloride	27.0	5.0	0.26	ug/l	25.0	ND	108	40-135			
o-Xylene	26.4	2.0	0.24	ug/l	25.0	ND	106	65-125			
m,p-Xylenes	53.2	2.0	0.52	ug/l	50.0	ND	106	65-130			
Di-isopropyl Ether (DIPE)	27.2	5.0	0.25	ug/l	25.0	ND	109	65-140			
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## Mar Analytical, Irvine

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Project Manager

1WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

## METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4I24024 Extracted: 09/24/04	_										
Matrix Spike Analyzed: 09/24/04 (4I240	24-MS1)				Sou	rce: INI0	919-06				
Ethyl tert-Butyl Ether (ETBE)	28.4	5.0	0.28	ug/l	25.0	ND	114	60-140			
tert-Amyl Methyl Ether (TAME)	29.1	5.0	0.33	ug/l	25.0	ND	116	55-145			
tert-Butanol (TBA)	131	25	3.1	ug/l	125	ND	105	65-145			
Surrogate: Dibromofluoromethane	27.9			ug/l	25.0		112	80-120			
Surrogate: Toluene-d8	<i>26.8</i>			ug/l	<i>25.0</i>		107	80-120			
Surrogate: 4-Bromofluorobenzene	26.1			ug/l	25.0		104	80-120			
Matrix Spike Dup Analyzed: 09/24/04 (4	1124024-MSI	<b>D1</b> )			Sou	rce: INI0	919-06				
Acetone	32.2	10	4.5	ug/l	25.0	12	81	10-150	6	35	
<sup>D</sup> enzene	28.1	2.0	0.28	ug/l	25.0	ND	112	70-120	1	20	
nobenzene	25.7	5.0	0.27	ug/l	25.0	ND	103	65-130	0	20	
promochloromethane	27.1	5.0	0.32	ug/l	25.0	ND	108	65-140	1	25	
Bromodichloromethane	31.3	2.0	0.30	ug/l	25.0	ND	125	70-140	1	20	
Bromoform	28.1	5.0	0.32	ug/l	25.0	ND	112	55-140	6	25	
Bromomethane	30.1	5.0	0.34	ug/l	25.0	ND	120	50-145	2	25	
2-Butanone (MEK)	27.7	10	3.8	ug/l	25.0	ND	111	30-145	6	40	
n-Butylbenzene	29.2	5.0	0.17	ug/l	25.0	ND	117	70-140	0	20	
sec-Butylbenzene	26.0	5.0	0.25	ug/l	25.0	ND	104	70-130	1	20	
tert-Butylbenzene	25.1	5.0	0.22	ug/l	25.0	ND	100	70-130	0	20	
Carbon tetrachloride	30.2	5.0	0.28	ug/l	25.0	ND	121	70-145	0	25	
Chlorobenzene	27.6	2.0	0.36	ug/l	25.0	ND	110	80-125	0	20	
Chloroethane	28.3	5.0	0.33	ug/l	25.0	ND	113	50-145	2	25	
Chloroform	28.1	2.0	0.33	ug/l	25.0	ND	112	70-135	2	20	
Chloromethane	23.4	5.0	0.30	ug/l	25.0	ND	94	35-145	4	25	
2-Chlorotoluene	27.4	5.0	0.28	ug/l	25.0	ND	110	70-140	0	20	
4-Chlorotoluene	28.0	5.0	0.29	ug/l	25.0	ND	112	70-140	1	20	
Dibromochloromethane	26.7	2.0	0.28	ug/l	25.0	ND	107	65-145	3	25	
1,2-Dibromo-3-chloropropane	24.6	5.0	0.92	ug/l	25.0	ND	98	45-155	9	30	
1,2-Dibromoethane (EDB)	25.1	2.0	0.32	ug/l	25.0	ND	100	70-130	4	25	
Dibromomethane	29.4	2.0	0.36	ug/l	25.0	ND	118	65-140	2	25	
1,2-Dichlorobenzene	26.6	2.0	0.32	ug/l	25.0	ND	106	75-130	0	20	
1,3-Dichlorobenzene	26.5	2.0	0.35	ug/l	25.0	ND	106	75-130	0	20	
1,4-Dichlorobenzene	27.2	2.0	0.37	ug/l	25.0	ND	109	80-120	0	20	
Dichlorodifluoromethane	29.1	5.0	0.79	ug/l	25.0	ND	116	10-160	0	30	
1,1-Dichloroethane	28.1	2.0	0.27	ug/l	25.0	ND	112	65-135	1	20	
1,2-Dichloroethane	29.1	2.0	0.28	ug/l	25.0	ND	116	60-150	3	20	

Mar Analytical, Irvine

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Project Manager

rWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

**3** 

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

### METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I24024 Extracted: 09/24/04	<u>.</u>										
	-										
Matrix Spike Dup Analyzed: 09/24/04 (	4124024-MSI	<b>D1</b> )			Sou	rce: INI0	919-06				
1,1-Dichloroethene	26.7	5.0	0.32	ug/l	25.0	ND	107	65-140	1	20	
cis-1,2-Dichloroethene	26.3	2.0	0.32	ug/l	25.0	ND	105	65-130	0	20	
trans-1,2-Dichloroethene	28.0	2.0	0.27	ug/l	25.0	ND	112	65-135	1	20	
1,2-Dichloropropane	26.6	2.0	0.35	ug/l	25.0	ND	106	65-130	0	20	
1,3-Dichloropropane	27.0	2.0	0.30	ug/l	25.0	ND	108	65-140	4	25	
2,2-Dichloropropane	35.0	2.0	0.29	ug/l	25.0	ND	140	60-150	3	25	
1,1-Dichloropropene	28.8	2.0	0.28	ug/l	25.0	ND	115	65-140	0	20	
cis-1,3-Dichloropropene	27.2	2.0	0.22	ug/l	25.0	ND	109	70-140	1	20	
trans-1,3-Dichloropropene	26.5	2.0	0.24	ug/l	25.0	ND	106	70-140	3	25	
∨lbenzene	28.8	2.0	0.25	ug/l	25.0	ND	115	70-130	2	20	
achlorobutadiene	28.1	5.0	0.38	ug/l	25.0	ND	112	65-140	2	20	
2-Hexanone	21.4	10	2.6	ug/l	25.0	ND	86	20-145	9	35	
Isopropylbenzene	27.0	2.0	0.25	ug/l	25.0	ND	108	70-130	1	20	
p-Isopropyltoluene	23.6	2.0	0.28	ug/l	25.0	ND	94	70-130	3	20	
Methylene chloride	27.4	5.0	0.48	ug/l	25.0	0.79	106	60-135	2	20	
4-Methyl-2-pentanone (MIBK)	21.8	10	2.5	ug/l	25.0	ND	87	40-145	8	35	
Methyl-tert-butyl Ether (MTBE)	30.5	5.0	0.32	ug/l	25.0	ND	122	50-155	3	25	
Naphthalene	22.6	5.0	0.41	ug/l	25.0	ND	90	50-150	8	30	
n-Propylbenzene	28.9	2.0	0.14	ug/l	25.0	ND	116	70-135	2	20	
Styrene	21.9	2.0	0.16	ug/l	25.0	ND	88	55-145	18	30	
1,1,1,2-Tetrachloroethane	27.2	5.0	0.27	ug/l	25.0	ND	109	70-145	1	20	
1,1,2,2-Tetrachloroethane	25.6	2.0	0.24	ug/l	25.0	ND	102	60-145	6	30	
Tetrachloroethene	28.2	2.0	0.32	ug/l	25.0	ND	113	70-130	0	20	
Toluene	28.4	2.0	0.36	ug/l	25.0	ND	114	70-120	0	20	
1,2,3-Trichlorobenzene	25.8	5.0	0.45	ug/l	25.0	ND	103	60-140	2	20	
1,2,4-Trichlorobenzene	26.8	5.0	0.48	ug/l	25.0	ND	107	60-140	1	20	
1,1,1-Trichloroethane	28.9	2.0	0.30	ug/l	25.0	ND	116	75-140	2	20	
1,1,2-Trichloroethane	26.1	2.0	0.30	ug/l	25.0	ND	104	60-135	4	25	
Trichloroethene	26.3	2.0	0.26	ug/l	25.0	ND	105	70-125	1	20	
Trichlorofluoromethane	31.3	5.0	0.34	ug/l	25.0	ND	125	55-145	1	25	
1,2,3-Trichloropropane	24.6	10	0.85	ug/l	25.0	ND	98	55-140	5	30	
1,2,4-Trimethylbenzene	23.5	2.0	0.23	ug/l	25.0	ND	94	60-125	12	25	
1,3,5-Trimethylbenzene	22.5	2.0	0.26	ug/l	25.0	ND	90	70-130	17	20	
Vinyl chloride	27.8	5.0	0.26	ug/l	25.0	ND	111	40-135	3	30	
o-Xylene	25.1	2.0	0.24	ug/l	25.0	ND	100	65-125	5	20	

Mar Analytical, Irvine

chele Harper Project Manager

.WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

## METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I24024 Extracted: 09/24/04											
Matrix Spike Dup Analyzed: 09/24/04 (4	124024-MSD1	)			Sou	rce: INI0	919-06				
m,p-Xylenes	49.9	2.0	0.52	ug/l	50.0	ND	100	65-130	6	25	
Di-isopropyl Ether (DIPE)	27.2	5.0	0.25	ug/l	25.0	ND	109	65-140	0	25	
Ethyl tert-Butyl Ether (ETBE)	28.2	5.0	0.28	ug/l	25.0	ND	113	60-140	1	25	
tert-Amyl Methyl Ether (TAME)	28.6	5.0	0.33	ug/l	25.0	ND	114	55-145	2	30	
tert-Butanol (TBA)	132	25	3.1	ug/l	125	ND	106	65-145	1	25	
Surrogate: Dibromofluoromethane	28.0			ug/l	25.0		112	80-120			
Surrogate: Toluene-d8	26.6			ug/l	25.0		106	80-120			
Surrogate: 4-Bromofluorobenzene	25.6			ug/l	25.0		102	80-120			

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.fWH-Pasadena/Boeing

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300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI0927

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Received: 09/15/04

## METHOD BLANK/QC DATA

#### **INORGANICS**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I16047 Extracted: 09/16/04											
Blank Analyzed: 09/16/04 (4I16047-BLK Perchlorate	(1) ND	4.0	0.80	ug/l							
LCS Analyzed: 09/16/04 (4I16047-BS1) Perchlorate	48.6	4.0	0.80	ug/l	50.0		97	85-115			
Matrix Spike Analyzed: 09/16/04 (4I1604	17-MS1)				Sou	rce: INI0	927-01				
Perchlorate	48.9	4.0	0.80	ug/l	50.0	ND	98	80-120			
Matrix Spike Dup Analyzed: 09/16/04 (4.	I16047-MSD1)	)			Sou	rce: INI0	927-01				
Perchlorate	48.3	4.0	0.80	ug/l	50.0	ND	97	80-120	1	20	
ch: 4I16049 Extracted: 09/16/04											
Duplicate Analyzed: 09/16/04 (4I16049-D	UP1)				Sou	rce: INI0	914-02				
pH	7.40	NA	N/A	pH Units		7.39			0	5	
Batch: 4I16095 Extracted: 09/16/04											
Blank Analyzed: 09/16/04 (4I16095-BLK	1)										
Turbidity	ND	1.0	0.20	NTU							
Duplicate Analyzed: 09/16/04 (4I16095-D	UP1)				Sou	rce: INIO	927-01				
Turbidity	35.2	1.0	0.20	NTU		35			1	20	
Batch: 4I16100 Extracted: 09/16/04											
Blank Analyzed: 09/21/04 (4I16100-BLK)	1)										
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							

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Inchele Harper
Project Manager

WH-Pasadena/Boeing

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## METHOD BLANK/QC DATA

#### **INORGANICS**

	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Oualifiers
Analyte	Result	Limit	MIDL	Units	Level	Result	/OKEC	Limits	KI D	Limit	Qualifiers
Batch: 4I16100 Extracted: 09/16/04	•										
T CC A											
LCS Analyzed: 09/21/04 (4I16100-BS1) Biochemical Oxygen Demand	200	100	30	mg/l	198		101	85-115			
••		100	50	1116/1	170		101	05 115			
LCS Dup Analyzed: 09/21/04 (4I16100-											
Biochemical Oxygen Demand	199	100	30	mg/l	198		101	85-115	1	20	
Batch: 4I16102 Extracted: 09/16/04	•										
	741										
Blank Analyzed: 09/16/04 (4I16102-BLF			••								
Total Suspended Solids	ND	10	10	mg/l							
* CS Analyzed: 09/16/04 (4I16102-BS1)											
A Suspended Solids	983	10	10	mg/l	1000		98	85-115			
Duplicate Analyzed: 09/16/04 (4I16102-1	DUP1)				Sou	rce: INIO	893-01				
Total Suspended Solids	20.0	10	10	mg/l		17			16	10	R-3
Batch: 4I17133 Extracted: 09/17/04											
Blank Analyzed: 09/17/04 (4I17133-BL)	<b>ζ1</b> )										
Total Dissolved Solids	ND	10	10	mg/l							
Y CO A I 1. 00/18/04 (4118122 BC1)				·							
LCS Analyzed: 09/17/04 (4I17133-BS1)	994	10	10	ma/l	1000		99	90-110			
Total Dissolved Solids	994	10	10	mg/l	1000		77	<del>30-</del> 110			
Duplicate Analyzed: 09/17/04 (4I17133-l	DUP1)				Sou	rce: INI1	136-02				
Total Dissolved Solids	726	10	10	mg/l		770			6	10	

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300 North Lake Avenue, Suite 1200

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

Report Number: INI0927

Sampled: 09/15/04 Received: 09/15/04

## METHOD BLANK/QC DATA

#### **INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4I20075 Extracted: 09/20/04											
Blank Analyzed: 09/20/04 (4I20075-BLK	(1)										
Oil & Grease	ND	5.0	0.94	mg/l							
LCS Analyzed: 09/20/04 (4I20075-BS1)											
Oil & Grease	18.4	5.0	0.94	mg/l	20.0		92	65-120			
Matrix Spike Analyzed: 09/20/04 (4I2007	/5-MS1)				Sour	rce: INI0	888-01				
Oil & Grease	36.9	10	2.0	mg/l	41.7	7.6	70	65-120			
Matrix Spike Dup Analyzed: 09/20/04 (4	(20075-MSD1				Sour	rce: INIO	888-01				
Oil & Grease	43.1	10	2.0	mg/l	41.7	7.6	85	65-120	15	25	
tch: 4I23096 Extracted: 09/23/04											
Blank Analyzed: 09/23/04 (4I23096-BLK	1)										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 09/23/04 (4I23096-BS1)											
Ammonia-N (Distilled)	9.24	0.50	0.30	mg/l	10.0		92	80-115			
Matrix Spike Analyzed: 09/23/04 (4I2309	6-MS1)				Sour	ce: INI13	94-01				
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0	ND	95	70-120			
Matrix Spike Dup Analyzed: 09/23/04 (41	23096-MSD1)				Sour	ce: INI13	94-01				
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0	ND	95	70-120	0	15	

Mar Analytical, Irvine
...ichele Harper
Project Manager

.1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

1 Toject ID. Titla Outlan 012 - During Test

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

## METHOD BLANK/QC DATA

## 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: P4I2316 Extracted: 09/23/04	<u>1</u>										
Blank Analyzed: 09/23/04 (P4I2316-BL	K1)										
1,4-Dioxane	ND	1.0	0.49	ug/l							
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-135			
LCS Analyzed: 09/23/04 (P4I2316-BS1)	)										
1,4-Dioxane	8.24	1.0	0.49	ug/l	10.0		82	70-130			
Surrogate: Dibromofluoromethane	1.05			ug/l	1.00		105	80-135			
LCS Dup Analyzed: 09/23/04 (P4I2316-	·BSD1)										
1,4-Dioxane	9.08	1.0	0.49	ug/l	10.0		91	70-130	10	20	
Surrogate: Dibromofluoromethane	1.01			ug/l	1.00		101	80-135			
trix Spike Analyzed: 09/23/04 (P4I2	316-MS1)				Sou	rce: PNI0	571-01				
1,4-Dioxane	9.55	1.0	0.49	ug/l	10.0	ND	96	70-130			
Surrogate: Dibromofluoromethane	1.14			ug/l	1.00		114	80-135			
Matrix Spike Dup Analyzed: 09/23/04 (	P4I2316-MSI	D1)			Sou	rce: PNI0	571-01				
1,4-Dioxane	8.83	1.0	0.49	ug/l	10.0	ND	88	70-130	8	20	
Surrogate: Dibromofluoromethane	1.10			ug/l	1.00		110	80-135			

Mar Analytical, Irvine
....chele Harper
Project Manager

.WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0927 Sampled: 09/15/04
Received: 09/15/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

## METHOD BLANK/QC DATA

## Semivolatile Organic Compounds by EPA Method 625

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: V4I2115 Extracted: 09/21/0	<u>4</u>										
Blank Analyzed: 09/23/04 (V4I2115-BI	.K1)										
Naphthalene	ND	10.0	1.31	ug/L							
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L							
Surrogate: 2-FP	75.9		-107	ug/L	200		38	40.8-88.4			A-05
Surrogate: Phenol-d6	65.2			ug/L	200		33	31.7-86.6			
Surrogate: 2,4,6-TBP	126			ug/L	200		63	58-109			
Surrogate: Nitrobenzene-d5	53.3			ug/L	100		53	47.1-99.2			
Surrogate: 2-FBP	52.6			ug/L	100		53	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.5			ug/L	100		68	45.7-117			
~ S Analyzed: 09/23/04 (V4I2115-BS1	)										
athalene	99.7	10.0	1.31	ug/L	200		50	38.5-85.1			
N-Nitrosodimethylamine	101	20.0	1.37	ug/L	200		51	14.1-97.3			
Surrogate: 2-FP	93.7			ug/L	200		47	40.8-88.4			
Surrogate: Phenol-d6	74.6			ug/L	200		37	31.7-86.6			
Surrogate: 2,4,6-TBP	140			ug/L	200		70	58-109			
Surrogate: Nitrobenzene-d5	58.1			ug/L	100		58	47.1-99.2			
Surrogate: 2-FBP	60.1			ug/L	100		60	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.0			ug/L	100		67	45.7-117			
LCS Dup Analyzed: 09/23/04 (V4I2115-	·BSD1)										
Naphthalene	95.0	10.0	1.31	ug/L	200		48	38.5-85.1	5	17.3	
N-Nitrosodimethylamine	97.5	20.0	1.37	ug/L	200		49	14.1-97.3	4	32.5	
Surrogate: 2-FP	89.7			ug/L	200		45	40.8-88.4			
Surrogate: Phenol-d6	72.7			ug/L	200		36	31.7-86.6			
Surrogate: 2,4,6-TBP	133			ug/L	200		67	58-109			
Surrogate: Nitrobenzene-d5	56.6			ug/L	100		57	47.1-99.2			
Surrogate: 2-FBP	57.7			ug/L	100		58	44.7-89.6			
Surrogate: p-Terphenyl-d14	63.8			ug/L	100		64	45.7-117			

Mar Analytical, Irvine

....chele Harper Project Manager

.WH-Pasadena/Boeing

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

300 North Lake Avenue, Suite 1200

Report Number: INI0927

Sampled: 09/15/04

Received: 09/15/04

#### METHOD BLANK/QC DATA

## Semivolatile Organic Compounds by EPA Method 625

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: V4I2115 Extracted: 09/21/04	<u>L</u>										
Duplicate Analyzed: 09/23/04 (V4I2115-	DUP1)				Sou	rce: V409	140-02				
Naphthalene	ND	10.0	1.31	ug/L		ND				30	
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L		ND				30	
Surrogate: 2-FP	62.4			ug/L	200		31	40.8-88.4			A-05
Surrogate: Phenol-d6	65.4			ug/L	200		33	31.7-86.6			
Surrogate: 2,4,6-TBP	98.4			ug/L	200		49	<i>58-109</i>			A-05
Surrogate: Nitrobenzene-d5	53.4			ug/L	100		53	47.1-99.2			
Surrogate: 2-FBP	50.9			ug/L	100		51	44.7-89.6			
Surrogate: p-Terphenyl-d14	60.4			ug/L	100		60	45.7-117			
**atrix Spike Analyzed: 09/23/04 (V4I2)	15-MS1)				Sou	rce: V409	140-01				
nthalene	74.7	10.0	1.31	ug/L	200	ND	37	70-130			A-04
N-Nitrosodimethylamine	93.2	20.0	1.37	ug/L	200	ND	47	70-130			A-04
Surrogate: 2-FP	80.0			ug/L	200		40	40.8-88.4			A-05
Surrogate: Phenol-d6	72.0			ug/L	200		36	31.7-86.6			
Surrogate: 2,4,6-TBP	57.4			ug/L	200		29	58-109			A-05
Surrogate: Nitrobenzene-d5	40.6			ug/L	100		41	47.1-99.2			A-05
Surrogate: 2-FBP	38.8			ug/L	100		39	44.7-89.6			A-05
Surrogate: p-Terphenyl-d14	41.5			ug/L	100		42	45.7-117			A-05

Mar Analytical, Irvine ..chele Harper Project Manager



... WH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI0927

Sampled: 09/15/04

Attention: Bronwyn Kelly

Received: 09/15/04

#### **DATA QUALIFIERS AND DEFINITIONS**

A-04 The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.

A-05 The surrogate recovery for this sample is outside of established control limits. Review of associated QC indicates that the recovery of this surrogate does not negatively impact the usability of the data.

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.

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

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

Z2 Surrogate recovery was above the acceptance limits. Data not impacted.

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

RPD Relative Percent Difference

#### **ADDITIONAL COMMENTS**

#### For GRO (C4-C12):

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

## vr Extractable Fuel Hydrocarbons (EFH, DRO, ORO):

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

l Mar Analytical, Irvine Michele Harper Project Manager

Sampled: 09/15/04

. WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INI0927 Received: 09/15/04

Attention: Bronwyn Kelly

### **Certification Summary**

#### Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 625	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV 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.

#### contracted Laboratories

Del Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907

9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed: EPA 8260B

Samples: INI0927-01

Star Analytical, Inc. CA ELAP Cert #1849

14500 Trinity Boulevard, Suite 106 - Fort Worth, TX 76155

Method Performed: EPA 625 Samples: INI0927-01

Mar Analytical, Irvine
ranchele Harper
Project Manager



17461 Derian Ave. Suite 100, Irvine, CA 92614 9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689 9830 South 51st Street, Suite B-120, Phoenix, AZ 85044

Ph (949) 261-1022 Fax (949) 261-1228 Ph (480) 785-0043 Fax (480) 785-0851 Ph (702) 798-3620

## **SUBCONTRACT ORDER - PROJECT # IN10927**

#### 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:

Del Mar Analytical - Phoenix

9830 S. 51st Street, Suite B-120

Phoenix, AZ 85044 Phone: (480) 785-0043

Fax: (480) 785-0851

Analysis	Expiration	Due	Comments	
Sample ID: INI0927-01	Water Sampled	: 09/15/04 15:45	,	•
Dioxane-8260B-out	09/29/04 15:45	09/24/04 12:00	Boeing-permit, sub to DMAP, J flags	PNI 0515-01
Containers Supplied:				
40 ml VOA w/HCL (IN	(0927-01K)			
40 ml VOA w/HCL (IN	10927-01L)			
40 ml VOA w/HCL (IN	(0927-01M)			

		CAMDI	E INTEGRI	TV.			
All containers intact: Custody Seals Present		Sample labels/COC agree: Samples Preserved Properly	Yes		Samples Rece Samples Rece	ived On Ice::	Yes No
		 >				(g	aliston
Released By	9	Date Fime	Received By	2 1	S.C.	Date 917/6	1975
ased By	7	Date Time	Received By	,	15	Date	Time Page 1 of 1

5 CHAI

Del Mar Analytical version 5 8/12/04	Analy	tical version	n 5 8/12		CHAIN OF	F CUSTODY FORM	Y FO	R							Z	TUIO, DINI	
Client Name/Address	Address:			Project:			ANALY:	SIS R	ANALYSIS REQUIRED	Ω							
MWH-Pasadena 300 North Lake Avenue, Suite 1200 Pasadena CA 91101	idena Pavenue, 91101	Suite 1200		Boeing-SSFL NF During Test A Project Number: MXXH-	Boeing-SSFL NPDES  During Test Alfa Outfall 012  Project Number:  MAVH-	tfall 012	80			, <b>Ч</b> ЭТ (,	()	Hq ,2;					
Project Manager. Bronwyn Kelly Sampler:	anager. Bronwy	nwyn Kelly		Phone Number: (626) 568-6691 Fax Number: (626) 568-6515	nber: 3691 9r: 3515		0928-ənsxoiC sbilo2 əldsə	-gas	-diesel/jet fu Grease (EP I)	FDB, 1,2,3-7 E, DPE, TBA	5(20 degrees norate	ST ,SQT,Yjib		1,=Total Rec leum Hydroc 418.1)	eisylsns Af		
Sample Description	Sample Matrix	Container Type	Cont.	Sampling Prese	Preservative	Bottle #				, <b>₽</b> S8 8TM			sib \w	otec Aq3			
Outfall 012	3	1L Amber	-	13.5/ to 1.6	모	14		+	1			_		2			
Outfall 012 duplicate	*	1L Amber	-		보C	18		+	×		+						
Outfall 012	8	Plastic 14 Aug	173		로	8		$\dagger$			+		+	  x			
Outfall 012 duplicate	>	Plantic 1- Amacr	1		HCL HCL	.28		T			-		T	< ×			
Outfall 012	3	VOAs	-		딮	34		1	-	×	+		+	$\dagger$	+		T
Outrall 012 duplicate	3	VOAs	2		HZ,	3B, 3C		$\vdash$		×	-						T
Outfall 012	3	VOAs	-		덛	44		×	-		+	I	+	1			
Outfall 012 duplicate	>	VOAs	2		Ź	4B, 4C		×			+			T			T
Outfall 012	3	VOAs	-		로	5A	×	+		$\int$	+		1	$\dagger$	+		
Outfall 012 duplicate	*	VOAs	2		도	58, 50	×	+-			+						T
Outfall 012	3	1L Amber	-		None	Α9		$\dagger$			+		$\dagger$	+	<del> </del>		
Outfall 012 duplicate	>	1L Amber	-		None	68		$\dagger$			+-		+		× ×		
Outfall 012	≥	1L Amber	-		None	A7		+^	×		+				+		
Outfall 012 duplicate	٨	1L Amber	-		None	78		<del> ^</del>	×		+		$\parallel$	<b>†</b>			
Outfall 012	>	500 ml Poly	-		H2S04	88		+	-		-		<b>-</b>	1	+		T
Outfall 012	≥	1L Poly	-		New HC!	<b>A</b> 6		+			×		<		1		T
Outfall 012	3	1L Poly	-		Neme Hc.	10A	×	$\vdash$			+			$\dagger$	<u>(</u>	4	
Cuttall 012	≱ 3	1L Poly	-	1	Mene HC	11A		-			×	×			+	N	T
I np Blank	≥	VOAs	1	4	모	12A, 12B, 12C, 12D		×		×	-			T	-		
Relinguished By						7											T
A STORY	W)		ナタダール	90:91	Kecelived A			, , ,	//	70.71			Turnar	Turnaround Time: Same Day	(check) 72 Hours		T
Relinquished By	(		Date/Time:	.io	Received By	,	Date/Time			3			24 Hours	Sir	_ 5 days		
The state of the s	1	1-1/0	·	Š		<b>&gt;</b>							48 hours	55	normal	7	
Relinquished By	*		Jaha / Time	1007	Deceived By		į						Perchit	Perchlorate Only 72 Hours,	72 Hours	1	
•		`		<b>i</b>	y december by					18.20			Metals	Metals Only 72 Hours	Surs	,	
					Jam	Armanson.	5///	15/04		53			Sample Intact	e Inflegrity:	Sample Integrity: (Check) Intact On Ice:	1	(d ('



**SENDING LABORATORY:** 

Date

Time

Released By

Del Mar Analytical, Irvine

17461 Derian Ave. Sulte 100, Irvine, CA 92614 1014 E. Cooley Dr., Sulte A, Colton, CA 92324 9484 Chesapeake Drive, Sulte 805, San Diego, CA 92123 9630 South 51st Street, Sulte 8-120, Phoenix, AZ 85044

**RECEIVING LABORATORY:** 

Ph (949) 261-1022 Fax (949) 261-1228
Ph (909) 370-4667 Fax (909) 370-1046
Ph (619) 505-9596 Fax (619) 505-9689
Ph (480) 785-0043 Fax (480) 785-0851
Ph (702) 798-3620 Fax (702) 798-3621

## **SUBCONTRACT ORDER - PROJECT # IN10927**

Star Analytical, Inc.

17461 Derian Avenue. Suit Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 261-1228 Project Manager: Michele F		14500 Trinity Boulevard, Suite 106 Fort Worth, TX 76155 Phone:(817) 571-6800 Fax: (817) 267-5431	
Standard TAT is requeste	ed unless specific due date is requeste	d => Due Date:	Initials:
Analysis	Expiration	Comments	
Sample ID: INI0927-01 Wa 625+NDMA+Hydrazine	nter Sampled: 09/15/04 15:45 09/22/04 15:45	Boeing, permit & PP (see project notes), J flags	V409171-01
Containers Supplied: 1 L Amber (INI0927-01Q)			
			_
		Fel-et # 7907	7658 3122
All containers intact:  Custody Seals Present:  Yes  Yes	SAMPLI  No Sample labels/COC agree: Samples Preserved Properly:	E INTEGRITY:  Yes No Samples Received On Ice:: Yes No Samples Received at (temp):	€ Yes □ No
ieased By	91704 1700 Date Time	Received By P/19/0	4 /12:

Received By

Time

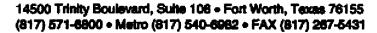
Date

		Sample Control Comments	J-Frenchers										,				of Jo
nere	2	Sample	15451		$\int$												Page .
le contai		Sample Date	9/15/10		$\int$												ŀ
om samo		Sample Matrix	L'an														
Information collected from sample containers		Client Sample Identification	JOTEROINT					The state of the s		·				yıs:			Vork Order Number
•		Sample Letter(s)	A											ns, Resolutio			
	Committee	Number	01											nd/or Probler			
	Container Oti(a) 9	Description(s)	1-Ambain											Additional Comments and/or Problems, Resolutions:		70	9/30/04 Date of Log-in
Dolman - alme		t? Packaging intact?		3) Method of Receipt: Tracking # 7902 76563/22	g	m.	A - 0 . Other National Part $A - 0$ . Other $A - 0$ .	5) Receipt Log Completed By 6) Ice assed? Packing material used?	Temp. 4	7) Chain of Custody filled out property?  [DYes	8) Does information on custody/traffic reports agree with Jaformation on sample tags/labels?	[☑Yes □ №	9) Containers supplied by Lab?  Yes  PNo	10) Correct/Appropriate containers used?  [EYes	11) Contaipers Intact?	12) Containers properly preserved?    Yes   No   N/A	13) Headspace In VOAs?

E









Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100

Irvine CA, 92614-5817

Project: subbed in Project Number: INI0927

Project Manager: Michele Harper

**Reported:** 10/19/04 10:48

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
INI0927-01	V409171-01	Liquid	09/15/04 15:45	09/18/04 11:30

Star Analytical, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document.

This analytical report must be reproduced in its entirety.

Anthony Dilday, Lab Director

Page 1 of 5



14500 Trinity Boulevard, Suite 106 • Fort Worth, Texas 76155 (817) 571-8800 • Metro (817) 540-6982 • FAX (817) 287-5431



Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100 Irvine CA, 92614-5817 Project: subbed in
Project Number: INI0927
Project Manager: Michele Harper

**Reported:** 10/19/04 10:48

## Semivolatile Organic Compounds by EPA Method 625

## Star Analytical, Inc.

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
INI0927-01 (V409171-01) Liquid Sampled by: Client Type: Grab	-		Received: 0	9/18/04 1	1:30						
Naphthalene	32.3	1.31	10.0	ug/L	1	V4I2115	09/21/04 08:30	09/23/04 16:15	EPA 625	SD	
N-Nitrosodimethylamine	ND	1.37	20.0	11	"	"	"	"	*	**	
Surr: 2-FP		51.5 %		40.8	3-88.4	"	"	"	"	"	
Surr: Phenol-d6		41.8 %		31.7	7-86.6	"	n	"	"	"	
Surr: 2,4,6-TBP		81.0 %		58-	-109	"	"	"	"	"	
Surr: Nitrobenzene-d5		68.7 %		47.1	-99.2	"	"	"	"	"	
Surr: 2-FBP		67.3 %		44.7	<sup>7</sup> -89.6	"	"	"	"	"	
Surr: p-Terphenyl-d14		82.9 %		45.7	7-117	"	"	"	"	"	



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Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100 Irvine CA, 92614-5817 Project subbed in
Project Number: INI0927
Project Manager: Michele Harper

Reported: 10/19/04 10:48

# Semivolatile Organic Compounds by EPA Method 625 - Quality Control Star Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch V4I2115 - EPA 3510C										
Blank (V4I2115-BLK1)				Prepared:	09/21/04	Analyze	d: 09/23/04			
Naphthalene	ND	10.0	ug/L							
N-Nitrosodimethylamine	ND	20.0	11							
Surrogate: 2-FP	75.9		"	200		38.0	40.8-88.4			A-0:
Surrogate: Phenol-d6	65.2		"	200		32.6	31.7-86.6			
Surrogate: 2,4,6-TBP	126		"	200		63.0	58-109			
Surrogate: Nitrobenzene-d5	<i>53.3</i>		"	100		53.3	47.1-99.2			
Surrogate: 2-FBP	52.6		"	100		52.6	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.5		"	100		67.5	45.7-117			
LCS (V4I2115-BS1)				Prepared:	09/21/04	Analyzed	1: 09/23/04			
Naphthalene	99.7	10.0	ug/L	200		49.8	38.5-85.1			
N-Nitrosodimethylamine	101	20.0	н	200		50.5	14.1-97.3			
Currogate: 2-FP	93.7		"	200		46.8	40.8-88.4			
ırrogate: Phenol-d6	74.6		"	200		37.3	31.7-86.6			
Surrogate: 2,4,6-TBP	140		"	200		70.0	58-109			
Surrogate: Nitrobenzene-d5	58.1		"	100		58.1	47.1-99.2			
Surrogate: 2-FBP	60.1		"	100		60.1	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.0		"	100		67.0	45.7-117			
LCS Dup (V4I2115-BSD1)				Prepared:	09/21/04	Analyzed	1: 09/23/04			
Naphthalene	95.0	10.0	ug/L	200		47.5	38.5-85.1	4.83	17.3	
N-Nitrosodimethylamine	97.5	20.0	**	200		48.8	14.1-97.3	3.53	32.5	
Surrogate: 2-FP	89.7		"	200		44.8	40.8-88.4			
Surrogate: Phenol-d6	72.7		"	200		36.4	31.7-86.6			
Surrogate: 2,4,6-TBP	133		"	200		66.5	58-109			
Surrogate: Nitrobenzene-d5	56.6		"	100		56.6	47.1-99.2			
Surrogate: 2-FBP	57.7		"	100		57.7	44.7-89.6			
Surrogate: p-Terphenyl-d14	63.8		"	100		63.8	45.7-117			





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Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100 Irvine CA, 92614-5817 Project Subbed in
Project Number: INI0927
Project Manager: Michele Harper

Reported: 10/19/04 10:48

RPD

%REC

# Semivolatile Organic Compounds by EPA Method 625 - Quality Control Star Analytical, Inc.

Spike

Source

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch V4I2115 - EPA 3510C										
Duplicate (V4I2115-DUP1)	Sour	ce: V40914	0-02	Prepared:	09/21/04	Analyze	d: 09/23/04			
Naphthalene	ND	10.0	ug/L		ND				30	
N-Nitrosodimethylamine	ND	20.0	"		ND				30	
Surrogate: 2-FP	62.4		"	200		31.2	40.8-88.4			A-0
Surrogate: Phenol-d6	65.4		"	200		32.7	31.7-86.6			
Surrogate: 2,4,6-TBP	98.4		"	200		49.2	58-109			A-0.
Surrogate: Nitrobenzene-d5	<i>53.4</i>		"	100		53.4	47.1-99.2			
Surrogate: 2-FBP	50.9		"	100		50.9	44.7-89.6			
Surrogate: p-Terphenyl-d14	60.4		"	100		60.4	45.7-117			
Matrix Spike (V4I2115-MS1)	Sour	ce: V40914	0-01	Prepared:	09/21/04	Analyze	d: 09/23/04			
Naphthalene	74.7	10.0	ug/L	200	ND	37.4	70-130			A-0
N-Nitrosodimethylamine	93.2	20.0	"	200	ND	46.6	70-130			A-0
Surrogate: 2-FP	80.0		"	200		40.0	40.8-88.4			A-0.
rrogate: Phenol-d6	72.0		"	200		36.0	31.7-86.6			
Surrogate: 2,4,6-TBP	57.4		"	200		28.7	58-109			A-0.
Surrogate: Nitrobenzene-d5	40.6		"	100		40.6	47.1-99.2			A-0.
Surrogate: 2-FBP	38.8		"	100		38.8	44.7-89.6			A-0.
Surrogate: p-Terphenyl-d14	41.5		"	100		41.5	45.7-117			A-0.



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Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100 Irvine CA, 92614-5817 Project: subbed in
Project Number: INI0927
Project Manager: Michele Harper

Reported: 10/19/04 10:48

#### **Notes and Definitions**

A-04	The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.
A-05	The surrogate recovery for this sample is outside of established control limits. Review of associated QC indicates that the recovery of this surrogate does not negatively impact the usability of the data.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

## LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing

Project: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Attention: Bronwyn Kelly

Sampled: 09/24/04

Received: 09/24/04

Issued: 11/08/04 16:19

#### NELAP #01108CA CA 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(s) of Custody, 5 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

#### SAMPLE CROSS REFERENCE

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

LABORATORY IDCLIENT IDMATRIXINI1518-01Outfall 012WaterINI1518-02TRIP BLANKWater

Reviewed By:

Pal Mar Analytical, Irvine

Michele Harper

ele Harper



1WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/24/04

Pasadena, CA 91101

Report Number: INI1518

Received: 09/24/04

## TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1518-01 (Outfall 012 -	Water)								
Reporting Units: mg/l Total Recoverable Hydrocarbons	EPA 418.1	4J01062	0.31	1.0	5.1	1	10/01/04	10/01/04	



WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/24/04 Report Number: INI1518 Pasadena, CA 91101 Received: 09/24/04

Attention: Bronwyn Kelly

## **EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1518-01 (Outfall 012 - V	Vater) - cont.								
Reporting Units: mg/l EFH (C13 - C22)	EPA 8015B	4I28066	0.082	0.50	1.0	0.962	09/28/04	09/30/04	
Surrogate: n-Octacosane (45-125%)					91 %				



1WH-Pasadena/Boeing

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

300 North Lake Avenue, Suite 1200

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1518-01 (Outfall 012 -	Water) - cont.								
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4J08013	0.050	0.10	0.28	1	10/08/04	10/08/04	
Surrogate: 4-BFB (FID) (60-135%)					92 %				
Sample ID: INI1518-02 (TRIP BLAN	K - Water)								
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4J04011	0.050	0.10	ND	1	10/04/04	10/04/04	
Surrogate: 4-BFB (FID) (60-135%)					97 %				



1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

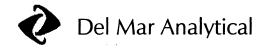
Report Number: INI1518

Sampled: 09/24/04 Received: 09/24/04

Attention: Bronwyn Kelly

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1518-01 (Outfall 012 -	- Water)								
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J03010	0.32	2.0	ND	1	10/03/04	10/03/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J03010	0.32	5.0	ND	1	10/03/04	10/03/04	
1,2,3-Trichloropropane	EPA 624 MOD	4J03010	0.85	10	ND	1	10/03/04	10/03/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J03010	0.25	5.0	ND	1	10/03/04	10/03/04	
tert-Butanol (TBA)	EPA 624 MOD	4J03010	3.1	25	ND	1	10/03/04	10/03/04	
Surrogate: Dibromofluoromethane (80	)-120%)				97 %				
Surrogate: Toluene-d8 (80-120%)					99 %				
Surrogate: 4-Bromofluorobenzene (80-	-120%)				102 %				
Sample ID: INI1518-02 (TRIP BLAN	K - Water)								
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J03010	0.32	2.0	ND	1	10/03/04	10/03/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J03010	0.32	5.0	ND	1	10/03/04	10/03/04	
1,2,3-Trichloropropane	EPA 624 MOD	4J03010	0.85	10	ND	1	10/03/04	10/03/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J03010	0.25	5.0	ND	1	10/03/04	10/03/04	
tert-Butanol (TBA)	EPA 624 MOD	4J03010	3.1	25	ND	1	10/03/04	10/03/04	
rogate: Dibromofluoromethane (80-	-120%)				98 %				
_arrogate: Toluene-d8 (80-120%)					98 %				
Surrogate: 4-Bromofluorobenzene (80-	120%)				109 %				



1WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1518

Sampled: 09/24/04 Received: 09/24/04

**INORGANICS** 

INORGANICS											
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers		
Sample ID: INI1518-01 (Outfall 012	- Water)										
Reporting Units: mg/l											
Ammonia-N (Distilled)	EPA 350.2	4I28067	0.30	0.50	ND	1	09/28/04	09/28/04			
Biochemical Oxygen Demand	EPA 405.1	4I24083	0.59	2.0	2.8	1	09/24/04	09/29/04			
Oil & Grease	EPA 413.1	4I30073	0.94	5.0	ND	1	09/30/04	09/30/04			
Total Dissolved Solids	SM2540C	4I28091	10	10	330	1	09/28/04	09/28/04			
Total Suspended Solids	EPA 160.2	4I27082	10	10	120	1	09/27/04	09/27/04			
Sample ID: INI1518-01 (Outfall 012 - Reporting Units: ml/l/hr	- Water)										
Total Settleable Solids	EPA 160.5	4I24107	0.10	0.10	ND	1	09/24/04	09/24/04			
Sample ID: INI1518-01 (Outfall 012 - Reporting Units: NTU	- Water)										
Turbidity	EPA 180.1	4125045	0.20	1.0	27	1	09/25/04	09/25/04			
Sample ID: INI1518-01 (Outfall 012 - Reporting Units: pH Units	- Water)										
рН	EPA 150.1	4I25039	N/A	NA	8.09	1	09/25/04	09/25/04			
nple ID: INI1518-01 (Outfall 012 - Reporting Units: ug/l	· Water)										
Perchlorate	EPA 314.0	4I25033	0.80	4.0	ND	1	09/25/04	09/25/04			



WH-Pasadena/Boeing

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

500 North Lake Avenue, Suite 1200

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

Attention: Bronwyn Kelly

## 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers			
Sample ID: INI1518-01 (Outfall 012 - Water) - cont.												
Reporting Units: ug/l												
1,4-Dioxane	EPA 8260B	P4I2801	0.49	1.0	ND	1	09/28/04	09/28/04				
Surrogate: Dibromofluoromethane (80-1	35%)				104 %							



Sampled: 09/24/04

'WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

1.0,00.12.

Report Number: INI1518 Received: 09/24/04

## Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1518-01 (Outfall 012 - Wa	ter) - cont.								
Reporting Units: ug/L									
Naphthalene	EPA 625	V4J0501	1.31	10.0	20.9	1	09/30/04	10/06/04	
N-Nitrosodimethylamine	EPA 625	V4J0501	1.37	20.0	ND	1	09/30/04	10/06/04	
Surrogate: 2-FP (40.8-88.4%)					46.8 %				
Surrogate: Phenol-d6 (31.7-86.6%)					39.6 %				
Surrogate: 2,4,6-TBP (58-109%)					87.5 %				
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					58.0 %				
Surrogate: 2-FBP (44.7-89.6%)					51.4%				
Surrogate: p-Terphenyl-d14 (45.7-117%)					74.9 %				



1WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101 Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

#### SHORT HOLD TIME DETAIL REPORT

Sample ID: Outfall 012 (INI1518-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	09/24/2004 14:18	09/24/2004 17:40	09/25/2004 10:30	09/25/2004 11:30
EPA 160.5	2	09/24/2004 14:18	09/24/2004 17:40	09/24/2004 20:10	09/24/2004 21:00
EPA 180.1	2	09/24/2004 14:18	09/24/2004 17:40	09/25/2004 12:30	09/25/2004 14:00
EPA 405.1	2	09/24/2004 14:18	09/24/2004 17:40	09/24/2004 18:45	09/29/2004 12:00



fWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

D . N. 1 DIT1519

Sampled: 09/24/04 Received: 09/24/04

Report Number: INI1518

Attention: Bronwyn Kelly

Pasadena, CA 91101

## METHOD BLANK/QC DATA

## **TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

		Reporting Limit	MDL	¥1	Spike	Source	%REC	%REC	RPD	RPD	Data
Analyte	Result	Limit	MIDL	Units	Level	Result	%REC	Limits	KPU	Limit	Qualifiers
Batch: 4J01062 Extracted: 10/01/04											
Blank Analyzed: 10/01/04 (4J01062-BLF	ζ1)										
Total Recoverable Hydrocarbons	ND	1.0	0.31	mg/l							
LCS Analyzed: 10/01/04 (4J01062-BS1)											M-NR1
Total Recoverable Hydrocarbons	4.21	1.0	0.31	mg/l	5.00		84	65-120			
LCS Dup Analyzed: 10/01/04 (4J01062-1	BSD1)										
Total Recoverable Hydrocarbons	4.46	1.0	0.31	mg/l	5.00		89	65-120	6	20	

1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/24/04 Received: 09/24/04

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI1518

## METHOD BLANK/QC DATA

## **EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4128066 Extracted: 09/28/04	_										
Blank Analyzed: 09/30/04 (4I28066-BLl	K1)										
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.101			mg/l	0.200		50	45-125			
LCS Analyzed: 09/30/04 (4I28066-BS1)											M-NR1
EFH (C13 - C40)	0.737	0.50	0.082	mg/l	0.775		95	40-115			
Surrogate: n-Octacosane	0.125			mg/l	0.200		62	45-125			
LCS Dup Analyzed: 09/30/04 (4I28066-1	BSD1)										
EFH (C13 - C40)	0.703	0.50	0.082	mg/l	0.775		91	40-115	5	25	
Surrogate: n-Octacosane	0.125			mg/l	0.200		62	45-125			

1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

## METHOD BLANK/QC DATA

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

	]	Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J04011 Extracted: 10/04/04	_										
Blank Analyzed: 10/04/04 (4J04011-BL)	K1)										
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.00901			mg/l	0.0100		90	60-135			
LCS Analyzed: 10/04/04 (4J04011-BS1)											
GRO (C4 - C12)	0.260	0.10	0.050	mg/l	0.220		118	70-135			
Surrogate: 4-BFB (FID)	0.0103			mg/l	0.0100		103	60-135			
Matrix Spike Analyzed: 10/04/04 (4J040	11-MS1)				Sour	rce: INI1	420-03				
GRO (C4 - C12)	0.347	0.10	0.050	mg/l	0.220	0.22	58	60-135			M2
Surrogate: 4-BFB (FID)	0.00839			mg/l	0.0100		84	60-135			
rtrix Spike Dup Analyzed: 10/04/04 (4	J04011-MSD1)	)			Sour	ce: INI1	420-03				
.O (C4 - C12)	0.361	0.10	0.050	mg/l	0.220	0.22	64	60-135	4	20	
Surrogate: 4-BFB (FID)	0.00829			mg/l	0.0100		83	60-135			
Batch: 4J08013 Extracted: 10/08/04											
Blank Analyzed: 10/08/04 (4J08013-BLK	•										
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.00988			mg/l	0.0100		99	60-135			
LCS Analyzed: 10/08/04 (4J08013-BS1)											
GRO (C4 - C12)	0.251	0.10	0.050	mg/l	0.220		114	70-135			
Surrogate: 4-BFB (FID)	0.00985			mg/l	0.0100		98	60-135			
Matrix Spike Analyzed: 10/08/04 (4J080)	13-MS1)				Sour	ce: INJ0	015-01				
GRO (C4 - C12)	0.263	0.10	0.050	mg/l	0.220	ND	120	60-135			
Surrogate: 4-BFB (FID)	0.00983			mg/l	0.0100		98	60-135			

1 10ject Manager



1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1518

Sampled: 09/24/04 Received: 09/24/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

## METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J08013 Extracted: 10/08/04	<u>!</u>										
Matrix Spike Dup Analyzed: 10/08/04 (	4J08013-MSD1	.)			Sou	rce: INJ0	015-01				
GRO (C4 - C12)	0.279	0.10	0.050	mg/l	0.220	ND	127	60-135	6	20	
Surrogate: 4-BFB (FID)	0.0115			mg/l	0.0100		115	60-135			

1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/24/04

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI1518

Received: 09/24/04

## METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
•		Limit	WIDL	Onics	Level	Result	/OKEC	Limits	KI D	Limit	Quanners
Batch: 4J03010 Extracted: 10/03/04	<u>-</u>										
Blank Analyzed: 10/03/04 (4J03010-BL	K1)										
Acetone	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
Butylbenzene	ND	5.0	0.22	ug/l							
urbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	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	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/l							
2,2-Dichloropropane	ND	2.0	0.29	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
				-							

#### Pal Mar Analytical, Irvine

hele Harper

rioject Manager

1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/24/04

Pasadena, CA 91101 Attention: Bronwyn Kelly Report Number: INI1518

Received: 09/24/04

## METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4J03010 Extracted: 10/03/04	_										
Blank Analyzed: 10/03/04 (4J03010-BL											
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
hthalene	ND	5.0	0.41	ug/l							
ropylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	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	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	25	3.1	ug/i							
Surrogate: Dibromofluoromethane	23.8			ug/l	25.0		95	80-120			

## Pol Mar Analytical, Irvine

hele Harper

r 10ject Manager

1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1518

Sampled: 09/24/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

Received: 09/24/04

# METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Part			Reporting			Spike	Source		%REC		RPD	Data
Blank Analyzed: 10/03/04 (4J03010-BLK1)   Surrogate: Toluene-d8   25.6   19.7   25.0   94   80-120	Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Blank Analyzed: 10/03/04 (4J03010-BLK1)   Surrogate: Toluene-d8   25.6   19.7   25.0   94   80-120	Batch: 4J03010 Extracted: 10/03/04	1										
Surrogate: **Hornogluorobenzene*         25.6         ug/l         25.0         49.4         80-120           LCS Analyzed: 10/03/04 (4J03010-BS)         ug/l         25.0         94.8         80-120           LCS Analyzed: 10/03/04 (4J03010-BS)         ug/l         25.0         88.8         30-140           Benzene         24.8         2.0         0.28         ug/l         25.0         99.7         70-120           Bromochloromethane         24.6         5.0         0.27         ug/l         25.0         99.8         80-120           Bromodichloromethane         26.4         2.0         0.30         ug/l         25.0         106         70-140           Bromodichloromethane         26.6         5.0         0.32         ug/l         25.0         106         70-140           Bromodichloromethane         27.2         5.0         0.34         ug/l         25.0         106         70-140           Bromodichloromethane         27.2         5.0         0.34         ug/l         25.0         106         70-140           Bromodichloromethane         22.6         5.0         0.32         ug/l         25.0         105         75-130           cese-Butylbenzene         23.7         <												
Surrogate: 4-Bromofluorobenzene   23.6   19.6   19.6   25.0   94   80-120	Blank Analyzed: 10/03/04 (4J03010-BL	K1)										
CCS Analyzed: 10/03/04 (4J03010-BS1)	Surrogate: Toluene-d8	25.6			ug/l	25.0		102	80-120			
Acetone   21.9   10	Surrogate: 4-Bromofluorobenzene	23.6			ug/l	25.0		94	80-120			
Benzene   24.8   2.0   0.28   ug/l   25.0   99   70-120	LCS Analyzed: 10/03/04 (4J03010-BS1)	)										
Bromochloromethane   24.6   5.0   0.27   vg/l   25.0   98   80-120	Acetone	21.9	10	4.5	ug/l	25.0		88	30-140			
Bromochloromethane   29.5   5.0   0.32   vg/l   25.0   118   65-135	Benzene	24.8	2.0	0.28	ug/l	25.0		99	70-120			
Bromodichloromethane   26.4   2.0   0.30   ug/l   25.0   106   70-140	Bromobenzene	24.6	5.0	0.27	ug/l	25.0		98	80-120			
Bromoform   26.6   5.0   0.32   ug/l   25.0   106   55-135   106	Bromochloromethane	29.5	5.0	0.32	ug/l	25.0		118	65-135			
mmomethane         27.2         5.0         0.34         ug/l         25.0         109         60-140           utanone (MEK)         31.2         10         3.8         ug/l         25.0         125         40-135           n-Butylbenzene         23.7         5.0         0.17         ug/l         25.0         95         75-130           see-Butylbenzene         24.2         5.0         0.25         ug/l         25.0         97         75-125           tert-Butylbenzene         24.0         5.0         0.22         ug/l         25.0         96         75-125           Carbon tetrachloride         25.9         5.0         0.28         ug/l         25.0         104         70-140           Chloroferm         23.5         2.0         0.36         ug/l         25.0         104         70-140           Chloroform         25.6         2.0         0.33         ug/l         25.0         106         60-145           Chloroform         25.6         2.0         0.33         ug/l         25.0         102         75-130           Chlorotoluene         23.3         5.0         0.28         ug/l         25.0         99         40-145 <tr< td=""><td>Bromodichloromethane</td><td>26.4</td><td>2.0</td><td>0.30</td><td>ug/l</td><td>25.0</td><td></td><td>106</td><td>70-140</td><td></td><td></td><td></td></tr<>	Bromodichloromethane	26.4	2.0	0.30	ug/l	25.0		106	70-140			
utanone (MEK)         31.2         10         3.8         ug/l         25.0         125         40-135           n-Butylbenzene         23.7         5.0         0.17         ug/l         25.0         95         75-130           see-Butylbenzene         24.2         5.0         0.25         ug/l         25.0         97         75-125           Carbon tetrachloride         25.9         5.0         0.28         ug/l         25.0         96         75-125           Chlorobenzene         23.5         2.0         0.36         ug/l         25.0         94         80-125           Chlorochane         26.4         5.0         0.33         ug/l         25.0         106         60-145           Chloroform         25.6         2.0         0.33         ug/l         25.0         102         75-130           Chlorotoluene         23.0         5.0         0.28         ug/l         25.0         102         75-130           Chlorotoluene         23.3         5.0         0.29         ug/l         25.0         99         40-145           2-Chlorotoluene         23.3         5.0         0.29         ug/l         25.0         93         75-125	Bromoform	26.6	5.0	0.32	ug/l	25.0		106	55-135			
n-Butylbenzene         23.7         5.0         0.17         ug/l         25.0         95         75-130           sec-Butylbenzene         24.2         5.0         0.25         ug/l         25.0         97         75-125           tert-Butylbenzene         24.0         5.0         0.22         ug/l         25.0         96         75-125           Carbon tetrachloride         25.9         5.0         0.28         ug/l         25.0         104         70-140           Chlorobenzene         23.5         2.0         0.36         ug/l         25.0         104         70-140           Chloroferm         25.6         2.0         0.33         ug/l         25.0         106         60-145           Chloroferm         25.6         2.0         0.33         ug/l         25.0         102         75-130           Chlorofuluene         23.0         5.0         0.28         ug/l         25.0         99         40-145           2-Chlorofuluene         23.3         5.0         0.29         ug/l         25.0         92         75-125           4-Chlorofuluene         27.2         2.0         0.28         ug/l         25.0         93         75-125 <td>momethane</td> <td>27.2</td> <td>5.0</td> <td>0.34</td> <td>ug/l</td> <td>25.0</td> <td></td> <td>109</td> <td>60-140</td> <td></td> <td></td> <td></td>	momethane	27.2	5.0	0.34	ug/l	25.0		109	60-140			
see-Butylbenzene         24.2         5.0         0.25         ug/l         25.0         97         75-125           tert-Butylbenzene         24.0         5.0         0.22         ug/l         25.0         96         75-125           Carbon tetrachloride         25.9         5.0         0.28         ug/l         25.0         104         70-140           Chlorobenzene         23.5         2.0         0.36         ug/l         25.0         94         80-125           Chloroform         25.6         2.0         0.33         ug/l         25.0         106         60-145           Chloroform         25.6         2.0         0.33         ug/l         25.0         102         75-130           Chlorotoluene         23.0         5.0         0.28         ug/l         25.0         99         40-145           2-Chlorotoluene         23.3         5.0         0.28         ug/l         25.0         92         75-125           4-Chlorotoluene         23.3         5.0         0.28         ug/l         25.0         93         75-125           1/2-Dibromorethane         27.2         2.0         0.28         ug/l         25.0         135         1125     <	utanone (MEK)	31.2	10	3.8	ug/l	25.0		125	40-135			
terr-Butylbenzene         24.0         5.0         0.22         ug/l         25.0         96         75-125           Carbon tetrachloride         25.9         5.0         0.28         ug/l         25.0         104         70-140           Chlorobenzene         23.5         2.0         0.36         ug/l         25.0         94         80-125           Chloroform         25.6         2.0         0.33         ug/l         25.0         106         60-145           Chloromethane         24.8         5.0         0.33         ug/l         25.0         102         75-130           Chloromethane         24.8         5.0         0.30         ug/l         25.0         99         40-145           2-Chlorotoluene         23.0         5.0         0.28         ug/l         25.0         92         75-125           4-Chlorotoluene         23.3         5.0         0.29         ug/l         25.0         92         75-125           Dibromochloromethane         27.2         2.0         0.28         ug/l         25.0         109         65-145           1,2-Dibromochlane (EDB)         28.3         2.0         0.32         ug/l         25.0         110         75	n-Butylbenzene	23.7	5.0	0.17	ug/l	25.0		95	75-130			
Carbon tetrachloride         25.9         5.0         0.28         ug/l         25.0         104         70-140           Chlorobenzene         23.5         2.0         0.36         ug/l         25.0         94         80-125           Chloroethane         26.4         5.0         0.33         ug/l         25.0         106         60-145           Chloroform         25.6         2.0         0.33         ug/l         25.0         102         75-130           Chloromethane         24.8         5.0         0.30         ug/l         25.0         99         40-145           2-Chlorotoluene         23.0         5.0         0.28         ug/l         25.0         92         75-125           4-Chlorotoluene         23.3         5.0         0.29         ug/l         25.0         92         75-125           4-Chlorotoluene         23.3         5.0         0.29         ug/l         25.0         93         75-125           Dibromochloromethane         27.2         2.0         0.28         ug/l         25.0         109         65-145           1,2-Dibromochlane (EDB)         28.3         2.0         0.32         ug/l         25.0         110         75-13	sec-Butylbenzene	24.2	5.0	0.25	ug/l	25.0		97	75-125			
Chlorobenzene 23.5 2.0 0.36 ug/l 25.0 94 80-125 Chlorothane 26.4 5.0 0.33 ug/l 25.0 106 60-145 Chloroform 25.6 2.0 0.33 ug/l 25.0 102 75-130 Chloromethane 24.8 5.0 0.30 ug/l 25.0 99 40-145 2-Chlorotoluene 23.0 5.0 0.28 ug/l 25.0 99 40-145 2-Chlorotoluene 23.3 5.0 0.29 ug/l 25.0 92 75-125 4-Chlorotolomehlane 27.2 2.0 0.28 ug/l 25.0 93 75-125 Dibromo-3-chloropropane 25.4 5.0 0.92 ug/l 25.0 109 65-145 1,2-Dibromo-3-chloropropane 25.4 5.0 0.92 ug/l 25.0 109 65-145 1,2-Dibromo-thane (EDB) 28.3 2.0 0.32 ug/l 25.0 110 75-130 1,2-Dichlorobenzene 25.2 2.0 0.36 ug/l 25.0 110 75-130 1,2-Dichlorobenzene 25.2 2.0 0.32 ug/l 25.0 110 75-130 1,4-Dichlorobenzene 23.6 2.0 0.35 ug/l 25.0 101 80-120 1,4-Dichlorobenzene 23.6 2.0 0.37 ug/l 25.0 94 80-120 1,4-Dichlorobenzene 24.9 5.0 0.79 ug/l 25.0 100 10-160 1,1-Dichlorothane 26.2 2.0 0.27 ug/l 25.0 105 70-135 1,2-Dichlorotethane 26.2 2.0 0.28 ug/l 25.0 105 70-135 1,2-Dichlorotethane 26.2 2.0 0.28 ug/l 25.0 105 70-135 1,1-Dichlorotethane 26.2 2.0 0.27 ug/l 25.0 105 75-135 cis-1,2-Dichlorotethene 24.8 2.0 0.32 ug/l 25.0 99 70-125 trans-1,2-Dichlorotethene 24.8 2.0 0.32 ug/l 25.0 105 75-135 cis-1,2-Dichlorotethene 24.8 2.0 0.32 ug/l 25.0 101 70-130	tert-Butylbenzene	24.0	5.0	0.22	ug/l	25.0		96	75-125			
Chlorothane 26.4 5.0 0.33 ug/l 25.0 106 60-145  Chloroform 25.6 2.0 0.33 ug/l 25.0 102 75-130  Chloromethane 24.8 5.0 0.30 ug/l 25.0 99 40-145  2-Chlorotoluene 23.0 5.0 0.28 ug/l 25.0 99 40-145  2-Chlorotoluene 23.3 5.0 0.29 ug/l 25.0 92 75-125  Dibromochloromethane 27.2 2.0 0.28 ug/l 25.0 109 65-145  1,2-Dibromo-3-chloropropane 25.4 5.0 0.92 ug/l 25.0 109 65-145  1,2-Dibromo-dhane (EDB) 28.3 2.0 0.32 ug/l 25.0 102 50-135  Dibromomethane 27.4 2.0 0.36 ug/l 25.0 113 75-125  Dibromomethane 27.4 2.0 0.36 ug/l 25.0 110 75-130  1,2-Dichlorobenzene 25.2 2.0 0.32 ug/l 25.0 110 75-130  1,2-Dichlorobenzene 23.6 2.0 0.35 ug/l 25.0 101 80-120  1,3-Dichlorobenzene 23.6 2.0 0.37 ug/l 25.0 94 80-120  Dichlorodifluoromethane 24.9 5.0 0.79 ug/l 25.0 100 10-160  1,1-Dichlorothane 26.2 2.0 0.27 ug/l 25.0 105 70-135  1,2-Dichlorotethane 26.0 2.0 0.32 ug/l 25.0 104 60-150  1,1-Dichlorotethane 26.0 2.0 0.28 ug/l 25.0 104 60-150  1,1-Dichlorotethane 26.2 2.0 0.28 ug/l 25.0 104 60-150  1,1-Dichlorotethane 26.2 5.0 0.32 ug/l 25.0 104 60-150  1,1-Dichlorotethane 26.2 5.0 0.32 ug/l 25.0 105 75-135  cis-1,2-Dichlorotethene 24.8 2.0 0.32 ug/l 25.0 199 70-125  trans-1,2-Dichlorotethene 27.7 2.0 0.27 ug/l 25.0 111 70-130	Carbon tetrachloride	25.9	5.0	0.28	ug/l	25.0		104	70-140			
Chloroform         25.6         2.0         0.33         ug/l         25.0         102         75-130           Chloromethane         24.8         5.0         0.30         ug/l         25.0         99         40-145           2-Chlorotoluene         23.0         5.0         0.28         ug/l         25.0         92         75-125           4-Chlorotoluene         23.3         5.0         0.29         ug/l         25.0         93         75-125           Dibromochloromethane         27.2         2.0         0.28         ug/l         25.0         109         65-145           1,2-Dibromo-3-chloropropane         25.4         5.0         0.92         ug/l         25.0         102         50-135           1,2-Dibromoethane (EDB)         28.3         2.0         0.32         ug/l         25.0         113         75-125           Dibromomethane         27.4         2.0         0.36         ug/l         25.0         110         75-130           1,2-Dichlorobenzene         25.2         2.0         0.32         ug/l         25.0         101         80-120           1,4-Dichlorobenzene         23.6         2.0         0.37         ug/l         25.0         94 <td>Chlorobenzene</td> <td>23.5</td> <td>2.0</td> <td>0.36</td> <td>ug/l</td> <td>25.0</td> <td></td> <td>94</td> <td>80-125</td> <td></td> <td></td> <td></td>	Chlorobenzene	23.5	2.0	0.36	ug/l	25.0		94	80-125			
Chloromethane         24.8         5.0         0.30         ug/l         25.0         99         40-145           2-Chlorotoluene         23.0         5.0         0.28         ug/l         25.0         92         75-125           4-Chlorotoluene         23.3         5.0         0.29         ug/l         25.0         93         75-125           Dibromochloromethane         27.2         2.0         0.28         ug/l         25.0         109         65-145           1,2-Dibromo-3-chloropropane         25.4         5.0         0.92         ug/l         25.0         102         50-135           1,2-Dibromoethane (EDB)         28.3         2.0         0.32         ug/l         25.0         113         75-125           Dibromomethane         27.4         2.0         0.36         ug/l         25.0         110         75-130           1,2-Dichlorobenzene         25.2         2.0         0.32         ug/l         25.0         101         80-120           1,4-Dichlorobenzene         23.6         2.0         0.37         ug/l         25.0         94         80-120           Dichlorodifluoromethane         24.9         5.0         0.79         ug/l         25.0	Chloroethane	26.4	5.0	0.33	ug/l	25.0		106	60-145			
2-Chlorotoluene       23.0       5.0       0.28       ug/l       25.0       92       75-125         4-Chlorotoluene       23.3       5.0       0.29       ug/l       25.0       93       75-125         Dibromochloromethane       27.2       2.0       0.28       ug/l       25.0       109       65-145         1,2-Dibromo-3-chloropropane       25.4       5.0       0.92       ug/l       25.0       102       50-135         1,2-Dibromoethane (EDB)       28.3       2.0       0.32       ug/l       25.0       113       75-125         Dibromomethane       27.4       2.0       0.36       ug/l       25.0       110       75-130         1,2-Dichlorobenzene       25.2       2.0       0.32       ug/l       25.0       101       80-120         1,3-Dichlorobenzene       23.6       2.0       0.35       ug/l       25.0       94       80-120         1,4-Dichlorobenzene       23.6       2.0       0.37       ug/l       25.0       94       80-120         Dichlorodifluoromethane       24.9       5.0       0.79       ug/l       25.0       100       10-160         1,1-Dichloroethane       26.2       2.0       0.	Chloroform	25.6	2.0	0.33	ug/l	25.0		102	75-130			
4-Chlorotoluene       23.3       5.0       0.29       ug/l       25.0       93       75-125         Dibromochloromethane       27.2       2.0       0.28       ug/l       25.0       109       65-145         1,2-Dibromo-3-chloropropane       25.4       5.0       0.92       ug/l       25.0       102       50-135         1,2-Dibromoethane (EDB)       28.3       2.0       0.32       ug/l       25.0       113       75-125         Dibromomethane       27.4       2.0       0.36       ug/l       25.0       110       75-130         1,2-Dichlorobenzene       25.2       2.0       0.32       ug/l       25.0       101       80-120         1,3-Dichlorobenzene       23.6       2.0       0.37       ug/l       25.0       94       80-120         1,4-Dichloroethane       24.9       5.0       0.79       ug/l       25.0       94       80-120         1,1-Dichloroethane       26.2       2.0       0.27       ug/l       25.0       105       70-135         1,2-Dichloroethane       26.2       2.0       0.28       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0	Chloromethane	24.8	5.0	0.30	ug/l	25.0		99	40-145			
Dibromochloromethane       27.2       2.0       0.28       ug/l       25.0       109       65-145         1,2-Dibromo-3-chloropropane       25.4       5.0       0.92       ug/l       25.0       102       50-135         1,2-Dibromoethane (EDB)       28.3       2.0       0.32       ug/l       25.0       113       75-125         Dibromomethane       27.4       2.0       0.36       ug/l       25.0       110       75-130         1,2-Dichlorobenzene       25.2       2.0       0.32       ug/l       25.0       101       80-120         1,3-Dichlorobenzene       23.6       2.0       0.35       ug/l       25.0       94       80-120         1,4-Dichlorobenzene       23.6       2.0       0.37       ug/l       25.0       94       80-120         Dichlorodifluoromethane       24.9       5.0       0.79       ug/l       25.0       100       10-160         1,1-Dichloroethane       26.2       2.0       0.27       ug/l       25.0       105       70-135         1,2-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       104       60-150         1,1-Dichloroethene       24.8       2.0	2-Chlorotoluene	23.0	5.0	0.28	ug/l	25.0		92	75-125			
1,2-Dibromo-3-chloropropane       25.4       5.0       0.92       ug/l       25.0       102       50-135         1,2-Dibromoethane (EDB)       28.3       2.0       0.32       ug/l       25.0       113       75-125         Dibromomethane       27.4       2.0       0.36       ug/l       25.0       110       75-130         1,2-Dichlorobenzene       25.2       2.0       0.32       ug/l       25.0       101       80-120         1,3-Dichlorobenzene       23.6       2.0       0.35       ug/l       25.0       94       80-120         1,4-Dichlorobenzene       23.6       2.0       0.37       ug/l       25.0       94       80-120         Dichlorodifluoromethane       24.9       5.0       0.79       ug/l       25.0       100       10-160         1,1-Dichloroethane       26.2       2.0       0.27       ug/l       25.0       105       70-135         1,2-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       111       70-125         trans-1,2-Dichloroethene       27.7       2.0 </td <td>4-Chlorotoluene</td> <td>23.3</td> <td>5.0</td> <td>0.29</td> <td>ug/l</td> <td>25.0</td> <td></td> <td>93</td> <td>75-125</td> <td></td> <td></td> <td></td>	4-Chlorotoluene	23.3	5.0	0.29	ug/l	25.0		93	75-125			
1,2-Dibromoethane (EDB)       28.3       2.0       0.32       ug/l       25.0       113       75-125         Dibromomethane       27.4       2.0       0.36       ug/l       25.0       110       75-130         1,2-Dichlorobenzene       25.2       2.0       0.32       ug/l       25.0       101       80-120         1,3-Dichlorobenzene       23.6       2.0       0.35       ug/l       25.0       94       80-120         1,4-Dichlorobenzene       23.6       2.0       0.37       ug/l       25.0       94       80-120         Dichlorodifluoromethane       24.9       5.0       0.79       ug/l       25.0       100       10-160         1,1-Dichloroethane       26.2       2.0       0.27       ug/l       25.0       105       70-135         1,2-Dichloroethene       26.0       2.0       0.28       ug/l       25.0       104       60-150         1,1-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       99       70-125         trans-1,2-Dichloroethene       27.7       2.0	Dibromochloromethane	27.2	2.0	0.28	ug/l	25.0		109	65-145			
Dibromomethane       27.4       2.0       0.36       ug/l       25.0       110       75-130         1,2-Dichlorobenzene       25.2       2.0       0.32       ug/l       25.0       101       80-120         1,3-Dichlorobenzene       23.6       2.0       0.35       ug/l       25.0       94       80-120         1,4-Dichlorobenzene       23.6       2.0       0.37       ug/l       25.0       94       80-120         Dichlorodifluoromethane       24.9       5.0       0.79       ug/l       25.0       100       10-160         1,1-Dichloroethane       26.2       2.0       0.27       ug/l       25.0       105       70-135         1,2-Dichloroethane       26.0       2.0       0.28       ug/l       25.0       104       60-150         1,1-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       99       70-125         trans-1,2-Dichloroethene       27.7       2.0       0.27       ug/l       25.0       111       70-130	1,2-Dibromo-3-chloropropane	25.4	5.0	0.92	ug/l	25.0		102	50-135			
1,2-Dichlorobenzene       25.2       2.0       0.32       ug/l       25.0       101       80-120         1,3-Dichlorobenzene       23.6       2.0       0.35       ug/l       25.0       94       80-120         1,4-Dichlorobenzene       23.6       2.0       0.37       ug/l       25.0       94       80-120         Dichlorodifluoromethane       24.9       5.0       0.79       ug/l       25.0       100       10-160         1,1-Dichloroethane       26.2       2.0       0.27       ug/l       25.0       105       70-135         1,2-Dichloroethane       26.0       2.0       0.28       ug/l       25.0       104       60-150         1,1-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       99       70-125         trans-1,2-Dichloroethene       27.7       2.0       0.27       ug/l       25.0       111       70-130	1,2-Dibromoethane (EDB)	28.3	2.0	0.32	ug/l	25.0		113	75-125			
1,3-Dichlorobenzene       23.6       2.0       0.35       ug/l       25.0       94       80-120         1,4-Dichlorobenzene       23.6       2.0       0.37       ug/l       25.0       94       80-120         Dichlorodifluoromethane       24.9       5.0       0.79       ug/l       25.0       100       10-160         1,1-Dichloroethane       26.2       2.0       0.27       ug/l       25.0       105       70-135         1,2-Dichloroethane       26.0       2.0       0.28       ug/l       25.0       104       60-150         1,1-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       99       70-125         trans-1,2-Dichloroethene       27.7       2.0       0.27       ug/l       25.0       111       70-130	Dibromomethane	27.4	2.0	0.36	ug/l	25.0		110	75-130			
1,4-Dichlorobenzene       23.6       2.0       0.37       ug/l       25.0       94       80-120         Dichlorodifluoromethane       24.9       5.0       0.79       ug/l       25.0       100       10-160         1,1-Dichloroethane       26.2       2.0       0.27       ug/l       25.0       105       70-135         1,2-Dichloroethane       26.0       2.0       0.28       ug/l       25.0       104       60-150         1,1-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       99       70-125         trans-1,2-Dichloroethene       27.7       2.0       0.27       ug/l       25.0       111       70-130	1,2-Dichlorobenzene	25.2	2.0	0.32	ug/l	25.0		101	80-120			
Dichlorodifluoromethane       24.9       5.0       0.79       ug/l       25.0       100       10-160         1,1-Dichloroethane       26.2       2.0       0.27       ug/l       25.0       105       70-135         1,2-Dichloroethane       26.0       2.0       0.28       ug/l       25.0       104       60-150         1,1-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       99       70-125         trans-1,2-Dichloroethene       27.7       2.0       0.27       ug/l       25.0       111       70-130	1,3-Dichlorobenzene	23.6	2.0	0.35	ug/l	25.0		94	80-120			
1,1-Dichloroethane       26.2       2.0       0.27       ug/l       25.0       105       70-135         1,2-Dichloroethane       26.0       2.0       0.28       ug/l       25.0       104       60-150         1,1-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       99       70-125         trans-1,2-Dichloroethene       27.7       2.0       0.27       ug/l       25.0       111       70-130	1,4-Dichlorobenzene	23.6	2.0	0.37	ug/l	25.0		94	80-120			
1,2-Dichloroethane       26.0       2.0       0.28       ug/l       25.0       104       60-150         1,1-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       99       70-125         trans-1,2-Dichloroethene       27.7       2.0       0.27       ug/l       25.0       111       70-130	Dichlorodifluoromethane	24.9	5.0	0.79	ug/l	25.0		100	10-160			
1,1-Dichloroethene       26.2       5.0       0.32       ug/l       25.0       105       75-135         cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       99       70-125         trans-1,2-Dichloroethene       27.7       2.0       0.27       ug/l       25.0       111       70-130	1,1-Dichloroethane	26.2	2.0	0.27	ug/l	25.0		105	70-135			
cis-1,2-Dichloroethene       24.8       2.0       0.32       ug/l       25.0       99       70-125         trans-1,2-Dichloroethene       27.7       2.0       0.27       ug/l       25.0       111       70-130	1,2-Dichloroethane	26.0	2.0	0.28	ug/l	25.0		104	60-150			
trans-1,2-Dichloroethene 27.7 2.0 0.27 ug/l 25.0 111 70-130	1,1-Dichloroethene	26.2	5.0	0.32	ug/l	25.0		105	75-135			
	cis-1,2-Dichloroethene	24.8	2.0	0.32	ug/l	25.0		99	70-125			
1,2-Dichloropropane 25.9 2.0 0.35 ug/l 25.0 104 70-120	trans-1,2-Dichloroethene	27.7	2.0	0.27	ug/l	25.0		111	70-130			
	1,2-Dichloropropane	25.9	2.0	0.35	ug/l	25.0		104	70-120			

# Pol Mar Analytical, Irvine

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1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

Attention: Bronwyn Kelly

# METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J03010 Extracted: 10/03/04											
Dutch Hotolic Englands I I I I I I I I I I I I I I I I I I I	•										
LCS Analyzed: 10/03/04 (4J03010-BS1)											
1,3-Dichloropropane	26.8	2.0	0.30	ug/l	25.0		107	70-130			
2,2-Dichloropropane	26.5	2.0	0.29	ug/l	25.0		106	65-150			
1,1-Dichloropropene	25.2	2.0	0.28	ug/l	25.0		101	75-130			
cis-1,3-Dichloropropene	26.8	2.0	0.22	ug/l	25.0		107	75-130			
trans-1,3-Dichloropropene	28.1	2.0	0.24	ug/l	25.0		112	75-135			
Ethylbenzene	25.4	2.0	0.25	ug/l	25.0		102	80-120			
Hexachlorobutadiene	22.7	5.0	0.38	ug/l	25.0		91	65-140			
2-Hexanone	31.7	10	2.6	ug/l	25.0		127	40-140			
Isopropylbenzene	25.1	2.0	0.25	ug/l	25.0		100	75-125			
p-Isopropyltoluene	23.4	2.0	0.28	ug/l	25.0		94	75-125			
hylene chloride	24.9	5.0	0.48	ug/l	25.0		100	60-135			
Methyl-2-pentanone (MIBK)	31.3	10	2.5	ug/l	25.0		125	40-140			
Methyl-tert-butyl Ether (MTBE)	29.4	5.0	0.32	ug/l	25.0		118	55-145			
Naphthalene	28.3	5.0	0.41	ug/l	25.0		113	50-145			
n-Propylbenzene	23.9	2.0	0.14	ug/l	25.0		96	75-130			
Styrene	27.2	2.0	0.16	ug/l	25.0		109	80-135			
1,1,1,2-Tetrachloroethane	25.2	5.0	0.27	ug/l	25.0		101	70-145			
1,1,2,2-Tetrachloroethane	29.5	2.0	0.24	ug/l	25.0		118	60-135			
Tetrachloroethene	25.9	2.0	0.32	ug/l	25.0		104	75-125			
Toluene	24.8	2.0	0.36	ug/l	25.0		99	75-120			
1,2,3-Trichlorobenzene	28.0	5.0	0.45	ug/l	25.0		112	65-135			
1,2,4-Trichlorobenzene	26.3	5.0	0.48	ug/l	25.0		105	70-140			
1,1,1-Trichloroethane	25.6	2.0	0.30	ug/l	25.0		102	75-140			
1,1,2-Trichloroethane	27.4	2.0	0.30	ug/l	25.0		110	70-125			
Trichloroethene	25.6	2.0	0.26	ug/l	25.0		102	80-120			
Trichlorofluoromethane	26.9	5.0	0.34	ug/l	25.0		108	65-145			
1,2,3-Trichloropropane	29.3	10	0.85	ug/l	25.0		117	60-130			
1,2,4-Trimethylbenzene	24.4	2.0	0.23	ug/l	25.0		98	75-125			
1,3,5-Trimethylbenzene	26.4	2.0	0.26	ug/l	25.0		106	75-125			
Vinyl chloride	23.9	5.0	0.26	ug/l	25.0		96	50-130			
o-Xylene	25.3	2.0	0.24	ug/l	25.0		101	75-125			
m,p-Xylenes	51.2	2.0	0.52	ug/l	50.0		102	75-120			
Di-isopropyl Ether (DIPE)	28.3	5.0	0.25	ug/l	25.0		113	65-135			
Ethyl tert-Butyl Ether (ETBE)	28.0	5.0	0.28	ug/l	25.0		112	60-140			
tert-Amyl Methyl Ether (TAME)	30.2	5.0	0.33	ug/l	25.0		121	60-140			

#### Pel Mar Analytical, Irvine

hele Harper

1 10ject Manager



WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1518

Sampled: 09/24/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

Received: 09/24/04

# METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD	Data
·		Limit	MIDL	Units	Level	Kesuit	70REC	Limits	KPD	Limit	Qualifiers
Batch: 4J03010 Extracted: 10/03/04	-										
LCS Analyzed: 10/03/04 (4J03010-BS1)											
tert-Butanol (TBA)	128	25	3.1	ug/l	125		102	70-140			
Surrogate: Dibromofluoromethane	25.8			ug/l	25.0		103	80-120			
Surrogate: Toluene-d8	24.7			ug/l	25.0		99	80-120			
Surrogate: 4-Bromofluorobenzene	25.2			ug/l	25.0		101	80-120			
Matrix Spike Analyzed: 10/03/04 (4J030	10-MS1)				Sou	rce: INI1	601-01				
Acetone	24.1	10	4.5	ug/l	25.0	11	52	10-150			
Benzene	25.9	2.0	0.28	ug/l	25.0	ND	104	70-120			
Bromobenzene	26.9	5.0	0.27	ug/l	25.0	ND	108	65-130			
Bromochloromethane	27.0	5.0	0.32	ug/l	25.0	ND	108	65-140			
modichloromethane	27.1	2.0	0.30	ug/l	25.0	ND	108	70-140			
moform	24.1	5.0	0.32	ug/l	25.0	ND	96	55-140			
Bromomethane	29.0	5.0	0.34	ug/l	25.0	ND	116	50-145			
2-Butanone (MEK)	22.7	10	3.8	ug/l	25.0	ND	91	30-145			
n-Butylbenzene	28.0	5.0	0.17	ug/l	25.0	ND	112	70-140			
sec-Butylbenzene	26.4	5.0	0.25	ug/l	25.0	ND	106	70-130			
tert-Butylbenzene	26.1	5.0	0.22	ug/l	25.0	ND	104	70-130			
Carbon tetrachloride	27.5	5.0	0.28	ug/l	25.0	ND	110	70-145			
Chlorobenzene	25.7	2.0	0.36	ug/l	25.0	ND	103	80-125			
Chloroethane	27.0	5.0	0.33	ug/l	25.0	ND	108	50-145			
Chloroform	27.6	2.0	0.33	ug/l	25.0	ND	110	70-135			
Chloromethane	24.4	5.0	0.30	ug/l	25.0	ND	98	35-145			
2-Chlorotoluene	25.5	5.0	0.28	ug/l	25.0	ND	102	70-140			
4-Chlorotoluene	25.6	5.0	0.29	ug/l	25.0	ND	102	70-140			
Dibromochloromethane	27.4	2.0	0.28	ug/l	25.0	ND	110	65-145			
1,2-Dibromo-3-chloropropane	24.8	5.0	0.92	ug/l	25.0	ND	99	45-155			
1,2-Dibromoethane (EDB)	26.2	2.0	0.32	ug/l	25.0	ND	105	70-130			
Dibromomethane	26.3	2.0	0.36	ug/l	25.0	ND	105	65-140			
1,2-Dichlorobenzene	27.1	2.0	0.32	ug/l	25.0	ND	108	75-130			
1,3-Dichlorobenzene	25.2	2.0	0.35	ug/l	25.0	ND	101	75-130			
1,4-Dichlorobenzene	26.4	2.0	0.37	ug/l	25.0	ND	106	80-120			
Dichlorodifluoromethane	25.6	5.0	0.79	ug/l	25.0	ND	102	10-160			
1,1-Dichloroethane	26.2	2.0	0.27	ug/l	25.0	ND	105	65-135			
1,2-Dichloroethane	28.6	2.0	0.28	ug/l	25.0	1.5	108	60-150			
1,1-Dichloroethene	25.2	5.0	0.32	ug/l	25.0	ND	101	65-140			
cis-1,2-Dichloroethene	24.6	2.0	0.32	ug/l	25.0	ND	98	65-130			

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17461Derian 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) 505-859 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) 798-3620

1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

Pasadena, CA 91101 Attention: Bronwyn Kelly

# METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J03010 Extracted: 10/03/04	_										
Matrix Spike Analyzed: 10/03/04 (4J030	)10-MS1)				Sou	rce: INI1	601-01				
trans-1,2-Dichloroethene	25.8	2.0	0.27	ug/l	25.0	ND	103	65-135			
1,2-Dichloropropane	26.4	2.0	0.35	ug/l	25.0	ND	106	65-130			
1,3-Dichloropropane	26.0	2.0	0.30	ug/l	25.0	ND	104	65-140			
2,2-Dichloropropane	28.2	2.0	0.29	ug/l	25.0	ND	113	60-150			
1,1-Dichloropropene	26.8	2.0	0.28	ug/l	25.0	ND	107	65-140			
cis-1,3-Dichloropropene	26.4	2.0	0.22	ug/l	25.0	ND	106	70-140			
trans-1,3-Dichloropropene	27.8	2.0	0.24	ug/l	25.0	ND	111	70-140			
Ethylbenzene	25.6	2.0	0.25	ug/l	25.0	ND	102	70-130			
Hexachlorobutadiene	25.7	5.0	0.38	ug/l	25.0	ND	103	65-140			
2-Hexanone	25.2	10	2.6	ug/l	25.0	ND	101	20-145			
propylbenzene	28.2	2.0	0.25	ug/l	25.0	ND	113	70-130			
r-isopropyltoluene	26.7	2.0	0.28	ug/l	25.0	ND	107	70-130			
Methylene chloride	23.2	5.0	0.48	ug/l	25.0	ND	93	60-135			
4-Methyl-2-pentanone (MIBK)	25.3	10	2.5	ug/l	25.0	ND	101	40-145			
Methyl-tert-butyl Ether (MTBE)	26.8	5.0	0.32	ug/l	25.0	ND	107	50-155			
Naphthalene	25.8	5.0	0.41	ug/l	25.0	ND	103	50-150			
n-Propylbenzene	26.6	2.0	0.14	ug/l	25.0	ND	106	70-135			
Styrene	26.3	2.0	0.16	ug/l	25.0	ND	105	55-145			
1,1,1,2-Tetrachloroethane	25.8	5.0	0.27	ug/l	25.0	ND	103	70-145			
1,1,2,2-Tetrachloroethane	28.1	2.0	0.24	ug/l	25.0	ND	112	60-145			
Tetrachloroethene	26.8	2.0	0.32	ug/l	25.0	ND	107	70-130			
Toluene	26.3	2.0	0.36	ug/l	25.0	ND	105	70-120			
1,2,3-Trichlorobenzene	27.0	5.0	0.45	ug/l	25.0	ND	108	60-140			
1,2,4-Trichlorobenzene	27.8	5.0	0.48	ug/l	25.0	ND	111	60-140			
1,1,1-Trichloroethane	26.5	2.0	0.30	ug/l	25.0	ND	106	75-140			
1,1,2-Trichloroethane	27.2	2.0	0.30	ug/l	25.0	ND	109	60-135			
Trichloroethene	25.6	2.0	0.26	ug/l	25.0	ND	102	70-125			
Trichlorofluoromethane	27.9	5.0	0.34	ug/l	25.0	ND	112	55-145			
1,2,3-Trichloropropane	26.6	10	0.85	ug/l	25.0	ND	106	55-140			
1,2,4-Trimethylbenzene	26.3	2.0	0.23	ug/l	25.0	ND	105	60-125			
1,3,5-Trimethylbenzene	27.7	2.0	0.26	ug/l	25.0	ND	111	70-130			
Vinyl chloride	26.2	5.0	0.26	ug/l	25.0	ND	105	40-135			
o-Xylene	26.5	2.0	0.24	ug/l	25.0	ND	106	65-125			
m,p-Xylenes	52.9	2.0	0.52	ug/l	50.0	ND	106	65-130			
Di-isopropyl Ether (DIPE)	27.4	5.0	0.25	ug/l	25.0	ND	110	65-140			

# Pel Mar Analytical, Irvine

hele Harper

r roject Manager

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4WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

# METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Ameliate	Danulé	Reporting	MDI	¥7	Spike	Source	0/ DEC	%REC	nnn	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Kesuit	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J03010 Extracted: 10/03/04	•										
Matrix Spike Analyzed: 10/03/04 (4J030					Sou	rce: INI1	601-01				
Ethyl tert-Butyl Ether (ETBE)	27.6	5.0	0.28	ug/l	25.0	ND	110	60-140			
tert-Amyl Methyl Ether (TAME)	27.6	5.0	0.33	ug/l	25.0	ND	110	55-145			
tert-Butanol (TBA)	135	25	3.1	ug/l	125	ND	108	65-145			
Surrogate: Dibromofluoromethane	24.2			ug/l	25.0		97	80-120			
Surrogate: Toluene-d8	25.0			ug/l	25.0		100	80-120			
Surrogate: 4-Bromofluorobenzene	25.2			ug/l	25.0		101	80-120			
Matrix Spike Dup Analyzed: 10/03/04 (4	J03010-MSD	1)			Sou	rce: INI1	601-01				
Acetone	29.3	10	4.5	ug/l	25.0	11	73	10-150	19	35	
Benzene	26.0	2.0	0.28	ug/l	25.0	ND	104	70-120	0	20	
omobenzene	24.9	5.0	0.27	ug/l	25.0	ND	100	65-130	8	20	
omochloromethane	29.2	5.0	0.32	ug/l	25.0	ND	117	65-140	8	25	
Bromodichloromethane	27.4	2.0	0.30	ug/l	25.0	ND	110	70-140	1	20	
Bromoform	24.5	5.0	0.32	ug/l	25.0	ND	98	55-140	2	25	
Bromomethane	28.0	5.0	0.34	ug/l	25.0	ND	112	50-145	4	25	
2-Butanone (MEK)	28.5	10	3.8	ug/l	25.0	ND	114	30-145	23	40	
n-Butylbenzene	24.1	5.0	0.17	ug/l	25.0	ND	96	70-140	15	20	
sec-Butylbenzene	23.9	5.0	0.25	ug/l	25.0	ND	96	70-130	10	20	
tert-Butylbenzene	24.9	5.0	0.22	ug/l	25.0	ND	100	70-130	5	20	
Carbon tetrachloride	27.6	5.0	0.28	ug/l	25.0	ND	110	70-145	0	25	
Chlorobenzene	24.4	2.0	0.36	ug/l	25.0	ND	98	80-125	5	20	
Chloroethane	26.4	5.0	0.33	ug/l	25.0	ND	106	50-145	2	25	
Chloroform	26.1	2.0	0.33	ug/l	25.0	ND	104	70-135	6	20	
Chloromethane	24.6	5.0	0.30	ug/l	25.0	ND	98	35-145	1	25	
2-Chlorotoluene	24.2	5.0	0.28	ug/l	25.0	ND	97	70-140	5	20	
4-Chlorotoluene	23.9	5.0	0.29	ug/l	25.0	ND	96	70-140	7	20	
Dibromochloromethane	29.0	2.0	0.28	ug/l	25.0	ND	116	65-145	6	25	
1,2-Dibromo-3-chloropropane	25.9	5.0	0.92	ug/l	25.0	ND	104	45-155	4	30	
1,2-Dibromoethane (EDB)	28.4	2.0	0.32	ug/l	25.0	ND	114	70-130	8	25	
Dibromomethane	28.8	2.0	0.36	ug/l	25.0	ND	115	65-140	9	25	
1,2-Dichlorobenzene	23.6	2.0	0.32	ug/l	25.0	ND	94	75-130	14	20	
1,3-Dichlorobenzene	24.1	2.0	0.35	ug/l	25.0	ND	96	75-130	4	20	
1,4-Dichlorobenzene	23.7	2.0	0.37	ug/l	25.0	ND	95	80-120	11	20	
Dichlorodifluoromethane	25.0	5.0	0.79	ug/l	25.0	ND	100	10-160	2	30	
1,1-Dichloroethane	26.0	2.0	0.27	ug/l	25.0	ND	104	65-135	1	20	
1,2-Dichloroethane	29.4	2.0	0.28	ug/l	25.0	1.5	112	60-150	3	20	

# Pel Mar Analytical, Irvine

:hele Harper

roject Manager



WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1518

Sampled: 09/24/04 Received: 09/24/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

# METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

	]	Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J03010 Extracted: 10/03/04											
	•										
Matrix Spike Dup Analyzed: 10/03/04 (4	J03010-MSD1	)			Sou	rce: INI1	601-01				
1,1-Dichloroethene	25.0	5.0	0.32	ug/l	25.0	ND	100	65-140	1	20	
cis-1,2-Dichloroethene	24.9	2.0	0.32	ug/l	25.0	ND	100	65-130	1	20	
trans-1,2-Dichloroethene	26.0	2.0	0.27	ug/l	25.0	ND	104	65-135	1	20	
1,2-Dichloropropane	27.0	2.0	0.35	ug/l	25.0	ND	108	65-130	2	20	
1,3-Dichloropropane	27.5	2.0	0.30	ug/l	25.0	ND	110	65-140	6	25	
2,2-Dichloropropane	27.9	2.0	0.29	ug/l	25.0	ND	112	60-150	1	25	
1,1-Dichloropropene	26.8	2.0	0.28	ug/l	25.0	ND	107	65-140	0	20	
cis-1,3-Dichloropropene	27.4	2.0	0.22	ug/l	25.0	ND	110	70-140	4	20	
trans-1,3-Dichloropropene	29.3	2.0	0.24	ug/l	25.0	ND	117	70-140	5	25	
Fthylbenzene	26.1	2.0	0.25	ug/l	25.0	ND	104	70-130	2	20	
achlorobutadiene	24.3	5.0	0.38	ug/l	25.0	ND	97	65-140	6	20	
2-rlexanone	31.8	10	2.6	ug/l	25.0	ND	127	20-145	23	35	
Isopropylbenzene	25.1	2.0	0.25	ug/l	25.0	ND	100	70-130	12	20	
p-Isopropyltoluene	22.7	2.0	0.28	ug/l	25.0	ND	91	70-130	16	20	
Methylene chloride	23.5	5.0	0.48	ug/l	25.0	ND	94	60-135	1	20	
4-Methyl-2-pentanone (MIBK)	31.3	10	2.5	ug/l	25.0	ND	125	40-145	21	35	
Methyl-tert-butyl Ether (MTBE)	29.1	5.0	0.32	ug/l	25.0	ND	116	50-155	8	25	
Naphthalene	26.8	5.0	0.41	ug/l	25.0	ND	107	50-150	4	30	
n-Propylbenzene	25.0	2.0	0.14	ug/l	25.0	ND	100	70-135	6	20	
Styrene	27.4	2.0	0.16	ug/l	25.0	ND	110	55-145	4	30	
1,1,1,2-Tetrachloroethane	25.8	5.0	0.27	ug/l	25.0	ND	103	70-145	0	20	
1,1,2,2-Tetrachloroethane	28.3	2.0	0.24	ug/l	25.0	ND	113	60-145	1	30	
Tetrachloroethene	26.1	2.0	0.32	ug/l	25.0	ND	104	70-130	3	20	
Toluene	25.5	2.0	0.36	ug/l	25.0	ND	102	70-120	3	20	
1,2,3-Trichlorobenzene	25.2	5.0	0.45	ug/l	25.0	ND	101	60-140	7	20	
1,2,4-Trichlorobenzene	25.1	5.0	0.48	ug/l	25.0	ND	100	60-140	10	20	
1,1,1-Trichloroethane	25.5	2.0	0.30	ug/l	25.0	ND	102	75-140	4	20	
1,1,2-Trichloroethane	28.6	2.0	0.30	ug/l	25.0	ND	114	60-135	5	25	
Trichloroethene	26.6	2.0	0.26	ug/l	25.0	ND	106	70-125	4	20	
Trichlorofluoromethane	26.8	5.0	0.34	ug/l	25.0	ND	107	55-145	4	25	
1,2,3-Trichloropropane	27.5	10	0.85	ug/l	25.0	ND	110	55-140	3	30	
1,2,4-Trimethylbenzene	23.7	2.0	0.23	ug/l	25.0	ND	95	60-125	10	25	
1,3,5-Trimethylbenzene	24.1	2.0	0.26	ug/l	25.0	ND	96	70-130	14	20	
Vinyl chloride	24.8	5.0	0.26	ug/l	25.0	ND	99	40-135	5	30	
o-Xylene	25.0	2.0	0.24	ug/l	25.0	ND	100	65-125	6	20	

Mar Analytical, Irvine

hele Harper Project Manager

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Attention: Bronwyn Kelly

Pasadena, CA 91101

Sampled: 09/24/04 Report Number: INI1518 Received: 09/24/04

# METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J03010 Extracted: 10/03/04	•										
Matrix Spike Dup Analyzed: 10/03/04 (4	J03010-MSD1	)			Sou	rce: INI1	601-01				
m,p-Xylenes	52.0	2.0	0.52	ug/l	50.0	ND	104	65-130	2	25	
Di-isopropyl Ether (DIPE)	27.9	5.0	0.25	ug/l	25.0	ND	112	65-140	2	25	
Ethyl tert-Butyl Ether (ETBE)	28.2	5.0	0.28	ug/l	25.0	ND	113	60-140	2	25	
tert-Amyl Methyl Ether (TAME)	29.5	5.0	0.33	ug/l	25.0	ND	118	55-145	7	30	
tert-Butanol (TBA)	128	25	3.1	ug/l	125	ND	102	65-145	5	25	
Surrogate: Dibromofluoromethane	24.8			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	26.5			ug/l	25.0		106	80-120			
Surrogate: 4-Bromofluorobenzene	25.1			ug/l	25.0		100	80-120			

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**IWH-Pasadena/Boeing** 

300 North Lake Avenue, Suite 1200

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

Report Number: INI1518

Sampled: 09/24/04 Received: 09/24/04

# METHOD BLANK/QC DATA

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4124083 Extracted: 09/24/04											
Blank Analyzed: 09/29/04 (4I24083-BLK	71)										
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
Biochemical Oxygen Demand	ND	2.0	0.59	mg/i							
LCS Analyzed: 09/29/04 (4I24083-BS1)											
Biochemical Oxygen Demand	208	100	30	mg/l	198		105	85-115			
LCS Dup Analyzed: 09/29/04 (4I24083-B	SD1)										
Biochemical Oxygen Demand	206	100	30	mg/l	198		104	85-115	1	20	
Batch: 4I25033 Extracted: 09/25/04											
Blank Analyzed: 09/25/04 (4125033-BLK	1)										
chlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 09/25/04 (4I25033-BS1)											
Perchlorate	51.6	4.0	0.80	ug/l	50.0		103	85-115			
Matrix Spike Analyzed: 09/25/04 (4I2503	3-MS1)				Sour	ce: INI1	539-01				
Perchlorate	57.2	4.0	0.80	ug/l	50.0	3.2	108	80-120			
Matrix Spike Dup Analyzed: 09/25/04 (41	[25033-MSD1]	)			Sour	ce: INI15	539-01				
Perchlorate	59.0	4.0	0.80	ug/l	50.0	3.2	112	80-120	3	20	
Batch: 4I25039 Extracted: 09/25/04											
Duplicate Analyzed: 09/25/04 (4I25039-D	UP1)				Sour	ce: INI15	518-01				
pH	8.07	NA	N/A	pH Units		8.09			0	5	

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**IWH-Pasadena/Boeing** 

300 North Lake Avenue, Suite 1200

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

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

# METHOD BLANK/QC DATA

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I25045 Extracted: 09/25/04											
	<b>74</b> \										
Blank Analyzed: 09/25/04 (4I25045-BLK	•										
Turbidity	ND	1.0	0.20	NTU							
Duplicate Analyzed: 09/25/04 (4I25045-I	OUP1)				Soui	rce: INI1:	518-01				
Turbidity	27.9	1.0	0.20	NTU		27			3	20	
Databa 4127082 Evituanta da 00/27/04											
Batch: 4I27082 Extracted: 09/27/04											
Blank Analyzed: 09/27/04 (4I27082-BLK	(1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/27/04 (4I27082-BS1)											
al Suspended Solids	1070	10	10	mg/l	1000		107	85-115			
•								05 115			
Duplicate Analyzed: 09/27/04 (4I27082-D	,				Sour	ce: INI1	502-01				
Total Suspended Solids	ND	10	10	mg/l		ND				10	
Batch: 4I28067 Extracted: 09/28/04											
Blank Analyzed: 09/28/04 (4I28067-BLK	1)										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 09/28/04 (4I28067-BS1)											
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0		101	80-115			
Matrix Spike Analyzed: 09/28/04 (412806	7-MS1)				Sour	ce: INI15	18-01				
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0	ND	95	70-120			

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WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

# METHOD BLANK/QC DATA

	I	Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4I28067 Extracted: 09/28/04											
Matrix Spike Dup Analyzed: 09/28/04 (4	I28067-MSD1)				Sou	rce: INI1	518-01				
Ammonia-N (Distilled)	9.24	0.50	0.30	mg/l	10.0	ND	92	70-120	3	15	
Batch: 4I28091 Extracted: 09/28/04											
Blank Analyzed: 09/28/04 (4I28091-BLK	1)										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 09/28/04 (4I28091-BS1)											
Total Dissolved Solids	1020	10	10	mg/l	1000		102	90-110			
Duplicate Analyzed: 09/28/04 (4I28091-D	UP1)				Sour	ce: INI14	69-01				
1 Dissolved Solids	972	10	10	mg/l		970			0	10	
<b>Batch: 4I30073 Extracted: 09/30/04</b>											
Blank Analyzed: 09/30/04 (4I30073-BLK	1)										
Oil & Grease	1.10	5.0	0.94	mg/l							J
LCS Analyzed: 09/30/04 (4I30073-BS1)											M-NR1
Oil & Grease	18.2	5.0	0.94	mg/l	20.0		91	65-120			
LCS Dup Analyzed: 09/30/04 (4I30073-B	SD1)										
Oil & Grease	18.7	5.0	0.94	mg/l	20.0		94	65-120	3	20	

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'WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

# METHOD BLANK/QC DATA

# 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: P4I2801 Extracted: 09/28/04	<u>4</u>										
Blank Analyzed: 09/28/04 (P4I2801-BL	.K1)										
1,4-Dioxane	ND	1.0	0.49	ug/l							
Surrogate: Dibromofluoromethane	1.10			ug/l	1.00		110	80-135			
LCS Analyzed: 09/28/04 (P4I2801-BS1)	)										
1,4-Dioxane	8.98	1.0	0.49	ug/l	10.0		90	70-130			
Surrogate: Dibromofluoromethane	1.11			ug/l	1.00		111	80-135			
LCS Dup Analyzed: 09/28/04 (P4I2801-	-BSD1)										
1,4-Dioxane	8.85	1.0	0.49	ug/l	10.0		88	70-130	1	20	
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-135			
trix Spike Analyzed: 09/28/04 (P4I2	801-MS1)				Sou	rce: PNI0	769-01				
-Dioxane	10.2	1.0	0.49	ug/l	10.0	1.1	91	70-130			
Surrogate: Dibromofluoromethane	1.07			ug/l	1.00		107	<i>80-135</i>			
Matrix Spike Dup Analyzed: 09/28/04 (	P4I2801-MS	<b>D</b> 1)			Sou	rce: PNI0	769-01				
1,4-Dioxane	9.82	1.0	0.49	ug/l	10.0	1.1	87	70-130	4	20	
Surrogate: Dibromofluoromethane	1.16			ug/l	1.00		116	80-135			

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**IWH-Pasadena/Boeing** 

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

Pasadena, CA 91101 Attention: Bronwyn Kelly

# METHOD BLANK/QC DATA

# Semivolatile Organic Compounds by EPA Method 625

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: V4J0501 Extracted: 09/30/04	<u> </u>										
Blank Analyzed: 10/06/04 (V4J0501-BL	•										
Naphthalene	ND	10.0	1.31	ug/L							
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L							
Surrogate: 2-FP	88.5			ug/L	200		44	40.8-88.4			
Surrogate: Phenol-d6	<i>76.9</i>			ug/L	200		38	31.7-86.6			
Surrogate: 2,4,6-TBP	179			ug/L	200		90	58-109			
Surrogate: Nitrobenzene-d5	<i>53.3</i>			ug/L	100		53	47.1-99.2			
Surrogate: 2-FBP	52.4			ug/L	100		52	44.7-89.6			
Surrogate: p-Terphenyl-d14	73.0			ug/L	100		73	45.7-117			
LCS Analyzed: 10/06/04 (V4J0501-BS1)	1										
hthalene	103	10.0	1.31	ug/L	200		52	38.5-85.1			
itrosodimethylamine	87.3	20.0	1.37	ug/L	200		44	14.1-97.3			
Surrogate: 2-FP	102			ug/L	200		51	40.8-88.4			
Surrogate: Phenol-d6	91.7			ug/L	200		46	31.7-86.6			
Surrogate: 2,4,6-TBP	191			ug/L	200		96	58-109			
Surrogate: Nitrobenzene-d5	57.9			ug/L	100		58	47.1-99.2			
Surrogate: 2-FBP	56.0			ug/L	100		56	44.7-89.6			
Surrogate: p-Terphenyl-d14	66.3			ug/L	100		66	45.7-117			
LCS Dup Analyzed: 10/06/04 (V4J0501-	BSD1)										
Naphthalene	105	10.0	1.31	ug/L	200		53	38.5-85.1	2	17.3	
N-Nitrosodimethylamine	94.9	20.0	1.37	ug/L	200		47	14.1-97.3	8	32.5	
Surrogate: 2-FP	102			ug/L	200		51	40.8-88.4			
Surrogate: Phenol-d6	91.4			ug/L	200		46	31.7-86.6			
Surrogate: 2,4,6-TBP	182			ug/L	200		91	58-109			
Surrogate: Nitrobenzene-d5	59.3			ug/L	100		59	47.1-99.2			
Surrogate: 2-FBP	56.4			ug/L	100		56	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.0			ug/L	100		67	45.7-117			

rioject Manager

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IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

Pasadena, CA 91101 Attention: Bronwyn Kelly

# METHOD BLANK/QC DATA

# Semivolatile Organic Compounds by EPA Method 625

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: V4J0501 Extracted: 0	9/30/04										
Duplicate Analyzed: 10/06/04 (V	4J0501-DUP1)				Sou	rce: INI1	518-01				
Naphthalene	18.4	10.0	1.31	ug/L		20.9			13	30	
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L		ND				30	
Surrogate: 2-FP	94.9			ug/L	200		47	40.8-88.4			
Surrogate: Phenol-d6	88.4			ug/L	200		44	31.7-86.6			
Surrogate: 2,4,6-TBP	180			ug/L	200		90	58-109			
Surrogate: Nitrobenzene-d5	60.7			ug/L	100		61	47.1-99.2			
Surrogate: 2-FBP	58.8			ug/L	100		59	44.7-89.6			
Surrogate: p-Terphenyl-d14	72.8			ug/L	100		73	45.7-117			
Matrix Spike Analyzed: 10/06/04	(V4J0501-MS1)				Sou	rce: V409	288-01				
hthalene	91.7	10.0	1.31	ug/L	200	ND	46	70-130			A-04
√itrosodimethylamine	60.0	20.0	1.37	ug/L	200	ND	30	70-130			A-04
Surrogate: 2-FP	61.0			ug/L	200		31	40.8-88.4			S-04
Surrogate: Phenol-d6	73.2			ug/L	200		37	31.7-86.6			
Surrogate: 2,4,6-TBP	204			ug/L	200		102	58-109			
Surrogate: Nitrobenzene-d5	49.3			ug/L	100		49	47.1-99.2			
Surrogate: 2-FBP	52.6			ug/L	100		53	44.7-89.6			
Surrogate: p-Terphenyl-d14	71.4			ug/L	100		71	45.7-117			



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Sampled: 09/24/04

Received: 09/24/04

#### **DATA QUALIFIERS AND DEFINITIONS**

A-04 The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates

Report Number: INI1518

the recovery for this analyte does not negatively impact the usability of the data.

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.

**M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. 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.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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

Relative Percent Difference **RPD** 

#### ADDITIONAL COMMENTS

#### For GRO (C4-C12):

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

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

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

Mar Analytical, Irvine hele Harper rroject Manager



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1518

Pasadena, CA 91101 Attention: Bronwyn Kelly Sampled: 09/24/04 Received: 09/24/04

# **Certification Summary**

#### Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV 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**

el Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907

9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed:

EPA 8260B

Samples: INI1518-01

Star Analytical, Inc. CA ELAP Cert #1849

14500 Trinity Boulevard, Suite 106 - Fort Worth, TX 76155

Method Performed:

EPA 625

Samples: INI1518-01

hele Harper rroject Manager



SENDING LABORATORY:

Del Mar Analytical, Irvine

17461 Derian Ave. Suite 100, Irvine, CA 92614

RECEIVING LABORATORY:

1014 E. Cooley Dr., Suite A, Colton, CA 92324 9484 Chesapeake Drive, Sulte 805, San Diego, CA 92123

9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 2520 E. Sunest Rd., Suite #3, Las Vegas, NV 89120

Ph (480) 785-0043 Fax (480) 785-0851

# **SUBCONTRACT ORDER - PROJECT # INI1518**

Star Analytical, Inc.

17461 Derian Avenue. Su: Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 261-1228 Project Manager: Michele		14500 Trinity Boulevard, Suite 106 Fort Worth, TX 76155 Phone:(817) 571-6800 Fax: (817) 267-5431							
Standard TAT is request  Analysis	ed unless specific due date is requeste  Expiration	ed => Due Date:Comments	Initials:						
Sample ID: INI1518-01 W 625+NDMA+Hydrazine Containers Supplied: 1 L Amber (INI1518-01D)	Vater Sampled: 09/24/04 14:18 10/01/04 14:18	J flags, rpt NDMA & Naphthalene only.	<del></del> (						
1 D Tamora (II 111510 012)									

SAMPLE INTEGRITY:													
All containers intact: Custody Seals Present	Yes			-	le labels/COC agree: les Preserved Properly		Yes Yes		No No	•	ceived On Ice:: ceived at (temp):		es No
2	$\overline{\supset}$	_	9	128121	1700								
'eased By				Date	Time	Recei	ved By	1	V.	7	Date 9-29	~Y	Time 0845
Released By				Date	Time	Recei	ved By	,			Date		Time

ical nple Receipt Log

	Sample Control Comments													-	
lers	Sample Time	8141													Page
e contair	Sample Date	367													1
om sampl	Sample Matrix	الهما						//	2						
Information collected from sample containers	Client Sample Identification	INT 1518-0					/	XX	Ý			ors:		0	Work Order Number
·	Sample Letter(s)	•						·				ns, Resoluti			
	Sample Number	Ó										nd/or Probler			
	Container Qty(s) & Description(s)	1 - Book of					·					Additional Comments and/or Problems, Resolutions:		S G G	Dete of Log-in
Del Wer Irang	ame Intact? Pa		3) Method of Receipt: Tracking # [10] POLEM   POLEM   POLEM   DIPS	Thed Ex Authorne	4) Date & Time Received at/by Lab	22	No Sample Temp.	7) Chain of Custody filled out properly?  [25] Yes	tody/traffi. Iple tags/i	Drves □ No	9) Containers supplied by Lab? [24] Yes No	10) Correct/Appropriate containers used?  Ves \square \square \text{No} No	11) Containers intact?  \[ \int \int \text{No}   \text{No}   \text{No}   \text{No}           \	12) Containers properly preserved?	13) Headspace in VOAs?  Tyes  No  N/A





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9830 South 51st Street, Sulte B-120, Phoenix, AZ 85044

Ph (949) 261-1022 Fax (949) 261-1228

Ph (480) 785-0043 Fax (480) 785-0851 Ph (702) 798-3620 Fax (702) 798-3621

# **SUBCONTRACT ORDER - PROJECT # INI1518**

# 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

40 ml VOA w/HCL (INI1518-01M)

#### RECEIVING LABORATORY:

Del Mar Analytical - Phoenix

9830 S. 51st Street, Suite B-120

Phoenix, AZ 85044 Phone: (480) 785-0043 Fax: (480) 785-0851

Analysis Expiration Due Comments Sampled: 09/24/04 14:18 Sample ID: INI1518-01 Water 6020871.01 10/08/04 14:18 Dioxane-8260B-out 10/05/04 12:00 Boeing-permit, sub to DMAP, J flags Containers Supplied: 40 ml VOA w/HCL (INI1518-01K) 40 ml VOA w/HCL (INI1518-01L)

				SAMPL	E INTEGRI	TY:			
All containers intact: Custody Seals Present		□ No	-	labels/COC agree: s Preserved Properl		□ No	-	es Received On Ice::	Yes No
Staux	Shir	11 DUX	9.27.04 M	פפרו			9/2	8/04	E3
Released By	1	E	Date )	Time —	Received B	In	D	Plage	Time 09:55
released By			Date	Time	Received By	,		Date	Time

Field readings: Page 1 of S Temp = 품 Normal Sample Integrity: (Check)
Intact
On Ice: 10 Days Perchlorate Only 72 Hours\_ Tum around Time: (check) Metals Only 72 Hours\_ Settleable Solids × ₩ q , set ,eat,vfibidiuT 72 Hours 48 Hours **ANALYSIS REQUIRED** × Perchlorate × 1740 tsib \w × (350.2) Titr. (350.2) 625 Naphthalene +NDM+ analysis × × BOD2(S0 degrees C) × roh 26 624 (EDB, 1,2,3-TCP, MTBE, DPE, TBA) × × (F.814 A93) Petroleum Hydrocarbons × × TRPH,=Total Rec. 10/62/6 1,4-Dioxane-8260B × × **CHAIN OF CUSTODY FORM** Date/Time: Date/Time leut te[\leseib-2108 × × 8015-gas × × Oil & Grease (EPA 413.1) × × 12A, 12B, 12C, 12D, 12E, 12f Bottle # 4B, 4C 2B, 2C 6B, 6C 10A 4 8 ۲ ₹ 2 **2B** 8 8 9 æ ₽ ¥ ξ During Test -- Outfall 012 Preservative Received By Received By Becaived Boeing-SSFL NPDES H2S04 None None None None None None None None None ᄗ 오 ᄗ 오 ᄗ ᄗ 오 오 모 Alpha Test Stand (626) 568-6515 Sampling
Date/Time Phone Number: (626) 568-6691 Fax Number: 18.18/ @// /0/ Project Date/Time: ゲーンゲーでゲ Del Mar Analytical version 5 8/12/04 # of Cont. Q N 8 500ml Poly Project Manager: Bronwyn Kelly 300 North Lake Avenue, Suite 1200 Container 1L Amber 1L Poly 1L Poly 1L Poly VOAs VOAs VOAs VOAs VOAs VOAs VOAs 5 Sample Matrix Client Name/Address: MWH-Pasadena Pasadena, CA 91101 ₹ ₹ ≥ ₹ ₹ ₹ ₹ ≥ ₹ ₹ ₹ ₹ ≥ ₹ ₹ ₹ ₹ ≥ ₹ Relinduished By Relinguished By Relinquished By Sample Description Outfall 012 duplicate Outfall 012 duplicate Sampler: Outfall 012 Trip Blank duplicate duplicate duplicate duplicate duplicate

Comments Field readings: Page 1 of 8 Temp = = Hd Sample Integrity: (Check)
Intact
On Ice: 10 Days 5 Days Perchlorate Only 72 Hours. rum around Time: (check Metals Only 72 Hours\_ Settleable Solids × # q , SST , SQT, vytibidhuT 24 Hours 48 Hours 72 Hours ANALYSIS REQUIRED Perchlorate × tsib \w × Ammonia-N, Titr. (350.2) +NDM+ analysis × × 625 Naphthalene BOD2(S0 degrees C) × MTBE, DPE, TBA) × × × 624 (EDB, 1,2,3-TCP, (F.814 A93) Petroleum Hydrocarbons × × TRPH,=Total Rec. 4/44/04 4-Dioxane-8260B × × **CHAIN OF CUSTODY FORM** Date/Time: Date/Time: Date/Time × leuf fel/leseib-2 f 08 × 8015-gas × × Oil & Grease (EPA 413.1) × × 12A, 12B, 12C, 12D, 12E, 12f Bottle # 4B, 4C 6B, 6C 2B, 2C 14 10A ₹ 9 8 æ 38 ₹ **5B** B 8 88 8 ₹ Σ During Test -- Outfall 012 Preservative Received By Received By Becoived Project: Boeing-SSFL NPDES H2S04 None None None None None None None None None 乊 오 오 오 ᄗ 오 오 오 Ξ Alpha Test Stand (626) 568-6515 (626) 568-6691 Phone Number Sampling
Date/Time Fax Number: 181.41 104 1740 Date/Time: Del Mar Analytical version 5 8/12/04 14:51 Date/Time: Date/Time: Cont. 9 Q N 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Project Manager: Bronwyn Kelly Container 500ml Poly 1L Amber 1L Poly 1L Poly 1L Poly VOAs VOAs VOAs VOAs VOAs VOAs VOAs 6 Sample Matrix Client Name/Address MWH-Pasadena ≥ ≥ ≷ ₹ ≥ ≥ ₹ ₹ ≥ ≥ ₹ ≥ ≥ ≥ ≥ ≥ ≥ ≥ Relinquished By Relinguished By Sample Description Outfall 012 Sampler: Outfall 012 Trip Blank duplicate duplicate ۶, Relinquist duplicate duplicate duplicate duplicate duplicate



14500 Trinity Boulevard, Suite 106 • Fort Worth, Texas 76155 (817) 571-6800 • Metro (817) 540-6982 • FAX (817) 267-6431



Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100

Project: subbed in

Project Number: INI1518

**Reported:** 10/08/04 16:55

Irvine CA, 92614-5817

Project Manager: Michele Harper

**ANALYTICAL REPORT FOR SAMPLES** 

Sample ID
INI1518-01

V409273-01

Matrix Liquid Date Sampled 09/24/04 14:18 **Date Received** 09/29/04 08:45

Star Analytical, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document.

This analytical report must be reproduced in its entirety.

Anthony Dilday, Lab Director

Page 1 of 5



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Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100

Irvine CA, 92614-5817

Project: subbed in

Project Number: INI1518
Project Manager: Michele Harper

Reported: 10/08/04 16:55

# Semivolatile Organic Compounds by EPA Method 625

# Star Analytical, Inc.

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
INI1518-01 (V409273-01) Liquid Sampled by: Client Type: Grab	-		Received: 0	9/29/04 0	8:45						
Naphthalene	20.9	1.31	10.0	ug/L	1	V4J0501	09/30/04 15:00	10/06/04 15:02	EPA 625	SD	
N-Nitrosodimethylamine	ND	1.37	20.0	**	"	11	"		"	"	
Surr: 2-FP		46.8 %		40.8	-88.4	"	"	"	"	"	
Surr: Phenol-d6		39.6 %		31.7	-86.6	"	"	"	"	"	
Surr: 2,4,6-TBP		87.5 %		58-	109	"	n	"	n	"	
Surr: Nitrobenzene-d5		58.0 %		47.1	-99.2	"	"	"	"	"	
Surr: 2-FBP		51.4 %		44.7	-89.6	"	"	"	"	"	
Surr: p-Terphenyl-d14		74.9 %		45.7	-117	"	"	"	"	"	





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Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100 Irvine CA, 92614-5817 Project Subbed in
Project Number: INI1518
Project Manager: Michele Harper

**Reported:** 10/08/04 16:55

# Semivolatile Organic Compounds by EPA Method 625 - Quality Control Star Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	Result	Liint	Ullis	Level	Result	76KEC	Lillits	Kr <i>b</i>	Liiiit	Notes
Batch V4J0501 - EPA 3510C										
Blank (V4J0501-BLK1)				Prepared:	09/30/04	Analyze	d: 10/06/04			
Naphthalene	ND	10.0	ug/L							
N-Nitrosodimethylamine	ND	20.0	**							
Surrogate: 2-FP	88.5	1	"	200		44.2	40.8-88.4			
Surrogate: Phenol-d6	76.9		"	200		38.4	31.7-86.6			
Surrogate: 2,4,6-TBP	179		"	200		89.5	58-109			
Surrogate: Nitrobenzene-d5	<i>53.3</i>		"	100		53.3	47.1-99.2			
Surrogate: 2-FBP	52.4		"	100		52.4	44.7-89.6			
Surrogate: p-Terphenyl-d14	73.0		"	100		73.0	45.7-117			
LCS (V4J0501-BS1)				Prepared:	09/30/04	Analyzed	1: 10/06/04			
Naphthalene	103	10.0	ug/L	200		51.5	38.5-85.1			
N-Nitrosodimethylamine	87.3	20.0	**	200		43.6	14.1-97.3			
Surrogate: 2-FP	102		"	200	***************************************	51.0	40.8-88.4			
urrogate: Phenol-d6	91.7		"	200		45.8	31.7-86.6			
urrogate: 2,4,6-TBP	191		"	200		95.5	58-109			
Surrogate: Nitrobenzene-d5	<i>57.9</i>		"	100		57.9	47.1-99.2			
Surrogate: 2-FBP	56.0		"	100		56.0	44.7-89.6			
Surrogate: p-Terphenyl-d14	66.3		"	100		66.3	45.7-117			
LCS Dup (V4J0501-BSD1)				Prepared:	09/30/04	Analyzed	i: 10/06/04			
Naphthalene	105	10.0	ug/L	200		52.5	38.5-85.1	1.92	17.3	
N-Nitrosodimethylamine	94.9	20.0	"	200		47.4	14.1-97.3	8.34	32.5	
Surrogate: 2-FP	102		"	200		51.0	40.8-88.4			
Surrogate: Phenol-d6	91.4		"	200		45.7	31.7-86.6			
Surrogate: 2,4,6-TBP	182		"	200		91.0	58-109			
Surrogate: Nitrobenzene-d5	59.3		"	100		<i>59.3</i>	47.1-99.2			
Surrogate: 2-FBP	56.4		"	100		56.4	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.0		"	100		67.0	45.7-117			





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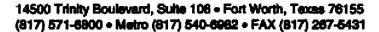
Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100 Irvine CA, 92614-5817 Project Subbed in
Project Number: INI1518
Project Manager: Michele Harper

**Reported:** 10/08/04 16:55

# Semivolatile Organic Compounds by EPA Method 625 - Quality Control Star Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch V4J0501 - EPA 3510C										
Duplicate (V4J0501-DUP1)	Sou	rce: V40927	/3-01	Prepared:	09/30/04	Analyze	d: 10/06/04			
Naphthalene	18.4	10.0	ug/L		20.9			12.7	30	
N-Nitrosodimethylamine	ND	20.0	10		ND				30	
Surrogate: 2-FP	94.9		"	200		47.4	40.8-88.4			
Surrogate: Phenol-d6	88.4		"	200		44.2	31.7-86.6			
Surrogate: 2,4,6-TBP	180		"	200		90.0	58-109			
Surrogate: Nitrobenzene-d5	60.7		"	100		60.7	47.1-99.2			
Surrogate: 2-FBP	58.8		"	100		58.8	44.7-89.6			
Surrogate: p-Terphenyl-d14	72.8		"	100		72.8	45.7-117			
Matrix Spike (V4J0501-MS1)	Sou	rce: V40928	8-01	Prepared:	09/30/04	Analyze	d: 10/06/04			
Naphthalene	91.7	10.0	ug/L	200	ND	45.8	70-130			A-04
N-Nitrosodimethylamine	60.0	20.0	**	200	ND	30.0	70-130			A-04
Surrogate: 2-FP	61.0		"	200		30.5	40.8-88.4			S-04
<sup>r</sup> urrogate: Phenol-d6	73.2		"	200		36.6	31.7-86.6			
ırrogate: 2,4,6-TBP	204		"	200		102	58-109			
Surrogate: Nitrobenzene-d5	49.3		"	100		49.3	47.1-99.2			
Surrogate: 2-FBP	52.6		"	100		52.6	44.7-89.6			
Surrogate: p-Terphenyl-d14	71.4		"	100		71.4	45.7-117			







Del Mar Analytical - Irvine 17461 Derian Avenue, Suite 100 Irvine CA, 92614-5817 Project: subbed in
Project Number: INI1518
Project Manager: Michele Harper

**Reported:** 10/08/04 16:55

#### **Notes and Definitions**

A-04	The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
DET	Analyte DETECTED

NR Not Reported

ND

dry Sample results reported on a dry weight basis

Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

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# LABORATORY REPORT

MWH-Pasadena/Boeing Prepared For:

INI1882-02

Project: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Attention: Bronwyn Kelly

Sampled: 09/29/04 Received: 09/30/04

Issued: 11/08/04 16:32

#### NELAP #01108CA CA 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(s) of Custody, 2 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

#### SAMPLE CROSS REFERENCE

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

> LABORATORY ID **CLIENT ID** INI1882-01 Outfall 012

**MATRIX** Water

Water

Trip Blank

Reviewed By:

Mar Analytical, Irvine

Michell Harper

iele Harper Project Manager



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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04 Received: 09/30/04

Attention: Bronwyn Kelly

# TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (Outfall 012 - Wa	ater)								
Reporting Units: mg/l Total Recoverable Hydrocarbons	EPA 418.1	4J01062	0.31	1.0	5.0	1	10/01/04	10/01/04	



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1WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

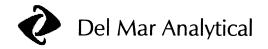
Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

# EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (Outfall 012 - Ware Reporting Units: mg/l	ater) - cont.								
EFH (C13 - C22) Surrogate: n-Octacosane (45-125%)	EPA 8015B	4J01040	0.082	0.50	1.1 84 %	0.971	10/01/04	10/05/04	



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IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

Pasadena, CA 91101 Attention: Bronwyn Kelly

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (Outfall 012 -	Water) - cont.								
Reporting Units: mg/l GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%)	EPA 8015 Mod.	4J07125	0.50	1.0	1.2 102 %	10	10/07/04	10/07/04	
Sample ID: INI1882-02 (Trip Blank - Reporting Units: mg/l GRO (C4 - C12) Surrogate: 4-BFB (FID) (60-135%)	Water) EPA 8015 Mod.	4J07007	0.050	0.10	ND 95 %	1	10/07/04	10/07/04	

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Sampled: 09/29/04 Report Number: INI1882 Received: 09/30/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (Outfall 012	- Water)								
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J06029	0.32	2.0	ND	1	10/06/04	10/07/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J06029	0.32	5.0	ND	1	10/06/04	10/07/04	
1,2,3-Trichloropropane	EPA 624 MOD	4J06029	0.85	10	ND	1	10/06/04	10/07/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J06029	0.25	5.0	ND	1	10/06/04	10/07/04	
tert-Butanol (TBA)	EPA 624 MOD	4J06029	3.1	25	ND	1	10/06/04	10/07/04	
Surrogate: Dibromofluoromethane (8	0-120%)				108 %				
Surrogate: Toluene-d8 (80-120%)					102 %				
Surrogate: 4-Bromofluorobenzene (80	0-120%)				105 %				
Sample ID: INI1882-02 (Trip Blank	- Water)								
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J06029	0.32	2.0	ND	1	10/06/04	10/07/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J06029	0.32	5.0	ND	1	10/06/04	10/07/04	
1,2,3-Trichloropropane	EPA 624 MOD	4J06029	0.85	10	ND	1	10/06/04	10/07/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J06029	0.25	5.0	ND	1	10/06/04	10/07/04	
tert-Butanol (TBA)	EPA 624 MOD	4J06029	3.1	25	ND	1	10/06/04	10/07/04	
rogate: Dibromofluoromethane (8	0-120%)				106 %				
surrogate: Toluene-d8 (80-120%)					97 %				
Surrogate: 4-Bromofluorobenzene (80	)-120%)				106 %				



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WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

Method	Batch	MDL Limit	Reporting Limit	Sample Result			Date Analyzed	Data Qualifiers
Water)								
EPA 350.2	4J05066	0.30	0.50	ND	1	10/05/04	10/05/04	
EPA 405.1	4J01058	0.59	2.0	1.8	1	10/01/04	10/06/04	J
EPA 413.1	4J05067	0.94	5.0	0.95	1	10/05/04	10/05/04	J
SM2540C	4J05065	10	10	350	1	10/05/04	10/05/04	
EPA 160.2	4I30104	10	10	20	1	09/30/04	09/30/04	
Water)								
EPA 160.5	4J01059	0.10	0.10	ND	1	10/01/04	10/01/04	
Water)								
EPA 180.1	4J01064	0.20	1.0	25	1	10/01/04	10/01/04	
Water)								
EPA 150.1	4J01049	N/A	NA	8.27	1	10/01/04	10/01/04	
Vater)								
EPA 314.0	4I30050	0.80	4.0	ND	1	09/30/04	09/30/04	
	Water)  EPA 350.2 EPA 405.1 EPA 413.1 SM2540C EPA 160.2  Water)  EPA 160.5  Water)  EPA 180.1  Water)  EPA 150.1  Vater)	Water)  EPA 350.2	Method Batch Limit  Water)  EPA 350.2 4J05066 0.30 EPA 405.1 4J01058 0.59 EPA 413.1 4J05067 0.94 SM2540C 4J05065 10 EPA 160.2 4I30104 10  Water)  EPA 160.5 4J01059 0.10  Water)  EPA 180.1 4J01064 0.20  Water)  EPA 150.1 4J01049 N/A  Water)	Method         Batch         Limit         Limit           Water)         Water)         Limit         Limit           EPA 350.2         4J05066         0.30         0.50           EPA 405.1         4J01058         0.59         2.0           EPA 413.1         4J05067         0.94         5.0           SM2540C         4J05065         10         10           EPA 160.2         4I30104         10         10           Water)         EPA 160.5         4J01059         0.10         0.10           Water)         EPA 180.1         4J01064         0.20         1.0           Water)         EPA 150.1         4J01049         N/A         NA	Method         Batch         Limit         Limit         Result           Water)         EPA 350.2         4J05066         0.30         0.50         ND           EPA 405.1         4J01058         0.59         2.0         1.8           EPA 413.1         4J05067         0.94         5.0         0.95           SM2540C         4J05065         10         10         350           EPA 160.2         4I30104         10         10         20           Water)         EPA 160.5         4J01059         0.10         0.10         ND           Water)         EPA 180.1         4J01064         0.20         1.0         25           Water)         EPA 150.1         4J01049         N/A         NA         8.27           Water)         Augusta         Augusta         Augusta         Augusta         Augusta         Augusta	Method         Batch         Limit         Limit         Result         Factor           Water)         EPA 350.2         4J05066         0.30         0.50         ND         1           EPA 405.1         4J01058         0.59         2.0         1.8         1           EPA 413.1         4J05067         0.94         5.0         0.95         1           SM2540C         4J05065         10         10         350         1           EPA 160.2         4I30104         10         10         20         1           Water)         EPA 160.5         4J01059         0.10         0.10         ND         1           Water)         EPA 180.1         4J01064         0.20         1.0         25         1           Water)         EPA 150.1         4J01049         N/A         NA         8.27         1	Method         Batch         Limit         Limit         Result         Factor         Extracted           Water)         EPA 350.2         4J05066         0.30         0.50         ND         1         10/05/04           EPA 405.1         4J01058         0.59         2.0         1.8         1         10/01/04           EPA 413.1         4J05067         0.94         5.0         0.95         1         10/05/04           SM2540C         4J05065         10         10         350         1         10/05/04           EPA 160.2         4I30104         10         10         20         1         09/30/04           Water)         EPA 160.5         4J01059         0.10         0.10         ND         1         10/01/04           Water)         EPA 180.1         4J01064         0.20         1.0         25         1         10/01/04           Water)         EPA 150.1         4J01049         N/A         NA         8.27         1         10/01/04	Method         Batch         Limit         Limit         Result         Factor         Extracted         Analyzed           Water)           EPA 350.2         4J05066         0.30         0.50         ND         1         10/05/04         10/05/04           EPA 405.1         4J01058         0.59         2.0         1.8         1         10/01/04         10/06/04           EPA 413.1         4J05067         0.94         5.0         0.95         1         10/05/04         10/05/04         10/05/04         10/05/04         10/05/04         10/05/04         10/05/04         10/05/04         10/05/04         10/05/04         10/05/04         10/05/04         10/05/04         09/30/04         09/30/04         09/30/04         09/30/04         09/30/04         09/30/04         09/30/04         09/30/04         09/30/04         00/01/04         00/01/04         00/01/04         00/01/04         0.00/04



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!WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Project ID. And Outlan 012 - During Test

Report Number: INI1882

Sampled: 09/29/04 Received: 09/30/04

# 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (Outfall 012 - War Reporting Units: ug/l	ter) - cont.								
1,4-Dioxane Surrogate: Dibromofluoromethane (80-135	EPA 8260B %)	P4J0202	N/A	1.0	ND 105 %	1	10/02/04	10/02/04	



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**1WH-Pasadena/Boeing** 

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

Attention: Bronwyn Kelly

# Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (Outfall 012 - Wa	iter) - cont.								
Reporting Units: ug/L									
Naphthalene	EPA 625	V4J0615	1.31	10.0	28.4	1	10/06/04	10/07/04	
N-Nitrosodimethylamine	EPA 625	V4J0615	1.37	20.0	ND	1	10/06/04	10/07/04	
Surrogate: 2-FP (40.8-88.4%)					53.0 %				
Surrogate: Phenol-d6 (31.7-86.6%)					46.6 %				
Surrogate: 2,4,6-TBP (58-109%)					93.5 %				
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					74.4 %				
Surrogate: 2-FBP (44.7-89.6%)					67.3 %				
Surrogate: p-Terphenyl-d14 (45.7-117%)					81.9 %				



17461Derian 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

1WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

| Sampled: 09/29/04 | Report Number: INI1882 | Received: 09/30/04

Attention: Bronwyn Kelly

#### SHORT HOLD TIME DETAIL REPORT

Sample ID: Outfall 012 (INI1882-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 09:00	10/01/2004 10:00
EPA 160.5	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 13:00	10/01/2004 14:00
EPA 180.1	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 08:00	10/01/2004 08:50
EPA 405.1	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 13:10	10/06/2004 11:00

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**1WH-Pasadena/Boeing** 

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

# METHOD BLANK/QC DATA

# TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4J01062 Extracted: 10/01/04	-										
Blank Analyzed: 10/01/04 (4J01062-BLI	<b>(1)</b>										
Total Recoverable Hydrocarbons	ND	1.0	0.31	mg/l							
LCS Analyzed: 10/01/04 (4J01062-BS1)											M-NR1
Total Recoverable Hydrocarbons	4.21	1.0	0.31	mg/l	5.00		84	65-120			
LCS Dup Analyzed: 10/01/04 (4J01062-1	BSD1)										
Total Recoverable Hydrocarbons	4.46	1.0	0.31	mg/l	5.00		89	65-120	6	20	

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WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Attention: Bronwyn Kelly

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

# METHOD BLANK/QC DATA

# EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J01040 Extracted: 10/01/04	-										
Blank Analyzed: 10/04/04 (4J01040-BLF	<b>(1)</b>										
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.156			mg/l	0.200		<i>78</i>	45-125			
LCS Analyzed: 10/04/04 (4J01040-BS1)											M-NR1
EFH (C13 - C40)	0.724	0.50	0.082	mg/l	0.775		93	40-115			
Surrogate: n-Octacosane	0.201			mg/l	0.200		100	45-125			
LCS Dup Analyzed: 10/04/04 (4J01040-I	BSD1)										
EFH (C13 - C40)	0.615	0.50	0.082	mg/l	0.775		79	40-115	16	25	
Currogate: n-Octacosane	0.162			mg/l	0.200		81	45-125			

WH-Pasadena/Boeing

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300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

### METHOD BLANK/QC DATA

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

		Reporting	MDY	¥7\$4	Spike	Source	0/ DEC	%REC	DDD	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J07007 Extracted: 10/07/04	_										
Blank Analyzed: 10/07/04 (4J07007-BL	K1)										
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.0101			mg/l	0.0100		101	60-135			
LCS Analyzed: 10/07/04 (4J07007-BS1)											
GRO (C4 - C12)	0.233	0.10	0.050	mg/l	0.220		106	70-135			
Surrogate: 4-BFB (FID)	0.0127			mg/l	0.0100		127	60-135			
Matrix Spike Analyzed: 10/07/04 (4J070	07-MS1)				Soui	rce: INI10	679-04				
GRO (C4 - C12)	0.264	0.10	0.050	mg/l	0.220	0.054	95	60-135			
Surrogate: 4-BFB (FID)	0.0120			mg/l	0.0100		120	60-135			
trix Spike Dup Analyzed: 10/07/04 (4	J07007-MSD1	)			Sour	ce: INI16	579-04				
.J (C4 - C12)	0.273	0.10	0.050	mg/l	0.220	0.054	100	60-135	3	20	
Surrogate: 4-BFB (FID)	0.0127			mg/l	0.0100		127	60-135			
Batch: 4J07125 Extracted: 10/07/04											
Blank Analyzed: 10/07/04 (4J07125-BLF	<b>ζ1</b> )										
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.0112			mg/l	0.0100		112	60-135			
LCS Analyzed: 10/07/04 (4J07125-BS1)											
GRO (C4 - C12)	0.240	0.10	0.050	mg/l	0.220		109	70-135			
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			
Matrix Spike Analyzed: 10/07/04 (4J071	25-MS1)				Sour	ce: INI15	27-05				
GRO (C4 - C12)	0.233	0.10	0.050	mg/l	0.220	ND	106	60-135			
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			



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### METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J07125 Extracted: 10/07/04	<u>4</u>										
Matrix Spike Dup Analyzed: 10/07/04 (4J07125-MSD1)					Sou	rce: INI1	527-05				
GRO (C4 - C12)	0.237	0.10	0.050	mg/l	0.220	ND	108	60-135	2	20	
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			

1WH-Pasadena/Boeing

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### METHOD BLANK/QC DATA

### **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/0	)4										
	<del></del>										
Blank Analyzed: 10/06/04 (4J06029-B	LK1)										
Acetone	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
Butylbenzene	ND	5.0	0.22	ug/l							
_arbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	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	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/l							
2,2-Dichloropropane	ND	2.0	0.29	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							

#### Pol Mar Analytical, Irvine

hele Harper

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1WH-Pasadena/Boeing

Pasadena, CA 91101

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Received: 09/30/04

Attention: Bronwyn Kelly

## METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/	04										
Blank Analyzed: 10/06/04 (4J06029-E	BLK1)										
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
ohthalene	ND	5.0	0.41	ug/l							
ropylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	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	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Surrogate: Dibromofluoromethane	26.3			ug/l	25.0		105	80-120			

### Pel Mar Analytical, Irvine

hele Harper

r roject Manager



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### METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04											
Datem. 1000029 Environment 10, 00, 0	-										
Blank Analyzed: 10/06/04 (4J06029-BL	K1)										
Surrogate: Toluene-d8	25.9			ug/l	25.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	26.2			ug/l	25.0		105	80-120			
LCS Analyzed: 10/06/04 (4J06029-BS1)											
Acetone	24.5	10	4.5	ug/l	25.0		98	30-140			
Benzene	24.0	2.0	0.28	ug/l	25.0		96	70-120			
Bromobenzene	23.5	5.0	0.27	ug/l	25.0		94	80-120			
Bromochloromethane	25.4	5.0	0.32	ug/l	25.0		102	65-135			
Bromodichloromethane	25.0	2.0	0.30	ug/l	25.0		100	70-140			
Bromoform	23.2	5.0	0.32	ug/l	25.0		93	55-135			
momethane	25.8	5.0	0.34	ug/l	25.0		103	60-140			
utanone (MEK)	26.4	10	3.8	ug/l	25.0		106	40-135			
n-Butylbenzene	23.7	5.0	0.17	ug/l	25.0		95	75-130			
sec-Butylbenzene	23.2	5.0	0.25	ug/l	25.0		93	75-125			
tert-Butylbenzene	23.1	5.0	0.22	ug/l	25.0		92	75-125			
Carbon tetrachloride	26.0	5.0	0.28	ug/l	25.0		104	70-140			
Chlorobenzene	23.6	2.0	0.36	ug/l	25.0		94	80-125			
Chloroethane	25.8	5.0	0.33	ug/l	25.0		103	60-145			
Chloroform	25.2	2.0	0.33	ug/l	25.0		101	75-130			
Chloromethane	25.1	5.0	0.30	ug/l	25.0		100	40-145			
2-Chlorotoluene	23.0	5.0	0.28	ug/l	25.0		92	75-125			
4-Chlorotoluene	23.6	5.0	0.29	ug/l	25.0		94	75-125			
Dibromochloromethane	25.4	2.0	0.28	ug/l	25.0		102	65-145			
1,2-Dibromo-3-chloropropane	24.0	5.0	0.92	ug/l	25.0		96	50-135			
1,2-Dibromoethane (EDB)	25.0	2.0	0.32	ug/l	25.0		100	75-125			
Dibromomethane	25.3	2.0	0.36	ug/l	25.0		101	75-130			
1,2-Dichlorobenzene	23.3	2.0	0.32	ug/l	25.0		93	80-120			
1,3-Dichlorobenzene	23.2	2.0	0.35	ug/l	25.0		93	80-120			
1,4-Dichlorobenzene	23.4	2.0	0.37	ug/l	25.0		94	80-120			
Dichlorodifluoromethane	24.2	5.0	0.79	ug/l	25.0		97	10-160			
1,1-Dichloroethane	25.1	2.0	0.27	ug/l	25.0		100	70-135			
1,2-Dichloroethane	25.8	2.0	0.28	ug/l	25.0		103	60-150			
1,1-Dichloroethene	25.2	5.0	0.32	ug/l	25.0		101	75-135			
cis-1,2-Dichloroethene	23.8	2.0	0.32	ug/l	25.0		95	70-125			
trans-1,2-Dichloroethene	25.4	2.0	0.27	ug/l	25.0		102	70-130			
1,2-Dichloropropane	24.5	2.0	0.35	ug/l	25.0		98	70-120			

### Pol Mar Analytical, Irvine

hele Harper

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IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

500 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INI1882 Sampled: 09/29/04
Received: 09/30/04

Attention: Bronwyn Kelly

## METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

	<b>D</b> 14	Reporting	MDY	** **	Spike	Source	N/DEG	%REC	nnn	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04	-										
LCS Analyzed: 10/06/04 (4J06029-BS1)											
1,3-Dichloropropane	24.8	2.0	0.30	ug/l	25.0		99	70-130			
2,2-Dichloropropane	26.0	2.0	0.29	ug/l	25.0		104	65-150			
1,1-Dichloropropene	24.6	2.0	0.28	ug/l	25.0		98	75-130			
cis-1,3-Dichloropropene	24.7	2.0	0.22	ug/l	25.0		99	75-130			
trans-1,3-Dichloropropene	25.6	2.0	0.24	ug/l	25.0		102	75-135			
Ethylbenzene	24.0	2.0	0.25	ug/l	25.0		96	80-120			
Hexachlorobutadiene	23.2	5.0	0.38	ug/l	25.0		93	65-140			
2-Hexanone	26.3	10	2.6	ug/l	25.0		105	40-140			
Isopropylbenzene	23.8	2.0	0.25	ug/l	25.0		95	75-125			
p-Isopropyltoluene	23.4	2.0	0.28	ug/l	25.0		94	75-125			
hylene chloride	25.3	5.0	0.48	ug/l	25.0		101	60-135			
Methyl-2-pentanone (MIBK)	27.0	10	2.5	ug/l	25.0		108	40-140			
Methyl-tert-butyl Ether (MTBE)	26.2	5.0	0.32	ug/l	25.0		105	55-145			
Naphthalene	23.7	5.0	0.41	ug/l	25.0		95	50-145			
n-Propylbenzene	23.6	2.0	0.14	ug/l	25.0		94	75-130			
Styrene	24.5	2.0	0.16	ug/l	25.0		98	80-135			
1,1,1,2-Tetrachloroethane	25.2	5.0	0.27	ug/l	25.0		101	70-145			
1,1,2,2-Tetrachloroethane	24.9	2.0	0.24	ug/l	25.0		100	60-135			
Tetrachloroethene	24.2	2.0	0.32	ug/l	25.0		97	75-125			
Toluene	24.0	2.0	0.36	ug/l	25.0		96	75-120			
1,2,3-Trichlorobenzene	23.9	5.0	0.45	ug/l	25.0		96	65-135			
1,2,4-Trichlorobenzene	24.1	5.0	0.48	ug/l	25.0		96	70-140			
1,1,1-Trichloroethane	25.6	2.0	0.30	ug/l	25.0		102	75-140			
1,1,2-Trichloroethane	24.5	2.0	0.30	ug/l	25.0		98	70-125			
Trichloroethene	24.0	2.0	0.26	ug/l	25.0		96	80-120			
Trichlorofluoromethane	26.9	5.0	0.34	ug/l	25.0		108	65-145			
1,2,3-Trichloropropane	24.5	10	0.85	ug/l	25.0		98	60-130			
1,2,4-Trimethylbenzene	23.6	2.0	0.23	ug/l	25.0		94	75-125			
1,3,5-Trimethylbenzene	23.8	2.0	0.26	ug/l	25.0		95	75-125			
Vinyl chloride	25.8	5.0	0.26	ug/l	25.0		103	50-130			
o-Xylene	23.2	2.0	0.24	ug/l	25.0		93	75-125			
m,p-Xylenes	47.2	2.0	0.52	ug/l	50.0		94	75-120			
Di-isopropyl Ether (DIPE)	25.9	5.0	0.25	ug/l	25.0		104	65-135			
Ethyl tert-Butyl Ether (ETBE)	25.4	5.0	0.28	ug/l	25.0		102	60-140			
tert-Amyl Methyl Ether (TAME)	26.4	5.0	0.33	ug/l	25.0		106	60-140			

### Pol Mar Analytical, Irvine

hele Harper

rioject Manager



WH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1882

Sampled: 09/29/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

Received: 09/30/04

### METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
•		2311111		Cinto	Dever	X COURT	, ville	Dimito	141 2	Ziiiik	Quantitor's
Batch: 4J06029 Extracted: 10/06/04	-										
LCS Analyzed: 10/06/04 (4J06029-BS1)											
tert-Butanol (TBA)	126	25	3.1	ug/l	125		101	70-140			M-3
Surrogate: Dibromofluoromethane	26.1			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	26.0			ug/l	25.0		104	80-120			
Matrix Spike Analyzed: 10/06/04 (4J060	29-MS1)				Sou	rce: INJ0	203-01				
Acetone	36.2	10	4.5	ug/l	25.0	15	85	10-150			
Benzene	23.3	2.0	0.28	ug/l	25.0	ND	93	70-120			
Bromobenzene	22.7	5.0	0.27	ug/l	25.0	ND	91	65-130			
Bromochloromethane	24.6	5.0	0.32	ug/l	25.0	ND	98	65-140			
modichloromethane	24.6	2.0	0.30	ug/l	25.0	ND	98	70-140			
moform	22.2	5.0	0.32	ug/l	25.0	ND	89	55-140			
Bromomethane	25.4	5.0	0.34	ug/l	25.0	ND	102	50-145			
2-Butanone (MEK)	25.5	10	3.8	ug/l	25.0	ND	102	30-145			
n-Butylbenzene	23.1	5.0	0.17	ug/l	25.0	ND	92	70-140			
sec-Butylbenzene	22.6	5.0	0.25	ug/l	25.0	ND	90	70-130			
tert-Butylbenzene	22.5	5.0	0.22	ug/l	25.0	ND	90	70-130			
Carbon tetrachloride	25.3	5.0	0.28	ug/l	25.0	ND	101	70-145			
Chlorobenzene	23.0	2.0	0.36	ug/l	25.0	ND	92	80-125			
Chloroethane	25.3	5.0	0.33	ug/l	25.0	ND	101	50-145			
Chloroform	24.2	2.0	0.33	ug/l	25.0	ND	97	70-135			
Chloromethane	24.8	5.0	0.30	ug/l	25.0	ND	99	35-145			
2-Chlorotoluene	22.1	5.0	0.28	ug/l	25.0	ND	88	70-140			
4-Chlorotoluene	22.6	5.0	0.29	ug/l	25.0	ND	90	70-140			
Dibromochloromethane	24.5	2.0	0.28	ug/l	25.0	ND	98	65-145			
1,2-Dibromo-3-chloropropane	23.2	5.0	0.92	ug/l	25.0	ND	93	45-155			
1,2-Dibromoethane (EDB)	24.0	2.0	0.32	ug/l	25.0	ND	96	70-130			
Dibromomethane	24.6	2.0	0.36	ug/l	25.0	ND	98	65-140			
1,2-Dichlorobenzene	22.8	2.0	0.32	ug/l	25.0	ND	91	75-130			
1,3-Dichlorobenzene	22.4	2.0	0.35	ug/l	25.0	ND	90	75-130			
1,4-Dichlorobenzene	22.8	2.0	0.37	ug/l	25.0	ND	91	80-120			
Dichlorodifluoromethane	24.4	5.0	0.79	ug/l	25.0	ND	98	10-160			
1,1-Dichloroethane	24.0	2.0	0.27	ug/l	25.0	ND	96	65-135			
1,2-Dichloroethane	25.2	2.0	0.28	ug/l	25.0	ND	101	60-150			
1,1-Dichloroethene	17.5	5.0	0.32	ug/l	25.0	ND	70	65-140			
cis-1,2-Dichloroethene	23.2	2.0	0.32	ug/l	25.0	ND	93	65-130			

## Mar Analytical, Irvine

hele Harper

rroject Manager



WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200 Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

# METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDI	TI-:+a	Spike Level	Source	0/DEC	%REC	nnn	RPD	Data
•		Limit	MDL	Units	Level	Kesuit	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04	<del>'-</del>										
Matrix Spike Analyzed: 10/06/04 (4J06	029-MS1)				Sou	rce: INJ0	203-01				
trans-1,2-Dichloroethene	24.3	2.0	0.27	ug/l	25.0	ND	97	65-135			
1,2-Dichloropropane	23.9	2.0	0.35	ug/l	25.0	ND	96	65-130			
1,3-Dichloropropane	23.7	2.0	0.30	ug/l	25.0	ND	95	65-140			
2,2-Dichloropropane	22.0	2.0	0.29	ug/l	25.0	ND	88	60-150			
1,1-Dichloropropene	24.0	2.0	0.28	ug/l	25.0	ND	96	65-140			
cis-1,3-Dichloropropene	23.9	2.0	0.22	ug/l	25.0	ND	96	70-140			
trans-1,3-Dichloropropene	24.8	2.0	0.24	ug/l	25.0	ND	99	70-140			
Ethylbenzene	23.4	2.0	0.25	ug/l	25.0	ND	94	70-130			
Hexachlorobutadiene	21.6	5.0	0.38	ug/l	25.0	ND	86	65-140			
?-Hexanone	25.4	10	2.6	ug/l	25.0	ND	102	20-145			
ropylbenzene	23.1	2.0	0.25	ug/l	25.0	ND	92	70-130			
p-1sopropyltoluene	22.6	2.0	0.28	ug/l	25.0	ND	90	70-130			
Methylene chloride	23.5	5.0	0.48	ug/l	25.0	ND	94	60-135			
4-Methyl-2-pentanone (MIBK)	25.8	10	2.5	ug/l	25.0	ND	103	40-145			
Methyl-tert-butyl Ether (MTBE)	34.6	5.0	0.32	ug/l	25.0	9.8	99	50-155			
Naphthalene	21.8	5.0	0.41	ug/l	25.0	ND	87	50-150			
n-Propylbenzene	22.8	2.0	0.14	ug/l	25.0	ND	91	70-135			
Styrene	19.5	2.0	0.16	ug/l	25.0	ND	78	55-145			
1,1,1,2-Tetrachloroethane	24.6	5.0	0.27	ug/l	25.0	ND	98	70-145			
1,1,2,2-Tetrachloroethane	24.0	2.0	0.24	ug/l	25.0	ND	96	60-145			
Tetrachloroethene	23.4	2.0	0.32	ug/l	25.0	ND	94	70-130			
Toluene	23.3	2.0	0.36	ug/l	25.0	ND	93	70-120			
1,2,3-Trichlorobenzene	21.5	5.0	0.45	ug/l	25.0	ND	86	60-140			
1,2,4-Trichlorobenzene	22.2	5.0	0.48	ug/l	25.0	ND	89	60-140			
1,1,1-Trichloroethane	24.5	2.0	0.30	ug/l	25.0	ND	98	75-140			
1,1,2-Trichloroethane	23.9	2.0	0.30	ug/l	25.0	ND	96	60-135			
Trichloroethene	23.6	2.0	0.26	ug/l	25.0	ND	94	70-125			
Trichlorofluoromethane	26.2	5.0	0.34	ug/l	25.0	ND	105	55-145			
1,2,3-Trichloropropane	23.6	10	0.85	ug/l	25.0	ND	94	55-140			
1,2,4-Trimethylbenzene	22.4	2.0	0.23	ug/l	25.0	ND	90	60-125			
1,3,5-Trimethylbenzene	22.8	2.0	0.26	ug/l	25.0	ND	91	70-130			
Vinyl chloride	26.3	5.0	0.26	ug/l	25.0	ND	105	40-135			
o-Xylene	22.4	2.0	0.24	ug/l	25.0	ND	90	65-125			
m,p-Xylenes	46.1	2.0	0.52	ug/l	50.0	ND	92	65-130			
Di-isopropyl Ether (DIPE)	25.0	5.0	0.25	ug/l	25.0	ND	100	65-140			

# ે Mar Analytical, Irvine

hele Harper rroject Manager



1WH-Pasadena/Boeing

Attention: Bronwyn Kelly

Pasadena, CA 91101

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

## METHOD BLANK/QC DATA

# **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 4J06029 Extracted: 10/06/	04										
Matrix Spike Analyzed: 10/06/04 (4J0	)6029-MS1)				Sou	rce: INJ0	203-01				
Ethyl tert-Butyl Ether (ETBE)	24.7	5.0	0.28	ug/l	25.0	ND	99	60-140			
tert-Amyl Methyl Ether (TAME)	25.2	5.0	0.33	ug/l	25.0	ND	101	55-145			
Surrogate: Dibromofluoromethane	25.9	2.0	0.00	ug/l	25.0	ND	101 104	80-120			
Surrogate: Toluene-d8	25.3			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	25.9			ug/l	25.0		104	80-120			
Matrix Spike Dup Analyzed: 10/06/04	(4J06029-MSI	<b>D1</b> )			Sou	rce: INJ0	203-01				
Acetone	41.5	10	4.5	ug/l	25.0	15	106	10-150	14	35	
Benzene	23.4	2.0	0.28	ug/l	25.0	ND	94	70-120	0	20	
Bromobenzene	22.8	5.0	0.27	ug/l	25.0	ND	91	65-130	0	20	
omochloromethane	25.1	5.0	0.32	ug/l	25.0	ND	100	65-140	2	25	
modichloromethane	24.7	2.0	0.30	ug/l	25.0	ND	99	70-140	0 ·	20	
Bromoform	22.6	5.0	0.32	ug/l	25.0	ND	90	55-140	2	25	
Bromomethane	25.9	5.0	0.34	ug/l	25.0	ND	104	50-145	2	25	
2-Butanone (MEK)	25.7	10	3.8	ug/l	25.0	ND	103	30-145	1	40	
n-Butylbenzene	22.9	5.0	0.17	ug/l	25.0	ND	92	70-140	1	20	
sec-Butylbenzene	22.5	5.0	0.25	ug/l	25.0	ND	90	70-130	0	20	
tert-Butylbenzene	22.2	5.0	0.22	ug/l	25.0	ND	89	70-130	1	20	
Carbon tetrachloride	24.9	5.0	0.28	ug/l	25.0	ND	100	70-145	2	25	
Chlorobenzene	23.0	2.0	0.36	ug/l	25.0	ND	92	80-125	0	20	
Chloroethane	26.2	5.0	0.33	ug/l	25.0	ND	105	50-145	3	25	
Chloroform	24.3	2.0	0.33	ug/l	25.0	ND	97	70-135	0	20	
Chloromethane	25.1	5.0	0.30	ug/l	25.0	ND	100	35-145	1	25	
2-Chlorotoluene	21.9	5.0	0.28	ug/l	25.0	ND	88	70-140	1	20	
4-Chlorotoluene	22.4	5.0	0.29	ug/l	25.0	ND	90	70-140	1	20	
Dibromochloromethane	24.8	2.0	0.28	ug/l	25.0	ND	99	65-145	1	25	
1,2-Dibromo-3-chloropropane	24.1	5.0	0.92	ug/l	25.0	ND	96	45-155	4	30	
1,2-Dibromoethane (EDB)	24.3	2.0	0.32	ug/l	25.0	ND	97	70-130	1	25	
Dibromomethane	24.9	2.0	0.36	ug/l	25.0	ND	100	65-140	1	25	
1,2-Dichlorobenzene	22.8	2.0	0.32	ug/l	25.0	ND	91	75-130	0	20	
1,3-Dichlorobenzene	22.2	2.0	0.35	ug/l	25.0	ND	89	75-130	1	20	
1,4-Dichlorobenzene	22.7	2.0	0.37	ug/l	25.0	ND	91	80-120	0	20	
Dichlorodifluoromethane	24.0	5.0	0.79	ug/l	25.0	ND	96	10-160	2	30	
1,1-Dichloroethane	24.1	2.0	0.27	ug/l	25.0	ND	96	65-135	0	20	
1,2-Dichloroethane	25.3	2.0	0.28	ug/l	25.0	ND	101	60-150	0	20	
1,1-Dichloroethene	17.3	5.0	0.32	ug/l	25.0	ND	69	65-140	1	20	

#### Pel Mar Analytical, Irvine

hele Harper

r roject Manager

IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Pasadena, CA 91101

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

Attention: Bronwyn Kelly

### METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04	<u>1</u>										
Market Co. U David Arraham J. 10/06/04	/410/020 NACT	<b></b> .			G	YNT TO	202.01				
Matrix Spike Dup Analyzed: 10/06/04 (	•	•				rce: INJ0			•		
cis-1,2-Dichloroethene	23.3	2.0	0.32	ug/l	25.0	ND	93	65-130	0	20	
trans-1,2-Dichloroethene	24.3	2.0	0.27	ug/l	25.0	ND	97	65-135	0	20	
1,2-Dichloropropane	23.9	2.0	0.35	ug/l	25.0	ND	96	65-130	0	20	
1,3-Dichloropropane	24.0	2.0	0.30	ug/l	25.0	ND	96	65-140	1	25	
2,2-Dichloropropane	21.5	2.0	0.29	ug/l	25.0	ND	86	60-150	2	25	
1,1-Dichloropropene	23.8	2.0	0.28	ug/l	25.0	ND	95	65-140	1	20	
cis-1,3-Dichloropropene	24.1	2.0	0.22	ug/l	25.0	ND	96	70-140	1	20	
trans-1,3-Dichloropropene	24.8	2.0	0.24	ug/l	25.0	ND	99	70-140	0	25	
Ethylbenzene	23.0	2.0	0.25	ug/l	25.0	ND	92	70-130	2	20	
Hexachlorobutadiene	22.4	5.0	0.38	ug/l	25.0	ND	90	65-140	4	20	
exanone	25.8	10	2.6	ug/l	25.0	ND	103	20-145	2	35	
asopropylbenzene	22.6	2.0	0.25	ug/l	25.0	ND	90	70-130	2	20	
p-Isopropyltoluene	22.2	2.0	0.28	ug/l	25.0	ND	89	70-130	2	20	
Methylene chloride	23.7	5.0	0.48	ug/l	25.0	ND	95	60-135	1	20	
4-Methyl-2-pentanone (MIBK)	26.6	10	2.5	ug/l	25.0	ND	106	40-145	3	35	
Methyl-tert-butyl Ether (MTBE)	35.0	5.0	0.32	ug/l	25.0	9.8	101	50-155	1	25	
Naphthalene	23.6	5.0	0.41	ug/l	25.0	ND	94	50-150	8	30	
n-Propylbenzene	22.3	2.0	0.14	ug/l	25.0	ND	89	70-135	2	20	
Styrene	10.1	2.0	0.16	ug/l	25.0	ND	40	55-145	64	30	M2, R-3
1,1,1,2-Tetrachloroethane	24.3	5.0	0.27	ug/l	25.0	ND	97	70-145	1	20	
1,1,2,2-Tetrachloroethane	25.0	2.0	0.24	ug/l	25.0	ND	100	60-145	4	30	
Tetrachloroethene	23.3	2.0	0.32	ug/l	25.0	ND	93	70-130	0	20	
Toluene	23.3	2.0	0.36	ug/l	25.0	ND	93	70-120	0	20	
1,2,3-Trichlorobenzene	23.7	5.0	0.45	ug/l	25.0	ND	95	60-140	10	20	
1,2,4-Trichlorobenzene	23.2	5.0	0.48	ug/l	25.0	ND	93	60-140	4	20	
1,1,1-Trichloroethane	24.2	2.0	0.30	ug/l	25.0	ND	97	75-140	1	20	
1,1,2-Trichloroethane	24.4	2.0	0.30	ug/l	25.0	ND	98	60-135	2	25	
Trichloroethene	23.6	2.0	0.26	ug/l	25.0	ND	94	70-125	0	20	
Trichlorofluoromethane	26.7	5.0	0.34	ug/l	25.0	ND	107	55-145	2	25	
1,2,3-Trichloropropane	24.0	10	0.85	ug/l	25.0	ND	96	55-140	2	30	
1,2,4-Trimethylbenzene	21.6	2.0	0.23	ug/l	25.0	ND	86	60-125	4	25	
1,3,5-Trimethylbenzene	22.0	2.0	0.26	ug/l	25.0	ND	88	70-130	4	20	
Vinyl chloride	26.2	5.0	0.26	ug/l	25.0	ND	105	40-135	0	30	
o-Xylene	22.5	2.0	0.24	ug/l	25.0	ND	90	65-125	0	20	
m,p-Xylenes	45.1	2.0	0.52	ug/l	50.0	ND	90	65-130	2	25	

Mar Analytical, Irvine hele Harper

Project Manager

IWH-Pasadena/Boeing

Project ID: Alfa Outfall 012 - During Test

300 North Lake Avenue, Suite 1200

Report Number: INI1882

Sampled: 09/29/04

Attention: Bronwyn Kelly

Pasadena, CA 91101

Received: 09/30/04

### METHOD BLANK/QC DATA

## **VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J06029 Extracted: 10/06/04	_										
Matrix Spike Dup Analyzed: 10/06/04 (4	IJ06029-MSD1	)			Sou	rce: INJ0	203-01				
Di-isopropyl Ether (DIPE)	25.0	5.0	0.25	ug/l	25.0	ND	100	65-140	0	25	
Ethyl tert-Butyl Ether (ETBE)	25.0	5.0	0.28	ug/l	25.0	ND	100	60-140	1	25	
tert-Amyl Methyl Ether (TAME)	25.8	5.0	0.33	ug/l	25.0	ND	103	55-145	2	30	
Surrogate: Dibromofluoromethane	26.0			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	25.6			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	25.8			ug/l	25.0		103	80-120			

IWH-Pasadena/Boeing

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Pasadena, CA 91101

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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 Qualifiers
Batch: 4I30050 Extracted: 09/30/04											-
Blank Analyzed: 09/30/04 (4I30050-BLK	(1)										
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 09/30/04 (4I30050-BS1)											
Perchlorate	51.4	4.0	0.80	ug/l	50.0		103	85-115			
Matrix Spike Analyzed: 09/30/04 (4I3005	50-MS1)				Sou	rce: INI1	819-01				
Perchlorate	56.4	4.0	0.80	ug/l	50.0	5.4	102	80-120			
Matrix Spike Dup Analyzed: 09/30/04 (4	I30050-MSD1	)			Sou	rce: INI1	819-01				
Perchlorate	57.7	4.0	0.80	ug/l	50.0	5.4	105	80-120	2	20	
<u>tch: 4I30104 Extracted: 09/30/04</u>											
Blank Analyzed: 09/30/04 (4I30104-BLK	1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/30/04 (4I30104-BS1)											
Total Suspended Solids	1020	10	10	mg/l	1000		102	85-115			
Duplicate Analyzed: 09/30/04 (4I30104-D	UP1)				Sour	rce: INI18	380-01				
Total Suspended Solids	ND	10	10	mg/l		ND				10	
Batch: 4J01049 Extracted: 10/01/04											
Duplicate Analyzed: 10/01/04 (4J01049-D	UP1)				Sour	ce: INI18	359-01				
pH	5.80	NA	N/A	pH Units		5.82			0	5	

WH-Pasadena/Boeing

300 North Lake Avenue, Suite 1200

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

Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

### METHOD BLANK/QC DATA

#### **INORGANICS**

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J01058 Extracted: 10/01/04	Ē										
Blank Analyzed: 10/06/04 (4J01058-BLF	<b>(1)</b>										
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
• •			,	8							
LCS Analyzed: 10/06/04 (4J01058-BS1)	200	100	20		100		106	06 116			
Biochemical Oxygen Demand	209	100	30	mg/l	198		106	85-115			
LCS Dup Analyzed: 10/06/04 (4J01058-F	BSD1)										
Biochemical Oxygen Demand	210	100	30	mg/l	198		106	85-115	1	20	
Batch: 4J01064 Extracted: 10/01/04	ı										
Blank Analyzed: 10/01/04 (4J01064-BLK	(1)										
hidity	ND	1.0	0.20	NTU							
Duplicate Analyzed: 10/01/04 (4J01064-I	OUP1)				Sou	rce: INI1	887-01				
Turbidity	ND	1.0	0.20	NTU		ND				20	
Batch: 4J05065 Extracted: 10/05/04											
Blank Analyzed: 10/05/04 (4J05065-BLK	(1)										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 10/05/04 (4J05065-BS1)											
Total Dissolved Solids	992	10	10	mg/l	1000		99	90-110			
Duplicate Analyzed: 10/05/04 (4J05065-D	UP1)				Sour	rce: INI18	31-01				
Total Dissolved Solids	424	10	10	mg/l		430			1	10	

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Received: 09/30/04

### METHOD BLANK/QC DATA

#### **INORGANICS**

	1	Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 4J05066 Extracted: 10/05/04											
Blank Analyzed: 10/05/04 (4J05066-BLF	<b>(1)</b>										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 10/05/04 (4J05066-BS1)											
Ammonia-N (Distilled)	9.24	0.50	0.30	mg/l	10.0		92	80-115			
LCS Dup Analyzed: 10/05/04 (4J05066-I	BSD1)										
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0		95	80-115	3	15	
Matrix Spike Analyzed: 10/05/04 (4J050	66-MS1)				Sou	rce: INI1'	708-01				
Ammonia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0	ND	98	70-120			
atrix Spike Dup Analyzed: 10/05/04 (4	J05066-MSD1	)			Sou	rce: INI1	708-01				
monia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0	ND	98	70-120	0	15	
Batch: 4J05067 Extracted: 10/05/04											
Blank Analyzed: 10/05/04 (4J05067-BLK	<b>(1)</b>										
Oil & Grease	ND	5.0	0.94	mg/l							
LCS Analyzed: 10/05/04 (4J05067-BS1)											M-NR1
Oil & Grease	19.3	5.0	0.94	mg/l	20.0		96	65-120			
LCS Dup Analyzed: 10/05/04 (4J05067-B	BSD1)										
Oil & Grease	20.0	5.0	0.94	mg/l	20.0		100	65-120	4	20	

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### METHOD BLANK/QC DATA

### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: P4J0202 Extracted: 10/02/	04										
Blank Analyzed: 10/02/04 (P4J0202-E	BLK1)										
1,4-Dioxane	ND	1.0	N/A	ug/l							
Surrogate: Dibromofluoromethane	1.05			ug/l	1.00		105	80-135			
LCS Analyzed: 10/02/04 (P4J0202-BS	51)										
1,4-Dioxane	11.4	1.0	N/A	ug/l	10.0		114	70-130			
Surrogate: Dibromofluoromethane	1.00			ug/l	1.00		100	80-135			
LCS Dup Analyzed: 10/02/04 (P4J020	2-BSD1)										
1,4-Dioxane	10.2	1.0	N/A	ug/l	10.0		102	70-130	11	20	
Surrogate: Dibromofluoromethane	1.04			ug/l	1.00		104	80-135			
trix Spike Analyzed: 10/02/04 (P4J	(0202-MS1)		Source: PNI0910-01								
Dioxane	11.5	1.0	N/A	ug/l	10.0	ND	115	70-130			
Surrogate: Dibromofluoromethane	1.05			ug/l	1.00		105	80-135			
Matrix Spike Dup Analyzed: 10/02/04	(P4J0202-MSI	<b>D1</b> )			Soui	rce: PNI0	910-01				
1,4-Dioxane	10.8	1.0	N/A	ug/l	10.0	ND	108	70-130	6	20	
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-135			

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### METHOD BLANK/QC DATA

## Semivolatile Organic Compounds by EPA Method 625

Amaluta	Dogult	Reporting Limit	MDL	II'mita	Spike	Source	0/ DEC	%REC	nnn	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%KEC	Limits	RPD	Limit	Qualifiers
Batch: V4J0615 Extracted: 10/06/04	<u> </u>										
Blank Analyzed: 10/07/04 (V4J0615-BL	<b>K</b> 1)										
Naphthalene	ND	10.0	1.31	ug/L							
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L							
Surrogate: 2-FP	106			ug/L	200		53	40.8-88.4			
Surrogate: Phenol-d6	94.7			ug/L	200		47	31.7-86.6			
Surrogate: 2,4,6-TBP	172			ug/L	200		86	58-109			
Surrogate: Nitrobenzene-d5	66.2			ug/L	100		66	47.1-99.2			
Surrogate: 2-FBP	64.6			ug/L	100		65	44.7-89.6			
Surrogate: p-Terphenyl-d14	76.1			ug/L	100		76	45.7-117			
LCS Analyzed: 10/07/04 (V4J0615-BS1)											
ohthalene	132	10.0	1.31	ug/L	200		66	38.5-85.1			
Nitrosodimethylamine	110	20.0	1.37	ug/L	200		55	14.1-97.3			
Surrogate: 2-FP	106			ug/L	200		53	40.8-88.4			
Surrogate: Phenol-d6	102			ug/L	200		51	31.7-86.6			
Surrogate: 2,4,6-TBP	179			ug/L	200		90	58-109			
Surrogate: Nitrobenzene-d5	70.1			ug/L	100		70	47.1-99.2			
Surrogate: 2-FBP	66.7			ug/L	100		67	44.7-89.6			
Surrogate: p-Terphenyl-d14	82.0			ug/L	100		82	45.7-117			
LCS Dup Analyzed: 10/07/04 (V4J0615-	BSD1)										
Naphthalene	131	10.0	1.31	ug/L	200		66	38.5-85.1	1	17.3	
N-Nitrosodimethylamine	95.6	20.0	1.37	ug/L	200		48	14.1-97.3	14	32.5	
Surrogate: 2-FP	99.1			ug/L	200		50	40.8-88.4			
Surrogate: Phenol-d6	96.8			ug/L	200		48	31.7-86.6			
Surrogate: 2,4,6-TBP	181			ug/L	200		91	58-109			
Surrogate: Nitrobenzene-d5	73.3			ug/L	100		73	47.1-99.2			
Surrogate: 2-FBP	68.4			ug/L	100		68	44.7-89.6			
Surrogate: p-Terphenyl-d14	80.3			ug/L	100		80	45.7-117			

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## METHOD BLANK/QC DATA

## Semivolatile Organic Compounds by EPA Method 625

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: V4J0615 Extracted: 10/06/0	4										
Duplicate Analyzed: 10/07/04 (V4J0615	5-DUP1)				Sou	rce: V410	0018-01				
Naphthalene	9.96	10.0	1.31	ug/L		9.06			9	30	Ja
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L		ND				30	
Surrogate: 2-FP	95.6			ug/L	200		48	40.8-88.4			
Surrogate: Phenol-d6	86.9			ug/L	200		43	31.7-86.6			
Surrogate: 2,4,6-TBP	157			ug/L	200		79	58-109			
Surrogate: Nitrobenzene-d5	71.8			ug/L	100		72	47.1-99.2			
Surrogate: 2-FBP	67.7			ug/L	100		68	44.7-89.6			
Surrogate: p-Terphenyl-d14	81.4			ug/L	100		81	45.7-117			
Matrix Spike Analyzed: 10/07/04 (V4J0	)615-MS1)				Sou	rce: INI1	882-01				
hthalene	161	10.0	1.31	ug/L	200	28.4	66	70-130			A-04
itrosodimethylamine	85.6	20.0	1.37	ug/L	200	ND	43	70-130			A-04
Surrogate: 2-FP	99.5			ug/L	200		50	40.8-88.4			
Surrogate: Phenol-d6	98.1			ug/L	200		49	31.7-86.6			
Surrogate: 2,4,6-TBP	154			ug/L	200		77	58-109			
Surrogate: Nitrobenzene-d5	<i>78.0</i>			ug/L	100		<i>78</i>	47.1-99.2			
Surrogate: 2-FBP	70.2			ug/L	100		70	44.7-89.6			
Surrogate: p-Terphenyl-d14	<i>78.3</i>			ug/L	100		78	45.7-117			



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Attention: Bronwyn Kelly

### **DATA QUALIFIERS AND DEFINITIONS**

A-04	The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.
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.
Ja	The reported result is an estimated value. The reported result is above the Method Detection Limit but below the standard Reporting Limit.
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-NR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
R-3	The RPD exceeded the method control limit due to sample matrix effects.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

### **ADDITIONAL COMMENTS**

#### For GRO (C4-C12):

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak. or Extractable Fuel Hydrocarbons (EFH, DRO, ORO):

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

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Certification Summary

#### Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV 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**

el Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907

9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed:

EPA 8260B

Samples: INI1882-01

Star Analytical, Inc. CA ELAP Cert #1849

14500 Trinity Boulevard, Suite 106 - Fort Worth, TX 76155

Method Performed: EPA 625

Samples: INI1882-01

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