Olson-ECOlogic
Engine Testing Laboratories, LLC

February 5, 2004

Mr. Joel Ratner
Rentar Environmental Solutions, Inc.
11586 Pierson Road
West Palm Beach, FL 33414

Re: Effect of the Rentar device operation on the exhaust Dioxins and Furans.

Dear Mr. Ratner,

This letter report and enclosure is our report on the referenced subject.

If you have questions please don't hesitate to call me.

Test Engine:

These samples were captured from a Cummins N-14 diesel engine used to power a 1994 Peterbuilt Model 377 freightliner tractor with 1,062,760 odometer miles.

Dioxin and Furan Analysis:

The Steady-State 50 mph cycle for both baseline and 100 hours of chassis dynamometer operation with the Rentar device were used for dioxin and furan analysis. The analysis was performed from the particulate filters by an outside independent laboratory (Severn Trent, West Sacramento, CA). The entire report is enclosed. The conclusion is that no dioxin and furan were detectable as a result of engine operation with the Rentar device installed.

Sincerely,

Dorel R. Olson

Dorel R. Olson

Enclosure: Report

1370 South Acacia Avenue, Fullerton, California 92831
Tel (714) 774-3385 • Fax (714) 774-4036
www.ecologiclabs.com

SEVERN TRENT STI

STL Sacramento
880 Riverside Parkway
West Sacramento, CA 95605

Tel: 916 373 5600 Fax: 916 372 1059
www.stl-inc.com

January 23, 2004

STL SACRAMENTO PROJECT NUMBER: G3L230353
PO/CONTRACT: ECO4007

Don Olson
Olson Engineering, Inc.
1370 South Acacia Avenue
Fullerton, CA 92831

Dear Mr. Olson,

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on December 19, 2003. These samples are associated with your Dioxin/Furan Testing project.

The test results in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4384.

Sincerely,

Karen Dahl
Project Manager

CASE NARRATIVE

STL SACRAMENTO PROJECT NUMBER G3L230353

General Comments

Sample STEADY STATE BASELINE was received at the laboratory after the recommended holding time for the method had expired.

The samples were received at ambient temperature.

There were no other anomalies associated with this project.

Leach

ETS

A division of

Olson Engineering, Inc.

December 28, 2002

Mr. Joel Ratner
CEO/President
Rentar Environmental Solutions, Inc.
11586 Pierson Road
West Palm Beach, FL 33414

Re: Final report of your bench test to check for toxic metals.

Dear Joel,

The referenced final report is enclosed. Please feel free to contact me should you need further information or have questions.

Sincerely,

Donel R. Olson
President

Enclosure

2011 B Placentia Avenue, Costa Mesa, California 92627
949-574-7342 ◆ Fax 949-574-8450
dro3409@aol.com

ETS

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Olson Engineering, Inc.

FINAL REPORT

Bench Flow Testing of the Rentar In-Line Fuel Catalyst to Determine if Any Toxic Metals Leach Into the Fuel Stream

Prepared for

Rentar Environmental Solutions, Inc.
11586 Pierson Road
West Palm Beach, FL 33414

Prepared by

Emission Testing Services
of Costa Mesa, CA
December 2 thru December 10, 2002

2011 B Placentia Avenue, Costa Mesa, California 92627
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dro3409@aol.com

Introduction and Background:

The California Air Resources Board (CARB) has promulgated a protocol and test procedure test plan for in-line fuel devices that may have a propensity to leach toxic metals into the fuel stream. This CARB test plan is applicable for both diesel fuel and gasoline powered engines.

Project Objective:

The primary objective of this project was to determine if any toxic metals (copper, lead, antimony or mercury) were present in the fuel after recirculation through a standard Rentar in-line fuel catalyst device for the equivalent of at least 7,500 gallons of throughput.

The Rentar Fuel Catalyst:

The device was a production model Rentar fuel catalyst of proprietary composition and design. In exact accordance with the client's instructions it was installed in the main fuel line as close to the fuel injectors as possible. With the device installed all of the diesel fuel from the engine fuel pump passed through the device including the fuel that normally recycles from the fuel tank.

Test Method and Procedures:

The test procedure involved a bench mounted apparatus that recycled CARB specified No. 2 diesel fuel through the standard Rentar in-line fuel catalyst. The apparatus consisted of a fuel reservoir of about four (4) gallons and a means of heating and controlling the fuel temperature to a specified 130°F prior to entering the device.

With the device installed, the test apparatus was operated at a constant maximum flow rate of two (2) gallons per minute using diesel fuel heated to 130°F. Fuel temperatures and flow rates were recorded periodically throughout the test.

The test was conducted for 66.5 hours resulting in an equivalent of 7,980 gallons of fuel being recirculated through the Rentar device. This exposure to fuel flow is approximately equivalent to 1,000 hours of diesel engine operation for the Rentar device that was tested.

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dro3409@aol.com

The Test Results:

There was no increase in any measured (toxic) metals as a result of circulating the equivalent of 7,980 gallons of diesel fuel through the Rentar device at a 130°F elevated temperature.

Measurements of metals and fuel properties were conducted on the baseline fuel and on the same fuel after recirculation through the device. These measurements were made by Analysts, Inc., an independent chemical testing laboratory. The Analysts, Inc. reports are provided in the Appendix.

Measurement of the fuel weight before and after the test showed an evaporation loss from 11,815 grams of fuel to 10,446 grams, a loss of 11.6%. This loss is reflected in the Analysts, Inc. report as a change in the distillation data, viscosity and gravity.

Appendix Material:

A. Analysts, Inc. reports dated December 23, 2002

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dro3409@aol.com

12 B

A division of

Olson Engineering, Inc.

December 22, 2002

Fuel Pressure

Mr. Joel S. Ratner
President/CEO
Rentar Environmental Solutions, Inc.
11586 Pierson Road
West Palm Beach FL 33414

Re: Fuel flow vs. pressure drop for your standard Rentar in-line catalyst device

Dear Mr. Ratner:

In accordance with your request we have measured the pressure drop across your standard Rentar in-line catalyst device designed for diesel engine applications in the 200 to 500 horsepower range.

The test was conducted by circulating No. 2 diesel fuel meeting California ARB specifications through the device at flow rates up to 2.5 gallons per minute (150 gallons per hour). The fuel temperature was held constant at 75 degrees F. Pressure was measured in pounds per square inch at the inlet and outlet of the device.

The data are tabulated in the enclosed table and show that for normal diesel fuel flow rates typical of diesel engine applications the pressure drop is insignificant

If you have any questions please don't hesitate to contact me.

Sincerely,

Donel R. Olson
President

Enclosure

A division of
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Olson Engineering, Inc.

Table 1
Rentar In-line Fuel Catalyst
Fuel Flow vs. Pressure Drop Through Catalyst Device

Using No. 2 Diesel Fuel at 75 Degrees F

Diesel Fuel Flow Through Catalyst	Pressure in to Catalyst	Pressure out of Catalyst	Pressure drop across Catalyst	Pressure drop across Catalyst
Gallons/minute	PSI	PSI	PSI	Inches of Water
0	0	0	0	0
0.1	0.4	0.3	0.1	2.8
0.2	0.6	0.4	0.2	5.6

Above data represents typical flow rates in ordinary diesel engine use.

0.4	1	0.4	0.6
0.5	1.2	0.5	0.7
0.6	1.4	0.6	0.8
0.8	2	0.8	1.2
1	2.7	1	1.6
1.2	3.3	1.1	2.2
1.5	4.1	1.5	2.6
1.8	4.8	1.7	3.1
2	5.5	2	3.5
2.5	7	3	4

########

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949-574-7342 ◆ Fax 949-574-8450
www.etsusa.com dro3409@aol.com

TABLE OF CONTENTS

STL SACRAMENTO PROJECT NUMBER G3L230353

SEVERN TRENT STL

ACCREDITED IN ACCORDANCE WITH nelap

STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon	CA 200005
Arizona	[illegible]	[illegible]	[illegible]
Arkansas	NA	South Carolina	87014001
California	[illegible]	[illegible]	[illegible]
Connecticut	PH-0691	Virginia	00178
Florida	[illegible]	[illegible]	[illegible]
Georgia	960	West Virginia	9930C, 334
Hawaii	[illegible]	[illegible]	[illegible]
Louisiana*	01944	NFESC	NA
Maine	[illegible]	[illegible]	[illegible]
New Jersey*	CA005	USDA Foreign Plant	37-82605
New York	[illegible]	[illegible]	[illegible]

*NELAP accredited. A more detailed parameter list is available upon request.

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

Sample Summary
G3L230353

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
F7A4C	1	STEADY STATE BASELINE	11/13/2003	12/19/2003 09:40 AM
F7A4F	2	STEADY STATE FINAL	12/12/2003	12/19/2003 09:40 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

	Request by Don Olson (Olson Engineering, Inc.)			
	Severn Trent Lab.			
	I.D.	Date of Sampling	Analysis Method	
	Steady State Baseline	11/13/2003	Dioxins/Furans	
	Steady State Final	12/12/2003	Dioxins/Furans	

Tel: 714-774-3569.

SEVERN TRENT STL

LOT RECEIPT CHECKLIST
STL Sacramento

CLIENT Ecologic Engine PM Rev LOG # 24625

LOT# (QUANTIMS ID) G3L230353 QUOTE# 56433 LOCATION W140

DATE RECEIVED 12-9-03 TIME RECEIVED 9.40

	Initials	Date
	MS	12-9-03

DELIVERED BY ☒ FEDEX ☐ CA OVERNIGHT ☐ CLIENT
☐ AIRBORNE ☐ GOLDENSTATE ☐ DHL
☐ UPS ☐ BAX GLOBAL ☐ GO-GETTERS
☐ STL COURIER ☐ COURIERS ON DEMAND
☐ OTHER

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☒ N/A

CUSTODY SEAL #(S) _____

SHIPPPING CONTAINER(S) ☐ STL ☒ CLIENT ☐ N/A

TEMPERTURE RECORD (IN °C) IR 1☐ 2☐ ☒ OTHER amb

COC #(S) _____

TEMPERATURE BLANK _____

SAMPLE TEMPERATURE ambient

COLLECTOR'S NAME: ☐ Verified from COC ☒ Not on COC

pH MEASURED ☐ YES ☐ ANOMALY ☒ N/A

LABELED BY..... qc 12-9-03

LABELS CHECKED BY.....

PEER REVIEW _____ ☒ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING
WETCHEM ☒ N/A
VOA-ENCORES ☒ N/A

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☒ N/A

☒ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A

☐ Clouseau ☐ TEMPERATURE EXCEEDED (2 °-6 °C) ☒ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

Notes: _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA *																				
VOAh *																				
___AGB																				
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
250AGBna																				
___AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
___CGJ																				
500CGJ																				
250CGJ																				
125CGJ																				
___PB/PJ																				
___PBn/PJn																				
500PB/PJ																				
500PBn/PJn																				
500PBna																				
500PBzn/na																				
250PB																				
250PBn																				
250PBna																				
250PBzn/na																				
___*CT																				
Encore																				
Folder/Filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

h = hydrochloric acid s = sulfuric acid na = sodium hydroxide n = nitric acid zn = zinc acetate

AIR, 23, Dioxins/Furans, HRGC/HRMS

Olson Engineering, Inc.

Client Sample ID: STEADY STATE BASELINE

Trace Level Organic Compounds

Lot-Sample #...: G3L230353-001 Work Order #...: F7A4C1AA Matrix.....: AIR
Date Sampled...: 11/13/03 Date Received..: 12/19/03
Prep Date.....: 12/29/03 Analysis Date..: 12/31/03
Prep Batch #...: 3363503
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	5.2	pg	CFR60A 23
Total TCDD	ND	5.2	pg	CFR60A 23
1,2,3,7,8-PeCDD	ND	12	pg	CFR60A 23
Total PeCDD	ND	12	pg	CFR60A 23
1,2,3,4,7,8-HxCDD	ND	9.5	pg	CFR60A 23
1,2,3,6,7,8-HxCDD	ND	9.2	pg	CFR60A 23
1,2,3,7,8,9-HxCDD	ND	8.9	pg	CFR60A 23
Total HxCDD	ND	9.5	pg	CFR60A 23
1,2,3,4,6,7,8-HpCDD	ND	11	pg	CFR60A 23
Total HpCDD	ND	11	pg	CFR60A 23
OCDD	ND	9.0	pg	CFR60A 23
2,3,7,8-TCDF	ND	3.6	pg	CFR60A 23
Total TCDF	ND	3.6	pg	CFR60A 23
1,2,3,7,8-PeCDF	ND	6.3	pg	CFR60A 23
2,3,4,7,8-PeCDF	ND	6.2	pg	CFR60A 23
Total PeCDF	ND	6.4	pg	CFR60A 23
1,2,3,4,7,8-HxCDF	ND	7.2	pg	CFR60A 23
1,2,3,6,7,8-HxCDF	ND	6.9	pg	CFR60A 23
2,3,4,6,7,8-HxCDF	ND	7.6	pg	CFR60A 23
1,2,3,7,8,9-HxCDF	ND	8.2	pg	CFR60A 23
Total HxCDF	ND	8.2	pg	CFR60A 23
1,2,3,4,6,7,8-HpCDF	ND	8.5	pg	CFR60A 23
1,2,3,4,7,8,9-HpCDF	ND	10	pg	CFR60A 23
Total HpCDF	ND	10	pg	CFR60A 23
OCDF	ND	16	pg	CFR60A 23

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	94	(40 - 130)
13C-1,2,3,7,8-PeCDD	86	(40 - 130)
13C-1,2,3,6,7,8-HxCDD	93	(40 - 130)
13C-1,2,3,4,6,7,8-HpCDD	108	(25 - 130)
13C-OCDD	123	(25 - 130)
13C-2,3,7,8-TCDF	90	(40 - 130)
13C-1,2,3,7,8-PeCDF	78	(40 - 130)
13C-1,2,3,6,7,8-HxCDF	98	(40 - 130)
13C-1,2,3,4,6,7,8-HpCDF	102	(25 - 130)

Olson Engineering, Inc.

Client Sample ID: STEADY STATE FINAL

Trace Level Organic Compounds

Lot-Sample #...: G3L230353-002 Work Order #...: F7A4F1AA Matrix.....: AIR
Date Sampled...: 12/12/03 Date Received..: 12/19/03
Prep Date.....: 12/29/03 Analysis Date..: 12/31/03
Prep Batch #...: 3363503
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	6.0	pg	CFR60A 23
Total TCDD	ND	6.0	pg	CFR60A 23
1,2,3,7,8-PeCDD	ND	11	pg	CFR60A 23
Total PeCDD	ND	15	pg	CFR60A 23
1,2,3,4,7,8-HxCDD	ND	9.1	pg	CFR60A 23
1,2,3,6,7,8-HxCDD	ND	8.8	pg	CFR60A 23
1,2,3,7,8,9-HxCDD	ND	8.5	pg	CFR60A 23
Total HxCDD	ND	9.1	pg	CFR60A 23
1,2,3,4,6,7,8-HpCDD	ND	8.6	pg	CFR60A 23
Total HpCDD	ND	8.6	pg	CFR60A 23
OCDD	ND	9.8	pg	CFR60A 23
2,3,7,8-TCDF	ND	4.0	pg	CFR60A 23
Total TCDF	ND	4.5	pg	CFR60A 23
1,2,3,7,8-PeCDF	ND	6.8	pg	CFR60A 23
2,3,4,7,8-PeCDF	ND	6.8	pg	CFR60A 23
Total PeCDF	ND	6.8	pg	CFR60A 23
1,2,3,4,7,8-HxCDF	ND	4.5	pg	CFR60A 23
1,2,3,6,7,8-HxCDF	ND	4.3	pg	CFR60A 23
2,3,4,6,7,8-HxCDF	ND	4.8	pg	CFR60A 23
1,2,3,7,8,9-HxCDF	ND	5.2	pg	CFR60A 23
Total HxCDF	ND	5.2	pg	CFR60A 23
1,2,3,4,6,7,8-HpCDF	ND	8.2	pg	CFR60A 23
1,2,3,4,7,8,9-HpCDF	ND	9.6	pg	CFR60A 23
Total HpCDF	ND	9.6	pg	CFR60A 23
OCDF	ND	13	pg	CFR60A 23

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	95	(40 - 130)
13C-1,2,3,7,8-PeCDD	78	(40 - 130)
13C-1,2,3,6,7,8-HxCDD	95	(40 - 130)
13C-1,2,3,4,6,7,8-HpCDD	83	(25 - 130)
13C-OCDD	87	(25 - 130)
13C-2,3,7,8-TCDF	88	(40 - 130)
13C-1,2,3,7,8-PeCDF	82	(40 - 130)
13C-1,2,3,6,7,8-HxCDF	100	(40 - 130)
13C-1,2,3,4,6,7,8-HpCDF	87	(25 - 130)

QC DATA ASSOCIATION SUMMARY

G3L230353

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	AIR	CFR60A 23		3363503	
002	AIR	CFR60A 23		3363503	

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: G3L230353 Work Order #...: F7ELD1AA Matrix.....: AIR
MB Lot-Sample #: G3L290000-503

Prep Date.....: 12/29/03
Analysis Date..: 12/31/03 Prep Batch #...: 3363503
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	7.1	pg	CFR60A 23
Total TCDD	ND	7.1	pg	CFR60A 23
1,2,3,7,8-PeCDD	ND	16	pg	CFR60A 23
Total PeCDD	ND	16	pg	CFR60A 23
1,2,3,4,7,8-HxCDD	ND	10	pg	CFR60A 23
1,2,3,6,7,8-HxCDD	ND	10	pg	CFR60A 23
1,2,3,7,8,9-HxCDD	ND	9.8	pg	CFR60A 23
Total HxCDD	ND	10	pg	CFR60A 23
1,2,3,4,6,7,8-HpCDD	ND	9.6	pg	CFR60A 23
Total HpCDD	ND	9.6	pg	CFR60A 23
OCDD	ND	11	pg	CFR60A 23
2,3,7,8-TCDF	ND	4.2	pg	CFR60A 23
Total TCDF	ND	4.2	pg	CFR60A 23
1,2,3,7,8-PeCDF	ND	8.3	pg	CFR60A 23
2,3,4,7,8-PeCDF	ND	8.2	pg	CFR60A 23
Total PeCDF	ND	8.3	pg	CFR60A 23
1,2,3,4,7,8-HxCDF	ND	7.4	pg	CFR60A 23
1,2,3,6,7,8-HxCDF	ND	7.0	pg	CFR60A 23
2,3,4,6,7,8-HxCDF	ND	7.8	pg	CFR60A 23
1,2,3,7,8,9-HxCDF	ND	8.4	pg	CFR60A 23
Total HxCDF	ND	8.4	pg	CFR60A 23
1,2,3,4,6,7,8-HpCDF	ND	8.7	pg	CFR60A 23
1,2,3,4,7,8,9-HpCDF	ND	10	pg	CFR60A 23
Total HpCDF	ND	10	pg	CFR60A 23
OCDF	ND	18	pg	CFR60A 23

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(40 - 130)
13C-1,2,3,7,8-PeCDD	84	(40 - 130)
13C-1,2,3,6,7,8-HxCDD	94	(40 - 130)
13C-1,2,3,4,6,7,8-HpCDD	86	(25 - 130)
13C-OCDD	86	(25 - 130)
13C-2,3,7,8-TCDF	93	(40 - 130)
13C-1,2,3,7,8-PeCDF	86	(40 - 130)
13C-1,2,3,6,7,8-HxCDF	108	(40 - 130)
13C-1,2,3,4,6,7,8-HpCDF	89	(25 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: G3L230353 Work Order #...: F7ELD1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: G3L290000-S03 F7ELD1AD-LCSD
Prep Date.....: 12/29/03 Analysis Date..: 12/31/03
Prep Batch #...: 3363503
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
2,3,7,8-TCDD	800	744	pg	93		CFR60A 23
	800	789	pg	99	5.9	CFR60A 23
1,2,3,7,8-PeCDD	4000	3480	pg	87		CFR60A 23
	4000	3630	pg	91	4.1	CFR60A 23
1,2,3,4,7,8-HxCDD	4000	3690	pg	92		CFR60A 23
	4000	3630	pg	91	1.8	CFR60A 23
1,2,3,6,7,8-HxCDD	4000	3260	pg	81		CFR60A 23
	4000	3590	pg	90	9.8	CFR60A 23
1,2,3,7,8,9-HxCDD	4000	3610	pg	90		CFR60A 23
	4000	3750	pg	94	3.9	CFR60A 23
1,2,3,4,6,7,8-HpCDD	4000	3930	pg	98		CFR60A 23
	4000	4030	pg	101	2.4	CFR60A 23
OCDD	8000	7120	pg	89		CFR60A 23
	8000	7290	pg	91	2.3	CFR60A 23
2,3,7,8-TCDF	800	658	pg	82		CFR60A 23
	800	696	pg	87	5.7	CFR60A 23
1,2,3,7,8-PeCDF	4000	3790	pg	95		CFR60A 23
	4000	3990	pg	100	5.1	CFR60A 23
2,3,4,7,8-PeCDF	4000	3460	pg	87		CFR60A 23
	4000	3600	pg	90	4.1	CFR60A 23
1,2,3,4,7,8-HxCDF	4000	3750	pg	94		CFR60A 23
	4000	4070	pg	102	8.3	CFR60A 23
1,2,3,6,7,8-HxCDF	4000	3960	pg	99		CFR60A 23
	4000	4270	pg	107	7.6	CFR60A 23
2,3,4,6,7,8-HxCDF	4000	3740	pg	94		CFR60A 23
	4000	4210	pg	105	12	CFR60A 23
1,2,3,7,8,9-HxCDF	4000	3220	pg	80		CFR60A 23
	4000	3720	pg	93	14	CFR60A 23
1,2,3,4,6,7,8-HpCDF	4000	3730	pg	93		CFR60A 23
	4000	3830	pg	96	2.8	CFR60A 23
1,2,3,4,7,8,9-HpCDF	4000	3460	pg	86		CFR60A 23
	4000	4070	pg	102	16	CFR60A 23
OCDF	8000	7440	pg	93		CFR60A 23
	8000	7590	pg	95	2.0	CFR60A 23

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LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: G3L230353 Work Order #...: F7ELD1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: G3L290000-503 F7ELD1AD-LCSD

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(40 - 130)
	94	(40 - 130)
13C-1,2,3,7,8-PeCDD	84	(40 - 130)
	75	(40 - 130)
13C-1,2,3,6,7,8-HxCDD	99	(40 - 130)
	102	(40 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(25 - 130)
	87	(25 - 130)
13C-OCDD	102	(25 - 130)
	104	(25 - 130)
13C-2,3,7,8-TCDF	93	(40 - 130)
	95	(40 - 130)
13C-1,2,3,7,8-PeCDF	85	(40 - 130)
	80	(40 - 130)
13C-1,2,3,6,7,8-HxCDF	112	(40 - 130)
	105	(40 - 130)
13C-1,2,3,4,6,7,8-HpCDF	97	(25 - 130)
	92	(25 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: G3L230353 Work Order #...: F7ELD1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: G3L290000-503 F7ELD1AD-LCSD
Prep Date.....: 12/29/03 Analysis Date..: 12/31/03
Prep Batch #...: 3363503
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,3,7,8-TCDD	93	(67 - 117)			CFR60A 23
	99	(67 - 117)	5.9	(0-20)	CFR60A 23
1,2,3,7,8-PeCDD	87	(68 - 120)			CFR60A 23
	91	(68 - 120)	4.1	(0-20)	CFR60A 23
1,2,3,4,7,8-HxCDD	92	(68 - 118)			CFR60A 23
	91	(68 - 118)	1.8	(0-20)	CFR60A 23
1,2,3,6,7,8-HxCDD	81	(73 - 127)			CFR60A 23
	90	(73 - 127)	9.8	(0-20)	CFR60A 23
1,2,3,7,8,9-HxCDD	90	(73 - 127)			CFR60A 23
	94	(73 - 127)	3.9	(0-20)	CFR60A 23
1,2,3,4,6,7,8-HpCDD	98	(69 - 119)			CFR60A 23
	101	(69 - 119)	2.4	(0-20)	CFR60A 23
OCDD	89	(69 - 119)			CFR60A 23
	91	(69 - 119)	2.3	(0-20)	CFR60A 23
2,3,7,8-TCDF	82	(65 - 119)			CFR60A 23
	87	(65 - 119)	5.7	(0-20)	CFR60A 23
1,2,3,7,8-PeCDF	95	(68 - 122)			CFR60A 23
	100	(68 - 122)	5.1	(0-20)	CFR60A 23
2,3,4,7,8-PeCDF	87	(56 - 122)			CFR60A 23
	90	(56 - 122)	4.1	(0-20)	CFR60A 23
1,2,3,4,7,8-HxCDF	94	(67 - 120)			CFR60A 23
	102	(67 - 120)	8.3	(0-20)	CFR60A 23
1,2,3,6,7,8-HxCDF	99	(73 - 126)			CFR60A 23
	107	(73 - 126)	7.6	(0-20)	CFR60A 23
2,3,4,6,7,8-HxCDF	94	(68 - 129)			CFR60A 23
	105	(68 - 129)	12	(0-20)	CFR60A 23
1,2,3,7,8,9-HxCDF	80	(67 - 133)			CFR60A 23
	93	(67 - 133)	14	(0-20)	CFR60A 23
1,2,3,4,6,7,8-HpCDF	93	(69 - 119)			CFR60A 23
	96	(69 - 119)	2.8	(0-20)	CFR60A 23
1,2,3,4,7,8,9-HpCDF	86	(64 - 124)			CFR60A 23
	102	(64 - 124)	16	(0-20)	CFR60A 23
OCDF	93	(59 - 130)			CFR60A 23
	95	(59 - 130)	2.0	(0-20)	CFR60A 23

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: G3L230353 Work Order #...: F7ELD1AC-LCS Matrix.....: AIR
LCS Lot-Sample#: G3L290000-503 F7ELD1AD-LCSD

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(40 - 130)
	94	(40 - 130)
13C-1,2,3,7,8-PeCDD	84	(40 - 130)
	75	(40 - 130)
13C-1,2,3,6,7,8-HxCDD	99	(40 - 130)
	102	(40 - 130)
13C-1,2,3,4,6,7,8-HpCDD	85	(25 - 130)
	87	(25 - 130)
13C-OCDD	102	(25 - 130)
	104	(25 - 130)
13C-2,3,7,8-TCDF	93	(40 - 130)
	95	(40 - 130)
13C-1,2,3,7,8-PeCDF	85	(40 - 130)
	80	(40 - 130)
13C-1,2,3,6,7,8-HxCDF	112	(40 - 130)
	105	(40 - 130)
13C-1,2,3,4,6,7,8-HpCDF	97	(25 - 130)
	92	(25 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

ANALYSTS INCORPORATED

P.O. BOX 23200 2910 FORD ST.
OAKLAND, CA 94623 OAKLAND, CA 94601
800-424-0099 510-536-5914
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EMISSION TESTING SERVICES
OLSON ENGINEERING SERVICES
DON OLSON
2011 'B' PLACENTIA AVE
COSTA MESA CA 92627

Lab Number : 9819
Logged Date : 16-DEC-02
Sample Drawn :
Report Date : 23-DEC-02
Record Ref.# : 450104

Unit ID : BENCH FLOW TEST
Sample ID : PRE TEST BASELINE
Worksite :
Time On Fluid :

Mfg. : -
Model : -
PO No.:
Time On System :

Baseline fuel tests before recirculation through Reuter device.

TESTING PERFORMED:	MEASURED	Requirements for: Diesel Fuel Oil #2 ASTM D975 MIN	MAX
Copper by ICP - ppm	<.1		
Lead, ppm	<.5		
Antimony, ppm	<.1		
Mercury, ppm	<4.6		
Distillation, Deg F - D86			
- Init. Boiling Pt. temp	367		
- Recovered - 5 % temp	403		
- 10 % temp	413		
- 20 % temp	433		
- 30 % temp	456		
- 40 % temp	478		
- Recovered - 50 % temp	501		
- 60 % temp	526		
- 70 % temp	551		
- 80 % temp	582		
- Recovered - 90 % temp	619	540	640
- 95 % temp	655		
- End Point - FBP temp	666		
- Recovery - % vol	99.8		
- Residue - % vol	0.2		
- Loss - % vol	0		
Viscosity @ 40'C, cSt - D445	2.5	1.9	4.1
API Gravity @ 60 'F - D287	38.9		
Cetane Index (Calc.) - D976	52.5	40	

Continued...

Lab# : 9819 Dated : 16-DEC-02 ...Continued

COMMENDATIONS / COMMENTS:

FOR THE TESTS PERFORMED, THIS SAMPLE MEETS REQUIREMENTS FOR NO. 2 DFO (ASTM D-975).

Respectfully Submitted,

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Analysts, Inc.

ANALYSTS INCORPORATED

P.O. BOX 23200 2910 FORD ST.
OAKLAND, CA 94623 OAKLAND, CA 94601
800-424-0099 510-536-5914
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EMISSION TESTING SERVICES
OLSON ENGINEERING SERVICES
DON OLSON
2011 'B' PLACENTIA AVE
COSTA MESA CA 92627

Lab Number : 9820
Logged Date : 16-DEC-02
Sample Drawn :
Report Date : 23-DEC-02
Record Ref.# : 450105

Unit ID : BENCH FLOW TEST
Sample ID : POST TEST FINAL
Worksite :
Time On Fluid :

Mfg. :
Model :
PO No.:
Time On System :

Fuel tests after recirculation through Reuter device for equivalent of 7,980 gals.

TESTING PERFORMED:	MEASURED	Requirements for: Diesel Fuel Oil #2 ASTM D975 MIN	MAX
Copper by ICP - ppm	<.1		
Lead, ppm	<.5		
Antimony, ppm	<.1		
Mercury, ppm	<4.6		
Distillation, Deg F - D86			
- Init. Boiling Pt. temp	399		
- Recovered - 5 % temp	424		
- 10 % temp	433		
- 20 % temp	451		
- 30 % temp	468		
- 40 % temp	489		
- Recovered - 50 % temp	510		
- 60 % temp	533		
- 70 % temp	557		
- 80 % temp	584		
- Recovered - 90 % temp	623	540	640
- 95 % temp	659		
- End Point - FBP temp	672		
- Recovery - % vol	97.2		
- Residue - % vol	1.5		
- Loss - % vol	1.3		
Viscosity @ 40'C, cSt - D445	2.7	1.9	4.1
API Gravity @ 60 'F - D287	38.4		
Cetane Index (Calc.) - D976	52.7	40	

Continued...

LabN : 9820 Dated : 16-DEC-02 ...Continued

RECOMMENDATIONS / COMMENTS:

FOR THE TESTS PERFORMED, THIS SAMPLE MEETS REQUIREMENTS FOR NO. 2 DFO (ASTM D-975).

RespectFully Submitted,

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Analysts, Inc.