AIR TOXICS LTD.

SAMPLE NAME: LCSD

ID#: 0307125-05AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	i070904	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 7/9/03	

Compound	%Recovery
Freon 12	105
Freon 114	108
Chloromethane	119
Vinyl Chloride	110
Bromomethane	97
Chloroethane	110
Freon 11	97
1,1-Dichloroethene	98
Freon 113	93
Methylene Chloride	101
1,1-Dichloroethane	90
cis-1,2-Dichloroethene	106
Chloroform	97
1,1,1-Trichloroethane	98
Carbon Tetrachloride	104
Benzene	104
1,2-Dichloroethane	108
Trichloroethene	108
1,2-Dichloropropane	105
cis-1,3-Dichloropropene	123
Toluene	106
trans-1,3-Dichloropropene	120
1,1,2-Trichloroethane	100
Tetrachloroethene	107
1,2-Dibromoethane (EDB)	92
Chlorobenzene	103
Ethyl Benzene	101
m,p-Xylene	96
o-Xylene	96
Styrene	112
1,1,2,2-Tetrachloroethane	95
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	82
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	122
1,2-Dichlorobenzene	85
1,2,4-Trichlorobenzene	99
Hexachlorobutadiene	99
Propylene	106
1,3-Butadiene	108
Acetone	99

AIR TOXICS LTD.

SAMPLE NAME: LCSD

ID#: 0307125-05AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**i070904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/03**	

Compound	%Recovery
Carbon Disulfide	96
2-Propanol	99
trans-1,2-Dichloroethene	103
Vinyl Acetate	90
2-Butanone (Methyl Ethyl Ketone)	104
Hexane	102
Tetrahydrofuran	106
Cyclohexane	103
1,4-Dioxane	106
Bromodichloromethane	97
4-Methyl-2-pentanone	101
2-Hexanone	94
Dibromochloromethane	95
Bromoform	74
4-Ethyltoluene	138
Ethanol	109
Methyl tert-butyl ether	96
Heptane	107

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0307460

Work Order Summary

CLIENT:	Mr. Leo Williamson Geofon 22632 Golden Springs Dr. Suite 270 Diamond Bar, CA 91765	**BILL TO:**	Mr. Leo Williamson Geofon 22632 Golden Springs Dr. Suite 270 Diamond Bar, CA 91765
PHONE:	909-396-7662	**P.O. #**	
FAX:	909-396-1455	**PROJECT #**	04-4428.10 JPL #2
DATE RECEIVED:	7/23/03	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	8/6/03		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	VE04-INN-009-001	Modified TO-14A	Tedlar Bag
02A	VE04-EFF-009-002	Modified TO-14A	Tedlar Bag
03A	Lab Blank	Modified TO-14A	NA
04A	CCV	Modified TO-14A	NA
05A	LCS	Modified TO-14A	NA
05AA	LCSD	Modified TO-14A	NA

CERTIFIED BY: Linda D. Frumarx DATE: 08/06/03

Laboratory Director

Certfication numbers: AR DEQ, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/03, Expiration date: 06/30/04
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified Method TO-14A
Geofon
Workorder# 0307460

Two 1 Liter Tedlar Bag samples were received on July 23, 2003. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

Requirement	*TO-14A*	*ATL Modifications*
Continuing Calibration criteria	70-130% recovery	70-130% recovery with two allowed out to 60-140%; flag and narrate outliers
Initial Calibration criteria	RSD<30%	RSD</=30%, two compounds allowed up to 40%.
Moisture control	Nafion Dryer	Multisorbent trap
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Primary ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106

Receiving Notes

The chain of custody was not relinquished properly. The discrepancy was noted in the Login email.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

0307460

GEOFON

INCORPORATED

2632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY C

...SON	LAB COORDINATOR'S PHONE: 909-396-7662	LAB COORDINATOR'S FAX: 909-396-1455	LABORATORY SERVICE ID: AIR TOX ICS	LABORATORY CONTACT: JENIFFER MILLER	MAIL REPORT (COMPANY NAME): GEOFON INC
#2	PROJECT LOCATION: JPL VE04	PROJECT NUMBER: 04-4428-10	LABORATORY PHONE: 916-985-1000	LABORATORY FAX: 916-985-1020	RECIPIENT NAME: LED WILLIAMSO...
...SON	PROJECT PHONE NUMBER: 714-920-8438	PROJECT FAX: N/A	LABORATORY ADDRESS: 180 BLUE RAVINE ROAD #B		ADDRESS: 22632 GOLDEN S...
...EDR	CITY, STATE AND ZIPCODE: PASADENA CA 91108	CLIENT: US NAVY SWDIV	CITY, STATE AND ZIPCODE: FOLSUM CA 95630		CITY, STATE AND ZIPCODE: DIAMOND BAR CA
...EOM	PROJECT MANAGER'S PHONE: 909-396-7662	PROJECT MANAGER'S FAX: 909-396-1455			

Identifier	Matrix	Date	Time	Preserved	# of Cont	QC Level	TAT	Analyses TO-14								Comments
...-009-001	AIR	7/22/03	1100	NONE	1*	3	NORM	X								1* L TEDLAR BAG SCREEN - INFLUENT
...-009-002	AIR	7/23/03	1105	NONE	1*	3	NORM	X								SCREEN - EFFLUENT

COURIER AND AIR BILL NUMBER: FED EX 8413-8382-5263

COOLER TEMPERATURE UPON RECEIPT

...SHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
[signature]	[signature] AO	7/23/03	1030	CUSTODY SEAL INTACT? Y N NONE TEMP

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

AIR TOXICS LTD.

SAMPLE NAME: VE04-INN-009-001

ID#: 0307460-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**I072312**	**Date of Collection: 7/22/03**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/23/03**	

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	14	69
Freon 114	0.50	3.6	Not Detected	Not Detected
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Bromomethane	0.50	2.0	Not Detected	Not Detected
Chloroethane	0.50	1.3	Not Detected	Not Detected
Freon 11	0.50	2.8	15	86
1,1-Dichloroethene	0.50	2.0	5.2	21
Freon 113	0.50	3.9	29	230
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	0.51	2.1
cis-1,2-Dichloroethene	0.50	2.0	0.78	3.1
Chloroform	0.50	2.5	29	140
1,1,1-Trichloroethane	0.50	2.8	2.6	14
Carbon Tetrachloride	0.50	3.2	27	170
Benzene	0.50	1.6	0.58	1.9
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	150	820
1,2-Dichloropropane	0.50	2.3	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
Toluene	0.50	1.9	3.4	13
trans-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
1,1,2-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	14	94
1,2-Dibromoethane (EDB)	0.50	3.9	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
Ethyl Benzene	0.50	2.2	Not Detected	Not Detected
m,p-Xylene	0.50	2.2	0.60	2.6
o-Xylene	0.50	2.2	Not Detected	Not Detected
Styrene	0.50	2.2	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.50	3.5	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,3-Butadiene	0.50	1.1	Not Detected	Not Detected
Hexane	0.50	1.8	0.68	2.4
Cyclohexane	0.50	1.7	0.64	2.2
Heptane	0.50	2.1	2.4	10
Bromodichloromethane	0.50	3.4	1.5	10
Dibromochloromethane	0.50	4.3	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: VE04-INN-009-001

ID#: 0307460-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**I072312**	**Date of Collection:**	**7/22/03**
Dil. Factor:	**1.00**	**Date of Analysis:**	**7/23/03**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Cumene	0.50	2.5	Not Detected	Not Detected
Propylbenzene	0.50	2.5	Not Detected	Not Detected
Chloromethane	2.0	4.2	Not Detected	Not Detected
1,2,4-Trichlorobenzene	2.0	15	Not Detected	Not Detected
Hexachlorobutadiene	2.0	22	Not Detected	Not Detected
Acetone	2.0	4.8	150	370
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
2-Propanol	2.0	5.0	16	41
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
Vinyl Acetate	2.0	7.2	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	68	200
Tetrahydrofuran	2.0	6.0	5.8	17
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	2.5	10
2-Hexanone	2.0	8.3	2.5	10
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Methyl tert-butyl ether	2.0	7.3	Not Detected	Not Detected
Ethanol	2.0	3.8	9.9	19

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130

AIR TOXICS LTD.

SAMPLE NAME: VE04-EFF-009-002

ID#: 0307460-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**I072313**	**Date of Collection:**	**7/22/03**
Dil. Factor:	**1.00**	**Date of Analysis:**	**7/23/03**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	12	58
Freon 114	0.50	3.6	Not Detected	Not Detected
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Bromomethane	0.50	2.0	Not Detected	Not Detected
Chloroethane	0.50	1.3	4.1	11
Freon 11	0.50	2.8	4.1	23
1,1-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Freon 113	0.50	3.9	1.5	12
Methylene Chloride	0.50	1.8	2.0	7.0
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Carbon Tetrachloride	0.50	3.2	Not Detected	Not Detected
Benzene	0.50	1.6	1.1	3.6
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
1,2-Dichloropropane	0.50	2.3	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
Toluene	0.50	1.9	12	47
trans-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
1,1,2-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.50	3.9	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
Ethyl Benzene	0.50	2.2	1.2	5.3
m,p-Xylene	0.50	2.2	3.2	14
o-Xylene	0.50	2.2	0.95	4.2
Styrene	0.50	2.2	0.91	3.9
1,1,2,2-Tetrachloroethane	0.50	3.5	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.50	2.5	0.77	3.8
1,3-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,3-Butadiene	0.50	1.1	Not Detected	Not Detected
Hexane	0.50	1.8	8.8	31
Cyclohexane	0.50	1.7	3.0	10
Heptane	0.50	2.1	2.3	9.8
Bromodichloromethane	0.50	3.4	Not Detected	Not Detected
Dibromochloromethane	0.50	4.3	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: VE04-EFF-009-002

ID#: 0307460-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**I072313**	**Date of Collection:**	**7/22/03**
Dil. Factor:	**1.00**	**Date of Analysis:**	**7/23/03**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Cumene	0.50	2.5	Not Detected	Not Detected
Propylbenzene	0.50	2.5	Not Detected	Not Detected
Chloromethane	2.0	4.2	Not Detected	Not Detected
1,2,4-Trichlorobenzene	2.0	15	Not Detected	Not Detected
Hexachlorobutadiene	2.0	22	Not Detected	Not Detected
Acetone	2.0	4.8	70	170
Carbon Disulfide	2.0	6.3	5.0	16
2-Propanol	2.0	5.0	28	70
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
Vinyl Acetate	2.0	7.2	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	57	170
Tetrahydrofuran	2.0	6.0	Not Detected	Not Detected
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
2-Hexanone	2.0	8.3	2.1	8.7
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Methyl tert-butyl ether	2.0	7.3	3.6	13
Ethanol	2.0	3.8	17	32

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0307460-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	I072307a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/23/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	Not Detected	Not Detected
Freon 114	0.50	3.6	Not Detected	Not Detected
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Bromomethane	0.50	2.0	Not Detected	Not Detected
Chloroethane	0.50	1.3	Not Detected	Not Detected
Freon 11	0.50	2.8	Not Detected	Not Detected
1,1-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Freon 113	0.50	3.9	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Carbon Tetrachloride	0.50	3.2	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
1,2-Dichloropropane	0.50	2.3	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
Toluene	0.50	1.9	Not Detected	Not Detected
trans-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
1,1,2-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.50	3.9	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
Ethyl Benzene	0.50	2.2	Not Detected	Not Detected
m,p-Xylene	0.50	2.2	Not Detected	Not Detected
o-Xylene	0.50	2.2	Not Detected	Not Detected
Styrene	0.50	2.2	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.50	3.5	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,3-Butadiene	0.50	1.1	Not Detected	Not Detected
Hexane	0.50	1.8	Not Detected	Not Detected
Cyclohexane	0.50	1.7	Not Detected	Not Detected
Heptane	0.50	2.1	Not Detected	Not Detected
Bromodichloromethane	0.50	3.4	Not Detected	Not Detected
Dibromochloromethane	0.50	4.3	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0307460-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**I072307a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/23/03**	

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Cumene	0.50	2.5	Not Detected	Not Detected
Propylbenzene	0.50	2.5	Not Detected	Not Detected
Chloromethane	2.0	4.2	Not Detected	Not Detected
1,2,4-Trichlorobenzene	2.0	15	Not Detected	Not Detected
Hexachlorobutadiene	2.0	22	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
2-Propanol	2.0	5.0	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
Vinyl Acetate	2.0	7.2	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Tetrahydrofuran	2.0	6.0	Not Detected	Not Detected
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
2-Hexanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Methyl tert-butyl ether	2.0	7.3	Not Detected	Not Detected
Ethanol	2.0	3.8	Not Detected	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0307460-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	I072302a	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 7/23/03	

Compound	%Recovery
Freon 12	103
Freon 114	102
Vinyl Chloride	105
Bromomethane	90
Chloroethane	105
Freon 11	103
1,1-Dichloroethene	107
Freon 113	98
Methylene Chloride	111
1,1-Dichloroethane	107
cis-1,2-Dichloroethene	111
Chloroform	105
1,1,1-Trichloroethane	107
Carbon Tetrachloride	111
Benzene	101
1,2-Dichloroethane	111
Trichloroethene	107
1,2-Dichloropropane	112
cis-1,3-Dichloropropene	108
Toluene	106
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	105
Tetrachloroethene	105
1,2-Dibromoethane (EDB)	107
Chlorobenzene	104
Ethyl Benzene	103
m,p-Xylene	103
o-Xylene	103
Styrene	97
1,1,2,2-Tetrachloroethane	103
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	94
1,4-Dichlorobenzene	93
alpha-Chlorotoluene	91
1,2-Dichlorobenzene	91
1,3-Butadiene	103
Hexane	105
Cyclohexane	107
Heptane	120
Bromodichloromethane	111
Dibromochloromethane	109

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0307460-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**i072302a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/23/03**	

Compound	%Recovery
Cumene	101
Propylbenzene	105
Chloromethane	111
1,2,4-Trichlorobenzene	97
Hexachlorobutadiene	98
Acetone	106
Carbon Disulfide	97
2-Propanol	106
trans-1,2-Dichloroethene	96
Vinyl Acetate	97
2-Butanone (Methyl Ethyl Ketone)	115
Tetrahydrofuran	116
1,4-Dioxane	104
4-Methyl-2-pentanone	118
2-Hexanone	115
Bromoform	106
4-Ethyltoluene	101
Methyl tert-butyl ether	94
Ethanol	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0307460-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**i072306**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/23/03**	

Compound	%Recovery
Freon 12	115
Freon 114	109
Vinyl Chloride	118
Bromomethane	101
Chloroethane	136 Q
Freon 11	101
1,1-Dichloroethene	102
Freon 113	96
Methylene Chloride	107
1,1-Dichloroethane	95
cis-1,2-Dichloroethene	111
Chloroform	101
1,1,1-Trichloroethane	102
Carbon Tetrachloride	112
Benzene	108
1,2-Dichloroethane	112
Trichloroethene	114
1,2-Dichloropropane	110
cis-1,3-Dichloropropene	124
Toluene	109
trans-1,3-Dichloropropene	122
1,1,2-Trichloroethane	106
Tetrachloroethene	112
1,2-Dibromoethane (EDB)	98
Chlorobenzene	106
Ethyl Benzene	104
m,p-Xylene	99
o-Xylene	98
Styrene	114
1,1,2,2-Tetrachloroethane	99
1,3,5-Trimethylbenzene	90
1,2,4-Trimethylbenzene	84
1,3-Dichlorobenzene	93
1,4-Dichlorobenzene	86
alpha-Chlorotoluene	113
1,2-Dichlorobenzene	88
1,3-Butadiene	111
Hexane	108
Cyclohexane	109
Heptane	119
Bromodichloromethane	104
Dibromochloromethane	106

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0307460-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**I072306**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/23/03**	

Compound	%Recovery
Cumene	115
Propylbenzene	87
Chloromethane	136 Q
1,2,4-Trichlorobenzene	86
Hexachlorobutadiene	88
Acetone	106
Carbon Disulfide	100
2-Propanol	107
trans-1,2-Dichloroethene	106
Vinyl Acetate	94
2-Butanone (Methyl Ethyl Ketone)	116
Tetrahydrofuran	118
1,4-Dioxane	109
4-Methyl-2-pentanone	114
2-Hexanone	107
Bromoform	87
4-Ethyltoluene	156 Q
Methyl tert-butyl ether	94
Ethanol	118

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCSD

ID#: 0307460-05AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	I072303	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 7/23/03	

Compound	%Recovery
Freon 12	122
Freon 114	113
Vinyl Chloride	126
Bromomethane	108
Chloroethane	142 Q
Freon 11	107
1,1-Dichloroethene	108
Freon 113	100
Methylene Chloride	113
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	119
Chloroform	108
1,1,1-Trichloroethane	109
Carbon Tetrachloride	119
Benzene	112
1,2-Dichloroethane	117
Trichloroethene	117
1,2-Dichloropropane	116
cis-1,3-Dichloropropene	134 Q
Toluene	112
trans-1,3-Dichloropropene	132 Q
1,1,2-Trichloroethane	109
Tetrachloroethene	114
1,2-Dibromoethane (EDB)	100
Chlorobenzene	107
Ethyl Benzene	106
m,p-Xylene	99
o-Xylene	99
Styrene	124
1,1,2,2-Tetrachloroethane	101
1,3,5-Trimethylbenzene	90
1,2,4-Trimethylbenzene	83
1,3-Dichlorobenzene	91
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	126
1,2-Dichlorobenzene	85
1,3-Butadiene	117
Hexane	115
Cyclohexane	116
Heptane	124
Bromodichloromethane	110
Dibromochloromethane	110

AIR TOXICS LTD.

SAMPLE NAME: LCSD

ID#: 0307460-05AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**I072303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/23/03**	

Compound	%Recovery
Cumene	122
Propylbenzene	94
Chloromethane	137 Q
1,2,4-Trichlorobenzene	76
Hexachlorobutadiene	78
Acetone	116
Carbon Disulfide	107
2-Propanol	118
trans-1,2-Dichloroethene	112
Vinyl Acetate	108
2-Butanone (Methyl Ethyl Ketone)	126
Tetrahydrofuran	128
1,4-Dioxane	116
4-Methyl-2-pentanone	123
2-Hexanone	116
Bromoform	91
4-Ethyltoluene	159 Q
Methyl tert-butyl ether	103
Ethanol	129

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0308095

Work Order Summary

CLIENT:	Mr. Sree Akkenapally Geofon 22632 Golden Springs Dr. Suite 270 Diamond Bar, CA 91765	**BILL TO:**	Mr. Sree Akkenapally Geofon 22632 Golden Springs Dr. Suite 270 Diamond Bar, CA 91765
PHONE:	909-396-7662	**P.O. #**	
FAX:	909-396-1455	**PROJECT #**	04-4428.10 JPL#2
DATE RECEIVED:	8/5/03	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	8/19/03		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	VEO4-INN-011-001	Modified TO-14A	Tedlar Bag
02A	VEO4-EFF-011-002	Modified TO-14A	Tedlar Bag
03A	Lab Blank	Modified TO-14A	NA
04A	CCV	Modified TO-14A	NA
05A	LCS	Modified TO-14A	NA
05AA	LCSD	Modified TO-14A	NA

CERTIFIED BY: Linda J. Truman DATE: 08/19/03

Laboratory Director

Certfication numbers: AR DEQ, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/03, Expiration date: 06/30/04
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified Method TO-14A
Geofon
Workorder# 0308095

Two 1 Liter Tedlar Bag samples were received on August 05, 2003. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

Requirement	*TO-14A*	*ATL Modifications*
Continuing Calibration criteria	</= 30% Difference	</= 30% Difference with two allowed out to </= 40% Difference; flag and narrate outliers
Initial Calibration criteria	RSD<30%	RSD</=30%, two compounds allowed up to 40%.
Moisture control	Nafion Dryer	Multisorbent trap
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Primary ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106
Dilutions for Initial Calibration	Dynamic dilutions or static using canisters	Syringe dilutions
BFB absolute abundance criteria	Within 10% of that from previous day.	CCV surrogate recoveries demonstrate stability
Sample Load Volume	400 mL	Varied to 200 mL

Receiving Notes

The chain of custody was not relinquished properly. The discrepancy was noted in the Login email.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

GEOFON INCORPORATED

22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

0308095

GEOFON LAB COORDINATOR	LAB COORDINATOR'S PHONE	LAB COORDINATOR'S FAX	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
LEO WILLIAMSON	909-396-7662	909-396-1455	AIR TOXICS	JENNIFER MILLER	GEOFON INC
PROJECT NAME	**PROJECT LOCATION**	**PROJECT NUMBER**	**LABORATORY PHONE**	**LABORATORY FAX**	**RECIPIENT NAME**
IPL #2	IPL VB04	04-4428.10	916-985-1000	916-985-1020	LEO WILLIAMSON
PROJECT CONTACT	**PROJECT PHONE NUMBER**	**PROJECT FAX**	**LABORATORY ADDRESS**		**ADDRESS** #270
LEO WILLIAMSON	714-920-8438	N/A	180 BLUE RAVINE ROAD #B		22632 GOLDEN SPRINGS DR
PROJECT ADDRESS	**CITY, STATE AND ZIPCODE**	**CLIENT**	**CITY, STATE AND ZIPCODE**		**CITY, STATE AND ZIPCODE**
4800 OAK GROVE DR	[illegible] CA 91108	USNAVY SWDIV	FOLSOM CA 95630		DIAMOND BAR CA 91765
PROJECT MANAGER	**PROJECT MANAGER'S PHONE**	**PROJECT MANAGER'S FAX**			
ASRAR FAHEEM	909-396-7662	909-396-1455			

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T	Analyses TO-14	Comments
1A	VB04-INN-016-001	AIR	8/4/03		NONE	1*	3	NORM	X	1* L TEDLAR BAG SCREEN - INFLUENT
2 DUP	VB04-EFF-011-002	AIR	8/4/03		NONE	1*	3	NORM	X	SCREEN - EFFLUENT
3										
4										
5										
6										
7										CUSTODY SEAL INTACT? Y N (NONE) TEMP
8										
9										
10										

SAMPLES COLLECTED BY: [signature]

COURIER AND AIR BILL NUMBER: FED EX 8413-8382-5285

COOLER TEMPERATURE UPON RECEIPT:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
[signature]	Laurel Thomas AIR	8/5/03	9:35	

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

AIR TOXICS LTD.

SAMPLE NAME: VEO4-INN-011-001

ID#: 0308095-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**b080607**	**Date of Collection:**	**8/4/03**
Dil. Factor:	**1.00**	**Date of Analysis:**	**8/6/03**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	13	65
Freon 114	0.50	3.6	Not Detected	Not Detected
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Bromomethane	0.50	2.0	Not Detected	Not Detected
Chloroethane	0.50	1.3	Not Detected	Not Detected
Freon 11	0.50	2.8	19	110
1,1-Dichloroethene	0.50	2.0	5.0	20
Freon 113	0.50	3.9	33	260
Methylene Chloride	0.50	1.8	0.52	1.8
1,1-Dichloroethane	0.50	2.0	0.62	2.6
cis-1,2-Dichloroethene	0.50	2.0	0.92	3.7
Chloroform	0.50	2.5	32	160
1,1,1-Trichloroethane	0.50	2.8	2.6	14
Carbon Tetrachloride	0.50	3.2	28	180
Benzene	0.50	1.6	0.55	1.8
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	180	960
1,2-Dichloropropane	0.50	2.3	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
Toluene	0.50	1.9	3.6	14
trans-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
1,1,2-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	14	97
1,2-Dibromoethane (EDB)	0.50	3.9	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
Ethyl Benzene	0.50	2.2	Not Detected	Not Detected
m,p-Xylene	0.50	2.2	0.79	3.5
o-Xylene	0.50	2.2	Not Detected	Not Detected
Styrene	0.50	2.2	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.50	3.5	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,3-Butadiene	0.50	1.1	Not Detected	Not Detected
Hexane	0.50	1.8	1.3	4.7
Cyclohexane	0.50	1.7	1.6	5.6
Heptane	0.50	2.1	2.4	10
Bromodichloromethane	0.50	3.4	1.6	11
Dibromochloromethane	0.50	4.3	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: VEO4-INN-011-001

ID#: 0308095-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**b080607**	**Date of Collection: 8/4/03**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/6/03**	

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Cumene	0.50	2.5	Not Detected	Not Detected
Propylbenzene	0.50	2.5	Not Detected	Not Detected
Chloromethane	2.0	4.2	Not Detected	Not Detected
1,2,4-Trichlorobenzene	2.0	15	Not Detected	Not Detected
Hexachlorobutadiene	2.0	22	Not Detected	Not Detected
Acetone	2.0	4.8	190	470
Carbon Disulfide	2.0	6.3	2.2	6.8
2-Propanol	2.0	5.0	28	70
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
Vinyl Acetate	2.0	7.2	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	78	230
Tetrahydrofuran	2.0	6.0	Not Detected	Not Detected
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	2.6	11
2-Hexanone	2.0	8.3	2.6	11
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Methyl tert-butyl ether	2.0	7.3	Not Detected	Not Detected
Ethanol	2.0	3.8	10	20

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130

AIR TOXICS LTD.

SAMPLE NAME: VEO4-EFF-011-002

ID#: 0308095-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**b080608**	**Date of Collection: 8/4/03**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/6/03**	

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	16	82
Freon 114	0.50	3.6	Not Detected	Not Detected
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Bromomethane	0.50	2.0	Not Detected	Not Detected
Chloroethane	0.50	1.3	4.2	11
Freon 11	0.50	2.8	12	68
1,1-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Freon 113	0.50	3.9	7.3	57
Methylene Chloride	0.50	1.8	0.92	3.2
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Carbon Tetrachloride	0.50	3.2	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
1,2-Dichloropropane	0.50	2.3	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
Toluene	0.50	1.9	2.6	9.8
trans-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
1,1,2-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.50	3.9	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
Ethyl Benzene	0.50	2.2	Not Detected	Not Detected
m,p-Xylene	0.50	2.2	Not Detected	Not Detected
o-Xylene	0.50	2.2	Not Detected	Not Detected
Styrene	0.50	2.2	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.50	3.5	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,3-Butadiene	0.50	1.1	Not Detected	Not Detected
Hexane	0.50	1.8	Not Detected	Not Detected
Cyclohexane	0.50	1.7	Not Detected	Not Detected
Heptane	0.50	2.1	0.81	3.4
Bromodichloromethane	0.50	3.4	Not Detected	Not Detected
Dibromochloromethane	0.50	4.3	Not Detected	Not Detected