AIR TOXICS LTD.

SAMPLE NAME: VE04-INN-005-001

ID#: 0306446-01A

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

File Name:	s062516	Date of Collection:	6/23/03
Dil. Factor:	2.00	Date of Analysis:	6/25/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	4.0	13	Not Detected	Not Detected
2-Propanol	4.0	10	26	65
trans-1,2-Dichloroethene	4.0	16	Not Detected	Not Detected
Vinyl Acetate	4.0	14	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	12	40	120
Hexane	4.0	14	Not Detected	Not Detected
Tetrahydrofuran	4.0	12	Not Detected	Not Detected
Cyclohexane	4.0	14	Not Detected	Not Detected
1,4-Dioxane	4.0	15	Not Detected	Not Detected
Bromodichloromethane	4.0	27	Not Detected	Not Detected
4-Methyl-2-pentanone	4.0	17	Not Detected	Not Detected
2-Hexanone	4.0	17	Not Detected	Not Detected
Dibromochloromethane	4.0	35	Not Detected	Not Detected
Bromoform	4.0	42	Not Detected	Not Detected
4-Ethyltoluene	4.0	20	Not Detected	Not Detected
Ethanol	4.0	7.7	5.3	10
Methyl tert-butyl ether	4.0	15	Not Detected	Not Detected
Heptane	4.0	17	Not Detected	Not Detected

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130

AIR TOXICS LTD.

SAMPLE NAME: VE04-EFF-005-002

ID#: 0306446-02A

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

File Name:	s062517	Date of Collection:	6/23/03
Dil. Factor:	1.00	Date of Analysis:	6/25/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	17	86
Freon 114	0.50	3.6	Not Detected	Not Detected
Chloromethane	0.50	1.0	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	5.3	14
Freon 11	0.50	2.8	16	93
1,1-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Freon 113	0.50	3.9	32	250
Methylene Chloride	0.50	1.8	6.9	24
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	1.6	6.1
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	0.72	3.2
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
1,2,4-Trichlorobenzene	2.0	15	Not Detected	Not Detected
Hexachlorobutadiene	2.0	22	Not Detected	Not Detected
Propylene	2.0	3.5	Not Detected	Not Detected
1,3-Butadiene	2.0	4.5	Not Detected	Not Detected
Acetone	2.0	4.8	89	220

AIR TOXICS LTD.

SAMPLE NAME: VE04-EFF-005-002

ID#: 0306446-02A

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

File Name:	s062517	Date of Collection:	6/23/03
Dil. Factor:	1.00	Date of Analysis:	6/25/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	2.0	6.3	5.2	16
2-Propanol	2.0	5.0	22	56
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	42	130
Hexane	2.0	7.2	Not Detected	Not Detected
Tetrahydrofuran	2.0	6.0	Not Detected	Not Detected
Cyclohexane	2.0	7.0	Not Detected	Not Detected
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
2-Hexanone	2.0	8.3	2.8	12
Dibromochloromethane	2.0	17	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Ethanol	2.0	3.8	9.4	18
Methyl tert-butyl ether	2.0	7.3	Not Detected	Not Detected
Heptane	2.0	8.3	2.4	9.9

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0306446-03A

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

File Name:	s062510	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 6/25/03	

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
Chloromethane	0.50	1.0	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
1,2,4-Trichlorobenzene	2.0	15	Not Detected	Not Detected
Hexachlorobutadiene	2.0	22	Not Detected	Not Detected
Propylene	2.0	3.5	Not Detected	Not Detected
1,3-Butadiene	2.0	4.5	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0306446-03A

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

File Name:	s062510	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 6/25/03	

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
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
Hexane	2.0	7.2	Not Detected	Not Detected
Tetrahydrofuran	2.0	6.0	Not Detected	Not Detected
Cyclohexane	2.0	7.0	Not Detected	Not Detected
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
Bromodichloromethane	2.0	14	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
Dibromochloromethane	2.0	17	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Ethanol	2.0	3.8	Not Detected	Not Detected
Methyl tert-butyl ether	2.0	7.3	Not Detected	Not Detected
Heptane	2.0	8.3	Not Detected	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0306446-04A

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

File Name:	s062502	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 6/25/03	

Compound	%Recovery
Freon 12	77
Freon 114	76
Chloromethane	72
Vinyl Chloride	74
Bromomethane	88
Chloroethane	89
Freon 11	80
1,1-Dichloroethene	77
Freon 113	78
Methylene Chloride	77
1,1-Dichloroethane	78
cis-1,2-Dichloroethene	77
Chloroform	77
1,1,1-Trichloroethane	82
Carbon Tetrachloride	85
Benzene	78
1,2-Dichloroethane	81
Trichloroethene	82
1,2-Dichloropropane	82
cis-1,3-Dichloropropene	84
Toluene	81
trans-1,3-Dichloropropene	87
1,1,2-Trichloroethane	81
Tetrachloroethene	81
1,2-Dibromoethane (EDB)	82
Chlorobenzene	82
Ethyl Benzene	82
m,p-Xylene	81
o-Xylene	83
Styrene	86
1,1,2,2-Tetrachloroethane	82
1,3,5-Trimethylbenzene	81
1,2,4-Trimethylbenzene	81
1,3-Dichlorobenzene	83
1,4-Dichlorobenzene	82
alpha-Chlorotoluene	91
1,2-Dichlorobenzene	82
1,2,4-Trichlorobenzene	87
Hexachlorobutadiene	88
Propylene	77
1,3-Butadiene	77
Acetone	84

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0306446-04A

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

File Name:	s062502	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 6/25/03	

Compound	%Recovery
Carbon Disulfide	82
2-Propanol	85
trans-1,2-Dichloroethene	82
Vinyl Acetate	86
2-Butanone (Methyl Ethyl Ketone)	85
Hexane	79
Tetrahydrofuran	81
Cyclohexane	83
1,4-Dioxane	89
Bromodichloromethane	87
4-Methyl-2-pentanone	91
2-Hexanone	89
Dibromochloromethane	92
Bromoform	95
4-Ethyltoluene	88
Ethanol	78
Methyl tert-butyl ether	84
Heptane	85

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0306446-05A

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

File Name:	s062503	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/25/03

Compound	%Recovery
Freon 12	91
Freon 114	86
Chloromethane	83
Vinyl Chloride	88
Bromomethane	105
Chloroethane	107
Freon 11	83
1,1-Dichloroethene	76
Freon 113	79
Methylene Chloride	79
1,1-Dichloroethane	74
cis-1,2-Dichloroethene	81
Chloroform	76
1,1,1-Trichloroethane	82
Carbon Tetrachloride	90
Benzene	85
1,2-Dichloroethane	84
Trichloroethene	89
1,2-Dichloropropane	84
cis-1,3-Dichloropropene	101
Toluene	84
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	82
Tetrachloroethene	89
1,2-Dibromoethane (EDB)	77
Chlorobenzene	85
Ethyl Benzene	84
m,p-Xylene	80
o-Xylene	78
Styrene	102
1,1,2,2-Tetrachloroethane	82
1,3,5-Trimethylbenzene	76
1,2,4-Trimethylbenzene	71
1,3-Dichlorobenzene	81
1,4-Dichlorobenzene	76
alpha-Chlorotoluene	115
1,2-Dichlorobenzene	79
1,2,4-Trichlorobenzene	83
Hexachlorobutadiene	85
Propylene	86
1,3-Butadiene	88
Acetone	88

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0306446-05A

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

File Name:	**s062503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/25/03**	

Compound	%Recovery
Carbon Disulfide	91
2-Propanol	91
trans-1,2-Dichloroethene	94
Vinyl Acetate	92
2-Butanone (Methyl Ethyl Ketone)	92
Hexane	84
Tetrahydrofuran	86
Cyclohexane	86
1,4-Dioxane	94
Bromodichloromethane	84
4-Methyl-2-pentanone	92
2-Hexanone	87
Dibromochloromethane	87
Bromoform	73
4-Ethyltoluene	122
Ethanol	87
Methyl tert-butyl ether	91
Heptane	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCSD

ID#: 0306446-05AA

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

File Name:	s062504	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 6/25/03	

Compound	%Recovery
Freon 12	88
Freon 114	86
Chloromethane	81
Vinyl Chloride	86
Bromomethane	101
Chloroethane	105
Freon 11	82
1,1-Dichloroethene	76
Freon 113	79
Methylene Chloride	80
1,1-Dichloroethane	74
cis-1,2-Dichloroethene	82
Chloroform	77
1,1,1-Trichloroethane	82
Carbon Tetrachloride	90
Benzene	86
1,2-Dichloroethane	86
Trichloroethene	88
1,2-Dichloropropane	84
cis-1,3-Dichloropropene	100
Toluene	84
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	83
Tetrachloroethene	90
1,2-Dibromoethane (EDB)	78
Chlorobenzene	86
Ethyl Benzene	85
m,p-Xylene	81
o-Xylene	79
Styrene	103
1,1,2,2-Tetrachloroethane	82
1,3,5-Trimethylbenzene	76
1,2,4-Trimethylbenzene	70
1,3-Dichlorobenzene	81
1,4-Dichlorobenzene	76
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	78
1,2,4-Trichlorobenzene	80
Hexachlorobutadiene	82
Propylene	86
1,3-Butadiene	88
Acetone	89

AIR TOXICS LTD.

SAMPLE NAME: LCSD

ID#: 0306446-05AA

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

File Name:	s062504	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 6/25/03	

Compound	%Recovery
Carbon Disulfide	91
2-Propanol	91
trans-1,2-Dichloroethene	94
Vinyl Acetate	91
2-Butanone (Methyl Ethyl Ketone)	91
Hexane	84
Tetrahydrofuran	87
Cyclohexane	86
1,4-Dioxane	95
Bromodichloromethane	82
4-Methyl-2-pentanone	91
2-Hexanone	87
Dibromochloromethane	87
Bromoform	74
4-Ethyltoluene	121
Ethanol	86
Methyl tert-butyl ether	88
Heptane	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

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

0306446

GEOFON LAB COORDINATOR: LEO WILLIAMSON	LAB COORDINATOR'S PHONE: 909-396-7662	LAB COORDINATOR'S FAX: 909-396-1455	LABORATORY SERVICE ID: AIRTOXICS	LABORATORY CONTACT: JENIFFER MILLER	MAIL REPORT TO COMPANY NAME: GEOFON INC
PROJECT NAME: JPL #7	PROJECT LOCATION: JPL VE04	PROJECT NUMBER: 04-4428.10	LABORATORY PHONE: 916-985-1000	LABORATORY FAX: 916-985-1020	SEGMENT NAME: LEO WILLIAMSON
PROJECT CONTACT: LEO WILLIAMSON	PROJECT PHONE NUMBER: 714-920-8728	PROJECT FAX: N/A	LABORATORY ADDRESS: 180 BLUE RAVINE ROAD #B		ADDRESS: 22632 GOLDEN SPRINGS DR #270
PROJECT ADDRESS: 4800 OAK GROVE DR	CITY, STATE AND ZIPCODE: PASADENA CA 91108	CLIENT: USNAVY SWDIV	CITY, STATE AND ZIPCODE: FOLSUM CA 95630		CITY, STATE AND ZIPCODE: DIAMOND BAR CA 91765
PROJECT MANAGER: ASRAR FAHEEM	PROJECT MANAGER'S PHONE: 909-396-7662	PROJECT MANAGER'S FAX: 909-396-1455			

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: TO-14	Comments
1	VE04-INN-005-001	AIR	6/23/03	0945	NONE	1*	3	NORM	X	1* L TEDLAR BAG SCREEN - INFLUENT
2	VE04-EFF-005-002	AIR	6/23/03	0945	NONE	1*	3	NORM	X	SCREEN - EFFLUENT
3										
4										
5										
6										
7										
8										
9										
10										

CUSTODY SEAL INTACT?
Y N NONE TEMP ____

SAMPLES COLLECTED BY	COURIER AND AIRBILL NUMBER	COOLER TEMPERATURE UPON RECEIPT
	FED EX 8413-8382-5241	

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE CONDITION UPON RECEIPT
	Laurel Thomas AIL	6/24/03	950	Good

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

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0307125

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:	7/8/03	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	7/16/03		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	VE04-INN-007-001	Modified TO-14A	Tedlar Bag
02A	VE04-EFF-007-002	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 L. Freeman

Laboratory Director

DATE: 07/17/03

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# 0307125

Two 1 Liter Tedlar Bag samples were received on July 08, 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 no 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

AIR TOXICS LTD.

SAMPLE NAME: VE04-INN-007-001

ID#: 0307125-01A

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

File Name:	i070908	Date of Collection:	7/7/03
Dil. Factor:	1.33	Date of Analysis:	7/9/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.66	3.3	15	77
Freon 114	0.66	4.7	Not Detected	Not Detected
Chloromethane	0.66	1.4	Not Detected	Not Detected
Vinyl Chloride	0.66	1.7	Not Detected	Not Detected
Bromomethane	0.66	2.6	Not Detected	Not Detected
Chloroethane	0.66	1.8	Not Detected	Not Detected
Freon 11	0.66	3.8	18	100
1,1-Dichloroethene	0.66	2.7	6.8	27
Freon 113	0.66	5.2	41	320
Methylene Chloride	0.66	2.3	Not Detected	Not Detected
1,1-Dichloroethane	0.66	2.7	0.68	2.8
cis-1,2-Dichloroethene	0.66	2.7	0.98	3.9
Chloroform	0.66	3.3	32	160
1,1,1-Trichloroethane	0.66	3.7	3.1	17
Carbon Tetrachloride	0.66	4.2	36	230
Benzene	0.66	2.2	Not Detected	Not Detected
1,2-Dichloroethane	0.66	2.7	Not Detected	Not Detected
Trichloroethene	0.66	3.6	200	1100
1,2-Dichloropropane	0.66	3.1	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.66	3.1	Not Detected	Not Detected
Toluene	0.66	2.5	3.5	13
trans-1,3-Dichloropropene	0.66	3.1	Not Detected	Not Detected
1,1,2-Trichloroethane	0.66	3.7	Not Detected	Not Detected
Tetrachloroethene	0.66	4.6	16	110
1,2-Dibromoethane (EDB)	0.66	5.2	Not Detected	Not Detected
Chlorobenzene	0.66	3.1	Not Detected	Not Detected
Ethyl Benzene	0.66	2.9	Not Detected	Not Detected
m,p-Xylene	0.66	2.9	0.66 J	2.9 J
o-Xylene	0.66	2.9	Not Detected	Not Detected
Styrene	0.66	2.9	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.66	4.6	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.66	3.3	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.66	3.3	Not Detected	Not Detected
1,3-Dichlorobenzene	0.66	4.1	Not Detected	Not Detected
1,4-Dichlorobenzene	0.66	4.1	Not Detected	Not Detected
alpha-Chlorotoluene	0.66	3.5	Not Detected	Not Detected
1,2-Dichlorobenzene	0.66	4.1	Not Detected	Not Detected
1,2,4-Trichlorobenzene	2.7	20	Not Detected	Not Detected
Hexachlorobutadiene	2.7	29	Not Detected	Not Detected
Propylene	2.7	4.6	Not Detected	Not Detected
1,3-Butadiene	2.7	6.0	Not Detected	Not Detected
Acetone	2.7	6.4	190	460

AIR TOXICS LTD.

SAMPLE NAME: VE04-INN-007-001

ID#: 0307125-01A

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

File Name:	i070908	Date of Collection:	7/7/03
Dil. Factor:	1.33	Date of Analysis:	7/9/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	2.7	8.4	Not Detected	Not Detected
2-Propanol	2.7	6.6	26	64
trans-1,2-Dichloroethene	2.7	11	Not Detected	Not Detected
Vinyl Acetate	2.7	9.5	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.7	8.0	78	230
Hexane	2.7	9.5	Not Detected	Not Detected
Tetrahydrofuran	2.7	8.0	3.0	9.1
Cyclohexane	2.7	9.3	Not Detected	Not Detected
1,4-Dioxane	2.7	9.7	Not Detected	Not Detected
Bromodichloromethane	2.7	18	Not Detected	Not Detected
4-Methyl-2-pentanone	2.7	11	Not Detected	Not Detected
2-Hexanone	2.7	11	Not Detected	Not Detected
Dibromochloromethane	2.7	23	Not Detected	Not Detected
Bromoform	2.7	28	Not Detected	Not Detected
4-Ethyltoluene	2.7	13	Not Detected	Not Detected
Ethanol	2.7	5.1	9.3	18
Methyl tert-butyl ether	2.7	9.7	Not Detected	Not Detected
Heptane	2.7	11	4.4	18

J = Estimated value.

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130

AIR TOXICS LTD.

SAMPLE NAME: VE04-EFF-007-002

ID#: 0307125-02A

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

File Name:	I070909	Date of Collection:	7/7/03
Dil. Factor:	1.00	Date of Analysis:	7/9/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	13	66
Freon 114	0.50	3.6	Not Detected	Not Detected
Chloromethane	0.50	1.0	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	3.7	21
1,1-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Freon 113	0.50	3.9	1.0	8.2
Methylene Chloride	0.50	1.8	0.72	2.5
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	2.5	9.5
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
1,2,4-Trichlorobenzene	2.0	15	Not Detected	Not Detected
Hexachlorobutadiene	2.0	22	Not Detected	Not Detected
Propylene	2.0	3.5	Not Detected	Not Detected
1,3-Butadiene	2.0	4.5	Not Detected	Not Detected
Acetone	2.0	4.8	58	140

AIR TOXICS LTD.

SAMPLE NAME: VE04-EFF-007-002

ID#: 0307125-02A

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

File Name:	I070909	Date of Collection:	7/7/03
Dil. Factor:	1.00	Date of Analysis:	7/9/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
2-Propanol	2.0	5.0	15	38
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	24	71
Hexane	2.0	7.2	Not Detected	Not Detected
Tetrahydrofuran	2.0	6.0	2.4	7.1
Cyclohexane	2.0	7.0	Not Detected	Not Detected
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
2-Hexanone	2.0	8.3	2.0 J	8.2 J
Dibromochloromethane	2.0	17	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Ethanol	2.0	3.8	5.9	11
Methyl tert-butyl ether	2.0	7.3	Not Detected	Not Detected
Heptane	2.0	8.3	Not Detected	Not Detected

J = Estimated value.

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#: 0307125-03A

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

File Name:	I070906	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 7/9/03	

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
Chloromethane	0.50	1.0	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
1,2,4-Trichlorobenzene	2.0	15	Not Detected	Not Detected
Hexachlorobutadiene	2.0	22	Not Detected	Not Detected
Propylene	2.0	3.5	Not Detected	Not Detected
1,3-Butadiene	2.0	4.5	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0307125-03A

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

File Name:	i070906	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 7/9/03	

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
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
Hexane	2.0	7.2	Not Detected	Not Detected
Tetrahydrofuran	2.0	6.0	Not Detected	Not Detected
Cyclohexane	2.0	7.0	Not Detected	Not Detected
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
Bromodichloromethane	2.0	14	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
Dibromochloromethane	2.0	17	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Ethanol	2.0	3.8	Not Detected	Not Detected
Methyl tert-butyl ether	2.0	7.3	Not Detected	Not Detected
Heptane	2.0	8.3	Not Detected	Not Detected

Container Type: NA - Not Applicable

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

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0307125-04A

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

File Name:	i070902	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 7/9/03	

Compound	%Recovery
Freon 12	105
Freon 114	105
Chloromethane	118
Vinyl Chloride	109
Bromomethane	93
Chloroethane	115
Freon 11	103
1,1-Dichloroethene	107
Freon 113	99
Methylene Chloride	107
1,1-Dichloroethane	107
cis-1,2-Dichloroethene	109
Chloroform	103
1,1,1-Trichloroethane	105
Carbon Tetrachloride	108
Benzene	102
1,2-Dichloroethane	108
Trichloroethene	107
1,2-Dichloropropane	111
cis-1,3-Dichloropropene	107
Toluene	107
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	104
Tetrachloroethene	103
1,2-Dibromoethane (EDB)	105
Chlorobenzene	104
Ethyl Benzene	105
m,p-Xylene	104
o-Xylene	104
Styrene	99
1,1,2,2-Tetrachloroethane	103
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	96
alpha-Chlorotoluene	99
1,2-Dichlorobenzene	93
1,2,4-Trichlorobenzene	92
Hexachlorobutadiene	92
Propylene	114
1,3-Butadiene	106
Acetone	101

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0307125-04A

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

File Name:	I070902	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 7/9/03	

Compound	%Recovery
Carbon Disulfide	99
2-Propanol	106
trans-1,2-Dichloroethene	98
Vinyl Acetate	103
2-Butanone (Methyl Ethyl Ketone)	107
Hexane	108
Tetrahydrofuran	109
Cyclohexane	107
1,4-Dioxane	105
Bromodichloromethane	108
4-Methyl-2-pentanone	108
2-Hexanone	106
Dibromochloromethane	106
Bromoform	102
4-Ethyltoluene	105
Ethanol	120
Methyl tert-butyl ether	100
Heptane	113

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0307125-05A

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

File Name:	I070903	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 7/9/03	

Compound	%Recovery
Freon 12	105
Freon 114	110
Chloromethane	120
Vinyl Chloride	107
Bromomethane	86
Chloroethane	99
Freon 11	98
1,1-Dichloroethene	98
Freon 113	94
Methylene Chloride	100
1,1-Dichloroethane	91
cis-1,2-Dichloroethene	105
Chloroform	96
1,1,1-Trichloroethane	96
Carbon Tetrachloride	104
Benzene	104
1,2-Dichloroethane	106
Trichloroethene	109
1,2-Dichloropropane	105
cis-1,3-Dichloropropene	122
Toluene	105
trans-1,3-Dichloropropene	120
1,1,2-Trichloroethane	101
Tetrachloroethene	107
1,2-Dibromoethane (EDB)	92
Chlorobenzene	102
Ethyl Benzene	101
m,p-Xylene	96
o-Xylene	95
Styrene	112
1,1,2,2-Tetrachloroethane	94
1,3,5-Trimethylbenzene	87
1,2,4-Trimethylbenzene	82
1,3-Dichlorobenzene	89
1,4-Dichlorobenzene	83
alpha-Chlorotoluene	121
1,2-Dichlorobenzene	87
1,2,4-Trichlorobenzene	93
Hexachlorobutadiene	93
Propylene	101
1,3-Butadiene	108
Acetone	98

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0307125-05A

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

File Name:	i070903	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	89
2-Butanone (Methyl Ethyl Ketone)	104
Hexane	103
Tetrahydrofuran	106
Cyclohexane	104
1,4-Dioxane	105
Bromodichloromethane	98
4-Methyl-2-pentanone	101
2-Hexanone	93
Dibromochloromethane	95
Bromoform	74
4-Ethyltoluene	136
Ethanol	121
Methyl tert-butyl ether	96
Heptane	106

Container Type: NA - Not Applicable

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