AIR TOXICS LTD.

SAMPLE NAME: VE04-INN-019-001

ID#: 0309559-01B

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

File Name:	b093016	Date of Collection:	9/29/03
Dil. Factor:	1.00	Date of Analysis:	9/30/03 05:12 PM

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	180	420
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
2-Propanol	2.0	5.0	23	57
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	73	220
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	2.4	9.9
2-Hexanone	2.0	8.3	2.4	9.9
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	7.5	14

E = Exceeds instrument calibration range.

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	112	70-130
4-Bromofluorobenzene	95	70-130

AIR TOXICS LTD.

SAMPLE NAME: VE04-EFF-019-002

ID#: 0309559-02A

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

File Name:	b093020	Date of Collection:	9/29/03
Dil. Factor:	1.00	Date of Analysis:	9/30/03 08:07 PM

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	9.7	49
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	5.2	14
Freon 11	0.50	2.8	18	100
1,1-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Freon 113	0.50	3.9	34	260
Methylene Chloride	0.50	1.8	10	35
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	3.8	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	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	0.74	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
1,3-Butadiene	0.50	1.1	3.0	6.6
Hexane	0.50	1.8	2.2	8.1
Cyclohexane	0.50	1.7	Not Detected	Not Detected
Heptane	0.50	2.1	1.1	4.7
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-019-002

ID#: 0309559-02A

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

File Name:	b093020	Date of Collection:	9/29/03
Dil. Factor:	1.00	Date of Analysis:	9/30/03 08:07 PM

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	56	140
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
2-Propanol	2.0	5.0	7.0	18
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
Tetrahydrofuran	2.0	6.0	2.1	6.2
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	3.0	12
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	18	34

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	91	70-130

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0309559-03A

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

File Name:	b093009	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 9/30/03 01:15 PM	

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#: 0309559-03A

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

File Name:	b093009	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 9/30/03 01:15 PM	

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	95	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	94	70-130

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0309559-04A

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

File Name:	b093002	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 9/30/03 09:08 AM	

Compound	%Recovery
Freon 12	100
Freon 114	90
Vinyl Chloride	90
Bromomethane	128
Chloroethane	85
Freon 11	96
1,1-Dichloroethene	96
Freon 113	100
Methylene Chloride	91
1,1-Dichloroethane	95
cis-1,2-Dichloroethene	97
Chloroform	100
1,1,1-Trichloroethane	103
Carbon Tetrachloride	105
Benzene	94
1,2-Dichloroethane	98
Trichloroethene	102
1,2-Dichloropropane	97
cis-1,3-Dichloropropene	106
Toluene	107
trans-1,3-Dichloropropene	94
1,1,2-Trichloroethane	104
Tetrachloroethene	105
1,2-Dibromoethane (EDB)	106
Chlorobenzene	104
Ethyl Benzene	100
m,p-Xylene	104
o-Xylene	102
Styrene	98
1,1,2,2-Tetrachloroethane	92
1,3,5-Trimethylbenzene	91
1,2,4-Trimethylbenzene	91
1,3-Dichlorobenzene	86
1,4-Dichlorobenzene	82
alpha-Chlorotoluene	86
1,2-Dichlorobenzene	86
1,3-Butadiene	83
Hexane	93
Cyclohexane	99
Heptane	93
Bromodichloromethane	106
Dibromochloromethane	110

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0309559-04A

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

File Name:	b093002	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 9/30/03 09:08 AM	

Compound	%Recovery
Cumene	94
Propylbenzene	88
Chloromethane	94
1,2,4-Trichlorobenzene	86
Hexachlorobutadiene	89
Acetone	83
Carbon Disulfide	89
2-Propanol	86
trans-1,2-Dichloroethene	91
Vinyl Acetate	89
2-Butanone (Methyl Ethyl Ketone)	88
Tetrahydrofuran	81
1,4-Dioxane	100
4-Methyl-2-pentanone	94
2-Hexanone	90
Bromoform	100
4-Ethyltoluene	92
Methyl tert-butyl ether	92
Ethanol	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	88	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0309559-05A

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

File Name:	b093003	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 9/30/03 09:45 AM	

Compound	%Recovery
Freon 12	104
Freon 114	101
Vinyl Chloride	100
Bromomethane	145 Q
Chloroethane	93
Freon 11	94
1,1-Dichloroethene	92
Freon 113	100
Methylene Chloride	90
1,1-Dichloroethane	84
cis-1,2-Dichloroethene	96
Chloroform	95
1,1,1-Trichloroethane	94
Carbon Tetrachloride	100
Benzene	99
1,2-Dichloroethane	96
Trichloroethene	107
1,2-Dichloropropane	95
cis-1,3-Dichloropropene	101
Toluene	105
trans-1,3-Dichloropropene	98
1,1,2-Trichloroethane	106
Tetrachloroethene	116
1,2-Dibromoethane (EDB)	98
Chlorobenzene	105
Ethyl Benzene	100
m,p-Xylene	102
o-Xylene	96
Styrene	106
1,1,2,2-Tetrachloroethane	92
1,3,5-Trimethylbenzene	81
1,2,4-Trimethylbenzene	78
1,3-Dichlorobenzene	84
1,4-Dichlorobenzene	77
alpha-Chlorotoluene	105
1,2-Dichlorobenzene	86
1,3-Butadiene	100
Hexane	91
Cyclohexane	97
Heptane	88
Bromodichloromethane	93
Dibromochloromethane	104

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0309559-05A

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

File Name:	b093003	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 9/30/03 09:45 AM	

Compound	%Recovery
Cumene	98
Propylbenzene	69
Chloromethane	94
1,2,4-Trichlorobenzene	81
Hexachlorobutadiene	81
Acetone	81
Carbon Disulfide	91
2-Propanol	86
trans-1,2-Dichloroethene	98
Vinyl Acetate	85
2-Butanone (Methyl Ethyl Ketone)	85
Tetrahydrofuran	81
1,4-Dioxane	100
4-Methyl-2-pentanone	87
2-Hexanone	86
Bromoform	80
4-Ethyltoluene	75
Methyl tert-butyl ether	91
Ethanol	83

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	89	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCSD

ID#: 0309559-05AA

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

File Name:	b093007	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 9/30/03 11:54 AM	

Compound	%Recovery
Freon 12	105
Freon 114	105
Vinyl Chloride	96
Bromomethane	137 Q
Chloroethane	89
Freon 11	98
1,1-Dichloroethene	93
Freon 113	101
Methylene Chloride	92
1,1-Dichloroethane	85
cis-1,2-Dichloroethene	99
Chloroform	99
1,1,1-Trichloroethane	98
Carbon Tetrachloride	106
Benzene	101
1,2-Dichloroethane	100
Trichloroethene	107
1,2-Dichloropropane	97
cis-1,3-Dichloropropene	102
Toluene	106
trans-1,3-Dichloropropene	96
1,1,2-Trichloroethane	102
Tetrachloroethene	113
1,2-Dibromoethane (EDB)	94
Chlorobenzene	102
Ethyl Benzene	98
m,p-Xylene	98
o-Xylene	93
Styrene	101
1,1,2,2-Tetrachloroethane	88
1,3,5-Trimethylbenzene	78
1,2,4-Trimethylbenzene	73
1,3-Dichlorobenzene	82
1,4-Dichlorobenzene	74
alpha-Chlorotoluene	99
1,2-Dichlorobenzene	82
1,3-Butadiene	100
Hexane	91
Cyclohexane	98
Heptane	87
Bromodichloromethane	94
Dibromochloromethane	102

AIR TOXICS LTD.

SAMPLE NAME: LCSD

ID#: 0309559-05AA

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

File Name:	b093007	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 9/30/03 11:54 AM	

Compound	%Recovery
Cumene	96
Propylbenzene	67
Chloromethane	92
1,2,4-Trichlorobenzene	80
Hexachlorobutadiene	80
Acetone	83
Carbon Disulfide	91
2-Propanol	86
trans-1,2-Dichloroethene	97
Vinyl Acetate	85
2-Butanone (Methyl Ethyl Ketone)	88
Tetrahydrofuran	81
1,4-Dioxane	100
4-Methyl-2-pentanone	88
2-Hexanone	83
Bromoform	80
4-Ethyltoluene	73
Methyl tert-butyl ether	93
Ethanol	82

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	92	70-130

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0310266

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:	10/14/03	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	10/28/03		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	VE04-INN-021-001	Modified TO-14A	Tedlar Bag
02A	VE04-EFF-021-002	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: 10/28/03

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

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(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-14A
Geofon
Workorder# 0310266

Two 1 Liter Tedlar Bag samples were received on October 14, 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 internal standard area counts are compared to ICAL, corrective action for > 40% D
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 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

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

0310266

GEOFON LAB COORDINATOR: J. ROBINSON	LAB COORDINATOR'S PHONE: 909-396-7662	LAB COORDINATOR'S FAX: 909-396-1455	LABORATORY SERVICE ID: AIR TOXICS	LABORATORY CONTACT: JENNIFER MILLER	MAIL REPORT (COMPANY NAME): GEOFON INC
PROJECT NAME: JPL #2	PROJECT LOCATION: JPL VE04	PROJECT NUMBER: 04-4428-10	LABORATORY PHONE: 916-985-1000	LABORATORY FAX: 916-985-1020	RECIPIENT NAME: J. ROBINSON
PROJECT CONTACT: J. ROBINSON	PROJECT PHONE NUMBER: 714-920-8438	PROJECT FAX: N/A	LABORATORY ADDRESS: 180 BLUE RAVINE ROAD #B		ADDRESS: 22632 GOLDEN SPRINGS RD #270
PROJECT ADDRESS: 4800 OAK GROVE DR	CITY, STATE AND ZIPCODE: PASADENA CA 91108	CLIENT: US NAVY SUDIV	CITY, STATE AND ZIPCODE: FOLSUM CA 95630		CITY, STATE AND ZIPCODE: DIAMOND BAR CA 91765
PROJECT MANAGER: ASLAR 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
01A	VE04-INN-021-001	AIR	10/13/03	0930	NONE	1*	3	NORM	X								1* L TEDLAR BAG SCREEN - INFLUENT
02A	VE04-EFF-021-002	AIR	10/13/03	0935	NONE	1*	3	NORM	X								SCREEN - EFFLUENT
3																	
4																	
5																	
6																	CUSTODY SEAL INTACT?
7																	Y N NONE TEMP
8																	
9																	
10																	

SAMPLES COLLECTED BY: [signature] COURIER AND AIR BILL NUMBER: FED EX 8385-7521-7009 COOLER TEMPERATURE UPON RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
[signature]	[signature] AIR	10/14/03	900	Good

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

AIR TOXICS LTD.

SAMPLE NAME: VE04-INN-021-001

ID#: 0310266-01A

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

File Name:	b101410	Date of Collection:	10/13/03
Dil. Factor:	2.00	Date of Analysis:	10/14/03 02:50 PM

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	1.0	5.0	12	60
Freon 114	1.0	7.1	Not Detected	Not Detected
Vinyl Chloride	1.0	2.6	Not Detected	Not Detected
Bromomethane	1.0	3.9	Not Detected	Not Detected
Chloroethane	1.0	2.7	Not Detected	Not Detected
Freon 11	1.0	5.7	33	190
1,1-Dichloroethene	1.0	4.0	4.4	18
Freon 113	1.0	7.8	27	210
Methylene Chloride	1.0	3.5	Not Detected	Not Detected
1,1-Dichloroethane	1.0	4.1	Not Detected	Not Detected
cis-1,2-Dichloroethene	1.0	4.0	1.1	4.3
Chloroform	1.0	5.0	35	170
1,1,1-Trichloroethane	1.0	5.5	1.9	11
Carbon Tetrachloride	1.0	6.4	27	170
Benzene	1.0	3.2	Not Detected	Not Detected
1,2-Dichloroethane	1.0	4.1	Not Detected	Not Detected
Trichloroethene	1.0	5.5	220	1200
1,2-Dichloropropane	1.0	4.7	Not Detected	Not Detected
cis-1,3-Dichloropropene	1.0	4.6	Not Detected	Not Detected
Toluene	1.0	3.8	2.7	10
trans-1,3-Dichloropropene	1.0	4.6	Not Detected	Not Detected
1,1,2-Trichloroethane	1.0	5.5	Not Detected	Not Detected
Tetrachloroethene	1.0	6.9	14	100
1,2-Dibromoethane (EDB)	1.0	7.8	Not Detected	Not Detected
Chlorobenzene	1.0	4.7	Not Detected	Not Detected
Ethyl Benzene	1.0	4.4	Not Detected	Not Detected
m,p-Xylene	1.0	4.4	Not Detected	Not Detected
o-Xylene	1.0	4.4	Not Detected	Not Detected
Styrene	1.0	4.3	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	1.0	7.0	Not Detected	Not Detected
1,3,5-Trimethylbenzene	1.0	5.0	Not Detected	Not Detected
1,2,4-Trimethylbenzene	1.0	5.0	Not Detected	Not Detected
1,3-Dichlorobenzene	1.0	6.1	Not Detected	Not Detected
1,4-Dichlorobenzene	1.0	6.1	Not Detected	Not Detected
alpha-Chlorotoluene	1.0	5.3	Not Detected	Not Detected
1,2-Dichlorobenzene	1.0	6.1	Not Detected	Not Detected
1,3-Butadiene	1.0	2.2	Not Detected	Not Detected
Hexane	1.0	3.6	Not Detected	Not Detected
Cyclohexane	1.0	3.5	Not Detected	Not Detected
Heptane	1.0	4.2	1.4	5.8
Bromodichloromethane	1.0	6.8	1.7	12
Dibromochloromethane	1.0	8.6	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: VE04-INN-021-001

ID#: 0310266-01A

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

File Name:	b101410	Date of Collection:	10/13/03
Dil. Factor:	2.00	Date of Analysis:	10/14/03 02:50 PM

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Cumene	1.0	5.0	Not Detected	Not Detected
Propylbenzene	1.0	5.0	Not Detected	Not Detected
Chloromethane	4.0	8.4	Not Detected	Not Detected
1,2,4-Trichlorobenzene	4.0	30	Not Detected	Not Detected
Hexachlorobutadiene	4.0	43	Not Detected	Not Detected
Acetone	4.0	9.6	110	260
Carbon Disulfide	4.0	13	Not Detected	Not Detected
2-Propanol	4.0	10	13	32
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	47	140
Tetrahydrofuran	4.0	12	Not Detected	Not Detected
1,4-Dioxane	4.0	15	Not Detected	Not Detected
4-Methyl-2-pentanone	4.0	17	Not Detected	Not Detected
2-Hexanone	4.0	17	Not Detected	Not Detected
Bromoform	4.0	42	Not Detected	Not Detected
4-Ethyltoluene	4.0	20	Not Detected	Not Detected
Methyl tert-butyl ether	4.0	15	Not Detected	Not Detected
Ethanol	4.0	7.7	300	570

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	93	70-130

AIR TOXICS LTD.

SAMPLE NAME: VE04-EFF-021-002

ID#: 0310266-02A

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

File Name:	b101411	Date of Collection:	10/13/03
Dil. Factor:	1.00	Date of Analysis:	10/14/03 03:39 PM

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	11	56
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	5.9	16
Freon 11	0.50	2.8	38	220
1,1-Dichloroethene	0.50	2.0	1.1	4.4
Freon 113	0.50	3.9	80	620
Methylene Chloride	0.50	1.8	0.98	3.4
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	2.1	8.0
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	0.98	4.1
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#: 0310266-03A

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

File Name:	b101409a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/14/03 02:10 PM

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#: 0310266-03A

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

File Name:	b101409a	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 10/14/03 02:10 PM	

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	91	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	84	70-130

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0310266-04A

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

File Name:	b101403	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 10/14/03 09:42 AM	

Compound	%Recovery
Freon 12	93
Freon 114	88
Vinyl Chloride	88
Bromomethane	107
Chloroethane	79
Freon 11	90
1,1-Dichloroethene	87
Freon 113	98
Methylene Chloride	81
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	90
Chloroform	92
1,1,1-Trichloroethane	96
Carbon Tetrachloride	98
Benzene	87
1,2-Dichloroethane	89
Trichloroethene	97
1,2-Dichloropropane	91
cis-1,3-Dichloropropene	100
Toluene	104
trans-1,3-Dichloropropene	91
1,1,2-Trichloroethane	98
Tetrachloroethene	101
1,2-Dibromoethane (EDB)	106
Chlorobenzene	101
Ethyl Benzene	96
m,p-Xylene	101
o-Xylene	96
Styrene	96
1,1,2,2-Tetrachloroethane	86
1,3,5-Trimethylbenzene	82
1,2,4-Trimethylbenzene	85
1,3-Dichlorobenzene	80
1,4-Dichlorobenzene	76
alpha-Chlorotoluene	84
1,2-Dichlorobenzene	80
1,3-Butadiene	78
Hexane	86
Cyclohexane	95
Heptane	81
Bromodichloromethane	100
Dibromochloromethane	108

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0310266-04A

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

File Name:	b101403	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 10/14/03 09:42 AM	

Compound	%Recovery
Cumene	88
Propylbenzene	82
Chloromethane	81
1,2,4-Trichlorobenzene	83
Hexachlorobutadiene	85
Acetone	73
Carbon Disulfide	85
2-Propanol	78
trans-1,2-Dichloroethene	88
Vinyl Acetate	79
2-Butanone (Methyl Ethyl Ketone)	78
Tetrahydrofuran	74
1,4-Dioxane	93
4-Methyl-2-pentanone	82
2-Hexanone	79
Bromoform	96
4-Ethyltoluene	87
Methyl tert-butyl ether	85
Ethanol	81

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	91	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0310266-05A

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

File Name:	b101404	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 10/14/03 10:26 AM	

Compound	%Recovery
Freon 12	97
Freon 114	94
Vinyl Chloride	85
Bromomethane	113
Chloroethane	90
Freon 11	87
1,1-Dichloroethene	81
Freon 113	95
Methylene Chloride	80
1,1-Dichloroethane	76
cis-1,2-Dichloroethene	87
Chloroform	89
1,1,1-Trichloroethane	87
Carbon Tetrachloride	91
Benzene	95
1,2-Dichloroethane	92
Trichloroethene	99
1,2-Dichloropropane	91
cis-1,3-Dichloropropene	91
Toluene	96
trans-1,3-Dichloropropene	93
1,1,2-Trichloroethane	102
Tetrachloroethene	109
1,2-Dibromoethane (EDB)	90
Chlorobenzene	102
Ethyl Benzene	91
m,p-Xylene	96
o-Xylene	90
Styrene	88
1,1,2,2-Tetrachloroethane	82
1,3,5-Trimethylbenzene	70
1,2,4-Trimethylbenzene	74
1,3-Dichlorobenzene	77
1,4-Dichlorobenzene	73
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	80
1,3-Butadiene	90
Hexane	82
Cyclohexane	89
Heptane	75
Bromodichloromethane	82
Dibromochloromethane	93

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0310266-05A

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

File Name:	b101404	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 10/14/03 10:26 AM	

Compound	%Recovery
Cumene	92
Propylbenzene	61
Chloromethane	84
1,2,4-Trichlorobenzene	81
Hexachlorobutadiene	78
Acetone	69
Carbon Disulfide	83
2-Propanol	71
trans-1,2-Dichloroethene	93
Vinyl Acetate	71
2-Butanone (Methyl Ethyl Ketone)	75
Tetrahydrofuran	74
1,4-Dioxane	93
4-Methyl-2-pentanone	69
2-Hexanone	68
Bromoform	69
4-Ethyltoluene	68
Methyl tert-butyl ether	80
Ethanol	81

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	88	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCSD

ID#: 0310266-05AA

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

File Name:	b101405	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 10/14/03 10:54 AM	

Compound	%Recovery
Freon 12	98
Freon 114	96
Vinyl Chloride	98
Bromomethane	120
Chloroethane	90
Freon 11	88
1,1-Dichloroethene	82
Freon 113	98
Methylene Chloride	82
1,1-Dichloroethane	81
cis-1,2-Dichloroethene	89
Chloroform	90
1,1,1-Trichloroethane	87
Carbon Tetrachloride	96
Benzene	96
1,2-Dichloroethane	89
Trichloroethene	102
1,2-Dichloropropane	92
cis-1,3-Dichloropropene	93
Toluene	96
trans-1,3-Dichloropropene	95
1,1,2-Trichloroethane	102
Tetrachloroethene	114
1,2-Dibromoethane (EDB)	92
Chlorobenzene	100
Ethyl Benzene	94
m,p-Xylene	97
o-Xylene	90
Styrene	90
1,1,2,2-Tetrachloroethane	85
1,3,5-Trimethylbenzene	72
1,2,4-Trimethylbenzene	74
1,3-Dichlorobenzene	80
1,4-Dichlorobenzene	75
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	84
1,3-Butadiene	92
Hexane	83
Cyclohexane	92
Heptane	74
Bromodichloromethane	86
Dibromochloromethane	92