APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

December 8, 2003

GEOFON, Inc.
Attention: Brad Shojaee
22632 Golden Spring Dr Ste 270
Diamond Bar CA 91765

Dear Brad,

This package contains samples in our Service ID 03-5951 and your project : 04-4428.10 JPL
Enclosed please find:

(1) Original analytical report.
(2) Original Chain of Custody.
(3) One diskette containing EDD deliverable.
(4) One original Level C Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Regina Kirakozova
Associate QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
GEOFON, Inc.
Attention: Brad Shojaee
22632 Golden Spring Dr Ste 270
Diamond Bar CA 91765
Tel: (909)396-7662 Fax: (909)396-1455

Service ID #: 801-035951
Collected by: JR
Collected on: 11/04/03

Received: 11/04/03
Extracted: N/A
Tested: 11/04-10/03
Reported: 11/11/03

Sample Description: Water from MW-17,14.
Project Description: 04-4428.10 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result DUPE-5-4-Q03 03-05951-1	EB-9-11-4-03 03-05951-2	MW-14-1 03-05951-3	MW-14-2 03-05951-4
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	<0.01
Dilution Factor				5	1	1	1
PERCHLORATE	314.0	μg/L	4	193	<4	6.6	4.7
VOLATILE ORGANIC COMPOUNDS							
Dilution Factor				1	1	1	1
BENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOFORM	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
BROMOMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
N-BUTYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-BUTANONE	524.2	μg/L	10	<10	<10	<10	<10
CARBON TETRACHLORIDE	524.2	μg/L	0.5	13.7	<0.5	<0.5	<0.5
CHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	μg/L	0.5	3.1	<0.5	<0.5	0.5J
CHLOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	0.5J	<0.5
1,2-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result DUPE-5-4-Q03 03-05951-1	EB-9-11-4-03 03-05951-2	MW-14-1 03-05951-3	MW-14-2 03-05951-4
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
METHYL-T-BUTYL ETHER (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	524.2	µg/L	10	<10	<10	<10	<10
NAPHTHALENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
STYRENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	µg/L	0.5	0.6	<0.5	0.4J	0.7
TOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	3.8	<0.5	<0.5	4.6
TRICHLOROFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
O-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
M/P-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result MW-14-3 03-05951-5	MW-14-4 03-05951-6	MW-14-5 03-05951-7
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01
Dilution Factor				1	1	1
PERCHLORATE	314.0	μg/L	4	7.2	4.4	<4
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
BENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	524.2	μg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
N-BUTYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
2-BUTANONE	524.2	μg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
CHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	μg/L	0.5	0.4J	<0.5	<0.5
CHLOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	524.2	μg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result MW-14-3 03-05951-5	MW-14-4 03-05951-6	MW-14-5 03-05951-7
ETHYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	μg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
METHYL-T-BUTYL ETHER (MTBE)	524.2	μg/L	1	<1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	524.2	μg/L	10	<10	<10	<10
NAPHTHALENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
STYRENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	μg/L	0.5	0.6	<0.5	<0.5
TOLUENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	μg/L	0.5	0.8	<0.5	<0.5
TRICHLOROFLUOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
O-XYLENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
M/P-XYLENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result MW-17-1 03-05951-8	MW-17-2 03-05951-9	MW-17-3 03-05951-10
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01
Dilution Factor				1	1	5
PERCHLORATE	314.0	μg/L	4	<4	15.7	199

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Component Analyzed	Method	Unit	PQL	Analysis Result MW-17-1 03-05951-8	MW-17-2 03-05951-9	MW-17-3 03-05951-10
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
BENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
N-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-BUTANONE	524.2	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	1.0	11.0
CHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	1.1	2.6
CHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result MW-17-1 03-05951-8	MW-17-2 03-05951-9	MW-17-3 03-05951-10
P-ISOPROPYLTOLUENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
METHYL-T-BUTYL ETHER (MTBE)	524.2	μg/L	1	<1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	524.2	μg/L	10	<10	<10	<10
NAPHTHALENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
STYRENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	μg/L	0.5	<0.5	0.4J	0.4J
TOLUENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	μg/L	0.5	<0.5	6.2	3.1
TRICHLOROFLUOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
O-XYLENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
M/P-XYLENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result MW-17-4 03-05951-11	MW-17-5 03-05951-12	TB-9-11-4-03 03-05951-13
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	-
Dilution Factor				1	1	1
PERCHLORATE	314.0	μg/L	4	<4	<4	-

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-17-4 03-05951-11	MW-17-5 03-05951-12	TB-9-11-4-03 03-05951-13
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
BENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
N-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-BUTANONE	524.2	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-17-4 03-05951-11	MW-17-5 03-05951-12	TB-9-11-4-03 03-05951-13
P-ISOPROPYLTOLUENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	μg/L	0.5	<0.5	<0.5	0.4J
METHYL-T-BUTYL ETHER (MTBE)	524.2	μg/L	1	<1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	524.2	μg/L	10	<10	<10	<10
N-PROPYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
NAPHTHALENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
STYRENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	μg/L	0.5	0.8	<0.5	<0.5
TRICHLOROFLUOROMETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
O-XYLENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
M/P-XYLENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level C Data Package Deliverables

General Information

Project: 04-4428.10 JPL

APCL Service ID: 03-5951

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
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Applied P & Ch Laboratory
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Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: JPL/MW-17,14./04-4428.10

For GEOFON, Inc.

APCL Service No: 03-5951

1. Sample Identification

The sample identifications are listed in the following table:

GEOFON, Inc. Sample ID	APCL Sample ID
MW-17-5	03-05951-12
MW-17-4	03-05951-11
MW-17-3	03-05951-10
MW-17-2	03-05951-9
MW-17-1	03-05951-8
DUPE-5-4-Q03	03-05951-1
MW-14-5	03-05951-7
MW-14-4	03-05951-6
MW-14-3	03-05951-5
MW-14-2	03-05951-4
MW-14-1	03-05951-3
EB-9-11-4-03	03-05951-2
TB-9-11-4-03	03-05951-13

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),
7196 (Chromium (VI)),
314.0 (Perchlorate, low level),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

6. Anomaly

None

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Regina Kirakozova
Associate QA/QC Director
Applied P & Ch Laboratory

0063

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

MW-17

GEOFON's LAB COORDINATOR: Scott Buhmer	LAB COORDINATOR'S PHONE: 909 396 7662	LAB COORDINATOR'S FAX: 909 396 1455	LABORATORY SERVICE ID:	LABORATORY CONTACT: Kenny Chan	MAIL REPORT (COMPANY NAME): Geofon
PROJECT NAME: SPC GW Mon-4Q03	PROJECT LOCATION: MW-17	PROJECT NUMBER: 04-4428.10	LABORATORY PHONE: 909 590 1828	LABORATORY FAX: 909 590 1498	RECIPIENT NAME: Tony Ford
PROJECT CONTACT: Brad Shojaee	PROJECT PHONE NUMBER: 909 396 7662	PROJECT FAX: 909 396 1455	LABORATORY ADDRESS: 13760 Magnolia Ave.		ADDRESS: 22632 Golden Springs Dr. Suite 270
PROJECT ADDRESS: 4800 Oak Grove Dr.	CITY, STATE AND ZIPCODE: Pasadena, CA	CLIENT: US NAVY SWDIV	CITY, STATE AND ZIPCODE: Chino, CA 91710		CITY, STATE AND ZIPCODE: Diamond Bar, CA 91765
PROJECT MANAGER: Tony Ford	PROJECT MANAGER'S PHONE: 909 396 7662	PROJECT MANAGER'S FAX: 909 396 1455			

5951

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: 524.2 (VOCs)	314.0 (ClO4-)	200.8 (total Cr)	7196 (Cr (VI))					Comments
1	MW-17-5	W	11/4/03	0958	HCl HNO3 NaN3	5	III	Normal	X	X	X	X					
2	MW-17-4	↓	↓	1022	↓	↓	↓	↓	X	X	X	X					
3	MW-17-3			1046					X	X	X	X					
4	MW-17-2			1128					X	X	X	X					
5	MW-17-1			1148			↓		X	X	X	X					
6	~~MW-17~~ - 16.2-03 Dupe-5-4-Q03	↓	↓	1107	↓	↓	IV	↓	X	X	X	X					
7																	
8								a									
9								10.4.03									
10																	

SAMPLES COLLECTED BY: JR

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
[signature]	[signature]	11-4-03	1245	
	[signature]	11-04-03	1345	

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

0062

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

MW-14

GEOFON's LAB COORDINATOR: Scott Buhrman	LAB COORDINATOR'S PHONE: 909 396 7662	LAB COORDINATOR'S FAX: 909 396 1455	LABORATORY SERVICE ID	LABORATORY CONTACT: Kenny Chen	MAIL REPORT (COMPANY NAME): Geofon
PROJECT NAME: SPL Cal Mon-4Q03	PROJECT LOCATION: MW-14	PROJECT NUMBER: 04-4428.10	LABORATORY PHONE: 909 590 1828	LABORATORY FAX: 909 590 1498	RECIPIENT NAME: Tony Ford
PROJECT CONTACT: Brad Shojaie	PROJECT PHONE NUMBER: 909-396 7662	PROJECT FAX: 909 396 1455	LABORATORY ADDRESS: 13760 Magnolia Ave.		ADDRESS: 22632 Golden Springs Dr. Suite 270
PROJECT ADDRESS: 4800 Oak Grove Dr.	CITY, STATE AND ZIPCODE: Pasadena, CA	CLIENT: US NAVY SWDIV	CITY, STATE AND ZIPCODE: Chino, CA 91710		CITY, STATE AND ZIPCODE: Diamond Bar, CA 91765
PROJECT MANAGER: Tony Ford	PROJECT MANAGER'S PHONE: 909 396 7662	PROJECT MANAGER'S FAX: 909 396 1455			

5951

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: 200.8 (total Cr)	7196 (Cr (VI))	524.2 (VOC)	314.0 (ClO4)					Comments
1	MW-14-5	W	11/4/03	0719	HNO3 HCl NaOH	3	III	Normal	X	X	X	X					
2	MW-14-4			0739		5			X	X	X	X					
3	MW-14-3			0800					X	X	X	X					
4	MW-14-2			0819					X	X	X	X					
5	MW-14-1			0845					X	X	X	X					
6	TB-9-11-4-03			—		2			X								
7	EB-9-11-4-03			0834		5			X	X	X	X					
8																	
9								11.4.03									
10																	

SAMPLES COLLECTED BY: JT

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
[signature]	[signature]	11-04-03	1245	
[signature]	[signature]	11-4-03	1545	

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

Applied P & Ch Laboratory
13760 Magnolia Ave., Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: 5951 **Client Name/Project:** Geofon

1. Sample Arrival

Date/Time Received 11/4/03 1345 Date/Time Opened 11/4/03 1345 By (name): Jason

Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☒ APCL Empl: Richard

2. Chain-of-Custody (CoC)

☒ With Samples? ☐ Faxed? ☒ Client has Copy? ☐ Signed, dated? By: _____
☒ Project ID? ☒ Analyses Clear? ☐ Hold Samples? #on Hold _____ # Received _____
☐ CoC/Docs Zip-Locked under lid? ☐ Compos.#: _ ☒ #Samples OK? _____
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs): _____

3. Shipping Container/Cooler

☒ Cooler Used? # of 1 Cooled by: ☒ Ice ☐ Blue Ice ☐ Dry Ice ☐ None
Temp °C 3.6 _____ _____ _____ _____ _____
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ **pH <2** ☐ pH >12
If Not, pH = _____ Preserved by: ☐ Client ☐ APCL ☐ Third Party _____

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☒ Cr^{VI} 24hr ☐ NO_3^- 48hr ☐ BOD 48hr
☐ Cl_2 ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP
☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☒ Intact? ☐ Broken? ☐ Documented? Number: _____
Type: ☐ plastic ☒ glass ☐ Tube: brass/SS ☐ Tedlar Bag
☐ Quantity OK? ☐ Leaking? ☐ Anomaly?
☐ Caps tight? ☐ Air Bubbles? ☐ Anomaly?
Labels: ☐ Unique ID? ☒ Date/Time ☐ Preserved?

7. Turn Around Time

☒ RUST TAT: 5 days ☐ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H_2O ☐ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: _____
☒ Ground H_2O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☒ ALL OK? (if not, attach docs) ☐ Client Contact? (Name:_____)Date/Time:_____

Received/Checked by: _____ Printed: 4 Nov 2003 9:21 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

DocumentFile: [neal.texfiles]smprcl.tex.

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Sample Login: Check List

03-05951 (0470_ 186) (2202777_ 186)

11/04/03

Part 1: General Information

☐	Company Information	Name:	*GEOFON, Inc.*
		Address:	*22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765*
☐	Project Information	Project Description:	*JPL*
		Project #:	*04-4428.10*
☐	Billing Information	P.O. #:	
		Bill Address:	*22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765*
		Lab Project ID:	
		Client Database #:	*3*
☐	Receiving Information	Who Received Sample?	*Jason N.*
		Receiving Date/Time:	*11/04/03 1345*
		COC No.	*0063 0062*
☐	Shipping Information	Shipping Company	*APCL pick up*
		Packing Information:	*Cooler/Ice Chester*
		Cooler Temperature:	*3.6 °C*
☐	Container Information	Container Provider:	*Client*
☐	Sampling Information	Sampling Person:	*JR*
		Sampling Company:	*Client*
☐	Turn-Around-Time Option:		*Rush 5 working day(s)*
☐	QC Option:		*NEESA C*
☐	Disposal Option:		*Not specify*

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont-tainer	Preser-vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	MW-17-5	524.2	03-05951-12-α	W	V	C	40	3	G	110403	N	0	7	☐
	MW-17-5	CrVI	03-05951-12-β	W	P		500	1	G	110403	N	0	7	☐
2	MW-17-4	524.2	03-05951-11-α	W	V	C	40	3	G	110403	N	0	7	☐
	MW-17-4	CrVI	03-05951-11-β	W	P		500	1	G	110403	N	0	7	☐
3	MW-17-3	524.2	03-05951-10-α	W	V	C	40	3	G	110403	N	0	7	☐
	MW-17-3	CrVI	03-05951-10-β	W	P		500	1	G	110403	N	0	7	☐
4	MW-17-2	524.2	03-05951-9-α	W	V	C	40	3	G	110403	N	0	7	☐
	MW-17-2	CrVI	03-05951-9-β	W	P		500	1	G	110403	N	0	7	☐
5	MW-17-1	524.2	03-05951-8-α	W	V	C	40	3	G	110403	N	0	7	☐
	MW-17-1	CrVI	03-05951-8-β	W	P		500	1	G	110403	N	0	7	☐
6	DUPE-5-4-Q03	524.2	03-05951-1-α	W	V	C	40	3	G	110403	N	0	7	☐
	DUPE-5-4-Q03	CrVI	03-05951-1-β	W	P		500	1	G	110403	N	0	7	☐
7	MW-14-5	524.2	03-05951-7-α	W	V	C	40	3	G	110403	N	0	7	☐
	MW-14-5	CrVI	03-05951-7-β	W	P		500	1	G	110403	N	0	7	☐
8	MW-14-4	524.2	03-05951-6-α	W	V	C	40	3	G	110403	N	0	7	☐
	MW-14-4	CrVI	03-05951-6-β	W	P		500	1	G	110403	N	0	7	☐
9	MW-14-3	524.2	03-05951-5-α	W	V	C	40	3	G	110403	N	0	7	☐
	MW-14-3	CrVI	03-05951-5-β	W	P		500	1	G	110403	N	0	7	☐
10	MW-14-2	524.2	03-05951-4-α	W	V	C	40	3	G	110403	N	0	7	☐
	MW-14-2	CrVI	03-05951-4-β	W	P		500	1	G	110403	N	0	7	☐
11	MW-14-1	524.2	03-05951-3-α	W	V	C	40	3	G	110403	N	0	7	☐
	MW-14-1	CrVI	03-05951-3-β	W	P		500	1	G	110403	N	0	7	☐
12	EB-9-11-4-03	524.2	03-05951-2-α	W	V	C	40	3	G	110403	N	0	7	☐
	EB-9-11-4-03	CrVI	03-05951-2-β	W	P		500	1	G	110403	N	0	7	☐
13	TB-9-11-4-03	524.2	03-05951-13	W	V	C	40	2	G	110403	N	0	7	☐

Part 3: Analysis Information

Test Items:

- ☐ *524.2* Volatile Organic Compounds
- ☐ *7196A* Chromium (VI)
- ☐ *314.0/300.0* Perchlorate, low level
- ☐ *300.0* Chloride Cl^- by IC
- ☐ *300.0* Sulfate (SO_4^{--}), by IC
- ☐ *300.0/SM4500NO3C* Nitrate (NO_3^-) as N by IC
- ☐ *SM2320B* Carbonate
- ☐ *SM2320B* Bicarbonate
- ☐ *9040B/150.1* pH
- ☐ *160.1* Solids, Total Dissolved (TDS)

Level C Data Package Deliverables

Volatile Organics

Applied P & Ch Laboratory

Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/06/2003
Project ID:	JPL	Service ID:	35951	Collected by:	
		Lab Sample ID:	03G4717-MB-01	Received Date:	11/06/2003
Sample ID:	**03G4717-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	13:54
Data File Name:	G4717K01	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	70-129	108
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	108
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	107
4	TOLUENE-D8	2037-26-5	73-129	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	99
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	97
3	FLUOROBENZENE	462-06-6	50-200	102
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1608

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717K01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 13:54 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:12 2003
Print Time : Fri Nov 07 11:12 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene	7.64	7.64	0.000	96	70	664.923	10.00		0.00	
47	47 Chlorobezene-d5	11.54	11.54	0.000	117	82	492.340	10.00		0.00	
62	62 1,4-Dichlorobenze	13.85	13.85	0.000	152	150	294.801	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Me (surr)	6.60	6.60	0.000	111	113	333.019	21.33	21.3	106.65%	
29	29 1,2-Di-Cl-Et-d4 (	7.10	7.11	0.000	65	102	299.810	21.56	21.6	107.79%	
55	55 toluene-d8	9.91	9.91	0.000	98	100	1175.143	21.62	21.6	108.12%	
70	70 4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	428.526	21.45	21.5	107.26%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
33	33 2-butanoneMEK X10	5.95	5.95	0.000	43	72	2.021	0.58	0.6	83	
101	101 TAME	7.65	7.41	0.031	73	43	9.851	1.15	1.1	46	#
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	9.91	9.77	0.012	43	58	4.718	2.01	2.0	1	#
57	57 2-hexanone X5	10.78	10.76	0.002	43	58	0.293	5.06	5.1	93	
<<< I3 : ISTD ID = 62 >>>											
88	88 naphthalene	15.80	15.78	0.000	128	129	2.394	1.18	1.2	71	

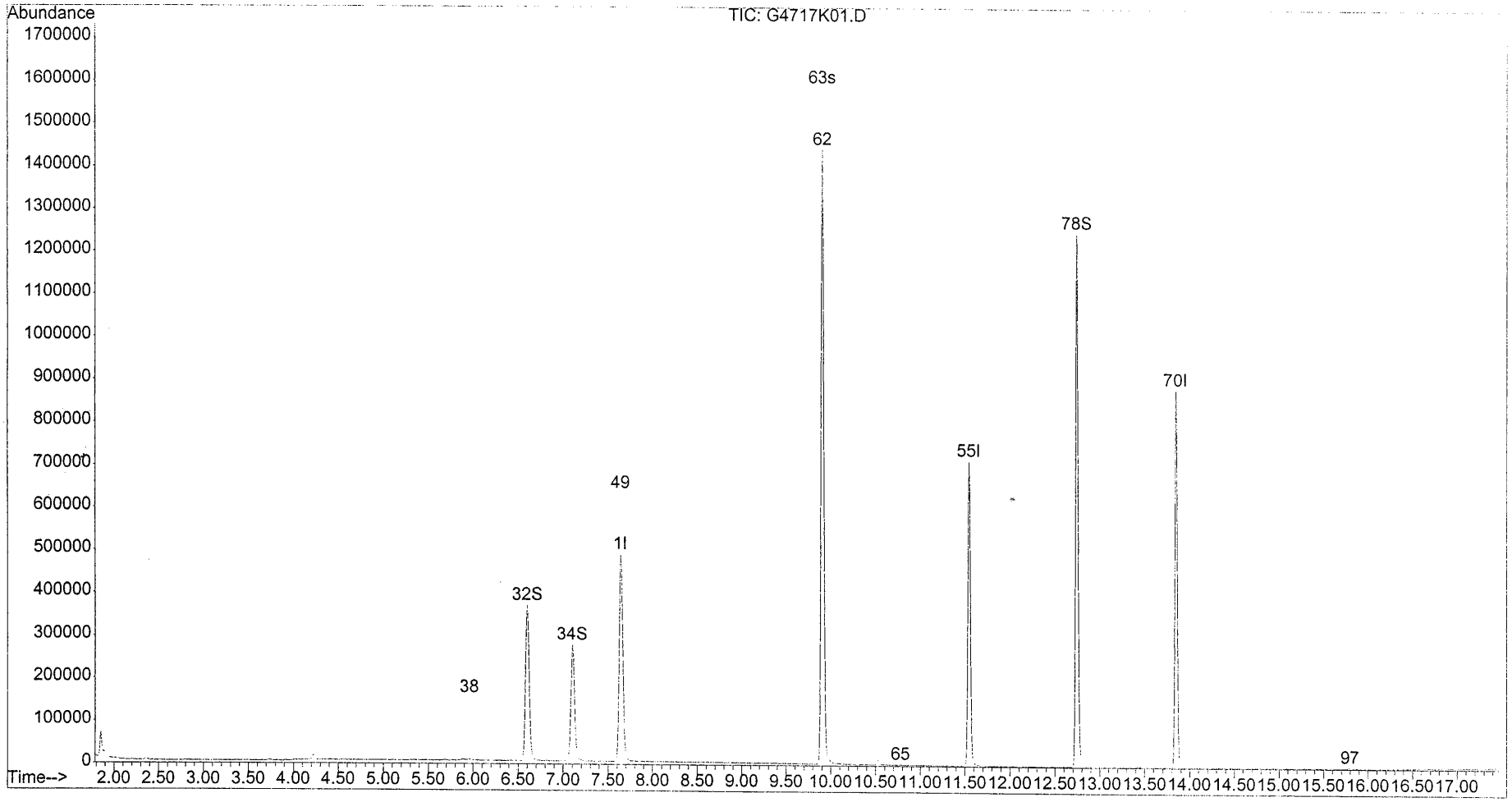
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

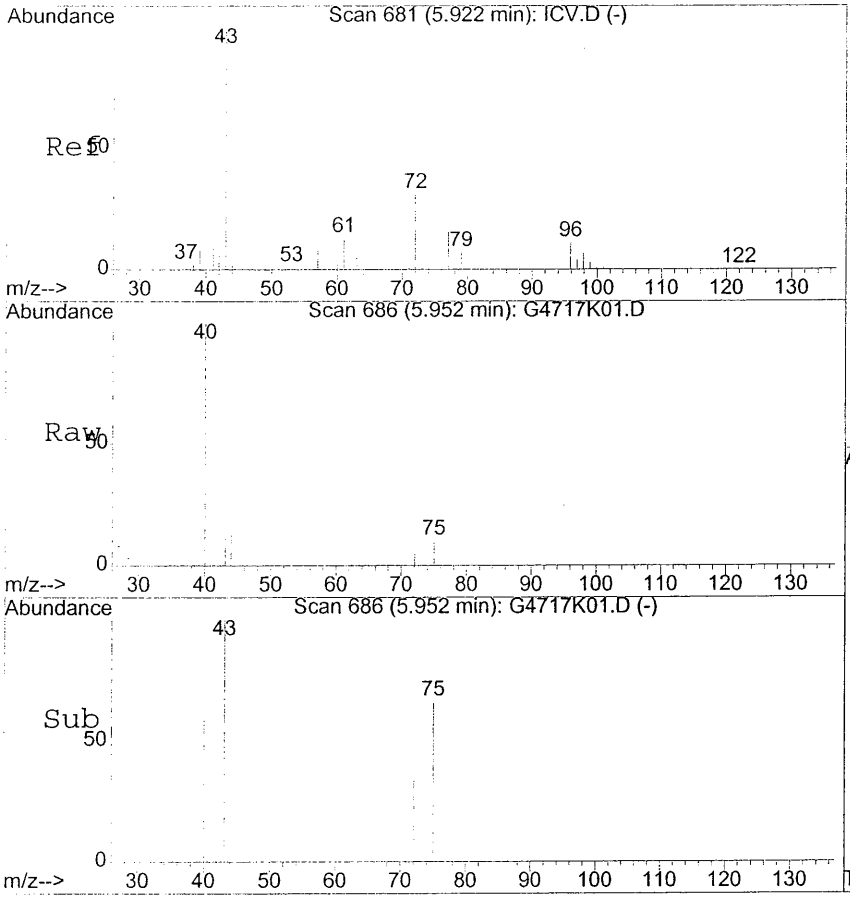
Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1609

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717K01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 13:54 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:12 2003
Print Time : Fri Nov 07 11:12 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

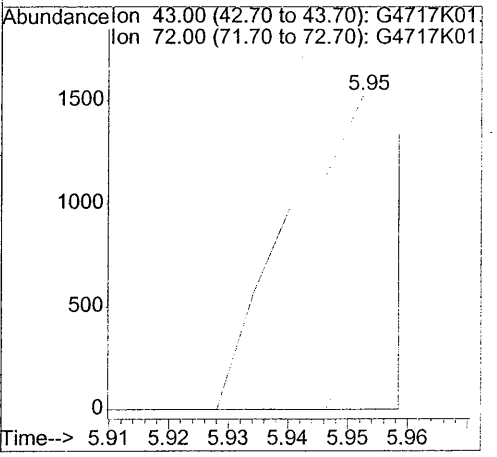


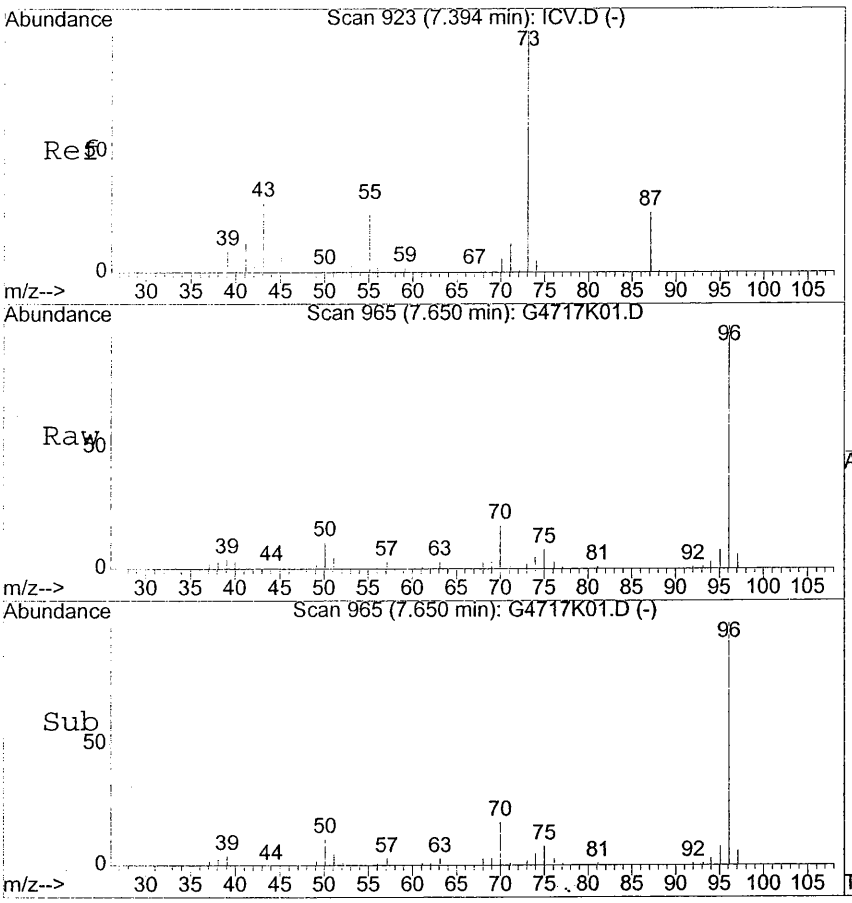


#38
33 2-butanoneMEK X10
Concen: 0.58 ppb
RT: 5.95 min Scan# 686
Delta R.T. 0.01 min
Lab File: G4717K01.D
Acq: 6 Nov 2003 1:54 pm

Tgt Ion:43 Resp: 2021

Ion	Ratio	Lower	Upper
43	100		
72	23.3	13.1	53.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

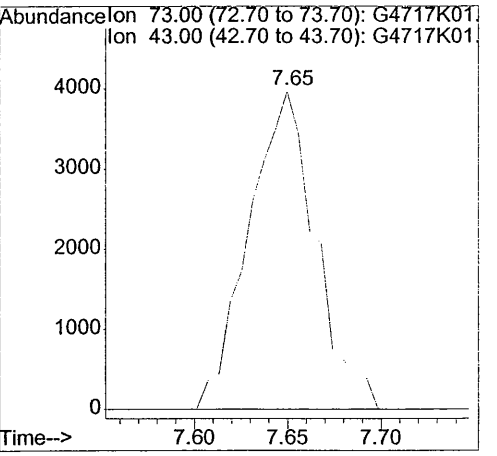


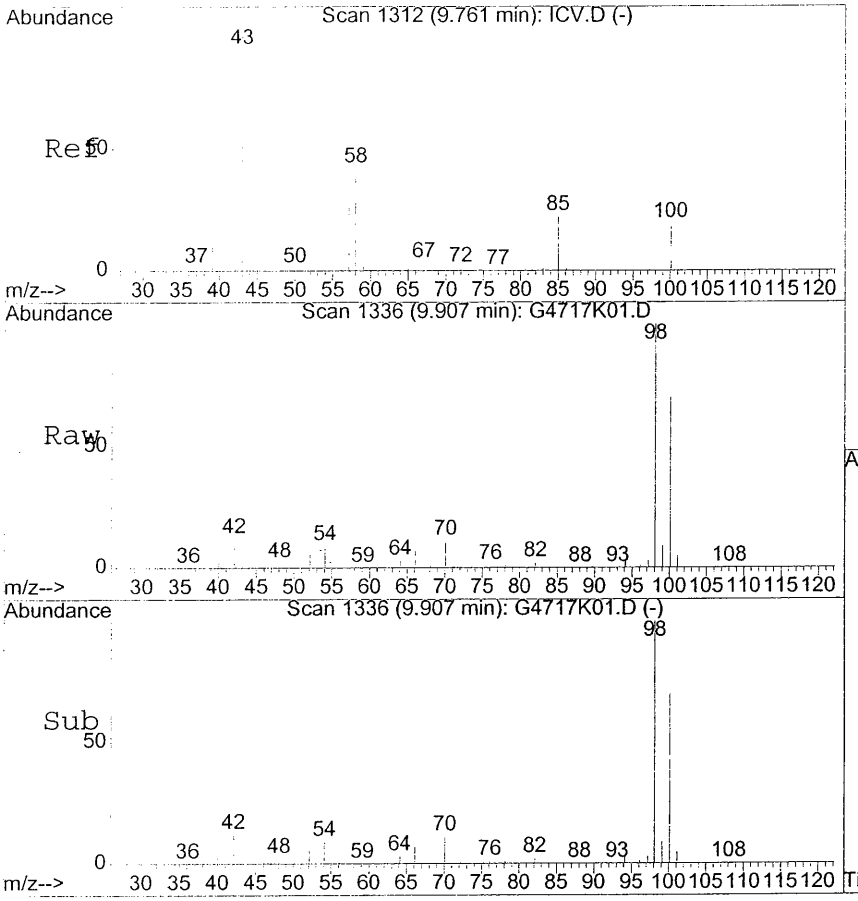


#49
101 TAME
Concen: 1.15 ppb
RT: 7.65 min Scan# 965
Delta R.T. 0.24 min
Lab File: G4717K01.D
Acq: 6 Nov 2003 1:54 pm

Tgt Ion:73 Resp: 9851

Ion	Ratio	Lower	Upper
73	100		
43	0.0	22.7	34.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

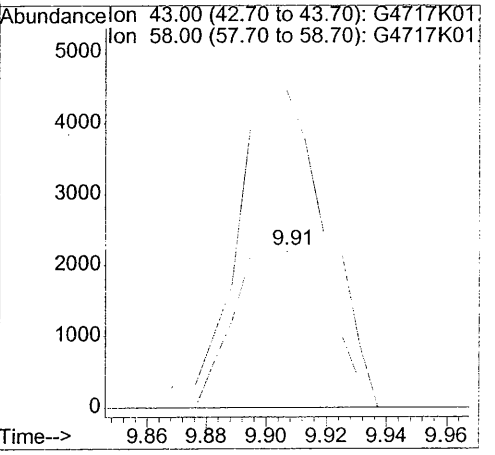


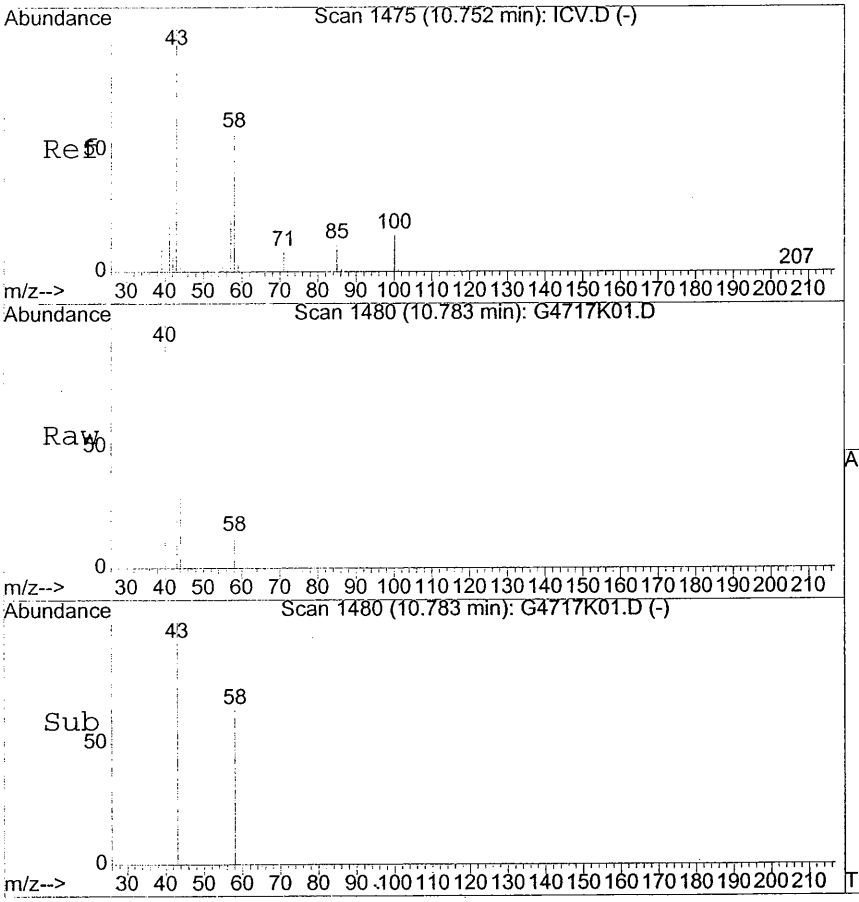


#62
54 MIBK
Concen: 2.01 ppb
RT: 9.91 min Scan# 1336
Delta R.T. 0.14 min
Lab File: G4717K01.D
Acq: 6 Nov 2003 1:54 pm

Tgt Ion:43 Resp: 4718

Ion	Ratio	Lower	Upper
43	100		
58	202.5	20.1	60.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

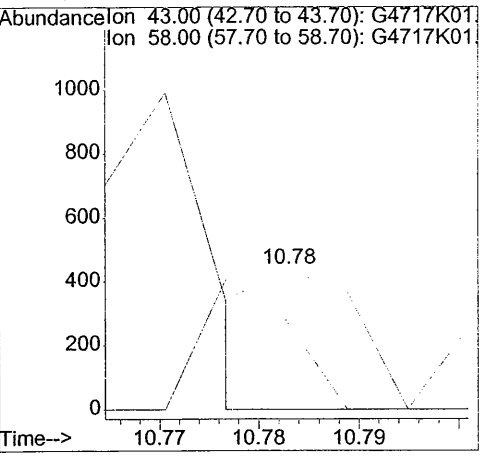


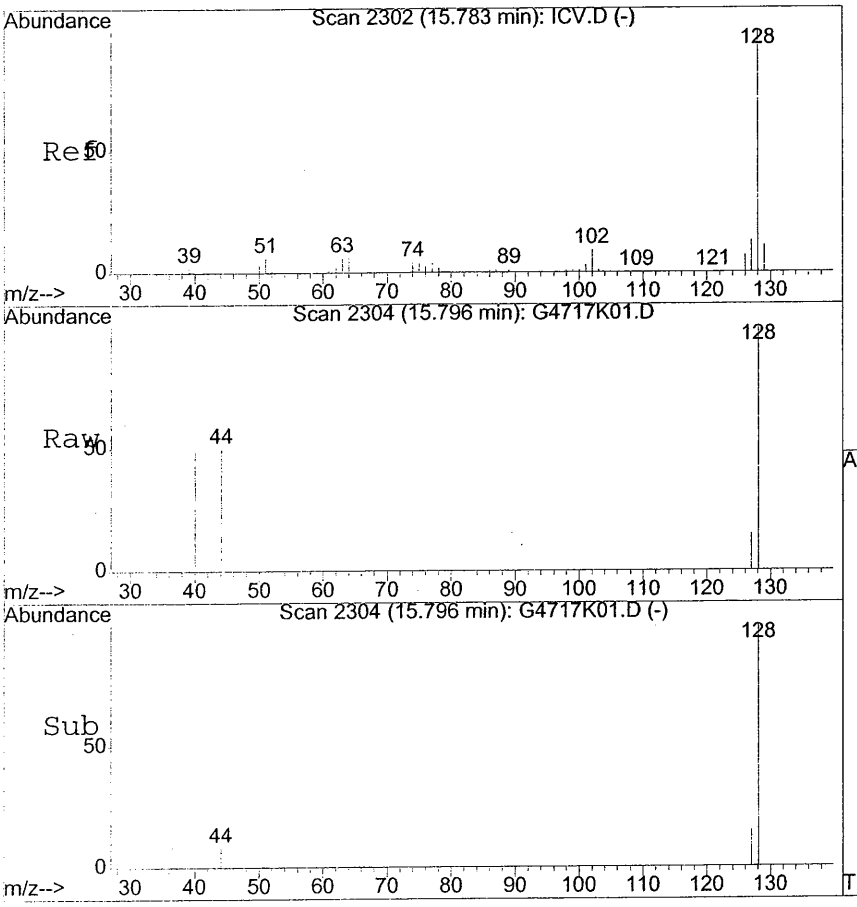


#65
57 2-hexanone X5
Concen: 5.06 ppb
RT: 10.78 min Scan# 1480
Delta R.T. 0.02 min
Lab File: G4717K01.D
Acq: 6 Nov 2003 1:54 pm

Tgt Ion:43 Resp: 293

Ion	Ratio	Lower	Upper
43	100		
58	63.6	38.4	78.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

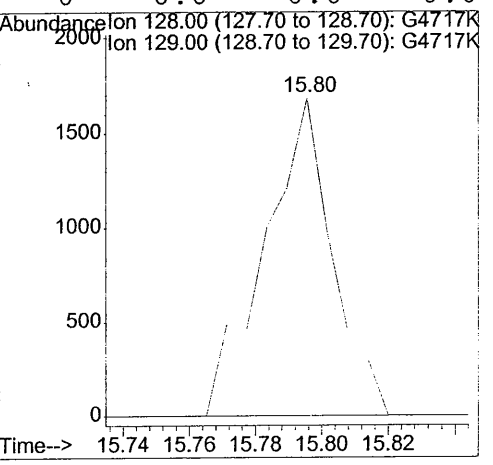




#97
88 naphthalene
Concen: 1.18 ppb
RT: 15.80 min Scan# 2304
Delta R.T. 0.01 min
Lab File: G4717K01.D
Acq: 6 Nov 2003 1:54 pm

Tgt Ion:128 Resp: 2394

Ion	Ratio	Lower	Upper
128	100		
129	0.0	0.0	31.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-1	Received Date:	11/04/2003
Sample ID:	**DUPE-5-4-Q03**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	16:30
Data File Name:	5951-01	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	µg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	µg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	µg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	µg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	µg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	µg/L	0.5	13.7	
12	CHLOROBENZENE	108-90-7	µg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	µg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	µg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	µg/L	0.5	3.1	
16	CHLOROMETHANE	74-87-3	µg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	µg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	µg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	µg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	µg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	µg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	µg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	0.6	
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	3.8	
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	108
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	108
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	107
4	TOLUENE-D8	2037-26-5	73-129	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	96
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	92
3	FLUOROBENZENE	462-06-6	50-200	99
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1615

Data Filename: C:\MSDCHEM\1\DATA\03G4717\5951-01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 16:30 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 10:24 2003
Print Time : Fri Nov 07 10:24 2003
Miscleneous :

Sample : f=1 dup
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene	7.65	7.64	0.000	96	70	644.992	10.00		0.00	
47	47 Chlorobezene-d5	11.54	11.54	0.000	117	82	476.399	10.00		0.00	
62	62 1,4-Dichlorobenze	13.85	13.85	0.000	152	150	281.619	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Me (surr)	6.60	6.60	0.000	111	113	322.579	21.30	21.3	106.50%	
29	29 1,2-Di-Cl-Et-d4 (	7.10	7.11	0.000	65	102	291.233	21.59	21.6	107.95%	
55	55 toluene-d8	9.91	9.91	0.000	98	100	1130.676	21.50	21.5	107.51%	
70	70 4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	410.381	21.50	21.5	107.52%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
95	95 Tert butyl alcoho	4.41	4.51	-0.013	59	57	0.289	0.68		~~0.7 100~~	#
25	25 chloroform	6.37	6.37	0.000	83	85	84.198	3.14	3.1	97	
37	37 CCl4	6.91	6.91	0.000	117	119	284.222	13.71	13.7	98	
40	40 trichloroethene	8.25	8.24	0.000	130	132	66.795	3.82	3.8	88	
101	101 TAME	7.64	7.41	0.030	73	43	8.707	1.11		~~1.1 46~~	#
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	9.91	9.77	0.012	43	58	5.012	2.05		~~2.1 1~~	#
59	59 tetra-Cl-ethene	10.65	10.64	0.000	166	168	9.914	0.56	0.6	93	
<<< I3 : ISTD ID = 62 >>>											
88	88 naphthalene	15.79	15.78	0.000	128	129	0.394	1.14		~~1.1 71~~	

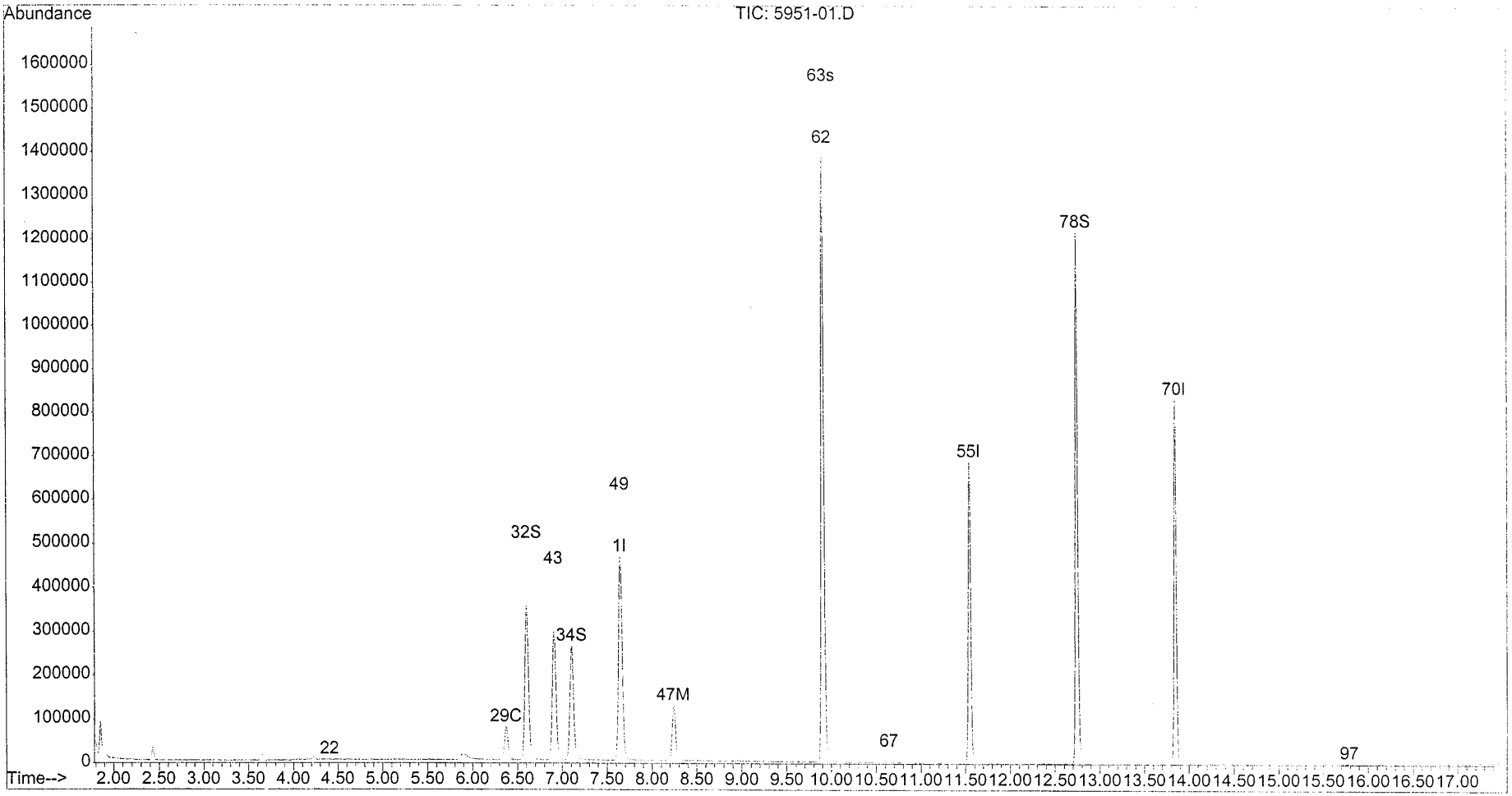
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

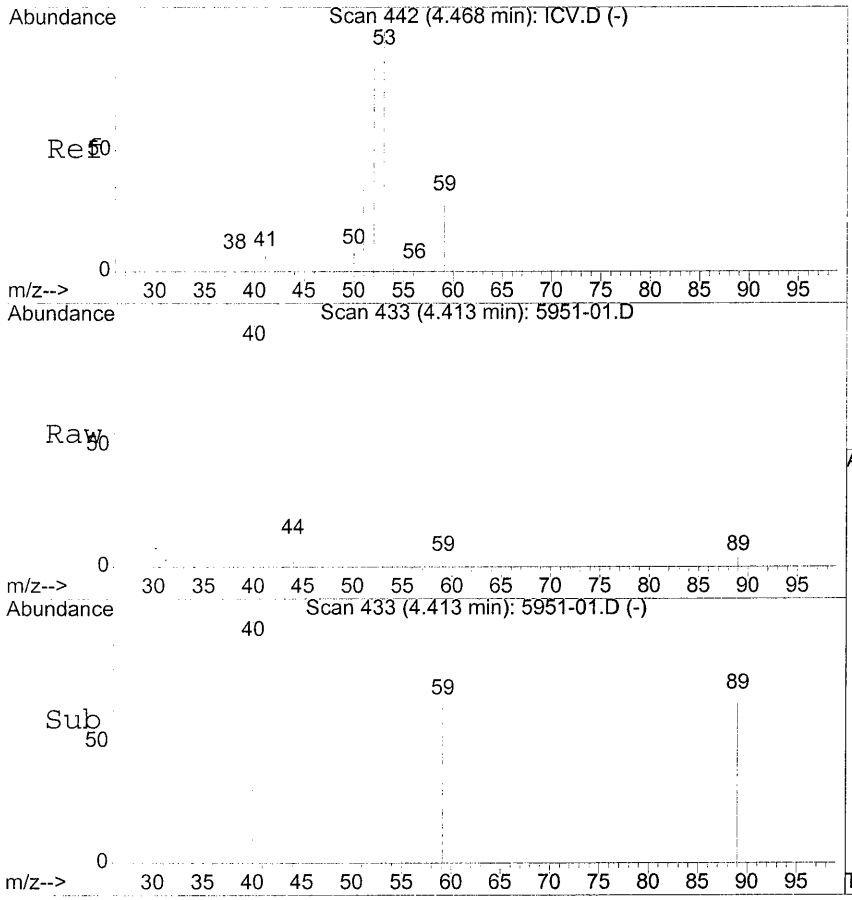
Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1616

Data Filename: C:\MSDCHEM\1\DATA\03G4717\5951-01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 16:30 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 10:24 2003
Print Time : Fri Nov 07 10:24 2003
Miscleneous :

Sample : f=1 dup
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

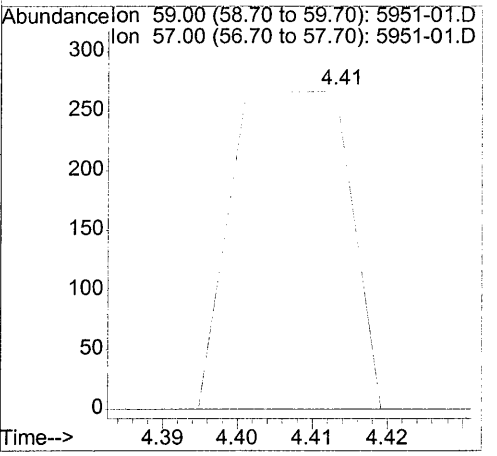


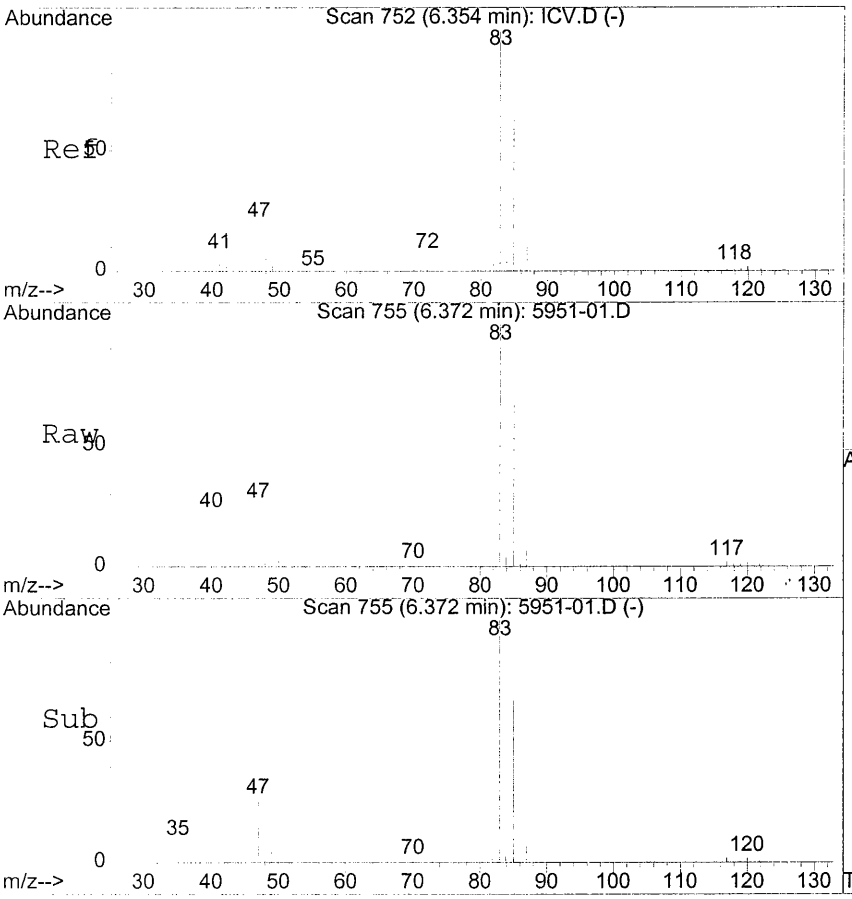


#22
95 Tert butyl alcoholx10
Concen: 0.68 ppb
RT: 4.41 min Scan# 433
Delta R.T. -0.10 min
Lab File: 5951-01.D
Acq: 6 Nov 2003 4:30 pm

Tgt Ion:59 Resp: 289

Ion	Ratio	Lower	Upper
59	100		
57	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

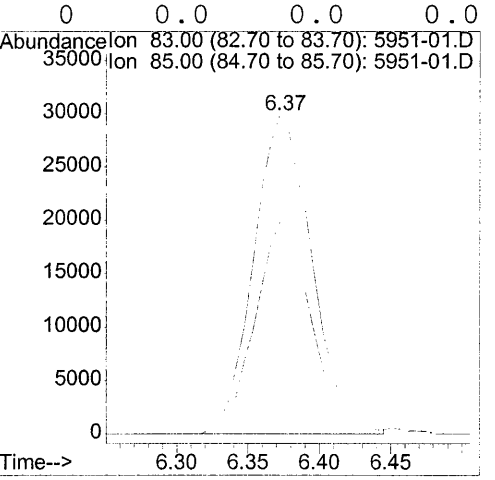


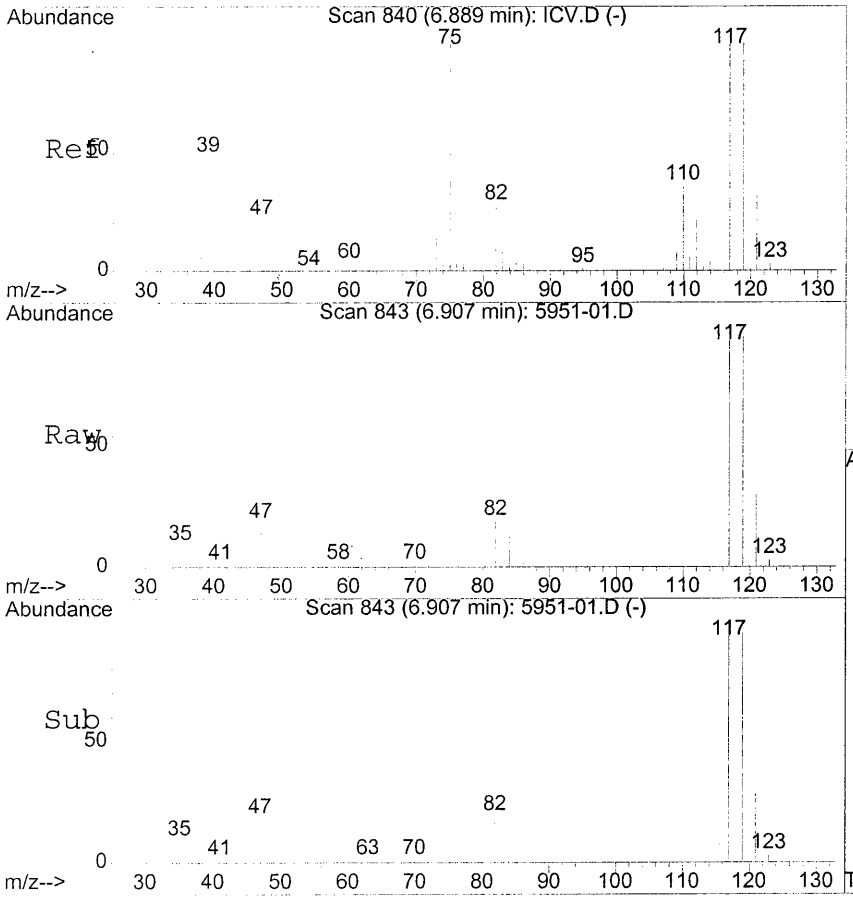


#29
25 chloroform
Concen: 3.14 ppb
RT: 6.37 min Scan# 755
Delta R.T. 0.00 min
Lab File: 5951-01.D
Acq: 6 Nov 2003 4:30 pm

Tgt Ion:83 Resp: 84198

Ion	Ratio	Lower	Upper
83	100		
85	66.6	43.9	83.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

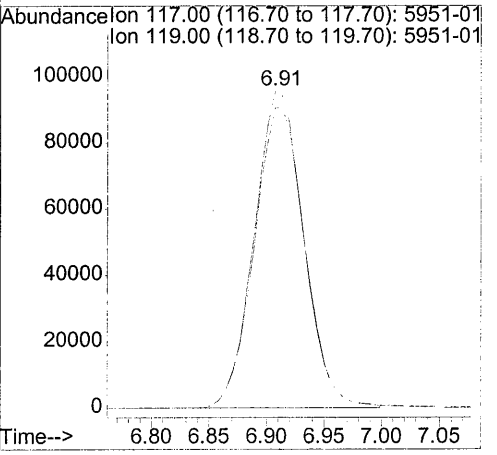


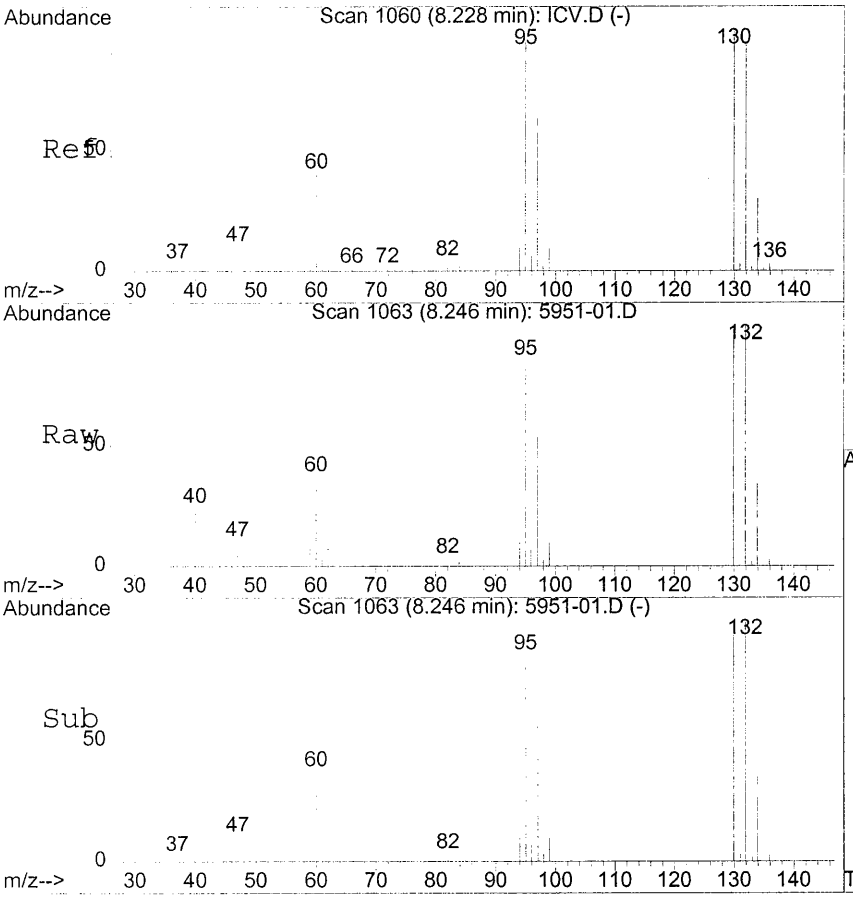


#43
37 CCl4
Concen: 13.71 ppb
RT: 6.91 min Scan# 843
Delta R.T. -0.01 min
Lab File: 5951-01.D
Acq: 6 Nov 2003 4:30 pm

Tgt Ion:117 Resp: 284222

Ion	Ratio	Lower	Upper
117	100		
119	94.9	77.2	117.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

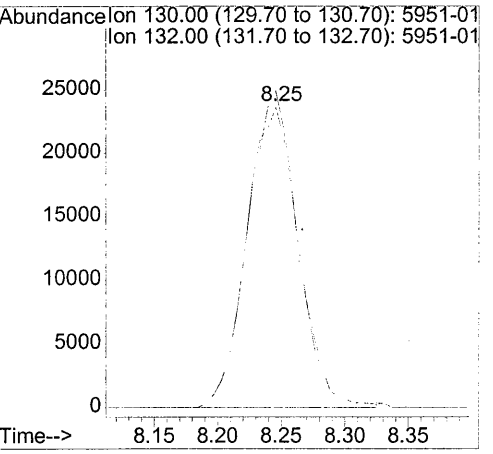


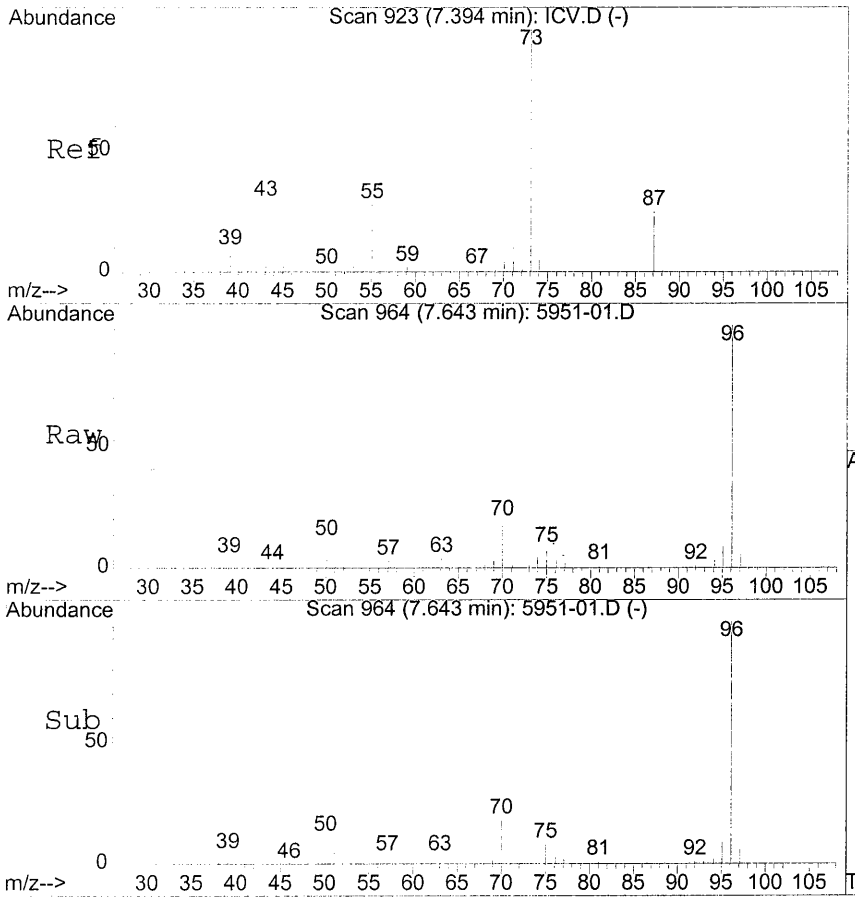


#47
40 trichloroethene
Concen: 3.82 ppb
RT: 8.25 min Scan# 1063
Delta R.T. 0.01 min
Lab File: 5951-01.D
Acq: 6 Nov 2003 4:30 pm

Tgt Ion:130 Resp: 66795

Ion	Ratio	Lower	Upper
130	100		
132	105.4	73.5	113.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

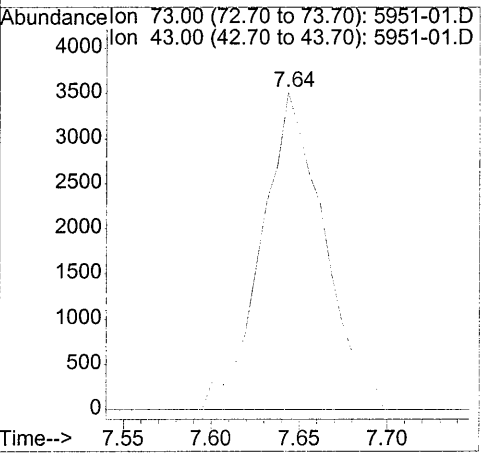


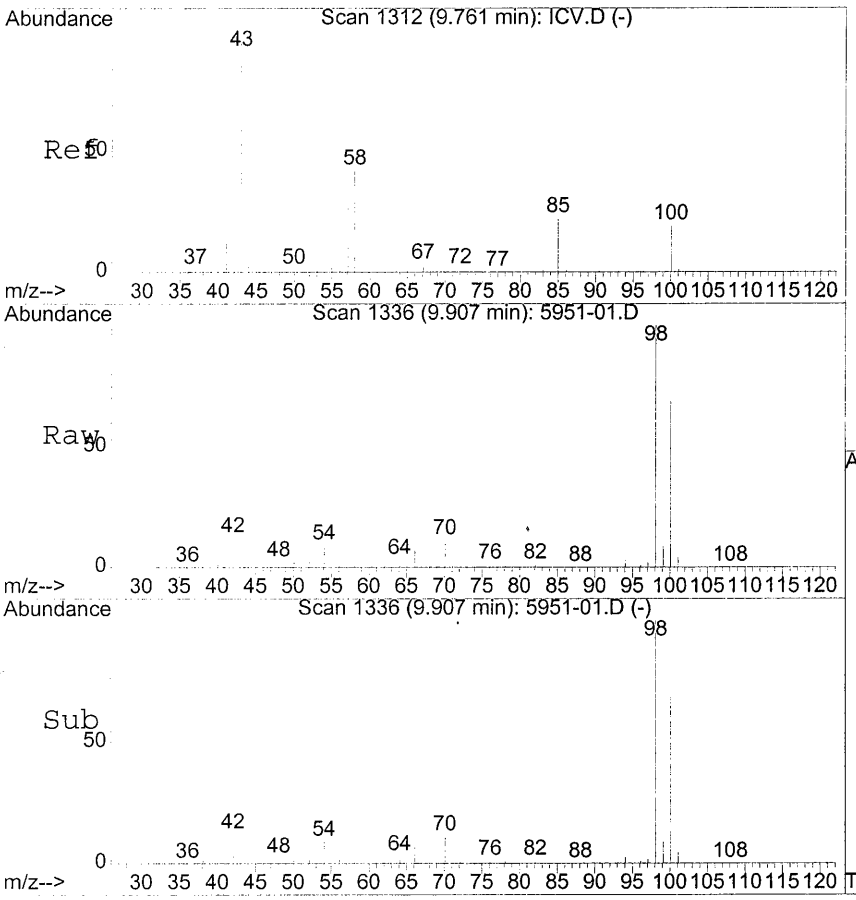


#49
101 TAME
Concen: 1.11 ppb
RT: 7.64 min Scan# 964
Delta R.T. 0.23 min
Lab File: 5951-01.D
Acq: 6 Nov 2003 4:30 pm

Tgt Ion:73 Resp: 8707

Ion	Ratio	Lower	Upper
73	100		
43	0.0	22.7	34.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

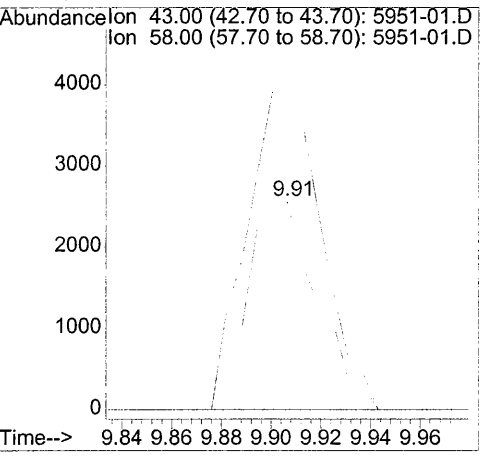


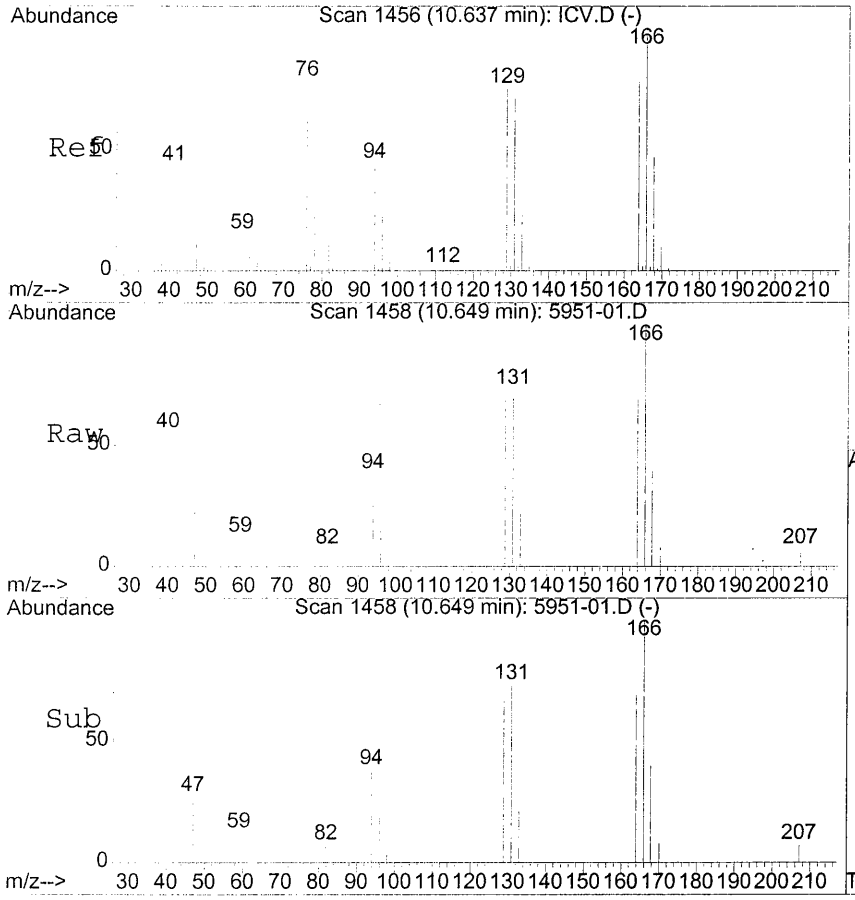


#62
54 MIBK
Concen: 2.05 ppb
RT: 9.91 min Scan# 1336
Delta R.T. 0.14 min
Lab File: 5951-01.D
Acq: 6 Nov 2003 4:30 pm

Tgt Ion:43 Resp: 5012

Ion	Ratio	Lower	Upper
43	100		
58	150.0	20.1	60.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

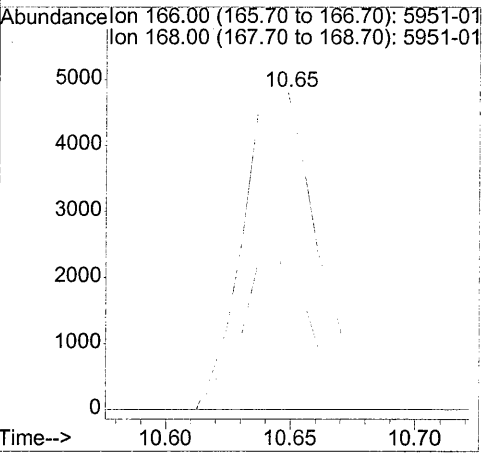


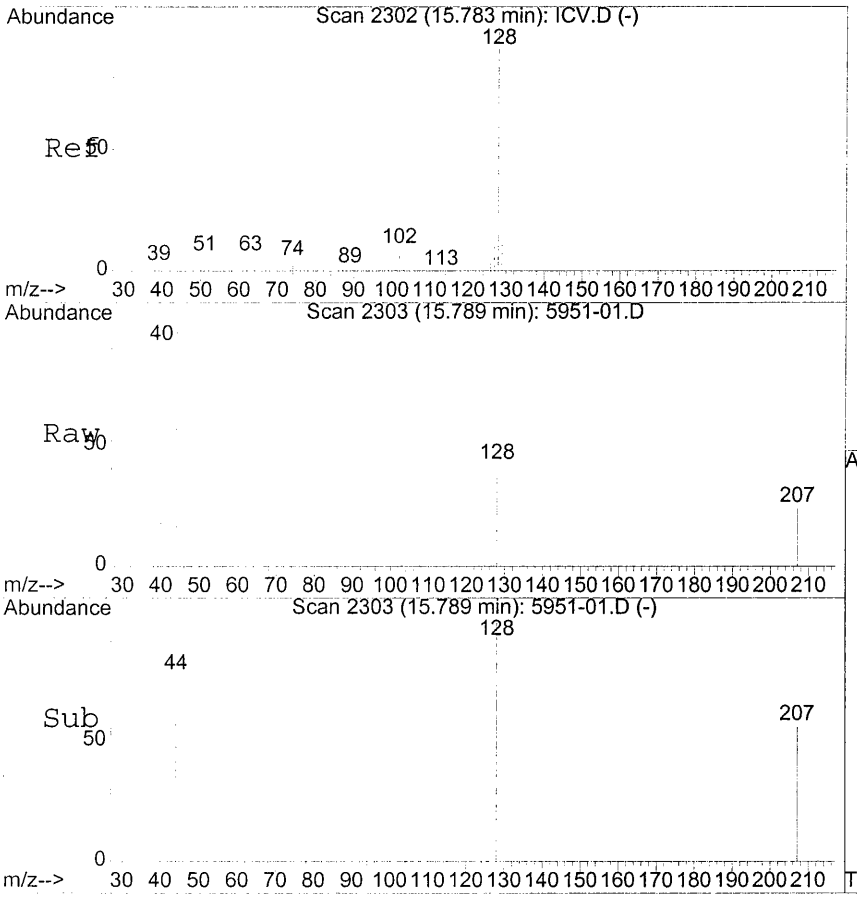


#67
59 tetra-Cl-ethene
Concen: 0.56 ppb
RT: 10.65 min Scan# 1458
Delta R.T. 0.01 min
Lab File: 5951-01.D
Acq: 6 Nov 2003 4:30 pm

Tgt Ion:166 Resp: 9914

Ion	Ratio	Lower	Upper
166	100		
168	40.0	24.9	64.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

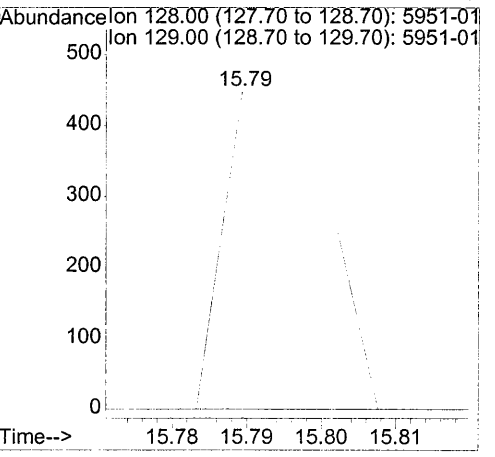




#97
88 naphthalene
Concen: 1.14 ppb
RT: 15.79 min Scan# 2303
Delta R.T. 0.01 min
Lab File: 5951-01.D
Acq: 6 Nov 2003 4:30 pm

Tgt Ion:128 Resp: 394

Ion	Ratio	Lower	Upper
128	100		
129	0.0	0.0	31.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-2	Received Date:	11/04/2003
Sample ID:	**EB-9-11-4-03**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	16:57
Data File Name:	5951-02	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	µg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	µg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	10	<10	U
44	NAPHTHALENE	91-20-3	µg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	µg/L	0.5	<0.5	U
46	STYRENE	100-42-5	µg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	µg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	µg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	µg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	µg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	µg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	µg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	µg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	µg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	µg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	µg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	108
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	108
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	107
4	TOLUENE-D8	2037-26-5	73-129	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	96
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	94
3	FLUOROBENZENE	462-06-6	50-200	100
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-3	Received Date:	11/04/2003
Sample ID:	**MW-14-1**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	17:23
Data File Name:	5951-03	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	0.5	J
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	0.4	J
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	108
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	108
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	106
4	TOLUENE-D8	2037-26-5	73-129	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	94
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	90
3	FLUOROBENZENE	462-06-6	50-200	97
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-4	Received Date:	11/04/2003
Sample ID:	**MW-14-2**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	17:49
Data File Name:	5951-04	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	0.5	J
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	0.7	
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	4.6	
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	110
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	106
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	108
4	TOLUENE-D8	2037-26-5	73-129	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	96
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	91
3	FLUOROBENZENE	462-06-6	50-200	99
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-5	Received Date:	11/04/2003
Sample ID:	**MW-14-3**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	18:15
Data File Name:	5951-05	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	0.4	J
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	µg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	µg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	µg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	10	<10	U
44	NAPHTHALENE	91-20-3	µg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	µg/L	0.5	<0.5	U
46	STYRENE	100-42-5	µg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	µg/L	0.5	0.6	
50	TOLUENE	108-88-3	µg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	µg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	µg/L	0.5	0.8	
56	TRICHLOROFLUOROMETHANE	75-69-4	µg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	µg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	µg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	µg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	µg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	µg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	109
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	109
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	107
4	TOLUENE-D8	2037-26-5	73-129	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	94
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	92
3	FLUOROBENZENE	462-06-6	50-200	98
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-6	Received Date:	11/04/2003
Sample ID:	**MW-14-4**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	18:41
Data File Name:	5951-06	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	109
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	109
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	108
4	TOLUENE-D8	2037-26-5	73-129	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	93
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	90
3	FLUOROBENZENE	462-06-6	50-200	96
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-7	Received Date:	11/04/2003
Sample ID:	**MW-14-5**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	19:07
Data File Name:	5951-07	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	110
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	108
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	108
4	TOLUENE-D8	2037-26-5	73-129	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	94
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	91
3	FLUOROBENZENE	462-06-6	50-200	98
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-8	Received Date:	11/04/2003
Sample ID:	**MW-17-1**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	19:33
Data File Name:	5951-08	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	108
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	109
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	109
4	TOLUENE-D8	2037-26-5	73-129	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	94
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	91
3	FLUOROBENZENE	462-06-6	50-200	97
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-9	Received Date:	11/04/2003
Sample ID:	**MW-17-2**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	19:59
Data File Name:	5951-09	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	1.0	
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	1.1	
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	0.4	J
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	6.2	
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	109
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	111
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	107
4	TOLUENE-D8	2037-26-5	73-129	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	95
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	92
3	FLUOROBENZENE	462-06-6	50-200	98
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-10	Received Date:	11/04/2003
Sample ID:	**MW-17-3**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	20:25
Data File Name:	5951-10	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	µg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	µg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	µg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	µg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	µg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	µg/L	0.5	11.0	
12	CHLOROBENZENE	108-90-7	µg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	µg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	µg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	µg/L	0.5	2.6	
16	CHLOROMETHANE	74-87-3	µg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	µg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	µg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	µg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	µg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	µg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	µg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	0.4	J
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	3.1	
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	107
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	111
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	108
4	TOLUENE-D8	2037-26-5	73-129	105
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	96
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	94
3	FLUOROBENZENE	462-06-6	50-200	98
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-11	Received Date:	11/04/2003
Sample ID:	**MW-17-4**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	20:51
Data File Name:	5951-11	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	0.8	
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	109
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	110
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	109
4	TOLUENE-D8	2037-26-5	73-129	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	95
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	91
3	FLUOROBENZENE	462-06-6	50-200	96
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-12	Received Date:	11/04/2003
Sample ID:	**MW-17-5**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	21:17
Data File Name:	5951-12	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	<0.5	U
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	106
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	110
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	107
4	TOLUENE-D8	2037-26-5	73-129	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	97
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	94
3	FLUOROBENZENE	462-06-6	50-200	99
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 524.2

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	11/04/2003
Project ID:	JPL	Service ID:	35951	Collected by:	JR
		Lab Sample ID:	03-5951-13	Received Date:	11/04/2003
Sample ID:	**TB-9-11-4-03**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	524.2	Prep. Date:	11/06/03	Anal. Date:	11/06/03
Batch No:	03G4717	Prep. No:	–	Anal. Time:	14:20
Data File Name:	5951-13	Sample Amount:	25.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	μg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	μg/L	0.5	<0.5	U
4	BROMODICHLOROMETHANE	75-27-4	μg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	μg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	μg/L	0.5	<0.5	U
7	N-BUTYLBENZENE	104-51-8	μg/L	0.5	<0.5	U
8	SEC-BUTYLBENZENE	135-98-8	μg/L	0.5	<0.5	U
9	TERT-BUTYLBENZENE	98-06-6	μg/L	0.5	<0.5	U
10	2-BUTANONE	78-93-3	μg/L	10	<10	U
11	CARBON TETRACHLORIDE	56-23-5	μg/L	0.5	<0.5	U
12	CHLOROBENZENE	108-90-7	μg/L	0.5	<0.5	U
13	CHLORODIBROMOMETHANE	124-48-1	μg/L	0.5	<0.5	U
14	CHLOROETHANE	75-00-3	μg/L	0.5	<0.5	U
15	CHLOROFORM	67-66-3	μg/L	0.5	<0.5	U
16	CHLOROMETHANE	74-87-3	μg/L	0.5	<0.5	U
17	2-CHLOROTOLUENE	95-49-8	μg/L	0.5	<0.5	U
18	4-CHLOROTOLUENE	106-43-4	μg/L	0.5	<0.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	μg/L	0.5	<0.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	μg/L	0.5	<0.5	U
21	DIBROMOMETHANE	74-95-3	μg/L	0.5	<0.5	U
22	1,2-DICHLOROBENZENE	95-50-1	μg/L	0.5	<0.5	U
23	1,3-DICHLOROBENZENE	541-73-1	μg/L	0.5	<0.5	U
24	1,4-DICHLOROBENZENE	106-46-7	μg/L	0.5	<0.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	μg/L	0.5	<0.5	U
26	1,1-DICHLOROETHANE	75-34-3	μg/L	0.5	<0.5	U
27	1,2-DICHLOROETHANE	107-06-2	μg/L	0.5	<0.5	U
28	1,1-DICHLOROETHENE	75-35-4	μg/L	0.5	<0.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	μg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	μg/L	0.5	<0.5	U
31	1,2-DICHLOROPROPANE	78-87-5	μg/L	0.5	<0.5	U
32	1,3-DICHLOROPROPANE	142-28-9	μg/L	0.5	<0.5	U
33	2,2-DICHLOROPROPANE	594-20-7	μg/L	0.5	<0.5	U
34	1,1-DICHLOROPROPENE	563-58-6	μg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	μg/L	0.5	<0.5	U
36	TRANS-1,3-DICHLOROPROPENE	10061-02-6	μg/L	0.5	<0.5	U
37	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
38	HEXACHLOROBUTADIENE	87-68-3	μg/L	0.5	<0.5	U
39	ISOPROPYLBENZENE (CUMENE)	98-82-8	μg/L	0.5	<0.5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	P-ISOPROPYLTOLUENE	99-87-6	μg/L	0.5	<0.5	U
41	METHYLENE CHLORIDE	75-09-2	μg/L	0.5	0.4	J
42	METHYL-T-BUTYL ETHER (MTBE)	1634-04-4	μg/L	1	<1	U
43	4-METHYL-2-PENTANONE (MIBK)	108-10-1	μg/L	10	<10	U
44	NAPHTHALENE	91-20-3	μg/L	0.5	<0.5	U
45	N-PROPYLBENZENE	103-65-1	μg/L	0.5	<0.5	U
46	STYRENE	100-42-5	μg/L	0.5	<0.5	U
47	1,1,1,2-TETRACHLOROETHANE	630-20-6	μg/L	0.5	<0.5	U
48	1,1,2,2-TETRACHLOROETHANE	79-34-5	μg/L	0.5	<0.5	U
49	TETRACHLOROETHENE	127-18-4	μg/L	0.5	<0.5	U
50	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
51	1,2,3-TRICHLOROBENZENE	87-61-6	μg/L	0.5	<0.5	U
52	1,2,4-TRICHLOROBENZENE	120-82-1	μg/L	0.5	<0.5	U
53	1,1,1-TRICHLOROETHANE	71-55-6	μg/L	0.5	<0.5	U
54	1,1,2-TRICHLOROETHANE	79-00-5	μg/L	0.5	<0.5	U
55	TRICHLOROETHENE	79-01-6	μg/L	0.5	<0.5	U
56	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	0.5	<0.5	U
57	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	0.5	<0.5	U
58	112TRICHLORO-122TRIFLUOROETHANE	76-13-1	μg/L	0.5	<0.5	U
59	1,2,4-TRIMETHYLBENZENE	95-63-6	μg/L	0.5	<0.5	U
60	1,3,5-TRIMETHYLBENZENE	108-67-8	μg/L	0.5	<0.5	U
61	VINYL CHLORIDE	75-01-4	μg/L	0.5	<0.5	U
62	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
63	M/P-XYLENE	108-38-3	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	1-BROMO-4-FLUOROBENZENE (4-BROMOFL	460-00-4	70-129	109
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-129	107
3	DIBROMOFLUOROMETHANE	1868-53-7	70-122	105
4	TOLUENE-D8	2037-26-5	73-129	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	100
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	97
3	FLUOROBENZENE	462-06-6	50-200	104
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

FORM-2A

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		SDG Number:	035951
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03G4717		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	S3 % #	S4 % #	TOT OUT
1	03G4717-LCS-01	03G4717-LCS-01	96	98	97	96	0
2	MW-3-1MS	03-5973-2MS	98	97	97	94	0
3	MW-3-1MSD	03-5973-2MSD	92	97	95	92	0
4	03G4717-MB-01	03G4717-MB-01	108	108	107	108	0
5	TB-9-11-4-03	03-5951-13	109	107	105	107	0
6	DUPE-5-4-Q03	03-5951-1	108	108	107	108	0
7	EB-9-11-4-03	03-5951-2	108	108	107	109	0
8	MW-14-1	03-5951-3	108	108	106	108	0
9	MW-14-2	03-5951-4	110	106	108	107	0
10	MW-14-3	03-5951-5	109	109	107	109	0
11	MW-14-4	03-5951-6	109	109	108	109	0
12	MW-14-5	03-5951-7	110	108	108	107	0
13	MW-17-1	03-5951-8	108	109	109	108	0
14	MW-17-2	03-5951-9	109	111	107	108	0
15	MW-17-3	03-5951-10	107	111	108	105	0
16	MW-17-4	03-5951-11	109	110	109	107	0
17	MW-17-5	03-5951-12	106	110	107	107	0
18							
19							
20							
21							
22							
23							
24							
25							

	QC Control Limit
S1 = 1-BROMO-4-FLUOROBENZENE (4-BROMOFL	70-129
S2 = 1,2-DICHLOROETHANE-D4	70-129
S3 = DIBROMOFLUOROMETHANE	70-122
S4 = TOLUENE-D8	73-129

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

FORM-3A

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	35951
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03G4717		
LCS Filename:	G4717L01	Date Analyzed:	110603	Time Analyzed:	10:53
LCSD Filename:	–	Date Analyzed:	–	Time Analyzed:	–

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	μg/L	20	0	17.9	90	65-120
CHLOROBENZENE	μg/L	20	0	18.9	95	65-134
1,1-DICHLOROETHENE	μg/L	20	0	20.8	104	65-127
TOLUENE	μg/L	20	0	17.8	89	65-134
TRICHLOROETHENE	μg/L	20	0	19.6	98	67-122
# of Out-of-control					0	

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1647

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717L01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 10:53 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 06 17:54 2003
Print Time : Thu Nov 06 17:54 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	7.64	7.64	0.000	96	70	654.113	10.00		0.00	
47	47	Chlorobezene-d5	11.54	11.54	0.000	117	82	497.611	10.00		0.00	
62	62	1,4-Dichlorobenze	13.84	13.85	0.000	152	150	302.374	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	6.60	6.60	0.000	111	113	299.152	19.48	19.5	97.39%	
29	29	1,2-Di-Cl-Et-d4 (	7.10	7.11	0.000	65	102	268.993	19.66	19.7	98.31%	
55	55	toluene-d8	9.91	9.91	0.000	98	100	1053.107	19.17	19.2	95.87%	
70	70	4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	394.058	19.23	19.2	96.16%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	1.89	1.89	0.000	85	87	248.211	18.87	18.9	97	m
4	4	Chloromethane	2.11	2.11	0.000	50	52	186.734	14.29	14.3	99	
2	2	F114	2.03	2.03	0.000	85	135	128.811	20.83	20.8	31	m 11/06/03
5	5	vinyl chloride	2.22	2.22	0.000	62	64	198.734	17.82	17.8	100	m
6	6	bromomethane	2.61	2.61	0.000	94	96	95.361	15.05	15.1	96	
7	7	chloroethane	2.73	2.73	0.000	64	66	116.949	19.47	19.5	94	
8	8	tri-Cl-F-methane	3.03	3.03	0.000	101	103	421.221	22.84	22.8	99	
91	91	Acetonitrile X10	4.07	4.07	0.000	41	40	484.281	171.84	171.8	87	?
9	9	acrolein X10	3.51	3.51	0.000	56	55	249.577	180.31	180.3	100	
11	11	acetone X10	3.72	3.73	0.000	43	58	390.766	186.99	187.0	80	
12	12	ethyl ether X5	3.37	3.37	0.000	59	74	574.360	92.42	92.4	78	#
13	13	11-dichloroethene	3.63	3.64	0.000	61	96	322.800	20.77	20.8	78	?
14	14	Iodomethane	3.81	3.81	0.000	142	127	209.713	16.56	16.6	93	
15	15	F-113	3.65	3.65	0.000	101	151	216.447	22.96	23.0	83	?
16	16	acrylonitrile X10	4.52	4.52	0.000	53	52	475.092	169.31	169.3	93	?
17	17	carbon disulfide	3.90	3.90	0.000	76	78	504.418	17.05	17.0	100	
94	94	Isopropyl Alcohol	4.09	4.10	0.000	45	43	60.696	453.21	453.2	100	m
18	18	methylene chlorid	4.22	4.22	0.000	84	49	248.714	17.89	17.9	78	# 11/06/03
19	19	t-12-di-Cl-ethene	4.58	4.58	0.000	96	61	268.036	18.35	18.4	94	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1648

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717L01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 10:53 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 06 17:54 2003
Print Time : Thu Nov 06 17:54 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
20	20 t-Bu-Me-ether	4.59	4.59	0.000	73	57	516.132	20.08	20.1	94	?
95	95 Tert butyl alcoho	4.50	4.51	-0.002	59	57	80.352	187.21	187.2	100	#?
94	94 allyl chloride	4.07	4.07	0.000	41	76	484.281	16.79	16.8	77	#?
21	21 11-dichloroethane	5.12	5.12	0.000	63	83	449.390	18.58	18.6	98	
97	97 propionitrile	6.02	6.02	0.000	54	51	20.048	17.39	17.4	100	#?
22	22 c-12-di-Cl-ethene	5.92	5.92	0.000	96	61	280.411	18.41	18.4	86	?
23	23 22-Dichloropropan	5.92	5.92	0.000	77	97	407.456	26.40	26.4	97	?
24	24 Br-Cl-methane	6.25	6.25	0.000	128	130	139.016	18.05	18.0	94	
25	25 chloroform	6.37	6.37	0.000	83	85	507.072	18.65	18.6	99	?
26	26 tetrahydrofuranX5	6.35	6.35	0.000	42	72	188.090	83.00	83.0	87	?
98	98 Diisopropyl ether	5.24	5.24	0.000	45	87	842.567	18.14	18.1	90	
99	99 ETBE	5.74	5.74	0.000	59	87	624.966	21.34	21.3	92	
30	30 12-dichloroethane	7.22	7.22	0.000	64	62	105.192	19.84	19.8	98	?
32	32 vinyl acetate X5	5.19	5.20	0.000	43	86	2184.800	96.40	96.4	94	
92	92 Nitro Methane(x10	5.82	5.84	-0.002	61	46	57.142	74.80	74.8	93	
33	33 2-butanoneMEK X10	5.94	5.95	0.000	43	72	604.599	177.16	177.2	84	?
93	93 Ethyl Acetate x2	6.04	6.04	0.000	43	61	288.825	34.18	34.2	99	?
34	34 111-trichloroetha	6.65	6.65	0.000	97	99	512.630	22.42	22.4	99	
35	35 11-Di-Cl-propene	6.90	6.90	0.000	75	110	364.102	21.10	21.1	93	?
36	36 benzene	7.21	7.21	0.000	78	52	989.572	17.89	17.9	90	?
37	37 CCl4	6.91	6.91	0.000	117	119	507.164	24.12	24.1	99	?
100	100 Isobutyl alcohol	7.41	7.41	0.000	43	42	169.487	201.78	201.8	93	?
38	38 thiophene	7.53	7.53	0.000	84	58	535.721	18.60	18.6	95	
39	39 12-di-Cl-propane	8.56	8.56	0.000	63	76	223.117	17.63	17.6	84	
40	40 trichloroethene	8.24	8.24	0.000	130	132	346.430	19.55	19.5	90	
41	41 dibromomethane	8.73	8.73	0.000	174	172	164.273	18.66	18.7	98	
101	101 TAME	7.41	7.41	0.000	73	43	495.323	18.40	18.4	89	#?
42	42 Br-di-Cl-methane	8.96	8.96	0.000	83	85	382.675	19.20	19.2	100	
43	43 Me-methacrylate	8.76	8.76	0.000	69	100	116.698	16.52	16.5	93	
44	44 2-ClEt-Vi-ether10	9.38	9.38	0.000	63	43	283.135	131.35	131.4	81	
45	45 c-13-di-Cl-propen	9.56	9.56	0.000	75	110	402.940	20.07	20.1	93	
46	46 t-1,3-dichloropro	10.25	10.25	0.000	75	110	345.424	19.26	19.3	96	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1649

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717L01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 10:53 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 06 17:54 2003
Print Time : Thu Nov 06 17:54 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
<<< I2 : ISTD ID = 47 >>>												
48	48	112-tri-Cl-Et	10.46	10.45	0.000	97	83	200.584	18.21	18.2	91	
49	49	13-di-Cl-propane	10.65	10.65	0.000	76	78	307.311	18.18	18.2	96	?
50	50	Et methacrylate	10.38	10.37	0.000	69	99	256.371	16.69	16.7	89	
51	51	di-Br-Cl-methane	10.90	10.91	0.000	129	127	302.283	19.34	19.3	99	
52	52	bromoform	12.42	12.42	0.000	173	174	179.277	19.50	19.5	100	
53	53	1,4-dichlorobutan	12.67	12.67	0.000	55	41	339.964	18.26	18.3	97	
54	54	MIBK	9.77	9.77	0.000	43	58	145.001	15.15	15.2	97	
56	56	toluene	9.99	9.99	0.000	91	92	1202.310	17.84	17.8	98	
57	57	2-hexanone X5	10.76	10.76	0.000	43	58	496.288	80.68	80.7	90	
58	58	12-dibromoethane	11.03	11.03	0.000	107	109	208.064	18.43	18.4	99	
59	59	tetra-Cl-ethene	10.64	10.64	0.000	166	168	392.179	21.14	21.1	96	?
60	60	chlorobenzene	11.58	11.57	0.000	112	77	870.455	18.93	18.9	91	?
61	61	1112-tetra-Cl-Et	11.66	11.66	0.000	131	133	346.269	20.23	20.2	96	
<<< I3 : ISTD ID = 62 >>>												
63	63	1-chlorohexane	11.56	11.56	0.000	93	55	144.169	20.88	20.9	56	#?
64	64	Et-Bz	11.70	11.70	0.000	91	106	1498.568	19.50	19.5	95	
65	65	m/p-Xylenes X2	11.82	11.82	0.000	91	106	2346.934	39.47	39.5	100	
66	66	styrene	12.24	12.24	0.000	104	78	963.705	19.25	19.2	97	?
67	67	o-xylene	12.22	12.22	0.000	91	106	1182.078	19.69	19.7	100	?
68	68	1122-Tetra-Cl-Et	12.87	12.87	0.000	83	85	210.930	17.62	17.6	97	
69	69	123-tri-Cl-Pr	12.91	12.92	0.000	110	97	76.274	19.19	19.2	88	?
71	71	isopropylbenzene	12.60	12.60	0.000	105	120	1668.917	20.79	20.8	98	
72	72	bromobenzene	12.89	12.89	0.000	156	158	401.987	19.79	19.8	99	?
92	92	t-1,4-dichloro-2-	12.92	12.92	0.000	89	53	42.712	18.04	18.0	77	#?
73	73	n-propylbenzene	13.00	13.00	0.000	120	78	487.694	20.98	21.0	96	
74	74	2-Cl-Toluene	13.08	13.08	0.000	126	128	395.108	20.05	20.0	99	
75	75	4-Cl-Toluene	13.19	13.19	0.000	126	128	394.939	19.50	19.5	99	?
76	76	135-tri-Me-Benzen	13.16	13.16	0.000	105	120	1462.003	20.66	20.7	94	?
77	77	4-iso-Pr-toluene	13.81	13.81	0.000	119	134	1622.064	21.27	21.3	97	?
78	78	124-tri-Me-Benzen	13.51	13.52	0.000	105	120	1488.780	20.09	20.1	98	
79	79	tert-butylbenzene	13.47	13.47	0.000	119	91	1336.133	21.50	21.5	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1650

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717L01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 10:53 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 06 17:54 2003
Print Time : Thu Nov 06 17:54 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-DCB	13.79	13.79	0.000	146	148	827.005	19.59	19.6	100	?
81	81	sec-butylbenzene	13.68	13.68	0.000	105	134	1953.543	21.05	21.1	97	
82	82	14-DCB	13.87	13.87	0.000	146	148	845.036	19.13	19.1	95	
83	83	Cl-benzyl	13.98	13.98	0.000	126	91	92.328	20.02	20.0	84	#
84	84	12-DCB	14.21	14.21	0.000	146	148	743.785	19.24	19.2	99	?
85	85	n-butylbenzene	14.18	14.18	0.000	134	91	443.002	22.00	22.0	77	#?
86	86	12-diBr-2-Cl-Pra	14.88	14.88	0.000	157	155	54.565	18.97	19.0	97	
87	87	124-tri-Cl-Bz	15.58	15.58	0.000	180	182	514.934	21.39	21.4	99	
88	88	naphthalene	15.78	15.78	0.000	128	129	810.232	18.28	18.3	98	
89	89	hx-Cl-butadiene	15.72	15.72	0.000	225	258	324.000	23.52	23.5	99	
90	90	123-Tri-Cl-Bz	15.98	15.98	0.000	180	182	441.734	21.25	21.3	99	

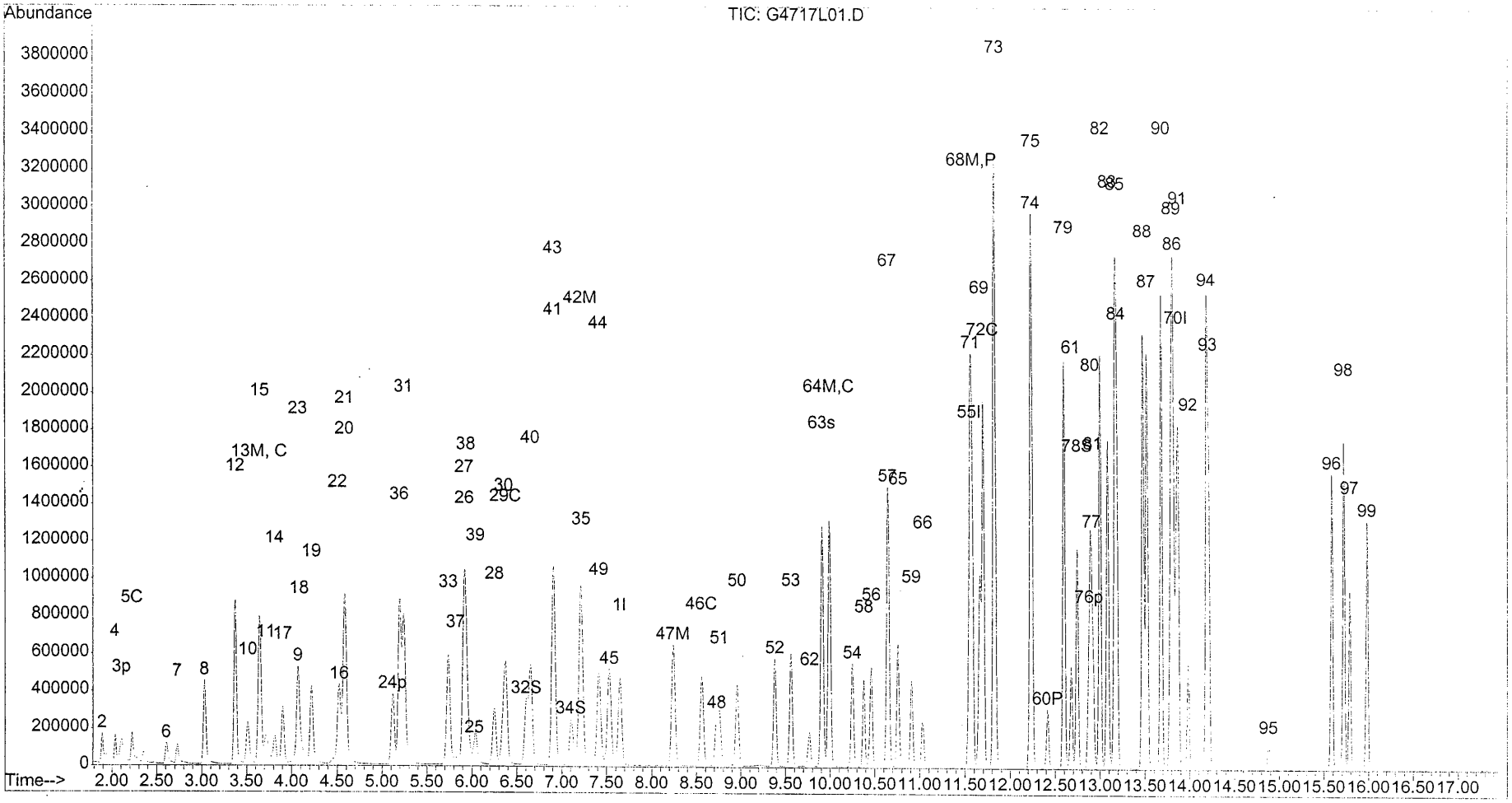
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1651

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717L01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 10:53 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 06 17:54 2003
Print Time : Thu Nov 06 17:54 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



FORM-3A

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	35951
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03G4717		
MS Filename:	G4717M01	Date Analyzed:	110603	Time Analyzed:	11:19
MSD Filename:	G4717N01	Date Analyzed:	110603	Time Analyzed:	11:44
MS Sample No:	**MW-3-1**	Sample Lab ID:	03-5973-2		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	μg/L	20	0	17.9	90	65-121
CHLOROBENZENE	μg/L	20	0	18.6	93	65-134
1,1-DICHLOROETHENE	μg/L	20	0	21.1	106	65-127
TOLUENE	μg/L	20	0	17.6	88	65-134
TRICHLOROETHENE	μg/L	20	0	19.5	98	65-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	μg/L	20	17.6	88	2	28	65-121
CHLOROBENZENE	μg/L	20	18.1	91	2	35	65-134
1,1-DICHLOROETHENE	μg/L	20	20.9	105	1	31	65-127
TOLUENE	μg/L	20	17.3	87	1	35	65-134
TRICHLOROETHENE	μg/L	20	19.6	98	0	30	65-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1653

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717M01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 11:19 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:01 2003
Print Time : Fri Nov 07 11:01 2003
Miscleneous :

Sample : f=1 $5973-02
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	7.65	7.64	0.000	96	70	679.050	10.00		0.00	
47	47	Chlorobezene-d5	11.54	11.54	0.000	117	82	523.204	10.00		0.00	
62	62	1,4-Dichlorobenze	13.84	13.85	0.000	152	150	312.211	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	6.60	6.60	0.000	111	113	308.229	19.33	19.3	96.66%	
29	29	1,2-Di-Cl-Et-d4 (	7.10	7.11	0.000	65	102	276.718	19.48	19.5	97.42%	
55	55	toluene-d8	9.91	9.91	0.000	98	100	1083.593	18.76	18.8	93.82%	
70	70	4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	414.012	19.57	19.6	97.84%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	1.89	1.89	0.000	85	87	243.804	17.85	17.9	94	m
4	4	Chloromethane	2.11	2.11	0.000	50	52	193.975	14.30	14.3	97	
2	2	F114	2.03	2.03	0.000	85	135	125.213	19.49	19.5	51	m 11/07/03
5	5	vinyl chloride	2.22	2.22	0.000	62	64	206.415	17.83	17.8	98	m
6	6	bromomethane	2.61	2.61	0.000	94	96	84.924	12.91	12.9	100	
7	7	chloroethane	2.73	2.73	0.000	64	66	112.336	18.01	18.0	93	m
8	8	tri-Cl-F-methane	3.03	3.03	0.000	101	103	453.873	23.71	23.7	100	
91	91	Acetonitrile X10	4.07	4.07	0.000	41	40	488.801	167.07	167.1	88	?
9	9	acrolein X10	3.51	3.51	0.000	56	55	216.453	150.64	150.6	97	
11	11	acetone X10	3.70	3.73	-0.003	43	58	344.829	158.95	158.9	79	
12	12	ethyl ether X5	3.37	3.37	0.000	59	74	601.995	93.31	93.3	80	
13	13	11-dichloroethene	3.64	3.64	0.000	61	96	340.682	21.12	21.1	80	?
14	14	Iodomethane	3.81	3.81	0.000	142	127	203.778	15.49	15.5	88	
15	15	F-113	3.65	3.65	0.000	101	151	229.218	23.42	23.4	91	?
16	16	acrylonitrile X10	4.52	4.52	0.000	53	52	487.445	167.33	167.3	94	
17	17	carbon disulfide	3.90	3.90	0.000	76	78	529.169	17.23	17.2	100	
94	94	Isopropyl Alcohol	3.98	4.10	-0.015	45	43	34.369	247.21	247.2	100	m
18	18	methylene chlorid	4.22	4.22	0.000	84	49	255.394	17.69	17.7	80	# 11/07/03
19	19	t-12-di-Cl-ethene	4.58	4.58	0.000	96	61	278.095	18.34	18.3	92	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1654

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717M01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 11:19 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:01 2003
Print Time : Fri Nov 07 11:01 2003
Miscleneous :

Sample : f=1 $5973-02
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
20	20 t-Bu-Me-ether	4.59	4.59	0.000	73	57	535.612	20.07	20.1	95	?
95	95 Tert butyl alcoho	4.43	4.51	-0.011	59	57	156.314	350.81	350.8	100	m
94	94 allyl chloride	4.07	4.07	0.000	41	76	488.801	16.33	16.3	78	#?
21	21 11-dichloroethane	5.12	5.12	0.000	63	83	464.011	18.48	18.5	98	
97	97 propionitrile	6.00	6.02	-0.002	54	51	18.040	15.07	15.1	100	#
22	22 c-12-di-Cl-ethene	5.92	5.92	0.000	96	61	290.894	18.40	18.4	90	?
23	23 22-Dichloropropan	5.92	5.92	0.000	77	97	420.309	26.23	26.2	99	?
24	24 Br-Cl-methane	6.25	6.25	0.000	128	130	142.089	17.77	17.8	99	
25	25 chloroform	6.37	6.37	0.000	83	85	530.573	18.80	18.8	99	
26	26 tetrahydrofuranX5	6.34	6.35	-0.002	42	72	192.907	82.00	82.0	87	
98	98 Diisopropyl ether	5.24	5.24	0.000	45	87	882.221	18.30	18.3	90	
99	99 ETBE	5.74	5.74	0.000	59	87	655.767	21.57	21.6	92	
30	30 12-dichloroethane	7.22	7.22	0.000	64	62	108.399	19.69	19.7	94	?
32	32 vinyl acetate X5	5.19	5.20	0.000	43	86	2217.900	94.26	94.3	93	
92	92 Nitro Methane(x10	5.80	5.84	-0.005	61	46	63.495	80.06	80.1	95	
33	33 2-butanoneMEK X10	5.93	5.95	-0.002	43	72	591.593	166.98	167.0	86	?
93	93 Ethyl Acetate x2	6.03	6.04	0.000	43	61	288.696	32.91	32.9	98	
34	34 111-trichloroetha	6.65	6.65	0.000	97	99	529.885	22.32	22.3	97	
35	35 11-Di-Cl-propene	6.90	6.90	0.000	75	110	376.938	21.04	21.0	91	?
36	36 benzene	7.21	7.21	0.000	78	52	1028.062	17.90	17.9	91	?
37	37 CCl4	6.91	6.91	0.000	117	119	519.514	23.80	23.8	100	?
100	100 Isobutyl alcohol	7.41	7.41	0.000	43	42	178.736	204.97	205.0	95	?
38	38 thiophene	7.53	7.53	0.000	84	58	552.850	18.49	18.5	93	
39	39 12-di-Cl-propane	8.56	8.56	0.000	63	76	236.529	18.00	18.0	89	
40	40 trichloroethene	8.24	8.24	0.000	130	132	359.212	19.52	19.5	89	
41	41 dibromomethane	8.73	8.73	0.000	174	172	168.466	18.43	18.4	100	
101	101 TAME	7.41	7.41	0.000	73	43	517.988	18.52	18.5	88	#?
42	42 Br-di-Cl-methane	8.96	8.96	0.000	83	85	390.857	18.90	18.9	98	
43	43 Me-methacrylate	8.76	8.76	0.000	69	100	121.981	16.63	16.6	88	
44	44 2-ClEt-Vi-ether10	9.57	9.38	0.026	63	43	1.826	11.01	11.0	28	#?
45	45 c-13-di-Cl-propen	9.56	9.56	0.000	75	110	402.551	19.32	19.3	91	?
46	46 t-1,3-dichloropro	10.25	10.25	0.000	75	110	354.172	19.03	19.0	94	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1655

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717M01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 11:19 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:01 2003
Print Time : Fri Nov 07 11:01 2003
Miscleneous :

Sample : f=1 $5973-02
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
<<< I2 : ISTD ID = 47 >>>												
48	48	112-tri-Cl-Et	10.46	10.45	0.000	97	83	202.321	17.47	17.5	91	
49	49	13-di-Cl-propane	10.65	10.65	0.000	76	78	317.369	17.86	17.9	99	?
50	50	Et methacrylate	10.38	10.37	0.000	69	99	268.457	16.62	16.6	90	
51	51	di-Br-Cl-methane	10.91	10.91	0.000	129	127	307.731	18.72	18.7	99	
52	52	bromoform	12.41	12.42	0.000	173	174	184.577	19.09	19.1	99	
53	53	1,4-dichlorobutan	12.68	12.67	0.000	55	41	344.879	17.62	17.6	96	
54	54	MIBK	9.77	9.77	0.000	43	58	152.137	15.12	15.1	92	
56	56	toluene	9.99	9.99	0.000	91	92	1245.193	17.57	17.6	100	
57	57	2-hexanone X5	10.75	10.76	0.000	43	58	519.883	80.40	80.4	91	
58	58	12-dibromoethane	11.03	11.03	0.000	107	109	214.882	18.10	18.1	98	
59	59	tetra-Cl-ethene	10.64	10.64	0.000	166	168	406.399	20.84	20.8	99	?
60	60	chlorobenzene	11.58	11.57	0.000	112	77	898.462	18.58	18.6	91	?
61	61	1112-tetra-Cl-Et	11.66	11.66	0.000	131	133	354.682	19.71	19.7	98	
<<< I3 : ISTD ID = 62 >>>												
63	63	1-chlorohexane	11.56	11.56	0.000	93	55	147.123	20.64	20.6	58	#?
64	64	Et-Bz	11.70	11.70	0.000	91	106	1555.794	19.60	19.6	97	
65	65	m/p-Xylenes X2	11.82	11.82	0.000	91	106	2430.038	39.58	39.6	99	
66	66	styrene	12.24	12.24	0.000	104	78	983.514	19.03	19.0	100	?
67	67	o-xylene	12.22	12.22	0.000	91	106	1220.460	19.69	19.7	96	?
68	68	1122-Tetra-Cl-Et	12.87	12.87	0.000	83	85	216.361	17.50	17.5	99	
69	69	123-tri-Cl-Pr	12.91	12.92	0.000	110	97	78.915	19.23	19.2	93	?
71	71	isopropylbenzene	12.60	12.60	0.000	105	120	1719.600	20.75	20.7	99	
72	72	bromobenzene	12.89	12.89	0.000	156	158	414.967	19.78	19.8	100	?
92	92	t-1,4-dichloro-2-	12.92	12.92	0.000	89	53	44.590	18.23	18.2	81	#?
73	73	n-propylbenzene	13.00	13.00	0.000	120	78	507.852	21.16	21.2	94	
74	74	2-Cl-Toluene	13.08	13.08	0.000	126	128	411.509	20.22	20.2	100	
75	75	4-Cl-Toluene	13.19	13.19	0.000	126	128	407.564	19.49	19.5	100	?
76	76	135-tri-Me-Benzen	13.16	13.16	0.000	105	120	1498.752	20.51	20.5	93	?
77	77	4-iso-Pr-toluene	13.81	13.81	0.000	119	134	1659.868	21.08	21.1	98	?
78	78	124-tri-Me-Benzen	13.52	13.52	0.000	105	120	1531.880	20.02	20.0	97	
79	79	tert-butylbenzene	13.47	13.47	0.000	119	91	1377.295	21.47	21.5	97	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1656

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717M01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 11:19 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:01 2003
Print Time : Fri Nov 07 11:01 2003
Miscleneous :

Sample : f=1 $5973-02
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-DCB	13.79	13.79	0.000	146	148	865.438	19.86	19.9	96	?
81	81	sec-butylbenzene	13.68	13.68	0.000	105	134	1994.589	20.82	20.8	98	
82	82	14-DCB	13.87	13.87	0.000	146	148	863.158	18.92	18.9	97	
83	83	Cl-benzyl	13.98	13.98	0.000	126	91	94.449	19.86	19.9	80	#
84	84	12-DCB	14.21	14.21	0.000	146	148	764.744	19.16	19.2	99	?
85	85	n-butylbenzene	14.18	14.18	0.000	134	91	446.733	21.49	21.5	86	#?
86	86	12-diBr-2-Cl-Pra	14.88	14.88	0.000	157	155	56.260	18.94	18.9	95	
87	87	124-tri-Cl-Bz	15.58	15.58	0.000	180	182	521.917	20.99	21.0	99	
88	88	naphthalene	15.78	15.78	0.000	128	129	837.480	18.30	18.3	100	
89	89	hx-Cl-butadiene	15.72	15.72	0.000	225	258	331.844	23.33	23.3	99	
90	90	123-Tri-Cl-Bz	15.98	15.98	0.000	180	182	455.972	21.25	21.2	100	

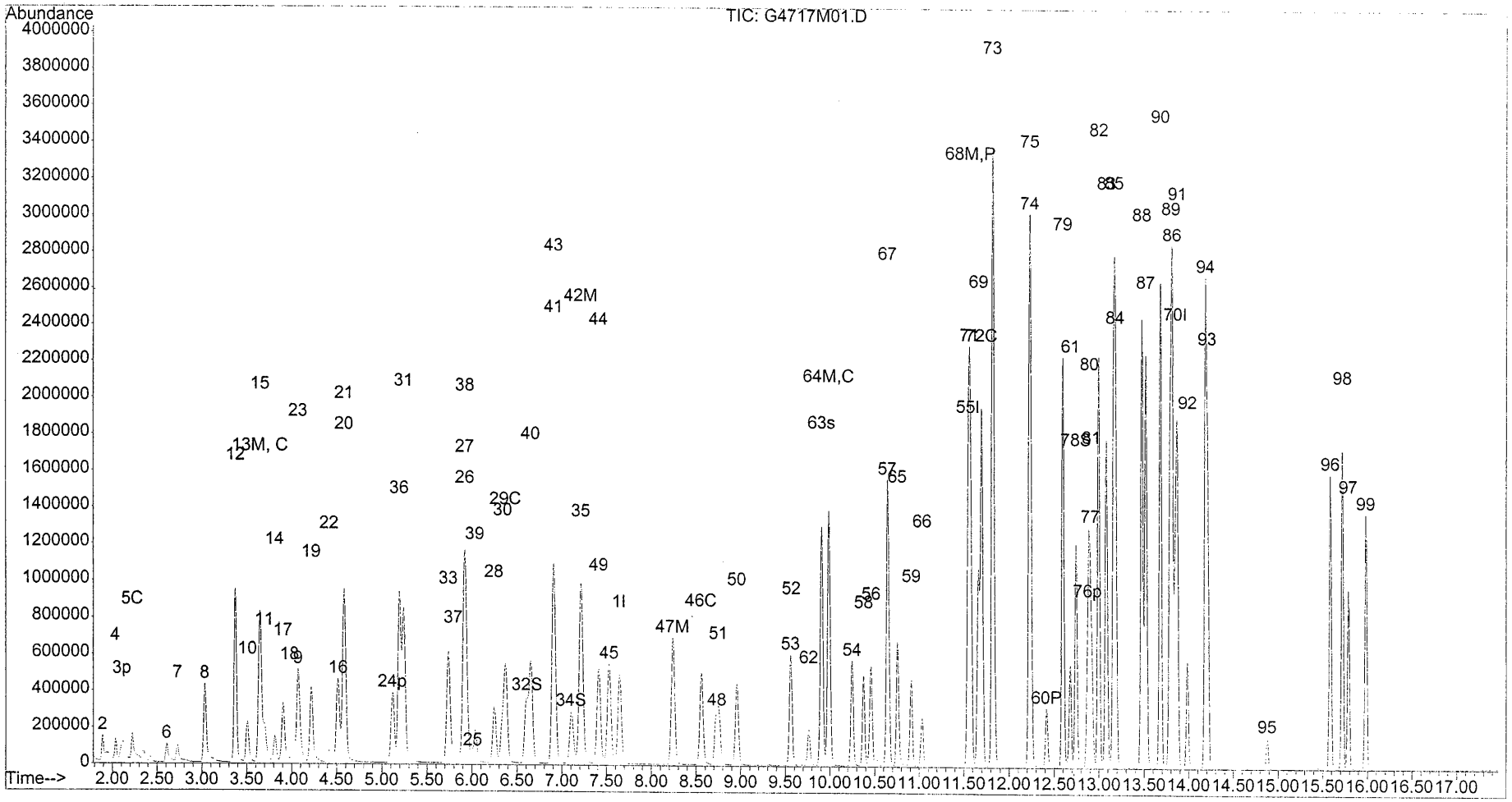
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1657

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717M01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 11:19 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:01 2003
Print Time : Fri Nov 07 11:01 2003
Miscleneous :

Sample : f=1 $5973-02
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1658

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717N01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 11:44 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:02 2003
Print Time : Fri Nov 07 11:02 2003
Miscleneous :

Sample : f=1 $5973-02
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	7.64	7.64	0.000	96	70	690.552	10.00		0.00	
47	47	Chlorobezene-d5	11.54	11.54	0.000	117	82	531.594	10.00		0.00	
62	62	1,4-Dichlorobenze	13.84	13.85	0.000	152	150	325.550	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	6.60	6.60	0.000	111	113	308.413	19.02	19.0	95.10%	
29	29	1,2-Di-Cl-Et-d4 (	7.10	7.11	0.000	65	102	278.767	19.30	19.3	96.51%	
55	55	toluene-d8	9.91	9.91	0.000	98	100	1078.908	18.39	18.4	91.94%	
70	70	4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	407.624	18.48	18.5	92.39%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	1.89	1.89	0.000	85	87	241.045	17.36	17.4	100	m
4	4	Chloromethane	2.11	2.11	0.000	50	52	198.736	14.41	14.4	96	
2	2	F114	2.03	2.03	0.000	85	135	126.997	19.43	19.4	49	m 11/07/03
5	5	vinyl chloride	2.22	2.22	0.000	62	64	211.003	17.92	17.9	98	m
6	6	bromomethane	2.61	2.61	0.000	94	96	95.757	14.32	14.3	96	
7	7	chloroethane	2.73	2.73	0.000	64	66	110.621	17.44	17.4	93	m
8	8	tri-Cl-F-methane	3.03	3.03	0.000	101	103	449.633	23.09	23.1	98	
91	91	Acetonitrile X10	4.07	4.07	0.000	41	40	490.974	165.02	165.0	88	?
9	9	acrolein X10	3.51	3.51	0.000	56	55	230.312	157.62	157.6	99	
11	11	acetone X10	3.70	3.73	-0.003	43	58	370.261	167.83	167.8	81	
12	12	ethyl ether X5	3.37	3.37	0.000	59	74	615.330	93.79	93.8	79	
13	13	11-dichloroethene	3.64	3.64	0.000	61	96	342.975	20.91	20.9	86	?
14	14	Iodomethane	3.81	3.81	0.000	142	127	216.577	16.20	16.2	92	
15	15	F-113	3.65	3.65	0.000	101	151	227.035	22.82	22.8	85	?
16	16	acrylonitrile X10	4.52	4.52	0.000	53	52	495.027	167.11	167.1	96	
17	17	carbon disulfide	3.90	3.90	0.000	76	78	540.419	17.30	17.3	100	
94	94	Isopropyl Alcohol	4.01	4.10	-0.011	45	43	39.122	276.71	276.7	100	m
18	18	methylene chlorid	4.22	4.22	0.000	84	49	250.906	17.05	17.1	78	# 11/07/03
19	19	t-12-di-Cl-ethene	4.58	4.58	0.000	96	61	276.332	17.92	17.9	90	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1659

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717N01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 11:44 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:02 2003
Print Time : Fri Nov 07 11:02 2003
Miscleneous :

Sample : f=1 $5973-02
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
20	20 t-Bu-Me-ether	4.59	4.59	0.000	73	57	551.105	20.31	20.3	94	?
95	95 Tert butyl alcoho	4.45	4.51	-0.008	59	57	170.506	376.29	376.3	100	m
94	94 allyl chloride	4.07	4.07	0.000	41	76	490.974	16.13	16.1	78	#? 11/07/03
21	21 11-dichloroethane	5.12	5.12	0.000	63	83	460.225	18.02	18.0	99	
97	97 propionitrile	6.01	6.02	-0.002	54	51	19.058	15.66	15.7	100	#
22	22 c-12-di-Cl-ethene	5.92	5.92	0.000	96	61	290.447	18.06	18.1	88	?
23	23 22-Dichloropropan	5.92	5.92	0.000	77	97	419.465	25.74	25.7	99	?
24	24 Br-Cl-methane	6.25	6.25	0.000	128	130	144.349	17.75	17.8	100	
25	25 chloroform	6.37	6.37	0.000	83	85	533.193	18.57	18.6	99	
26	26 tetrahydrofuranX5	6.34	6.35	-0.002	42	72	199.109	83.22	83.2	82	
98	98 Diisopropyl ether	5.24	5.24	0.000	45	87	883.130	18.01	18.0	89	
99	99 ETBE	5.74	5.74	0.000	59	87	667.266	21.58	21.6	92	
30	30 12-dichloroethane	7.22	7.22	0.000	64	62	109.026	19.48	19.5	98	?
32	32 vinyl acetate X5	5.19	5.20	0.000	43	86	2217.532	92.68	92.7	92	
92	92 Nitro Methane(x10	5.81	5.84	-0.004	61	46	66.370	82.29	82.3	100	
33	33 2-butanoneMEK X10	5.93	5.95	-0.002	43	72	606.948	168.46	168.5	83	?
93	93 Ethyl Acetate x2	6.04	6.04	0.000	43	61	288.984	32.39	32.4	95	
34	34 111-trichloroetha	6.65	6.65	0.000	97	99	532.576	22.06	22.1	98	
35	35 11-Di-Cl-propene	6.90	6.90	0.000	75	110	379.287	20.82	20.8	91	?
36	36 benzene	7.21	7.21	0.000	78	52	1029.360	17.63	17.6	92	?
37	37 CCl4	6.91	6.91	0.000	117	119	535.020	24.10	24.1	98	?
100	100 Isobutyl alcohol	7.41	7.41	0.000	43	42	185.791	209.51	209.5	98	?
38	38 thiophene	7.53	7.53	0.000	84	58	553.963	18.22	18.2	91	
39	39 12-di-Cl-propane	8.56	8.56	0.000	63	76	233.184	17.45	17.4	90	
40	40 trichloroethene	8.25	8.24	0.000	130	132	367.448	19.64	19.6	92	
41	41 dibromomethane	8.73	8.73	0.000	174	172	169.541	18.24	18.2	100	
101	101 TAME	7.41	7.41	0.000	73	43	532.815	18.73	18.7	88	#?
42	42 Br-di-Cl-methane	8.96	8.96	0.000	83	85	387.504	18.42	18.4	98	
43	43 Me-methacrylate	8.76	8.76	0.000	69	100	125.497	16.81	16.8	86	
44	44 2-ClEt-Vi-ether10	9.56	9.38	0.024	63	43	1.759	10.97	11.0	28	#?
45	45 c-13-di-Cl-propen	9.56	9.56	0.000	75	110	408.164	19.26	19.3	91	?
46	46 t-1,3-dichloropro	10.25	10.25	0.000	75	110	358.856	18.96	19.0	94	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1660

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717N01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 11:44 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:02 2003
Print Time : Fri Nov 07 11:02 2003
Miscleneous :

Sample : f=1 $5973-02
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
<<< I2 : ISTD ID = 47 >>>											
48	48 112-tri-Cl-Et	10.46	10.45	0.000	97	83	206.856	17.58	17.6	94	
49	49 13-di-Cl-propane	10.65	10.65	0.000	76	78	324.067	17.95	17.9	97	?
50	50 Et methacrylate	10.38	10.37	0.000	69	99	274.831	16.74	16.7	88	
51	51 di-Br-Cl-methane	10.90	10.91	0.000	129	127	311.794	18.67	18.7	100	
52	52 bromoform	12.41	12.42	0.000	173	174	183.463	18.68	18.7	100	
53	53 1,4-dichlorobutan	12.67	12.67	0.000	55	41	348.870	17.54	17.5	97	
54	54 MIBK	9.76	9.77	0.000	43	58	157.915	15.42	15.4	100	
56	56 toluene	9.99	9.99	0.000	91	92	1242.000	17.25	17.3	99	
57	57 2-hexanone X5	10.76	10.76	0.000	43	58	533.717	81.18	81.2	91	
58	58 12-dibromoethane	11.03	11.03	0.000	107	109	213.632	17.71	17.7	95	
59	59 tetra-Cl-ethene	10.64	10.64	0.000	166	168	398.513	20.11	20.1	95	?
60	60 chlorobenzene	11.57	11.57	0.000	112	77	888.636	18.09	18.1	93	?
61	61 1112-tetra-Cl-Et	11.66	11.66	0.000	131	133	358.043	19.58	19.6	93	
<<< I3 : ISTD ID = 62 >>>											
63	63 1-chlorohexane	11.56	11.56	0.000	93	55	150.050	20.18	20.2	56	#?
64	64 Et-Bz	11.70	11.70	0.000	91	106	1542.753	18.64	18.6	93	
65	65 m/p-Xylenes X2	11.82	11.82	0.000	91	106	2397.720	37.46	37.5	99	
66	66 styrene	12.24	12.24	0.000	104	78	985.299	18.28	18.3	99	?
67	67 o-xylene	12.22	12.22	0.000	91	106	1215.585	18.81	18.8	99	?
68	68 1122-Tetra-Cl-Et	12.87	12.87	0.000	83	85	219.652	17.04	17.0	97	
69	69 123-tri-Cl-Pr	12.91	12.92	0.000	110	97	79.877	18.66	18.7	90	?
71	71 isopropylbenzene	12.60	12.60	0.000	105	120	1701.832	19.69	19.7	100	
72	72 bromobenzene	12.89	12.89	0.000	156	158	418.715	19.14	19.1	100	?
92	92 t-1,4-dichloro-2-	12.92	12.92	0.000	89	53	45.317	17.80	17.8	84	#?
73	73 n-propylbenzene	13.00	13.00	0.000	120	78	506.191	20.23	20.2	95	
74	74 2-Cl-Toluene	13.08	13.08	0.000	126	128	410.935	19.37	19.4	100	
75	75 4-Cl-Toluene	13.19	13.19	0.000	126	128	405.945	18.62	18.6	99	?
76	76 135-tri-Me-Benzen	13.16	13.16	0.000	105	120	1502.067	19.71	19.7	93	?
77	77 4-iso-Pr-toluene	13.81	13.81	0.000	119	134	1670.563	20.35	20.4	99	?
78	78 124-tri-Me-Benzen	13.51	13.52	0.000	105	120	1524.936	19.11	19.1	97	
79	79 tert-butylbenzene	13.47	13.47	0.000	119	91	1368.252	20.45	20.5	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1691

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717N01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 11:44 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:02 2003
Print Time : Fri Nov 07 11:02 2003
Miscleneous :

Sample : f=1 $5973-02
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-DCB	13.79	13.79	0.000	146	148	853.198	18.77	18.8	98	?
81	81	sec-butylbenzene	13.68	13.68	0.000	105	134	2006.778	20.09	20.1	98	
82	82	14-DCB	13.87	13.87	0.000	146	148	855.000	17.98	18.0	98	
83	83	Cl-benzyl	13.98	13.98	0.000	126	91	95.230	19.28	19.3	83	#
84	84	12-DCB	14.21	14.21	0.000	146	148	761.712	18.30	18.3	99	?
85	85	n-butylbenzene	14.18	14.18	0.000	134	91	443.628	20.46	20.5	81	#?
86	86	12-diBr-2-Cl-Pra	14.88	14.88	0.000	157	155	57.305	18.50	18.5	95	
87	87	124-tri-Cl-Bz	15.58	15.58	0.000	180	182	519.294	20.03	20.0	99	
88	88	naphthalene	15.78	15.78	0.000	128	129	863.437	18.10	18.1	99	
89	89	hx-Cl-butadiene	15.72	15.72	0.000	225	258	328.067	22.12	22.1	100	
90	90	123-Tri-Cl-Bz	15.98	15.98	0.000	180	182	450.225	20.12	20.1	99	

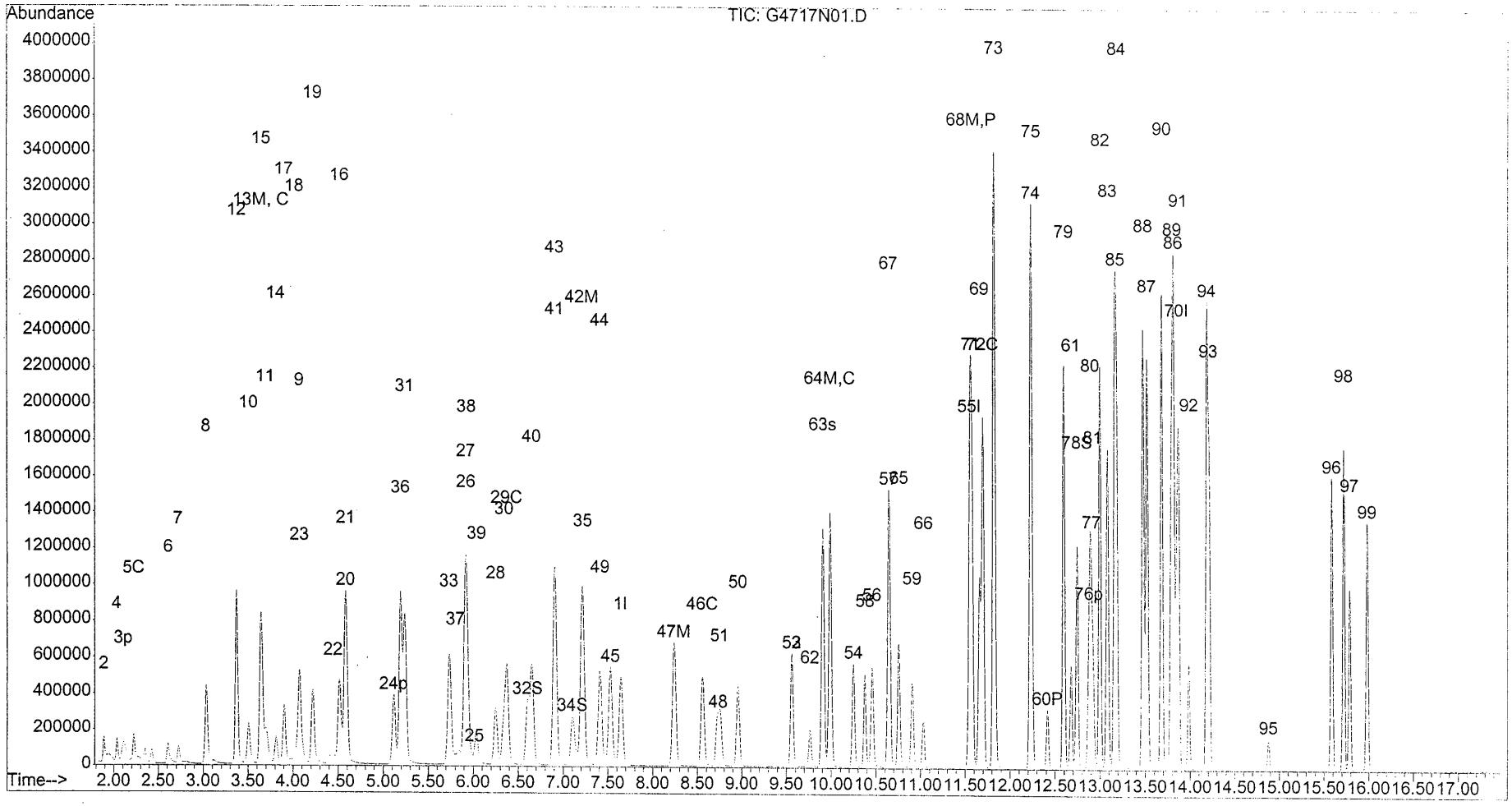
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1662

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717N01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 11:44 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 11:02 2003
Print Time : Fri Nov 07 11:02 2003
Miscleneous :

Sample : f=1 $5973-02
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1663

Data Filename: C:\MSDCHEM\1\DATA\03G4717\5973-02.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 15:12 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 10:25 2003
Print Time : Fri Nov 07 11:12 2003
Miscleneous :

Sample : f=1 ms
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene	7.64	7.64	0.000	96	70	652.896	10.00		0.00	
47	47 Chlorobezene-d5	11.54	11.54	0.000	117	82	482.809	10.00		0.00	
62	62 1,4-Dichlorobenze	13.85	13.85	0.000	152	150	287.868	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Me (surr)	6.60	6.60	0.000	111	113	320.403	20.90	20.9	104.50%	
29	29 1,2-Di-Cl-Et-d4 (	7.11	7.11	0.000	65	102	292.499	21.42	21.4	107.10%	
55	55 toluene-d8	9.91	9.91	0.000	98	100	1136.525	21.33	21.3	106.63%	
70	70 4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	418.877	21.47	21.5	107.37%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
92	92 Nitro Methane(x10	5.89	5.84	0.006	61	46	0.457	0.60		~~0.6 16~~	#
101	101 TAME	7.64	7.41	0.030	73	43	8.317	1.10		~~1.1 46~~	#
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	9.90	9.77	0.012	43	58	4.512	2.00		~~2.0 1~~	#
<<< I3 : ISTD ID = 62 >>>											
88	88 naphthalene	15.79	15.78	0.000	128	129	0.717	1.14		~~1.1 71~~	

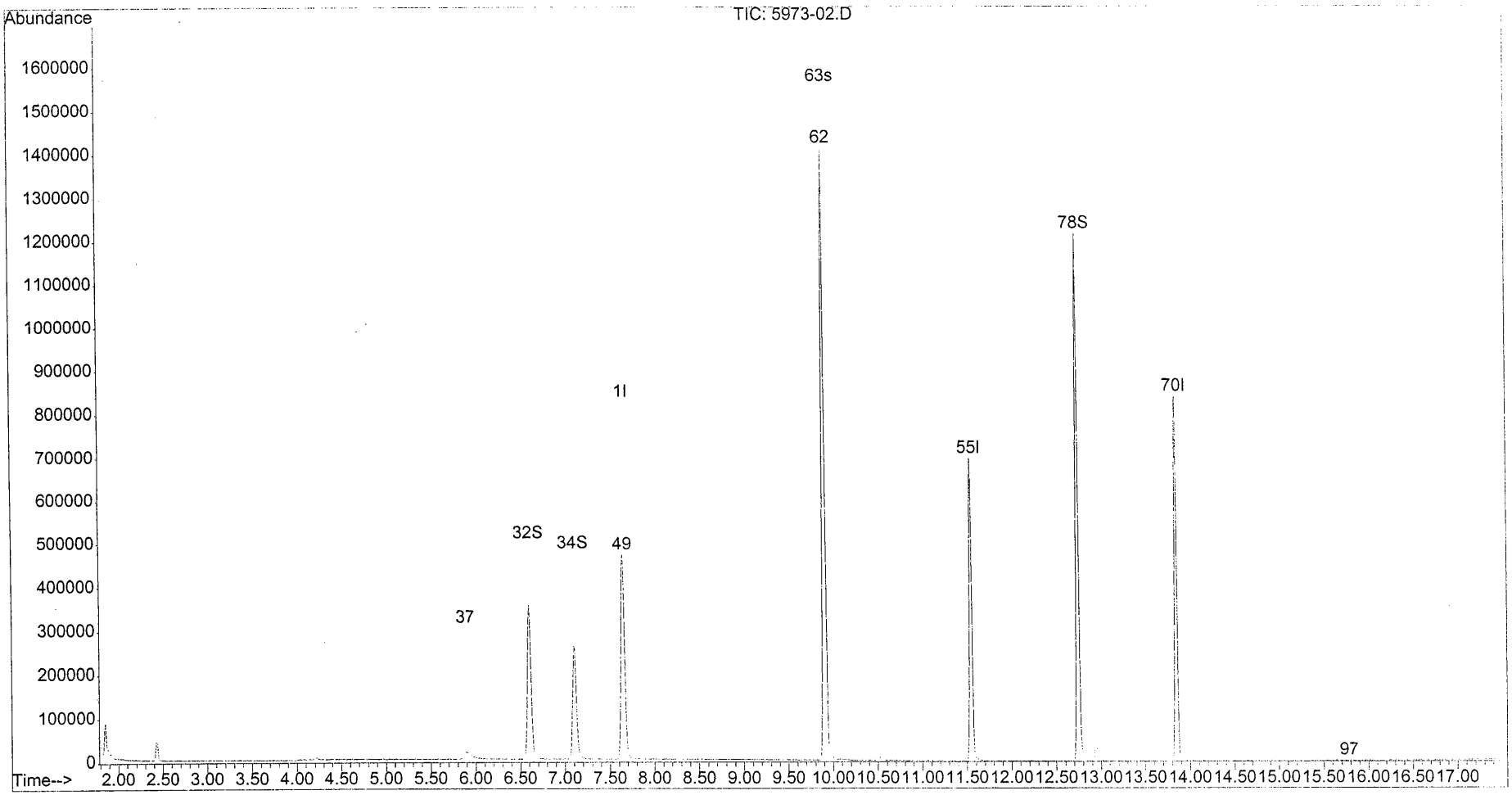
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1664

Data Filename: C:\MSDCHEM\1\DATA\03G4717\5973-02.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 15:12 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 07 10:25 2003
Print Time : Fri Nov 07 11:12 2003
Miscleneous :

Sample : f=1 . ms
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



FORM-4A

Applied P & Ch Laboratory

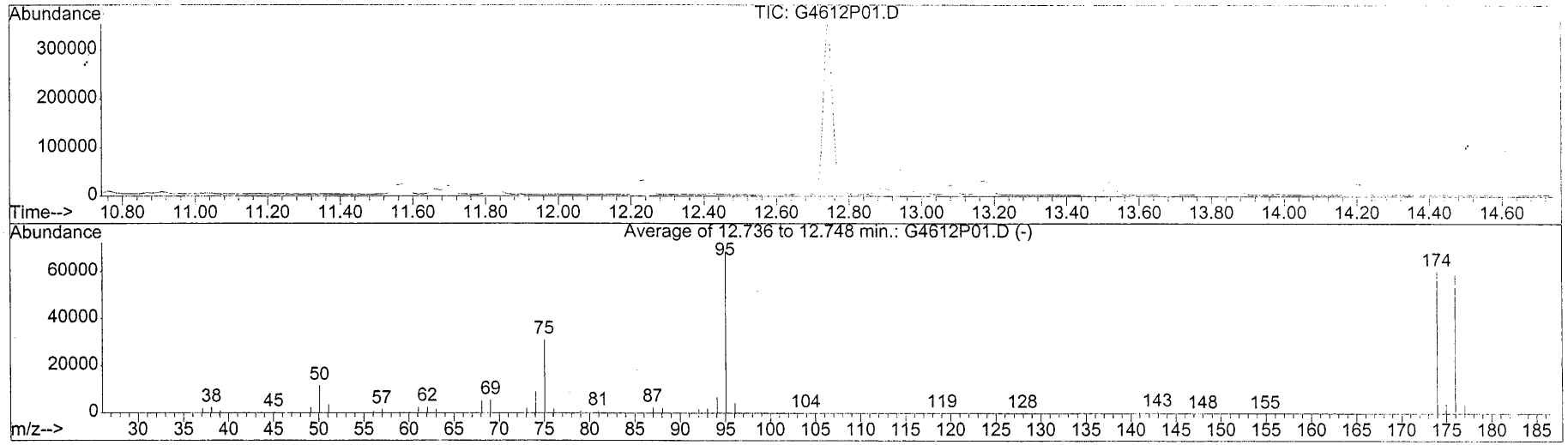
Method Blank Summary for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	35951
Project ID:	JPL	Project No:	04-4428.10	Analysis Date:	11/06/03
		Sample Matrix:	Water	Analysis Time:	13:54
Sample ID:	**03G4717-MB-01**	Batch No:	03G4717	Instrument ID:	GC/MS: A
Lab Sample ID:	03G4717-MB-01	Data File Name:	G4717K01	GC Column:	HP-VOC
		Heated Purge: (Y/N)	N	Column ID:	0.20 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	03G4717-LCS-01	03G4717-LCS-01	Lab Control Spike	G4717L01	11/06/03	10:53
2	MW-3-1MS	03-5973-2MS	Matrix Spike	G4717M01	11/06/03	11:19
3	MW-3-1MSD	03-5973-2MSD	Matrix Spike Duplicate	G4717N01	11/06/03	11:44
4	TB-9-11-4-03	03-5951-13	Field Sample	5951-13	11/06/03	14:20
5	DUPE-5-4-Q03	03-5951-1	Field Sample	5951-01	11/06/03	16:30
6	EB-9-11-4-03	03-5951-2	Field Sample	5951-02	11/06/03	16:57
7	MW-14-1	03-5951-3	Field Sample	5951-03	11/06/03	17:23
8	MW-14-2	03-5951-4	Field Sample	5951-04	11/06/03	17:49
9	MW-14-3	03-5951-5	Field Sample	5951-05	11/06/03	18:15
10	MW-14-4	03-5951-6	Field Sample	5951-06	11/06/03	18:41
11	MW-14-5	03-5951-7	Field Sample	5951-07	11/06/03	19:07
12	MW-17-1	03-5951-8	Field Sample	5951-08	11/06/03	19:33
13	MW-17-2	03-5951-9	Field Sample	5951-09	11/06/03	19:59
14	MW-17-3	03-5951-10	Field Sample	5951-10	11/06/03	20:25
15	MW-17-4	03-5951-11	Field Sample	5951-11	11/06/03	20:51
16	MW-17-5	03-5951-12	Field Sample	5951-12	11/06/03	21:17
17						
18						
19						
20						
21						
22						
23						
24						
25						

Data File : C:\MSDCHEM\1\DATA\03G4612\G4612P01.D Vial: 1
Acq On : 21 Oct 2003 9:14 am Operator: zou
Sample : ##03g4565,w 50ng Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: Lscint.p
Method : C:\MSDCHEM\1\METHODS\E524A003.M (RTE Integrator)
Title : **Applied P &Ch Lab** EPA 524.2



Spectrum Information: Average of 12.736 to 12.748 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.0	11745	PASS
75	95	30	60	45.0	31162	PASS
95	95	100	100	100.0	69181	PASS
96	95	5	9	6.6	4558	PASS
173	174	0.00	2	0.5	275	PASS
174	95	50	100	87.4	60456	PASS
175	174	5	9	7.7	4634	PASS
176	174	95	101	98.1	59312	PASS
177	176	5	9	7.0	4135	PASS

G4612P01.D E524A003.M Mon Oct 27 13:27:33 2003

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : APPLIED P & CH LAB Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 035951

Lab File ID: G 4612 P01 BFB Injection Date: 10/21/2003

Instrument ID: GCMS-A BFB Injection Time: 0914

GC Column: HP-VOC ID: 0.20 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.0
75	30.0 - 60.0% of mass 95	45.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 100.0% of mass 95	87.4
175	5.0 - 9.0% of mass 174	6.7 (7.7)1
176	95.0 - 101.0% of mass 174	85.7 (98.1)1
177	5.0 - 9.0% of mass 176	6.0 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0003	3-A0003	3-A0003.D	10/21/2003	1005
02	VSTD002	3-0002	3-0002.D	10/21/2003	1031
03	VSTD010	3-0010	3-0010.D	10/21/2003	1056
04	VSTD020	3-0020	3-0020.D	10/21/2003	1122
05	VSTD040	3-0040	3-0040.D	10/21/2003	1147
06	VSTD060	3-0060	3-0060.D	10/21/2003	1214
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

INITIAL CALIBRATION SUMMARY

Method File	e524a003		
Last Calibration Update	Mon Oct 27 13:56:31 2003		
Level 1 File Name	3-A0003.D	**Level 1 ID**	.3
Level 2 File Name	3-002.D	**Level 2 ID**	2
Level 3 File Name	3-0010.D	**Level 3 ID**	10
Level 4 File Name	3-0020.D	**Level 4 ID**	20
Level 5 File Name	3-0040.D	**Level 5 ID**	40
Level 6 File Name	3-0060.D	**Level 6 ID**	60
Level 7 File Name	3-0020.D	**Level 7 ID**	cc

Compound Name	Level 1 Response	Level 2 Response	Level 3 Response	Level 4 Response	Level 5 Response	Level 6 Response	Level 7 Response	Coeff X^0	Coeff X^1 / ave RF	Coeff X^2	R^2 / RSD
1 Fluorobenzene	920067	916201	919392	955116	907151	1006211	-1	------	------	------	------
3 di-Cl-di-F-methane	6437	39097	199979	303885	731076	1099511	-1	0.0000	0.2011	0.0000	0.1330
4 Chloromethane	6136	37417	181676	348991	739859	1132557	-1	0.0000	0.1997	0.0000	0.0704
2 F114	1527	19306	101058	155932	367886	551592	-1	0.0028	0.0932	0.0000	0.9919
5 vinyl chloride	4876	33446	161213	285451	640709	982033	-1	0.0000	0.1705	0.0000	0.0717
6 bromomethane	2539	18408	87613	168214	383891	601141	-1	0.0000	0.0969	0.0000	0.0659
7 chloroethane	2197	17752	90280	159905	376464	536590	-1	0.0000	0.0918	0.0000	0.1013
8 tri-Cl-F-methane	8394	56082	277768	461283	1030751	1532166	-1	0.0000	0.2819	0.0000	0.0992
91 Acetonitrile X10	10689	82041	382813	794170	1713507	2428244	-1	0.0000	0.0431	0.0000	0.0662
9 acrolein X10	5645	40130	201945	381523	807796	1232252	-1	0.0000	0.0212	0.0000	0.0467
11 acetone X10	-1	64324	288996	538495	1267205	1816586	-1	0.0000	0.0319	0.0000	0.0947
12 ethyl ether X5	13693	93915	436367	874255	1704647	2654028	-1	0.0000	0.0950	0.0000	0.0552
13 11-dichloroethene	6637	46215	229524	410040	877445	1367991	-1	0.0000	0.2376	0.0000	0.0605
14 Iodomethane	3461	29384	183879	356970	751141	1123042	-1	0.0038	0.1913	0.0000	0.9951
15 F-113	4492	28088	146108	224035	516639	784890	-1	0.0000	0.1441	0.0000	0.1231
16 acrylonitrile X10	10574	78358	419836	794346	1709905	2532493	-1	0.0000	0.0429	0.0000	0.0731
17 carbon disulfide	13839	85463	420250	772812	1671671	2561651	-1	0.0000	0.4524	0.0000	0.0750
94 Isopropyl Alcoholx10	331	1284	1238	28714	240070	128634	-1	0.0000	0.0020	0.0000	1.1427
18 methylene chloride	10278	48191	203033	407143	804880	1192483	-1	0.0203	0.2012	0.0000	0.9947
19 t-12-di-Cl-ethene	6615	45733	217854	407874	774111	1126298	-1	0.0000	0.2233	0.0000	0.1039
20 t-Bu-Me-ether	9529	70095	362056	751228	1592599	2437498	-1	0.0000	0.3929	0.0000	0.0773
95 Tert butyl alcoholx10	1332	4624	88338	76985	452680	251872	-1	0.0000	0.0066	0.0000	0.6496

94 allyl chloride	10689	82041	426268	794170	1724483	2428244	-1	0.0000	0.4409	0.0000	0.0706
21 11-dichloroethane	10035	71189	342138	689918	1398310	2101878	-1	0.0000	0.3698	0.0000	0.0415
97 propionitrile	103	3119	18745	29270	62391	109975	-1	0.0000	0.0176	0.0000	0.1055
22 c-12-di-Cl-ethene	6459	46844	225560	436935	845644	1210430	-1	0.0000	0.2329	0.0000	0.0801
23 22-Dichloropropane	5693	38859	218612	456844	979998	1513030	-1	0.0000	0.2360	0.0000	0.1011
24 Br-Cl-methane	3294	23046	109590	215148	438926	655419	-1	0.0000	0.1177	0.0000	0.0523
25 chloroform	13164	80631	375460	741683	1492648	2229387	-1	0.0000	0.4157	0.0000	0.0920
26 tetrahydrofuranX5	4044	28808	169729	317711	726346	1114014	-1	0.0000	0.0346	0.0000	0.1155
98 Diisopropyl ether	16931	136442	688556	1387177	2723439	4088155	-1	0.0000	0.7101	0.0000	0.0772
27 Di-Br-F-Me (surr)	6137	45047	218874	439096	880145	1314263	-1	0.0000	0.2348	0.0000	0.0481
99 ETBE	9591	74005	411030	879689	1934215	2984281	-1	0.0000	0.4477	0.0000	0.1468
29 1,2-Di-Cl-Et-d4 (S1)	5167	39287	192209	385356	801084	1206050	-1	0.0000	0.2091	0.0000	0.0418
30 12-dichloroethane	2318	14864	77221	146461	303955	463659	-1	0.0000	0.0811	0.0000	0.0434
32 vinyl acetate X5	36279	291623	1683396	3463521	7301957	11062661	-1	0.0000	0.3465	0.0000	0.1412
92 Nitro Methane(x10)	1574	10571	358371	95786	134103	298076	-1	0.0000	0.0117	0.0000	1.3083
33 2-butanoneMEK X10	14739	98541	459782	956754	2014463	3034414	-1	0.0000	0.0522	0.0000	0.0453
93 Ethyl Acetate x2	6463	37342	237607	465630	1199719	1687653	-1	0.0000	0.1292	0.0000	0.1682
34 111-trichloroethane	9393	63933	333945	629233	1352461	2070811	-1	0.0000	0.3496	0.0000	0.0454
35 11-Di-Cl-propene	6749	49362	260487	484228	1020849	1516179	-1	0.0000	0.2639	0.0000	0.0625
36 benzene	23536	167998	811668	1581767	3067808	4519766	-1	0.0000	0.8457	0.0000	0.0673
37 CCl4	9052	59763	312695	555550	1228562	1842053	-1	0.0000	0.3215	0.0000	0.0608

Compound Name	Level 1 Response	Level 2 Response	Level 3 Response	Level 4 Response	Level 5 Response	Level 6 Response	Level 7 Response	Coeff X^0	Coeff X^1 / ave RF	Coeff X^2	R^2 / RSD
100 Isobutyl alcoholx10	2932	21047	112031	247109	552842	880424	-1	------	------	------	------
38 thiophene	10222	83170	428533	868274	1718044	2554816	-1	0.0000	0.4403	0.0000	0.0870
39 12-di-Cl-propane	4815	37555	178169	370946	752605	1124998	-1	0.0000	0.1935	0.0000	0.0628
40 trichloroethene	7696	50098	255616	501517	1020048	1520360	-1	0.0000	0.2710	0.0000	0.0423
41 dibromomethane	3770	26033	124373	247759	508912	747601	-1	0.0000	0.1346	0.0000	0.0506
101 TAME	7879	59032	335735	716981	1622049	2525816	-1	-0.0345	0.4304	0.0000	0.9963
42 Br-di-Cl-methane	9392	56733	274489	546104	1129675	1703118	-1	0.0000	0.3046	0.0000	0.0694
43 Me-methacrylate	1457	14747	87065	188318	435160	662734	-1	-0.0095	0.1138	0.0000	0.9946
44 2-ClEt-Vi-ether10	4887	45249	275793	591932	1294105	1950851	-1	-0.0367	0.0357	0.0000	0.9955
45 c-13-di-Cl-propene	6769	54923	293425	608486	1252896	1891415	-1	0.0000	0.3069	0.0000	0.1096
46 t-1,3-dichloropropene	5153	40425	231011	505285	1067475	1638452	-1	-0.0097	0.2792	0.0000	0.9968
47 Chlorobezene-d5	745928	732691	724575	731811	659336	705610	-1	0.0000	1.0000	0.0000	0.0000

48 112-tri-Cl-Et	4896	31570	158039	308164	644393	936372	-1	0.0000	0.2214	0.0000	0.0533
49 13-di-Cl-propane	7569	48826	251096	479955	958048	1392110	-1	0.0000	0.3397	0.0000	0.0396
50 Et methacrylate	2785	29334	189197	404574	897662	1374874	-1	-0.0430	0.3345	0.0000	0.9960

Compound Name	Level 1 Response	Level 2 Response	Level 3 Response	Level 4 Response	Level 5 Response	Level 6 Response	Level 7 Response	Coeff X^0	Coeff X^1 / ave RF	Coeff X^2	R^2 / RSD
51 di-Br-Cl-methane	7359	44728	219307	430191	895491	1332246	-1	0.0000	0.3141	0.0000	0.0548
52 bromoform	4029	26611	127022	257402	537161	813031	-1	0.0000	0.1848	0.0000	0.0599
53 1,4-dichlorobutane-2	7248	52525	270048	530472	1118631	1708578	-1	0.0000	0.3742	0.0000	0.0947
54 MIBK	2727	20267	114402	244409	567049	883730	-1	-0.0334	0.2144	0.0000	0.9947
55 toluene-d8	22176	162055	811859	1597728	3175057	4699033	-1	0.0000	1.1038	0.0000	0.0617
56 toluene	32453	204349	957684	1867212	3679239	5453434	-1	0.0000	1.3542	0.0000	0.0513
57 2-hexanone X5	8296	70148	400071	806303	1789801	2714840	-1	-0.0660	0.1318	0.0000	0.9958
58 12-dibromoethane	4393	32436	159989	322735	683020	1029927	-1	0.0000	0.2269	0.0000	0.0954
59 tetra-Cl-ethene	8603	59173	281865	498130	1001817	1436032	-1	0.0000	0.3728	0.0000	0.0719
60 chlorobenzene	21200	144953	676974	1307160	2492370	3536493	-1	0.0000	0.9241	0.0000	0.0576
61 1112-tetra-Cl-Et	7365	51367	249086	487380	969491	1437439	-1	0.0000	0.3439	0.0000	0.0403
62 1,4-Dichlorobenzene-d4	436784	441685	431820	433290	398842	428493	-1	0.0000	1.0000	0.0000	0.0000
63 1-chlorohexane	3125	20185	105292	181129	379300	546400	-1	0.0000	0.2284	0.0000	0.0636
64 Et-Bz	31613	225200	1128701	2162672	4307205	6378701	-1	0.0000	2.5420	0.0000	0.0404
65 m/p-Xylenes X2	51588	364290	1753788	3322945	6407191	9314343	-1	0.0000	1.9663	0.0000	0.0463
66 styrene	19899	158986	755749	1448349	2712603	3842415	-1	0.0000	1.6558	0.0000	0.0748
67 o-xylene	25030	181225	888564	1715323	3289680	4761198	-1	0.0000	1.9855	0.0000	0.0445
68 1122-Tetra-Cl-Et	4786	35408	176142	333638	679431	1005365	-1	0.0000	0.3960	0.0000	0.0524
69 123-tri-Cl-Pr	1463	11857	58506	111098	231129	345542	-1	0.0000	0.1315	0.0000	0.0844
70 4-Br-1-F-Bz (S3)	9236	60769	292727	571173	1114624	1638683	-1	0.0000	0.6776	0.0000	0.0376
71 isopropylbenzene	31809	228075	1204677	2257352	4576796	6821750	-1	0.0000	2.6544	0.0000	0.0592
72 bromobenzene	8279	62596	299551	577972	1123002	1610222	-1	0.0000	0.6719	0.0000	0.0539
92 t-1,4-dichloro-2-butene	370	3850	26890	58909	138278	214154	-1	-0.0139	0.0860	0.0000	0.9950
73 n-propylbenzene	9091	70513	355352	656540	1290074	1877926	-1	0.0000	0.7686	0.0000	0.0653
74 2-Cl-Toluene	7570	61543	297725	558317	1084812	1601091	-1	0.0000	0.6518	0.0000	0.0707
75 4-Cl-Toluene	9182	64367	296683	566381	1062470	1497703	-1	0.0000	0.6698	0.0000	0.0750
76 135-tri-Me-Benzene	28727	213694	1063069	2008540	3906361	5670674	-1	0.0000	2.3409	0.0000	0.0517
77 4-iso-Pr-toluene	31720	226621	1149787	2111126	4215398	6174914	-1	0.0000	2.5215	0.0000	0.0463
78 124-tri-Me-Benzene	29971	222021	1078747	2103275	4147713	6124395	-1	0.0000	2.4513	0.0000	0.0448
79 tert-butylbenzene	24279	177466	929162	1736357	3598467	5289165	-1	0.0000	2.0550	0.0000	0.0671

1671

80 13-DCB	19447	131664	611576	1176380	2227519	3166301	-1	0.0000	1.3960	0.0000	0.0684
81 sec-butylbenzene	38627	268975	1387531	2530666	5231475	7732088	-1	0.0000	3.0688	0.0000	0.0475
82 14-DCB	21754	133604	619366	1184125	2334471	3417867	-1	0.0000	1.4610	0.0000	0.0806
83 Cl-benzyl	871	5857	44122	106539	268318	431461	-1	-0.0412	0.1731	0.0000	0.9920
84 12-DCB	17721	121367	559240	1055514	2046326	2953834	-1	0.0000	1.2785	0.0000	0.0657
85 n-butylbenzene	8164	59910	307483	567085	1127859	1596385	-1	0.0000	0.6659	0.0000	0.0599
86 12-diBr-2-Cl-Pra	1032	7477	40003	83208	177685	276212	-1	0.0000	0.0951	0.0000	0.1330
87 124-tri-Cl-Bz	9169	66792	354819	702123	1402301	2085639	-1	0.0000	0.7963	0.0000	0.0771
88 naphthalene	11079	87277	545491	1159824	2506296	3927146	-1	-0.1762	1.5623	0.0000	0.9976
89 hx-Cl-butadiene	6445	40287	205532	360400	746186	1096494	-1	0.0000	0.4557	0.0000	0.0644
90 123-Tri-Cl-Bz	7754	57941	307963	600915	1229181	1798500	-1	0.0000	0.6874	0.0000	0.0870

Response F or Report GCMS-A

Method : C:\MSDCHEM\1\METHODS\E524A003.M (RTE Integrator)
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Oct 27 13:56:31 2003
Response via : Initial Calibration

Calibration Files
.3 =3-A0003.D 2 =3-002.D 10 =3-0010.D
20 =3-0020.D 40 =3-0040.D 60 =3-0060.D

			Compound	.3	2	10	20	40	60	Avg	%RSD	r2
1)	I	1	Fluorobenzene	----------ISTD----------								
2)		3	di-Cl-di-F-m	0.233	0.213	0.218	0.159	0.201	0.182	0.201	13.30	
3)	p	4	Chloromethan	0.222	0.204	0.198	0.183	0.204	0.188	0.200	7.04	
4)		2	F114	0.055	0.105	0.110	0.082	0.101	0.091	0.091	22.20	0.990
5)	C	5	vinyl chlori	0.177	0.183	0.175	0.149	0.177	0.163	0.171	7.17	
6)		6	bromomethane	0.092	0.100	0.095	0.088	0.106	0.100	0.097	6.59	
7)		7	chloroethane	0.080	0.097	0.098	0.084	0.104	0.089	0.092	10.13	
8)		8	tri-Cl-F-met	0.304	0.306	0.302	0.241	0.284	0.254	0.282	9.92	
9)		91	Acetonitrile		0.045	0.042	0.042	0.047	0.040	0.043	6.62	
10)		9	acrolein	0.020	0.022	0.022	0.020	0.022	0.020	0.021	4.67	
11)		11	acetone X		0.035	0.031	0.028	0.035	0.030	0.032	9.47	
12)		12	ethyl ether	0.099	0.103	0.095	0.092	0.094	0.088	0.095	5.52	
13)	M,	C13	11-dichloroe	0.240	0.252	0.250	0.215	0.242	0.227	0.238	6.05#	
14)		14	Iodomethane	0.125	0.160	0.200	0.187	0.207	0.186	0.178	16.98	0.995
15)		15	F-113	0.163	0.153	0.159	0.117	0.142	0.130	0.144	12.31	
16)		16	acrylonitril	0.038	0.043	0.046	0.042	0.047	0.042	0.043	7.31	
17)		17	carbon disul	0.501	0.466	0.457	0.405	0.461	0.424	0.452	7.50	
18)		94	Isopropyl Al	0.001	0.001	0.000	0.002	0.007	0.002	0.002	114.27	
19)		18	methylene ch	0.372	0.263	0.221	0.213	0.222	0.198	0.248	26.04	0.995
20)		19	t-12-di-Cl-e	0.240	0.250	0.237	0.214	0.213	0.187	0.223	10.39	
21)		20	t-Bu-Me-ethe	0.345	0.383	0.394	0.393	0.439	0.404	0.393	7.73	
22)		95	Tert butyl a		0.003	0.010	0.004	0.012	0.004	0.007	64.96	
23)		94	allyl chlori		0.448	0.464	0.416	0.475	0.402	0.441	7.06	
24)	p	21	11-dichloroe	0.364	0.389	0.372	0.361	0.385	0.348	0.370	4.15	
25)		97	propionitril		0.017	0.020	0.015	0.017	0.018	0.018	10.55	
26)		22	c-12-di-Cl-e	0.234	0.256	0.245	0.229	0.233	0.200	0.233	8.01	
27)		23	22-Dichlorop	0.206	0.212	0.238	0.239	0.270	0.251	0.236	10.11	
28)		24	Br-Cl-methan	0.119	0.126	0.119	0.113	0.121	0.109	0.118	5.23	

(#) = Out of Range

Response F .or Report GCMS-A

Method : C:\MSDCHEM\1\METHODS\E524A003.M (RTE Integrator)
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Oct 27 13:56:31 2003
Response via : Initial Calibration

Calibration Files
.3 =3-A0003.D 2 =3-002.D 10 =3-0010.D
20 =3-0020.D 40 =3-0040.D 60 =3-0060.D

		Compound	.3	2	10	20	40	60	Avg	%RSD	
29)	C	25 chloroform	0.477	0.440	0.408	0.388	0.411	0.369	0.416	9.20	
30)		26 tetrahydrofu	0.029	0.031	0.037	0.033	0.040	0.037	0.035	11.55	
31)		98 Diisopropyl	0.613	0.745	0.749	0.726	0.751	0.677	0.710	7.72	
32)	S	27 Di-Br-F-Me (		0.246	0.238	0.230	0.243	0.218	0.235	4.81	
33)		99 ETBE	0.347	0.404	0.447	0.461	0.533	0.494	0.448	14.68	
34)	S	29 1,2-Di-Cl-Et		0.214	0.209	0.202	0.221	0.200	0.209	4.18	
35)		30 12-dichloroe	0.084	0.081	0.084	0.077	0.084	0.077	0.081	4.34	
36)		32 vinyl acetat	0.263	0.318	0.366	0.363	0.402	0.366	0.346	14.12	
37)		92 Nitro Methan		0.006	0.039	0.005	0.004	0.005	0.012	130.83	
38)		33 2-butanoneME	0.053	0.054	0.050	0.050	0.056	0.050	0.052	4.53	
39)		93 Ethyl Acetat	0.117	0.102	0.129	0.122	0.165	0.140	0.129	16.82	
40)		34 111-trichlor	0.340	0.349	0.363	0.329	0.373	0.343	0.350	4.54	
41)		35 11-Di-Cl-pro	0.245	0.269	0.283	0.253	0.281	0.251	0.264	6.25	
42)	M	36 benzene	0.853	0.917	0.883	0.828	0.845	0.749	0.846	6.73	
43)		37 CCl4	0.328	0.326	0.340	0.291	0.339	0.305	0.321	6.08	
44)		100 Isobutyl al	0.011	0.011	0.012	0.013	0.015	0.015	0.013	13.92	
45)		38 thiophene	0.370	0.454	0.466	0.455	0.473	0.423	0.440	8.70	
46)	C	39 12-di-Cl-pro	0.174	0.205	0.194	0.194	0.207	0.186	0.194	6.28#	
47)	M	40 trichloroeth	0.279	0.273	0.278	0.263	0.281	0.252	0.271	4.23	
48)		41 dibromometha	0.137	0.142	0.135	0.130	0.140	0.124	0.135	5.06	
49)		101 TAME	0.285	0.322	0.365	0.375	0.447	0.418	0.369	16.15	0.995
50)		42 Br-di-Cl-met	0.340	0.310	0.299	0.286	0.311	0.282	0.305	6.94	
51)		43 Me-methacryl	0.053	0.080	0.095	0.099	0.120	0.110	0.093	25.59	0.994
52)		44 2-ClEt-Vi-et	0.018	0.025	0.030	0.031	0.036		0.028	24.68	0.993
53)		45 c-13-di-Cl-p	0.245	0.300	0.319	0.319	0.345	0.313	0.307	10.96	
54)		46 t-1,3-dichlo	0.187	0.221	0.251	0.265	0.294	0.271	0.248	15.58	0.997
55)	I	47 Chlorobezene-d5	----------ISTD----------								
56)		48 112-tri-Cl-E	0.219	0.215	0.218	0.211	0.244	0.221	0.221	5.33	

(#) = Out of Range

Response F :or Report GCMS-A

Method : C:\MSDCHEM\1\METHODS\E524A003.M (RTE Integrator)
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Oct 27 13:56:31 2003
Response via : Initial Calibration

Calibration Files
.3 =3-A0003.D 2 =3-002.D 10 =3-0010.D
20 =3-0020.D 40 =3-0040.D 60 =3-0060.D

		Compound	.3	2	10	20	40	60	Avg	%RSD	
57)		49 13-di-Cl-pro	0.338	0.333	0.347	0.328	0.363	0.329	0.340	3.96	
58)		50 Et methacryl	0.124	0.200	0.261	0.276	0.340	0.325	0.255	31.77	0.995
59)		51 di-Br-Cl-met	0.329	0.305	0.303	0.294	0.340	0.315	0.314	5.48	
60)	P	52 bromoform	0.180	0.182	0.175	0.176	0.204	0.192	0.185	5.99	
61)		53 1,4-dichloro	0.324	0.358	0.373	0.362	0.424	0.404	0.374	9.47	
62)		54 MIBK	0.122	0.138	0.158	0.167	0.215	0.209	0.168	22.23	0.992
63)	s	55 toluene-d8	0.991	1.106	1.120	1.092	1.204	1.110	1.104	6.17	
64)	M,C	56 toluene	1.450	1.395	1.322	1.276	1.395	1.288	1.354	5.13	
65)		57 2-hexanone X	0.074	0.096	0.110	0.110	0.136	0.128	0.109	20.41	0.994
66)		58 12-dibromoet	0.196	0.221	0.221	0.221	0.259	0.243	0.227	9.54	
67)		59 tetra-Cl-eth	0.384	0.404	0.389	0.340	0.380	0.339	0.373	7.19	
68)	M,P	60 chlorobenzen	0.947	0.989	0.934	0.893	0.945	0.835	0.924	5.76	
69)		61 1112-tetra-C	0.329	0.351	0.344	0.333	0.368	0.340	0.344	4.03	
70)	I	62 1,4-Dichlorobenzen	----------ISTD----------								
71)		63 1-chlorohexa	0.238	0.228	0.244	0.209	0.238	0.213	0.228	6.36	
72)	C	64 Et-Bz	2.413	2.549	2.614	2.496	2.700	2.481	2.542	4.04#	
73)		65 m/p-Xylenes	1.968	2.062	2.031	1.917	2.008	1.811	1.966	4.63	
74)		66 styrene	1.519	1.800	1.750	1.671	1.700	1.495	1.656	7.48	
75)		67 o-xylene	1.910	2.052	2.058	1.979	2.062	1.852	1.985	4.45	
76)	p	68 1122-Tetra-C	0.365	0.401	0.408	0.385	0.426	0.391	0.396	5.24	
77)		69 123-tri-Cl-P	0.112	0.134	0.135	0.128	0.145	0.134	0.131	8.44	
78)	S	70 4-Br-1-F-Bz	0.705	0.688	0.678	0.659	0.699	0.637	0.678	3.76	
79)		71 isopropylben	2.428	2.582	2.790	2.605	2.869	2.653	2.654	5.92	
80)		72 bromobenzene	0.632	0.709	0.694	0.667	0.704	0.626	0.672	5.39	
81)		92 t-1,4-dichlo	0.028	0.044	0.062	0.068	0.087	0.083	0.062	36.62	0.993
82)		73 n-propylbenz	0.694	0.798	0.823	0.758	0.809	0.730	0.769	6.53	
83)		74 2-Cl-Toluene	0.578	0.697	0.689	0.644	0.680	0.623	0.652	7.07	
84)		75 4-Cl-Toluene	0.701	0.729	0.687	0.654	0.666	0.583	0.670	7.50	

(#) = Out of Range

Response F or Report GCMS-A

Method : C:\MSDCHEM\1\METHODS\E524A003.M (RTE Integrator)
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Oct 27 13:56:31 2003
Response via : Initial Calibration

Calibration Files
.3 =3-A0003.D 2 =3-002.D 10 =3-0010.D
20 =3-0020.D 40 =3-0040.D 60 =3-0060.D

	Compound	.3	2	10	20	40	60	Avg	%RSD	
85)	76 135-tri-Me-B	2.192	2.419	2.462	2.318	2.449	2.206	2.341	5.17	
86)	77 4-iso-Pr-tol	2.421	2.565	2.663	2.436	2.642	2.402	2.522	4.63	
87)	78 124-tri-Me-B	2.287	2.513	2.498	2.427	2.600	2.382	2.451	4.48	
88)	79 tert-butylbe	1.853	2.009	2.152	2.004	2.256	2.057	2.055	6.71	
89)	80 13-DCB	1.484	1.490	1.416	1.357	1.396	1.232	1.396	6.84	
90)	81 sec-butylben	2.948	3.045	3.213	2.920	3.279	3.007	3.069	4.75	
91)	82 14-DCB	1.660	1.512	1.434	1.366	1.463	1.329	1.461	8.06	
92)	83 Cl-benzyl	0.066	0.066	0.102	0.123	0.168	0.168	0.116	39.76	0.989
93)	84 12-DCB	1.352	1.374	1.295	1.218	1.283	1.149	1.278	6.57	
94)	85 n-butylbenze	0.623	0.678	0.712	0.654	0.707	0.621	0.666	5.99	
95)	86 12-diBr-2-Cl	0.079	0.085	0.093	0.096	0.111	0.107	0.095	13.30	
96)	87 124-tri-Cl-B	0.700	0.756	0.822	0.810	0.879	0.811	0.796	7.71	
97)	88 naphthalene	0.845	0.988	1.263	1.338	1.571	1.528	1.256	23.09	0.997
98)	89 hx-Cl-butadi	0.492	0.456	0.476	0.416	0.468	0.426	0.456	6.44	
99)	90 123-Tri-Cl-B	0.592	0.656	0.713	0.693	0.770	0.700	0.687	8.70	

(#) = Out of Range

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1676

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-A0003.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:05 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:33 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	7.64	7.63	0.002	96	70	920.067	10.00		0.02	
47	47	Chlorobezene-d5	11.54	11.54	0.000	117	82	745.928	10.00		0.00	
62	62	1,4-Dichlorobenze	13.84	13.84	0.000	152	150	436.784	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	6.60	6.58	0.002	111	113	6.137	0.27	0.3	1.34%	
29	29	1,2-Di-Cl-Et-d4 (	7.11	7.08	0.002	65	102	5.167	0.28	0.3	1.39%	
55	55	toluene-d8	9.90	9.89	0.000	98	100	22.176	0.24	0.2	1.18%	
70	70	4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	9.236	0.26	0.3	1.28%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	1.89	1.85	0.005	85	87	6.437	0.28	0.3	96	m
4	4	Chloromethane	2.11	2.07	0.006	50	52	6.136	0.28	0.3	85	m
2	2	F114	2.04	2.00	0.006	85	135	1.527	0.13	0.1	99	
5	5	vinyl chloride	2.23	2.19	0.005	62	64	4.876	0.22	0.2	74	m
6	6	bromomethane	2.60	2.58	0.003	94	96	2.539	0.24	0.2	69	#
7	7	chloroethane	2.72	2.70	0.003	64	66	2.197	0.17	0.2	0	m
8	8	tri-Cl-F-methane	3.03	3.00	0.004	101	103	8.394	0.25	0.3	100	
91	91	Acetonitrile X10	4.07	4.04	0.003	41	40	10.689	2.65	2.6	80	?
9	9	acrolein X10	3.52	3.48	0.006	56	55	5.645	2.22	2.2	0	m
11	11	acetone X10	3.71	3.69	0.002	43	58	18.756	4.78	4.8	80	
12	12	ethyl ether X5	3.37	3.34	0.005	59	74	13.693	1.17	1.2	79	
13	13	11-dichloroethene	3.63	3.60	0.004	61	96	6.637	0.25	0.3	0	m?
14	14	Iodomethane	3.81	3.78	0.004	142	127	3.461	0.15	0.1	95	
15	15	F-113	3.65	3.62	0.004	101	151	4.492	0.22	0.2	0	m?
16	16	acrylonitrile X10	4.52	4.49	0.003	53	52	10.574	2.57	2.6	85	
17	17	carbon disulfide	3.90	3.87	0.004	76	78	13.839	0.21	0.2	99	
94	94	Isopropyl Alcohol	4.04	4.01	0.003	45	43	0.331	0.47	0.5	100	#
18	18	methylene chlorid	4.22	4.19	0.004	84	49	10.278	0.24	0.2	72	#
19	19	t-12-di-Cl-ethene	4.58	4.55	0.004	96	61	6.615	0.27	0.3	88	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1677

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-A0003.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:05 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:33 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
20	20 t-Bu-Me-ether	4.59	4.56	0.004	73	57	9.529	0.23	0.2	67	?
95	95 Tert butyl alcoho	4.45	4.47	-0.002	59	57	1.332	1.21	1.2	100	#
94	94 allyl chloride	4.07	4.04	0.003	41	76	10.689	0.30	0.3	56	#?
21	21 11-dichloroethane	5.12	5.09	0.005	63	83	10.035	0.25	0.3	97	
22	22 c-12-di-Cl-ethene	5.93	5.89	0.005	96	61	6.459	0.26	0.3	86	m?
23	23 22-Dichloropropan	5.92	5.89	0.004	77	97	5.693	0.20	0.2	90	m?
24	24 Br-Cl-methane	6.26	6.23	0.004	128	130	3.294	0.27	0.3	87	
25	25 chloroform	6.37	6.35	0.003	83	85	13.164	0.30	0.3	82	?
26	26 tetrahydrofuranX5	6.35	6.32	0.004	42	72	4.044	1.34	1.3	73	#?
98	98 Diisopropyl ether	5.24	5.22	0.003	45	87	16.931	0.28	0.3	93	
99	99 ETBE	5.73	5.72	0.002	59	87	9.591	0.20	0.2	95	m
30	30 12-dichloroethane	7.23	7.20	0.004	64	62	2.318	0.32	0.3	46	m?
32	32 vinyl acetate X5	5.20	5.17	0.004	43	86	36.279	1.26	1.3	95	m
92	92 Nitro Methane(x10	5.81	5.80	0.000	61	46	1.574	3.08	3.1	16	m
33	33 2-butanoneMEK X10	5.94	5.92	0.003	43	72	14.739	3.08	3.1	87	?
93	93 Ethyl Acetate x2	6.04	6.02	0.003	43	61	6.463	0.57	0.6	79	#
34	34 111-trichloroetha	6.65	6.63	0.002	97	99	9.393	0.25	0.3	85	
35	35 11-Di-Cl-propene	6.91	6.88	0.004	75	110	6.749	0.24	0.2	89	?
36	36 benzene	7.21	7.19	0.002	78	52	23.536	0.25	0.3	87	?
37	37 CCl4	6.91	6.89	0.002	117	119	9.052	0.26	0.3	90	?
100	100 Isobutyl alcohol	7.42	7.39	0.003	43	42	2.932	7.75	7.8	61	#?
38	38 thiophene	7.54	7.51	0.004	84	58	10.222	0.22	0.2	75	
39	39 12-di-Cl-propane	8.56	8.54	0.002	63	76	4.815	0.23	0.2	95	
40	40 trichloroethene	8.25	8.23	0.002	130	132	7.696	0.26	0.3	95	m
41	41 dibromomethane	8.72	8.71	0.000	174	172	3.770	0.28	0.3	83	
101	101 TAME	7.41	7.39	0.002	73	43	7.879	0.19	0.2	52	m?
42	42 Br-di-Cl-methane	8.95	8.95	0.000	83	85	9.392	0.31	0.3	94	
43	43 Me-methacrylate	8.76	8.75	0.002	69	100	1.457	0.15	0.2	34	m
44	44 2-ClEt-Vi-ether10	9.38	9.37	0.000	63	43	4.887	2.69	2.7	93	
45	45 c-13-di-Cl-propen	9.57	9.55	0.002	75	110	6.769	0.22	0.2	89	
46	46 t-1,3-dichloropro	10.25	10.24	0.000	75	110	5.153	0.21	0.2	89	

<<< I2 : ISTD ID = 47 >>>

48--48-112-tri-Cl-Et------10.47--10.45--0.001--97--83-----4.896----0.27------0.3---48-------m----

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1678

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-A0003.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:05 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:33 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
49	49	13-di-Cl-propane	10.65	10.64	0.001	76	78	7.569	0.27	0.3	85	?
50	50	Et methacrylate	10.38	10.37	0.000	69	99	2.785	0.14	0.1	83	
51	51	di-Br-Cl-methane	10.91	10.90	0.000	129	127	7.359	0.30	0.3	83	
52	52	bromoform	12.41	12.41	0.000	173	174	4.029	0.29	0.3	95	
53	53	1,4-dichlorobutan	12.68	12.67	0.000	55	41	7.248	0.27	0.3	90	
54	54	MIBK	9.77	9.76	0.001	43	58	2.727	0.25	0.3	63	m
56	56	toluene	9.99	9.98	0.001	91	92	32.453	0.30	0.3	96	10/27/03
57	57	2-hexanone X5	10.76	10.75	0.001	43	58	8.296	1.13	1.1	89	
58	58	12-dibromoethane	11.03	11.03	0.000	107	109	4.393	0.25	0.2	83	
59	59	tetra-Cl-ethene	10.64	10.64	0.000	166	168	8.603	0.27	0.3	96	?
60	60	chlorobenzene	11.57	11.57	0.000	112	77	21.200	0.28	0.3	95	?
61	61	1112-tetra-Cl-Et	11.66	11.66	0.000	131	133	7.365	0.27	0.3	93	
<<< I3 : ISTD ID = 62 >>>												
63	63	1-chlorohexane	11.56	11.56	0.000	93	55	3.125	0.22	0.2	17	#?
64	64	Et-Bz	11.70	11.69	0.000	91	106	31.613	0.23	0.2	94	
65	65	m/p-Xylenes X2	11.82	11.82	0.000	91	106	51.588	0.50	0.5	98	
66	66	styrene	12.24	12.23	0.000	104	78	19.899	0.25	0.3	94	?
67	67	o-xylene	12.22	12.22	0.000	91	106	25.030	0.24	0.2	96	?
68	68	1122-Tetra-Cl-Et	12.88	12.87	0.000	83	85	4.786	0.21	0.2	86	
69	69	123-tri-Cl-Pr	12.91	12.91	0.000	110	97	1.463	0.21	0.2	75	?
71	71	isopropylbenzene	12.60	12.59	0.000	105	120	31.809	0.24	0.2	99	
72	72	bromobenzene	12.89	12.89	0.000	156	158	8.279	0.23	0.2	74	#?
92	92	t-1,4-dichloro-2-	12.92	12.92	0.000	89	53	0.370	0.11	0.1	84	#?
73	73	n-propylbenzene	13.00	12.99	0.000	120	78	9.091	0.22	0.2	91	
74	74	2-Cl-Toluene	13.08	13.08	0.000	126	128	7.570	0.21	0.2	93	
75	75	4-Cl-Toluene	13.19	13.18	0.000	126	128	9.182	0.25	0.2	95	?
76	76	135-tri-Me-Benzen	13.16	13.16	0.000	105	120	28.727	0.25	0.3	90	?
77	77	4-iso-Pr-toluene	13.81	13.81	0.000	119	134	31.720	0.25	0.2	99	?
78	78	124-tri-Me-Benzen	13.52	13.51	0.000	105	120	29.971	0.25	0.3	99	
79	79	tert-butylbenzene	13.48	13.47	0.000	119	91	24.279	0.22	0.2	91	
80	80	13-DCB	13.79	13.78	0.000	146	148	19.447	0.26	0.3	91	?
81	81	sec-butylbenzene	13.68	13.68	0.000	105	134	38.627	0.25	0.3	96	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1679

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-A0003.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:05 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:33 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
82	82	14-DCB	13.87	13.87	0.000	146	148	21.754	0.28	0.3	84	
83	83	Cl-benzyl	13.98	13.98	0.000	126	91	0.871	0.12	0.1	35	#
84	84	12-DCB	14.21	14.21	0.000	146	148	17.721	0.27	0.3	90	?
85	85	n-butylbenzene	14.18	14.18	0.000	134	91	8.164	0.24	0.2	80	#?
86	86	12-diBr-2-Cl-Pra	14.88	14.88	0.000	157	155	1.032	0.22	0.2	75	#
87	87	124-tri-Cl-Bz	15.59	15.58	0.000	180	182	9.169	0.21	0.2	96	
88	88	naphthalene	15.79	15.78	0.000	128	129	11.079	0.14	0.1	91	
89	89	hx-Cl-butadiene	15.72	15.72	0.000	225	258	6.445	0.25	0.2	81	
90	90	123-Tri-Cl-Bz	15.98	15.98	0.000	180	182	7.754	0.20	0.2	97	

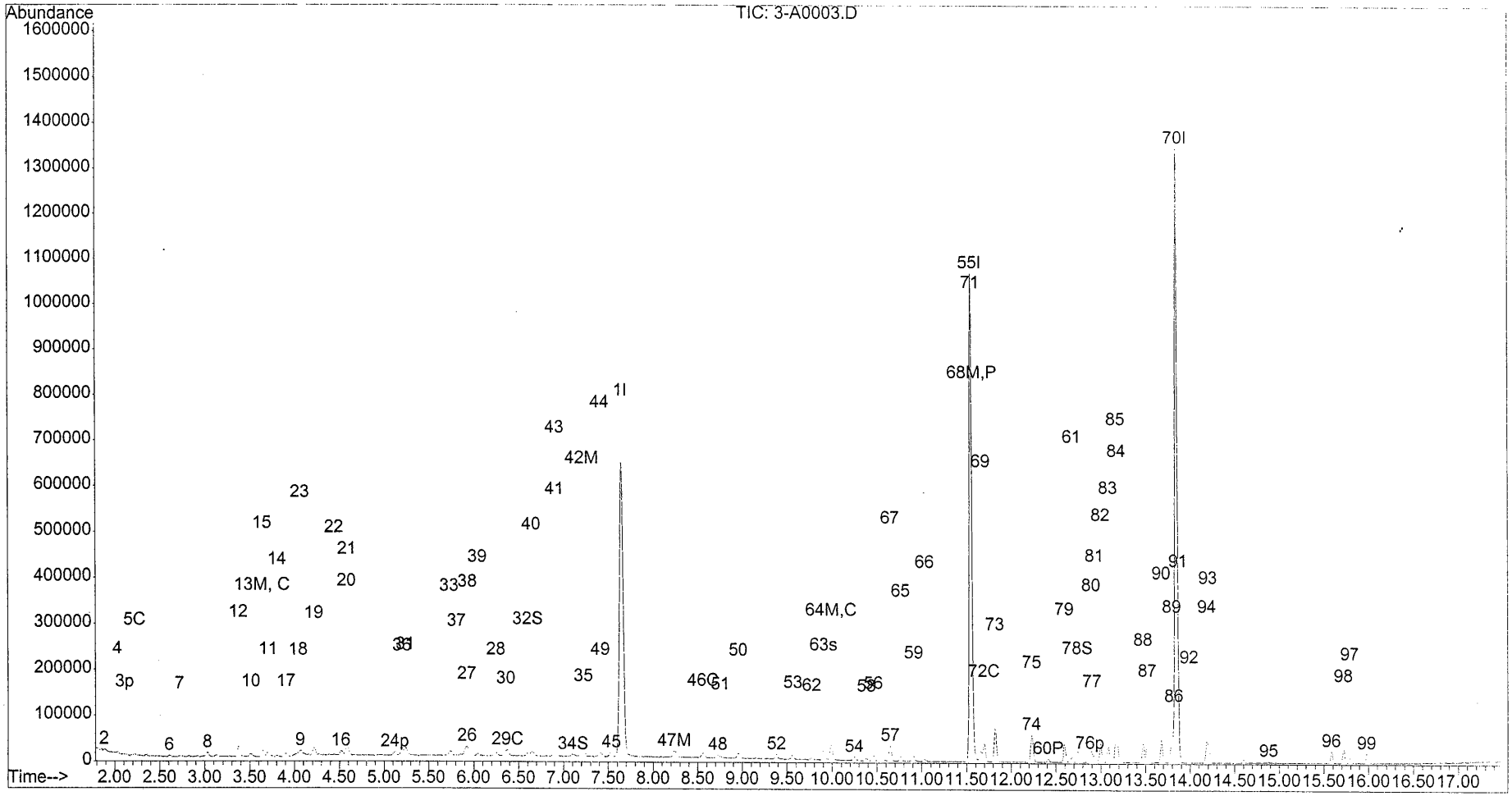
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1680

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-A0003.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:05 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:33 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1681

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-002.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:31 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:36 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	7.65	7.63	0.003	96	70	916.201	10.00		0.02	
47	47	Chlorobezene-d5	11.54	11.54	0.000	117	82	732.691	10.00		0.00	
62	62	1,4-Dichlorobenze	13.84	13.84	0.000	152	150	441.685	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	6.60	6.58	0.002	111	113	45.047	1.97	2.0	9.86%	
29	29	1,2-Di-Cl-Et-d4 (	7.11	7.08	0.002	65	102	39.287	2.12	2.1	10.62%	
55	55	toluene-d8	9.91	9.89	0.000	98	100	162.055	1.75	1.8	8.77%	
70	70	4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	60.769	1.66	1.7	8.32%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	1.89	1.85	0.005	85	87	39.097	1.70	1.7	95	m 10/27/03
4	4	Chloromethane	2.11	2.07	0.005	50	52	37.417	1.74	1.7	92	m
2	2	F114	2.03	2.00	0.005	85	135	19.306	1.61	1.6	55	m
5	5	vinyl chloride	2.22	2.19	0.004	62	64	33.446	1.51	1.5	95	m
6	6	bromomethane	2.61	2.58	0.005	94	96	18.408	1.73	1.7	96	m
7	7	chloroethane	2.73	2.70	0.004	64	66	17.752	1.34	1.3	88	m
8	8	tri-Cl-F-methane	3.03	3.00	0.005	101	103	56.082	1.70	1.7	99	
91	91	Acetonitrile X10	4.07	4.04	0.004	41	40	82.041	20.41	20.4	96	?
9	9	acrolein X10	3.52	3.48	0.006	56	55	40.130	15.88	15.9	98	
11	11	acetone X10	3.71	3.69	0.002	43	58	64.324	16.47	16.5	79	
12	12	ethyl ether X5	3.37	3.34	0.005	59	74	93.915	8.07	8.1	81	
13	13	11-dichloroethene	3.64	3.60	0.005	61	96	46.215	1.76	1.8	85	?
14	14	Iodomethane	3.82	3.78	0.005	142	127	29.384	1.27	1.3	99	
15	15	F-113	3.65	3.62	0.004	101	151	28.088	1.36	1.4	90	?
16	16	acrylonitrile X10	4.52	4.49	0.004	53	52	78.358	19.13	19.1	95	
17	17	carbon disulfide	3.91	3.87	0.005	76	78	85.463	1.28	1.3	99	
94	94	Isopropyl Alcohol	4.04	4.01	0.004	45	43	1.284	1.83	1.8	100	#
18	18	methylene chlorid	4.22	4.19	0.005	84	49	48.191	1.13	1.1	94	
19	19	t-12-di-Cl-ethene	4.58	4.55	0.005	96	61	45.733	1.85	1.8	96	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1682

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-002.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:31 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:36 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
20	20 t-Bu-Me-ether	4.59	4.56	0.004	73	57	70.095	1.70	1.7	90	?
95	95 Tert butyl alcoho	4.46	4.47	0.000	59	57	4.624	4.22	4.2	100	#
94	94 allyl chloride	4.07	4.04	0.004	41	76	82.041	2.28	2.3	71	#?
21	21 11-dichloroethane	5.12	5.09	0.004	63	83	71.189	1.79	1.8	96	
97	97 propionitrile	6.03	5.99	0.004	54	51	3.119	2.03	2.0	100	m?
22	22 c-12-di-Cl-ethene	5.91	5.89	0.002	96	61	46.844	1.88	1.9	91	?
23	23 22-Dichloropropan	5.92	5.89	0.003	77	97	38.859	1.37	1.4	94	?
24	24 Br-Cl-methane	6.25	6.23	0.003	128	130	23.046	1.90	1.9	96	
25	25 chloroform	6.38	6.35	0.003	83	85	80.631	1.84	1.8	95	
26	26 tetrahydrofuranX5	6.35	6.32	0.003	42	72	28.808	9.57	9.6	83	
98	98 Diisopropyl ether	5.25	5.22	0.004	45	87	136.442	2.23	2.2	88	
99	99 ETBE	5.74	5.72	0.003	59	87	74.005	1.58	1.6	93	
30	30 12-dichloroethane	7.22	7.20	0.002	64	62	14.864	2.08	2.1	93	?
32	32 vinyl acetate X5	5.20	5.17	0.004	43	86	291.623	10.20	10.2	95	
92	92 Nitro Methane(x10	5.82	5.80	0.002	61	46	10.571	20.78	20.8	63	#
33	33 2-butanoneMEK X10	5.94	5.92	0.003	43	72	98.541	20.66	20.7	83	?
93	93 Ethyl Acetate x2	6.05	6.02	0.004	43	61	37.342	3.29	3.3	91	#?
34	34 111-trichloroetha	6.65	6.63	0.002	97	99	63.933	1.73	1.7	97	
35	35 11-Di-Cl-propene	6.90	6.88	0.002	75	110	49.362	1.77	1.8	85	?
36	36 benzene	7.21	7.19	0.003	78	52	167.998	1.81	1.8	94	?
37	37 CCl4	6.91	6.89	0.002	117	119	59.763	1.76	1.8	98	?
100	100 Isobutyl alcohol	7.42	7.39	0.003	43	42	21.047	55.87	55.9	81	#?
38	38 thiophene	7.53	7.51	0.003	84	58	83.170	1.80	1.8	95	
39	39 12-di-Cl-propane	8.56	8.54	0.002	63	76	37.555	1.80	1.8	93	
40	40 trichloroethene	8.24	8.23	0.002	130	132	50.098	1.73	1.7	82	
41	41 dibromomethane	8.73	8.71	0.002	174	172	26.033	1.97	2.0	87	
101	101 TAME	7.42	7.39	0.004	73	43	59.032	1.46	1.5	92	m?
42	42 Br-di-Cl-methane	8.96	8.95	0.002	83	85	56.733	1.89	1.9	97	
43	43 Me-methacrylate	8.76	8.75	0.002	69	100	14.747	1.57	1.6	91	
44	44 2-ClEt-Vi-ether10	9.38	9.37	0.000	63	43	45.249	24.99	25.0	84	
45	45 c-13-di-Cl-propen	9.56	9.55	0.002	75	110	54.923	1.82	1.8	94	
46	46 t-1,3-dichloropro	10.25	10.24	0.000	75	110	40.425	1.68	1.7	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1683

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-002.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:31 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:36 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
<<< I2 : ISTD ID = 47 >>>												
48	48	112-tri-Cl-Et	10.46	10.45	0.000	97	83	31.570	1.79	1.8	94	
49	49	13-di-Cl-propane	10.65	10.64	0.000	76	78	48.826	1.75	1.8	84	?
50	50	Et methacrylate	10.38	10.37	0.000	69	99	29.334	1.47	1.5	96	
51	51	di-Br-Cl-methane	10.91	10.90	0.000	129	127	44.728	1.88	1.9	100	
52	52	bromoform	12.42	12.41	0.000	173	174	26.611	1.96	2.0	98	
53	53	1,4-dichlorobutan	12.67	12.67	0.000	55	41	52.525	2.02	2.0	98	
54	54	MIBK	9.77	9.76	0.000	43	58	20.267	1.90	1.9	91	
56	56	toluene	9.99	9.98	0.000	91	92	204.349	1.93	1.9	97	
57	57	2-hexanone X5	10.76	10.75	0.000	43	58	70.148	9.69	9.7	85	
58	58	12-dibromoethane	11.03	11.03	0.000	107	109	32.436	1.86	1.9	94	
59	59	tetra-Cl-ethene	10.65	10.64	0.001	166	168	59.173	1.87	1.9	98	?
60	60	chlorobenzene	11.57	11.57	0.000	112	77	144.953	1.92	1.9	94	?
61	61	1112-tetra-Cl-Et	11.66	11.66	0.000	131	133	51.367	1.90	1.9	98	
<<< I3 : ISTD ID = 62 >>>												
63	63	1-chlorohexane	11.56	11.56	0.000	93	55	20.185	1.40	1.4	69	#?
64	64	Et-Bz	11.70	11.69	0.000	91	106	225.200	1.63	1.6	92	
65	65	m/p-Xylenes X2	11.82	11.82	0.000	91	106	364.290	3.49	3.5	99	
66	66	styrene	12.24	12.23	0.000	104	78	158.986	2.00	2.0	95	?
67	67	o-xylene	12.22	12.22	0.000	91	106	181.225	1.73	1.7	92	?
68	68	1122-Tetra-Cl-Et	12.87	12.87	0.000	83	85	35.408	1.52	1.5	99	
69	69	123-tri-Cl-Pr	12.91	12.91	0.000	110	97	11.857	1.70	1.7	94	?
71	71	isopropylbenzene	12.60	12.59	0.000	105	120	228.075	1.70	1.7	97	
72	72	bromobenzene	12.89	12.89	0.000	156	158	62.596	1.74	1.7	97	?
92	92	t-1,4-dichloro-2-	12.92	12.92	0.000	89	53	3.850	1.13	1.1	71	#?
73	73	n-propylbenzene	13.00	12.99	0.000	120	78	70.513	1.68	1.7	96	
74	74	2-Cl-Toluene	13.08	13.08	0.000	126	128	61.543	1.66	1.7	96	
75	75	4-Cl-Toluene	13.18	13.18	0.000	126	128	64.367	1.70	1.7	100	?
76	76	135-tri-Me-Benzen	13.16	13.16	0.000	105	120	213.694	1.85	1.8	96	?
77	77	4-iso-Pr-toluene	13.81	13.81	0.000	119	134	226.621	1.76	1.8	97	?
78	78	124-tri-Me-Benzen	13.51	13.51	0.000	105	120	222.021	1.84	1.8	99	
79	79	tert-butylbenzene	13.48	13.47	0.000	119	91	177.466	1.61	1.6	90	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1684

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-002.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:31 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:36 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-DCB	13.79	13.78	0.000	146	148	131.664	1.74	1.7	94	?
81	81	sec-butylbenzene	13.68	13.68	0.000	105	134	268.975	1.73	1.7	95	
82	82	14-DCB	13.87	13.87	0.000	146	148	133.604	1.73	1.7	94	
83	83	Cl-benzyl	13.98	13.98	0.000	126	91	5.857	0.80	0.8	61	#
84	84	12-DCB	14.21	14.21	0.000	146	148	121.367	1.80	1.8	96	?
85	85	n-butylbenzene	14.18	14.18	0.000	134	91	59.910	1.74	1.7	82	#?
86	86	12-diBr-2-Cl-Pra	14.88	14.88	0.000	157	155	7.477	1.57	1.6	89	
87	87	124-tri-Cl-Bz	15.58	15.58	0.000	180	182	66.792	1.53	1.5	94	
88	88	naphthalene	15.79	15.78	0.000	128	129	87.277	1.10	1.1	99	
89	89	hx-Cl-butadiene	15.72	15.72	0.000	225	258	40.287	1.52	1.5	96	
90	90	123-Tri-Cl-Bz	15.98	15.98	0.000	180	182	57.941	1.48	1.5	93	

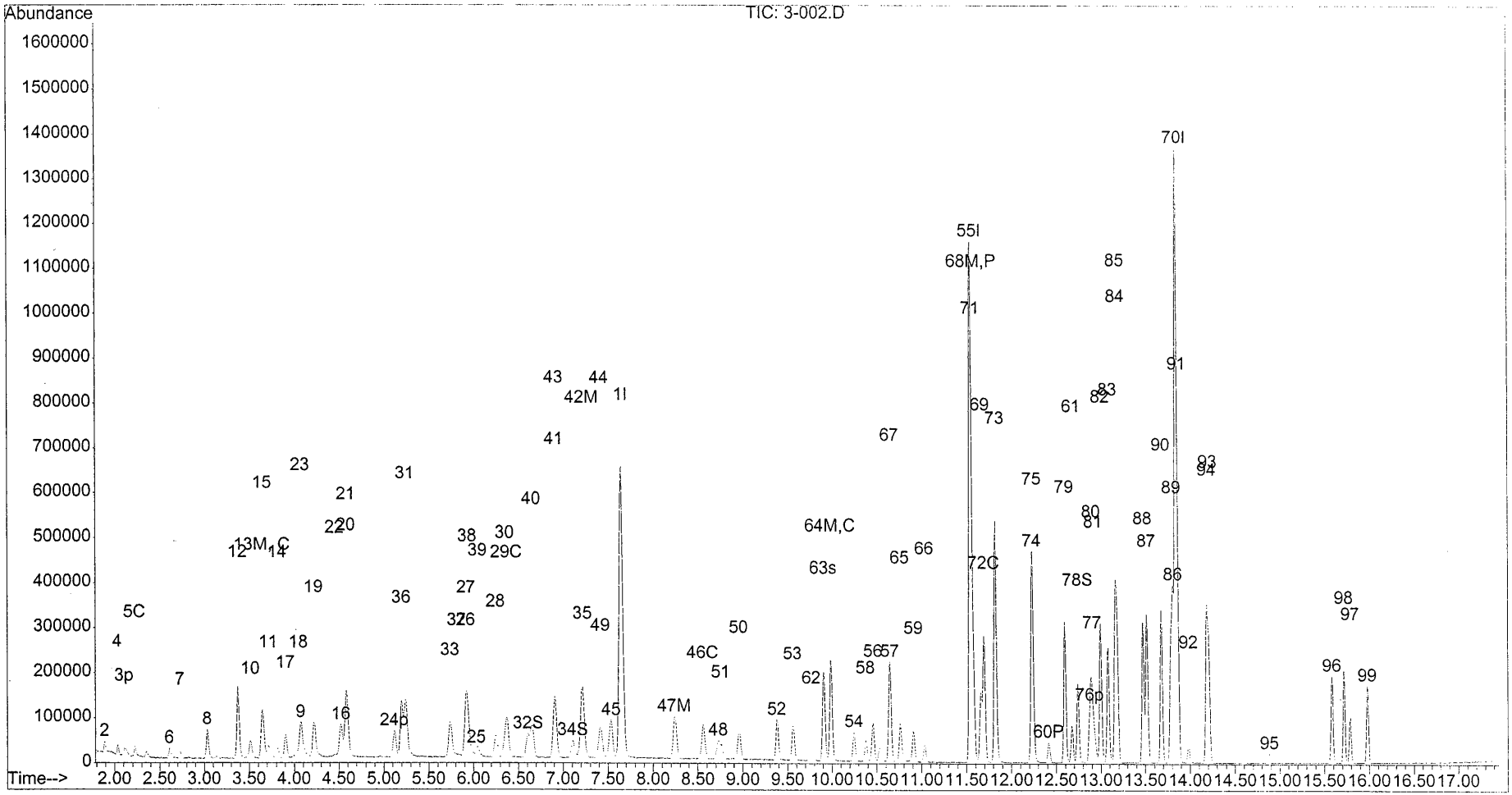
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1685

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-002.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:31 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:36 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1686

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0010.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:56 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:38 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	7.65	7.63	0.003	96	70	919.392	10.00		0.02	
47	47	Chlorobezene-d5	11.54	11.54	0.000	117	82	724.575	10.00		0.00	
62	62	1,4-Dichlorobenze	13.84	13.84	0.000	152	150	431.820	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	6.60	6.58	0.002	111	113	218.874	9.55	9.6	47.76%	
29	29	1,2-Di-Cl-Et-d4 (	7.10	7.08	0.001	65	102	192.209	10.36	10.4	51.79%	
55	55	toluene-d8	9.91	9.89	0.000	98	100	811.859	8.89	8.9	44.45%	
70	70	4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	292.727	8.20	8.2	40.98%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	1.89	1.85	0.005	85	87	199.979	8.66	8.7	93	m
4	4	Chloromethane	2.11	2.07	0.005	50	52	181.676	8.40	8.4	99	m
2	2	F114	2.03	2.00	0.005	85	135	101.058	8.37	8.4	67	m
5	5	vinyl chloride	2.23	2.19	0.005	62	64	161.213	7.23	7.2	98	m
6	6	bromomethane	2.61	2.58	0.005	94	96	87.613	8.18	8.2	98	
7	7	chloroethane	2.73	2.70	0.004	64	66	90.280	6.81	6.8	100	
8	8	tri-Cl-F-methane	3.04	3.00	0.006	101	103	277.768	8.41	8.4	98	
91	91	Acetonitrile X10	4.07	4.04	0.004	41	40	382.813	94.91	94.9	92	?
9	9	acrolein X10	3.52	3.48	0.006	56	55	201.945	79.64	79.6	100	
11	11	acetone X10	3.75	3.69	0.008	43	58	288.996	73.75	73.8	0	m
12	12	ethyl ether X5	3.37	3.34	0.005	59	74	436.367	37.37	37.4	80	
13	13	11-dichloroethene	3.64	3.60	0.005	61	96	229.524	8.71	8.7	83	?
14	14	Iodomethane	3.82	3.78	0.005	142	127	183.879	7.89	7.9	97	
15	15	F-113	3.65	3.62	0.005	101	151	146.108	7.05	7.1	89	?
16	16	acrylonitrile X10	4.53	4.49	0.005	53	52	419.836	102.15	102.1	98	
17	17	carbon disulfide	3.90	3.87	0.004	76	78	420.250	6.27	6.3	99	
94	94	Isopropyl Alcohol	4.04	4.01	0.004	45	43	1.238	1.76	1.8	100	#
18	18	methylene chlorid	4.22	4.19	0.004	84	49	203.033	4.73	4.7	78	#
19	19	t-12-di-Cl-ethene	4.58	4.55	0.004	96	61	217.854	8.77	8.8	93	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

10/27/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1687

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0010.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:56 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:38 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
20	20 t-Bu-Me-ether	4.60	4.56	0.005	73	57	362.056	8.76	8.8	94	
95	95 Tert butyl alcoho	4.58	4.47	0.015	59	57	88.338	80.34	80.3	100	m?
94	94 allyl chloride	4.07	4.04	0.004	41	76	426.268	11.79	11.8	75	m?
21	21 11-dichloroethane	5.12	5.09	0.005	63	83	342.138	8.58	8.6	99	
97	97 propionitrile	6.04	5.99	0.006	54	51	18.745	12.15	12.2	100	m?
22	22 c-12-di-Cl-ethene	5.92	5.89	0.003	96	61	225.560	9.01	9.0	93	?
23	23 22-Dichloropropan	5.92	5.89	0.004	77	97	218.612	7.67	7.7	98	?
24	24 Br-Cl-methane	6.25	6.23	0.003	128	130	109.590	9.03	9.0	100	
25	25 chloroform	6.38	6.35	0.003	83	85	375.460	8.54	8.5	96	?
26	26 tetrahydrofuranX5	6.36	6.32	0.005	42	72	169.729	56.21	56.2	82	m?
98	98 Diisopropyl ether	5.24	5.22	0.003	45	87	688.556	11.22	11.2	90	
99	99 ETBE	5.74	5.72	0.003	59	87	411.030	8.76	8.8	90	
30	30 12-dichloroethane	7.22	7.20	0.003	64	62	77.221	10.78	10.8	91	?
32	32 vinyl acetate X5	5.20	5.17	0.004	43	86	1683.396	58.68	58.7	93	
92	92 Nitro Methane(x10	5.92	5.80	0.015	61	46	358.371	701.91	701.9	16	#?
33	33 2-butanoneMEK X10	5.96	5.92	0.005	43	72	459.782	96.08	96.1	86	
93	93 Ethyl Acetate x2	6.05	6.02	0.004	43	61	237.607	20.85	20.8	100	?
34	34 111-trichloroetha	6.65	6.63	0.002	97	99	333.945	9.02	9.0	98	
35	35 11-Di-Cl-propene	6.91	6.88	0.003	75	110	260.487	9.31	9.3	88	?
36	36 benzene	7.21	7.19	0.003	78	52	811.668	8.70	8.7	93	?
37	37 CCl4	6.91	6.89	0.002	117	119	312.695	9.16	9.2	95	?
100	100 Isobutyl alcohol	7.42	7.39	0.003	43	42	112.031	296.35	296.4	81	#?
38	38 thiophene	7.53	7.51	0.003	84	58	428.533	9.24	9.2	98	
39	39 12-di-Cl-propane	8.56	8.54	0.002	63	76	178.169	8.53	8.5	97	
40	40 trichloroethene	8.24	8.23	0.002	130	132	255.616	8.79	8.8	93	
41	41 dibromomethane	8.72	8.71	0.000	174	172	124.373	9.39	9.4	96	
101	101 TAME	7.41	7.39	0.002	73	43	335.735	8.25	8.3	91	?
42	42 Br-di-Cl-methane	8.96	8.95	0.002	83	85	274.489	9.12	9.1	98	
43	43 Me-methacrylate	8.76	8.75	0.002	69	100	87.065	9.25	9.3	97	
44	44 2-ClEt-Vi-ether10	9.38	9.37	0.002	63	43	275.793	151.78	151.8	84	
45	45 c-13-di-Cl-propen	9.56	9.55	0.002	75	110	293.425	9.67	9.7	91	
46	46 t-1,3-dichloropro	10.25	10.24	0.000	75	110	231.011	9.57	9.6	91	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1688

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0010.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:56 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:38 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
<<< I2 : ISTD ID = 47 >>>												
48	48	112-tri-Cl-Et	10.46	10.45	0.000	97	83	158.039	9.04	9.0	98	
49	49	13-di-Cl-propane	10.65	10.64	0.000	76	78	251.096	9.10	9.1	100	?
50	50	Et methacrylate	10.37	10.37	0.000	69	99	189.197	9.56	9.6	95	
51	51	di-Br-Cl-methane	10.91	10.90	0.000	129	127	219.307	9.33	9.3	95	
52	52	bromoform	12.42	12.41	0.000	173	174	127.022	9.46	9.5	100	
53	53	1,4-dichlorobutan	12.68	12.67	0.000	55	41	270.048	10.52	10.5	94	
54	54	MIBK	9.77	9.76	0.000	43	58	114.402	10.84	10.8	95	
56	56	toluene	9.99	9.98	0.000	91	92	957.684	9.13	9.1	98	
57	57	2-hexanone X5	10.76	10.75	0.000	43	58	400.071	55.86	55.9	90	
58	58	12-dibromoethane	11.03	11.03	0.000	107	109	159.989	9.27	9.3	95	
59	59	tetra-Cl-ethene	10.65	10.64	0.001	166	168	281.865	8.99	9.0	97	?
60	60	chlorobenzene	11.58	11.57	0.000	112	77	676.974	9.05	9.1	90	?
61	61	1112-tetra-Cl-Et	11.66	11.66	0.000	131	133	249.086	9.33	9.3	98	
<<< I3 : ISTD ID = 62 >>>												
63	63	1-chlorohexane	11.56	11.56	0.000	93	55	105.292	7.48	7.5	60	#?
64	64	Et-Bz	11.70	11.69	0.000	91	106	1128.701	8.35	8.4	94	
65	65	m/p-Xylenes X2	11.82	11.82	0.000	91	106	1753.788	17.17	17.2	97	
66	66	styrene	12.24	12.23	0.000	104	78	755.749	9.73	9.7	95	?
67	67	o-xylene	12.22	12.22	0.000	91	106	888.564	8.67	8.7	95	?
68	68	1122-Tetra-Cl-Et	12.87	12.87	0.000	83	85	176.142	7.72	7.7	100	
69	69	123-tri-Cl-Pr	12.91	12.91	0.000	110	97	58.506	8.57	8.6	97	?
71	71	isopropylbenzene	12.60	12.59	0.000	105	120	1204.677	9.18	9.2	99	
72	72	bromobenzene	12.89	12.89	0.000	156	158	299.551	8.50	8.5	98	?
92	92	t-1,4-dichloro-2-	12.92	12.92	0.000	89	53	26.890	8.11	8.1	75	#?
73	73	n-propylbenzene	13.00	12.99	0.000	120	78	355.352	8.64	8.6	92	
74	74	2-Cl-Toluene	13.08	13.08	0.000	126	128	297.725	8.19	8.2	100	
75	75	4-Cl-Toluene	13.19	13.18	0.000	126	128	296.683	8.03	8.0	98	?
76	76	135-tri-Me-Benzen	13.16	13.16	0.000	105	120	1063.069	9.41	9.4	98	?
77	77	4-iso-Pr-toluene	13.81	13.81	0.000	119	134	1149.787	9.11	9.1	97	?
78	78	124-tri-Me-Benzen	13.51	13.51	0.000	105	120	1078.747	9.17	9.2	98	
79	79	tert-butylbenzene	13.47	13.47	0.000	119	91	929.162	8.61	8.6	97	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0010.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:56 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:38 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

1689

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-DCB	13.79	13.78	0.000	146	148	611.576	8.25	8.3	97	?
81	81	sec-butylbenzene	13.68	13.68	0.000	105	134	1387.531	9.14	9.1	98	
82	82	14-DCB	13.87	13.87	0.000	146	148	619.366	8.20	8.2	96	
83	83	Cl-benzyl	13.98	13.98	0.000	126	91	44.122	6.18	6.2	94	
84	84	12-DCB	14.21	14.21	0.000	146	148	559.240	8.47	8.5	99	?
85	85	n-butylbenzene	14.18	14.18	0.000	134	91	307.483	9.14	9.1	90	#?
86	86	12-diBr-2-Cl-Pra	14.88	14.88	0.000	157	155	40.003	8.61	8.6	96	
87	87	124-tri-Cl-Bz	15.58	15.58	0.000	180	182	354.819	8.30	8.3	98	
88	88	naphthalene	15.78	15.78	0.000	128	129	545.491	7.03	7.0	99	
89	89	hx-Cl-butadiene	15.72	15.72	0.000	225	258	205.532	7.94	7.9	99	
90	90	123-Tri-Cl-Bz	15.98	15.98	0.000	180	182	307.963	8.03	8.0	97	

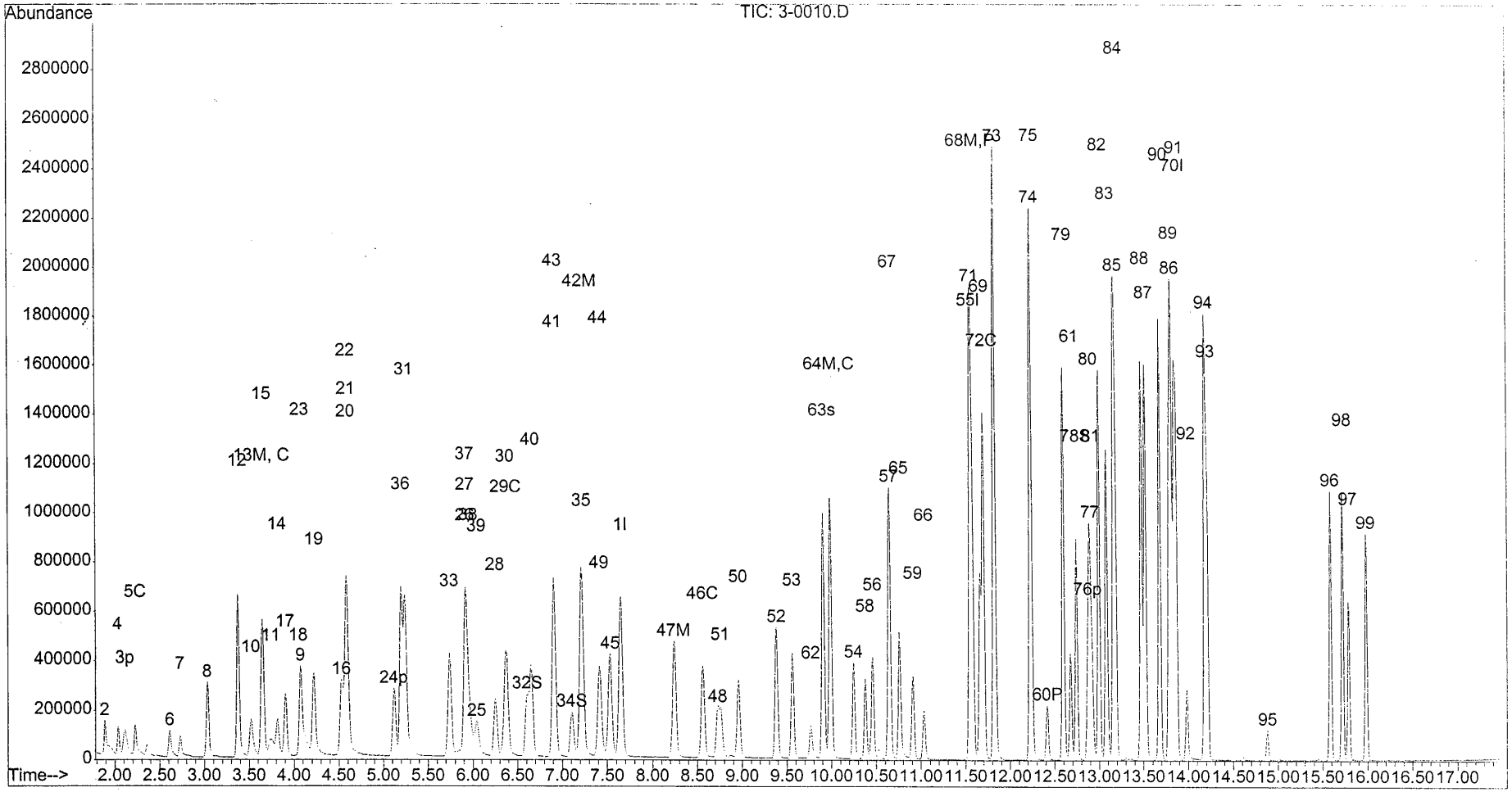
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1690

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0010.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 10:56 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:38 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1691

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0020.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 11:22 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:40 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	7.65	7.63	0.003	96	70	955.116	10.00		0.02	
47	47	Chlorobezene-d5	11.54	11.54	0.000	117	82	731.811	10.00		0.00	
62	62	1,4-Dichlorobenze	13.84	13.84	0.000	152	150	433.290	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	6.60	6.58	0.002	111	113	439.096	18.45	18.4	92.24%	
29	29	1,2-Di-Cl-Et-d4 (	7.10	7.08	0.001	65	102	385.356	19.99	20.0	99.95%	
55	55	toluene-d8	9.91	9.89	0.000	98	100	1597.728	17.32	17.3	86.62%	
70	70	4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	571.173	15.94	15.9	79.69%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	1.89	1.85	0.005	85	87	303.885	12.67	12.7	98	m
4	4	Chloromethane	2.11	2.07	0.006	50	52	348.991	15.53	15.5	98	m
2	2	F114	2.03	2.00	0.005	85	135	155.932	12.44	12.4	59	m
5	5	vinyl chloride	2.22	2.19	0.004	62	64	285.451	12.33	12.3	100	m
6	6	bromomethane	2.61	2.58	0.005	94	96	168.214	15.12	15.1	95	
7	7	chloroethane	2.73	2.70	0.004	64	66	159.905	11.60	11.6	0	m
8	8	tri-Cl-F-methane	3.03	3.00	0.005	101	103	461.283	13.45	13.5	99	m
91	91	Acetonitrile X10	4.07	4.04	0.004	41	40	794.170	189.53	189.5	97	?
9	9	acrolein X10	3.51	3.48	0.005	56	55	381.523	144.83	144.8	99	
11	11	acetone X10	3.71	3.69	0.003	43	58	538.495	132.28	132.3	0	m
12	12	ethyl ether X5	3.37	3.34	0.005	59	74	874.255	72.07	72.1	79	
13	13	11-dichloroethene	3.64	3.60	0.005	61	96	410.040	14.98	15.0	80	?
14	14	Iodomethane	3.81	3.78	0.004	142	127	356.970	14.75	14.7	94	
15	15	F-113	3.65	3.62	0.005	101	151	224.035	10.41	10.4	95	?
16	16	acrylonitrile X10	4.52	4.49	0.004	53	52	794.346	186.04	186.0	97	
17	17	carbon disulfide	3.90	3.87	0.004	76	78	772.812	11.10	11.1	100	
94	94	Isopropyl Alcohol	4.01	4.01	0.000	45	43	28.714	39.30	39.3	100	#
18	18	methylene chlorid	4.22	4.19	0.004	84	49	407.143	9.14	9.1	76	#
19	19	t-12-di-Cl-ethene	4.58	4.55	0.004	96	61	407.874	15.81	15.8	89	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

10/27/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1692

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0020.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 11:22 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:40 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
20	20	t-Bu-Me-ether	4.59	4.56	0.004	73	57	751.228	17.49	17.5	93	?
95	95	Tert butyl alcoho	4.47	4.47	0.000	59	57	76.985	67.40	67.4	100	#
94	94	allyl chloride	4.07	4.04	0.004	41	76	794.170	21.14	21.1	75	#?
21	21	11-dichloroethane	5.12	5.09	0.004	63	83	689.918	16.66	16.7	98	
97	97	propionitrile	6.01	5.99	0.002	54	51	29.270	18.27	18.3	100	#
22	22	c-12-di-Cl-ethene	5.92	5.89	0.003	96	61	436.935	16.80	16.8	90	?
23	23	22-Dichloropropan	5.92	5.89	0.004	77	97	456.844	15.42	15.4	97	?
24	24	Br-Cl-methane	6.25	6.23	0.003	128	130	215.148	17.06	17.1	93	
25	25	chloroform	6.37	6.35	0.003	83	85	741.683	16.23	16.2	99	
26	26	tetrahydrofuranX5	6.34	6.32	0.002	42	72	317.711	101.28	101.3	84	
98	98	Diisopropyl ether	5.24	5.22	0.003	45	87	1387.177	21.76	21.8	89	
99	99	ETBE	5.74	5.72	0.003	59	87	879.689	18.05	18.1	91	
30	30	12-dichloroethane	7.22	7.20	0.002	64	62	146.461	19.69	19.7	97	?
32	32	vinyl acetate X5	5.19	5.17	0.003	43	86	3463.521	116.23	116.2	93	
92	92	Nitro Methane(x10	5.81	5.80	0.002	61	46	95.786	180.59	180.6	50	#
33	33	2-butanoneMEK X10	5.94	5.92	0.003	43	72	956.754	192.46	192.5	86	?
93	93	Ethyl Acetate x2	6.04	6.02	0.002	43	61	465.630	39.33	39.3	97	
34	34	111-trichloroetha	6.65	6.63	0.002	97	99	629.233	16.35	16.4	100	
35	35	11-Di-Cl-propene	6.90	6.88	0.002	75	110	484.228	16.65	16.7	89	?
36	36	benzene	7.21	7.19	0.003	78	52	1581.767	16.32	16.3	90	?
37	37	CCl4	6.91	6.89	0.002	117	119	555.550	15.66	15.7	98	?
100	100	Isobutyl alcohol	7.41	7.39	0.002	43	42	247.109	629.22	629.2	82	#?
38	38	thiophene	7.53	7.51	0.002	84	58	868.274	18.02	18.0	92	
39	39	12-di-Cl-propane	8.56	8.54	0.002	63	76	370.946	17.10	17.1	99	
40	40	trichloroethene	8.24	8.23	0.002	130	132	501.517	16.60	16.6	90	
41	41	dibromomethane	8.73	8.71	0.002	174	172	247.759	18.01	18.0	99	
101	101	TAME	7.41	7.39	0.002	73	43	716.981	16.97	17.0	89	#?
42	42	Br-di-Cl-methane	8.96	8.95	0.002	83	85	546.104	17.46	17.5	99	
43	43	Me-methacrylate	8.76	8.75	0.000	69	100	188.318	19.26	19.3	88	
44	44	2-ClEt-Vi-ether10	9.38	9.37	0.000	63	43	591.932	313.58	313.6	85	
45	45	c-13-di-Cl-propen	9.56	9.55	0.002	75	110	608.486	19.30	19.3	91	
46	46	t-1,3-dichloropro	10.25	10.24	0.000	75	110	505.285	20.16	20.2	93	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1693

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0020.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 11:22 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:40 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
<<< I2 : ISTD ID = 47 >>>												
48	48	112-tri-Cl-Et	10.45	10.45	0.000	97	83	308.164	17.45	17.4	96	
49	49	13-di-Cl-propane	10.65	10.64	0.000	76	78	479.955	17.23	17.2	99	?
50	50	Et methacrylate	10.38	10.37	0.000	69	99	404.574	20.25	20.2	91	
51	51	di-Br-Cl-methane	10.91	10.90	0.000	129	127	430.191	18.11	18.1	99	
52	52	bromoform	12.41	12.41	0.000	173	174	257.402	18.99	19.0	100	
53	53	1,4-dichlorobutan	12.67	12.67	0.000	55	41	530.472	20.46	20.5	97	
54	54	MIBK	9.77	9.76	0.000	43	58	244.409	22.93	22.9	97	
56	56	toluene	9.99	9.98	0.000	91	92	1867.212	17.62	17.6	99	
57	57	2-hexanone X5	10.76	10.75	0.000	43	58	806.303	111.46	111.5	96	
58	58	12-dibromoethane	11.03	11.03	0.000	107	109	322.735	18.52	18.5	93	
59	59	tetra-Cl-ethene	10.64	10.64	0.000	166	168	498.130	15.73	15.7	97	?
60	60	chlorobenzene	11.58	11.57	0.000	112	77	1307.160	17.31	17.3	92	?
61	61	1112-tetra-Cl-Et	11.66	11.66	0.000	131	133	487.380	18.07	18.1	99	
<<< I3 : ISTD ID = 62 >>>												
63	63	1-chlorohexane	11.56	11.56	0.000	93	55	181.129	12.82	12.8	74	#?
64	64	Et-Bz	11.70	11.69	0.000	91	106	2162.672	15.95	16.0	95	
65	65	m/p-Xylenes X2	11.82	11.82	0.000	91	106	3322.945	32.42	32.4	97	
66	66	styrene	12.24	12.23	0.000	104	78	1448.349	18.59	18.6	95	?
67	67	o-xylene	12.22	12.22	0.000	91	106	1715.323	16.68	16.7	97	?
68	68	1122-Tetra-Cl-Et	12.87	12.87	0.000	83	85	333.638	14.58	14.6	99	
69	69	123-tri-Cl-Pr	12.91	12.91	0.000	110	97	111.098	16.21	16.2	97	?
71	71	isopropylbenzene	12.60	12.59	0.000	105	120	2257.352	17.14	17.1	99	
72	72	bromobenzene	12.89	12.89	0.000	156	158	577.972	16.34	16.3	99	?
92	92	t-1,4-dichloro-2-	12.92	12.92	0.000	89	53	58.909	17.70	17.7	85	?
73	73	n-propylbenzene	13.00	12.99	0.000	120	78	656.540	15.91	15.9	94	
74	74	2-Cl-Toluene	13.08	13.08	0.000	126	128	558.317	15.31	15.3	100	
75	75	4-Cl-Toluene	13.19	13.18	0.000	126	128	566.381	15.27	15.3	99	?
76	76	135-tri-Me-Benzen	13.16	13.16	0.000	105	120	2008.540	17.71	17.7	96	?
77	77	4-iso-Pr-toluene	13.81	13.81	0.000	119	134	2111.126	16.67	16.7	98	?
78	78	124-tri-Me-Benzen	13.51	13.51	0.000	105	120	2103.275	17.81	17.8	97	
79	79	tert-butylbenzene	13.47	13.47	0.000	119	91	1736.357	16.03	16.0	97	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1694

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0020.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 11:22 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:40 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-DCB	13.79	13.78	0.000	146	148	1176.380	15.82	15.8	97	?
81	81	sec-butylbenzene	13.68	13.68	0.000	105	134	2530.666	16.61	16.6	98	
82	82	14-DCB	13.87	13.87	0.000	146	148	1184.125	15.62	15.6	96	
83	83	Cl-benzyl	13.98	13.98	0.000	126	91	106.539	14.86	14.9	84	#
84	84	12-DCB	14.21	14.21	0.000	146	148	1055.514	15.94	15.9	97	?
85	85	n-butylbenzene	14.18	14.18	0.000	134	91	567.085	16.79	16.8	82	#?
86	86	12-diBr-2-Cl-Pra	14.88	14.88	0.000	157	155	83.208	17.84	17.8	98	
87	87	124-tri-Cl-Bz	15.58	15.58	0.000	180	182	702.123	16.37	16.4	99	
88	88	naphthalene	15.78	15.78	0.000	128	129	1159.824	14.90	14.9	99	
89	89	hx-Cl-butadiene	15.72	15.72	0.000	225	258	360.400	13.88	13.9	98	
90	90	123-Tri-Cl-Bz	15.98	15.98	0.000	180	182	600.915	15.62	15.6	97	

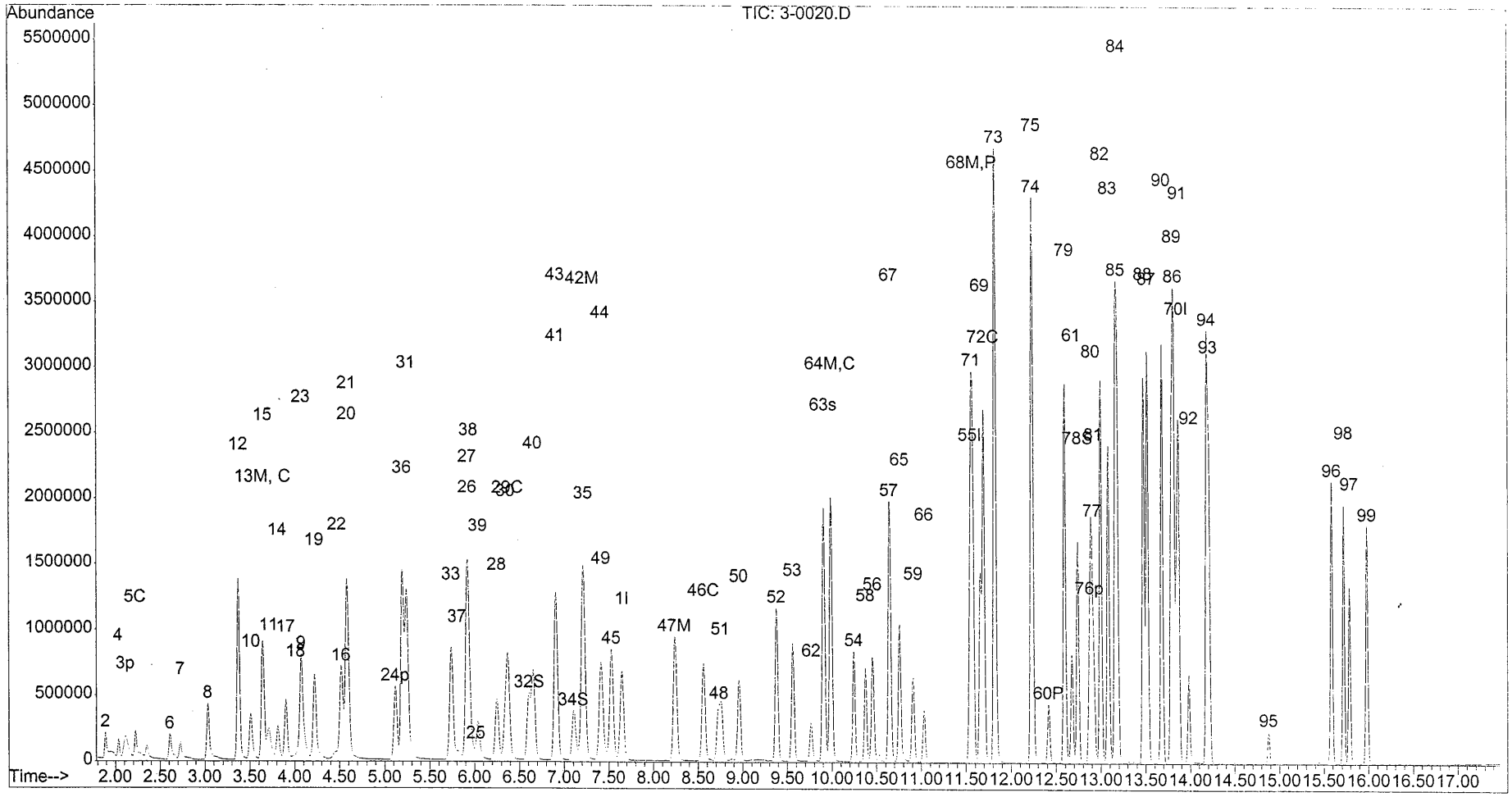
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1695

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0020.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 11:22 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:40 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1696

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0040.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 11:47 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:43 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	7.65	7.63	0.003	96	70	907.151	10.00		0.02	
47	47	Chlorobezene-d5	11.54	11.54	0.000	117	82	659.336	10.00		0.00	
62	62	1,4-Dichlorobenze	13.85	13.84	0.000	152	150	398.842	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	6.60	6.58	0.002	111	113	880.145	38.93	38.9	194.66%	
29	29	1,2-Di-Cl-Et-d4 (	7.11	7.08	0.002	65	102	801.084	43.75	43.8	218.76%	
55	55	toluene-d8	9.91	9.89	0.000	98	100	3175.057	38.21	38.2	191.05%	
70	70	4-Br-1-F-Bz (S3)	12.75	12.74	0.000	174	95	1114.624	33.79	33.8	168.94%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	1.89	1.85	0.005	85	87	731.076	32.10	32.1	99	m
4	4	Chloromethane	2.11	2.07	0.006	50	52	739.859	34.67	34.7	99	m
2	2	F114	2.03	2.00	0.005	85	135	367.886	30.90	30.9	51	m
5	5	vinyl chloride	2.23	2.19	0.005	62	64	640.709	29.14	29.1	99	
6	6	bromomethane	2.61	2.58	0.005	94	96	383.891	36.34	36.3	98	
7	7	chloroethane	2.73	2.70	0.004	64	66	376.464	28.76	28.8	0	m
8	8	tri-Cl-F-methane	3.04	3.00	0.006	101	103	1030.751	31.64	31.6	98	
91	91	Acetonitrile X10	4.07	4.04	0.004	41	40	1713.507	430.55	430.5	92	?
9	9	acrolein X10	3.52	3.48	0.006	56	55	807.796	322.86	322.9	0	m
11	11	acetone X10	3.74	3.69	0.006	43	58	1267.205	327.75	327.8	0	m
12	12	ethyl ether X5	3.37	3.34	0.005	59	74	1704.647	147.96	148.0	74	#
13	13	11-dichloroethene	3.64	3.60	0.005	61	96	877.445	33.74	33.7	80	?
14	14	Iodomethane	3.82	3.78	0.005	142	127	751.141	32.68	32.7	94	
15	15	F-113	3.65	3.62	0.005	101	151	516.639	25.27	25.3	91	?
16	16	acrylonitrile X10	4.53	4.49	0.005	53	52	1709.905	421.65	421.6	93	
17	17	carbon disulfide	3.90	3.87	0.004	76	78	1671.671	25.29	25.3	98	
94	94	Isopropyl Alcohol	4.16	4.01	0.020	45	43	240.070	345.94	345.9	100	m
18	18	methylene chlorid	4.22	4.19	0.005	84	49	804.880	19.01	19.0	77	#
19	19	t-12-di-Cl-ethene	4.58	4.55	0.004	96	61	774.111	31.59	31.6	88	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

10/27/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1697

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0040.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 11:47 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:43 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
20	20 t-Bu-Me-ether	4.60	4.56	0.005	73	57	1592.599	39.05	39.0	94	?
95	95 Tert butyl alcoho	4.58	4.47	0.014	59	57	452.680	417.24	417.2	100	m?
94	94 allyl chloride	4.07	4.04	0.004	41	76	1724.483	48.32	48.3	72	#? 10/27/03
21	21 11-dichloroethane	5.12	5.09	0.004	63	83	1398.310	35.56	35.6	99	
97	97 propionitrile	6.03	5.99	0.004	54	51	62.391	41.00	41.0	100	#?
22	22 c-12-di-Cl-ethene	5.92	5.89	0.003	96	61	845.644	34.23	34.2	94	?
23	23 22-Dichloropropan	5.92	5.89	0.004	77	97	979.998	34.83	34.8	100	?
24	24 Br-Cl-methane	6.25	6.23	0.003	128	130	438.926	36.64	36.6	96	
25	25 chloroform	6.38	6.35	0.003	83	85	1492.648	34.39	34.4	99	
26	26 tetrahydrofuranX5	6.35	6.32	0.003	42	72	726.346	243.80	243.8	81	
98	98 Diisopropyl ether	5.24	5.22	0.003	45	87	2723.439	44.98	45.0	88	
99	99 ETBE	5.74	5.72	0.003	59	87	1934.215	41.79	41.8	90	
30	30 12-dichloroethane	7.22	7.20	0.003	64	62	303.955	43.02	43.0	92	?
32	32 vinyl acetate X5	5.20	5.17	0.004	43	86	7301.957	257.99	258.0	91	
92	92 Nitro Methane(x10	5.84	5.80	0.006	61	46	134.103	266.20	266.2	67	#
33	33 2-butanoneMEK X10	5.95	5.92	0.004	43	72	2014.463	426.65	426.7	85	
93	93 Ethyl Acetate x2	6.04	6.02	0.003	43	61	1199.719	106.69	106.7	99	?
34	34 111-trichloroetha	6.65	6.63	0.002	97	99	1352.461	37.01	37.0	99	
35	35 11-Di-Cl-propene	6.90	6.88	0.002	75	110	1020.849	36.97	37.0	92	?
36	36 benzene	7.21	7.19	0.003	78	52	3067.808	33.32	33.3	92	?
37	37 CCl4	6.91	6.89	0.003	117	119	1228.562	36.46	36.5	99	?
100	100 Isobutyl alcohol	7.41	7.39	0.002	43	42	552.842	1482.14	1482.1	86	#?
38	38 thiophene	7.53	7.51	0.003	84	58	1718.044	37.54	37.5	92	
39	39 12-di-Cl-propane	8.56	8.54	0.002	63	76	752.605	36.53	36.5	96	
40	40 trichloroethene	8.24	8.23	0.002	130	132	1020.048	35.54	35.5	90	
41	41 dibromomethane	8.73	8.71	0.002	174	172	508.912	38.94	38.9	100	
101	101 TAME	7.41	7.39	0.002	73	43	1622.049	40.42	40.4	89	#?
42	42 Br-di-Cl-methane	8.96	8.95	0.002	83	85	1129.675	38.03	38.0	100	
43	43 Me-methacrylate	8.76	8.75	0.002	69	100	435.160	46.87	46.9	88	
44	44 2-ClEt-Vi-ether10	9.38	9.37	0.002	63	43	1294.105	721.80	721.8	82	
45	45 c-13-di-Cl-propen	9.56	9.55	0.002	75	110	1252.896	41.84	41.8	91	
46	46 t-1,3-dichloropro	10.25	10.24	0.000	75	110	1067.475	44.83	44.8	93	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1698

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0040.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 11:47 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:43 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
<<< I2 : ISTD ID = 47 >>>												
48	48	112-tri-Cl-Et	10.46	10.45	0.000	97	83	644.393	40.50	40.5	94	
49	49	13-di-Cl-propane	10.65	10.64	0.001	76	78	958.048	38.17	38.2	100	?
50	50	Et methacrylate	10.37	10.37	0.000	69	99	897.662	49.86	49.9	91	
51	51	di-Br-Cl-methane	10.91	10.90	0.000	129	127	895.491	41.85	41.8	99	
52	52	bromoform	12.42	12.41	0.000	173	174	537.161	43.98	44.0	100	
53	53	1,4-dichlorobutan	12.67	12.67	0.000	55	41	1118.631	47.88	47.9	96	
54	54	MIBK	9.77	9.76	0.000	43	58	567.049	59.05	59.1	97	
56	56	toluene	9.99	9.98	0.001	91	92	3679.239	38.53	38.5	100	
57	57	2-hexanone X5	10.76	10.75	0.000	43	58	1789.801	274.61	274.6	92	
58	58	12-dibromoethane	11.03	11.03	0.000	107	109	683.020	43.51	43.5	98	
59	59	tetra-Cl-ethene	10.65	10.64	0.001	166	168	1001.817	35.11	35.1	98	?
60	60	chlorobenzene	11.58	11.57	0.000	112	77	2492.370	36.63	36.6	93	?
61	61	1112-tetra-Cl-Et	11.66	11.66	0.000	131	133	969.491	39.89	39.9	97	
<<< I3 : ISTD ID = 62 >>>												
63	63	1-chlorohexane	11.56	11.56	0.000	93	55	379.300	29.16	29.2	63	#?
64	64	Et-Bz	11.70	11.69	0.000	91	106	4307.205	34.51	34.5	97	
65	65	m/p-Xylenes X2	11.82	11.82	0.000	91	106	6407.191	67.91	67.9	98	
66	66	styrene	12.24	12.23	0.000	104	78	2712.603	37.82	37.8	99	?
67	67	o-xylene	12.22	12.22	0.000	91	106	3289.680	34.76	34.8	100	?
68	68	1122-Tetra-Cl-Et	12.87	12.87	0.000	83	85	679.431	32.25	32.2	98	
69	69	123-tri-Cl-Pr	12.91	12.91	0.000	110	97	231.129	36.65	36.6	92	?
71	71	isopropylbenzene	12.60	12.59	0.000	105	120	4576.796	37.74	37.7	96	
72	72	bromobenzene	12.89	12.89	0.000	156	158	1123.002	34.48	34.5	98	?
92	92	t-1,4-dichloro-2-	12.92	12.92	0.000	89	53	138.278	45.13	45.1	84	#?
73	73	n-propylbenzene	13.00	12.99	0.000	120	78	1290.074	33.97	34.0	96	
74	74	2-Cl-Toluene	13.08	13.08	0.000	126	128	1084.812	32.32	32.3	98	
75	75	4-Cl-Toluene	13.19	13.18	0.000	126	128	1062.470	31.12	31.1	99	?
76	76	135-tri-Me-Benzen	13.16	13.16	0.000	105	120	3906.361	37.42	37.4	94	?
77	77	4-iso-Pr-toluene	13.81	13.81	0.000	119	134	4215.398	36.16	36.2	99	?
78	78	124-tri-Me-Benzen	13.52	13.51	0.000	105	120	4147.713	38.15	38.2	94	
79	79	tert-butylbenzene	13.48	13.47	0.000	119	91	3598.467	36.10	36.1	96	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1699

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0040.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 11:47 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:43 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-DCB	13.79	13.78	0.000	146	148	2227.519	32.53	32.5	98	?
81	81	sec-butylbenzene	13.68	13.68	0.000	105	134	5231.475	37.29	37.3	100	
82	82	14-DCB	13.87	13.87	0.000	146	148	2334.471	33.46	33.5	96	
83	83	Cl-benzyl	13.98	13.98	0.000	126	91	268.318	40.67	40.7	84	#
84	84	12-DCB	14.21	14.21	0.000	146	148	2046.326	33.56	33.6	99	?
85	85	n-butylbenzene	14.18	14.18	0.000	134	91	1127.859	36.28	36.3	87	#?
86	86	12-diBr-2-Cl-Pra	14.88	14.88	0.000	157	155	177.685	41.39	41.4	99	
87	87	124-tri-Cl-Bz	15.58	15.58	0.000	180	182	1402.301	35.52	35.5	100	
88	88	naphthalene	15.78	15.78	0.000	128	129	2506.296	34.99	35.0	99	
89	89	hx-Cl-butadiene	15.72	15.72	0.000	225	258	746.186	31.22	31.2	97	
90	90	123-Tri-Cl-Bz	15.98	15.98	0.000	180	182	1229.181	34.70	34.7	97	

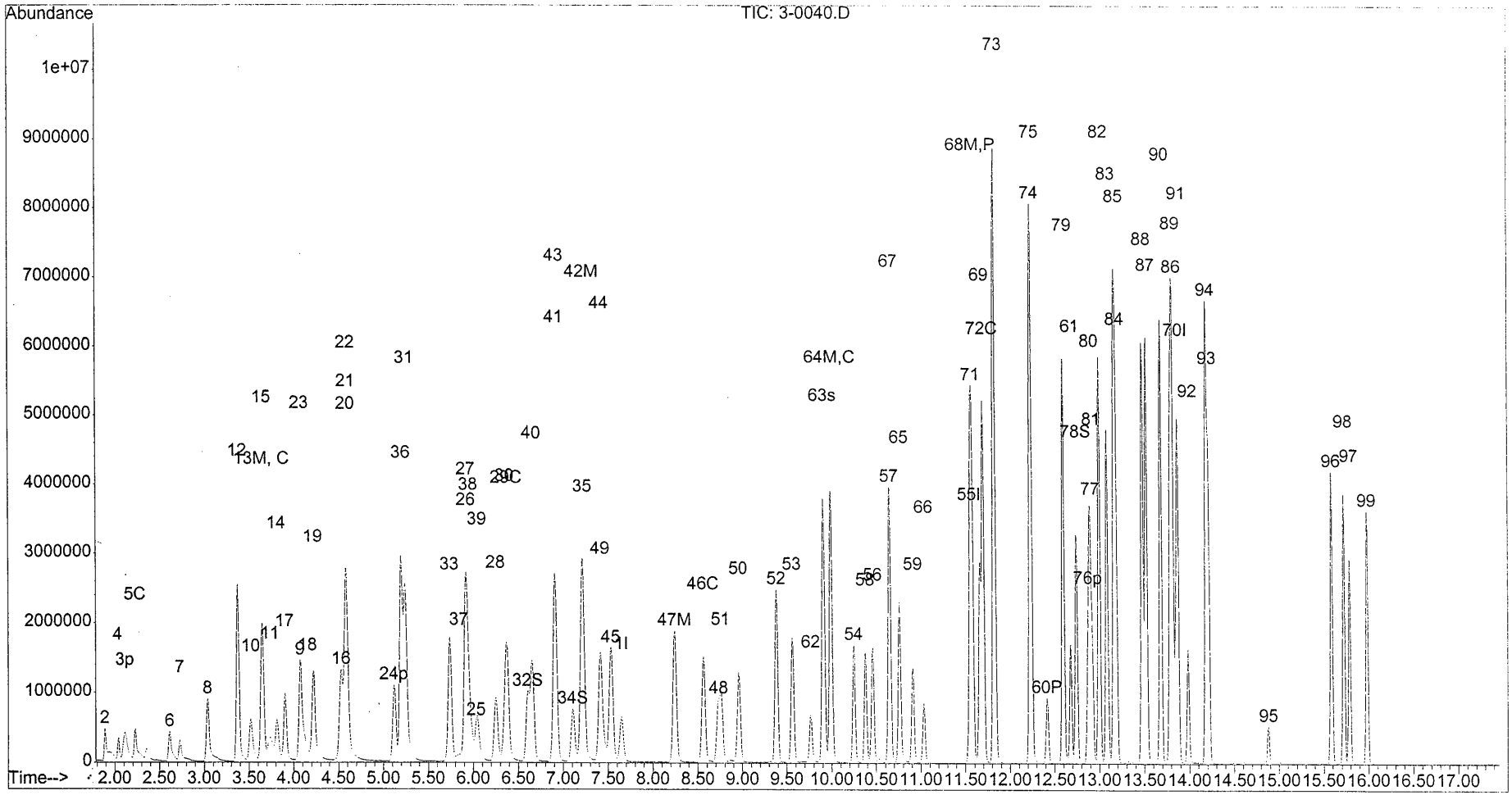
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1700

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0040.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 11:47 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:43 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1701

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0060.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 12:14 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:45 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	7.65	7.63	0.003	96	70	1006.211	10.00		0.02	
47	47	Chlorobezene-d5	11.54	11.54	0.000	117	82	705.610	10.00		0.00	
62	62	1,4-Dichlorobenze	13.85	13.84	0.000	152	150	428.493	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	6.60	6.58	0.002	111	113	1314.263	52.41	52.4	262.06%	
29	29	1,2-Di-Cl-Et-d4 (	7.11	7.08	0.002	65	102	1206.050	59.38	59.4	296.92%	
55	55	toluene-d8	9.91	9.89	0.000	98	100	4699.033	52.84	52.8	264.21%	
70	70	4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	1638.683	46.24	46.2	231.18%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	1.89	1.85	0.005	85	87	1099.511	43.53	43.5	100	m
4	4	Chloromethane	2.11	2.07	0.005	50	52	1132.557	54.69	54.7	98	m
2	2	F114	2.03	2.00	0.005	85	135	551.592	41.76	41.8	32	m
5	5	vinyl chloride	2.22	2.19	0.004	62	64	982.033	40.26	40.3	99	
6	6	bromomethane	2.61	2.58	0.005	94	96	601.141	51.30	51.3	98	
7	7	chloroethane	2.73	2.70	0.004	64	66	536.590	36.96	37.0	0	m
8	8	tri-Cl-F-methane	3.03	3.00	0.005	101	103	1532.166	42.41	42.4	99	
91	91	Acetonitrile X10	4.07	4.04	0.004	41	40	2428.244	550.07	550.1	95	?
9	9	acrolein X10	3.51	3.48	0.005	56	55	1232.252	535.84	535.8	100	
11	11	acetone X10	3.72	3.69	0.004	43	58	1816.586	837.75	837.8	0	m
12	12	ethyl ether X5	3.37	3.34	0.004	59	74	2654.028	257.12	257.1	77	#
13	13	11-dichloroethene	3.64	3.60	0.005	61	96	1367.991	47.43	47.4	0	m?
14	14	Iodomethane	3.81	3.78	0.004	142	127	1123.042	44.04	44.0	95	
15	15	F-113	3.65	3.62	0.005	101	151	784.890	40.46	40.5	86	?
16	16	acrylonitrile X10	4.52	4.49	0.004	53	52	2532.493	563.01	563.0	97	
17	17	carbon disulfide	3.90	3.87	0.004	76	78	2561.651	34.93	34.9	100	
94	94	Isopropyl Alcohol	4.05	4.01	0.006	45	43	128.634	203.26	203.3	100	#?
18	18	methylene chlorid	4.22	4.19	0.004	84	49	1192.483	48.64	48.6	74	#
19	19	t-12-di-Cl-ethene	4.58	4.55	0.004	96	61	1126.298	41.44	41.4	84	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1702

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0060.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 12:14 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:45 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
20	20 t-Bu-Me-ether	4.59	4.56	0.004	73	57	2437.498	53.88	53.9	92	?
95	95 Tert butyl alcoho	4.48	4.47	0.002	59	57	251.872	209.71	209.7	100	#
94	94 allyl chloride	4.07	4.04	0.004	41	76	2428.244	61.34	61.3	72	#?
21	21 11-dichloroethane	5.12	5.09	0.004	63	83	2101.878	48.19	48.2	100	
97	97 propionitrile	6.01	5.99	0.002	54	51	109.975	65.15	65.2	100	#?
22	22 c-12-di-Cl-ethene	5.92	5.89	0.003	96	61	1210.430	44.17	44.2	93	?
23	23 22-Dichloropropan	5.92	5.89	0.003	77	97	1513.030	56.27	56.3	98	?
24	24 Br-Cl-methane	6.25	6.23	0.003	128	130	655.419	49.32	49.3	97	
25	25 chloroform	6.37	6.35	0.002	83	85	2229.387	54.70	54.7	99	
26	26 tetrahydrofuranX5	6.34	6.32	0.002	42	72	1114.014	337.11	337.1	81	
98	98 Diisopropyl ether	5.24	5.22	0.003	45	87	4088.155	60.87	60.9	87	#
99	99 ETBE	5.74	5.72	0.003	59	87	2984.281	58.13	58.1	90	
30	30 12-dichloroethane	7.22	7.20	0.003	64	62	463.659	65.98	66.0	99	?
32	32 vinyl acetate X5	5.20	5.17	0.004	43	86	11062.661	352.38	352.4	90	
92	92 Nitro Methane(x10	5.82	5.80	0.002	61	46	298.076	533.44	533.4	95	
33	33 2-butanoneMEK X10	5.95	5.92	0.003	43	72	3034.414	734.41	734.4	85	
93	93 Ethyl Acetate x2	6.04	6.02	0.002	43	61	1687.653	154.04	154.0	98	?
34	34 111-trichloroetha	6.65	6.63	0.002	97	99	2070.811	51.08	51.1	98	
35	35 11-Di-Cl-propene	6.91	6.88	0.003	75	110	1516.179	49.50	49.5	88	?
36	36 benzene	7.21	7.19	0.003	78	52	4519.766	44.25	44.3	90	?
37	37 CCl4	6.91	6.89	0.003	117	119	1842.053	49.28	49.3	99	?
100	100 Isobutyl alcohol	7.41	7.39	0.002	43	42	880.424	1806.00	1806.0	99	?
38	38 thiophene	7.53	7.51	0.003	84	58	2554.816	50.32	50.3	93	
39	39 12-di-Cl-propane	8.56	8.54	0.002	63	76	1124.998	49.23	49.2	97	
40	40 trichloroethene	8.24	8.23	0.002	130	132	1520.360	47.76	47.8	92	
41	41 dibromomethane	8.73	8.71	0.002	174	172	747.601	51.57	51.6	99	
101	101 TAME	7.41	7.39	0.002	73	43	2525.816	56.74	56.7	88	#?
42	42 Br-di-Cl-methane	8.96	8.95	0.002	83	85	1703.118	57.00	57.0	99	
43	43 Me-methacrylate	8.76	8.75	0.002	69	100	662.734	54.98	55.0	88	
44	44 2-ClEt-Vi-ether10	9.38	9.37	0.002	63	43	1950.851	684.59	684.6	82	
45	45 c-13-di-Cl-propen	9.56	9.55	0.002	75	110	1891.415	56.95	57.0	94	
46	46 t-1,3-dichloropro	10.25	10.24	0.000	75	110	1638.452	62.04	62.0	94	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1703

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-006U.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 12:14 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:45 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
<<< I2 : ISTD ID = 47 >>>												
48	48	112-tri-Cl-Et	10.46	10.45	0.000	97	83	936.372	54.99	55.0	95	
49	49	13-di-Cl-propane	10.65	10.64	0.001	76	78	1392.110	51.83	51.8	100	?
50	50	Et methacrylate	10.38	10.37	0.000	69	99	1374.874	61.96	62.0	92	
51	51	di-Br-Cl-methane	10.91	10.90	0.000	129	127	1332.246	61.52	61.5	99	
52	52	bromoform	12.41	12.41	0.000	173	174	813.031	62.20	62.2	100	
53	53	1,4-dichlorobutan	12.68	12.67	0.000	55	41	1708.578	68.33	68.3	98	
54	54	MIBK	9.77	9.76	0.000	43	58	883.730	86.00	86.0	98	
56	56	toluene	9.99	9.98	0.001	91	92	5453.434	53.36	53.4	99	
57	57	2-hexanone X5	10.76	10.75	0.000	43	58	2714.840	389.23	389.2	91	
58	58	12-dibromoethane	11.03	11.03	0.000	107	109	1029.927	61.31	61.3	98	
59	59	tetra-Cl-ethene	10.64	10.64	0.000	166	168	1436.032	47.03	47.0	97	?
60	60	chlorobenzene	11.58	11.57	0.000	112	77	3536.493	53.79	53.8	95	?
61	61	1112-tetra-Cl-Et	11.66	11.66	0.000	131	133	1437.439	55.27	55.3	95	
<<< I3 : ISTD ID = 62 >>>												
63	63	1-chlorohexane	11.56	11.56	0.000	93	55	546.400	39.10	39.1	57	#?
64	64	Et-Bz	11.70	11.69	0.000	91	106	6378.701	47.58	47.6	98	
65	65	m/p-Xylenes X2	11.82	11.82	0.000	91	106	9314.343	91.90	91.9	94	
66	66	styrene	12.24	12.23	0.000	104	78	3842.415	49.86	49.9	98	?
67	67	o-xylene	12.22	12.22	0.000	91	106	4761.198	46.82	46.8	98	?
68	68	1122-Tetra-Cl-Et	12.87	12.87	0.000	83	85	1005.365	44.41	44.4	99	
69	69	123-tri-Cl-Pr	12.91	12.91	0.000	110	97	345.542	51.00	51.0	95	?
71	71	isopropylbenzene	12.60	12.59	0.000	105	120	6821.750	52.36	52.4	95	
72	72	bromobenzene	12.89	12.89	0.000	156	158	1610.222	46.02	46.0	100	?
92	92	t-1,4-dichloro-2-	12.92	12.92	0.000	89	53	214.154	53.26	53.3	84	#?
73	73	n-propylbenzene	13.00	12.99	0.000	120	78	1877.926	46.02	46.0	95	
74	74	2-Cl-Toluene	13.08	13.08	0.000	126	128	1601.091	44.40	44.4	98	
75	75	4-Cl-Toluene	13.19	13.18	0.000	126	128	1497.703	40.83	40.8	99	?
76	76	135-tri-Me-Benzen	13.16	13.16	0.000	105	120	5670.674	50.56	50.6	91	?
77	77	4-iso-Pr-toluene	13.81	13.81	0.000	119	134	6174.914	49.30	49.3	97	?
78	78	124-tri-Me-Benzen	13.52	13.51	0.000	105	120	6124.395	52.44	52.4	93	
79	79	tert-butylbenzene	13.48	13.47	0.000	119	91	5289.165	49.39	49.4	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1704

Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0060.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 12:14 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:45 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-DCB	13.79	13.78	0.000	146	148	3166.301	43.04	43.0	97	?
81	81	sec-butylbenzene	13.68	13.68	0.000	105	134	7732.088	51.30	51.3	99	
82	82	14-DCB	13.87	13.87	0.000	146	148	3417.867	48.86	48.9	95	
83	83	Cl-benzyl	13.98	13.98	0.000	126	91	431.461	60.87	60.9	98	
84	84	12-DCB	14.21	14.21	0.000	146	148	2953.834	45.10	45.1	97	?
85	85	n-butylbenzene	14.18	14.18	0.000	134	91	1596.385	43.23	43.2	93	?
86	86	12-diBr-2-Cl-Pra	14.88	14.88	0.000	157	155	276.212	59.89	59.9	99	
87	87	124-tri-Cl-Bz	15.58	15.58	0.000	180	182	2085.639	49.18	49.2	96	
88	88	naphthalene	15.78	15.78	0.000	128	129	3927.146	51.03	51.0	99	
89	89	hx-Cl-butadiene	15.72	15.72	0.000	225	258	1096.494	42.70	42.7	100	
90	90	123-Tri-Cl-Bz	15.98	15.98	0.000	180	182	1798.500	47.26	47.3	99	

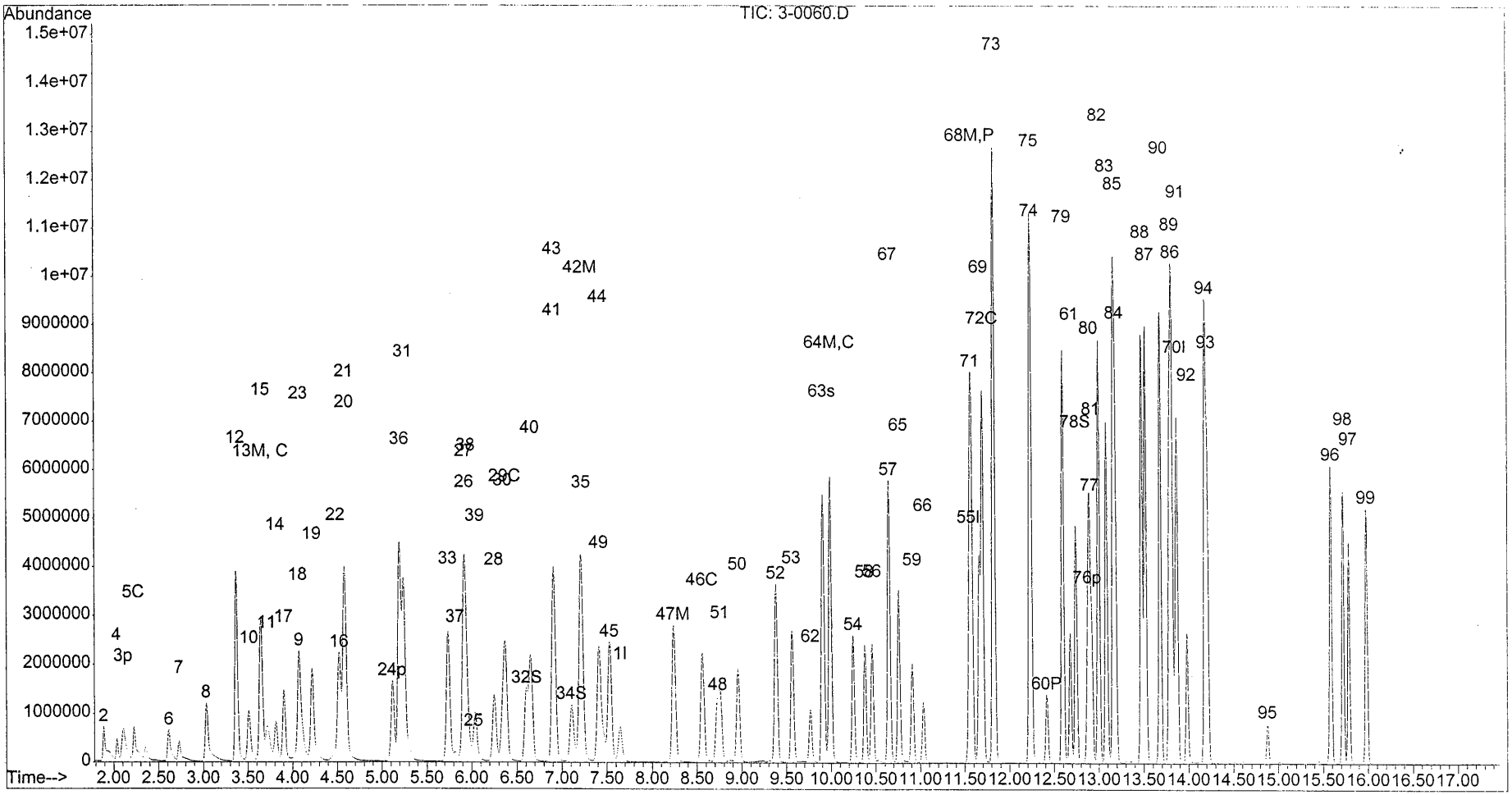
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1705

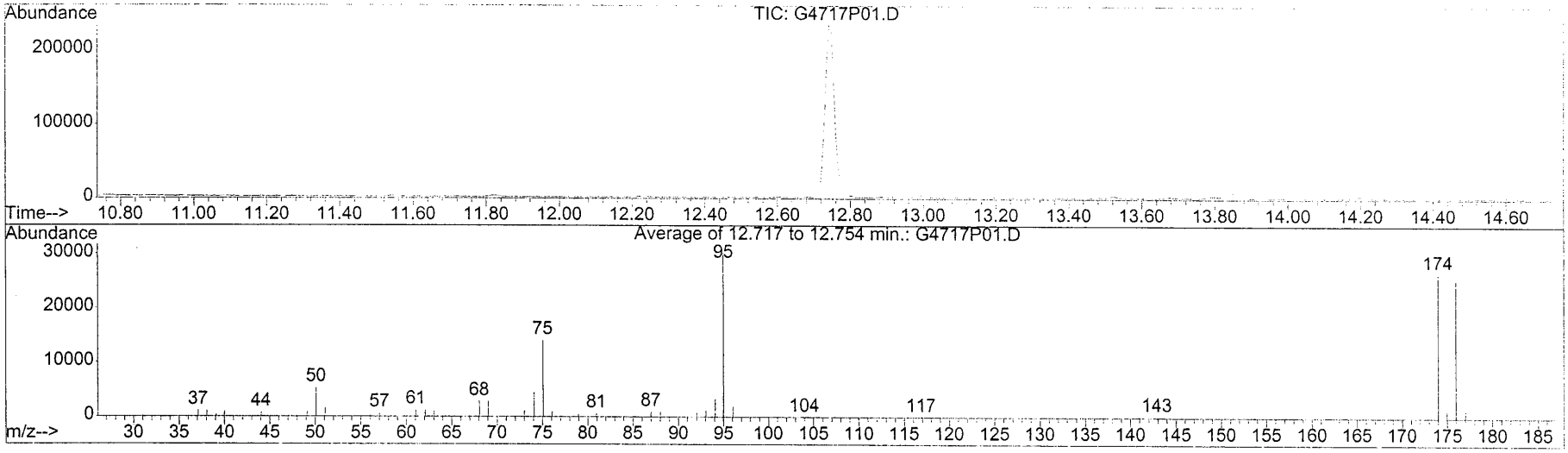
Data Filename: C:\MSDCHEM\1\DATA\03G4612\3-0060.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Oct 21 12:14 2003
Method Update: Mon Oct 27 13:48 2003
Quant. Time : Oct 27 13:45 2003
Print Time : Mon Oct 27 13:50 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



BFB

Data File : C:\MSDCHEM\1\DATA\03G4717\G4717P01.D Vial: 1
Acq On : 6 Nov 2003 10:02 am Operator: zou
Sample : ##03g4717, w 50 ng Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: Lscint.p
Method : C:\MSDCHEM\1\METHODS\E524A003.M (RTE Integrator)
Title : **Applied P &Ch Lab** EPA 524.2



Spectrum Information: Average of 12.717 to 12.754 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	5373	PASS
75	95	30	60	46.6	14115	PASS
95	95	100	100	100.0	30317	PASS
96	95	5	9	6.7	2038	PASS
173	174	0.00	2	0.5	124	PASS
174	95	50	100	88.2	26740	PASS
175	174	5	9	7.7	2050	PASS
176	174	95	101	96.2	25730	PASS
177	176	5	9	6.2	1595	PASS

G4717P01.D E524A003.M Thu Nov 06 17:48:26 2003

FORM-5A

Applied P & Ch Laboratory

Volatile Organic Instrument Performance Check for Method 524.2

Bromofluorobenzene (BFB), Part II

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	035951
Project ID:	JPL	BFB Inj. Date:	11/06/03	Batch No:	03G4717
		BFB Inj. Time:	10:02	Sequence No:	03G4717
Project No:	04-4428.10	Instrument ID:	A	GC Column:	HP-VOC
Data File Name:	G4717P01	Heated Purge: (Y/N)	N	Column ID:	0.20 mm

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	03G4717-CCV-01	03G4717-CCV-01	G4717Q01	11/06/03	10:27
2	03G4717-LCS-01	03G4717-LCS-01	G4717L01	11/06/03	10:53
3	MW-3-1MS	03-5973-2MS	G4717M01	11/06/03	11:19
4	MW-3-1MSD	03-5973-2MSD	G4717N01	11/06/03	11:44
5	03G4717-MB-01	03G4717-MB-01	G4717K01	11/06/03	13:54
6	TB-9-11-4-03	03-5951-13	5951-13	11/06/03	14:20
7	DUPE-5-4-Q03	03-5951-1	5951-01	11/06/03	16:30
8	EB-9-11-4-03	03-5951-2	5951-02	11/06/03	16:57
9	MW-14-1	03-5951-3	5951-03	11/06/03	17:23
10	MW-14-2	03-5951-4	5951-04	11/06/03	17:49
11	MW-14-3	03-5951-5	5951-05	11/06/03	18:15
12	MW-14-4	03-5951-6	5951-06	11/06/03	18:41
13	MW-14-5	03-5951-7	5951-07	11/06/03	19:07
14	MW-17-1	03-5951-8	5951-08	11/06/03	19:33
15	MW-17-2	03-5951-9	5951-09	11/06/03	19:59
16	MW-17-3	03-5951-10	5951-10	11/06/03	20:25
17	MW-17-4	03-5951-11	5951-11	11/06/03	20:51
18	MW-17-5	03-5951-12	5951-12	11/06/03	21:17
19					
20					
21					
22					
23					
24					
25					

Continuing Calibration Concentration Summary

Data File G4717Q01
Method File E524A003

Compound Name	Amount	Actual	Units	%Dev	Target Response
1 Fluorobenzene	10	10.00	ppb	0.00	650919
3 di-Cl-di-F-methane	20	18.22	ppb	8.88	238592
4 Chloromethane	20	13.80	ppb	30.98	179442
2 F114	20	20.05	ppb	0.27	123464
5 vinyl chloride	20	17.07	ppb	14.66	189466
6 bromomethane	20	11.10	ppb	44.52	69956
7 chloroethane	20	17.89	ppb	10.54	106954
8 tri-Cl-F-methane	20	22.97	ppb	14.84	421501
91 Acetonitrile X10	200	164.55	ppb	17.72	461496
9 acrolein X10	200	164.28	ppb	17.86	226269
11 acetone X10	200	241.05	ppb	20.52	501271
12 ethyl ether X5	100	88.59	ppb	11.41	547856
13 11-dichloroethene	20	20.53	ppb	2.64	317434
14 Iodomethane	20	12.52	ppb	37.42	158325
15 F-113	20	23.05	ppb	15.26	216223
16 acrylonitrile X10	200	157.84	ppb	21.08	440756
17 carbon disulfide	20	16.93	ppb	15.35	498576
94 Isopropyl Alcoholx10	200	265.70	ppb	32.85	35410
18 methylene chloride	20	17.33	ppb	13.37	240082
19 t-12-di-Cl-ethene	20	18.20	ppb	9.01	264471
20 t-Bu-Me-ether	20	19.39	ppb	3.05	495885
95 Tert butyl alcoholx10	200	319.44	ppb	59.72	136440
94 allyl chloride	20	12.76	ppb	36.19	366268
21 11-dichloroethane	20	18.11	ppb	9.43	436044
97 propionitrile	20	16.83	ppb	15.84	19315
22 c-12-di-Cl-ethene	20	17.76	ppb	11.21	269178
23 22-Dichloropropane	20	26.43	ppb	32.14	405964
24 Br-Cl-methane	20	17.74	ppb	11.32	135937
25 chloroform	20	18.79	ppb	6.03	508556
26 tetrahydrofuranX5	100	76.20	ppb	23.80	171834
98 Diisopropyl ether	20	17.49	ppb	12.54	808540
27 Di-Br-F-Me (surr)	20	19.14	ppb	4.30	292546
99 ETBE	20	20.53	ppb	2.65	598312
29 1,2-Di-Cl-Et-d4 (S1)	20	19.72	ppb	1.38	268507
30 12-dichloroethane	20	19.68	ppb	1.60	103834
32 vinyl acetate X5	100	93.02	ppb	6.98	2098034
92 Nitro Methane(x10)	200	76.72	ppb	61.64	58322
33 2-butanoneMEK X10	200	191.23	ppb	4.39	649430
93 Ethyl Acetate x2	40	31.52	ppb	21.20	265051
34 111-trichloroethane	20	22.51	ppb	12.57	512316
35 11-Di-Cl-propene	20	20.75	ppb	3.77	356458
36 benzene	20	17.70	ppb	11.52	974138
37 CCl4	20	24.14	ppb	20.69	505080

Compound Name	Amount	Actual	Units	%Dev	Target Response
100 Isobutyl alcoholx10	200	195.71	ppb	2.15	163588
38 thiophene	20	18.31	ppb	8.47	524615
39 12-di-Cl-propane	20	17.31	ppb	13.47	217989
40 trichloroethene	20	19.19	ppb	4.05	338447
41 dibromomethane	20	18.41	ppb	7.94	161333
101 TAME	20	18.08	ppb	9.61	483990
42 Br-di-Cl-methane	20	19.01	ppb	4.97	376858
43 Me-methacrylate	20	15.75	ppb	21.26	110408
44 2-ClEt-Vi-ether10	200	127.89	ppb	36.06	273681
45 c-13-di-Cl-propene	20	19.44	ppb	2.79	388349
46 t-1,3-dichloropropene	20	19.12	ppb	4.39	341152
47 Chlorobezene-d5	10	10.00	ppb	0.00	496725
48 112-tri-Cl-Et	20	17.71	ppb	11.45	194772
49 13-di-Cl-propane	20	17.89	ppb	10.53	301908
50 Et methacrylate	20	15.88	ppb	20.59	242544

Compound Name	Amount	Actual	Units	%Dev	Target Response
51 di-Br-Cl-methane	20	18.97	ppb	5.15	296008
52 bromoform	20	19.27	ppb	3.64	176864
53 1,4-dichlorobutane-2	20	17.76	ppb	11.22	330045
54 MIBK	20	14.24	ppb	28.78	135067
55 toluene-d8	20	18.89	ppb	5.57	1035489
56 toluene	20	17.78	ppb	11.08	1196236
57 2-hexanone X5	100	82.32	ppb	17.68	506148
58 12-dibromoethane	20	18.00	ppb	10.02	202794
59 tetra-Cl-ethene	20	21.23	ppb	6.16	393147
60 chlorobenzene	20	18.89	ppb	5.56	866936
61 1112-tetra-Cl-Et	20	20.40	ppb	1.99	348480
62 1,4-Dichlorobenzene-d4	10	10.00	ppb	0.00	305376
63 1-chlorohexane	20	20.02	ppb	0.08	139579
64 Et-Bz	20	19.02	ppb	4.88	1476804
65 m/p-Xylenes X2	40	38.77	ppb	3.07	2328165
66 styrene	20	18.95	PPB	5.23	958401
67 o-xylene	20	19.41	ppb	2.93	1177124
68 1122-Tetra-Cl-Et	20	17.06	ppb	14.68	206349
69 123-tri-Cl-Pr	20	18.84	ppb	5.78	75659
70 4-Br-1-F-Bz (S3)	20	19.24	ppb	3.80	398140
71 isopropylbenzene	20	20.42	ppb	2.12	1655609
72 bromobenzene	20	19.65	ppb	1.74	403196
92 t-1,4-dichloro-2-butene	20	17.50	ppb	12.50	41711
73 n-propylbenzene	20	20.72	ppb	3.61	486356
74 2-Cl-Toluene	20	19.73	ppb	1.37	392657
75 4-Cl-Toluene	20	19.22	ppb	3.89	393162
76 135-tri-Me-Benzene	20	20.43	ppb	2.15	1460395
77 4-iso-Pr-toluene	20	20.99	ppb	4.94	1616052
78 124-tri-Me-Benzene	20	19.88	ppb	0.58	1488485
79 tert-butylbenzene	20	21.12	ppb	5.59	1325271
80 13-DCB	20	19.38	ppb	3.08	826362
81 sec-butylbenzene	20	20.81	ppb	4.06	1950300

82 14-DCB	20	18.58	ppb	7.11	828869
83 Cl-benzyl	20	19.80	ppb	0.99	92095
84 12-DCB	20	19.06	ppb	4.69	744207
85 n-butylbenzene	20	20.97	ppb	4.86	426496
86 12-diBr-2-Cl-Pra	20	18.03	ppb	9.85	52386
87 124-tri-Cl-Bz	20	20.36	ppb	1.78	495011
88 naphthalene	20	15.77	ppb	21.16	698457
89 hx-Cl-butadiene	20	23.45	ppb	17.23	326253
90 123-Tri-Cl-Bz	20	20.11	ppb	0.57	422215

Average D % 10.906831

Evaluate Continuing Calibration Report

1711

Data File : C:\MSDCHEM\1\DATA\03G4717\G4717Q01.D Vial: 2
Acq On : 6 Nov 2003 10:27 am Operator: zou
Sample : f=1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: Lscint.p

Method : C:\MSDCHEM\1\METHODS\E524A003.M (RTE Integrator)
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Oct 27 14:05:06 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

			Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1	Fluorobenzene	1.000	1.000	0.0	68	0.00
2		3	di-Cl-di-F-methane	0.201	0.183	9.0	79	0.00
3	p	4	Chloromethane	0.200	0.138	31.0#	51	0.00
4		2	F114	0.091	0.095	-4.4	79	0.00
5	C	5	vinyl chloride	0.171	0.146	14.6	66	0.00
6		6	bromomethane	0.097	0.054	44.3#	42#	0.00
7		7	chloroethane	0.092	0.082	10.9	67	0.00
8		8	tri-Cl-F-methane	0.282	0.324	-14.9	91	0.00
9		91	Acetonitrile X10	0.043	0.035	18.6	58	0.00
10		9	acrolein X10	0.021	0.017	19.0	59	0.00
11		11	acetone X10	0.032	0.039	-21.9#	93	-0.03
12		12	ethyl ether X5	0.095	0.084	11.6	63	0.00
13	M, C	13	11-dichloroethene	0.238	0.244	-2.5	77	0.00
14		14	Iodomethane	0.178	0.122	31.5#	44#	0.00
15		15	F-113	0.144	0.166	-15.3	97	0.00
16		16	acrylonitrile X10	0.043	0.034	20.9#	55	-0.01
17		17	carbon disulfide	0.452	0.383	15.3	65	0.00
18		94	Isopropyl Alcoholx10	0.002	0.003	-50.0#	123	-0.17
19		18	methylene chloride	0.248	0.184	25.8#	59	0.00
20		19	t-12-di-Cl-ethene	0.223	0.203	9.0	65	0.00
21		20	t-Bu-Me-ether	0.393	0.381	3.1	66	0.00
22		95	Tert butyl alcoholx10	0.007	0.010	-42.9#	177	-0.10
23		94	allyl chloride	0.441	0.281	36.3#	46#	0.00
24	p	21	11-dichloroethane	0.370	0.335	9.5	63	0.00
25		97	propionitrile	0.018	0.015	16.7	66	-0.02
26		22	c-12-di-Cl-ethene	0.233	0.207	11.2	62	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\03G4717\G4717Q01.D Vial: 2
Acq On : 6 Nov 2003 10:27 am Operator: zou
Sample : f=1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: Lscint.p

1712

Method : C:\MSDCHEM\1\METHODS\E524A003.M (RTE Integrator)
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Oct 27 14:05:06 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
27		23 22-Dichloropropane	0.236	0.312	-32.2#	89	0.00
28		24 Br-Cl-methane	0.118	0.104	11.9	63	0.00
29	C	25 chloroform	0.416	0.391	6.0	69	0.00
30		26 tetrahydrofuranX5	0.035	0.026	25.7#	54	-0.01
31		98 Diisopropyl ether	0.710	0.621	12.5	58	0.00
32	S	27 Di-Br-F-Me (surr)	0.235	0.225	4.3	67	0.00
33		99 ETBE	0.448	0.460	-2.7	68	0.00
34	S	29 1,2-Di-Cl-Et-d4 (S1)	0.209	0.206	1.4	70	0.00
35		30 12-dichloroethane	0.081	0.080	1.2	71	0.00
36		32 vinyl acetate X5	0.346	0.322	6.9	61	0.00
37		92 Nitro Methane(x10)	0.012	0.004	66.7#	61	-0.04
38		33 2-butanoneMEK X10	0.052	0.050	3.8	68	-0.02
39		93 Ethyl Acetate x2	0.129	0.102	20.9#	57	0.00
40		34 111-trichloroethane	0.350	0.394	-12.6	81	0.00
41		35 11-Di-Cl-propene	0.264	0.274	-3.8	74	0.00
42	M	36 benzene	0.846	0.748	11.6	62	0.00
43		37 CCl4	0.321	0.388	-20.9#	91	0.00
44		100 Isobutyl alcoholx10	0.013	0.013	0.0	66	0.00
45		38 thiophene	0.440	0.403	8.4	60	0.00
46	C	39 12-di-Cl-propane	0.194	0.167	13.9	59	0.00
47	M	40 trichloroethene	0.271	0.260	4.1	67	0.00
48		41 dibromomethane	0.135	0.124	8.1	65	0.00
49		101 TAME	0.369	0.372	-0.8	68	0.00
50		42 Br-di-Cl-methane	0.305	0.289	5.2	69	0.00
51		43 Me-methacrylate	0.093	0.085	8.6	59	0.00
52		44 2-ClEt-Vi-ether10	0.028	0.021	25.0#	46#	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\03G4717\G4717Q01.D Vial: 2
Acq On : 6 Nov 2003 10:27 am Operator: zou
Sample : f=1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: Lscint.p

1713

Method : C:\MSDCHEM\1\METHODS\E524A003.M (RTE Integrator)
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Oct 27 14:05:06 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

			Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
53		45	c-13-di-Cl-propene	0.307	0.298	2.9	64	0.00
54		46	t-1,3-dichloropropene	0.248	0.262	-5.6	68	0.00
55	I	47	Chlorobezene-d5	1.000	1.000	0.0	68	0.00
56		48	112-tri-Cl-Et	0.221	0.196	11.3	63	0.00
57		49	13-di-Cl-propane	0.340	0.304	10.6	63	0.00
58		50	Et methacrylate	0.255	0.244	4.3	60	0.00
59		51	di-Br-Cl-methane	0.314	0.298	5.1	69	0.00
60	P	52	bromoform	0.185	0.178	3.8	69	0.00
61		53	1,4-dichlorobutane-2	0.374	0.332	11.2	62	0.00
62		54	MIBK	0.168	0.136	19.0	55	0.00
63	s	55	toluene-d8	1.104	1.042	5.6	65	0.00
64	M,C	56	toluene	1.354	1.204	11.1	64	0.00
65		57	2-hexanone X5	0.109	0.102	6.4	63	0.00
66		58	12-dibromoethane	0.227	0.204	10.1	63	0.00
67		59	tetra-Cl-ethene	0.373	0.396	-6.2	79	0.00
68	M,P	60	chlorobenzene	0.924	0.873	5.5	66	0.00
69		61	1112-tetra-Cl-Et	0.344	0.351	-2.0	72	0.00
70	I	62	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	70	0.00
71		63	1-chlorohexane	0.228	0.229	-0.4	77	0.00
72	C	64	Et-Bz	2.542	2.418	4.9	68	0.00
73		65	m/p-Xylenes X2	1.966	1.906	3.1	70	0.00
74		66	styrene	1.656	1.569	5.3	66	0.00
75		67	o-xylene	1.985	1.927	2.9	69	0.00
76	p	68	1122-Tetra-Cl-Et	0.396	0.338	14.6	62	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

1714

Data File : C:\MSDCHEM\1\DATA\03G4717\G4717Q01.D Vial: 2
Acq On : 6 Nov 2003 10:27 am Operator: zou
Sample : f=1 Inst : GCMS-A
Misc : Multiplr: 1.00
MS Integration Params: Lscint.p

Method : C:\MSDCHEM\1\METHODS\E524A003.M (RTE Integrator)
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Oct 27 14:05:06 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

			Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77		69	123-tri-Cl-Pr	0.131	0.124	5.3	68	0.00
78	S	70	4-Br-1-F-Bz (S3)	0.678	0.652	3.8	70	0.00
79		71	isopropylbenzene	2.654	2.711	-2.1	73	0.00
80		72	bromobenzene	0.672	0.660	1.8	70	0.00
81		92	t-1,4-dichloro-2-butene	0.062	0.068	-9.7	71	0.00
82		73	n-propylbenzene	0.769	0.796	-3.5	74	0.00
83		74	2-Cl-Toluene	0.652	0.643	1.4	70	0.00
84		75	4-Cl-Toluene	0.670	0.644	3.9	69	0.00
85		76	135-tri-Me-Benzene	2.341	2.391	-2.1	73	0.00
86		77	4-iso-Pr-toluene	2.522	2.646	-4.9	77	0.00
87		78	124-tri-Me-Benzene	2.451	2.437	0.6	71	0.00
88		79	tert-butylbenzene	2.055	2.170	-5.6	76	0.00
89		80	13-DCB	1.396	1.353	3.1	70	0.00
90		81	sec-butylbenzene	3.069	3.193	-4.0	77	0.00
91		82	14-DCB	1.461	1.357	7.1	70	0.00
92		83	Cl-benzyl	0.116	0.151	-30.2#	86	0.00
93		84	12-DCB	1.278	1.219	4.6	71	0.00
94		85	n-butylbenzene	0.666	0.698	-4.8	75	0.00
95		86	12-diBr-2-Cl-Pra	0.095	0.086	9.5	63	0.00
96		87	124-tri-Cl-Bz	0.796	0.810	-1.8	71	0.00
97		88	naphthalene	1.256	1.144	8.9	60	0.00
98		89	hx-Cl-butadiene	0.456	0.534	-17.1	91	0.00
99		90	123-Tri-Cl-Bz	0.687	0.691	-0.6	70	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
G4717Q01.D E524A003.M Thu Nov 06 17:52:23 2003

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1715

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717Q01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 10:27 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 06 17:50 2003
Print Time : Thu Nov 06 17:51 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	7.65	7.64	0.000	96	70	650.919	10.00		0.00	
47	47	Chlorobezene-d5	11.54	11.54	0.000	117	82	496.725	10.00		0.00	
62	62	1,4-Dichlorobenze	13.84	13.85	0.000	152	150	305.376	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	6.60	6.60	0.000	111	113	292.546	19.14	19.1	95.70%	
29	29	1,2-Di-Cl-Et-d4 (	7.10	7.11	0.000	65	102	268.507	19.72	19.7	98.62%	
55	55	toluene-d8	9.91	9.91	0.000	98	100	1035.489	18.89	18.9	94.43%	
70	70	4-Br-1-F-Bz (S3)	12.74	12.74	0.000	174	95	398.140	19.24	19.2	96.20%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	1.89	1.89	0.000	85	87	238.592	18.22	18.2	100	m
4	4	Chloromethane	2.11	2.11	0.000	50	52	179.442	13.80	13.8	99	
2	2	F114	2.03	2.03	0.000	85	135	123.464	20.05	20.1	49	m
5	5	vinyl chloride	2.22	2.22	0.000	62	64	189.466	17.07	17.1	100	m
6	6	bromomethane	2.61	2.61	0.000	94	96	69.956	11.10	11.1	91	
7	7	chloroethane	2.73	2.73	0.000	64	66	106.954	17.89	17.9	88	m
8	8	tri-Cl-F-methane	3.03	3.03	0.000	101	103	421.501	22.97	23.0	98	
91	91	Acetonitrile X10	4.07	4.07	0.000	41	40	461.496	164.55	164.6	82	m
9	9	acrolein X10	3.51	3.51	0.000	56	55	226.269	164.28	164.3	95	
11	11	acetone X10	3.70	3.73	-0.004	43	58	501.271	241.05	241.0	81	
12	12	ethyl ether X5	3.37	3.37	0.000	59	74	547.856	88.59	88.6	80	
13	13	11-dichloroethene	3.64	3.64	0.000	61	96	317.434	20.53	20.5	80	?
14	14	Iodomethane	3.81	3.81	0.000	142	127	158.325	12.52	12.5	90	
15	15	F-113	3.65	3.65	0.000	101	151	216.223	23.05	23.1	85	?
16	16	acrylonitrile X10	4.51	4.52	-0.002	53	52	440.756	157.84	157.8	94	
17	17	carbon disulfide	3.90	3.90	0.000	76	78	498.576	16.93	16.9	100	?
94	94	Isopropyl Alcohol	3.93	4.10	-0.022	45	43	35.410	265.70	265.7	100	#?
18	18	methylene chlorid	4.22	4.22	0.000	84	49	240.082	17.33	17.3	76	#
19	19	t-12-di-Cl-ethene	4.58	4.58	0.000	96	61	264.471	18.20	18.2	95	?

11/06/03

11/06/03

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1716

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717Q01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 10:27 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 06 17:50 2003
Print Time : Thu Nov 06 17:51 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
20	20 t-Bu-Me-ether	4.59	4.59	0.000	73	57	495.885	19.39	19.4	93	?
95	95 Tert butyl alcoho	4.41	4.51	-0.013	59	57	136.440	319.44	319.4	100	m
94	94 allyl chloride	4.07	4.07	0.000	41	76	366.268	12.76	12.8	89	?
21	21 11-dichloroethane	5.12	5.12	0.000	63	83	436.044	18.11	18.1	97	
97	97 propionitrile	6.00	6.02	-0.002	54	51	19.315	16.83	16.8	100	#
22	22 c-12-di-Cl-ethene	5.92	5.92	0.000	96	61	269.178	17.76	17.8	79	#?
23	23 22-Dichloropropan	5.92	5.92	0.000	77	97	405.964	26.43	26.4	98	?
24	24 Br-Cl-methane	6.24	6.25	0.000	128	130	135.937	17.74	17.7	99	
25	25 chloroform	6.37	6.37	0.000	83	85	508.556	18.79	18.8	100	
26	26 tetrahydrofuranX5	6.34	6.35	-0.002	42	72	171.834	76.20	76.2	85	
98	98 Diisopropyl ether	5.24	5.24	0.000	45	87	808.540	17.49	17.5	91	
99	99 ETBE	5.74	5.74	0.000	59	87	598.312	20.53	20.5	93	
30	30 12-dichloroethane	7.22	7.22	0.000	64	62	103.834	19.68	19.7	98	?
32	32 vinyl acetate X5	5.19	5.20	0.000	43	86	2098.034	93.02	93.0	92	
92	92 Nitro Methane(x10	5.79	5.84	-0.006	61	46	58.322	76.72	76.7	97	
33	33 2-butanoneMEK X10	5.93	5.95	-0.002	43	72	649.430	191.23	191.2	85	?
93	93 Ethyl Acetate x2	6.03	6.04	0.000	43	61	265.051	31.52	31.5	98	
34	34 111-trichloroetha	6.65	6.65	0.000	97	99	512.316	22.51	22.5	100	
35	35 11-Di-Cl-propene	6.90	6.90	0.000	75	110	356.458	20.75	20.8	92	?
36	36 benzene	7.21	7.21	0.000	78	52	974.138	17.70	17.7	88	?
37	37 CCl4	6.91	6.91	0.000	117	119	505.080	24.14	24.1	99	?
100	100 Isobutyl alcohol	7.41	7.41	0.000	43	42	163.588	195.71	195.7	88	#?
38	38 thiophene	7.53	7.53	0.000	84	58	524.615	18.31	18.3	93	
39	39 12-di-Cl-propane	8.56	8.56	0.000	63	76	217.989	17.31	17.3	86	
40	40 trichloroethene	8.24	8.24	0.000	130	132	338.447	19.19	19.2	94	
41	41 dibromomethane	8.73	8.73	0.000	174	172	161.333	18.41	18.4	99	
101	101 TAME	7.41	7.41	0.000	73	43	483.990	18.08	18.1	90	?
42	42 Br-di-Cl-methane	8.96	8.96	0.000	83	85	376.858	19.01	19.0	99	
43	43 Me-methacrylate	8.76	8.76	0.000	69	100	110.408	15.75	15.7	87	
44	44 2-ClEt-Vi-ether10	9.38	9.38	0.000	63	43	273.681	127.89	127.9	83	
45	45 c-13-di-Cl-propen	9.56	9.56	0.000	75	110	388.349	19.44	19.4	92	
46	46 t-1,3-dichloropro	10.24	10.25	0.000	75	110	341.152	19.12	19.1	94	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

JE 11/06/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1717

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717Q01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 10:27 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 06 17:50 2003
Print Time : Thu Nov 06 17:51 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
<<< I2 : ISTD ID = 47 >>>												
48	48	112-tri-Cl-Et	10.45	10.45	0.000	97	83	194.772	17.71	17.7	95	
49	49	13-di-Cl-propane	10.65	10.65	0.000	76	78	301.908	17.89	17.9	99	?
50	50	Et methacrylate	10.38	10.37	0.000	69	99	242.544	15.88	15.9	89	
51	51	di-Br-Cl-methane	10.90	10.91	0.000	129	127	296.008	18.97	19.0	99	
52	52	bromoform	12.41	12.42	0.000	173	174	176.864	19.27	19.3	99	
53	53	1,4-dichlorobutan	12.67	12.67	0.000	55	41	330.045	17.76	17.8	96	
54	54	MIBK	9.76	9.77	0.000	43	58	135.067	14.24	14.2	96	
56	56	toluene	9.99	9.99	0.000	91	92	1196.236	17.78	17.8	97	
57	57	2-hexanone X5	10.75	10.76	0.000	43	58	506.148	82.32	82.3	89	
58	58	12-dibromoethane	11.03	11.03	0.000	107	109	202.794	18.00	18.0	99	
59	59	tetra-Cl-ethene	10.64	10.64	0.000	166	168	393.147	21.23	21.2	97	?
60	60	chlorobenzene	11.57	11.57	0.000	112	77	866.936	18.89	18.9	94	?
61	61	1112-tetra-Cl-Et	11.66	11.66	0.000	131	133	348.480	20.40	20.4	98	
<<< I3 : ISTD ID = 62 >>>												
63	63	1-chlorohexane	11.56	11.56	0.000	93	55	139.579	20.02	20.0	49	#?
64	64	Et-Bz	11.70	11.70	0.000	91	106	1476.804	19.02	19.0	97	
65	65	m/p-Xylenes X2	11.82	11.82	0.000	91	106	2328.165	38.77	38.8	100	
66	66	styrene	12.24	12.24	0.000	104	78	958.401	18.95	19.0	100	?
67	67	o-xylene	12.22	12.22	0.000	91	106	1177.124	19.41	19.4	98	?
68	68	1122-Tetra-Cl-Et	12.87	12.87	0.000	83	85	206.349	17.06	17.1	94	
69	69	123-tri-Cl-Pr	12.91	12.92	0.000	110	97	75.659	18.84	18.8	92	?
71	71	isopropylbenzene	12.60	12.60	0.000	105	120	1655.609	20.42	20.4	97	
72	72	bromobenzene	12.89	12.89	0.000	156	158	403.196	19.65	19.7	98	?
92	92	t-1,4-dichloro-2-	12.92	12.92	0.000	89	53	41.711	17.50	17.5	83	#?
73	73	n-propylbenzene	13.00	13.00	0.000	120	78	486.356	20.72	20.7	95	
74	74	2-Cl-Toluene	13.08	13.08	0.000	126	128	392.657	19.73	19.7	99	
75	75	4-Cl-Toluene	13.19	13.19	0.000	126	128	393.162	19.22	19.2	98	?
76	76	135-tri-Me-Benzen	13.16	13.16	0.000	105	120	1460.395	20.43	20.4	95	?
77	77	4-iso-Pr-toluene	13.81	13.81	0.000	119	134	1616.052	20.99	21.0	100	?
78	78	124-tri-Me-Benzen	13.51	13.52	0.000	105	120	1488.485	19.88	19.9	96	
79	79	tert-butylbenzene	13.47	13.47	0.000	119	91	1325.271	21.12	21.1	97	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1718

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717Q01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 10:27 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 06 17:50 2003
Print Time : Thu Nov 06 17:51 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-DCB	13.79	13.79	0.000	146	148	826.362	19.38	19.4	99	?
81	81	sec-butylbenzene	13.68	13.68	0.000	105	134	1950.300	20.81	20.8	98	
82	82	14-DCB	13.87	13.87	0.000	146	148	828.869	18.58	18.6	98	
83	83	Cl-benzyl	13.98	13.98	0.000	126	91	92.095	19.80	19.8	86	#
84	84	12-DCB	14.21	14.21	0.000	146	148	744.207	19.06	19.1	98	?
85	85	n-butylbenzene	14.18	14.18	0.000	134	91	426.496	20.97	21.0	81	#?
86	86	12-diBr-2-Cl-Pra	14.88	14.88	0.000	157	155	52.386	18.03	18.0	98	
87	87	124-tri-Cl-Bz	15.58	15.58	0.000	180	182	495.011	20.36	20.4	99	
88	88	naphthalene	15.78	15.78	0.000	128	129	698.457	15.77	15.8	98	
89	89	hx-Cl-butadiene	15.72	15.72	0.000	225	258	326.253	23.45	23.4	97	
90	90	123-Tri-Cl-Bz	15.98	15.98	0.000	180	182	422.215	20.11	20.1	99	

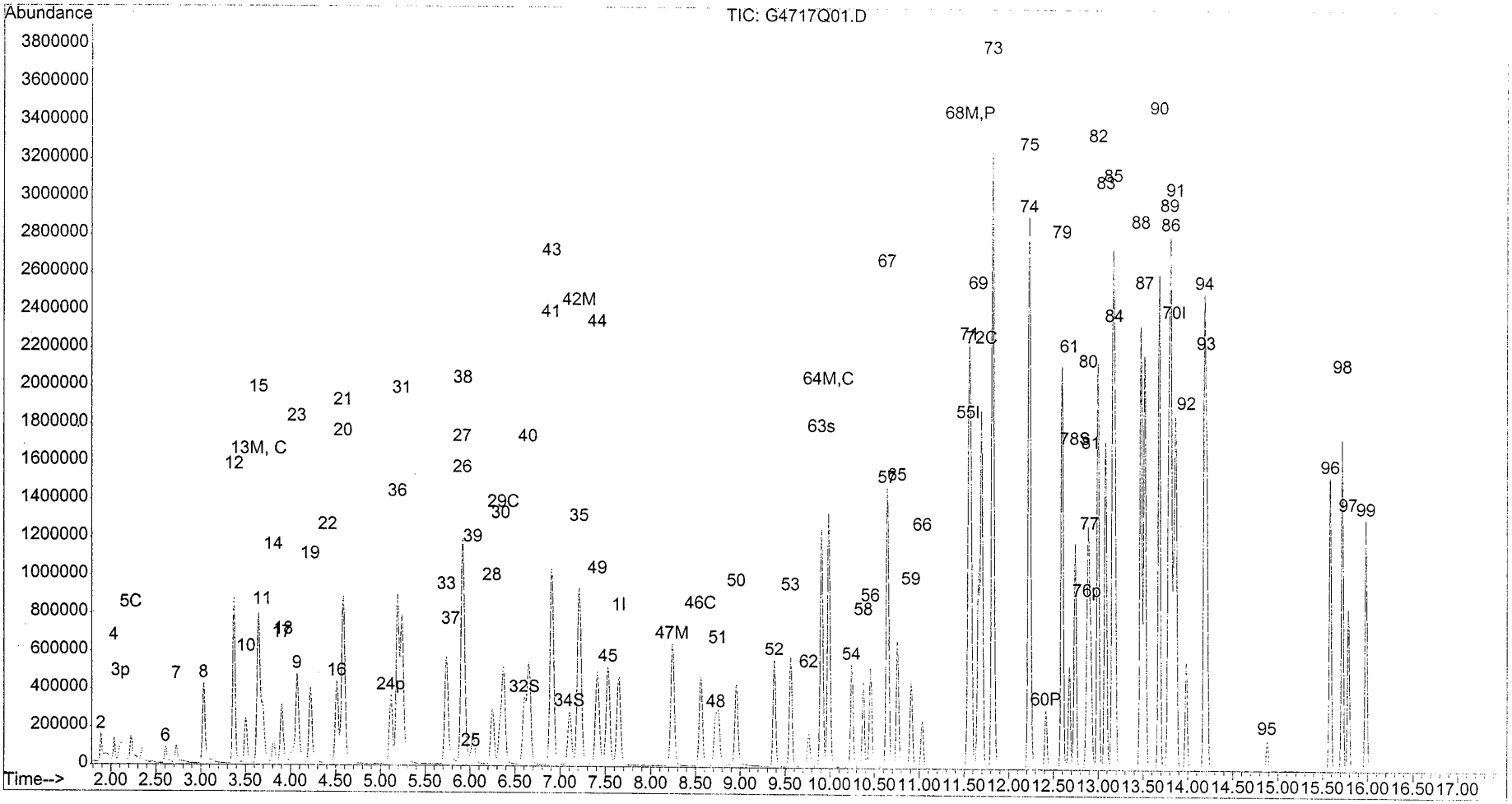
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

1719

Data Filename: C:\MSDCHEM\1\DATA\03G4717\G4717Q01.D
Method : C:\MSDCHEM\1\METHODS\E524A003.M
Acq. Time : Nov 6 10:27 2003
Method Update: Mon Oct 27 14:05 2003
Quant. Time : Nov 06 17:50 2003
Print Time : Thu Nov 06 17:51 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-A
RF via : Multiple Level Calibration
Operator: zou
Multiplr: 1.000000



FORM-8A

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	035951
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		CCV Data File:	G4717Q01	Instrument ID:	A

Batch No: 03G4717

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			11/06/03 10:27	650919	7.65	496725	11.54	305376	13.84
CCV Upper Limit				1301838	8.15	993450	12.04	610752	14.34
CCV Lower Limit				325459	7.15	248362	11.04	152688	13.34
1	03G4717-LCS-01	03G4717-LCS-01	11/06/03 10:53	654113	7.64	497611	11.54	302374	13.84
2	MW-3-1MS	03-5973-2MS	11/06/03 11:19	679050	7.65	523203	11.54	312211	13.84
3	MW-3-1MSD	03-5973-2MSD	11/06/03 11:44	690552	7.64	531594	11.54	325550	13.84
4	03G4717-MB-01	03G4717-MB-01	11/06/03 13:54	664923	7.64	492340	11.54	294801	13.85
5	TB-9-11-4-03	03-5951-13	11/06/03 14:20	674960	7.64	498096	11.55	295897	13.85
6	DUPE-5-4-Q03	03-5951-1	11/06/03 16:30	644992	7.65	476399	11.54	281619	13.85
7	EB-9-11-4-03	03-5951-2	11/06/03 16:57	651961	7.64	478094	11.54	287454	13.85
8	MW-14-1	03-5951-3	11/06/03 17:23	632576	7.64	469145	11.54	274279	13.85
9	MW-14-2	03-5951-4	11/06/03 17:49	647229	7.64	477270	11.54	278778	13.85
10	MW-14-3	03-5951-5	11/06/03 18:15	638481	7.65	468972	11.54	279778	13.84
11	MW-14-4	03-5951-6	11/06/03 18:41	626843	7.64	459535	11.54	276318	13.85
12	MW-14-5	03-5951-7	11/06/03 19:07	636531	7.64	468573	11.55	277618	13.85
13	MW-17-1	03-5951-8	11/06/03 19:33	631650	7.64	465910	11.55	278661	13.85
14	MW-17-2	03-5951-9	11/06/03 19:59	636151	7.65	473543	11.54	282429	13.85
15	MW-17-3	03-5951-10	11/06/03 20:25	638237	7.65	476913	11.55	287702	13.85
16	MW-17-4	03-5951-11	11/06/03 20:51	627311	7.65	469574	11.54	277534	13.85
17	MW-17-5	03-5951-12	11/06/03 21:17	645260	7.65	480046	11.54	288566	13.85
18									
19									
20									
21									
22									

IS-1 = FLUOROBENZENE
IS-2 = CHLOROBENZENE-D5
IS-3 = 1,4-DICHLOROBENZENE-D4

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

A

VOC-119

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VOC Analysis General Logbook

ence # 0384717 Batch # 0384717 Matrix: W Date: 11/06/03 Analyst: Zac

#: IS/Surrogate: GC-15761/15762 Methanol(mark-*M*): _____ PEG (mark-*PEG*): _____ Defoaming(mark-*DF*): _____

alib. + Ini. Batch ☒ Initial Batch; ☐ Middle Batch; ☐ Final Batch. ☐ Internal Study Datafile Path: _____

#	Type	Sample ID	Method	$V/X=f_1$	$V_f/V_i=f_2$	$V_{spg}/V_{inj}=f_3$	F	A-#	Datafile	Note	pH
777	SP	G4717P01	E524A 003	25/25 = 1	/ =	/ =	1		G4717P01	11/06/03	10:02am
778	CCV	Q01		/ = 1	/ =	/ =			Q01	gc15796	
779	LCS	L01		/ =	/ =	/ =			L01		
780	MS	M01		/ =	/ =	/ =			M01	$5973-02	<2
781	MSD	N01		/ =	/ =	/ =			N01	↓	↓
782	MB	K01		/ =	/ =	/ =			K01		
783	Sample	5951-13		/ =	/ =	/ =			5951-13	tb	<2
784		5973-04		/ =	/ =	/ =			5973-04	tb	
785		02		/ =	/ =	/ =			02	ms	
786		01		/ =	/ =	/ =			01		
787		03		/ =	/ =	/ =			03		
788		5951-01		/ =	/ =	/ =			5951-01		
789		02		/ =	/ =	/ =			02		
790		03		/ =	/ =	/ =			03		
791		04		/ =	/ =	/ =			04		
792		05		/ =	/ =	/ =			05		
793		06		/ =	/ =	/ =			06		
794		07		/ =	/ =	/ =			07		
795		08		/ =	/ =	/ =			08		
796		09		/ =	/ =	/ =			09		
797		10		/ =	/ =	/ =			10		
798		11		/ =	/ =	/ =			11		
799		12		/ =	/ =	/ =			12		
800				/ =	/ =	/ =					
801				/ =	/ =	/ =					
802				/ =	/ =	/ =					
803				/ =	/ =	/ =					
804				/ =	/ =	/ =					
805				/ =	/ =	/ =					
806				/ =	/ =	/ =					
807				/ =	/ =	/ =					
808				/ =	/ =	/ =					

11/11/03

Type	Op #	STD Lot #	$C_{std}(ng/\mu L)\times V_{std}(\mu L)/X(g \text{ or } mL)=T$	Op #	STD Lot #	$C_{std}(ng/\mu L)\times V_{std}(\mu L)/X(g \text{ or } mL)=T$
LCS/LCSD	4779	GC-15797	200 × 2.5 /X = 20 ppb		GC-	× /X = ppb
MS/MSD	4780/4781	GC-	× /X = ppb		GC-	× /X = ppb

Footnote/Anomaly:

A

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VOC Analysis General Logbook

Sequence # 0364612 Batch # 0364612 Matrix: W. Date: 10/21/03 Analyst: Edalin

Lot #: IS/Surrogate: GC-15714/15715 Methanol(mark-*M*): _____ PEG (mark-*PEG*): _____ Defoaming(mark-*DF*): _____

☑ Calib. + Ini. Batch - ☐ Initial Batch; ☐ Middle Batch; ☐ Final Batch. ☐ Internal Study Datafile Path: _____

Op. #	Type	Sample ID	Method	$V/X=f_1$	$V_f/V_i=f_2$	$V_{spg}/V_{inj}=f_3$	F	A-#	Datafile	Note	pH
4201	SP	G4612P01	E524A	25/25 = 1	/ =	/ =	1		G4612P01	10/21/03 9:14am	
4202	Calib	3-A0003	003	/ =	/ =	/ =			3-A0003	gc15731	
4203		3-002		/ =	/ =	/ =			3-002		
4204		3-0010		/ =	/ =	/ =			3-0010		
4205		3-0020		/ =	/ =	/ =			3-0020		
4206		3-0040		/ =	/ =	/ =			3-0040		
4207		3-0060		/ =	/ =	/ =			3-0060		
4208	ICV	ICV		/ =	/ =	/ =			ICV	gc15732	
4209				/ =	/ =	/ =					
4210				/ =	/ =	/ =					
4211				/ =	/ =	/ =					
4212				/ =	/ =	/ =					
4213				/ =	/ =	/ =					
4214				/ =	/ =	/ =					
4215				/ =	/ =	/ =					
4216				/ =	/ =	/ =					
4217				/ =	/ =	/ =					
4218				/ =	/ =	/ =					
4219				/ =	/ =	/ =					
4220				/ =	/ =	/ =					
4221				/ =	/ =	/ =					
4222				/ =	/ =	/ =					
4223				/ =	/ =	/ =					
4224				/ =	/ =	/ =					
4225				/ =	/ =	/ =					
4226				/ =	/ =	/ =					
4227				/ =	/ =	/ =					
4228				/ =	/ =	/ =					
4229				/ =	/ =	/ =					
4230				/ =	/ =	/ =					
4231				/ =	/ =	/ =					
4232				/ =	/ =	/ =					

10/21/03

Type	Op #	STD Lot #	$C_{std}(ng/\mu L)\times V_{std}(\mu L)/X(g \text{ or } mL)=T$	Op #	STD Lot #	$C_{std}(ng/\mu L)\times V_{std}(\mu L)/X(g \text{ or } mL)=T$
LCS/LCSD		GC-	× /X= ppb		GC-	× /X= ppb
MS/MSD		GC-	× /X= ppb		GC-	× /X= ppb

Footnote/Anomaly: