

**BARKSDALE WORKS  
RESIDENT WELL SAMPLING 4/04**

**June 9, 2004**

*Prepared for*

Cary A. Pooler (URS Diamond-Louisville)

*Prepared by*

URS Diamond  
Laboratory Services – Sharon A. Nordstrom  
Barley Mill Plaza, Building 27  
Wilmington, DE 19805

# Memorandum

**DATE:** JUNE 9, 2004

**TO:** Cary A. Pooler, URS Diamond

**FROM:** Sharon A. Nordstrom

**RE: BARKSDALE RESIDENT WELL SAMPLING 12/03**

Enclosed is the data report for the residential well samples collected on April 6-7, 2004 for the analyses listed below. All samples were received at the laboratories in good condition and within temperature requirements.

Matrix	Laboratory	Analysis	Analytical Method
Groundwater	STL- Denver	Nitroaromatic/ nitramine organics	SW846 8321A
Groundwater	Environmental Health Laboratories (EHL)	Wisconsin-regulated Volatile organics	EPA 524.2

As indicated above, the samples were submitted to STL-Denver for analysis for the nitro organic compounds, and samples collected at 29600N-INFLOW and 30900N-INFLOW were submitted to EHL for analysis for the Wisconsin-regulated volatile organics.

The STL-Denver data deliverable included both a hard-copy report and an electronic data file, while the EHL data was reported in hard-copy only. A copy of the EHL laboratory report has been included with the DuPont Corporate Environmental Database Report for the STL data. All electronic data was reviewed via the automated DuPont Data Review (DDR) process. As noted on the DDR narrative report, several QC exceedances were identified and data qualifiers were applied to the reported results as applicable. In addition, all nitroaromatic/nitramine and volatile organics data was submitted to Environmental Standards, Inc. for independent, third-party validation. Copies of the Environmental Standards Quality Assurance Reviews are included herein.

No positive detections of nitroaromatic/nitramine compounds or volatile organics were reported in this sample group. Sample BAR-G-30380N-INFLOW was analyzed at a five-fold dilution because the associated internal standard exhibited a low recovery in the undiluted sample. This sample was also reported by the laboratory as containing orange sediment. The household was re-sampled for the nitroaromatic/nitramine organics in May; the results of the re-analysis will be reported separately as soon as available. The MDL and PQL limits for tetryl and nitroglycerin in sample BAR-G-72730H-INFLOW may be higher than reported, and the "not-detected" (ND) results for these compounds have been qualified with a UJ on the analysis report. The associated

matrix spike/spike duplicates were recovered below the laboratory QC limits for these compounds.

No volatile compounds were detected by EHL above the stated reporting limits, however the ND results for chloroacetonitrile, 2-nitropropane, and nitrobenzene in all samples were qualified by the data validator as unusable (R) due to very low relative response factors in the associated calibration standards.

Please do not hesitate to contact me if you have any questions regarding this report.

Sitename: **BARKSDALE WORKS**  
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DDR Standard Used: **LABSTATS**

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**Associated MS and/or MSD analysis had relative percent recovery (RPR) values less than the lower control limit. The actual detection limits may be higher than reported.**

Sampleno	Datesmpl	Lab Id	Method	Analyte	Rsltmod	Result	Unit	Mdl	Pql	Qual
BAR-G-72730H-INFLOW	4/6/04	GDTQ81-AA FS	8321	TETRYL	<	0.012	UG/L	0.012	0.12	UJ
BAR-G-72730H-INFLOW	4/6/04	GDTQ81-AA FS	8321	NITROGLYCERIN	<	0.039	UG/L	0.039	0.12	UJ

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Sampling Point: 30300N-INFLOW	Sampleno: BAR-G-30300N-INFLOW
Date Sampled: 4/6/04	Sample Type: Groundwater
Lab Sample ID: GDTQ61-AA FS	Lab: QES-DEN

Analyte/Parameter	Dilution	Result	Lab Qual	In-House Qual	Review	Unit	MDL	PQL	Date Analyzed
Method No: 8321	Prep Method:	SW3535				Pre Prep Method:			

**Analytes**

1,3,5-trinitrobenzene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
1,3-dinitrobenzene	1	<	0.014			UG/L	0.014	0.12	Apr 15, 2004
2,4,6-trinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
2,4-dinitrotoluene	1	<	0.019			UG/L	0.019	0.12	Apr 15, 2004
2,6-dinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
2-amino-4,6-dinitrotoluene	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004
2-nitrotoluene	1	<	0.023			UG/L	0.023	0.12	Apr 15, 2004
3-nitrotoluene	1	<	0.019			UG/L	0.019	0.12	Apr 15, 2004
4-amino-2,6-dinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
4-nitrotoluene	1	<	0.018			UG/L	0.018	0.12	Apr 15, 2004
Hmx	1	<	0.016			UG/L	0.016	0.12	Apr 15, 2004
Nitrobenzene	1	<	0.020			UG/L	0.020	0.12	Apr 15, 2004
Nitroglycerin	1	<	0.039			UG/L	0.039	0.12	Apr 15, 2004
Petn	1	<	0.031			UG/L	0.031	0.12	Apr 15, 2004
Rdx	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004
Tetryl	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004

**Surrogates**

Nitrobenzene-d5	1		92 RPR			UG/L			Apr 15, 2004
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Sampling Point: 30380N-INFLOW	Sampleno: BAR-G-30380N-INFLOW
Date Sampled: 4/6/04	Sample Type: Groundwater
Lab Sample ID: GDTQ41-AA FS	Lab: QES-DEN

Analyte/Parameter	Dilution	Result	Lab Qual	In-House Qual	Review	Unit	MDL	PQL	Date Analyzed
Method No: 8321	Prep Method:	SW3535				Pre Prep Method:			

**Analytes**

1,3,5-trinitrobenzene	5	<	0.075			UG/L	0.075	0.60	Apr 15, 2004
1,3-dinitrobenzene	5	<	0.070			UG/L	0.070	0.60	Apr 15, 2004
2,4,6-trinitrotoluene	5	<	0.075			UG/L	0.075	0.60	Apr 15, 2004
2,4-dinitrotoluene	5	<	0.095			UG/L	0.095	0.60	Apr 15, 2004
2,6-dinitrotoluene	5	<	0.075			UG/L	0.075	0.60	Apr 15, 2004
2-amino-4,6-dinitrotoluene	5	<	0.060			UG/L	0.060	0.60	Apr 15, 2004
2-nitrotoluene	5	<	0.12			UG/L	0.12	0.60	Apr 15, 2004
3-nitrotoluene	5	<	0.095			UG/L	0.095	0.60	Apr 15, 2004
4-amino-2,6-dinitrotoluene	5	<	0.075			UG/L	0.075	0.60	Apr 15, 2004
4-nitrotoluene	5	<	0.090			UG/L	0.090	0.60	Apr 15, 2004
Hmx	5	<	0.080			UG/L	0.080	0.60	Apr 15, 2004
Nitrobenzene	5	<	0.10			UG/L	0.10	0.60	Apr 15, 2004
Nitroglycerin	5	<	0.20			UG/L	0.20	0.60	Apr 15, 2004
Petn	5	<	0.16			UG/L	0.16	0.60	Apr 15, 2004
Rdx	5	<	0.060			UG/L	0.060	0.60	Apr 15, 2004
Tetryl	5	<	0.060			UG/L	0.060	0.60	Apr 15, 2004

**Surrogates**

Nitrobenzene-d5	5		60 RPR			UG/L			Apr 15, 2004
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Sampling Point: 30490N-INFLOW	Sampleno: BAR-G-30490N-INFLOW
Date Sampled: 4/6/04	Sample Type: Groundwater
Lab Sample ID: GDTQ31-AA FS	Lab: QES-DEN

Analyte/Parameter	Dilution	Result	In-House		Review	Unit	MDL	PQL	Date Analyzed
			Lab Qual	House Qual					
Method No: 8321	Prep Method: SW3535				Pre Prep Method:				

**Analytes**

1,3,5-trinitrobenzene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
1,3-dinitrobenzene	1	<	0.014			UG/L	0.014	0.12	Apr 15, 2004
2,4,6-trinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
2,4-dinitrotoluene	1	<	0.019			UG/L	0.019	0.12	Apr 15, 2004
2,6-dinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
2-amino-4,6-dinitrotoluene	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004
2-nitrotoluene	1	<	0.023			UG/L	0.023	0.12	Apr 15, 2004
3-nitrotoluene	1	<	0.019			UG/L	0.019	0.12	Apr 15, 2004
4-amino-2,6-dinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
4-nitrotoluene	1	<	0.018			UG/L	0.018	0.12	Apr 15, 2004
Hmx	1	<	0.016			UG/L	0.016	0.12	Apr 15, 2004
Nitrobenzene	1	<	0.020			UG/L	0.020	0.12	Apr 15, 2004
Nitroglycerin	1	<	0.039			UG/L	0.039	0.12	Apr 15, 2004
Petn	1	<	0.031			UG/L	0.031	0.12	Apr 15, 2004
Rdx	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004
Tetryl	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004

**Surrogates**

Nitrobenzene-d5	1		94 RPR			UG/L			Apr 15, 2004
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Sampling Point: 30600N-INFLOW	Sampleno: BAR-G-30600N-INFLOW
Date Sampled: 4/7/04	Sample Type: Groundwater
Lab Sample ID: GDTRE1-AA FS	Lab: QES-DEN

Analyte/Parameter	Dilution	Result	Lab Qual	In-House Qual	Review	Unit	MDL	PQL	Date Analyzed
Method No: 8321	Prep Method:	SW3535				Pre Prep Method:			
<b>Analytes</b>									
1,3,5-trinitrobenzene	1	< 0.015				UG/L	0.015	0.12	Apr 15, 2004
1,3-dinitrobenzene	1	< 0.014				UG/L	0.014	0.12	Apr 15, 2004
2,4,6-trinitrotoluene	1	< 0.015				UG/L	0.015	0.12	Apr 15, 2004
2,4-dinitrotoluene	1	< 0.019				UG/L	0.019	0.12	Apr 15, 2004
2,6-dinitrotoluene	1	< 0.015				UG/L	0.015	0.12	Apr 15, 2004
2-amino-4,6-dinitrotoluene	1	< 0.012				UG/L	0.012	0.12	Apr 15, 2004
2-nitrotoluene	1	< 0.023				UG/L	0.023	0.12	Apr 15, 2004
3-nitrotoluene	1	< 0.019				UG/L	0.019	0.12	Apr 15, 2004
4-amino-2,6-dinitrotoluene	1	< 0.015				UG/L	0.015	0.12	Apr 15, 2004
4-nitrotoluene	1	< 0.018				UG/L	0.018	0.12	Apr 15, 2004
Hmx	1	< 0.016				UG/L	0.016	0.12	Apr 15, 2004
Nitrobenzene	1	< 0.020				UG/L	0.020	0.12	Apr 15, 2004
Nitroglycerin	1	< 0.039				UG/L	0.039	0.12	Apr 15, 2004
Petn	1	< 0.031				UG/L	0.031	0.12	Apr 15, 2004
Rdx	1	< 0.012				UG/L	0.012	0.12	Apr 15, 2004
Tetryl	1	< 0.012				UG/L	0.012	0.12	Apr 15, 2004
<b>Surrogates</b>									
Nitrobenzene-d5	1	96 RPR				UG/L			Apr 15, 2004



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Sampling Point: 72730H-INFLOW      Sampleno: BAR-G-72730H-INFLOW  
Date Sampled: 4/6/04      Sample Type: Groundwater  
Lab Sample ID: GDTQ81-AA FS      Lab: QES-DEN

Analyte/Parameter	Dilution	Result	Lab Qual	In-House Qual	Review	Unit	MDL	PQL	Date Analyzed
Method No: 8321	Prep Method:	SW3535				Pre Prep Method:			

**Analytes**

1,3,5-trinitrobenzene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
1,3-dinitrobenzene	1	<	0.014			UG/L	0.014	0.12	Apr 15, 2004
2,4,6-trinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
2,4-dinitrotoluene	1	<	0.019			UG/L	0.019	0.12	Apr 15, 2004
2,6-dinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
2-amino-4,6-dinitrotoluene	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004
2-nitrotoluene	1	<	0.023			UG/L	0.023	0.12	Apr 15, 2004
3-nitrotoluene	1	<	0.019			UG/L	0.019	0.12	Apr 15, 2004
4-amino-2,6-dinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
4-nitrotoluene	1	<	0.018			UG/L	0.018	0.12	Apr 15, 2004
Hmx	1	<	0.016			UG/L	0.016	0.12	Apr 15, 2004
Nitrobenzene	1	<	0.020			UG/L	0.020	0.12	Apr 15, 2004
Nitroglycerin	1	<	0.039	UJ	UJ	UG/L	0.039	0.12	Apr 15, 2004
Petn	1	<	0.031			UG/L	0.031	0.12	Apr 15, 2004
Rdx	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004
Tetryl	1	<	0.012	UJ	UJ	UG/L	0.012	0.12	Apr 15, 2004

**Surrogates**

Nitrobenzene-d5	1		90 RPR			UG/L			Apr 15, 2004
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Sampling Point: 72790H-INFLOW	Sampleno: BAR-G-72790H-INFLOW
Date Sampled: 4/6/04	Sample Type: Groundwater
Lab Sample ID: GDTRC1-AA FS	Lab: QES-DEN

Analyte/Parameter	Dilution	Result	In-House		Review	Unit	MDL	PQL	Date Analyzed
			Lab Qual	House Qual					
Method No: 8321	Prep Method:	SW3535	Pre Prep Method:						

**Analytes**

1,3,5-trinitrobenzene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
1,3-dinitrobenzene	1	<	0.014			UG/L	0.014	0.12	Apr 15, 2004
2,4,6-trinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
2,4-dinitrotoluene	1	<	0.019			UG/L	0.019	0.12	Apr 15, 2004
2,6-dinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
2-amino-4,6-dinitrotoluene	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004
2-nitrotoluene	1	<	0.023			UG/L	0.023	0.12	Apr 15, 2004
3-nitrotoluene	1	<	0.019			UG/L	0.019	0.12	Apr 15, 2004
4-amino-2,6-dinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
4-nitrotoluene	1	<	0.018			UG/L	0.018	0.12	Apr 15, 2004
Hmx	1	<	0.016			UG/L	0.016	0.12	Apr 15, 2004
Nitrobenzene	1	<	0.020			UG/L	0.020	0.12	Apr 15, 2004
Nitroglycerin	1	<	0.039			UG/L	0.039	0.12	Apr 15, 2004
Petn	1	<	0.031			UG/L	0.031	0.12	Apr 15, 2004
Rdx	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004
Tetryl	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004

**Surrogates**

Nitrobenzene-d5	1		73 RPR			UG/L			Apr 15, 2004
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Sampling Point: 72790H-INFLOW	Sampleno: BAR-G-72790H-INFLOW-DUP
Date Sampled: 4/6/04	Sample Type: Groundwater
Lab Sample ID: GDTRD1-AA FS	Lab: QES-DEN

Analyte/Parameter	Dilution	Result	Lab Qual	In-House Qual	Review	Unit	MDL	PQL	Date Analyzed
Method No: 8321	Prep Method:	SW3535				Pre Prep Method:			
<b>Analytes</b>									
1,3,5-trinitrobenzene	1	< 0.015				UG/L	0.015	0.12	Apr 15, 2004
1,3-dinitrobenzene	1	< 0.014				UG/L	0.014	0.12	Apr 15, 2004
2,4,6-trinitrotoluene	1	< 0.015				UG/L	0.015	0.12	Apr 15, 2004
2,4-dinitrotoluene	1	< 0.019				UG/L	0.019	0.12	Apr 15, 2004
2,6-dinitrotoluene	1	< 0.015				UG/L	0.015	0.12	Apr 15, 2004
2-amino-4,6-dinitrotoluene	1	< 0.012				UG/L	0.012	0.12	Apr 15, 2004
2-nitrotoluene	1	< 0.023				UG/L	0.023	0.12	Apr 15, 2004
3-nitrotoluene	1	< 0.019				UG/L	0.019	0.12	Apr 15, 2004
4-amino-2,6-dinitrotoluene	1	< 0.015				UG/L	0.015	0.12	Apr 15, 2004
4-nitrotoluene	1	< 0.018				UG/L	0.018	0.12	Apr 15, 2004
Hmx	1	< 0.016				UG/L	0.016	0.12	Apr 15, 2004
Nitrobenzene	1	< 0.020				UG/L	0.020	0.12	Apr 15, 2004
Nitroglycerin	1	< 0.039				UG/L	0.039	0.12	Apr 15, 2004
Petn	1	< 0.031				UG/L	0.031	0.12	Apr 15, 2004
Rdx	1	< 0.012				UG/L	0.012	0.12	Apr 15, 2004
Tetryl	1	< 0.012				UG/L	0.012	0.12	Apr 15, 2004
<b>Surrogates</b>									
Nitrobenzene-d5	1	90 RPR				UG/L			Apr 15, 2004

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Sampling Point: 72860H-INFLOW      Sampleno: BAR-G-72860H-INFLOW  
Date Sampled: 4/6/04                  Sample Type: Groundwater  
Lab Sample ID: GDTQ91-AA FS        Lab: QES-DEN

Analyte/Parameter	Dilution	Result	Lab Qual	In-House Qual	Review	Unit	MDL	PQL	Date Analyzed
Method No: 8321	Prep Method:	SW3535				Pre Prep Method:			

**Analytes**

1,3,5-trinitrobenzene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
1,3-dinitrobenzene	1	<	0.014			UG/L	0.014	0.12	Apr 15, 2004
2,4,6-trinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
2,4-dinitrotoluene	1	<	0.019			UG/L	0.019	0.12	Apr 15, 2004
2,6-dinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
2-amino-4,6-dinitrotoluene	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004
2-nitrotoluene	1	<	0.023			UG/L	0.023	0.12	Apr 15, 2004
3-nitrotoluene	1	<	0.019			UG/L	0.019	0.12	Apr 15, 2004
4-amino-2,6-dinitrotoluene	1	<	0.015			UG/L	0.015	0.12	Apr 15, 2004
4-nitrotoluene	1	<	0.018			UG/L	0.018	0.12	Apr 15, 2004
Hmx	1	<	0.016			UG/L	0.016	0.12	Apr 15, 2004
Nitrobenzene	1	<	0.020			UG/L	0.020	0.12	Apr 15, 2004
Nitroglycerin	1	<	0.039			UG/L	0.039	0.12	Apr 15, 2004
Petn	1	<	0.031			UG/L	0.031	0.12	Apr 15, 2004
Rdx	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004
Tetryl	1	<	0.012			UG/L	0.012	0.12	Apr 15, 2004

**Surrogates**

Nitrobenzene-d5	1		89 RPR			UG/L			Apr 15, 2004
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Sampling Point: 73280H-INFLOW      Sampleno: BAR-G-73280H-INFLOW  
Date Sampled: 4/6/04                  Sample Type: Groundwater  
Lab Sample ID: GDTQ71-AA FS        Lab: QES-DEN

Analyte/Parameter	Dilution	Result	In-House		Unit	MDL	PQL	Date Analyzed
			Lab Qual	House Qual				
Method No: 8321	Prep Method:	SW3535	Pre Prep Method:					
<b>Analytes</b>								
1,3,5-trinitrobenzene	1	< 0.015			UG/L	0.015	0.12	Apr 15, 2004
1,3-dinitrobenzene	1	< 0.014			UG/L	0.014	0.12	Apr 15, 2004
2,4,6-trinitrotoluene	1	< 0.015			UG/L	0.015	0.12	Apr 15, 2004
2,4-dinitrotoluene	1	< 0.019			UG/L	0.019	0.12	Apr 15, 2004
2,6-dinitrotoluene	1	< 0.015			UG/L	0.015	0.12	Apr 15, 2004
2-amino-4,6-dinitrotoluene	1	< 0.012			UG/L	0.012	0.12	Apr 15, 2004
2-nitrotoluene	1	< 0.023			UG/L	0.023	0.12	Apr 15, 2004
3-nitrotoluene	1	< 0.019			UG/L	0.019	0.12	Apr 15, 2004
4-amino-2,6-dinitrotoluene	1	< 0.015			UG/L	0.015	0.12	Apr 15, 2004
4-nitrotoluene	1	< 0.018			UG/L	0.018	0.12	Apr 15, 2004
Hmx	1	< 0.016			UG/L	0.016	0.12	Apr 15, 2004
Nitrobenzene	1	< 0.020			UG/L	0.020	0.12	Apr 15, 2004
Nitroglycerin	1	< 0.039			UG/L	0.039	0.12	Apr 15, 2004
Petn	1	< 0.031			UG/L	0.031	0.12	Apr 15, 2004
Rdx	1	< 0.012			UG/L	0.012	0.12	Apr 15, 2004
Tetryl	1	< 0.012			UG/L	0.012	0.12	Apr 15, 2004
<b>Surrogates</b>								
Nitrobenzene-d5	1	97 RPR			UG/L			Apr 15, 2004

**Corporate Environmental Database  
Lab Analysis QAQC Report**

**Site: BARKSDALE WORKS  
Project: RESIDENT WELLS 4/04**

06/09/2004  
Page 1 of 2

**Batch Identifier 125791 SW3535 8321 11-APR-04 4101132 LCMS2**

Method Number: 8321                      Prep Method: SW3535                      Pre-prep:  
Batch Start Date: 04/11/2004              Instrument: LCMS2                      Batch Number:

Analyte/Parameter	Result	Unit	MDL	PQL	RPR	RPR Limits		RPD	RPD Max
						Min	Max		
Sample Type LCS	Lab Sample ID: GD0KN1-AC LCS			Lab: QES-DEN					
1,3,5-TRINITROBENZENE	0.408	UG/L	0.015	NS	82	64	137		
1,3-DINITROBENZENE	0.443	UG/L	0.014	NS	89	70	127		
2,4,6-TRINITROTOLUENE	0.505	UG/L	0.015	NS	101	43	133		
2,4-DINITROTOLUENE	0.439	UG/L	0.019	NS	88	65	129		
2,6-DINITROTOLUENE	0.424	UG/L	0.015	NS	85	66	128		
2-AMINO-4,6-DINITROTOLUENE	0.469	UG/L	0.012	NS	94	69	131		
2-NITROTOLUENE	0.364	UG/L	0.023	NS	73	17	105		
3-NITROTOLUENE	0.393	UG/L	0.019	NS	79	23	105		
4-AMINO-2,6-DINITROTOLUENE	0.445	UG/L	0.015	NS	89	69	128		
4-NITROTOLUENE	0.412	UG/L	0.018	NS	82	26	114		
HMX	0.469	UG/L	0.016	NS	94	53	169		
NITROBENZENE	0.461	UG/L	0.020	NS	92	27	120		
NITROGLYCERIN	0.365	UG/L	0.039	NS	73	43	154		
PETN	0.455	UG/L	0.031	NS	91	34	173		
RDX	0.437	UG/L	0.012	NS	87	62	127		
TETRYL	0.303	UG/L	0.012	NS	61	40	152		
NITROBENZENE-D5	91 RPR	UG/L		NS	91	39	114		
Sample Type MB	Lab Sample ID: GD0KN1-AA MB			Lab: QES-DEN					
1,3,5-TRINITROBENZENE	< 0.015	UG/L	0.015	0.12					
1,3-DINITROBENZENE	< 0.014	UG/L	0.014	0.12					
2,4,6-TRINITROTOLUENE	< 0.015	UG/L	0.015	0.12					
2,4-DINITROTOLUENE	< 0.019	UG/L	0.019	0.12					
2,6-DINITROTOLUENE	< 0.015	UG/L	0.015	0.12					
2-AMINO-4,6-DINITROTOLUENE	< 0.012	UG/L	0.012	0.12					
2-NITROTOLUENE	< 0.023	UG/L	0.023	0.12					
3-NITROTOLUENE	< 0.019	UG/L	0.019	0.12					
4-AMINO-2,6-DINITROTOLUENE	< 0.015	UG/L	0.015	0.12					
4-NITROTOLUENE	< 0.018	UG/L	0.018	0.12					
HMX	< 0.016	UG/L	0.016	0.12					
NITROBENZENE	< 0.020	UG/L	0.020	0.12					
NITROGLYCERIN	< 0.039	UG/L	0.039	0.12					
PETN	< 0.031	UG/L	0.031	0.12					
RDX	< 0.012	UG/L	0.012	0.12					
TETRYL	< 0.012	UG/L	0.012	0.12					
NITROBENZENE-D5	92 RPR	UG/L			92	44	124		
Sample Type MS	Lab Sample ID: GDTQ81-AC MS			Lab: QES-DEN					
1,3,5-TRINITROBENZENE	0.349	UG/L	0.015	NS	70	70	126		
1,3-DINITROBENZENE	0.463	UG/L	0.014	NS	93	68	125		
2,4,6-TRINITROTOLUENE	0.461	UG/L	0.015	NS	92	59	129		
2,4-DINITROTOLUENE	0.475	UG/L	0.019	NS	95	64	124		
2,6-DINITROTOLUENE	0.442	UG/L	0.015	NS	88	67	124		
2-AMINO-4,6-DINITROTOLUENE	0.482	UG/L	0.012	NS	96	68	126		
2-NITROTOLUENE	0.378	UG/L	0.023	NS	76	25	99		
3-NITROTOLUENE	0.406	UG/L	0.019	NS	81	27	104		
4-AMINO-2,6-DINITROTOLUENE	0.467	UG/L	0.015	NS	93	63	125		
4-NITROTOLUENE	0.420	UG/L	0.018	NS	84	33	108		
HMX	0.258	UG/L	0.016	NS	52	52	158		
NITROBENZENE	0.439	UG/L	0.020	NS	88	40	110		
NITROGLYCERIN	0.242	UG/L	0.039	NS	48	56	148		
PETN	0.528	UG/L	0.031	NS	106	35	177		
RDX	0.460	UG/L	0.012	NS	92	61	123		
TETRYL	0.253	UG/L	0.012	NS	51	53	148		
NITROBENZENE-D5	93 RPR	UG/L		NS	93	44	124		

**Corporate Environmental Database  
Lab Analysis QAQC Report**

**Site: BARKSDALE WORKS  
Project: RESIDENT WELLS 4/04**

06/09/2004  
Page 2 of 2

Analyte/Parameter	Result	Unit	MDL	PQL	RPR	RPR Limits		RPD	RPD Max
						Min	Max		
Sample Type	MSD	Lab Sample ID: GDTQ81-AD MSD			Lab: QES-DEN				
1,3,5-TRINITROBENZENE	0.375	UG/L	0.015	NS	75	70	126	7.2	40
1,3-DINITROBENZENE	0.453	UG/L	0.014	NS	91	68	125	2.1	40
2,4,6-TRINITROTOLUENE	0.453	UG/L	0.015	NS	91	59	129	1.7	40
2,4-DINITROTOLUENE	0.440	UG/L	0.019	NS	88	64	124	7.6	40
2,6-DINITROTOLUENE	0.445	UG/L	0.015	NS	89	67	124	0.65	40
2-AMINO-4,6-DINITROTOLUENE	0.485	UG/L	0.012	NS	97	68	126	0.55	40
2-NITROTOLUENE	0.378	UG/L	0.023	NS	76	25	99	0.14	40
3-NITROTOLUENE	0.411	UG/L	0.019	NS	82	27	104	1.3	40
4-AMINO-2,6-DINITROTOLUENE	0.462	UG/L	0.015	NS	92	63	125	1.0	40
4-NITROTOLUENE	0.427	UG/L	0.018	NS	85	33	108	1.6	40
HMX	0.285	UG/L	0.016	NS	57	52	158	9.7	40
NITROBENZENE	0.451	UG/L	0.020	NS	90	40	110	2.7	40
NITROGLYCERIN	0.255	UG/L	0.039	NS	51	56	148	5.4	40
PETN	0.530	UG/L	0.031	NS	106	35	177	0.27	40
RDX	0.437	UG/L	0.012	NS	87	61	123	5.1	40
TETRYL	0.269	UG/L	0.012	NS	54	53	148	6.1	40
NITROBENZENE-D5	93 RPR	UG/L		NS	93	44	124		

The following field samples are included in this batch:

Sampleno	Datesmpl	Lab Id	Lab
BAR-G-30300N-INFLOW	04/06/2004	GDTQ61-AA FS	QES-DEN
BAR-G-30380N-INFLOW	04/06/2004	GDTQ41-AA FS	QES-DEN
BAR-G-30490N-INFLOW	04/06/2004	GDTQ31-AA FS	QES-DEN
BAR-G-30600N-INFLOW	04/07/2004	GDTRE1-AA FS	QES-DEN
BAR-G-72730H-INFLOW	04/06/2004	GDTQ81-AA FS	QES-DEN
BAR-G-72790H-INFLOW	04/06/2004	GDTRC1-AA FS	QES-DEN
BAR-G-72790H-INFLOW-DUP	04/06/2004	GDTRD1-AA FS	QES-DEN
BAR-G-72860H-INFLOW	04/06/2004	GDTQ91-AA FS	QES-DEN
BAR-G-73280H-INFLOW	04/06/2004	GDTQ71-AA FS	QES-DEN





























Environmental Health Laboratories  
The Nation's Drinking Water Laboratory  
Division of Underwriters Laboratories Inc.

110 South Hill Street  
South Bend, IN 46617  
Phone: (574) 233-4777  
Fax: (574) 233-8207

## LABORATORY REPORT

This report contains 83 pages.  
(including the cover page)

If you have any questions concerning this report, please do not hesitate to call us at 1-800-332-4345 or 574-233-4777.

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Environmental Health Laboratories  
The Nation's Drinking Water Laboratory

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LABORATORY REPORT

Client: URS Delaware  
Attn: Sharon Nordstrom  
ADQM Services Barley Mill Plaza Building # 27  
4417 Lancaster Pike  
Wilmington, DE 19805

Report : 1023135-37(35)  
Priority: Standard Written  
Status: Final

Sampling Point: Barksdale Offsite 4/04 / BAR-G-29600N-INFLOW

Samples Submitted: One drinking water sample

Copies to: None

-----Collected-----

Date: 04/06/04 Time: 13:30

By: Client

-----Received-----

Date: 04/08/04 Time: 09:40

REPORT SUMMARY

None of the VOCs included in the detailed parameter list were detected in the sample submitted for analysis.

Detailed quantitative results are presented on the following page.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (574) 233-4777.

*Note: This report may not be reproduced, except in full, without written approval from Environmental Health Laboratories (EHL). EHL is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory. These results may not meet the NELAP standard but satisfy the requirements for this project.*

Reviewed By:

*William Rorer* Section Manager

Date:

*4/20/04*

Finalized By:

*[Signature]* P.M

Date:

*4-20-04*

## Sampling Point: Barksdale Offsite 4/04 / BAR-G-29600N-INFLOW

PARAMETER	Report Limit ** (ug/L)	Result (ug/L)	MCL (ug/L)	PARAMETER	Report Limit ** (ug/L)	Result (ug/L)
<b>Regulated Parameters</b>				<b>Unregulated Parameters</b>		
Benzene	0.5	< 0.5	5	2-Chlorotoluene (o-)	0.5	< 0.5
Bromodichloromethane	0.5	< 0.5	80 *	4-Chlorotoluene (p-)	0.5	< 0.5
Bromoform	0.5	< 0.5	80 *	Dibromomethane	0.5	< 0.5
Carbon tetrachloride	0.5	< 0.5	5	1,3-Dichlorobenzene	0.5	< 0.5
Chlorobenzene	0.5	< 0.5	100	trans-1,4-Dichloro-2-butylene	5.0	< 5.0
Chloroform	0.5	< 0.5	80 *	Dichlorodifluoromethane	0.5	< 0.5
Dibromochloromethane	0.5	< 0.5	80 *	1,1-Dichloroethane	0.5	< 0.5
1,2-Dibromo-3-Chloropropane	0.2	< 0.2	0.2 †	1,3-Dichloropropane	0.5	< 0.5
1,2-Dibromoethane (EDB)	0.2	< 0.2	0.05 †	2,2-Dichloropropane	0.5	< 0.5
1,2-Dichlorobenzene	0.5	< 0.5	600	1,1-Dichloropropanone	5.0	< 5.0
1,4-Dichlorobenzene	0.5	< 0.5	75	1,1-Dichloropropylene	0.5	< 0.5
1,2-Dichloroethane	0.5	< 0.5	5	cis-1,3-Dichloropropylene	0.5	< 0.5
1,1-Dichloroethylene	0.5	< 0.5	7	trans-1,3-Dichloropropylene	0.5	< 0.5
cis-1,2-Dichloroethylene	0.5	< 0.5	70	Diethyl ether	5.0	< 5.0
trans-1,2-Dichloroethylene	0.5	< 0.5	100	Ethyl methacrylate	1.0	< 1.0
Dichloromethane	0.5	< 0.5	5	Hexachlorobutadiene	0.5	< 0.5
1,2-Dichloropropane	0.5	< 0.5	5	Hexachloroethane	2.0	< 2.0
Ethylbenzene	0.5	< 0.5	700	2-Hexanone	5.0	< 5.0
Styrene	0.5	< 0.5	100	Isopropylbenzene	0.5	< 0.5
Tetrachloroethylene	0.5	< 0.5	5	4-Isopropyltoluene (p-)	0.5	< 0.5
Toluene	0.5	< 0.5	1000	Methacrylonitrile	5.0	< 5.0
1,2,4-Trichlorobenzene	0.5	< 0.5	70	Methylacrylate	1.0	< 1.0
1,1,1-Trichloroethane	0.5	< 0.5	200	Methyl iodide (Iodomethane)	2.0	< 2.0
1,1,2-Trichloroethane	0.5	< 0.5	5	Methylmethacrylate	1.0	< 1.0
Trichloroethylene	0.5	< 0.5	5	4-Methyl-2-pentanone (MIBK)	2.0	< 2.0
Vinyl chloride	0.2	< 0.2	2	Methyl-t-butyl ether (MTBE)	0.5	< 0.5
Total Xylenes	0.2	< 0.2	10,000	Naphthalene	0.5	< 0.5
<b>Unregulated Parameters</b>				Nitrobenzene	5.0	< 5.0
Acetone	5.0	< 5.0		2-Nitropropane	2.0	< 2.0
Acrylonitrile	1.0	< 1.0		Pentachloroethane	2.0	< 2.0
Allyl chloride	5.0	< 5.0		Propionitrile	5.0	< 5.0
Bromobenzene	0.5	< 0.5		n-Propylbenzene	0.5	< 0.5
Bromochloromethane	0.5	< 0.5		1,1,1,2-Tetrachloroethane	0.5	< 0.5
Bromomethane	0.5	< 0.5		1,1,2,2-Tetrachloroethane	0.5	< 0.5
2-Butanone (MEK)	5.0	< 5.0		1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	< 0.5
n-Butylbenzene	0.5	< 0.5		Tetrahydrofuran	5.0	< 5.0
sec-Butylbenzene	0.5	< 0.5		1,2,3-Trichlorobenzene	0.5	< 0.5
tert-Butylbenzene	0.5	< 0.5		Trichlorofluoromethane	0.5	< 0.5
Carbon disulfide	5.0	< 5.0		1,2,3-Trichloropropane	0.5	< 0.5
Chloroacetonitrile	5.0	< 5.0		1,2,3-Trimethylbenzene	0.5	< 0.5
1-Chlorobutane	5.0	< 5.0		1,2,4-Trimethylbenzene	0.5	< 0.5
Chloroethane	0.5	< 0.5		1,3,5-Trimethylbenzene	0.5	< 0.5
Chloromethane	0.5	< 0.5				

Method: 524.2

Analysis Date: 04/14/04

\* The MCL of 80 ug/L is for total trihalomethanes and compliance samples must be collected from the distribution system.

\*\* EHL has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

† Compliance monitoring for these parameters must be done using EPA method 504.1



**Environmental Health Laboratories**  
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**LABORATORY REPORT**

Client: URS Delaware  
 Attn: Sharon Nordstrom  
 ADQM Services Barley Mill Plaza Building # 27  
 4417 Lancaster Pike  
 Wilmington, DE 19805

Report : 1023135-37(36)  
 Priority: Standard Written  
 Status: Final

Sampling Point: Barksdale Offsite 4/04 / BAR-G-30900N-INFLOW

Samples Submitted: One drinking water sample

Copies to: None

-----Collected-----  
 Date: 04/06/04 Time: 16:45 By: Client

-----Received-----  
 Date: 04/08/04 Time: 09:40

**REPORT SUMMARY**

None of the VOCs included in the detailed parameter list were detected in the sample submitted for analysis.  
 Detailed quantitative results are presented on the following page.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (574) 233-4777.

*Note: This report may not be reproduced, except in full, without written approval from Environmental Health Laboratories (EHL). EHL is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory. These results may not meet the NELAP standard but satisfy the requirements for this project.*

Reviewed By: William Revere Section Manager Date: 4/20/04

Finalized By: [Signature] B.M. Date: 4-20-04



## Sampling Point: Barksdale Offsite 4/04 / BAR-G-30900N-INFLOW

PARAMETER	Report Limit ** (ug/L)	Result (ug/L)	MCL (ug/L)	PARAMETER	Report Limit ** (ug/L)	Result (ug/L)
<b>Regulated Parameters</b>				<b>Unregulated Parameters</b>		
Benzene	0.5	< 0.5	5	2-Chlorotoluene (o-)	0.5	< 0.5
Bromodichloromethane	0.5	< 0.5	80 *	4-Chlorotoluene (p-)	0.5	< 0.5
Bromoform	0.5	< 0.5	80 *	Dibromomethane	0.5	< 0.5
Carbon tetrachloride	0.5	< 0.5	5	1,3-Dichlorobenzene	0.5	< 0.5
Chlorobenzene	0.5	< 0.5	100	trans-1,4-Dichloro-2-butylene	5.0	< 5.0
Chloroform	0.5	< 0.5	80 *	Dichlorodifluoromethane	0.5	< 0.5
Dibromochloromethane	0.5	< 0.5	80 *	1,1-Dichloroethane	0.5	< 0.5
1,2-Dibromo-3-Chloropropane	0.2	< 0.2	0.2 †	1,3-Dichloropropane	0.5	< 0.5
1,2-Dibromoethane (EDB)	0.2	< 0.2	0.05 †	2,2-Dichloropropane	0.5	< 0.5
1,2-Dichlorobenzene	0.5	< 0.5	600	1,1-Dichloropropanone	5.0	< 5.0
1,4-Dichlorobenzene	0.5	< 0.5	75	1,1-Dichloropropylene	0.5	< 0.5
1,2-Dichloroethane	0.5	< 0.5	5	cis-1,3-Dichloropropylene	0.5	< 0.5
1,1-Dichloroethylene	0.5	< 0.5	7	trans-1,3-Dichloropropylene	0.5	< 0.5
cis-1,2-Dichloroethylene	0.5	< 0.5	70	Diethyl ether	5.0	< 5.0
trans-1,2-Dichloroethylene	0.5	< 0.5	100	Ethyl methacrylate	1.0	< 1.0
Dichloromethane	0.5	< 0.5	5	Hexachlorobutadiene	0.5	< 0.5
1,2-Dichloropropane	0.5	< 0.5	5	Hexachloroethane	2.0	< 2.0
Ethylbenzene	0.5	< 0.5	700	2-Hexanone	5.0	< 5.0
Styrene	0.5	< 0.5	100	Isopropylbenzene	0.5	< 0.5
Tetrachloroethylene	0.5	< 0.5	5	4-Isopropyltoluene (p-)	0.5	< 0.5
Toluene	0.5	< 0.5	1000	Methacrylonitrile	5.0	< 5.0
1,2,4-Trichlorobenzene	0.5	< 0.5	70	Methylacrylate	1.0	< 1.0
1,1,1-Trichloroethane	0.5	< 0.5	200	Methyl iodide (Iodomethane)	2.0	< 2.0
1,1,2-Trichloroethane	0.5	< 0.5	5	Methylmethacrylate	1.0	< 1.0
Trichloroethylene	0.5	< 0.5	5	4-Methyl-2-pentanone (MIBK)	2.0	< 2.0
Vinyl chloride	0.2	< 0.2	2	Methyl-t-butyl ether (MTBE)	0.5	< 0.5
Total Xylenes	0.2	< 0.2	10,000	Naphthalene	0.5	< 0.5
<b>Unregulated Parameters</b>				Nitrobenzene	5.0	< 5.0
Acetone	5.0	< 5.0		2-Nitropropane	2.0	< 2.0
Acrylonitrile	1.0	< 1.0		Pentachloroethane	2.0	< 2.0
Allyl chloride	5.0	< 5.0		Propionitrile	5.0	< 5.0
Bromobenzene	0.5	< 0.5		n-Propylbenzene	0.5	< 0.5
Bromochloromethane	0.5	< 0.5		1,1,1,2-Tetrachloroethane	0.5	< 0.5
Bromomethane	0.5	< 0.5		1,1,2,2-Tetrachloroethane	0.5	< 0.5
2-Butanone (MEK)	5.0	< 5.0		1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	< 0.5
n-Butylbenzene	0.5	< 0.5		Tetrahydrofuran	5.0	< 5.0
sec-Butylbenzene	0.5	< 0.5		1,2,3-Trichlorobenzene	0.5	< 0.5
tert-Butylbenzene	0.5	< 0.5		Trichlorofluoromethane	0.5	< 0.5
Carbon disulfide	5.0	< 5.0		1,2,3-Trichloropropane	0.5	< 0.5
Chloroacetonitrile	5.0	< 5.0		1,2,3-Trimethylbenzene	0.5	< 0.5
1-Chlorobutane	5.0	< 5.0		1,2,4-Trimethylbenzene	0.5	< 0.5
Chloroethane	0.5	< 0.5		1,3,5-Trimethylbenzene	0.5	< 0.5
Chloromethane	0.5	< 0.5				

Method: 524.2

Analysis Date: 04/14/04

\* The MCL of 80 ug/L is for total trihalomethanes and compliance samples must be collected from the distribution system.

\*\* EHL has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

† Compliance monitoring for these parameters must be done using EPA method 504.1



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**LABORATORY REPORT**

Client: URS Delaware  
Attn: Sharon Nordstrom  
ADQM Services Barley Mill Plaza Building # 27  
4417 Lancaster Pike  
Wilmington, DE 19805

Report : 1023135-37(37)  
Priority: Standard Written  
Status: Final

Sampling Point: Laboratory Trip Blank

Samples Submitted: One reagent water sample

Copies to: None

-----Collected-----  
Date: 03/31/04 Time: 08:20

By: EHL

-----Received-----  
Date: 04/08/04 Time: 09:40

**REPORT SUMMARY**

None of the VOCs included in the detailed parameter list were detected in the sample submitted for analysis.

Detailed quantitative results are presented on the following page.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (574) 233-4777.

*Note: This report may not be reproduced, except in full, without written approval from Environmental Health Laboratories (EHL). EHL is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory. These results may not meet the NELAP standard but satisfy the requirements for this project.*

Reviewed By:

*William Reers* Section Manager

Date:

*4/20/04*

Finalized By:

*[Signature]* *LM*

Date:

*4-20-04*



## Sampling Point: Laboratory Trip Blank

PARAMETER	Report Limit ** (ug/L)	Result (ug/L)	MCL (ug/L)	PARAMETER	Report Limit ** (ug/L)	Result (ug/L)
<b>Regulated Parameters</b>				<b>Unregulated Parameters</b>		
Benzene	0.5	< 0.5	5	2-Chlorotoluene (o-)	0.5	< 0.5
Bromodichloromethane	0.5	< 0.5	80 *	4-Chlorotoluene (p-)	0.5	< 0.5
Bromoform	0.5	< 0.5	80 *	Dibromomethane	0.5	< 0.5
Carbon tetrachloride	0.5	< 0.5	5	1,3-Dichlorobenzene	0.5	< 0.5
Chlorobenzene	0.5	< 0.5	100	trans-1,4-Dichloro-2-butylene	5.0	< 5.0
Chloroform	0.5	< 0.5	80 *	Dichlorodifluoromethane	0.5	< 0.5
Dibromochloromethane	0.5	< 0.5	80 *	1,1-Dichloroethane	0.5	< 0.5
1,2-Dibromo-3-Chloropropane	0.2	< 0.2	0.2 †	1,3-Dichloropropane	0.5	< 0.5
1,2-Dibromoethane (EDB)	0.2	< 0.2	0.05 †	2,2-Dichloropropane	0.5	< 0.5
1,2-Dichlorobenzene	0.5	< 0.5	600	1,1-Dichloropropanone	5.0	< 5.0
1,4-Dichlorobenzene	0.5	< 0.5	75	1,1-Dichloropropylene	0.5	< 0.5
1,2-Dichloroethane	0.5	< 0.5	5	cis-1,3-Dichloropropylene	0.5	< 0.5
1,1-Dichloroethylene	0.5	< 0.5	7	trans-1,3-Dichloropropylene	0.5	< 0.5
cis-1,2-Dichloroethylene	0.5	< 0.5	70	Diethyl ether	5.0	< 5.0
trans-1,2-Dichloroethylene	0.5	< 0.5	100	Ethyl methacrylate	1.0	< 1.0
Dichloromethane	0.5	< 0.5	5	Hexachlorobutadiene	0.5	< 0.5
1,2-Dichloropropane	0.5	< 0.5	5	Hexachloroethane	2.0	< 2.0
Ethylbenzene	0.5	< 0.5	700	2-Hexanone	5.0	< 5.0
Styrene	0.5	< 0.5	100	Isopropylbenzene	0.5	< 0.5
Tetrachloroethylene	0.5	< 0.5	5	4-Isopropyltoluene (p-)	0.5	< 0.5
Toluene	0.5	< 0.5	1000	Methacrylonitrile	5.0	< 5.0
1,2,4-Trichlorobenzene	0.5	< 0.5	70	Methylacrylate	1.0	< 1.0
1,1,1-Trichloroethane	0.5	< 0.5	200	Methyl iodide (Iodomethane)	2.0	< 2.0
1,1,2-Trichloroethane	0.5	< 0.5	5	Methylmethacrylate	1.0	< 1.0
Trichloroethylene	0.5	< 0.5	5	4-Methyl-2-pentanone (MIBK)	2.0	< 2.0
Vinyl chloride	0.2	< 0.2	2	Methyl-t-butyl ether (MTBE)	0.5	< 0.5
Total Xylenes	0.2	< 0.2	10,000	Naphthalene	0.5	< 0.5
<b>Unregulated Parameters</b>				Nitrobenzene	5.0	< 5.0
Acetone	5.0	< 5.0		2-Nitropropane	2.0	< 2.0
Acrylonitrile	1.0	< 1.0		Pentachloroethane	2.0	< 2.0
Allyl chloride	5.0	< 5.0		Propionitrile	5.0	< 5.0
Bromobenzene	0.5	< 0.5		n-Propylbenzene	0.5	< 0.5
Bromochloromethane	0.5	< 0.5		1,1,1,2-Tetrachloroethane	0.5	< 0.5
Bromomethane	0.5	< 0.5		1,1,2,2-Tetrachloroethane	0.5	< 0.5
2-Butanone (MEK)	5.0	< 5.0		1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	< 0.5
n-Butylbenzene	0.5	< 0.5		Tetrahydrofuran	5.0	< 5.0
sec-Butylbenzene	0.5	< 0.5		1,2,3-Trichlorobenzene	0.5	< 0.5
tert-Butylbenzene	0.5	< 0.5		Trichlorofluoromethane	0.5	< 0.5
Carbon disulfide	5.0	< 5.0		1,2,3-Trichloropropane	0.5	< 0.5
Chloroacetonitrile	5.0	< 5.0		1,2,3-Trimethylbenzene	0.5	< 0.5
1-Chlorobutane	5.0	< 5.0		1,2,4-Trimethylbenzene	0.5	< 0.5
Chloroethane	0.5	< 0.5		1,3,5-Trimethylbenzene	0.5	< 0.5
Chloromethane	0.5	< 0.5				

Method: 524.2

Analysis Date: 04/14/04

\* The MCL of 80 ug/L is for total trihalomethanes and compliance samples must be collected from the distribution system.

\*\* EHL has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

† Compliance monitoring for these parameters must be done using EPA method 504.1



Environmental Health Laboratories  
The Nation's Drinking Water Laboratory

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SHADED AREA FOR LAB USE ONLY

### CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

CLIENT/COMPANY ORDERING TEST <b>DuPont</b>			SAMPLER (Signature) <i>[Signature]</i>			STATE (of Sample Origin) <b>WI</b>	PWS ID#	PROJECT NAME <b>Barksdale OFFsite</b>	PO#	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
COMPLIANCE MONITORING? YES NO						POPULATION SERVED:	SOURCE WATER:	<b>4/04</b>				
EHL LAB#	COLLECTION		SAMPLING SITE			TEST NAME	SAMPLE REMARKS		Chlorinated			
	DATE	TIME							Yes	No		
1023135	4/6/04	1330 AM	BAR-G-29600N - INFLOW			VOC			<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	W SW
1023136	↓	1645 AM	BAR-G-30900N - INFLOW			↓			<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	W SW
1023137	3/31	0830 AM	LTS			↓			<input type="checkbox"/>	<input type="checkbox"/>	2	Red

FIELD COMMENTS: CARRIER \_\_\_\_\_ AIRBILL NO. \_\_\_\_\_ COOLER NO. \_\_\_\_\_ DATE SHIPPED \_\_\_\_\_

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT.
		AM   PM	<i>[Signature]</i>	4/6/04	1000 AM   PM	
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	LAB COMMENTS
<i>[Signature]</i>	4/7/04	1000 AM   PM	<i>[Signature]</i>			
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME	CONDITIONS UPON RECEIPT: (Check One)
<i>[Signature]</i>			<i>dmarks</i>	4/8	0940 AM   PM	<input checked="" type="checkbox"/> Iced <input type="checkbox"/> Ambient or <u>3</u> °C Upon Receipt

MATRIX CODES:	TURN-AROUND TIME (TAT) - SURCHARGES
<b>SW</b> = STANDARD WRITTEN (15 WORKING DAYS) 0% <b>RV</b> * = RUSH (5 WORKING DAYS) VERBAL 50% <b>RW</b> * = RUSH (5 WORKING DAYS) WRITTEN 75% *.Please Call, Expedited services not available for all services.	<b>IV</b> * = IMMEDIATE (3 WORKING DAYS) VERBAL 100% <b>IW</b> * = IMMEDIATE (3 WORKING DAYS) WRITTEN 125% <b>SP</b> * = WEEKEND, HOLIDAY Call
	<b>STAT</b> * = LESS THAN 48 HOURS Call Samples received unannounced with less than 48 hours holding time remaining may be subject to additional surcharges.

# Environmental Health Laboratories

## Run Log

Run Id: 64157 Method: 524.2 Analyst: conn

<u>Type</u>	<u>Sample Id</u>	<u>File Name</u>	<u>Sample Site</u>	<u>Matrix</u>	<u>Analysis Date</u>	<u>Analysis Time</u>
LMB	1023811	MB-524A	Not Available	RW	04/14/2004	08:57
LFB	1023812	FB-524A	Not Available	RW	04/14/2004	09:34
CCC	1023813	C-5-13A	Not Available	RW	04/14/2004	10:10
LTB	1023137	L1023137	LTB	RW	04/14/2004	12:10
FS	1023135	1023135	BAR-G-29600N-INFLOW	DW	04/14/2004	12:47
FS	1023136	1023136	BAR-G-30900N-INFLOW	DW	04/14/2004	13:23
QCS	1025233	Q-524A	Not Available	RW	04/15/2004	03:35

**Environmental Health Laboratories  
Laboratory Method Blank**

**Sample Matrix:** RW  
**Acquisition File:** Not Available  
**Data Directory:** 041404A  
**Instrument:** ITD - C  
**Extracted Date:** Not Available  
**Sample Number:** 1023811  
**Dilution Factor:** 1  
**Sample Site:** Not Available  
**Sample Location:** Not Available

**Method:** 524.2  
**Calibration File:** 524 2-040504C-up1.mth  
**Analysis Date:** 04/14/2004  
**Analysis Time:** 08:57  
**Analyst:** conn  
**Results Submitted By:** conn  
**Run Number:** 64157

**Sample Quality Control**

Internal Standards <u>Parameter</u>	<u>Area</u>	----- CCC -----				----- IC -----			
		<u>CCC Area</u>	<u>% Resp</u>	<u>Limits Lwr Upr</u>	<u>Pass / Fail</u>	<u>IC Avg Area</u>	<u>% Resp</u>	<u>Limits Lwr Upr</u>	<u>Pass / Fail</u>
IS-1,4-Difluorobenzene	270820	270481	100	70 130	PASS	Not Found	N/A	N/A N/A	N/A

Surrogate Standards <u>Parameter</u>	<u>Amount</u>	<u>Units</u>	<u>Target</u>	<u>%Rec</u>	<u>Limits</u>		<u>Pass/Fail</u>
					<u>Lower</u>	<u>Upper</u>	
SS-1,2-Dichlorobenzene-d4	9.233	ug/L	10	92	70	130	PASS
SS-1,2-Dichloroethane-d4	9.978	ug/L	10	100	70	130	PASS
SS-Bromofluorobenzene	4.725	ug/L	5.0	94	70	130	PASS
SS-Toluene-d8	9.728	ug/L	10	97	70	130	PASS

**Ordered Parameter Results**

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.5	0.5	ug/L
1,1,2,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.5	0.5	ug/L
1,1,2-Trichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethylene	< 0.5	0.5	ug/L
1,1-Dichloropropanone	< 5.0	5.0	ug/L
1,1-Dichloropropylene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,3-Trichloropropane	< 0.5	0.5	ug/L
1,2,3-Trimethylbenzene	< 0.5	0.5	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,4-Trimethylbenzene	< 0.5	0.5	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	< 0.2	0.2	ug/L
1,2-Dibromoethane (EDB)	< 0.2	0.2	ug/L
1,2-Dichlorobenzene	< 0.5	0.5	ug/L
1,2-Dichloroethane	< 0.5	0.5	ug/L
1,2-Dichloropropane	< 0.5	0.5	ug/L
1,2-Xylene	< 0.5	0.5	ug/L
1,3,5-Trimethylbenzene	< 0.5	0.5	ug/L
1,3-Dichlorobenzene	< 0.5	0.5	ug/L

1,3-Dichloropropane	< 0.5	0.5	ug/L
1,3-Xylene	< 0.5	0.5	ug/L
1,4-Dichlorobenzene	< 0.5	0.5	ug/L
1,4-Xylene	< 0.5	0.5	ug/L
1-Chlorobutane	< 5.0	5.0	ug/L
2,2-Dichloropropane	< 0.5	0.5	ug/L
2-Butanone (MEK)	< 5.0	5.0	ug/L
2-Chlorotoluene	< 0.5	0.5	ug/L
2-Hexanone	< 5.0	5.0	ug/L
2-Nitropropane	< 2.0	2.0	ug/L
4-Chlorotoluene	< 0.5	0.5	ug/L
4-Isopropyltoluene	< 0.5	0.5	ug/L
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	ug/L
Acetone	< 5.0	5.0	ug/L
Acrylonitrile	< 1.0	1.0	ug/L
Allyl chloride	< 5.0	5.0	ug/L
Benzene	< 0.5	0.5	ug/L
Bromobenzene	< 0.5	0.5	ug/L
Bromochloromethane	< 0.5	0.5	ug/L
Bromodichloromethane	< 0.5	0.5	ug/L
Bromoform	< 0.5	0.5	ug/L
Bromomethane	< 0.5	0.5	ug/L
Carbon disulfide	< 5.0	5.0	ug/L
Carbon tetrachloride	< 0.5	0.5	ug/L
Chloroacetonitrile	< 5.0	5.0	ug/L
Chlorobenzene	< 0.5	0.5	ug/L
Chloroethane	< 0.5	0.5	ug/L
Chloroform	< 0.5	0.5	ug/L
Chloromethane	< 0.5	0.5	ug/L
Dibromochloromethane	< 0.5	0.5	ug/L
Dibromomethane	< 0.5	0.5	ug/L
Dichlorodifluoromethane	< 0.5	0.5	ug/L
Dichloromethane	< 0.5	0.5	ug/L
Ethyl Ether	< 2.0	2.0	ug/L
Ethyl methacrylate	< 1.0	1.0	ug/L
Ethylbenzene	< 0.5	0.5	ug/L
Hexachlorobutadiene	< 0.5	0.5	ug/L
Hexachloroethane	< 2.0	2.0	ug/L
Isopropylbenzene	< 0.5	0.5	ug/L
Methacrylonitrile	< 5.0	5.0	ug/L
Methyl iodide	< 2.0	2.0	ug/L
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	ug/L
Methylacrylate	< 1.0	1.0	ug/L
Methylmethacrylate	< 1.0	1.0	ug/L
Naphthalene	< 0.5	0.5	ug/L
Nitrobenzene	< 5.0	5.0	ug/L
Pentachloroethane	< 2.0	2.0	ug/L
Propionitrile	< 5.0	5.0	ug/L
Styrene	< 0.5	0.5	ug/L
Tetrachloroethylene	< 0.5	0.5	ug/L
Tetrahydrofuran	< 5.0	5.0	ug/L
Toluene	< 0.5	0.5	ug/L
Trichloroethylene	< 0.5	0.5	ug/L
Trichlorofluoromethane	< 0.5	0.5	ug/L
Vinyl chloride	< 0.2	0.2	ug/L
Xylenes, Total	< 0.5	0.5	ug/L
cis-1,2-Dichloroethylene	< 0.5	0.5	ug/L
cis-1,3-Dichloropropylene	< 0.5	0.5	ug/L
n-Butylbenzene	< 0.5	0.5	ug/L

n-Propylbenzene	< 0.5	0.5	ug/L
sec-Butylbenzene	< 0.5	0.5	ug/L
tert-Butylbenzene	< 0.5	0.5	ug/L
trans-1,2-Dichloroethylene	< 0.5	0.5	ug/L
trans-1,3-Dichloropropylene	< 0.5	0.5	ug/L
trans-1,4-Dichloro-2-butylene	< 5.0	5.0	ug/L

### Additional Found Parameters

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
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The symbol \* in the Amount column above indicates that the sample was re-analyzed for that parameter and the results are presented on another page.

**Environmental Health Laboratories  
Laboratory Fortified Blank**

**Sample Matrix:** RW  
**Acquisition File:** Not Available  
**Data Directory:** 041404A  
**Today's Date:** 04/19/2004  
**Instrument:** ITD - C  
**Extracted Date:** Not Available  
**Sample Number:** 1023812

**Method:** 524.2  
**Calibration File:** 524 2-040504C-up1.mth  
**Analysis Date:** 04/14/2004  
**Analysis Time:** 09:34  
**Analyst:** conn  
**Results Submitted By:** conn  
**Run Number:** 64157

**Sample Quality Control**

Internal Standards Parameter	Area	----- CCC -----				----- IC -----			
		CCC Area	% Resp	Area Limits Lwr Upr	Pass / Fail	IC Avg Area	% Resp	Area Limits Lwr Upr	Pass / Fail
IS-1,4-Difluorobenzene	271430	270481	100	70 130	PASS	296912	91	50 150	PASS

Surrogate Standards Parameter	Amount	Units	Target	%Rec	Limits		Pass/Fail
					Lower	Upper	
SS-1,2-Dichlorobenzene-d4	9.605	ug/L	10	96	70	130	PASS
SS-1,2-Dichloroethane-d4	10.188	ug/L	10	102	70	130	PASS
SS-Bromofluorobenzene	5.013	ug/L	5.0	100	70	130	PASS
SS-Toluene-d8	9.827	ug/L	10	98	70	130	PASS

**Ordered Parameter Results**

Parameter	Amount	Units	Target	%Rec	Limits		Pass/Fail
					Lower	Upper	
1,1,1,2-Tetrachloroethane	1.951	ug/L	2.0	98	70	130	PASS
1,1,1-Trichloroethane	1.881	ug/L	2.0	94	70	130	PASS
1,1,2,2-Tetrachloroethane	1.948	ug/L	2.0	97	70	130	PASS
1,1,2-Trichloroethane	2.013	ug/L	2.0	101	70	130	PASS
1,1-Dichloroethane	1.84	ug/L	2.0	92	70	130	PASS
1,1-Dichloroethylene	1.88	ug/L	2.0	94	70	130	PASS
1,1-Dichloropropylene	1.859	ug/L	2.0	93	70	130	PASS
1,2,3-Trichlorobenzene	1.768	ug/L	2.0	88	70	130	PASS
1,2,3-Trichloropropane	1.848	ug/L	2.0	92	70	130	PASS
1,2,4-Trichlorobenzene	1.794	ug/L	2.0	90	70	130	PASS
1,2,4-Trimethylbenzene	1.728	ug/L	2.0	86	70	130	PASS
2-Chlorotoluene	1.94	ug/L	2.0	97	70	130	PASS
1,2-Dibromoethane (EDB)	1.971	ug/L	2.0	99	70	130	PASS
1,2-Dibromo-3-chloropropane (DBCP)	1.978	ug/L	2.0	99	70	130	PASS
1,2-Dichlorobenzene	1.823	ug/L	2.0	91	70	130	PASS
1,2-Dichloroethane	1.957	ug/L	2.0	98	70	130	PASS
1,2-Dichloropropane	1.757	ug/L	2.0	88	70	130	PASS
1,2-Xylene	1.819	ug/L	2.0	91	70	130	PASS
1,3,5-Trimethylbenzene	1.788	ug/L	2.0	89	70	130	PASS
1,3-Dichlorobenzene	1.799	ug/L	2.0	90	70	130	PASS
1,3-Dichloropropane	1.955	ug/L	2.0	98	70	130	PASS
1,3-Xylene	3.656	ug/L	4.0	91	70	130	PASS
4-Chlorotoluene	1.881	ug/L	2.0	94	70	130	PASS

1,4-Dichlorobenzene	1.799	ug/L	2.0	90	70	130	PASS
4-Isopropyltoluene	1.819	ug/L	2.0	91	70	130	PASS
1,4-Xylene	3.656	ug/L	4.0	91	70	130	PASS
2,2-Dichloropropane	1.941	ug/L	2.0	97	70	130	PASS
Benzene	1.882	ug/L	2.0	94	70	130	PASS
Bromobenzene	1.9	ug/L	2.0	95	70	130	PASS
Bromochloromethane	1.967	ug/L	2.0	98	70	130	PASS
Bromodichloromethane	1.923	ug/L	2.0	96	70	130	PASS
Bromoform	2.008	ug/L	2.0	100	70	130	PASS
Bromomethane	1.743	ug/L	2.0	87	70	130	PASS
Carbon tetrachloride	1.812	ug/L	2.0	91	70	130	PASS
Chlorobenzene	1.915	ug/L	2.0	96	70	130	PASS
Chloroethane	2.39	ug/L	2.0	120	70	130	PASS
Chloroform	1.886	ug/L	2.0	94	70	130	PASS
Chloromethane	1.762	ug/L	2.0	88	70	130	PASS
cis-1,2-Dichloroethylene	1.928	ug/L	2.0	96	70	130	PASS
cis-1,3-Dichloropropylene	1.977	ug/L	2.0	99	70	130	PASS
Dibromochloromethane	1.921	ug/L	2.0	96	70	130	PASS
Dibromomethane	1.979	ug/L	2.0	99	70	130	PASS
Dichlorodifluoromethane	1.813	ug/L	2.0	91	70	130	PASS
Dichloromethane	1.971	ug/L	2.0	99	70	130	PASS
Ethylbenzene	1.88	ug/L	2.0	94	70	130	PASS
Hexachlorobutadiene	1.815	ug/L	2.0	91	70	130	PASS
Isopropylbenzene	1.859	ug/L	2.0	93	70	130	PASS
Methyl-t-butyl ether (MTBE)	2.049	ug/L	2.0	102	70	130	PASS
Naphthalene	1.699	ug/L	2.0	85	70	130	PASS
n-Butylbenzene	1.698	ug/L	2.0	85	70	130	PASS
n-Propylbenzene	1.849	ug/L	2.0	92	70	130	PASS
sec-Butylbenzene	1.827	ug/L	2.0	91	70	130	PASS
Styrene	1.765	ug/L	2.0	88	70	130	PASS
tert-Butylbenzene	1.882	ug/L	2.0	94	70	130	PASS
Tetrachloroethylene	1.735	ug/L	2.0	87	70	130	PASS
Toluene	1.896	ug/L	2.0	95	70	130	PASS
trans-1,2-Dichloroethylene	1.863	ug/L	2.0	93	70	130	PASS
trans-1,3-Dichloropropylene	2.031	ug/L	2.0	102	70	130	PASS
Trichloroethylene	1.858	ug/L	2.0	93	70	130	PASS
Trichlorofluoromethane	1.882	ug/L	2.0	94	70	130	PASS
Vinyl chloride	1.608	ug/L	2.0	80	70	130	PASS
Xylenes, Total	5.475	N/A	6.0	91	70	130	PASS
1,1,2-Trichloro-1,2,2-trifluoroethane	1.836	ug/L	2.0	92	70	130	PASS
1,2,3-Trimethylbenzene	1.809	ug/L	2.0	90	70	130	PASS



**Environmental Health Laboratories  
Continuing Calibration Check**

**Sample Matrix:** RW  
**Acquisition File:** Not Available  
**Data Directory:** 041404A  
**Today's Date:** 04/19/2004  
**Instrument:** ITD - C  
**Extracted Date:** Not Available  
**Sample Number:** 1023813

**Method:** 524.2  
**Calibration File:** 524 2-040504C-up1.mth  
**Analysis Date:** 04/14/2004  
**Analysis Time:** 10:10  
**Analyst:** conn  
**Results Submitted By:** conn  
**Run Number:** 64157

**Sample Quality Control**

Internal Standards Parameter	Area	CCC				IC					
		CCC Area	% Resp	Limits Lwr	Limits Upr / Pass / Fail	IC Avg Area	% Resp	Limits Lwr	Limits Upr / Pass / Fail		
IS-1,4-Difluorobenzene	270481	270481	100	70	130	PASS	296912	91	50	150	PASS

Surrogate Standards Parameter	Amount	Units	Target	%Rec	Limits		Pass/Fail
					Lower	Upper	
SS-1,2-Dichlorobenzene-d4	9.764	ug/L	10	98	70	130	PASS
SS-1,2-Dichloroethane-d4	10.187	ug/L	10	102	70	130	PASS
SS-Bromofluorobenzene	5.143	ug/L	5.0	103	70	130	PASS
SS-Toluene-d8	9.917	ug/L	10	99	70	130	PASS

**Ordered Parameter Results**

Parameter	Amount	Units	Target	%Rec	Limits		Pass/Fail
					Lower	Upper	
1,1,1,2-Tetrachloroethane	4.609	ug/L	5.0	92	70	130	PASS
1,1,1-Trichloroethane	5.328	ug/L	5.0	107	70	130	PASS
1,1,2,2-Tetrachloroethane	5.059	ug/L	5.0	101	70	130	PASS
1,1,2-Trichloroethane	5.032	ug/L	5.0	101	70	130	PASS
1,1-Dichloroethane	4.824	ug/L	5.0	96	70	130	PASS
1,1-Dichloroethylene	5.467	ug/L	5.0	109	70	130	PASS
1,1-Dichloropropanone	4.507	Not Searched		ug/L	5.0	90	70
	130	PASS					
1,1-Dichloropropylene	5.181	ug/L	5.0	104	70	130	PASS
1,2,3-Trichlorobenzene	4.795	ug/L	5.0	96	70	130	PASS
1,2,3-Trichloropropane	4.761	ug/L	5.0	95	70	130	PASS
1,2,4-Trichlorobenzene	4.68	ug/L	5.0	94	70	130	PASS
1,2,4-Trimethylbenzene	4.647	ug/L	5.0	93	70	130	PASS
2-Chlorotoluene	4.876	ug/L	5.0	98	70	130	PASS
1,2-Dibromoethane (EDB)	4.823	ug/L	5.0	96	70	130	PASS
1,2-Dibromo-3-chloropropane (DBCP)	5.091	ug/L	5.0	102	70	130	PASS
1,2-Dichlorobenzene	4.975	ug/L	5.0	100	70	130	PASS
1,2-Dichloroethane	4.983	ug/L	5.0	100	70	130	PASS
1,2-Dichloropropane	5.359	ug/L	5.0	107	70	130	PASS
1,2-Xylene	4.712	ug/L	5.0	94	70	130	PASS
1,3,5-Trimethylbenzene	4.666	ug/L	5.0	93	70	130	PASS
1,3-Dichlorobenzene	4.949	ug/L	5.0	99	70	130	PASS
1,3-Dichloropropane	5.03	ug/L	5.0	101	70	130	PASS

1,3-Xylene	9.814	ug/L	10	98	70	130	PASS
4-Chlorotoluene	4.973	ug/L	5.0	99	70	130	PASS
1,4-Dichlorobenzene	4.943	ug/L	5.0	99	70	130	PASS
4-Isopropyltoluene	4.874	ug/L	5.0	97	70	130	PASS
1,4-Xylene	9.814	ug/L	10	98	70	130	PASS
1-Chlorobutane	5.05	ug/L	5.0	101	70	130	PASS
2,2-Dichloropropane	5.41	ug/L	5.0	108	70	130	PASS
2-Butanone (MEK)	5.199	ug/L	5.0	104	70	130	PASS
2-Hexanone	4.843	Not Searched		ug/L	5.0	97	70
	130	PASS					
2-Nitropropane	5.158	ug/L	5.0	103	70	130	PASS
4-Methyl-2-pentanone (MIBK)	5.088	ug/L	5.0	102	70	130	PASS
Acetone	4.73	Not Searched	ug/L	5.0	95	70	130
		PASS					
Acrylonitrile	5.055	ug/L	5.0	101	70	130	PASS
Allyl chloride	5.211	ug/L	5.0	104	70	130	PASS
Benzene	4.951	ug/L	5.0	99	70	130	PASS
Bromobenzene	5.117	ug/L	5.0	102	70	130	PASS
Bromochloromethane	5.059	ug/L	5.0	101	70	130	PASS
Bromodichloromethane	4.936	ug/L	5.0	99	70	130	PASS
Bromoform	4.964	ug/L	5.0	99	70	130	PASS
Bromomethane	5.746	ug/L	5.0	115	70	130	PASS
Carbon disulfide	5.208	ug/L	5.0	104	70	130	PASS
Carbon tetrachloride	4.962	ug/L	5.0	99	70	130	PASS
Chloroacetonitrile	4.304	Not Searched		ug/L	5.0	86	70
	130	PASS					
Chlorobenzene	5.124	ug/L	5.0	102	70	130	PASS
Chloroethane	5.07	ug/L	5.0	101	70	130	PASS
Chloroform	4.985	ug/L	5.0	100	70	130	PASS
Chloromethane	5.078	ug/L	5.0	102	70	130	PASS
cis-1,2-Dichloroethylene	5.075	ug/L	5.0	102	70	130	PASS
cis-1,3-Dichloropropylene	5.163	ug/L	5.0	103	70	130	PASS
Dibromochloromethane	4.872	ug/L	5.0	97	70	130	PASS
Dibromomethane	5.042	ug/L	5.0	101	70	130	PASS
Dichlorodifluoromethane	5.407	ug/L	5.0	108	70	130	PASS
Dichloromethane	5.433	ug/L	5.0	109	70	130	PASS
Ethyl methacrylate	4.912	ug/L	5.0	98	70	130	PASS
Ethylbenzene	4.922	ug/L	5.0	98	70	130	PASS
Hexachlorobutadiene	4.856	ug/L	5.0	97	70	130	PASS
Hexachloroethane	5.48	ug/L	5.0	110	70	130	PASS
Isopropylbenzene	5.135	ug/L	5.0	103	70	130	PASS
Methacrylonitrile	5.076	ug/L	5.0	102	70	130	PASS
Methyl iodide	4.118	ug/L	5.0	82	70	130	PASS
Methylacrylate	4.543	ug/L	5.0	91	70	130	PASS
Methylmethacrylate	5.048	ug/L	5.0	101	70	130	PASS
Methyl-t-butyl ether (MTBE)	5.172	ug/L	5.0	103	70	130	PASS
Naphthalene	4.437	ug/L	5.0	89	70	130	PASS
Nitrobenzene	4.859	Not Searched		ug/L	5.0	97	70
	130	PASS					
n-Butylbenzene	4.717	ug/L	5.0	94	70	130	PASS
n-Propylbenzene	4.995	ug/L	5.0	100	70	130	PASS
Pentachloroethane	5.178	ug/L	5.0	104	70	130	PASS
Propionitrile	4.386	Not Searched		ug/L	5.0	88	70
	130	PASS					
sec-Butylbenzene	4.891	ug/L	5.0	98	70	130	PASS
Styrene	4.905	ug/L	5.0	98	70	130	PASS
tert-Butylbenzene	5.127	ug/L	5.0	103	70	130	PASS
Tetrachloroethylene	4.86	ug/L	5.0	97	70	130	PASS
Tetrahydrofuran	4.734	Not Searched		ug/L	5.0	95	70

	130	PASS					
Toluene	4.92	ug/L	5.0	98	70	130	PASS
trans-1,2-Dichloroethylene	5.161	ug/L	5.0	103	70	130	PASS
trans-1,3-Dichloropropylene	5.249	ug/L	5.0	105	70	130	PASS
trans-1,4-Dichloro-2-butylene	5.534	ug/L	5.0	111	70	130	PASS
Trichloroethylene	5.097	ug/L	5.0	102	70	130	PASS
Trichlorofluoromethane	5.346	ug/L	5.0	107	70	130	PASS
Vinyl chloride	5.217	ug/L	5.0	104	70	130	PASS
Xylenes, Total	14.526	N/A	15	97	70	130	PASS
Ethyl Ether	5.178	ug/L	5.0	104	70	130	PASS
1,1,2-Trichloro-1,2,2-trifluoroethane	5.271	ug/L	5.0	105	70	130	PASS
1,2,3-Trimethylbenzene	4.709	ug/L	5.0	94	70	130	PASS

**Environmental Health Laboratories  
Laboratory Trip Blank**

**Sample Matrix:** RW  
**Acquisition File:** Not Available  
**Data Directory:** 041404A  
**Instrument:** ITD - C  
**Extracted Date:** Not Available  
**Sample Number:** 1023137  
**Dilution Factor:** 1  
**Sample Site:** LTB  
**Sample Location:** Not Available

**Method:** 524.2  
**Calibration File:** 524 2-040504C-up1.mth  
**Analysis Date:** 04/14/2004  
**Analysis Time:** 12:10  
**Analyst:** conn  
**Results Submitted By:** conn  
**Run Number:** 64157

**Sample Quality Control**

Internal Standards Parameter	Area	----- CCC -----				----- IC -----			
		CCC Area	% Resp	Limits Lwr Upr	Pass / Fail	IC Avg Area	% Resp	Limits Lwr Upr	Pass / Fail
IS-1,4-Difluorobenzene	247218	263271	94	70 130	PASS	Not Found	N/A	N/A N/A	N/A

Surrogate Standards Parameter	Amount	Units	Target	%Rec	Limits		Pass/Fail
					Lower	Upper	
SS-1,2-Dichlorobenzene-d4	9.015	ug/L	10	90	70	130	PASS
SS-1,2-Dichloroethane-d4	9.747	ug/L	10	97	70	130	PASS
SS-Bromofluorobenzene	4.844	ug/L	5.0	97	70	130	PASS
SS-Toluene-d8	10.024	ug/L	10	100	70	130	PASS

**Ordered Parameter Results**

Parameter	Amount	MRL	Units
1,1,1,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.5	0.5	ug/L
1,1,2,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.5	0.5	ug/L
1,1,2-Trichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethylene	< 0.5	0.5	ug/L
1,1-Dichloropropanone	< 5.0	5.0	ug/L
1,1-Dichloropropylene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,3-Trichloropropane	< 0.5	0.5	ug/L
1,2,3-Trimethylbenzene	< 0.5	0.5	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,4-Trimethylbenzene	< 0.5	0.5	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	< 0.2	0.2	ug/L
1,2-Dibromoethane (EDB)	< 0.2	0.2	ug/L
1,2-Dichlorobenzene	< 0.5	0.5	ug/L
1,2-Dichloroethane	< 0.5	0.5	ug/L
1,2-Dichloropropane	< 0.5	0.5	ug/L
1,2-Xylene	< 0.5	0.5	ug/L
1,3,5-Trimethylbenzene	< 0.5	0.5	ug/L
1,3-Dichlorobenzene	< 0.5	0.5	ug/L

1,3-Dichloropropane	< 0.5	0.5	ug/L
1,3-Xylene	< 0.5	0.5	ug/L
1,4-Dichlorobenzene	< 0.5	0.5	ug/L
1,4-Xylene	< 0.5	0.5	ug/L
1-Chlorobutane	< 5.0	5.0	ug/L
2,2-Dichloropropane	< 0.5	0.5	ug/L
2-Butanone (MEK)	< 5.0	5.0	ug/L
2-Chlorotoluene	< 0.5	0.5	ug/L
2-Hexanone	< 5.0	5.0	ug/L
2-Nitropropane	< 2.0	2.0	ug/L
4-Chlorotoluene	< 0.5	0.5	ug/L
4-Isopropyltoluene	< 0.5	0.5	ug/L
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	ug/L
Acetone	< 5.0	5.0	ug/L
Acrylonitrile	< 1.0	1.0	ug/L
Allyl chloride	< 5.0	5.0	ug/L
Benzene	< 0.5	0.5	ug/L
Bromobenzene	< 0.5	0.5	ug/L
Bromochloromethane	< 0.5	0.5	ug/L
Bromodichloromethane	< 0.5	0.5	ug/L
Bromoform	< 0.5	0.5	ug/L
Bromomethane	< 0.5	0.5	ug/L
Carbon disulfide	< 5.0	5.0	ug/L
Carbon tetrachloride	< 0.5	0.5	ug/L
Chloroacetonitrile	< 5.0	5.0	ug/L
Chlorobenzene	< 0.5	0.5	ug/L
Chloroethane	< 0.5	0.5	ug/L
Chloroform	< 0.5	0.5	ug/L
Chloromethane	< 0.5	0.5	ug/L
Dibromochloromethane	< 0.5	0.5	ug/L
Dibromomethane	< 0.5	0.5	ug/L
Dichlorodifluoromethane	< 0.5	0.5	ug/L
Dichloromethane	< 0.5	0.5	ug/L
Ethyl Ether	< 2.0	2.0	ug/L
Ethyl methacrylate	< 1.0	1.0	ug/L
Ethylbenzene	< 0.5	0.5	ug/L
Hexachlorobutadiene	< 0.5	0.5	ug/L
Hexachloroethane	< 2.0	2.0	ug/L
Isopropylbenzene	< 0.5	0.5	ug/L
Methacrylonitrile	< 5.0	5.0	ug/L
Methyl iodide	< 2.0	2.0	ug/L
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	ug/L
Methylacrylate	< 1.0	1.0	ug/L
Methylmethacrylate	< 1.0	1.0	ug/L
Naphthalene	< 0.5	0.5	ug/L
Nitrobenzene	< 5.0	5.0	ug/L
Pentachloroethane	< 2.0	2.0	ug/L
Propionitrile	< 5.0	5.0	ug/L
Styrene	< 0.5	0.5	ug/L
Tetrachloroethylene	< 0.5	0.5	ug/L
Tetrahydrofuran	< 5.0	5.0	ug/L
Toluene	< 0.5	0.5	ug/L
Trichloroethylene	< 0.5	0.5	ug/L
Trichlorofluoromethane	< 0.5	0.5	ug/L
Vinyl chloride	< 0.2	0.2	ug/L
Xylenes, Total	< 0.5	0.5	ug/L
cis-1,2-Dichloroethylene	< 0.5	0.5	ug/L
cis-1,3-Dichloropropylene	< 0.5	0.5	ug/L
n-Butylbenzene	< 0.5	0.5	ug/L

n-Propylbenzene	< 0.5	0.5	ug/L
sec-Butylbenzene	< 0.5	0.5	ug/L
tert-Butylbenzene	< 0.5	0.5	ug/L
trans-1,2-Dichloroethylene	< 0.5	0.5	ug/L
trans-1,3-Dichloropropylene	< 0.5	0.5	ug/L
trans-1,4-Dichloro-2-butylene	< 5.0	5.0	ug/L

### Additional Found Parameters

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
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The symbol \* in the Amount column above indicates that the sample was re-analyzed for that parameter and the results are presented on another page.

**Environmental Health Laboratories  
Sample Result Record Sheet**

**Sample Matrix:** DW  
**Acquisition File:** Not Available  
**Data Directory:** 041404A  
**Instrument:** ITD - C  
**Extracted Date:** Not Available  
**Sample Number:** 1023135  
**Dilution Factor:** 1  
**Sample Site:** BAR-G-29600N-INFLOW  
**Sample Location:** Not Available

**Method:** 524.2  
**Calibration File:** 524 2-040504C-up1.mth  
**Analysis Date:** 04/14/2004  
**Analysis Time:** 12:47  
**Analyst:** conn  
**Results Submitted By:** conn  
**Run Number:** 64157

**Sample Quality Control**

Internal Standards Parameter	----- CCC -----					----- IC -----			
	Area	CCC Area	% Resp	Limits Lwr Upr	Pass / Fail	IC Avg Area	% Resp	Limits Lwr Upr	Pass / Fail
IS-1,4-Difluorobenzene	254872	263271	97	70 130	PASS	Not Found	N/A	N/A N/A	N/A

Surrogate Standards Parameter	Amount	Units	Target	%Rec	Limits		Pass/Fail
					Lower	Upper	
SS-Toluene-d8	9.961	ug/L	10	100	70	130	PASS
SS-1,2-Dichlorobenzene-d4	9.352	ug/L	10	94	70	130	PASS
SS-Bromofluorobenzene	5.083	ug/L	5.0	102	70	130	PASS
SS-1,2-Dichloroethane-d4	10.487	ug/L	10	105	70	130	PASS

**Ordered Parameter Results**

Parameter	Amount	MRL	Units
1,1,1,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.5	0.5	ug/L
1,1,2,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.5	0.5	ug/L
1,1,2-Trichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethylene	< 0.5	0.5	ug/L
1,1-Dichloropropanone	< 5.0	5.0	ug/L
1,1-Dichloropropylene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,3-Trichloropropane	< 0.5	0.5	ug/L
1,2,3-Trimethylbenzene	< 0.5	0.5	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,4-Trimethylbenzene	< 0.5	0.5	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	< 0.2	0.2	ug/L
1,2-Dibromoethane (EDB)	< 0.2	0.2	ug/L
1,2-Dichlorobenzene	< 0.5	0.5	ug/L
1,2-Dichloroethane	< 0.5	0.5	ug/L
1,2-Dichloropropane	< 0.5	0.5	ug/L
1,2-Xylene	< 0.5	0.5	ug/L
1,3,5-Trimethylbenzene	< 0.5	0.5	ug/L
1,3-Dichlorobenzene	< 0.5	0.5	ug/L

1,3-Dichloropropane	< 0.5	0.5	ug/L
1,3-Xylene	< 0.5	0.5	ug/L
1,4-Dichlorobenzene	< 0.5	0.5	ug/L
1,4-Xylene	< 0.5	0.5	ug/L
1-Chlorobutane	< 5.0	5.0	ug/L
2,2-Dichloropropane	< 0.5	0.5	ug/L
2-Butanone (MEK)	< 5.0	5.0	ug/L
2-Chlorotoluene	< 0.5	0.5	ug/L
2-Hexanone	< 5.0	5.0	ug/L
2-Nitropropane	< 2.0	2.0	ug/L
4-Chlorotoluene	< 0.5	0.5	ug/L
4-Isopropyltoluene	< 0.5	0.5	ug/L
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	ug/L
Acetone	< 5.0	5.0	ug/L
Acrylonitrile	< 1.0	1.0	ug/L
Allyl chloride	< 5.0	5.0	ug/L
Benzene	< 0.5	0.5	ug/L
Bromobenzene	< 0.5	0.5	ug/L
Bromochloromethane	< 0.5	0.5	ug/L
Bromodichloromethane	< 0.5	0.5	ug/L
Bromoform	< 0.5	0.5	ug/L
Bromomethane	< 0.5	0.5	ug/L
Carbon disulfide	< 5.0	5.0	ug/L
Carbon tetrachloride	< 0.5	0.5	ug/L
Chloroacetonitrile	< 5.0	5.0	ug/L
Chlorobenzene	< 0.5	0.5	ug/L
Chloroethane	< 0.5	0.5	ug/L
Chloroform	< 0.5	0.5	ug/L
Chloromethane	< 0.5	0.5	ug/L
Dibromochloromethane	< 0.5	0.5	ug/L
Dibromomethane	< 0.5	0.5	ug/L
Dichlorodifluoromethane	< 0.5	0.5	ug/L
Dichloromethane	< 0.5	0.5	ug/L
Ethyl Ether	< 2.0	2.0	ug/L
Ethyl methacrylate	< 1.0	1.0	ug/L
Ethylbenzene	< 0.5	0.5	ug/L
Hexachlorobutadiene	< 0.5	0.5	ug/L
Hexachloroethane	< 2.0	2.0	ug/L
Isopropylbenzene	< 0.5	0.5	ug/L
Methacrylonitrile	< 5.0	5.0	ug/L
Methyl iodide	< 2.0	2.0	ug/L
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	ug/L
Methylacrylate	< 1.0	1.0	ug/L
Methylmethacrylate	< 1.0	1.0	ug/L
Naphthalene	< 0.5	0.5	ug/L
Nitrobenzene	< 5.0	5.0	ug/L
Pentachloroethane	< 2.0	2.0	ug/L
Propionitrile	< 5.0	5.0	ug/L
Styrene	< 0.5	0.5	ug/L
Tetrachloroethylene	< 0.5	0.5	ug/L
Tetrahydrofuran	< 5.0	5.0	ug/L
Toluene	< 0.5	0.5	ug/L
Trichloroethylene	< 0.5	0.5	ug/L
Trichlorofluoromethane	< 0.5	0.5	ug/L
Vinyl chloride	< 0.2	0.2	ug/L
Xylenes, Total	< 0.5	0.5	ug/L
cis-1,2-Dichloroethylene	< 0.5	0.5	ug/L
cis-1,3-Dichloropropylene	< 0.5	0.5	ug/L
n-Butylbenzene	< 0.5	0.5	ug/L



n-Propylbenzene	< 0.5	0.5	ug/L
sec-Butylbenzene	< 0.5	0.5	ug/L
tert-Butylbenzene	< 0.5	0.5	ug/L
trans-1,2-Dichloroethylene	< 0.5	0.5	ug/L
trans-1,3-Dichloropropylene	< 0.5	0.5	ug/L
trans-1,4-Dichloro-2-butylene	< 5.0	5.0	ug/L

### Additional Found Parameters

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
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The symbol \* in the Amount column above indicates that the sample was re-analyzed for that parameter and the results are presented on another page.

**Environmental Health Laboratories  
Sample Result Record Sheet**

**Sample Matrix:** DW  
**Acquisition File:** Not Available  
**Data Directory:** 041404A  
**Instrument:** ITD - C  
**Extracted Date:** Not Available  
**Sample Number:** 1023136  
**Dilution Factor:** 1  
**Sample Site:** BAR-G-30900N-INFLOW  
**Sample Location:** Not Available

**Method:** 524.2  
**Calibration File:** 524 2-040504C-up1.mth  
**Analysis Date:** 04/14/2004  
**Analysis Time:** 13:23  
**Analyst:** conn  
**Results Submitted By:** conn  
**Run Number:** 64157

**Sample Quality Control**

Internal Standards Parameter	Area	----- CCC -----				----- IC -----			
		CCC Area	% Resp	Limits Lwr Upr	Pass / Fail	IC Area	% Resp	Limits Lwr Upr	Pass / Fail
IS-1,4-Difluorobenzene	255332	263271	97	70 130	PASS	Not Found	N/A	N/A N/A	N/A

Surrogate Standards Parameter	Amount	Units	Target	%Rec	Limits		Pass/Fail
					Lower	Upper	
SS-1,2-Dichlorobenzene-d4	9.509	ug/L	10	95	70	130	PASS
SS-1,2-Dichloroethane-d4	10.687	ug/L	10	107	70	130	PASS
SS-Bromofluorobenzene	4.965	ug/L	5.0	99	70	130	PASS
SS-Toluene-d8	10.125	ug/L	10	101	70	130	PASS

**Ordered Parameter Results**

Parameter	Amount	MRL	Units
1,1,1,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.5	0.5	ug/L
1,1,2,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.5	0.5	ug/L
1,1,2-Trichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethylene	< 0.5	0.5	ug/L
1,1-Dichloropropanone	< 5.0	5.0	ug/L
1,1-Dichloropropylene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,3-Trichloropropane	< 0.5	0.5	ug/L
1,2,3-Trimethylbenzene	< 0.5	0.5	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,4-Trimethylbenzene	< 0.5	0.5	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	< 0.2	0.2	ug/L
1,2-Dibromoethane (EDB)	< 0.2	0.2	ug/L
1,2-Dichlorobenzene	< 0.5	0.5	ug/L
1,2-Dichloroethane	< 0.5	0.5	ug/L
1,2-Dichloropropane	< 0.5	0.5	ug/L
1,2-Xylene	< 0.5	0.5	ug/L
1,3,5-Trimethylbenzene	< 0.5	0.5	ug/L
1,3-Dichlorobenzene	< 0.5	0.5	ug/L

1,3-Dichloropropane	< 0.5	0.5	ug/L
1,3-Xylene	< 0.5	0.5	ug/L
1,4-Dichlorobenzene	< 0.5	0.5	ug/L
1,4-Xylene	< 0.5	0.5	ug/L
1-Chlorobutane	< 5.0	5.0	ug/L
2,2-Dichloropropane	< 0.5	0.5	ug/L
2-Butanone (MEK)	< 5.0	5.0	ug/L
2-Chlorotoluene	< 0.5	0.5	ug/L
2-Hexanone	< 5.0	5.0	ug/L
2-Nitropropane	< 2.0	2.0	ug/L
4-Chlorotoluene	< 0.5	0.5	ug/L
4-Isopropyltoluene	< 0.5	0.5	ug/L
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	ug/L
Acetone	< 5.0	5.0	ug/L
Acrylonitrile	< 1.0	1.0	ug/L
Allyl chloride	< 5.0	5.0	ug/L
Benzene	< 0.5	0.5	ug/L
Bromobenzene	< 0.5	0.5	ug/L
Bromochloromethane	< 0.5	0.5	ug/L
Bromodichloromethane	< 0.5	0.5	ug/L
Bromoform	< 0.5	0.5	ug/L
Bromomethane	< 0.5	0.5	ug/L
Carbon disulfide	< 5.0	5.0	ug/L
Carbon tetrachloride	< 0.5	0.5	ug/L
Chloroacetonitrile	< 5.0	5.0	ug/L
Chlorobenzene	< 0.5	0.5	ug/L
Chloroethane	< 0.5	0.5	ug/L
Chloroform	< 0.5	0.5	ug/L
Chloromethane	< 0.5	0.5	ug/L
Dibromochloromethane	< 0.5	0.5	ug/L
Dibromomethane	< 0.5	0.5	ug/L
Dichlorodifluoromethane	< 0.5	0.5	ug/L
Dichloromethane	< 0.5	0.5	ug/L
Ethyl Ether	< 2.0	2.0	ug/L
Ethyl methacrylate	< 1.0	1.0	ug/L
Ethylbenzene	< 0.5	0.5	ug/L
Hexachlorobutadiene	< 0.5	0.5	ug/L
Hexachloroethane	< 2.0	2.0	ug/L
Isopropylbenzene	< 0.5	0.5	ug/L
Methacrylonitrile	< 5.0	5.0	ug/L
Methyl iodide	< 2.0	2.0	ug/L
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	ug/L
Methylacrylate	< 1.0	1.0	ug/L
Methylmethacrylate	< 1.0	1.0	ug/L
Naphthalene	< 0.5	0.5	ug/L
Nitrobenzene	< 5.0	5.0	ug/L
Pentachloroethane	< 2.0	2.0	ug/L
Propionitrile	< 5.0	5.0	ug/L
Styrene	< 0.5	0.5	ug/L
Tetrachloroethylene	< 0.5	0.5	ug/L
Tetrahydrofuran	< 5.0	5.0	ug/L
Toluene	< 0.5	0.5	ug/L
Trichloroethylene	< 0.5	0.5	ug/L
Trichlorofluoromethane	< 0.5	0.5	ug/L
Vinyl chloride	< 0.2	0.2	ug/L
Xylenes, Total	< 0.5	0.5	ug/L
cis-1,2-Dichloroethylene	< 0.5	0.5	ug/L
cis-1,3-Dichloropropylene	< 0.5	0.5	ug/L
n-Butylbenzene	< 0.5	0.5	ug/L

n-Propylbenzene	< 0.5	0.5	ug/L
sec-Butylbenzene	< 0.5	0.5	ug/L
tert-Butylbenzene	< 0.5	0.5	ug/L
trans-1,2-Dichloroethylene	< 0.5	0.5	ug/L
trans-1,3-Dichloropropylene	< 0.5	0.5	ug/L
trans-1,4-Dichloro-2-butylene	< 5.0	5.0	ug/L

### Additional Found Parameters

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
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The symbol \* in the Amount column above indicates that the sample was re-analyzed for that parameter and the results are presented on another page.

**Environmental Health Laboratories  
Quality Control Sample**

**Sample Matrix:** RW  
**Acquisition File:** Not Available  
**Data Directory:** 041404A  
**Today's Date:** 04/19/2004  
**Instrument:** ITD - C  
**Extracted Date:** Not Available  
**Sample Number:** 1025233

**Method:** 524.2  
**Calibration File:** 524 2-040504C-up1.mth  
**Analysis Date:** 04/15/2004  
**Analysis Time:** 03:35  
**Analyst:** conn  
**Results Submitted By:** conn  
**Run Number:** 64157

**Sample Quality Control**

<u>Internal Standards</u> <u>Parameter</u>	<u>Area</u>	<u>CCC</u>				<u>IC</u>			
		<u>Area</u>	<u>% Resp</u>	<u>Limits</u>	<u>Pass / Fail</u>	<u>Avg Area</u>	<u>% Resp</u>	<u>Limits</u>	<u>Pass / Fail</u>
IS-1,4-Difluorobenzene	258058	263868	98	70 130	PASS	296912	87	50 150	PASS
<b>Surrogate Standards</b> <u>Parameter</u>	<u>Amount</u>	<u>Units</u>	<u>Target</u>	<u>%Rec</u>	<u>Limits</u>		<u>Pass/Fail</u>		
SS-1,2-Dichlorobenzene-d4	10.011	ug/L	10	100	70	130	PASS		
SS-1,2-Dichloroethane-d4	10.118	ug/L	10	101	70	130	PASS		
SS-Bromofluorobenzene	5.275	ug/L	5.0	106	70	130	PASS		
SS-Toluene-d8	10.277	ug/L	10	103	70	130	PASS		

**Ordered Parameter Results**

<u>Parameter</u>	<u>Amount</u>	<u>Units</u>	<u>Target</u>	<u>%Rec</u>	<u>Limits</u>		<u>Pass/Fail</u>
					<u>Lower</u>	<u>Upper</u>	
Bromodichloromethane	9.585	ug/L	10	96	70	130	PASS
Bromoform	9.821	ug/L	10	98	70	130	PASS
Chloroform	10.327	ug/L	10	103	70	130	PASS
Dibromochloromethane	10.117	ug/L	10	101	70	130	PASS

**Environmental Health Laboratories  
Volatile Organic Chemicals  
Surrogate Percent Recovery**

	<b>SS1</b>	<b>SS2</b>	<b>SS3</b>	<b>SS4</b>
Upper Limit	130	130	130	130
Lower Limit	70	70	70	70

**Method: 524.2**

<b>Sample No.</b>	<b>Filename</b>	<b>SS1</b>	<b>Target %Rec</b>	<b>Q SS2</b>	<b>Target %Rec</b>	<b>Q SS3</b>	<b>Target %Rec</b>	<b>Q SS4</b>	<b>Target %Rec</b>	<b>Q</b>
1023811 / LMB	MB-524A	9.233	10.0 92	9.978	10.0 100	4.725	5.0 94	9.728	10.0 97	
1023812 / LFB	FB-524A	9.605	10.0 96	10.188	10.0 102	5.013	5.0 100	9.827	10.0 98	
1023813 / CCC	C-5-13A	9.764	10.0 98	10.187	10.0 102	5.143	5.0 103	9.917	10.0 99	
1023137 / LTB	L1023137	9.015	10.0 90	9.747	10.0 97	4.844	5.0 97	10.024	10.0 100	
1023135 / FS	1023135	9.352	10.0 94	10.487	10.0 105	5.083	5.0 102	9.961	10.0 100	
1023136 / FS	1023136	9.509	10.0 95	10.687	10.0 107	4.965	5.0 99	10.125	10.0 101	
1025233 / QCS	Q-524A	10.011	10.0 100	10.118	10.0 101	5.275	5.0 106	10.277	10.0 103	

SS1 = SS-1,2-Dichlorobenzene-d4

SS2 = SS-1,2-Dichloroethane-d4

SS3 = SS-Bromofluorobenzene

SS4 = SS-Toluene-d8

Q = Out of Range

**Environmental Health Laboratories  
Volatile Organic Chemicals  
Internal Standard Area Summary**

CCC (1023813)	<b>IS1 Area</b>
Upper Limit	270481
Lower Limit	351625
IC AVG AREA (524 2-040504C-up1.mth)	189337
Upper Limit	296912
Lower Limit	445368
	148456

**Method: 524.2**

<b>Sample No.</b>	<b>Filename</b>	<b>IS1 Area</b>	<b>Q</b>
1023811 / LMB	MB-524A	270820	
1023812 / LFB	FB-524A	271430	
1023137 / LTB	L1023137	247218	
1023135 / FS	1023135	254872	
1023136 / FS	1023136	255332	
1025233 / QCS	Q-524A	258058	

IS1 = IS-1,4-Difluorobenzene

Q : B = IS Area out of range compared to the previous CCC IS Area and the Initial Calibration IS Average Area

Q : C = IS Area out of range compared to the previous CCC IS Area

Q : I = IS Area out of range compared to the Initial Calibration IS Average Area

**DETERMINATION OF METHOD DETECTION LIMITS  
METHOD 524.2 - VOLATILE ORGANIC CHEMICALS**

Lab Name: Environmental Health Laboratories  
Contract: n/a  
Project: Method Detection Limits  
Column: J&W DB-624 60m x 0.25mm ID

Method: 524.2  
Initial Cal: 524\_2-072203c.mth  
524\_2-080703c.mth  
524\_2-080703c-up1.mth  
Matrix: RW

Acq. File: C073103A, C080103A, C080203A  
C080803A, C081103A, C081203A  
C081803A, C082003A, C082203A  
Data Directory: C:\073103A, C\080103A, C\080203A  
C\080803A, C\081103A, C\081203A  
C\081803A, C\082003A, C\082203A

Data File:	M-05-1A	M-05-1B	M-05-1C	M-05-1D	M-05-1E	M-05-1F	M-05-1G
Analysis Date:	07/31/03	07/31/03	07/31/03	08/01/03	08/01/03	08/01/03	08/03/03

Parameter	Target Conc. (ug/L)	Observed Recovery (ug/L)							Mean Recovery	Average %Rec	Std. Deviation	Calc. MDL	Q
		Rep - 1	Rep - 2	Rep - 3	Rep - 4	Rep - 5	Rep - 6	Rep - 7					
1,1,1,2-Tetrachloroethane *	1.0	1.130	1.037	0.961	0.974	1.083	1.104	0.944	1.033	103	0.0748	0.235	
1,1,1-Trichloroethane	0.50	0.526	0.499	0.506	0.473	0.483	0.471	0.488	0.492	98	0.0196	0.062	
1,1,2,2-Tetrachloroethane	0.50	0.548	0.511	0.525	0.518	0.523	0.513	0.568	0.529	106	0.0210	0.066	
1,1,2-Trichloroethane	0.50	0.493	0.472	0.462	0.466	0.475	0.436	0.491	0.471	94	0.0193	0.061	
1,1-Dichloroethane	0.50	0.510	0.450	0.465	0.437	0.437	0.470	0.469	0.463	93	0.0252	0.079	
1,1-Dichloroethylene	0.50	0.596	0.538	0.553	0.575	0.562	0.528	0.570	0.560	112	0.0230	0.072	
1,1-Dichloropropylene	0.50	0.534	0.538	0.548	0.496	0.480	0.471	0.496	0.509	102	0.0306	0.096	
1,2,3-Trichlorobenzene	0.50	0.591	0.568	0.577	0.577	0.560	0.566	0.533	0.567	113	0.0182	0.057	
1,2,3-Trichloropropane *	1.0	1.081	1.080	1.004	0.928	1.026	1.005	1.044	1.024	102	0.0529	0.166	
1,2,4-Trichlorobenzene	0.50	0.597	0.599	0.600	0.578	0.590	0.570	0.559	0.585	117	0.0160	0.050	
1,2,4-Trimethylbenzene	0.50	0.556	0.527	0.540	0.472	0.494	0.484	0.508	0.512	102	0.0307	0.097	
1,2-Dibromo-3-Chloropropane	0.50	0.548	0.519	0.524	0.502	0.472	0.480	0.490	0.505	101	0.0269	0.085	
1,2-Dibromoethane	0.50	0.577	0.547	0.544	0.525	0.525	0.513	0.501	0.533	107	0.0252	0.079	
1,2-Dichlorobenzene **	0.40	0.422	0.367	0.388	0.387	0.403	0.399	0.385	0.393	98	0.0172	0.054	
1,2-Dichloroethane	0.50	0.467	0.449	0.454	0.442	0.407	0.439	0.438	0.442	88	0.0186	0.058	
1,2-Dichloropropane	0.50	0.521	0.539	0.487	0.493	0.490	0.466	0.499	0.499	100	0.0239	0.075	
1,2-Xylene	0.50	0.586	0.549	0.543	0.540	0.528	0.532	0.565	0.549	110	0.0203	0.064	
1,3,5-Trimethylbenzene	0.50	0.592	0.532	0.537	0.514	0.510	0.496	0.522	0.529	106	0.0310	0.097	
1,3-Dichlorobenzene	0.50	0.583	0.555	0.550	0.525	0.519	0.523	0.551	0.544	109	0.0229	0.072	
1,3-Dichloropropane	0.50	0.515	0.500	0.487	0.487	0.515	0.448	0.487	0.491	98	0.0228	0.072	
1,3- + 1,4-Xylene	1.0	1.140	1.093	1.057	1.032	1.038	1.012	1.032	1.058	106	0.0444	0.139	
1,4-Dichlorobenzene	0.50	0.594	0.567	0.551	0.542	0.537	0.523	0.533	0.550	110	0.0241	0.076	
2,2-Dichloropropane	0.50	0.619	0.567	0.569	0.482	0.493	0.467	0.509	0.529	106	0.0561	0.176	
2-Chlorotoluene	0.50	0.559	0.500	0.503	0.512	0.502	0.482	0.486	0.506	101	0.0254	0.080	
4-Chlorotoluene	0.50	0.565	0.521	0.519	0.495	0.521	0.484	0.482	0.512	102	0.0288	0.091	
4-Isopropyltoluene	0.50	0.564	0.527	0.527	0.479	0.469	0.477	0.498	0.506	101	0.0348	0.109	
Benzene	0.50	0.591	0.563	0.598	0.549	0.561	0.543	0.567	0.567	113	0.0204	0.064	
Bromobenzene **	0.40	0.430	0.375	0.368	0.379	0.383	0.371	0.362	0.381	95	0.0226	0.071	
Bromochloromethane **	0.40	0.419	0.373	0.370	0.383	0.424	0.396	0.364	0.390	97	0.0240	0.075	



**DETERMINATION OF METHOD DETECTION LIMITS  
METHOD 524.2 - VOLATILE ORGANIC CHEMICALS**

Lab Name: Environmental Health Laboratories

Method: 524.2

Instrument ID: Saturn C

Parameter	Target Conc. (ug/L)	Observed Recovery (ug/L)							Average Recovery	Average %Rec	Std. Deviation	Calc. MDL	Q
		Rep - 1	Rep - 2	Rep - 3	Rep - 4	Rep - 5	Rep - 6	Rep - 7					
Bromodichloromethane	0.50	0.582	0.569	0.541	0.541	0.552	0.540	0.551	0.554	111	0.0161	0.051	
Bromoform *	1.0	1.080	1.083	1.043	1.088	1.095	1.069	1.154	1.087	109	0.0339	0.106	
Bromomethane	0.50	0.570	0.544	0.592	0.640	0.559	0.606	0.592	0.586	117	0.0320	0.101	
Carbon tetrachloride	0.50	0.569	0.540	0.565	0.542	0.541	0.519	0.565	0.549	110	0.0183	0.057	
Chlorobenzene	0.50	0.531	0.474	0.499	0.465	0.466	0.455	0.443	0.476	95	0.0297	0.093	
Chloroethane	0.50	0.418	0.326	0.487	0.434	0.449	0.514	0.422	0.436	87	0.0598	0.188	
Chloroform	0.40	0.454	0.396	0.404	0.409	0.419	0.396	0.383	0.409	102	0.0230	0.072	
Chloromethane	0.50	0.548	0.453	0.501	0.469	0.571	0.534	0.458	0.505	101	0.0470	0.148	
cis-1,2-Dichloroethylene **	0.40	0.457	0.388	0.390	0.402	0.405	0.410	0.390	0.406	102	0.0240	0.076	
cis-1,3-Dichloropropylene	0.50	0.554	0.502	0.482	0.508	0.500	0.484	0.494	0.503	101	0.0242	0.076	
Dibromochloromethane *	1.0	1.036	1.079	0.975	1.027	1.007	1.026	0.991	1.020	102	0.0338	0.106	
Dibromomethane	0.40	0.438	0.367	0.380	0.388	0.402	0.393	0.381	0.393	98	0.0228	0.072	
Dichlorodifluoromethane	0.40	0.288	0.220	0.228	0.215	0.217	0.230	0.209	0.230	57	0.0268	0.084	
Ethylbenzene	0.50	0.558	0.531	0.505	0.499	0.500	0.490	0.490	0.510	102	0.0251	0.079	
Hexachlorobutadiene	0.50	0.572	0.539	0.535	0.483	0.474	0.483	0.486	0.510	102	0.0379	0.119	
Isopropylbenzene	0.50	0.534	0.488	0.483	0.481	0.475	0.469	0.493	0.489	98	0.0214	0.067	
Methyl tert-butyl ether (MTBE)	0.50	0.438	0.432	0.434	0.445	0.473	0.461	0.501	0.455	91	0.0253	0.079	
Methylene chloride *	1.0	0.834	0.874	0.849	0.870	0.734	0.787	0.868	0.831	83	0.0523	0.164	
n-Butylbenzene	0.50	0.518	0.505	0.488	0.434	0.440	0.436	0.438	0.466	93	0.0367	0.115	
n-Propylbenzene	0.50	0.560	0.535	0.518	0.473	0.522	0.476	0.483	0.510	102	0.0331	0.104	
Naphthalene	0.40	0.445	0.376	0.409	0.398	0.414	0.398	0.421	0.409	102	0.0216	0.068	
sec-Butylbenzene	0.50	0.478	0.489	0.530	0.477	0.470	0.472	0.505	0.489	98	0.0218	0.069	
Styrene	0.50	0.582	0.534	0.550	0.482	0.488	0.507	0.504	0.521	104	0.0361	0.114	
tert-Butylbenzene	0.50	0.553	0.527	0.534	0.501	0.490	0.487	0.521	0.516	103	0.0244	0.077	
Tetrachloroethylene	0.50	0.579	0.568	0.541	0.529	0.514	0.526	0.541	0.543	109	0.0233	0.073	
Toluene *	1.0	1.031	1.017	0.929	0.984	0.939	0.983	0.949	0.976	98	0.0390	0.123	
trans-1,2-Dichloroethylene	0.50	0.539	0.497	0.481	0.498	0.478	0.465	0.491	0.493	99	0.0235	0.074	
trans-1,3-Dichloropropylene	0.50	0.530	0.521	0.546	0.479	0.500	0.460	0.513	0.507	101	0.0298	0.094	
Trichloroethylene	0.50	0.558	0.505	0.502	0.519	0.514	0.495	0.500	0.513	103	0.0214	0.067	
Trichlorofluoromethane *	1.0	1.116	1.177	1.079	1.122	1.178	1.128	1.137	1.134	113	0.0349	0.110	
Vinyl chloride	0.50	0.498	0.459	0.444	0.493	0.461	0.487	0.480	0.475	95	0.0201	0.063	

Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments: \* MDL replicates at 1 ug/L were used from C\073103A, C\080103A, and C\080203A.

\*\* MDL replicates at 0.4 ug/L were used from C\080803A, C\081103A, and C\081203A.

**DETERMINATION OF METHOD DETECTION LIMITS  
METHOD 524.2 - VOLATILE ORGANIC CHEMICALS**

Lab Name: Environmental Health Laboratories  
Contract: n/a  
Project: Method Detection Limits  
Column: J&W DB-624 60m x 0.25mm ID

Method: 524.2  
Initial Cal: 524\_2-072203c.mth  
524\_2-080703c.mth  
524\_2-080703c-up1.mth  
Matrix: RW

Acq. File: C073103A, C080103A, C080203A  
C080803A, C081103A, C081203A  
C081803A, C082003A, C082203A  
Data Directory: C:\073103A, C\080103A, C\080203A  
C\080803A, C\081103A, C\081203A  
C\081803A, C\082003A, C\082203A

Data File:	M-05-1A	M-05-1B	M-05-1C	M-05-1D	M-05-1E	M-05-1F	M-05-1G
Analysis Date:	07/31/03	07/31/03	07/31/03	08/01/03	08/01/03	08/01/03	08/03/03

Parameter	Target Conc. (ug/L)	Observed Recovery (ug/L)							Average Recovery	Average %Rec	Std. Deviation	Calc. MDL	Q
		Rep - 1	Rep - 2	Rep - 3	Rep - 4	Rep - 5	Rep - 6	Rep - 7					
1,1,2-Trichlorotrifluoroethane *	1.00	1.047	1.095	1.045	1.005	1.013	1.042	0.995	1.035	103	0.0339	0.106	
1,2,3-Trimethylbenzene	0.50	0.556	0.547	0.521	0.482	0.492	0.492	0.509	0.514	103	0.0286	0.090	
1,4-Dioxane ****	5.0	5.481	5.127	4.528	4.481	4.063	3.600	5.508	4.684	94	0.7230	2.272	
Butyl Acrylate *****	1.0	0.965	1.184	1.176	1.365	1.132	1.170	1.139	1.162	116	0.1170	0.368	
Chloroprene ****	5.0	5.392	5.215	4.819	4.913	4.736	4.851	5.051	4.997	100	0.2362	0.742	
Cyclohexanone ****	5.0	3.042	2.990	3.610	3.062	2.824	4.529	5.087	3.592	72	0.8802	2.767	
Epichlorohydrin ***	1.0	0.956	1.207	1.157	1.002	1.108	1.074	1.212	1.102	110	0.0986	0.310	
Ethyl Acrylate ***	1.0	0.884	0.823	0.844	0.806	0.869	0.883	0.745	0.836	84	0.0500	0.157	
t-Amyl Methyl Ether *****	1.0	0.938	0.953	0.997	1.286	0.954	0.962	0.976	1.009	101	0.1234	0.388	
t-Butyl alcohol ****	5.0	4.598	5.039	4.684	4.797	4.806	5.454	5.313	4.956	99	0.3246	1.020	
t-Butyl Ethyl Ether ***	1.0	0.935	0.925	0.987	0.866	0.927	0.951	0.968	0.937	94	0.0386	0.121	
Vinyl Acetate ***	1.0	0.947	0.892	0.937	0.826	0.862	0.851	0.918	0.890	89	0.0459	0.144	

Q = A flag or qualifier indicating possible cause for an out of range or failed result.

NA = Standard not available at the time of the initial calibration.

Comments: \* MDL replicates at 1 ug/L were used from C\073103A, C\080103A, and C\080203A.

\*\*\* MDL replicates containing the Mix 4 compounds at 1 ppb were used from C\073103A, C\080103A, and C\080203A.

\*\*\*\* MDL replicates containing the Mix 4 compounds at 5 ppb were used from C\073103A, C\080103A, and C\080203A.

\*\*\*\*\* MDL replicates containing the Mix 4 compounds at 1 ppb were used from C\081803A, C\082003A, and C\082203A.

**DETERMINATION OF METHOD DETECTION LIMITS  
METHOD 524.2 - VOLATILE ORGANIC CHEMICALS**

Lab Name: Environmental Health Laboratories  
Contract: n/a  
Project: Method Detection Limits  
Column: J&W DB-624 60m x 0.25mm ID

Method: 524.2  
Initial Cal: 524\_2-072203c.mth  
524\_2-080703c.mth  
524\_2-080703c-up1.mth  
Matrix: RW

Acq. File: C073103A, C080103A, C080203A  
C080803A, C081103A, C081203A  
C081803A, C082003A, C082203A  
Data Directory: C:\073103A, C\080103A, C\080203A  
C\080803A, C\081103A, C\081203A  
C\081803A, C\082003A, C\082203A

Data File:	M-5-1A	M-5-1B	M-5-1C	M-5-1D	M-5-1E	M-5-1F	M-5-1G
Analysis Date:	07/31/03	07/31/03	07/31/03	08/02/03	08/02/03	08/02/03	08/03/03

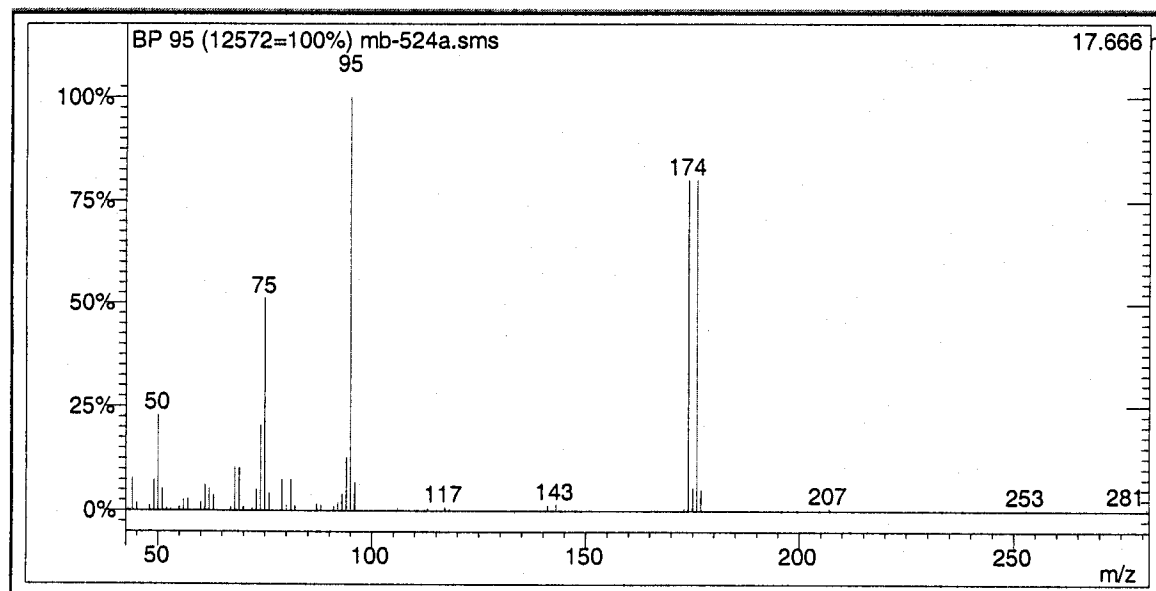
Parameter	Target Conc. (ug/L)	Observed Recovery (ug/L)							Average Recovery	Average %Rec	Std. Deviation	Calc. MDL	Q
		Rep - 1	Rep - 2	Rep - 3	Rep - 4	Rep - 5	Rep - 6	Rep - 7					
1,1-Dichloropropanone	5.0	4.826	5.252	5.445	4.871	5.252	4.611	5.036	5.042	101	0.2922	0.918	
1-Chlorobutane	5.0	4.886	5.483	4.879	4.485	4.754	4.484	4.787	4.823	96	0.3361	1.056	
2-Butanone (MEK)	5.0	4.715	5.157	4.905	4.687	4.780	4.758	5.224	4.889	98	0.2177	0.684	
2-Hexanone	5.0	4.881	5.033	4.699	4.371	4.852	4.628	4.663	4.732	95	0.2138	0.672	
2-Nitropropane	5.0	3.496	4.864	4.083	4.679	4.515	4.902	4.047	4.369	87	0.5155	1.620	
4-Methyl-2-Pentanone *	1.0	0.880	0.997	0.828	0.887	0.922	0.913	0.915	0.906	91	0.0513	0.161	
Acetone	5.0	5.462	5.568	5.665	5.723	5.997	5.598	6.472	5.784	116	0.3468	1.090	
Acrylonitrile	5.0	4.646	5.583	4.906	4.953	5.073	4.955	5.056	5.025	100	0.2836	0.891	
Allyl Chloride	5.0	4.730	5.358	5.124	4.569	5.073	4.616	4.700	4.881	98	0.3018	0.949	
Carbon Disulfide	5.0	4.932	5.252	4.942	4.487	4.742	4.367	4.788	4.787	96	0.2971	0.934	
Chloroacetonitrile	5.0	3.644	4.288	4.063	4.118	4.208	3.856	3.747	3.989	80	0.2432	0.764	
Ethyl Ether	5.0	5.349	5.986	5.821	5.762	5.665	5.649	5.306	5.648	113	0.2462	0.774	
Ethyl Methacrylate	5.0	4.840	5.093	5.099	4.685	4.955	4.588	5.023	4.898	98	0.2009	0.631	
Hexachloroethane	5.0	4.821	5.198	4.999	4.774	5.041	4.704	4.910	4.921	98	0.1713	0.538	
Iodomethane	5.0	5.393	6.156	5.924	5.604	5.954	5.723	5.583	5.762	115	0.2624	0.825	
Methacrylonitrile	5.0	4.692	5.165	5.108	4.811	5.051	4.659	4.880	4.909	98	0.2022	0.636	
Methyl Methacrylate *	1.0	0.900	1.025	0.958	0.934	0.956	0.969	0.926	0.953	95	0.0395	0.124	
Methylacrylate *	1.0	0.926	0.884	0.859	0.875	0.866	0.807	0.772	0.856	86	0.0510	0.160	
Nitrobenzene	5.0	4.568	4.267	4.544	4.147	4.110	4.275	4.668	4.368	87	0.2218	0.697	
Pentachloroethane *	1.0	1.031	1.109	1.022	0.935	0.997	1.018	0.972	1.012	101	0.0543	0.171	
Propionitrile	5.0	4.504	4.835	4.299	4.384	4.651	4.375	4.408	4.494	90	0.1883	0.592	
t-1,4-Dichloro-2-Butene	5.0	4.177	4.426	4.230	3.867	4.041	3.932	4.063	4.105	82	0.1899	0.597	
Tetrahydrofuran	5.0	4.888	5.127	4.881	4.724	4.836	4.508	5.154	4.874	97	0.2238	0.703	

Q = A flag or qualifier indicating possible cause for an out of range or failed result.

NA = Standard not available at the time of the initial calibration.

Comments: \* MDL replicates at 1 ug/L were used from C\073103A, C\080103A, and C\080203A.

# BFB Report



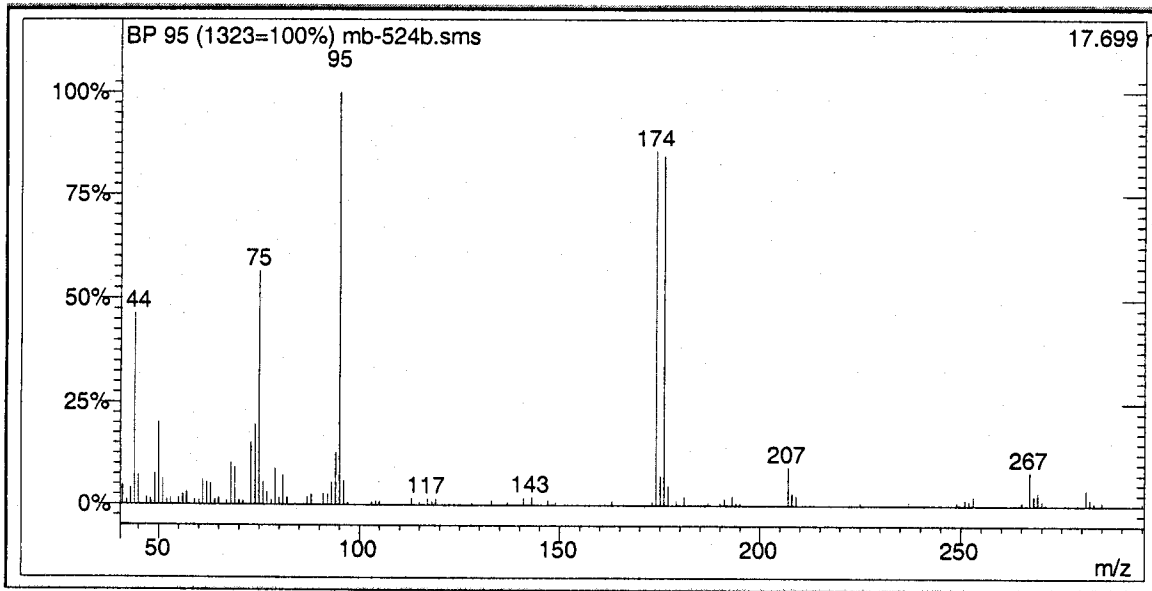
Lab File ID mb-524a.sms

Injection Date: 4/14/04

Injection Time: 8:57

Mass	Acceptance Criterion	Value	Pass/Fail
50	15-40% of m/z 95	22.96	PASS
75	30-80% of m/z 95	51.34	PASS
95	base peak	100.00	PASS
96	5-9% of m/z 95	6.84	PASS
173	<2% of m/z 174	0.81	PASS
174	>50% of m/z 95	80.19	PASS
175	5-9% of m/z 174	6.82	PASS
176	>95% but <101% of m/z 174	99.92	PASS
177	5-9% of m/z 176	6.23	PASS

# BFB Report



Lab File ID mb-524b.sms

Injection Date: 4/14/04

Injection Time: 20:15

Mass	Acceptance Criterion	Value	Pass/Fail
50	15-40% of m/z 95	20.18	PASS
75	30-80% of m/z 95	56.61	PASS
95	base peak	100.00	PASS
96	5-9% of m/z 95	5.90	PASS
173	<2% of m/z 174	0.97	PASS
174	>50% of m/z 95	85.79	PASS
175	5-9% of m/z 174	8.28	PASS
176	>95% but <101% of m/z 174	98.59	PASS
177	5-9% of m/z 176	5.54	PASS

# CHROMATOGRAM REPORT

EPA Method 524.2

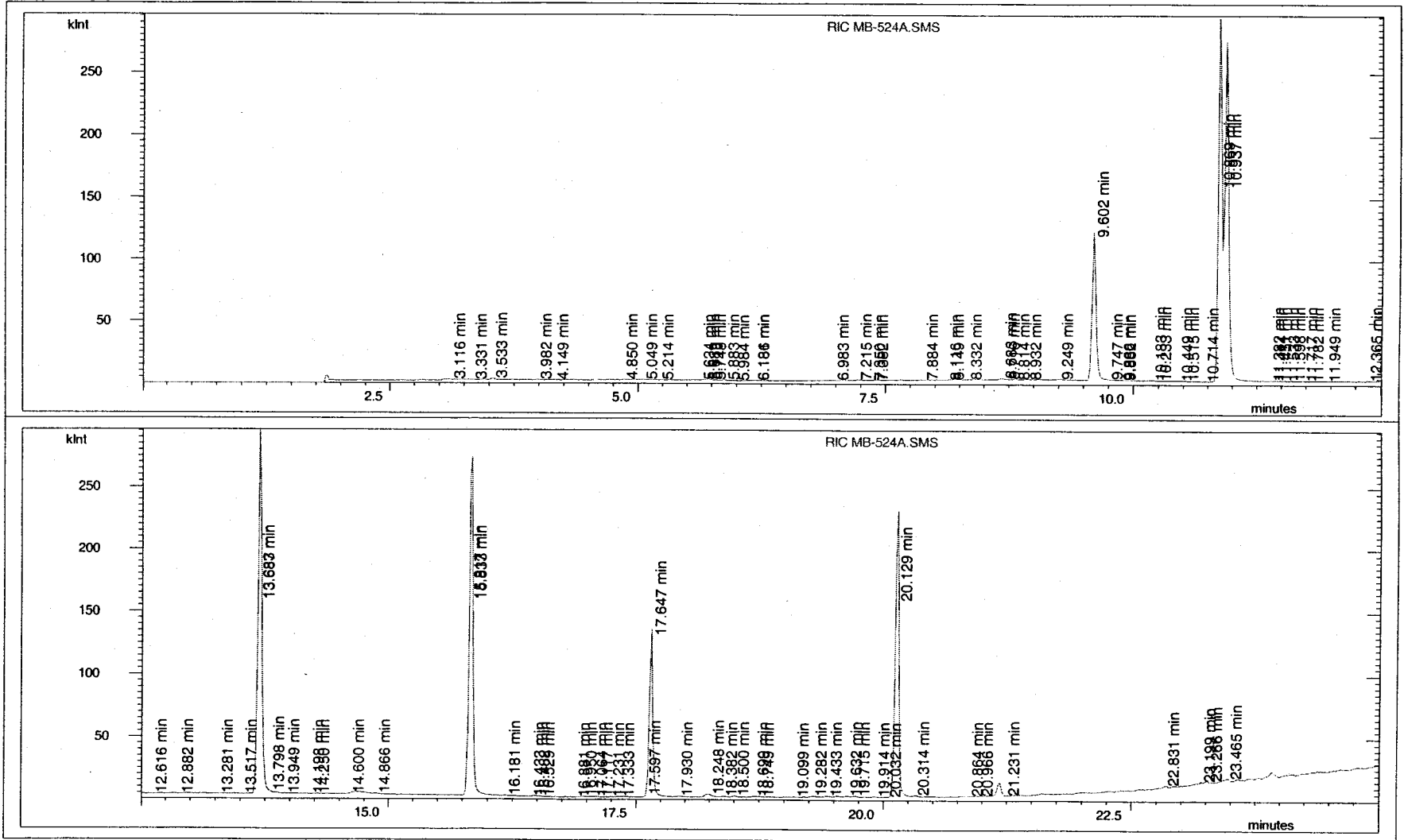
Lab File ID: C:\041404\AMB-524A.SMS

Acquisition Date: 4/14/04 8:57

EPA Sample No: MB-524A

Operator: DC

Lab Sample ID: LAB METHOD BLANK



# GENERAL QUANTITATION REPORT

EPA Method 524.2

Environmental Health Laboratories

A Division of Underwriters Laboratories, Inc.

Lab SampleID: LAB METHOD BLANK

Corr. Factor: 1

Analyst: DC

Instrument: Saturn C

Acquisition Date: 4/14/04 8:57

Data File: C:\C\041404A\MB-524A.SMS

Recalc Method: C:\C\041404A\524\_2-040504C-up1.mth

Comment: MB-524A\DC\1023811\LMB\RW\524\1\LAB METHOD BLANK

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
IS-FLUOROBENZENE	10.87	321745	S	10.000	0.00	ug/L	999	906
IS-1,4-DIFLUOROBENZENE	10.94	270820	S	10.000	0.00	ug/L	999	867
SS-1,2-DICHLOROETHANE-D4	9.60	144281		9.978	0.00	ug/L	999	835
SS-TOLUENE-D8	13.69	309596		9.728	0.00	ug/L	999	912
SS-BROMOFLUOROBENZENE	17.65	113396		4.725	0.00	ug/L	992	927
SS-1,2-DICHLOROETHANE-D4	20.13	166031		9.233	0.00	ug/L	993	884
CHLOROMETHANE	3.33	0	M	0.000	0.50	ug/L	145	0
VINYL CHLORIDE	3.53	1902		0.108	0.20	ug/L	751	157
BROMOMETHANE	3.98	0	M	0.000	0.50	ug/L	747	149
TRICHLOROFLUOROMETHANE	4.85	0	M	0.000	0.50	ug/L	882	64
1,1-DICHLOROETHYLENE	5.63	0	M	0.000	0.50	ug/L	590	35
METHYLENE CHLORIDE	5.88	0	M	0.000	0.50	ug/L	813	51
T-1,2-DICHLOROETHYLENE	6.98	0	M	0.000	0.50	ug/L	892	73
1,1-DICHLOROETHANE	7.38	0	M	0.000	0.50	ug/L	915	100
C-1,2-DICHLOROETHYLENE	8.33	0	M	0.000	0.50	ug/L	891	88
CHLOROFORM	8.68	0	M	0.000	0.50	ug/L	996	503
CARBON TETRACHLORIDE	10.45	0	M	0.000	0.50	ug/L	826	38
BENZENE	10.51	0	M	0.000	0.50	ug/L	928	144
1,2-DICHLOROPROPANE	11.45	0	M	0.000	0.50	ug/L	444	25
TRICHLOROETHYLENE	11.53	0	M	0.000	0.50	ug/L	879	256
BROMODICHLOROMETHANE	11.60	0	M	0.000	0.50	ug/L	725	84
TOLUENE	13.80	0	M	0.000	0.50	ug/L	996	204
DIBROMOCHLOROMETHANE	14.25	0	M	0.000	0.50	ug/L	784	75
TETRACHLOROETHYLENE	14.87	0	M	0.000	0.50	ug/L	919	383
CHLOROBENZENE	15.82	0	M	0.000	0.50	ug/L	642	31
ETHYLBENZENE	16.18	0	M	0.000	0.50	ug/L	940	226
BROMOFORM	16.43	0	M	0.000	0.50	ug/L	336	20
1,3-XYLENE	16.48	0	M	0.000	0.50	ug/L	994	519
1,2-XYLENE	17.06	0	M	0.000	0.50	ug/L	933	232
1,1,2,2,-TETRACHLOROETHANE	17.12	0	M	0.000	0.50	ug/L	490	40
ISOPROPYLBENZENE	17.60	0	M	0.000	0.50	ug/L	953	166
BROMOBENZENE	17.93	0	M	0.000	0.50	ug/L	964	427
2-CHLOROTOLUENE	18.38	0	M	0.000	0.50	ug/L	985	509
1,3,5-TRIMETHYLBENZENE	18.70	0	M	0.000	0.50	ug/L	982	527
1,2,4-TRIMETHYLBENZENE	19.28	0	M	0.000	0.50	ug/L	978	520
1,3-DICHLOROETHYLENE	19.63	0	M	0.000	0.50	ug/L	968	600
4-ISOPROPYLTOLUENE	19.71	0	M	0.000	0.50	ug/L	989	528
N-BUTYLBENZENE	20.31	0	M	0.000	0.50	ug/L	978	650
1,2-DIBROMO-3-CHLOROPROPANE	20.86	0	M	0.000	0.50	ug/L	683	41
1,2,4-TRICHLOROETHYLENE	22.83	0	M	0.000	0.50	ug/L	973	542
NAPHTHALENE	23.20	0	M	0.000	0.50	ug/L	968	252
1,2,3-TRICHLOROETHYLENE	23.47	0	M	0.000	0.50	ug/L	964	248
DICHLORODIFLUOROMETHANE	3.12	0	M	0.000	0.50	ug/L	935	28

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
CHLOROETHANE	4.15	0	M	0.000	0.50	ug/L	217	2
1,1,2-TRICHLOROTRIFLUOROETHA	5.98	0	M	0.000	0.50	ug/L	803	110
MTBE	7.22	0	M	0.000	0.50	ug/L	971	323
BROMOCHLOROMETHANE	8.68	0	M	0.000	0.50	ug/L	238	13
2,2-DICHLOROPROPANE	8.93	0	M	0.000	0.50	ug/L	594	9
1,2-DICHLOROETHANE	9.75	0	M	0.000	0.50	ug/L	567	31
1,1,1-TRICHLOROETHANE	9.88	0	M	0.000	0.50	ug/L	828	85
1,1-DICHLOROPROPYLENE	10.18	0	M	0.000	0.50	ug/L	733	86
DIBROMOMETHANE	11.38	0	M	0.000	0.50	ug/L	766	90
CIS-1,3-DICHLOROPROPYLENE	12.62	0	M	0.000	0.50	ug/L	659	24
TRANS-1,3-DICHLOROPROPYLENE	13.28	0	M	0.000	0.50	ug/L	732	62
1,1,2-TRICHLOROETHANE	13.52	0	M	0.000	0.50	ug/L	595	30
1,3-DICHLOROPROPANE	13.68	0	M	0.000	0.50	ug/L	548	3
1,2-DIBROMOETHANE(EDB)	14.60	0	M	0.000	0.50	ug/L	900	15
1,1,1,2-TETRACHLOROETHANE	15.83	0	M	0.000	0.50	ug/L	601	78
1,4-XYLENE	16.48	0	M	0.000	0.50	ug/L	992	503
STYRENE	16.95	0	M	0.000	0.50	ug/L	970	489
1,2,3-TRICHLOROPROPANE	17.23	0	M	0.000	0.50	ug/L	466	34
N-PROPYLBENZENE	18.25	0	M	0.000	0.50	ug/L	995	186
4-CHLOROTOLUENE	18.50	0	M	0.000	0.50	ug/L	988	478
TERT-BUTYLBENZENE	19.10	0	M	0.000	0.50	ug/L	923	410
SEC-BUTYLBENZENE	19.43	0	M	0.000	0.50	ug/L	997	532
1,4-DICHLOROBENZENE	19.63	0	M	0.000	0.50	ug/L	972	622
1,2,3-TRIMETHYLBENZENE	19.91	0	M	0.000	0.50	ug/L	974	431
1,2-DICHLOROBENZENE	20.03	0	M	0.000	0.50	ug/L	476	31
HEXACHLOROBUTADIENE	23.27	0	M	0.000	0.50	ug/L	931	302
ACETONE	5.05	0	M	0.000	5.00	ug/L	982	69
ETHYL ETHER	5.21	0	M	0.000	2.00	ug/L	486	38
IODOMETHANE	5.69	717		0.316	2.00	ug/L	999	95
ACRYLONITRILE	5.75	0	M	0.000	1.00	ug/L	851	114
ALLYL CHLORIDE	6.18	0	M	0.000	5.00	ug/L	473	174
CARBON DISULFIDE	6.19	1401	< °C	-1.000	5.00	ug/L	995	401
PROPIONITRILE	7.35	0	M	0.000	5.00	ug/L	806	15
METHACRYLONITRILE	8.15	0	M	0.000	5.00	ug/L	739	32
2-BUTANONE	8.15	0	M	0.000	5.00	ug/L	346	5
METHYLACRYLATE	8.81	0	M	0.000	1.00	ug/L	668	6
TETRAHYDROFURAN	9.25	0	M	0.000	5.00	ug/L	924	189
1-CHLOROBUTANE	9.87	0	M	0.000	5.00	ug/L	531	17
CHLOROACETONITRILE	10.23	0	M	0.000	5.00	ug/L	450	13
METHYL METHACRYLATE	11.72	0	M	0.000	1.00	ug/L	481	20
2-NITROPROPANE	11.78	0	M	0.000	2.00	ug/L	0	0
1,1-DICHLOROPROPANONE	12.36	0	M	0.000	5.00	ug/L	514	19
4-METHYL-2-PENTANONE	12.88	0	M	0.000	2.00	ug/L	448	14
ETHYL METHACRYLATE	13.95	0	M	0.000	1.00	ug/L	482	3
2-HEXANONE	14.20	0	M	0.000	5.00	ug/L	430	22
T-1,4-DICHLORO-2-BUTENE	17.33	0	M	0.000	5.00	ug/L	454	25
PENTACHLOROETHANE	18.75	0	M	0.000	2.00	ug/L	521	71
HEXACHLOROETHANE	20.97	0	M	0.000	2.00	ug/L	788	233
NITROBENZENE	21.23	0	M	0.000	5.00	ug/L	532	29
TERT-BUTYL ALCOHOL	5.71	0	M	0.000	2.00	ug/L	250	41
VINYL ACETATE	7.88	0	M	0.000	5.00	ug/L	0	0
CHLOROPRENE	8.12	0	M	0.000	5.00	ug/L	630	23
TERT-BUTYL ETHYL ETHER	8.72	0	M	0.000	3.00	ug/L	667	7
TERT-AMYL METHYL ETHER	10.71	0	M	0.000	3.00	ug/L	685	38
ETHYL ACRYLATE	11.41	0	M	0.000	1.00	ug/L	450	12
1,4-DIOXANE	11.95	0	M	0.000	5.00	ug/L	567	98
Epichlorohydrin	11.95	0	M	0.000	1.00	ug/L	475	19



Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
Butyl Acrylate	16.53	72		<del>0.128</del>	1.00	ug/L	633	18
CYCLOHEXANONE	16.88	0	M	<del>0.000</del>	5.00	ug/L	381	18

Applicable Status Codes Key:

- S Internal Standard Compound
- \* No result can be calculated; check calibration curve
- + More than one result; check calibration curve
- M Missing Peak
- C Result out of calibration range; check calibration curve
- U User defined end points

2  
C  
4/15/4

# CHROMATOGRAM REPORT

EPA Method 524.2

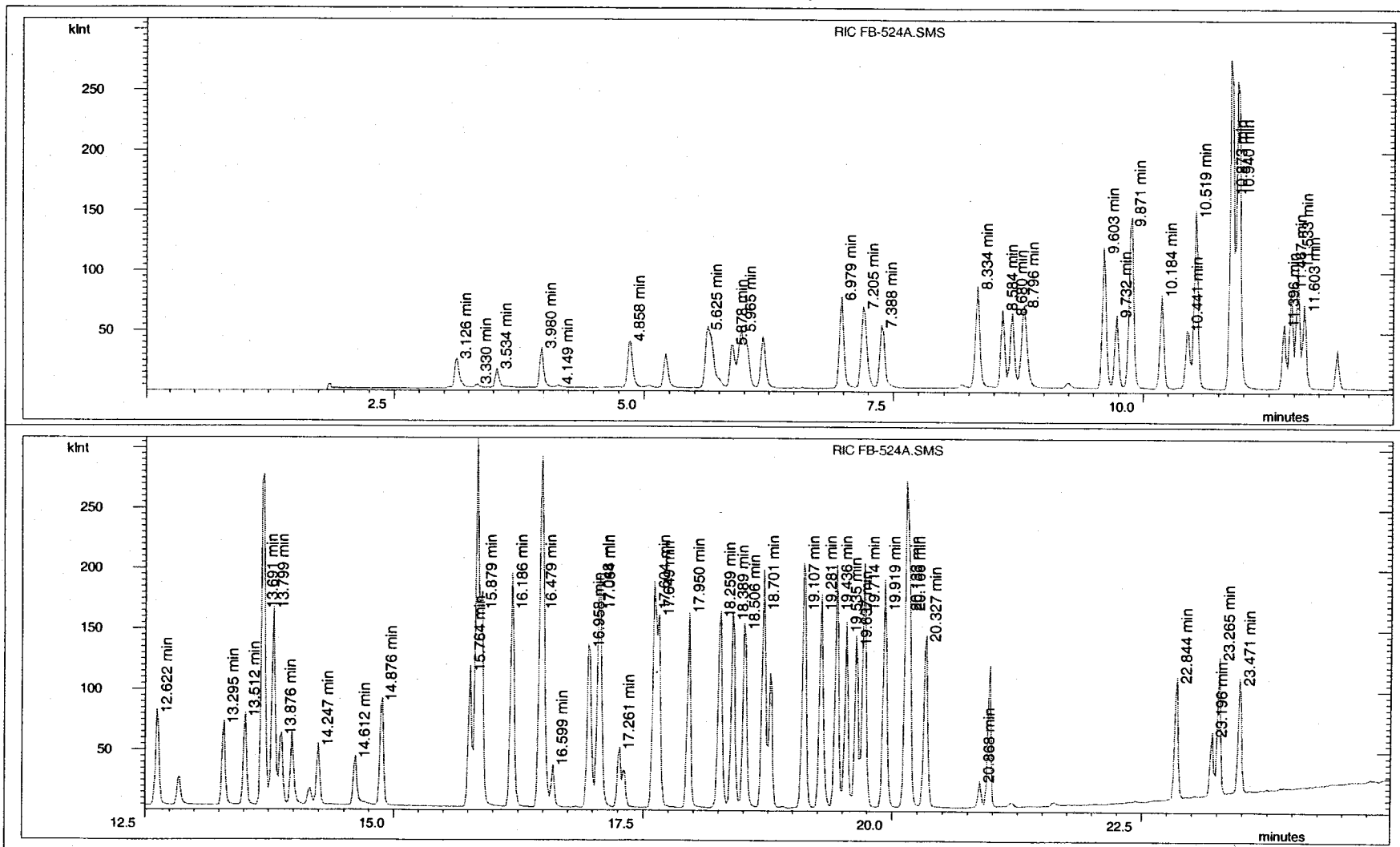
Lab File ID: C:\041404\FB-524A.SMS

Acquisition Date: 4/14/04 9:34

EPA Sample No: FB-524A

Lab Sample ID: LAB FORTIFIED BLANK

Operator: DC



# GENERAL QUANTITATION REPORT

EPA Method 524.2

Environmental Health Laboratories

A Division of Underwriters Laboratories, Inc.

**Lab SampleID:** LAB FORTIFIED BLANK **Corr. Factor:** 1  
**Analyst:** DC  
**Instrument:** Saturn C  
**Acquisition Date:** 4/14/04 9:34  
**Data File:** C:\C\041404A\FB-524A.SMS  
**Recalc Method:** C:\C\041404A\524\_2-040504C-up1.mth  
**Comment:** FB-524A\DC\1023812\LFB\RW\524\1\2\LFB 2 PPB MIX 123

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
IS-FLUOROBENZENE	10.87	320177	S	10.000	0.00	ug/L	998	905
IS-1,4-DIFLUOROBENZENE	10.94	271430	S	10.000	0.00	ug/L	999	807
SS-1,2-DICHLOROETHANE-D4	9.60	147644		10.188	0.00	ug/L	999	854
SS-TOLUENE-D8	13.69	313443		9.827	0.00	ug/L	999	923
SS-BROMOFLUOROBENZENE	17.65	120584		5.013	0.00	ug/L	992	860
SS-1,2-DICHLOROETHANE-D4	20.13	173104		9.605	0.00	ug/L	993	878
CHLOROMETHANE	3.33	3230		1.762	0.50	ug/L	988	436
VINYL CHLORIDE	3.53	21339		1.608	0.20	ug/L	921	813
BROMOMETHANE	3.98	33844		1.743	0.50	ug/L	922	650
TRICHLOROFLUOROMETHANE	4.86	102633		1.882	0.50	ug/L	998	913
1,1-DICHLOROETHYLENE	5.62	62493		1.880	0.50	ug/L	996	921
METHYLENE CHLORIDE	5.88	65777		1.971	0.50	ug/L	999	796
T-1,2-DICHLOROETHYLENE	6.98	142770		1.863	0.50	ug/L	999	938
1,1-DICHLOROETHANE	7.39	90841		1.840	0.50	ug/L	999	893
C-1,2-DICHLOROETHYLENE	8.33	70457		1.928	0.50	ug/L	998	874
CHLOROFORM	8.68	107542		1.886	0.50	ug/L	999	942
CARBON TETRACHLORIDE	10.44	85355		1.812	0.50	ug/L	1000	930
BENZENE	10.52	169254		1.882	0.50	ug/L	998	934
1,2-DICHLOROPROPANE	11.47	96057		1.757	0.50	ug/L	968	891
TRICHLOROETHYLENE	11.53	117502		1.858	0.50	ug/L	998	939
BROMODICHLOROMETHANE	11.60	80312		1.923	0.50	ug/L	998	912
TOLUENE	13.80	264123		1.896	0.50	ug/L	999	887
DIBROMOCHLOROMETHANE	14.25	53222		1.921	0.50	ug/L	998	900
TETRACHLOROETHYLENE	14.88	81266		1.735	0.50	ug/L	998	947
CHLOROBENZENE	15.88	216285		1.915	0.50	ug/L	998	886
ETHYLBENZENE	16.19	265963		1.880	0.50	ug/L	999	880
1,3-XYLENE	16.48	516038		3.656	0.50	ug/L	999	930
BROMOFORM	16.60	37271		2.008	0.50	ug/L	999	927
1,1,2,2-TETRACHLOROETHANE	17.05	40007		1.948	0.50	ug/L	899	316
1,2-XYLENE	17.06	257328		1.819	0.50	ug/L	998	867
ISOPROPYLBENZENE	17.60	192156		1.859	0.50	ug/L	999	883
BROMOBENZENE	17.95	211085		1.900	0.50	ug/L	999	936
2-CHLOROTOLUENE	18.39	135049		1.940	0.50	ug/L	999	919
1,3,5-TRIMETHYLBENZENE	18.70	281121		1.788	0.50	ug/L	999	897
1,2,4-TRIMETHYLBENZENE	19.28	253333		1.728	0.50	ug/L	999	906
1,3-DICHLOROETHYLENE	19.54	168473		1.799	0.50	ug/L	999	892
4-ISOPROPYLTOLUENE	19.71	249768		1.819	0.50	ug/L	999	785
N-BUTYLBENZENE	20.33	191854		1.698	0.50	ug/L	997	872
1,2-DIBROMO-3-CHLOROPROPANE	20.87	26114		1.978	0.50	ug/L	990	856
1,2,4-TRICHLOROETHYLENE	22.84	72650		1.794	0.50	ug/L	980	812
NAPHTHALENE	23.20	44956		1.699	0.50	ug/L	999	842
1,2,3-TRICHLOROETHYLENE	23.47	66350		1.768	0.50	ug/L	990	793
DICHLORODIFLUOROMETHANE	3.13	47097		1.813	0.50	ug/L	999	841

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
CHLOROETHANE	4.15	2685		2.390	0.50	ug/L	942	453
1,1,2-TRICHLOROTRIFLUOROETHA	5.97	75362		1.836	0.50	ug/L	994	858
MTBE	7.20	129858		2.049	0.50	ug/L	999	895
BROMOCHLOROMETHANE	8.58	53589		1.967	0.50	ug/L	995	876
2,2-DICHLOROPROPANE	8.80	85546		1.941	0.50	ug/L	999	903
1,2-DICHLOROETHANE	9.73	75168		1.957	0.50	ug/L	999	894
1,1,1-TRICHLOROETHANE	9.87	193016		1.881	0.50	ug/L	999	705
1,1-DICHLOROPROPYLENE	10.18	62082		1.859	0.50	ug/L	999	891
DIBROMOMETHANE	11.40	73992		1.979	0.50	ug/L	999	951
CIS-1,3-DICHLOROPROPYLENE	12.62	77835		1.977	0.50	ug/L	999	854
TRANS-1,3-DICHLOROPROPYLENE	13.30	66964		2.031	0.50	ug/L	998	864
1,1,2-TRICHLOROETHANE	13.51	75894		2.013	0.50	ug/L	999	952
1,3-DICHLOROPROPANE	13.88	46044		1.955	0.50	ug/L	999	875
1,2-DIBROMOETHANE(EDB)	14.61	68695		1.971	0.50	ug/L	997	785
1,1,1,2-TETRACHLOROETHANE	15.76	122765		1.951	0.50	ug/L	999	932
1,4-XYLENE	16.48	516038		3.656	0.50	ug/L	1000	912
STYRENE	16.96	172362		1.765	0.50	ug/L	998	934
1,2,3-TRICHLOROPROPANE	17.26	39771		1.848	0.50	ug/L	987	870
N-PROPYLBENZENE	18.26	203436		1.849	0.50	ug/L	1000	673
4-CHLOROTOLUENE	18.51	138381		1.881	0.50	ug/L	999	892
TERT-BUTYLBENZENE	19.11	346844		1.882	0.50	ug/L	986	852
SEC-BUTYLBENZENE	19.44	205890		1.827	0.50	ug/L	1000	866
1,4-DICHLOROBENZENE	19.64	162314		1.799	0.50	ug/L	998	913
1,2,3-TRIMETHYLBENZENE	19.92	261731		1.809	0.50	ug/L	999	905
1,2-DICHLOROBENZENE	20.17	173892		1.823	0.50	ug/L	992	863
HEXACHLOROBUTADIENE	23.26	71749		1.815	0.50	ug/L	998	803

**Applicable Status Codes Key:**

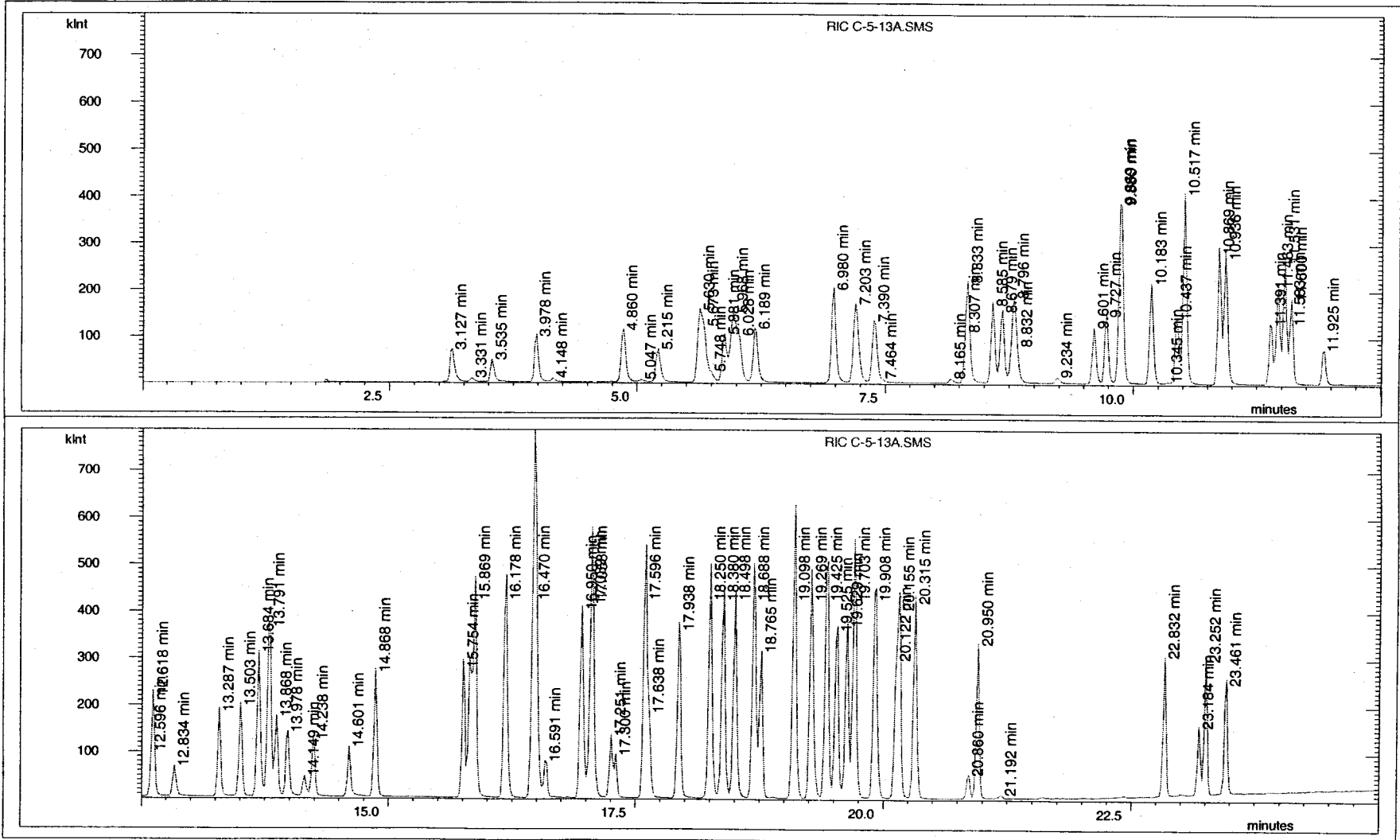
- S Internal Standard Compound
- \* No result can be calculated; check calibration curve
- + More than one result; check calibration curve
- M Missing Peak
- C Result out of calibration range; check calibration curve
- U User defined end points

# CHROMATOGRAM REPORT

EPA Method 524.2

Lab File ID: C:\041404A\C-5-13A.SMS  
Acquisition Date: 4/14/04 10:10  
EPA Sample No: C-5-13A  
Lab Sample ID: CONTINUING CALI CHE

Operator: DC



# GENERAL QUANTITATION REPORT

EPA Method 524.2

Environmental Health Laboratories

A Division of Underwriters Laboratories, Inc.

**Lab SampleID:** CONTINUING CALI CHE **Corr. Factor:** 1  
**Analyst:** DC  
**Instrument:** Saturn C  
**Acquisition Date:** 4/14/04 10:10  
**Data File:** C:\C\041404A\C-5-13A.SMS  
**Recalc Method:** C:\C\041404A\524\_2-040504C-up1.mth  
**Comment:** C-5-13A\DC\1023813\CCC\RW\524\1\5\CCC 5 PPB MIX 123

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
IS-FLUOROBENZENE	10.87	318298	S	10.000	0.00	ug/L	998	901
IS-1,4-DIFLUOROBENZENE	10.94	270481	S	10.000	0.00	ug/L	999	901
SS-1,2-DICHLOROETHANE-D4	9.60	147110		10.187	0.00	ug/L	999	850
SS-TOLUENE-D8	13.68	315197		9.917	0.00	ug/L	1000	927
SS-BROMOFLUOROBENZENE	17.64	123276		5.143	0.00	ug/L	992	861
SS-1,2-DICHLOROBENZENE-D4	20.12	175365		9.764	0.00	ug/L	993	880
CHLOROMETHANE	3.33	10570		5.078	0.50	ug/L	989	718
VINYL CHLORIDE	3.53	64041		5.217	0.20	ug/L	943	880
BROMOMETHANE	3.98	116618		5.746	0.50	ug/L	917	795
TRICHLOROFLUOROMETHANE	4.86	288974		5.346	0.50	ug/L	997	920
1,1-DICHLOROETHYLENE	5.63	178174		5.467	0.50	ug/L	985	823
METHYLENE CHLORIDE	5.88	195190		5.433	0.50	ug/L	999	882
T-1,2-DICHLOROETHYLENE	6.98	385843		5.161	0.50	ug/L	999	948
1,1-DICHLOROETHANE	7.39	241843		4.824	0.50	ug/L	1000	915
C-1,2-DICHLOROETHYLENE	8.33	183276		5.075	0.50	ug/L	999	773
CHLOROFORM	8.68	277568		4.985	0.50	ug/L	999	959
CARBON TETRACHLORIDE	10.44	234391		4.962	0.50	ug/L	999	956
BENZENE	10.52	444908		4.951	0.50	ug/L	999	848
1,2-DICHLOROPROPANE	11.46	296412		5.359	0.50	ug/L	982	943
TRICHLOROETHYLENE	11.53	313142		5.097	0.50	ug/L	998	958
BROMODICHLOROMETHANE	11.60	206996		4.936	0.50	ug/L	999	920
TOLUENE	13.79	680008		4.920	0.50	ug/L	999	897
DIBROMOCHLOROMETHANE	14.24	136021		4.872	0.50	ug/L	998	915
TETRACHLOROETHYLENE	14.87	219131		4.860	0.50	ug/L	999	957
CHLOROBENZENE	15.87	559328		5.124	0.50	ug/L	999	904
ETHYLBENZENE	16.18	689628		4.922	0.50	ug/L	999	885
1,3-XYLENE	16.47	1380090		9.814	0.50	ug/L	999	939
BROMOFORM	16.59	91708		4.964	0.50	ug/L	999	928
1,1,2,2-TETRACHLOROETHANE	17.04	101120		5.059	0.50	ug/L	899	587
1,2-XYLENE	17.05	687339		4.712	0.50	ug/L	997	886
ISOPROPYLBENZENE	17.60	517150		5.135	0.50	ug/L	1000	877
BROMOBENZENE	17.94	557898		5.117	0.50	ug/L	999	935
2-CHLOROTOLUENE	18.38	340982		4.876	0.50	ug/L	999	927
1,3,5-TRIMETHYLBENZENE	18.69	739167		4.666	0.50	ug/L	999	905
1,2,4-TRIMETHYLBENZENE	19.27	687656		4.647	0.50	ug/L	999	913
1,3-DICHLOROBENZENE	19.53	460542		4.949	0.50	ug/L	992	885
4-ISOPROPYLTOLUENE	19.70	664387		4.874	0.50	ug/L	999	832
N-BUTYLBENZENE	20.32	517095		4.717	0.50	ug/L	997	877
1,2-DIBROMO-3-CHLOROPROPANE	20.86	66514		5.091	0.50	ug/L	991	873
1,2,4-TRICHLOROBENZENE	22.83	188593		4.680	0.50	ug/L	980	826
NAPHTHALENE	23.18	119130		4.437	0.50	ug/L	999	879
1,2,3-TRICHLOROBENZENE	23.46	179173		4.795	0.50	ug/L	979	816
DICHLORODIFLUOROMETHANE	3.13	137239		5.407	0.50	ug/L	999	887

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
CHLOROETHANE	4.15	6342		5.070	0.50	ug/L	981	725
1,1,2-TRICHLOROTRIFLUOROETHA	5.97	220434		5.271	0.50	ug/L	996	862
MTBE	7.20	317582		5.172	0.50	ug/L	999	908
BROMOCHLOROMETHANE	8.59	136133		5.059	0.50	ug/L	996	896
2,2-DICHLOROPROPANE	8.80	231527		5.410	0.50	ug/L	999	913
1,2-DICHLOROETHANE	9.73	189627		4.983	0.50	ug/L	999	894
1,1,1-TRICHLOROETHANE	9.87	528045		5.328	0.50	ug/L	999	695
1,1-DICHLOROPROPYLENE	10.18	169577		5.181	0.50	ug/L	1000	897
DIBROMOMETHANE	11.39	185161		5.042	0.50	ug/L	999	950
CIS-1,3-DICHLOROPROPYLENE	12.62	202468		5.163	0.50	ug/L	999	860
TRANS-1,3-DICHLOROPROPYLENE	13.29	169135		5.249	0.50	ug/L	999	877
1,1,2-TRICHLOROETHANE	13.50	185546		5.032	0.50	ug/L	990	943
1,3-DICHLOROPROPANE	13.87	117542		5.030	0.50	ug/L	998	929
1,2-DIBROMOETHANE(EDB)	14.60	167296		4.823	0.50	ug/L	997	838
1,1,1,2-TETRACHLOROETHANE	15.75	291201		4.609	0.50	ug/L	999	934
1,4-XYLENE	16.47	1380090		9.814	0.50	ug/L	999	920
STYRENE	16.95	481441		4.905	0.50	ug/L	999	933
1,2,3-TRICHLOROPROPANE	17.25	98788		4.761	0.50	ug/L	987	872
N-PROPYLBENZENE	18.25	543925		4.995	0.50	ug/L	1000	821
4-CHLOROTOLUENE	18.50	362521		4.973	0.50	ug/L	999	916
TERT-BUTYLBENZENE	19.10	930859		5.127	0.50	ug/L	992	858
SEC-BUTYLBENZENE	19.42	550676		4.891	0.50	ug/L	999	871
1,4-DICHLOROBENZENE	19.63	446098		4.943	0.50	ug/L	999	913
1,2,3-TRIMETHYLBENZENE	19.91	682088		4.709	0.50	ug/L	999	909
1,2-DICHLOROBENZENE	20.16	446677		4.975	0.50	ug/L	992	883
HEXACHLOROBUTADIENE	23.25	187710		4.856	0.50	ug/L	999	814
ACETONE	5.05	11022		4.730	5.00	ug/L	1000	577
ETHYL ETHER	5.21	69896		5.178	2.00	ug/L	996	943
IODOMETHANE	5.67	269921		4.118	2.00	ug/L	997	513
ACRYLONITRILE	5.75	30200		5.055	1.00	ug/L	993	771
ALLYL CHLORIDE	6.03	55260		5.211	5.00	ug/L	999	681
CARBON DISULFIDE	6.19	276023		5.208	5.00	ug/L	1000	951
PROPIONITRILE	7.46	6544		4.386	5.00	ug/L	918	117
2-BUTANONE	8.17	7591		5.199	5.00	ug/L	999	733
METHACRYLONITRILE	8.31	80809		5.076	5.00	ug/L	997	454
METHYLACRYLATE	8.83	47960		4.543	1.00	ug/L	927	526
TETRAHYDROFURAN	9.23	20927		4.734	5.00	ug/L	999	886
1-CHLOROBUTANE	9.88	333949		5.050	5.00	ug/L	979	336
CHLOROACETONITRILE	10.34	3683		4.304	5.00	ug/L	959	684
2-NITROPROPANE	11.58	5064		5.158	2.00	ug/L	841	73
METHYL METHACRYLATE	11.92	112070		5.048	1.00	ug/L	998	833
1,1-DICHLOROPROPANONE	12.60	17199		4.507	5.00	ug/L	996	473
4-METHYL-2-PENTANONE	12.83	99276		5.088	2.00	ug/L	998	799
ETHYL METHACRYLATE	13.98	177105		4.912	1.00	ug/L	999	855
2-HEXANONE	14.15	60893		4.843	5.00	ug/L	981	809
T-1,4-DICHLORO-2-BUTENE	17.30	29358		5.534	5.00	ug/L	999	910
PENTACHLOROETHANE	18.76	210816		5.178	2.00	ug/L	992	842
HEXACHLOROETHANE	20.95	241373		5.480	2.00	ug/L	992	925
NITROBENZENE	21.19	6017		4.859	5.00	ug/L	965	487

Applicable Status Codes Key:

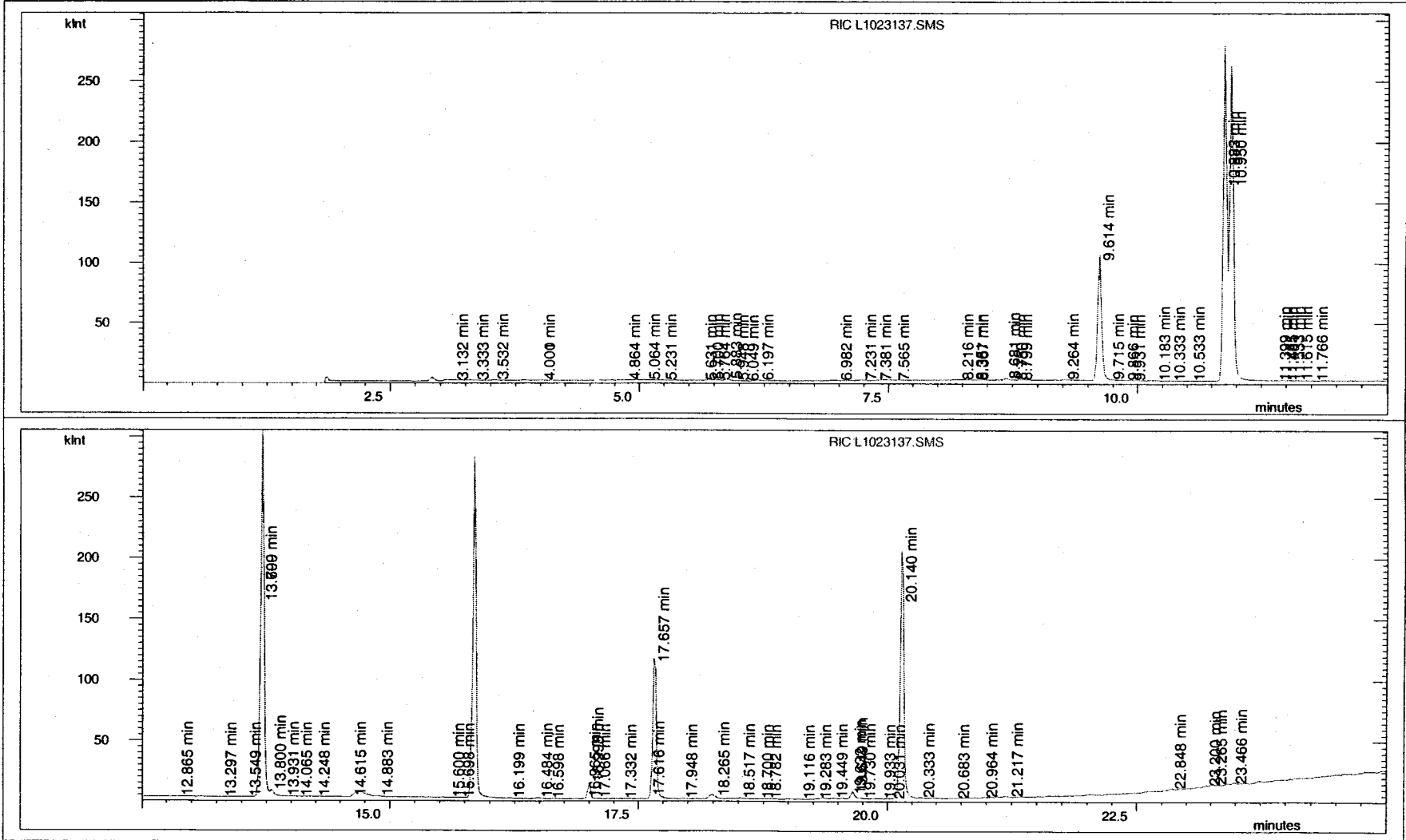
- S Internal Standard Compound
- \* No result can be calculated; check calibration curve
- + More than one result; check calibration curve
- M Missing Peak
- C Result out of calibration range; check calibration curve
- U User defined end points

# CHROMATOGRAM REPORT

EPA Method 524.2

Lab File ID: C:\IC\041404A\L1023137.SMS  
Acquisition Date: 4/14/04 12:10  
EPA Sample No: L1023137  
Lab Sample ID: URS DELAWARE LTB

Operator: DC





# GENERAL QUANTITATION REPORT

EPA Method 524.2

Environmental Health Laboratories

A Division of Underwriters Laboratories, Inc.

**Lab SampleID:** URS DELAWARE LTB **Corr. Factor:** 1  
**Analyst:** DC  
**Instrument:** Saturn C  
**Acquisition Date:** 4/14/04 12:10  
**Data File:** C:\C\041404A\L1023137.SMS  
**Recalc Method:** C:\C\041404A\524\_2-040504C-up1.mth  
**Comment:** L1023137DC\1023137\LTB\RW\524\1\URS DELAWARE LTB

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
IS-FLUOROBENZENE	10.88	296538	S	10.000	0.00	ug/L	998	897
IS-1,4-DIFLUOROBENZENE	10.95	247218	S	10.000	0.00	ug/L	999	846
SS-1,2-DICHLOROETHANE-D4	9.61	128648		9.747	0.00	ug/L	1000	842
SS-TOLUENE-D8	13.70	291206		10.024	0.00	ug/L	999	927
SS-BROMOFLUOROBENZENE	17.66	106134		4.844	0.00	ug/L	999	932
SS-1,2-DICHLOROETHANE-D4	20.14	147973		9.015	0.00	ug/L	994	890
CHLOROMETHANE	3.33	0	M	0.000	0.50	ug/L	145	0
VINYL CHLORIDE	3.53	0	M	0.000	0.20	ug/L	766	135
BROMOMETHANE	4.00	552		0.120	0.50	ug/L	818	116
TRICHLOROFLUOROMETHANE	4.86	0	M	0.000	0.50	ug/L	839	64
1,1-DICHLOROETHYLENE	5.63	0	M	0.000	0.50	ug/L	575	28
METHYLENE CHLORIDE	5.88	0	M	0.000	0.50	ug/L	968	207
T-1,2-DICHLOROETHYLENE	6.98	0	M	0.000	0.50	ug/L	804	55
1,1-DICHLOROETHANE	7.38	0	M	0.000	0.50	ug/L	836	47
C-1,2-DICHLOROETHYLENE	8.35	0	M	0.000	0.50	ug/L	832	65
CHLOROFORM	8.68	0	M	0.000	0.50	ug/L	999	486
CARBON TETRACHLORIDE	10.33	0	M	0.000	0.50	ug/L	730	27
BENZENE	10.53	0	M	0.000	0.50	ug/L	966	179
1,2-DICHLOROPROPANE	11.46	0	M	0.000	0.50	ug/L	624	39
TRICHLOROETHYLENE	11.53	0	M	0.000	0.50	ug/L	844	200
BROMODICHLOROMETHANE	11.61	0	M	0.000	0.50	ug/L	733	72
TOLUENE	13.80	0	M	0.000	0.50	ug/L	999	627
DIBROMOCHLOROMETHANE	14.25	0	M	0.000	0.50	ug/L	743	89
TETRACHLOROETHYLENE	14.88	0	M	0.000	0.50	ug/L	890	404
CHLOROBENZENE	15.70	0	M	0.000	0.50	ug/L	679	22
ETHYLBENZENE	16.20	0	M	0.000	0.50	ug/L	981	547
1,3-XYLENE	16.48	0	M	0.000	0.50	ug/L	991	711
BROMOFORM	16.60	0	M	0.000	0.50	ug/L	454	76
1,1,2,2,-TETRACHLOROETHANE	17.00	0	M	0.000	0.50	ug/L	393	27
1,2-XYLENE	17.07	0	M	0.000	0.50	ug/L	929	424
ISOPROPYLBENZENE	17.62	0	M	0.000	0.50	ug/L	941	316
BROMOBENZENE	17.95	0	M	0.000	0.50	ug/L	915	367
2-CHLOROTOLUENE	18.52	0	M	0.000	0.50	ug/L	967	422
1,3,5-TRIMETHYLBENZENE	18.70	0	M	0.000	0.50	ug/L	952	493
1,2,4-TRIMETHYLBENZENE	19.28	0	M	0.000	0.50	ug/L	963	488
1,3-DICHLOROETHYLENE	19.63	0	M	0.000	0.50	ug/L	990	804
4-ISOPROPYLTOLUENE	19.73	0	M	0.000	0.50	ug/L	992	465
N-BUTYLBENZENE	20.33	0	M	0.000	0.50	ug/L	978	460
1,2-DIBROMO-3-CHLOROPROPANE	20.68	0	M	0.000	0.50	ug/L	339	35
1,2,4-TRICHLOROETHYLENE	22.85	0	M	0.000	0.50	ug/L	974	485
NAPHTHALENE	23.20	0	M	0.000	0.50	ug/L	963	286
1,2,3-TRICHLOROETHYLENE	23.47	0	M	0.000	0.50	ug/L	918	230
DICHLORODIFLUOROMETHANE	3.13	0	M	0.000	0.50	ug/L	731	11

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
CHLOROETHANE	4.00	0	M	0.000	0.50	ug/L	299	7
1,1,2-TRICHLOROTRIFLUOROETHA	5.95	0	M	0.000	0.50	ug/L	622	90
MTBE	7.23	0	M	0.000	0.50	ug/L	971	250
BROMOCHLOROMETHANE	8.68	0	M	0.000	0.50	ug/L	235	21
2,2-DICHLOROPROPANE	8.80	0	M	0.000	0.50	ug/L	712	36
1,2-DICHLOROETHANE	9.72	0	M	0.000	0.50	ug/L	588	57
1,1,1-TRICHLOROETHANE	9.87	0	M	0.000	0.50	ug/L	829	45
1,1-DICHLOROPROPYLENE	10.18	0	M	0.000	0.50	ug/L	459	29
DIBROMOMETHANE	11.40	0	M	0.000	0.50	ug/L	553	46
CIS-1,3-DICHLOROPROPYLENE	12.50	0	M	0.000	0.50	ug/L	629	3
TRANS-1,3-DICHLOROPROPYLENE	13.30	0	M	0.000	0.50	ug/L	609	18
1,1,2-TRICHLOROETHANE	13.55	0	M	0.000	0.50	ug/L	503	35
1,3-DICHLOROPROPANE	13.70	0	M	0.000	0.50	ug/L	548	3
1,2-DIBROMOETHANE(EDB)	14.61	0	M	0.000	0.50	ug/L	894	35
1,1,1,2-TETRACHLOROETHANE	15.60	0	M	0.000	0.50	ug/L	352	39
1,4-XYLENE	16.48	0	M	0.000	0.50	ug/L	995	671
STYRENE	16.96	0	M	0.000	0.50	ug/L	955	360
1,2,3-TRICHLOROPROPANE	17.33	0	M	0.000	0.50	ug/L	447	21
N-PROPYLBENZENE	18.27	0	M	0.000	0.50	ug/L	971	63
4-CHLOROTOLUENE	18.52	0	M	0.000	0.50	ug/L	985	446
TERT-BUTYLBENZENE	19.12	0	M	0.000	0.50	ug/L	947	360
SEC-BUTYLBENZENE	19.45	0	M	0.000	0.50	ug/L	964	296
1,4-DICHLOROBENZENE	19.65	0	M	0.000	0.50	ug/L	992	831
1,2,3-TRIMETHYLBENZENE	19.93	0	M	0.000	0.50	ug/L	949	417
1,2-DICHLOROBENZENE	20.03	0	M	0.000	0.50	ug/L	566	56
HEXACHLOROBUTADIENE	23.26	0	M	0.000	0.50	ug/L	924	234
ACETONE	5.06	0	M	0.000	5.00	ug/L	996	173
ETHYL ETHER	5.23	0	M	0.000	2.00	ug/L	340	21
IODOMETHANE	5.70	1290		0.327	2.00	ug/L	997	355
ACRYLONITRILE	5.76	0	M	0.000	1.00	ug/L	633	104
ALLYL CHLORIDE	6.05	0	M	0.000	5.00	ug/L	475	9
CARBON DISULFIDE	6.20	1221	< *C	-1.000	5.00	ug/L	933	310
PROPIONITRILE	7.57	0	M	0.000	5.00	ug/L	558	13
2-BUTANONE	8.22	0	M	0.000	5.00	ug/L	943	218
METHACRYLONITRILE	8.37	0	M	0.000	5.00	ug/L	666	31
METHYLACRYLATE	8.75	0	M	0.000	1.00	ug/L	726	25
TETRAHYDROFURAN	9.26	0	M	0.000	5.00	ug/L	925	236
1-CHLOROBUTANE	9.93	0	M	0.000	5.00	ug/L	736	33
CHLOROACETONITRILE	10.18	0	M	0.000	5.00	ug/L	418	23
2-NITROPROPANE	11.48	0	M	0.000	2.00	ug/L	821	53
METHYL METHACRYLATE	11.77	0	M	0.000	1.00	ug/L	324	10
4-METHYL-2-PENTANONE	12.87	0	M	0.000	2.00	ug/L	809	74
1,1-DICHLOROPROPANONE	12.87	0	M	0.000	5.00	ug/L	639	41
ETHYL METHACRYLATE	13.93	0	M	0.000	1.00	ug/L	585	7
2-HEXANONE	14.06	0	M	0.000	5.00	ug/L	152	7
T-1,4-DICHLORO-2-BUTENE	17.33	0	M	0.000	5.00	ug/L	504	41
PENTACHLOROETHANE	18.78	0	M	0.000	2.00	ug/L	417	43
HEXACHLOROETHANE	20.96	0	M	0.000	2.00	ug/L	749	156
NITROBENZENE	21.22	0	M	0.000	5.00	ug/L	477	57

Applicable Status Codes Key:

- S Internal Standard Compound
- \* No result can be calculated; check calibration curve
- + More than one result; check calibration curve
- M Missing Peak
- C Result out of calibration range; check calibration curve
- U User defined end points

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C 4/15/14

# CHROMATOGRAM REPORT

EPA Method 524.2

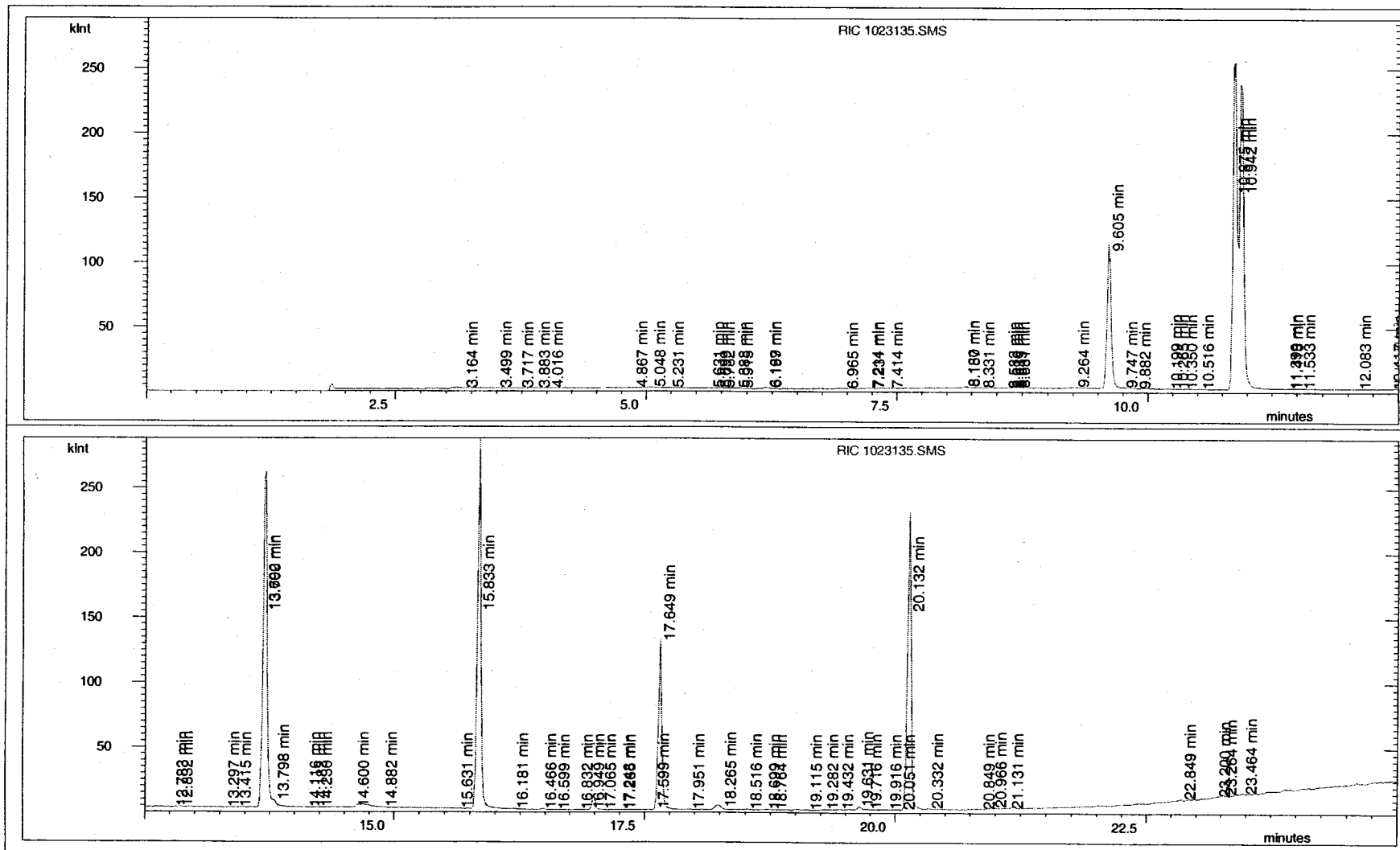
Lab File ID: C:\C\041404A\1023135.SMS

Acquisition Date: 4/14/04 12:47

EPA Sample No: 1023135

Operator: DC

Lab Sample ID: URS DELAWARE 296



# GENERAL QUANTITATION REPORT

EPA Method 524.2

Environmental Health Laboratories  
A Division of Underwriters Laboratories, Inc.

**Lab SampleID:** URS DELAWARE 296 **Corr. Factor:** 1  
**Analyst:** DC  
**Instrument:** Saturn C  
**Acquisition Date:** 4/14/04 12:47  
**Data File:** C:\C\041404A\1023135.SMS  
**Recalc Method:** C:\C\041404A\524\_2-040504C-up1.mth  
**Comment:** 1023135\DC\1023135\FS\DW\524\1\URS DELAWARE 29600N

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
IS-FLUOROBENZENE	10.87	310112	S	10.000	0.00	ug/L	998	908
IS-1,4-DIFLUOROBENZENE	10.94	254872	S	10.000	0.00	ug/L	999	867
SS-1,2-DICHLOROETHANE-D4	9.60	142707		10.487	0.00	ug/L	999	838
SS-TOLUENE-D8	13.69	298319		9.961	0.00	ug/L	1000	899
SS-BROMOFLUOROBENZENE	17.65	114813		5.083	0.00	ug/L	992	926
SS-1,2-DICHLOROETHANE-D4	20.13	158258		9.352	0.00	ug/L	993	894
CHLOROMETHANE	3.50	0	M	0.000	0.50	ug/L	145	1
VINYL CHLORIDE	3.72	0	M	0.000	0.20	ug/L	498	24
BROMOMETHANE	4.02	0	M	0.000	0.50	ug/L	762	137
TRICHLOROFLUOROMETHANE	4.87	0	M	0.000	0.50	ug/L	827	34
1,1-DICHLOROETHYLENE	5.63	0	M	0.000	0.50	ug/L	654	55
METHYLENE CHLORIDE	5.88	0	M	0.000	0.50	ug/L	807	45
T-1,2-DICHLOROETHYLENE	6.97	0	M	0.000	0.50	ug/L	821	84
1,1-DICHLOROETHANE	7.23	0	M	0.000	0.50	ug/L	669	15
C-1,2-DICHLOROETHYLENE	8.33	0	M	0.000	0.50	ug/L	758	26
CHLOROFORM	8.68	0	M	0.000	0.50	ug/L	781	67
CARBON TETRACHLORIDE	10.35	0	M	0.000	0.50	ug/L	847	79
BENZENE	10.52	0	M	0.000	0.50	ug/L	971	246
1,2-DICHLOROPROPANE	11.42	0	M	0.000	0.50	ug/L	508	53
BROMODICHLOROMETHANE	11.53	0	M	0.000	0.50	ug/L	607	14
TRICHLOROETHYLENE	11.53	0	M	0.000	0.50	ug/L	870	106
TOLUENE	13.80	0	M	0.000	0.50	ug/L	999	368
DIBROMOCHLOROMETHANE	14.23	0	M	0.000	0.50	ug/L	452	23
TETRACHLOROETHYLENE	14.88	0	M	0.000	0.50	ug/L	880	269
CHLOROBENZENE	15.83	0	M	0.000	0.50	ug/L	588	23
ETHYLBENZENE	16.18	0	M	0.000	0.50	ug/L	914	295
1,3-XYLENE	16.47	0	M	0.000	0.50	ug/L	990	552
BROMOFORM	16.60	0	M	0.000	0.50	ug/L	613	77
1,1,2,2-TETRACHLOROETHANE	16.83	0	M	0.000	0.50	ug/L	334	33
1,2-XYLENE	17.07	0	M	0.000	0.50	ug/L	867	288
ISOPROPYLBENZENE	17.60	0	M	0.000	0.50	ug/L	911	200
BROMOBENZENE	17.95	0	M	0.000	0.50	ug/L	911	380
2-CHLOROTOLUENE	18.52	0	M	0.000	0.50	ug/L	938	401
1,3,5-TRIMETHYLBENZENE	18.70	0	M	0.000	0.50	ug/L	952	475
1,2,4-TRIMETHYLBENZENE	19.28	0	M	0.000	0.50	ug/L	977	532
1,3-DICHLOROETHYLENE	19.63	0	M	0.000	0.50	ug/L	991	745
4-ISOPROPYLTOLUENE	19.72	0	M	0.000	0.50	ug/L	984	574
N-BUTYLBENZENE	20.33	0	M	0.000	0.50	ug/L	949	488
1,2-DIBROMO-3-CHLOROPROPANE	20.85	0	M	0.000	0.50	ug/L	322	22
1,2,4-TRICHLOROETHYLENE	22.85	0	M	0.000	0.50	ug/L	967	429
NAPHTHALENE	23.20	0	M	0.000	0.50	ug/L	964	334
1,2,3-TRICHLOROETHYLENE	23.46	0	M	0.000	0.50	ug/L	957	263
DICHLORODIFLUOROMETHANE	3.16	0	M	0.000	0.50	ug/L	651	5

*Handwritten:* 4/15/04

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
CHLOROETHANE	3.88	0	M	0.000	0.50	ug/L	266	5
1,1,2-TRICHLOROTRIFLUOROETHA	5.92	0	M	0.000	0.50	ug/L	581	63
MTBE	7.21	0	M	0.000	0.50	ug/L	856	197
BROMOCHLOROMETHANE	8.58	0	M	0.000	0.50	ug/L	176	7
2,2-DICHLOROPROPANE	8.62	0	M	0.000	0.50	ug/L	731	18
1,2-DICHLOROETHANE	9.75	0	M	0.000	0.50	ug/L	533	52
1,1,1-TRICHLOROETHANE	9.88	0	M	0.000	0.50	ug/L	594	53
1,1-DICHLOROPROPYLENE	10.20	0	M	0.000	0.50	ug/L	558	27
DIBROMOMETHANE	11.40	0	M	0.000	0.50	ug/L	779	120
CIS-1,3-DICHLOROPROPYLENE	12.78	0	M	0.000	0.50	ug/L	635	21
TRANS-1,3-DICHLOROPROPYLENE	13.30	0	M	0.000	0.50	ug/L	589	8
1,1,2-TRICHLOROETHANE	13.41	0	M	0.000	0.50	ug/L	448	23
1,3-DICHLOROPROPANE	13.70	0	M	0.000	0.50	ug/L	548	3
1,2-DIBROMOETHANE(EDB)	14.60	0	M	0.000	0.50	ug/L	837	49
1,1,1,2-TETRACHLOROETHANE	15.63	0	M	0.000	0.50	ug/L	407	21
1,4-XYLENE	16.47	0	M	0.000	0.50	ug/L	995	548
STYRENE	16.95	0	M	0.000	0.50	ug/L	915	311
1,2,3-TRICHLOROPROPANE	17.25	0	M	0.000	0.50	ug/L	532	23
N-PROPYLBENZENE	18.26	0	M	0.000	0.50	ug/L	991	61
4-CHLOROTOLUENE	18.52	0	M	0.000	0.50	ug/L	974	388
TERT-BUTYLBENZENE	19.11	0	M	0.000	0.50	ug/L	929	312
SEC-BUTYLBENZENE	19.43	0	M	0.000	0.50	ug/L	985	287
1,4-DICHLOROBENZENE	19.63	0	M	0.000	0.50	ug/L	991	788
1,2,3-TRIMETHYLBENZENE	19.92	0	M	0.000	0.50	ug/L	956	359
1,2-DICHLOROBENZENE	20.05	0	M	0.000	0.50	ug/L	606	83
HEXACHLOROBUTADIENE	23.26	0	M	0.000	0.50	ug/L	900	212
ACETONE	5.05	0	M	0.000	5.00	ug/L	862	54
ETHYL ETHER	5.23	0	M	0.000	2.00	ug/L	432	7
IODOMETHANE	5.70	0	M	0.000	2.00	ug/L	984	230
ACRYLONITRILE	5.73	0	M	0.000	1.00	ug/L	828	30
CARBON DISULFIDE	6.19	2552	< *C	-1.000	5.00	ug/L	929	258
ALLYL CHLORIDE	6.20	0	M	0.000	5.00	ug/L	469	239
PROPIONITRILE	7.41	0	M	0.000	5.00	ug/L	597	14
METHACRYLONITRILE	8.18	0	M	0.000	5.00	ug/L	619	23
2-BUTANONE	8.19	809		0.736	5.00	ug/L	998	309
METHYLACRYLATE	8.65	0	M	0.000	1.00	ug/L	722	19
TETRAHYDROFURAN	9.26	0	M	0.000	5.00	ug/L	997	406
1-CHLOROBUTANE	9.88	0	M	0.000	5.00	ug/L	637	23
CHLOROACETONITRILE	10.26	0	M	0.000	5.00	ug/L	447	3
2-NITROPROPANE	11.40	0	M	0.000	2.00	ug/L	380	11
METHYL METHACRYLATE	12.08	0	M	0.000	1.00	ug/L	381	16
1,1-DICHLOROPROPANONE	12.42	0	M	0.000	5.00	ug/L	516	7
4-METHYL-2-PENTANONE	12.83	0	M	0.000	2.00	ug/L	503	22
ETHYL METHACRYLATE	14.12	0	M	0.000	1.00	ug/L	627	51
2-HEXANONE	14.18	0	M	0.000	5.00	ug/L	361	12
T-1,4-DICHLORO-2-BUTENE	17.26	0	M	0.000	5.00	ug/L	424	24
PENTACHLOROETHANE	18.76	0	M	0.000	2.00	ug/L	669	121
HEXACHLOROETHANE	20.97	0	M	0.000	2.00	ug/L	670	124
NITROBENZENE	21.13	0	M	0.000	5.00	ug/L	484	44

Applicable Status Codes Key:

- S Internal Standard Compound
- \* No result can be calculated; check calibration curve
- + More than one result; check calibration curve
- M Missing Peak
- C Result out of calibration range; check calibration curve
- U User defined end points

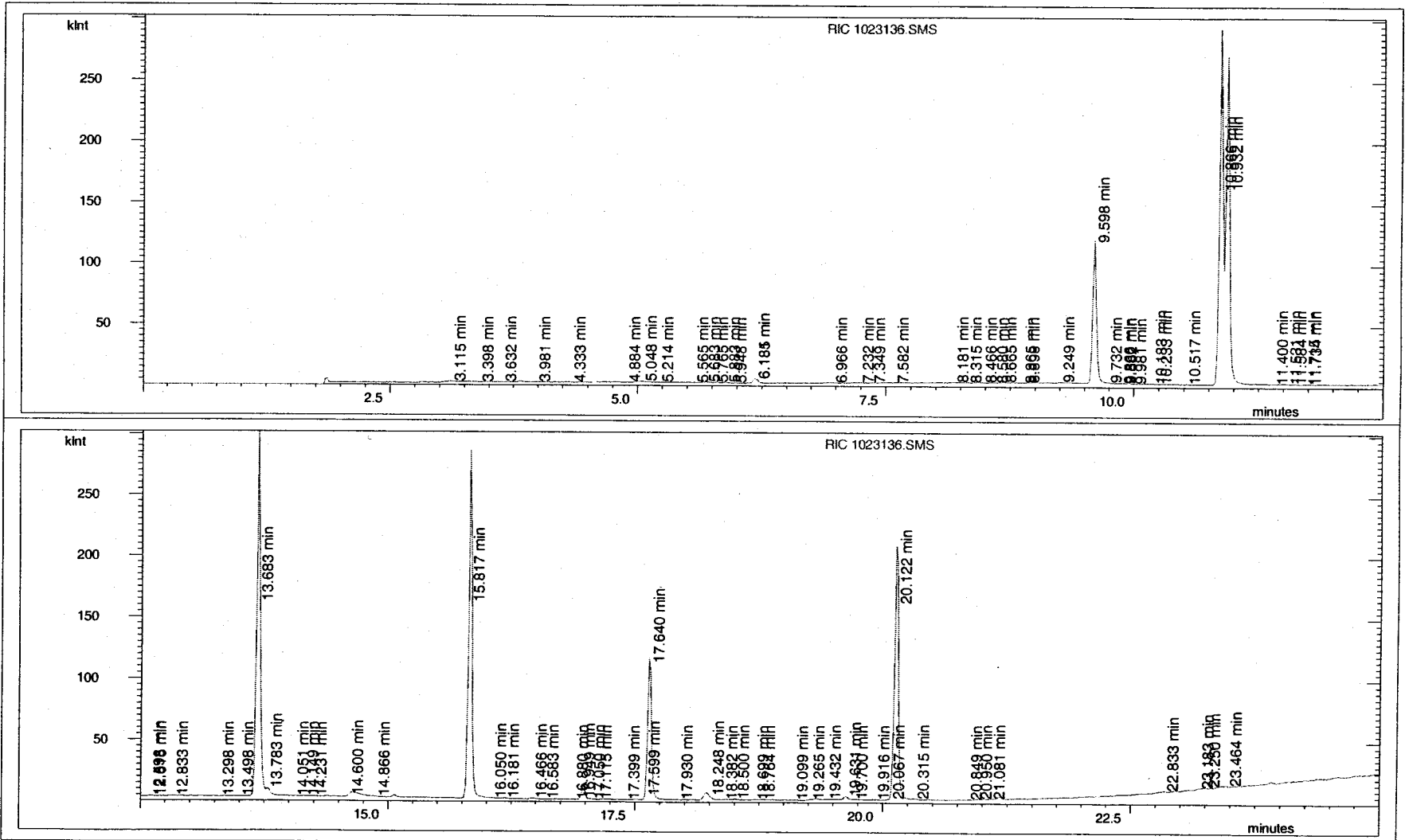
48  
C# 4/15/4

# CHROMATOGRAM REPORT

EPA Method 524.2

Lab File ID: C:\C041404A\1023136.SMS  
Acquisition Date: 4/14/04 13:23  
EPA Sample No: 1023136  
Lab Sample ID: URS DELAWARE 309

Operator: DC



# GENERAL QUANTITATION REPORT

EPA Method 524.2

Environmental Health Laboratories

A Division of Underwriters Laboratories, Inc.

Lab SampleID: URS DELAWARE 309

Corr. Factor: 1

Analyst: DC

Instrument: Saturn C

Acquisition Date: 4/14/04 13:23

Data File: C:\C041404A\1023136.SMS

Recalc Method: C:\C041404A\524\_2-040504C-up1.mth

Comment: 1023136\DC\1023136\FS\DW\524\1\URS DELAWARE 30900N

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
IS-FLUOROBENZENE	10.87	308743	S	10.000	0.00	ug/L	998	913
IS-1,4-DIFLUOROBENZENE	10.93	255332	S	10.000	0.00	ug/L	999	870
SS-1,2-DICHLOROETHANE-D4	9.60	145688		10.687	0.00	ug/L	1000	815
SS-TOLUENE-D8	13.68	303800		10.125	0.00	ug/L	999	923
SS-BROMOFLUOROBENZENE	17.64	112350		4.965	0.00	ug/L	998	934
SS-1,2-DICHLOROETHANE-D4	20.12	161215		9.509	0.00	ug/L	994	865
CHLOROMETHANE	3.40	0	M	0.000	0.50	ug/L	145	1
VINYL CHLORIDE	3.63	0	M	0.000	0.20	ug/L	647	12
BROMOMETHANE	3.98	0	M	0.000	0.50	ug/L	745	121
TRICHLOROFLUOROMETHANE	4.88	0	M	0.000	0.50	ug/L	843	24
1,1-DICHLOROETHYLENE	5.56	0	M	0.000	0.50	ug/L	497	10
METHYLENE CHLORIDE	5.88	0	M	0.000	0.50	ug/L	959	82
T-1,2-DICHLOROETHYLENE	6.97	0	M	0.000	0.50	ug/L	663	26
1,1-DICHLOROETHANE	7.58	0	M	0.000	0.50	ug/L	747	5
C-1,2-DICHLOROETHYLENE	8.31	0	M	0.000	0.50	ug/L	753	8
CHLOROFORM	8.67	0	M	0.000	0.50	ug/L	780	72
CARBON TETRACHLORIDE	10.23	0	M	0.000	0.50	ug/L	734	61
BENZENE	10.52	0	M	0.000	0.50	ug/L	917	218
1,2-DICHLOROPROPANE	11.40	0	M	0.000	0.50	ug/L	510	26
TRICHLOROETHYLENE	11.53	0	M	0.000	0.50	ug/L	888	184
BROMODICHLOROMETHANE	11.58	0	M	0.000	0.50	ug/L	553	25
TOLUENE	13.78	0	M	0.000	0.50	ug/L	999	605
DIBROMOCHLOROMETHANE	14.23	0	M	0.000	0.50	ug/L	484	27
TETRACHLOROETHYLENE	14.87	0	M	0.000	0.50	ug/L	892	342
CHLOROBENZENE	16.05	0	M	0.000	0.50	ug/L	642	44
ETHYLBENZENE	16.18	0	M	0.000	0.50	ug/L	987	432
1,3-XYLENE	16.47	0	M	0.000	0.50	ug/L	981	675
BROMOFORM	16.58	0	M	0.000	0.50	ug/L	391	31
1,1,2,2,-TETRACHLOROETHANE	16.88	0	M	0.000	0.50	ug/L	529	63
1,2-XYLENE	17.05	0	M	0.000	0.50	ug/L	946	454
ISOPROPYLBENZENE	17.60	0	M	0.000	0.50	ug/L	941	339
BROMOBENZENE	17.93	0	M	0.000	0.50	ug/L	919	179
2-CHLOROTOLUENE	18.38	0	M	0.000	0.50	ug/L	910	283
1,3,5-TRIMETHYLBENZENE	18.70	0	M	0.000	0.50	ug/L	889	335
1,2,4-TRIMETHYLBENZENE	19.27	0	M	0.000	0.50	ug/L	900	409
1,3-DICHLOROETHYLENE	19.63	0	M	0.000	0.50	ug/L	988	803
4-ISOPROPYLTOLUENE	19.70	0	M	0.000	0.50	ug/L	967	403
N-BUTYLBENZENE	20.32	0	M	0.000	0.50	ug/L	955	581
1,2-DIBROMO-3-CHLOROPROPANE	20.85	0	M	0.000	0.50	ug/L	685	55
1,2,4-TRICHLOROETHYLENE	22.83	0	M	0.000	0.50	ug/L	965	430
NAPHTHALENE	23.18	0	M	0.000	0.50	ug/L	968	213
1,2,3-TRICHLOROETHYLENE	23.46	0	M	0.000	0.50	ug/L	886	228
DICHLORODIFLUOROMETHANE	3.12	0	M	0.000	0.50	ug/L	996	52

Compound	R. T.	Area	Status Codes	Conc	TSV	Units	Fit	Purity
CHLOROETHANE	4.33	0	M	0.000	0.50	ug/L	212	4
1,1,2-TRICHLOROTRIFLUOROETHA	5.95	0	M	0.000	0.50	ug/L	800	82
MTBE	7.23	0	M	0.000	0.50	ug/L	739	82
BROMOCHLOROMETHANE	8.58	0	M	0.000	0.50	ug/L	164	6
2,2-DICHLOROPROPANE	8.90	0	M	0.000	0.50	ug/L	602	25
1,2-DICHLOROETHANE	9.73	0	M	0.000	0.50	ug/L	588	53
1,1,1-TRICHLOROETHANE	9.87	0	M	0.000	0.50	ug/L	679	15
1,1-DICHLOROPROPYLENE	9.98	0	M	0.000	0.50	ug/L	434	4
DIBROMOMETHANE	11.40	0	M	0.000	0.50	ug/L	639	72
CIS-1,3-DICHLOROPROPYLENE	12.61	0	M	0.000	0.50	ug/L	628	28
TRANS-1,3-DICHLOROPROPYLENE	13.30	0	M	0.000	0.50	ug/L	680	71
1,1,2-TRICHLOROETHANE	13.50	0	M	0.000	0.50	ug/L	509	29
1,3-DICHLOROPROPANE	13.68	0	M	0.000	0.50	ug/L	548	3
1,2-DIBROMOETHANE(EDB)	14.60	0	M	0.000	0.50	ug/L	789	8
1,1,1,2-TETRACHLOROETHANE	15.82	0	M	0.000	0.50	ug/L	538	53
1,4-XYLENE	16.47	0	M	0.000	0.50	ug/L	979	589
STYRENE	16.95	0	M	0.000	0.50	ug/L	873	156
1,2,3-TRICHLOROPROPANE	17.11	0	M	0.000	0.50	ug/L	490	8
N-PROPYLBENZENE	18.25	0	M	0.000	0.50	ug/L	951	38
4-CHLOROTOLUENE	18.50	0	M	0.000	0.50	ug/L	949	341
TERT-BUTYLBENZENE	19.10	0	M	0.000	0.50	ug/L	896	226
SEC-BUTYLBENZENE	19.43	0	M	0.000	0.50	ug/L	961	329
1,4-DICHLOROBENZENE	19.63	0	M	0.000	0.50	ug/L	990	830
1,2,3-TRIMETHYLBENZENE	19.92	0	M	0.000	0.50	ug/L	951	331
1,2-DICHLOROBENZENE	20.07	0	M	0.000	0.50	ug/L	374	32
HEXACHLOROBUTADIENE	23.25	0	M	0.000	0.50	ug/L	852	168
ACETONE	5.05	2279		0.906	5.00	ug/L	1000	243
ETHYL ETHER	5.21	0	M	0.000	2.00	ug/L	449	16
IODOMETHANE	5.68	0	M	0.000	2.00	ug/L	992	215
ACRYLONITRILE	5.77	0	M	0.000	1.00	ug/L	744	18
ALLYL CHLORIDE	6.18	0	M	0.000	5.00	ug/L	480	154
CARBON DISULFIDE	6.18	9225		0.123	5.00	ug/L	982	612
PROPIONITRILE	7.35	0	M	0.000	5.00	ug/L	703	12
2-BUTANONE	8.18	0	M	0.000	5.00	ug/L	942	159
METHACRYLONITRILE	8.47	0	M	0.000	5.00	ug/L	335	3
METHYLACRYLATE	8.86	0	M	0.000	1.00	ug/L	660	9
TETRAHYDROFURAN	9.25	0	M	0.000	5.00	ug/L	991	307
1-CHLOROBUTANE	9.88	0	M	0.000	5.00	ug/L	566	7
CHLOROACETONITRILE	10.18	0	M	0.000	5.00	ug/L	435	20
METHYL METHACRYLATE	11.71	0	M	0.000	1.00	ug/L	413	25
2-NITROPROPANE	11.73	0	M	0.000	2.00	ug/L	462	7
1,1-DICHLOROPROPANONE	12.60	0	M	0.000	5.00	ug/L	773	113
4-METHYL-2-PENTANONE	12.83	0	M	0.000	2.00	ug/L	793	65
ETHYL METHACRYLATE	14.05	0	M	0.000	1.00	ug/L	544	24
2-HEXANONE	14.15	0	M	0.000	5.00	ug/L	306	4
T-1,4-DICHLORO-2-BUTENE	17.40	0	M	0.000	5.00	ug/L	425	32
PENTACHLOROETHANE	18.76	0	M	0.000	2.00	ug/L	507	60
HEXACHLOROETHANE	20.95	0	M	0.000	2.00	ug/L	532	100
NITROBENZENE	21.08	0	M	0.000	5.00	ug/L	378	51

Applicable Status Codes Key:

- S Internal Standard Compound
- \* No result can be calculated; check calibration curve
- + More than one result; check calibration curve
- M Missing Peak
- C Result out of calibration range; check calibration curve
- U User defined end points

48  
CD  
4/15/14



# LABELED CHROMATOGRAM REPORT

EPA Method 524.2

Environmental Health Laboratories

A Division of Underwriters Laboratories, Inc.

Lab SampleID: QCS 10 PPB

Corr. Factor: 1

Analyst: DC

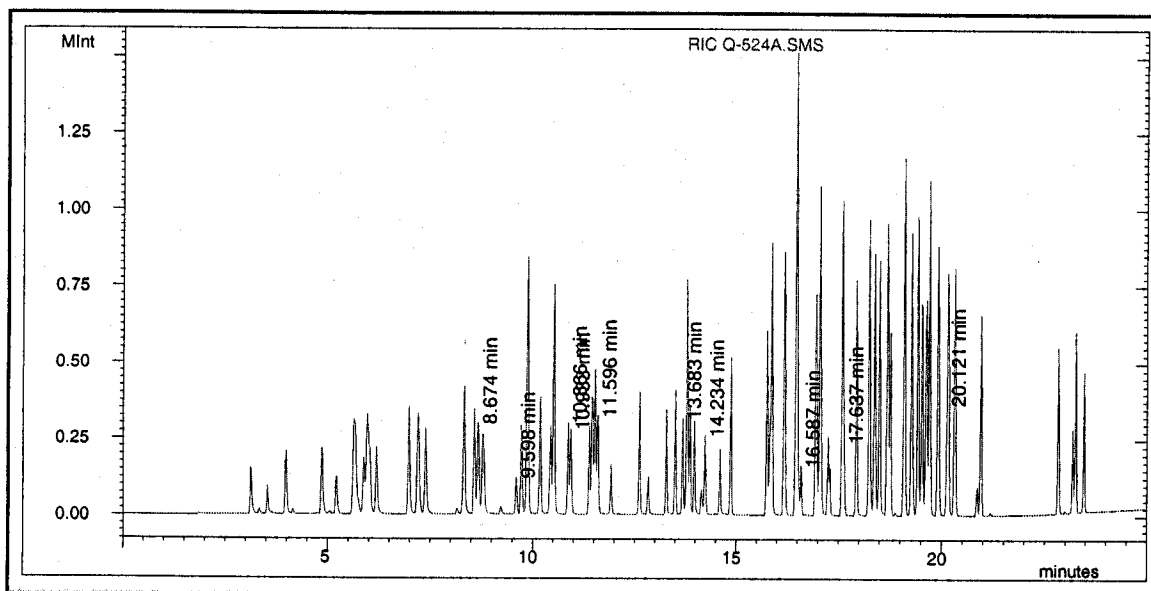
Instrument: Saturn C

Acquisition Date: 4/15/04 3:35

Data File: C:\Q041404A\Q-524A.SMS

Recalc Method: C:\Q041404A\524\_2-040504C-up1.mth

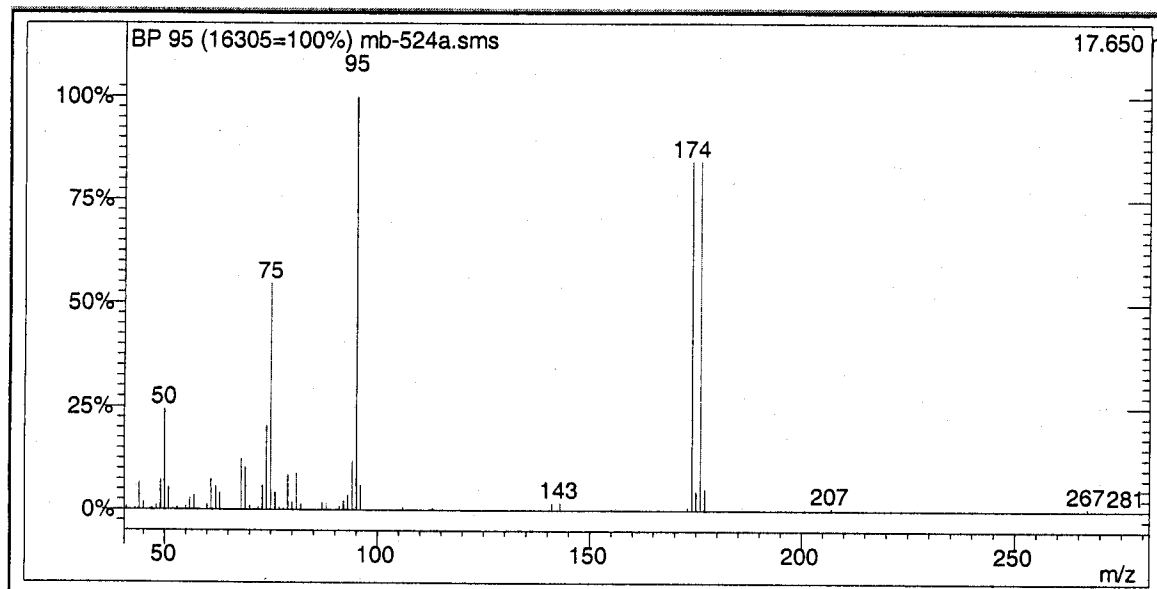
Comment: Q-524A\DC\1025233\QCS\RW\524\1\10\QCS 10 PPB



Compound	R. T.	Area	Status	Conc	TSV	Units	Fit	Purity
* IS-FLUOROBENZENE	10.87	305459	S	10.000	0.00	ug/L	999	898
* IS-1,4-DIFLUOROBENZENE	10.93	258058	S	10.000	0.00	ug/L	999	859
SS-1,2-DICHLOROETHANE-D4	9.60	139411		10.118	0.00	ug/L	999	809
SS-TOLUENE-D8	13.68	311640		10.277	0.00	ug/L	999	917
SS-BROMOFLUOROBENZENE	17.64	120638		5.275	0.00	ug/L	990	808
SS-1,2-DICHLOROBENZENE-D4	20.12	171542		10.011	0.00	ug/L	993	882
CHLOROFORM	8.67	545154		10.327	0.50	ug/L	999	918
BROMODICHLOROMETHANE	11.60	384401		9.585	0.50	ug/L	999	901
DIBROMOCHLOROMETHANE	14.23	271389		10.117	0.50	ug/L	999	895
BROMOFORM	16.59	173334		9.821	0.50	ug/L	999	912

\* indicates Internal Standard.

# BFB Report



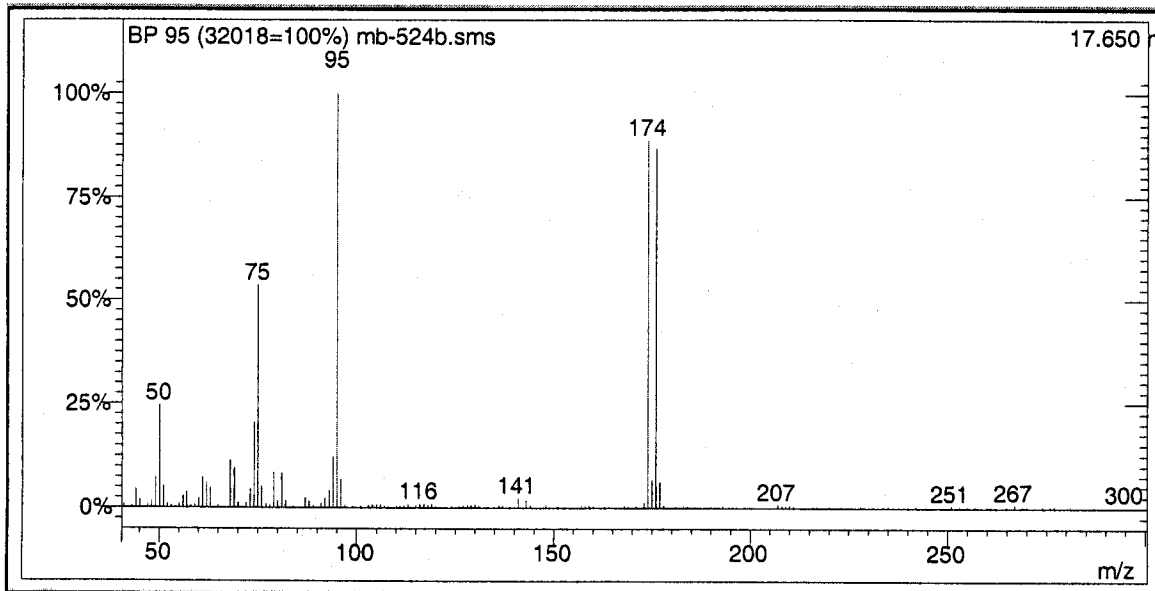
Lab File ID mb-524a.sms

Injection Date: 4/5/04

Injection Time: 15:22

Mass	Acceptance Criterion	Value	Pass/Fail
50	15-40% of m/z 95	24.33	PASS
75	30-80% of m/z 95	54.60	PASS
95	base peak	100.00	PASS
96	5-9% of m/z 95	5.94	PASS
173	<2% of m/z 174	0.92	PASS
174	>50% of m/z 95	84.34	PASS
175	5-9% of m/z 174	5.42	PASS
176	>95% but <101% of m/z 174	99.93	PASS
177	5-9% of m/z 176	6.13	PASS

# BFB Report



Lab File ID mb-524b.sms

Injection Date: 4/6/04

Injection Time: 1:45

Mass	Acceptance Criterion	Value	Pass/Fail
50	15-40% of m/z 95	24.53	PASS
75	30-80% of m/z 95	53.59	PASS
95	base peak	100.00	PASS
96	5-9% of m/z 95	6.84	PASS
173	<2% of m/z 174	1.33	PASS
174	>50% of m/z 95	88.92	PASS
175	5-9% of m/z 174	7.49	PASS
176	>95% but <101% of m/z 174	97.68	PASS
177	5-9% of m/z 176	7.20	PASS

# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

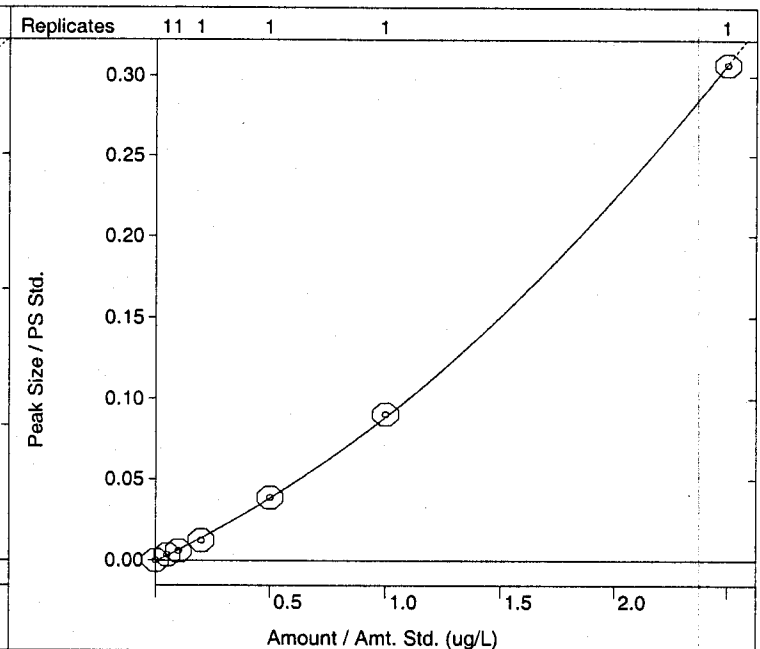
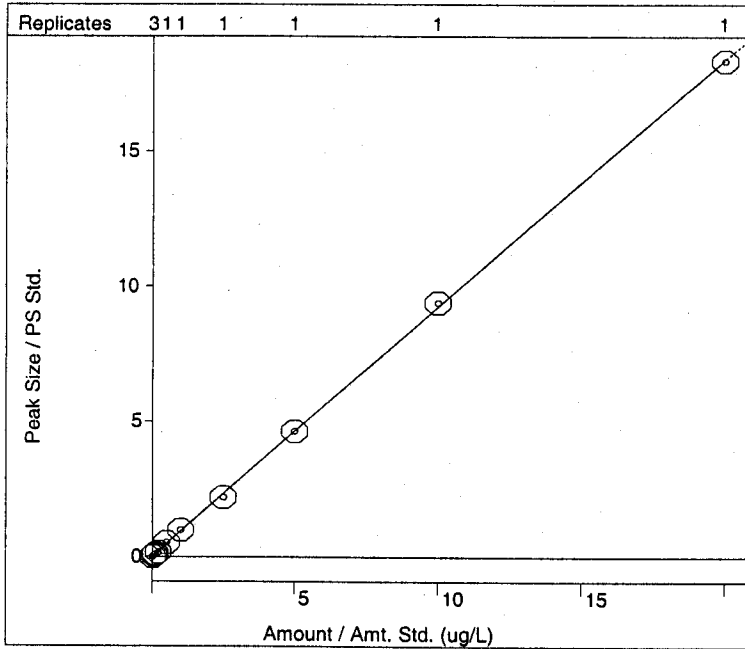
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## DICHLORODIFLUOROMETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 8.780%, Coeff. Det.(r2): 0.999853  
 $y = -4.1306e-4x^2 + 0.9293x + 0.0050$

## CHLOROMETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 30.51%, Coeff. Det.(r2): 0.999905  
 $y = +0.0228x^2 + 0.0663x - 4.9700e-4$

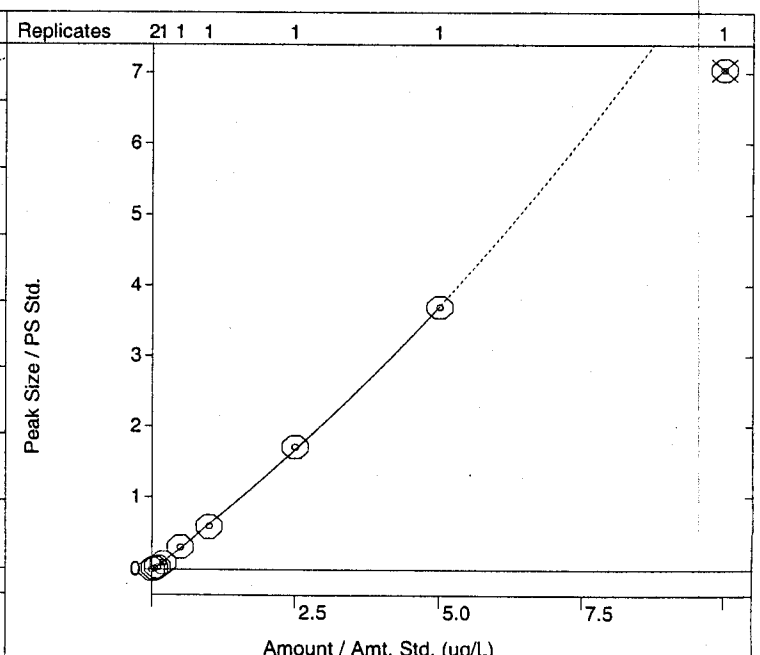
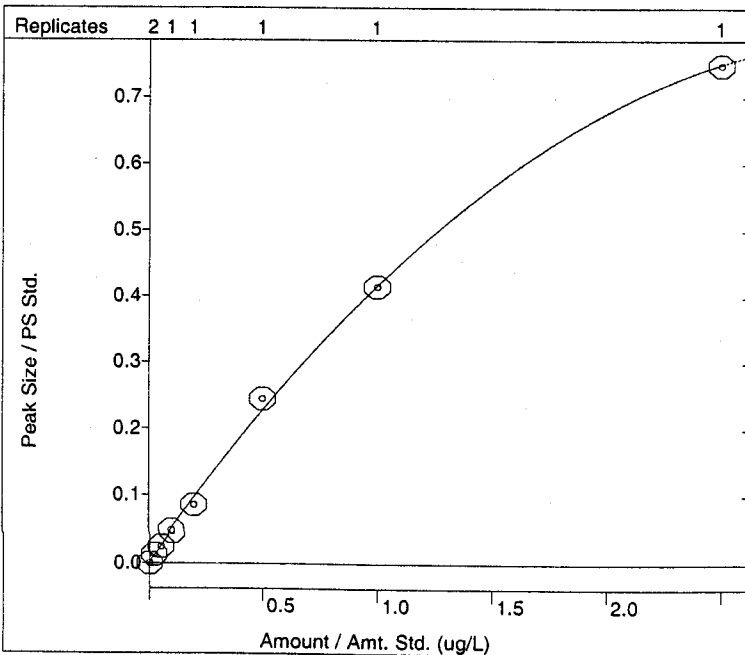


## VINYL CHLORIDE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 23.20%, Coeff. Det.(r2): 0.999078  
 $y = -0.0762x^2 + 0.4902x + 0.0017$

## BROMOMETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 31.41%, Coeff. Det.(r2): 0.999734  
 $y = +0.0275x^2 + 0.6088x - 0.0194$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

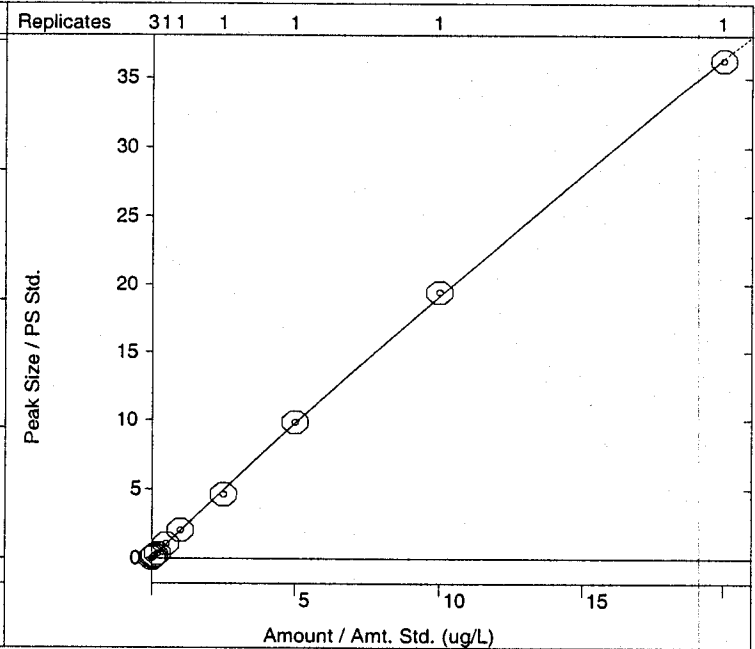
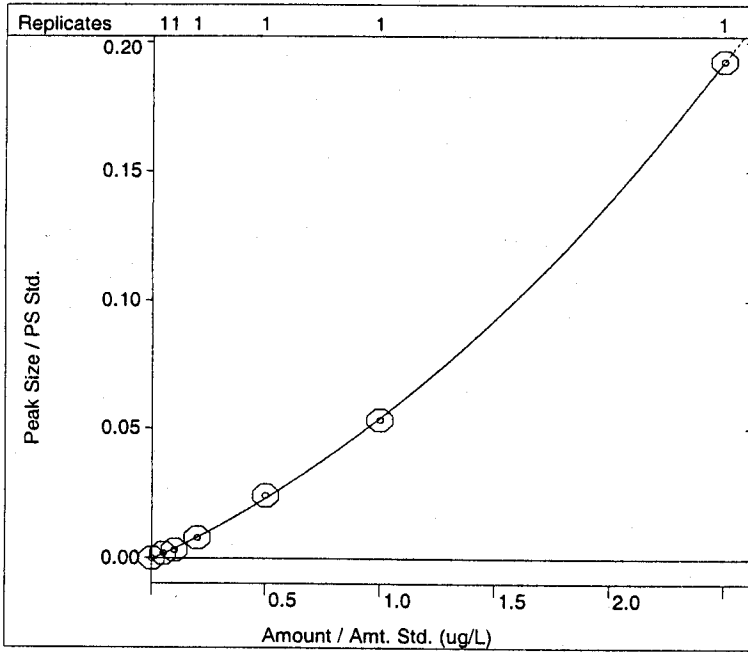
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## CHLOROETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 34.01%, Coeff. Det.(r2): 0.999925  
 $y = +0.0151x^2 + 0.0393x - 3.6450e-4$

## TRICHLOROFLUOROMETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 7.900%, Coeff. Det.(r2): 0.999824  
 $y = -0.0088x^2 + 1.9993x + 0.0021$

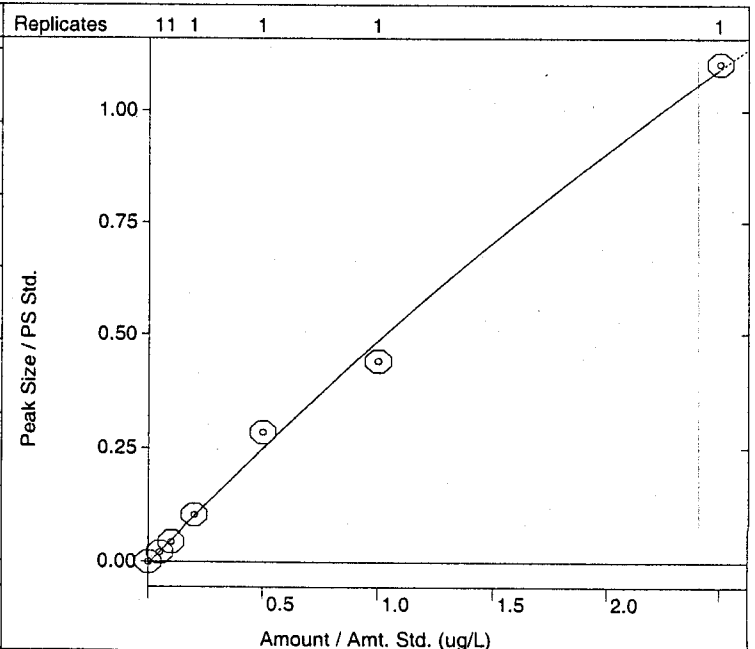
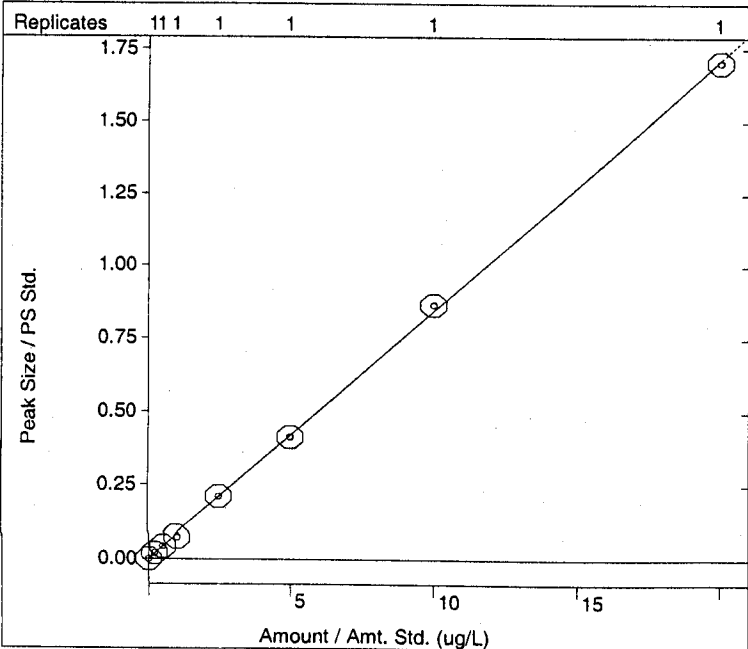


## ACETONE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 9.223%, Coeff. Det.(r2): 0.999731  
 $y = +1.2233e-4x^2 + 0.0831x + 0.0014$

## ETHYL ETHER

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 12.22%, Coeff. Det.(r2): 0.996299  
 $y = -0.0344x^2 + 0.5255x - 0.0044$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

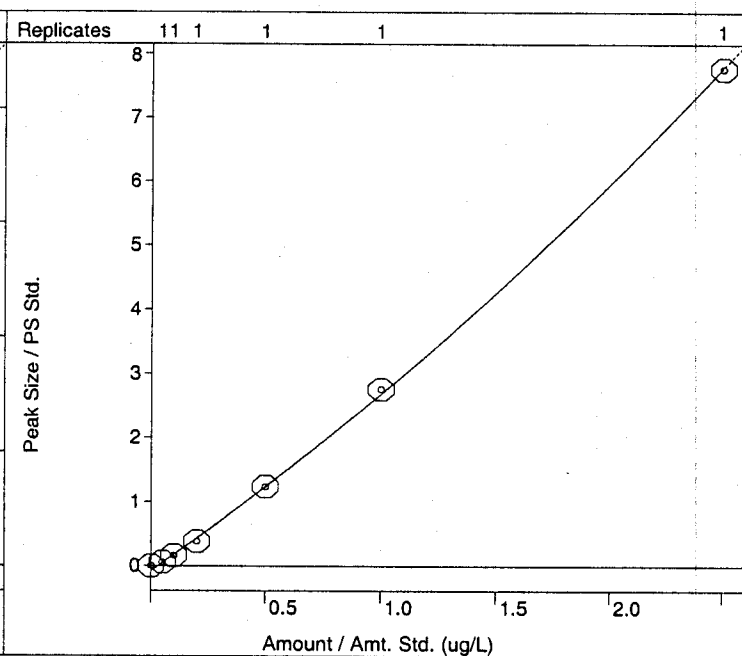
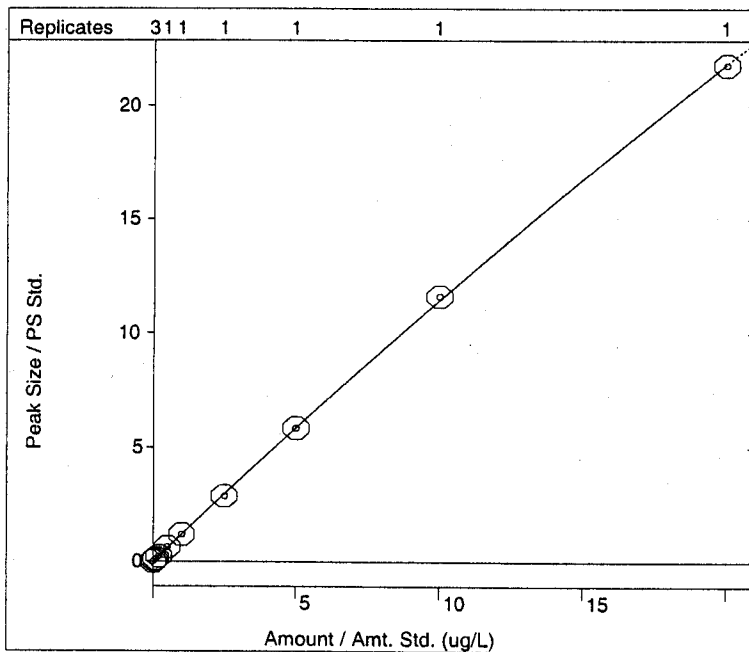
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## 1,1-DICHLOROETHYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 6.445%, Coeff. Det.(r2): 0.999913  
 $y = -0.0054x^2 + 1.1986x + 0.0050$

## IODOMETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 32.94%, Coeff. Det.(r2): 0.999721  
 $y = +0.2577x^2 + 2.5036x - 0.0768$

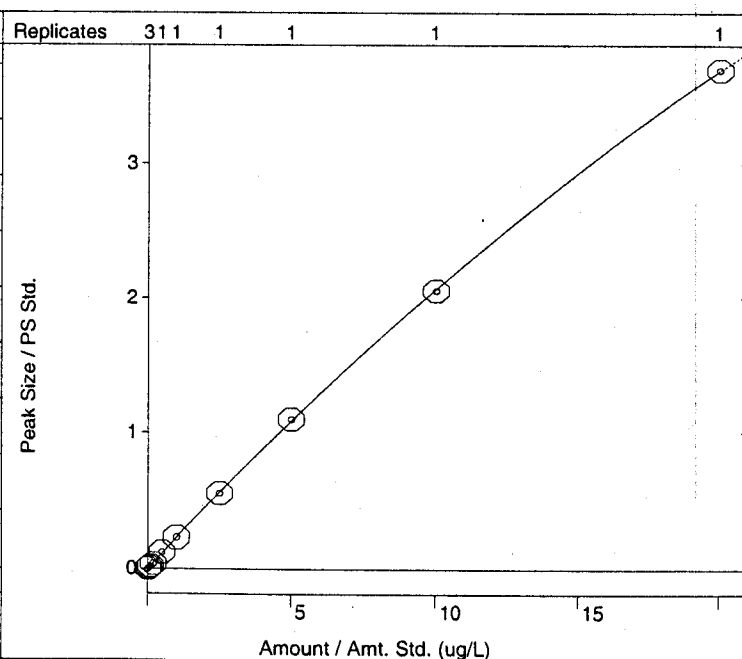
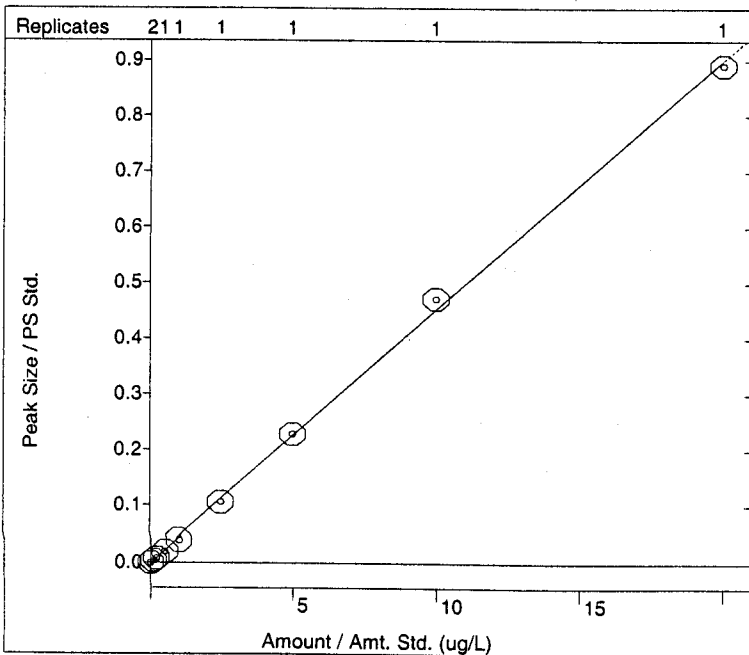


## TERT-BUTYL ALCOHOL

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 7.780%, Coeff. Det.(r2): 0.999267  
 $y = -2.3199e-5x^2 + 0.0456x - 0.0013$

## ACRYLONITRILE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 11.10%, Coeff. Det.(r2): 0.999962  
 $y = -0.0022x^2 + 0.2290x - 0.0035$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

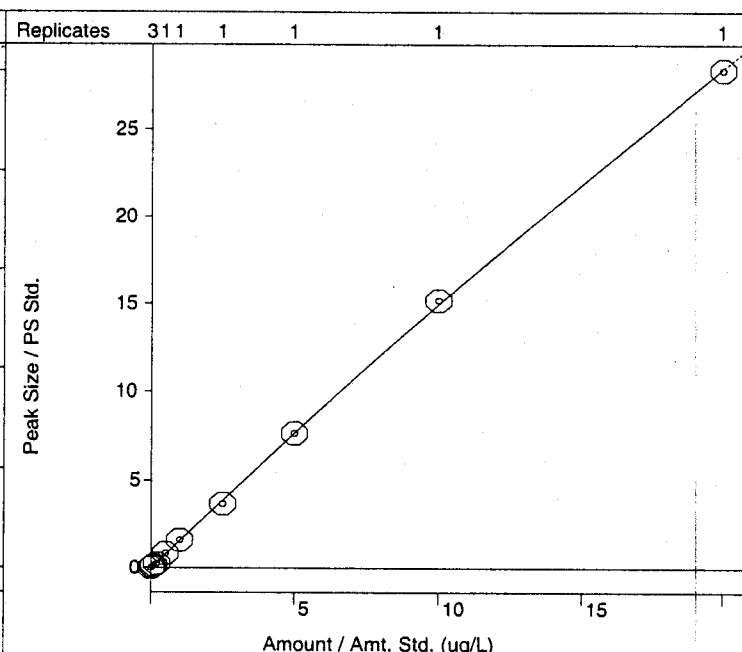
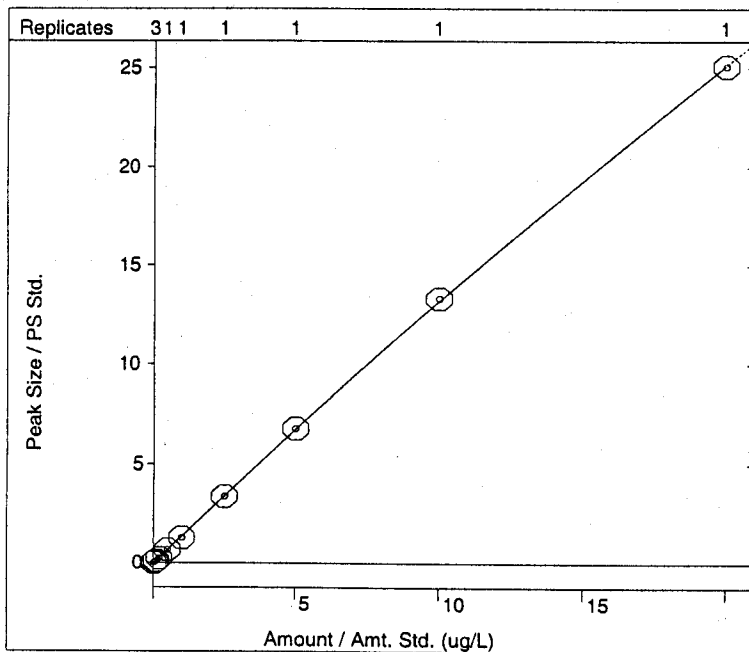
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## METHYLENE CHLORIDE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 13.46%, Coeff. Det.(r2): 0.999956  
 $y = -0.0065x^2 + 1.3893x - 0.0312$

## 1,1,2-TRICHLOROTRIFLUOROETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 8.922%, Coeff. Det.(r2): 0.999859  
 $y = -0.0073x^2 + 1.5696x - 0.0104$

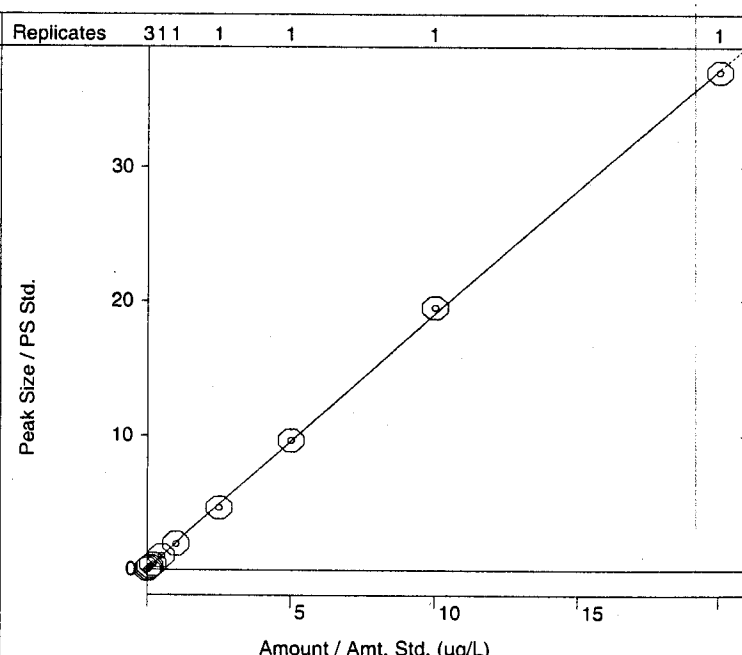
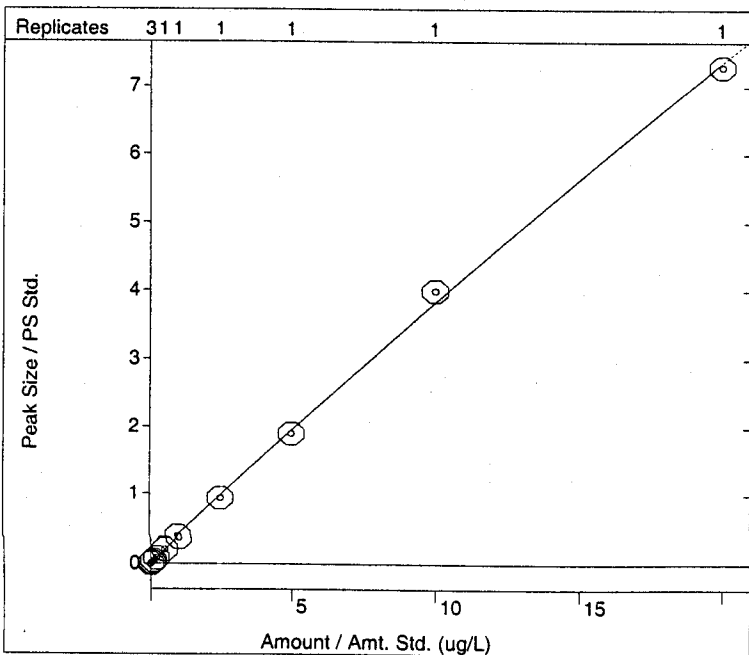


## ALLYL CHLORIDE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.070%, Coeff. Det.(r2): 0.999297  
 $y = -0.0014x^2 + 0.3971x - 0.0022$

## CARBON DISULFIDE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 7.068%, Coeff. Det.(r2): 0.999750  
 $y = -0.0033x^2 + 1.9377x + 0.0123$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

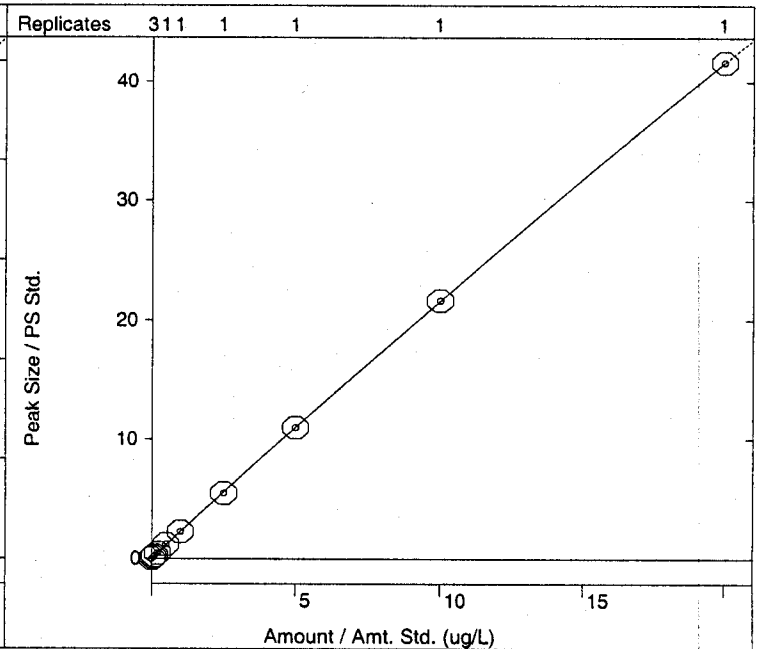
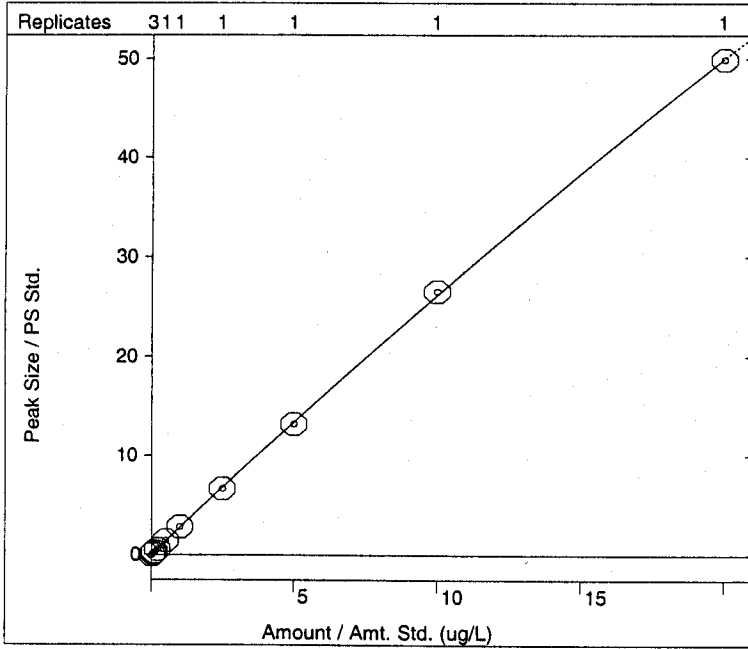
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## T-1,2-DICHLOROETHYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.652%, Coeff. Det.(r2): 0.999912  
 $y = -0.0119x^2 + 2.7392x + 0.0160$

## MTBE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 6.823%, Coeff. Det.(r2): 0.999990  
 $y = -0.0076x^2 + 2.2336x + 0.0210$

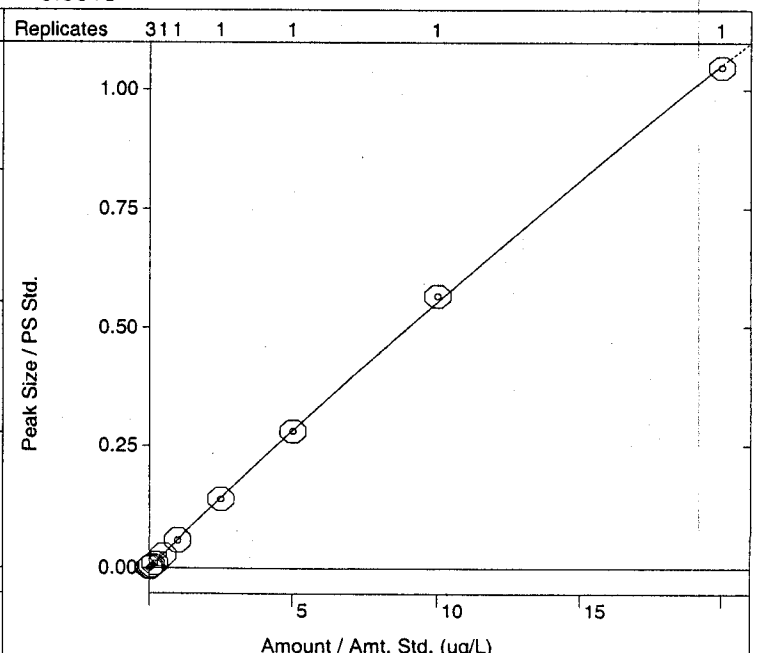
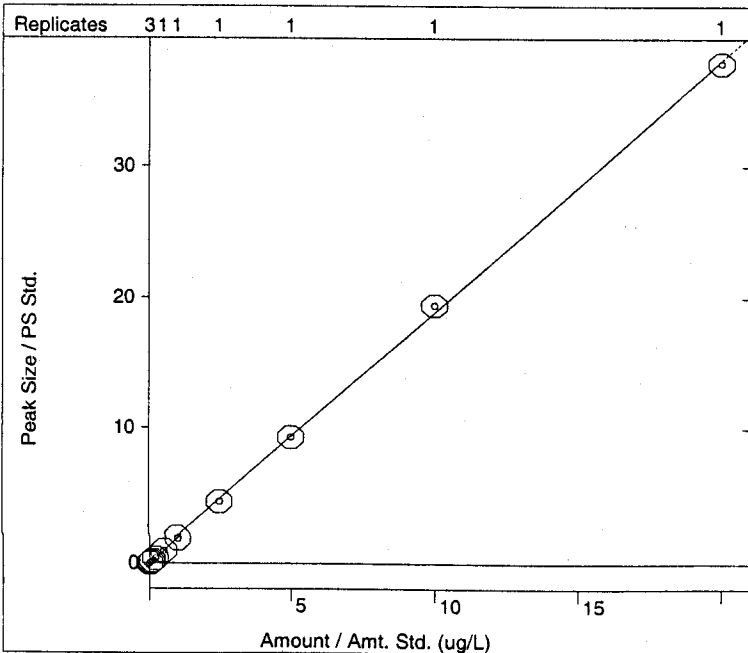


## 1,1-DICHLOROETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.610%, Coeff. Det.(r2): 0.999691  
 $y = +0.0015x^2 + 1.8735x - 0.0100$

## PROPIONITRILE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 12.23%, Coeff. Det.(r2): 0.999816  
 $y = -2.7901e-4x^2 + 0.0583x - 0.0013$





# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

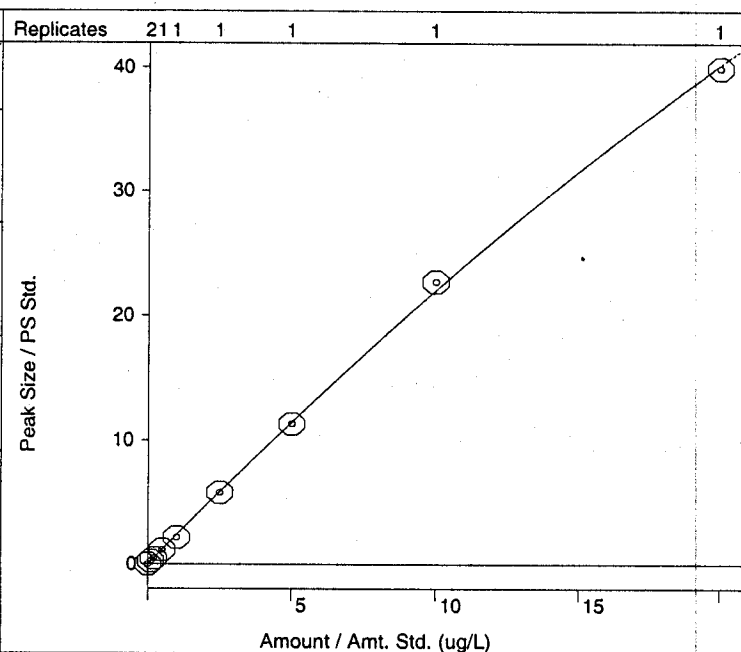
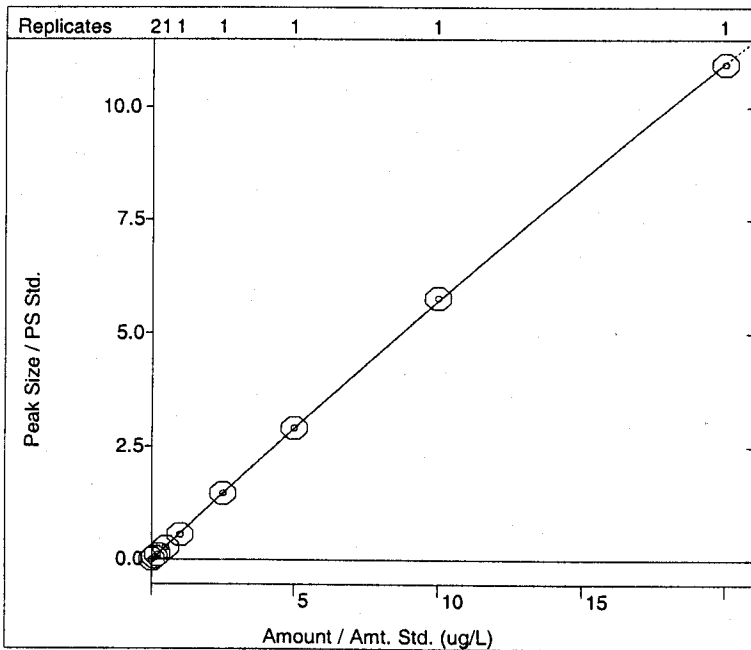
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## VINYL ACETATE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 7.887%, Coeff. Det.(r2): 0.999940  
 $y = -0.0023x^2 + 0.5953x - 0.0169$

## CHLOROPRENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.244%, Coeff. Det.(r2): 0.999589  
 $y = -0.0187x^2 + 2.3885x - 0.0218$

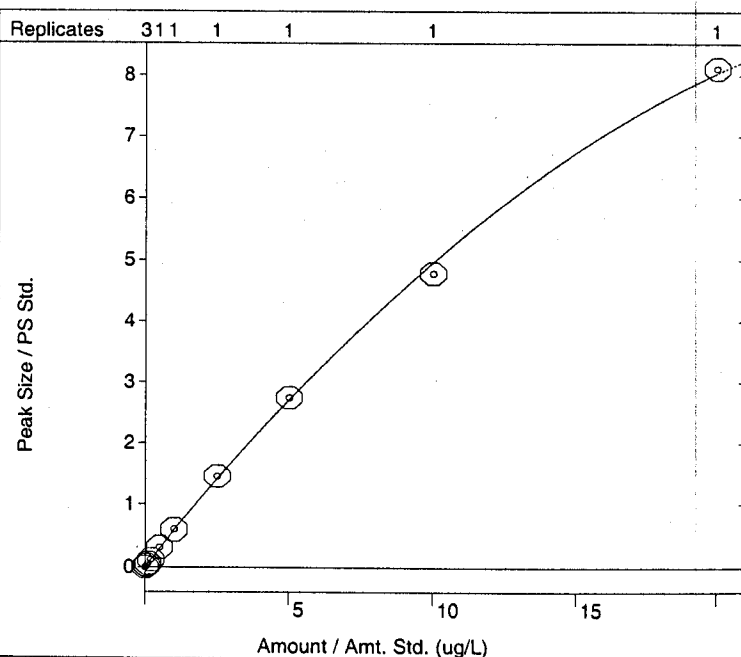
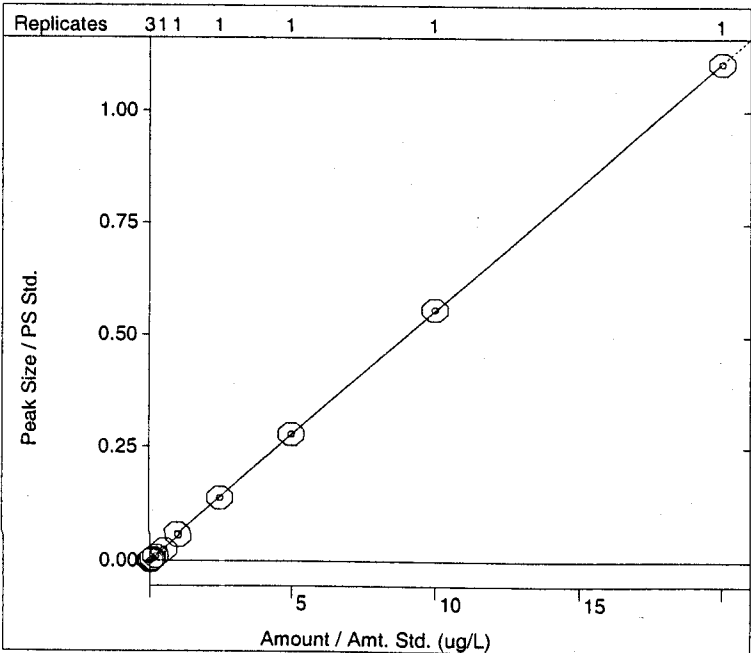


## 2-BUTANONE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 10.80%, Coeff. Det.(r2): 0.999977  
 $y = -1.5422e-5x^2 + 0.0558x - 9.3133e-4$

## METHACRYLONITRILE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 12.79%, Coeff. Det.(r2): 0.999381  
 $y = -0.0094x^2 + 0.5894x + 0.0020$



# Calibration Curves Report

Method: c:\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

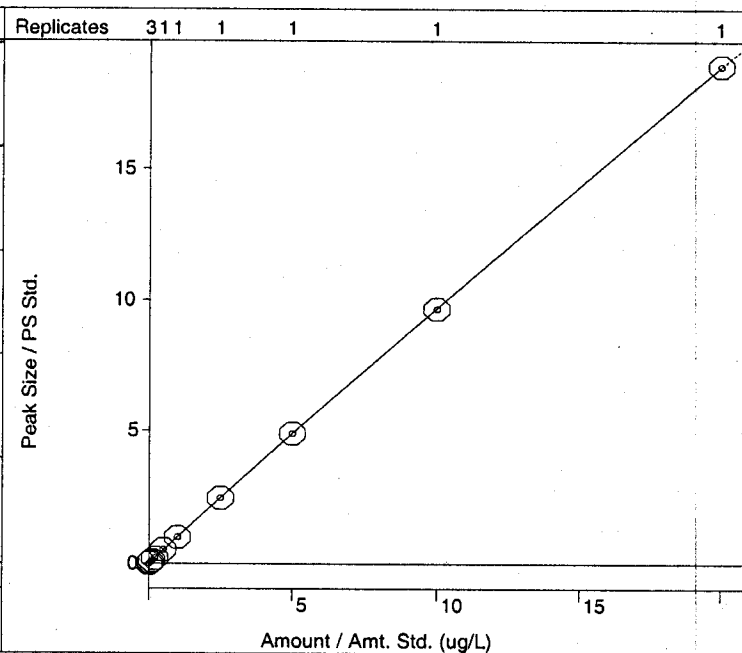
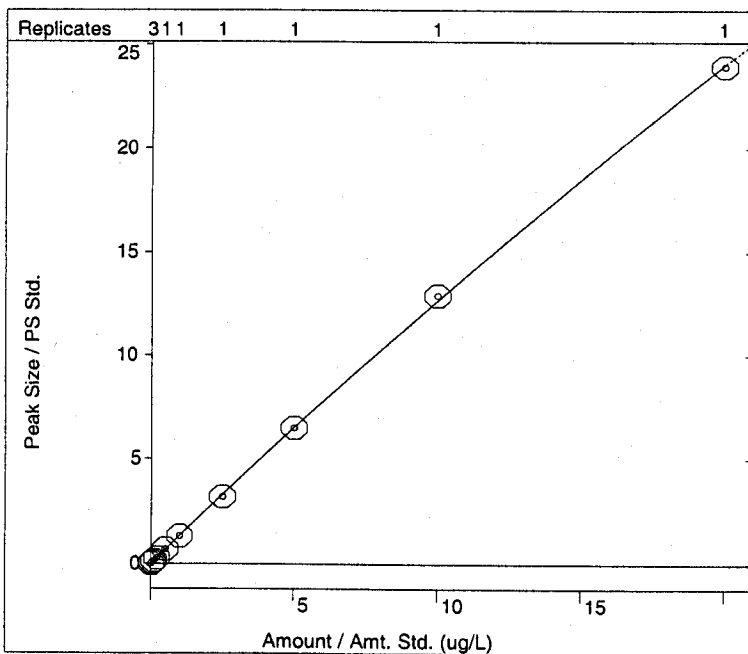
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## C-1,2-DICHLOROETHYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.703%, Coeff. Det.(r2): 0.999863  
 $y = -0.0066x^2 + 1.3328x + 0.0029$

## BROMOCHLOROMETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.463%, Coeff. Det.(r2): 0.999996  
 $y = -0.0023x^2 + 0.9907x + 0.0027$

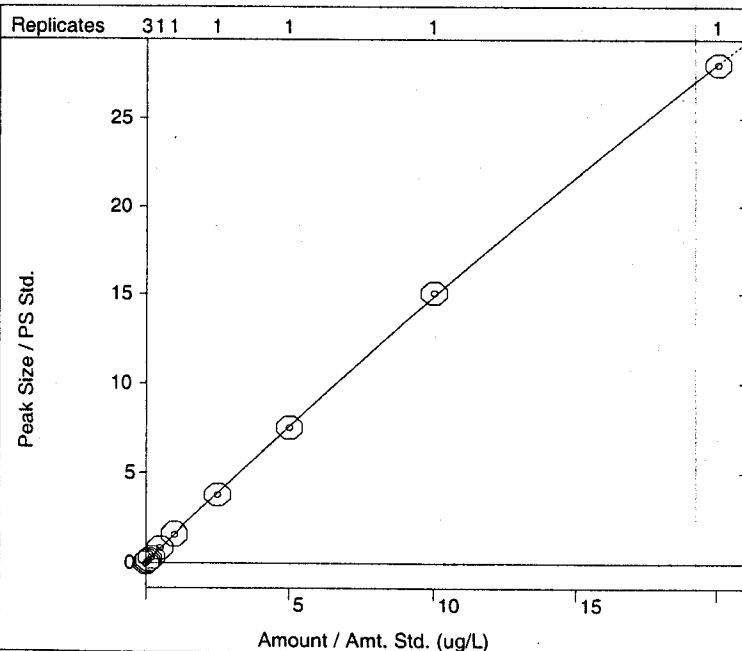
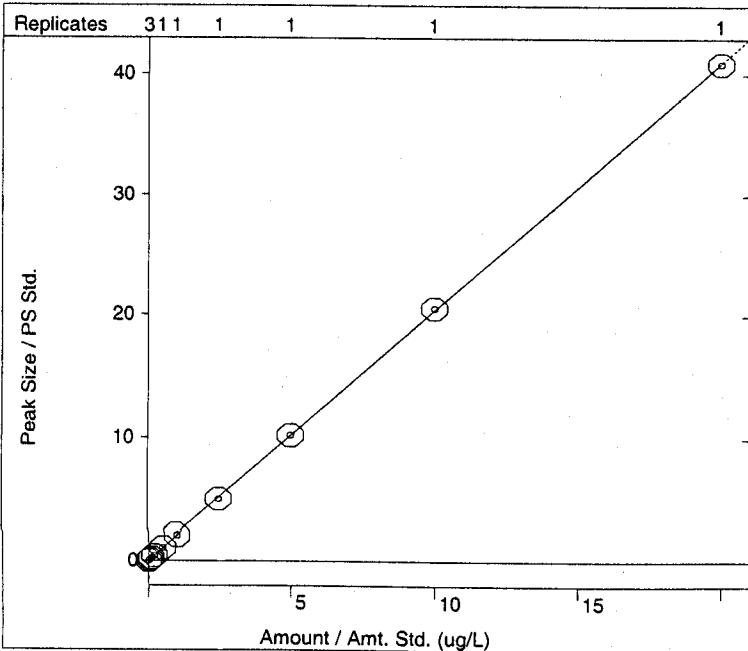


## CHLOROFORM

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.029%, Coeff. Det.(r2): 0.999965  
 $y = +8.0513e-4x^2 + 2.0324x + 0.0128$

## 2,2-DICHLOROPROPANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 7.541%, Coeff. Det.(r2): 0.999922  
 $y = -0.0079x^2 + 1.5648x + 0.0118$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

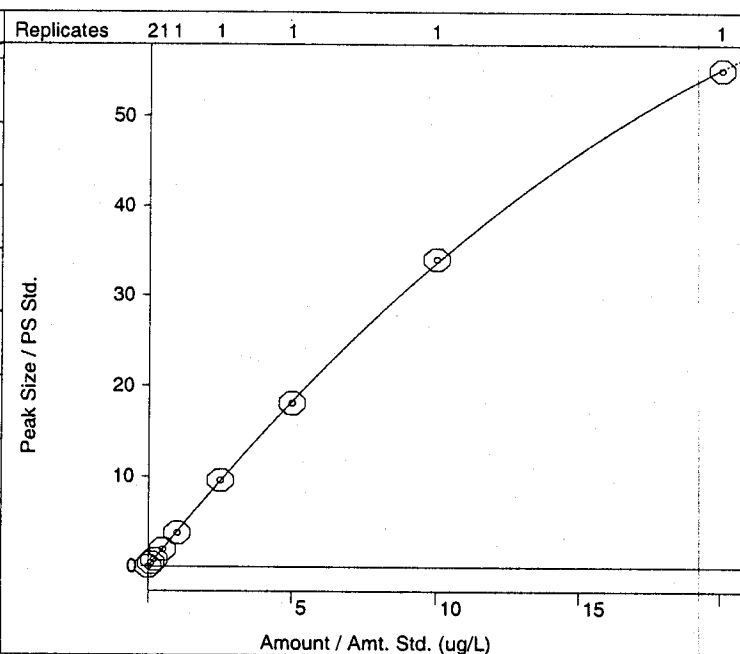
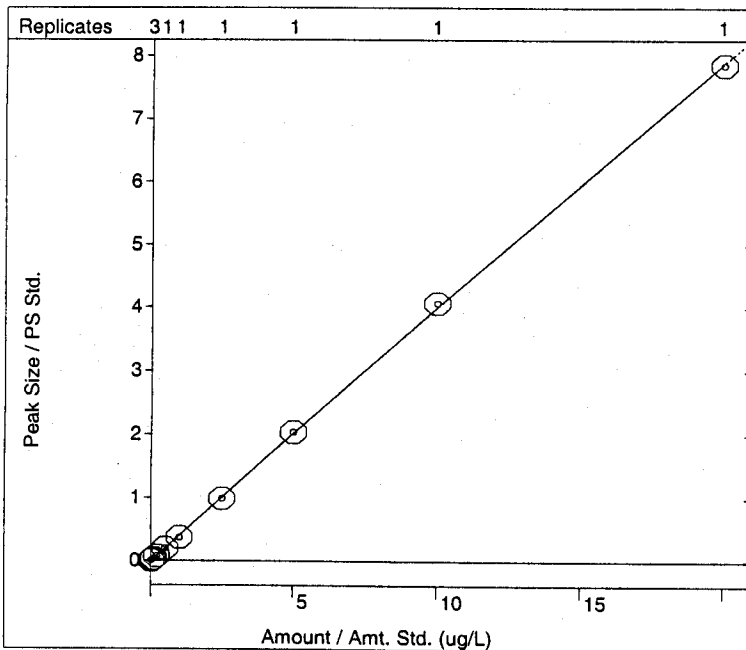
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## METHYLACRYLATE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 12.35%, Coeff. Det.(r2): 0.999882  
 $y = -6.9675e-4x^2 + 0.4087x - 0.0082$

## TERT-BUTYL ETHYL ETHER

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 10.88%, Coeff. Det.(r2): 0.999914  
 $y = -0.0598x^2 + 3.9632x - 0.0146$

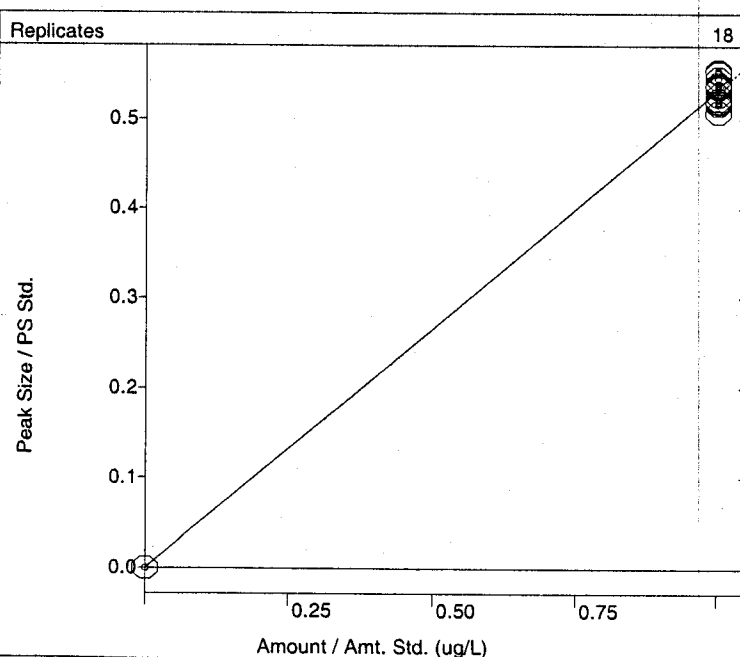
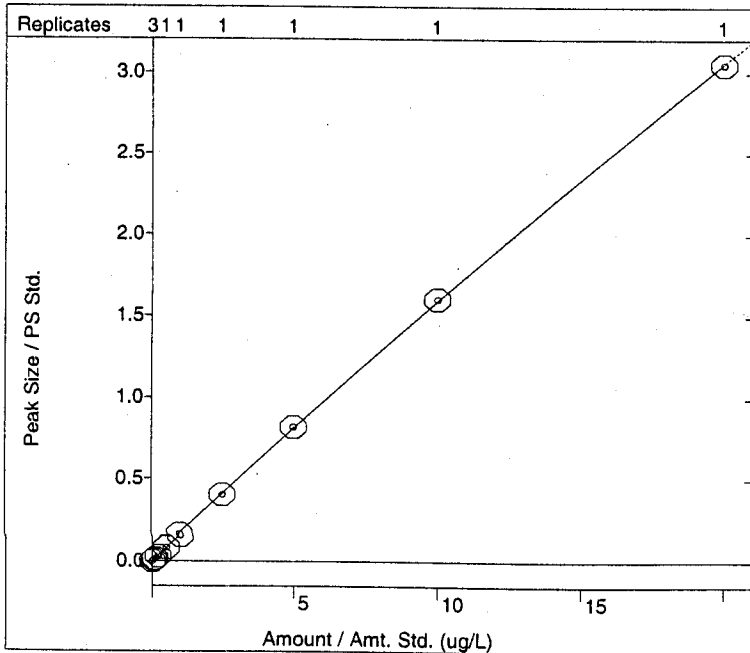


## TETRAHYDROFURAN

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.761%, Coeff. Det.(r2): 0.999958  
 $y = -6.1897e-4x^2 + 0.1654x - 8.0381e-4$

## SS-1,2-DICHLOROETHANE-D4

Curve Fit: Linear, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 2.618%, Coeff. Det.(r2): 0.987850  
 $y = +0.5336x + 1.1102e-15$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

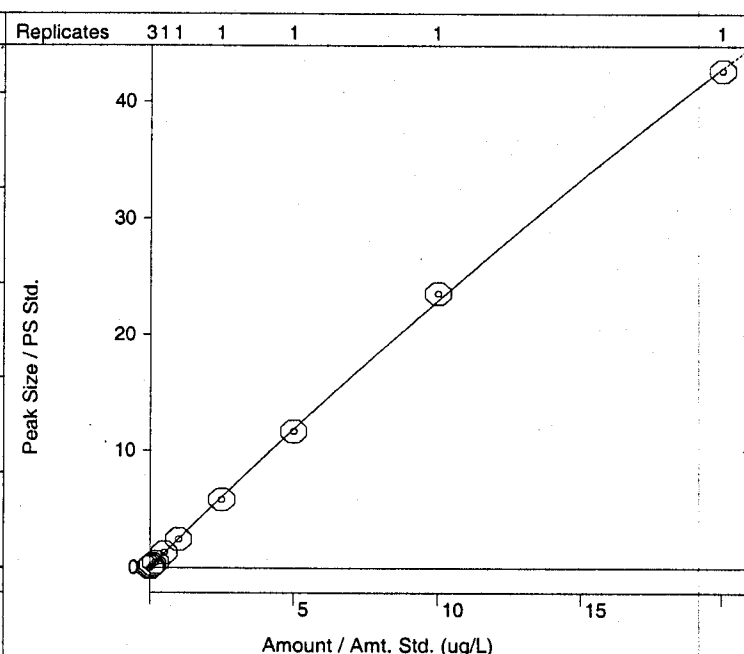
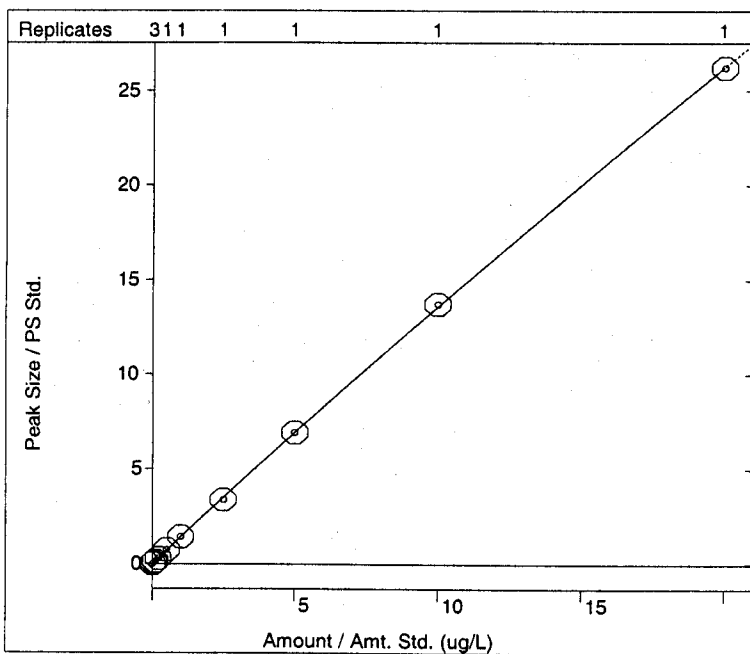
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## 1,2-DICHLOROETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.419%, Coeff. Det.(r2): 0.999945  
 $y = -0.0046x^2 + 1.4049x + 0.0021$

## 1-CHLOROBUTANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 6.138%, Coeff. Det.(r2): 0.999717  
 $y = -0.0150x^2 + 2.4458x + 0.0033$

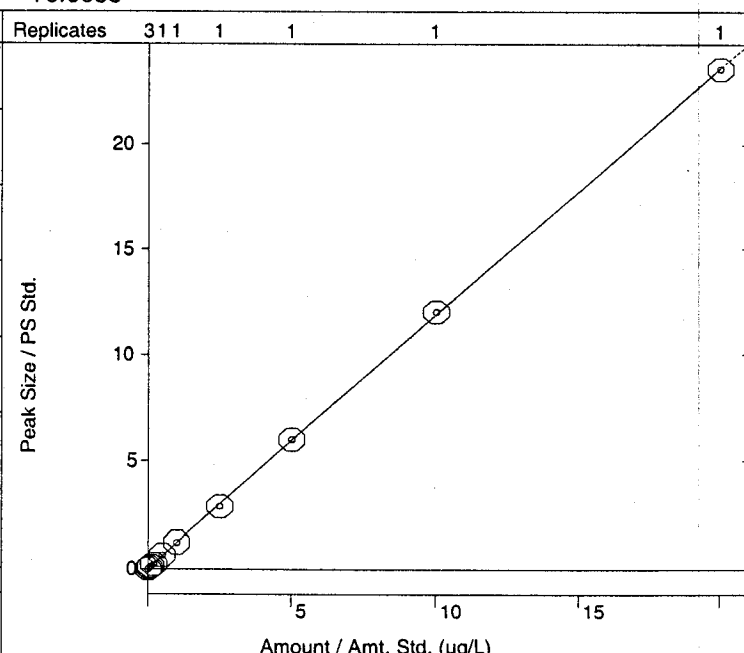
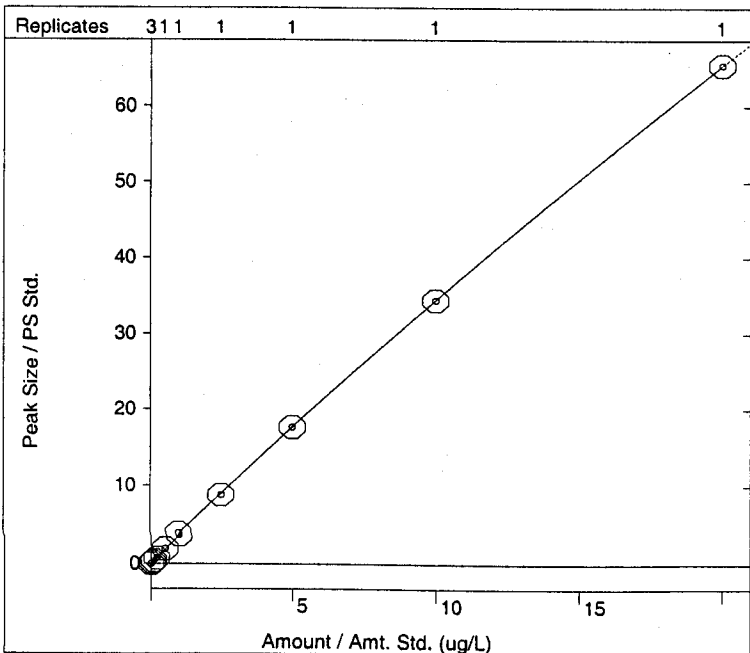


## 1,1,1-TRICHLOROETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 7.413%, Coeff. Det.(r2): 0.999983  
 $y = -0.0173x^2 + 3.6131x + 0.0320$

## 1,1-DICHLOROPROPYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.245%, Coeff. Det.(r2): 0.999934  
 $y = -9.1598e-4x^2 + 1.1994x + 0.0058$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

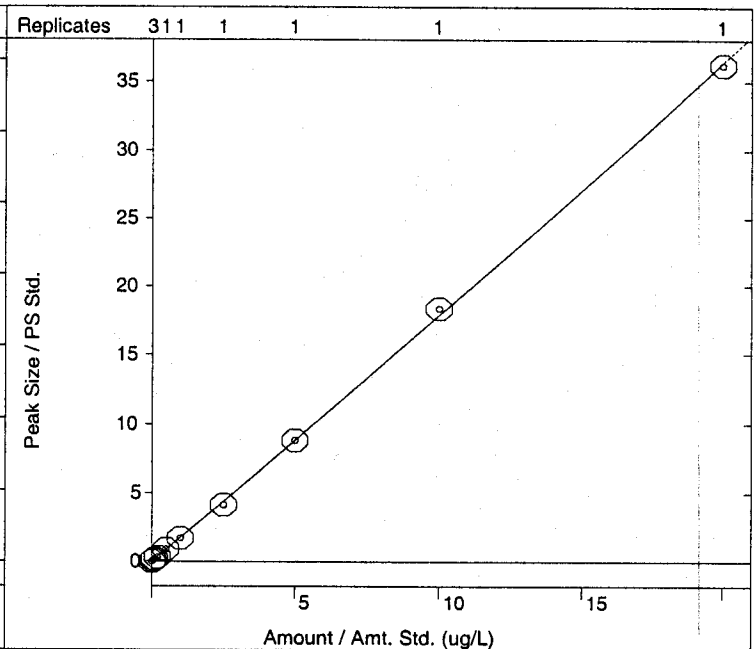
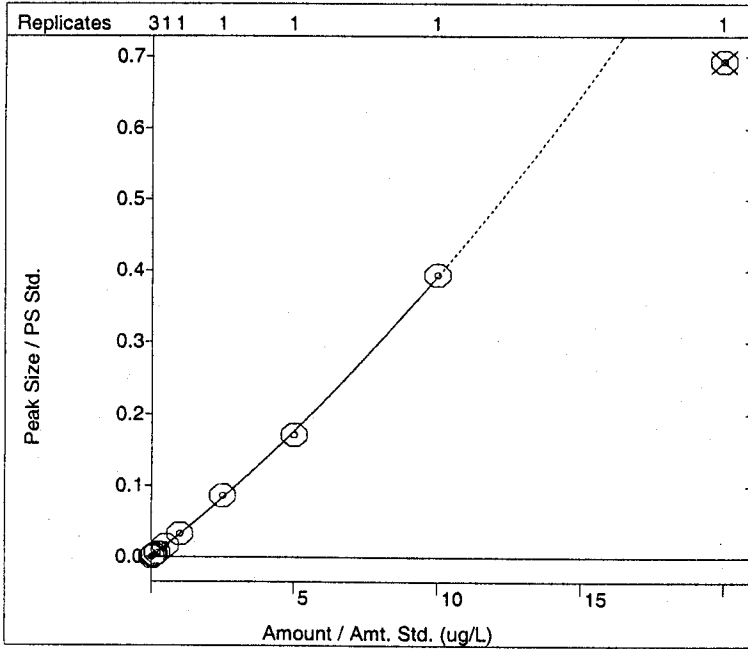
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## CHLOROACETONITRILE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 9.983%, Coeff. Det.(r2): 0.999684  
 $y = +7.7236e-4x^2 + 0.0315x - 8.1534e-5$

## CARBON TETRACHLORIDE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.474%, Coeff. Det.(r2): 0.999725  
 $y = +0.0035x^2 + 1.7504x - 0.0028$

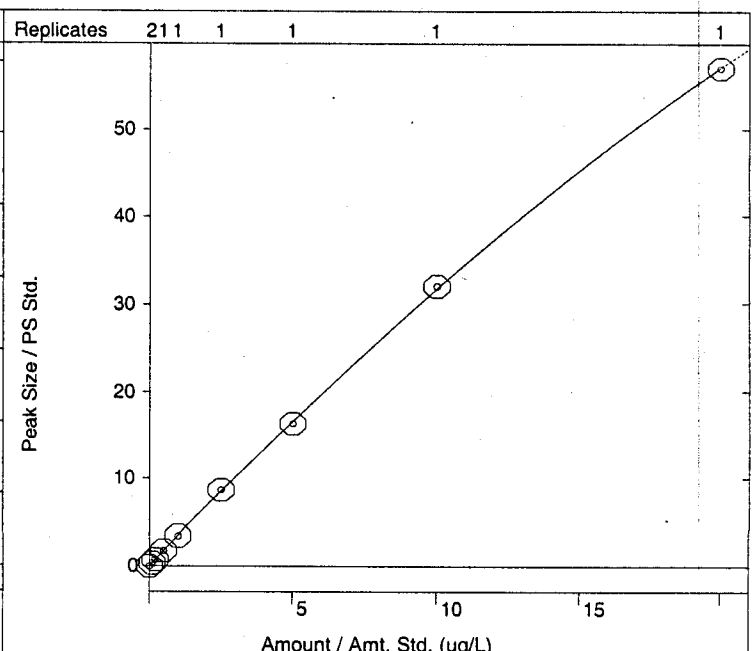
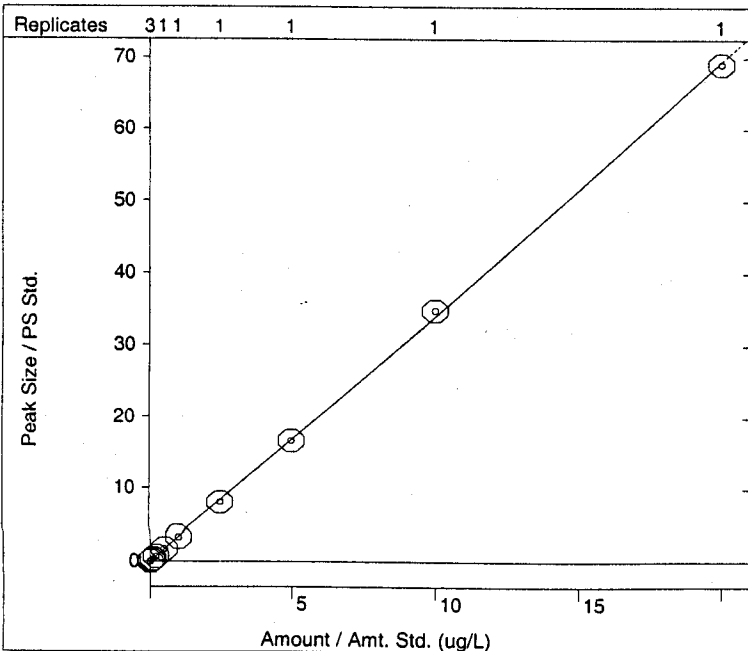


## BENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 2.942%, Coeff. Det.(r2): 0.999780  
 $y = +0.0076x^2 + 3.3232x - 0.0023$

## TERT-AMYL METHYL ETHER

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 7.725%, Coeff. Det.(r2): 0.999937  
 $y = -0.0308x^2 + 3.4771x + 0.0170$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

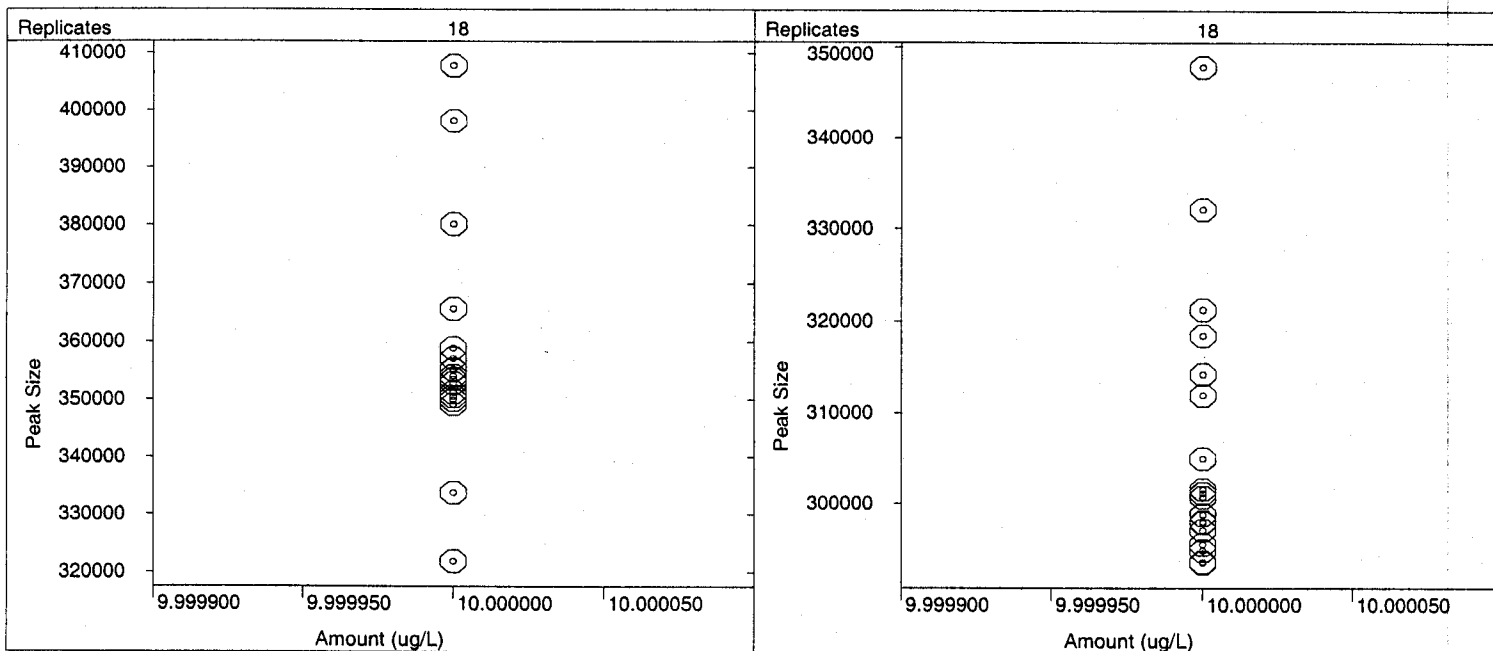
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## IS-FLUOROBENZENE

Curve Fit: Linear, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 0.0000%, Coeff. Det.(r2): 1.000000  
 $y = +1.0000x + 0.0$

## IS-1,4-DIFLUOROBENZENE

Curve Fit: Linear, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 0.0000%, Coeff. Det.(r2): 1.000000  
 $y = +1.0000x + 0.0$

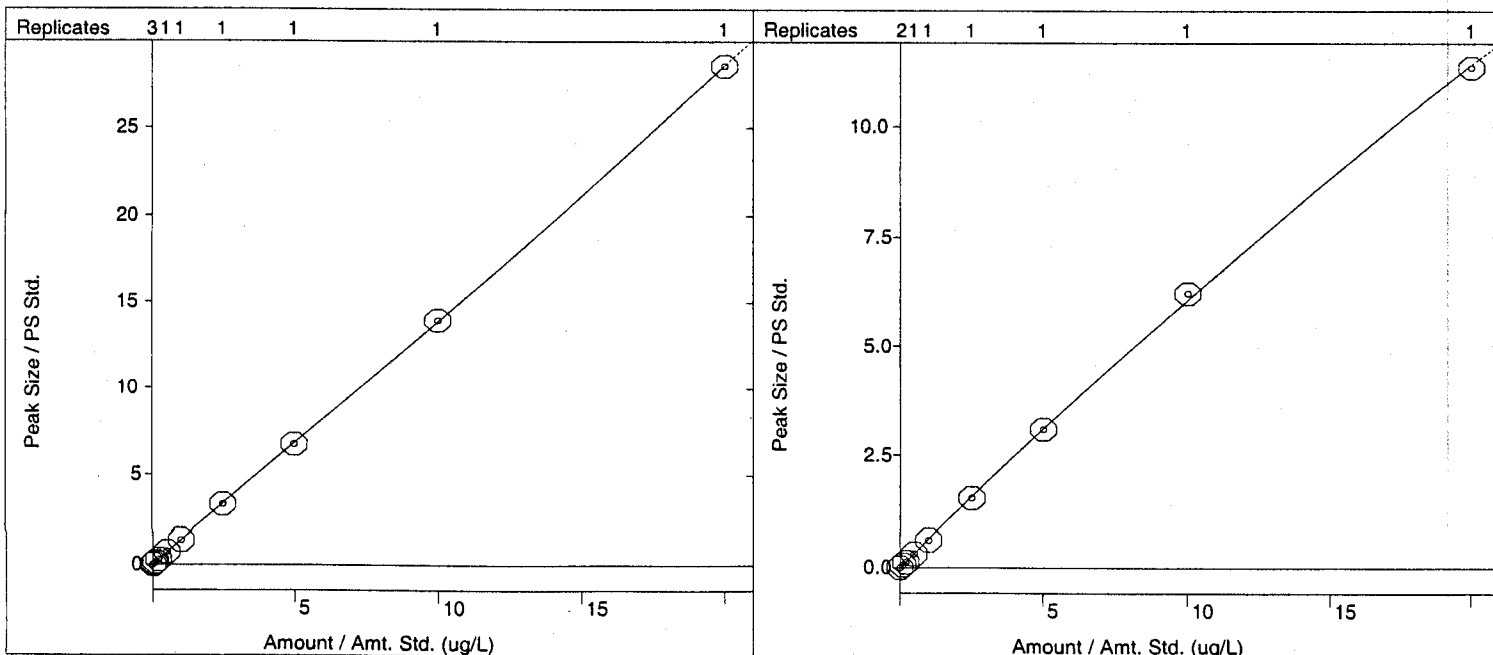


## DIBROMOMETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 2.718%, Coeff. Det.(r2): 0.999982  
 $y = +0.0043x^2 + 1.3422x + 0.0068$

## ETHYL ACRYLATE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.994%, Coeff. Det.(r2): 0.999749  
 $y = -0.0035x^2 + 0.6428x - 0.0138$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

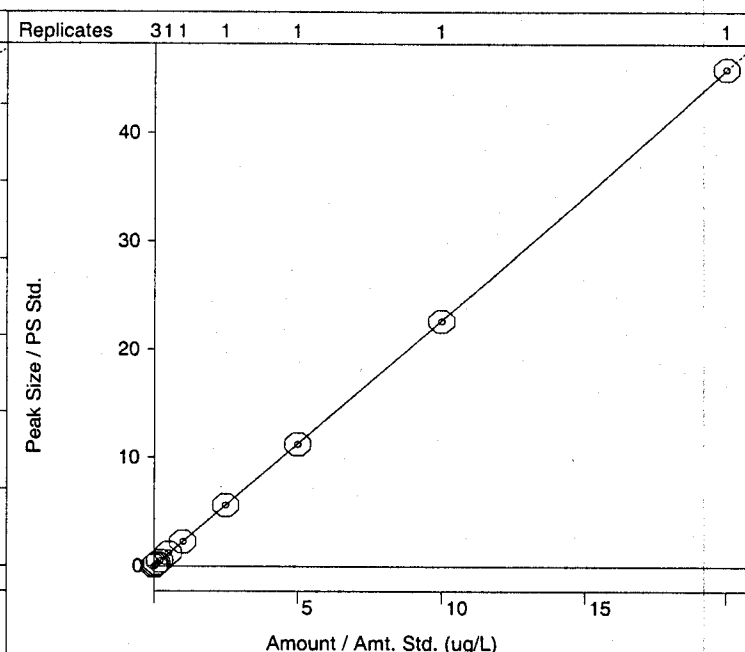
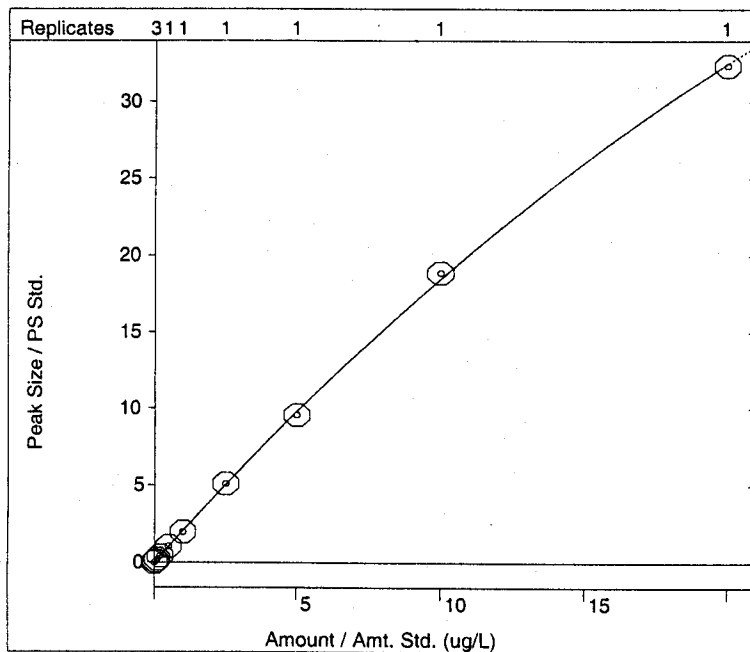
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## 1,2-DICHLOROPROPANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 8.196%, Coeff. Det.(r2): 0.999776  
 $y = -0.0226x^2 + 2.0760x - 0.0101$

## TRICHLOROETHYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.298%, Coeff. Det.(r2): 0.999995  
 $y = +0.0030x^2 + 2.2357x + 0.0174$

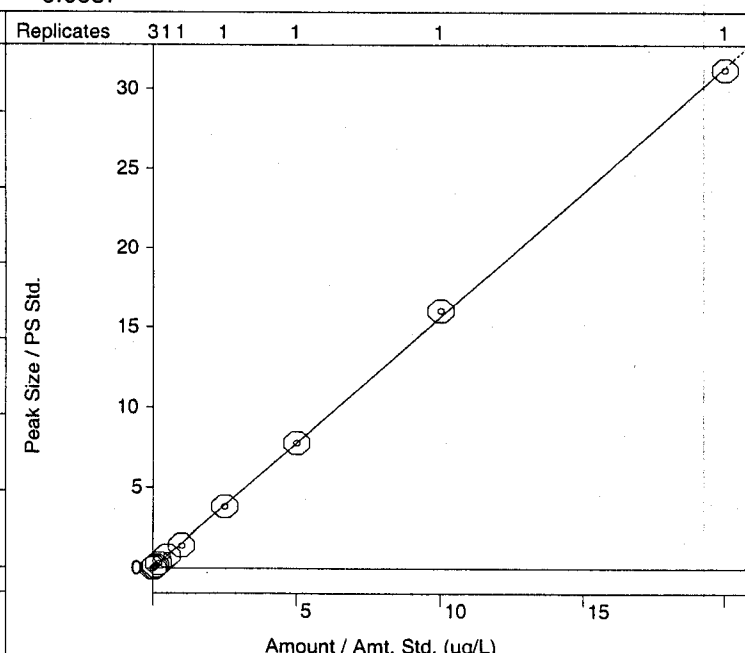
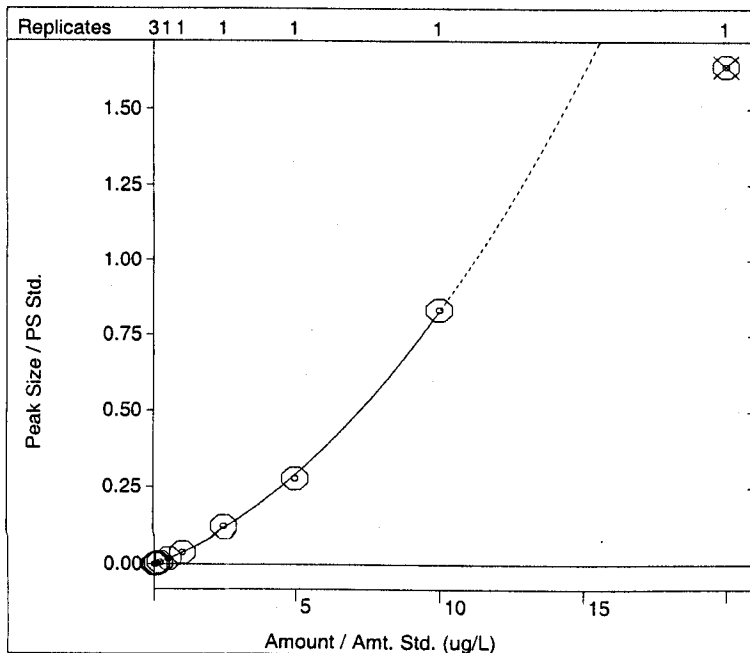


## 2-NITROPROPANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 36.88%, Coeff. Det.(r2): 0.999685  
 $y = +0.0049x^2 + 0.0335x + 1.0893e-4$

## BROMODICHLOROMETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.567%, Coeff. Det.(r2): 0.999795  
 $y = +5.4195e-4x^2 + 1.5575x - 0.0037$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

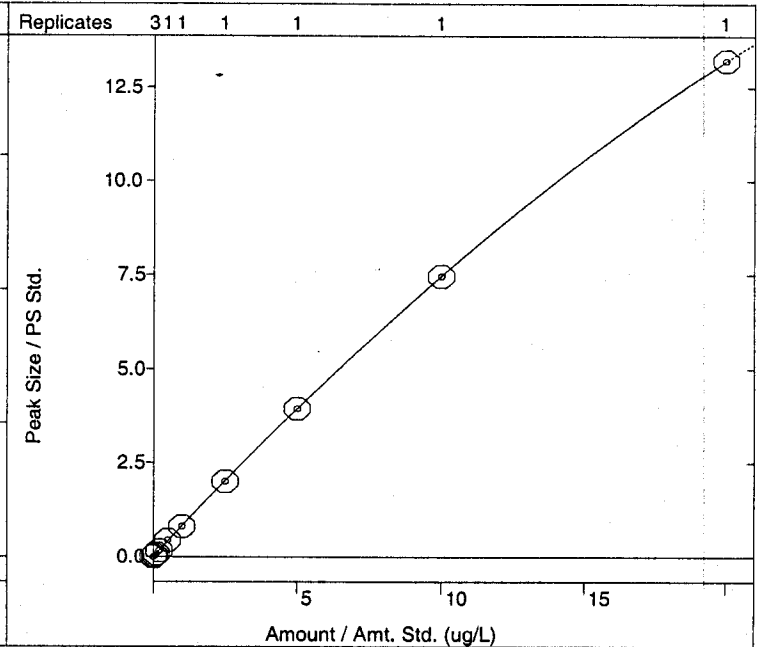
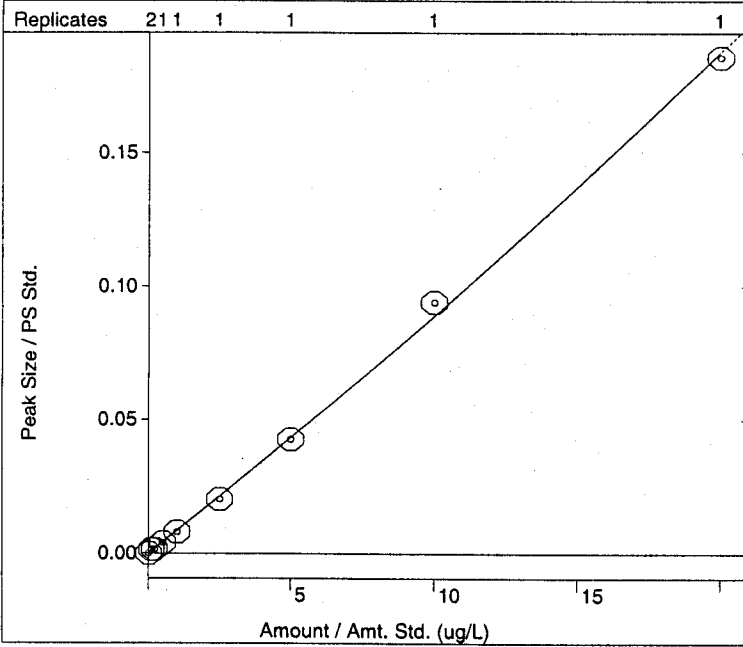
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## 1,4-DIOXANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 24.57%, Coeff. Det.(r2): 0.998950  
 $y = +5.1859e-5x^2 + 0.0084x + 2.1718e-4$

## METHYL METHACRYLATE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 8.321%, Coeff. Det.(r2): 0.999991  
 $y = -0.0085x^2 + 0.8314x - 0.0032$

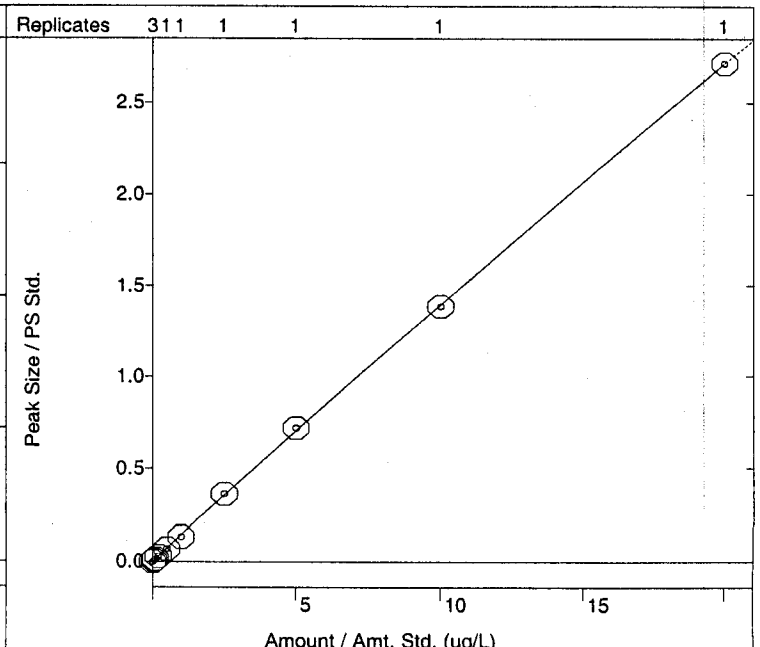
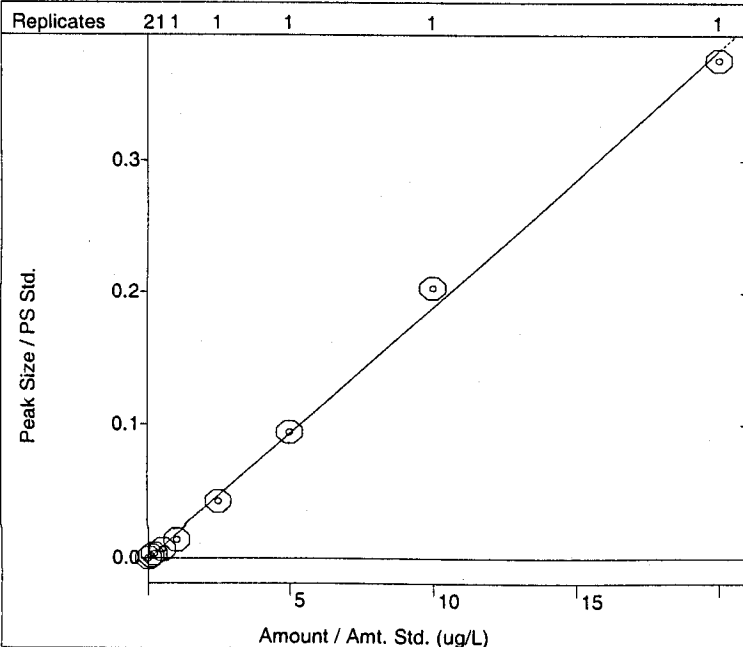


## Epichlorohydrin

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 15.25%, Coeff. Det.(r2): 0.997592  
 $y = +2.8798e-5x^2 + 0.0186x - 8.2680e-4$

## 1,1-DICHLOROPROPANONE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.180%, Coeff. Det.(r2): 0.999933  
 $y = -3.7374e-4x^2 + 0.1434x - 9.4752e-4$





# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

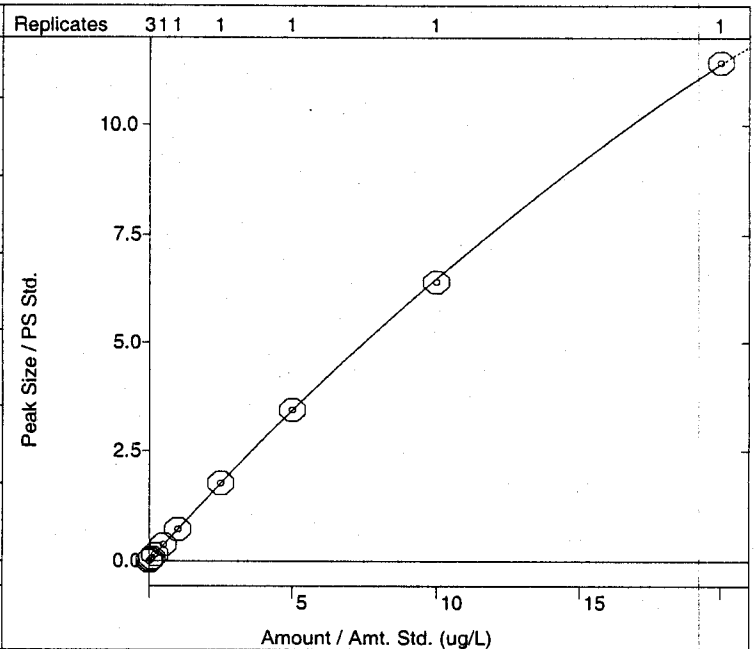
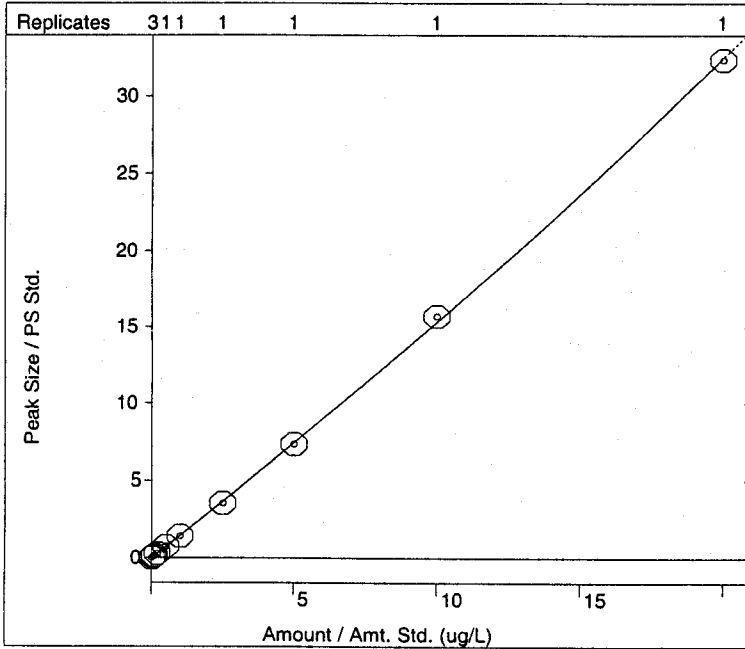
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## CIS-1,3-DICHLOROPROPYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.762%, Coeff. Det.(r2): 0.999818  
 $y = +0.0091x^2 + 1.4429x + 0.0012$

## 4-METHYL-2-PENTANONE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 8.020%, Coeff. Det.(r2): 0.999946  
 $y = -0.0078x^2 + 0.7254x - 3.4896e-5$

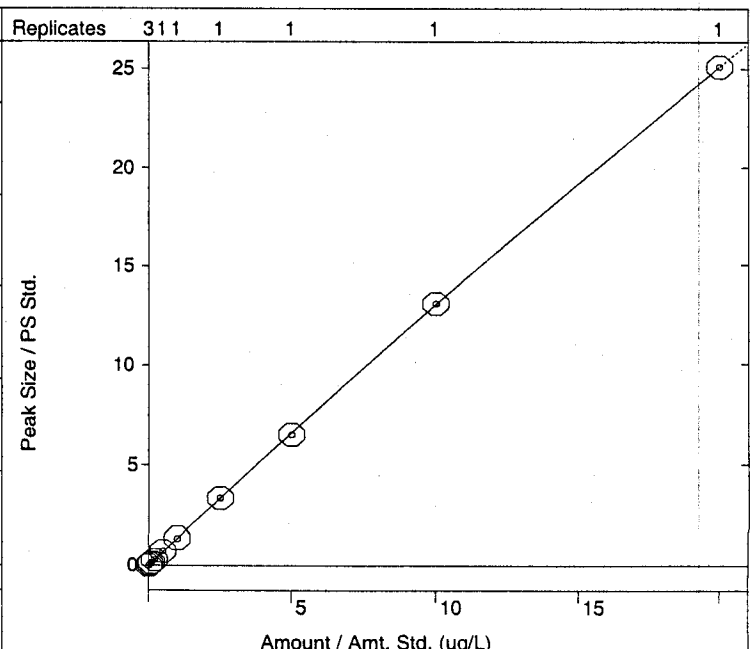
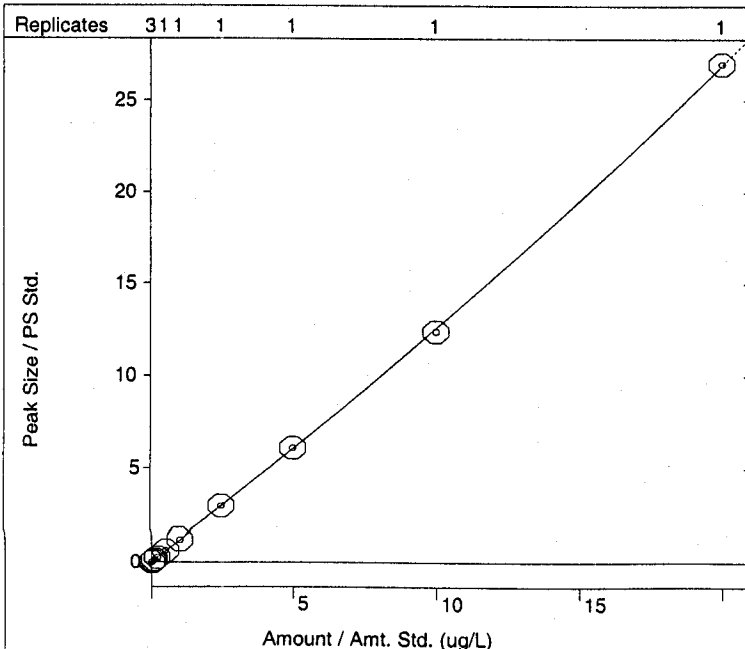


## TRANS-1,3-DICHLOROPROPYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.506%, Coeff. Det.(r2): 0.999935  
 $y = +0.0087x^2 + 1.1699x + 0.0087$

## 1,1,2-TRICHLOROETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.984%, Coeff. Det.(r2): 0.999977  
 $y = -0.0047x^2 + 1.3492x + 0.0082$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

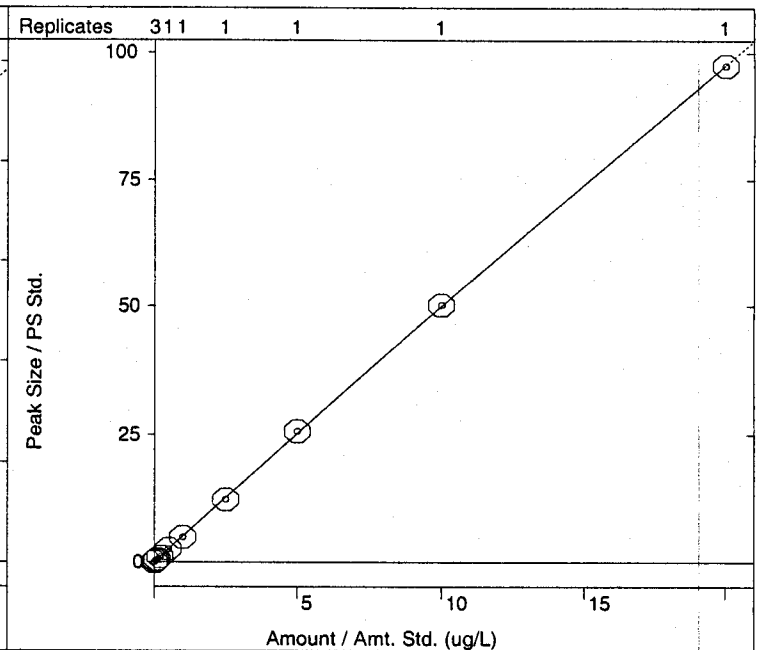
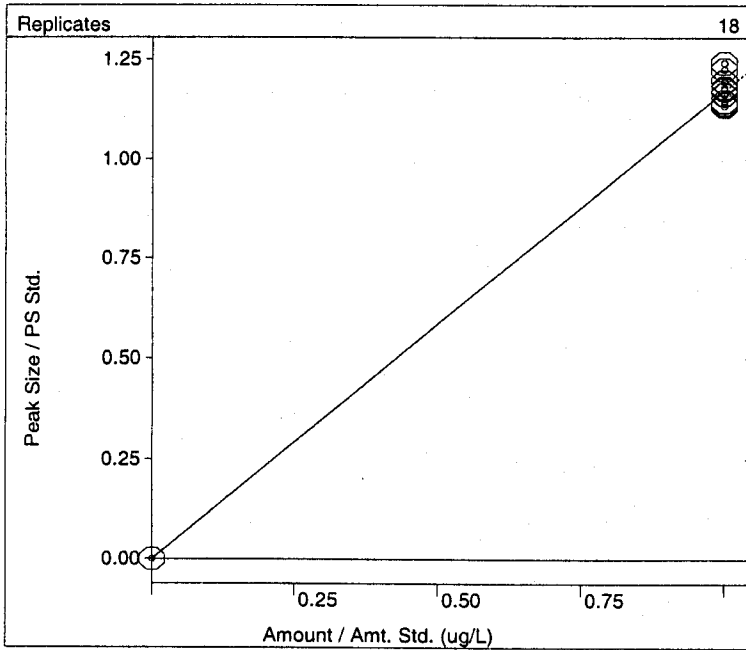
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## SS-TOLUENE-D8

Curve Fit: Linear, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 2.518%, Coeff. Det.(r2): 0.988752  
 $y = +1.1726x - 4.4409e-16$

## TOLUENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.127%, Coeff. Det.(r2): 0.999948  
 $y = -0.0108x^2 + 5.1030x + 0.0058$

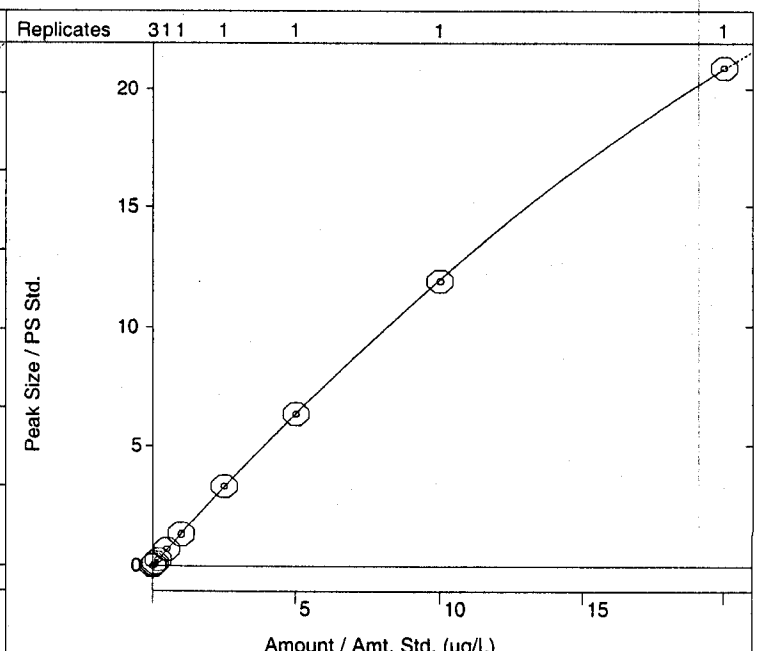
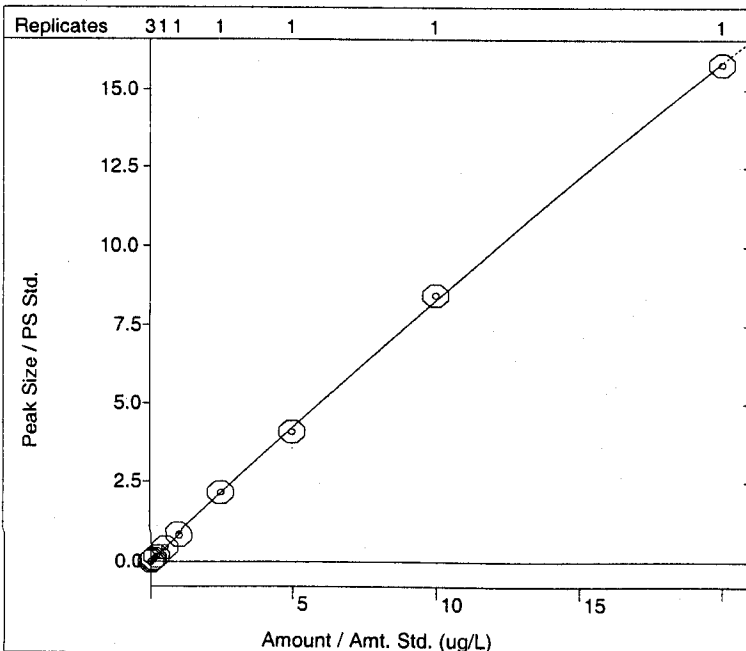


## 1,3-DICHLOROPROPANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.301%, Coeff. Det.(r2): 0.999805  
 $y = -0.0035x^2 + 0.8639x + 9.0702e-4$

## ETHYL METHACRYLATE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 9.802%, Coeff. Det.(r2): 0.999979  
 $y = -0.0154x^2 + 1.3513x - 0.0053$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

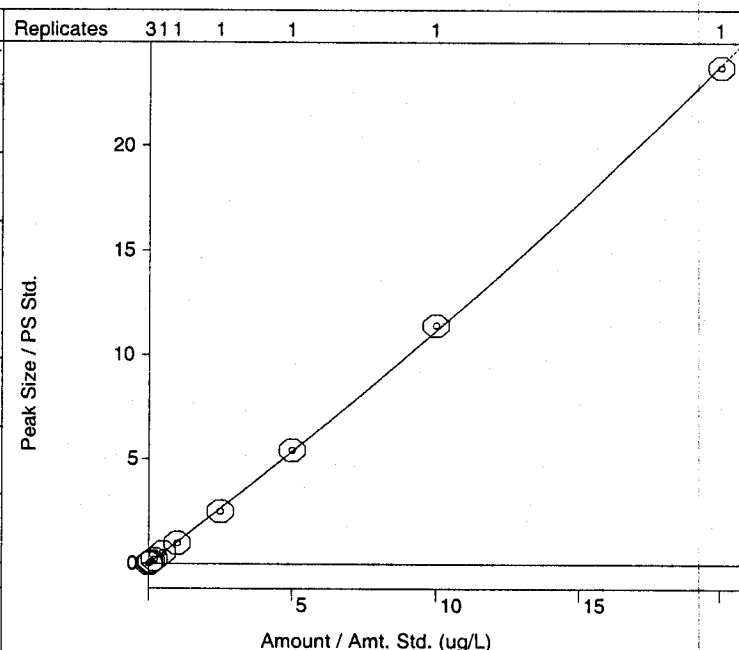
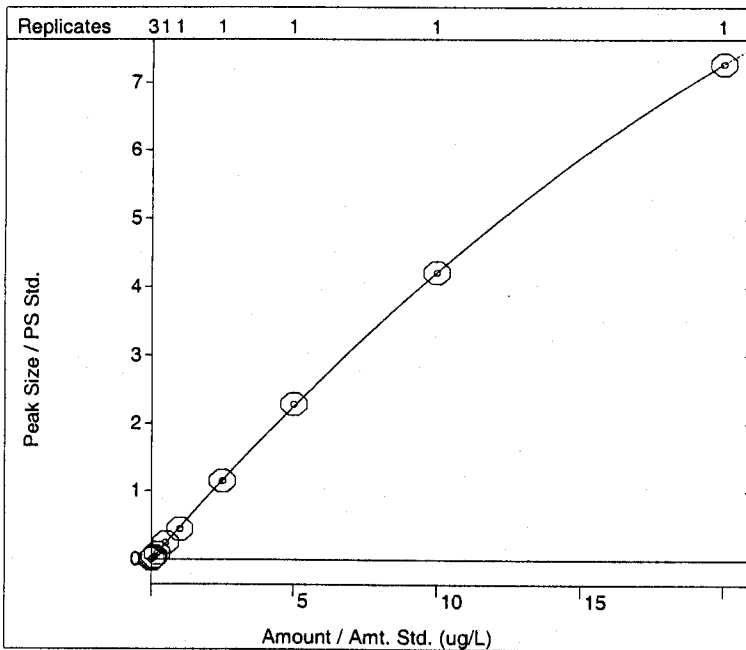
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## 2-HEXANONE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 10.55%, Coeff. Det.(r2): 0.999960  
 $y = -0.0058x^2 + 0.4813x - 0.0066$

## DIBROMOCHLOROMETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 6.667%, Coeff. Det.(r2): 0.999792  
 $y = +0.0081x^2 + 1.0342x - 0.0029$

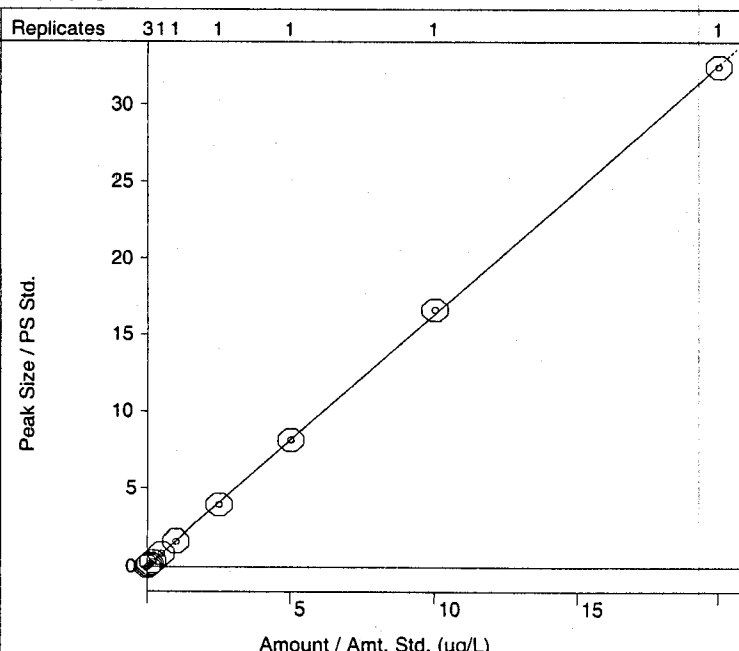
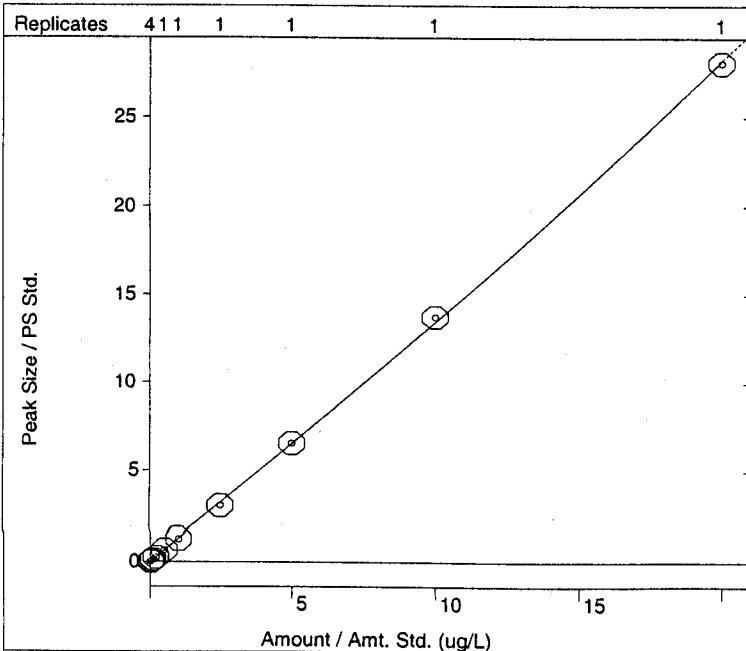


## 1,2-DIBROMOETHANE(EDB)

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.206%, Coeff. Det.(r2): 0.999818  
 $y = +0.0066x^2 + 1.2768x + 0.0012$

## TETRACHLOROETHYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 7.063%, Coeff. Det.(r2): 0.999879  
 $y = -3.1507e-4x^2 + 1.6346x + 0.0157$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
 Recalc Method: c:\... 524\_2-040  
 Sample List: N/A  
 Sequence: N/A  
 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

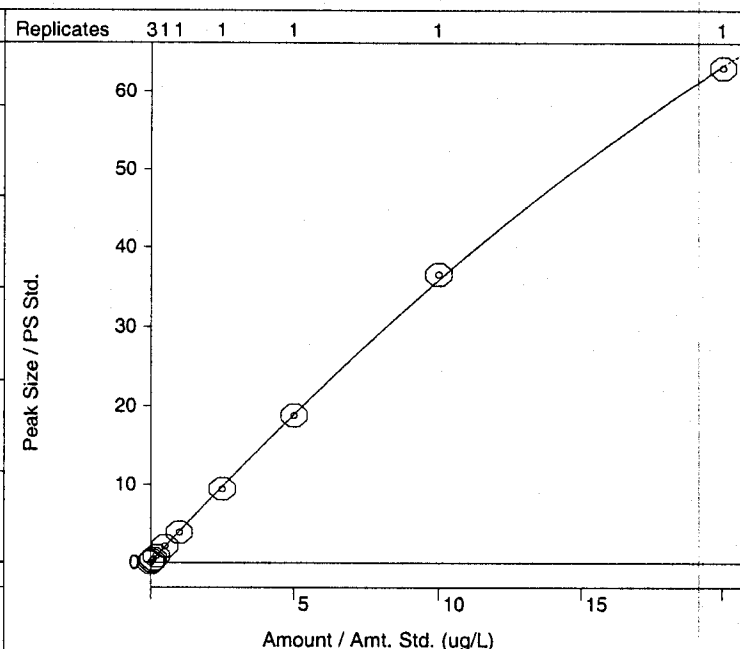
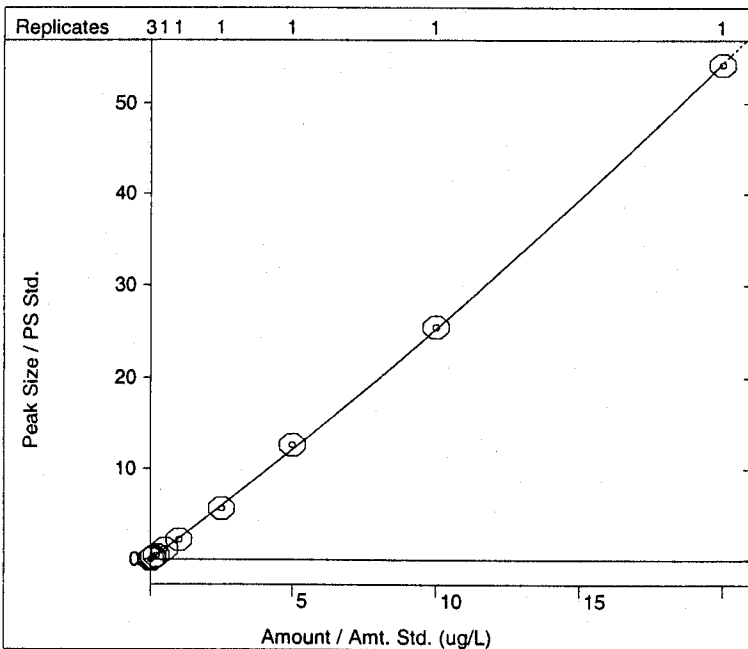
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 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## 1,1,1,2-TETRACHLOROETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 8.427%, Coeff. Det.(r2): 0.999834  
 $y = +0.0194x^2 + 2.3354x - 0.0040$

## CHLOROBEZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 11.06%, Coeff. Det.(r2): 0.999821  
 $y = -0.0411x^2 + 3.9893x + 0.0344$

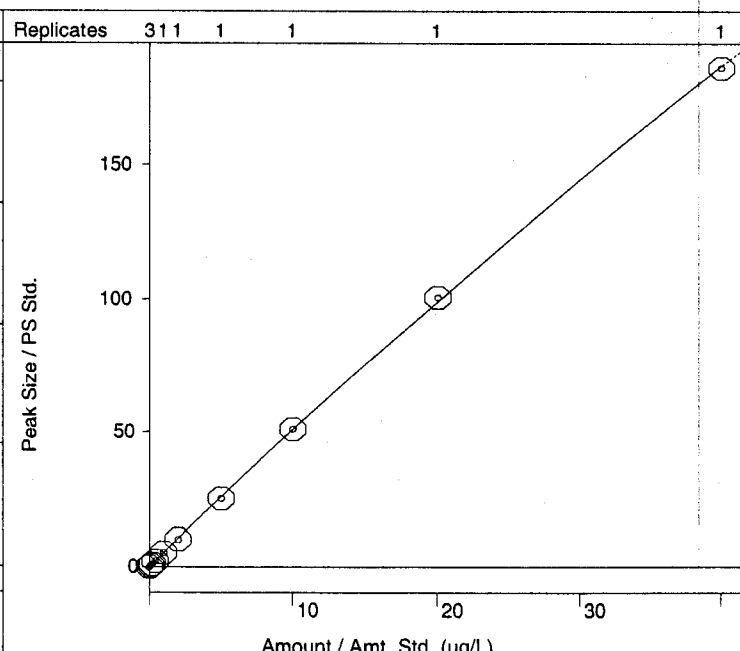
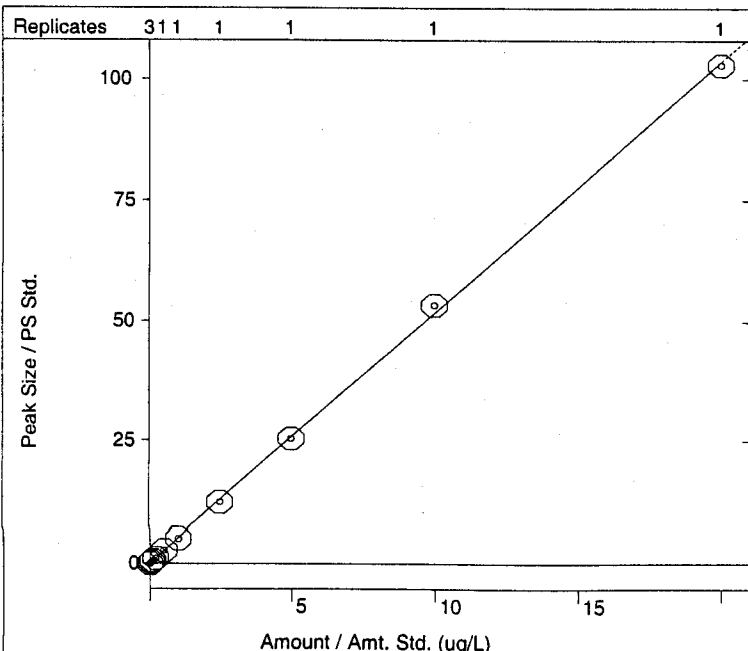


## ETHYLBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.670%, Coeff. Det.(r2): 0.999623  
 $y = +0.0010x^2 + 5.1607x + 0.0094$

## 1,3-XYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.029%, Coeff. Det.(r2): 0.999886  
 $y = -0.0135x^2 + 5.2162x - 0.0040$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
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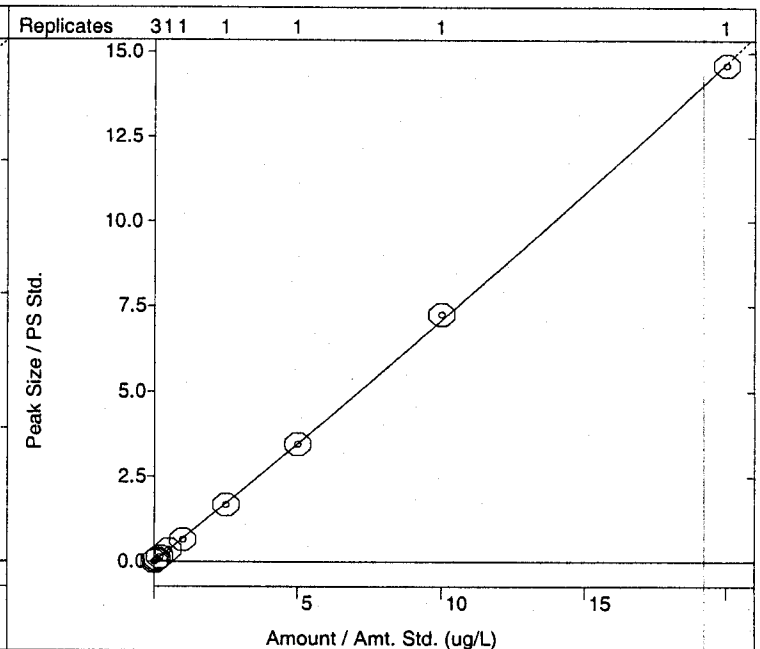
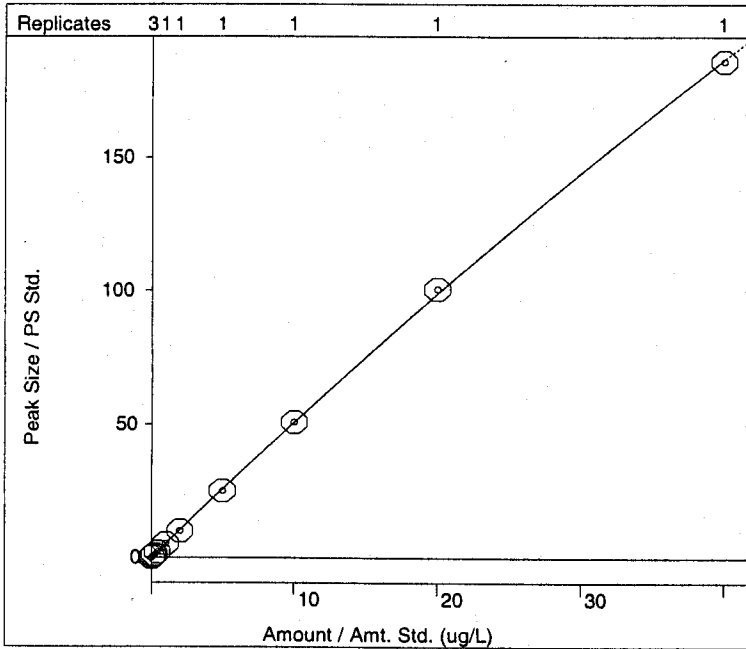
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 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## 1,4-XYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.029%, Coeff. Det.(r2): 0.999886  
 $y = -0.0135x^2 + 5.2162x - 0.0040$

## BROMOFORM

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.349%, Coeff. Det.(r2): 0.999817  
 $y = +0.0027x^2 + 0.6807x + 5.0081e-4$

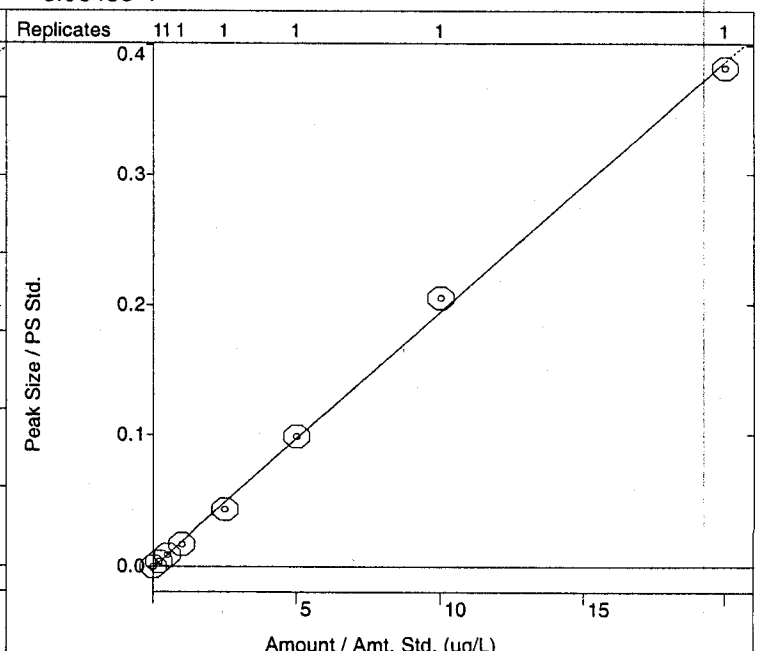
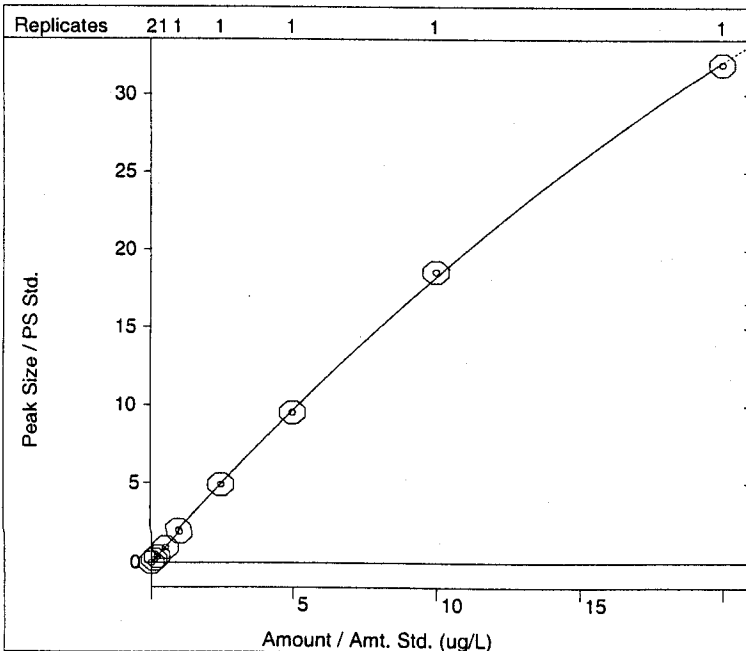


## Butyl Acrylate

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 6.474%, Coeff. Det.(r2): 0.999844  
 $y = -0.0223x^2 + 2.0511x - 0.0256$

## CYCLOHEXANONE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 6.876%, Coeff. Det.(r2): 0.998692  
 $y = -1.8707e-5x^2 + 0.0198x - 6.9645e-4$



# Calibration Curves Report

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 Saturn GC/MS Workstation (Reprocess)  
 Peak Measurement: Area

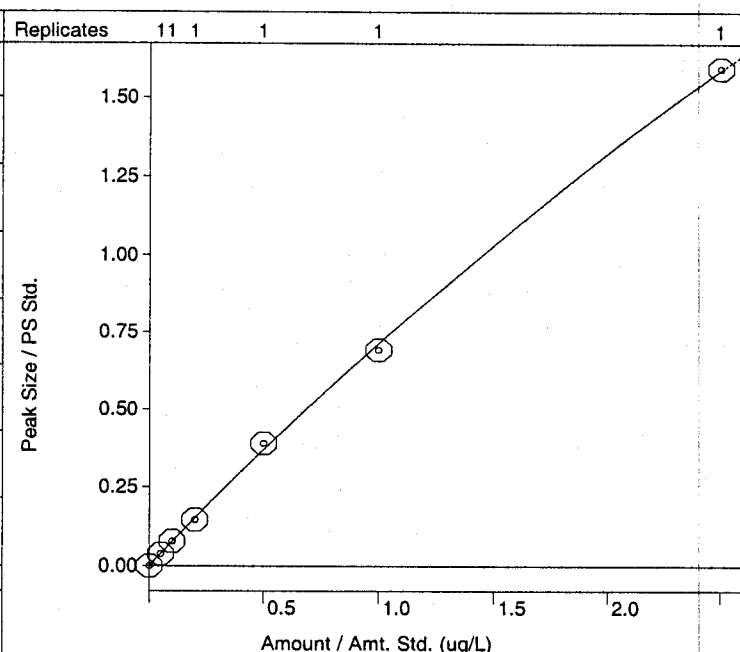
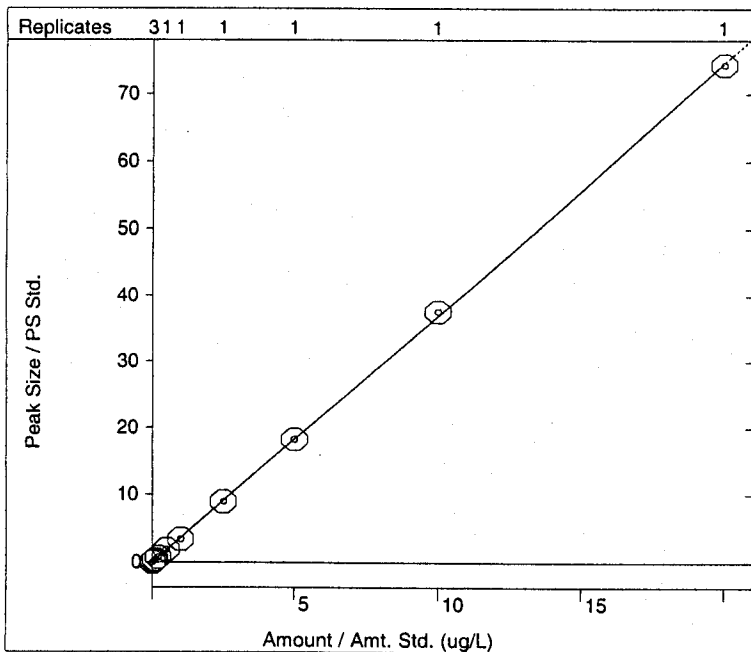
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 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## STYRENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.031%, Coeff. Det.(r2): 0.999884  
 $y = +0.0046x^2 + 3.6427x - 0.0080$

## 1,1,2,2,-TETRACHLOROETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 7.727%, Coeff. Det.(r2): 0.999541  
 $y = -0.0511x^2 + 0.7637x + 5.2674e-4$

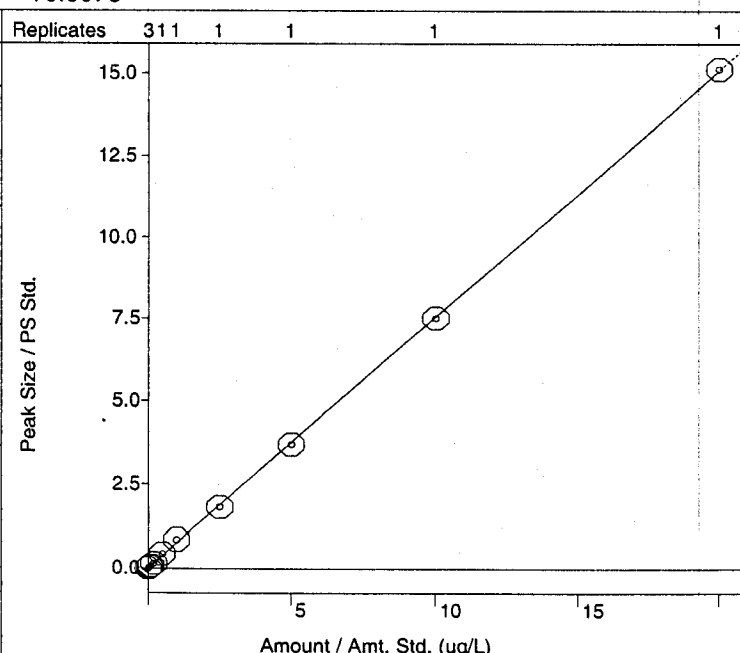
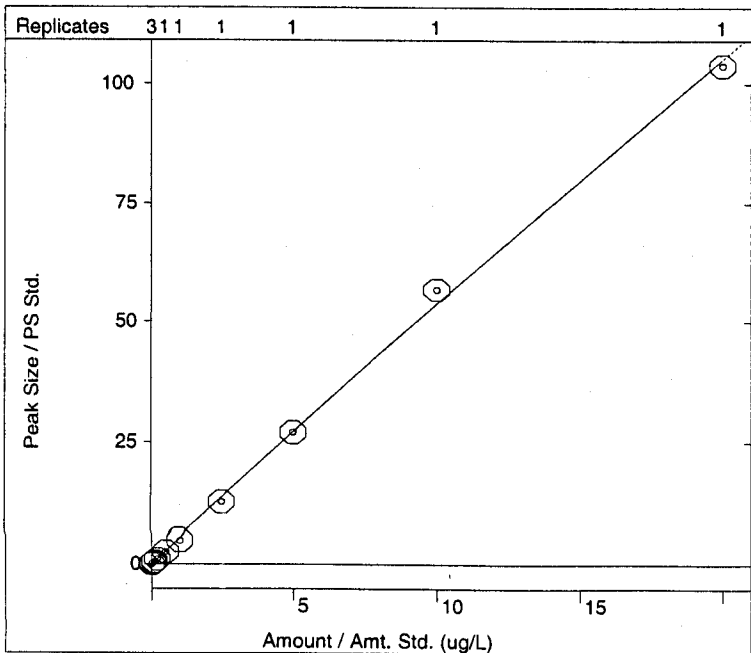


## 1,2-XYLENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.233%, Coeff. Det.(r2): 0.998873  
 $y = -0.0128x^2 + 5.5158x - 0.0548$

## 1,2,3-TRICHLOROPROPANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 7.422%, Coeff. Det.(r2): 0.999889  
 $y = +1.9412e-4x^2 + 0.7508x + 0.0078$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
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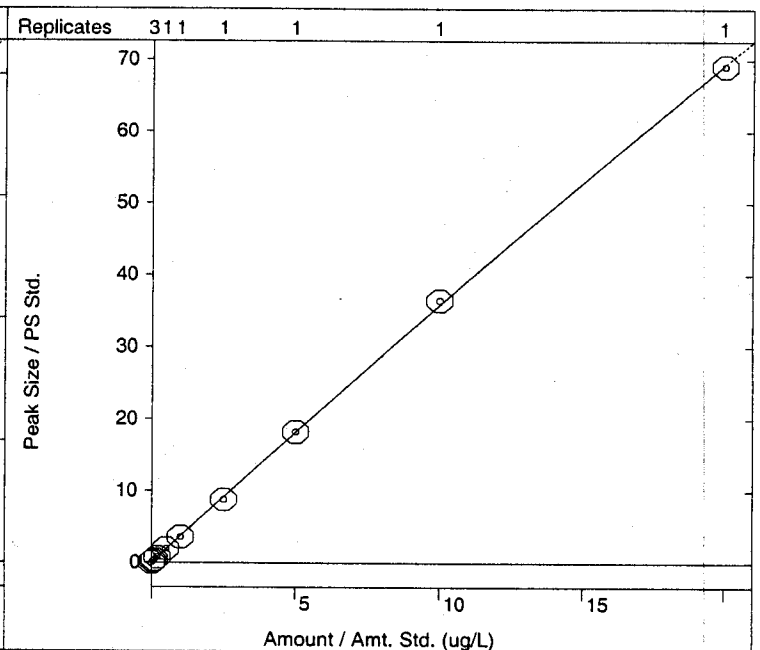
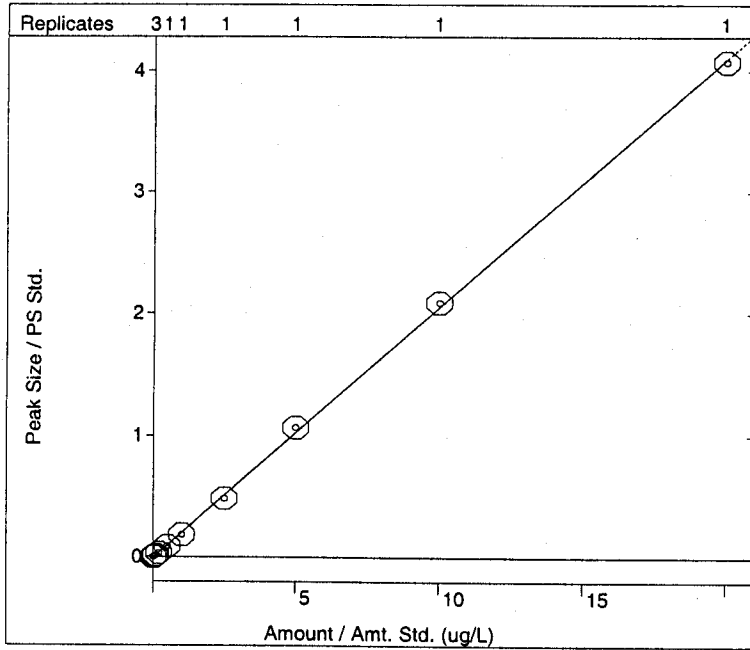
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 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## T-1,4-DICHLORO-2-BUTENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 16.16%, Coeff. Det.(r2): 0.999698  
 $y = -8.7314e-5x^2 + 0.2070x - 0.0060$

## ISOPROPYLBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 6.375%, Coeff. Det.(r2): 0.999865  
 $y = -0.0105x^2 + 3.6822x + 0.0238$

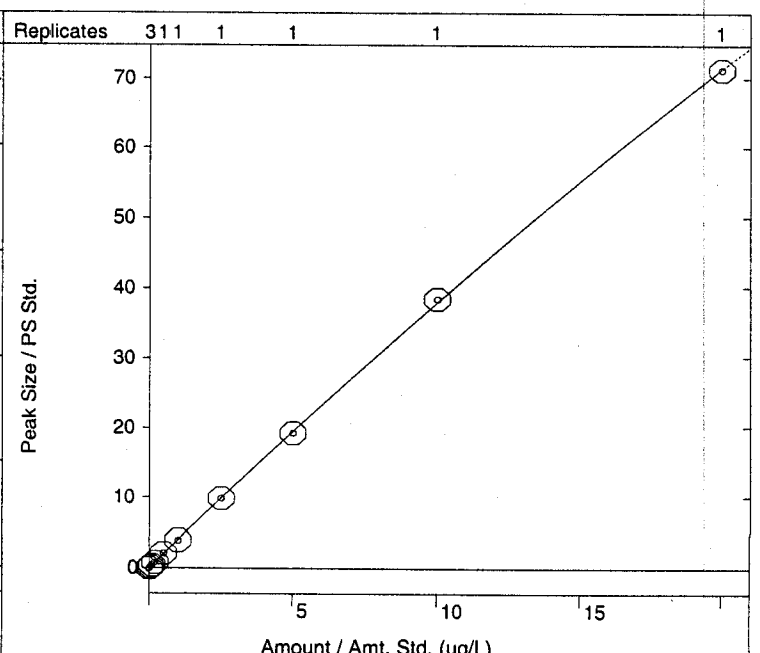
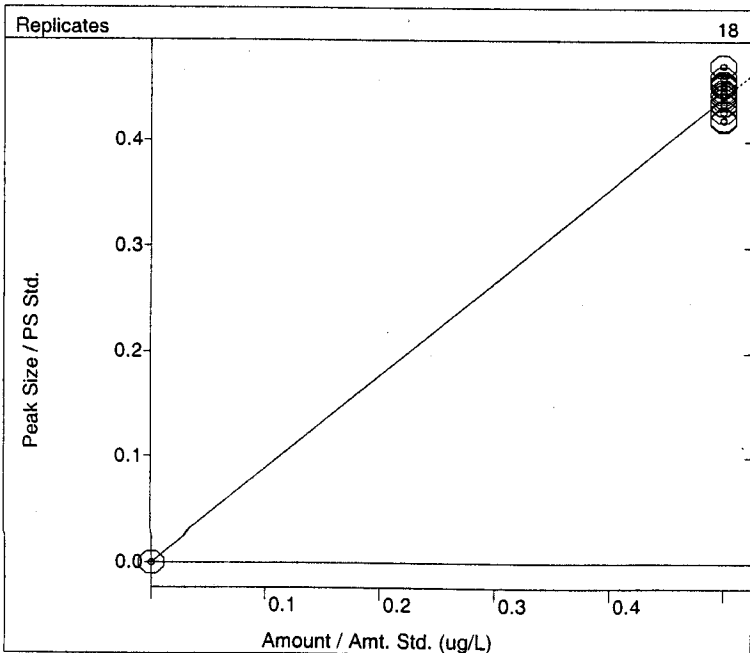


## SS-BROMOFLUOROBENZENE

Curve Fit: Linear, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.287%, Coeff. Det.(r2): 0.980978  
 $y = +0.8848x - 8.8818e-16$

## BROMOBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.750%, Coeff. Det.(r2): 0.999929  
 $y = -0.0220x^2 + 4.0099x + 0.0164$



# Calibration Curves Report

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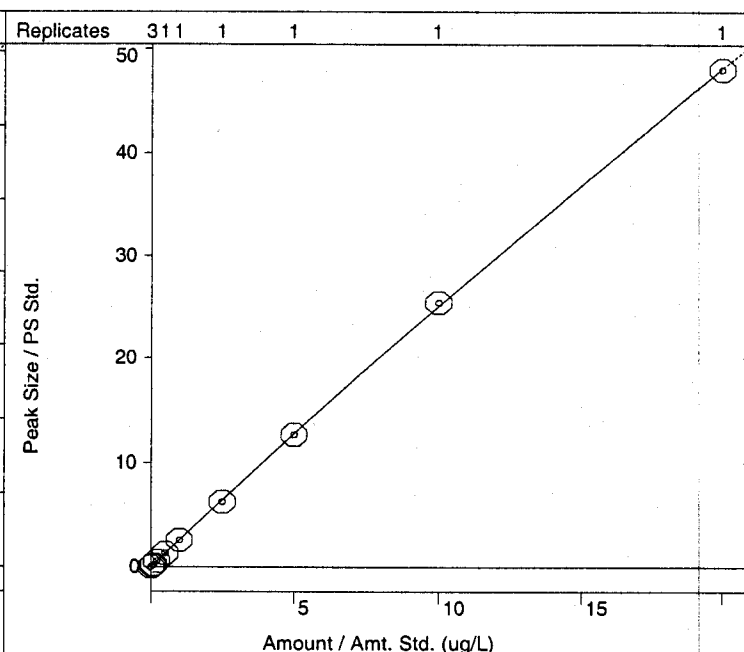
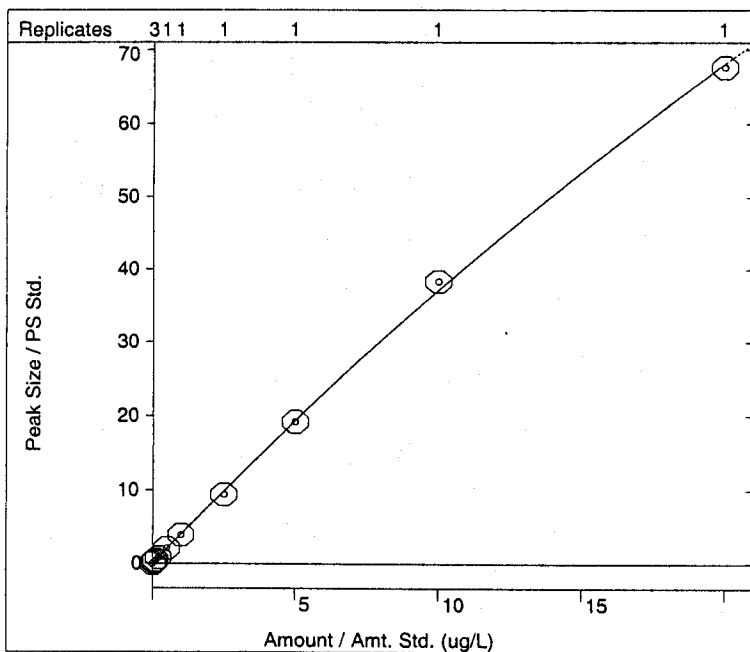
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 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## N-PROPYLBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 6.904%, Coeff. Det.(r2): 0.999575  
 $y = -0.0314x^2 + 4.0316x + 0.0050$

## 2-CHLOROTOLUENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 8.893%, Coeff. Det.(r2): 0.999918  
 $y = -0.0098x^2 + 2.6052x - 0.0074$

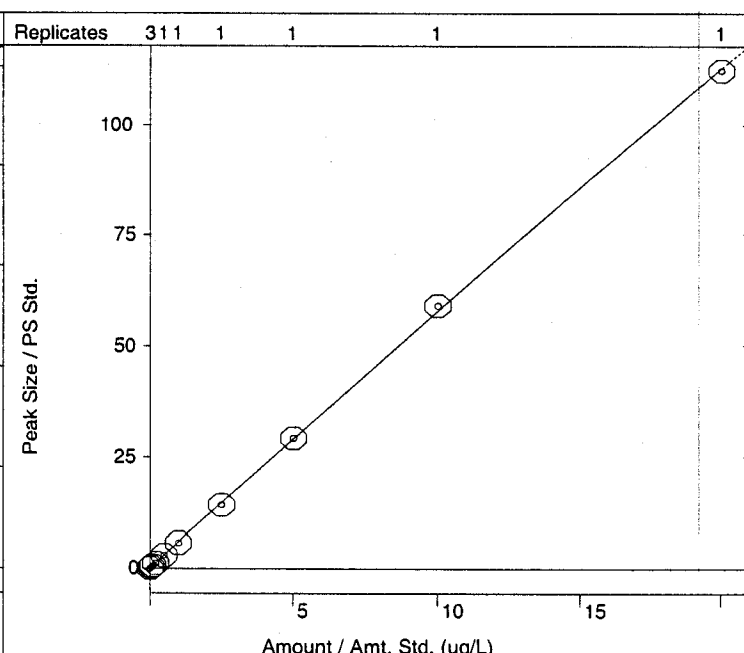
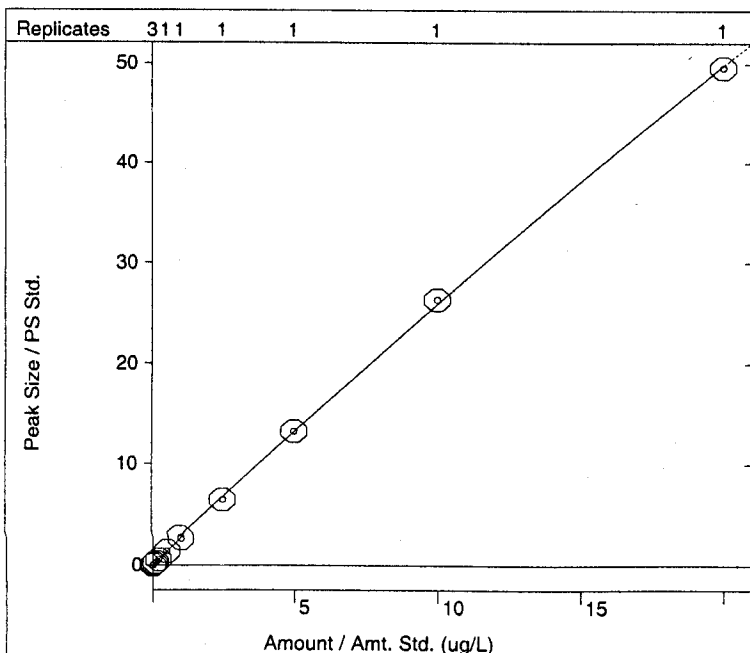


## 4-CHLOROTOLUENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.972%, Coeff. Det.(r2): 0.999854  
 $y = -0.0101x^2 + 2.6931x + 0.0036$

## 1,3,5-TRIMETHYLBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 2.178%, Coeff. Det.(r2): 0.999829  
 $y = -0.0127x^2 + 5.9062x - 0.0201$





# Calibration Curves Report

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 Peak Measurement: Area

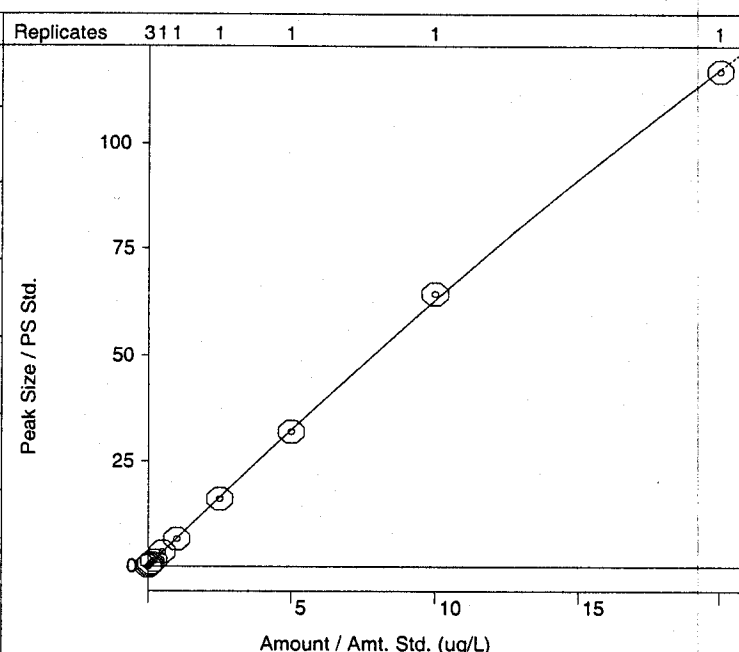
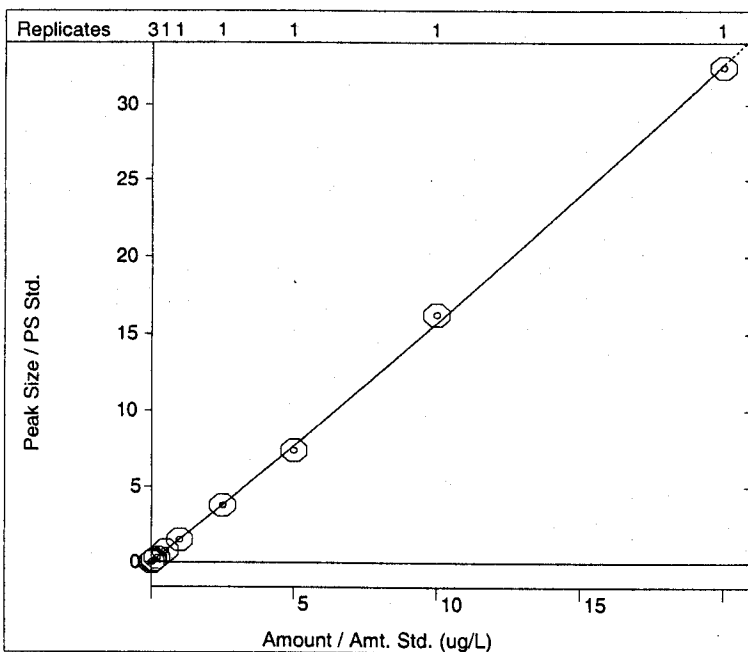
Last Calibration: 4/6/04 8:46 AM  
 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## PENTACHLOROETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.373%, Coeff. Det.(r2): 0.999575  
 $y = +0.0061x^2 + 1.5103x - 0.0043$

## TERT-BUTYLBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.980%, Coeff. Det.(r2): 0.999795  
 $y = -0.0401x^2 + 6.6962x + 0.0191$

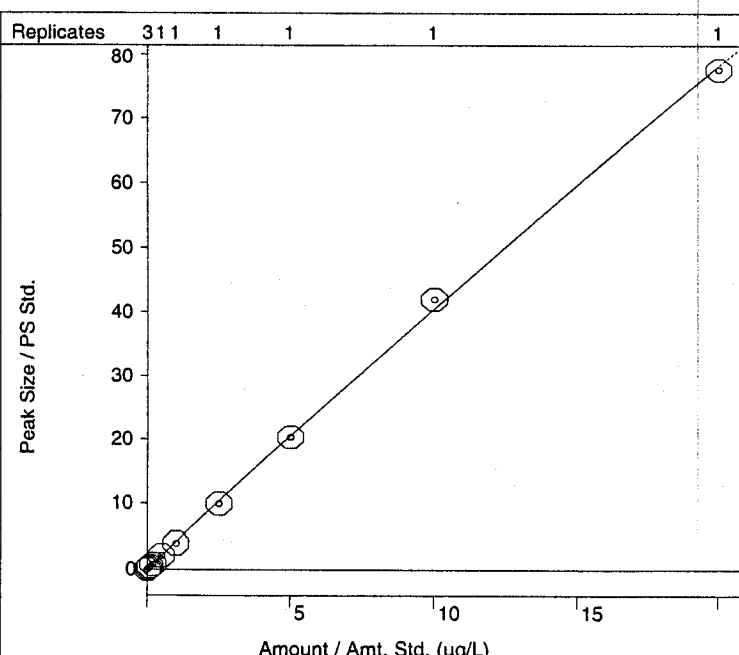
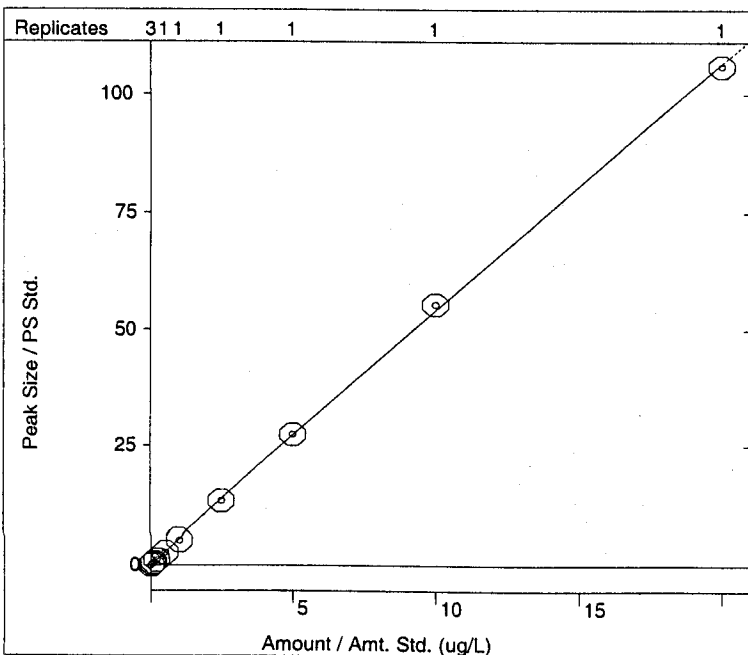


## 1,2,4-TRIMETHYLBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 2.356%, Coeff. Det.(r2): 0.999788  
 $y = -0.0094x^2 + 5.5189x - 0.0202$

## SEC-BUTYLBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.907%, Coeff. Det.(r2): 0.999502  
 $y = -0.0133x^2 + 4.1786x - 0.0046$



# Calibration Curves Report

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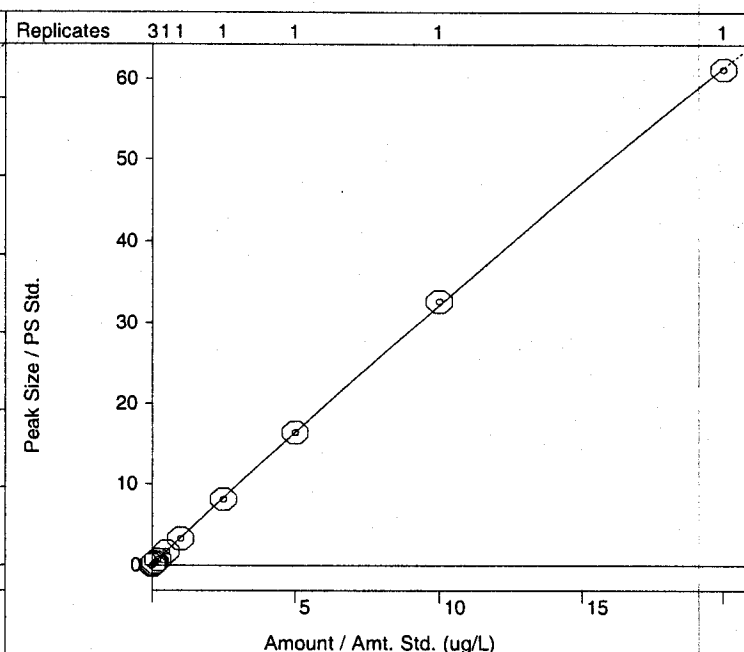
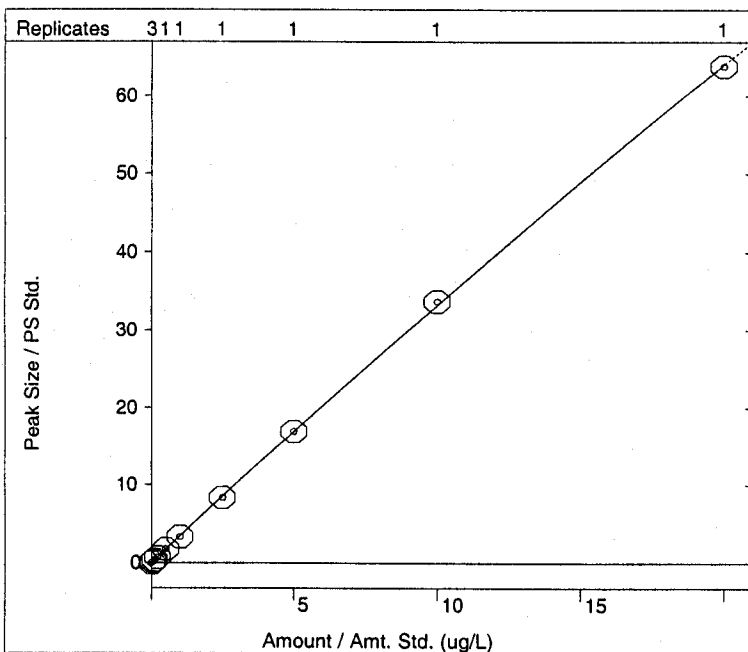
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 Cmpd. Table Updated: 4/6/04 8:51 AM  
 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## 1,3-DICHLOROBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.267%, Coeff. Det.(r2): 0.999911  
 $y = -0.0118x^2 + 3.4423x + 0.0019$

## 1,4-DICHLOROBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 2.835%, Coeff. Det.(r2): 0.999904  
 $y = -0.0140x^2 + 3.3539x - 0.0050$

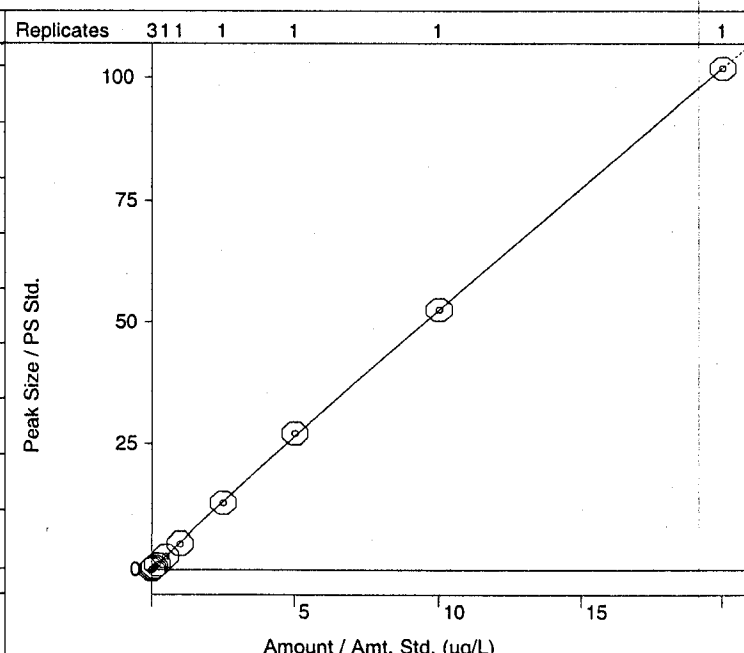
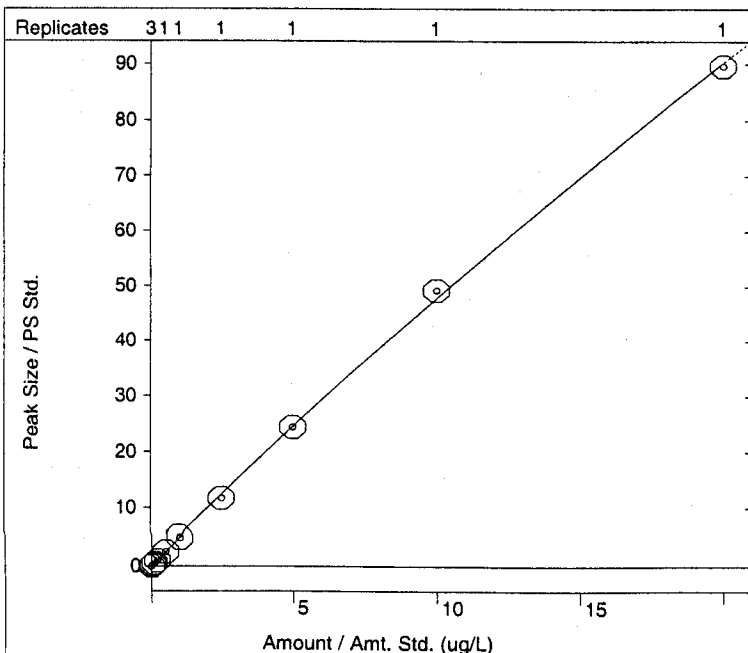


## 4-ISOPROPYLTOLUENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.527%, Coeff. Det.(r2): 0.999616  
 $y = -0.0267x^2 + 5.0466x + 0.0029$

## 1,2,3-TRIMETHYLBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 2.487%, Coeff. Det.(r2): 0.999950  
 $y = -0.0139x^2 + 5.3803x - 0.0086$



# Calibration Curves Report

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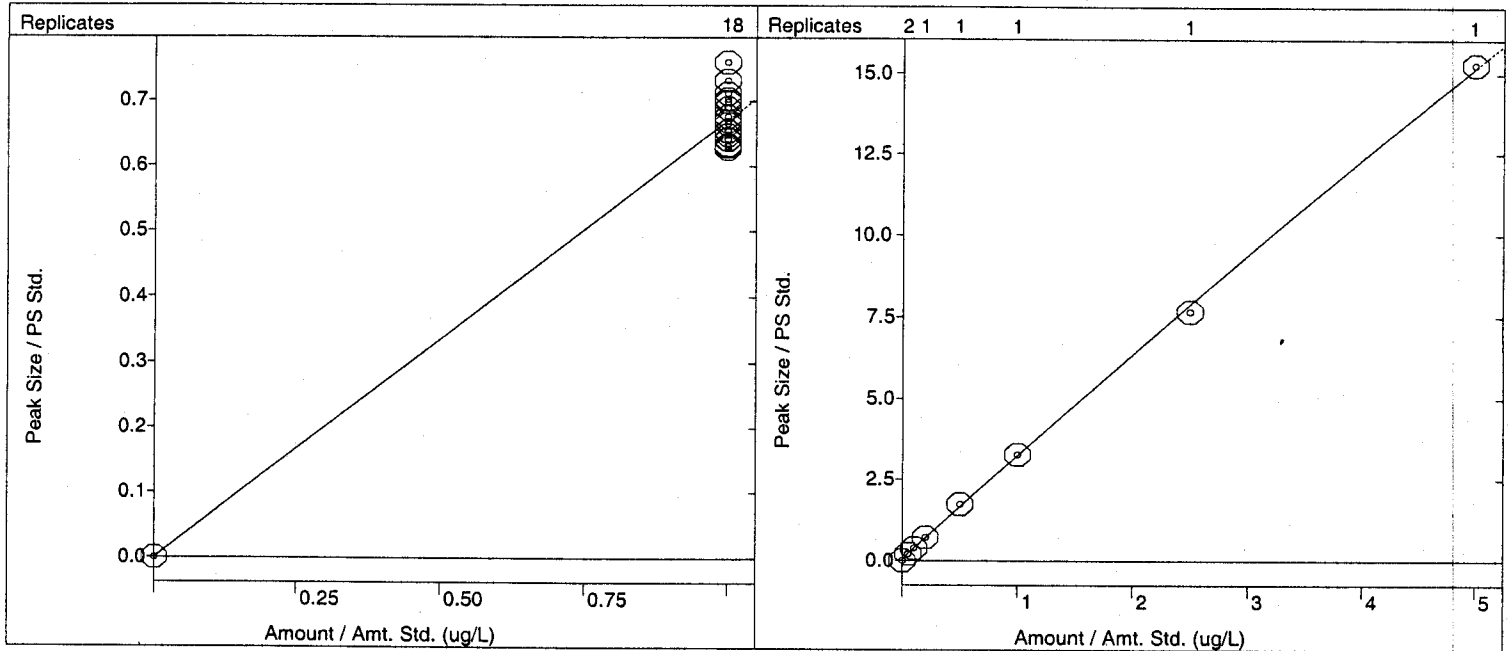
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 Detector: 2000 Mass Spec  
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 Calibration Type: Internal Standard Analysis

## SS-1,2-DICHLOROBENZENE-D4

Curve Fit: Linear, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.742%, Coeff. Det.(r2): 0.944146  
 $y = +0.6708x + 2.2204e-16$

## 1,2-DICHLOROBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 10.90%, Coeff. Det.(r2): 0.999663  
 $y = -0.0411x^2 + 3.2342x + 0.0524$

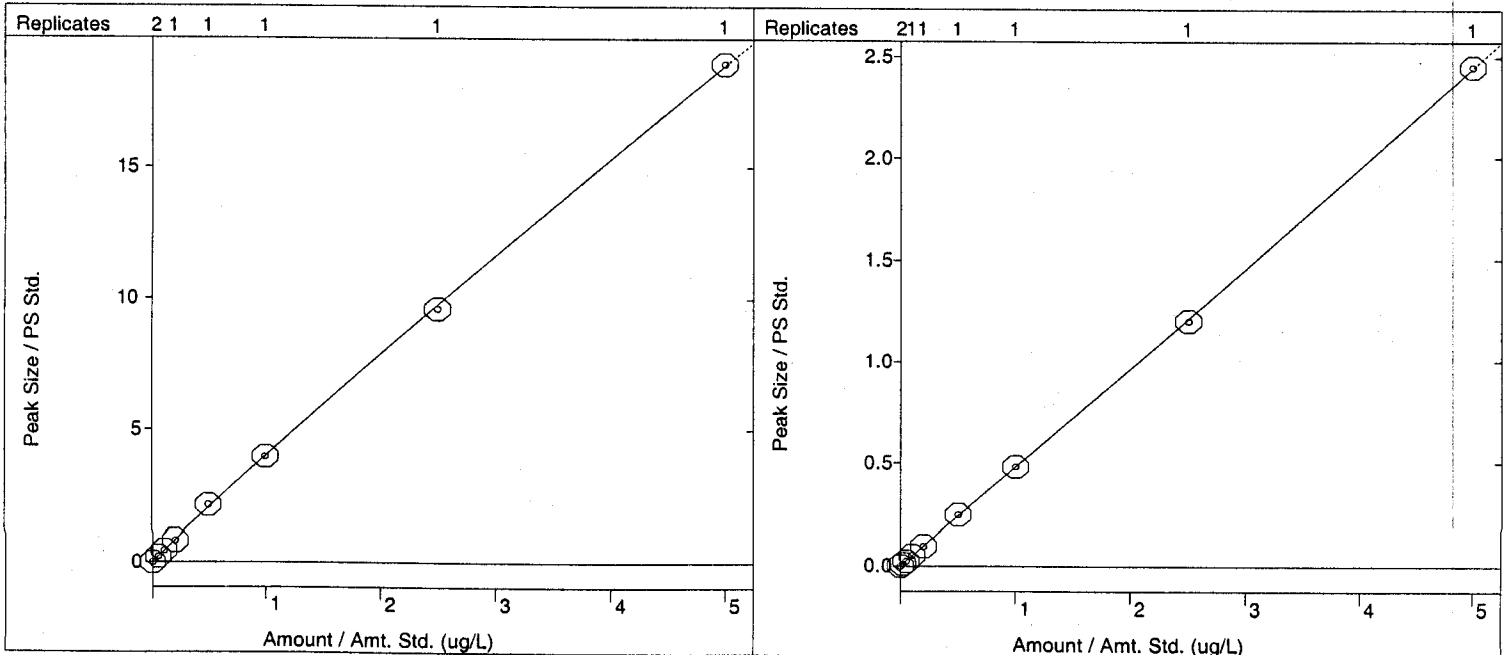


## N-BUTYLBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.807%, Coeff. Det.(r2): 0.999864  
 $y = -0.0505x^2 + 4.0243x + 0.0248$

## 1,2-DIBROMO-3-CHLOROPROPANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 4.512%, Coeff. Det.(r2): 0.999970  
 $y = +0.0020x^2 + 0.4796x + 0.0013$



# Calibration Curves Report

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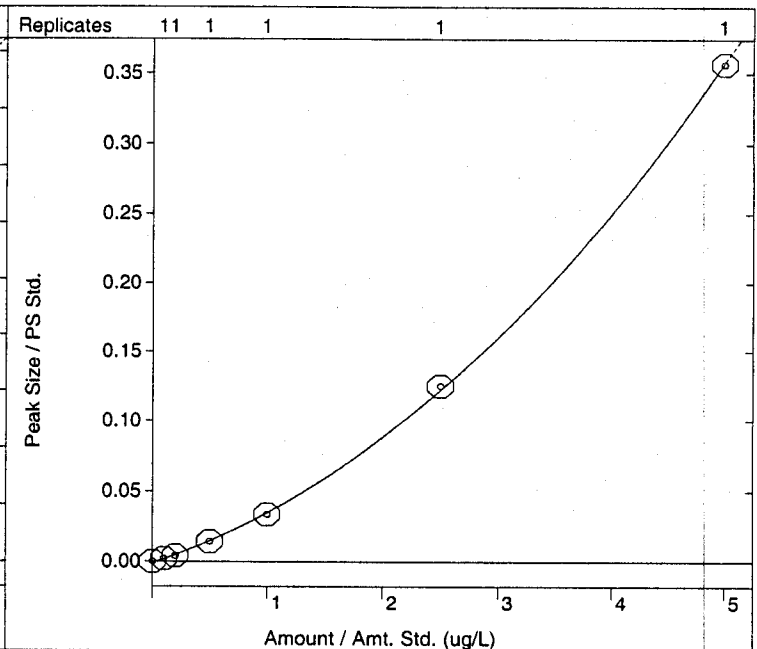
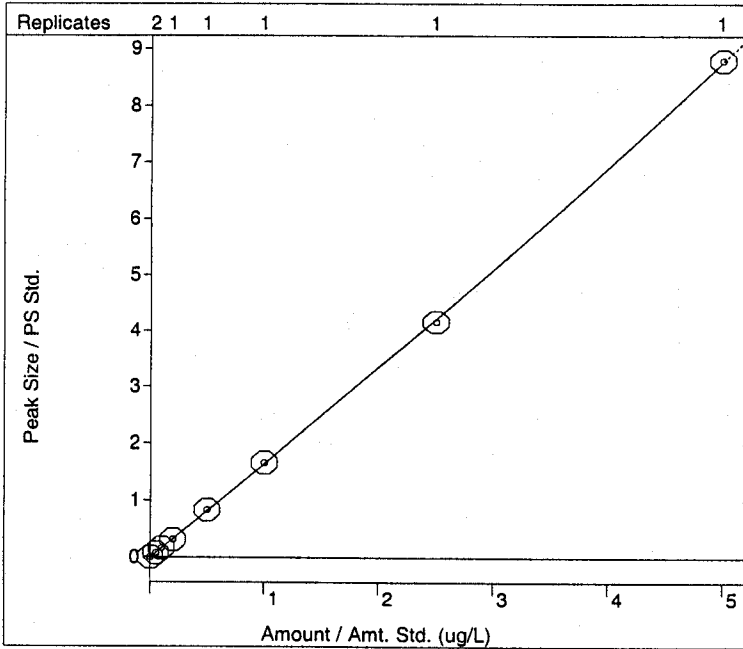
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 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## HEXACHLOROETHANE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.802%, Coeff. Det.(r2): 0.999938  
 $y = +0.0260x^2 + 1.6254x - 0.0061$

## NITROBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 52.81%, Coeff. Det.(r2): 0.999872  
 $y = +0.0091x^2 + 0.0265x - 9.3477e-4$

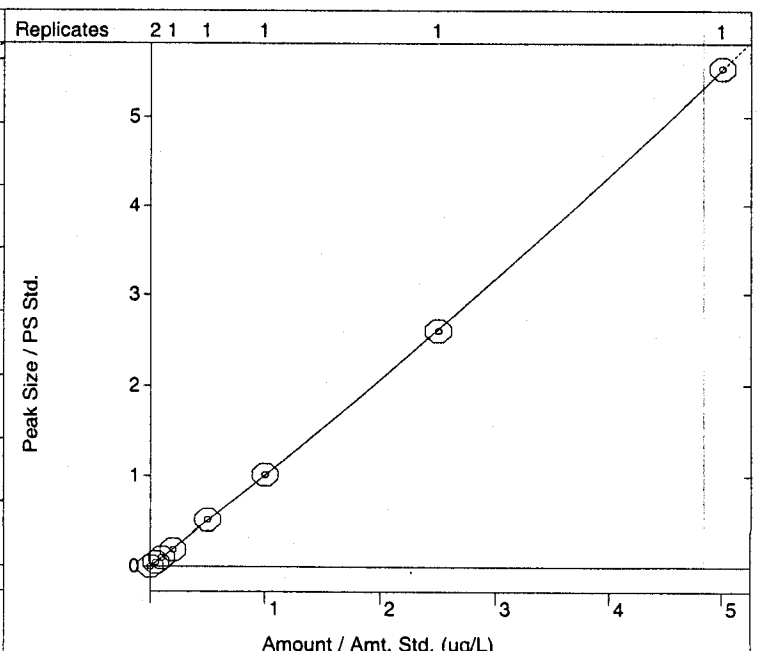
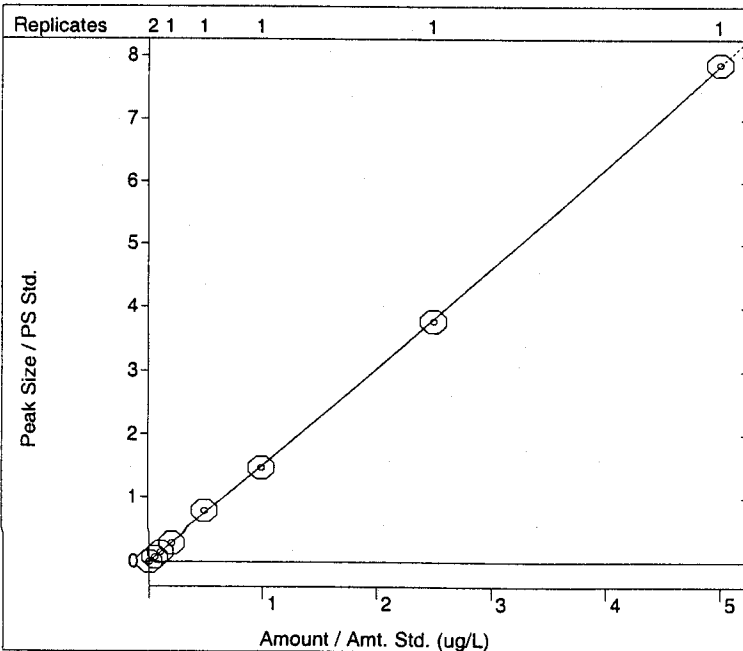


## 1,2,4-TRICHLOROBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.257%, Coeff. Det.(r2): 0.999939  
 $y = +0.0189x^2 + 1.4764x + 0.0022$

## NAPHTHALENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 6.312%, Coeff. Det.(r2): 0.999974  
 $y = +0.0237x^2 + 0.9893x - 0.0031$



# Calibration Curves Report

Method: c:\c\040504a\524\_2-040504c.mth  
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 Peak Measurement: Area

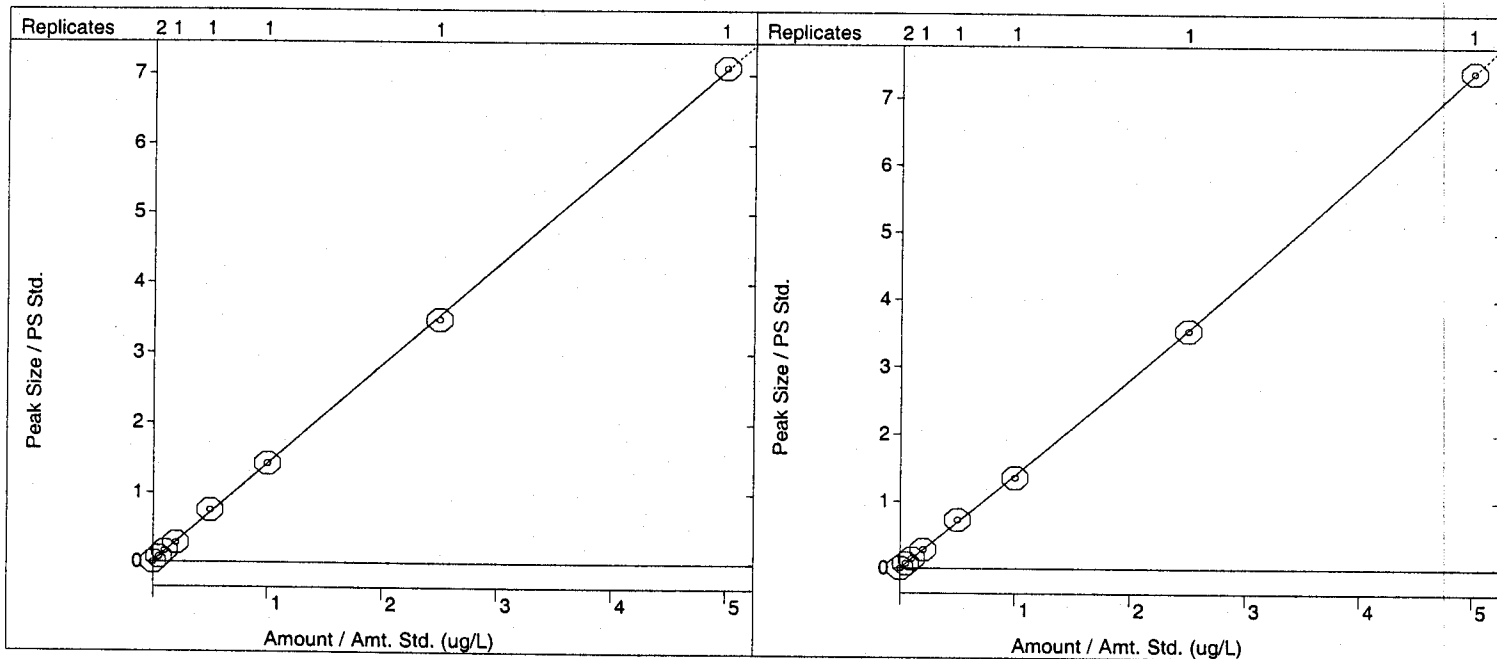
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 Detector: 2000 Mass Spec  
 Workstation Version: Version 5.52  
 Calibration Type: Internal Standard Analysis

## HEXACHLOROBUTADIENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 5.130%, Coeff. Det.(r2): 0.999864  
 $y = +4.4999e-4x^2 + 1.4124x + 0.0080$

## 1,2,3-TRICHLOROBENZENE

Curve Fit: Quadratic, Origin: Include, Weight: 1/X  
 Resp. Fact. RSD: 3.407%, Coeff. Det.(r2): 0.999945  
 $y = +0.0230x^2 + 1.3659x + 0.0022$



**QUALITY ASSURANCE REVIEW OF THE  
AQUEOUS SAMPLES COLLECTED ON APRIL 6 AND 7, 2004  
FOR THE DUPONT CORPORATE REMEDIATION GROUP  
4/04 GROUNDWATER SAMPLING PROJECT  
AT THE BARKSDALE, WISCONSIN FACILITY**

May 13, 2004

Prepared for:

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Prepared by:

**ENVIRONMENTAL STANDARDS, INC.**  
1140 Valley Forge Road  
P.O. Box 810  
Valley Forge, PA 19482-0810

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B.      Conclusions

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**Section 4      Laboratory Case Narrative and Project Chain-of-Custody Records**

## **Executive Summary**

An analytical quality assurance review was performed on data for the 11 aqueous samples (including quality control samples) collected in association with the DuPont Corporate Remediation Group 4/04 Groundwater Sampling Project at the Barksdale Facility in Barksdale, Wisconsin. The organic analyses were performed by an SW-846 method. A comprehensive Contract Laboratory Program (CLP)-like raw data package was prepared by the laboratory and was reviewed by Environmental Standards.

The quality of the data is acceptable; however, the following qualifications were made.

- The results for tetryl and nitroglycerine in one sample were qualified due to low matrix spike and/or matrix spike duplicate recoveries.

Reporting errors were not identified during the quality assurance review.



## Introduction

This quality assurance (QA) review is based upon a rigorous examination of data generated from the 11 aqueous samples (including quality control [QC] samples) that were collected on April 6 and 7, 2004, as part of the DuPont Corporate Remediation Group 4/04 Groundwater Sampling Project at the Barksdale Facility in Barksdale, Wisconsin. The samples that have undergone a QA review are listed on Table 1. Table 1 also presents the field sample number, laboratory sample number, laboratory project number, collection date, and parameter analyzed and reviewed for each sample.

This review has been performed with guidance from the "National Functional Guidelines for Organic Data Review" (US EPA, 2/94).

The reported analytical results are presented on the laboratory analysis reports included in Section 2, "Target Analyte Summary." Data were examined to determine the usability of the analytical results and compliance relative to requirements specified by "Test Methods for Evaluating Solid Waste" (SW-846, Third Revision, 1986, and updates as applicable). In addition, the deliverables prepared according to a Contract Laboratory Program-like data package were evaluated. Details of this QA review are presented in Section 1 of this report.

This critical QA review identifies data quality issues for specific samples and specific evaluation criteria. Data not qualified in this report should be considered valid based on the QC criteria that have been reviewed.

TABLE 1

SUMMARY OF GROUNDWATER SAMPLE DATA REVIEWED

DUPONT BARKSDALE, WISCONSIN FACILITY

DuPont Corporate Remediation Group Sample Identification	Laboratory Sample Number	Project Number	Date of Sample Collection	Parameter Analyzed and Reviewed
BAR-G-30490N-INFLOW	GDTQ3	D4D080371	4/6/04	E
BAR-G-30380N-INFLOW	GDTQ4	D4D080371	4/6/04	E
BAR-G-30300N-INFLOW	GDTQ6	D4D080371	4/6/04	E
BAR-G-73280H-INFLOW	GDTQ7	D4D080371	4/6/04	E
BAR-G-72730H-INFLOW	GDTQ8	D4D080371	4/6/04	E
BAR-G-72730H-INFLOWMS (Matrix Spike)	GDTQ8MS	D4D080371	4/6/04	E
BAR-G-72730H-INFLOWMSD (Matrix Spike Duplicate)	GDTQ8MSD	D4D080371	4/6/04	E
BAR-G-72860H-INFLOW	GDTQ9	D4D080371	4/6/04	E
BAR-G-72970H-INFLOW	GDTRC	D4D080371	4/6/04	E
BAR-G-72970H-INFLOW-DUP (Field Duplicate of BAR-G-72970H-INFLOW)	GDTRD	D4D080371	4/6/04	E
BAR-G-30600N-INFLOW	GDTRE	D4D080371	4/7/04	E

NOTE:

E - Nitroaromatics and Nitroamines by SW-846 Method 8321A (Modified per STL SOP No. DEN-LC-0010, Revision No. 3). (11 analyses)

## Section 1 Quality Assurance Review

### A. Organic Data

The organic analyses of 11 aqueous samples (including QC samples) collected as part of the DuPont Corporate Remediation Group (DuPont) 4/04 Groundwater Sampling Project at the Barksdale, Wisconsin, Facility on April 6 and 7, 2004, were performed by Severn Trent Laboratories, Inc. (STL) in Denver, Colorado. The samples were collectively analyzed for nitroaromatics and nitroamines according to SW-846 Method 8321A, as specified in "Test Methods for Evaluating Solid Waste" (SW-846, Third Edition, Final Update II, September, 1994) and modified as specified in STL proprietary Standard Operating Procedure (SOP) No. DEN-LC-0010 (Revision No. 3). This modified method uses liquid chromatography with a thermospray interfaced to a mass spectrometer (LC/TSP/MS). These analyses are identified on Table 1. The data were presented in one Contract Laboratory Program (CLP)-like data package.

The findings offered in this report are based upon a rigorous review of the following:

- sample holding times
- blank analysis results
- surrogate recoveries
- matrix spike (MS) and MS duplicate (MSD) recoveries and precision
- quantitation of results
- field duplicate precision
- sample condition upon laboratory receipt
- initial and continuing calibrations
- analytical sequence
- laboratory control sample (LCS) recoveries
- qualitative identification

The analytical results for the organic compounds are provided as a summary of the data in Section 2 of this report.

### Data Package Deliverables

Overall, the organic data quality is good. The following analytical criteria were not met for the original data package received. Reporting errors were not identified during the quality assurance review. The following items do not affect data usability. Usability is addressed in the Data Evaluation section.

### Noncorrectable Deficiency

- The laboratory analyzed one continuing calibration verification (CCV) standard with a concentration of 50 µg/L. According to STL SOP No. DEN-LC-0010 (Section 10.6.1, pg. 14 of 33), the concentration of the CCV standards should be "100 µg/L." In the data reviewer's opinion, there was no impact on data quality due to this issue.

### Comments

1. According to the Laboratory Case Narrative, sample BAR-G-30380N-INFLOW was analyzed at a five-fold dilution because the internal standard RDX 13C-3 exhibited a low recovery. The method detection limits (MDLs) and practical quantitation limits (PQLs) for all target compounds in sample BAR-G-30380N-INFLOW were raised to reflect the dilution performed.
2. According to the Laboratory Case Narrative and the Chain-of-Custody Records, sample BAR-G-73300BC-INFLOW was not collected. Nitroaromatics and nitroamines results are not available for this sample.
3. As noted in the Laboratory Case Narrative, sample cooler temperatures of 3.1°C, 3.3°C, and 3.4°C were recorded upon laboratory receipt for the project cooler. Samples collected for nitroaromatics and nitroamines analyses are required to be preserved at a temperature of 4°C (STL SOP No. DEN-LC-0010 [Section 8.2., pg. 10 of 33]). The data reviewer, however, does not consider the data to have been impacted because it is customary for the acceptable preservation temperature to be 4±2°C.

### Data Evaluation

With respect to data usability, the principal area of concern is low MS and/or MSD recoveries. Based on a rigorous review of the data provided, the following organic data qualifiers are offered. The following data usability issue represents an interpretation of the QC results obtained for the project samples. Quite often, data qualifications address issues relating to sample matrix problems. Similarly, the data validation guidelines routinely specify areas of the data that require qualification, yet the methods used for analysis may not require corrective action by the laboratory. Accordingly, the following data usability issues should not be construed as an indication of laboratory performance.

### Organic Data Qualifiers

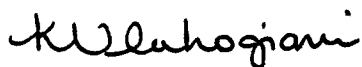
- The MDLs and PQLs for tetryl and nitroglycerine in sample BAR-G-72730H-INFLOW may be higher than reported, and the "not-detected" results have been flagged "UJ" on the qualified analysis report. Low recoveries (<laboratory QC limits) were observed for tetryl and nitroglycerine in the associated MS and/or MSD analyses.
- One field duplicate pair (sample BAR-G-72790H-INFLOW and its duplicate, sample BAR-G-72790H-INFLOW-DUP) was included in the data package provided for the nitroaromatics and nitroamines analyses. Good precision was observed between the results for nitroaromatics and nitroamines in the field duplicate pair to the limited extent that no positive results were reported for nitroaromatics and nitroamines in these samples.

A complete support documentation of this organic QA review is provided in Section 3 of this report.

B. Conclusions

Based on this QA review, a few organic compounds results were qualified due to low MS and/or MSD recoveries. In order to use any of the data, the data user should understand the qualifications and limitations as specified in this QA review. The Laboratory Case Narrative and Project Chain-of-Custody Records are presented in Section 4 of this report.

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**SECTION 2**

**TARGET ANALYTE SUMMARY**

## ORGANIC DATA QUALIFIERS

- ND The compound was not detected at or above the associated numerical value.
- U This compound should be considered "not detected" because it was detected in a blank at a similar level.
- J Quantitation is approximate due to limitations identified during the quality assurance review (data validation).
- R Unusable result; compound may or may not be present in this sample.
- UJ This compound was not detected, but the detection limit is probably higher due to a low bias identified during the quality assurance review.

E.I. DUPONT DE NEMOURS AND CO

Client Sample ID: BAR-G-30490N-INFLOW

HPLC

Lot-Sample #....: D4D080371-001    Work Order #....: GDTQ31AA    Matrix.....: WATER  
 Date Sampled....: 04/06/04 17:20    Date Received...: 04/08/04  
 Prep Date.....: 04/11/04    Analysis Date...: 04/15/04  
 Prep Batch #....: 4101132    Analysis Time...: 13:09  
 Dilution Factor: 1  
 Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
4-Amino-2,6-dinitrotoluene	ND	0.12	ug/L	0.015
2-Amino-4,6-dinitrotoluene	ND	0.12	ug/L	0.012
1,3-Dinitrobenzene	ND	0.12	ug/L	0.014
2,4-Dinitrotoluene	ND	0.12	ug/L	0.019
2,6-Dinitrotoluene	ND	0.12	ug/L	0.015
HMX	ND	0.12	ug/L	0.016
Nitrobenzene	ND	0.12	ug/L	0.020
Nitroglycerin	ND	0.12	ug/L	0.039
3-Nitrotoluene	ND	0.12	ug/L	0.019
2-Nitrotoluene	ND	0.12	ug/L	0.023
4-Nitrotoluene	ND	0.12	ug/L	0.018
PETN	ND	0.12	ug/L	0.031
RDX	ND	0.12	ug/L	0.012
Tetryl	ND	0.12	ug/L	0.012
1,3,5-Trinitrobenzene	ND	0.12	ug/L	0.015
2,4,6-Trinitrotoluene	ND	0.12	ug/L	0.015

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Nitrobenzene-d5	94	(44 - 124)



E. I. DUPONT DE NEMOURS AND CO

Client Sample ID: BAR-G-30380N-INFLOW

HPLC

Lot-Sample #....: D4D080371-002    Work Order #....: GDTQ41AA    Matrix.....: WATER  
 Date Sampled....: 04/06/04 13:12    Date Received...: 04/08/04  
 Prep Date.....: 04/11/04    Analysis Date...: 04/15/04  
 Prep Batch #....: 4101132    Analysis Time...: 13:41  
 Dilution Factor: 5  
 Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
4-Amino-2,6-dinitrotoluene	ND	0.60	ug/L	0.075
2-Amino-4,6-dinitrotoluene	ND	0.60	ug/L	0.060
1,3-Dinitrobenzene	ND	0.60	ug/L	0.070
2,4-Dinitrotoluene	ND	0.60	ug/L	0.095
2,6-Dinitrotoluene	ND	0.60	ug/L	0.075
HMX	ND	0.60	ug/L	0.080
Nitrobenzene	ND	0.60	ug/L	0.10
Nitroglycerin	ND	0.60	ug/L	0.20
3-Nitrotoluene	ND	0.60	ug/L	0.095
2-Nitrotoluene	ND	0.60	ug/L	0.12
4-Nitrotoluene	ND	0.60	ug/L	0.090
PETN	ND	0.60	ug/L	0.16
RDX	ND	0.60	ug/L	0.060
Tetryl	ND	0.60	ug/L	0.060
1,3,5-Trinitrobenzene	ND	0.60	ug/L	0.075
2,4,6-Trinitrotoluene	ND	0.60	ug/L	0.075
	<u>PERCENT</u>	<u>RECOVERY</u>		
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>		
Nitrobenzene-d5	60	(44 - 124)		

E.I. DUPONT DE NEMOURS AND CO

Client Sample ID: BAR-G-30300N-INFLOW

HPLC

Lot-Sample #....: D4D080371-003    Work Order #....: GDTQ61AA    Matrix.....: WATER  
 Date Sampled...: 04/06/04 13:20    Date Received...: 04/08/04  
 Prep Date.....: 04/11/04    Analysis Date...: 04/15/04  
 Prep Batch #...: 4101132    Analysis Time...: 14:45  
 Dilution Factor: 1  
 Method.....: SW846 8321A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
4-Amino-2,6-dinitrotoluene	ND	0.12	ug/L	0.015
2-Amino-4,6-dinitrotoluene	ND	0.12	ug/L	0.012
1,3-Dinitrobenzene	ND	0.12	ug/L	0.014
2,4-Dinitrotoluene	ND	0.12	ug/L	0.019
2,6-Dinitrotoluene	ND	0.12	ug/L	0.015
HMX	ND	0.12	ug/L	0.016
Nitrobenzene	ND	0.12	ug/L	0.020
Nitroglycerin	ND	0.12	ug/L	0.039
3-Nitrotoluene	ND	0.12	ug/L	0.019
2-Nitrotoluene	ND	0.12	ug/L	0.023
4-Nitrotoluene	ND	0.12	ug/L	0.018
PETN	ND	0.12	ug/L	0.031
RDX	ND	0.12	ug/L	0.012
Tetryl	ND	0.12	ug/L	0.012
1,3,5-Trinitrobenzene	ND	0.12	ug/L	0.015
2,4,6-Trinitrotoluene	ND	0.12	ug/L	0.015
	PERCENT	RECOVERY		
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>		
Nitrobenzene-d5	92	(44 - 124)		

E.I. DUPONT DE NEMOURS AND CO

Client Sample ID: BAR-G-73280H-INFLOW

HPLC

Lot-Sample #...: D4D080371-004    Work Order #...: GDTQ71AA    Matrix.....: WATER  
 Date Sampled...: 04/06/04 12:48    Date Received...: 04/08/04  
 Prep Date.....: 04/11/04    Analysis Date...: 04/15/04  
 Prep Batch #...: 4101132    Analysis Time...: 15:17  
 Dilution Factor: 1  
 Method.....: SW846 8321A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
4-Amino-2,6-dinitrotoluene	ND	0.12	ug/L	0.015
2-Amino-4,6-dinitrotoluene	ND	0.12	ug/L	0.012
1,3-Dinitrobenzene	ND	0.12	ug/L	0.014
2,4-Dinitrotoluene	ND	0.12	ug/L	0.019
2,6-Dinitrotoluene	ND	0.12	ug/L	0.015
HMX	ND	0.12	ug/L	0.016
Nitrobenzene	ND	0.12	ug/L	0.020
Nitroglycerin	ND	0.12	ug/L	0.039
3-Nitrotoluene	ND	0.12	ug/L	0.019
2-Nitrotoluene	ND	0.12	ug/L	0.023
4-Nitrotoluene	ND	0.12	ug/L	0.018
PETN	ND	0.12	ug/L	0.031
RDX	ND	0.12	ug/L	0.012
Tetryl	ND	0.12	ug/L	0.012
1,3,5-Trinitrobenzene	ND	0.12	ug/L	0.015
2,4,6-Trinitrotoluene	ND	0.12	ug/L	0.015

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Nitrobenzene-d5	97	(44 - 124)

E.I. DUPONT DE NEMOURS AND CO

Client Sample ID: BAR-G-72730H-INFLOW

HPLC

Lot-Sample #....: D4D080371-005    Work Order #....: GDTQ81AA    Matrix.....: WATER  
 Date Sampled....: 04/06/04 12:05    Date Received...: 04/08/04  
 Prep Date.....: 04/11/04    Analysis Date...: 04/15/04  
 Prep Batch #....: 4101132    Analysis Time...: 15:49  
 Dilution Factor: 1  
 Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
4-Amino-2,6-dinitrotoluene	ND	0.12	ug/L	0.015
2-Amino-4,6-dinitrotoluene	ND	0.12	ug/L	0.012
1,3-Dinitrobenzene	ND	0.12	ug/L	0.014
2,4-Dinitrotoluene	ND	0.12	ug/L	0.019
2,6-Dinitrotoluene	ND	0.12	ug/L	0.015
HMX	ND	0.12	ug/L	0.016
Nitrobenzene	ND	0.12	ug/L	0.020
Nitroglycerin	ND UJ	0.12	ug/L	0.039
3-Nitrotoluene	ND	0.12	ug/L	0.019
2-Nitrotoluene	ND	0.12	ug/L	0.023
4-Nitrotoluene	ND	0.12	ug/L	0.018
PETN	ND	0.12	ug/L	0.031
RDX	ND	0.12	ug/L	0.012
Tetryl	ND UJ	0.12	ug/L	0.012
1,3,5-Trinitrobenzene	ND	0.12	ug/L	0.015
2,4,6-Trinitrotoluene	ND	0.12	ug/L	0.015
	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>		
<u>SURROGATE</u>				
Nitrobenzene-d5	90	(44 - 124)		

KV 5/3/04

E.I. DUPONT DE NEMOURS AND CO

Client Sample ID: BAR-G-72860H-INFLOW

HPLC

Lot-Sample #...: D4D080371-006 Work Order #...: GDTQ91AA Matrix.....: WATER  
 Date Sampled...: 04/06/04 12:35 Date Received...: 04/08/04  
 Prep Date.....: 04/11/04 Analysis Date...: 04/15/04  
 Prep Batch #...: 4101132 Analysis Time...: 17:56  
 Dilution Factor: 1

Method.....: SW846 8321A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
4-Amino-2,6-dinitrotoluene	ND	0.12	ug/L	0.015
2-Amino-4,6-dinitrotoluene	ND	0.12	ug/L	0.012
1,3-Dinitrobenzene	ND	0.12	ug/L	0.014
2,4-Dinitrotoluene	ND	0.12	ug/L	0.019
2,6-Dinitrotoluene	ND	0.12	ug/L	0.015
HMX	ND	0.12	ug/L	0.016
Nitrobenzene	ND	0.12	ug/L	0.020
Nitroglycerin	ND	0.12	ug/L	0.039
3-Nitrotoluene	ND	0.12	ug/L	0.019
2-Nitrotoluene	ND	0.12	ug/L	0.023
4-Nitrotoluene	ND	0.12	ug/L	0.018
PETN	ND	0.12	ug/L	0.031
RDX	ND	0.12	ug/L	0.012
Tetryl	ND	0.12	ug/L	0.012
1,3,5-Trinitrobenzene	ND	0.12	ug/L	0.015
2,4,6-Trinitrotoluene	ND	0.12	ug/L	0.015
	PERCENT	RECOVERY		
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>		
Nitrobenzene-d5	89	(44 - 124)		

E.I. DUPONT DE NEMOURS AND CO

Client Sample ID: BAR-G-72790H-INFLOW

HPLC

Lot-Sample #....: D4D080371-007    Work Order #....: GDTRC1AA    Matrix.....: WATER  
 Date Sampled....: 04/06/04 12:20    Date Received...: 04/08/04  
 Prep Date.....: 04/11/04    Analysis Date...: 04/15/04  
 Prep Batch #....: 4101132    Analysis Time...: 18:28  
 Dilution Factor: 1  
 Method.....: SW846 8321A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
4-Amino-2,6-dinitrotoluene	ND	0.12	ug/L	0.015
2-Amino-4,6-dinitrotoluene	ND	0.12	ug/L	0.012
1,3-Dinitrobenzene	ND	0.12	ug/L	0.014
2,4-Dinitrotoluene	ND	0.12	ug/L	0.019
2,6-Dinitrotoluene	ND	0.12	ug/L	0.015
HMX	ND	0.12	ug/L	0.016
Nitrobenzene	ND	0.12	ug/L	0.020
Nitroglycerin	ND	0.12	ug/L	0.039
3-Nitrotoluene	ND	0.12	ug/L	0.019
2-Nitrotoluene	ND	0.12	ug/L	0.023
4-Nitrotoluene	ND	0.12	ug/L	0.018
PETN	ND	0.12	ug/L	0.031
RDX	ND	0.12	ug/L	0.012
Tetryl	ND	0.12	ug/L	0.012
1,3,5-Trinitrobenzene	ND	0.12	ug/L	0.015
2,4,6-Trinitrotoluene	ND	0.12	ug/L	0.015
		<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>		<u>RECOVERY</u>	<u>LIMITS</u>	
Nitrobenzene-d5	73		(44 - 124)	

E.I. DUPONT DE NEMOURS AND CO

Client Sample ID: BAR-G-72790H-INFLOW-DUP

HPLC

Lot-Sample #...: D4D080371-008    Work Order #...: GDTRD1AA    Matrix.....: WATER  
 Date Sampled...: 04/06/04 12:20    Date Received...: 04/08/04  
 Prep Date.....: 04/11/04    Analysis Date...: 04/15/04  
 Prep Batch #...: 4101132    Analysis Time...: 18:59  
 Dilution Factor: 1  
 Method.....: SW846 8321A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
4-Amino-2,6-dinitrotoluene	ND	0.12	ug/L	0.015
2-Amino-4,6-dinitrotoluene	ND	0.12	ug/L	0.012
1,3-Dinitrobenzene	ND	0.12	ug/L	0.014
2,4-Dinitrotoluene	ND	0.12	ug/L	0.019
2,6-Dinitrotoluene	ND	0.12	ug/L	0.015
HMX	ND	0.12	ug/L	0.016
Nitrobenzene	ND	0.12	ug/L	0.020
Nitroglycerin	ND	0.12	ug/L	0.039
3-Nitrotoluene	ND	0.12	ug/L	0.019
2-Nitrotoluene	ND	0.12	ug/L	0.023
4-Nitrotoluene	ND	0.12	ug/L	0.018
PETN	ND	0.12	ug/L	0.031
RDX	ND	0.12	ug/L	0.012
Tetryl	ND	0.12	ug/L	0.012
1,3,5-Trinitrobenzene	ND	0.12	ug/L	0.015
2,4,6-Trinitrotoluene	ND	0.12	ug/L	0.015
	PERCENT	RECOVERY		
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>		
Nitrobenzene-d5	90	(44 - 124)		

E.I. DUPONT DE NEMOURS AND CO

Client Sample ID: BAR-G-30600N-INFLOW

HPLC

Lot-Sample #....: D4D080371-009    Work Order #....: GDTRE1AA    Matrix.....: WATER  
 Date Sampled....: 04/07/04 09:58    Date Received...: 04/08/04  
 Prep Date.....: 04/11/04    Analysis Date...: 04/15/04  
 Prep Batch #....: 4101132    Analysis Time...: 19:31  
 Dilution Factor: 1  
 Method.....: SW846 8321A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
4-Amino-2,6-dinitrotoluene	ND	0.12	ug/L	0.015
2-Amino-4,6-dinitrotoluene	ND	0.12	ug/L	0.012
1,3-Dinitrobenzene	ND	0.12	ug/L	0.014
2,4-Dinitrotoluene	ND	0.12	ug/L	0.019
2,6-Dinitrotoluene	ND	0.12	ug/L	0.015
HMX	ND	0.12	ug/L	0.016
Nitrobenzene	ND	0.12	ug/L	0.020
Nitroglycerin	ND	0.12	ug/L	0.039
3-Nitrotoluene	ND	0.12	ug/L	0.019
2-Nitrotoluene	ND	0.12	ug/L	0.023
4-Nitrotoluene	ND	0.12	ug/L	0.018
PETN	ND	0.12	ug/L	0.031
RDX	ND	0.12	ug/L	0.012
Tetryl	ND	0.12	ug/L	0.012
1,3,5-Trinitrobenzene	ND	0.12	ug/L	0.015
2,4,6-Trinitrotoluene	ND	0.12	ug/L	0.015

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Nitrobenzene-d5	96	(44 - 124)



**QUALITY ASSURANCE REVIEW OF THE  
AQUEOUS SAMPLES COLLECTED ON APRIL 6, 2004  
FOR THE DUPONT CORPORATE REMEDIATION GROUP  
4/04 GROUNDWATER SAMPLING PROJECT  
AT THE BARKSDALE, WISCONSIN FACILITY**

May 14, 2004

Prepared for:

**DUPONT CORPORATE REMEDIATION GROUP**  
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## **Executive Summary**

An analytical quality assurance review was performed on data for the three aqueous samples collected in association with the DuPont Corporate Remediation Group 4/04 Groundwater Sampling Project at the Barksdale Facility in Barksdale, Wisconsin. The organic analyses were performed by a US EPA method. A comprehensive Contract Laboratory Program (CLP)-like raw data package was prepared by the laboratory and was reviewed by Environmental Standards.

The "not-detected" results for chloroacetonitrile, 2-nitropropane, and nitrobenzene in all samples were qualified as unusable due to very low relative response factors in the associated initial calibration and calibration verification standards. The quality of the remaining data is acceptable.

Any reporting errors identified during the quality assurance review were corrected by the data reviewer or the laboratory.

## **Introduction**

This quality assurance (QA) review is based upon a rigorous examination of data generated from the three aqueous samples that were collected on April 6, 2004, as part of the DuPont Corporate Remediation Group 4/04 Groundwater Sampling Project at the Barksdale Facility in Barksdale, Wisconsin. The samples that have undergone a QA review are listed on Table 1. Table 1 also presents the field sample number, laboratory sample number, laboratory run number, collection date, and parameter analyzed and reviewed for each sample.

This review has been performed with guidance from the "National Functional Guidelines for Organic Data Review" (US EPA, 2/94).

The reported analytical results are presented on the laboratory analysis reports included in Section 2, "Target Analyte Summary." Data were examined to determine the usability of the analytical results and compliance relative to requirements specified in the applicable US EPA method. In addition, the deliverables prepared according to a Contract Laboratory Program-like data package were evaluated. Details of this QA review are presented in Section 1 of this report.

This critical QA review identifies data quality issues for specific samples and specific evaluation criteria. Data not qualified in this report should be considered valid based on the quality control (QC) criteria that have been reviewed.

TABLE 1

SUMMARY OF GROUNDWATER SAMPLE DATA REVIEWED

DUPONT BARKSDALE, WISCONSIN FACILITY

DuPont Corporate Remediation Group Sample Identification	Laboratory Sample Number	Laboratory Run Number	Date of Sample Collection	Parameter Analyzed and Reviewed
BAR-G-29600N-INFLOW	1023135	64157	4/6/04	V
BAR-G-30900N-INFLOW	1023136	64157	4/6/04	V
LTB (Trip Blank)	1023137	64157	3/31/04*	V

NOTES:

V - Volatile Organic Compounds by US EPA Method 524.2. (3 analyses)

\* - The date of sample collection provided on Table 1 is the date of sample collection recorded on the Chain-of-Custody Record. For the trip blank, this date represents the date the trip blank was prepared at the laboratory. For the holding time evaluation, the data reviewer used the collection date of the samples associated with the trip blank for the trip blank date of sample collection. This date was used in order to reflect the usability of the trip blank data from the time the associated samples were collected.

## Section 1 Quality Assurance Review

### A. Organic Data

The organic analyses of three aqueous samples collected as part of the DuPont Corporate Remediation Group (DuPont) 4/04 Groundwater Sampling Project at the Barksdale, Wisconsin, Facility on April 6, 2004, were performed by Environmental Health Laboratories in South Bend, Indiana. The samples were analyzed for volatile organic compounds according to US EPA Method 524.2 as indicated on Table 1. The data were presented in one Contract Laboratory Program (CLP)-like data package.

The findings offered in this report are based upon a rigorous review of the following:

- sample holding times
- blank analysis results
- gas chromatogram/mass spectral (GC/MS) tuning and system performance
- surrogate recoveries
- qualitative identification
- quantitation of results
- sample condition upon laboratory receipt
- initial and continuing calibrations
- internal standard areas
- analytical sequence
- laboratory control sample (LCS) recoveries

The analytical results for the organic compounds are provided as a summary of the data in Section 2 of this report.

### Data Package Deliverables

Overall, the organic data quality is good. The following analytical criteria and/or reporting requirements were not met for the original data package received. Reporting errors identified during the quality assurance review were corrected by the data reviewer or the laboratory. Amended data package pages provided by the laboratory have been included in the Project Correspondence (Section 5). The following items do not affect data usability. Usability is addressed in the Data Evaluation section.

### Comments

1. The raw data for the volatile initial calibration and the bromofluorobenzene (BFB) tunes were not included in the data package provided for run number 64157. Upon the data reviewer's request, the laboratory submitted the raw data for the BFB tunes associated with the analysis of the project samples and a summary form of the calculated initial calibration relative response factors (see Section 5.) The raw data for the BFB tune associated with the initial calibration and the quantitation reports for the initial calibration standards were not provided.

2. The data package for run number 64157 was not paginated.

#### Data Evaluation

With respect to data usability, the principal area of concern is poor instrument sensitivity. Based on a rigorous review of the data provided, the following organic data qualifier is offered. The following data usability issue represents an interpretation of the QC results obtained for the project samples. Quite often, data qualifications address issues relating to sample matrix problems. Similarly, the data validation guidelines routinely specify areas of the data that require qualification, yet the methods used for analysis may not require corrective action by the laboratory. Accordingly, the following data usability issue should not be construed as an indication of laboratory performance.

#### Organic Data Qualifier

- The analyses for chloroacetonitrile, 2-nitropropane, and nitrobenzene in all samples in run number 64157 are unusable, and the "not-detected" results have been flagged "R" on the qualified analysis reports. Very low (<0.05) relative response factors were observed for these compounds in the associated initial calibration and calibration verification standards.

A complete support documentation of this organic QA review is provided in Section 3 of this report.

B. Conclusions

Based on this QA review, a few volatile organic compounds results were qualified due to poor instrument sensitivity. In order to use any of the data, the data user should understand the qualifications and limitations as specified in this QA review. The Laboratory Project Narrative and Project Chain-of-Custody Record are presented in Section 4 of this report. The Project Correspondence is presented in Section 5 of this report.

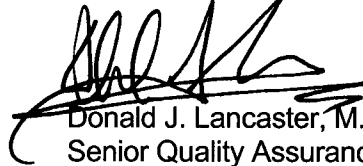
Report prepared by:



for:

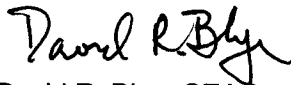
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Report reviewed by:



Donald J. Lancaster, M.S.  
Senior Quality Assurance Chemist II

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**SECTION 2**

**TARGET ANALYTE SUMMARY**

## ORGANIC DATA QUALIFIERS

- ND The compound was not detected at or above the associated numerical value.
- U This compound should be considered "not detected" because it was detected in a blank at a similar level.
- J Quantitation is approximate due to limitations identified during the quality assurance review (data validation).
- R Unusable result; compound may or may not be present in this sample.
- UJ This compound was not detected, but the detection limit is probably higher due to a low bias identified during the quality assurance review.

**Environmental Health Laboratories  
Sample Result Record Sheet**

**Sample Matrix:** DW  
**Acquisition File:** Not Available  
**Data Directory:** 041404A  
**Instrument:** ITD - C  
**Extracted Date:** Not Available  
**Sample Number:** 1023135  
**Dilution Factor:** 1  
**Sample Site:** BAR-G-29600N-INFLOW  
**Sample Location:** Not Available

**Method:** 524.2  
**Calibration File:** 524 2-040504C-up1.mth  
**Analysis Date:** 04/14/2004  
**Analysis Time:** 12:47  
**Analyst:** conn  
**Results Submitted By:** conn  
**Run Number:** 64157

**Sample Quality Control**

Internal Standards <u>Parameter</u>	----- CCC -----					----- IC -----					
	<u>Area</u>	<u>CCC Area</u>	<u>% Resp</u>	<u>Area Limits Lwr</u>	<u>Area Limits Up</u>	<u>Pass / Fail</u>	<u>Avg Area</u>	<u>% Resp</u>	<u>Area Limits Lwr</u>	<u>Area Limits Up</u>	<u>Pass / Fail</u>
IS-1,4-Difluorobenzene	254872	263271	97	70	130	PASS	Not Found	N/A	N/A	N/A	N/A

Surrogate Standards <u>Parameter</u>	<u>Amount</u>	<u>Units</u>	<u>Target</u>	<u>%Rec</u>	<u>Limits</u>		<u>Pass/Fail</u>
					<u>Lower</u>	<u>Upper</u>	
SS-Toluene-d8	9.961	ug/L	10	100	70	130	PASS
SS-1,2-Dichlorobenzene-d4	9.352	ug/L	10	94	70	130	PASS
SS-Bromofluorobenzene	5.083	ug/L	5.0	102	70	130	PASS
SS-1,2-Dichloroethane-d4	10.487	ug/L	10	105	70	130	PASS

**Ordered Parameter Results**

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.5	0.5	ug/L
1,1,2,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.5	0.5	ug/L
1,1,2-Trichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethylene	< 0.5	0.5	ug/L
1,1-Dichloropropanone	< 5.0	5.0	ug/L
1,1-Dichloropropylene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,3-Trichloropropane	< 0.5	0.5	ug/L
1,2,3-Trimethylbenzene	< 0.5	0.5	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,4-Trimethylbenzene	< 0.5	0.5	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	< 0.2	0.2	ug/L
1,2-Dibromoethane (EDB)	< 0.2	0.2	ug/L
1,2-Dichlorobenzene	< 0.5	0.5	ug/L
1,2-Dichloroethane	< 0.5	0.5	ug/L
1,2-Dichloropropane	< 0.5	0.5	ug/L
1,2-Xylene	< 0.5	0.5	ug/L
1,3,5-Trimethylbenzene	< 0.5	0.5	ug/L
1,3-Dichlorobenzene	< 0.5	0.5	ug/L

1,3-Dichloropropane	< 0.5	0.5	ug/L
1,3-Xylene	< 0.5	0.5	ug/L
1,4-Dichlorobenzene	< 0.5	0.5	ug/L
1,4-Xylene	< 0.5	0.5	ug/L
1-Chlorobutane	< 5.0	5.0	ug/L
2,2-Dichloropropane	< 0.5	0.5	ug/L
2-Butanone (MEK)	< 5.0	5.0	ug/L
2-Chlorotoluene	< 0.5	0.5	ug/L
2-Hexanone	< 5.0	5.0	ug/L
2-Nitropropane	< 2.0 R	2.0	ug/L
4-Chlorotoluene	< 0.5	0.5	ug/L
4-Isopropyltoluene	< 0.5	0.5	ug/L
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	ug/L
Acetone	< 5.0	5.0	ug/L
Acrylonitrile	< 1.0	1.0	ug/L
Allyl chloride	< 5.0	5.0	ug/L
Benzene	< 0.5	0.5	ug/L
Bromobenzene	< 0.5	0.5	ug/L
Bromochloromethane	< 0.5	0.5	ug/L
Bromodichloromethane	< 0.5	0.5	ug/L
Bromoform	< 0.5	0.5	ug/L
Bromomethane	< 0.5	0.5	ug/L
Carbon disulfide	< 5.0	5.0	ug/L
Carbon tetrachloride	< 0.5	0.5	ug/L
Chloroacetonitrile	< 5.0 R	5.0	ug/L
Chlorobenzene	< 0.5	0.5	ug/L
Chloroethane	< 0.5	0.5	ug/L
Chloroform	< 0.5	0.5	ug/L
Chloromethane	< 0.5	0.5	ug/L
Dibromochloromethane	< 0.5	0.5	ug/L
Dibromomethane	< 0.5	0.5	ug/L
Dichlorodifluoromethane	< 0.5	0.5	ug/L
Dichloromethane	< 0.5	0.5	ug/L
Ethyl Ether	< 2.0	2.0	ug/L
Ethyl methacrylate	< 1.0	1.0	ug/L
Ethylbenzene	< 0.5	0.5	ug/L
Hexachlorobutadiene	< 0.5	0.5	ug/L
Hexachloroethane	< 2.0	2.0	ug/L
Isopropylbenzene	< 0.5	0.5	ug/L
Methacrylonitrile	< 5.0	5.0	ug/L
Methyl iodide	< 2.0	2.0	ug/L
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	ug/L
Methylacrylate	< 1.0	1.0	ug/L
Methylmethacrylate	< 1.0	1.0	ug/L
Naphthalene	< 0.5	0.5	ug/L
Nitrobenzene	< 5.0 R	5.0	ug/L
Pentachloroethane	< 2.0	2.0	ug/L
Propionitrile	< 5.0	5.0	ug/L
Styrene	< 0.5	0.5	ug/L
Tetrachloroethylene	< 0.5	0.5	ug/L
Tetrahydrofuran	< 5.0	5.0	ug/L
Toluene	< 0.5	0.5	ug/L
Trichloroethylene	< 0.5	0.5	ug/L
Trichlorofluoromethane	< 0.5	0.5	ug/L
Vinyl chloride	< 0.2	0.2	ug/L
Xylenes, Total	< 0.5	0.5	ug/L
cis-1,2-Dichloroethylene	< 0.5	0.5	ug/L
cis-1,3-Dichloropropylene	< 0.5	0.5	ug/L
n-Butylbenzene	< 0.5	0.5	ug/L

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n-Propylbenzene	< 0.5	0.5	ug/L
sec-Butylbenzene	< 0.5	0.5	ug/L
tert-Butylbenzene	< 0.5	0.5	ug/L
trans-1,2-Dichloroethylene	< 0.5	0.5	ug/L
trans-1,3-Dichloropropylene	< 0.5	0.5	ug/L
trans-1,4-Dichloro-2-butylene	< 5.0	5.0	ug/L

### Additional Found Parameters

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
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The symbol \* in the Amount column above indicates that the sample was re-analyzed for that parameter and the results are presented on another page.

**Environmental Health Laboratories  
Sample Result Record Sheet**

**Sample Matrix:** DW  
**Acquisition File:** Not Available  
**Data Directory:** 041404A  
**Instrument:** ITD - C  
**Extracted Date:** Not Available  
**Sample Number:** 1023136  
**Dilution Factor:** 1  
**Sample Site:** BAR-G-30900N-INFLOW  
**Sample Location:** Not Available

**Method:** 524.2  
**Calibration File:** 524 2-040504C-up1.mth  
**Analysis Date:** 04/14/2004  
**Analysis Time:** 13:23  
**Analyst:** conn  
**Results Submitted By:** conn  
**Run Number:** 64157

**Sample Quality Control**

Internal Standards <u>Parameter</u>	<u>Area</u>	----- CCC -----				----- IC -----					
		<u>CCC Area</u>	<u>% Resp</u>	<u>Area Limits Lwr</u>	<u>Area Limits Upr</u>	<u>Pass / Fail</u>	<u>IC Avg Area</u>	<u>% Resp</u>	<u>Area Limits Lwr</u>	<u>Area Limits Upr</u>	<u>Pass / Fail</u>
IS-1,4-Difluorobenzene	255332	263271	97	70	130	PASS	Not Found	N/A	N/A	N/A	N/A

Surrogate Standards <u>Parameter</u>	<u>Amount</u>	<u>Units</u>	<u>Target</u>	<u>%Rec</u>	<u>Limits</u>		<u>Pass/Fail</u>
					<u>Lower</u>	<u>Upper</u>	
SS-1,2-Dichlorobenzene-d4	9.509	ug/L	10	95	70	130	PASS
SS-1,2-Dichloroethane-d4	10.687	ug/L	10	107	70	130	PASS
SS-Bromofluorobenzene	4.965	ug/L	5.0	99	70	130	PASS
SS-Toluene-d8	10.125	ug/L	10	101	70	130	PASS

**Ordered Parameter Results**

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.5	0.5	ug/L
1,1,2,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.5	0.5	ug/L
1,1,2-Trichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethylene	< 0.5	0.5	ug/L
1,1-Dichloropropanone	< 5.0	5.0	ug/L
1,1-Dichloropropylene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,3-Trichloropropane	< 0.5	0.5	ug/L
1,2,3-Trimethylbenzene	< 0.5	0.5	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,4-Trimethylbenzene	< 0.5	0.5	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	< 0.2	0.2	ug/L
1,2-Dibromoethane (EDB)	< 0.2	0.2	ug/L
1,2-Dichlorobenzene	< 0.5	0.5	ug/L
1,2-Dichloroethane	< 0.5	0.5	ug/L
1,2-Dichloropropane	< 0.5	0.5	ug/L
1,2-Xylene	< 0.5	0.5	ug/L
1,3,5-Trimethylbenzene	< 0.5	0.5	ug/L
1,3-Dichlorobenzene	< 0.5	0.5	ug/L

1,3-Dichloropropane	< 0.5	0.5	ug/L
1,3-Xylene	< 0.5	0.5	ug/L
1,4-Dichlorobenzene	< 0.5	0.5	ug/L
1,4-Xylene	< 0.5	0.5	ug/L
1-Chlorobutane	< 5.0	5.0	ug/L
2,2-Dichloropropane	< 0.5	0.5	ug/L
2-Butanone (MEK)	< 5.0	5.0	ug/L
2-Chlorotoluene	< 0.5	0.5	ug/L
2-Hexanone	< 5.0	5.0	ug/L
2-Nitropropane	< 2.0	2.0	ug/L
4-Chlorotoluene	< 0.5	0.5	ug/L
4-Isopropyltoluene	< 0.5	0.5	ug/L
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	ug/L
Acetone	< 5.0	5.0	ug/L
Acrylonitrile	< 1.0	1.0	ug/L
Allyl chloride	< 5.0	5.0	ug/L
Benzene	< 0.5	0.5	ug/L
Bromobenzene	< 0.5	0.5	ug/L
Bromochloromethane	< 0.5	0.5	ug/L
Bromodichloromethane	< 0.5	0.5	ug/L
Bromoform	< 0.5	0.5	ug/L
Bromomethane	< 0.5	0.5	ug/L
Carbon disulfide	< 5.0	5.0	ug/L
Carbon tetrachloride	< 0.5	0.5	ug/L
Chloroacetonitrile	< 5.0	5.0	ug/L
Chlorobenzene	< 0.5	0.5	ug/L
Chloroethane	< 0.5	0.5	ug/L
Chloroform	< 0.5	0.5	ug/L
Chloromethane	< 0.5	0.5	ug/L
Dibromochloromethane	< 0.5	0.5	ug/L
Dibromomethane	< 0.5	0.5	ug/L
Dichlorodifluoromethane	< 0.5	0.5	ug/L
Dichloromethane	< 0.5	0.5	ug/L
Ethyl Ether	< 2.0	2.0	ug/L
Ethyl methacrylate	< 1.0	1.0	ug/L
Ethylbenzene	< 0.5	0.5	ug/L
Hexachlorobutadiene	< 0.5	0.5	ug/L
Hexachloroethane	< 2.0	2.0	ug/L
Isopropylbenzene	< 0.5	0.5	ug/L
Methacrylonitrile	< 5.0	5.0	ug/L
Methyl iodide	< 2.0	2.0	ug/L
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	ug/L
Methylacrylate	< 1.0	1.0	ug/L
Methylmethacrylate	< 1.0	1.0	ug/L
Naphthalene	< 0.5	0.5	ug/L
Nitrobenzene	< 5.0	5.0	ug/L
Pentachloroethane	< 2.0	2.0	ug/L
Propionitrile	< 5.0	5.0	ug/L
Styrene	< 0.5	0.5	ug/L
Tetrachloroethylene	< 0.5	0.5	ug/L
Tetrahydrofuran	< 5.0	5.0	ug/L
Toluene	< 0.5	0.5	ug/L
Trichloroethylene	< 0.5	0.5	ug/L
Trichlorofluoromethane	< 0.5	0.5	ug/L
Vinyl chloride	< 0.2	0.2	ug/L
Xylenes, Total	< 0.5	0.5	ug/L
cis-1,2-Dichloroethylene	< 0.5	0.5	ug/L
cis-1,3-Dichloropropylene	< 0.5	0.5	ug/L
n-Butylbenzene	< 0.5	0.5	ug/L

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n-Propylbenzene	< 0.5	0.5	ug/L
sec-Butylbenzene	< 0.5	0.5	ug/L
tert-Butylbenzene	< 0.5	0.5	ug/L
trans-1,2-Dichloroethylene	< 0.5	0.5	ug/L
trans-1,3-Dichloropropylene	< 0.5	0.5	ug/L
trans-1,4-Dichloro-2-butylene	< 5.0	5.0	ug/L

### Additional Found Parameters

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
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The symbol \* in the Amount column above indicates that the sample was re-analyzed for that parameter and the results are presented on another page.



**Environmental Health Laboratories  
Laboratory Trip Blank**

**Sample Matrix:** RW  
**Acquisition File:** Not Available  
**Data Directory:** 041404A  
**Instrument:** ITD - C  
**Extracted Date:** Not Available  
**Sample Number:** 1023137  
**Dilution Factor:** 1  
**Sample Site:** LTB  
**Sample Location:** Not Available

**Method:** 524.2  
**Calibration File:** 524 2-040504C-up1.mth  
**Analysis Date:** 04/14/2004  
**Analysis Time:** 12:10  
**Analyst:** conn  
**Results Submitted By:** conn  
**Run Number:** 64157

**Sample Quality Control**

Internal Standards <u>Parameter</u>	----- CCC -----				----- IC -----			
	<u>Area</u>	<u>CCC Area</u>	<u>% Resp</u>	<u>Area Limits Lwr Upr / Pass / Fail</u>	<u>IC Avg Area</u>	<u>% Resp</u>	<u>Area Limits Lwr Upr / Pass / Fail</u>	
IS-1,4-Difluorobenzene	247218	263271	94	70 130 PASS	Not Found	N/A	N/A N/A N/A	

Surrogate Standards <u>Parameter</u>	<u>Amount</u>	<u>Units</u>	<u>Target</u>	<u>%Rec</u>	<u>Limits</u>		<u>Pass/Fail</u>
					<u>Lower</u>	<u>Upper</u>	
SS-1,2-Dichlorobenzene-d4	9.015	ug/L	10	90	70	130	PASS
SS-1,2-Dichloroethane-d4	9.747	ug/L	10	97	70	130	PASS
SS-Bromofluorobenzene	4.844	ug/L	5.0	97	70	130	PASS
SS-Toluene-d8	10.024	ug/L	10	100	70	130	PASS

**Ordered Parameter Results**

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.5	0.5	ug/L
1,1,2,2-Tetrachloroethane	< 0.5	0.5	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.5	0.5	ug/L
1,1,2-Trichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethane	< 0.5	0.5	ug/L
1,1-Dichloroethylene	< 0.5	0.5	ug/L
1,1-Dichloropropanone	< 5.0	5.0	ug/L
1,1-Dichloropropylene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,3-Trichloropropane	< 0.5	0.5	ug/L
1,2,3-Trimethylbenzene	< 0.5	0.5	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,2,4-Trimethylbenzene	< 0.5	0.5	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	< 0.2	0.2	ug/L
1,2-Dibromoethane (EDB)	< 0.2	0.2	ug/L
1,2-Dichlorobenzene	< 0.5	0.5	ug/L
1,2-Dichloroethane	< 0.5	0.5	ug/L
1,2-Dichloropropane	< 0.5	0.5	ug/L
1,2-Xylene	< 0.5	0.5	ug/L
1,3,5-Trimethylbenzene	< 0.5	0.5	ug/L
1,3-Dichlorobenzene	< 0.5	0.5	ug/L

1,3-Dichloropropane	< 0.5	0.5	ug/L
1,3-Xylene	< 0.5	0.5	ug/L
1,4-Dichlorobenzene	< 0.5	0.5	ug/L
1,4-Xylene	< 0.5	0.5	ug/L
1-Chlorobutane	< 5.0	5.0	ug/L
2,2-Dichloropropane	< 0.5	0.5	ug/L
2-Butanone (MEK)	< 5.0	5.0	ug/L
2-Chlorotoluene	< 0.5	0.5	ug/L
2-Hexanone	< 5.0	5.0	ug/L
2-Nitropropane	< 2.0 R	2.0	ug/L
4-Chlorotoluene	< 0.5	0.5	ug/L
4-Isopropyltoluene	< 0.5	0.5	ug/L
4-Methyl-2-pentanone (MIBK)	< 2.0	2.0	ug/L
Acetone	< 5.0	5.0	ug/L
Acrylonitrile	< 1.0	1.0	ug/L
Allyl chloride	< 5.0	5.0	ug/L
Benzene	< 0.5	0.5	ug/L
Bromobenzene	< 0.5	0.5	ug/L
Bromochloromethane	< 0.5	0.5	ug/L
Bromodichloromethane	< 0.5	0.5	ug/L
Bromoform	< 0.5	0.5	ug/L
Bromomethane	< 0.5	0.5	ug/L
Carbon disulfide	< 5.0	5.0	ug/L
Carbon tetrachloride	< 0.5	0.5	ug/L
Chloroacetonitrile	< 5.0 R	5.0	ug/L
Chlorobenzene	< 0.5	0.5	ug/L
Chloroethane	< 0.5	0.5	ug/L
Chloroform	< 0.5	0.5	ug/L
Chloromethane	< 0.5	0.5	ug/L
Dibromochloromethane	< 0.5	0.5	ug/L
Dibromomethane	< 0.5	0.5	ug/L
Dichlorodifluoromethane	< 0.5	0.5	ug/L
Dichloromethane	< 0.5	0.5	ug/L
Ethyl Ether	< 2.0	2.0	ug/L
Ethyl methacrylate	< 1.0	1.0	ug/L
Ethylbenzene	< 0.5	0.5	ug/L
Hexachlorobutadiene	< 0.5	0.5	ug/L
Hexachloroethane	< 2.0	2.0	ug/L
Isopropylbenzene	< 0.5	0.5	ug/L
Methacrylonitrile	< 5.0	5.0	ug/L
Methyl iodide	< 2.0	2.0	ug/L
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	ug/L
Methylacrylate	< 1.0	1.0	ug/L
Methylmethacrylate	< 1.0	1.0	ug/L
Naphthalene	< 0.5	0.5	ug/L
Nitrobenzene	< 5.0 R	5.0	ug/L
Pentachloroethane	< 2.0	2.0	ug/L
Propionitrile	< 5.0	5.0	ug/L
Styrene	< 0.5	0.5	ug/L
Tetrachloroethylene	< 0.5	0.5	ug/L
Tetrahydrofuran	< 5.0	5.0	ug/L
Toluene	< 0.5	0.5	ug/L
Trichloroethylene	< 0.5	0.5	ug/L
Trichlorofluoromethane	< 0.5	0.5	ug/L
Vinyl chloride	< 0.2	0.2	ug/L
Xylenes, Total	< 0.5	0.5	ug/L
cis-1,2-Dichloroethylene	< 0.5	0.5	ug/L
cis-1,3-Dichloropropylene	< 0.5	0.5	ug/L
n-Butylbenzene	< 0.5	0.5	ug/L

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n-Propylbenzene	< 0.5	0.5	ug/L
sec-Butylbenzene	< 0.5	0.5	ug/L
tert-Butylbenzene	< 0.5	0.5	ug/L
trans-1,2-Dichloroethylene	< 0.5	0.5	ug/L
trans-1,3-Dichloropropylene	< 0.5	0.5	ug/L
trans-1,4-Dichloro-2-butylene	< 5.0	5.0	ug/L

### Additional Found Parameters

<u>Parameter</u>	<u>Amount</u>	<u>MRL</u>	<u>Units</u>
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The symbol \* in the Amount column above indicates that the sample was re-analyzed for that parameter and the results are presented on another page.