DRAFT

REMEDIAL INVESTIGATION REPORT
FOR
PORT WASHINGTON LANDFILL

Town of North Hempstead
Nassau County, New York

APPENDICES - VOLUME III

EPA Contract No. 68-01-6939
Work Assignment No. 113-2L78
Document Control No. 213-RI1-RT-GWQM

Prepared for:

U.S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10278

Prepared by:

Camp Dresser & McKee Inc.

March 1989

This document has been prepared for the U.S. Environmental Protection Agency under contract No. 68-01-6939. The material contained herein is n to be disclosed to, discussed with, or made available to any person or persons for any reason without the prior express approval of a responsibl official of the U.S. Environmental Protection Agency.

WAS 002 0001

381855

APPENDIX G

AS-BUILT DRAWINGS FOR EPA LANDFILL GAS WELLS

APPENDIX G

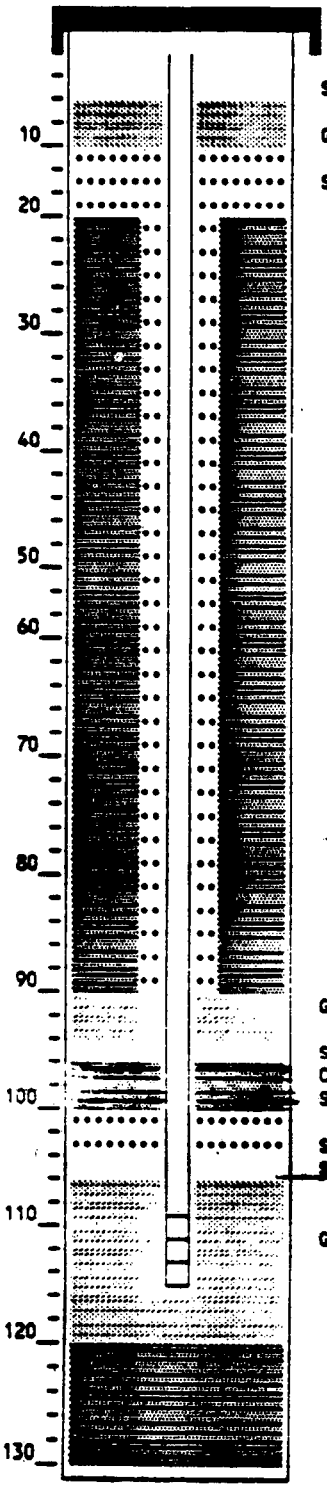
AS-BUILT DRAWINGS FOR EPA LANDFILL GAS WELLS

WAS 002 0003

Camp Dresser and McKee

LANDFILL GAS WELL CONSTRUCTION SUMMARY

Project: Port Washington Client: U.S.E.P.A. Well No: EPA 201



DRILLING SUMMARY

Drilling Company: Hydro Group Drillers: Larry Williams

Drill Rig Make/Model: Cyclone - Hollow Stem Auger

Bit Diameter: 8-inch

Total Depth: 130-feet

Supervisory Geologists: Jeanne Martin

WELL DESIGN

Probe Material: Teflon Tubing Diameter: 0.5-inch

Probe Setting: 110 - 115-feet B.G. Length: 115-feet

Filter Material: 0.25 x 0.5-inch gravel

Seals Material: Pure Wyoming Bentonite and Cement mixture

Surface Casing Material: 17-inch x 30-inch Flush Mounted Valve Box

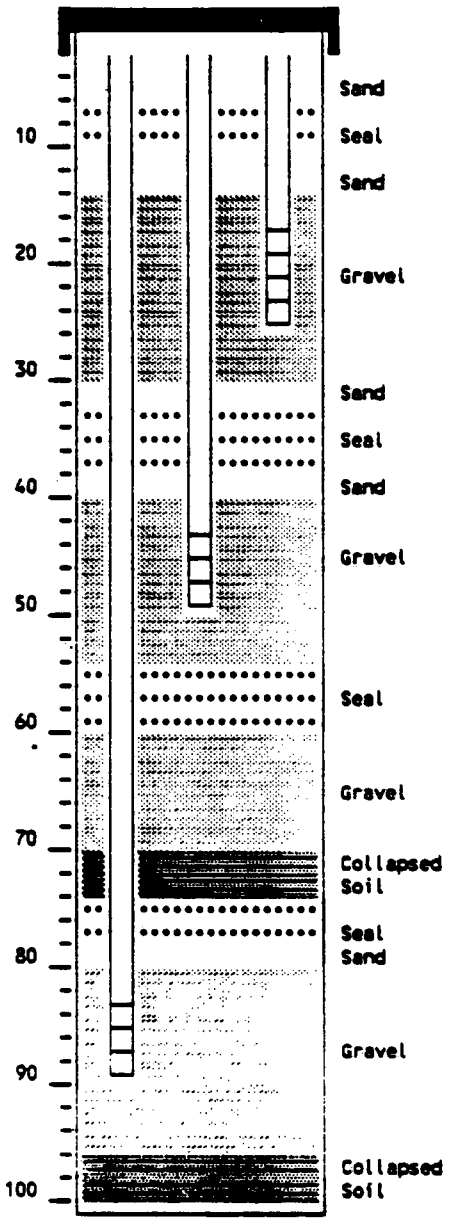
TIME LOG	Started	Completed
Drilling:	9/28/87	9/30/87
Installation:	10/7/87	10/7/87

WAS 002 0004

Camp Dresser and McKee

LANDFILL GAS WELL CONSTRUCTION SUMMARY

Project: Port Washington Client: U.S.E.P.A. Well No: EPA 201



DRILLING SUMMARY

Drilling Company: Hydro Group Drillers: Larry Williams

Drill Rig Make/Model: Cyclone - Hollow Stem Auger

Bit Diameter: 8-inch

Total Depth: 100-feet

Supervisory Geologists: Jeanne Martin

WELL DESIGN

Probe Material: Teflon Tubing Diameter: 0.5-inch

Probe Setting: 18 to 23-feet, 45 to 50-feet, 85 to 90-feet below grade

Filter Material: 0.25 x 0.5-inch gravel

Seals Material: Pure Wyoming Bentonite and Cement mixture

Surface Casing Material: 17-inch x 30-inch Flush Mounted Valve Box

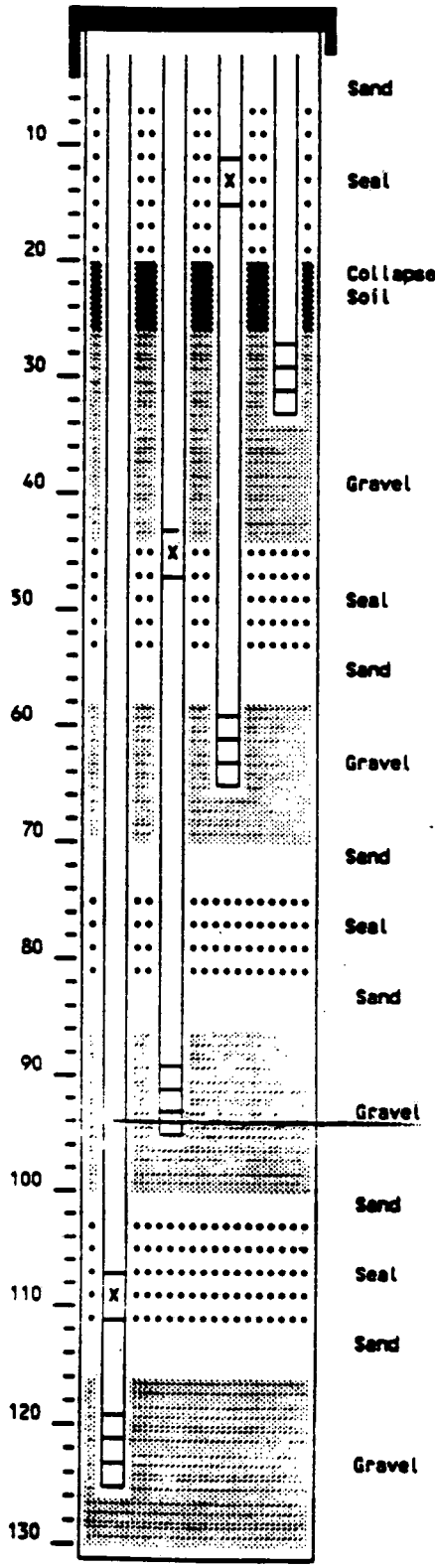
TIME LOG	Started	Completed
Drilling:	9/28/87	9/30/87
Installation:	10/10/87	10/12/87

WAS 002 0005

Camp Dresser and McKee

LANDFILL GAS WELL CONSTRUCTION SUMMARY

Project: Port Washington Client: U.S.E.P.A. Well No: EPA 202



DRILLING SUMMARY

Drilling Company: Hydro Group Drillers: Peter Reilly

Drill Rig Make/Model: Cyclone - Hollow Stem Auger

Bit Diameter: 8-inch

Total Depth: 130-feet

Supervisory Geologists: Jeanne Martin

WELL DESIGN

Probe Material: Teflon Tubing Diameter: 0.5-inch

Probe Settings: 120 - 125-feet, 90 - 95-feet, 60 - 65-feet, 29 - 34-feet B.G.

Filter Material: .25 x 0.5-inch gravel

Seals Material: Pure Wyoming Bentonite and Cement mixture

Surface Casing Material: 17-inch x 30-inch Flush Mounted Valve Box

TIME LOG	Started	Completed
Drilling:	10/21/87	10/22/87
Installation:	10/26/87	10/28/87

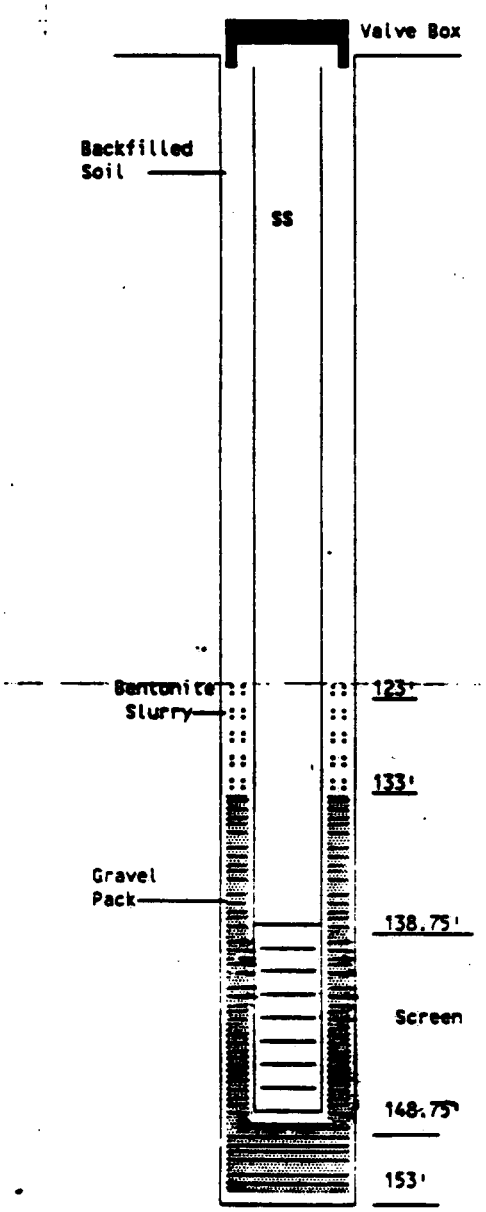
Note: X- 316 S.S. Swagelock Coupling

WAS 002 0006

Camp Dresser and McKee

WELL CONSTRUCTION SUMMARY

Project: Port Washington Client: EPA Well No: EPA 202



DRILLING SUMMARY

Drilling Company: Hydro Group Drillers: P. Reilly, M. Roberts,

Drill Rig Make/Model: Cyclone Hollow Stem Auger

Bit Diameters and Depths 8"/153 feet

Total Depth: 153 feet Depth to Water: 129.35'

Supervisory Geologists: J. Martin, K. Smith

WELL DESIGN

Casing Material: 304 SS Sch 5 Diameter: 2" Length: 138.75'

Screen Material: 304 SS Diameter: 2" Length: 10'

Slot Size: 0.020-inch Setting: 138.75' to 148.75'

Filter Material: Morie # 1 Setting: 133' to 151'

Seals Material: Bentonite Slurry Setting: 123' to 133'

Surface Casing Material: valve box

TIME LOG	Started	Completed
Drilling:	10/21/87	10/23/87
Installation:	10/23/87	10/24/87

WELL DEVELOPMENT

Method: Bailing

Static Depth to Water: 129.35 feet

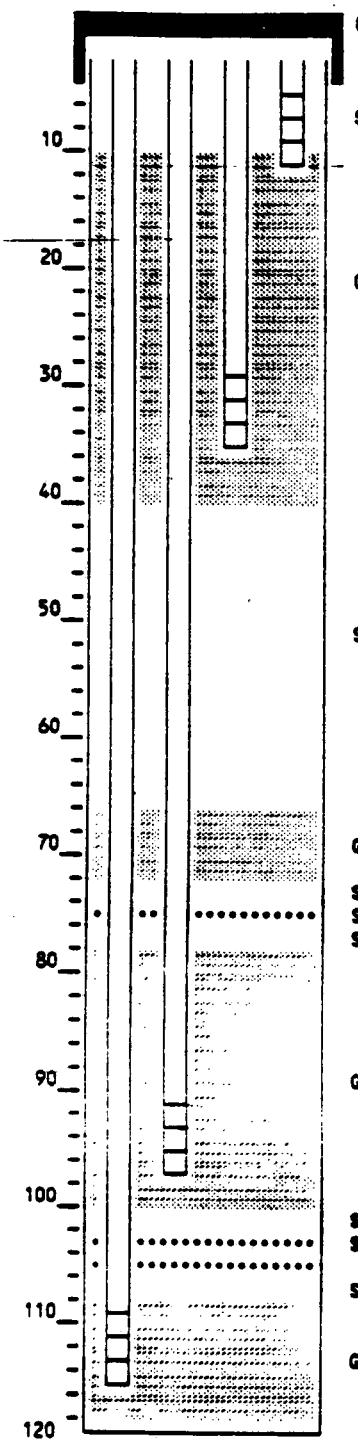
Volume Removed: 8 gallons

WAS 002 0007

Camp Dresser and McKee

LANDFILL GAS WELL CONSTRUCTION SUMMARY

Project: Port Washington Client: U.S.E.P.A. Well No: EPA 203



DRILLING SUMMARY

Drilling Company: Hydro Group Drillers: Dan Worship

Drill Rig Make/Model: Gus Peck Brat 22R

Bit Diameter: 8-inch

Total Depth: 120-feet

Supervisory Geologists: Eric Weinstock

WELL DESIGN

Probe Material: Teflon Tubing Diameter: 0.5-inch

Probe Settings: 5.5-10.5-feet, 29.5-34.5-feet, 92-97-feet, 110-115-feet B.G.

Filter Material: .25 x 0.5-inch gravel

Seals Material: Pure Wyoming Bentonite and Cement mixture

Surface Casing Material: 17-inch x 30-inch Flush Mounted Valve Box

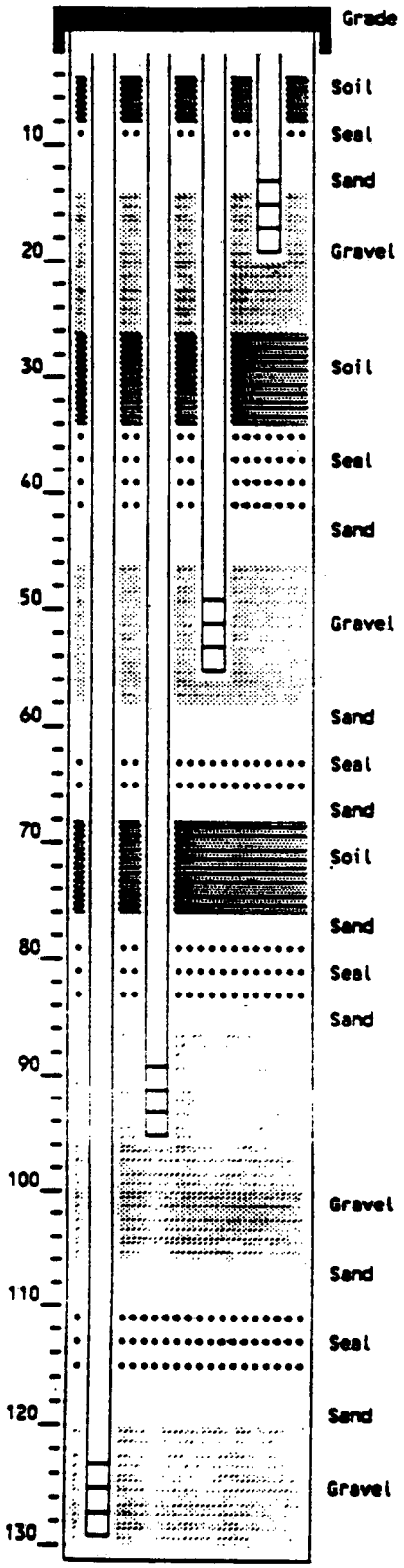
TIME LOG	Started	Completed
Drilling:	4/20/87	4/22/87
Installation:	4/28/87	4/30/87

WAS 002 0008

Camp Dresser and McKee

LANDFILL GAS WELL CONSTRUCTION SUMMARY

Project: Port Washington Client: U.S.E.P.A. Well No: EPA 204



DRILLING SUMMARY

Drilling Company: Hydro Group Drillers: Larry Williams

Drill Rig Make/Model: Cyclone - Hollow Stem Auger

Bit Diameter: 8-inch

Total Depth: 130-feet

Supervisory Geologists: Jeanne Martin

WELL DESIGN

Probe Material: Teflon Tubing Diameter: 0.5-inch

Probe Settings: 124 - 129-feet, 90 - 95-feet, 50 - 55-feet, 15 - 20-feet

Filter Material: .25 x 0.5-inch gravel

Seals Material: Pure Wyoming Bentonite and Cement mixture

Surface Casing Material: 17-inch x 30-inch Flush Mounted Valve Box

TIME LOG	Started	Completed
Drilling:	8/5/87	8/5/87
Installation:	8/10/87	8/11/87

WPS 002 0009

APPENDIX H

BORING LOGS FOR EPA GROUND WATER MONITORING WELLS

WAS 002 0010

APPENDIX H

BORING LOGS FOR EPA GROUND WATER MONITORING WELLS

CDM-Log of Boring Inspector C. Moran Boring Number 101 Page 1 of 1

Project Port Washington Location Nassau Co. Job No. 7777-213-R11 Date Drilled 9-18-87 Total Depth 42 ft.

Drilling Co. Hydrogroup Method Used Hollow Stem Auger Org. Vapor Instrmts. Used OVA

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA (ppm)	Sample Description	Strata Change	Remarks
						SP- Light brown fine Sand		
5						GW- Light brown well graded Gravel and fine Sand	5	
10						SP- Orange-brown fine and medium Sand	10	
						SP- Orange-brown fine and medium Sand with clay		
15							15	
	1	27/24"	16 to 18	24"/24"	0.5	GP- White and yellow sandy, fine Gravel with small percentage of silt as matrix; 1-inch stringer of tan clay in spoon		
20							20	
						SC- Clayey fine Sand		
25						(grades sandier)	25	
30						SC- Light gray, clayey, fine Sand	30	
	2	33/24"	30 to 32	24"/18"	0.2			
35							35	
40						CL- Brown, dry Clay, with mica	40	Total depth 42-feet
	3	75/24"	40 to 42	24" / 24"	ND			Drilling completed 9/18/87
45							45	
50							50	
55							55	
60							60	
65							65	

WAS 002 0012

CDM-Log of Boring Inspector E. Weinstock Boring Number 102 Page 1 of 1

Project Port Washington Location Nassau Co. Job No. 7777-213-R11 Date Drilled 6/12/87-6/15/87 Total Depth 50 ft

Drilling Co. Hydrogroup Method Used Mud Rotary (Gus Peck Brot 22 R) Org. Vapor Instrmts. Used HNu

Depth (ft)	Sample No.	Blow Counts	Sampl. Intvl.	Adv/Rec	HNu (ppm)	Sample Description	Strata Change	Remarks
5						GC- Clayey-Sand and Gravel fill with pieces of wood and asphalt	5	fill material
10							10	old grassline
15							15	Upper Glacial Formation
20	1	200/24"	18 to 20	24"/20"	ND	SC- Gray, sandy Clay with interbedded layers of gray Clay and clean quartz Sand	20	
25							25	
30							30	
35	2	125/18"	33 to 34.5	18"/12"	0.2	SC- Brown and gray, slightly clayey fine quartz Sand	35	
40							40	Cuttings grade more clayey below 40-feet
45							45	
50	3	177/24"	48 to 50	24"/18"	0.1	SC- Gray, medium Sand with bands of gray clay with brown varves	50	Total Depth 50-feet Drilling completed 6/15/87
55							55	
60							60	
65							65	

WAS 002 0013

CDM-Log of Boring Inspector E. Weinstock/ H. Andolsek Boring Number 103 Page 1 of 1

Project Port Washington Location Nassau Co. Job No. 7777-213-R11 Date Drilled 5/26/87-6/1/87 Total Depth 50 ft

Drilling Co. Hydrogroup Method Used Mud Rotary (Gus Peck Brat 22 R) Org. Vapor Instrmts. Used OVA/HNu Sentor

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
5						Fill material consisting of wood, concrete, asphalt, and brown sand		Fill material
10								
15	1	64/24"	13 to 15	24"/4"	NA			
20								Upper Glacial Formation
25								Fluid loss between 20 and 26-feet
30	2	80/24"	28 to 30	24"/6"	NA	SP- Brown, poorly-graded, medium Sand with fine Sand and a small percentage of Clay		
35	3	195/24"	33 to 35	24"/10"	NA			
40						(grading clayey)		
45								
50	4	136/24"	48 to 50	24"/12"	OVA 5.0	CH- Gray to white, slightly plastic Clay with a minor percentage of fine Sand		Total D 50-fe
55								Drillin complet 6/1/8
60								
65						NA- No reading obtained		

WAS 002 0014

CDM-Log of Boring Inspector M. Andolsek Boring Number 104 Page 1 of 3

Project Port Washington Location Nassau Co. Job No. 7777-213-R11 Date Drilled 3/4/87-3/10/87 Total Depth 196ft

Drilling Co. Hydrogroup Method Used Mud Rotary (Gus Peck Brat 22 R) Org. Vapor Instrmts. Used OVA/HNu

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
5								Upper Glacial Formation
10						SM- Olive, sandy Silt with some coarse Sand and little Clay		
15	1	36/24"	14 to 16	24"/16"	3.5/ND			12:15
20								13:55 3/4/87
25	2	96/18"	20 to 22	18"/15"	NA	SW- Brown, well-graded, fine, medium and coarse Sand with trace of Gravel and Clay		3/5/87 (lab sample)
30								
35	3	48/24"	29 to 31	24"/6"	1.0/ND	SW- Brown, well-graded fine and medium Sand with little coarse Sand and trace of Gravel and Clay		08:55
40								
45								
50	4	64/24"	49 to 51	24"/6"	NA	SW- Brown and tan, well-graded, fine and medium Sand with little coarse Sand and trace Gravel		13:15 (lab sample)
55	5	56/24"	51 to 53	24"/6"	NA			
60	6	36/24"	59 to 61	24"/14"	1.2/ND			14:20 3/5/87 3/6/87
65						NA- No reading obtained		

WAS 002 0015

CDM-Log of Boring — Boring Number 104 — Page 2 of 3

Depth (ft)	Sample No.	Blow Counts	Sampl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
70								08:45
	7	54/24"	74 to 76	24"/19"	1.5/0.0			
75								09:45
80								
85								
	8	57/24"	89 to 91	24"/12"	0.3/0.0	SP- Orange and brown, poorly-graded, fine and medium Sand		
90								
95								
	9	82/24"	99 to 101	24"/16"	NA	SP- Brown, poorly-graded, fine and medium Sand with trace of Gravel and Clay		11:05 varves
100								13:20 (lab sample)
	10	51/24"	104 to 106	24"/19"	1.5/1.0	SP- Brown, poorly-graded, fine and medium Sand with trace of coarse Sand		
105								
110								
115								
	11	60/24"	119 to 121	24"/13"	2.0/1.0	SW- Brown, well-graded, fine to coarse Sand with a small percentage of Gravel		13:50
120								3/6/ 3/9/
125								
130								
	12	80/24"	134 to 136	24"/20"	3.5/0.0	SW- Brown, well-graded, fine-coarse Sand with a small percentage of Gravel		09:1
135						NA- No reading obtained		

WAS 002 0016

CDM-Log of Boring — Boring Number 104 — Page 3 of 3

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
140								
145								
	13	94/24"	149 to 151	24"/23"	2.0/0.0	SP- brown, poorly-graded, fine and medium Sand		10:40 (lab sample)
150								
155								
160								
165								
	14	123/24"	166 to 168	24"/16"	6.5/0.0	SP- Tan, poorly-graded, medium Sand with trace of fine Sand and Clay		12:50
170								
175								13:35
	15	96/24"	179 to 181	24"/18"	4.0/0.0	SP- Tan, mottled, poorly-graded, fine Sand with little Clay and trace of coarse Sand		
180								14:10
	16	83/24"	184 to 186	24"/12"	9.5/0.0	SP- Tan, poorly-graded, fine Sand with trace of Clay		
185								
190								
	17	92/24"	189 to 191	24"/17"	26.5 / 0.0	SW- Tan, well-graded, medium and fine Sand with little coarse Sand and trace of Gravel		
195								Total De 196-fee
200								Drilling completed 3/9/87
205						NA- No reading obtained		

WAS 002 0017

CDM-Log of Boring Inspector M. Andolsek Boring Number 105 Page 1 of 3

Project Port Washington Location Nassau Co. Job No. 7777-213-R11 Date Drilled 2/4/87-2/26/87 Total Depth 196 ft

Drilling Co. Hydrogroup Method Used Mud Rotary (Gus Peck Brat 22 R) Org. Vapor Instrmts. Used OVA/HNu

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
5								Upper Glacial Formation
10								
15	1	38/24"	10 to 12	24"/17"	NA/0.2	SC- Tan, clayey, medium and fine Sand with a small percentage of fine Gravel		14:25
20								
25	2	22/24"	20 to 22	24"/17"	NA/1.5	SP- Tan, poorly-graded, fine Sand with a small percentage of Clay and fine Gravel		15:00 2/4/87 2/5/87
30								07:55
35	3	43/24"	30 to 32	24"/14"	NA/0.0	SP- Tan, poorly-graded, fine Sand with little Gravel and a small percentage of coarse sand		
40								
-5	4	38/24"	40 to 42	24"/19"	NA/0.2	SP- Light tan to gray, poorly-graded medium Sand with a small percentage of fine Gravel and Clay		
50								
55	5	62/24"	50 to 52	24"/18"	NA/0.0	GW- Well-graded, coarse and medium Sand and Gravel with a small percentage of Clay		2/
60	6	49/24"	58 to 60	24"/7"	NA/1.0	SW- Brown, well-graded, fine and medium Sand with a small percentage of Gravel and coarse Sand		08:5C
65						NA- No reading obtained		

WAS 002 0018

CDM-Log of Boring — Boring Number 105 — Page 2 of 3

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
70	7	32/24"	68 to 70	24"/5"	NA/0.0	GW- Brown, well-graded, fine-coarse Sand and fine Gravel with a small percentage of coarse Gravel	70	09:40
75	8	107/24"	73 to 75	24"/5"	NA/0.0	GW- Brown, well-graded, coarse Sand with fine and medium Gravel	75	11:50
80							80	
85							85	
90	9	59/24"	88 to 90	24"/8"	NA/0.0	SW- Brown, well-graded, fine to coarse Sand	90	14:10
95							95	
100	10	54/24"	98 to 100	24"/11"	NA/0.0		100	14:55 2/6/87 2/9/87
105							105	
110	11	73/24"	108 to 110	24"/10"	NA	SC- Orange and brown, clayey fine and medium Sand with a small percentage of medium Gravel	110	09:50
115							115	
120	12	46/24"	118 to 120	24"/12"	NA	SC- Orange and brown, clayey fine to coarse Sand	120	11:10 2/ 2/
125							125	
130	13	84/24"	128 to 130	24"/24"	5.1/0.0	SP- Orange and brown, poorly-graded medium and coarse Sand with little Clay and trace of fine Gravel	130	
135						NA- No reading obtained	135	

WAS 002 0019

CDM-Log of Boring — Boring Number 105 — Page 3 of 3

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
140	14	70/24"	138 to 140	24"/20"	2.0/0.8	SP- Brown, poorly-graded, dry medium Sand with small percentage of gravel and coarse and fine Sand		14:05
145								
150	15	50/24"	148 to 150	24"/12"	0.5/0.0	SW- Brown, well-graded, fine to coarse Sand with a small percentage of Gravel		15:00
155								
160								
165	16	84/24"	163 to 165	24"/14"	1.2/0.0	SP- Brown, poorly-graded, fine and medium Sand		15:45
						SW- Orange-Brown well graded fine to coarse Sand with small percentage of gravel, very wet		<- Strata change at 164-feet Apparent water table
170								
175								
180	17	57/24"	178 to 180	24"/24"	1.2/0.0	SW- Orange and brown, well-graded, fine, medium, and coarse Sand		2/26/87 2/27/87
						CL- gray, plastic, stiff Clay		14:10
185	18	32/24"	183 to 185	24"/24"	0.0/0.0	CL- Gray, plastic, stiff Clay with little coarse Sand and trace of Gravel		Total depth 185-feet Drilling completed 2/27,
190								
195								
200								
205								

WAS 002 0020

CDM-Log of Boring Inspector E. Weinstock Boring Number 106 Page 1 of 3

Project Port Washington Location Nassau Co. Job No. 7777-213-R11 Date Drilled 12/23/86-2/11/87 Total Depth 208'

Drilling Co. Hydrogroup Method Used Mud Rotary/Hollow Stem Auger Org. Vapor Instrmts. Used OVA/HNu

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
5						GW-Brown, well-graded, Gravel and Sand mixture, mostly quartz gravel, rounded, 1/4" to 1"-diameter, and fine to coarse brown and tan quartz Sand with approximately 5 to 10-percent dark minerals	5	13:00
10							10	Rig chattering
15	1	40/12"	10 to 12	12"/12"	NA/0.0		5	14:00
20							20	"Upper glacial deposits"
25	2	70/24"	20 to 22	24"/18"	NA/0.0	SW- Brown, well-graded, Sand and Gravel mixture, fine to coarse quartz Sand with rounded quartz Gravel and approximately 5 to 10-percent clay	25	12/23/87 12/30/87 08:00 "perched water zone"
30							30	10:00
35	3	80/14"	30 to 31	14"/10"	NA/0.0	SW- Brown, well-graded, Sand and Gravel mixture, fine to coarse quartz Sand with rounded quartz Gravel (more clayey then above)	35	11:15
40							40	"Clay" at 40-41
45	4	150/24"	40 to 42	24"/12"	NA/0.0	SP- Light brown, poorly-graded, medium quartz Sand, subrounded grains, 5-percent quartz Gravel	45	
50							50	
55	5	80/18"	50 to 51	18"/12"	NA/0.0	(grades less gravelly)	55	15
60							60	12/ 12/
65	6	130/24"	60 to 62	24"/18"	NA/0.0	NA- No reading obtained	65	

WAS 002 0021

CDM-Log of Boring — Boring Number 106 — Page 2 of 3

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
70								
	7	100/24"	70 to 72	24"/24"	0.0/NA			
75								
80								10:00
	8	124/24"	80 to 82	24"/18"	0.0/NA	SW- Well-graded, fine to coarse, quartz Sand, with some fine Gravel and some Silt. Approx. 10-percent mica and dark minerals		
85						(grades gravelly)		
90								11:00
	9	175/24"	90 to 92	24"/24"	6.0/2.0	SP- Brown, poorly-graded, medium Sand, sub-rounded quartz grains 2 to 5-percent dark minerals		
95								
100								14:00
	10	140/24"	100 to 102	24"/24"	3.0/6.0			12/31/86
105						As above, grading slightly finer with a little Clay content		2/4/87
	11	200/24"	108 to 110	24"/6"	NA/0.4	SW- Reddish-brown, well-graded, clayey, fine to coarse Sand with some rounded Gravel (more clayey then sample at 100-ft)		
110								
115								2/4/87
	12	200/24"	118 to 120	24"/6"	1.0/0.3	GW- Brown, well-graded, sandy, clayey, Gravel. Rounded to angular quartz gravel and fine to coarse Sand. Approx. 5 to 10-percent Clay		
120								
125								
130								
	13	150/24"	133 to 135	24"/14"	7.0/0.0	SC- Light brown, clayey Sand, fine to medium quartz Sand with approx. 20-percent Clay		
135						NA- No reading obtained		12:00

WAS 002 0022

CDM-Log of Boring — Boring Number 106 — Page 3 of 3

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
140								
	14	150/24"	143 to 145	24"/10"	30.0 /0.5			
145								
150								
	15	158/24"	153 to 155	24"/12"	20.0 /2.0	SC- Brown, very clayey Sand, fine to medium quartz Sand		
155								2/10/87 2/11/87
160								<-change in drilling speed
	16	300/10"	163 to 164	10"/8"	10.0 /1.0	SP- Light brown, poorly-graded, fine to medium quartz Sand		
165								
170								
	17	200/14"	178 to 179	24"/13"	15.0 /1.0	SP- Light brown, poorly-graded, fine to medium quartz Sand, little to no clay		<- Drills slow like clay
175								<-
								2/11/87 2/12/87
180								Upper Glacial Formation Wagothy Fm.
						(Sand grades micaceous)		178 to 208 is overdrilled at drillers request, logged from wash samples only, no cores
185								
						Lignite Seam		
190								
195								
200								Total d 208-fe
								Drillin complet 2/11/87
205								

WAS 002 0023

CDM-Log of Boring Inspector K. Gardner Boring Number 107 Page 1 of 2

Project Port Washington Location Nassau Co. Job No. 7777-213-R11 Date Drilled 5/11/87-5/13/87 Total Depth 148'

Drilling Co. Hydrogroup Method Used Mud Rotary Org. Vapor Instrmts. Used HNu

Depth (ft)	Sample No.	Blow Counts	Sampl. Intvl.	Adv/Rec	HNu (ppm)	Sample Description	Strata Change	Remarks
5						SC- Brown, clayey, gravelly Sand		See boring log for Well 111 for details of soil samples
10					0.0			14:50
15								
20								
25					0.0			
30					0.0			5/11/87 5/12/87 08:20 (Lab sample)
35	1	50/24" 55/24" 61/24" 70/24"	28 to 36	24"/6" 24"/6" 24"/2" 24"/6"	0.0	SW- Brown, well graded , fine to coarse Sand with some fine rounded Gravel and Clay		09:15
40								
45								
50	2	30/24"	48 to 50	24"/18"	0.0	CL- Gray, Clay, with pieces of shells included		10:20
55								
60								
65								

WAS 002 0024

CDM-Log of Boring — Boring Number 107 — Page 2 of 2

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	HNu (ppm)	Sample Description	Strata Change	Remarks
70								
					0.0	CL- Gray, Clay with pieces of shells		13:10
75								
					0.0			
80								
85		180/24"		24"/6"				
	3	120/24"	88	24"/6"	0.0	SP- Brown, poorly-graded medium Sand with some Gravel and trace of fine Sand		(lab sample)
		150/24"	to	24"/0"				
90		150/24"	96	24"/6"				
					0.0			
95								5/12/87 5/13/87
100								
105								
110								
115								
		160/24"		24"/2"				
		180/24"	114	24"/10"		SP- Brown, poorly-graded, medium Sand, with some fine Sand and little Gravel		
	4	130/24"	to	24"/6"	0.0			(lab sample)
120		110/24"	116	24"/5"				
		110/24"		24"/7"				
125						SW- Brown, well graded, fine to coarse sand		
130								Total depth 148 feet
								Drilling completed 5/13/87
135								

WAS 002 0025

CDM-Log of Boring Inspector J. Martin/C. Moran Boring Number 108 Page 1 of 2

Project Port Washington Location Nassau Co. Job No. 7777-213-811 Date Drilled 8/15/87-8/21/87 Total Depth 120'

Drilling Co. Hydrogroup Method Used Mud Rotary Org. Vapor Instrmts. Used HNu/OVA

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
5						Fill- chunks of wood and concrete		
10								
15	1	104/24"	14 to 18	48"/18"	NA/0.0 in hole			
20	1 (dup)	28/24"	18 to 20	24"/18"	NA/0.0 in sampler	SW- Tan, well-graded, primarily coarse and medium Sand with fine Gravel		First sample insufficient recovery 14-18' Duplicate sample 18-20'
25								Note: No cores taken from 20 to 100 feet. See Boring log 109 for these cores
30								
35					0.0/0.0			Color change drilling mud becoming oily water table (creosote? in water)
40								
45								Formation taking water mixing, thicker mud
50								
55								
60								
65						NA- No reading obtained		

WAS 002 0026

CDM-Log of Boring — Boring Number 108 — Page 2 of 2

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
70								8/18/87
75								
80								
85								
90								
95								
100								
105	3	127/24"	103.5 to 105.5	24"/14"	0.0/0.0	SW- clean, light-brown, well graded fine to course Sand with a small percentage of Clay		8/18/87 8/19/87
110								
115						(grades coarser, with Gravel)		Rig chattering 115-feet pieces of clay in wash
120	4	97/24"	118.5 to 120.5	24"/20"	3.0/NA	CL- light-brown to tan clay with some sand and silt		Total d 120-fe Drilli comple 8/19
125								
130								
135						NA- No reading obtained		

WAS 002 0027

CDM-Log of Boring Inspector C. Moran/E. Weinstock Boring Number 109 Page 1 of 5

Project Port Washington Location Nassau Co. Job No. 7777-213-R11 Date Drilled 6/29/87-7/14/87 Total Depth 295ft

Drilling Co. Hydrogroup Method Used Mud Rotary (Gus Peck Brat 22 R) Org. Vapor Instrmts. Used OVA/HNu

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
5						Fill material consisting of wood, concrete and soil		Top 20-feet of hole cased off with 10-inch casing
10								
15								Fill
20								Upper Glacial 7/6/87
25						SC- Brown to tan clayey Sand		
30	1	50/24"	28 to 30	24"/6"	NA/1.5	SP- Gray, poorly-graded, medium to fine Sand		
35								
40								
45	2	54/24"	43 to 45	24"/24"	NA/0.0	SC- Gray, clayey, fine Sand with trace medium Sand		7/7/87
50								
55								
60	3	86/24"	58 to 60	24"/18"	>1000 / 0.0	SP- Gray to light brown, fine Sand, with little Silt and trace Clay		(pieces wood in s
65						NA- No reading obtained		

WAS 002 0028

CDM-Log of Boring — Boring Number 109 — Page 2 of 5

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
70							70	
	4	140/24"	73 to 75	24"/8"	>1000 / NA	SP- Brown, poorly-graded, medium and coarse Sand		
75							75	
80							80	losing drilling mud
85							85	
	5	96/24"	88 to 90	24"/18"	8.0/NA	SP- Gray, poorly-graded Sand with streaks of red and little Silt		
90							90	<- (gravelly zone)
								losing drilling mud
95							95	<-
100							100	
	6	63/24"	103 to 105	24"/10"	6.0/NA	SW- Brown-red, well-graded Sand and fine Gravel		<- (gravelly zone)
105							105	<-
110							110	
115							115	
	7	87/24"	118 to 120	24"/12"	3.0/NA	As above, grades clayey		Upper Glacial
120							120	Magoth Formation
125						CL- Red to brown, sandy Clay	125	
130							130	
	8	118/24"	133 to 135	24"/18"	6.0/NA	SP- Red and brown, poorly-graded, clean fine Sand		7/7/87
135						NA- No reading obtained	135	7/8/87

WAS 002 0029

CDM-Log of Boring — Boring Number 109 — Page 3 of 5

Depth (ft)	Sample No.	Blow Counts	Sampl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
140								
145								
150	9	154/24"	148 to 150	24"/18"	1.0/NA	SP- Light-brown and tan, poorly-graded fine Sand		08:00
						(grades coarser)		
155								
160								
165	10	124/24"	163 to 165	24"/12"	0.0/NA	SP- Brown to red, poorly-graded medium Sand with some fine Sand		
170								
175								
180	11	110/24"	178 to 180	24"/12"	25.0 / NA	SW- Light brown, well-graded, fine and medium clean Sand with coarse Sand		08:30
185								Rig chattering
190								
195	12	87/24"	193 to 195	24"/20"	8.0/3.0	GP- Light brown, poorly-graded medium Gravel with coarse Sand		10:
200								
205						NA- No reading obtained		

WAS 002 0030

CDM-Log of Boring | Boring Number 109 | Page 4 of 5

Depth (ft)	Sample No.	Blow Counts	Sampl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
210	13	126/24"	208 to 210	24"/18"	5.0/NA	SC- Light brown, medium, sandy Clay	210	Clay in wash at 208-feet 10:30
215							215	Mud loss at 216-feet
220							220	
225	14	109/24"	223 to 225	24"/10"	8.0/0.0	SC- Light gray and light brown, fine Sand and Clay	225	
230							230	
235							235	Wash samples contain clay
240	15	125/24"	238 to 240	24"/12"	NA	SP- Tan, poorly-graded, medium Sand with little fine Sand and trace of Clay	240	Grades to gray
245							245	
250							250	
255	16	127/24"	253 to 255	24"/22"	1.0/NA	SC- Gray, fine Sand and Clay with trace medium Sand	255	
260							260	
265							265	Clay
270	17	95/24"	268 to 270	24"/12"	NA	SP- Gray, poorly-graded, fine Sand and trace of Clay	270	Magothy Raritan
275						NA- No reading obtained	275	

WAS 002 0031

CDM-Log of Boring — Boring Number 109 — Page 5 of 5

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
280								
	18	134/24"	285 to 287	24"/20"	0.0/0.0	CL- Gray, Clay with trace Silt		
285								
	19	117/24"	289 to 291	24"/12"	2.0/0.0	CL- Light gray and pink Clay with some fine Sand and little Silt		
290								
	20	Denison sample	293 to 295	24"/24"	NA			
295								Total depth 295-feet Drilling completed 7/14/87
300								
305								
310								
315								
320								
325								
330								
335								
340								
345						NA- No reading obtained		

WAS 002 0032

CDM-Log of Boring Inspector E. Weinstock Boring Number 110 Page 1 of 6

Project Port Washington Location Nassau Co. Job No. 7777-213-R11 Date Drilled 2/18/87-3/3/87 Total Depth 378'

Drilling Co. Hydrogroup Method Used Mud Rotary Org. Vapor Instrmts. Used OVA/HNu

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
5						SW/GW- Well-graded, coarse Sand and Gravel		Note: No cores taken for first 180-feet. See Boring log for well 106 for these cores.
10								Drilling very rough, rig chattering
15								
20								
25								
30								
35								
40								
45								
50								
55								
60								
65								

WAS 002 0033

CDM-Log of Boring — Boring Number 110 — Page 2 of 6

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
70								2/19/87
75						SW- Well-graded Sand		2/20/87
80								
85								
90								
95								
100								
105								2/20/87
110								2/23/87
115								
120								
125								
130						(grades clayey)		
135								

WAS 002 0034

CDM-Log of Boring — Boring Number 110 — Page 3 of 6

Depth (ft)	Sample No.	Blow Counts	Sampl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
140								
145								
150								
155								
160								
165								
170								
175								Upper Glacial Magothy Fm.
180								2/23/87 2/24/87
185	1	140/24"	180 to 182	24"/6"	25.0 / 1.0	SC- Brown, clayey, fine to medium quartz Sand		
190						(grades more clayey)		lenses of ... and whit ...ay in
195	2	130/24"	195 to 197	24"/8"	30.0 / 2.5	SC- Reddish-brown to white, clayey, fine to medium quartz Sand		
200								
205								

WAS 002 0035

CDM-Log of Boring — Boring Number 110 — Page 4 of 6

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
210	3	120/24"	210 to 212	24"/18"	0.5/0.0	SC- Light gray, very clayey, fine to medium quartz Sand	210	
215							215	Slow drilling, clay cuttings in wash
220							220	
225	4	124/24"	225 to 227	24"/12"	2.0/0.0	SC/CL- Light brown, very clayey, fine to medium quartz Sand (grades more clayey)	225	
230							230	
235							235	
240							240	2/24/87 2/25/87
245	5	200/24"	240 to 242	24"/6"	0.5/0.5	CL- Light gray to white, silty, sandy, and gravelly Clay. Contains 1/2-inch diameter rounded gravel	245	Rig chattering, possible gravel lense
250							250	
255							255	
260	6	250/24"	255 to 257	24"/8"	3.0/0.5	SW- Light brown to white, well-graded, fine to coarse Sand with some rounded Gravel. Predominantly quartz grains	260	Smoc ling
265							265	
270							270	Rig ch
275	7	235/24"	270 to 272	24"/6"	15.0 / 1	SW- Light-brown to white, well-graded, fine to coarse Sand with some rounded gravel. (grades more gravelly then above)	275	

WAS 002 0036

CDM-Log of Boring — Boring Number 110 — Page 5 of 6

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
280							280	
285							285	
290	8	236/24"	285 to 287	24"/15"	35.0 / 0.2	SW- Light tan to white, well-graded, fine to coarse quartz Sand with a trace of rounded quartz Gravel and Clay	290	16:10 Rig chattering
295							295	
300							300	
305	9	250/24"	300 to 302	24"/3"	10.5 / 2.0	SP- Light tan to white, poorly-graded, fine quartz Sand with trace Gravel, Clay and coarse Sand	305	17:30 Rough drilling 2/25/87 2/26/87
310						Layer of white sandy Clay	310	Smooth drilling
315							315	
320	10	310/24"	315 to 317	24"/12"	40.0 / 1.0	SM- White, poorly-graded, silty fine to medium quartz Sand	320	Rough drilling
325							325	
330							330	
335	11	180/24"	330 to 332	24"/18"	2.8/1.0	ML- Gray to white, stiff clayey Silt	335	Smoc oril cutt
340						GC- Clayey Gravel	340	Rougl clay in w
345							345	Wagothy Fm.

WAS 002 0037

CDM-Log of Boring — Boring Number 110 — Page 6 of 6

Depth (ft)	Sample No.	Blow Counts	Sampl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
350	12	150/24"	345 to 347	24"/12"	0.0/0.0			Raritan Clay
								2/27/87
								3/3/87
	13	Denison Barrel Sample	348 to 350	24"/24"	NA	CL- Dark gray to gray, very stiff Clay with lignite and tan layering		
355						(grades black)		
360								Some gravel at 360-feet
	14	220/24"	360 to 362	24"/24"	NA	(grades gray and slightly silty)		
365								
370								
	15	160/24"	375 to 377	24"/0"	Sample scraped off bit	(grades gravelly)		
375								
								Total depth 378-feet
380								Drilling completed 3/3/87
385								
390								
395								
400								
405								
410								
415						NA- No reading obtained		

WAS 002 0038

CDM-Log of Boring Inspector E. Weinstock/H. Angolsek Boring Number 111 Page 1 of 6

Project Port Washington Location Nassau Co. Job No. 7777-213-R11 Date Drilled 3/25/87-6/1/87 Total Depth 383'

Drilling Co. Hydrogroup Method Used Mud Rotary Org. Vapor Instrmts. Used OVA/HNu

Depth (ft)	Sample No.	Blow Counts	Sampl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
5						SC- Brown, clayey, gravelly, Sand		Upper Glacial, very gravelly
10								
15	1	45/24"	14 to 16	24"/18"	0.2/0.0			
20								
25								
30	2	45/24"	29 to 31	24"/6"	0.2/0.0	SW- Brown, well-graded, fine to coarse Sand with some fine rounded Gravel and Clay. Quartz grains		
35								<- Rig chattering, losing fluid (gravelly zone) <-
40								
45	3	40/24"	44 to 46	24"/12"	5.0/0.0			
50								
55								<- Clay cutti in wash at 54-feet 14:25
60	4	35/24"	59 to 61	24"/	1.0/0.0	CL- Gray, stiff, dry Clay with shells		
65								Shells in wash

WAS 002 0039

CDM-Log of Boring — Boring Number 111 — Page 2 of 6

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
70	S	60/24"	74 to 76	24"/24"	1.0/0.0	CL- Gray, stiff Clay	70	15:30
75							75	
80							80	
85							85	Drill Rig chattering
90	6	125/24"	89 to 91	29"/3"	1.0/0.0	SP- Brown, poorly graded, fine to medium Sand with a small percentage of Gravel and coarse Sand	90	
95							95	3/25/87 3/26/87
100							100	
105							105	
110	7	150/24"	104 to 106	24"/18"	10.0 / 0.0	As above, no gravel and a small percentage of Clay	110	
115							115	
120	8	115/24"	119 to 121	24"/12"	5.0/0.0	SP- Brown, poorly-graded, medium Sand with little fine Sand	120	
125							125	
130							130	
135	9	100/24"	134 to 136	24"/6"	15.0 / 0.0	SW- Brown, well-graded, fine to coarse Sand	135	

WAS 002 0040

CDM-Log of Boring — Boring Number 111 — Page 3 of 6

Depth (ft)	Sample No.	Blow Counts	Sampl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
140								
145								14:30
150								
	10	150/24"	149 to 151	24"/12"	10.0 / 0.0	SW- Brown, well-graded, fine to coarse Sand with little Gravel		
155								
160								15:25
165								
	11	100/24"	164 to 166	24"/8"	14.0 / 0.0	SW- Brown, well-graded, fine to coarse Sand		
170								
175								17:00
180								
	12	150/24"	179 to 18[illegible]	24"/8"	NA/0.0	SP- Brown, poorly-graded, medium and fine Sand		
185								
190								Clay in wa sandy
195								
	13	140/24"	194 to 196	24"/12"	NA/0.5	SP/SC- Reddish-brown to brown, poorly-graded, clayey, silty, fine Sand with trace of mica		3/2 3/2
200								Mica chi wash
205						NA- No reading obtained		losing fluid

WAS 002 0041

CDM-Log of Boring — Boring Number 111 — Page 4 of 6

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
210							210	
	14	110/24"	209 to 211	24"/12"	10.0 / 0.0	SW- Brown, well-graded, fine to coarse Sand with trace of fine Gravel		
215							215	
220							220	
225							225	
	15	175/24"	224 to 226	24"/9"	10.0 / 0.0	SP- Reddish-brown, poorly-graded, fine to medium quartz Sand		
230							230	
235							235	
	16	137/24"	234 to 241	24"/4"	NA/0.0	SP- Brown, fine to medium quartz Sand with some fine Gravel		<-Lignite and mica in wash
240							240	
245							245	
250							250	Upper Glacial
	17	110/24"	254 to 256	24"/6"	NA/5.0	CL- Gray, silty, sandy, Clay		Port Washington confining unit
255							255	3/27/87 3/30/87
						SC- Brown and gray, clayey fine Sand with trace of mica		
260							260	Lign... was...
265							265	
	18	40/24"	269 to 271	24"/12"	NA/NA	CL- Green-gray, silty Clay interbedded with seams of fine micaceous quartz Sand		Mica
270							270	
275							275	

WAS 002 0042

CDM-Log of Boring — Boring Number 111 — Page 5 of 6

Depth (ft)	Sample No.	Blow Counts	Sampl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
280								
	19	130/24"	284 to 286	24"/6"	4.0/0.0	CL- Gray, silty Clay interbedded with seams of fine brown quartz Sand		Lignite in wash
285								
290								
295								
	20	85/24"	299 to 301	24"/20"	0.0/0.0	CL- Gray, silty Clay interbedded with Silt and fine Sand		
300								
305								
310								Drill head jumping up and down
	21	80/24"	314 to 316	24"/6"	0.0/0.0	CL- Olive, stiff, plastic Clay		
315								
320								
325								Port Washington Confining Unit
	22	165/24"	329 to 331	24"/18"	5.0/5.0	SP- Gray-brown, poorly-graded, fine to medium, slightly clayey Sand		
330								
						CL- Gray, sandy Clay with inter-bedded seams of fine Sand and mica		
335								
340								Ligni wash
	23	135/24"	344 to 346	24"/24"	NA	CL- Olive, Clay with little brown Silt and fine Sand in seams		
345						NA- No reading obtained		

WAS 002 0043

3/31/87

CDM-Log of Boring — Boring Number 111 — Page 6 of 6

Depth (ft)	Sample No.	Blow Counts	Smpl. Intvl.	Adv/Rec	OVA/HNu (ppm)	Sample Description	Strata Change	Remarks
350								
355								
360								
365	24	91/24"	364 to 366	24"/24"	NA	CL- Olive, Clay		3/31/87 4/1/87
370						(grades gray)		
375								
380	25	125/24"	379 to 381	24"/18"	NA/0.5	CL- Gray, stiff, silty Clay		Total depth 383-feet
385								Drilling completed 4/1/87
390								
395								
400								
405								
410								
415						NA- No reading obtained		

WAS 002 0044

AMP DRESSER & McKEE CLIENT _____ JOB NO _____ COMPUTED BY _____
PROJECT _____ DATE CHECKED _____ DATE _____
DETAIL _____ CHECKED BY _____ PAGE NO _____

TEST DATE	WELL PUMPED	OBSERVATION WELL	MAX DRAWDOWN	DRAWDOWN(1)		RECOVERY(1)	
				T (ft^2/day)	S	T (ft^2/day)	S
2/88	9809	3742	3.25	13,000	0.01	20,000	0.01
		4223	2.75	26,000	0.002	20,000	0.001
		9019	2.64	13,000	0.003	17,000	0.0002
		8790	3.41		-	30,000	0.002
		105	1.44				
		106	0.76			120,000	0.004
		107	1.67			27,000	0.04
		110	0.80			74,000	0.005
		111	3.55	6,000	0.009	8,000	0.01
		5	0.57			100,000	0.004
		6	0.42			144,000	0.004
		9	0.67			87,000	0.004
		10	0.64			67,000	0.006
		1120	0.17				
		9903	0.06				
		202	0.07				
		104	0.62				
		102	0.01				
		108	0.15				
		2	0.20				
		1	0.06				
		103	0				
		11	0.26				
		7	0.13				
		8	0				
		5210	0.05				
		12	0.05				
		109	0.35				
		1716	1.64				
		8608	2.31				

(1) - WELL 9809 DRAWS FROM THE LLOYD AND THE UPPER AQUIFERS. TRUE VALUES OF T ARE THUS DIRECTLY PROPORTIONAL WITH THE FRACTION OF WATER DRAWN FROM EACH MONITORING WELL'S AQUIFER.

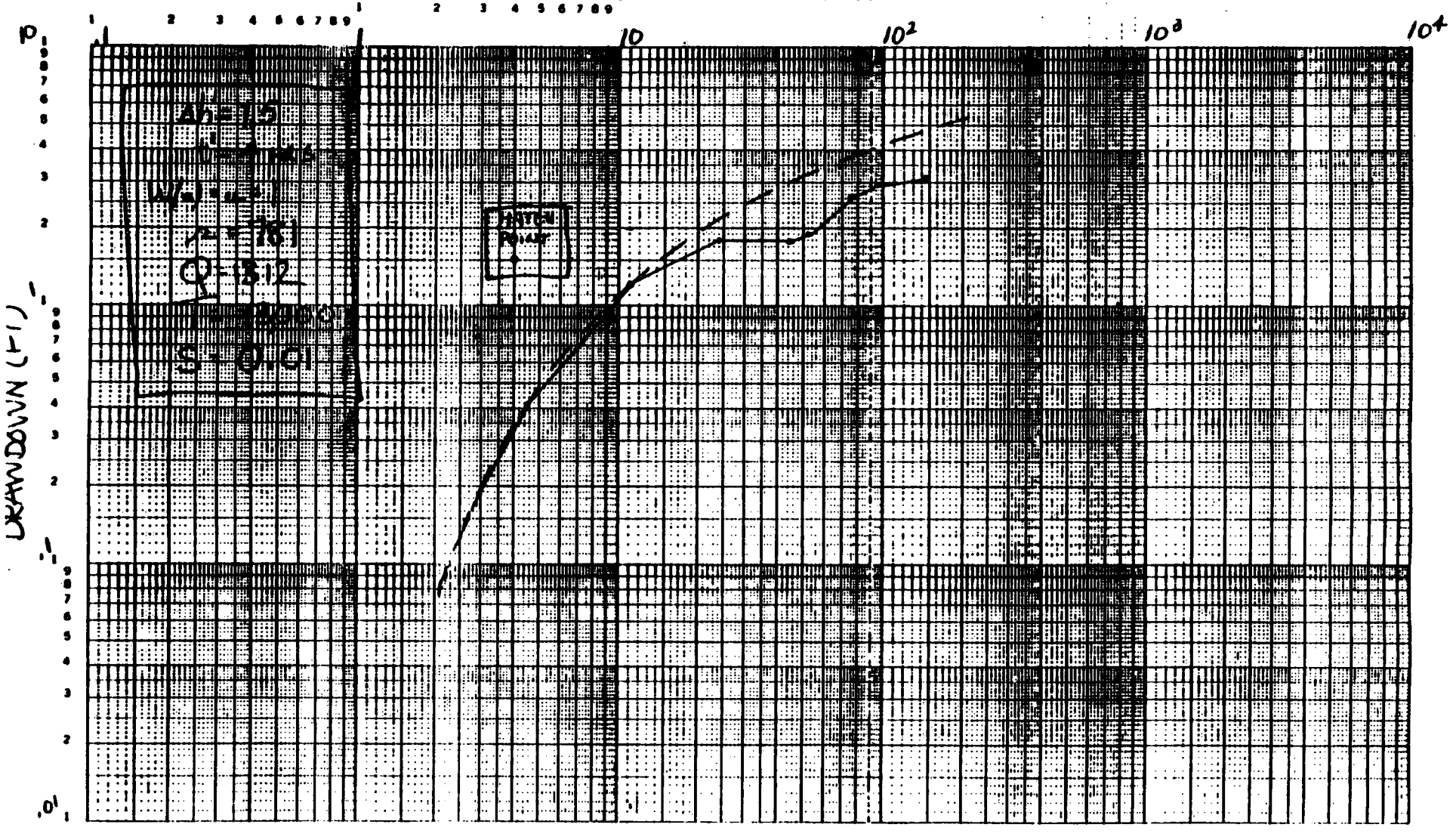
WAS 002 0045

K·E LOGARITHMIC 3 × 5 CYCLES
KEUFFEL & ESSER CO

46 7520

STONYTOWN PUMP TEST

2/88 WELL 3742



WAS 002 0046

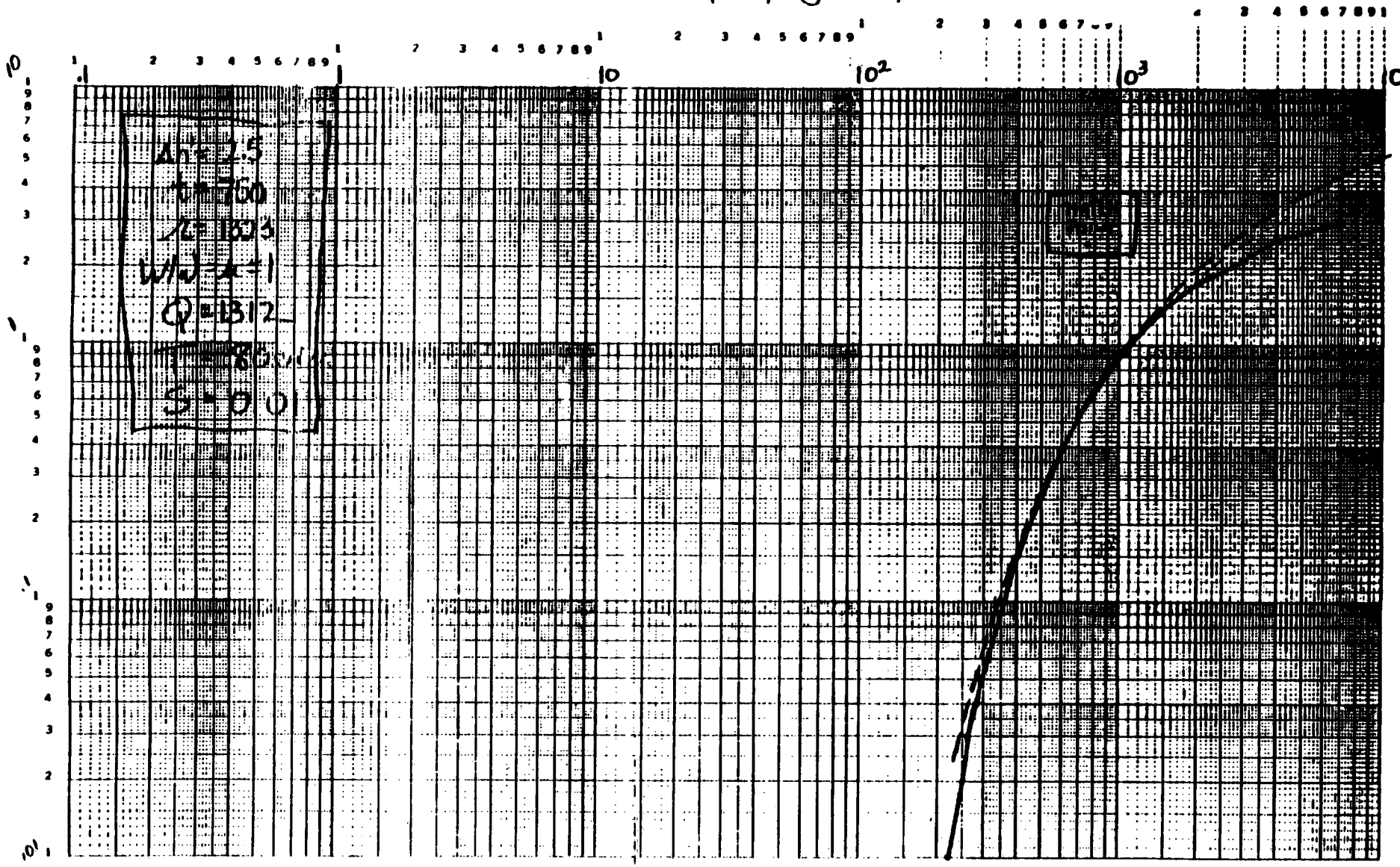
K·E LOGARITHMIC 3 x 3 CYCLES KEUFFEL & ESSER CO MADE IN U.S.A. 46 7520

STONYTOWN PUMP TEST RECOVERIES

2/88 WELL 111

time since pumping stopped

WAS 002 0047



APPENDIX I

LANDFILL GAS WELL RAW DATA SHEETS

WAS 002 0040

APPENDIX I

LANDFILL GAS WELL RAW DATA SHEETS

WAS 002 0049

LFG RAW DATA

ROUND 1

(DEC. 88)

w/ Sample Tracking Sheets

WAS 002 0050

NY

CDM

environmental engineers, scientists
planners & management consultants

Project: Port Washington
Job Number: 7777 213
Locations Sampled: Gas Sampling Fall 87
LFG 201, LFG 202, LFG 204,
TNH3

Sampling Team: Smith, Weinstock, Williams
From _____ to _____
Page 1 of 4

CHAIN-OF-CUSTODY
Sample Handling/Packing
Field Report Form

CANISTER# DEPTH SAMPLER#

Sample No./ Location	Date Sampled	Bottle Lot Number	Media Type	Organic Traffic Report No.	Inorganic Traffic Report No.	SAS	Case No.	Laboratory & Analysis	Fed X Air Bill No.	Date Shipped
213-GS-201-01	12/15/87	EPA/12-87/032	GAS	85-90		3485B-01		YORK LAOS VOA		
213-GS-201-02	"	EPA/12-87/001	"	110-115		3485B-02		"		
213-GS-201-DRun	"	EPA/12-87/040	"	110-115		3485B-03		"		
213-GS-202-01		EPA/12-87/034	"	60-65		3485B-04		"		
213-GS-202-02		EPA/12-87/033	"	90-95		3485B-05		"		
213-GS-202-03		EPA/12-87/011	"	120-125		3485B-06		"		
213-GS-204-01		EPA/12-87/036		50-55		3485B-07		"		
213-GS-204-02		EPA/12-87/035		90-95		3485B-08		"		
213-GS-204-03		EPA/12-87/007		124-129		3485B-09		"		
* 213-GS-TNH3-01		EPA/12-87/009		B		3485B-10		"		

* 13 Depths not sampled

WAS 002 0051

NY

CDM

environmental engineers, scientists, planners & management consultants

Project: Port Washington
Job Number: 7777-213
Locations Sampled: Gas Sampling Fall '87
TNH3, TNH4, TNH5, TNH7

Sampling Team: Smith, Weinstock, Williams

From _____ to _____
Page 2 of 4

CHAIN-OF-CUSTODY
Sample Handling/Packing
Field Report Form

Sample No./ Location	Date Sampled	Bottle Lot Number	Media Type	Organic Traffic Report No. (Depth)	Inorganic Traffic Report No. (Samples ±)	SAS	Case No.	Laboratory & Analysis	Fed X Air Bill No.	Date Shipped
213-GS-TNH3-02		EPA/12-87 010	GAS	C		34858 11		York Labs VOA		
213-GS-TNH4-01		EPA/12-87 017	"	A		34858 10		"		
213-GS-TNH4-02		EPA/12-87 013	"	B		34858 13		"		
213-GS-TNH5-03		EPA/12-87 018	"	C		34858 14		"		
213-GS-TNH5-01		EPA/12-87 037	"	A		34858 15		"		
213-GS-TNH5-02		EPA/12-87 039	"	B		34858 16		"		
213-GS-TNH5-03		EPA/12-87 038	"	C		34858 17		"		
213-GS-TNH7-01		EPA/12-87 012	"	A		34858 18		"		
213-GS-TNH7-02		EPA/12-87 002	"	B		34858 19		"		
213-GS-TNH7-03		EPA/12-87 003	"	C		34858 20		"		

WAS 002 0052

NY(

CDM

Project: PORT WASH
Job Number: 7777-213-RI-SISOL
Locations Sampled: LFG 203, TNH 1, TNH 2, TNH 6

Sampling Team: SMITH, WILLIAMS, WEENSTOCK, SIMPSON, HORN
From _____ to _____
Page 3 of 4

CHAIN-OF-CUSTODY
Sample Handling/Packing
Field Report Form

Sample No./ Location	Date Sampled	Canister Number	Media Type	Probe	Sampler #	SAS	Case No.	Laboratory & Analysis	Fed X Air Bill No.	Date Shipped
213-GS-TB-01		EPA/12-87 030	GAS	(TRIP BLANK)	———	3485B -21		YORK LABS VOA		
213-GS-203-01		EPA/12-87 015	"	92-97 ft.		3485B -22				12/22/87
213-GS-203-02		EPA/12-87 023	"	110-115		3485B -23				12/22/87
213-GS-TNH1-01		EPA/12-87 021	"	A		3485B -24				"
213-GS-TNH1-02		EPA/12-87 022	"	B		3485B -25				"
213-GS-TNH1-03		EPA/12-87 024	"	C		3485B -26				"
213-GS-TNH2-01		EPA/12-87 043	"	B		3485B -27				"
213-GS-TNH2-02		EPA/12-87 046	"	C		3485B -28				"
213-GS-TNH6-01		EPA/12-87 004		A		3485B -29				"
213-GS-[illegible]02		EPA/12-87 006		B		3485B -30				"

WAS 002 0053

NY(

CDM

environmental engineers, scientists, planners & management consultants

Project: PORT WASH
Job Number: 7777-213-RI-SISOL
Locations Sampled: TNH6

Sampling Team: SMITH, WILLIAMS, WEINSTOCK, SIMPSON, HORN
From ____ to ____
Page 4 of 4

CHAIN-OF-CUSTODY
Sample Handling/Packing
Field Report Form

Sample No./ Location	Date Sampled	Canister Number	Media Type	Probe	Sampler #	SAS	Case No.	Laboratory & Analysis	Fed X Air Bill No.	Date Shipped
213-GS-TNH6-03		EPA/12-87 016	GAS	C		3485B -31		YORK LABS VOA		"
213-GS-TNH6-04		EPA/12-87 008	"	C (DUPLICATE)		3485B -32				"
213-GS-TB-02		EPA/12-87 025	"	TRIP BLANK (FILLED W/ZERO AIR)		3485B -33				"
213-GS-FB-01		EPA/12-87 019	"	FIELD BLANK	502	3465B -34				"
213-GS-FB-02		EPA/12-87 029	"	FIELD BLANK	504	3465B -35				"

WAS 002 0054

213-RI-SN-GFKV-1

RECORD OF COMMUNICATION

☐ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE
☐ OTHER (SPECIFY)

(Record of item checked above)

TO:	FROM:	DATE
Lena Lazarus	Gayatri Mehta	2/17/88
		TIME 10:20 a.m.

SUBJECT: CLP Organic Data Packages for Quality Assurance Review

SUMMARY OF COMMUNICATION

The following data package is being brought over for review by MMB:

SITE	CASE #/ SAS #	LABORATORY	ANALYSIS/ MATRIX	NUMBER OF SAMPLES	BLANK NUMBER(S)	DUPLICATE NUMBER(S)
Port Wash. R2/RI/FS	3485B	York	SAS-Air	40	TB 3485B 21, 3485B 33 FB 3485B 34 3485B 35	3485B 02-03 3485B 31-32

CONCLUSIONS, ACTION TAKEN OR REQUIRED

RECEIVED
MAR 31 1988
SAN BRANCH

Package

EPA Form 1320-6 (9/2) REPLACES EPA NO. FORM 5300-6 WHICH MAY BE USED UNTIL SUPPLY IS EXHAUSTED.

WAS 002 0055

Title: Attachment 2 - CLP Data Assessment Checklist
Short Form (GC/MS Analysis)

SURVEILLANCE AND MONITORING BRANCH REVIEW

Project Name/Site: PORT WASHINGTON

Case Number: 3185B

Type Investigation (Circle One): Remedial Site · Other RI/FS

Contract No.: 3185B

Laboratory: York

Sample Identification Numbers:

Aqueous: PW = 3185B01-35
(LC) 38-42

Soil/Sediment:

Superfund Account No.:

Comments:

TP 3185B 02-03
" 31-32
TB 3185B-21
" 33
FB " 34
" 35

WAS 002 0056

Title: Attachment 2 - CLP Data Assessment Checklist
(GC and GC/MS Analysis)
PART II: MMB Review - TOTAL REVIEW

CASE # 3485B LAB YORK. SITE PORT WASHINGTON

19.0 Conclusions: (NOTE: Reviewers must red-line unacceptable data on sample data (FORM I) sheets; red-line data does not imply the compound is not present). Only the MMB reviewer has the authority to red-line unacceptable data. The letter J indicates an estimated value. In addition to the two definitions stated in the contract it also implies that the analyte is present but the quantitative value contains an unspecified degree of error. If an accurate quantity is desired, resampling/analysis is recommended.

19.1 Data Assessment The greatest part of the analytical data associated with this package was found to be unacceptable for general use. Only the analytical result for samples 3485B-01, 10, 22, 23, 31, 32 and 33 were found to be valid and acceptable for all purposes but subject to some comment which will follow below.

Data for samples 3485B-02, 04, 18, 21, 29, 35 and 41 were found to be marginally acceptable and valid for limited purpose only. The letter J is used to qualify both the detection limits and the positive data as estimated values.

The analytical results for all remaining samples

19.2 ~~Contract Problems/Non-compliance~~ 3485B-01, 03, 05, 06, 08-17, 20, 24-28, 30, 34, 35-40 and 42 are rejected and they cannot be used for any purpose. Again the letter J is used for certain positive data to indicate that this particular

Reviewer's Signature: Stelios Kerayoumis Date: 3/31/88

Verified By: Jon Ly Date: 3/31/88

WAS 002 0057

analyte is present but at an undetermined concentration. Generally the assessment of the data was based mainly on the internal and surrogate recoveries.

The main problem associated with the analysis of these air samples is methodology. The samples were analyzed by high resolution gas chromatography and low resolution mass spectrometry instead of gas chromatography with multi-mode detectors (FID, PID, HECD) as the original method calls for. However when mass spectrometry is used the large amount of water and carbon dioxide interfere with the analysis. Carbon dioxide suppresses all ion of the eluting compounds and it may also damage the mass spectrometer ion source (filament). Such interferences will produce inaccurate quantitative results and possibly false non-detects. The effect of carbon dioxide interference becomes apparent when one observes the decrease of the integrated ion abundance for m/z 114 of the internal standard 1,4-difluoro-benzene. The count was reduced from the minimum of 53,000 of the standard runs to less than 4,000 counts for more than 50 per cent of the samples. In addition to the internal standard area count change, the unacceptable high or low surrogate recoveries and indicate serious analytical problems. The duplicate samples suggest analytical problems also.

The polar organic compounds acetone, 2-butanone, 2-pentanone and acrolein yielded very poor results due to the use of Nafion membrane dryer. (See narrative). The relative response factor for these

WAS 002 0058

compounds obtained from the calibration standard is zero or near zero. This is very critical since low response factors lead to suspect quantitation and possibly to false non-detects.

Other problems related to this method is the carry-over of 1,1,2,2-tetrachloroethene due to the use of Nafion membrane drier.

1.Case Narrative

RECEIVED
JAN 27 1900
S & M BRANCH

WAS 002 0060

000002 A

CASE NARRATIVE

Forty air samples from SAS #3485B were submitted to York Laboratories for analysis of 624 and misc. VOCs plus methane. The samples were analyzed for VOCs by cryogenic trapping GC/MS and for methane by direct injection GC/FID. The general methodology is given below. The following items were noted.

Miscellaneous

The laboratory tried and was unable to contact Sean Kolb of SMO the week December 21. On December 29, the laboratory contacted both SMO and Region II regarding problems with the analysis of the polar compounds (due to the use of the Nafion membrane drier). The alternative presented by the laboratory for analysis of acetone, 2-butanone, 4-methyl-2-pentanone,acrolien & acrylonitrile was direct injection packed column GC/MS. Sean Kolb indicated that he would get back to the lab as to whether to proceed on this method. SMO did not respond as to how to proceed.

Sample Log-in

Samples 3485B 01 thru 21 were received at the laboratory on December 18, 1987 at 18:00 and were hand delivered by Ken Smith.

Samples 3485B 22 thru 42 (no sample 36 or 37) were received at the laboratory on December 28, 1987 at 9:00 and were shipped under Federal Express airbill #3444108463

Method Summary for the Determination of Volatile Organic Compounds in Air by Cryogenic rapping Capillary GC/MS

I. Scope

Ambient air is sampled using a SUMMA canisters[1] (see below). The sample is then brought back to the laboratory where it is pressurized, screened and then analyzed using cryogenic trapping/cryogenic focusing capillary column GC/MS. The mass range to be scanned is 35 to 300 amu. Spectra were interpreted by an experienced chemist familiar with mass spectral data. Target compounds are quantitated by comparison of the response to that of the most closely eluting internal standard and then are measured against a five point curve (or a calibration check standard to the curve) and quanitation is performed using an average response factor. Surrogate compounds will be used to augment the evaluation of the performance of the analysis.

This method is based loosely on EPA methods TO1 [illegible] 24. The QC, where applicable, is based on EPA method 524.2[3].

RECEIVED
JAN 27 1988
S & M BRANCH

WAS 002 0061

[1] Kienbusch, M. R., EPA-600/4-86-008 "Measurement of Gaseous Emission Rate from Land [illegible]es Using an Emission Isolation Flux Chamber User's Guide", 1985

[2] Riggin, R. M., EPA-600/4-84-041 "Compendium of Methods for the Determination of Toxic [illegible]nic Compounds in Ambient Air", 1984

[3] USEPA Method 524.2 Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography/Mass Spectrometry, August, 1986

000002B

II. Sampling Method

Upon return to the laboratory the canister is pressurized to approximately 30 psig (2 atmospheres gas added) with zero grade air. Aliquots are then drawn into the cryogenic trap thru [redacted] and analyzed using GC/MS techniques.

III. Calibration

Instrument calibration is performed using direct injection of methanolic standards thru the Nafion® membrane dryer onto the cryogenic trap.

IV. Target Compounds

The following list (Table 1) of compounds were be used for initial and continuing instrument calibration:

Table 1

74-87-3	chloromethane	
74-83-9	bromomethane	
75-01-4	vinyl chloride	
75-00-3	chloroethane	
75-09-2	methylene chloride	
67-64-1	acetone	*
107-02-8	acrolein	*
107-13-1	acrylyonitrile	*
75-35-4	1,1-dichloroethene	
75-34-3	1,1-dichloroethane	
540-59-0	1,2-dichloroethene isomers	
67-66-3	chloroform	
107-06-2	1,2-dichloroethane	
78-93-3	2-butanone	*
71-55-6	1,1,1-trichloroethane	
56-23-5	carbon tetrachloride	
75-27-4	bromodichloromethane	
78-87-5	1,2-dichloropropane	
10061-01-5	cis-1,3-dichloropropene	
79-01-6	trichloroethene	
124-48-1	dibromochloromethane	
79-00-5	1,1,2-trichloroethane	
71-43-2	benzene	
10061-02-6	trans-1,3-dichloropropene	
110-75-8	2-chloroethylvinyl ether	**
75-25-2	bromoform	
108-10-1	4-methyl-2-pentanone	**
127-18-4	tetrachloroethene	
79-34-5	1,1,2,2-tetrachloroethane	***
108-88-3	toluene	
108-90-7	chlorobenzene	
100-41-4	ethylbenzene	
106-42-3	p-xylene	
108-38-3	m-xylene	

* poor recovery due to use of Nafion® membrane dryer
** no recovery due to use of Nafion® membrane dryer
*** carry-over due to use of Nafion® membrane dryer

RECEIVED
JAN 27 1990
S & M BRANCH
WAS 002 0062

Initial calibration is performed at 25, 50, 100, 200, and 500 nanograms. The lower detectable limit is dependent on the volume of aliquot used and on interferences.

V. QA/QC

The latest CLP criteria for mass spectrometer performance using p-bromofluorobenzene are met before standards or samples are analyzed. Initial and continuing calibration performance met an internal 50 % (or less) percent relative standard deviation criteria for all the above compounds except those followed by an asterisk. In accordance with the SAS instructions a duplicate was analyzed per every twenty samples.

VI. Discussion

Interferences due to water and carbon dioxide can cause serious problems including cryogenic trap icing, signal suppression of of coeluting compounds and mass spectrometer ion source damage such as a destroyed filament. The Nafion® membrane dryer greatly reduces the amount of water reaching the cryogenic trap, thus reducing the problems associated with water. Polar organic compounds are poorly recovered, however some recovery is usually obtained. Carbon dioxide is not removed from the sample with the membrane dryer, and does interfere with the analysis of the early eluting compounds. An early eluting surrogate can be used to monitor this effect, however this will provide only an estimate of the recovery or sample detection limit. This problem is not specific only the use of a mass spectrometer as the detection method, the chromatography is effected by the large amount of carbon dioxide in the sample as well. Another problem associated with the drier was carry over of 1,1,2,2-tetrachloroethane, and some other higher boiling compounds; to some extent this problem can be greatly reduced by heating the drier to 40° C, but this was not done for this analysis.

The sample results are reported in nanograms in the sample. The sample size used was .30 liters of the diluted sample, so in each case 0.10 liters of the original sample was analyzed.

To convert to PPB (v/v) the following equation can be used:

$$\text{PPB(v/v)} = \frac{(0.08205\ \text{L atm/mole °K}) \times (273\ \text{°K})}{(\text{molecular weight gm/mole}) \times (1\text{atm})} \times \text{nanograms/L}$$

For future reference, if it is important to accurately assess the concentration of all the target analytes, either an isotopic dilution method should be used or a recovery study of spiked samples or sample matrix should be performed. The recovery study should include an initial five point calibration, a clean ambient air sample, a spiked ambient air sample and a humidified ambient air sample and spike.

John C. Culik
EPA CLP project coordinator

YORK LABORATORIES

March 24, 1988

Mr. Stelios Gerazounis
USEPA
Woodbridge Avenue
Edison, NJ 08837

Dear Mr. Gerazounis:

As requested enclosed are the surrogate recoveries for SAS #3485B. As per our telephone conversation of today, it is evident that the recoveries were quite variable due to CO_2 suppression of internal standard areas and/or surrogate areas.

Also as surrogates were not required by the SAS protocols there were no recovery limits the laboratory had to meet.

Very truly yours,

Jeffrey C. Curran
Laboratory Manager

JCC/md

WAS 002 0064

200 MONROE TURNPIKE • MONROE, CONNECTICUT 06468 • (203) 261-4458

EPA SAS
YORK LABORATORIES
CONTRACT #68-01-7157
SURROGATE RECOVERIES* IN AIR SAMPLES

Sample Identification	Toluene-d8	BFB	1,2-Dichloroethane-d4
3485B-01	154	420	0
3485B-02	302	34	108
3485B-03	67	109	0
3485B-04	104	94	112
3485B-04 DUP	226	35	82
3485B-05	602	0	101
3485B-06	125	99	64 Low Area Count
3485B-06 DUP	91	79	52
3485B-07	155	74 (Low)	124 Low Counts
3485B-07 DUP	63	103	98
3485B-08	143	297	100 A=609
3485B-09	189	93 A=393	103 A=1559
3485B-10	82	92	0
3485B-11	97	276	198
3485B-12	103	241	140
3485B-13	47	91	249
3485B-13 DUP	128	130	0
~~3485B-14~~	51	95	129
3485B-15	144	252	172
3485B-16	82	163	0
3485B-17	54	174	0
3485B-18	115	137	123

*No limits available for method. All values are percent recoveries.

WAS 002 0065

200 MONROE TURNPIKE • MONROE, CONNECTICUT 06468 • (203) 261-4458

EPA SAS
YORK LABORATORIES
CONTRACT #68-01-7157
SURROGATE RECOVERIES* IN AIR SAMPLES

Sample Identification	Toluene-d8	BFB	1,2-Dichloroethane-d4
3485B-019	118	102	103
3485B-019 DUP	69	96	113
3485B-020	330	0	113
3485B-021	43	80	95
3485B-022	122	107	101
3485B-022 DUP	127	113	146
3485B-023	65	65	144
3485B-024	71	264	43 A=359
3485B-025	50	157	93
3485B-026	84	154	116
3485B-027	73	135	0
3485B-028	121	222	82
3485B-029	52	135	82
3485B-029 DUP	72	130	87
3485B-030	60	90	0
3485B-031	118	97	99
3485B-032	160	70	101
3485B-033	41	113	88

*No limits available for method. All values are percent recoveries.

WAS 002 0066

200 MONROE TURNPIKE • MONROE, CONNECTICUT 06468 • (203) 261-4458

EPA SAS
YORK LABORATORIES
CONTRACT #68-01-7157
SURROGATE RECOVERIES* IN AIR SAMPLES

Sample Identification	Toluene-d8	BFB	1,2-Dichloroethane-d4
3485B-034	102	148	18
3485B-035	66	122	145
3485B-038	66	189	0
3485B-039	92	139	0
3485B-040	82	147	142
3485B-041	169	213	127
3485B-042	87	119	178
Blank ›G2251**	199	103	111
Blank ›G2268	88	93	131
Blank ›G2277	77	10	128
Blank ›G2295	146	90	98
Blank ›G2305	114	108	107
Blank ›G2318	153	83	123
Blank ›G2361	114	98	100

*No limits available for method. All values are percent recoveries.

**Calculated from first internal standard.

WAS 002 0067

200 MONROE TURNPIKE • MONROE CONNECTICUT 06468 • (203) 261-4458

YORK LABORATORIES DIVISION

C0001

P2 / RIES.

PORT CASHINGTON

RECEIVED
MAR 3 1 1988
S & M BRANCH

40 CFR

01-35
38-42

COMPLETE CASE DATA PACKAGE

EPA SAS # 3485 B

RECEIVED
JAN 27 1900
S & M BRANCH

WAS 002 0068

00019

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 3485B-01

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-001

Sample wt/vol g/mL: N/A Lab File ID:)G2258

Level Low/Med: N/A Date Received: 12/~~28~~/87

Date Analyzed: 12/29/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	~~10~~ U
107-02-8	acrolein	50 UJ
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ U
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	10 UJ
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	~~10~~ U
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ UJ
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	~~10~~ U
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0069

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-01

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

1

SAMPLE ID. 00025

VOLATILE ORGANICS ANALYSIS DATA SHEET

3485-B
102

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-002

Sample wt/vol g/mL: N/A Lab File ID:)G2259

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/29/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	10 U
107-02-8	acrolein	50 U
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	50 U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	10 U
75-34-3	1,1-dichloroethane	10 U
540-59-0	trans-1,2-dichloroethene	10 U
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	10 U
56-23-5	carbon tetrachloride	10 U
75-27-4	bromodichloromethane	10 U
78-87-5	1,2-dichloropropane	10 U
10061-01-5	cis-1,3-dichloropropene	10 U
79-01-6	trichloroethene	10 U
124-48-1	dibromochloromethane	10 U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	10 U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	10 U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	10 U
127-18-4	tetrachloroethene	72
108-88-3	toluene	10 U
108-90-7	chlorobenzene	10 U
100-41-4	ethylbenzene	10 U
106-42-3	p-xylene	10 U
108-38-3	m-xylene	10 U

WAS 002 0071

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-02

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 3485 B - 103

00032

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-003

Sample wt/vol g/mL: N/A Lab File ID:)G2260

Level Low/Med: N/A Date Received: 12/18/87

Date Analyzed: 12/29/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~30 U~~
74-83-9	bromomethane	~~20 U~~
75-01-4	vinyl chloride	~~30 U~~
75-00-3	chloroethane	~~20 U~~
75-09-2	methylene chloride	~~10 U~~
107-02-8	acrolein	50 UJ
67-64-1	acetone	~~50 U~~
107-13-1	acrylonitrile	~~50 U~~
75-69-4	trichlorofluoromethane	~~10 U~~
75-35-4	1,1-dichloroethene	~~10 U~~
75-34-3	1,1-dichloroethane	~~10 U~~
540-59-0	trans-1,2-dichloroethene	~~10 U~~
67-66-3	chloroform	~~10 U~~
107-06-2	1,2-dichloroethane	~~10 U~~
78-93-3	2-butanone	~~50 U~~
71-55-6	1,1,1-trichloroethane	170 J
56-23-5	carbon tetrachloride	~~10 U~~
75-27-4	bromodichloromethane	~~10 U~~
78-87-5	1,2-dichloropropane	~~10 U~~
10061-01-5	cis-1,3-dichloropropene	~~10 U~~
79-01-6	trichloroethene	~~10 U~~
124-48-1	dibromochloromethane	~~10 U~~
79-00-5	1,1,2-trichloroethane	~~10 U~~
71-43-2	benzene	~~10 U~~
10061-02-6	trans-1,3-dichloropropene	~~10 U~~
110-75-8	2-chloroethylvinylether	~~50 U~~
75-25-2	bromoform	~~10 U~~
108-88-3	4-methyl-2-pentanone	~~50 U~~
79-34-5	1,1,2,2-tetrachloroethane	~~10 U~~
127-18-4	tetrachloroethene	71 J
108-88-3	toluene	~~10 U~~
108-90-7	chlorobenzene	~~10 U~~
100-41-4	ethylbenzene	~~10 U~~
106-42-3	p-xylene	~~10 U~~
108-38-3	m-xylene	~~10 U~~

WAS 002 0073

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
34858-03

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0074

00042

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.

3485-B
104

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-004

Sample wt/vol g/mL: N/A Lab File ID:)G2254

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/29/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~10~~ U
74-83-9	bromomethane	~~10~~ U
75-01-4	vinyl chloride	~~10~~ U
75-00-3	chloroethane	~~10~~ U
75-09-2	methylene chloride	10 U J
107-02-8	acrolein	50 U J
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~8~~ J B
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	10 U
75-34-3	1,1-dichloroethane	~~170~~
540-59-0	trans-1,2-dichloroethene	10 U J
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U J
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	310 J
56-23-5	carbon tetrachloride	10 U
75-27-4	bromodichloromethane	10 U
78-87-5	1,2-dichloropropane	10 U
10061-01-5	cis-1,3-dichloropropene	10 U
79-01-6	trichloroethene	70 J
124-48-1	dibromochloromethane	10 U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	10 U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	10 U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	10 U
127-18-4	tetrachloroethene	360 J
108-88-3	toluene	10 U
108-90-7	chlorobenzene	10 U
100-41-4	ethylbenzene	10 U
106-42-3	p-xylene	10 U
108-38-3	m-xylene	10 U

WAS 002 0075

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
3485B-104 SD

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-004

Sample wt/vol g/mL: N/A Lab File ID: >G8313

Level Low/Med: N/A Date Received: 12/18/87

Date Analyzed: 01/06/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND		Q
74-87-3	chloromethane	~~20~~	U
74-83-9	bromomethane	~~20~~	U
75-01-4	vinyl chloride	~~20~~	U
75-00-3	chloroethane	~~20~~	U
75-09-2	methylene chloride	10	U J
107-02-8	acrolein	~~50~~	U
67-64-1	acetone	~~50~~	U
107-13-1	acrylonitrile	~~50~~	U
75-69-4	trichlorofluoromethane	~~10~~	U
75-35-4	1,1-dichloroethene	~~10~~	U
75-34-3	1,1-dichloroethane	170	J
540-59-0	trans-1,2-dichloroethene	10	U J
67-66-3	chloroform	10	U J
107-06-2	1,2-dichloroethane	10	U J
78-93-3	2-butanone	~~50~~	U
71-55-6	1,1,1-trichloroethane	310	J
56-23-5	carbon tetrachloride	10	U J
75-27-4	bromodichloromethane	10	U J
78-87-5	1,2-dichloropropane	10	U J
10061-01-5	cis-1,3-dichloropropene	10	U J
79-01-6	trichloroethene	~~87~~	
124-48-1	dibromochloromethane	10	U J
79-00-5	1,1,2-trichloroethane	10	U J
71-43-2	benzene	10	U J
10061-02-6	trans-1,3-dichloropropene	~~10~~	U
110-75-8	2-chloroethylvinylether	50	U J
75-25-2	bromoform	10	U J
108-88-3	4-methyl-2-pentanone	50	U J
79-34-5	1,1,2,2-tetrachloroethane	10	U J
127-18-4	tetrachloroethene	670	J
108-88-3	toluene	10	U J
108-90-7	chlorobenzene	10	U J
100-41-4	ethylbenzene	10	U J
106-42-3	p-xylene	10	U J
108-38-3	m-xylene	10	U J

WAS 002 0076

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00061

3485-B-105

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-005

Sample wt/vol g/mL: N/A Lab File ID: >G2253

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/29/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q	
74-87-3	chloromethane	~~20 U~~	INTF
74-83-9	bromomethane	~~20 U~~	"
75-01-4	vinyl chloride	~~20 U~~	"
75-00-3	chloroethane	~~30 U~~	"
75-09-2	methylene chloride	~~10 U~~	
107-02-8	acrolein	~~50 U~~ J	CAL
67-64-1	acetone	~~50 U~~	CAL
107-13-1	acrylonitrile	~~50 U~~	
75-69-4	trichlorofluoromethane	~~10 U~~	INTF
75-35-4	1,1-dichloroethene	~~10 U~~	
75-34-3	1,1-dichloroethane	190 J	
540-59-0	trans-1,2-dichloroethene	~~10 U~~ J	CAL
67-66-3	chloroform	~~10 U~~	
107-06-2	1,2-dichloroethane	~~10 U~~	
78-93-3	2-butanone	~~50 U~~	INTF
71-55-6	1,1,1-trichloroethane	800 J	
56-23-5	carbon tetrachloride	~~10 U~~	
75-27-4	bromodichloromethane	~~10 U~~	
78-87-5	1,2-dichloropropane	~~10 U~~	
10061-01-5	cis-1,3-dichloropropene	~~10 U~~	
79-01-6	trichloroethene	~~10 U~~ J	CAL
124-48-1	dibromochloromethane	~~10 U~~	
79-00-5	1,1,2-trichloroethane	~~10 U~~	
71-43-2	benzene	~~10 U~~	
10061-02-6	trans-1,3-dichloropropene	~~10 U~~	
110-75-8	2-chloroethylvinylether	~~50 U~~	WAS 002 0077
75-25-2	bromoform	~~10 U~~	
108-88-3	4-methyl-2-pentanone	~~50 U~~	CAL
79-34-5	1,1,2,2-tetrachloroethane	~~10 U~~	
127-18-4	tetrachloroethene	2900 J	
108-88-3	toluene	~~10 U~~	
108-90-7	chlorobenzene	~~10 U~~	
100-41-4	ethylbenzene	~~10 U~~	
106-42-3	p-xylene	~~10 U~~	
108-38-3	m-xylene	~~10 U~~	

J - estimated Value

00062

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-05

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.054

ul sample inj 75

WAS 002 0078

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00070

3485B-106

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-006

Sample wt/vol g/mL: N/A Lab File ID: >G2256 1/29/88 MK

Level Low/Med: N/A Date Received: 12/~~28~~/87

Date Analyzed: 12/29/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~10~~ U
74-83-9	bromomethane	~~10~~ U
75-01-4	vinyl chloride	~~10~~ U
75-00-3	chloroethane	~~10~~ U
75-09-2	methylene chloride	~~10~~ U
107-02-8	acrolein	~~50~~ U J
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	10 U
75-34-3	1,1-dichloroethane	950 J
540-59-0	trans-1,2-dichloroethene	~~10~~ U J
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~50~~ U
[illegible]3-6	1,1,1-trichloroethane	4300 J
[illegible]-5	carbon tetrachloride	~~10~~ U
[illegible]-4	bromodichloromethane	~~10~~ U
[illegible]8-6/-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ U J
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	3400 J
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	10 U

F = estimated value

WAS 002 0079

00071

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-06

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/6/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0080

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00086

~~3485B~~ 107 ~~DUPLIC~~ 1.25.88

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-007

Sample wt/vol g/mL: N/A Lab File ID:)G2329

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/13/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q	
74-87-3	chloromethane	~~20~~ U	MTF
74-83-9	bromomethane	~~20~~ U	"
75-01-4	vinyl chloride	~~20~~ U	"
75-00-3	chloroethane	~~20~~ U	"
75-09-2	methylene chloride	10 U	
107-02-8	acrolein	~~50~~ U	Cal
67-64-1	acetone	~~50~~ U	Cal
107-13-1	acrylonitrile	50 U	
75-69-4	trichlorofluoromethane	~~10~~ U	MTF
75-35-4	1,1-dichloroethene	~~10~~ U	Cal
75-34-3	1,1-dichloroethane	10 U	
540-59-0	trans-1,2-dichloroethene	10 U J	Cal
67-66-3	chloroform	10 U	
107-06-2	1,2-dichloroethane	10 U	
78-93-3	2-butanone	~~50~~ U	Cal
71-55-6	1,1,1-trichloroethane	40	
56-23-5	carbon tetrachloride	10 U	
75-27-4	bromodichloromethane	10 U	
78-87-5	1,2-dichloropropane	10 U	
10061-01-5	cis-1,3-dichloropropene	10 U	
79-01-6	trichloroethene	10 U J	Cal
124-48-1	dibromochloromethane	10 U	
79-00-5	1,1,2-trichloroethane	10 U	
71-43-2	benzene	10 U	
10061-02-6	trans-1,3-dichloropropene	~~10~~ U	Cal
110-75-8	2-chloroethylvinylether	50 U	
75-25-2	bromoform	10 U J	Cal
108-88-3	4-methyl-2-pentanone	50 U	
79-34-5	1,1,2,2-tetrachloroethane	10 U	
127-18-4	tetrachloroethene	77	
108-88-3	toluene	10 U	
108-90-7	chlorobenzene	10 U	
100-41-4	ethylbenzene	10 U	
106-42-3	p-xylene	10 U	
108-38-3	m-xylene	10 U	

WAS 002 0081

00087

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-07

Methane Analysis Data Sheet

Concentration: Low Medium (circle One)
Date Extracted/Prepared N/A
Date Analyzed 1/6/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0082

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00094

3485B-107 DUPLIC

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-007

Sample wt/vol g/mL: N/A Lab File ID:)G2325

Level--Low/Med: N/A Date Received: 12/18/87

Date Analyzed: 01/13/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	2 U
74-83-9	bromomethane	2 U
75-01-4	vinyl chloride	2 U
75-00-3	chloroethane	2 U
75-09-2	methylene chloride	1 U
107-02-8	acrolein	5 U
67-64-1	acetone	5 U
107-13-1	acrylonitrile	5 U
75-69-4	trichlorofluoromethane	1 U
75-35-4	1,1-dichloroethene	1 U
75-34-3	1,1-dichloroethane	1 U
540-59-0	trans-1,2-dichloroethene	1 UJ
67-66-3	chloroform	1 U
107-06-2	1,2-dichloroethane	1 U
78-93-3	2-butanone	5 U
71-55-6	1,1,1-trichloroethane	160 J
56-23-5	carbon tetrachloride	1 U
75-27-4	bromodichloromethane	1 U
78-87-5	1,2-dichloropropane	1 U
10061-01-5	cis-1,3-dichloropropene	1 U
79-01-6	trichloroethene	1 UJ
124-48-1	dibromochloromethane	1 U
79-00-5	1,1,2-trichloroethane	1 U
71-43-2	benzene	1 U
10061-02-6	trans-1,3-dichloropropene	1 U
110-75-8	2-chloroethylvinylether	5 U
75-25-2	bromoform	1 U
108-88-3	4-methyl-2-pentanone	5 U
79-34-5	1,1,2,2-tetrachloroethane	1 U
127-18-4	tetrachloroethene	380 J
108-88-3	toluene	1 U
108-90-7	chlorobenzene	1 U
100-41-4	ethylbenzene	1 U
106-42-3	p-xylene	1 U
108-38-3	m-xylene	1 U

WAS 002 0083

00100

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 3485B-108

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-008

Sample wt/vol g/mL: N/A Lab File ID: >G2252

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/29/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q	
74-87-3	chloromethane	~~20~~ U	
74-83-9	bromomethane	~~20~~ U	
75-01-4	vinyl chloride	~~20~~ U	
75-00-3	chloroethane	~~20~~ U	
75-09-2	methylene chloride	~~10~~ U	
107-02-8	acrolein	~~50~~ U J	
67-64-1	acetone	~~50~~ U	
107-13-1	acrylonitrile	~~50~~ U	
75-69-4	trichlorofluoromethane	~~10~~ U	
75-35-4	1,1-dichloroethene	~~10~~ U	
75-34-3	1,1-dichloroethane	~~10~~ U	
540-59-0	trans-1,2-dichloroethene	~~10~~ U J	
67-66-3	chloroform	~~10~~ U	
107-06-2	1,2-dichloroethane	~~10~~ U	
78-93-3	2-butanone	~~50~~ U	
71-55-6	1,1,1-trichloroethane	380 J	
56-23-5	carbon tetrachloride	~~10~~ U	
75-27-4	bromodichloromethane	~~10~~ U	
78-87-5	1,2-dichloropropane	~~10~~ U	
10061-01-5	cis-1,3-dichloropropene	~~10~~ U	
79-01-6	trichloroethene	~~10~~ U J	
124-48-1	dibromochloromethane	~~10~~ U	
79-00-5	1,1,2-trichloroethane	~~10~~ U	
71-43-2	benzene	~~10~~ U	
10061-02-6	trans-1,3-dichloropropene	~~10~~ U	
110-75-8	2-chloroethylvinylether	~~50~~ U	
75-25-2	bromoform	~~10~~ U	
108-88-3	4-methyl-2-pentanone	~~50~~ U	
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U	
127-18-4	tetrachloroethene	1300 J	
108-88-3	toluene	~~10~~ U	
108-90-7	chlorobenzene	~~10~~ U	
100-41-4	ethylbenzene	~~10~~ U	
106-42-3	p-xylene	~~10~~ U	
108-38-3	m-xylene	~~10~~ U	

WAS 002 0084

00101

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-08

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/5/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0085

00110

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 3485B-109

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-009

Sample wt/vol g/mL: N/A Lab File ID: G2257

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/29/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	U
74-83-9	bromomethane	U
75-01-4	vinyl chloride	U
75-00-3	chloroethane	U
75-09-2	methylene chloride	10 U
107-02-8	acrolein	50 U J
67-64-1	acetone	50 U
107-13-1	acrylonitrile	22 J B
75-69-4	trichlorofluoromethane	10 U
75-35-4	1,1-dichloroethene	10 U
75-34-3	1,1-dichloroethane	10 U
540-59-0	trans-1,2-dichloroethene	10 U J
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U
78-93-3	2-butanone	50 U
71-55-6	1,1,1-trichloroethane	370 J
56-23-5	carbon tetrachloride	10 U
75-27-4	bromodichloromethane	10 U
78-87-5	1,2-dichloropropane	10 U
10061-01-5	cis-1,3-dichloropropene	10 U
79-01-6	trichloroethene	10 U J
124-48-1	dibromochloromethane	10 U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	10 U
110-75-8	2-chloroethylvinylether	50 U
75-25-2	bromoform	10 U
108-88-3	4-methyl-2-pentanone	50 U
79-34-5	1,1,2,2-tetrachloroethane	10 U
127-18-4	tetrachloroethene	1000 J
108-88-3	toluene	10 U
108-90-7	chlorobenzene	10 U
100-41-4	ethylbenzene	10 U
106-42-3	p-xylene	10 U
108-38-3	m-xylene	10 U

WAS 002 0086

00111

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-09

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/5/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0087

00119

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.

3485B
10

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-010

Sample wt/vol g/mL: N/A Lab File ID:)G2261

Level Low/Med: N/A Date Received: 12/~~28~~/87

Date Analyzed: 12/29/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q	
74-87-3	chloromethane	~~30~~ U	Int
74-83-9	bromomethane	~~30~~ U	"
75-01-4	vinyl chloride	~~30~~ U	"
75-00-3	chloroethane	~~20~~ U	"
75-09-2	methylene chloride	~~10~~ U	
107-02-8	acrolein	~~50~~ U	
67-64-1	acetone	~~91~~ B	Cal
107-13-1	acrylonitrile	~~50~~ U	
75-69-4	trichlorofluoromethane	~~10~~ U	Int
75-35-4	1,1-dichloroethene	~~10~~ U	
75-34-3	1,1-dichloroethane	~~10~~ U	
540-59-0	trans-1,2-dichloroethene	~~10~~ U J	Cal
67-66-3	chloroform	~~10~~ U	
107-06-2	1,2-dichloroethane	~~10~~ U	
78-93-3	2-butanone	~~50~~ U	Cal
71-55-6	1,1,1-trichloroethane	1100 J	
56-23-5	carbon tetrachloride	~~10~~ U	
75-27-4	bromodichloromethane	~~10~~ U	
78-87-5	1,2-dichloropropane	~~10~~ U	
10061-01-5	cis-1,3-dichloropropene	~~10~~ U	
79-01-6	trichloroethene	10 U J	Cal
124-48-1	dibromochloromethane	~~10~~ U	
79-00-5	1,1,2-trichloroethane	~~10~~ U	
71-43-2	benzene	~~10~~ U	
10061-02-6	trans-1,3-dichloropropene	~~10~~ U	
110-75-8	2-chloroethylvinylether	~~50~~ U	
75-25-2	bromoform	~~10~~ U	
108-88-3	4-methyl-2-pentanone	~~50~~ U	
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U	
127-18-4	tetrachloroethene	710 J	
108-88-3	toluene	~~10~~ U	
108-90-7	chlorobenzene	~~10~~ U	
100-41-4	ethylbenzene	~~10~~ U	
106-42-3	p-xylene	~~10~~ U	
108-38-3	m-xylene	~~10~~ U	

WAS 002 0088

00120

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-10

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0089

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 3485B-11

00128

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-011

Sample wt/vol g/mL: N/A Lab File ID: G2272

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/30/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20 U~~
74-83-9	bromomethane	~~20 U~~
75-01-4	vinyl chloride	~~20 U~~
75-00-3	chloroethane	~~20 U~~ J
75-09-2	methylene chloride	410 J
107-02-8	acrolein	~~50 U~~ J
67-64-1	acetone	~~50 U~~
107-13-1	acrylonitrile	~~50 U~~
75-69-4	trichlorofluoromethane	~~10 U~~ J
75-35-4	1,1-dichloroethene	~~10 U~~ J
75-34-3	1,1-dichloroethane	~~10 U~~
540-59-0	trans-1,2-dichloroethene	~~10 U~~ J
67-66-3	chloroform	~~10 U~~
107-06-2	1,2-dichloroethane	~~10 U~~
78-93-3	2-butanone	~~50 U~~
71-55-6	1,1,1-trichloroethane	~~10 U~~
56-23-5	carbon tetrachloride	~~10 U~~
75-27-4	bromodichloromethane	~~10 U~~
78-87-5	1,2-dichloropropane	~~10 U~~
10061-01-5	cis-1,3-dichloropropene	~~10 U~~
79-01-6	trichloroethene	~~10 U~~
124-48-1	dibromochloromethane	~~10 U~~
79-00-5	1,1,2-trichloroethane	~~10 U~~
71-43-2	benzene	~~10 U~~
10061-02-6	trans-1,3-dichloropropene	~~10 U~~
110-75-8	2-chloroethylvinylether	~~50 U~~
75-25-2	bromoform	~~10 U~~
108-88-3	4-methyl-2-pentanone	~~50 U~~
79-34-5	1,1,2,2-tetrachloroethane	~~10 U~~
127-18-4	tetrachloroethene	~~250 B~~ E
108-88-3	toluene	~~10 U~~
108-90-7	chlorobenzene	~~10 U~~
100-41-4	ethylbenzene	~~10 U~~
106-42-3	p-xylene	~~10 U~~
108-38-3	m-xylene	~~10 U~~

WAS 002 0090

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 34858-11

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0091

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00136

3485B-12

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-012

Sample wt/vol g/mL: N/A Lab File ID: JG2274

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/30/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~U~~
74-83-9	bromomethane	~~U~~
75-01-4	vinyl chloride	~~U~~
75-00-3	chloroethane	~~U~~
75-09-2	methylene chloride	~~U~~
107-02-8	acrolein	~~U~~ J
67-64-1	acetone	~~U~~
107-13-1	acrylonitrile	~~U~~
75-69-4	trichlorofluoromethane	~~U~~
75-35-4	1,1-dichloroethene	~~U~~ J
75-34-3	1,1-dichloroethane	~~U~~
540-59-0	trans-1,2-dichloroethene	~~U~~
67-66-3	chloroform	~~U~~
107-06-2	1,2-dichloroethane	~~U~~
78-93-3	2-butanone	~~U~~
71-55-6	1,1,1-trichloroethane	~~U~~
56-23-5	carbon tetrachloride	~~U~~
75-27-4	bromodichloromethane	~~U~~
78-87-5	1,2-dichloropropane	~~U~~
10061-01-5	cis-1,3-dichloropropene	~~U~~
79-01-6	trichloroethene	~~U~~
124-48-1	dibromochloromethane	~~U~~
79-00-5	1,1,2-trichloroethane	~~U~~
71-43-2	benzene	~~U~~
10061-02-6	trans-1,3-dichloropropene	~~U~~
110-75-8	2-chloroethylvinylether	~~U~~
75-25-2	bromoform	~~U~~ J
108-88-3	4-methyl-2-pentanone	~~U~~
79-34-5	1,1,2,2-tetrachloroethane	~~U~~
127-18-4	tetrachloroethene	~~B~~
108-88-3	toluene	~~U~~
108-90-7	chlorobenzene	~~U~~
100-41-4	ethylbenzene	~~U~~
106-42-3	p-xylene	~~U~~
108-38-3	m-xylene	~~U~~

WAS 002 0092

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-12

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00143

3485B-13 DUP

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-013

Sample wt/vol g/mL: N/A Lab File ID:)G2279

Level Low/Med: N/A Date Received: 12/18/87

Date Analyzed: 01/04/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	~~10~~ U
107-02-8	acrolein	~~50~~ UJ
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ U
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	~~10~~ UJ
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	40 J
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ U
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	27 J
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0094

00144

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-13

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0095

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00152
3485B-013

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-013

Sample wt/vol g/mL: N/A Lab File ID:)G2275

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/30/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~10~~ U
74-83-9	bromomethane	~~10~~ U
75-01-4	vinyl chloride	~~10~~ U
75-00-3	chloroethane	~~10~~ U
75-09-2	methylene chloride	10 U
107-02-8	acrolein	~~50~~ UJ
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ UJ
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	~~10~~ UJ
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	230 J
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ U
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ UJ
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	350
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0096

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID 00158
3485B-14

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-014

Sample wt/vol g/mL: N/A Lab File ID: >G2280

Level Low/Med: N/A Date Received: 12/18/87

Date Analyzed: 01/04/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	~~20~~ U
107-02-8	acrolein	~~10~~ U
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	23 I B
75-35-4	1,1-dichloroethene	~~10~~ U
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	~~10~~ U
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~10~~ U
71-55-6	1,1,1-trichloroethane	~~50~~ U
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ U
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~10~~ U
75-25-2	bromoform	~~50~~ U
108-88-3	4-methyl-2-pentanone	~~10~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~80~~ U
127-18-4	tetrachloroethene	~~10~~ U
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0097

00159

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-14

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0098

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
34858-15
00167

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-015

Sample wt/vol g/mL: N/A Lab File ID: G2271

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/30/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~30~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	~~10~~ U
107-02-8	acrolein	~~50~~ U J
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ U J
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	~~10~~ U J
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	~~10~~ U
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ U
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ U J
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	~~27~~ B
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0099

00168

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-15

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/5/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0100

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00174

34958
16

Lab Name: YORK LABS Case: SAS 34858

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-016

Sample wt/vol g/mL: N/A Lab File ID:)G2270

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/30/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	~~10~~ U
107-02-8	acrolein	~~50~~ UJ
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ UJ
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	~~10~~ UJ
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	300 J
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ U
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ UJ
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	~~120~~ B
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0101

00175

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-16

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0102

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
3485B
17
00182

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-017

Sample wt/vol g/mL: N/A Lab File ID: G2269

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/30/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	U
74-83-9	bromomethane	U
75-01-4	vinyl chloride	U
75-00-3	chloroethane	U
75-09-2	methylene chloride	U
107-02-8	acrolein	U
67-64-1	acetone	
107-13-1	acrylonitrile	U
75-69-4	trichlorofluoromethane	U
75-35-4	1,1-dichloroethene	UJ
75-34-3	1,1-dichloroethane	U
540-59-0	trans-1,2-dichloroethene	UJ
67-66-3	chloroform	U
107-06-2	1,2-dichloroethane	U
78-93-3	2-butanone	U
71-55-6	1,1,1-trichloroethane	U
56-23-5	carbon tetrachloride	U
75-27-4	bromodichloromethane	U
78-87-5	1,2-dichloropropane	U
10061-01-5	cis-1,3-dichloropropene	U
79-01-6	trichloroethene	U
124-48-1	dibromochloromethane	U
79-00-5	1,1,2-trichloroethane	U
71-43-2	benzene	U
10061-02-6	trans-1,3-dichloropropene	U
110-75-8	2-chloroethylvinylether	U
75-25-2	bromoform	U
108-88-3	4-methyl-2-pentanone	U
79-34-5	1,1,2,2-tetrachloroethane	U
127-18-4	tetrachloroethene	B
108-88-3	toluene	U
108-90-7	chlorobenzene	U
100-41-4	ethylbenzene	U
106-42-3	p-xylene	U
108-38-3	m-xylene	U

WAS 002 0103

00183

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-17

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)

Date Extracted/Prepared N/A

Date Analyzed 1/8/88

Conc/Dil Factor

Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0104

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.

3485B-18

00189

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-018

Sample wt/vol g/mL: N/A Lab File ID:)G2263

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 12/29/87

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~30~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~30~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	10 U
107-02-8	acrolein	50 U
67-64-1	acetone	~~60~~ U
107-13-1	acrylonitrile	50 U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	10 U
75-34-3	1,1-dichloroethane	10 U
540-59-0	trans-1,2-dichloroethene	10 U
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	77
56-23-5	carbon tetrachloride	10 U
75-27-4	bromodichloromethane	10 U
78-87-5	1,2-dichloropropane	10 U
10061-01-5	cis-1,3-dichloropropene	10 U
79-01-6	trichloroethene	10 U
124-48-1	dibromochloromethane	10 U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	10 U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	10 U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	10 U
127-18-4	tetrachloroethene	10 U
108-88-3	toluene	10 U
108-90-7	chlorobenzene	10 U
100-41-4	ethylbenzene	10 U
106-42-3	p-xylene	10 U
108-38-3	m-xylene	10 U

WAS 002 0105

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-18

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Received/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00196

3485B-19 ~~RERUN~~ 1.5 28

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-019

Sample wt/vol g/mL: N/A Lab File ID:)G2321

Level Low/Med: N/A Date Received: 12/18/87

Date Analyzed: 01/13/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	10 U
107-02-8	acrolein	50 UJ
67-64-1	acetone	~~430~~
107-13-1	acrylonitrile	50 U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ U
75-34-3	1,1-dichloroethane	10 U
540-59-0	trans-1,2-dichloroethene	10 U
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	10 U
56-23-5	carbon tetrachloride	10 U
75-27-4	bromodichloromethane	10 U
78-87-5	1,2-dichloropropane	10 U
10061-01-5	cis-1,3-dichloropropene	10 U
79-01-6	trichloroethene	10 UJ
124-48-1	dibromochloromethane	10 U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	10 U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	10 U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	10 U
127-18-4	tetrachloroethene	10 U
108-88-3	toluene	10 U
108-90-7	chlorobenzene	10 U
100-41-4	ethylbenzene	10 U
106-42-3	p-xylene	10 U
108-38-3	m-xylene	10 U

WAS 002 0107

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-19

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00203

348SB
19 DUPLIC

Lab Name: YORK LABS Case: SAS 3488B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-019

Sample wt/vol g/mL: N/A Lab File ID: >G2322

Level Low/Med: N/A Date Received: 12/18/87

Date Analyzed: 01/13/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND		Q
74-87-3	chloromethane	~~30~~	U
74-83-9	bromomethane	~~20~~	U
75-01-4	vinyl chloride	~~20~~	U
75-00-3	chloroethane	~~20~~	U
75-09-2	methylene chloride	10	U
107-02-8	acrolein	50	U
67-64-1	acetone	~~1000~~	
107-13-1	acrylonitrile	50	U
75-69-4	trichlorofluoromethane	~~10~~	U
75-35-4	1,1-dichloroethene	~~10~~	U
75-34-3	1,1-dichloroethane	10	U
540-59-0	trans-1,2-dichloroethene	10	U
67-66-3	chloroform	10	U
107-06-2	1,2-dichloroethane	10	U
78-93-3	2-butanone	~~50~~	U
71-55-6	1,1,1-trichloroethane	10	U
56-23-5	carbon tetrachloride	10	U
75-27-4	bromodichloromethane	10	U
78-87-5	1,2-dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	trichloroethene	10	U
124-48-1	dibromochloromethane	10	U
79-00-5	1,1,2-trichloroethane	10	U
71-43-2	benzene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U
110-75-8	2-chloroethylvinylether	~~50~~	U
75-25-2	bromoform	10	U
108-88-3	4-methyl-2-pentanone	~~50~~	U
79-34-5	1,1,2,2-tetrachloroethane	10	U
127-18-4	tetrachloroethene	10	U
108-88-3	toluene	10	U
108-90-7	chlorobenzene	10	U
100-41-4	ethylbenzene	10	U
106-42-3	p-xylene	10	U
108-38-3	m-xylene	10	U

WAS 002 0109

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-20

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 3485B 21 — 00215

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-021

Sample wt/vol g/mL: N/A Lab File ID: G2282

Level Low/Med: N/A Date Received: 12/18/87

Date Analyzed: 01/04/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND		Q
74-87-3	chloromethane	~~20~~	U
74-83-9	bromomethane	20	U
75-01-4	vinyl chloride	20	U
75-00-3	chloroethane	20	U
75-09-2	methylene chloride	10	U
107-02-8	acrolein	50	U
67-64-1	acetone	3600	
107-13-1	acrylonitrile	50	U
75-69-4	trichlorofluoromethane	10	U
75-35-4	1,1-dichloroethene	10	U
75-34-3	1,1-dichloroethane	10	U
540-59-0	trans-1,2-dichloroethene	10	U
67-66-3	chloroform	10	U
107-06-2	1,2-dichloroethane	10	U
78-93-3	2-butanone	10	U
71-55-6	1,1,1-trichloroethane	~~50~~	U
56-23-5	carbon tetrachloride	10	U
75-27-4	bromodichloromethane	10	U
78-87-5	1,2-dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	trichloroethene	10	U
124-48-1	dibromochloromethane	10	U
79-00-5	1,1,2-trichloroethane	10	U
71-43-2	benzene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	bromoform	50	U
108-88-3	4-methyl-2-pentanone	10	U
79-34-5	1,1,2,2-tetrachloroethane	~~50~~	U
127-18-4	tetrachloroethene	10	U
108-88-3	toluene	10	U
108-90-7	chlorobenzene	10	U
100-41-4	ethylbenzene	10	U
106-42-3	p-xylene	10	U
108-38-3	m-xylene	10	U

WAS 002 0111

00216

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-21

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)

Date Extracted/Prepared N/A

Date Analyzed 1/8/88

Corr/Dil Factor

Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0112

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
3485B-29DUP 00287

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-029

Sample wt/vol g/mL: N/A Lab File ID:)G2365

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/18/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~10~~ U
74-83-9	bromomethane	~~10~~ U
75-01-4	vinyl chloride	~~10~~ U
75-00-3	chloroethane	~~10~~ U
75-09-2	methylene chloride	10 U
107-02-8	acrolein	50 U
67-64-1	acetone	~~1000~~
107-13-1	acrylonitrile	50 U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	10 U
75-34-3	1,1-dichloroethane	10 U
540-59-0	trans-1,2-dichloroethene	10 U
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	10 U
56-23-5	carbon tetrachloride	10 U
75-27-4	bromodichloromethane	10 U
78-87-5	1,2-dichloropropane	10 U
10061-01-5	cis-1,3-dichloropropene	10 U
79-01-6	trichloroethene	10 U
124-48-1	dibromochloromethane	10 U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	10 U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	10 U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	10 U
127-18-4	tetrachloroethene	24
108-88-3	toluene	10 U
108-90-7	chlorobenzene	10 U
100-41-4	ethylbenzene	10 U
106-42-3	p-xylene	10 U
108-38-3	m-xylene	10 U

WAS 002 0113

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID 00221

3485B
22 ~~RERUN~~ 12-5-88 BP

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR

Lab Sample ID: 0350-022

Sample wt/vol g/mL: N/A

Lab File ID:)62319

Level Low/Med: N/A

Date Received: 12/28/87

Date Analyzed: 01/13/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND		Q
74-87-3	chloromethane	~~30~~	~~U~~
74-83-9	bromomethane	~~20~~	~~U~~
75-01-4	vinyl chloride	~~20~~	~~U~~
75-00-3	chloroethane	~~20~~	~~U~~
75-09-2	methylene chloride	~~10~~	~~U~~
107-02-8	acrolein	50	UJ
67-64-1	acetone	~~50~~	~~U~~
107-13-1	acrylonitrile	~~17~~	~~J B~~
75-69-4	trichlorofluoromethane	~~10~~	~~U~~
75-35-4	1,1-dichloroethene	~~10~~	~~U~~
75-34-3	1,1-dichloroethane	10	U
540-59-0	trans-1,2-dichloroethene	10	U
67-66-3	chloroform	10	U
107-06-2	1,2-dichloroethane	10	U
78-93-3	2-butanone	~~50~~	~~U~~
71-55-6	1,1,1-trichloroethane	100	
56-23-5	carbon tetrachloride	10	U
75-27-4	bromodichloromethane	10	U
78-87-5	1,2-dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	trichloroethene	14	
124-48-1	dibromochloromethane	10	U
79-00-5	1,1,2-trichloroethane	10	U
71-43-2	benzene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U
110-75-8	2-chloroethylvinylether	~~50~~	~~U~~
75-25-2	bromoform	10	UJ
108-88-3	4-methyl-2-pentanone	~~50~~	~~J~~
79-34-5	1,1,2,2-tetrachloroethane	~~44~~	~~B~~
127-18-4	tetrachloroethene	280	
108-88-3	toluene	10	U
108-90-7	chlorobenzene	10	U
100-41-4	ethylbenzene	10	U
106-42-3	p-xylene	10	U
108-38-3	m-xylene	10	U

WAS 002 0114

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-22

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00232
3485B-
22 DUPLIC

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-022

Sample wt/vol g/mL: N/A Lab File ID:)G2320

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/13/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND		Q
74-87-3	chloromethane	~~20~~	U
74-83-9	bromomethane	~~20~~	U
75-01-4	vinyl chloride	~~20~~	U
75-00-3	chloroethane	~~20~~	U
~~75-09-2~~	methylene chloride	10	U
107-02-8	acrolein	50	U
67-64-1	acetone	~~890~~	
107-13-1	acrylonitrile	50	U
75-69-4	trichlorofluoromethane	~~10~~	U
75-35-4	1,1-dichloroethene	~~10~~	U
75-34-3	1,1-dichloroethane	10	U
540-59-0	trans-1,2-dichloroethene	10	U
67-66-3	chloroform	10	U
107-06-2	1,2-dichloroethane	10	U
78-93-3	2-butanone	~~50~~	U
71-55-6	1,1,1-trichloroethane	~~28~~	
56-23-5	carbon tetrachloride	10	U
75-27-4	bromodichloromethane	10	U
78-87-5	1,2-dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	trichloroethene	10	U
124-48-1	dibromochloromethane	10	U
79-00-5	1,1,2-trichloroethane	10	U
71-43-2	benzene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U
110-75-8	2-chloroethylvinylether	~~50~~	U
75-25-2	bromoform	10	U
108-88-3	4-methyl-2-pentanone	~~50~~	U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~	U
127-18-4	tetrachloroethene	78	
108-88-3	toluene	10	U
108-90-7	chlorobenzene	10	U
100-41-4	ethylbenzene	10	U
106-42-3	p-xylene	10	U
108-38-3	m-xylene	10	U

WAS 002 0116

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID 00240

13485
123

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-023

Sample wt/vol g/mL: N/A Lab File ID: >G2289

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/04/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND		Q
74-87-3	chloromethane	~~20~~	U
74-83-9	bromomethane	~~20~~	U
75-01-4	vinyl chloride	~~20~~	U
75-00-3	chloroethane	~~20~~	U
75-09-2	methylene chloride	10	U
107-02-8	acrolein	50	U J
67-64-1	acetone	~~50~~	U
107-13-1	acrylonitrile	50	U
75-69-4	trichlorofluoromethane	~~10~~	U
75-35-4	1,1-dichloroethene	10	U
75-34-3	1,1-dichloroethane	11	
540-59-0	trans-1,2-dichloroethene	10	U J
67-66-3	chloroform	10	U
107-06-2	1,2-dichloroethane	10	U
78-93-3	2-butanone	~~50~~	U
71-55-6	1,1,1-trichloroethane	98	
56-23-5	carbon tetrachloride	10	U
75-27-4	bromodichloromethane	10	U
78-87-5	1,2-dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	trichloroethene	10	U
124-48-1	dibromochloromethane	10	U
79-00-5	1,1,2-trichloroethane	10	U
71-43-2	benzene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U
110-75-8	2-chloroethylvinylether	~~50~~	U
75-25-2	bromoform	10	U
108-88-3	4-methyl-2-pentanone	~~50~~	U
79-34-5	1,1,2,2-tetrachloroethane	10	U
127-18-4	tetrachloroethene	72	
108-88-3	toluene	10	U
108-90-7	chlorobenzene	10	U
100-41-4	ethylbenzene	10	U
106-42-3	p-xylene	10	U
108-38-3	m-xylene	10	U

WAS 002 0117

00241

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
34858-23

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0118

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00249

3485B-124

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-024

Sample wt/vol g/mL: N/A Lab File ID:)G2306

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/06/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~U~~
74-83-9	bromomethane	~~U~~
75-01-4	vinyl chloride	~~U~~
75-00-3	chloroethane	~~U~~
75-09-2	methylene chloride	~~U~~
107-02-8	acrolein	~~U~~
67-64-1	acetone	~~U~~
107-13-1	acrylonitrile	~~U~~ B
75-69-4	trichlorofluoromethane	~~U~~
75-35-4	1,1-dichloroethene	~~U~~ J
75-34-3	1,1-dichloroethane	~~U~~
540-59-0	trans-1,2-dichloroethene	~~U~~
67-66-3	chloroform	~~U~~
107-06-2	1,2-dichloroethane	~~U~~
78-93-3	2-butanone	~~U~~
71-55-6	1,1,1-trichloroethane	~~U~~
56-23-5	carbon tetrachloride	~~U~~
75-27-4	bromodichloromethane	~~U~~
78-87-5	1,2-dichloropropane	~~U~~
10061-01-5	cis-1,3-dichloropropene	~~U~~
79-01-6	trichloroethene	~~U~~ J
124-48-1	dibromochloromethane	~~U~~
79-00-5	1,1,2-trichloroethane	~~U~~
71-43-2	benzene	~~U~~
10061-02-6	trans-1,3-dichloropropene	~~U~~
110-75-8	2-chloroethylvinylether	~~U~~
75-25-2	bromoform	~~U~~
108-88-3	4-methyl-2-pentanone	~~U~~
79-34-5	1,1,2,2-tetrachloroethane	~~U~~
127-18-4	tetrachloroethene	33 J
108-88-3	toluene	~~U~~
108-90-7	chlorobenzene	~~U~~
100-41-4	ethylbenzene	~~U~~
106-42-3	p-xylene	~~U~~
108-38-3	m-xylene	~~U~~

WAS 002 0119

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-24

Methane Analysis Data Sheet

Concentration: Low Medium (circle One)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0120

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00257

34853 - 25

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-025

Sample wt/vol g/mL: N/A Lab File ID: >G2307

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/06/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~30~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	~~10~~ U
107-02-8	acrolein	~~50~~ U
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ UJ
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ U
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	~~10~~ U
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	310 J
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ UJ
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	200 J
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0121

00258

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-25

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 1.5

WAS 002 0122

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
3485B-26

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-026

Sample wt/vol g/mL: N/A Lab File ID:)G2308

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/06/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	~~10~~ U
107-02-8	acrolein	~~50~~ U
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ U
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	~~10~~ U
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	250 J
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ UJ
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	320 J
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0123

00266

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-26

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05U

ul sample inj 75

WAS 002 0124

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00273

3485B-27

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-027

Sample wt/vol g/mL: N/A Lab File ID:)G2309

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/06/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	~~10~~ U
107-02-8	acrolein	~~50~~ U J
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ U
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	~~10~~ U
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	~~10~~ U
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ U J
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	19 J
108-88-3	toluene	9 J
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0125

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
34858-27

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0126

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
3485B- 00281
28

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-028

Sample wt/vol g/mL: N/A Lab File ID:)G2310

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/06/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~30~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	~~10~~ U
107-02-8	acrolein	~~50~~ U
67-64-1	acetone	~~240~~
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ U
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	~~10~~ U
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	950 J
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ U
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	170 J
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0127

00282

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-28

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

uL sample inj 75

WAS 002 0128

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00289
34858
29

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-029

Sample wt/vol g/mL: N/A Lab File ID: G2364

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/18/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20~~ U
74-83-9	bromomethane	~~20~~ U
75-01-4	vinyl chloride	~~20~~ U
75-00-3	chloroethane	~~20~~ U
75-09-2	methylene chloride	10 U
107-02-8	acrolein	50 U
67-64-1	acetone	~~2400~~
107-13-1	acrylonitrile	50 U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	10 U
75-34-3	1,1-dichloroethane	10 U
540-59-0	trans-1,2-dichloroethene	10 U
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	10 U
56-23-5	carbon tetrachloride	10 U
75-27-4	bromodichloromethane	10 U
78-87-5	1,2-dichloropropane	10 U
10061-01-5	cis-1,3-dichloropropene	10 U
~~79-01-6~~	~~trichloroethene~~	10 U
124-48-1	dibromochloromethane	10 U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	10 U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	10 U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	10 U
127-18-4	tetrachloroethene	18 J
108-88-3	toluene	10 U
108-90-7	chlorobenzene	10 U
100-41-4	ethylbenzene	10 U
106-42-3	p-xylene	10 U
108-38-3	m-xylene	10 U

WAS 002 0129

00290

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 34858-29

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0130

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00303

3485B-30

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-030

Sample wt/vol g/mL: N/A Lab File ID:)G2283

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/04/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q	
74-87-3	chloromethane	~~20~~ U	int
74-83-9	bromomethane	~~20~~ U	
75-01-4	vinyl chloride	~~20~~ U	
75-00-3	chloroethane	~~20~~ U	
75-09-2	methylene chloride	~~10~~ U	
107-02-8	acrolein	~~50~~ U J	cal
67-64-1	acetone	~~470~~ J	FB
107-13-1	acrylonitrile	~~50~~ U	
75-69-4	trichlorofluoromethane	~~10~~ U	int
75-35-4	1,1-dichloroethene	~~10~~ U	
75-34-3	1,1-dichloroethane	~~10~~ U	
540-59-0	trans-1,2-dichloroethene	~~10~~ U J	Cal
67-66-3	chloroform	~~10~~ U	
107-06-2	1,2-dichloroethane	~~10~~ U	
78-93-3	2-butanone	~~50~~ U	Cal
71-55-6	1,1,1-trichloroethane	~~10~~ U	
56-23-5	carbon tetrachloride	~~10~~ U	
75-27-4	bromodichloromethane	~~10~~ U	
78-87-5	1,2-dichloropropane	~~10~~ U	
10061-01-5	cis-1,3-dichloropropene	~~10~~ U	
79-01-6	trichloroethene	~~10~~ U	
124-48-1	dibromochloromethane	~~10~~ U	
79-00-5	1,1,2-trichloroethane	~~10~~ U	
71-43-2	benzene	~~10~~ U	
10061-02-6	trans-1,3-dichloropropene	~~10~~ U	Cal
110-75-8	2-chloroethylvinylether	~~50~~ U	Cal
75-25-2	bromoform	~~10~~ U	Cal
108-88-3	4-methyl-2-pentanone	~~50~~ U	
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U	
127-18-4	tetrachloroethene	65 J	
108-88-3	toluene	~~10~~ U	
108-90-7	chlorobenzene	~~10~~ U	
100-41-4	ethylbenzene	~~10~~ U	
106-42-3	p-xylene	~~10~~ U	
108-38-3	m-xylene	~~10~~ U	

WAS 002 0131

00304

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-30

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0132

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00311

3485B-31 ~~DUPLIC~~

1.25.88 PDP

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-031

Sample wt/vol g/mL: N/A Lab File ID:)G2324

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/13/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND		Q	
74-87-3	chloromethane	~~20~~	~~U~~	Incr
74-83-9	bromomethane	~~20~~	~~U~~	
75-01-4	vinyl chloride	~~20~~	~~U~~	
75-00-3	chloroethane	~~20~~	~~U~~	
75-09-2	methylene chloride	10	U	
107-02-8	acrolein	50	UJ	Cal
67-64-1	acetone	~~50~~	~~U~~	
107-13-1	acrylonitrile	~~2~~	~~J B~~	B
75-69-4	trichlorofluoromethane	~~10~~	~~U~~	Incr
75-35-4	1,1-dichloroethene	10	UJ	Cal
75-34-3	1,1-dichloroethane	10	U	
540-59-0	trans-1,2-dichloroethene	10	UJ	Cal
67-66-3	chloroform	10	U	
107-06-2	1,2-dichloroethane	10	U	
78-93-3	2-butanone	~~50~~	~~U~~	Cal
71-55-6	1,1,1-trichloroethane	10	U	
56-23-5	carbon tetrachloride	10	U	
75-27-4	bromodichloromethane	10	U	
78-87-5	1,2-dichloropropane	10	U	
10061-01-5	cis-1,3-dichloropropene	10	U	
79-01-6	trichloroethene	10	U	
124-48-1	dibromochloromethane	10	U	
79-00-5	1,1,2-trichloroethane	10	U	
71-43-2	benzene	10	U	
10061-02-6	trans-1,3-dichloropropene	10	U	
110-75-8	2-chloroethylvinylether	~~50~~	~~U~~	Cal
75-25-2	bromoform	10	UJ	Cal
108-88-3	4-methyl-2-pentanone	~~50~~	~~U~~	Cal
79-34-5	1,1,2,2-tetrachloroethane	10	U	
127-18-4	tetrachloroethene	8	J	
108-88-3	toluene	10	U	
108-90-7	chlorobenzene	10	U	
100-41-4	ethylbenzene	10	U	
106-42-3	p-xylene	10	U	
108-38-3	m-xylene	10	U	

WAS 002 0133

00312

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-31

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Con/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 15

WAS 002 0134

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 13485B-00319
32

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-032

Sample wt/vol g/mL: N/A Lab File ID: >G2363

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/18/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND		Q
74-87-3	chloromethane	20	U
74-83-9	bromomethane	20	U J
75-01-4	vinyl chloride	20	U
75-00-3	chloroethane	~~20~~	~~U~~
75-09-2	methylene chloride	10	U
107-02-8	acrolein	50	U J
67-64-1	acetone	~~50~~	~~U~~
107-13-1	acrylonitrile	50	U
75-69-4	trichlorofluoromethane	10	U
75-35-4	1,1-dichloroethene	10	U J
75-34-3	1,1-dichloroethane	10	U J
540-59-0	trans-1,2-dichloroethene	10	U J
67-66-3	chloroform	10	U
107-06-2	1,2-dichloroethane	10	U
78-93-3	2-butanone	~~50~~	~~U~~
71-55-6	1,1,1-trichloroethane	10	U
56-23-5	carbon tetrachloride	10	U
75-27-4	bromodichloromethane	10	U J
78-87-5	1,2-dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	trichloroethene	10	U
124-48-1	dibromochloromethane	10	U
79-00-5	1,1,2-trichloroethane	10	U J
71-43-2	benzene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U
110-75-8	2-chloroethylvinylether	~~50~~	~~U~~
75-25-2	bromoform	10	U J
108-88-3	4-methyl-2-pentanone	~~50~~	~~U~~
79-34-5	1,1,2,2-tetrachloroethane	10	U
127-18-4	tetrachloroethene	10	U
108-88-3	toluene	10	U
108-90-7	chlorobenzene	10	U
100-41-4	ethylbenzene	10	U
106-42-3	p-xylene	10	U
108-38-3	m-xylene	10	U

WAS 002 0135

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-32

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0136

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
~~3485B~~ 33 0325

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-033

Sample wt/vol g/mL: N/A Lab File ID: →G2362

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/18/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND		Q
74-87-3	chloromethane	20	U
74-83-9	bromomethane	20	UJ
75-01-4	vinyl chloride	20	U
75-00-3	chloroethane	~~20~~	~~U~~
75-09-2	methylene chloride	~~9~~	~~J~~
107-02-8	acrolein	50	UJ
67-64-1	acetone	~~50~~	~~U~~
107-13-1	acrylonitrile	50	U
75-69-4	trichlorofluoromethane	10	U
75-35-4	1,1-dichloroethene	~~10~~	~~UJ~~
75-34-3	1,1-dichloroethane	10	U
540-59-0	trans-1,2-dichloroethene	10	UJ
67-66-3	chloroform	10	U
107-06-2	1,2-dichloroethane	10	U
78-93-3	2-butanone	~~50~~	~~U~~
71-55-6	1,1,1-trichloroethane	10	U
56-23-5	carbon tetrachloride	10	U
75-27-4	bromodichloromethane	10	UJ
78-87-5	1,2-dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	trichloroethene	10	U
124-48-1	dibromochloromethane	10	U
79-00-5	1,1,2-trichloroethane	~~10~~	~~UJ~~
71-43-2	benzene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U
110-75-8	2-chloroethylvinylether	~~50~~	~~U~~
75-25-2	bromoform	~~10~~	~~UJ~~
108-88-3	4-methyl-2-pentanone	~~50~~	~~U~~
79-34-5	1,1,2,2-tetrachloroethane	10	U
127-18-4	tetrachloroethene	10	U
108-88-3	toluene	10	U
108-90-7	chlorobenzene	10	U
100-41-4	ethylbenzene	10	U
106-42-3	p-xylene	10	U
108-38-3	m-xylene	10	U

WAS 002 0137

00326

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-33

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0138

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
34858-
34
C0332

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-034

Sample wt/vol g/mL: N/A Lab File ID: G2296

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/05/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20 U~~
74-83-9	bromomethane	~~20 U~~
75-01-4	vinyl chloride	~~20 U~~
75-00-3	chloroethane	~~30 U~~ J
75-09-2	methylene chloride	~~43 B~~
107-02-8	acrolein	~~80 U~~
67-64-1	acetone	6900 J
107-13-1	acrylonitrile	~~30 U~~ B
75-69-4	trichlorofluoromethane	~~10 U~~
75-35-4	1,1-dichloroethene	~~10 U~~ J
75-34-3	1,1-dichloroethane	~~10 U~~
540-59-0	trans-1,2-dichloroethene	~~10 U~~ J
67-66-3	chloroform	~~10 U~~
107-06-2	1,2-dichloroethane	~~10 U~~
78-93-3	2-butanone	~~50 U~~
71-55-6	1,1,1-trichloroethane	~~10 U~~
56-23-5	carbon tetrachloride	~~10 U~~
75-27-4	bromodichloromethane	~~10 U~~ J
78-87-5	1,2-dichloropropane	~~10 U~~
10061-01-5	cis-1,3-dichloropropene	~~10 U~~
79-01-6	trichloroethene	~~10 U~~
124-48-1	dibromochloromethane	~~10 U~~
79-00-5	1,1,2-trichloroethane	~~10 U~~
71-43-2	benzene	~~10 U~~
10061-02-6	trans-1,3-dichloropropene	~~10 U~~
110-75-8	2-chloroethylvinylether	~~50 U~~
75-25-2	bromoform	~~10 U~~ J
108-88-3	4-methyl-2-pentanone	~~50 U~~
79-34-5	1,1,2,2-tetrachloroethane	~~55~~ B
127-18-4	tetrachloroethene	~~10 U~~
108-88-3	toluene	~~10 U~~
108-90-7	chlorobenzene	~~10 U~~
100-41-4	ethylbenzene	~~10 U~~
106-42-3	p-xylene	~~10 U~~
108-38-3	m-xylene	~~10 U~~

WAS 002 0139

00333

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-34

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)

Date Extracted/Prepared N/A

Date Analyzed 1/26/88

Core/Jar

Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0140

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
3485B-35

00344

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-035

Sample wt/vol g/mL: N/A Lab File ID:)62297

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/05/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	20 U
74-83-9	bromomethane	20 U
75-01-4	vinyl chloride	20 U
75-00-3	chloroethane	20 U
75-09-2	methylene chloride	10 U
107-02-8	acrolein	50 U
67-64-1	acetone	50 U
107-13-1	acrylonitrile	50 U
75-69-4	trichlorofluoromethane	10 U
75-35-4	1,1-dichloroethene	10 U
75-34-3	1,1-dichloroethane	10 U
540-59-0	trans-1,2-dichloroethene	10 U
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U
78-93-3	2-butanone	50 U
71-55-6	1,1,1-trichloroethane	10 U
56-23-5	carbon tetrachloride	10 U
75-27-4	bromodichloromethane	10 U
78-87-5	1,2-dichloropropane	10 U
10061-01-5	cis-1,3-dichloropropene	10 U
79-01-6	trichloroethene	10 U
124-48-1	dibromochloromethane	10 U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	10 U
110-75-8	2-chloroethylvinylether	50 U
75-25-2	bromoform	10 U
108-88-3	4-methyl-2-pentanone	50 U
79-34-5	1,1,2,2-tetrachloroethane	10 U
127-18-4	tetrachloroethene	10 U
108-88-3	toluene	10 U
108-90-7	chlorobenzene	10 U
100-41-4	ethylbenzene	10 U
106-42-3	p-xylene	10 U
108-38-3	m-xylene	10 U

WAS 002 0141

oratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-35

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/12/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
348513-00350
38

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-036

Sample wt/vol g/mL: N/A Lab File ID:)G2298

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/05/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	20 U
74-83-9	bromomethane	20 U
75-01-4	vinyl chloride	20 U
75-00-3	chloroethane	20 U
75-09-2	methylene chloride	10 U
107-02-8	acrolein	50 U
67-64-1	acetone	50 U
107-13-1	acrylonitrile	50 U
75-69-4	trichlorofluoromethane	10 U
75-35-4	1,1-dichloroethene	10 U
75-34-3	1,1-dichloroethane	10 U
540-59-0	trans-1,2-dichloroethene	10 U
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U
78-93-3	2-butanone	50 U
71-55-6	1,1,1-trichloroethane	10 U
56-23-5	carbon tetrachloride	10 U
75-27-4	bromodichloromethane	10 U
78-87-5	1,2-dichloropropane	10 U
10061-01-5	cis-1,3-dichloropropene	10 U
79-01-6	trichloroethene	10 U
124-48-1	dibromochloromethane	10 U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	10 U
110-75-8	2-chloroethylvinylether	50 U
75-25-2	bromoform	10 U
108-88-3	4-methyl-2-pentanone	50 U
79-34-5	1,1,2,2-tetrachloroethane	10 U
127-18-4	tetrachloroethene	10 U
108-88-3	toluene	10 U
108-90-7	chlorobenzene	10 U
100-41-4	ethylbenzene	10 U
106-42-3	p-xylene	10 U
108-38-3	m-xylene	10 U

WAS 002 0143

00351

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-38

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05U

ul sample inj 75

WAS 002 0144

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
3485B- 00356
39

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-037

Sample wt/vol g/mL: N/A Lab File ID:)G2299

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/05/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~20 U~~
74-83-9	bromomethane	~~20 U~~
75-01-4	vinyl chloride	~~20 U~~
75-00-3	chloroethane	~~20 U~~ J
75-09-2	methylene chloride	~~1100~~ J B
107-02-8	acrolein	50 U J
67-64-1	acetone	~~1100~~ J
107-13-1	acrylonitrile	~~50 U~~
75-69-4	trichlorofluoromethane	~~10 U~~
75-35-4	1,1-dichloroethene	~~10 U~~ J
~~75-34-3~~	~~1,1-dichloroethane~~	~~10 U~~
540-59-0	trans-1,2-dichloroethene	~~10 U~~ J
67-66-3	chloroform	~~10 U~~
107-06-2	1,2-dichloroethane	~~10 U~~
78-93-3	2-butanone	~~50 U~~
71-55-6	1,1,1-trichloroethane	220 J
56-23-5	carbon tetrachloride	~~10 U~~
75-27-4	bromodichloromethane	~~10 U~~ J
78-87-5	1,2-dichloropropane	~~10 U~~
10061-01-5	cis-1,3-dichloropropene	~~10 U~~
79-01-6	trichloroethene	~~10 U~~ J
124-48-1	dibromochloromethane	~~10 U~~
79-00-5	1,1,2-trichloroethane	~~10 U~~
71-43-2	benzene	~~10 U~~
10061-02-6	trans-1,3-dichloropropene	~~10 U~~
110-75-8	2-chloroethylvinylether	~~50 U~~
75-25-2	bromoform	~~10 U~~ J
108-88-3	4-methyl-2-pentanone	~~50 U~~
79-34-5	1,1,2,2-tetrachloroethane	~~10 U~~
127-18-4	tetrachloroethene	~~10 U~~ J
108-88-3	toluene	48 J
108-90-7	chlorobenzene	~~10 U~~
100-41-4	ethylbenzene	~~10 U~~
106-42-3	p-xylene	~~10 U~~
108-38-3	m-xylene	~~10 U~~

WAS 002 0145

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number 3485B-39

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
34853-
40
00366

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-038

Sample wt/vol g/mL: N/A Lab File ID:)G2301

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/05/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	30 U
74-83-9	bromomethane	30 U
75-01-4	vinyl chloride	20 U
75-00-3	chloroethane	20 U J
75-09-2	methylene chloride	10 U
107-02-8	acrolein	50 U J
67-64-1	acetone	4200 E
107-13-1	acrylonitrile	50 U
75-69-4	trichlorofluoromethane	10 U
75-35-4	1,1-dichloroethene	10 U J
75-34-3	1,1-dichloroethane	10 U
540-59-0	trans-1,2-dichloroethene	10 U J
67-66-3	chloroform	10 U
107-06-2	1,2-dichloroethane	10 U
78-93-3	2-butanone	50 U
71-55-6	1,1,1-trichloroethane	10 U
56-23-5	carbon tetrachloride	10 U
75-27-4	bromodichloromethane	10 U J
78-87-5	1,2-dichloropropane	10 U
10061-01-5	cis-1,3-dichloropropene	10 U
79-01-6	trichloroethene	10 U J
124-48-1	dibromochloromethane	10 U
79-00-5	1,1,2-trichloroethane	10 U
71-43-2	benzene	10 U
10061-02-6	trans-1,3-dichloropropene	10 U
110-75-8	2-chloroethylvinylether	50 U
75-25-2	bromoform	10 U J
108-88-3	4-methyl-2-pentanone	50 U
79-34-5	1,1,2,2-tetrachloroethane	10 U
127-18-4	tetrachloroethene	10 U J
108-88-3	toluene	21 J
108-90-7	chlorobenzene	10 U
100-41-4	ethylbenzene	10 U
106-42-3	p-xylene	12 J
108-38-3	m-xylene	10 U

WAS 002 0147

00367

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
34858-40

Methane Analysis Data Sheet

Concentration: Low Medium (circle One)
Date Extracted/Prepared N/A
Date Analyzed 1/5/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05 U

ul sample inj 75

WAS 002 0148

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID.
3485B-41 00375

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-039

Sample wt/vol g/mL: N/A Lab File ID:)G2300

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/05/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND		Q	
74-87-3	chloromethane	20	U	
74-83-9	bromomethane	20	U	
75-01-4	vinyl chloride	20	U	
75-00-3	chloroethane	20	U	
75-09-2	methylene chloride	10	U	
107-02-8	acrolein	50	U	
67-64-1	acetone	[illegible]		FB
107-13-1	acrylonitrile	50	U	
75-69-4	trichlorofluoromethane	10	U	
75-35-4	1,1-dichloroethene	10	U	
75-34-3	1,1-dichloroethane	10	U	
540-59-0	trans-1,2-dichloroethene	10	U	
67-66-3	chloroform	10	U	
107-06-2	1,2-dichloroethane	10	U	
78-93-3	2-butanone	50	U	
71-55-6	1,1,1-trichloroethane	10	U	
56-23-5	carbon tetrachloride	10	U	
75-27-4	bromodichloromethane	10	U	
78-87-5	1,2-dichloropropane	10	U	
10061-01-5	cis-1,3-dichloropropene	10	U	
79-01-6	trichloroethene	10	U	
124-48-1	dibromochloromethane	10	U	
79-00-5	1,1,2-trichloroethane	10	U	
71-43-2	benzene	10	U	
10061-02-6	trans-1,3-dichloropropene	10	U	
110-75-8	2-chloroethylvinylether	50	U	
75-25-2	bromoform	10	U	
108-88-3	4-methyl-2-pentanone	50	U	
79-34-5	1,1,2,2-tetrachloroethane	10	U	
127-18-4	tetrachloroethene	10	U	
108-88-3	toluene	10	U	
108-90-7	chlorobenzene	10	U	
100-41-4	ethylbenzene	10	U	
106-42-3	p-xylene	10	U	
108-38-3	m-xylene	10	U	

WAS 002 0149

00376

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-41

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05u

ul sample inj 75

WAS 002 0150

1

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE ID. 00382

3485B-42

Lab Name: YORK LABS Case: SAS 3485B

Lab Code: YORK Job No.: 30880-0350

Matrix: AIR Lab Sample ID: 0350-040

Sample wt/vol g/mL: N/A Lab File ID:)G2302

Level Low/Med: N/A Date Received: 12/28/87

Date Analyzed: 01/05/88

Dilution Factor: 3

Concentration Units: ng

CAS No.	COMPOUND	Q
74-87-3	chloromethane	~~10~~ U
74-83-9	bromomethane	~~10~~ U
75-01-4	vinyl chloride	~~10~~ U
75-00-3	chloroethane	~~10~~ UJ
75-09-2	methylene chloride	~~10~~ U
107-02-8	acrolein	~~50~~ UJ
67-64-1	acetone	~~50~~ U
107-13-1	acrylonitrile	~~50~~ U
75-69-4	trichlorofluoromethane	~~10~~ U
75-35-4	1,1-dichloroethene	~~10~~ U
75-34-3	1,1-dichloroethane	~~10~~ U
540-59-0	trans-1,2-dichloroethene	~~10~~ U
67-66-3	chloroform	~~10~~ U
107-06-2	1,2-dichloroethane	~~10~~ U
78-93-3	2-butanone	~~50~~ U
71-55-6	1,1,1-trichloroethane	~~10~~ U
56-23-5	carbon tetrachloride	~~10~~ U
75-27-4	bromodichloromethane	~~10~~ U
78-87-5	1,2-dichloropropane	~~10~~ U
10061-01-5	cis-1,3-dichloropropene	~~10~~ U
79-01-6	trichloroethene	~~10~~ U
124-48-1	dibromochloromethane	~~10~~ U
79-00-5	1,1,2-trichloroethane	~~10~~ U
71-43-2	benzene	~~10~~ U
10061-02-6	trans-1,3-dichloropropene	~~10~~ U
110-75-8	2-chloroethylvinylether	~~50~~ U
75-25-2	bromoform	~~10~~ U
108-88-3	4-methyl-2-pentanone	~~50~~ U
79-34-5	1,1,2,2-tetrachloroethane	~~10~~ U
127-18-4	tetrachloroethene	~~10~~ U
108-88-3	toluene	~~10~~ U
108-90-7	chlorobenzene	~~10~~ U
100-41-4	ethylbenzene	~~10~~ U
106-42-3	p-xylene	~~10~~ U
108-38-3	m-xylene	~~10~~ U

WAS 002 0151

Laboratory Name York Labs

Case No. SAS 3485B

Sample Number
3485B-42

Methane Analysis Data Sheet

Concentration: Low Medium (circle one)
Date Extracted/Prepared N/A
Date Analyzed 1/8/88
Conc/Dil Factor
Percent Moisture (decanted) N/A

	% (Percent)
Methane	.05U

ul sample inj 75

LFG RAW DATA

ROUND 2

(MAR. 88)

W/ Sample Tracking Sheets

WAS 002 0153

NY

CDM

Project: PORT WASHINGTON
Job Number: 7777-213-GRI-SISOL
Locations Sampled: LFG 201, 202, 203, 204
INIT 1, 2, 3, 4, 5, 6, 7
PLASTIC VENT

Sampling Team: SMITH, WILLIAMS, WENZEL
From 3/12 to 3/14/88
Page 1 of 5

SAS 3682B

CHAIN-OF-CUSTODY
Sample Handling/Packing
Field Report Form

Sample No./ Location	Date Sampled	Canister No.	Probe	Sampler No.	Pump No.	SAS	SAMPLE TAG # Gage No.	Laboratory & Analysis	Fed X Air Bill No.	Date Shipped
213-GS-201-04	3/12/88	024	85-90			3682B-01	19651	* SWRI VOA	4029443784	3/14/88
213-GS-201-05	3/12/88	021	110-115			3682B-02	19652	"	"	"
213-GS-202-04	3/12/88	034	A			-03	19653	"	"	"
213-GS-202-05	3/12/88	050	A (DUP)			-04	19654	" (DUPLICATE)	"	"
213-GS-202-06	"	013	B			-05	19655	SWRI VOA	"	"
213-GS-202-07	"	016	C			-06	19656	"	"	"
213-GS-203-03	3/13/88	054	A			-07	19657	"	6933733407	3/14/88
213-GS-203-04	"	027	B			-08	19658	"	"	"
213-GS-203-05	"	041	C			-09	19659	"	"	"
213-GS-204-04	3/12/88	026	A			-10	19660	"	"	"

* SOUTHWEST RESEARCH INSTITUTE (SWRI)
6220 CULEBRA RD
SAN ANTONIO, TX. 78284
ATTN: JOANN LANESS

FOR THIS SHIPMENT (3/14)
Master Airbill #
4029443784

NY

CDM

Project: BAT WASH

Job Number: -213- 5F50L

Locations Sampled: LFG Wells & Plastic Pipe

Sampling Team: SMITH, WILLIAMS, WENCZEL

From 3/12 to 3/14/88

Page 2 of 5

CHAIN-OF-CUSTODY
Sample Handling/Packing
Field Report Form

Sample No./ Location	Date Sampled	Canister No.	Probe	Sampler No.	Pump No.	SAS	Case No.	Laboratory & Analysis	Fed X Air Bill No.	Date Shipped
213-GS-204-05	3/12/88	047	B			3682B-11	19801	SWRI VOA	6938723407	3/14/88
213-GS-204-06	3/12/88	045	C			3682B-12	19802	"	"	"
213-GS-TNH1-04	3/13/88	036	A			-13	19803	"	6938723416	"
213-GS-TNH1-05	"	022	B			-14	19804	"	"	"
213-GS-TNH1-06	"	033	B (DUP)			-15	19805	"	"	"
213-GS-TNH1-07	"	043	C			-16	19806	"	"	"
213-GS-TB-03	3/14/88	039	TRIP BLANK	NONE	NONE	-37	19827	"	"	"
213-GS-FB-03	3/14/88	001	FIELD BLANK		NONE	-38	19828	"	"	"
213-GS-TNH3-03	3/13/88	019	A			-17	19807	"	6938723425	"
213-GS-TNH2-04	3/13/88	020	B			-18	19808	"	"	"

WAS 002 0155

NY

CDM

Project: PORT WASH
Job Number: -213-SISOIL
Locations Sampled: LEG Wells & Probe Vent

Sampling Team: SMITH, WILLIAMS, WENCZEL
From _____ to _____
Page 3 of 5

CHAIN-OF-CUSTODY
Sample Handling/Packing
Field Report Form

Sample No./ Location	Date Sampled	Canister No.	Probe	Sampler No.	Pump No.	SAS	SAMPLE TAG # ~~Case No.~~	Laboratory & Analysis	Fed X Air Bill No.	Date Shipped
213-GS-TNH2-05	3/13/88	029	C			3662B -19	19809	SWRI VOA	693872 3425	3/14/88
213-GS-TNH3-03	3/12/88	007	A			-20	19810	"	"	"
213-GS-TNH3-04	3/12/88	030	B			-21	19811	"	"	"
213-GS-TNH3-05	"	017	C			-22	19812	"	"	"
213-GS-TNH4-04	3/14/88	035	A			-23	19813	"	4029NH3 795	3/15/88
213-GS-TNH4-05	3/14/88	052	B			-24	19814	"	"	"
213-GS-TNH4-06	"	049	B (DUP)			-25	19815	"	"	"
213-GS-TNH4-07	"	015	C			-26	19816	"	"	"
213-GS-TNH5-04	3/12/88	032	A			-27	19817	"	"	"

FOR THIS SHIPMENT (3/15)
MASTER AIRBILL #
4029443795

WAS 002 0156

CDM

Project: PORT WASH
Job Number: -213-5F SOL
Locations Sampled: LFG Wells & Plastic Vent

Sampling Team: SMITH, WILLIAMS, WENCZEL
From 3/12 to 3/14/88
Page 4 of 5

CHAIN-OF-CUSTODY
Sample Handling/Packing
Field Report Form

Sample No./ Location	Date Sampled	Canister No.	Probe	Sampler No.	Pump No.	SAS	SAMPLE TAG # Case No.	Laboratory & Analysis	Fed X Air Bill No.	Date Shipped
213-GS-TNH5-05	3/12/88	010	B			3682B -28	19818	SWRI VOA	402944 3795	3/15/88
213-GS-TNH6-05	3/13/88	014	A			-30	19820	"	693872 3452	"
213-GS-TNH6-06	"	018	B			-31	19821	"	"	"
213-GS-TNH6-07	"	031	C			-32	19822	"	"	"
213-GS-TNH7-04	3/14/88	006	A			-33	19823	"	"	"
213-GS-TNH7-05	3/14/88	011	B			-34	19824	"	"	"
213-GS-TNH7-06	"	004	B (DUP)			-35	19825	"	693872 3452	3/15/88
213-GS-TNH7-07	"	025	C			-36	19826	"	693472 3452	3/15/88
213-GS-FB-04	3/13/88	002	FIELD BLANK			-39	19829	"	"	"
213-GS-PV-01	3/14/88	038	PLASTIC VENT			-40	19830	"	"	"

WAS 002 0157

N1

CDM

Project: PORT WASH
Job Number: -213-SESOL
Locations Sampled: LEG Wells & Plastic Vent

Sampling Team: SMITH, WILLIAMS, WENCZEL
from 3/12 to 3/14/88
Page 5 of 5

CHAIN-OF-CUSTODY
Sample Handling/Packing
Field Report Form

Sample No./ Location	Date Sampled	Canister No.	Probe	Sampler No.	Pump No.	SAS	~~SAMPLE~~ TAG # ~~Case No.~~	Laboratory & Analysis	Fed X Air Bill No.	Date Shipped
213-GS-TNH5-06	3/12/88	003	C			36613-29	19819	SWRI VOA	6738720 3452	3/15/88

WAS 002 0158

UNITED STATES GOVERNMENT

2-Way Memo

INSTRUCTIONS

Use routing symbols whenever possible

SENDER (*Originator of message*)
Use brief, informal language
Conserve space
Forward original and one copy

RECEIVER (*Replier to message*)
Reply below the message, keep one copy, return one copy

Subject: QUALITY ASSURANCE REVIEWED CLP DATA

DATE OF MESSAGE: 05/20/88.

ROUTING SYMBOL:

SIGNATURE OF ORIGINATOR:

TITLE OF ORIGINATOR: Sample Control Coordinator

To :

Laura Gavin
CDM/REM II
40 Rector Avenue
New York, New York 10006

FOLD

MESSAGE

Attached is a copy of the EPA Region II CLP data for the following site:

SITE	CASE #	LABORATORY	ANALYSIS
Port Washington	3682B	SWRI	SAS-VOA (Gas 54)

Please sign and date below space provided and return page # 2 to verify that you have recieved above data.If you have any question please call me at (201)321-6705.
Red lined data are rejected and should not be used.

REPLY

From :

Regina Odubo-Sullivan
RSCC
Region II - Woodbridge Avenue
Edison, New Jersey 08837

DATE OF REPLY: 5-20-88

SIGNATURE OF REPLIER:

TITLE OF REPLIER:

1 RETAINED BY ADDRESSOR

OPTIONAL FORM

NSN

WAS 002 0159

SUMMA CANISTER SURROGATE PERCENT RECOVERY SUMMARY

Case No.: SAS 3682B Contract Laboratory: SwRI Contract No.: 68-01-7167

	Volatile			Semi-Volatile						Pesticide
SMC Traffic No.	Toluene-D8	BFB	1,2-Dichloroethane-D4	Nitrobenzene-D5	2-Fluorobiphenyl	Terphenyl-D14	Phenol-D5	2-Fluorophenol	2,4,6-Tribromophenol	Dibutylchlorendate
3682B-01	103	97	108	NR	NR	NR	NR	NR	NR	NR
3682B-02	110	99	113	NR	NR	NR	NR	NR	NR	NR
3682B-03	111	99	115	NR	NR	NR	NR	NR	NR	NR
3682B-03 DL	109	106	103	NR	NR	NR	NR	NR	NR	NR
3682B-04	110	88	116	NR	NR	NR	NR	NR	NR	NR
3682B-04 DL	102	105	100	NR	NR	NR	NR	NR	NR	NR
3682B-05	101	105	94	NR	NR	NR	NR	NR	NR	NR
3682B-05 DL	103	101	106	NR	NR	NR	NR	NR	NR	NR
3682B-06	104	102	104	NR	NR	NR	NR	NR	NR	NR
3682B-06 DL	103	96	112	NR	NR	NR	NR	NR	NR	NR
3682B-07	106	106	107	NR	NR	NR	NR	NR	NR	NR
3682B-08	106	103	102	NR	NR	NR	NR	NR	NR	NR
3682B-08 DL	101	99	112	NR	NR	NR	NR	NR	NR	NR
3682B-09	105	101	105	NR	NR	NR	NR	NR	NR	NR
3682B-09 DL	105	103	123	NR	NR	NR	NR	NR	NR	NR
3682B-10	109	102	105	NR	NR	NR	NR	NR	NR	NR
3682B-10 DL	105	97	111	NR	NR	NR	NR	NR	NR	NR
3682B-11	104	106	98	NR	NR	NR	NR	NR	NR	NR
3682B-12	101	98	95	NR	NR	NR	NR	NR	NR	NR
3682B-12 DL	110	112	117	NR	NR	NR	NR	NR	NR	NR
3682B-13	98	98	109	NR	NR	NR	NR	NR	NR	NR
3682B-14	108	103	104	NR	NR	NR	NR	NR	NR	NR
3682B-14 DL	103	101	115	NR	NR	NR	NR	NR	NR	NR
3682B-15	106	99	105	NR	NR	NR	NR	NR	NR	NR
3682B-15 DL	105	103	123	NR	NR	NR	NR	NR	NR	NR
3682B-16	106	108	103	NR	NR	NR	NR	NR	NR	NR
3682B-16 DL	100	108	113	NR	NR	NR	NR	NR	NR	NR
3682B-17	106	77	135	NR	NR	NR	NR	NR	NR	NR
3682B-18	113	77	81	NR	NR	NR	NR	NR	NR	NR
3682B-19	100	93	103	NR	NR	NR	NR	NR	NR	NR
3682B-19 DL	100	102	105	NR	NR	NR	NR	NR	NR	NR
3682B-20	104	96	108	NR	NR	NR	NR	NR	NR	NR

Comments: NR -- not required
RE -- re-extracted
DL -- dilution

* INTERFERENCE (MATRIX EFFECT OF SATURATED SAMPLE ANALYSIS)

File FRM2001 - on disk Case SAS 3682B FORM II

WAS 002 0160

SUMMA CANISTER SURROGATE Recovery for Samples

Case No.: SAS 3682B Contract Laboratory: SwRI Contract No.: 68-01-7167

SMO Traffic No.	Volatile: Toluene-D8	BFB	1,2-Dichloroethane-D4	Semi-Volatile: Nitrobenzene-D5	2-Fluorobiphenyl	Terphenyl-D14	Phenol-D5	2-Fluorophenol	2,4,6-Tribromophenol	Pesticide: Dibutylchlorendate
3682B-21	111	96	105	NR	NR	NR	NR	NR	NR	NR
3682B-21 DL	100	100	109	NR	NR	NR	NR	NR	NR	NR
3682B-22	113	93	111	NR	NR	NR	NR	NR	NR	NR
3682B-23	108	109	95	NR	NR	NR	NR	NR	NR	NR
3682B-24	98	105	98	NR	NR	NR	NR	NR	NR	NR
3682B-25	111	103	102	NR	NR	NR	NR	NR	NR	NR
3682B-26	103	105	108	NR	NR	NR	NR	NR	NR	NR
3682B-27	107	109	95	NR	NR	NR	NR	NR	NR	NR
3682B-28	105	108	118	NR	NR	NR	NR	NR	NR	NR
3682B-29	104	98	115	NR	NR	NR	NR	NR	NR	NR
3682B-30	103	93	123	NR	NR	NR	NR	NR	NR	NR
3682B-31	104	96	109	NR	NR	NR	NR	NR	NR	NR
3682B-32	98	110	112	NR	NR	NR	NR	NR	NR	NR
3682B-33	105	80	110	NR	NR	NR	NR	NR	NR	NR
3682B-34	106	98	108	NR	NR	NR	NR	NR	NR	NR
3682B-34 DL	105	106	117	NR	NR	NR	NR	NR	NR	NR
3682B-35	106	77	114	NR	NR	NR	NR	NR	NR	NR
3682B-35 DL	104	108	114	NR	NR	NR	NR	NR	NR	NR
3682B-36	108	111	92	NR	NR	NR	NR	NR	NR	NR
3682B-37	106	103	102	NR	NR	NR	NR	NR	NR	NR
3682B-38	107	103	97	NR	NR	NR	NR	NR	NR	NR
3682B-39	104	78	115	NR	NR	NR	NR	NR	NR	NR
3682B-40	107	78	119	NR	NR	NR	NR	NR	NR	NR
3682B-42	109	114	105	NR	NR	NR	NR	NR	NR	NR
3682B-43	107	119	104	NR	NR	NR	NR	NR	NR	NR
3682B-44	114	110	117	NR	NR	NR	NR	NR	NR	NR
3682B-45	109	115	121	NR	NR	NR	NR	NR	NR	NR
3682B-46	106	108	114	NR	NR	NR	NR	NR	NR	NR
3682B-47	104	111	119	NR	NR	NR	NR	NR	NR	NR
3682B-48	8*	8*	8	NR	NR	NR	NR	NR	NR	NR
3682B-48 DL	106	94	107	NR	NR	NR	NR	NR	NR	NR
3682B-49	99	109	112	NR	NR	NR	NR	NR	NR	NR
3682B-50	101	101	112	NR	NR	NR	NR	NR	NR	NR

Comments: NR -- not required
RE -- re-extracted
DL -- dilution

* INTERFERENCE (MATRIX EFFECT OF GROSSLY SATURATED ANALYSIS)

File FRM2B82 - on disk Case SAS 3682B

FORM II

WAS 002 0161

SUMMA CANISTER SURROGATE PERCENT RECOVERY SUMMARY

Case No.: SAS 3682B Contract Laboratory: SwRI Contract No.: 68-01-7167

	Volatile			Semi-Volatile						Pesticide
SMO Traffic No.	Toluene-D8	BFB	1,2-Dichloroethane-D4	Nitrobenzene-D5	2-Fluorobiphenyl	Terphenyl-D14	Phenol-D5	2-Fluorophenol	2,4,6-Tribromophenol	Dibutylchlorendate
3682B-51	99	105	107	NR	NR	NR	NR	NR	NR	NR
3682B-52	100	100	114	NR	NR	NR	NR	NR	NR	NR
3682B-53	99	98	111	NR	NR	NR	NR	NR	NR	NR
3682B-53 DL	107	100	121	NR	NR	NR	NR	NR	NR	NR
3682B-54	101	102	112	NR	NR	NR	NR	NR	NR	NR
3682B-55	96	115	111	NR	NR	NR	NR	NR	NR	NR
VBK04020601	101	88	113	NR	NR	NR	NR	NR	NR	NR
VBK04030601	101	75	103	NR	NR	NR	NR	NR	NR	NR
VBK04030602	109	91	100	NR	NR	NR	NR	NR	NR	NR
VBK04040601	105	96	100	NR	NR	NR	NR	NR	NR	NR
VBK04040602	104	102	98	NR	NR	NR	NR	NR	NR	NR
VBK04050601	92	97	104	NR	NR	NR	NR	NR	NR	NR
VBK04060601	101	100	101	NR	NR	NR	NR	NR	NR	NR
VBK04070601	100	105	98	NR	NR	NR	NR	NR	NR	NR
VBK04080601	95	102	88	NR	NR	NR	NR	NR	NR	NR
VBK04130601	95	95	93	NR	NR	NR	NR	NR	NR	NR
VBK04140601	107	98	106	NR	NR	NR	NR	NR	NR	NR
3682B-17 MS	106	103	91	NR	NR	NR	NR	NR	NR	NR
3682B-17 MSD	95	102	96	NR	NR	NR	NR	NR	NR	NR
3682B-29 MS	98	105	102	NR	NR	NR	NR	NR	NR	NR
3682B-29 MSD	101	95	102	NR	NR	NR	NR	NR	NR	NR
3682B-44 MS	112	79	112	NR	NR	NR	NR	NR	NR	NR
3682B-44 MSD	108	114	116	NR	NR	NR	NR	NR	NR	NR

Comments: NR -- not required
RE -- re-extracted
DL -- dilution
MS -- matrix spike
MSD -- matrix spike duplicate

File FRM2003 - on disk Case SAS 3682B FORM II

WAS 002 0162

[illegible]

Case No: [illegible] Contractor: [illegible] Contract No.: [illegible]

Fraction	Compound	Conc. Spike Added	Sample Result	Conc. MS	% Rec	Conc. MSD	% Rec
	1,1-Dichloroethene	[illegible]	0	[illegible]	79	[illegible]	77
SML	Trichloroethene	[illegible]	0	26	96	24	89
SAMPLE NO.	Chlorobenzene	[illegible]	0	33	103	[illegible]	122
3682B-17	Toluene	38	0	40	105	36	95
	Benzene	45	0	47	124	46	102
VOA	1,1-Dichloroethene	34	0	31	62	31	62
SMC	Trichloroethene	25	0	23	92	22	88
SAMPLE NO.	Chlorobenzene	29	0	29	100	26	97
3682B-29	Toluene	36	0	35	97	35	97
	Benzene	42	0	40	95	38	90
VOA	1,1-Dichloroethene	36	0	25	69	26	72
SMC	Trichloroethene	27	0	23	85	23	85
SAMPLE NO.	Chlorobenzene	31	0	31	100	31	100
3682B-44	Toluene	38	2.9	43	106	42	103
	Benzene	45	0	41	91	41	91

COMMENTS:

Sample Number: 3682B-01

3 0001

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B01-
Sample Matrix: Canister
Data Release Authorized By: J. Lawless

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 21.70 psi
Final Pressure: 15.40 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 16.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.2U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.8U	10061-02-6	Trans-1,3-Dichloropropene	1.6U
75-01-4	Vinyl Chloride	5.8U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.6U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.1U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	8.0	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.6U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	1.8U	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
67-66-3	Chloroform	1.5U	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.8U	127-18-4	Tetrachloroethene	14
3-93-3	2-Butanone	2.5U	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
/1-55-6	1,1,1-Trichloroethane	9.5	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the ... (e.g. ... based on necessary concentration/dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component ... >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that ...

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0164

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-02

3 0020

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B02-
Sample Matrix: Canister
Data Release Authorized By: J Lawless

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 22.05 psi
Final Pressure: 16.00 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 16.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.5U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.0U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.0U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.8U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~9.3~~	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	0.4 J	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.9U
67-66-3	Chloroform	1.6U	108-10-1	2-Hexanone	1.9U
7-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	16
-93-3	2-Butanone	1.9 J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	24	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.8U
				Total Xylenes	1.8U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).

If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0165

Form I

final concentration - 2.5 ppbC

SOUTHWEST RESEARCH INSTITUTE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B03-
Sample Matrix: Canister
Data Release Authorized By: J Lawler

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 27.00 psi
Final Pressure: 20.75 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 16.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.2U	78-87-5	1,2-Dichloropropane	9.7
74-83-9	Bromomethane	3.9U	10061-02-6	Trans-1,3-Dichloropropene	1.6U
75-01-4	Vinyl Chloride	5.8U	79-01-6	Trichloroethene	33
75-00-3	Chloroethane	5.7U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	92	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	10	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.6U
75-35-4	1,1-Dichloroethene	10	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	138 E	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	94 E	591-78-6	4-Methyl-2-Pentanone	1.8U
-66-3	Chloroform	7.7	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.8U	127-18-4	Tetrachloroethene	248 E
78-93-3	2-Butanone	2.3 J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	281 E	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sam

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified c where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ide criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pe >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that spe

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0166

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-03 ...

3 008

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B03DL-
Sample Matrix: Canister
Data Release Authorized By: [signature]

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/07/88
Date Analyzed: 04/07/88

Initial Pressure: 17.2 psi
Final Pressure: 16.5 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	65U
74-83-9	Bromomethane	35U
75-01-4	Vinyl Chloride	52U
75-00-3	Chloroethane	51U
75-09-2	Methylene Chloride	19U
67-64-1	Acetone	~~22~~ J
75-15-0	Carbon Disulfide	21U
75-35-4	1,1-Dichloroethene	5.1 J
75-34-3	1,1-Dichloroethane	116
156-60-5	Trans-1,2-Dichloroethene	66
-66-3	Chloroform	14U
../-06-2	1,2-Dichloroethane	17U
78-93-3	2-Butanone	23U
71-55-6	1,1,1-Trichloroethane	258
56-23-5	Carbon Tetrachloride	11U
108-05-4	Vinyl Acetate	19U
75-27-4	Bromodichloromethane	10U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	15U
10061-02-6	Trans-1,3-Dichloropropene	15U
79-01-6	Trichloroethene	28
124-48-1	Dibromochloromethane	7.9U
79-00-5	1,1,2-Trichloroethane	12U
71-43-2	Benzene	21U
10061-01-5	Cis-1,3-Dichloropropene	15U
110-75-8	2-Chloroethylvinylether	15U
75-25-2	Bromoform	6.5U
591-78-6	4-Methyl-2-Pentanone	16U
108-10-1	2-Hexanone	16U
127-18-4	Tetrachloroethene	277
79-34-5	1,1,2,2-Tetrachloroethane	9.8U
108-88-3	Toluene	18U
108-90-7	Chlorobenzene	15U
100-41-4	Ethylbenzene	15U
100-42-5	Styrene	16U
	Total Xylenes	15U

~~Data~~ Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ide criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component s >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable meth blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that c ar

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0167

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-04

3 0113

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B04-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 27.00 psi
Final Pressure: 20.55 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 16.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.0U	78-87-5	1,2-Dichloropropane	9.4
74-83-9	Bromomethane	3.7U	10061-02-6	Trans-1,3-Dichloropropene	1.6U
75-01-4	Vinyl Chloride	5.7U	79-01-6	Trichloroethene	35
75-00-3	Chloroethane	5.5U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	~~29~~ F	79-00-5	1,1,2-Trichloroethane	1.3U
67-64-1	Acetone	~~8.3~~ F	71-43-2	Benzene	2.2U
75-15-0	Carbon Disulfide	2.3U	10061-01-5	Cis-1,3-Dichloropropene	1.6U
[illegible]-35-4	1,1-Dichloroethene	10	110-75-8	2-Chloroethylvinylether	1.7U
[illegible]-34-3	1,1-Dichloroethane	152 E	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	100 E	591-78-6	4-Methyl-2-Pentanone	1.8U
67-66-3	Chloroform	8.2	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.8U	127-18-4	Tetrachloroethene	241 E
78-93-3	2-Butanone	2.4U	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	266 E	108-88-3	Toluene	1.9U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.0U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

[illegible] the [illegible] was the [illegible]

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10 based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for th[illegible].

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identif[illegible] ounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). ficat
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS. ides

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that c a

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0168

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-04 DILUTION

3 015

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B04DL-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/07/88
Date Analyzed: 04/07/88

Initial Pressure: 14.6 psi
Final Pressure: 14.15 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	101U	78-87-5	1,2-Dichloropropane	23U
74-83-9	Bromomethane	54U	10061-02-6	Trans-1,3-Dichloropropene	23U
75-01-4	Vinyl Chloride	81U	79-01-6	Trichloroethene	29
75-00-3	Chloroethane	79U	124-48-1	Dibromochloromethane	12U
75-09-2	Methylene Chloride	30U	79-00-5	1,1,2-Trichloroethane	19U
67-64-1	Acetone	~~41 J~~	71-43-2	Benzene	32U
75-15-0	Carbon Disulfide	33U	10061-01-5	Cis-1,3-Dichloropropene	23U
75-35-4	1,1-Dichloroethene	2.6 J	110-75-8	2-Chloroethylvinylether	24U
75-34-3	1,1-Dichloroethane	142	75-25-2	Bromoform	10U
156-60-5	Trans-1,2-Dichloroethene	71	591-78-6	4-Methyl-2-Pentanone	25U
66-3	Chloroform	9.6 J	108-10-1	2-Hexanone	25U
..7-06-2	1,2-Dichloroethane	26U	127-18-4	Tetrachloroethene	308
78-93-3	2-Butanone	35U	79-34-5	1,1,2,2-Tetrachloroethane	15U
71-55-6	1,1,1-Trichloroethane	258	108-88-3	Toluene	27U
56-23-5	Carbon Tetrachloride	17U	108-90-7	Chlorobenzene	23U
108-05-4	Vinyl Acetate	29U	100-41-4	Ethylbenzene	24U
75-27-4	Bromodichloromethane	16U	100-42-5	Styrene	24U
				Total Xylenes	24U

Data Reporting Qualifiers

Values: If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identificati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component s es >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable metho blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that s an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0169

SOUTHWEST RESEARCH INSTITUTE

Number: 3682B-05

3 0179

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B05-
Sample Matrix: Canister
Data Release Authorized By: J Bowden

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 23.20 psi
Final Pressure: 12.60 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	4.3U
74-83-9	Bromomethane	2.3U
75-01-4	Vinyl Chloride	3.5U
75-00-3	Chloroethane	3.3U
75-09-2	Methylene Chloride	~~96 E~~
67-64-1	Acetone	~~14~~
75-15-0	Carbon Disulfide	1.4U
75-35-4	1,1-Dichloroethene	8.9
75-34-3	1,1-Dichloroethane	76 E
156-60-5	Trans-1,2-Dichloroethene	24
-66-3	Chloroform	4.2
107-06-2	1,2-Dichloroethane	1.1U
78-93-3	2-Butanone	1.8 J
71-55-6	1,1,1-Trichloroethane	280 E
56-23-5	Carbon Tetrachloride	0.7U
108-05-4	Vinyl Acetate	1.2U
75-27-4	Bromodichloromethane	0.7U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	1.0U
10061-02-6	Trans-1,3-Dichloropropene	1.0U
79-01-6	Trichloroethene	16
124-48-1	Dibromochloromethane	0.5U
79-00-5	1,1,2-Trichloroethane	0.8U
71-43-2	Benzene	1.4U
10061-01-5	Cis-1,3-Dichloropropene	1.0U
110-75-8	2-Chloroethylvinylether	1.0U
75-25-2	Bromoform	0.4U
591-78-6	4-Methyl-2-Pentanone	1.1U
108-10-1	2-Hexanone	1.1U
127-18-4	Tetrachloroethene	144 E
79-34-5	1,1,2,2-Tetrachloroethane	0.6U
108-88-3	Toluene	1.2U
108-90-7	Chlorobenzene	1.0U
100-41-4	Ethylbenzene	1.0U
100-42-5	Styrene	1.0U
	Total Xylenes	1.0U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 1. based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounc where a 1:1 response is assumed. when the mass spectral data indicates the presence of a compound that meets the identifica criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single componen >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0170

SOUTHWEST RESEARCH INSTITUTE

3 0223

Sample Number: 3682B05 DILUTION

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B05DL-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/05/88
Date Analyzed: 04/05/88

Initial Pressure: 12.65 psi
Final Pressure: 11.40 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	36U	78-87-5	1,2-Dichloropropane	8.1U
74-83-9	Bromomethane	19U	10061-02-6	Trans-1,3-Dichloropropene	8.3U
75-01-4	Vinyl Chloride	29U	79-01-6	Trichloroethene	12
75-00-3	Chloroethane	28U	124-48-1	Dibromochloromethane	4.4U
75-09-2	Methylene Chloride	97 FF	79-00-5	1,1,2-Trichloroethane	6.9U
67-64-1	Acetone	20 J FF	71-43-2	Benzene	12U
75-15-0	Carbon Disulfide	12U	10061-01-5	Cis-1,3-Dichloropropene	8.3U
75-35-4	1,1-Dichloroethene	9.5U	110-75-8	2-Chloroethylvinylether	8.6U
75-34-3	1,1-Dichloroethane	74	75-25-2	Bromoform	3.6U
156-60-5	Trans-1,2-Dichloroethene	19	591-78-6	4-Methyl-2-Pentanone	9.1U
66-3	Chloroform	7.7U	108-10-1	2-Hexanone	9.1U
107-06-2	1,2-Dichloroethane	9.3U	127-18-4	Tetrachloroethene	208
78-93-3	2-Butanone	13U J	79-34-5	1,1,2,2-Tetrachloroethane	5.5U
71-55-6	1,1,1-Trichloroethane	310	108-88-3	Toluene	9.9U
56-23-5	Carbon Tetrachloride	6.0U	108-90-7	Chlorobenzene	8.1U
108-05-4	Vinyl Acetate	11U	100-41-4	Ethylbenzene	8.6U
75-27-4	Bromodichloromethane	5.6U	100-42-5	Styrene	8.7U
				Total Xylenes	8.6U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identificati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compone icides >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable m blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for th ific an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0171

SOUTHWEST [illegible] INSTITUTE

Sample Number: 3682B-06

3 0252

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B06-
Sample Matrix: Canister
Data Release Authorized By: [signature]

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 23.60 psi
Final Pressure: 17.2 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	7.1U
74-83-9	Bromomethane	3.8U
75-01-4	Vinyl Chloride	5.7U
75-00-3	Chloroethane	5.5U
75-09-2	Methylene Chloride	2.1U
67-64-1	Acetone	~~12~~
75-15-0	Carbon Disulfide	2.3U
75-35-4	1,1-Dichloroethene	31
75-34-3	1,1-Dichloroethane	326 E
-60-5	Trans-1,2-Dichloroethene	10
0,-66-3	Chloroform	6.1
107-06-2	1,2-Dichloroethane	1.8U
78-93-3	2-Butanone	2.5U
71-55-6	1,1,1-Trichloroethane	806 E
56-23-5	Carbon Tetrachloride	1.2U
108-05-4	Vinyl Acetate	2.1U
75-27-4	Bromodichloromethane	1.1U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	1.5 J
10061-02-6	Trans-1,3-Dichloropropene	1.6U
79-01-6	Trichloroethene	25
124-48-1	Dibromochloromethane	0.9U
79-00-5	1,1,2-Trichloroethane	1.3U
71-43-2	Benzene	2.3U
10061-01-5	Cis-1,3-Dichloropropene	1.6U
110-75-8	2-Chloroethylvinylether	1.7U
75-25-2	Bromoform	0.7U
591-78-6	4-Methyl-2-Pentanone	1.8U
108-10-1	2-Hexanone	1.8U
127-18-4	Tetrachloroethene	649 E
79-34-5	1,1,2,2-Tetrachloroethane	1.1U
108-88-3	Toluene	1.9U
108-90-7	Chlorobenzene	1.6U
100-41-4	Ethylbenzene	1.7U
100-42-5	Styrene	1.7U
	Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified [illegible]unds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the cati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component des >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable meth blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that : an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0172

Form I

SOUTHWEST RESEARCH INSTITUTE

3 0297

Sample Number: 3682B-06 DILUTION

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B06DL-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

This sample contained high concentrations of some organic compounds.
Only a 50 ml was directly injected into GC/MS system
Concentration: Medium
Date Extracted/Prepared: 04/05/88
Date Analyzed: 04/05/88

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	384U	78-87-5	1,2-Dichloropropane	86U
74-83-9	Bromomethane	204U	10061-02-6	Trans-1,3-Dichloropropene	87U
75-01-4	Vinyl Chloride	310U	79-01-6	Trichloroethene	74U
75-00-3	Chloroethane	300U	124-48-1	Dibromochloromethane	47U
75-09-2	Methylene Chloride	114U	79-00-5	1,1,2-Trichloroethane	73U
67-64-1	Acetone	166U	71-43-2	Benzene	123U
75-15-0	Carbon Disulfide	126U	10061-01-5	Cis-1,3-Dichloropropene	87U
75-35-4	1,1-Dichloroethene	100U	110-75-8	2-Chloroethylvinylether	91U
75-34-3	1,1-Dichloroethane	98U	75-25-2	Bromoform	38U
156-60-5	Trans-1,2-Dichloroethene	100U	591-78-6	4-Methyl-2-Pentanone	96U
66-3	Chloroform	81U	108-10-1	2-Hexanone	96U
...-06-2	1,2-Dichloroethane	98U	127-18-4	Tetrachloroethene	129
78-93-3	2-Butanone	133U J	79-34-5	1,1,2,2-Tetrachloroethane	58U
71-55-6	1,1,1-Trichloroethane	226	108-88-3	Toluene	104U
56-23-5	Carbon Tetrachloride	63U	108-90-7	Chlorobenzene	86U
108-05-4	Vinyl Acetate	112U J	100-41-4	Ethylbenzene	91U
75-27-4	Bromodichloromethane	59U	100-42-5	Styrene	92U
				Total Xylenes	91U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identificat criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single comp esticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

" This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probab d blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument fc specific an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0173

SOUTHWEST RESEARCH INSTITUTE

3 0297

Sample Number: 3682B-06 DILUTION

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B06DL-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

This sample contained high concentrations of some organic compounds.
Only a 50 ml was directly injected into GC/MS system
Concentration: Medium
Date Extracted/Prepared: 04/05/88
Date Analyzed: 04/05/88

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	384U	78-87-5	1,2-Dichloropropane	86U
74-83-9	Bromomethane	204U	10061-02-6	Trans-1,3-Dichloropropene	87U
75-01-4	Vinyl Chloride	310U	79-01-6	Trichloroethene	74U
75-00-3	Chloroethane	300U	124-48-1	Dibromochloromethane	47U
75-09-2	Methylene Chloride	114U	79-00-5	1,1,2-Trichloroethane	73U
67-64-1	Acetone	166U	71-43-2	Benzene	123U
75-15-0	Carbon Disulfide	126U	10061-01-5	Cis-1,3-Dichloropropene	87U
75-35-4	1,1-Dichloroethene	100U	110-75-8	2-Chloroethylvinylether	91U
75-34-3	1,1-Dichloroethane	98U	75-25-2	Bromoform	38U
5-60-5	Trans-1,2-Dichloroethene	100U	591-78-6	4-Methyl-2-Pentanone	96U
67-66-3	Chloroform	81U	108-10-1	2-Hexanone	96U
107-06-2	1,2-Dichloroethane	98U	127-18-4	Tetrachloroethene	129
78-93-3	2-Butanone	133U	79-34-5	1,1,2,2-Tetrachloroethane	58U
71-55-6	1,1,1-Trichloroethane	226	108-88-3	Toluene	104U
56-23-5	Carbon Tetrachloride	63U	108-90-7	Chlorobenzene	86U
108-05-4	Vinyl Acetate	112U	100-41-4	Ethylbenzene	91U
75-27-4	Bromodichloromethane	59U	100-42-5	Styrene	92U
				Total Xylenes	91U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that s

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0174

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3662B-07

3 0307

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B07-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 21.70 psi
Final Pressure: 15.40 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.2U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.8U	10061-02-6	Trans-1,3-Dichloropropene	1.6U
75-01-4	Vinyl Chloride	5.8U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.6U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.1U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~14~~	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.6U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	1.8U	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
67-66-3	Chloroform	1.5U	108-10-1	2-Hexanone	1.8U
107-06-2	1;2-Dichloroethane	1.8U	127-18-4	Tetrachloroethene	~~0.4~~ J
93-3	2-Butanone	1.9 J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	1.4U	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identificat criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component p es >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable meth blank contamination and warns the data user to take appropriate action.
This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

TB Trip Blank

WAS 002 0175

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-08

3 0322

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B08-
Sample Matrix: Canister
Data Release Authorized By: J Hawkins

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 20.4 psi
Final Pressure: 13.95 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.0U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.7U	10061-02-6	Trans-1,3-Dichloropropene	1.6U
75-01-4	Vinyl Chloride	5.7U	79-01-6	Trichloroethene	10
75-00-3	Chloroethane	5.5U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.1U	79-00-5	1,1,2-Trichloroethane	1.3U
67-64-1	Acetone	~~11~~	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.3U	10061-01-5	Cis-1,3-Dichloropropene	1.6U
75-35-4	1,1-Dichloroethene	1.8U	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	12	75-25-2	Bromoform	0.7U
-60-5	Trans-1,2-Dichloroethene	4.5	591-78-6	4-Methyl-2-Pentanone	1.8U
66-3	Chloroform	2.2	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.8U	127-18-4	Tetrachloroethene	102 E
78-93-3	2-Butanone	1.7 J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	93 E	108-88-3	Toluene	1.9U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.0U J	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively ider compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets entificat criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single comp sticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

, This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for ecific ar

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0176

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-08 DILUTION

3 0355

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B08DL-
Sample Matrix: Canister
Data Release Authorized By: J Lawler

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/08/88
Date Analyzed: 04/08/88

Initial Pressure: 13.95 psi
Final Pressure: 12.10 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	24U	78-87-5	1,2-Dichloropropane	5.5U
74-83-9	Bromomethane	13U	10061-02-6	Trans-1,3-Dichloropropene	5.6U
75-01-4	Vinyl Chloride	20U	79-01-6	Trichloroethene	8.0
75-00-3	Chloroethane	19U	124-48-1	Dibromochloromethane	3.0U
75-09-2	Methylene Chloride	7.3U	79-00-5	1,1,2-Trichloroethane	4.6U
67-64-1	Acetone	~~14 J~~ FF	71-43-2	Benzene	7.9U
75-15-0	Carbon Disulfide	8.1U	10061-01-5	Cis-1,3-Dichloropropene	5.6U
75-35-4	1,1-Dichloroethene	6.4U	110-75-8	2-Chloroethylvinylether	5.8U
75-34-3	1,1-Dichloroethane	10	75-25-2	Bromoform	2.4U
6-60-5	Trans-1,2-Dichloroethene	3.8 J	591-78-6	4-Methyl-2-Pentanone	6.1U
66-3	Chloroform	5.2U	108-10-1	2-Hexanone	6.1U
107-06-2	1,2-Dichloroethane	6.2U	127-18-4	Tetrachloroethene	105
78-93-3	2-Butanone	8.5U J	79-34-5	1,1,2,2-Tetrachloroethane	3.7U
71-55-6	1,1,1-Trichloroethane	90	108-88-3	Toluene	6.7U
56-23-5	Carbon Tetrachloride	4.0U	108-90-7	Chlorobenzene	5.5U
108-05-4	Vinyl Acetate	7.1U J	100-41-4	Ethylbenzene	5.8U
75-27-4	Bromodichloromethane	3.8U	100-42-5	Styrene	5.9U
				Total Xylenes	5.8U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sa

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified ds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ic att criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component p es >=10 ng/ul in the final extract should be confirmed by GC/MS.

. This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable metho blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that s an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0177

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682-09

3 0382

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B09-
Sample Matrix: Canister
Data Release Authorized By: J Lawless

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample-Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 20.70 psi
Final Pressure: 14.55 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.4U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.9U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.0U	79-01-6	Trichloroethene	6.4
75-00-3	Chloroethane	5.8U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~11~~	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	11	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	3.7	591-78-6	4-Methyl-2-Pentanone	1.8U
67-66-3	Chloroform	1.4 J	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	68 E
78-93-3	2-Butanone	2.3 J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	64	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.8U
				Total Xylenes	1.7U

DATA REPORTING QUALIFIERS

Values ~~If the result is a value greater~~ than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for ~~th~~le.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively ident compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets ntificati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compor ticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for th ific an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0178

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-09 DILUTION

3 0413

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B09DL-
Sample Matrix: Canister
Data Release Authorized By: J. Bowles

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/08/88
Date Analyzed: 04/08/88

Initial Pressure: 14.5 psi
Final Pressure: 11.45 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	15U
74-83-9	Bromomethane	7.9U
75-01-4	Vinyl Chloride	12U
75-00-3	Chloroethane	12U
75-09-2	Methylene Chloride	4.4U
67-64-1	Acetone	~~18~~ B
75-15-0	Carbon Disulfide	4.9U
75-35-4	1,1-Dichloroethene	3.9U
75-34-3	1,1-Dichloroethane	13
5-60-5	Trans-1,2-Dichloroethene	4.1
-66-3	Chloroform	3.1U
107-06-2	1,2-Dichloroethane	3.8U
78-93-3	2-Butanone	3.6 J
71-55-6	1,1,1-Trichloroethane	73
56-23-5	Carbon Tetrachloride	2.4U
108-05-4	Vinyl Acetate	4.3U J
75-27-4	Bromodichloromethane	2.3U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	3.3U
10061-02-6	Trans-1,3-Dichloropropene	3.4U
79-01-6	Trichloroethene	6.4
124-48-1	Dibromochloromethane	1.8U
79-00-5	1,1,2-Trichloroethane	2.8U
71-43-2	Benzene	4.8U
10061-01-5	Cis-1,3-Dichloropropene	3.4U
110-75-8	2-Chloroethylvinylether	3.5U
75-25-2	Bromoform	1.5U
591-78-6	4-Methyl-2-Pentanone	3.7U
108-10-1	2-Hexanone	3.7U
127-18-4	Tetrachloroethene	76
79-34-5	1,1,2,2-Tetrachloroethane	2.2U
108-88-3	Toluene	4.0U
108-90-7	Chlorobenzene	3.3U
100-41-4	Ethylbenzene	3.5U
100-42-5	Styrene	3.6U
	Total Xylenes	3.5U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The form should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifie where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable metho blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that sp

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0179

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-10

3 0442

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B10-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 20.75 psi
Final Pressure: 14.75 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.6U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.0U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.1U	79-01-6	Trichloroethene	1.5U
75-00-3	Chloroethane	5.9U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.3U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	2120 E	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.8U
-60-5	Trans-1,2-Dichloroethene	2.0U	591-78-6	4-Methyl-2-Pentanone	1.9U
-66-3	Chloroform	1.6U	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	30
78-93-3	2-Butanone	2.6U J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	23	108-88-3	Toluene	2.1U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U J	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.8U
				Total Xylenes	1.8U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for tl e.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identi pounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets th ificati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compone icides >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable m blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for tha fic ar

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0180

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-10 DILUTION

3 0459

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B10DL-
Sample Matrix: Canister
Data Release Authorized By: J. Lawless

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

This sample contained high concentrations of some organic compounds.
Only a 50 ml was directly injected into GC/MS system
Concentration: Medium
Date Extracted/Prepared: 04/05/88
Date Analyzed: 04/05/88

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	384U	78-87-5	1,2-Dichloropropane	86U
74-83-9	Bromomethane	204U	10061-02-6	Trans-1,3-Dichloropropene	87U
75-01-4	Vinyl Chloride	310U	79-01-6	Trichloroethene	74U
75-00-3	Chloroethane	300U	124-48-1	Dibromochloromethane	47U
75-09-2	Methylene Chloride	114U	79-00-5	1,1,2-Trichloroethane	73U
67-64-1	Acetone	613	71-43-2	Benzene	123U
75-15-0	Carbon Disulfide	126U	10061-01-5	Cis-1,3-Dichloropropene	87U
75-35-4	1,1-Dichloroethene	100U	110-75-8	2-Chloroethylvinylether	91U
75-34-3	1,1-Dichloroethane	98U	75-25-2	Bromoform	38U
-60-5	Trans-1,2-Dichloroethene	100U	591-78-6	4-Methyl-2-Pentanone	96U
6/-66-3	Chloroform	81U	108-10-1	2-Hexanone	96U
107-06-2	1,2-Dichloroethane	98U	127-18-4	Tetrachloroethene	120
78-93-3	2-Butanone	133U	79-34-5	1,1,2,2-Tetrachloroethane	58U
71-55-6	1,1,1-Trichloroethane	47 J	108-88-3	Toluene	104U
56-23-5	Carbon Tetrachloride	63U	108-90-7	Chlorobenzene	86U
108-05-4	Vinyl Acetate	112U	100-41-4	Ethylbenzene	91U
75-27-4	Bromodichloromethane	59U	100-42-5	Styrene	92U
				Total Xylenes	91U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the ...le.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identif ... pounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets th ... ificati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single componer ... cides >=10 ng/ul in the final extract should be confirmed by GC/MS.

. This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable me ... blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that ... ic an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0181

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-11

3 0471

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B11-
Sample Matrix: Canister
Data Release Authorized By: J Lawless

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 22.1 psi
Final Pressure: 16.0 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.4U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.0U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.0U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.8U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~7.9~~ FF	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.7U
[illegible]-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.9U
[illegible]-66-3	Chloroform	1.2 J	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	53
78-93-3	2-Butanone	2.2 J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	25	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.8U
				Total Xylenes	1.8U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration/dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively id[illegible] compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meet[illegible] dentificat criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single com[illegible] pesticides >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probab[illegible] id blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for[illegible] pecific ar

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0182

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-12

3 0494

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B12-
Sample Matrix: Canister
Data Release Authorized By: J. Hamilton

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 23.65 psi
Final Pressure: 17.6 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.5U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.0U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.1U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.9U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~9.1~~ FE	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.8U
-60-5	Trans-1,2-Dichloroethene	2.0U	591-78-6	4-Methyl-2-Pentanone	1.9U
67-66-3	Chloroform	3.4	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	80 E
78-93-3	2-Butanone	2.6U J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	46	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.8U
				Total Xylenes	1.8U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10 based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that WAS the identificat criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single 002 ent pesticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/pro ethod blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument 0183 specific a

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

SOUTHWEST RESEARCH INSTITUTE

3 0517

Sample Number: 3682B-12 DILUTION

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B12DL-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/08/88
Date Analyzed: 04/08/88

Initial Pressure: 17.4 psi
Final Pressure: 14.80 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	17U
74-83-9	Bromomethane	9.3U
75-01-4	Vinyl Chloride	14U
75-00-3	Chloroethane	14U
75-09-2	Methylene Chloride	5.2U
67-64-1	Acetone	14 B
75-15-0	Carbon Disulfide	5.7U
75-35-4	1,1-Dichloroethene	4.5U
75-34-3	1,1-Dichloroethane	4.4U
156-60-5	Trans-1,2-Dichloroethene	4.5U
67-66-3	Chloroform	3.7
107-06-2	1,2-Dichloroethane	4.4U
78-93-3	2-Butanone	6.1U
71-55-6	1,1,1-Trichloroethane	40
56-23-5	Carbon Tetrachloride	2.9U
108-05-4	Vinyl Acetate	5.1U
75-27-4	Bromodichloromethane	2.7U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	3.9U
10061-02-6	Trans-1,3-Dichloropropene	4.0U
79-01-6	Trichloroethene	3.4U
124-48-1	Dibromochloromethane	2.1U
79-00-5	1,1,2-Trichloroethane	3.3U
71-43-2	Benzene	5.6U
10061-01-5	Cis-1,3-Dichloropropene	4.0U
110-75-8	2-Chloroethylvinylether	4.1U
75-25-2	Bromoform	1.7U
591-78-6	4-Methyl-2-Pentanone	4.4U
108-10-1	2-Hexanone	4.4U
127-18-4	Tetrachloroethene	74
79-34-5	1,1,2,2-Tetrachloroethane	2.6U
108-88-3	Toluene	4.7U
108-90-7	Chlorobenzene	3.9U
100-41-4	Ethylbenzene	4.1U
100-42-5	Styrene	4.2U
	Total Xylenes	4.1U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component analyses at >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0184

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-13

3 0531

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B13-
Sample Matrix: Canister
Data Release Authorized By: J Lawless

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/05/88
Date Analyzed: 04/05/88

Initial Pressure: 11.40 psi
Final Pressure: 6.30 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	8.9U	78-87-5	1,2-Dichloropropane	2.0U
74-83-9	Bromomethane	4.7U	10061-02-6	Trans-1,3-Dichloropropene	2.0U
75-01-4	Vinyl Chloride	7.2U	79-01-6	Trichloroethene	1.7U
75-00-3	Chloroethane	7.0U	124-48-1	Dibromochloromethane	1.1U
75-09-2	Methylene-Chloride	2.6U	79-00-5	1,1,2-Trichloroethane	1.7U
67-64-1	Acetone	~~94~~ F	71-43-2	Benzene	2.9U
75-15-0	Carbon Disulfide	~~2.9U~~	10061-01-5	Cis-1,3-Dichloropropene	2.0U
75-35-4	1,1-Dichloroethene	2.3U	110-75-8	2-Chloroethylvinylether	2.1U
75-34-3	1,1-Dichloroethane	2.3U	75-25-2	Bromoform	0.9U
156-60-5	Trans-1,2-Dichloroethene	2.3U	591-78-6	4-Methyl-2-Pentanone	2.2U
67-66-3	Chloroform	1.9U	108-10-1	2-Hexanone	2.2U
107-06-2	1,2-Dichloroethane	2.3U	127-18-4	Tetrachloroethene	15
78-93-3	2-Butanone	4.0 J	79-34-5	1,1,2,2-Tetrachloroethane	1.3U
71-55-6	1,1,1-Trichloroethane	5.4	108-88-3	Toluene	2.4U
56-23-5	Carbon Tetrachloride	1.5U	108-90-7	Chlorobenzene	2.0U
108-05-4	Vinyl Acetate	2.6U J	100-41-4	Ethylbenzene	2.1U
75-27-4	Bromodichloromethane	1.4U	100-42-5	Styrene	2.1U
				Total Xylenes	2.1U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for t le.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identi mpounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets t tificati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

P This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compon ticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable r blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for th ific an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0185

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-14

3 0545

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B14-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 14.7 psi
Final Pressure: 10.95 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	12U	78-87-5	1,2-Dichloropropane	2.7U
74-83-9	Bromomethane	6.4U	10061-02-6	Trans-1,3-Dichloropropene	2.8U
75-01-4	Vinyl Chloride	9.8U	79-01-6	Trichloroethene	1.7 J
75-00-3	Chloroethane	9.5U	124-48-1	Dibromochloromethane	1.5U
75-09-2	Methylene Chloride	3.6U	79-00-5	1,1,2-Trichloroethane	2.3U
67-64-1	Acetone	~~6.3 J~~ FB	71-43-2	Benzene	3.9U
75-15-0	Carbon Disulfide	4.0U	10061-01-5	Cis-1,3-Dichloropropene	2.8U
75-35-4	1,1-Dichloroethene	3.2U	110-75-8	2-Chloroethylvinylether	2.9U
34-3-	1,1-Dichloroethane	5.1	75-25-2	Bromoform	1.2U
156-60-5	Trans-1,2-Dichloroethene	3.2U	591-78-6	4-Methyl-2-Pentanone	3.0U
67-66-3	Chloroform	1.5 J	108-10-1	2-Hexanone	3.0U
107-06-2	1,2-Dichloroethane	3.1U	127-18-4	Tetrachloroethene	101 E
78-93-3	2-Butanone	4.2U J	79-34-5	1,1,2,2-Tetrachloroethane	1.8U
71-55-6	1,1,1-Trichloroethane	73	108-88-3	Toluene	3.3U
56-23-5	Carbon Tetrachloride	2.0U	108-90-7	Chlorobenzene	2.7U
108-05-4	Vinyl Acetate	3.5U	100-41-4	Ethylbenzene	2.9U
75-27-4	Bromodichloromethane	1.9U	100-42-5	Styrene	2.9U
				Total Xylenes	2.9U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with thv ... 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The fc should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifie ...nds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ...icati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component ...ses >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable methv blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that s ...an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0186

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-14 DILUTION

3 0570

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B14DL-
Sample Matrix: Canister
Data Release Authorized By: J Bowles

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/08/88
Date Analyzed: 04/08/88

Initial Pressure: 11.1 psi
Final Pressure: 9.30 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	25U	78-87-5	1,2-Dichloropropane	5.6U
74-83-9	Bromomethane	13U	10061-02-6	Trans-1,3-Dichloropropene	5.7U
75-01-4	Vinyl Chloride	20U	79-01-6	Trichloroethene	1.2 J
75-00-3	Chloroethane	20U	124-48-1	Dibromochloromethane	3.1U
75-09-2	Methylene Chloride	7.5U	79-00-5	1,1,2-Trichloroethane	4.8U
67-64-1	Acetone	~~9.2~~ J,B	71-43-2	Benzene	8.1U
75-15-0	Carbon Disulfide	8.3U	10061-01-5	Cis-1,3-Dichloropropene	5.7U
75-35-4	1,1-Dichloroethene	6.6U	110-75-8	2-Chloroethylvinylether	5.9U
75-34-3	1,1-Dichloroethane	4.5 J	75-25-2	Bromoform	2.5U
56-60-5	Trans-1,2-Dichloroethene	6.6U	591-78-6	4-Methyl-2-Pentanone	6.3U
67-66-3	Chloroform	5.3U	108-10-1	2-Hexanone	6.3U
107-06-2	1,2-Dichloroethane	6.4U	127-18-4	Tetrachloroethene	92
78-93-3	2-Butanone	8.7U J	79-34-5	1,1,2,2-Tetrachloroethane	3.8U
71-55-6	1,1,1-Trichloroethane	64	108-88-3	Toluene	6.8U
56-23-5	Carbon Tetrachloride	4.1U	108-90-7	Chlorobenzene	5.6U
108-05-4	Vinyl Acetate	7.3U J	100-41-4	Ethylbenzene	5.9U
75-27-4	Bromodichloromethane	3.9U	100-42-5	Styrene	6.1U
				Total Xylenes	5.9U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively WAS identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for specific compounds.

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

002

0187

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-15

3 0586

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B15-
Sample Matrix: Canister
Data Release Authorized By: J Lawless

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 21.15 psi
Final Pressure: 15.00 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.4U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.9U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.0U	79-01-6	Trichloroethene	2.1
75-00-3	Chloroethane	5.8U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~7.0~~ FE	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	5.5	75-25-2	Bromoform	0.7U
56-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
-66-3	Chloroform	1.6	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	96 E
78-93-3	2-Butanone	1.5 J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	77 E	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U J	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.8U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 1 based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compound where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identificat criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single c : pesticide >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/prob thod blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument t specific

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0188

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-15 DILUTION

3 0613

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B15DL-
Sample Matrix: Canister
Data Release Authorized By: J. Lawless

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/08/88
Date Analyzed: 04/08/88

Initial Pressure: 14.65 psi
Final Pressure: 13.00 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	27U
74-83-9	Bromomethane	15U
75-01-4	Vinyl Chloride	22U
75-00-3	Chloroethane	21U
75-09-2	Methylene Chloride	8.2U
67-64-1	Acetone	~~13 B~~
75-15-0	Carbon Disulfide	9.0U
75-35-4	1,1-Dichloroethene	7.2U
75-34-3	1,1-Dichloroethane	4.9 J
156-60-5	Trans-1,2-Dichloroethene	7.2U
67-66-3	Chloroform	5.8U
107-06-2	1,2-Dichloroethane	7.0U
78-93-3	2-Butanone	9.5U J
71-55-6	1,1,1-Trichloroethane	68
56-23-5	Carbon Tetrachloride	4.5U
108-05-4	Vinyl Acetate	8.0U
75-27-4	Bromodichloromethane	4.2U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	6.1U
10061-02-6	Trans-1,3-Dichloropropene	6.2U
79-01-6	Trichloroethene	1.3 J
124-48-1	Dibromochloromethane	3.3U
79-00-5	1,1,2-Trichloroethane	5.2U
71-43-2	Benzene	8.8U
10061-01-5	Cis-1,3-Dichloropropene	6.2U
110-75-8	2-Chloroethylvinylether	6.5U
75-25-2	Bromoform	2.7U
591-78-6	4-Methyl-2-Pentanone	6.9U
108-10-1	2-Hexanone	6.9U
127-18-4	Tetrachloroethene	111
79-34-5	1,1,2,2-Tetrachloroethane	4.1U
108-88-3	Toluene	7.5U
108-90-7	Chlorobenzene	6.1U
100-41-4	Ethylbenzene	6.5U
100-42-5	Styrene	6.6U
	Total Xylenes	6.5U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sam

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified co where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ide criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for th

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

MAS 002 0189

fic an

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-16

3 0632

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B16-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 22.0 psi
Final Pressure: 15.95 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.5U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.0U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.1U	79-01-6	Trichloroethene	5.1
75-00-3	Chloroethane	5.9U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~14~~	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	2.1	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	27	75-25-2	Bromoform	0.8U
156-60-5	Trans-1,2-Dichloroethene	17	591-78-6	4-Methyl-2-Pentanone	1.9U
[illegible]6-3	Chloroform	1.6U	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	1.1U
78-93-3	2-Butanone	2.5 J	79-34-5	1,1,2,2-Tetrachloroethane	~~68~~ E
71-55-6	1,1,1-Trichloroethane	~~71~~ E	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.8U
				Total Xylenes	1.8U

[illegible] flagged with [illegible]

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified [illegible]cs where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ic[illegible]ati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component p[illegible]s >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that sp[illegible]n

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0190

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-16 DILUTION

Organics Analysis Data Sheet
(Page 1)

3 0665

Laboratory Name: SwRI
Lab Sample No: 3682B16DL-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample-Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/07/88
Date Analyzed: 04/07/88

Initial Pressure: 13.0 psi
Final Pressure: 10.1 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	16U	78-87-5	1,2-Dichloropropane	3.5U
74-83-9	Bromomethane	8.3U	10061-02-6	Trans-1,3-Dichloropropene	3.6U
75-01-4	Vinyl Chloride	13U	79-01-6	Trichloroethene	5.3
75-00-3	Chloroethane	12U	124-48-1	Dibromochloromethane	1.9U
75-09-2	Methylene Chloride	4.7U	79-00-5	1,1,2-Trichloroethane	3.0U
67-64-1	Acetone	18	71-43-2	Benzene	5.0U
75-15-0	Carbon Disulfide	5.2U	10061-01-5	Cis-1,3-Dichloropropene	3.6U
75-35-4	1,1-Dichloroethene	1.0 J	110-75-8	2-Chloroethylvinylether	3.7U
75-34-3	1,1-Dichloroethane	28	75-25-2	Bromoform	1.6U
156-60-5	Trans-1,2-Dichloroethene	17	591-78-6	4-Methyl-2-Pentanone	3.9U
67-66-3	Chloroform	3.3U	108-10-1	2-Hexanone	3.9U
107-06-2	1,2-Dichloroethane	4.0U	127-18-4	Tetrachloroethene	81
78-93-3	2-Butanone	4.6 J	79-34-5	1,1,2,2-Tetrachloroethane	2.4U
71-55-6	1,1,1-Trichloroethane	83	108-88-3	Toluene	4.3U
56-23-5	Carbon Tetrachloride	2.6U	108-90-7	Chlorobenzene	3.5U
108-05-4	Vinyl Acetate	4.6U	100-41-4	Ethylbenzene	3.7U
75-27-4	Bromodichloromethane	2.4U	100-42-5	Styrene	3.8U
				Total Xylenes	3.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 1U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footn should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sa

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified c where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ide criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pe >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable metho blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that s

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0191

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-17

3 0690

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B17-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 21.7 psi
Final Pressure: 15.7 psi
Atmosphere Pressure: 29.9 psi
Room Temperature: 16 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.7U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.1U	10061-02-6	Trans-1,3-Dichloropropene	1.8U
75-01-4	Vinyl Chloride	6.2U	79-01-6	Trichloroethene	1.5U
75-00-3	Chloroethane	6.0U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.3U	79-00-5	1,1,2-Trichloroethane	1.5U
67-64-1	Acetone	~~13~~	71-43-2	Benzene	2.5U
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.8U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	2.0U	75-25-2	Bromoform	0.8U
156-60-5	Trans-1,2-Dichloroethene	2.0U	591-78-6	4-Methyl-2-Pentanone	1.9U
67-66-3	Chloroform	1.6U	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	2.0U	127-18-4	Tetrachloroethene	2.6
78-93-3	2-Butanone	2.0 J	79-34-5	1,1,2,2-Tetrachloroethane	1.2U
71-55-6	1,1,1-Trichloroethane	3.1	108-88-3	Toluene	2.1U
56-23-5	Carbon Tetrachloride	1.3U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U J	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.9U
				Total Xylenes	1.8U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnot should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sampl

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified com where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ident criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pes >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0192

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-18

3 0708

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B18-
Sample Matrix: Canister
Data Release Authorized By: [signature]

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 20.8 psi
Final Pressure: 14.6 psi
Atmosphere Pressure: 29.9 psi
Room Temperature: 16 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	7.5U
74-83-9	Bromomethane	4.0U
75-01-4	Vinyl Chloride	6.0U
75-00-3	Chloroethane	5.8U
75-09-2	Methylene Chloride	~~40~~
67-64-1	Acetone	~~14~~
75-15-0	Carbon Disulfide	2.5U
75-35-4	1,1-Dichloroethene	1.9U
75-34-3	1,1-Dichloroethane	1.9U
156-60-5	Trans-1,2-Dichloroethene	1.9U
67-66-3	Chloroform	1.6U
107-06-2	1,2-Dichloroethane	1.9U
78-93-3	2-Butanone	2.2 J
71-55-6	1,1,1-Trichloroethane	9.9
56-23-5	Carbon Tetrachloride	1.2U
108-05-4	Vinyl Acetate	2.2U
75-27-4	Bromodichloromethane	1.2U
78-87-5	1,2-Dichloropropane	1.7U
10061-02-6	Trans-1,3-Dichloropropene	1.7U
79-01-6	Trichloroethene	1.4U
124-48-1	Dibromochloromethane	0.9U
79-00-5	1,1,2-Trichloroethane	1.4U
71-43-2	Benzene	2.4U
10061-01-5	Cis-1,3-Dichloropropene	1.7U
110-75-8	2-Chloroethylvinylether	1.8U
75-25-2	Bromoform	0.7U
591-78-6	4-Methyl-2-Pentanone	1.9U
108-10-1	2-Hexanone	1.9U
127-18-4	Tetrachloroethene	~~4.2~~
79-34-5	1,1,2,2-Tetrachloroethane	1.1U
108-88-3	Toluene	2.0U
108-90-7	Chlorobenzene	1.7U
100-41-4	Ethylbenzene	1.8U
100-42-5	Styrene	1.8U
	Total Xylenes	1.8U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10 based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified cc where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ir at criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component des >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for tha ic a

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0193

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-19

3 0727

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B19-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 20.60 psi
Final Pressure: 14.15 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 16.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.0U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.7U	10061-02-6	Trans-1,3-Dichloropropene	1.6U
75-01-4	Vinyl Chloride	5.7U	79-01-6	Trichloroethene	2.2
75-00-3	Chloroethane	5.5U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	240 E	79-00-5	1,1,2-Trichloroethane	1.3U
67-64-1	Acetone	21 J	71-43-2	Benzene	2.2U
75-15-0	Carbon Disulfide	2.3U	10061-01-5	Cis-1,3-Dichloropropene	1.6U
75-35-4	1,1-Dichloroethene	0.6 J	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	8.9	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.9	591-78-6	4-Methyl-2-Pentanone	1.8U
-66-3	Chloroform	1.5U	108-10-1	2-Hexanone	1.8U
/-06-2	1,2-Dichloroethane	1.8U	127-18-4	Tetrachloroethene	32
78-93-3	2-Butanone	2.3 J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	120 E	108-88-3	Toluene	1.9U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.0U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable m blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for th specific ar

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0194

SOUTHWEST RESEARCH INSTITUTE

3 0762

Sample Number: 3682B-19 DILUTION

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B19DL-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/08/88
Date Analyzed: 04/08/88

Initial Pressure: 14.05 psi
Final Pressure: 12.40 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	27U	78-87-5	1,2-Dichloropropane	6.1U
74-83-9	Bromomethane	15U	10061-02-6	Trans-1,3-Dichloropropene	6.2U
75-01-4	Vinyl Chloride	22U	79-01-6	Trichloroethene	1.6 J
75-00-3	Chloroethane	21U	124-48-1	Dibromochloromethane	3.3U
75-09-2	Methylene Chloride	229	79-00-5	1,1,2-Trichloroethane	5.2U
67-64-1	Acetone	~~26 B~~	71-43-2	Benzene	8.8U
75-15-0	Carbon Disulfide	9.0U	10061-01-5	Cis-1,3-Dichloropropene	6.2U
75-35-4	1,1-Dichloroethene	7.2U	110-75-8	2-Chloroethylvinylether	6.5U
-34-3	1,1-Dichloroethane	8.4	75-25-2	Bromoform	2.7U
..6-60-5	Trans-1,2-Dichloroethene	2.1 J	591-78-6	4-Methyl-2-Pentanone	6.9U
67-66-3	Chloroform	5.8U	108-10-1	2-Hexanone	6.9U
107-06-2	1,2-Dichloroethane	7.0U	127-18-4	Tetrachloroethene	29
78-93-3	2-Butanone	5.2 J	79-34-5	1,1,2,2-Tetrachloroethane	4.1U
71-55-6	1,1,1-Trichloroethane	101	108-88-3	Toluene	7.5U
56-23-5	Carbon Tetrachloride	4.5U	108-90-7	Chlorobenzene	6.1U
108-05-4	Vinyl Acetate	8.0U J	100-41-4	Ethylbenzene	6.5U
75-27-4	Bromodichloromethane	4.2U	100-42-5	Styrene	6.6U
				Total Xylenes	6.5U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10 based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The foot should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sa

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified as where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the id st criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component p >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable metho blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that sp

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0195

SOUTHWEST RESEARCH INSTITUTE

3 0787

Sample Number: 3682B-20

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B20-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 25.40 psi
Final Pressure: 18.60 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 16.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	6.7U	78-87-5	1,2-Dichloropropane	1.5U
74-83-9	Bromomethane	3.5U	10061-02-6	Trans-1,3-Dichloropropene	1.5U
75-01-4	Vinyl Chloride	5.4U	79-01-6	Trichloroethene	1.3U
75-00-3	Chloroethane	5.2U	124-48-1	Dibromochloromethane	0.8U
75-09-2	Methylene Chloride	2.0U	79-00-5	1,1,2-Trichloroethane	1.3U
67-64-1	Acetone	~~8.9~~	71-43-2	Benzene	2.1U
75-15-0	Carbon Disulfide	2.2U	10061-01-5	Cis-1,3-Dichloropropene	1.5U
75-35-4	1,1-Dichloroethene	1.7U	110-75-8	2-Chloroethylvinylether	1.6U
75-34-3	1,1-Dichloroethane	1.7U	75-25-2	Bromoform	0.7U
5-60-5	Trans-1,2-Dichloroethene	1.7U	591-78-6	4-Methyl-2-Pentanone	1.7U
-66-3	Chloroform	1.4U	108-10-1	2-Hexanone	1.7U
107-06-2	1,2-Dichloroethane	1.7U	127-18-4	Tetrachloroethene	~~3.6~~
78-93-3	2-Butanone	2.3U	79-34-5	1,1,2,2-Tetrachloroethane	1.0U
71-55-6	1,1,1-Trichloroethane	2.1	108-88-3	Toluene	1.8U
56-23-5	Carbon Tetrachloride	1.1U	108-90-7	Chlorobenzene	1.5U
108-05-4	Vinyl Acetate	1.9U	100-41-4	Ethylbenzene	1.6U
75-27-4	Bromodichloromethane	1.0U	100-42-5	Styrene	1.6U
				Total Xylenes	1.6U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit) The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sam

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified c where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ide criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component p >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable metho blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that s

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0196

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-21

3 079.1

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B21-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 25.60 psi
Final Pressure: 18.90 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 16.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	6.8U	78-87-5	1,2-Dichloropropane	1.5U
74-83-9	Bromomethane	3.6U	10061-02-6	Trans-1,3-Dichloropropene	1.5U
75-01-4	Vinyl Chloride	5.4U	79-01-6	Trichloroethene	5.8
75-00-3	Chloroethane	5.3U	124-48-1	Dibromochloromethane	0.8U
75-09-2	Methylene Chloride	25	79-00-5	1,1,2-Trichloroethane	1.3U
67-64-1	Acetone	12	71-43-2	Benzene	2.2U
75-15-0	Carbon Disulfide	2.2U	10061-01-5	Cis-1,3-Dichloropropene	1.5U
75-35-4	1,1-Dichloroethene	1.7 J	110-75-8	2-Chloroethylvinylether	1.6U
75-34-3	1,1-Dichloroethane	16	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	22	591-78-6	4-Methyl-2-Pentanone	1.7U
[illegible]-66-3	Chloroform	2.8	108-10-1	2-Hexanone	1.7U
[illegible]-06-2	1,2-Dichloroethane	1.7U	127-18-4	Tetrachloroethene	93 E
78-93-3	2-Butanone	2.0 J	79-34-5	1,1,2,2-Tetrachloroethane	1.0U
71-55-6	1,1,1-Trichloroethane	70 E	108-88-3	Toluene	1.8U
56-23-5	Carbon Tetrachloride	1.1U	108-90-7	Chlorobenzene	1.5U
108-05-4	Vinyl Acetate	2.0U	100-41-4	Ethylbenzene	1.6U
75-27-4	Bromodichloromethane	1.0U	100-42-5	Styrene	1.6U
				Total Xylenes	1.6U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration/dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the [illegible] criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single componer [illegible] >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable me blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0197

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-21 DILUTION

3 0834

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B21DL-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/07/88
Date Analyzed: 04/07/88

Initial Pressure: 18.8 psi
Final Pressure: 17.25 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	29U	78-87-5	1,2-Dichloropropane	6.5U
74-83-9	Bromomethane	16U	10061-02-6	Trans-1,3-Dichloropropene	6.7U
75-01-4	Vinyl Chloride	24U	79-01-6	Trichloroethene	5.1 J
75-00-3	Chloroethane	23U	124-48-1	Dibromochloromethane	3.6U
75-09-2	Methylene Chloride	~~29~~	79-00-5	1,1,2-Trichloroethane	5.6U
67-64-1	Acetone	~~18~~	71-43-2	Benzene	9.4U
75-15-0	Carbon Disulfide	9.7U	10061-01-5	Cis-1,3-Dichloropropene	6.7U
75-35-4	1,1-Dichloroethene	7.6U	110-75-8	2-Chloroethylvinylether	6.9U
75-34-3	1,1-Dichloroethane	17	75-25-2	Bromoform	2.9U
156-60-5	Trans-1,2-Dichloroethene	17	591-78-6	4-Methyl-2-Pentanone	7.3U
66-3	Chloroform	6.2U	108-10-1	2-Hexanone	7.3U
107-06-2	1,2-Dichloroethane	7.5U	127-18-4	Tetrachloroethene	89
78-93-3	2-Butanone	10U	79-34-5	1,1,2,2-Tetrachloroethane	4.4U
71-55-6	1,1,1-Trichloroethane	72	108-88-3	Toluene	8.0U
56-23-5	Carbon Tetrachloride	4.8U	108-90-7	Chlorobenzene	6.5U
108-05-4	Vinyl Acetate	8.5U	100-41-4	Ethylbenzene	6.9U
75-27-4	Bromodichloromethane	4.5U	100-42-5	Styrene	7.1U
				Total Xylenes	6.9U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified comp where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ident criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pes >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that sp

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0198

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-22

3 0857

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B22-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 22.95 psi
Final Pressure: 13.6 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 16.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	4.8U	78-87-5	1,2-Dichloropropane	1.1U
74-83-9	Bromomethane	2.6U	10061-02-6	Trans-1,3-Dichloropropene	1.1U
75-01-4	Vinyl Chloride	3.9U	79-01-6	Trichloroethene	0.4 J
75-00-3	Chloroethane	3.8U	124-48-1	Dibromochloromethane	0.6U
75-09-2	Methylene Chloride	1.4U	79-00-5	1,1,2-Trichloroethane	0.9U
67-64-1	Acetone	~~11~~ FB	71-43-2	Benzene	1.6U
75-15-0	Carbon Disulfide	1.6U	10061-01-5	Cis-1,3-Dichloropropene	1.1U
75-35-4	1,1-Dichloroethene	1.3U	110-75-8	2-Chloroethylvinylether	1.1U
75-34-3	1,1-Dichloroethane	6.8	75-25-2	Bromoform	0.5U
156-60-5	Trans-1,2-Dichloroethene	4.9	591-78-6	4-Methyl-2-Pentanone	1.2U J
67-66-3	Chloroform	1.0U	108-10-1	2-Hexanone	1.2U
107-06-2	1,2-Dichloroethane	1.2U	127-18-4	Tetrachloroethene	4.1 FB
78-93-3	2-Butanone	2.2 J	79-34-5	1,1,2,2-Tetrachloroethane	0.7U
71-55-6	1,1,1-Trichloroethane	6.0	108-88-3	Toluene	1.3U
56-23-5	Carbon Tetrachloride	0.8U	108-90-7	Chlorobenzene	1.1U
108-05-4	Vinyl Acetate	1.4U J	100-41-4	Ethylbenzene	1.1U
75-27-4	Bromodichloromethane	0.7U	100-42-5	Styrene	1.2U
				Total Xylenes	1.1U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified com where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ident criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pes >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that sp

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

FB Field Blank Contam. and 2U 1:1 TIC

WAS 002 0199

SOUTHWEST RESEARCH INSTITUTE

3 0882

Sample Number: 3682B-23

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B23-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

This sample was diluted by zero nitrogen. The pressure before charging nitrogen was 5.4
Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 17.9 psi
Final Pressure: 11.7 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	24U	78-87-5	1,2-Dichloropropane.	5.4U
74-83-9	Bromomethane	13U	10061-02-6	Trans-1,3-Dichloropropene	5.5U
75-01-4	Vinyl Chloride	20U	79-01-6	Trichloroethene	4.7U
75-00-3	Chloroethane	19U	124-48-1	Dibromochloromethane	2.9U
75-09-2	Methylene Chloride	7.2U	79-00-5	1,1,2-Trichloroethane	4.6U
67-64-1	Acetone	[illegible]	71-43-2	Benzene	7.8U
75-15-0	Carbon Disulfide	8.0U	10061-01-5	Cis-1,3-Dichloropropene	5.5U
75-35-4	1,1-Dichloroethene	6.3U	110-75-8	2-Chloroethylvinylether	5.7U J
75-34-3	1,1-Dichloroethane	6.2U	75-25-2	Bromoform	2.4U
156-60-5	Trans-1,2-Dichloroethene	6.3U	591-78-6	4-Methyl-2-Pentanone	6.1U
66-3	Chloroform	5.1U	108-10-1	2-Hexanone	6.1U
107-06-2	1,2-Dichloroethane	6.2U	127-18-4	Tetrachloroethene	[illegible]
78-93-3	2-Butanone	8.4U J	79-34-5	1,1,2,2-Tetrachloroethane	3.7U
71-55-6	1,1,1-Trichloroethane	4.6U	108-88-3	Toluene	6.6U
56-23-5	Carbon Tetrachloride	4.0U	108-90-7	Chlorobenzene	5.4U
108-05-4	Vinyl Acetate	7.1U J	100-41-4	Ethylbenzene	5.7U
75-27-4	Bromodichloromethane	3.7U	100-42-5	Styrene	5.8U
				Total Xylenes	5.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration/dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified com where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the iden criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pes >=10 ng/ul in the final extract should be confirmed by GC/MS.

I This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that sp

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0200

SOUTHWEST RESEARCH INSTITUTE

3 0895

Sample Number: 3682B-24

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B24-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 18.8 psi
Final Pressure: 12.8 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.6U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.0U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.1U	79-01-6	Trichloroethene	1.5U
75-00-3	Chloroethane	5.9U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.3U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~12~~ F C	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.8U
5-60-5	Trans-1,2-Dichloroethene	2.0U	591-78-6	4-Methyl-2-Pentanone	1.9U
7-66-3	Chloroform	1.6U	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	20
78-93-3	2-Butanone	2.6U J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	~~12~~ F E	108-88-3	Toluene	2.1U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U J	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.8U
				Total Xylenes	1.8U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. I based on necessary concentration/dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively iden compound where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets ntifica criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compc sticide >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for t cific

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0201

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-25

3 0914

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B25-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

This sample was diluted by zero nitrogen. The pressure before charging nitrogen was 14.8
Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 18.0 psi
Final Pressure: 11.2 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	8.1U	78-87-5	1,2-Dichloropropane	1.8U
74-83-9	Bromomethane	4.3U	10061-02-6	Trans-1,3-Dichloropropene	1.8U
75-01-4	Vinyl Chloride	6.5U	79-01-6	Trichloroethene	1.6U
75-00-3	Chloroethane	6.3U	124-48-1	Dibromochloromethane	1.0U
75-09-2	Methylene Chloride	2.4U	79-00-5	1,1,2-Trichloroethane	1.5U
67-64-1	Acetone	~~5.6~~ FB	71-43-2	Benzene	2.6U
75-15-0	Carbon Disulfide	2.7U	10061-01-5	Cis-1,3-Dichloropropene	1.8U
75-35-4	1,1-Dichloroethene	2.1U	110-75-8	2-Chloroethylvinylether	1.9U
75-34-3	1,1-Dichloroethane	2.1U	75-25-2	Bromoform	0.8U
156-60-5	Trans-1,2-Dichloroethene	2.1U	591-78-6	4-Methyl-2-Pentanone	2.0U
66-3	Chloroform	1.7U	108-10-1	2-Hexanone	2.0U
107-06-2	1,2-Dichloroethane	2.1U	127-18-4	Tetrachloroethene	20
78-93-3	2-Butanone	2.8U	79-34-5	1,1,2,2-Tetrachloroethane	1.2U
71-55-6	1,1,1-Trichloroethane	~~2.2~~	108-88-3	Toluene	2.2U
56-23-5	Carbon Tetrachloride	1.3U	108-90-7	Chlorobenzene	1.8U
108-05-4	Vinyl Acetate	2.4U J	100-41-4	Ethylbenzene	1.9U
75-27-4	Bromodichloromethane	1.3U	100-42-5	Styrene	2.0U
				Total Xylenes	1.9U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified ...nds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ...icat... criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component ...ides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met... blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for tha... ...ic ar...

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0202

SOUTHWEST RESEARCH INSTITUTE

3 0933

Sample Number: 3682B-26

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B26-
Sample Matrix: Canister
Data Release Authorized By: J Dawkins

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 17.9 psi
Final Pressure: 11.8 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.4U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.0U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.0U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.8U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	[illegible]	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.8U J
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.7U
-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.9U
67-66-3	Chloroform	1.6U	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	[illegible] J
78-93-3	2-Butanone	2.6U J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	1.4U	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.8U
				Total Xylenes	1.8U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10 based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that c

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0203

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-27

3 0943

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B27-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

This sample was diluted by zero nitrogen. The pressure before charging nitrogen was 13.5
Concentration: Low
Date Extracted/Prepared: 04/05/88
Date Analyzed: 04/05/88

Initial Pressure: 18.4 psi
Final Pressure: 12.30 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	5.4U
75-01-4	Vinyl Chloride	8.2U
75-00-3	Chloroethane	7.9U
75-09-2	Methylene Chloride	~~0.2~~ FB
67-64-1	Acetone	~~6.0~~ J FB
75-15-0	Carbon Disulfide	3.3U
75-35-4	1,1-Dichloroethene	2.6U
75-34-3	1,1-Dichloroethane	2.6U
-60-5	Trans-1,2-Dichloroethene	2.6U
-66-3	Chloroform	2.1U
107-06-2	1,2-Dichloroethane	2.6U
78-93-3	2-Butanone	3.5U
71-55-6	1,1,1-Trichloroethane	~~0.7~~ J FB
56-23-5	Carbon Tetrachloride	1.7U
108-05-4	Vinyl Acetate	2.9U J
75-27-4	Bromodichloromethane	1.6U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	2.3U
10061-02-6	Trans-1,3-Dichloropropene	2.3U
79-01-6	Trichloroethene	2.0U
124-48-1	Dibromochloromethane	1.2U
79-00-5	1,1,2-Trichloroethane	1.9U
71-43-2	Benzene	3.3U
10061-01-5	Cis-1,3-Dichloropropene	2.3U
110-75-8	2-Chloroethylvinylether	2.4U
75-25-2	Bromoform	1.0U
591-78-6	4-Methyl-2-Pentanone	2.5U
108-10-1	2-Hexanone	2.5U
127-18-4	Tetrachloroethene	~~0.9~~ J
79-34-5	1,1,2,2-Tetrachloroethane	1.5U
108-88-3	Toluene	2.8U
108-90-7	Chlorobenzene	2.3U
100-41-4	Ethylbenzene	2.4U
100-42-5	Styrene	2.4U
	Total Xylenes	2.4U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration/dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifi ounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS.

, This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

FB - field blank contamination

WAS 002 0204

SOUTHWEST RESEARCH INSTITUTE

3 0960

Sample Number: 3682B-28

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B28-
Sample Matrix: Canister
Data Release Authorized By: J. Kessler

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/02/88
Date Analyzed: 04/02/88

Initial Pressure: 22.9 psi
Final Pressure: 16.7 psi
Atmosphere Pressure: 29.6 psi
Room Temperature: 19.8 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.5U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.0U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.1U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.9U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~3.1~~ FE	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.8U
-60-5	Trans-1,2-Dichloroethene	2.0U	591-78-6	4-Methyl-2-Pentanone	1.9U
67-66-3	Chloroform	1.6U	108-10-1	2-Hexanone	~~2.7~~ B,J
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	~~9.7~~ FJ
78-93-3	2-Butanone	2.8U	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	~~18~~ FB	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.8U
				Total Xylenes	1.8U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the s

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifiec nds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the i cat criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component des >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable meth blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that : ar

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0205

SOUTHWEST RESEARCH INSTITUTE

3 0979

Sample Number: 3682B-29

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B29-
Sample Matrix: Canister
Data Release Authorized By: J Rawlins

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/02/88
Date Analyzed: 04/02/88

Initial Pressure: 23.1 psi
Final Pressure: 17.1 psi
Atmosphere Pressure: 29.6 psi
Room Temperature: 19.8 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.8U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.1U	10061-02-6	Trans-1,3-Dichloropropene	1.8U
75-01-4	Vinyl Chloride	6.3U	79-01-6	Trichloroethene	1.5U
75-00-3	Chloroethane	6.1U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.3U	79-00-5	1,1,2-Trichloroethane	1.5U
67-64-1	Acetone	~~5.2~~	71-43-2	Benzene	2.5U
75-15-0	Carbon Disulfide	2.6U	10061-01-5	Cis-1,3-Dichloropropene	1.8U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	2.0U	75-25-2	Bromoform	0.8U
-60-5	Trans-1,2-Dichloroethene	2.0U	591-78-6	4-Methyl-2-Pentanone	1.9U
67-66-3	Chloroform	1.6U	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	2.0U	127-18-4	Tetrachloroethene	~~2.2~~
78-93-3	2-Butanone	2.7U	79-34-5	1,1,2,2-Tetrachloroethane	1.2U
71-55-6	1,1,1-Trichloroethane	~~2.4~~	108-88-3	Toluene	2.1U
56-23-5	Carbon Tetrachloride	1.3U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.3U	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.9U
				Total Xylenes	1.8U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The f... should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the ...

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifi ...ounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ...ficat... criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single componen ...ides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that ...ic a...

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form 1

WAS 002 0206

- Total Environmental GC-MS

SOUTHWEST RESEARCH INSTITUTE

3 0991

Sample Number: 3682B-30

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B30-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/02/88
Date Analyzed: 04/02/88

Initial Pressure: 19.25 psi
Final Pressure: 12.85 psi
Atmosphere Pressure: 29.6 psi
Room Temperature: 19.8 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.3U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.9U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	5.9U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.7U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	3.1U	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U J
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.7U
5-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
..-66-3	Chloroform	1.5U	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	~~19~~
78-93-3	2-Butanone	2.5U J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	~~0.1~~	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U J	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10 based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The fo should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifie where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0207

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-31

3 1004

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B31-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/02/88
Date Analyzed: 04/02/88

Initial Pressure: 18.7 psi
Final Pressure: 12.3 psi
Atmosphere Pressure: 29.6 psi
Room Temperature: 19.8 C

CAS Number		Total ng	CAS Number		Total ng
74-87-3	Chloromethane	40U	78-87-5	1,2-Dichloropropane	20U
74-83-9	Bromomethane	40U	10061-02-6	Trans-1,3-Dichloropropene	20U
75-01-4	Vinyl Chloride	40U	79-01-6	Trichloroethene	20U
75-00-3	Chloroethane	40U	124-48-1	Dibromochloromethane	20U
75-09-2	Methylene Chloride	20U	79-00-5	1,1,2-Trichloroethane	20U
67-64-1	Acetone	~~1100~~ F	71-43-2	Benzene	20U
75-15-0	Carbon Disulfide	20U	10061-01-5	Cis-1,3-Dichloropropene	20U
75-35-4	1,1-Dichloroethene	20U	110-75-8	2-Chloroethylvinylether	20U
75-34-3	1,1-Dichloroethane	20U	75-25-2	Bromoform	20U
156-60-5	Trans-1,2-Dichloroethene	20U	591-78-6	4-Methyl-2-Pentanone	20U
67-66-3	Chloroform	20U	108-10-1	2-Hexanone	20U
-06-2	1,2-Dichloroethane	20U	127-18-4	Tetrachloroethene	500
)e-93-3	2-Butanone	20U	79-34-5	1,1,2,2-Tetrachloroethane	20U
71-55-6	1,1,1-Trichloroethane	370	108-88-3	Toluene	20U
56-23-5	Carbon Tetrachloride	20U	108-90-7	Chlorobenzene	20U
108-05-4	Vinyl Acetate	20U	100-41-4	Ethylbenzene	20U
75-27-4	Bromodichloromethane	20U	100-42-5	Styrene	20U
				Total Xylenes	20U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identi criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesti >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

- This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that spect

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0208

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-32

3 1021

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B32-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/05/88
Date Analyzed: 04/05/88

Initial Pressure: 12.45 psi
Final Pressure: 6.40 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	7.5U
74-83-9	Bromomethane	4.0U
75-01-4	Vinyl Chloride	6.1U
75-00-3	Chloroethane	5.9U
75-09-2	Methylene Chloride	2.2U
67-64-1	Acetone	~~9.5~~
75-15-0	Carbon Disulfide	2.5U
75-35-4	1,1-Dichloroethene	2.0U
75-34-3	1,1-Dichloroethane	1.9U
156-60-5	Trans-1,2-Dichloroethene	2.0U
67-66-3	Chloroform	1.3 J
107-06-2	1,2-Dichloroethane	1.9U
78-93-3	2-Butanone	2.6U
71-55-6	1,1,1-Trichloroethane	~~9.2~~
56-23-5	Carbon Tetrachloride	1.2U
108-05-4	Vinyl Acetate	2.2U
75-27-4	Bromodichloromethane	1.2U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	1.7U
10061-02-6	Trans-1,3-Dichloropropene	1.7U
79-01-6	Trichloroethene	1.4U
124-48-1	Dibromochloromethane	0.9U
79-00-5	1,1,2-Trichloroethane	1.4U
71-43-2	Benzene	2.4U
10061-01-5	Cis-1,3-Dichloropropene	1.7U
110-75-8	2-Chloroethylvinylether	1.8U
75-25-2	Bromoform	0.8U
591-78-6	4-Methyl-2-Pentanone	1.9U
108-10-1	2-Hexanone	1.9U
127-18-4	Tetrachloroethene	22
79-34-5	1,1,2,2-Tetrachloroethane	1.1U
108-88-3	Toluene	2.0U
108-90-7	Chlorobenzene	1.7U
100-41-4	Ethylbenzene	1.8U
100-42-5	Styrene	1.8U
	Total Xylenes	1.8U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration/dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sa

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ic criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable matr blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0209

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-33

3 1038

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B33-
Sample Matrix: Canister
Data Release Authorized By: J. Hawley

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 24.55 psi
Final Pressure: 18.2 psi
Atmosphere Pressure: 29.9 psi
Room Temperature: 16 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.3U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.9U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	5.9U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.7U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~13~~	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
66-3	Chloroform	1.5U	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	3.8
78-93-3	2-Butanone	~~2.9~~ J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	~~1.1~~ J	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.8U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). nce should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for mple.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively iden compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets ntificati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compo ticides >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for th ific an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0210

SOUTHWEST RESEARCH INSTITUTE

3 1088

Sample Number: 3682B-34 DILUTION

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B34DL-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

This sample contained high concentrations of some organic compounds.
Only a 50 ml was directly injected into GC/MS system
Concentration: Medium
Date Extracted/Prepared: 04/08/88
Date Analyzed: 04/08/88

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	384U	78-87-5	1,2-Dichloropropane	86U
74-83-9	Bromomethane	204U	10061-02-6	Trans-1,3-Dichloropropene	87U
75-01-4	Vinyl Chloride	310U	79-01-6	Trichloroethene	74U
75-00-3	Chloroethane	300U	124-48-1	Dibromochloromethane	47U
75-09-2	Methylene Chloride	114U	79-00-5	1,1,2-Trichloroethane	73U
67-64-1	Acetone	166U	71-43-2	Benzene	123U
75-15-0	Carbon Disulfide	126U	10061-01-5	Cis-1,3-Dichloropropene	87U
75-35-4	1,1-Dichloroethene	100U	110-75-8	2-Chloroethylvinylether	91U
75-34-3	1,1-Dichloroethane	44 J	75-25-2	Bromoform	38U
5-60-5	Trans-1,2-Dichloroethene	100U	591-78-6	4-Methyl-2-Pentanone	96U
67-66-3	Chloroform	81U	108-10-1	2-Hexanone	96U
107-06-2	1,2-Dichloroethane	98U	127-18-4	Tetrachloroethene	76
78-93-3	2-Butanone	133U	79-34-5	1,1,2,2-Tetrachloroethane	58U
71-55-6	1,1,1-Trichloroethane	692	108-88-3	Toluene	104U
56-23-5	Carbon Tetrachloride	63U	108-90-7	Chlorobenzene	86U
108-05-4	Vinyl Acetate	112U	100-41-4	Ethylbenzene	91U
75-27-4	Bromodichloromethane	59U	100-42-5	Styrene	92U
				Total Xylenes	91U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10 based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The f should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifi where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single componen >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable me blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for tha

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0211

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-34

3 1055

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B34-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 23.0 psi
Final Pressure: 16.65 psi
Atmosphere Pressure: 29.9 psi
Room Temperature: 16 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.3U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.9U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	5.9U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.7U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.2U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~8.3~~ F E	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.3 J	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	54	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
66-3	Chloroform	2.8	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	53
78-93-3	2-Butanone	2.5U	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	519 E	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.8U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The foot should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sa

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifiec where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the id criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component p >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable meth blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0212

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-35

3 110

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B35-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 23.0 psi
Final Pressure: 16.5 psi
Atmosphere Pressure: 29.9 psi
Room Temperature: 16 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.1U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.8U	10061-02-6	Trans-1,3-Dichloropropene	1.6U
75-01-4	Vinyl Chloride	5.8U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.6U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.1U	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~12~~ FF	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.3U	10061-01-5	Cis-1,3-Dichloropropene	1.6U
75-35-4	1,1-Dichloroethene	1.8 J	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	51	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
67-66-3	Chloroform	2.9	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.8U	127-18-4	Tetrachloroethene	53
78-93-3	2-Butanone	~~2.2 J~~ FF	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	527 E	108-88-3	Toluene	1.9U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e based on necessary concentration dilution action(This is not necessarily the instrument detection limit). ~~The footnot~~ should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the samp

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified co where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the iden criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pes >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific a

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0213

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-36

3 1159

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B36-
Sample Matrix: Canister
Data Release Authorized By: _____

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 18.5 psi
Final Pressure: 12.3 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.3U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.9U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	5.9U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.7U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	~~73~~ FF	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~15~~ FF	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U J
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.7U
-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
-66-3	Chloroform	1.6U	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	~~6.1~~ FE
78-93-3	2-Butanone	~~2.1~~ FE	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	~~49~~ FE	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U J	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.8U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for th

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identif compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identificati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single componen pesticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that ic an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0214

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-39

3 1206

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682839-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 18.0 psi
Final Pressure: 12.1 psi
Atmosphere Pressure: 29.9 psi
Room Temperature: 16 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.9U	78-87-5	1,2-Dichloropropane	1.8U
74-83-9	Bromomethane	4.2U	10061-02-6	Trans-1,3-Dichloropropene	1.8U
75-01-4	Vinyl Chloride	6.3U	79-01-6	Trichloroethene	1.5U
75-00-3	Chloroethane	6.1U	124-48-1	Dibromochloromethane	1.0U
75-09-2	Methylene Chloride	68	79-00-5	1,1,2-Trichloroethane	1.5U
67-64-1	Acetone	169	71-43-2	Benzene	2.5U
75-15-0	Carbon Disulfide	2.6U	10061-01-5	Cis-1,3-Dichloropropene	1.8U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.9U
75-34-3	1,1-Dichloroethane	2.0U	75-25-2	Bromoform	0.8U
156-60-5	Trans-1,2-Dichloroethene	2.0U	591-78-6	4-Methyl-2-Pentanone	2.0U
67-66-3	Chloroform	1.7U	108-10-1	2-Hexanone	2.0U
107-06-2	1,2-Dichloroethane	2.0U	127-18-4	Tetrachloroethene	2.3
78-93-3	2-Butanone	3.1 J	79-34-5	1,1,2,2-Tetrachloroethane	1.2U
71-55-6	1,1,1-Trichloroethane	18	108-88-3	Toluene	2.1U
56-23-5	Carbon Tetrachloride	1.3U	108-90-7	Chlorobenzene	1.8U
108-05-4	Vinyl Acetate	2.3U	100-41-4	Ethylbenzene	1.9U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.9U
				Total Xylenes	1.9U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration-dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identificati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component p es >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable metho blank contamination and warns the data user to take appropriate action.

E is flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that s an

D his flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0215

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-37

3 1182

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B37-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 18.20 psi
Final Pressure: 11.85 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.1U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.8U	10061-02-6	Trans-1,3-Dichloropropene	1.6U
75-01-4	Vinyl Chloride	5.8U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.6U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	87	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	6.3	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.6U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	1.8U	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
[illegible]-66-3	Chloroform	1.5U	108-10-1	2-Hexanone	1.8U
[illegible]7-06-2	1,2-Dichloroethane	1.8U	127-18-4	Tetrachloroethene	0.9 J
78-93-3	2-Butanone	2.5U	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	1.4U	108-88-3	Toluene	1.9U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration-dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified comp where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identi criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesti >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that speci

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0216

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-38

3 1194

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B38-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/04/88
Date Analyzed: 04/04/88

Initial Pressure: 20.00 psi
Final Pressure: 13.30 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.5 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	6.8U
74-83-9	Bromomethane	3.6U
75-01-4	Vinyl Chloride	5.5U
75-00-3	Chloroethane	5.3U
75-09-2	Methylene Chloride	87
67-64-1	Acetone	14
75-15-0	Carbon Disulfide	2.2U
75-35-4	1,1-Dichloroethene	1.8U
75-34-3	1,1-Dichloroethane	1.7U
156-60-5	Trans-1,2-Dichloroethene	1.8U
[illegible]-66-3	Chloroform	1.4U
[illegible]-06-2	1,2-Dichloroethane	1.7U
78-93-3	2-Butanone	2.4UJ
71-55-6	1,1,1-Trichloroethane	1.3U
56-23-5	Carbon Tetrachloride	1.1U
108-05-4	Vinyl Acetate	2.0UJ
75-27-4	Bromodichloromethane	1.0U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	1.5U
10061-02-6	Trans-1,3-Dichloropropene	1.5U
79-01-6	Trichloroethene	1.3U
124-48-1	Dibromochloromethane	0.8U
79-00-5	1,1,2-Trichloroethane	1.3U
71-43-2	Benzene	2.2U
10061-01-5	Cis-1,3-Dichloropropene	1.5U
110-75-8	2-Chloroethylvinylether	1.6U
75-25-2	Bromoform	0.7U
591-78-6	4-Methyl-2-Pentanone	1.7UJ
108-10-1	2-Hexanone	1.7UJ
127-18-4	Tetrachloroethene	0.5 J
79-34-5	1,1,2,2-Tetrachloroethane	1.0U
108-88-3	Toluene	1.8U
108-90-7	Chlorobenzene	1.5U
100-41-4	Ethylbenzene	1.6U
100-42-5	Styrene	1.6U
	Total Xylenes	1.6U

Data Reporting Qualifiers

Values: If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration/dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the samp

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified co where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the iden criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pe >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that sp an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0217

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-40

3 1227

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B40-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/21/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/03/88
Date Analyzed: 04/03/88

Initial Pressure: 22.1 psi
Final Pressure: 16.1 psi
Atmosphere Pressure: 29.9 psi
Room Temperature: 16 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.7U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.1U	10061-02-6	Trans-1,3-Dichloropropene	1.8U
75-01-4	Vinyl Chloride	6.2U	79-01-6	Trichloroethene	1.5U
75-00-3	Chloroethane	6.0U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.3U	79-00-5	1,1,2-Trichloroethane	1.5U
67-64-1	Acetone	~~9~~	71-43-2	Benzene	2.5U
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.8U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	~~2.0U~~	75-25-2	Bromoform	0.8U
156-60-5	Trans-1,2-Dichloroethene	2.0U	591-78-6	4-Methyl-2-Pentanone	1.9U
[illegible]-66-3	Chloroform	0.7 J	108-10-1	2-Hexanone	1.9U
[illegible]/-06-2	1,2-Dichloroethane	2.0U	127-18-4	Tetrachloroethene	1.2U
78-93-3	2-Butanone	~~1.9 J~~	79-34-5	1,1,2,2-Tetrachloroethane	1.2U
71-55-6	1,1,1-Trichloroethane	1.5U	108-88-3	Toluene	2.1U
56-23-5	Carbon Tetrachloride	1.3U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.9U
				Total Xylenes	1.8U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 1C based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified [illegible] where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the [illegible] criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that s

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0218

SOUTHWEST RESEARCH INSTITUTE

Sample Name: 3682B-42

3 1246

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B42-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/06/88
Date Analyzed: 04/06/88

Initial Pressure: 23.1 psi
Final Pressure: 15.8 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	6.2U
74-83-9	Bromomethane	3.3U
75-01-4	Vinyl Chloride	5.0U
75-00-3	Chloroethane	4.9U
75-09-2	Methylene Chloride	38
67-64-1	Acetone	12
75-15-0	Carbon Disulfide	2.0U
75-35-4	1,1-Dichloroethene	1.6U
75-34-3	1,1-Dichloroethane	1.6U
156-60-5	Trans-1,2-Dichloroethene	1.6U
67-66-3	Chloroform	1.3U
107-06-2	1,2-Dichloroethane	1.6U
78-93-3	2-Butanone	2.2U
71-55-6	1,1,1-Trichloroethane	1.2U
56-23-5	Carbon Tetrachloride	1.0U
108-05-4	Vinyl Acetate	1.8U
75-27-4	Bromodichloromethane	1.0U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	1.4U
10061-02-6	Trans-1,3-Dichloropropene	1.4U
79-01-6	Trichloroethene	1.2U
124-48-1	Dibromochloromethane	0.8U
79-00-5	1,1,2-Trichloroethane	1.2U
71-43-2	Benzene	2.0U
10061-01-5	Cis-1,3-Dichloropropene	1.4U
110-75-8	2-Chloroethylvinylether	1.5U
75-25-2	Bromoform	0.6U
591-78-6	4-Methyl-2-Pentanone	1.6U
108-10-1	2-Hexanone	1.6U
127-18-4	Tetrachloroethene	0.9U
79-34-5	1,1,2,2-Tetrachloroethane	0.9U
108-88-3	Toluene	1.7U
108-90-7	Chlorobenzene	1.4U
100-41-4	Ethylbenzene	1.5U
100-42-5	Styrene	1.5U
	Total Xylenes	1.5U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specif

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0219

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-43

3 1256

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B43-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/06/88
Date Analyzed: 04/06/88

Initial Pressure: 20.0 psi
Final Pressure: 11.7 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	5.5U
74-83-9	Bromomethane	2.9U
75-01-4	Vinyl Chloride	4.4U
75-00-3	Chloroethane	4.3U
75-09-2	Methylene Chloride	~~28~~
67-64-1	Acetone	~~10~~
75-15-0	Carbon Disulfide	1.8U
75-35-4	1,1-Dichloroethene	1.4U
75-34-3	1,1-Dichloroethane	1.4U
60-5	Trans-1,2-Dichloroethene	1.4U
67-66-3	Chloroform	1.2U
107-06-2	1,2-Dichloroethane	1.4U
78-93-3	2-Butanone	~~1.5~~ J
71-55-6	1,1,1-Trichloroethane	1.0U
56-23-5	Carbon Tetrachloride	0.9U
108-05-4	Vinyl Acetate	1.6U
75-27-4	Bromodichloromethane	0.8U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	1.2U
10061-02-6	Trans-1,3-Dichloropropene	1.2U
79-01-6	Trichloroethene	1.1U
124-48-1	Dibromochloromethane	0.7U
79-00-5	1,1,2-Trichloroethane	1.0U
71-43-2	Benzene	1.8U
10061-01-5	Cis-1,3-Dichloropropene	1.2U
110-75-8	2-Chloroethylvinylether	1.3U
75-25-2	Bromoform	0.5U
591-78-6	4-Methyl-2-Pentanone	1.4U
108-10-1	2-Hexanone	1.4U
127-18-4	Tetrachloroethene	0.8U
79-34-5	1,1,2,2-Tetrachloroethane	0.8U
108-88-3	Toluene	1.5U
108-90-7	Chlorobenzene	1.2U
100-41-4	Ethylbenzene	1.3U
100-42-5	Styrene	1.3U
	Total Xylenes	1.3U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnot should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the samp

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified cc where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ide criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable meth blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0220

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-44

3 1268

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B44-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/06/88
Date Analyzed: 04/06/88

Initial Pressure: 22.6 psi
Final Pressure: 16.2 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.1U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.8U	10061-02-6	Trans-1,3-Dichloropropene	1.6U
75-01-4	Vinyl Chloride	5.7U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.6U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	25	79-00-5	1,1,2-Trichloroethane	1.3U
67-64-1	Acetone	15	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.3U	10061-01-5	Cis-1,3-Dichloropropene	1.6U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	1.8U	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
-66-3	Chloroform	1.5U	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.8U	127-18-4	Tetrachloroethene	1.1U
78-93-3	2-Butanone	2.8	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	1.3U	108-88-3	Toluene	2.9
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (based on necessary concentration/dilution action(This is not necessarily the instrument detection limit). The footno should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the samp

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified co where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the iden criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pest >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that spec

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

Form I

WAS 002 0221

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-45

3 1282

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B45-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/06/88
Date Analyzed: 04/06/88

Initial Pressure: 19.6 psi
Final Pressure: 12.8 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	6.7U	78-87-5	1,2-Dichloropropane	1.5U
74-83-9	Bromomethane	3.6U	10061-02-6	Trans-1,3-Dichloropropene	1.5U
75-01-4	Vinyl Chloride	5.4U	79-01-6	Trichloroethene	1.3U
75-00-3	Chloroethane	5.2U	124-48-1	Dibromochloromethane	0.8U
75-09-2	Methylene Chloride	~~49~~ B	79-00-5	1,1,2-Trichloroethane	1.3U
67-64-1	Acetone	~~20~~ BE	71-43-2	Benzene	2.1U
75-15-0	Carbon Disulfide	2.2U	10061-01-5	Cis-1,3-Dichloropropene	1.5U
75-35-4	1,1-Dichloroethene	1.7U	110-75-8	2-Chloroethylvinylether	1.6U
75-34-3	1,1-Dichloroethane	1.7U	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.7U	591-78-6	4-Methyl-2-Pentanone	1.7U
66-3	Chloroform	1.4U	108-10-1	2-Hexanone	1.7U
...-06-2	1,2-Dichloroethane	1.7U	127-18-4	Tetrachloroethene	1.0U
78-93-3	2-Butanone	~~1.6~~ B	79-34-5	1,1,2,2-Tetrachloroethane	1.0U
71-55-6	1,1,1-Trichloroethane	1.3U	108-88-3	Toluene	1.8U
56-23-5	Carbon Tetrachloride	1.1U	108-90-7	Chlorobenzene	1.5U
108-05-4	Vinyl Acetate	1.9U	100-41-4	Ethylbenzene	1.6U
75-27-4	Bromodichloromethane	1.0U	100-42-5	Styrene	1.6U
				Total Xylenes	1.6U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration/dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0222

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-46

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B46-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/06/88
Date Analyzed: 04/06/88

Initial Pressure: 20.95 psi
Final Pressure: 14.7 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.3U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.9U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	5.9U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.7U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	~~42~~	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~38~~	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.7U
[illegible]6-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
-66-3	Chloroform	1.5U	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	1.1U
78-93-3	2-Butanone	2.5U	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	1.4U	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 1[illegible] based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The f[illegible]e should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for th[illegible]e

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identi[illegible]pounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets t[illegible]tificat criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compc[illegible]sticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probabl[illegible]d blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument fo[illegible]specific a

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0223

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-47

Organics Analysis Data Sheet
(Page 1)

3 1317

Laboratory Name: SwRI
Lab Sample No: 3682B47-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/06/88
Date Analyzed: 04/06/88

Initial Pressure: 21.3 psi
Final Pressure: 15.0 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.2U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.8U	10061-02-6	Trans-1,3-Dichloropropene	1.6U
75-01-4	Vinyl Chloride	5.8U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.6U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	47	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	17	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.6U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U
75-34-3	1,1-Dichloroethane	1.8U	75-25-2	Bromoform	0.7U
156-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
56-3	Chloroform	1.5U	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.8U	127-18-4	Tetrachloroethene	1.1U
78-93-3	2-Butanone	2.5U J	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	1.4U	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U J	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.7U
				Total Xylenes	1.7U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the l 10U
based on necessary concentration-dilution action(This is not necessarily the instrument detection limit). The foc
should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the s

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifiec ncs
where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the cati
criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component ides
>=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met
blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0224

SOUTHWEST RESEARCH INSTITUTE

Sample [illegible] 3628-48

Organics Analysis Data Sheet
(Page 1)

3 1327

Laboratory Name: SwRI
Lab Sample No: 3682B48-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

This sample was diluted by zero nitrogen. The pressure before charging nitrogen was 14.0
Concentration: Low
Date Extracted/Prepared: 04/06/88
Date Analyzed: 04/06/88

Initial Pressure: 20.0 psi
Final Pressure: 13.8 psi
Atmosphere Pressure: 29.2 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	10U	78-87-5	1,2-Dichloropropane	140 E
74-83-9	Bromomethane	5.6U	10061-02-6	Trans-1,3-Dichloropropene	2.4U
75-01-4	Vinyl Chloride	20700 E	79-01-6	Trichloroethene	4840 E
75-00-3	Chloroethane	8.2U	124-48-1	Dibromochloromethane	1.3U
75-09-2	Methylene Chloride	5770 E	79-00-5	1,1,2-Trichloroethane	2.0U
67-64-1	Acetone	3160 E	71-43-2	Benzene	3.4U
75-15-0	Carbon Disulfide	3.4U	10061-01-5	Cis-1,3-Dichloropropene	2.4U
75-35-4	1,1-Dichloroethene	355 E	110-75-8	2-Chloroethylvinylether	2.5U
75-34-3	1,1-Dichloroethane	1470 E	75-25-2	Bromoform	1.0U
[illegible]6-60-5	Trans-1,2-Dichloroethene	15000 E	591-78-6	4-Methyl-2-Pentanone	2.6U
[illegible]6-3	Chloroform	2.2U	108-10-1	2-Hexanone	2.6U
107-06-2	1,2-Dichloroethane	2.7U	127-18-4	Tetrachloroethene	8780 E
78-93-3	2-Butanone	2550 E	79-34-5	1,1,2,2-Tetrachloroethane	1.6U
71-55-6	1,1,1-Trichloroethane	833 E	108-88-3	Toluene	2.8U
56-23-5	Carbon Tetrachloride	1.7U	108-90-7	Chlorobenzene	2.3U
108-05-4	Vinyl Acetate	3.0U	100-41-4	Ethylbenzene	2.5U
75-27-4	Bromodichloromethane	1.6U	100-42-5	Styrene	2.5U
				Total Xylenes	2.5U

[illegible]

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The [illegible]ote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for [illegible]'le.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively ident [illegible]mpounds where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets t [illegible]tificati criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compon [illegible]icides >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable m blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the [illegible]fic an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0225

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-48 DILUTION

3 1376

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B48DL-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

This sample contained high concentrations of some organic compounds.
Only a 10. ml was directly injected into GC/MS system
Concentration: Medium
Date Extracted/Prepared: 04/14/88
Date Analyzed: 04/14/88

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	1920U	78-87-5	1,2-Dichloropropane	429U
74-83-9	Bromomethane	1020U	10061-02-6	Trans-1,3-Dichloropropene	437U
75-01-4	Vinyl Chloride	20500	79-01-6	Trichloroethene	1180
75-00-3	Chloroethane	1500U	124-48-1	Dibromochloromethane	233U
75-09-2	Methylene Chloride	~~1090~~	79-00-5	1,1,2-Trichloroethane	364U
67-64-1	Acetone	~~704 J~~	71-43-2	Benzene	123 J
75-15-0	Carbon Disulfide	632U	10061-01-5	Cis-1,3-Dichloropropene	437U
75-35-4	1,1-Dichloroethene	501U	110-75-8	2-Chloroethylvinylether	453U
75-34-3	1,1-Dichloroethane	490U	75-25-2	Bromoform	192U
156-60-5	Trans-1,2-Dichloroethene	676U	591-78-6	4-Methyl-2-Pentanone	481U
66-3	Chloroform	407U	108-10-1	2-Hexanone	481U
107-06-2	1,2-Dichloroethane	490U	127-18-4	Tetrachloroethene	3370
78-93-3	2-Butanone	~~467 J~~	79-34-5	1,1,2,2-Tetrachloroethane	289U
71-55-6	1,1,1-Trichloroethane	109 J	108-88-3	Toluene	4440
56-23-5	Carbon Tetrachloride	316U	108-90-7	Chlorobenzene	429U
108-05-4	Vinyl Acetate	559U	100-41-4	Ethylbenzene	204 J
75-27-4	Bromodichloromethane	297U	100-42-5	Styrene	462U
				Total Xylenes	725

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifie ...cs where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the cat... criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component ...des >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable meth... blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that s... an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0226

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-49

3 1421

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B49-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/13/88
Date Analyzed: 04/13/88

Initial Pressure: 23.7 psi
Final Pressure: 17.0 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	6.8U	78-87-5	1,2-Dichloropropane	1.5U
74-83-9	Bromomethane	3.6U	10061-02-6	Trans-1,3-Dichloropropene	1.5U
75-01-4	Vinyl Chloride	5.5U	79-01-6	Trichloroethene	1.3U
75-00-3	Chloroethane	5.3U	124-46-1	Dibromochloromethane	0.8U
75-09-2	Methylene Chloride	~~24~~	79-00-5	1,1,2-Trichloroethane	1.3U
67-64-1	Acetone	~~28~~	71-43-2	Benzene	2.2U
75-15-0	Carbon Disulfide	2.2U	10061-01-5	Cis-1,3-Dichloropropene	1.5U
75-35-4	1,1-Dichloroethene	1.8U	110-75-8	2-Chloroethylvinylether	1.6U
75-34-3	1,1-Dichloroethane	1.7U	75-25-2	Bromoform	0.7U
-60-5	Trans-1,2-Dichloroethene	1.8U	591-78-6	4-Methyl-2-Pentanone	1.7U
-66-3	Chloroform	1.4U	108-10-1	2-Hexanone	1.7U
107-06-2	1,2-Dichloroethane	1.7U	127-18-4	Tetrachloroethene	1.0U
78-93-3	2-Butanone	~~2.2~~	79-34-5	1,1,2,2-Tetrachloroethane	1.0U
71-55-6	1,1,1-Trichloroethane	1.3U	108-88-3	Toluene	1.8U
56-23-5	Carbon Tetrachloride	1.1U	108-90-7	Chlorobenzene	1.5U
108-05-4	Vinyl Acetate	2.0U	100-41-4	Ethylbenzene	1.6U
75-27-4	Bromodichloromethane	1.0U	100-42-5	Styrene	1.6U
				Total Xylenes	1.6U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The fact should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sa

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified c where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ide criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pest >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0227

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-50

3 1446

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B50-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/13/88
Date Analyzed: 04/13/88

Initial Pressure: 23.0 psi
Final Pressure: 15.2 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	5.8U	78-87-5	1,2-Dichloropropane	1.3U
74-83-9	Bromomethane	3.1U	10061-02-6	Trans-1,3-Dichloropropene	1.3U
75-01-4	Vinyl Chloride	4.7U	79-01-6	Trichloroethene	1.1U
75-00-3	Chloroethane	4.5U	124-48-1	Dibromochloromethane	0.7U
75-09-2	Methylene Chloride	~~18~~	79-00-5	1,1,2-Trichloroethane	1.1U
67-64-1	Acetone	~~8.9~~	71-43-2	Benzene	1.9U
75-15-0	Carbon Disulfide	1.9U	10061-01-5	Cis-1,3-Dichloropropene	1.3U
75-35-4	1,1-Dichloroethene	1.5U	110-75-8	2-Chloroethylvinylether	1.4U
75-34-3	1,1-Dichloroethane	1.5U	75-25-2	Bromoform	0.6U
156-60-5	Trans-1,2-Dichloroethene	1.5U	591-78-6	4-Methyl-2-Pentanone	1.5U
67-66-3	Chloroform	1.2U	108-10-1	2-Hexanone	1.5U
7-06-2	1,2-Dichloroethane	1.5U	127-18-4	Tetrachloroethene	0.9U
-93-3	2-Butanone	~~1.6~~ J	79-34-5	1,1,2,2-Tetrachloroethane	0.9U
71-55-6	1,1,1-Trichloroethane	1.1U	108-88-3	Toluene	~~7.9~~
56-23-5	Carbon Tetrachloride	1.0U	108-90-7	Chlorobenzene	0.7 J
108-05-4	Vinyl Acetate	1.7U	100-41-4	Ethylbenzene	1.4
75-27-4	Bromodichloromethane	0.9U	100-42-5	Styrene	1.4U
				Total Xylenes	2.7

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analysed for but not detected. Report the minimum detection limit for the sample with the ... based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The foo... should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the ...

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifie... where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ... criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single componen... >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable m... blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for th... ific a...

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0228

SOUTHWEST RESEARCH INSTITUTE

Sample N: ...3682B-51

3 1485

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B51-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/13/88
Date Analyzed: 04/13/88

Initial Pressure: 22.0 psi
Final Pressure: 16.0 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.6U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.0U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.1U	79-01-6	Trichloroethene	1.5U
75-00-3	Chloroethane	5.9U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	~~45~~	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~16~~	71-43-2	Benzene	2.4U
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.8U
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.8U
156-60-5	Trans-1,2-Dichloroethene	2.0U	591-78-6	4-Methyl-2-Pentanone	1.9U
66-3	Chloroform	1.6U	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	1.2U
78-93-3	2-Butanone	~~2.6~~	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	1.4U	108-88-3	Toluene	2.1U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U J	100-41-4	Ethylbenzene	1.8U
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.8U
				Total Xylenes	1.8U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the ... based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The for... should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the s...

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifie... where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ... criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component ... >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable metho... blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that s...

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0229

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-52

3 1497

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B52-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/13/88
Date Analyzed: 04/13/88

Initial Pressure: 22.1 psi
Final Pressure: 15.9 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.3U	78-87-5	1,2-Dichloropropane	1.6U
74-83-9	Bromomethane	3.9U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	5.9U	79-01-6	Trichloroethene	1.4U
75-00-3	Chloroethane	5.7U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	~~48~~ FF	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~17~~ FF	71-43-2	Benzene	2.3U
75-15-0	Carbon Disulfide	2.4U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	1.9U	110-75-8	2-Chloroethylvinylether	1.7U J
75-34-3	1,1-Dichloroethane	1.9U	75-25-2	Bromoform	0.7U
;-60-5	Trans-1,2-Dichloroethene	1.9U	591-78-6	4-Methyl-2-Pentanone	1.8U
67-66-3	Chloroform	1.5U	108-10-1	2-Hexanone	1.8U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	1.1U
78-93-3	2-Butanone	~~2.4~~ J FF	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	1.4U	108-88-3	Toluene	2.0U
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	1.6U
108-05-4	Vinyl Acetate	2.1U J	100-41-4	Ethylbenzene	1.7U
75-27-4	Bromodichloromethane	1.1U	100-42-5	Styrene	1.8U
				Total Xylenes	1.7U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The foc should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the s.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the ic criterta but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component p >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable metho blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific an

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0230

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-53

3 1514

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B53-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/13/88
Date Analyzed: 04/13/88

Initial Pressure: 19.6 psi
Final Pressure: 13.0 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	6.9U
74-83-9	Bromomethane	3.7U
75-01-4	Vinyl Chloride	166 E
75-00-3	Chloroethane	5.4U
75-09-2	Methylene Chloride	~~40~~ FB
67-64-1	Acetone	~~24~~ FB
75-15-0	Carbon Disulfide	2.3U
75-35-4	1,1-Dichloroethene	1.8U
75-34-3	1,1-Dichloroethane	0.9 J
156-60-5	Trans-1,2-Dichloroethene	37
56-3	Chloroform	1.5U
107-06-2	1,2-Dichloroethane	1.8U
78-93-3	2-Butanone	~~3.0~~ FB
71-55-6	1,1,1-Trichloroethane	3.4
56-23-5	Carbon Tetrachloride	1.1U
108-05-4	Vinyl Acetate	2.0U J
75-27-4	Bromodichloromethane	1.1U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	1.5U
10061-02-6	Trans-1,3-Dichloropropene	1.6U
79-01-6	Trichloroethene	2.2
124-48-1	Dibromochloromethane,	0.8U
79-00-5	1,1,2-Trichloroethane	1.3U
71-43-2	Benzene	2.2U
10061-01-5	Cis-1,3-Dichloropropene	1.6U
110-75-8	2-Chloroethylvinylether	1.6U
75-25-2	Bromoform	0.7U
591-78-6	4-Methyl-2-Pentanone	1.7U
108-10-1	2-Hexanone	1.7U
127-18-4	Tetrachloroethene	19
79-34-5	1,1,2,2-Tetrachloroethane	1.0U
108-88-3	Toluene	~~3.5~~ FB
108-90-7	Chlorobenzene	1.5U
100-41-4	Ethylbenzene	1.6U
100-42-5	Styrene	1.7U
	Total Xylenes	1.6U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The f should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifie where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS.
This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable meth blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0231

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-53 DILUTION

3 1560

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B53DL-
Sample Matrix: Canister
Data Release Authorized By: J. Dawson

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/14/88
Date Analyzed: 04/14/88

Initial Pressure: 12.8 psi
Final Pressure: 9.4 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v
74-87-3	Chloromethane	13U
74-83-9	Bromomethane	7.1U
75-01-4	Vinyl Chloride	113
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	~~[illegible]~~
67-64-1	Acetone	~~[illegible]~~
75-15-0	Carbon Disulfide	4.4U
75-35-4	1,1-Dichloroethene	3.5U
75-34-3	1,1-Dichloroethane	0.9 J
156-60-5	Trans-1,2-Dichloroethene	36
[illegible]56-3	Chloroform	2.8U
[illegible]-06-2	1,2-Dichloroethane	3.4U
78-93-3	2-Butanone	~~[illegible]~~
71-55-6	1,1,1-Trichloroethane	3.4
56-23-5	Carbon Tetrachloride	2.2U
108-05-4	Vinyl Acetate	3.9U J
75-27-4	Bromodichloromethane	2.1U

CAS Number		ppb,v/v
78-87-5	1,2-Dichloropropane	3.0U
10061-02-6	Trans-1,3-Dichloropropene	3.0U
79-01-6	Trichloroethene	1.9 J
124-48-1	Dibromochloromethane	1.6U
79-00-5	1,1,2-Trichloroethane	2.5U
71-43-2	Benzene	4.3U
10061-01-5	Cis-1,3-Dichloropropene	3.0U
110-75-8	2-Chloroethylvinylether	3.1U
75-25-2	Bromoform	1.3U
591-78-6	4-Methyl-2-Pentanone	3.3U
108-10-1	2-Hexanone	3.3U
127-18-4	Tetrachloroethene	18
79-34-5	1,1,2,2-Tetrachloroethane	2.0U
108-88-3	Toluene	~~[illegible]~~
108-90-7	Chlorobenzene	3.0U
100-41-4	Ethylbenzene	3.1U
100-42-5	Styrene	3.2U
	Total Xylenes	3.1U

DATA REPORTING QUALIFIERS

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analysed for but not detected. Report the minimum detection limit for the sample with the U (e. based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified com where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the identi criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesti >=10 ng/ul in the final extract should be confirmed by GC/MS.

" This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable method blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that speci

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0232

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-54

3 1605

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B54-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/13/88
Date Analyzed: 04/13/88

Initial Pressure: 21.4 psi
Final Pressure: 15.5 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.7U	78-87-5	1,2-Dichloropropane	1.7U
74-83-9	Bromomethane	4.1U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	51	79-01-6	Trichloroethene	1.5U
75-00-3	Chloroethane	6.0U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	2.3U	79-00-5	1,1,2-Trichloroethane	1.5U
67-64-1	Acetone	~~17~~	71-43-2	Benzene	2.5U
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.8U
34-3	1,1-Dichloroethane	2.0U	75-25-2	Bromoform	0.8U
156-60-5	Trans-1,2-Dichloroethene	2.5	591-78-6	4-Methyl-2-Pentanone	1.9U
67-66-3	Chloroform	1.6U	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	2.0U	127-18-4	Tetrachloroethene	1.2U
78-93-3	2-Butanone	~~3.8~~ 13	79-34-5	1,1,2,2-Tetrachloroethane	1.2U
71-55-6	1,1,1-Trichloroethane	1.5U	108-88-3	Toluene	~~19~~
56-23-5	Carbon Tetrachloride	1.3U	108-90-7	Chlorobenzene	1.7U
108-05-4	Vinyl Acetate	2.2U	100-41-4	Ethylbenzene	13
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.8U
				Total Xylenes	29

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with e.g. 10 based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The te should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for t le.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identi mpounds where a 1:1 response is assumed. when the mass spectral data indicates the presence of a compound that meets t tificat criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

: This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compon ticides >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific a

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0233

SOUTHWEST RESEARCH INSTITUTE

Sample Number: 3682B-55

3 1646

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: 3682B55-
Sample Matrix: Canister
Data Release Authorized By:

Case No: SAS 3682B
QC Report No: SAS 3682B
Contract No: 68-01-7167
Date Sample Received: 03/31/88

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/13/88
Date Analyzed: 04/13/88

Initial Pressure: 22.2 psi
Final Pressure: 16.2 psi
Atmosphere Pressure: 29.1 psi
Room Temperature: 17.0 C

CAS Number		ppb,v/v	CAS Number		ppb,v/v
74-87-3	Chloromethane	7.6U	78-87-5	1,2-Dichloropropane	2.1
74-83-9	Bromomethane	4.0U	10061-02-6	Trans-1,3-Dichloropropene	1.7U
75-01-4	Vinyl Chloride	6.1U	79-01-6	Trichloroethene	1.5U
75-00-3	Chloroethane	5.9U	124-48-1	Dibromochloromethane	0.9U
75-09-2	Methylene Chloride	~~80~~ F	79-00-5	1,1,2-Trichloroethane	1.4U
67-64-1	Acetone	~~78~~ F	71-43-2	Benzene	1.1 J
75-15-0	Carbon Disulfide	2.5U	10061-01-5	Cis-1,3-Dichloropropene	1.7U
75-35-4	1,1-Dichloroethene	2.0U	110-75-8	2-Chloroethylvinylether	1.8U
-34-3	1,1-Dichloroethane	2.5	75-25-2	Bromoform	0.8U
156-60-5	Trans-1,2-Dichloroethene	2.0U	591-78-6	4-Methyl-2-Pentanone	1.9U
67-66-3	Chloroform	2.4	108-10-1	2-Hexanone	1.9U
107-06-2	1,2-Dichloroethane	1.9U	127-18-4	Tetrachloroethene	1.2U
78-93-3	2-Butanone	~~2.8~~ E	79-34-5	1,1,2,2-Tetrachloroethane	1.1U
71-55-6	1,1,1-Trichloroethane	1.4U	108-88-3	Toluene	~~19~~
56-23-5	Carbon Tetrachloride	1.2U	108-90-7	Chlorobenzene	10
108-05-4	Vinyl Acetate	2.2U	100-41-4	Ethylbenzene	37
75-27-4	Bromodichloromethane	1.2U	100-42-5	Styrene	1.8U
				Total Xylenes	71

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the based on necessary concentration dilution action(This is not necessarily the instrument detection limit). The f should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifie where a 1:1 response is assumed, when the mass spectral data indicates the presence of a compound that meets the criteria but the result is less than specified detection limit but greater than zero (e.g. 10J).
If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component >=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable met blank contamination and warns the data user to take appropriate action.

E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific a

D This flag identifies all compounds identified in an analysis at a secondary dilution factor.

S spiked compounds.

WAS 002 0234

PORT WASHINGTON SUMMA CANISTER REPORT

December, 1988

EPA Work Assignment No.: 0-161
Weston Work Order No.: 3347-01-01-1161
EPA Contract No.: 68-03-3482

FINAL REPORT

APPROVALS

Prepared by:

Roy F. Weston, Inc.

David B. Mickunas
Task Leader

12/5/88
(Date)

W. Scott Butterfield
Project Manager

12/9/88
(Date)

Prepared for:

U.S. EPA/ERT

Thomas H. Pritchett
Work Assignment Manager

WAS 002 0235

TABLE OF CONTENTS

WAS 002 0236

INTRODUCTION

REAC was tasked by EPA/ERT to provide support to Region II in completing the air-related analytical work. This was needed for the remedial investigation and for addressing specific public concerns at the Port Washington Landfill in Port Washington, New York.

Samples were taken by CAMP DRESSER & McKEE, INC. the REM contractor. A total of sixty (60) Summa canister samples were received. Two Summa canisters did not have pressure therefore only fifty eight (58) Summa canisters were analyzed.

A GC/MS method was used to analyze for Vinyl Chloride, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, 1,1,2,2-Tetrachloroethane, Tetrachloroethylene, Carbon Tetrachloride, Benzene Bromodichloromethane, Methylene Chloride, Chloroform, Trans-1,2-Dichloroethylene, and Chlorobenzene. 1,4-Dichlorobenzene could not be analyzed because the gas standard for this compound was not available.

A GC method was utilized to analyze for Carbon Dioxide, Carbon Monoxide, and Methane using a Thermal Conductivity Detector. Low level Methane was analyzed using a Flame Ionization Detector.

WAS 002 0237

GC/MS Procedure

1.0 Preparation and Sampling of Summa Canisters

Summa canisters were provided by Region 2 (Port Washington). Sample collection was also done by Region 2, EPA.

2.0 Sample analysis

Samples received from Port Wasington were high in Carbon dioxide. Use of the sample train to analyze these samples directly was not possible due to "icing" of the cryotrap (due to carbon dioxide). Direct injection of sample into the desorb oven was also unacceptable , since a high carbon dioxide background masked sample components. The problem was solved by adsorbing the sample onto Tenax cartridges. This allowed the carbon dioxide to escape thus leaving the organic contaminant.

Tenax tubes were then analyzed by thermal desorption onto a cryogenic trap, followed by GC/MS analysis. A Tekmar model 5010 automatic desorber and a Hewlett-Packard 5995 GC/MS were used. Table 1 lists cryogenic trap and GC/MS conditions. Materials used are listed in Table 2.

WAS 002 0238

TABLE 1
INSTRUMENT CONDITIONS

A. Cryogenic Trap Conditions:

Purge Time	:	6 Minutes
Furnace Desorb Temp.	:	270° C.
Desorb Time	:	10 Minutes
Cryotrap-1 Temp.	:	-150° C
Cryotrap-1 Desorb Temp	:	270° C
Cryotrap-1 Desorb Time	:	4.0 Minutes
Cryotrap-2 Temp.	:	-150° C
Cryotrap-2 Desorb Temp.	:	270° C
Cryotrap-2 Desorb Time	:	3.5 Minutes
Injection Temp.	:	250° C
Injection Time	:	3.5 Minutes

B. GC/MS Conditions:

Temp.-1	:	30° C.
Time-1	:	3 Minutes
Rate	:	8° C./Minutes
Final Temp.	:	250° C
Run Time	:	30 Minutes
EM Voltage	:	1615
Mass Scan Range	:	35 to 300 AMU

C. Column:

0.32mm x 30 meters DB-624, 0.25um film thickness
(J & W Scientific, Inc.)

TABLE 2
MATERIALS AND SUPPLIES

MATERIALS	SUPPLIER
Tenax tubes	Supelco, Inc.
Calibration Standards	Scott Speciality Gases, Inc.
6-Port Valve	Valco
Mass Flow Controller 10 SCCM	Unit Instruments
Mass Flow Controller 50 SCCM	Unit Instruments
Mass Flow Meter	Unit Instruments

WAS 002 0239

PORT WASHINGTON GC/MS RESULTS

CONCENTRATION OF COMPOUNDS IN SUMMA CANISTER # 889084

COMPOUND	STD889084 CONCENTRATION PPBV
VINYL CHLORIDE	383
1,1-DICHLOROETHENE	308
METHYLENE CHLORIDE	494
TRANS-1,2-DICHLOROETHENE	304
1,1-DICHLOROETHANE	273
CHLOROFORM	528
1,1,1-TRICHLOROETHANE	444
CARBON TETRACHLORIDE	697
BENZENE	508
1,2-DICHLOROETHANE	329
TRICHLROETHENE	298
BROMODICHLOROMETHANE	517
1,1,2-TRICHLOROETHANE	514
TETRACHLOROETHENE	331
CHLOROBENZENE	1035
1,1,2,2-TETRACHLOROETHANE	539

STANDARD STD889084 WAS FURTHER DILUTED AS FOLLOWS:

SUMMA CANISTER # 31 1/10 DIL OF STD889084
SUMMA CANISTER # 23 1/100 DIL OF STD889084

WAS 002 0240

3.0 Sample preparation and spiking

p-Bromofluorobenzene (p-BFB) and Bromochloromethane (BCM) were added as a surrogate to all samples and standards prior to analysis. Six liter Summa canister is filled with surrogate from a compressed gas cylinder and connected to a 10 SCCM mass flow controller set at 2.5 ml/minute. Sample canister is connected to 50 SCCM mass flow controller set at 30 ml/minute. Sample collection and spiking with surrogate were done in the following manner:

- Removed CMS from Tenax tube.
- Baked Tenax tube for 20 minutes
- Connect Tenax tube to sample collection system
- Adsorbed 10 ml surrogates followed by 420 ml sample on to Tenax tube
- Flushed system with 90 ml ultra high purity nitrogen.
- Placed tube in the desorb oven (Tekmar 5010) for analysis.

4.0 Standard Analysis

Standards were provided in five compressed gas cylinders by Scott Specialty Gases, A total of sixteen (16) components were analyzed. Standard cylinder I.D. numbers are as follows:

AAL 20332 - Chlorinated compounds
AAL 20322 - Aromatic standards
CAL 12230 - Chlorinated hydrocarbon mixture
AAl 9845 - Chlorinated
BAL 3670 - Aromatic

The primary standards were diluted with ultra high purity nitrogen, using the ideal gas law, in six and sixteen liter Summa canisters using a Wika pressure gauge.

5.0 Sample Component Identification/Quantitation

Standard library of each component chromatograph was generated into the system. Components were then identified by comparing ~~retention~~ times of the sample and standard chromatograph from the library.

Target components identified in samples were quantified on th single ion reeponse of the calibration curve. Method detectic limits (MDL) for target components were calculated as follows

$$MDL = \frac{\text{Lowest calibrated volume}}{\text{Sample Volume}} \times \text{Standard concentration}$$

WAS 002 0241

6.0 QA/QC

The followling QA/QC procedures were performed during this analysis:

- The HP 5995 was manually tuned on perflorotributylamine (PFTBA) to meet the abundance criteria for p-bromofluorobenzene as listed in EPA method 624.
- A five point calibration range of the sixteen component standard was run prior to analysis. A linear regression of the data was calculated.
- A sixteen component standard was run every day as a daily calibration check.
- A surrogate standard of p-BFB and BCM was added to all standards and samples. Percent recoveries for samples were calculated on daily standards and system blank after the standard.
- A system blank was analyzed after standard and badly contaminated sample analysis to check for carryover.
- At least 10% of samples were analyzed in duplicate.
- PE summa canisters provided by Research Triangle Park (RTP) were analyzed periodically to check system performance.
- Matrix spikes were run by injecting 500ul mixture of Vinyl Chloride, Tetrachloroethene, Trichloroethene and Chlorobenzene into the sample.

7.0 Discussion

Low level Benzene contamination was found in all sample analyses including blanks. Linear regression and calibration check for Vinyl Chloride and 1,1,2,2-Tetrachloroethane were off on some days. This could be due to Vinyl Chloride being very volatile and instability of 1,1,2,2-Tetrachloroethane in Summa canister.

7.1 Surrogate Recoveries

Recoveries for p-BFB were within 70% to 130% for most sample analyses. Some samples were badly contaminated and very high moisture causing low and high recoveries of BCM and P-BFB due coelution, signal suppression and elevated baseline.

WAS 002 0242

Method for Gas Chromatographic Analysis of Methane (CH4) Using a Flame Ionization Detector

1. Principle of the Method

1.1 A flame ionization detector (FID) gas chromatograph (GC) is used to separate and quantitate CH4 in gas samples. The sample is introduced as a plug into the carrier gas and passes through a gas chromatography column which separates it into two peaks. The first peak is unresolved air. The second peak is resolved CH4.

1.2 Peak areas are used in conjunction with calibration plots for quantitative measurements.

1.3 The separation is completed in 5 minutes.

2. Range and Sensitivity

2.1 The detection and quantitating limits were determined by the available calibration standards. The high and low limits of detection were not experimentally investigated. The linear calibration range used was 2.5 parts per million volume (ppmv) to 207 ppmv.

3. Interferences

3.1 Interferences were not investigated in this study.

4. Precision and Accuracy

4.1 The vendor-certified accuracy of the primary CH4 calibration standards are:

Concentration	Analytical Accuracy
4.9 ppmv	+ or - 2%
10.3 ppmv	+ or - 2%
50.1 ppmv	+ or - 2%
207 ppmv	+ or - 2%

A half milliliter (ml) of the 4.9 ppmv standard was injected into the gas chromatograph instead of 1.0 ml to acquire a response equivalent to a 2.5 ppmv standard.

4.2 The precision of the method was monitored using the second lowest calibration standard from the linear curve. A control range was established using three standard deviations (STD) from the mean of ten independent analyses.

5. Apparatus

5.1 Gas Chromatograph. A Varian 3400 gas chromatograph was used

5.1.1 Detector. A flame ionization detector was used.

5.1.2 Carrier gas. A cylinder of ultra high purity helium with a stage regulator delivering a pressure of 90 psi was required.

5.1.3 Sample introduction. A 1 ml and a .1 ml precision gas-tight syringe with needle was used.

5.1.4 Gas chromatography column. A 10 ft. X 1/4 in. stainless ste column packed with Spherocarb, 100/120 mesh was used.

5.1.5 Temperature. The column was operated at 100 degrees Centigr (C). The injection temperature was 200 degrees C and the detector temperature was 225 degrees C.

WAS 002 0243

5.1.6 Electronic integrator. A Spectra-Physics SP4290 integrator was used with a plotter attenuation range of 1 to 4096.

6. Reagents.

6.1 Helium. Ultra high purity grade helium (99.9999%) was used.
6.2 Hydrogen. Ultra high purity grade hydrogen (99.9999%) was used.
6.3 Air. Ultra zero grade air (< 0.05 ppmv total hydrocarbon) was used.
6.4 Calibration standards. See section 4.1.

7. Procedure

7.1 Gas Chromatograph. The carrier gas is turned on and the flow rate adjusted to 40 mls per minute. The air is turned on and the flow rate adjusted to 150 mls per minute. The hydrogen is turned on and the flow rate is adjusted to 30 mls per minute. The flows are checked with a soap film flow meter. The flame ionization detector is then ignited and allowed to equilibrate for ten minutes. The integrator is turned on and zeroed before samples are introduced.

7.2 Injection of sample. A sample was withdrawn from the sample vessel using a 1 ml gas-tight syringe and quickly injected, guarding against blow-back of the plunger. Samples analyzed above the linear range were reanalyzed using .5 ml and .1 ml injections to acquire responses within the linear range. All samples were analyzed in duplicate.

8. Calibration. A linear standard curve of peak area vs. ppmv was prepared. The calibration is checked periodically using the method described in 4.2. The sample concentrations were calculated using the formula $y = mx + b$; were y is the peak area, m is the slope (peak are/ ppmv), b is the y intercept (peak area), and x is the concentration (ppmv).

WAS 002 0244

Method for Gas Chromatographic Analysis of Carbon Monoxide, Carbon Dioxide, and Methane (CO, CO2 and CH4) Using a Thermal Conductivity Detector

1. Principle of the Method

1.1 A thermal conductivity detector (TCD) gas chromatograph (GC) was used to separate and quantitate CO, CH4, and CO2 in gas samples. The sample is introduced as a plug into the carrier gas and passes through a gas chromatography column which separates it into four peaks. The first peak was unresolved oxygen and nitrogen. The successive peaks are resolved CO, CH4 and CO2.

1.2 Peak areas are used in conjunction with calibration plots for quantitative measurements.

1.3 The separation was completed in 15 minutes.

2. Range and Sensitivity

2.1 The detection and quantitation limits were determined by the available calibration standards. The high and low limits of detection were not experimentally investigated. The linear calibration range was:

Gas	Low Standard parts per million volume (ppmv)	High Standard parts per million volume (ppmv)
CO	750	15000
CH4	10000	490000
CO2	10000	400000

3. Interferences

3.1 Interferences were not investigated in this study.

4. Precision and Accuracy

4.1 The vendor-certified accuracy of the primary calibration standards are:

Gas	Concentration	Analytical Accuracy
CO	1.50%	+ or - 2%
CH4	20.0 %	+ or - 1%
CO2	20.0 %	+ or - 1%
CO2	99.99%	+ or - 2%
CH4	99.99%	+ or - 2%

The primary standards were diluted with ultra high purity helium, t the ideal gas law, in six and sixteen liter Summa canisters using a Wallace and Tierman Pennwalt absolute pressure gauge.

4.2 The precision of the method was monitored using the second lo calibration standard from the linear curve. A control range was established using three standard deviations (STD) from the mean of results of six independent analyses.

5. Apparatus

5.1 Gas Chromatogragh. A Perkin-Elmer Sigma 300 gas chromatograph

WAS 002 0245

equipped with a CO2 sub-ambient accessory was used. This allowed for oven temperatures of 25 degrees Centigrade (C).

5.1.1 Detector. A tungsten-rhenium thermal conductivity detector was used.

5.1.2 Carrier gas. A cylinder of ultra high purity helium with a two stage regulator delivering a pressure of 90 PSI was required.

5.1.3 Sample Introduction. An automatic ten-port gas sampling valve with a 5-ml sample loop was used.

5.1.4 Gas Chromatography column. A 10 ft. X 1/4 in. stainless steel column packed with Spherocarb, 100/120 mesh was used.

5.1.5 Temperature. The column temperature was 25 degrees C for the initial 5 minutes. The temperature was then increased at a rate of 25 degrees C per minute to 100 degrees C. The final temperature was held for 7 minutes for a total run time of 15 minutes. The injection temperature was 150 degrees C and the detector temperature was 200 degrees C.

5.1.6 Electronic integrator. A Spectra-Physics SP4290 integrator was used with a plotter attenuation range of 1 to 4096.

6. Reagents .

6.1 Helium. Ultra high purity grade helium (99.9999%) was used.

6.2 Calibration Standards. See section 4.1

7. Procedure

7.1 Gas Chromatograph. The carrier gas was turned on and the flow rate adjusted to 40 milliliters per minute (ml/min). The flow was checked with a soap film flow meter. The thermal conductivity detector was turned on and the bridge current is adjusted to 150 mA. Approximately, thirty minutes were required for instrument stabilization. The integrator was turned on and zeroed before samples were introduced.

7.2 Injection of sample. The sample loop was flushed with several volumes of calibration standard or sample gas. The automatic gas sampling valve was activated and the sample was flushed into the column by the carrier gas. Additionally, the temperature program and integrator were activated at this time. Samples were analyzed in duplicate and unable to be diluted due to the use of a sample loop.

8. Calibration. A linear standard curve of peak area vs. volume ppm was prepared for each analyte. (see 2.1) A calibration check was performed periodically using the method described in 4.2. The sample concentrations were calculated using the formula y=mx + b; were y is the peak area, m is the slope (peak area/ ppmv), b is the y intercept (peak area), and x is the concentration, ppmv.

WAS 002 0246

PORT WASHINGTON GC/MS RESULTS

SAMPLE#	EPA001	EPA002	EPA003	EPA004	EPA005	EPA006	EPA007	EPA008	EPA009	EPA010
FILE#	>80766	>80798	>80885	>80734	>80742	>80804	>80828	>80909	>80899	>80796
COMPOUND	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
VINYL CHLORIDE	20.9	1.13U	0.93U	71.0	19.9	343	1.13U	0.93U	0.93U	1.13U
1,1-DICHLOROETHENE	83.0	6.10	1.13	12.9	0.92U	7.64	0.92U	0.76U	0.76U	1.13
METHYLENE CHLORIDE	553	3.52	1.20U	13.7	1.46U	3.29	1.46U	35.8	8.36	1.46
TRANS-1,2-DICHLOROETHENE	125	0.89U	0.73U	24.5	2.55	19.8	0.89U	0.73U	0.73U	0.89U
1,1-DICHLOROETHANE	326	12.9	5.94	32.0	8.69	13.3	1.22	0.66U	0.66U	2.01
CHLOROFORM	2.91	3.01	1.3U	1.58U	1.58U	1.58U	1.58U	1.30U	1.30U	1.58U
1,1,1-TRICHLOROETHANE	76.9	72.7	26.6	3.29	1.31U	1.31U	14.4	1.08U	1.08U	20.8
CARBON TETRACHLORIDE	2.08U	2.08U	1.71U	2.08U	2.08U	2.08U	2.08U	1.71U	1.71U	2.08U
BENZENE	242	1.62	1.25U	151	86.3	58.1	1.51U	1.25U	2.33	1.51U
1,2-DICHLOROETHANE	0.98U	0.98U	0.81U	8.63	1.94	1.87	0.98U	0.81U	0.81U	0.98U
TRICHLOROETHENE	86.1	5.24	1.64	21.5	2.28	6.48	0.89U	0.73U	0.73U	0.89U
BROMODICHLOROMETHANE	1.55U	1.55U	1.27U	1.55U	1.55U	1.55U	1.55U	1.27U	1.27U	1.55U
1,1,2-TRICHLOROETHANE	1.52U	1.52U	1.25U	4.09	1.52U	1.52U	1.52U	1.25U	1.25U	1.52U
TETRACHLOROETHENE	48.1	185	45.1	59.8	6.69	18.2	15.0	0.81U	0.81U	0.98U
CHLOROBENZENE	26.4	3.06U	2.52U	160	123	3.06U	3.06U	2.52U	2.52U	3.06U
1,1,2,2-TETRACHLOROETHANE	1.6U	1.6U	1.32U	68.6	12.7U	1.6U	1.6U	1.32U	1.32U	1.6U
SURROGATE % recoveries										
BROMOCHLOROMETHANE	0	124%	88.8%	89.9%	131%	116%	105%	100%	114%	122%
p-BROMOFLUOROBENZENE	6.9%	114%	89.4%	19.4%	81.0%	16.6%	121%	95.4%	107%	112

U: METHOD DETECTION LIMIT

WAS 002 0247

PORT WASHINGTON GC/MS RESULTS

SAMPLE#	EPA011	EPA012	EPA013	EPA014	EPA015	EPA017	EPA018	EPA019	EPA020	EPA021
FILE#	>80890	>80794	>80739	>80806	>80889	>80785	>80862	>80921	>80781	>80922
COMPOUND	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
VINYL CHLORIDE	0.93U	348	27.5	1.13U	0.93U	1.13U	0.93U	0.93U	1.13U	0.93U
1,1-DICHLOROETHENE	0.76U	7.78	0.76U	18.8	0.76U	0.92U	0.76U	0.76U	9.01	0.76U
METHYLENE CHLORIDE	7.70	2.95	1.87	14.9	1.65	1.46U	1.20U	1.20U	2.66	22.4
TRANS-1,2-DICHLOROETHENE	0.73U	19.4	2.55	0.89U	0.73U	0.89U	0.73U	0.73U	0.89U	0.73U
1,1-DICHLOROETHANE	0.66U	12.6	8.76	72.1	3.32	0.8U	0.66U	0.66U	26.3	0.66U
CHLOROFORM	1.30U	1.58U	1.30U	6.85	1.30U	1.58U	1.30U	1.30U	3.00	1.30U
1,1,1-TRICHLOROETHANE	1.08U	1.31U	1.08U	167	3.50	1.31U	1.08U	4.86	252	1.08U
CARBON TETRACHLORIDE	1.71U	2.08U	1.71U	2.08U	1.71U	2.08U	1.71U	1.71U	2.08U	1.71U
BENZENE	1.25U	49.6	77.3	1.51U	1.25U	1.61	1.25U	1.25U	1.51U	1.25U
1,2-DICHLOROETHANE	0.81U	1.75	1.65	0.98U	0.81U	0.98U	0.81U	0.81U	29.7	0.81U
TRICHLOROETHENE	0.73U	6.00	1.86	14.3	0.73U	0.89U	0.73U	0.73U	0.89U	0.73U
BROMODICHLOROMETHANE	1.27U	1.55U	1.27U	1.55U	1.27U	1.55U	1.27U	1.27U	1.55U	1.27U
1,1,2-TRICHLOROETHANE	1.25U	1.52U	1.25U	1.52U	1.25U	1.52U	1.25U	1.25U	1.52U	1.25U
TETRACHLOROETHENE	0.81U	17.4	5.98	73.8	3.50	9.62	2.78	7.21	89.7	0.81U
CHLOROBENZENE	2.52U	60.8	113	3.06U	2.52U	3.06U	2.52U	2.52U	3.06U	2.52U
1,1,2,2-TETRACHLOROETHANE	1.32U	1.60	1.32U	1.60	1.32U	1.60	1.32U	1.32U	1.60	1.32U

SURROGATE % recoveries

BROMOCHLOROMETHANE	85.1%	123%	89.9%	110%	89.9%	122%	93.6%	91.7%	119%	83.9%
p-BROMOFLUOROBENZENE	103%	10.7%	19.4%	94.6%	95.7%	114%	95.2%	102%	101%	95.

U: METHOD DETECTION LIMIT

WAS 002 0248

PORT WASHINGTON GC/MS RESULTS

SAMPLE#	EPA022	EPA023	EPA024	EPA025	EPA026	EPA027	EPA028	EPA029	EPA030	EPA031
FILE#	>80826	>80876	>80875	>80731	>80915	>80759	>80879	>80783	>80914	>80422
COMPOUND	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
VINYL CHLORIDE	1.13U	0.93U	0.93U	1.13U	0.93U	133	0.93U	1.13U	0.93U	1.13U
1,1-DICHLOROETHENE	0.92U	0.76U	0.76U	0.92U	0.76U	1.19	0.76U	0.92U	0.76U	0.92U
METHYLENE CHLORIDE	1.46U	2.3	1.20U	41.0	1.20U	22.6	1.20U	1.46U	1.20U	1.46U
TRANS-1,2-DICHLOROETHENE	0.89U	0.73U	0.73U	0.89U	0.73U	27.7	0.73U	0.89U	0.73U	0.89U
1,1-DICHLOROETHANE	0.8U	0.66U	0.66U	0.8U	0.66U	37.2	0.66U	2.23	1.96	0.8U
CHLOROFORM	1.58U	1.75	1.30U	1.58U	1.30U	1.58U	1.30U	1.58U	2.14	2.43
1,1,1-TRICHLOROETHANE	12.5	1.08U	1.08U	1.31U	1.12	1.82	2.18	23.8	52.4	21.7
CARBON TETRACHLORIDE	2.08U	1.71U	1.71U	2.08U	1.71U	2.08U	1.71U	2.08U	1.71U	2.08U
BENZENE	1.51U	1.25U	1.25U	8.57	1.25U	149	1.25U	1.51U	1.25U	1.51U
1,2-DICHLOROETHANE	0.98U	0.81U	0.81U	0.98U	0.81U	5.55	0.81U	0.98U	5.34	0.98U
TRICHLOROETHENE	0.89U	0.73U	0.73U	0.89U	0.73U	3.48	0.73U	0.89U	0.73U	0.89U
BROMODICHLOROMETHANE	1.55U	1.27U	1.27U	1.55U	1.27U	1.55U	1.27U	1.55U	1.27U	1.55U
1,1,2-TRICHLOROETHANE	1.52U	1.25U	1.25U	1.52U	1.25U	1.52U	1.25U	1.52U	1.25U	1.52U
TETRACHLOROETHENE	44.6	1.15	0.81U	0.98U	3.60	10.9	3.33	77.5	40.7	62.7
CHLOROBENZENE	3.06U	2.52U	2.52U	3.06U	2.52U	106	2.52U	3.06U	2.52U	3.06U
1,1,2,2-TETRACHLOROETHANE	1.6U	2.6U	1.32U	1.6U	1.32U	133	1.32U	1.6U	1.32U	1.6U
SURROGATE % recoveries										
BROMOCHLOROMETHANE	100%	100%	104%	101%	89.6%	151%	95.2%	113%	93.7%	105%
p-BROMOFLUOROBENZENE	124%	105%	101%	84.3%	100%	0%	103%	103%	96.4%	97%

U: METHOD DETECTION LIMIT

WAS 002 0249

PORT WASHINGTON GC/MS RESULTS

SAMPLE#	EPA032DUP	EPA032	EPA033	EPA034	EPA035	EPA036	EPA037	EPA038	EPA039	EPA040
FILE#	>80811	>80810	>80832	>80744	>80830	>80912	>80877	>80778	>80802	>80917
COMPOUND	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
VINYL CHLORIDE	1.13U	1.13U	1.13U	642	1.13U	0.93U	0.93U	1.13U	1.13U	0.93U
1,1-DICHLOROETHENE	15.9	16.2	0.92U	20.7	0.92U	0.76U	0.76U	0.92U	17.8	0.76U
METHYLENE CHLORIDE	15.8	15.2	1.46U	1.46U	1.46U	7.26	1.51	1.46U	3.73	5.05
TRANS-1,2-DICHLOROETHENE	0.89U	0.89U	0.89U	9.28	0.89U	0.73U	0.73U	0.89U	0.89U	0.73U
1,1-DICHLOROETHANE	58.3	62.2	0.8U	325	0.8U	0.66U	0.66U	0.8U	138	0.66U
CHLOROFORM	5.53	5.82	1.58U	1.58U	1.58U	1.30U	1.30U	1.58U	6.46	1.30U
1,1,1-TRICHLOROETHANE	144	144	1.31U	13.6	19.6	1.08U	7.52	10.8	1.31U	1.08U
CARBON TETRACHLORIDE	2.08U	2.08U	2.08U	2.08U	2.08U	1.71U	1.71U	2.08U	1.69	1.71U
BENZENE	1.56	1.57	1.51U	127	1.51U	1.25U	1.25U	1.51U	1.86	1.25U
1,2-DICHLOROETHANE	0.98U	0.98U	0.98U	5.16	0.98U	0.81U	0.81U	0.98U	0.98U	0.81U
TRICHLOROETHENE	8.51	9.07	0.89U	38.2	0.89U	0.73U	0.73U	0.89U	10.5	0.73U
BROMODICHLOROMETHANE	1.55U	1.55U	1.55U	1.55U	1.55U	1.27U	1.27U	1.55U	1.55U	1.27U
1,1,2-TRICHLOROETHANE	1.52U	1.52U	1.52U	1.52U	1.52U	1.25U	1.25U	1.52U	1.52U	1.25U
TETRACHLOROETHENE	138	96.9	3.17	53.6	28.9	0.81U	19.4	8.04	49.8	0.81U
CHLOROBENZENE	3.06U	3.06U	3.06U	153	3.06U	2.52U	2.52U	3.06U	3.06U	2.52U
1,1,2,2-TETRACHLOROETHANE	1.6U	1.6U	1.6U	1.6U	1.6U	1.32U	1.32U	1.6U	1.6U	1.32U
SURROGATE % recoveries										
BROMOCHLOROMETHANE	107%	109%	107%	129%	106%	96.9%	94.1%	110%	120%	9[illegible]%
p-BROMOFLUOROBENZENE	96.4%	101%	121%	76.1%	117%	107%	95.2%	103%	103%	

U: METHOD DETECTION LIMIT

WAS 002 0250

PORT WASHINGTON GC/MS RESULTS

SAMPLE#	EPA041	EPA041DUP	EPA042DU	EPA042	EPA043	EPA043DUP	EPA044	EPA045	EPA046	EPA047
FILE#	>80884	>80918	>80833	>80824	>80808	>80916	>80800	>80756	>80732	>80820
COMPOUND	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
VINYL CHLORIDE	0.93U	0.93U	1.13U	1.13U	1.13U	0.93U	10.5	320	5.34	4.02
1,1-DICHLOROETHENE	0.76U	0.9%	2.28	1.68	8.36	1.62	0.92U	167	0.92U	0.92U
METHYLENE CHLORIDE	1.20U	1.20U	1.46U	1.46U	3.12	1.20U	11.6	1.46U	1.46U	1.90
TRANS-1,2-DICHLOROETHENE	0.73U	0.73U	0.89U	0.89U	0.89U	0.73U	2.75	159	0.89U	0.89U
1,1-DICHLOROETHANE	3.08	3.26	0.8U	0.8U	8.75	9.63	0.8U	408	0.8U	0.8U
CHLOROFORM	1.64	1.68	1.58U	1.58U	3.51	3.44	1.58U	1.58U	1.58U	1.59
1,1,1-TRICHLOROETHANE	36.4	34	43.7	40.8	57.5	90.4	1.31U	80.4	1.31U	1.31U
CARBON TETRACHLORIDE	1.71U	1.71U	2.08U	2.08U	2.08U	1.71U	2.08U	2.08U	2.08U	2.08U
BENZENE	1.25U	1.25U	1.51U	1.51U	1.51U	1.25U	23.1	293	3.66	2.82
1,2-DICHLOROETHANE	0.81U	0.81U	0.98U	0.98U	0.98U	0.97	0.98U	283	0.98U	0.98U
TRICHLOROETHENE	0.73U	0.73U	0.89U	0.89U	5.65	5.29	0.89U	0.89U	1.29	0.89U
BROMODICHLOROMETHANE	1.27U	1.27U	1.55U	1.55U	1.55U	1.27U	1.55U	1.55U	1.55U	1.55U
1,1,2-TRICHLOROETHANE	1.25U	1.25U	1.52U	1.52U	1.52U	1.25U	1.52U	1.52U	1.52U	1.52U
TETRACHLOROETHENE	10.3	13.8	20.4	16.6	104	140	0.99	113	1.78	3.85
CHLOROBENZENE	2.52U	2.52U	3.06U	3.06U	3.06U	2.52U	4.93	34.7	3.06U	3.06U
1,1,2,2-TETRACHLOROETHANE	1.32U	1.32U	1.6U	1.6U	1.6U	1.32U	1.6U	1.6U	29.4	5.33
SURROGATE % recoveries										
BROMOCHLOROMETHANE	73.9%	92.7%	116%	108%	109%	94.3%	117%	98.0%	110%	105%
p-BROMOFLUOROBENZENE	75.5%	94.9%	129%	114%	104%	99.0%	53.6%	30.8%	86.6%	107%

U: METHOD DETECTION LIMIT

WAS 002 0251

PORT WASHINGTON GC/MS RESULTS

SAMPLE#	EPA048DUP	EPA048	EPA049	EPA050	EPA051	EPA052DUP	EPA052	EPA053DUP	EPA053	EPA054
FILE#	>B0773	>B0771	>B0769	>B0883	>B0874	>B0880	>B0878	>B0913	>B0910	>B0788
COMPOUND	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
VINYL CHLORIDE	3.96	8.15	47.0	0.93U	0.93U	0.93U	0.93U	0.93U	0.93U	4.05
1,1-DICHLOROETHENE	0.92U	0.92U	0.92U	0.76U	0.76U	0.76U	0.76U	0.76U	0.76U	0.92U
METHYLENE CHLORIDE	1.46U	2.01	9.75	1.20U	50.5	1.50	1.34	1.26	1.20U	9.13
TRANS-1,2-DICHLOROETHENE	0.92	1.09	2.08	0.73U	0.73U	0.73U	0.73U	0.73U	0.73U	2.92
1,1-DICHLOROETHANE	7.50	8.97	5.13	0.66U	0.66U	0.66U	0.66U	1.12	1.08	0.8U
CHLOROFORM	1.58U	1.58U	1.58U	1.48	1.30U	1.30U	1.30U	1.30U	1.30U	1.58U
1,1,1-TRICHLOROETHANE	1.31U	1.31U	1.31U	3.78	1.08U	16.9	16.2	1.08U	1.08U	1.31U
CARBON TETRACHLORIDE	2.08U	2.08U	2.08U	1.71U	1.71U	1.71U	1.71U	1.71U	1.71U	2.08U
BENZENE	4.03	4.04	42.9	1.25U	1.25U	1.25U	1.25U	1.25U	1.25U	26.6
1,2-DICHLOROETHANE	0.98U	0.98U	0.98U	0.81U	0.81U	0.81U	0.81U	0.81U	0.81U	0.98U
TRICHLOROETHENE	0.89U	0.89U	1.33	0.73U	0.73U	0.73U	0.73U	0.73U	0.73U	0.89U
BROMODICHLOROMETHANE	1.55U	1.55U	1.55U	1.27U	1.27U	1.27U	1.27U	1.27U	1.27U	1.55U
1,1,2-TRICHLOROETHANE	1.52U	1.52U	1.52U	1.25U	1.25U	1.25U	1.25U	1.25U	1.25U	1.52U
TETRACHLOROETHENE	0.98U	10.4	6.77	21.0	0.81U	17.7	18.0	1.09	1.12	1.23
CHLOROBENZENE	3.06U	3.06U	110	2.52U	2.52U	2.52U	2.52U	2.52U	2.52U	3.06U
1,1,2,2-TETRACHLOROETHANE	5.07	34.1	1.6U	1.32U	1.32U	1.32U	1.32U	1.32U	1.32U	1.6U
SURROGATE % recoveries										
BROMOCHLOROMETHANE	129%	137%	150%	91.0%	107%	92.6%	95.2%	92.2%	94.3%	87.6%
p-BROMOFLUOROBENZENE	68.4	58.3%	11.9%	99.5%	105%	102%	106%	96.4%	95.9%	40%

U: METHOD DETECTION LIMIT

WAS 002 0252

PORT WASHINGTON GC/MS RESULTS

SAMPLE#	EPA055	EPA056	EPA058	EPA059	EPA060
FILE#	>80747	>80926	>80923	>80911	>80908
COMPOUND	PPB	PPB	PPB	PPB	PPB
VINYL CHLORIDE	51.5	0.93U	0.93U	0.93U	0.93U
1,1-DICHLOROETHENE	9.88	0.76U	3.33	1.02	0.76U
METHYLENE CHLORIDE	1.46U	1.20U	2.23	1.20U	1.20U
TRANS-1,2-DICHLOROETHENE	22.5	0.73U	0.73U	0.73U	0.73U
1,1-DICHLOROETHANE	8.58	3.45	26.1	4.01	0.66U
CHLOROFORM	1.58U	2.00	1.30U	2.15	1.30U
1,1,1-TRICHLOROETHANE	1.31U	61.1	87.1	68.8	21.8
CARBON TETRACHLORIDE	2.08U	1.71U	1.71U	1.71U	1.71U
BENZENE	143	1.25U	1.25U	1.25U	1.25U
1,2-DICHLOROETHANE	35.6	0.81U	0.81U	0.81U	0.81U
TRICHLOROETHENE	16.9	0.98	2.96	1.17	0.73U
BROMODICHLOROMETHANE	1.55U	1.27U	1.27U	1.27U	1.27U
1,1,2-TRICHLOROETHANE	4.58	1.25U	1.25U	1.25U	1.25U
TETRACHLOROETHENE	67.2	110	91.4	122	40.0
CHLOROBENZENE	151	2.52U	2.52U	2.52U	2.52U
1,1,2,2-TETRACHLOROETHANE	70.8	1.32U	1.32U	1.32U	1.32U
SURROGATE % recoveries					
BROMOCHLOROMETHANE	122%	87.5%	85.9%	100%	97.7%
p-BROMOFLUOROBENZENE	75.1%	98.0%	96.9%	95.4%	100%

U: METHOD DETECTION LIMIT

Results of Carbon Monoxide, Carbon Dioxide, and Methane Analysis

EPA SURRA ID NUMBER	CARBON MONOXIDE-ppbv DET. LIMIT	CARBON MONOXIDE-ppbv RESULTS	TCD-METHANE-ppbv DET. LIMIT	TCD-METHANE-ppbv RESULTS	FID-METHANE-ppbv DET. LIMIT	FID-METHANE-ppbv RESULTS	CARBON DIOXIDE-ppbv DET. LIMIT	CARBON DIOXIDE-ppbv RESULTS
046	750	N.D.	10,000	323,000	2.5	N.A.	10,000	35,100
055	750	N.D.	10,000	424,000	2.5	N.A.	10,000	377,000
005	750	N.D.	10,000	227,000	2.5	N.A.	10,000	217,000
004	750	N.D.	10,000	225,000	2.5	N.A.	10,000	195,000
013	750	N.D.	10,000	220,000	2.5	N.A.	10,000	214,000
025	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	N.D.
034	750	N.D.	10,000	454,000	2.5	N.A.	10,000	313,000
006	750	N.D.	10,000	79,500	2.5	N.A.	10,000	59,600
023	750	N.D.	10,000	N.D.	2.5	28.8	10,000	16,700
012	750	N.D.	10,000	76,800	2.5	N.A.	10,000	60,300
053	750	N.D.	10,000	N.D.	2.5	36.3	10,000	N.D.
044	750	N.D.	10,000	50,700	2.5	N.A.	10,000	44,000
011	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	N.D.
054	750	N.D.	10,000	51,600	2.5	N.A.	10,000	45,300
047	750	N.D.	10,000	9,930	2.5	N.A.	10,000	21,100
049	750	N.D.	10,000	149,000	2.5	N.A.	10,000	157,000
045	750	N.D.	10,000	(530,000)	2.5	N.A.	10,000	400,000
001	750	N.D.	10,000	(527,000)	2.5	N.A.	10,000	390,000
027	750	N.D.	10,000	321,000	2.5	N.A.	10,000	262,000
019	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	N.D.
008	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	N.D.
021	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	N.D.
009	750	N.D.	10,000	N.D.	2.5	3.5	10,000	N.D.
036	750	N.D.	10,000	N.D.	2.5	2.9	10,000	N.D.
040	750	N.D.	10,000	N.D.	2.5	1700	10,000	N.D.

WAS 002 0254

EPA SUMMA ID NUMBER	CARBON MONOXIDE-ppbv DET. LIMIT	CARBON MONOXIDE-ppbv RESULTS	TCD-METHANE-ppbv DET. LIMIT	TCD-METHANE-ppbv RESULTS	FID-METHANE-ppbv DET. LIMIT	FID-METHANE-ppbv RESULTS	CARBON DIOXIDE-ppbv DET. LIMIT	CARBON DIOXIDE-ppbv RESULTS
015	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	N.D.
018	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	N.D.
002	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	31,400
039	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	48,200
050	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	15,400
043	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	30,700
030	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	11,600
026	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	N.D.
042	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	21,200
035	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	25,700
031	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	22,300
007	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	27,900
020	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	50,000
017	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	55,200
029	750	N.D.	10,000	N.D.	2.5	4.6	10,000	74,200
024	750	N.D.	10,000	N.D.	2.5	291	10,000	N.D.
048	750	N.D.	10,000	81,600	2.5	N.A.	10,000	183,000
038	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	27,200
016	No Pressure							
032	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	34,300
003	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	
041	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	N
010	750	N.D.	10,000	N.D.	2.5	4.8	10,000	
022	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	
037	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	

WAS 002 0255

EPA SUMMA ID NUMBER	CARBON MONOXIDE-ppbv DET. LIMIT	CARBON MONOXIDE-ppbv RESULTS	TCD-METHANE-ppbv DET. LIMIT	TCD-METHANE-ppbv RESULTS	FID-METHANE-ppbv DET. LIMIT	FID-METHANE-ppbv RESULTS	CARBON DIOXIDE-ppbv. DET. LIMIT	CARBON DIOXIDE-ppbv. RESULTS
028	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	18,500
051	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	N.D.
052	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	11,400
033	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	20,800
014	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	34,700
056	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	22,200
057	No Pressure							
058	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	10,600
059	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	22,500
060	750	N.D.	10,000	N.D.	2.5	N.D.	10,000	25,200

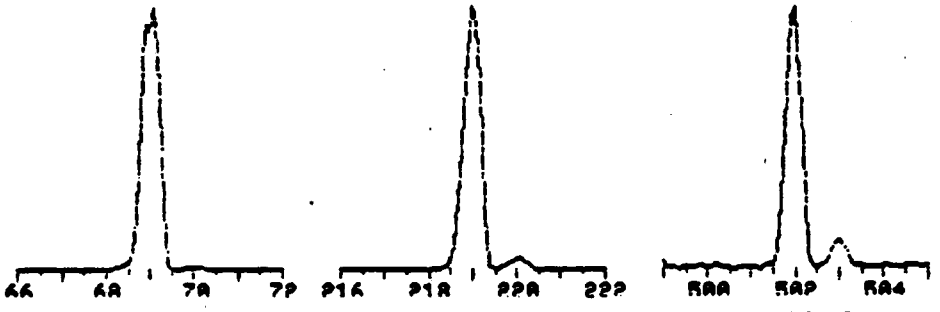
!-Denotes results are above the linear range of 490000 ppbv
N.D.-Not detected
N.A.-Not applicable
DET. LIMIT-Detection limit

WAS 002 0256

PROFILE SCAN ver A61112

INST # 2: SYS 2 TYPE: 5996 DATE: 10/20/89 11:46

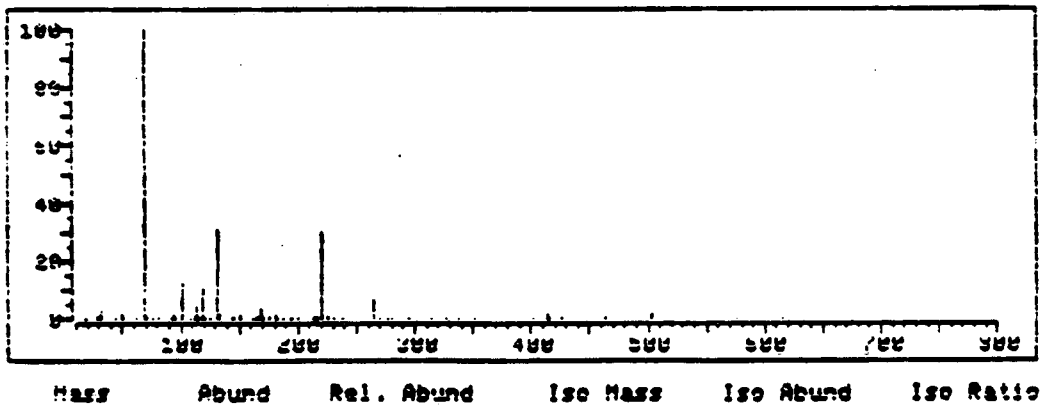
Repeller (V)	18.0	X - Ray (V)	52.0	AMU Offset	57
Ion Focus (V)	32.0	EM Volts (V)	1417	Mass Gain	-109
Ent Lens (mV)	55	AMU Gain	150	Mass Offset	14
Integration (uS)	50			Source Temp	240



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.10	33834.	100.00	.490	.490
219.00	13229.	39.35	.490	.550
502.00	577.	1.40	.400	.430

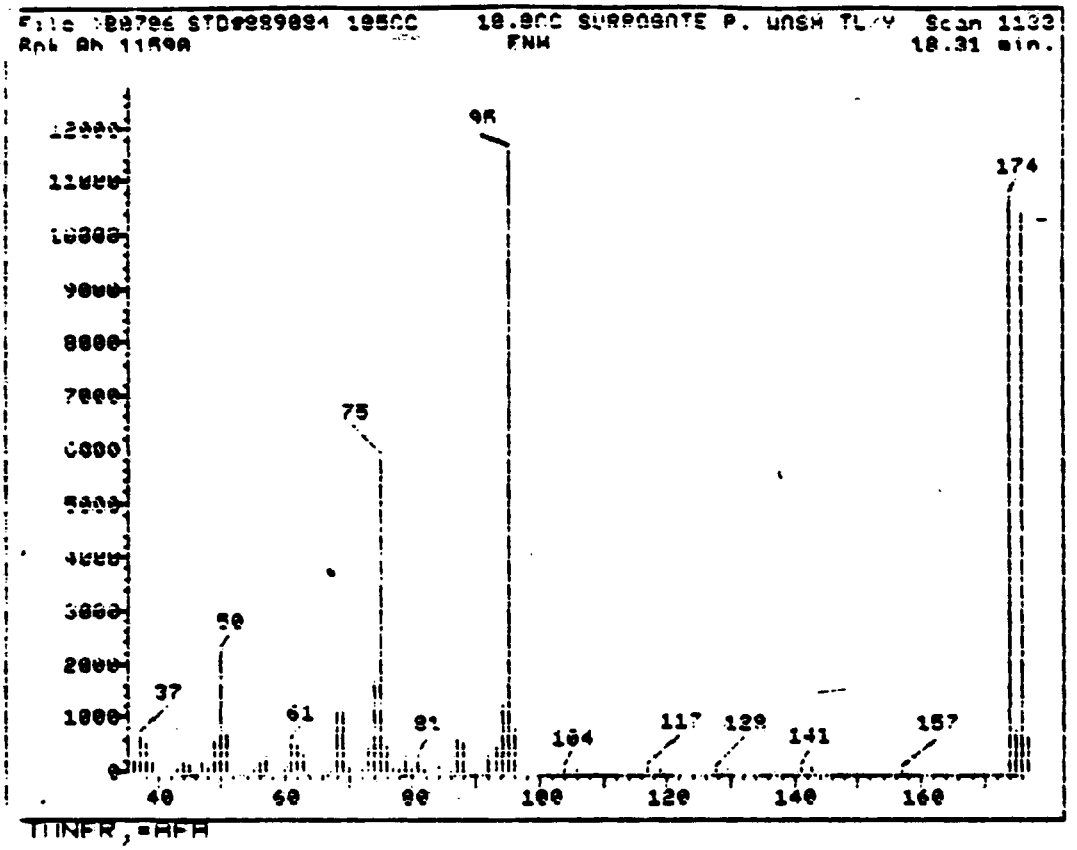
INST # 2: SYS 2 TYPE: 5995 DATE: 10/20/89 11:49

Mass Range	10- 800			Peaks detected	79
Base Peak	69.00	Abundance	33248	Total Ab.	75995
Samples / M.U.	16	Integration	50	Threshold	10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	33248	100.00	70.00	378	1.14
219.05	9988	30.04	220.05	496	4.97
501.95	413	1.24	502.95	39	9.44

WAS 002 0257



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFR)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	19.33	19.33	ok
75	30-60% of mass 95	50.27	50.27	ok
95	Base peak, 100% relative abundance	100.00	100.00	ok
96	5-9% of mass 95	6.59	6.59	ok
173	Less than 2% of mass 174	0.00	0.00	ok
174	Greater than 50% of mass 95	92.47	92.47	ok
175	5-9% of mass 174	6.56	7.09	ok
176	95-101% of mass 174	89.52	96.80	
177	5-9% of mass 176	5.55	6.21	

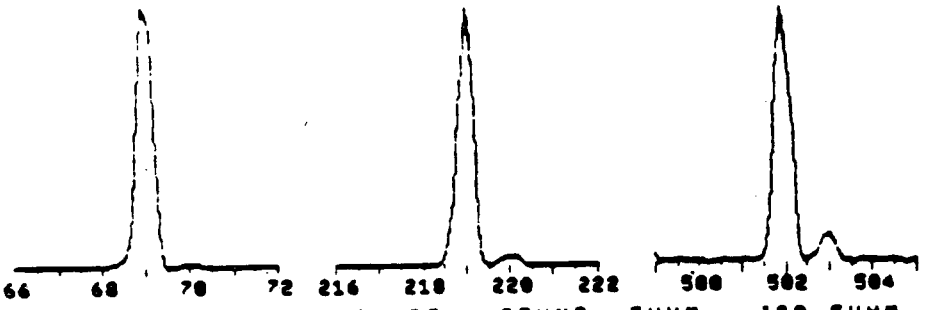
Injection Date: 10/20/88
Injection Time: 11:53
Data File: >A0706
Scan: 1133

WAS 002 0258

PROFILE SCAN ver 861118

INST # 2: SYS 2 TYPE: 5996 DATE: 10/22/88 9:12

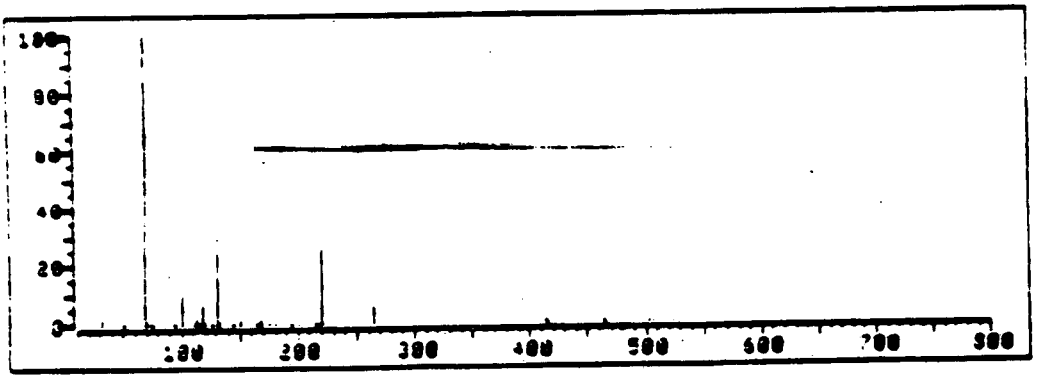
Repeller (V)	10.8	X - Ray (V)	52.8	AMU Offset	57
Ion Focus (V)	32.8	EM volts (V)	1417	Mass Gain	-86
Ent Lens (eV)	53	AMU Gain	160	Mass Offset	14
Integration (mS)	50			Source Temp	240



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.98	37951.	100.00	.440	.490
219.88	11669.	30.75	.450	.520
501.98	542.	1.43	.450	.450

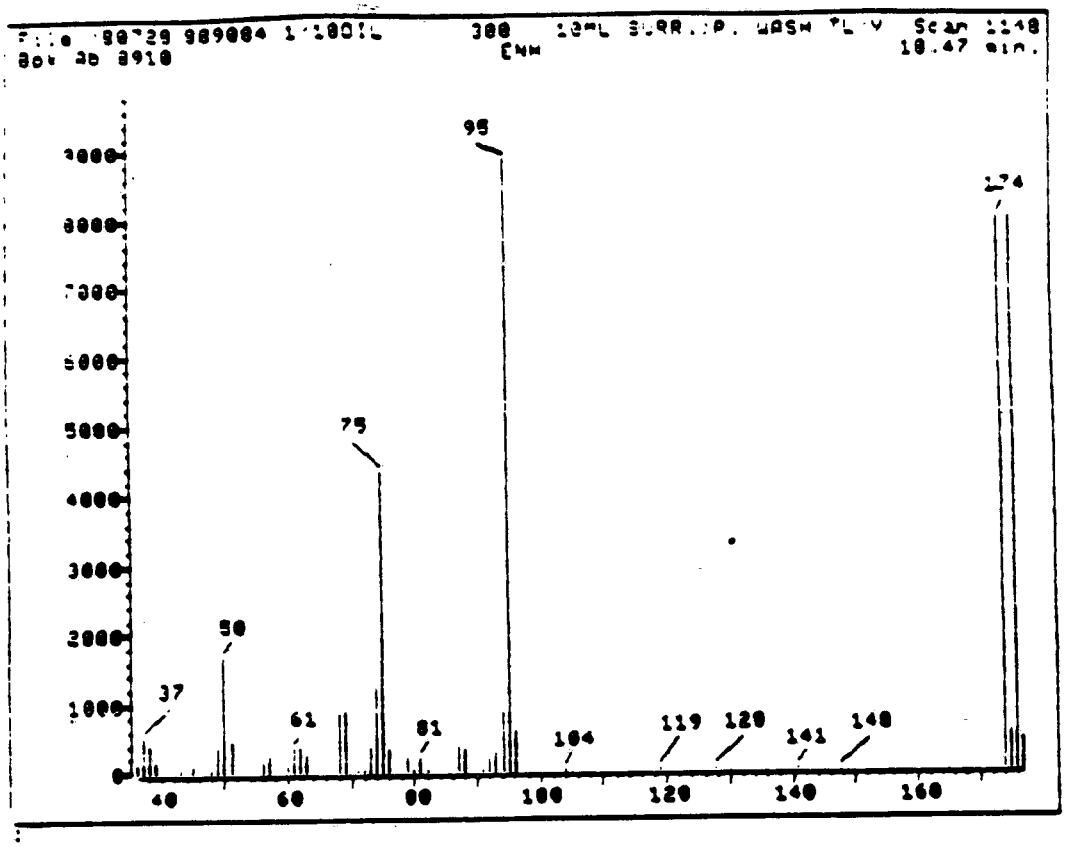
INST # 2: SYS 2 TYPE: 5996 DATE: 10/22/88 9:14

Mass Range	10- 900			Peaks detected	72
Base Peak	69.88	Abundance	37424	Total Ab.	77160
Samples / A.D.	16	Integration	50	Threshold	10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.88	37424	100.00	70.88	308	.82
219.88	9552	25.52	220.88	443	4.64
501.95	319	.85	502.95	43	13.48

WAS 002 0259



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	18.85	18.85	
75	30-60% of mass 95	48.86	48.86	
95	Base peak, 100% relative abundance	100.00	~~100.00~~	
96	5-9% of mass 95	6.79	6.79	
173	Less than 2% of mass 174	0.00	0.00	
174	Greater than 50% of mass 95	90.29	90.29	
175	5-9% of mass 174	6.26	6.94	
176	95-101% of mass 174	90.22	99.92	
177	5-9% of mass 176	5.06	5.61	

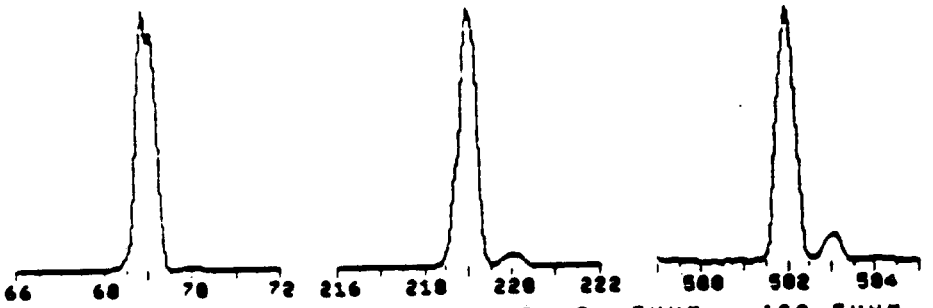
Injection Date: 10/22/88
Injection Time: 10:49
Data File: >80728
Scan: 1148

WAS 002 0260

PROFILE SCAN ver 861118

INST # 2: SYS 2 TYPE: 5996 DATE: 10/23/88 10:07

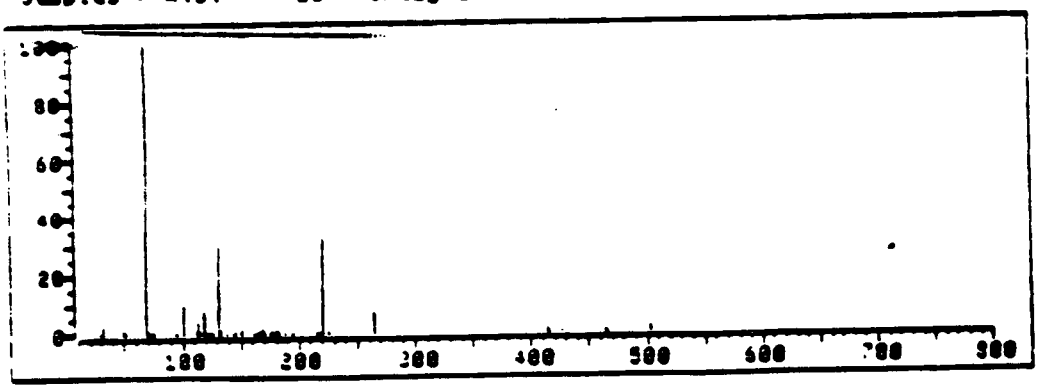
Repeller (V)	10.0	X - Ray (V)	52.0	AMU Offset	56
Ion Focus (V)	32.0	EM Volts (V)	1417	Mass Gain	-95
Ent Lens (ev)	53	AMU Gain	159	Mass Offset	14
Integration (uS)	50			Source Temp	240



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
68.98	37319.	100.00	.508	.478
219.00	14053.	37.66	.448	.518
502.00	719.	1.93	.478	.508

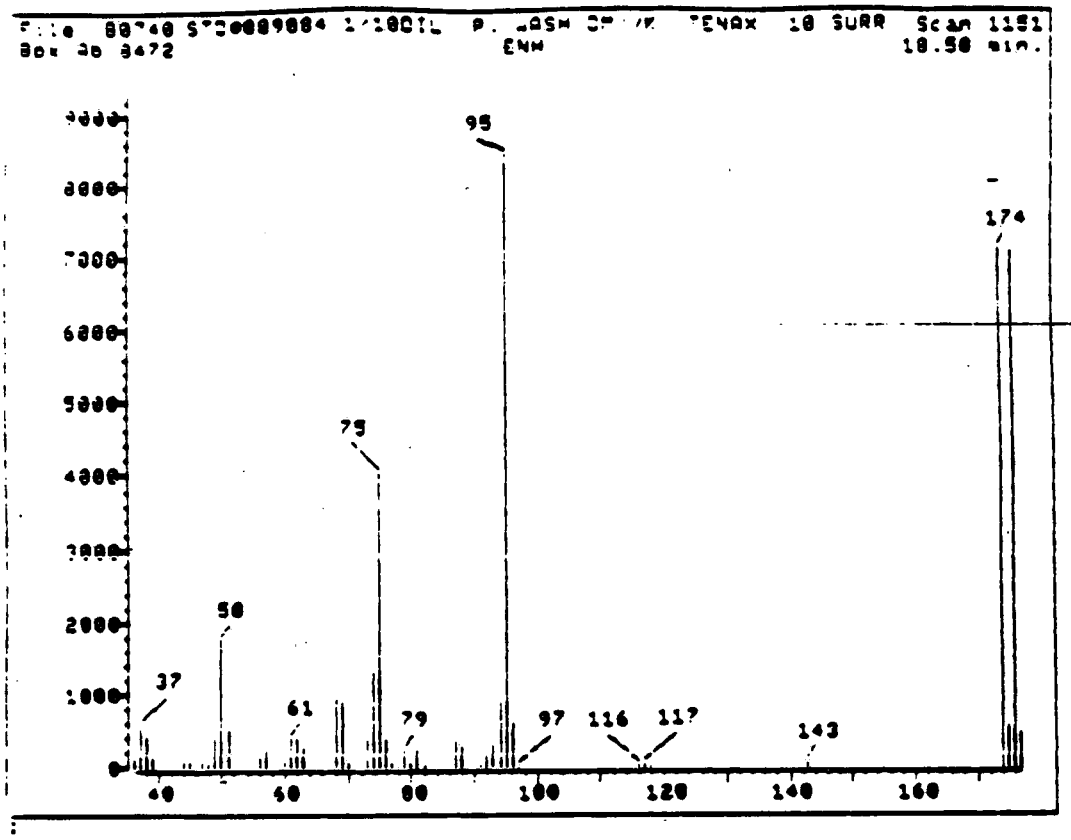
INST # 2: SYS 2 TYPE: 5996 DATE: 10/23/88 10:10

Mass Range	10- 900			Peaks detected	81
Base Peak	69.00	Abundance	37640	Total Ab.	84475
Samples / A.D.	16	Integration	50	Threshold	10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	37640	100.00	70.00	356	.95
219.00	12204	32.42	220.00	515	4.22
501.95	36	1.96	502.95	55	7.47

WAS 002 0261



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	20.78	20.78	
75	30-60% of mass 95	47.67	47.67	
95	Base peak, 100% relative abundance	100.00	100.00	
96	5-9% of mass 95	6.95	6.95	
173	Less than 2% of mass 174	0.00	0.00	
174	Greater than 50% of mass 95	84.68	84.68	
175	5-9% of mass 174	6.69	7.91	
176	95-101% of mass 174	84.33	99.59	
177	5-9% of mass 176	5.44	6.45	

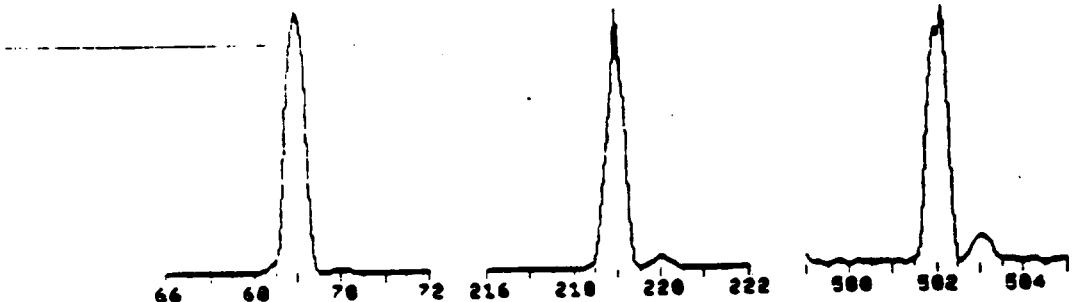
Injection Date: 10/23/88
Injection Time: 10:29
Data File: >80740
Scan: 1151

WAS 002 0262

PROFILE SCAN ver 961118

INST # 2: SYS 2 TYPE: 5996 DATE: 10/24/98 9:05

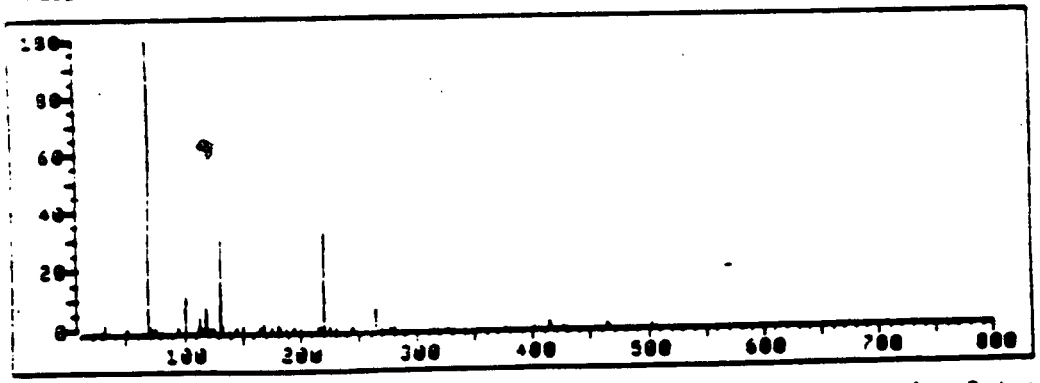
Repeller (V)	10.2	V - Ray (V)	52.0	AMU Offset	56
Ion Focus (V)	24.4	EM volts (V)	1417	Mass Gain	-88
Ent Lens (eV)	53	AMU Gain	160	Mass Offset	14
Integration (uS)	50			Source Temp	240



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.00	35720.	100.00	.500	.540
219.00	12998.	36.39	.440	.430
502.20	450.	1.26	.930	.590

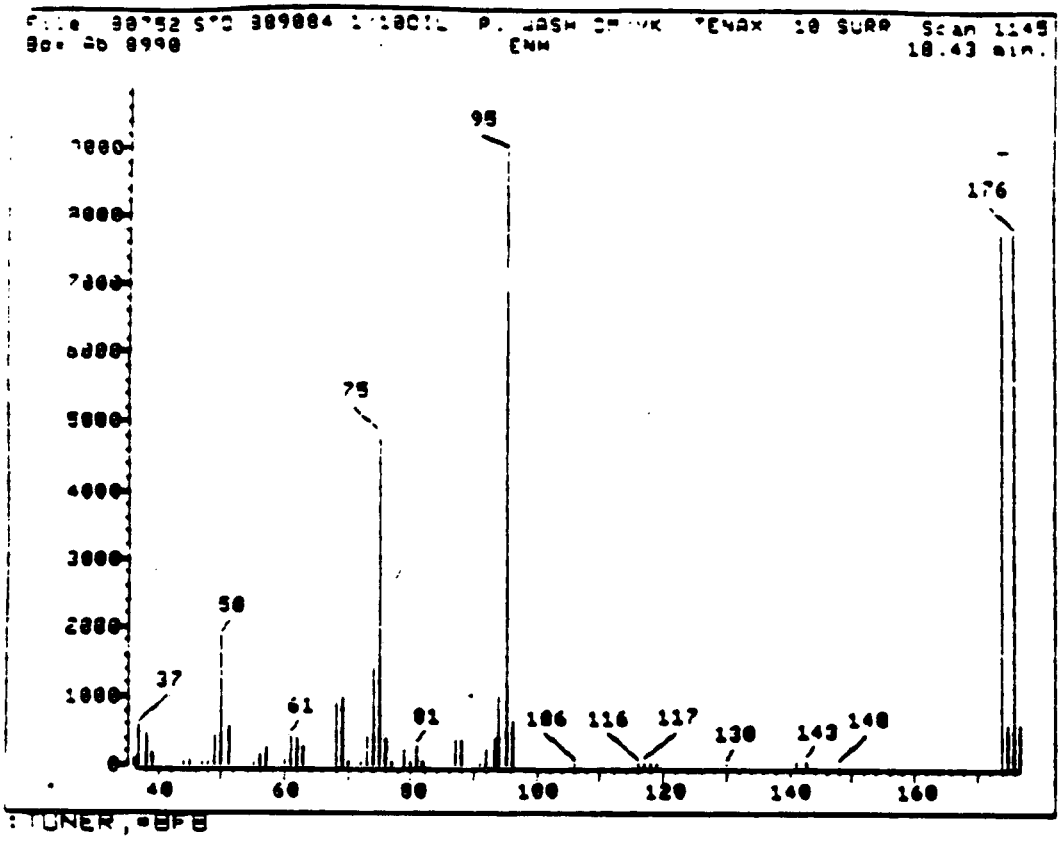
INST # 2: SYS 2 TYPE: 5996 DATE: 10/24/98 9:07

Mass Range	10- 800			Peaks detected	77
Base Peak	69.00	Abundance	36368	Total Ab.	88189
Samples / A.D.	10	Integration	50	Threshold	10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	36368	100.00	70.00	318	.87
219.00	11604	31.91	220.00	493	4.25
502.30	412	1.13	503.10	50	12.14

WAS UU2 0263



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	20.80	20.80	
75	30-60% of mass 95	53.13	53.13	
95	Base peak, 100% relative abundance	100.00	100.00	
96	5-9% of mass 95	7.24	7.24	
173	Less than 2% of mass 174	0.00	0.00	
174	Greater than 50% of mass 95	87.15	87.15	
175	5-9% of mass 174	6.72	7.71	
176	95-101% of mass 174	87.31	100.18	WAS
177	5-9% of mass 176	6.61	7.58	

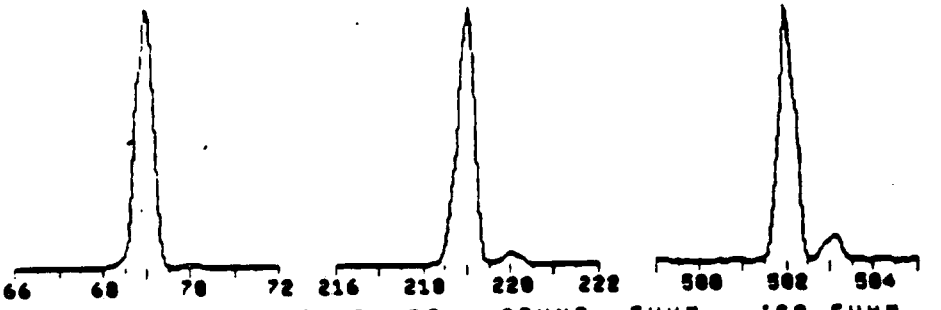
Injection Date: 10/24/88
Injection Time: 10:21
Data File: >80752
Scan: 1145

002 0264

PROFILE SCAN ver 861118

INST # 2: SYS 2 TYPE: 5996 DATE: 10/25/88 7:35

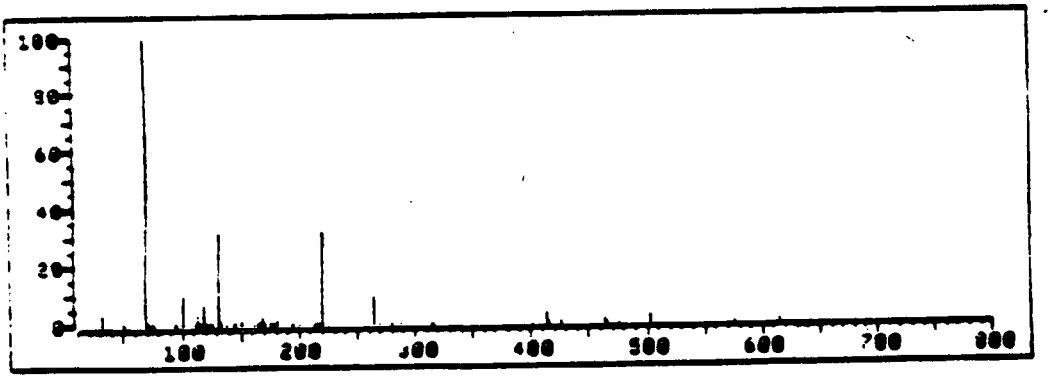
Repeller (V)	10.2	X - Ray (V)	52.0	AMU Offset	56
Ion Focus (V)	34.4	EM Volts (V)	1417	Mass Gain	-88
Ent Lens (eV)	93	AMU Gain	168	Mass Offset	14
Integration (uS)	50			Source Temp	248



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.00	37293.	100.00	.470	.500
219.10	13812.	37.04	.430	.480
502.00	1265.	3.39	.490	.550

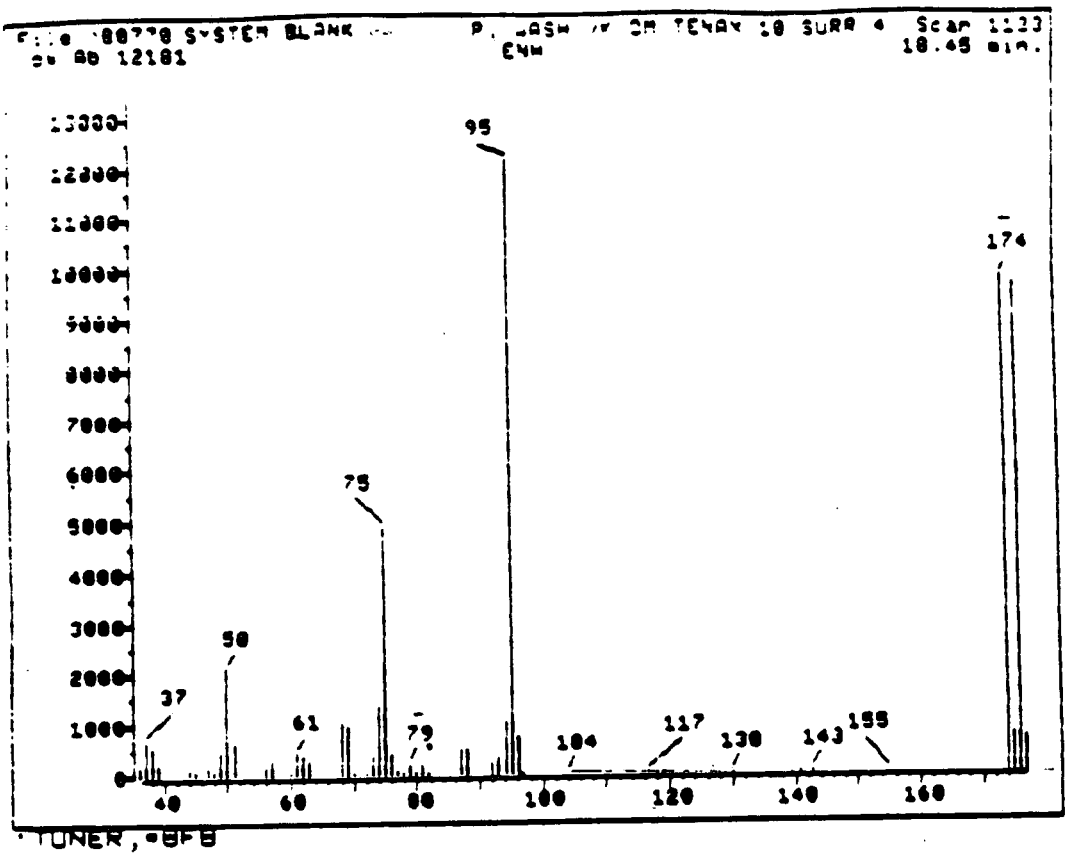
INST # 2: SYS 2 TYPE: 5996 DATE: 10/25/88 7:36

Mass Range	10- 800			Peaks detected	93
Base Peak	69.00	Abundance	34288	Total Ab.	79124
Samples / A.U.	16	Integration	50	Threshold	10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	34288	100.00	70.00	358	1.06
219.00	10824	31.64	220.00	488	4.51
502.05	977	2.86	503.00	111	11.36

WAS 002 0265



TUNER, BFB

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	17.43	17.43	
75	30-60% of mass 95	40.00	40.00	
95	Base peak, 100% relative abundance	100.00	100.00	
96	5-9% of mass 95	6.08	6.08	
173	Less than 2% of mass 174	0.00	0.00	
174	Greater than 50% of mass 95	80.94	80.94	
175	5-9% of mass 174	6.11	7.54	
176	95-101% of mass 174	79.53	98.25	
177	5-9% of mass 176	5.37	6.76	

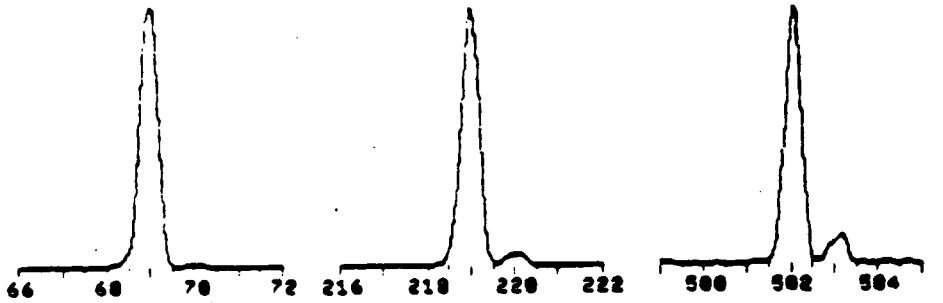
Injection Date: 10/25/88
Injection Time: 05:43
Data File: >B0770
Scan: 1133

WAS 002 0266

PROFILE SCAN ver 861118

INST # 2: SYS 2 TYPE: 5996 DATE: 10/26/88 6:08

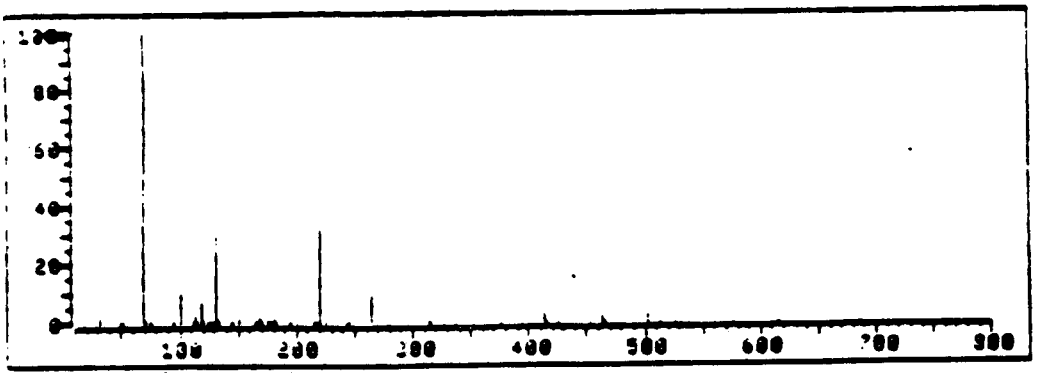
Repeller (v)	10.2	X - Ray (V)	52.0	AMU Offset	56
Ion Focus (v)	34.4	EM Volts (V)	1417	Mass Gain	-88
Ent Lens (ev)	53	AMU Gain	160	Mass Offset	14
Integration (uS)	50			Source Temp	240



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.00	34926.	100.00	.470	.490
219.00	12199.	35.00	.490	.530
502.10	1174.	3.37	.410	.530

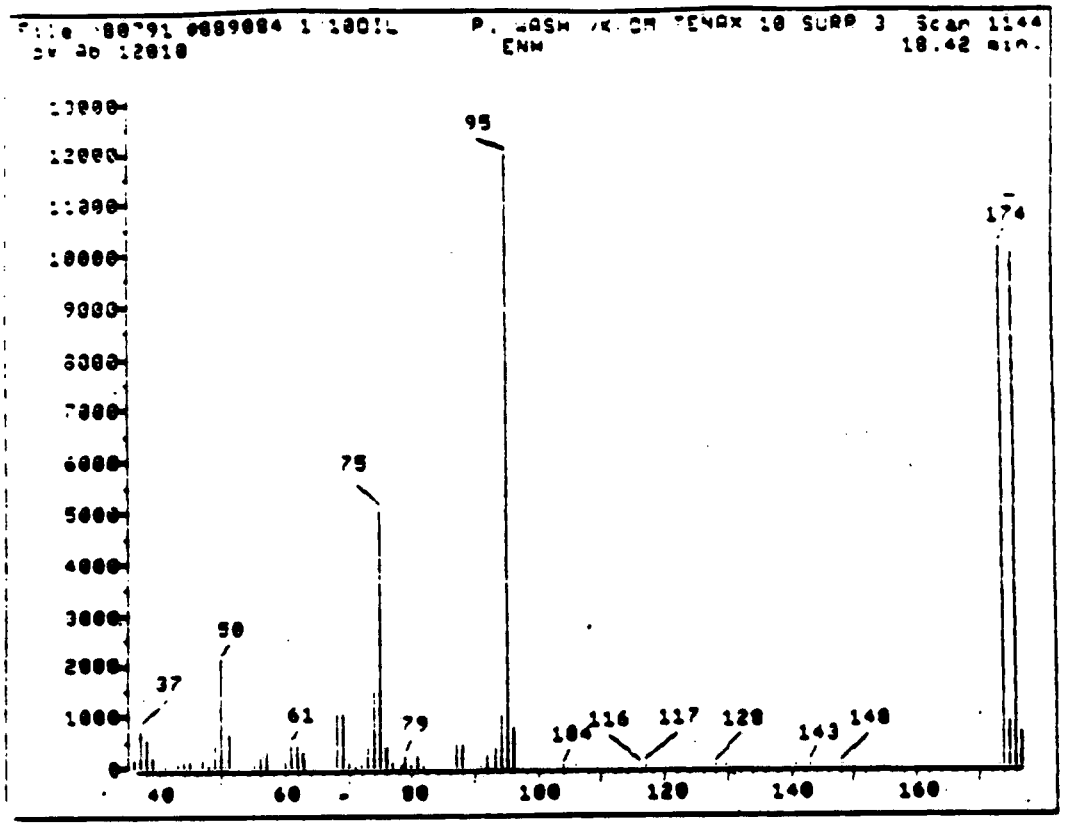
INST # 2: SYS 2 TYPE: 5996 DATE: 10/26/88 6:10

Mass Range	10- 600			Peaks detected	91
Base Peak	69.00	Abundance	31912	Total Ab.	73021
Samples / A.D.	16	Integration	50	Threshold	10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	31912	100.00	70.00	289	.91
219.00	10159	31.83	220.00	581	5.42
502.10	893	2.80	503.10	104	11.65

WAS 002 0267



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	17.69	17.69	
75	30-60% of mass 95	42.15	42.15	
95	Base peak, 100% relative abundance	100.00	100.00	
96	5-9% of mass 95	6.48	6.48	
173	Less than 2% of mass 174	0.00	0.00	
174	Greater than 50% of mass 95	85.11	85.11	
175	5-9% of mass 174	7.00	8.23	
176	95-101% of mass 174	83.93	98.61	
177	5-9% of mass 176	5.55	6.62	

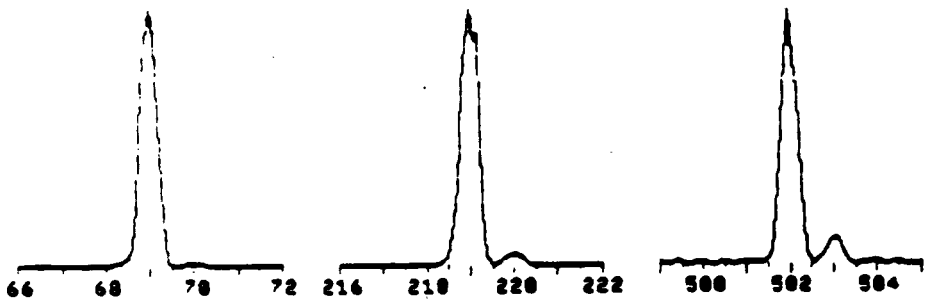
Injection Date: 10/26/88
Injection Time: 06:21
Data File: >80791
Scan: 1144

WAS 002 0268

PROFILE SCAN ver 961118

INST # 2: SYS 2 TYPE: 5996 DATE: 10/27/98 9:34

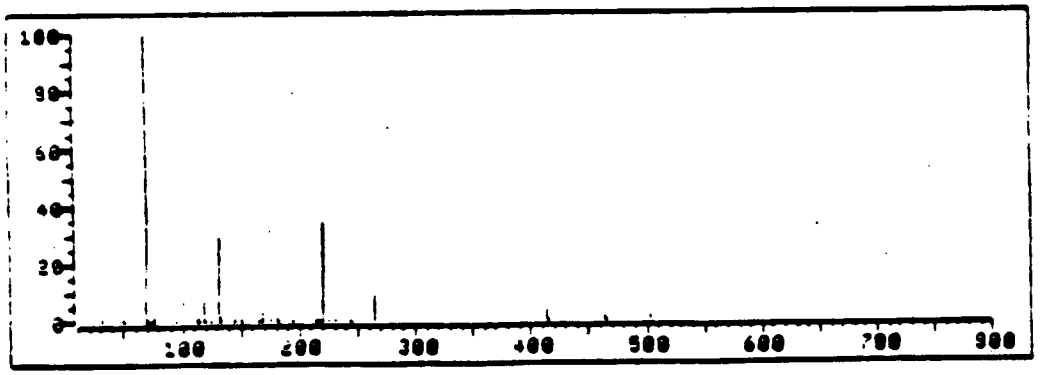
Repeller (V)	10.2	X - Ray (V)	52.0	AMU Offset	56
Ion Focus (V)	34.4	EM Volts (V)	1417	Mass Gain	-95
Ent Lens (ev)	53	AMU Gain	160	Mass Offset	14
Integration (S)	50			Source Temp	240



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.00	37099.	100.00	.460	.530
219.00	13098.	35.31	.510	.520
502.00	895.	2.41	.420	.450

INST # 2: SYS 2 TYPE: 5996 DATE: 10/27/98 9:36

Mass Range	10- 900			Peaks detected	94
Base Peak	69.00	Abundance	33824	Total Ab.	77479
Samples / A.U.	16	Integration	50	Threshold	10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	33824	100.00	70.00	352	1.07
219.00	11312	34.25	220.00	569	5.03
501.95	757	2.29	502.96	55	7.27

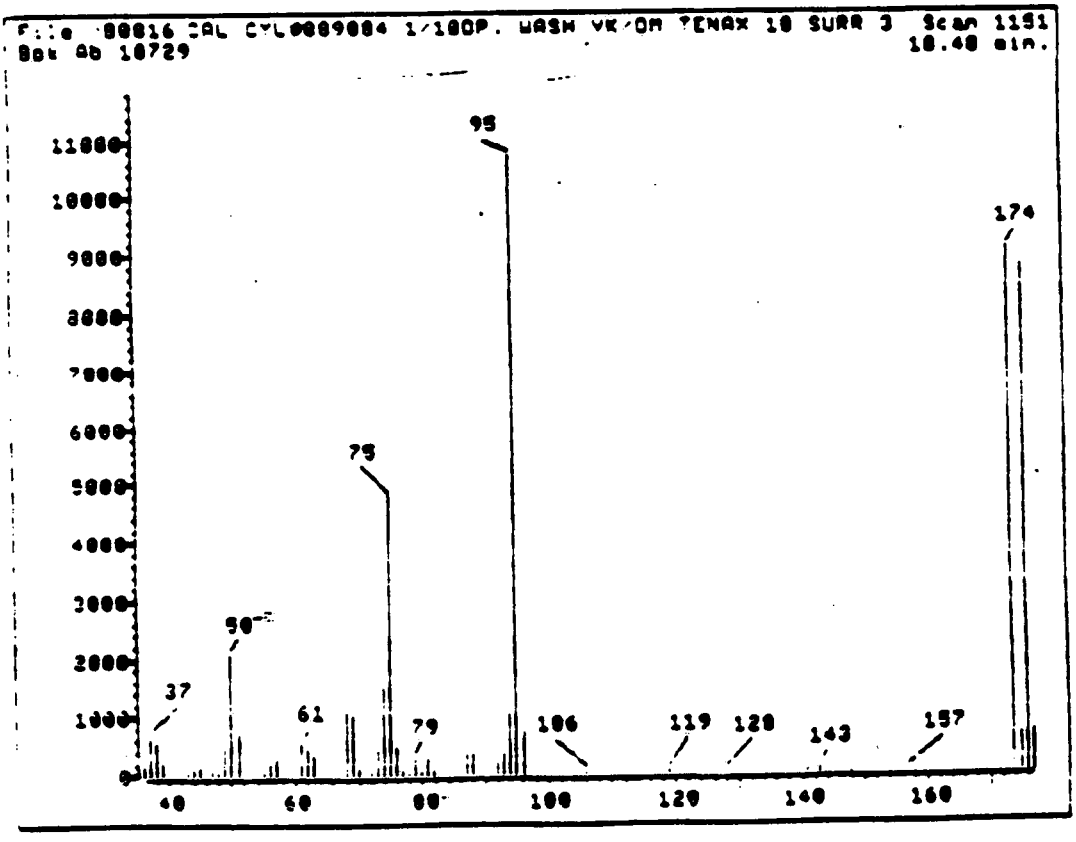
WAS 002 0269

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	19.31	19.31	Ok
75	30-60% of mass 95	44.24	44.24	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.70	6.70	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	84.51	84.51	Ok
175	5-9% of mass 174	6.31	7.47	Ok
176	95-101% of mass 174	81.58	96.54	Ok
177	5-9% of mass 176	6.39	7.84	Ok

Injection Date: 10/27/88
Injection Time: 10:50
Data File: >80816
Scan: 1151

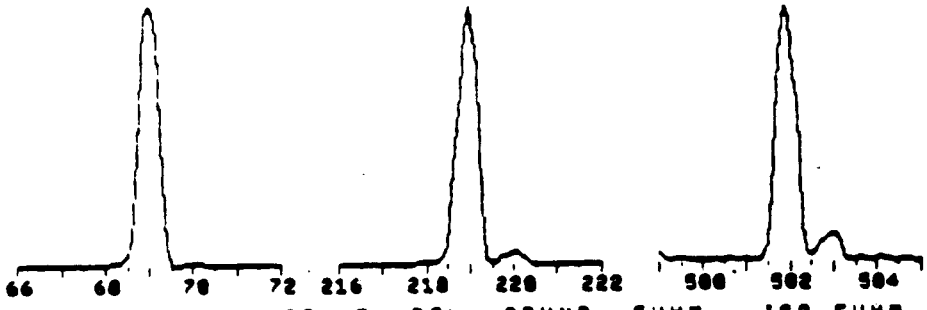


WAS 002 0270

PROFILE SCAN ver 961118

INST # 2: SYS 2 TYPE: 5996 DATE: 11/03/99 9:39

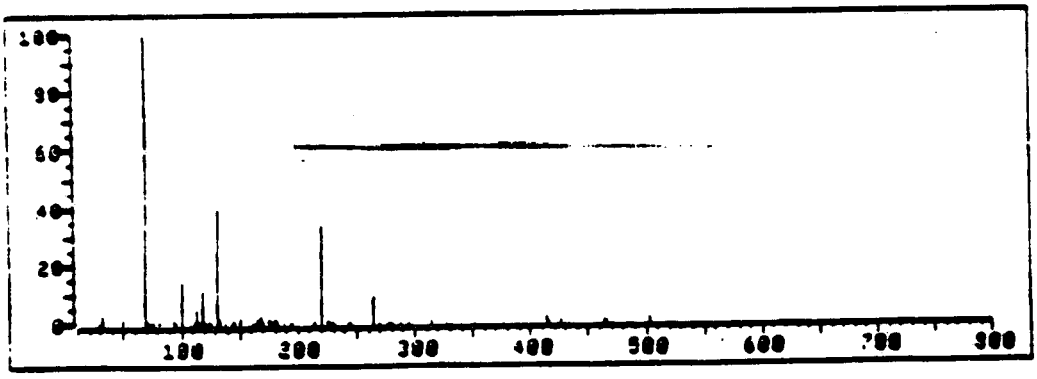
Repeller (V)	18.2	X - Ray (V)	52.0	AMU Offset	56
Ion Focus (V)	42.4	EM Volts (V)	1511	Mass Gain	-184
Ent Lens (eV)	63	AMU Gain	168	Mass Offset	15
Integration (uS)	50			Source Temp	240



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.00	32252.	100.00	.498	.528
219.00	10603.	32.84	.560	.578
501.90	489.	1.51	.540	.590

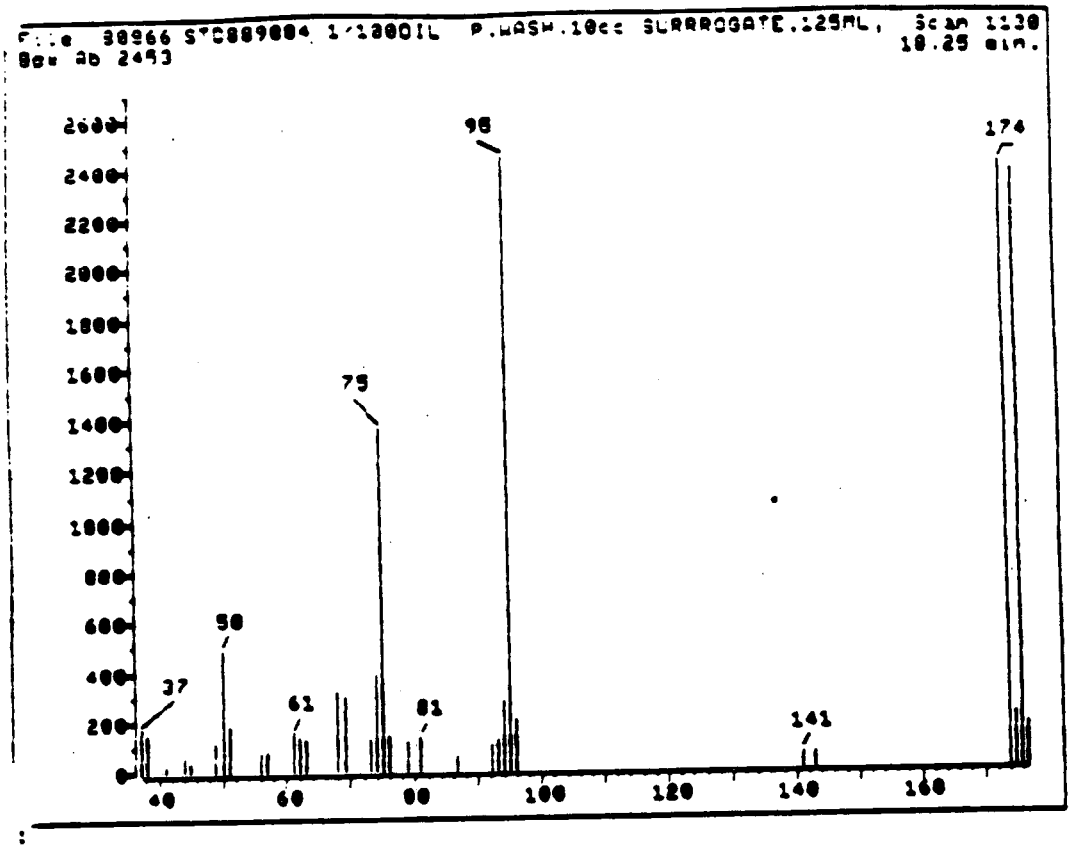
INST # 2: SYS 2 TYPE: 5996 DATE: 11/03/00 8:40

Mass Range	10- 800			Peaks detected	84
Base Peak	69.00	Abundance	28048	Total Ab.	78987
Samples / A.U.	16	Integration	50	Threshold	10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	28048	100.00	70.00	278	.99
219.00	9374	33.42	220.00	521	5.56
501.90	383	1.37	503.00	43	11.23

WAS 002 0271



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	19.89	19.89	OK
75	30-60% of mass 95	55.61	55.61	OK
95	Base peak, 100% relative abundance	100.00	100.00	OK
96	5-9% of mass 95	8.03	8.03	OK
173	Less than 2% of mass 174	0.00	0.00	OK
174	Greater than 50% of mass 95	98.37	98.37	OK
175	5-9% of mass 174	8.44	8.58	OK
176	95-101% of mass 174	97.02	98.63	OK
177	5-9% of mass 176	6.60	6.81	OK

Injection Date: 11/03/88
Injection Time: 10:58
Data File: >80866
Scan: 1130

EXHIBIT, WAS 002 0272

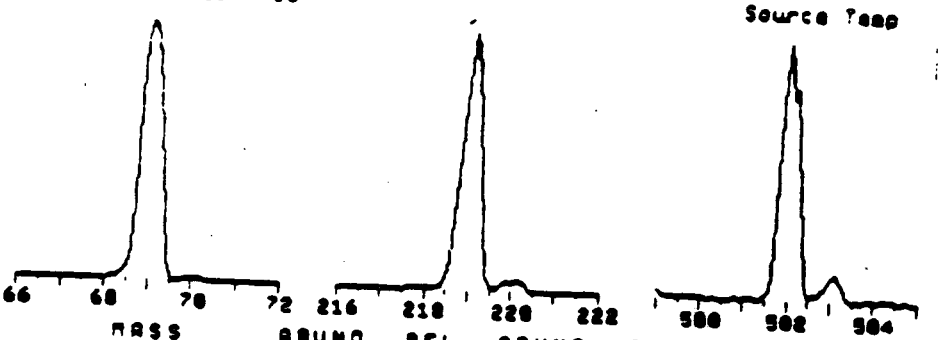
PROFILE SCAN ver 061110

INST # 2: SYS 2 TYPE: 5996 DATE: 11/04/88 12:52

Repeller (V) 10.2
Ion Focus (V) 42.4
Ent Lens (ev) 63
Integration (uS) 50

X - Ray (V) 52.8
EM Volts (V) 1511
AMU Gain 163

AMU Offset 96
Mass Gain -95
Mass Offset -15
Source Temp 240



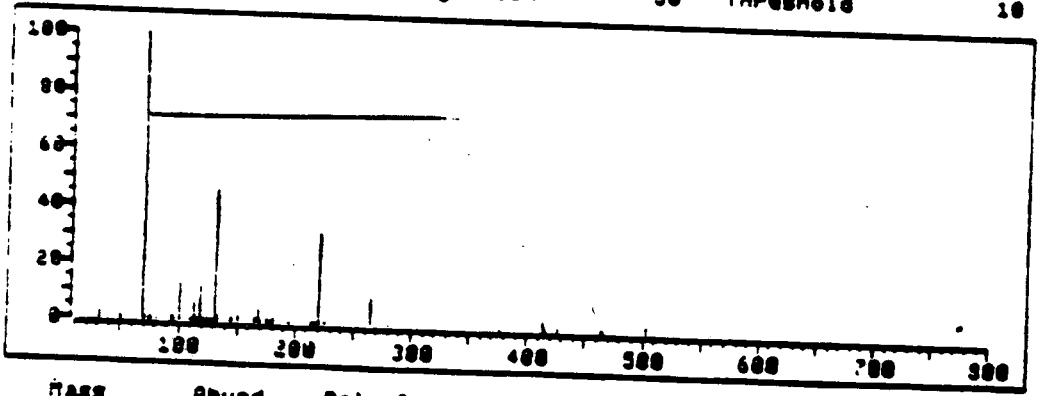
MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.00	23627.	100.00	.530	.500
219.10	9132.	38.65	.500	.590
502.80	431.	1.82	.470	.540

INST # 2: SYS 2 TYPE: 5996 DATE: 11/04/88 12:54

Mass Range 10- 800
Base Peak 69.00
Samples / A.D. 16

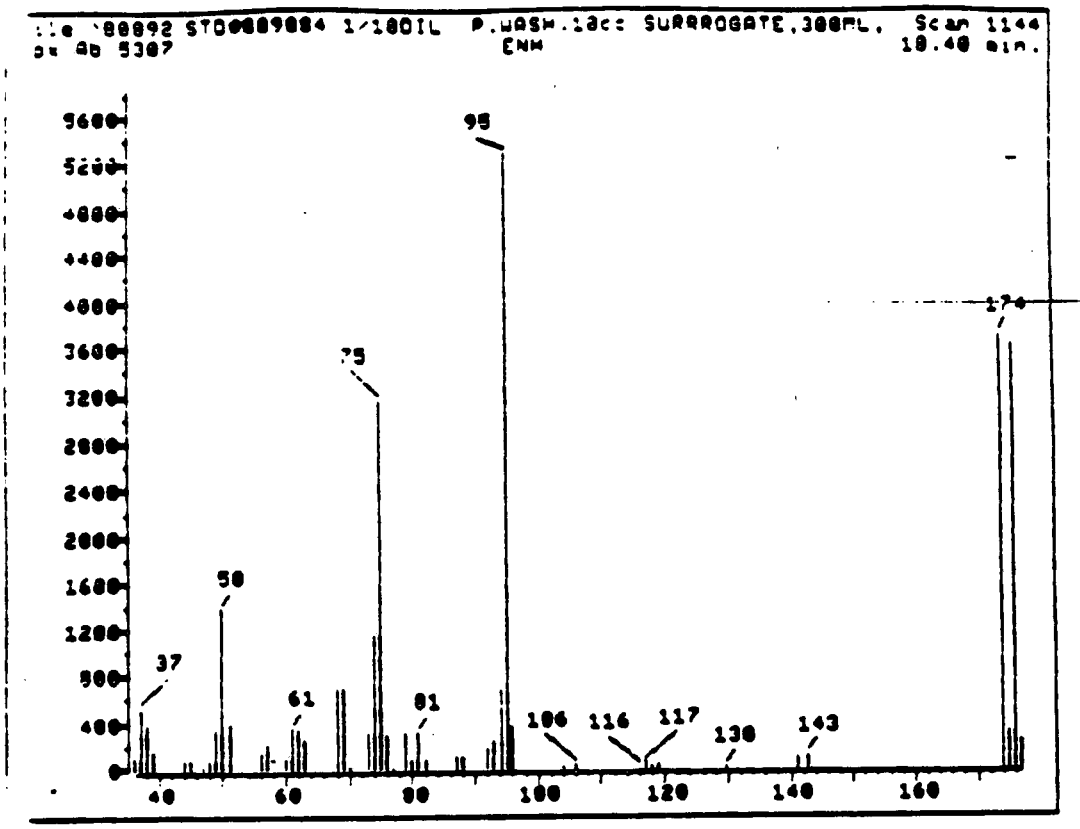
Abundance 23832
Integration 50

Peaks detected 81
Total Ab. 59449
Threshold 10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	23832	100.00	70.00	213	.92
219.10	7386	31.72	220.00	312	4.27
502.05	462	2.01	503.00	41	8.87

WAS 002 0273



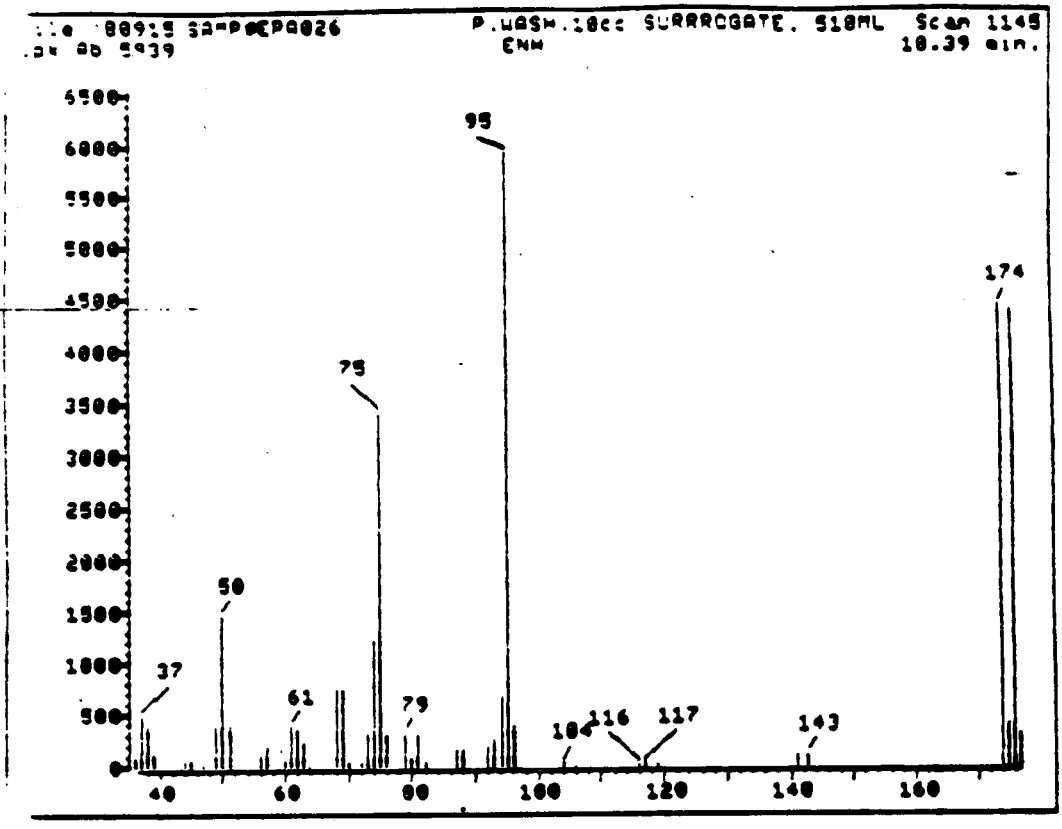
GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	26.10	26.10	[illegible]
75	30-60% of mass 95	59.48	59.48	
95	Base peak, 100% relative abundance	100.00	100.00	
96	5-9% of mass 95	6.65	6.65	
173	Less than 2% of mass 174	0.00	0.00	
174	Greater than 50% of mass 95	70.27	70.27	
175	5-9% of mass 174	5.98	8.51	
176	95-101% of mass 174	68.81	97.92	
177	5-9% of mass 176	4.56	6.63	

Injection Date: 11/04/88
Injection Time: 13:06
Data File: >80892
Scan: 1144

WAS 002 0274



GC/MS PERFORMANCE STANDARD

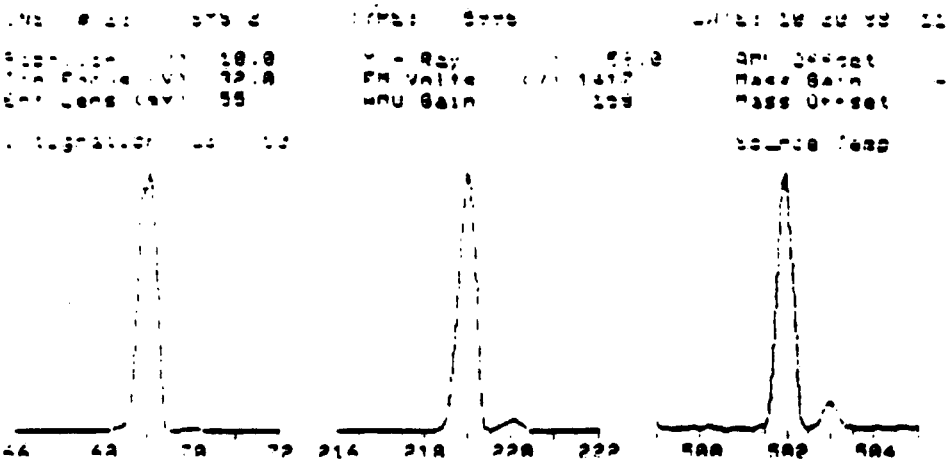
Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	24.61	24.61	OK
75	30-60% of mass 95	57.24	57.24	OK
95	Base peak, 100% relative abundance	100.00	100.00	OK
96	5-9% of mass 95	6.50	6.50	OK
173	Less than 2% of mass 174	0.00	0.00	OK
174	Greater than 50% of mass 95	75.10	75.10	OK
175	5-9% of mass 174	6.69	8.90	OK
176	95-101% of mass 174	74.81	99.62	OK
177	5-9% of mass 176	5.08	6.79	OK

Injection Date: 11/05/88
Injection Time: 09:36
Data File: >80915
Scan: 1145

WAS 002 0275

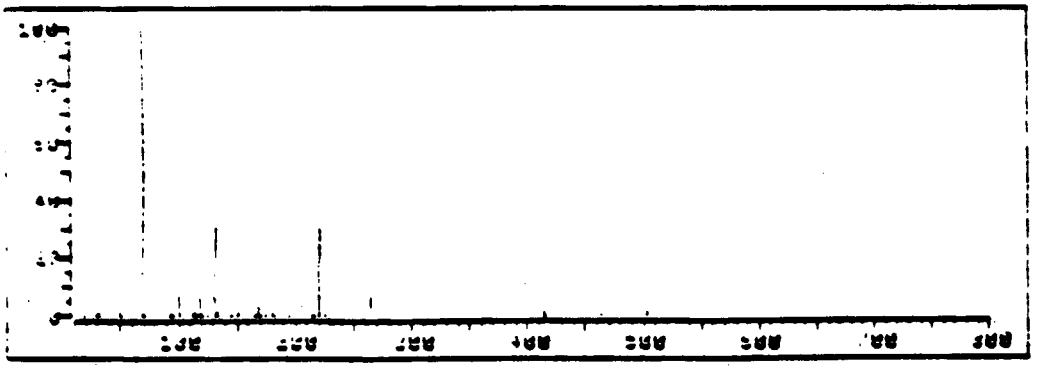
PROFILE SCAN for 361[illegible]



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.10	[illegible]	100.00	.450	.490
219.05	[illegible]	44.35	.430	.550
502.90	577.	1.48	.400	.430

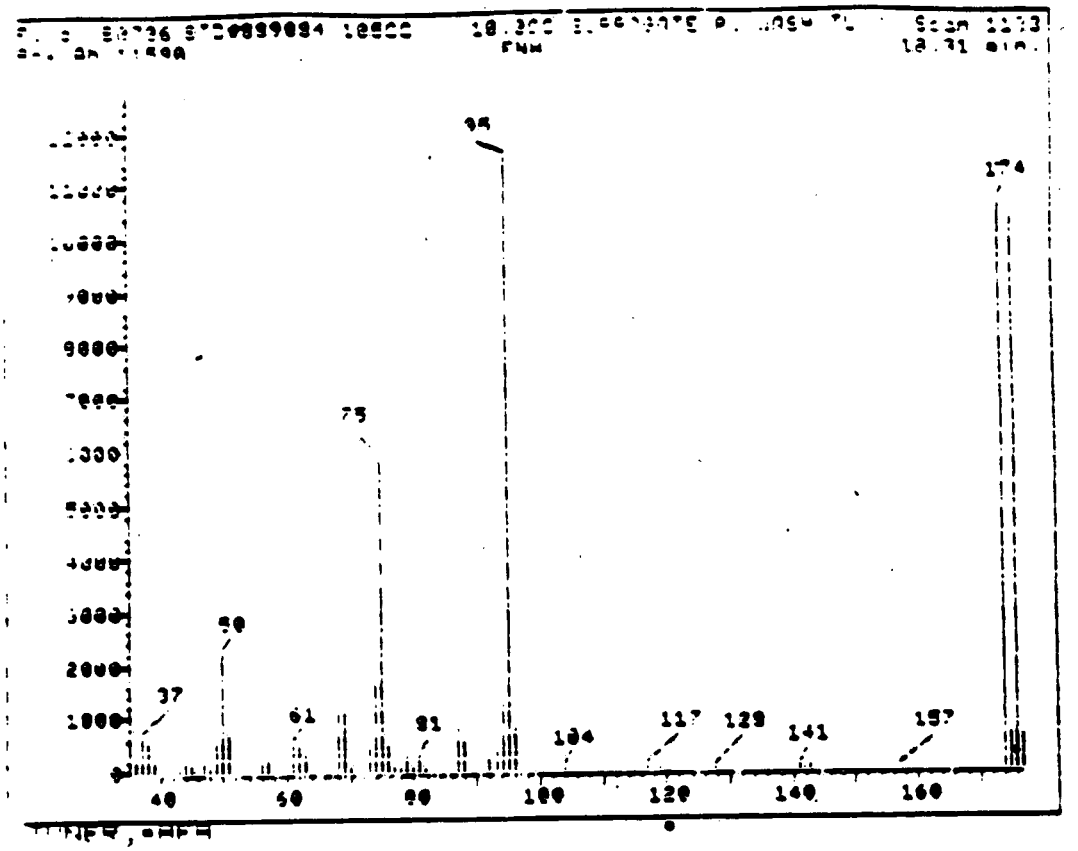
INST # 2: [illegible] TYPE: [illegible] DATE: 10/20/90 11:49

Mass Range	10- 999			Peaks detected	79
Base Peak	69.00	Abundance	33248	Total Ab.	75995
Samples / A.U.	15	Integration	50	Threshold	10



MASS	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	33248	100.00	70.00	378	1.14
219.05	[illegible]	44.34	220.05	496	4.97
501.95	413	1.24	502.95	39	9.44

WAS 002 0276



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak
50	15-40% of mass 95	19.33	19.33
75	30-60% of mass 95	50.27	50.27
95	Base peak, 100% relative abundance	100.00	100.00
96	5-9% of mass 95	6.59	6.59
173	Less than 2% of mass 174	0.00	0.00
174	Greater than 50% of mass 95	92.47	92.47
175	5-9% of mass 174	6.56	7.09
176	95-101% of mass 174	89.52	96.80
177	5-9% of mass 176	5.55	6.21

Injection Date: 10/20/88
Injection Time: 11:53
Data File: >A0706
Scan: 1133

WAS 002 0277

Calibration Report

Title: SUMMA CANISTER/P. WASHINGTON CAL IA FILE
Calibrated: 881020 19:09

Compound	Files: - RF .10	>80714 RF .30	>80712 RF 2.80	>80706 RF 10.00	>80708 RF 20.00	$\overline{RF}$	CORR1	
VINYL CHLORIDE	-	191.652	152.756	106.679	140.868	152.989	.981988	(Conc=3.8,11.5,107.4,383.4,746.9
1,1-DICHLOROETHENE	-	352.654	363.468	304.776	341.984	340.781	.997878	(Conc=3.1,9.2,86.2,307.8,615.5)
METHYLENE CHLORIDE	-	153.649	252.296	174.429	255.716	209.022	.984281	(Conc=4.9,14.8,138.5,494.7,989.1
TRANS-1,2-DICHLOROETHENE	-	333.667	329.582	261.986	334.710	314.965	.992508	(Conc=3.0,9.1,85.2,304.2,608.4)
1,1-DICHLOROETHANE	-	445.665	442.857	382.837	483.778	438.578	.993405	(Conc=2.7,8.2,76.4,273.0,546.0)
BROMOCHLOROMETHANE	-	30.0838	26.4311	22.8688	38.9526	27.5819	-	(Conc=907.0,907.0,907.0,907.0,90
CHLOROFORM	-	407.588	356.316	355.453	353.587	366.966	.999997	(Conc=6.3,19.8,147.9,528.2,1056.
1,1,1-TRICHLOROETHANE	-	650.939	655.139	578.288	575.259	464.884	.999768	(Conc=4.4,13.3,124.3,443.8,887.6
CARBON TETRACHLORIDE	-	313.978	313.795	244.012	238.246	282.508	.998149	(Conc=7.8,20.9,196.0,694.6,1393.
BENZENE	-	803.281	586.468	548.531	628.629	642.725	.998585	(Conc=5.1,15.2,142.3,508.0,1016.
1,2-DICHLOROETHANE	-	295.748	268.532	266.446	257.382	277.875	.999844	(Conc=3.3,9.9,92.0,328.7,657.4)
TRICHLOROETHENE	-	938.212	765.282	758.347	641.398	775.810	.996187	(Conc=3.8,9.0,83.6,298.4,596.9)
BROMODICHLOROMETHANE	-	427.917	358.641	388.077	354.563	382.292	.998683	(Conc=6.2,15.5,144.8,517.1,1034.
1,1,2-TRICHLOROETHANE	-	247.483	187.385	191.678	202.113	207.165	.999568	(Conc=6.1,15.4,143.8,513.6,1027.
TETRACHLOROETHENE	-	667.036	484.391	452.764	429.623	508.949	.999693	(Conc=3.3,9.9,92.7,330.9,661.9)
CHLOROBENZENE	-	814.879	578.323	522.733	428.789	584.169	.992433	(Conc=18.3,31.0,289.5,1034.6,206
p-BROMOFLUOROBENZENE	-	70.9389	59.7688	63.9356	69.5061	66.0372	-	(Conc=901.0,901.0,901.0,901.0,90
1,1,2,2,-TETRACHLOROETHANE	-	192.022	72.4069	11.0749	12.7959	77.0755	.885882	(Conc=6.4,16.2,151.0,539.2,1078.

RF - Response Factor (Subscript is amount in PPB)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CORRn - Coefficient of Correlation (nth degree)

WAS 002 0278

Calibration Check Report:

Title: SUMMA CANISTER/P. WASHINGTON CALIB FILE
Calibrated: 881020 19:09

Check Standard Data File: >00720
Injection Time: 881022 10:49

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
VINYL CHLORIDE	152.989	129.665	15.25	Average	(Conc=107.40)
1,1-DICHLOROETHENE	340.701	288.167	17.77	Average	(Conc=86.17)
METHYLENE CHLORIDE	209.822	172.693	17.38	Average	(Conc=138.50)
TRANS-1,2-DICHLOROETHENE	314.965	230.103	26.92	Average	(Conc=85.18)
1,1-DICHLOROETHANE	438.570	312.991	28.63	Average	(Conc=76.44)
BROMOCHLOROMETHANE	27.9819	16.4181	40.50	Average	(Conc=907.80)
CHLOROFORM	366.966	315.866	14.14	Average	(Conc=147.80)
1,1,1-TRICHLOROETHANE	464.884	328.800	29.44	Average	(Conc=124.25)
CARBON TETRACHLORIDE	282.500	229.954	18.74	Average	(Conc=195.80)
BENZENE	642.725	524.990	18.30	Average	(Conc=142.25)
1,2-DICHLOROETHANE	272.025	250.299	7.99	Average	(Conc=92.83)
TRICHLOROETHENE	775.810	609.134	21.80	Average	(Conc=83.56)
BROMODICHLOROMETHANE	382.292	399.801	7.14	Average	(Conc=144.70)
1,1,2-TRICHLOROETHANE	287.145	127.677	30.36	Average	(Conc=143.80)
TETRACHLOROETHENE	500.949	394.215	22.54	Average	(Conc=92.66)
CHLOROBENZENE	584.169	333.799	42.87	Average	(Conc=289.92)
p-BROMOFLUOROBENZENE	66.8372	50.8724	22.96	Average	(Conc=901.80)
1,1,2,2,-TETRACHLOROETHANE	72.8755	4.59881	93.63	Average	(Conc=150.90)

RF - Response Factor from daily standard file at 100.00 PPB

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

WAS 002 0279

Title: SUMMA CANISTER/P. WASHINGTON CAL.B FILE
Calibrated: 881020 19:09

Check Standard Data File:)80748
Injection Time: 881023 10:29

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
VINYL CHLORIDE	152.989	184.246	31.86	Average	(Conc=187.48)
1,1-DICHLOROETHENE	348.781	309.284	9.22	Average	(Conc=86.17)
METHYLENE CHLORIDE	289.822	162.490	22.26	Average	(Conc=138.58)
TRANS-1,2-DICHLOROETHENE	314.965	295.588	10.85	Average	(Conc=85.18)
1,1-DICHLOROETHANE	438.578	356.659	18.68	Average	(Conc=76.44)
BROMOCHLOROMETHANE	27.5819	15.2415	44.74	Average	(Conc=987.88)
CHLOROFORM	366.966	333.838	9.83	Average	(Conc=147.88)
1,1,1-TRICHLOROETHANE	464.884	418.318	11.74	Average	(Conc=124.25)
CARBON TETRACHLORIDE	282.588	289.913	2.62	Average	(Conc=195.88)
BENZENE	642.725	499.951	22.21	Average	(Conc=142.25)
1,2-DICHLOROETHANE	272.825	298.787	9.81	Average	(Conc=92.83)
TRICHLOROETHENE	773.818	629.691	18.62	Average	(Conc=83.56)
BROMODICHLOROMETHANE	382.292	391.774	2.48	Average	(Conc=144.78)
1,1,2-TRICHLOROETHANE	207.145	172.121	16.91	Average	(Conc=143.88)
TETRACHLOROETHENE	508.949	437.352	14.07	Average	(Conc=92.66)
CHLOROBENZENE	984.169	999.792	4.86	Average	(Conc=289.92)
p-BROMOFLUOROBENZENE	66.8372	47.3629	28.28	Average	(Conc=981.88)
1,1,2,2,-TETRACHLOROETHANE	72.8795	62.2798	13.59	Average	(Conc=158.98)

RF - Response Factor from daily standard file at 100.00 PPB

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

WAS 002 0280

Title: SUMMA CANISTER/P. WASHINGTON CALIB FILE
Calibrated: 881020 19:09

Check Standard Data File: >88752
Injection Time: 881024 10:21

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
VINYL CHLORIDE	152.989	98.3248	35.73	Average	(Conc=107.48)
1,1-DICHLOROETHENE	348.701	296.774	12.89	Average	(Conc=86.17)
METHYLENE CHLORIDE	209.022	158.729	24.06	Average	(Conc=138.58)
TRANS-1,2-DICHLOROETHENE	314.965	237.568	24.57	Average	(Conc=85.18)
1,1-DICHLOROETHANE	438.578	327.145	25.41	Average	(Conc=76.44)
BROMOCHLOROMETHANE	27.5819	17.6262	36.09	Average	(Conc=987.88)
CHLOROFORM	366.966	314.897	14.19	Average	(Conc=147.88)
1,1,1-TRICHLOROETHANE	464.884	411.759	11.43	Average	(Conc=124.29)
CARBON TETRACHLORIDE	282.588	293.892	4.83	Average	(Conc=195.88)
BENZENE	642.729	463.276	27.92	Average	(Conc=142.25)
1,2-DICHLOROETHANE	272.025	284.668	4.65	Average	(Conc=92.83)
TRICHLOROETHENE	773.818	688.898	22.35	Average	(Conc=83.56)
BROMODICHLOROMETHANE	382.292	388.683	1.65	Average	(Conc=144.78)
1,1,2-TRICHLOROETHANE	287.145	166.815	19.47	Average	(Conc=143.88)
TETRACHLOROETHENE	588.949	462.627	9.18	Average	(Conc=92.66)
CHLOROBENZENE	584.169	514.849	11.87	Average	(Conc=289.92)
p-BROMOFLUOROBENZENE	66.8372	91.2353	22.41	Average	(Conc=981.88)
1,1,2,2,-TETRACHLOROETHANE	72.8795	58.8488	19.47	Average	(Conc=158.98)

RF - Response Factor from daily standard file at 188.88 PPB

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

WAS 002 0281

Calibration Check Report

Title: SUMMA CANISTER/P. WASHINGTON CALIB FILE
Calibrated: 881028 19:09

Check Standard Data File: >88776
Injection Time: 881029 12:47

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
VINYL CHLORIDE	152.989	53.2123	65.22	Average	(Conc=107.48)
1,1-DICHLOROETHENE	348.781	299.954	11.96	Average	(Conc=86.17)
METHYLENE CHLORIDE	289.022	213.769	2.27	Average	(Conc=138.98)
TRANS-1,2-DICHLOROETHENE	314.965	263.184	16.44	Average	(Conc=85.18)
1,1-DICHLOROETHANE	438.578	339.168	22.66	Average	(Conc=76.44)
BROMOCHLOROMETHANE	27.5819	24.7288	10.38	Average	(Conc=987.88)
CHLOROFORM	366.946	282.885	22.91	Average	(Conc=147.88)
1,1,1-TRICHLOROETHANE	464.884	383.883	17.68	Average	(Conc=124.25)
CARBON TETRACHLORIDE	282.588	272.651	3.49	Average	(Conc=195.88)
BENZENE	642.725	559.488	12.95	Average	(Conc=142.25)
1,2-DICHLOROETHANE	272.825	225.329	17.17	Average	(Conc=92.83)
TRICHLOROETHENE	773.818	558.281	27.85	Average	(Conc=83.56)
BROMODICHLOROMETHANE	382.292	334.492	12.51	Average	(Conc=144.78)
1,1,2-TRICHLOROETHANE	287.145	196.468	5.16	Average	(Conc=143.88)
TETRACHLOROETHENE	588.949	586.152	.55	Average	(Conc=92.66)
CHLOROBENZENE	584.169	597.394	2.26	Average	(Conc=289.92)
p-BROMOFLUOROBENZENE	66.8372	67.8182	2.68	Average	(Conc=981.88)
1,1,2,2,-TETRACHLOROETHANE	72.8795	72.4869	.46	Average	(Conc=158.98)

RF - Response Factor from daily standard file at 100.00 PPB

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

WAS 002 0282

Calibration Check Report

Title: SUMMA CANISTER/P. WASHINGTON CALIB FILE
Calibrated: 881020 19:09

Check Standard Data File: >00791
Injection Time: 881026 06:21

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
VINYL CHLORIDE	152.909	72.3929	52.68	Average	(Conc=187.48)
1,1-DICHLOROETHENE	348.701	288.585	17.64	Average	(Conc=86.17)
METHYLENE CHLORIDE	289.822	285.481	1.75	Average	(Conc=138.58)
TRANS-1,2-DICHLOROETHENE	314.969	275.241	12.61	Average	(Conc=95.18)
1,1-DICHLOROETHANE	438.578	395.421	9.84	Average	(Conc=76.44)
BROMOCHLOROMETHANE	27.5819	23.6351	14.31	Average	(Conc=907.88)
CHLOROFORM	366.966	343.698	6.34	Average	(Conc=147.88)
1,1,1-TRICHLOROETHANE	464.884	375.823	19.16	Average	(Conc=124.25)
CARBON TETRACHLORIDE	282.588	275.569	2.46	Average	(Conc=195.88)
BENZENE	642.725	594.397	7.52	Average	(Conc=142.25)
1,2-DICHLOROETHANE	272.825	284.559	4.61	Average	(Conc=92.83)
TRICHLOROETHENE	775.818	679.798	12.67	Average	(Conc=83.56)
BROMODICHLOROMETHANE	382.292	388.134	1.53	Average	(Conc=144.78)
1,1,2-TRICHLOROETHANE	287.149	192.817	7.38	Average	(Conc=143.88)
TETRACHLOROETHENE	588.949	564.516	18.92	Average	(Conc=92.66)
CHLOROBENZENE	984.169	991.596	1.27	Average	(Conc=289.52)
p-BROMOFLUOROBENZENE	66.8372	69.6981	.91	Average	(Conc=981.88)
1,1,2,2,-TETRACHLOROETHANE	72.8795	69.8437	3.18	Average	(Conc=158.98)

RF - Response Factor from daily standard file at 100.00 PPB

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

WAS 002 0283

Calibration Check Report

Title: SUMMA CANISTER/P. WASHINGTON CALIB FILE
Calibrated: 881020 19:09

Check Standard Data File: >88017
Injection Time: 881027 11:59

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
VINYL CHLORIDE	152.989	98.6833	35.55	Average	(Conc=107.48)
1,1-DICHLOROETHENE	348.781	340.834	2.39	Average	(Conc=86.17)
METHYLENE CHLORIDE	289.822	281.336	3.68	Average	(Conc=138.58)
TRANS-1,2-DICHLOROETHENE	314.965	280.629	10.98	Average	(Conc=85.18)
1,1-DICHLOROETHANE	438.578	410.808	6.51	Average	(Conc=76.46)
BROMOCHLOROMETHANE	27.5819	22.8324	17.22	Average	(Conc=907.88)
CHLOROFORM	366.966	377.888	2.95	Average	(Conc=147.88)
1,1,1-TRICHLOROETHANE	464.884	436.958	6.81	Average	(Conc=124.25)
CARBON TETRACHLORIDE	282.588	341.256	20.88	Average	(Conc=195.88)
BENZENE	642.725	618.657	4.99	Average	(Conc=142.25)
1,2-DICHLOROETHANE	272.825	317.712	16.79	Average	(Conc=92.83)
TRICHLOROETHENE	775.818	670.291	12.34	Average	(Conc=83.96)
BROMODICHLOROMETHANE	382.292	397.865	3.86	Average	(Conc=144.78)
1,1,2-TRICHLOROETHANE	287.145	192.969	6.84	Average	(Conc=143.88)
TETRACHLOROETHENE	588.949	589.439	.69	Average	(Conc=92.66)
CHLOROBENZENE	584.169	521.684	10.78	Average	(Conc=289.92)
p-BROMOFLUOROBENZENE	66.8372	52.8195	21.23	Average	(Conc=981.88)
1,1,2,2,-TETRACHLOROETHANE	72.8795	64.4787	10.54	Average	(Conc=158.98)

RF - Response Factor from daily standard file at 100.00 PPB

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

WAS 002 0284

Calibration Report

Title: SUMMA CANISTER/P. WASHINGTON CALIB FILE
Calibrated: 881103 16:14

Compound	Files: >88866 RF .10	>88867 RF .30	>88868 RF 2.00	>88869 RF 10.00	>88870 RF 20.00	$\overline{RRT}$	$\overline{RF}$	CORR1	
VINYL CHLORIDE	53.0826	37.8261	45.5214	46.4764	33.9186	3.288	43.3474	.984109	(Conc=3.8,11.5,137.
1,1-DICHLOROETHENE	189.618	139.437	172.706	182.499	177.338	5.627	172.332	.999863	(Conc=3.1,9.2,36.2,
METHYLENE CHLORIDE	111.717	91.6892	98.2527	91.9359	98.7431	6.545	96.8676	.999938	(Conc=4.9,14.8,138.
TRANS-1,2-DICHLOROETHENE	114.145	116.338	126.379	119.345	120.648	7.027	119.369	.999952	(Conc=3.0,9.1,85.2,
1,1-DICHLOROETHANE	170.338	148.984	168.995	150.535	150.687	7.755	159.498	.999949	(Conc=2.7,8.2,76.4,
BROMOCHLOROETHANE	9.89998	10.2873	10.8567	9.74862	9.32414	9.152	9.99934	-	(Conc=907.0,907.0,9
CHLOROFORM	218.182	166.414	190.853	169.589	170.824	9.298	183.812	.999854	(Conc=5.3,15.8,147.
1,1,1-TRICHLOROETHANE	405.631	264.763	271.292	211.218	204.642	9.570	271.589	.999183	(Conc=4.4,13.3,124.
CARBON TETRACHLORIDE	225.968	193.873	212.359	166.173	147.886	9.847	189.892	.996870	(Conc=7.8,28.9,195.
BENZENE	405.315	244.619	228.225	214.824	221.852	10.196	262.647	.999826	(Conc=5.1,15.2,142.
1,2-DICHLOROETHANE	191.185	165.213	184.657	165.228	155.489	10.237	172.337	.999324	(Conc=3.3,9.9,92.8,
TRICHLOROETHENE	334.228	281.899	305.768	278.147	334.598	11.283	325.328	.998348	(Conc=3.8,9.8,83.6,
BROMODICHLOROETHANE	234.623	185.186	213.717	193.816	175.998	12.152	200.651	.998962	(Conc=5.2,15.5,144.
1,1,2-TRICHLOROETHANE	84.4358	78.8919	85.8832	68.5112	68.5278	14.239	77.8828	.999375	(Conc=5.1,15.4,143.
TETRACHLOROETHENE	326.284	218.548	220.926	197.839	188.214	14.491	230.362	.999599	(Conc=3.3,9.9,92.7,
CHLOROBENZENE	316.634	260.767	269.543	231.354	217.476	16.181	259.155	.999198	(Conc=10.3,31.0,289
p-BROMOFLUOROBENZENE	27.5285	32.1154	30.8813	30.8724	29.8388	18.291	30.8629	-	(Conc=901.0,901.0,
1,1,2,2,-TETRACHLOROETHANE	71.2438	55.4731	20.2421	11.8769	12.7959	18.569	35.7662	.988485	(Conc=5.4,16.2,151

RF - Response Factor (Subscript is amount in PPB)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CORRn - Coefficient of Correlation (nth degree)

WAS 002 0285

Calibration Check Report

Title: SUMMA CANISTER/P. WASHINGTON CALIB FILE
Calibrated: 881103 19:03

Check Standard Data File: >00091
Injection Time: 881104 11:32

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
VINYL CHLORIDE	43.3474	17.2346	60.24	Average	(Conc=107.40)
1,1-DICHLOROETHENE	172.332	126.947	26.34	Average	(Conc=86.17)
METHYLENE CHLORIDE	96.8676	67.1336	30.70	Average	(Conc=138.50)
TRANS-1,2-DICHLOROETHENE	119.369	117.269	1.76	Average	(Conc=85.18)
1,1-DICHLOROETHANE	159.498	143.459	10.05	Average	(Conc=76.44)
BROMODICHLOROETHANE	9.99934	9.05182	9.48	Average	(Conc=907.80)
CHLOROFORM	183.812	163.213	10.82	Average	(Conc=147.80)
1,1,1-TRICHLOROETHANE	271.989	232.684	14.38	Average	(Conc=124.25)
CARBON TETRACHLORIDE	189.892	187.677	.79	Average	(Conc=195.88)
BENZENE	262.647	197.428	24.83	Average	(Conc=142.25)
1,2-DICHLOROETHANE	172.337	174.356	1.17	Average	(Conc=92.83)
TRICHLOROETHENE	329.328	269.148	17.27	Average	(Conc=83.56)
BROMODICHLOROETHANE	288.651	188.949	5.83	Average	(Conc=144.78)
1,1,2-TRICHLOROETHANE	77.8828	74.8679	2.87	Average	(Conc=143.88)
TETRACHLOROETHENE	238.362	209.432	9.89	Average	(Conc=92.66)
CHLOROBENZENE	259.155	226.572	12.57	Average	(Conc=289.52)
p-BROMOFLUOROBENZENE	38.8679	27.6526	8.83	Average	(Conc=901.88)
1,1,2,2,-TETRACHLOROETHANE	91.6528	24.3948	92.77	Average	(Conc=158.98)

RF - Response Factor from daily standard file at 100.00 PPB

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

WAS 002 0286

Calibration Report

Title: SUMMA CANISTER/P. WASHINGTON CALIB FILE
Calibrated: 881105 02:24

Compound	Files: >88984 RF 10	>88983 RF .30	>88981 RF 2.00	>88986 RF 10.00	>88985 RF 20.00	$\overline{RRT}$	$\overline{RF}$	CORR1	
VINYL CHLORIDE	56.3969	48.0870	60.4469	54.8867	49.8826	3.125	52.3248	.998533	(Conc=3.8,11.5,107.4,383.4,7
1,1-DICHLOROETHENE	203.571	166.739	261.471	222.696	216.425	5.539	214.181	.999478	(Conc=3.1,9.2,86.2,307.8,6
METHYLENE CHLORIDE	202.828	116.149	114.116	105.836	109.614	6.475	128.747	.999956	(Conc=4.9,14.8,138.5,494.7,3
TRANS-1,2-DICHLOROETHENE	116.118	123.246	162.268	146.497	141.833	6.958	137.792	.999729	(Conc=3.8,9.1,85.2,304.2,8
1,1-DICHLOROETHANE	178.759	151.778	208.778	188.949	177.967	7.689	179.644	.999672	(Conc=2.7,8.2,76.4,273.3,9
BROMODICHLOROMETHANE	18.7442	18.3263	12.2205	18.9857	18.4576	9.899	18.9469	-	(Conc=907.8,907.3,907.3,907
CHLOROFORM	238.871	192.239	224.833	208.356	195.844	9.243	208.588	.999743	(Conc=6.3,15.8,147.9,528.2,
1,1,1-TRICHLOROETHANE	379.279	259.354	281.846	229.354	238.696	9.928	279.946	.999936	(Conc=4.4,13.3,124.3,443.8,8
CARBON TETRACHLORIDE	272.823	203.973	228.467	196.176	182.395	9.791	215.882	.999113	(Conc=7.8,20.9,195.8,696.6,
BENZENE	959.646	334.974	272.891	247.828	248.818	10.153	411.223	.999895	(Conc=6.1,15.2,142.3,508.8,
1,2-DICHLOROETHANE	295.927	187.424	238.175	190.964	179.957	10.281	288.889	.999816	(Conc=3.3,9.9,92.8,328.7,657
TRICHLOROETHENE	481.342	298.659	467.432	409.831	386.449	11.246	398.583	.999314	(Conc=3.8,9.8,83.6,298.4,596
BROMODICHLOROMETHANE	225.919	218.316	264.849	228.389	228.192	12.115	228.149	.999984	(Conc=6.2,19.5,144.8,517.1,
1,1,2-TRICHLOROETHANE	108.888	79.2057	83.2893	77.7756	79.3749	14.289	83.9491	.999986	(Conc=6.1,15.4,143.8,513.6,
TETRACHLOROETHENE	328.399	249.899	292.872	229.666	216.329	14.463	254.472	.999641	(Conc=3.3,9.9,92.7,338.9,66
CHLOROBENZENE	382.812	268.569	305.991	288.468	297.493	16.865	308.489	.998153	(Conc=18.3,31.8,289.5,1034.
p-BROMOFLUOROBENZENE	34.2888	33.8824	36.8877	31.7814	32.4295	18.262	33.6684	-	(Conc=981.8,981.8,981.8,981
1,1,2,2,-TETRACHLOROETHANE	-	57.9468	3.69585	-	-	18.543	38.8213	1.00000	(Conc=6.4,16.2,151.8,539

RF - Response Factor (Subscript is amount in PPB)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

CORRn - Coefficient of Correlation (nth degree)

WAS 002 0287

PORT WASHINGTON AUDIT CYLINDER RESULTS

PE SUMMA CANISTER CONCENTRATIONS PROVIDED BY RTP

PE CYLINDER #	885636	885636	884780	
FILE #	ANALYZED	THEORETICAL	ANALYZED	THEORETICAL
COMPOUNDS	PPB	PPB	PPB	PPB
VINYL CHLORIDE	2.66	2.19	28.2	25
METHYLENE CHLORIDE	2.39	2.27		
CHLOROFORM	2.87	2.37	15.8	16
1,1,1-TRICHLOROETH	2.23	2.35		
CARBON TETRACHLORIDE	1.59	2.28	11.6	24
BENZENE	2.29	2.12	33.5	37
1,2-DICHLOROETHANE	2.59	2.42		
CHLOROBENZENE	3.28	2.46		
TETRACHLOROETHENE	2.95	2.45	13.2	14

RTP REPORTED CONTAMINATION OF VINYL CHLORIDE, CARBON TETRACHLORIDE AND CHLOROFORM IN ZERO AIR SUMMA CANISTER #885569

WAS 002 0288

PORT WASHINGTON AUDIT CYLINDER RESULTS

PE CYLINDER #	885636	884780	885636	885636	884780	885569	884780	885569
DATE ANALYZED	10/20/88	10/25/88	10/27/88	11/3/88	11/4/88	11/4/88	11/5/88	11/5/88
FILE #	>80716	>80787	>80812	>80872	>80886	>80887	>80919	>80920
COMPOUNDS	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
VINYL CHLORIDE	2.30	16.0	1.11	2.2	9.87	N/D	11.5	N/D
METHYLENE CHLORIDE	2.63	N/D	4.22	2.95	N/D	N/D	N/D	N/D
CHLOROFORM	2.79	21.0	2.68	2.88	17.57	N/D	17.1	N/D
1,1,1-TRICHLOROETH	3.28	N/D	1.79	2.12	N/D	N/D	N/D	N/D
CARBON TETRACHLORIDE	3.71	35.9	2.89	3.23	31.0	N/D	28.5	N/D
BENZENE	3.46	40.6	2.94	2.7	28.3	N/D	19.78	N/D
1,2-DICHLOROETHANE	2.73	N/D	2.52	2.68	N/D	N/D	N/D	N/D
CHLOROBENZENE	3.76	N/D	2.94	3.41	N/D	N/D	* N/D	N/D
1,1,2,2-TETRACHLOROETHANE	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
TETRACHLOROETHENE	2.60	16.8	3.03	2.43	12.3	N/D	12.0	N/D

N/D-NOT FOUND

WAS 002 0289

PORT WASHINGTON GC/MS RESULTS

MATRIX SPIKE RESULTS

	STANDARD	ACTUAL	SPIKED	ACTUAL	SPIKED	ACTUAL	SPIKED
SAMPLE		EPA058	EPA058	EPA040	EPA040	EPA052	EPA052
FILE#	>B0926	>B0923	>B0927	>B0917	>B0928	>B0878	>B0929
COMPOUND	PPB	PPB	PPB	PPB	PPB	PPB	PPB
VINYL CHLORIDE	1.81	0.93U	3.67	0.93U	2.56	0.93U	0.93U
1,1-DICHLOROETHENE	0.76U	3.33	3.09	0.76U	0.76U	0.76U	0.76U
METHYLENE CHLORIDE	1.20U	2.23	2.59	5.05	3.84	1.34	1.34
TRANS-1,2-DICHLOROETHENE	0.73U	0.73U	0.73U	0.73U	0.73U	0.73U	0.73U
1,1-DICHLOROETHANE	0.66U	26.14	25.8	0.66U	0.66U	0.66U	0.66U
CHLOROFORM	1.30U	1.30U	1.30U	1.30U	1.30U	1.30U	1.30U
1,1,1-TRICHLOROETHANE	1.08U	87.1	83.1	1.08U	1.08U	16.2	18.1
CARBON TETRACHLORIDE	1.71U	1.71U	1.71U	1.71U	1.71U	1.71U	2.59
BENZENE	1.25U	1.25U	1.25U	1.25U	1.25U	1.25U	1.36
1,2-DICHLOROETHANE	0.81U	0.81U	0.81U	0.81U	0.81U	0.81U	0.81U
TRICHLOROETHENE	17.4	2.96	18.4	0.73U	17.6	0.73U	17.1
BROMODICHLOROMETHANE	1.27U	1.27U	1.27U	1.27U	1.27U	1.27U	1.27U
1,1,2-TRICHLOROETHANE	1.25U	1.25U	1.25U	1.25U	1.25U	1.25U	1.25U
TETRACHLOROETHENE	38.7	91.4	128	0.81U	43.7	18.1	57.2
CHLOROBENZENE	48.8	2.52U	42.0	2.52U	45.0	2.52U	40.6
1,1,2,2-TETRACHLOROETHANE	1.32U	1.32U	1.32U	1.32U	1.32U	1.32U	1.32U

CALIBRATION STANDARD RESULTS OF THE TEN RUNS USED TO CALCULATE THE 3STD RANGES USED FOR THE DAILY GC-FID CALIBRATION CHECKS

STANDARD 81 11/1/88	15:11	15:17	15:22	15:28	15:33	15:39	15:44	15:50	15:55	16 01
COMPOUND CONCENTRATION	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
THEORETICAL:										
CH4 4.9 ppbv	5.4	5.2	5.0	5.2	5.0	5.5	5.1	5.3	5.0	5 1

CONTROL RANGE:

STANDARD 81 11/1/88				
COMPOUND	MEAN	STD	MEAN-3STD	MEAN+3STD
	ppbv	ppbv	ppbv	ppbv
CH4	5.2	0.2	4.6	5.8

GC-FID DAILY CALIBRATION RESULTS:

11/2/88	11/2/88	11/2/88
10:27	14:11	18:26
ppbv	ppbv	ppbv
5.1	4.9	5.2

WAS 002 0291

CALIBRATION STANDARD RESULTS OF THE SIX RUNS USED TO CALCULATE THE 3STD RANGES USED FOR THE DAILY GC-TCD CALIBRATION CHECK

STANDARD #1	9/23/88	14:48	15:02	15:25	15:47	16:11	16:33	MEAN	STD	MEAN-3STD	MEAN+3STD
COMPOUND	CONCENTRATION	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
	THEORETICAL:										
CO	1500ppbv	1500	1466	1482	1520	1461	1460	1478	29	1392	1564
CH4	20000ppbv	20554	19420	19536	19572	19763	19744	19765	488	18541	20988
CO2	20000ppbv	19596	19638	19984	20275	20490	20040	20003	351	18948	21057

STANDARD #2	10/6/88	10:38	10:57	11:17	12:34	13:27	13:48	MEAN	STD	MEAN-3STD	MEAN+3STD
COMPOUND	CONCENTRATION	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
	THEORETICAL:										
CO	1500ppbv	1409	1352	1388	1414	1275	1382	1369	51	1215	1522
CH4	20000ppbv	18523	17984	18225	18416	18138	18065	18211	229	17526	18897
CO2	20000ppbv	18975	18261	17967	18288	18581	18598	18445	369	17397	19493

STANDARD #3	10/12/88	16:32	9:06	9:44	10:02	10:21	10:43	MEAN	STD	MEAN-3STD	MEAN+3STD
COMPOUND	CONCENTRATION	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
	THEORETICAL:										
CO	1500ppbv	1532	1452	1293	1492	1414	1442	1438	82	1192	1683
CH4	20000ppbv	19356	19216	19316	20065	19321	19526	19465	311	18534	20397
CO2	20000ppbv	19818	19763	19736	20489	19815	19716	19886	299	18990	20782

GC-TCD DAILY CALIBRATION CHECK RESULTS:

STANDARD #1	CONTROL RANGE:		9/28/88	9/28/88	9/29/88	9/29/88	9/30/88	9/30/88	10/1/88
COMPOUND	MEAN-3STD	MEAN+3STD	11:04	15:38	9:03	15:56	11:29	16:45	7:40
	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
CO	1390	1560	1490	1420	1430	1490	1530	1520	1560
CH4	18500	21000	19900	19500	19300	19700	20100	20100	19600
CO2	18900	21100	20200	20100	19700	20700	20300	20700	20100

STANDARD #2	CONTROL RANGE:		10/5/88	10/5/88	10/6/88	10/6/88	10/6/88	10/7/88	10/7/88	10/11/88
COMPOUND	MEAN-3STD	MEAN+3STD	08:37	13:05	08:29	15:18	16:39	08:23	13:50	08:13
	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
CO	1220	1520	1420	1300	1400	1320	1310	1440	1420	1460
CH4	17500	18900	17600	18000	17900	18400	18000	18400	18100	18200
CO2	17400	19500	18200	18600	18100	18700	18200	18800	18600	18800

STANDARD #3	CONTROL RANGE:		10/12/88	10/13/88	10/13/88	10/14/88	10/14/88	10/17/88	10/17/88	10/18/	10/18
COMPOUND	MEAN-3STD	MEAN+3STD	15:17	8:56	13:01	9:27	13:57	8:38	14:22	08:	10:47
	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	pp	ppbv
CO	1190	1680	1430	1370	1480	1470	1510	1460	1420	14	1438
CH4	18500	20400	18900	18900	19500	19400	20200	19700	19800	2011	19780
CO2	19000	20800	19500	19600	19600	19700	20700	20000	19600	1971	19680

WAS 002 0292

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

CHAIN OF CUSTODY RECORD/LAB WORK REQUEST

No: 000820

WAS 002 0293

Project Name: Port Washington Landfill Site
Project Number: 2-13
REW Contact: _____ Phone 732 494 8570 Due Date: _____

SAMPLE IDENTFICATION

ANALYSES REQUESTED

Sample No.	Sampling Location	Matrix	Date Collected	Container/Preservative						
046	vault	Gas		Canister / None		Primary Gases - CH4, N2, O2, CO2, CO				
055	"	"		" / "						
005	"	"		" "						
004	"	"		" "						
013	"	"		" "		CH4, VOCs				
025	"	"		" "						
034	"	"		" "						
Seven Samples.										

Matrix:
S- Soil DS- Drum Solids
W- Water DL- Drum Liquids
O- Oil X- Other

Special Instructions:

Name/Reason	Relinquished By	Received By	Date	Time	Name/Reason	Relinquished By	Received By	Date	
	W. A. Weller	[illegible]	5/16	4:30					

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

CHAIN OF CUSTODY RECORD/ANALYSIS REQUEST

Project Name: Port Washington Landfill Site
Project Number: 213
RFW Contact: _____ Phone: _____ Due Date: _____

000021
SHEET NO. 1 OF 2
WAS 002 0294

SAMPLE IDENTIFICATION

42 693 0370

ANALYSES REQUESTED

Sample No.	Sampling Location	Matrix	Date Collected	Container/Preservative					
015	Gas wells	Gas	Sept 83	Canister/None					
018	"	"	"	"					
008	"	"	"	"				X	
011	"	"	"	"					
050	"	"	"	"					
043	"	"	"	"					
030	"	"	"	"				+	
026	"	"	"	"					
042	"	"	"	"					
035	"	"	"	"					
031	"	"	"	"				V	
007	"	"	"	"				0	
020	"	"	"	"					
017	"	"	"	"				)	
029	"	"	"	"					
024	"	"	"	"					
040	"	"	"	"					
038	"	"	"	"					
014	"	"	"	"					
022	"	Gw	"	"					

Matrix:
S- Soil DS- Drum Solids
W- Water DL- Drum Liquids
O- Oil X- Other

Special Instructions:

Items/Reason	Relinquished By	Received By	Date	Time	Items/Reason	Relinquished By	Received By	Date	
	W. A. Miller	K Corbett	9/14	16:25					

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

CHAIN OF CUSTODY RECORD/LAB WORK REQUEST

No: 000822

Project Name: Pat Wright Co-Steel Site
Project Number: 213
SRW Contact: _____ Phone: _____ Due Date: _____

SHEET NO 2 OF 2

WAS 002 0295

SAMPLE IDENTIFICATION

212 653 0370

ANALYSES REQUESTED

Sample No.	Sampling Location	Matrix	Date Collected	Container/Preservative					
003	Grab well	Soil	Sept 93	Canister / none					
011	" "	"	"	"					
013	"	"	"	"					
012	"	"	"	"					
015	"	"	"	"					
018	"	"	"	"					
051	"	"	"	"	Blank				
052	"	"	"	"					
033	"	"	"	"					
014	" "	Soil	"	"					
1				1					
30	Samples								

Matrix:
S- Soil
W- Water
O- Oil
DS- Drum Solids
DL- Drum Liquids
X- Other

Special Instructions:

Items/Reason	Relinquished By	Received By	Date	Time	Items/Reason	Relinquished By	Received By	Date	
	W. A. Miller	[illegible]	7/04	16:25					

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

CHAIN OF CUSTODY RECORD/LAB WORK REQUEST

000023

Project Name: Port Washington landfill site
Project Number: 213
RFW Contact: ______ Phone: 212 693 0370 Due Date: [illegible]

SHEET NO. 1 of 1

WAS 002 0296

SAMPLE IDENTIFICATION

ANALYSES REQ

Sample No.	Sampling Location	Matrix	Date Collected	Container/Preservative					
006	vent	〃	sept 88	Canister (NA)		VOC,	ctty	Primary	9585
023	Gas well (EB)	〃	〃	〃		VOC	, ctty	only	
013	vent	〃	〃	〃		VOC,	ctty,	Primary	9585
[illegible]	vent	Gas	sept 88	〃		VOC, ctty, Primary 9585			
[illegible]	Gas well (EB)	〃	〃	〃		VOC	, ctty	only	
011	〃 〃	〃	〃	〃		〃	〃	〃	
057	〃 〃	〃	〃	〃		〃	〃	〃	
047	〃 〃	〃	〃	〃		〃	〃	〃	
049	〃 〃	〃	〃	〃		〃	〃	〃	
045	〃 〃	〃	〃	〃		〃	〃	〃	
001	〃 〃	〃	〃	〃		〃	〃	〃	
027	〃 〃	〃	〃	〃		〃	〃	〃	
019	〃 〃	〃	〃	〃		〃	〃	〃	
008	(Blank) 〃 〃	〃	〃	〃		〃	〃	〃	
021	(Blank) 〃 〃	〃	〃	〃		〃	〃	〃	
005	〃 〃	〃	〃	〃		〃	〃	〃	
036	〃 〃	〃	〃	〃		〃	〃	〃	
040	〃 〃	〃	〃	〃		〃	〃	〃	
	([illegible] Cyc)								

Matrix:
S- Soil DS- Drum Solids
W- Water DL- Drum Liquids
O- Oil X- Other

Special Instructions:

Items/Reason	Relinquished By	Received By	Date	Time	Items/Reason	Relinquished By	Received By	Date
	W. A. William	Vinod	9/23/88	13.50				

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

CHAIN OF CUSTODY RECORD/LAB ...

Project Name: Port washington
Project Number: 213
RFW Contact: Phone 516 ... Due Date:

SHEET NO 1 OF 1

ANALYTE WAS 002 0297

SAMPLE IDENTIFICATION

Sample No.	Sampling Location	Matrix	Date Collected	Container/Preservative					
056	Gas well	gas	Sept 30	Canister/None					580 17
057	"	"	"	"					5560 13
058	"	"	"	"		VOC			588 28
059	"	"	"	"	dry				566 43
05?	"	"	"	"					580 45
060	"	"	"						

Matrix:
S- Soil
W- Water
O- Oil
DS- Drum Solids
DL- Drum Liquids
X- Other

Special Instructions:

Items/Reason	Relinquished By	Received By	Date	Time	Items/Reason	Relinquished By	Received By	Date
	W. A. ...	[illegible]	9/2/9?	15:25				