

The electronic version of this file/report should have the file name:

Type of document . Site Number . Year-Month . File Year-Year or Report name . pdf

Letter brownfield 932053 . 1996 -03 . CorrespondenceFile Year -Year . pdf

example: letter . Site Number . Year-Month . CorrespondanceFileYear-Year . pdf

report . hw932053 . 1996 - 03 . FinalReportSVERemed-3-6-96 . pdf

example: report . Site Number . Year-Month . ReportName . pdf

if a non-foilable site: add ".nf.pdf" at end of file name

Project Site numbers will be proceeded by the following:

Municipal Brownfields - B

Superfund - HW

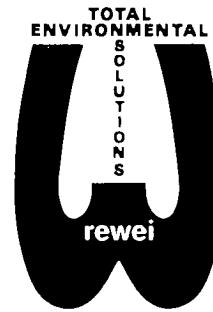
Spills - SP

ERP - E

VCP - V

BCP - C

932053



An **SAC** company

## r.e. wright environmental, inc.

March 6, 1996

RECEIVED

MAY 20 1996

NYSDEC-REG. 9  
FOIL  
REL UNREL

Ms. Carol A. Dickerson  
Hydrogeological Associate  
Zeneca, Inc.  
Environmental Services and Operations  
1800 Concord Pike  
Wilmington, DE 19850-5438

Re: Final Report - SVE Remediation  
Stauffer Management Company  
Lewistown, New York  
Site ID No. 932053  
Area B - North Landfill  
REWEI Project 95517

Dear Ms. Dickerson:

R. E. Wright Environmental, Inc. (REWEI) is submitting this report to Stauffer Management Company (SMC) to document the remediation of contaminated subsurface soils at the above-referenced site. This report summarizes the details and data collected during the North Landfill remediation. This project consisted of pre-remediation soil sampling, the installation of a soil vacuum extraction (SVE) remediation system, start-up and operation of the SVE system, shutdown of the SVE system, and the collection of post-remediation confirmatory soil samples. The goal of the soil remediation project was to reduce the total concentration of the Site Specific Priority List (SSPL) compounds to below the predetermined cleanup goal of 10 milligrams per kilogram (mg/kg).

### PROJECT BACKGROUND

In August 1994, a soil vapor survey (SVS) was conducted by TreTek-CRA Company at the North Landfill on a nominal 25-foot grid. Results of the SVS demonstrated that elevated levels of SSPL compounds were detected in one of the soil gas samples. A confirmatory boring (S-BH-22) was drilled and sampled to determine the actual levels of

SSPL compounds in the soil at this SVS location (Figure 1). The results of the laboratory analysis from this soil boring indicated that the total concentration of SSPL compounds present in the soil were greater than 10 mg/kg, hence soil remediation was deemed necessary. However, since a relatively small volume of soil was impacted by SSPL compounds (as indicated by the SVS) and the soil concentrations were less than 50 mg/kg, SMC believed that a temporary SVE system would effectively remediate the landfill. A remedial design for such a system was submitted to and approved by NYSDEC.

### **PRE-REMEDIATION SOIL SAMPLING**

As an initial step, REWEI was selected to install and operate the North Landfill system. To characterize the subsurface soils in Area B of the North Landfill, four soil borings (EWB-1, PMB-1, PMB-2, and PMB-3) were drilled and sampled using hollow stem auger (HSA) drilling and sampling techniques on August 2 and 3, 1995 (Figure 1). Soil borings EWB-1 and PMB-1 were drilled to a maximum depth of 14.5 feet below grade level (bgl) and 11.8 feet bgl, respectively, due to bedrock refusal, while both PMB-2 and PMB-3 were drilled to 12 feet bgl without encountering bedrock. One soil sample each from PMB-1, PMB-2, and PMB-3 was collected and submitted for laboratory analysis. The selected sample was collected from the soil zone which exhibited the highest volatile organic compound (VOC) concentrations as detected by a photoionization detector (PID). Two soil samples were collected from EWB-1 due to elevated PID readings (over 100 parts per million [ppm] organic vapors) in the soils from 8 through 14.5 feet bgl. All five soil samples were transported under the proper chain-of-custody to Advanced Environmental Services (AES) for analysis of the SSPL compounds by United States Environmental Protection Agency (EPA) Method SW846 8240.

After sampling, the soil vapor extraction well (EWB-1) and soil vapor monitoring piezometers (PMB-1, PMB-2, and PMB-3) were installed. Well logs and construction details for each boring are attached in Appendix A.

### **SOIL SAMPLING RESULTS**

A summary of the pre-remediation laboratory results are shown on Table 1, and copies of the original laboratory reports are attached as Appendix B. Three of the five soil samples collected (PWB-1 and both of the samples collected from EWB-1) contained quantifiable concentrations of SSPL compounds. The soil samples collected from PMB-2 and PMB-3 each contained unquantifiable concentrations of all of the SSPL compounds. Tetrachloroethane (PCE) and trichloroethane (TCE) were the most commonly detected

compounds, with PCE being detected in all three samples and TCE being detected in two of the samples. The highest PCE and TCE concentrations were both detected in the sample collected from PWB-1 (8 to 10 feet bgl) at 5.5 mg/kg and 9.4 mg/kg, respectively. Chloroform (2.5 mg/kg) in EWB-1 (10 to 14 feet bgl) and carbon disulfide (0.23 mg/kg) in PWB-1 (8 to 10 feet bgl) were the only other SSPL compounds that were detected.

### **SOIL REMEDIATION BY VACUUM EXTRACTION**

REWEI constructed and installed a trailer-mounted SVE system at the site, as specified by the remedial design (Figure 2). The remediation system consisted of a single extraction well (EWB-1) piped to a MDS™ positive-displacement rotary lobe-type vacuum blower fitted with a straight-through type silencer housed inside a trailer. A moisture separator with a six-gallon-capacity holding tank was fitted in line between the extraction well and the blower to protect the blower from water damage. Since the soils being remediated are within a former landfill, a Mine Safety Appliances Company (MSA) Model 5100 explosion proof methane gas monitor was installed to protect against any possible explosion hazard (Figure 2). The extracted soil vapor was cooled through the moisture separator, methane monitor, and blower, and two 250-pound granular-activated carbon (GAC) filters in series prior to being discharged to the atmosphere. Electrical power was supplied to the remediation trailer by a temporary feed from the main on-site remediation system.

### **REMEDIATION SYSTEM STARTUP AND MONITORING**

The SVE remediation system was started on September 7, 1995, and was monitored and sampled daily for the initial week. Thereafter, the system was monitored daily during the work week and sampled weekly. Monitoring included the measurement of the SVE flow rates, vacuum pressure, temperature, atmospheric barometric pressure, and measuring for VOC breakthrough of the GAC filters and the soil vapor concentrations in all of the SVE piezometers and the extraction well using a PID. In addition, SUMMA canisters were collected from the soil vapor being extracted from EWB-1 and submitted to Performance Analytical, Inc., (PAI) for analysis of VOCs by Gas Chromatography/Mass Spectrometry by EPA Method TO-14.

The raw field monitoring data collected during the operation of the SVE system is attached in Appendix C. Table 2 summarizes the total SSPL compound concentrations, cumulative recovery, and percent reduction while Table 2A separates each of the SSPL compounds into individual concentrations and cumulative recovery. Copies of the

original soil vapor analysis laboratory reports are attached in Appendix D. The system was operated from its start-up on September 7, 1995, until the system was shut down on November 13, 1995, due to the fact that SVE performance criteria had been met:

1. The SSPL soil gas concentrations had been reduced by over 75 percent (from the initial concentration of 257,600 micrograms per cubic meter [ $\mu\text{g}/\text{m}^3$ ] to 43,460  $\mu\text{g}/\text{m}^3$  total SSPL compounds).
  2. Over 1,000 soil vapor volumes had been removed.

The rotary lobe blower applied an average vacuum pressure of 16 inches of water column (WC) on the extraction well with an average air flow rate of 120 cubic feet per minute (cfm) during its operation.

## SVE SYSTEM SHUTDOWN

After the system was shut down on November 13, 1995, the subsurface was allowed to stabilize for 14 days. On November 27, 1995, the system was restarted for the purpose of collecting a confirmatory soil gas sample. The analytical results from the November 27, 1995, sampling indicated that the total SSPL concentrations had increased by 20 percent, with the PCE concentrations increasing by 23 percent and the TCE concentrations increasing by 16 percent. Since the total SSPL concentrations showed an increase since the shutdown, the SVE system was restarted on November 30, 1995, and monitored until December 8, 1995, when the system was again shut down due to the reduction in SSPL soil gas concentrations by 88.6 percent from the original concentrations. On December 18, 1995, after 10 days of shutdown, the system was again restarted for the purpose of collecting a confirmatory gas sample. The results of this confirmatory sample showed that total SSPL concentrations were below the levels detected during the original shutdown on November 9, 1995, showing an 85.3 percent SSPL removal from the original concentrations.

The total quantity of each individual compound was calculated by multiplying the compounds loading rate (in pounds per day) by the elapsed time (in days). The loading rate was calculated by the following formula:

Table 3 summarizes the quantity of each VOC recovered by the SVE. A total of 55 pounds of VOCs were recovered by the SVE system, 43 pounds of which were SSPL compounds (Figure 3) with the majority of the SSPL recovery, 32.5 pounds, being PCE (Figure 4). Due to the quantity of SSPL compounds removed and the reduction of soil vapor concentrations by over 70 percent, it was believed that these observed reductions would correlate to reductions in the SSPL concentrations in the soil.

### **POST-REMEDIATION CONFIRMATORY SOIL SAMPLING**

To confirm whether the soil cleanup objectives had been achieved, three soil borings were installed on December 21, 1995, to collect confirmatory soil samples (Figure 5). Soil boring logs for these borings are attached as Appendix E. One boring (EWBP-1) was drilled adjacent to the existing SVE extraction well. The second boring (PMBP-1) was drilled adjacent to the 10-foot monitoring probe, and the third boring (PMBP-2) was drilled 25 feet from the existing extraction well. One soil sample was collected for laboratory analysis from each of the three borings from the soil sample interval exhibiting the highest PID reading. All three soil samples were transported to AES for analysis for SSPL compounds by EPA Method SW846-8240.

### **SOIL SAMPLING RESULTS**

The results of the confirmatory post-remediation soil sampling are summarized on Table 4, and copies of the original laboratory reports are attached as Appendix F. The initial analytical laboratory reports (December 29, 1995) for EWBP-1 (12 to 15 feet bgl) noted that the sample contained numerous "yellow particles" (assumed to be sulfur) and showed non-detectable concentrations for all of the SSPL compounds with the exception of PCE (59 mg/kg) and TCE (1.6 mg/kg). Upon receipt of the laboratory report, REWEI immediately requested that the sample, which was retained under refrigeration by the laboratory, be reanalyzed due to suspected interference with the EPA method produced by these "yellow particles." After the re-analysis of EWBP-1 (12 to 15 feet bgl) on January 2, 1996, all three of the samples indicated that the SVE remediation system had been effective in removing SSPL compounds from the subsurface soils and reduced the total SSPL concentrations below the 10 mg/kg action level. EWBP-1 contained the greatest concentrations of SSPL compounds of the three soil samples, with a total SSPL concentration of 4.7 mg/kg. PMBP-1 and PMBP-2 contained 0.08 mg/kg and 1.3 mg/kg of total SSPL compounds, respectively.

With the results of the confirmatory soil samples all being below the site action level of 10 mg/kg total SSPL compounds and the total quantity of SSPLs recovered by the SVE

Ms. Carol A. Dickerson

- 6 -

March 6, 1996

being approximately 43 pounds, it appears that the SVE system was effective in removing the majority of the SSPL compounds from the subsurface soils at the site.

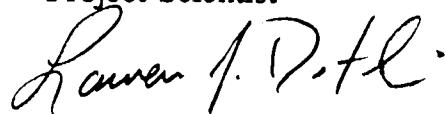
REWEI is pleased to provide these environmental services to SMC. If you have any questions or comments regarding this draft report prior to finalization, please feel free to contact the undersigned.

Respectfully submitted,

R. E. WRIGHT ENVIRONMENTAL, INC.



Marc A. Reeves  
Project Scientist



Lawrence J. DeFluri  
Project Manager

LJD:lh  
Attachment

R.E. Wright Environmental, Inc.

**TABLE 1**  
**STAUFFER MANAGEMENT COMPANY**  
**Niagara Falls Landfill B - SVE System**  
**Pre-Remediation Soil Sampling Results**

REWEI Project 95517

	All units are in micrograms per kilogram ( $\mu\text{g}/\text{kg}$ )									
	Benzene	Carbon Disulfide	Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetrachloroethane	Toluene	Trichloroethane	Chlorobenzene	Total SSPL Compounds
EWB-1 (6-8' bgl)	BQL	BQL	BQL	BQL	BQL	5,200	BQL	BQL	BQL	5,200
EWB-1 (10-14' bgl)	BQL	230	BQL	BQL	BQL	1,000	BQL	80	BQL	1,310
PWB-1 (8-10' bgl)	BQL	BQL	BQL	2,500	BQL	5,500	BQL	9,400	BQL	17,400
PWB-2 (6-8' bgl)	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
PWB-3 (8-10' bgl)	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

BQL - Below the laboratory's quantifiable limits

Table 2  
 Stauffer Management Company  
 S. M. C. Niagra Falls, NY  
 Landfill B- Soil Vapor Extraction System

Date	Time	*Elapsed Time (Days)	Total SSPL		
			Concentration (ug/M3)	Cumulative Recovery (Pounds)	Reduction (%)
09/07/95	11:15	0.01	257,600	0.038	0.00%
09/07/95	18:45	0.22	193,850	0.473	24.75%
09/08/95	10:45	0.67	135,900	1.123	47.24%
09/14/95	10:45	5	95,180	5.219	63.05%
09/21/95	10:45	9	93,970	9.937	63.52%
09/28/95	10:45	14	86,220	14.265	66.53%
10/05/95	10:45	19	128,300	20.707	50.19%
10/12/95	10:45	23	55,000	23.468	78.65%
10/19/95	10:45	28	54,980	26.229	78.66%
10/26/95	11:30	33	53,800	28.942	79.11%
11/02/95	09:15	37	62,220	32.024	75.85%
11/09/95	10:00	42	53,460	34.720	79.25%
11/27/95	16:00	45	66,930	36.760	74.02%
12/01/95	12:50	57	38,070	41.639	85.22%
12/08/95	09:30	61	29,330	43.082	88.61%
12/18/95	16:45	61	37,780	43.164	85.33%

\* The elapsed time was calculated by multiplying the actual elapsed time since the startup of the system by 2/3 due to blower outages caused by excessive moisture levels in the separation tank.

Note: The average airflow rate of the reediation system was 120 cubic feet per minute.

Table 2A

Stauffer Management Company  
 S. M. C. Niagra Falls, NY  
 Landfill B- Soil Vapor Extraction System

Date	Time	*Elapsed Time (Days)	Benzene	Carbon Disulfide		Carbon Tetrachloride		Chloroform	Methylene Chloride	
			Cumulative Concentration (ug/M3)	Cumulative Recovery (Pounds)						
09/07/95	11:15	0.01	170	0.000	2200	0.000	3200	0.000	5600	0.001
09/07/95	18:45	0.22	140	0.000	3400	0.008	2900	0.007	4100	0.010
09/08/95	10:45	0.67	130	0.001	3800	0.026	3000	0.021	3700	0.028
09/14/95	10:45	5	110	0.006	5200	0.250	4800	0.228	2800	0.148
09/21/95	10:45	9	140	0.013	8900	0.697	6900	0.574	3100	0.304
09/28/95	10:45	14	ND	0.013	6900	1.043	4900	0.820	2900	0.449
10/05/95	10:45	19	ND	0.013	7600	1.425	7500	1.197	3200	0.610
10/12/95	10:45	23	ND	0.013	4600	1.656	4400	1.418	2300	0.726
10/19/95	10:45	28	120	0.019	2900	1.801	3500	1.594	1500	0.801
10/26/95	11:30	33	550	0.046	2600	1.932	3600	1.775	1400	0.872
11/02/95	09:15	37	520	0.072	2700	2.068	4000	1.973	1300	0.936
11/09/95	10:00	42	780	0.112	2300	2.182	3900	2.170	1400	1.006
11/27/95	16:00	45	ND	0.112	1000	2.213	5800	2.347	2100	1.071
12/01/95	12:50	57	ND	0.112	870	2.324	2800	2.706	1400	1.250
12/08/95	09:30	61	ND	0.112	890	2.368	1800	2.784	840	1.291
12/18/95	16:45	61	ND	0.112	680	2.369	2200	2.789	1000	1.293

Cumulative SSPL VOC's Recovered: 43.16 Pounds

Cumulative Additional VOC's Recovered: 11.60 Pounds

Total VOC's Recovered: 54.76 Pounds

\* The elapsed time was calculated by multiplying the actual elapsed time since the startup of the system by 2/3 due to blower outages caused by excessive moisture levels in the separation tank.

Note: The average airflow rate of the reediation system was 120 cubic feet per minute.

Date	Tetrachloroethene		Toluene		Trichloroethene		Chlorobenzene	
	Cumulative Concentration (ug/M3)	Cumulative Recovery (Pounds)	Cumulative Concentration (ug/M3)	Cumulative Recovery (Pounds)	Cumulative Concentration (ug/M3)	Cumulative Recovery (Pounds)	Cumulative Concentration (ug/M3)	Cumulative Recovery (Pounds)
09/07/95	210000	0.031	190	0.000	36000	0.005	ND	0
09/07/95	160000	0.390	150	0.000	23000	0.057	ND	0
09/08/95	110000	0.916	130	0.001	15000	0.129	ND	0
09/14/95	73000	4.057	150	0.007	9000	0.516	ND	0
09/21/95	67000	7.421	190	0.017	7600	0.898	ND	0
09/28/95	63000	10.584	520	0.043	8000	1.299	ND	0
10/05/95	99000	15.555	ND	0.043	11000	1.851	ND	0
10/12/95	38000	17.463	ND	0.043	5700	2.138	ND	0
10/19/95	42000	19.571	ND	0.043	4800	2.379	ND	0
10/26/95	41000	21.639	150	0.051	4500	2.606	ND	0
11/02/95	44000	23.818	3100	0.204	6200	2.913	ND	0
11/09/95	40000	25.836	ND	0.204	4800	3.155	ND	0
11/27/95	52000	27.421	ND	0.204	5800	3.325	ND	0
12/01/95	30000	31.265	ND	0.204	3000	3.710	ND	0
12/08/95	24000	32.446	ND	0.204	2000	3.808	ND	0
12/18/95	31000	32.514	ND	0.204	2900	3.815	ND	0

**TABLE 3**

**STAUFFER MANAGEMENT COMPANY**  
**NIAGARA FALLS - LANDFILL B SVE SYSTEM**  
**TOTAL QUANTITY OF VOC COMPOUNDS RECOVERED**

REWEI Project 95517

Compound		Total Quantity Recovered (Pounds)
SSPL Compounds	Benzene	0.112
	Carbon Disulfide	2.37
	Carbon Tetrachloride	2.79
	Chloroform	1.29
	Methylene Chloride	0.068
	Tetrachloroethene	32.5
	Toluene	0.204
	Trichloroethene	3.82
	Chlorobenzene	0
	SSPL Total	43.2
Non-SSPL Compounds	Vinyl Chloride	0.655
	Acetone	0.041
	Trichloroflormethane	0.023
	1,1-Dichloromethane	0.114
	trans-1,2-Dichloroethene	0.133
	cis-1,2-Dichloroethene	8.94
	1,1-Dichloroethane	0.484
	2-Butone	0.004
	1,1,1-Trichloroethane	0.134
	Ethylbenzene	0.382
	m,p-xylenes	0.573
	o-xylenes	0.115
	Non-SSPL Total	11.6
	VOC total	54.8

**TABLE 4**  
**STAUFFER MANAGEMENT COMPANY**  
**Niagara Falls Landfill B - SVE System**  
**Post-Remediation Soil Sampling Results**

REWEI Project 95517

	All units are in micrograms per kilogram ( $\mu\text{g}/\text{kg}$ )									
	Benzene	Carbon Disulfide	Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetrachloroethane	Toluene	Trichloroethane	Chlorobenzene	Total SSPL Compounds
EWBP-1 (12-15' bgl)	ND	ND	ND	ND	ND	59,000	ND	1,600**	ND	60,600
	ND	70**	250**	130**	ND	3,900	ND	98**	220**	4,668
PMBP-1 (10-14' bgl)	ND	ND	ND	ND	ND	77**	ND	ND	ND	77**
PMBP-2 (10-12' bgl)	ND	180**	490	270**	270**	130**	ND	ND	ND	1,340

\*\* - Estimated result, above the detection limit but not quantifiable.

ND - Compound was not detected

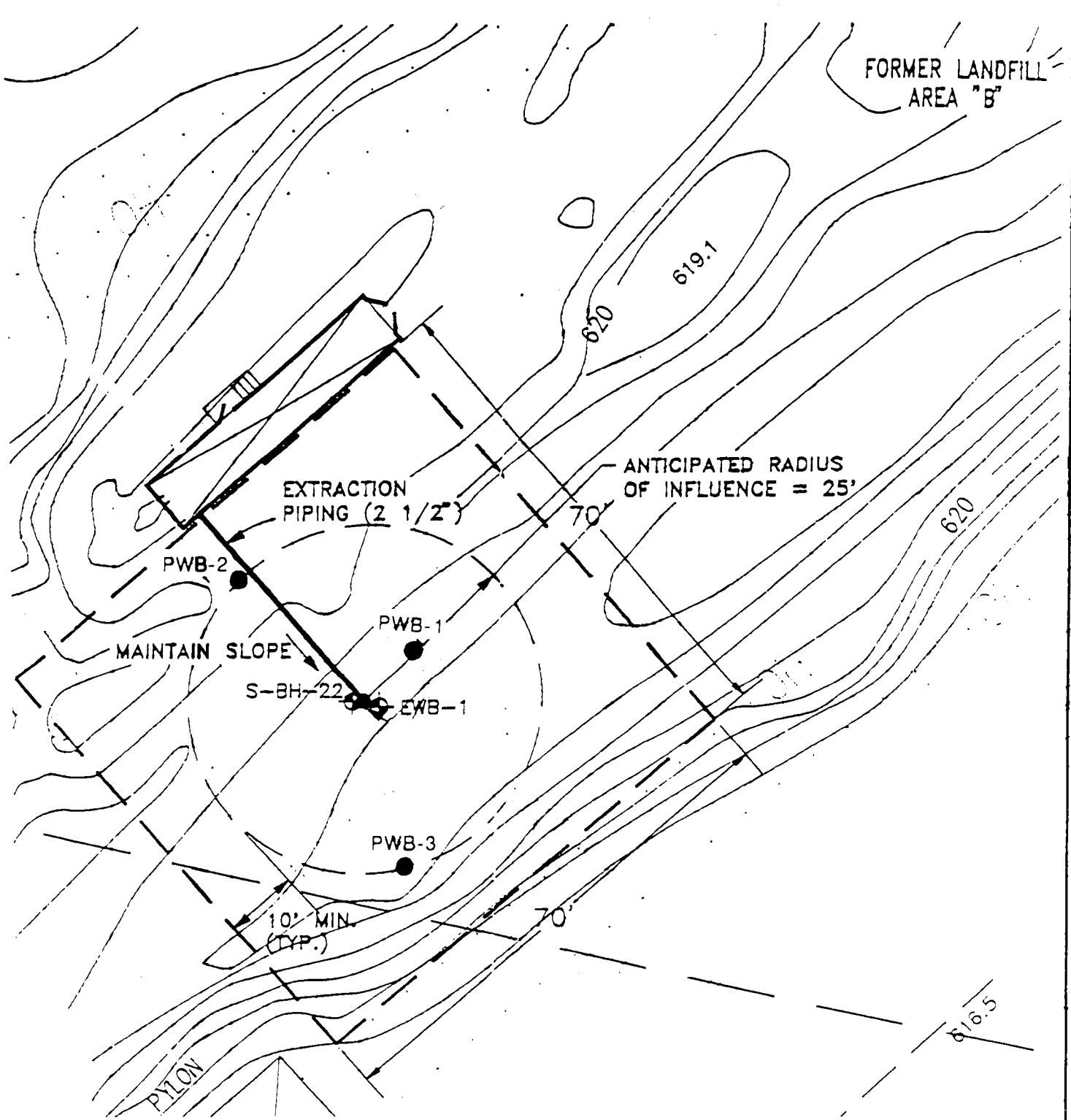


FIGURE 1

STAUFFER MANAGEMENT COMPANY NIAGRA FALLS, NY		
PREREMEDIATION SOIL BORING LOCATIONS		
AREA B- NORTH LANDFILL		
drawn DRAFTED BY	checked checked by	drawing no. RELEASER
SS Date	Approved	
 <b>r.e. wright environmental, inc.</b> total environmental solutions <small>reddington, pa exton, pa westminster, md ve beach, va</small>		

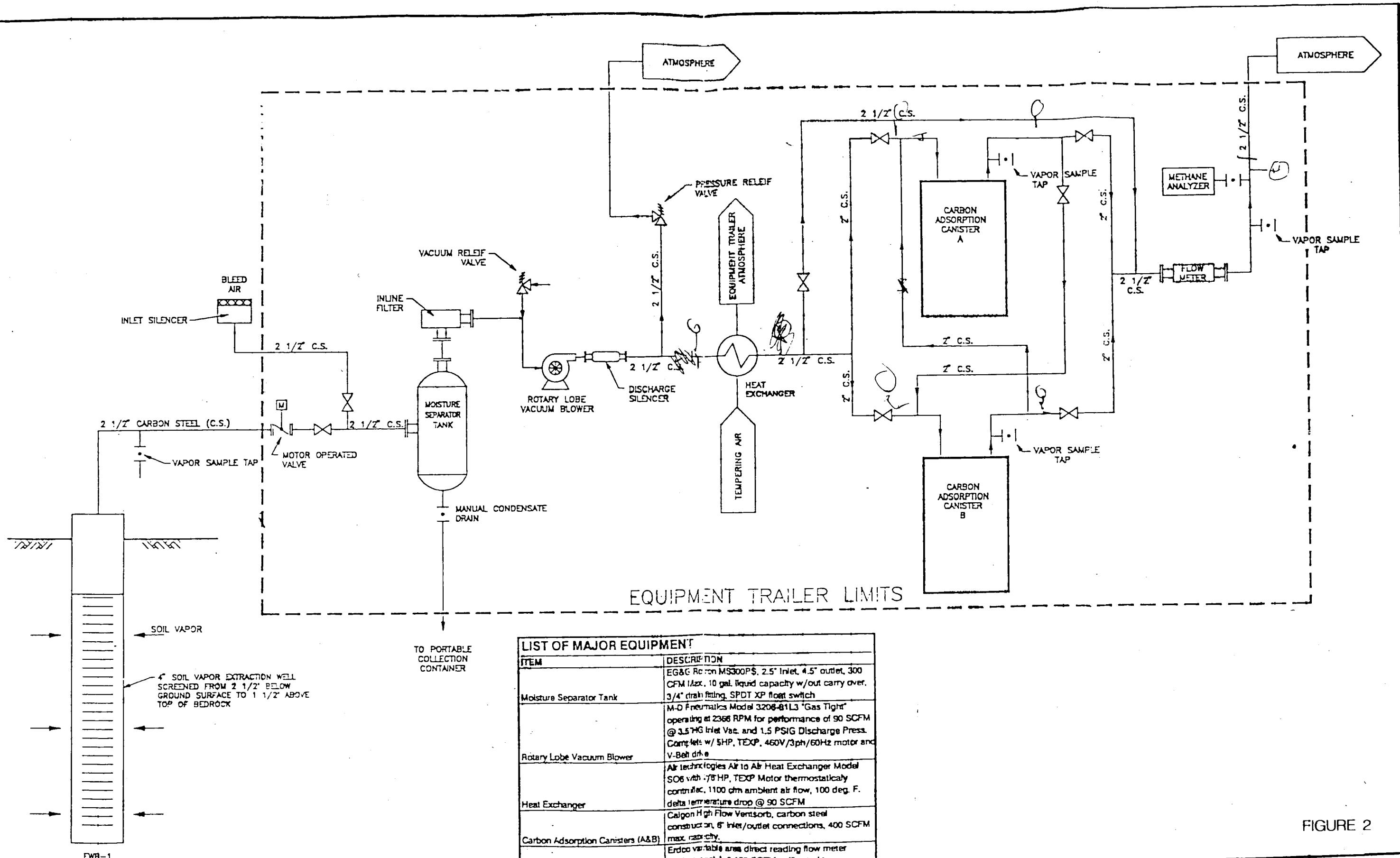


FIGURE 2

SIMPLIFIED PROCESS FLOW DIAGRAM  
AREA B SOIL VAPOR EXTRACTION SYSTEM  
NIAGARA FALLS SITE REMEDIATION  
STAUFFER MANAGEMENT CO.

Job No. 4E14039
Prepared by: TP
Date: 03/10/1995

# Stauffer Management Co.- Niagra Falls

## Landfill B- SVE System

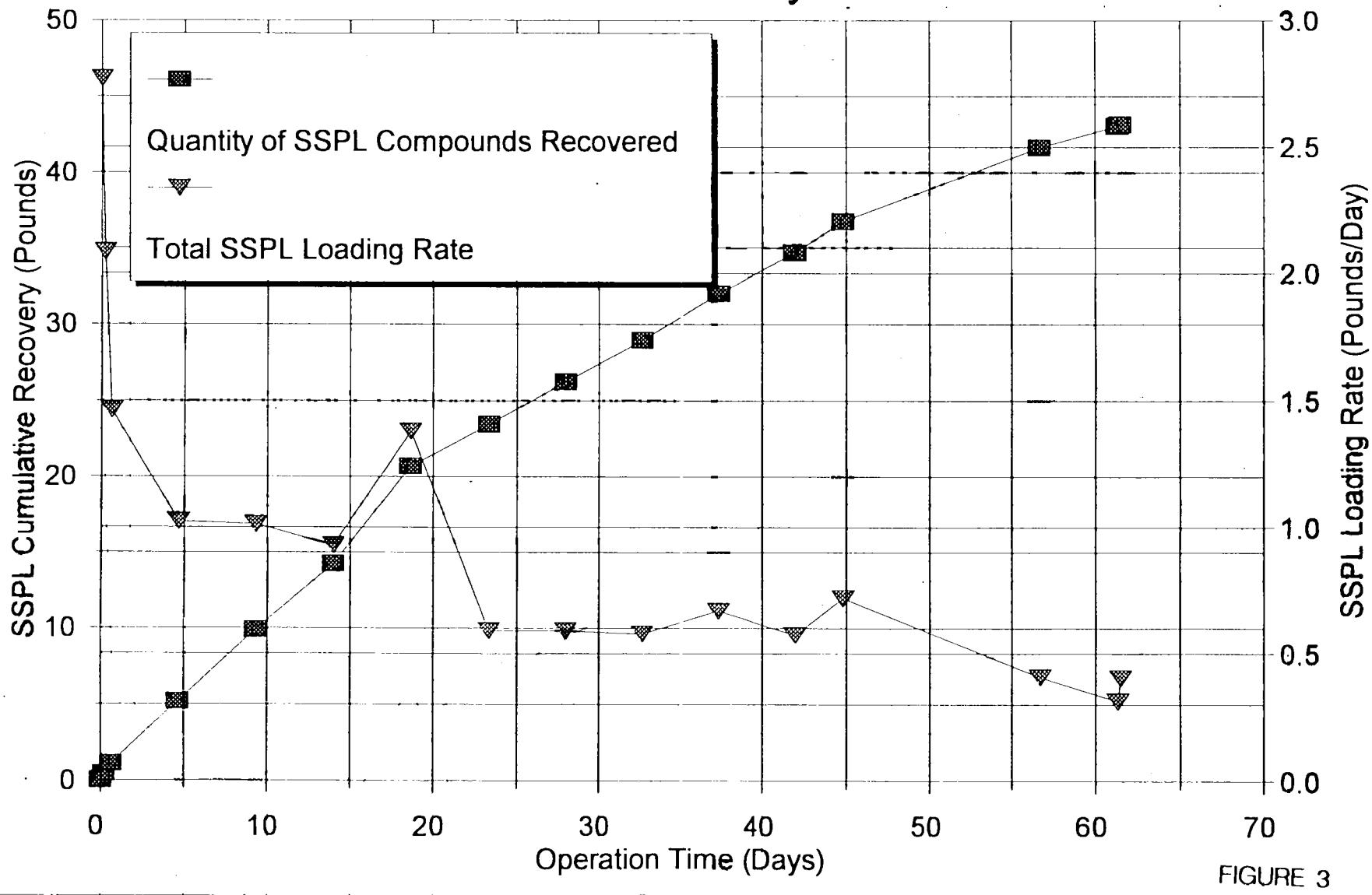


FIGURE 3

# Stauffer Management Co.- Niagra Falls

## Landfill B- SVE System

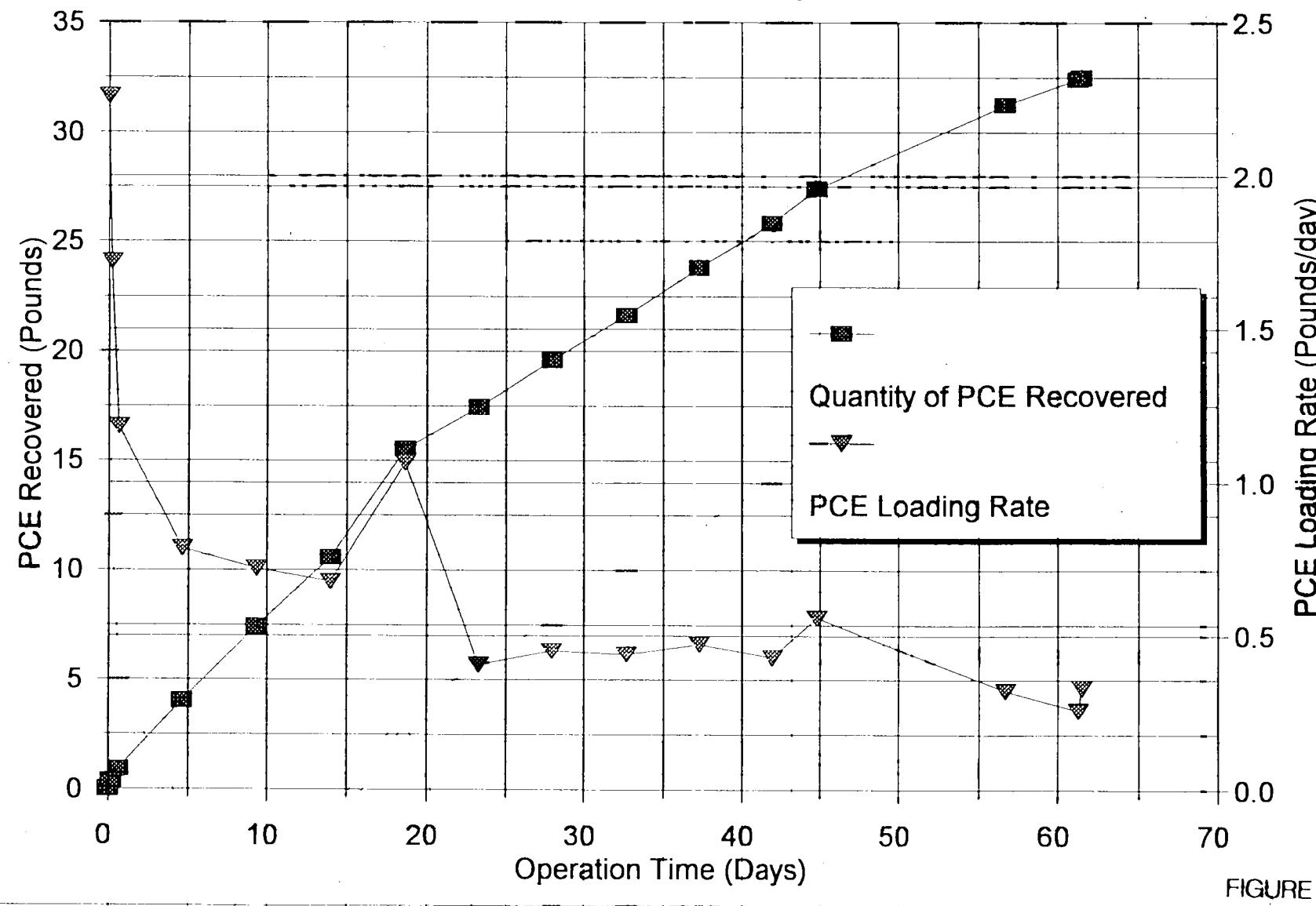


FIGURE 4

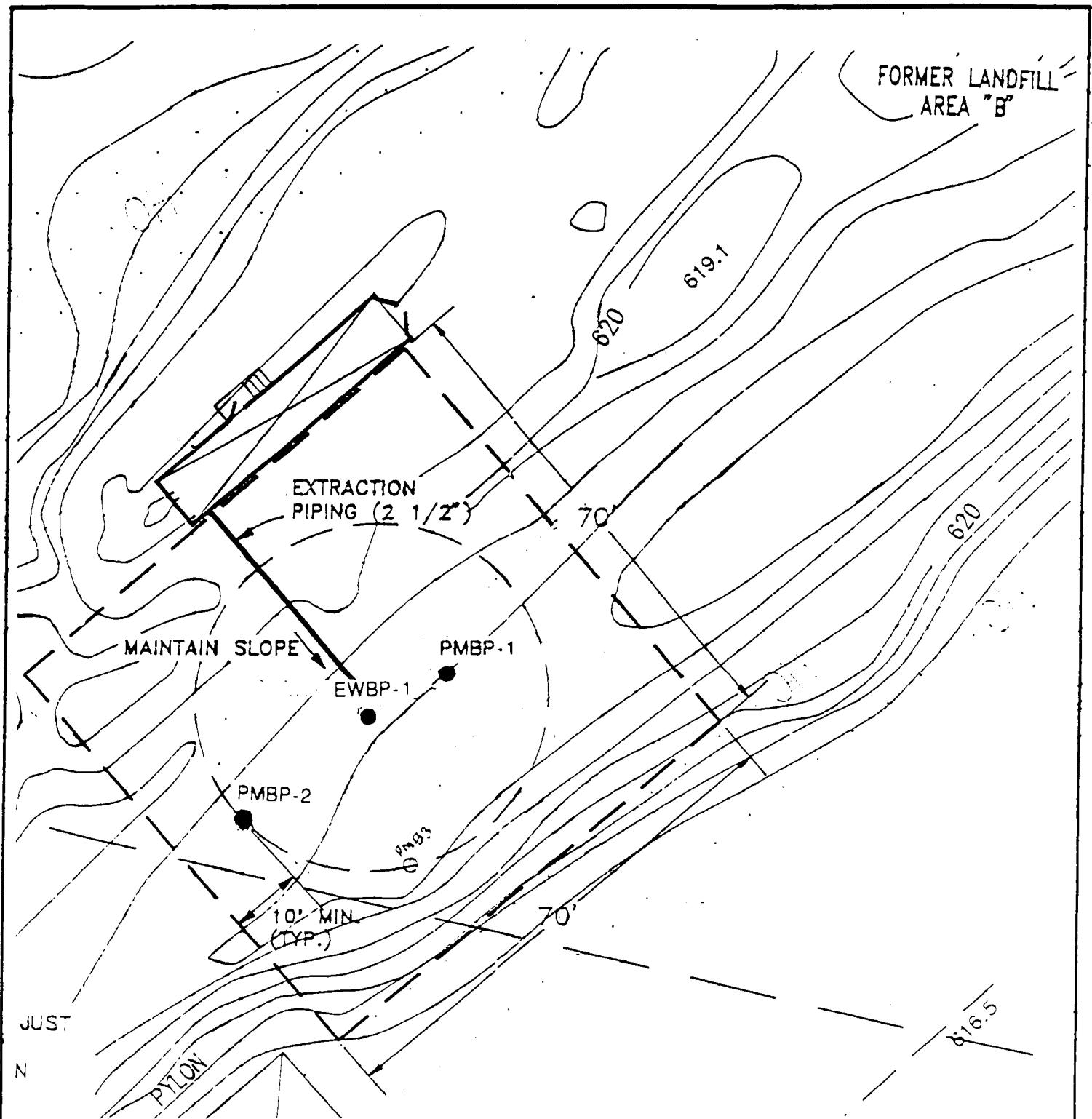


FIGURE 5

STAUFFER MANAGEMENT COMPANY NIAGRA FALLS, NY		
POSTREMEDIATION SOIL BORING LOCATIONS AREA B- NORTH LANDFILL		
 DRAWN BY	SS	checked
	date	approved
drawing no. r.e. wright environmental, inc. total environmental solutions		

APPENDIX A

## **APPENDIX A**

### **Pre-Remediation Soil Boring and Well Construction Logs**

## SOIL BORING LOG

Client Stauffer Mfg Co./Niagara Falls  
Project No. 95287

Phase 3 Task 1

Boring No. EW-B-1

Piezometer No.

Location North Landfill

Surface Elev.

Page of 1

Depth Feet	Blow Counts	Re- covery/ RQD.	Overburden/Lithologic Description	PID	Graphic Log	Well Construction Graphic	Depth Feet	Well Construction Details
0	Ground Surface			PPM				T.O.C. Elev.
2	3-5-5-9	--	CCLAY moderate brown, topsoil, root chy, trace gravel, blocky	3				HSA to refusal (bedrock) continuous split spoon head sample collected w/a PID 4"
4	5-4-6-4		Same as above pale brown	4				Galvanized riser and screen (20 slot)
6	1-1-4-4	SD	CCLAY pale brown with black mottles/concretions trace gravel/sand, medium stiff, silt lamina	4/				Well head piping/ construction completed at a later date
8	5-4-6-8	60	Same as above 6.75 Fly ash yellowish gray 7.75 gravelly silt, variable red brittle?	62				Sample collection 6-8' and 10-14'
10	Weight of Rods	<5	VOID? only return was in the shoe, black clayey gravel w/ wood	122				
12	Weight of Hammer		CCLAYEY GRAVEL wet to very moist w/manmade fabric (firehole?) thespoon full to 14'	125'				

Dritter SJB (TONY/TONY)	Blown/Bailed Yield	-	Bentonite Seal	14.5-15.5 3.5-4.5
Logged By LEW	Well Casing	4"	Filter Pack Qty.	-
Drilling Started 8/2/95	Casing Type	Galvanized	Filter Pack Type	Morrison
Drilling Completed 8/2/95	Well Screen	4" Dia. 4.5 To 14.5	Static Water Level	MSL
Well Construction 8/2/95	Screen Type	Galvanized	Date	
Well Developed -	Slot Size	20	Notes:	because of possible voids I took ~ 12 bags of sand to complete the well
Water Bearing Zones -	Drilling Mud N/A	-		
	Grout Type	0-3.5		



## SOIL BORING LOG

Client: Stauter Mgt Co./Niagara Falls  
Project No. 45287

Phase 3 Task 1

Boring No

PMB-1

Piezometer No.

Page of 1

Depth Feet	Blow Counts	Re- covery/ R.D.	Overburden/Lithologic Description	PID	Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
0					PPM			T.O.C. Elev.
0	Ground Surface							
0	S-4-4-8	80	CLAY light brown, dry, trace gravel/sand, occasional mottle/concretion of dusky yellow clay, med. stiff	4				HSA to refusal (bedrock) head space collected with PID 1" PVC riser and Screen (20 slot) continuous split spoon
2	8-8-5-5	50	Same as above	5				
4	4-4-5-8	75	CLAY moderate brown medium stiff, trace gravel/sand slightly moist, blocky, variable mottles/concretions	5				
6		75	6'-7' Same as above 7'-8' CLAY with black sand (man made, ash?), sand is slightly moist very fine to fine grained with silt and clay	5				
8	6-4-4-4	20	75' thin seam < 75" of dark yellowish orange fibrous material	20				
10		0	Same as above with wood in shoe No return	-				
12			refusal at 11'10"					

Driller SJB (TONY/TONY)	Blown/Balled Yield -	Bentonite Seal 1-2
Logged By BEJ	Well Casing 1" Dia. +2 To 2	Filter Pack Qty.
Drilling Started 8/2/95	Casing Type PVC	Filter Pack Type Morrie #0
Drilling Completed 8/2/95	Well Screen 1" Dia. 2 To 11'10"	Static Water Level MSL
Well Construction 8/2/95	Screen Type PVC	Date
Well Developed -	Slot Size 20 Slot	Notes: 8-10 sample sent to
Water Bearing Zones -	Drilling Mud N/A -	Lab PMBI-8-10
	Grout Type 0-1	

## SOIL BORING LOG

Client: Stauffer Mgt Co./Niagara Falls

Project No.

Phase Task

Boring No. PMB-2-

Piezometer No.

Page of 1

Depth Feet	Blow Counts	Re- covery/ RQD	Overburden/Lithologic Description	PID	Graphic Log	Well Construction Graphic	Depth Feet	Well Construction Details
Ground Surface				PPM				T.O.C. Elev.
0	3-5-7-6	70	CLAY light Brown, some gravel, 1' seam of sandy SILT w/clay, variable mottles, Dry	11				8 HSA to 12' BGS continuous split spoon sampling
2	11-7-6-5	60	Same as above CLAY	26				1" pvc riser and screen (20 slot)
4	6-6-4-4	50	Same as above CLAY	21				
6	5-5-3-3	50	5' SILTY CLAY moderate yellowish brown with trace gravel	25				
8	1-1-2-3	50	CLAY moderate brown highly variable w/mottles/ concretions of clay. Trace rounded gravel, slightly moist	16				
10	1-1-2-1		9' granular carbon very fine to fine grained, non cohesive	28				
12			Same as above wet					
			TD = 12'					

Driller SJB (TONY/TONY)	Blown/Bailed Yield -	Bentonite Seal -
Logged By BEL	Well Casing 1" Dia. +2 To 2	Filter Pack Qty. -
Drilling Started 3/3/95	Casing Type PVC	Filter Pack Type Morrie Sand 40
Drilling Completed 3/3/95	Well Screen 1" Dia. 2 To 12	Static Water Level MSL
Well Construction 3/3/95	Screen Type PVC	Date
Well Developed -	Slot Size 20	Notes: The 6-9' sample was sent to the lab for analysis
Water Bearing Zones -	Drilling Mud N/A -	PMB-2-BB
	Grout Type -	

## SOIL BORING LOG

Client: Stawter Mgt Co./Niagara Falls  
Project No. 95287

Phase 3 Task 1

Boring No. PMB-3

Piezometer No.

Location

Surface Elev.

Page 1 of 1

Depth Feet	Blow Counts	Re- covery/ RQD	Overburden/Lithologic Description	PID	Graphic Log	Well Construction Graphic	Depth Feet	Well Construction Details
Ground Surface				PPM				T.O.C. Elev.
6-6-6-6	60		CLAY light brown, roots highly variable with trace gravel, dry	22				HSA to 12' BGS continuous split sample headspace collected with a PID 1" PVC riser and screen
6-8-77	60		Same as above CLAY moderate brown with silty clay seam at 25' dry	26				
6-6-6-6			CLAY moderate brown, pale brown mottles, some gravel, dry	20				
8-12-6-16	50		Boulder/cobble 4" CLAY dark yellowish brown. w/grayish brown mottles, slightly moist stiff	12				
10-16-6-20	20		CLAY moderate brown moist 'micro' mottles/concretions pale brown	28				
6-6-10-28			CLAY moderate brown 4" slightly moist laminae pale brown	20				
11			Moderate brown with grayish orange pink and pale yellow tan mottles					

Driller SJB (TONY/TONY)	Blown/Balled Yield	Bentonite Seal 1-2
Logged By REN	Well Casing 1"	Filter Pack Qty.
Drilling Started 8/3/95	Dia. +2 To 2	Filter Pack Type Morrie #0
Drilling Completed 8/3/95	Casing Type PVC	Static Water Level MSL
Well Construction 8/3/95	Well Screen 1" Dia. 2 To 12'	Date
Well Developed -	Screen Type PVC	Notes: Sample collected 6-8'
Water Bearing Zones -	Slot Size 20	
	Drilling Mud N/A -	
	Grout Type 0-1	

APPENDIX  
B

## **APPENDIX B**

### **Pre-Remediation Soil Sampling Laboratory Reports**

AUG 21 1995

RECEIVED

R.E. WRIGHT ENVIRONMENTAL INC.

ZENECA/ NIAGARA FALLS

R.E. WRIGHT

Prepared By:



"A Company Dedicated to Honesty, Quality and Service"

August 18, 1995  
REF: GIZ52U8

QA/QC VERIFICATION FOR PROJECT ID 52U8

The following report, as well as the supporting data, have been carefully reviewed for accuracy, adherence to the cited methods, and completeness. All data contained in this report was generated in accordance with the AES Laboratory Quality Assurance/Quality Control Program.

Susan Scocci  
Organic Chemistry

W. Joseph McDougall  
Quality Control

Frank J. Suriano  
Project Manager

---

All 'Total' results on soil matrices are calculated on a dry weight basis, unless otherwise noted.  
Analyses noted as 'Performed in the laboratory' require immediate testing and should be performed in the field.

The following are standard abbreviations:

BQL - Below Quantifiable Limits  
ND - None Detected  
NG - No Growth of Colonies  
NR - Not Requested

CLIENT: R.E. WRIGHT ENVIRONMENTAL INC.  
 SAMPLE ID: EW81-6-8  
 COLLECTION METHOD: GRAB  
 COLLECTION DATE(S): 08/03/95  
 SAMPLE TYPE: SOIL

AES CLIENT ID: REW1  
 AES SAMPLE ID: 52U8-1

PROJECT ID: 52U8

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
ppb				
Methylene chloride	BQL	µg/kg	500 *	SW 846 8240
Carbon disulfide	BQL	µg/kg	500	SW 846 8240
Chloroform	BQL	µg/kg	500	SW 846 8240
Carbon tetrachloride	BQL	µg/kg	500	SW 846 8240
Trichloroethene	BQL	µg/kg	500	SW 846 8240
Benzene	BQL	µg/kg	500	SW 846 8240
Tetrachloroethene	5200	µg/kg	500	SW 846 8240
Toluene	BQL	µg/kg	500	SW 846 8240
Chlorobenzene	BQL	µg/kg	500	SW 846 8240

\* High limit due to sample matrix; dilution was required.

CLIENT: R.E. WRIGHT ENVIRONMENTAL INC.  
SAMPLE ID: EWB1-10-14  
COLLECTION METHOD: GRAB  
COLLECTION DATE(S): 08/03/95  
SAMPLE TYPE: SOIL

AES CLIENT ID: REW1  
AES SAMPLE ID: 52U8-2

PROJECT ID: 52U8

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Methylene chloride	BQL	µg/kg	50	SW 846 8240
Carbon disulfide	230	µg/kg	50	SW 846 8240
Chloroform	BQL	µg/kg	50	SW 846 8240
Carbon tetrachloride	BQL	µg/kg	50	SW 846 8240
Trichloroethene	80	µg/kg	50	SW 846 8240
Benzene	BQL	µg/kg	50	SW 846 8240
Tetrachloroethene	1000	µg/kg	50	SW 846 8240
Toluene	BQL	µg/kg	50	SW 846 8240
Chlorobenzene	BQL	µg/kg	50	SW 846 8240

CLIENT: R.E. WRIGHT ENVIRONMENTAL INC.  
 SAMPLE ID: PMB1-8-10  
 COLLECTION METHOD: GRAB  
 COLLECTION DATE(S): 08/03/95  
 SAMPLE TYPE: SOIL

AES CLIENT ID: REW1  
 AES SAMPLE ID: 52U8-3

PROJECT ID: 52U8

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Methylene chloride	BQL	µg/kg	500 *	SW 846 8240
Carbon disulfide	BQL	µg/kg	500	SW 846 8240
Chloroform	2500	µg/kg	500	SW 846 8240
Carbon tetrachloride	BQL	µg/kg	500	SW 846 8240
Trichloroethene	9400	µg/kg	500	SW 846 8240
Benzene	BQL	µg/kg	500	SW 846 8240
Tetrachloroethene	5500	µg/kg	500	SW 846 8240
Toluene	BQL	µg/kg	500	SW 846 8240
Chlorobenzene	BQL	µg/kg	500	SW 846 8240

\* High limit due to sample matrix; dilution was required.

CLIENT: R.E. WRIGHT ENVIRONMENTAL INC.  
SAMPLE ID: PMB2-6-8  
COLLECTION METHOD: GRAB  
COLLECTION DATE(S): 08/03/95  
SAMPLE TYPE: SOIL

AES CLIENT ID: REW1  
AES SAMPLE ID: 52U8-4

PROJECT ID: 52U8

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Methylene chloride	BQL	µg/kg	50	SW 846 8240
Carbon disulfide	BQL	µg/kg	50	SW 846 8240
Chloroform	BQL	µg/kg	50	SW 846 8240
Carbon tetrachloride	BQL	µg/kg	50	SW 846 8240
Trichloroethene	BQL	µg/kg	50	SW 846 8240
Benzene	BQL	µg/kg	50	SW 846 8240
Tetrachloroethene	BQL	µg/kg	50	SW 846 8240
Toluene	BQL	µg/kg	50	SW 846 8240
Chlorobenzene	BQL	µg/kg	50	SW 846 8240

CLIENT: R.E. WRIGHT ENVIRONMENTAL INC.  
SAMPLE ID: PMB3-8-10  
COLLECTION METHOD: GRAB  
COLLECTION DATE(S): 08/03/95  
SAMPLE TYPE: SOIL

AES CLIENT ID: REW1  
AES SAMPLE ID: 52U8-5

PROJECT ID: 52U8

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Methylene chloride	BQL	µg/kg	50	SW 846 8240
Carbon disulfide	BQL	µg/kg	50	SW 846 8240
Chloroform	BQL	µg/kg	50	SW 846 8240
Carbon tetrachloride	BQL	µg/kg	50	SW 846 8240
Trichloroethene	BQL	µg/kg	50	SW 846 8240
Benzene	BQL	µg/kg	50	SW 846 8240
Tetrachloroethene	BQL	µg/kg	50	SW 846 8240
Toluene	BQL	µg/kg	50	SW 846 8240
Chlorobenzene	BQL	µg/kg	50	SW 846 8240

## Advanced Environmental Services

AES Job Code G1Z

## Sample Traceability Report

AES Job No. 5208

**Note:** Areas marked using a dash indicate that no sample preparation was required under the applied methodology.

# ADVANCED

ENVIRONMENTAL SERVICES, INC.  
2186 LIBERTY DRIVE  
NIAGARA FALLS, NEW YORK 14301

(716) 283-3120  
(800) 791-3120  
FAX (716) 283-4727

# **CHAIN OF CUSTODY RECORD**

PROJECT NAME: Tenneca/Niagara Falls of the West

SAMPLER'S SIGNATURE: V. Blum-Woffman

PROJECT I.D. #: 95287-61-

JOB CODE: 5248

PROJECT NAME: <u>Zenneca/Niagara Falls &amp; E. Wedge</u>					CONTAINER CLASSIFICATION						PROJECT I.D. #: <u>95287-62</u>		
SAMPLER'S SIGNATURE: <u>Bruce Hoffman</u>					<input checked="" type="checkbox"/> UNPRESERVED	<input type="checkbox"/> HNO <sub>3</sub>	<input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub>	<input type="checkbox"/> HCL	<input type="checkbox"/> NAOH	<input type="checkbox"/> VIAL (PRES.)	<input type="checkbox"/> VIAL (UNPRES.)	<input type="checkbox"/> TOTAL	JOB CODE: <u>5248</u>
DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMP	PARAMETERS/REMARKS								
8/3/95		EWB 1 - 8-8	X	Soil	TCh Volatiles EPA 8240								
8/3/95		EWB 1 - 10-14	X	Soil	Specific Scan please								
8/3/95		PMB 1 - 8-10	X	Soil	See R.H. attachment								
8/3/95		PMB 2 - 6-8	X	Soil									
8/3/95		PMB 3 - 8-10	X	Soil									
TOTAL NUMBER OF CONTAINERS <u>5</u>													

**NOTE:** Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

**TOTAL NUMBER OF CONTAINERS**

1. RELINQUISHED BY: <i>Blanche Hoffman</i>	DATE 8/7/95	TIME 10:05am	RECEIVED BY: <i>Wendy Herbst</i>
2. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
3. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

A  
P  
P  
E  
N  
D  
I  
X  
C

## **APPENDIX C**

### **SVE System Field Monitoring Data**

WEEK OF SEPTEMBER 4, 1995

## Monitoring Data for SVE System

## Landfill Area B

Date:	9-7-95	9-7-95	9-7-95	9-7-95	9-8-95
Time:	START-UP 1045	1115	1500	1845	1045
Blower Vacuum ("WC)	15	15	15	17	15
Influent Temp (°F)	<129	<129	<129	<129	<129
Flow Rate (CFM)	>120	>120	>120	>120	>120
Effluent Temp (°F)	<194	<194	<194	<194	<194
Discharge Pressure (psi)	1.0	1.0	0.9	0.9	0.9
Barometric Pressure ("Hg)	29.99	29.99	29.99	29.99	30.03
Wellhead Vacuum ("WC)	13	13	13	14	13
Methane Analyzer	---	---	---	Removed	Removed
VOC's (ppm)					
SVE Influent	180	154	147	101	129
GAC A Effluent	0	0.9	0.8	0.0	4.1
GAC B Effluent	0	0.9	1.0	0.0	3.3
Background	0	0.8	1.6	0	0
VACUUM ("WC)					
PMB-1	5.30	5.40	5.40	5.40	5.50
PMB-2	1.20	1.30	1.35	1.20	1.70
PMB-3	0.040	0.035	0.055	0.045	0.065
GENERAL NOTES:					
Leaks Detected	No	No	No	No	No
Odors Detected	H <sub>2</sub> S at effluent ≈ 5 min.	No	No	No	No
Daily Precipitation	0	0	0	0	0.1
Fault Activated	No	No	No	No	No
Summa Canister Collected	No	YES (0.5 Hrs.)	No	YES (8.0 Hrs.)	YES (24.0 Hrs.)

WEEK OF SEPTEMBER 11, 1995

Monitoring Data for SVE System				
Landfill Area B				
Date:	9/11/95	9/12/95	9/13/95	9/14/95
Time:	0915	1330	*1500	1045
Blower Vacuum ("WC)	15	14	13	13
Influent Temp (°F)	<129	<129	<129	<129
Flow Rate (CFM)	>120	>120	>120	>120
Effluent Temp (°F)	<194	<194	<194	<194
Discharge Pressure (psi)	0.9	0.9	0.9	0.9
Barometric Pressure ("Hg)	30.28	30.22	29.98	29.90
Wellhead Vacuum ("WC)	16	16	16	16
Methane Analyzer	Removed	Removed	Reinstalled 0	0
VOC's (ppm)				
SVE Influent	180	45.4	85.7	81.9
GAC A Effluent	0.5	5.3	5.5	5.4
GAC B Effluent	0.9	5.5	2.6	4.5
Background	0	0	0.8	0
VACUUM ("WC)				
PMB-1	5.40	5.70	5.60	5.60
PMB-2	1.40	1.35	1.35	1.60
PMB-3	0.045	0.045	0.045	0.045
GENERAL NOTES:				
Leaks Detected	No	No	No	No
Odors Detected	No	No	No	No
Daily Precipitation	0	0	0	0
Fault Activated	YES (arist. one ~6 991.1 min)	No	No	No
Summa Canister Collected	No	No	No	(7 DAYS) YES

WEEK OF SEPTEMBER 18, 1995

Monitoring Data for SVE System				
Landfill Area B				
Date:	9/18/95	9/19/95	9/20/95	9/21/95
Time:	1045	1045	1045	1045
Blower Vacuum ("WC)	13	13	14	13
Influent Temp (°F)	<129	<129	<129	<129
Flow Rate (CFM)	>120	>120	>120	>120
Effluent Temp (°F)	<194	<194	<194	<194
Discharge Pressure (psi)	0.9	0.9	0.9	0.9
Barometric Pressure ("Hg)	30.02	30.23	30.15	30.04
Wellhead Vacuum ("WC)	16	16	16	16
Methane Analyzer	0	0	0	1
VOC's (ppm)				
SVE Influent	80.6	68.7	59.7	68.8
GAC A Effluent	4.1	4.8	4.7	4.2
GAC B Effluent	2.3	2.1	2.7	2.3
Background	0	0.5	0.1	0.6
VACUUM ("WC)				
PMB-1	5.60	5.70	5.70	5.70
PMB-2	1.35	1.35	1.35	1.35
PMB-3	0.075	0.055	0.075	0.000
GENERAL NOTES:				
Leaks Detected	NO	NO	NO	NO
Odors Detected	NO	NO	NO	NO
Daily Precipitation	0	0		
Fault Activated	YES X6gal No alarm	NO	NO	NO
Summa Canister Collected	NO	NO	NO	YES (14 DAYS)

WEEK OF SEPTEMBER 25, 1995

Monitoring Data for SVE System				
Landfill Area B				
Date:	9/25/95	9/26/95	9/27/95	9/28/95
Time:	1045	1100	1145	1045
Blower Vacuum ("WC)	14	14	13	13
Influent Temp (°F)	<129	<129	<129	<129
Flow Rate (CFM)	>120	>120	>120	>120
Effluent Temp (°F)	<194	<194	<194	<194
Discharge Pressure (psi)	0.9	0.9	1.1	1.1
Barometric Pressure ("Hg)	30.02	29.98	29.87	30.00
Wellhead Vacuum ("WC)	16	16	16	16
Methane Analyzer	1	1	3	2
VOC's (ppm)				
SVE Influent	88.6	76.4	85.0	68.5
GAC A Effluent	10.5	29.3	*4.4	4.4
GAC B Effluent	9.8	14.1	*4.1	1.9
Background	2.6	1.5	1.8	0.0
YACUUM ("WC)				
PMB-1	5.60	5.60	5.50	5.50
PMB-2	1.25	1.25	1.25	1.25
PMB-3	0.060	0	0.085	0.065
GENERAL NOTES:				
Leaks Detected	No	No	No	No
Odors Detected	No	No	No	No
Daily Precipitation	0	0	0	0
Fault Activated	YES - Moist. 0830	YES Moist. 0830	NO	YES Moist. 0830
Summa Canister Collected	No	No	No	YES 21 DAYS

\* Carbon Drums Changed 9/27/95 Before Readings Obtained

WEEK OF OCTOBER 2, 1995

Monitoring Data for SVE System						
Landfill Area B						
Date	10/2/95	10/3/95	10/4/95	10/5/95	10/6/95	10/7/95
Time:	1400	1045	1045	1045	1045	1045
Blower Vacuum ("WC)	13	14	13	14		
Influent Temp (°F)	<129	<129	<129	<129		
Flow Rate (CFM)	>120	>120	>120	>120		
Effluent Temp (°F)	<194	<194	<194	<194		
Discharge Pressure (psi)	1.1	1.1	1.1	1.1		
Barometric Pressure ("Hg)	29.86	30.05	29.84	30.01		
Wellhead Vacuum ("WC)	16	16	16	16		
Methane Analyzer	4	3	3	3		
VOC's (ppm)						
SVE Influent	89.9	67.1	72.2	71.5		
GAC A Effluent	6.0	4.2	6.9	11.7		
GAC B Effluent	4.3	1.5	4.3	8.4		
Background	0.0	0.0	1.2	1.9		
VACUUM ("WC)						
PMB-1	5.50	5.50	5.50	5.50		
PMB-2	1.30	1.25	1.25	1.25		
PMB-3	0.075	0.065	0	0		
GENERAL NOTES:						
Leaks Detected	No	No	No	No		
Odors Detected	No	No	No	No		
Daily Precipitation	0	0	0.6	0		
Fault Activated	YES 0930 Moist	NO	YES 0945 Moist	YES 0915 moist		
Summa Canister Collected	NO	NO	NO	YES 28 DAY		

WEEK OF October 9, 1995

Monitoring Data for SVE System				
Landfill Area B				
Date:	10/9/95	10/10/95	10/11/95	10/12/95
Time:	1045	1215	1045	1045
Blower Vacuum ("WC)	13	13	14	14
Influent Temp (°F)	<129	<129	<129	<129
Flow Rate (CFM)	>120	>120	>120	>120
Effluent Temp (°F)	<194	<194	<194	<194
Discharge Pressure (psi)	1.0	1.1	1.1	1.1
Barometric Pressure ("Hg)	30.12	30.15	30.08	30.15
Wellhead Vacuum ("WC)	16	16	16	16
Methane Analyzer	3	4	4	4
VOC's (ppm)				
SVE Influent	71.6	64.1	61.1	54.2
GAC A Effluent	12.1	16.5	13.6	16.9
GAC B Effluent	9.1	10.1	5.2	8.4
Background	1.3	0.0	0.6	0.0
VACUUM ("WC)				
PMB-1	5.50	5.50	5.50	5.50
PMB-2	1.26	1.35	1.35	1.35
PMB-3	0	0.075	0.105	0.100
GENERAL NOTES:				
Leaks Detected	NO	NO	NO	NO
Odors Detected	NO	NO	NO	NO
Daily Precipitation	3.2"	0	0	0
Fault Activated	YES moist.	YES moist.	NO	YES 9/15 moist.
Summa Canister Collected	NO	NO	NO	YES - 5 WEEKS

WEEK OF OCTOBER 16, 1995

Monitoring Data for SVE System				
Landfill Area B				
Date:	10/16/95	10/17/95	10/18/95	10/19/95
Time:	1130	1045	1045	1045
Blower Vacuum ("WC)	13	14	13	14
Influent Temp (°F)	<129	<129	<129	<129
Flow Rate (CFM)	>120	>120	>120	>120
Effluent Temp (°F)	<194	<194	<194	<194
Discharge Pressure (psi)	1.1	1.1	1.1	1.1
Barometric Pressure ("Hg)	29.67	30.15	30.12	30.15
Wellhead Vacuum ("WC)	16	16	16	16
Methane Analyzer	4	3	4	2
VOC's (ppm)				
SVE Influent	58.9	60.9	57.3	54.4
GAC A Effluent	13.7	15.8	19.1	20.1
GAC B Effluent	7.2	7.9	11.1	15.1
Background	1.1	0.7	0.5	0.8
VACUUM ("WC)				
PMB-1	5.50	5.50	5.50	5.50
PMB-2	1.35	1.35	1.35	1.35
PMB-3	0.065	0.075	0.075	0.075
GENERAL NOTES:				
Leaks Detected	No	No	No	No
Odors Detected	No	No	No	No
Daily Precipitation	0.4"	0	0	0
Fault Activated	YES 0715 Moist	YES 0715 Moist	YES 0730 Moist	YES 0700 Moist
Summa Canister Collected	No	No	No	6 WEEKS

WEEK OF OCTOBER 23, 1995

## Monitoring Data for SVE System

## Landfill Area B

Date:	10/23/95	10/24/95	10/25/95	10/26/95	10/27/95	10/28/95
Time:	1045	1000	0945	1130	1000	1000
Blower Vacuum ("WC)	14	14	14	14	14	14
Influent Temp (°F)	<129	<129	<129	<129	<129	<129
Flow Rate (CFM)	>120	>120	>120	>120	>120	>120
Effluent Temp (°F)	<194	<194	<194	<194	<194	<194
Discharge Pressure (psi)	1.1	1.1	1.1	1.1	1.1	1.1
Barometric Pressure ("Hg)	30.04	30.03	30.04	30.06	29.69	29.41
Wellhead Vacuum ("WC)	16	16	16	16	16	16
Methane Analyzer	4	4	3	4	3	4
YOC's (ppm)						
SVE Influent	50.4	53.4	50.7*	48.2*	47.2*	44.9
GAC A Effluent	17.6	26.8	29.7*	34.1*	46.5*	16.6
GAC B Effluent	14.2	22.5	22.9*	23.5*	45.3*	9.1
Background	0.6	1.5	0.8*	0.4*	0.2*	0.0
VACUUM ("WC)						
PMB-1	5.40	5.50	5.50	5.50	5.50	5.40
PMB-2	1.35	1.35	1.35	1.35	1.35	1.30
PMB-3	0	0.065	0.065	0.075	0.065	0.055
GENERAL NOTES:						
Leaks Detected	No	No	No	No	No	No
Odors Detected	No	No	No	No	No	No
Daily Precipitation	Accumulated 1.45	0	0.1	0	0	0.1
Fault Activated	YES 0715 Moist	No	No	YES 0715 Moist	YES 0645 Moist	YES 0650 Moist
Summa Canister Collected	No	No	No	YES 7 weeks	No	No

\* Readings taken with HAZCO PID while REWEI's sent back for servicing. (LAT)

WEEK OF OCTOBER 30, 1995

Monitoring Data for SVE System				
Landfill Area B				
Date:	10/30/95	10/31/95	11/1/95	11/2/95
Time:	1015	0955	1030	0915
Blower Vacuum ("WC)	14	14	14	14
Influent Temp (°F)	<129	<129	<129	<129
Flow Rate (CFM)	>120	>120	>120	>120
Effluent Temp (°F)	<194	<194	<194	<194
Discharge Pressure (psi)	1.1	1.1	1.1	1.1
Barometric Pressure ("Hg)	30.11	30.29	30.31	30.08
Wellhead Vacuum ("WC)	16	16	16	16
Methane Analyzer	5	3	3	4
VOC's (ppm)				
SVE Influent	49.2	40.8	39.5	45.3
GAC A Effluent	20.6	19.5	17.4	28.4
GAC B Effluent	11.7	14.3	12.4	19.5
Background	0.2	0.0	0.0	0.0
VACUUM ("WC)				
PMB-1	5.40	5.40	5.30	5.30
PMB-2	1.25	1.25	1.25	1.25
PMB-3	0.045	0.065	0.075	0.065
GENERAL NOTES:				
Leaks Detected	No	No	No	No
Odors Detected	No	No	No	No
Daily Precipitation	0.2	0	0.05	0.4
Fault Activated	YES 0650 Moist.	YES 0700 Moist.	YES 0745 Moist.	YES 0700 Moist.
Summa Canister Collected	No	No	No	YES 8 WEEKS

WEEK OF NOVEMBER 6, 1995

Monitoring Data for SVE System				
Landfill Area B				
Date:	11/6/95	11/7/95	11/8/95	11/9/95
Time:	1030	1045	1045	1000
Blower Vacuum ("WC)	14	14	14	14
Influent Temp (°F)	<129	<129	<129	<129
Flow Rate (CFM)	>120	>120	>120	>120
Effluent Temp (°F)	<194	<194	<194	<194
Discharge Pressure (psi)	1.1	1.1	1.1	1.1
Barometric Pressure ("Hg)	30.20	29.91	29.67	29.77
Wellhead Vacuum ("WC)	16	16	16	16
Methane Analyzer	4	4	3	3
VOC's (ppm)				
SVE Influent	49.1	46.0	39.7	35.2
GAC A Effluent	17.9	17.3	13.5	11.2
GAC B Effluent	9.1	10.1	5.7	4.1
Background	0.0	0.0	0.1	0.5
VACUUM ("WC)				
PMB-1	5.40	5.30	5.40	5.30
PMB-2	1.25	1.20	1.25	0.0
PMB-3	0.055	0.0	0.065	0.0
GENERAL NOTES:				
Leaks Detected	No	No	No	No
Odors Detected	No	No	No	No
Daily Precipitation	0	0.4	0	0
Fault Activated	YES 0700 Moist.	YES 0730 Moist.	YES 0730 Moist.	YES 0700 Moist.
Summa Canister Collected	No	No	No	9 WEEKS
ADDITIONAL FAULT ACTIVATED	No	1045 METHANE	No	9 WEEKS

WEEK OF NOVEMBER 13, 1995

## Monitoring Data for SVE System

## Landfill Area B

Date:	11/13/95				
Time:	0700				
Blower Vacuum ("WC)	*				
Influent Temp (°F)	*				
Flow Rate (CFM)	*				
Effluent Temp (°F)	*				
Discharge Pressure (psi)	*				
Barometric Pressure ("Hg)	*				
Wellhead Vacuum ("WC)	*				
Methane Analyzer	*				
VOC's (ppm)					
SVE Influent	*				
GAC A Effluent	*				
GAC B Effluent	*				
Background	*				
VACUUM ("WC)					
PMB-1	*				
PMB-2	*				
PMB-3	*				
GENERAL NOTES:					
Leaks Detected	*				
Odors Detected	*				
Daily Precipitation	*				
Fault Activated	YES 0700 MOIST				
Summa Canister Collected	NO				

\* LANDFILL B'S SVE SYSTEM WAS DOWN AT 0700 ON MONDAY, NOV. 13, 1995 BECAUSE OF MOISTURE FAULT ACTIVATION. THE SYSTEM WAS LEFT DOWN AND WILL REMAIN SHUT DOWN FOR A TWO WEEK PERIOD. THE WATER WAS REMOVED AND A SMALL HEATER WAS TURNED ON INSIDE THE SYSTEM (TRAILER) L.A.T.

APPENDIX

D

## **APPENDIX D**

### **Extraction Well Soil Vapor Laboratory Reports**

**r.e. wright environmental, inc.**



Performance Analytical Inc.

Air Quality Laboratory

OCT 09 1995

REVIEWED  
LABORATORY REPORT

Client: R.E. WRIGHT ENVIRONMENTAL, INC. Date of Report: 09/28/95  
Address: 3240 Schoolhouse Road Date Received: 09/15/95  
Middletown, PA 17057 PAI Project No: P95-8830  
Contact: Mr. Larry DeFluri Purchase Order: Verbal  
Client Project ID: Landfill B #95287

---

Four (4) Stainless Steel Summa Canisters labeled:

"SVE-0.5 Hrs" "SVE-8.0 Hrs" "SVE-24.0 Hrs" "SVE-7 Days (168 Hrs)"

---

The samples were received at the laboratory under chain of custody on September 15, 1995. The samples were received intact. The dates of analyses are indicated on the attached data sheets.

Volatile Organic Compound Analysis

The samples were analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5989 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Chris Parnell  
Senior Chemist

Reviewed and Approved:

Christopher Casteel  
Manager of Technical Operations



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14                      Date Sampled : N/A  
Analyst : Chris Casteel                      Date Received : N/A  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 9/24/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by: RC

Date: 9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code :	GC/MS EPA TO-14	Date Sampled :	N/A
Analyst :	Chris Casteel	Date Received :	N/A
Instrument :	HP 5989A/Entech 7000	Date Analyzed :	9/24/95
Matrix :	Summa Canister	Volume(s) Analyzed :	1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC-

Date : 9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 9/26/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 9/26/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RCA

Date : 9/26/95



Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

**Client : R. E. Wright Environmental, Inc.**

**Client Sample ID : SVE-0.5 HRS**  
**PAI Sample ID : 9504787**

Test Code : GC/MS EPA TO-14  
Analyst : Chris Casteel  
Instrument : HP 5989A/Entech 7000  
Matrix : Summa Canister

Date Sampled : 9/7/95  
Date Received : 9/15/95  
Date Analyzed : 9/24/95 ; 9/26/95  
Volume(s) Analyzed : 0.020 Liter(s)  
                       0.0005 Liter(s)

Pi 1 = -0.2

Pf 1 = 3.0

$$D_F = 1.22$$

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	50	ND	24
75-01-4	Vinyl Chloride	10,000	50	4,000	20
75-00-3	Chloroethane	ND	50	ND	19
74-83-9	Bromomethane	ND	50	ND	13
67-64-1	Acetone	ND	50	ND	21
75-69-4	Trichlorofluoromethane	1,100	50	200	9.0
75-35-4	1,1-Dichloroethene	1,500	50	370	13
75-09-2	Methylene chloride	240	50	71	15
75-15-0	Carbon Disulfide	2,200	50	720	16
76-13-1	Trichlorotrifluoroethane	ND	50	ND	6.6
156-60-5	trans-1,2-Dichloroethene	1,600	50	410	13
156-59-2	cis-1,2-Dichloroethene	130,000	50	33,000	13
75-34-3	1,1-Dichloroethane	4,500	50	1,100	12
1634-04-4	Methyl tert-Butyl Ether	ND	50	ND	14
108-05-4	Vinyl Acetate	ND	50	ND	14
78-93-3	2-Butanone	56	50	19	17
67-66-3	Chloroform	5,600	50	1,200	10
107-06-2	1,2-Dichloroethane	ND	50	ND	12
71-55-6	1,1,1-Trichloroethane	770	50	140	9.3
71-43-2	Benzene	170	50	55	16
56-23-5	Carbon Tetrachloride	3,200	50	520	8.0
78-87-5	1,2-Dichloropropane	ND	50	ND	11

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RGT

Date : 9/28/95



## Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

**Client : R. E. Wright Environmental, Inc.**

**Client Sample ID : SVE-0.5 HRS**  
**PAI Sample ID : 9504787**

Test Code : GC/MS EPA TO-14  
Analyst : Chris Casteel  
Instrument : HP 5989A/Entech 7000  
Matrix : Summa Canister

Date Sampled : 9/7/95  
Date Received : 9/15/95  
Date Analyzed : 9/24/95 ; 9/26/95  
Volume(s) Analyzed : 0.020 Liter(s)  
                       0.0005 Liter(s)

Pi 1 = -0.2

Pf 1 = 3.0

D.F. = 1.22

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	50	ND	7.5
79-01-6	Trichloroethene	36,000	50	6,700	9.4
10061-01-5	cis-1,3-Dichloropropene	ND	50	ND	11
108-10-1	4-Methyl-2-pentanone	ND	50	ND	12
10061-02-6	trans-1,3-Dichloropropene	ND	50	ND	11
79-00-5	1,1,2-Trichloroethane	ND	50	ND	9.3
108-88-3	Toluene	190	50	49	13
124-48-1	Dibromochloromethane	ND	50	ND	5.9
591-78-6	2-Hexanone	ND	50	ND	12
106-93-4	1,2-Dibromoethane	ND	50	ND	6.6
127-18-4	Tetrachloroethene	210,000	50	31,000	7.5
108-90-7	Chlorobenzene	ND	50	ND	11
100-41-4	Ethylbenzene	4,500	50	1,000	12
75-25-2	Bromoform	ND	50	ND	4.9
100-42-5	Styrene	ND	50	ND	12
1330-20-7	m,p-Xylenes	2,800	50	650	12
95-47-6	o-Xylene	540	50	120	12
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	ND	7.4
541-73-1	1,3-Dichlorobenzene	ND	50	ND	8.4
106-46-7	1,4-Dichlorobenzene	ND	50	ND	8.4
95-50-1	1,2-Dichlorobenzene	ND	50	ND	8.4

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-8 HRS  
PAI Sample ID : 9504788

Test Code : GC/MS EPA TO-14                      Date Sampled : 9/7/95  
Analyst : Chris Casteel                      Date Received : 9/15/95  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 9/24/95 ; 9/27/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 0.020 Liter(s)  
    0.0005 Liter(s)

Pi 1 = 0.3

Pf 1 = 3.0

D.F. = 1.18

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	50	ND	24
75-01-4	Vinyl Chloride	6,100	50	2,400	20
75-00-3	Chloroethane	ND	50	ND	19
74-83-9	Bromomethane	ND	50	ND	13
67-64-1	Acetone	570	50	240	21
75-69-4	Trichlorofluoromethane	720	50	130	9.0
75-35-4	1,1-Dichloroethene	1,000	50	260	13
75-09-2	Methylene chloride	160	50	47	15
75-15-0	Carbon Disulfide	3,400	50	1,100	16
76-13-1	Trichlorotrifluoroethane	ND	50	ND	6.6
156-60-5	trans-1,2-Dichloroethene	960	50	250	13
156-59-2	cis-1,2-Dichloroethene	90,000	50	23,000	13
75-34-3	1,1-Dichloroethane	2,900	50	730	12
1634-04-4	Methyl tert-Butyl Ether	ND	50	ND	14
108-05-4	Vinyl Acetate	ND	50	ND	14
78-93-3	2-Butanone	120	50	42	17
67-66-3	Chloroform	4,100	50	840	10
107-06-2	1,2-Dichloroethane	ND	50	ND	12
71-55-6	1,1,1-Trichloroethane	690	50	130	9.3
71-43-2	Benzene	140	50	44	16
56-23-5	Carbon Tetrachloride	2,900	50	470	8.0
78-87-5	1,2-Dichloropropane	ND	50	ND	11

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-8 HRS  
PAI Sample ID : 9504788

Test Code : GC/MS EPA TO-14                      Date Sampled : 9/7/95  
Analyst : Chris Casteel                      Date Received : 9/15/95  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 9/24/95 ; 9/27/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 0.020 Liter(s)  
    0.0005 Liter(s)

Pi 1 = 0.3    D.F. = 1.18  
Pf 1 = 3.0

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	50	ND	7.5
79-01-6	Trichloroethene	23,000	50	4,400	9.4
10061-01-5	cis-1,3-Dichloropropene	ND	50	ND	11
108-10-1	4-Methyl-2-pentanone	ND	50	ND	12
10061-02-6	trans-1,3-Dichloropropene	ND	50	ND	11
79-00-5	1,1,2-Trichloroethane	ND	50	ND	9.3
108-88-3	Toluene	150	50	39	13
124-48-1	Dibromochloromethane	ND	50	ND	5.9
591-78-6	2-Hexanone	ND	50	ND	12
106-93-4	1,2-Dibromoethane	ND	50	ND	6.6
127-18-4	Tetrachloroethene	160,000	50	23,000	7.5
108-90-7	Chlorobenzene	ND	50	ND	11
100-41-4	Ethylbenzene	3,100	50	710	12
75-25-2	Bromoform	ND	50	ND	4.9
100-42-5	Styrene	ND	50	ND	12
1330-20-7	m,p-Xylenes	2,200	50	500	12
95-47-6	o-Xylene	470	50	110	12
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	ND	7.4
541-73-1	1,3-Dichlorobenzene	ND	50	ND	8.4
106-46-7	1,4-Dichlorobenzene	ND	50	ND	8.4
95-50-1	1,2-Dichlorobenzene	ND	50	ND	8.4

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-24 HRS  
PAI Sample ID : 9504789

Test Code : GC/MS EPA TO-14                      Date Sampled : 9/8/95  
Analyst : Chris Casteel                      Date Received : 9/15/95  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 9/24/95 ; 9/26/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 0.020 Liter(s)  
    0.0010 Liter(s)

Pi 1 = 0.1

Pf 1 = 3.0

D.F. = 1.20

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	50	ND	24
75-01-4	Vinyl Chloride	4,200	50	1,600	20
75-00-3	Chloroethane	ND	50	ND	19
74-83-9	Bromomethane	ND	50	ND	13
67-64-1	Acetone	600	50	250	21
75-69-4	Trichlorofluoromethane	450	50	80	9.0
75-35-4	1,1-Dichloroethene	780	50	200	13
75-09-2	Methylene chloride	140	50	41	15
75-15-0	Carbon Disulfide	3,800	50	1,200	16
76-13-1	Trichlorotrifluoroethane	ND	50	ND	6.6
156-60-5	trans-1,2-Dichloroethene	690	50	180	13
156-59-2	cis-1,2-Dichloroethene	54,000	50	14,000	13
75-34-3	1,1-Dichloroethane	2,300	50	580	12
1634-04-4	Methyl tert-Butyl Ether	ND	50	ND	14
108-05-4	Vinyl Acetate	ND	50	ND	14
78-93-3	2-Butanone	140	50	47	17
67-66-3	Chloroform	3,700	50	760	10
107-06-2	1,2-Dichloroethane	ND	50	ND	12
71-55-6	1,1,1-Trichloroethane	610	50	110	9.3
71-43-2	Benzene	130	50	40	16
56-23-5	Carbon Tetrachloride	3,000	50	490	8.0
78-87-5	1,2-Dichloropropane	ND	50	ND	11

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 9/28/95



Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

**Client : R. E. Wright Environmental, Inc.**

**Client Sample ID : SVE-24 HRS**  
**PAI Sample ID : 9504789**

Pi 1 = 0.1

Pf 1 = 3.0

D.F. = 1.20

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	50	ND	7.5
79-01-6	Trichloroethene	15,000	50	2,800	9.4
10061-01-5	cis-1,3-Dichloropropene	ND	50	ND	11
108-10-1	4-Methyl-2-pentanone	ND	50	ND	12
10061-02-6	trans-1,3-Dichloropropene	ND	50	ND	11
79-00-5	.1,1,2-Trichloroethane	ND	50	ND	9.3
108-88-3	Toluene	130	50	36	13
124-48-1	Dibromochloromethane	ND	50	ND	5.9
591-78-6	2-Hexanone	ND	50	ND	12
106-93-4	1,2-Dibromoethane	ND	50	ND	6.6
127-18-4	Tetrachloroethene	110,000	50	16,000	7.5
108-90-7	Chlorobenzene	ND	50	ND	11
100-41-4	Ethylbenzene	2,200	50	520	12
75-25-2	Bromoform	ND	50	ND	4.9
100-42-5	Styrene	ND	50	ND	12
1330-20-7	m,p-Xylenes	1,900	50	430	12
95-47-6	o-Xylene	430	50	99	12
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	ND	7.4
541-73-1	1,3-Dichlorobenzene	ND	50	ND	8.4
106-46-7	1,4-Dichlorobenzene	ND	50	ND	8.4
95-50-1	1,2-Dichlorobenzene	ND	50	ND	8.4

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RGT

Date : 9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-7 Days (168 HRS)  
PAI Sample ID : 9504790

Test Code : GC/MS EPA TO-14                      Date Sampled : 9/14/95  
Analyst : Chris Casteel                      Date Received : 9/15/95  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 9/24/95 ;9/26/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 0.020 Liter(s)  
    0.0010 Liter(s)

Pi 1 = 0.0

Pf 1 = 3.0

D.F. = 1.20

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	50	ND	24
75-01-4	Vinyl Chloride	1,700	50	680	20
75-00-3	Chloroethane	ND	50	ND	19
74-83-9	Bromomethane	ND	50	ND	13
67-64-1	Acetone	340	50	140	21
75-69-4	Trichlorofluoromethane	210	50	38	9.0
75-35-4	1,1-Dichloroethene	450	50	120	13
75-09-2	Methylene chloride	120	50	34	15
75-15-0	Carbon Disulfide	5,200	50	1,700	16
76-13-1	Trichlorotrifluoroethane	ND	50	ND	6.6
156-60-5	trans-1,2-Dichloroethene	480	50	120	13
156-59-2	cis-1,2-Dichloroethene	32,000	50	8,300	13
75-34-3	1,1-Dichloroethane	1,300	50	330	12
1634-04-4	Methyl tert-Butyl Ether	ND	50	ND	14
108-05-4	Vinyl Acetate	ND	50	ND	14
78-93-3	2-Butanone	71	50	24	17
67-66-3	Chloroform	2,800	50	590	10
107-06-2	1,2-Dichloroethane	ND	50	ND	12
71-55-6	1,1,1-Trichloroethane	470	50	87	9.3
71-43-2	Benzene	110	50	35	16
56-23-5	Carbon Tetrachloride	4,800	50	770	8.0
78-87-5	1,2-Dichloropropane	ND	50	ND	11

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RCF

Date : 9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-7 Days (168 HRS)  
PAI Sample ID : 9504790

Test Code :	GC/MS EPA TO-14	Date Sampled :	9/14/95
Analyst :	Chris Casteel	Date Received :	9/15/95
Instrument :	HP 5989A/Entech 7000	Date Analyzed :	9/24/95 ; 9/26/95
Matrix :	Summa Canister	Volume(s) Analyzed :	0.020 Liter(s) 0.0010 Liter(s)

Pi 1 = 0.0

Pf 1 = 3.0

D.F. = 1.20

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	50	ND	7.5
79-01-6	Trichloroethene	9,000	50	1,700	9.4
10061-01-5	cis-1,3-Dichloropropene	ND	50	ND	11
108-10-1	4-Methyl-2-pentanone	ND	50	ND	12
10061-02-6	trans-1,3-Dichloropropene	ND	50	ND	11
79-00-5	1,1,2-Trichloroethane	ND	50	ND	9.3
108-88-3	Toluene	150	50	39	13
124-48-1	Dibromochloromethane	ND	50	ND	5.9
591-78-6	2-Hexanone	ND	50	ND	12
106-93-4	1,2-Dibromoethane	ND	50	ND	6.6
127-18-4	Tetrachloroethene	73,000	50	11,000	7.5
108-90-7	Chlorobenzene	ND	50	ND	11
100-41-4	Ethylbenzene	1,200	50	280	12
75-25-2	Bromoform	ND	50	ND	4.9
100-42-5	Styrene	ND	50	ND	12
1330-20-7	m,p-Xylenes	1,400	50	330	12
95-47-6	o-Xylene	380	50	89	12
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	ND	7.4
541-73-1	1,3-Dichlorobenzene	ND	50	ND	8.4
106-46-7	1,4-Dichlorobenzene	ND	50	ND	8.4
95-50-1	1,2-Dichlorobenzene	ND	50	ND	8.4

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 9/28/95



# Performance Analytical Inc.

Environmental Testing and Consulting

20954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709-2915

## Chain of Custody Record Analytical Services Request

Client/Project Name <i>SMC - Niagara Falls</i>		Address/Phone <i>3240 Schoolhouse Rd 717-944-5501 Middletown, PA 17057</i>		ANALYSES		PAI Project No. <i>P958830</i>		
Project Location <i>Landfill B</i>		Client Project No. <i>95287</i>						
Contact <i>Larry J. De Fluri</i>	Sampler (Signature) <i>Peter Cognetti</i>		P.O. No. <i>1014</i>					
Sample Identification No.	Date	Time	Lab Sample No.	Type of Sample			Expected Turnaround Time	Remarks
SVE- 0.5 Hrs	9-7-95	1045	9504787	Soil Gas	X		STD. TAT	177
SVE- 8.0 HRS	9-7-95	1845	9504788	Soil Gas	X		STD	191
SVE- 24.0 HRS	9-8-95	1045	9504789	Soil Gas	X		STD	468
SVE- 7 Days (168 HRS)	9-14-95	1045	9504790	Soil Gas	X		STD	20
<p><i>NOTE: Original laboratory report to be sent to Mr. Larry De Fluri, R.E. Wright Environmental, Inc., 3240 Schoolhouse Road, Middletown, PA 17057, Telephone No. (717) 944-5501</i></p> <p><i>Copy of Report Should be Sent to Ms. Carol Dickerson, Zeneca, Inc., Concord <del>PLAZA</del>, PLAZA, Hanby Bldg., Wilmington, DE 19897, Telephone No. (302) 886-5123</i></p>								
Relinquished by: (Signature) <i>Lee A. Thomas</i>	Date <i>9-14-95</i>	Time <i>1130</i>	Received by: (Signature) <i>Robert H. Stur</i>	Date <i>9/15/95</i>	Time <i>9:00 A.M.</i>			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time			
Disposal Method			White Copy : Accompanies Samples Yellow Copy : Sampler					
Disposed by: (Signature)	Date	Time						



Performance Analytical Inc.

Air Quality Laboratory

OCT 03 1995

LABORATORY REPORT

REV

Client: R.E. WRIGHT ENVIRONMENTAL, INC. Date of Report: 09/29/95  
Address: 3240 Schoolhouse Road Date Received: 09/22/95  
Middletown, PA 17057 PAI Project No: P95-8863  
Contact: Mr. Larry DeFluri Purchase Order: Verbal  
Client Project ID: Landfill B #95287

---

One (1) Stainless Steel Summa Canister labeled: "SVE-14 Days"

---

The sample was received at the laboratory under chain of custody on September 22, 1995. The sample was received intact. The dates of analyses are indicated on the attached data sheets.

Volatile Organic Compound Analysis

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5989 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x-1</sub>, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Chris Parnell  
Senior Chemist

Reviewed and Approved:

Christopher Casteel  
Manager of Technical Operations



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 9/24/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

Date : 9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 9/24/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : S.E.S.

Date : 9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14      Date Sampled : N/A  
Analyst : Chris Casteel      Date Received : N/A  
Instrument : HP 5989A/Entech 7000      Date Analyzed : 9/26/95  
Matrix : Summa Canister      Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

Date :

9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14                      Date Sampled : N/A  
Analyst : Chris Casteel                      Date Received : N/A  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 9/26/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0  
Pf 1 = 0.0                      D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

Date :

9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-14 Days  
PAI Sample ID : 9504893

Test Code : GC/MS EPA TO-14                      Date Sampled : 9/21/95  
Analyst : Chris Casteel                      Date Received : 9/22/95  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 9/24/95 ; 9/27/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 0.020 Liter(s)  
    0.0010 Liter(s)

Pi 1 = 0.0

Pf 1 = 3.0

D.F. = 1.20

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	50	ND	24
75-01-4	Vinyl Chloride	1,200	50	490	20
75-00-3	Chloroethane	ND	50	ND	19
74-83-9	Bromomethane	ND	50	ND	13
67-64-1	Acetone	310	50	130	21
75-69-4	Trichlorofluoromethane	190	50	34	9.0
75-35-4	1,1-Dichloroethene	410	50	100	13
75-09-2	Methylene chloride	140	50	42	15
75-15-0	Carbon Disulfide	8,900	50	2,900	16
76-13-1	Trichlorotrifluoroethane	ND	50	ND	6.6
156-60-5	trans-1,2-Dichloroethene	490	50	120	13
156-59-2	cis-1,2-Dichloroethene	25,000	50	6,400	13
75-34-3	1,1-Dichloroethane	1,200	50	300	12
1634-04-4	Methyl tert-Butyl Ether	ND	50	ND	14
108-05-4	Vinyl Acetate	ND	50	ND	14
78-93-3	2-Butanone	ND	50	ND	17
67-66-3	Chloroform	3,100	50	640	10
107-06-2	1,2-Dichloroethane	ND	50	ND	12
71-55-6	1,1,1-Trichloroethane	490	50	91	9.3
71-43-2	Benzene	140	50	44	16
56-23-5	Carbon Tetrachloride	6,900	50	1,100	8.0
78-87-5	1,2-Dichloropropane	ND	50	ND	11

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

SLB

Date :

9/28/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-14 Days  
PAI Sample ID : 9504893

Test Code : GC/MS EPA TO-14                          Date Sampled : 9/21/95  
Analyst : Chris Casteel                          Date Received : 9/22/95  
Instrument : HP 5989A/Entech 7000                          Date Analyzed : 9/24/95 ; 9/27/95  
Matrix : Summa Canister                          Volume(s) Analyzed : 0.020 Liter(s)  
    0.0010 Liter(s)

Pi 1 = 0.0

Pf 1 = 3.0

D.F. = 1.20

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	50	ND	7.5
79-01-6	Trichloroethene	7,600	50	1,400	9.4
10061-01-5	cis-1,3-Dichloropropene	ND	50	ND	11
108-10-1	4-Methyl-2-pentanone	ND	50	ND	12
10061-02-6	trans-1,3-Dichloropropene	ND	50	ND	11
79-00-5	1,1,2-Trichloroethane	ND	50	ND	9.3
108-88-3	Toluene	190	50	50	13
124-48-1	Dibromochloromethane	ND	50	ND	5.9
591-78-6	2-Hexanone	ND	50	ND	12
106-93-4	1,2-Dibromoethane	ND	50	ND	6.6
127-18-4	Tetrachloroethene	67,000	50	10,000	7.5
108-90-7	Chlorobenzene	ND	50	ND	11
100-41-4	Ethylbenzene	1,100	50	240	12
75-25-2	Bromoform	ND	50	ND	4.9
100-42-5	Styrene	ND	50	ND	12
1330-20-7	m,p-Xylenes	1,500	50	340	12
95-47-6	o-Xylene	410	50	94	12
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	ND	7.4
541-73-1	1,3-Dichlorobenzene	ND	50	ND	8.4
106-46-7	1,4-Dichlorobenzene	ND	50	ND	8.4
95-50-1	1,2-Dichlorobenzene	ND	50	ND	8.4

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RLS

Date : 9/28/95



# Performance Analytical Inc.

Environmental Testing and Consulting

20954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709-2915

## Chain of Custody Record Analytical Services Request

Client/Project Name <b>SMC - NIAGARA FALLS</b>		Address/Phone <b>3240 Schoolhouse Road, Middletown, PA 17057</b>		ANALYSES		PAI Project No. <b>P95-8863</b>		
Project Location <b>Landfill B</b>		Client Project No. <b>95287</b>						
Contact <b>Larry J. De Fluri</b>	Sampler (Signature) <b>Lee A. Thomas</b>		P.O. No. <b>1045</b>					
Sample Identification No.	Date	Time	Lab Sample No.	Type of Sample	1045	1045	Expected Turnaround Time	Remarks
SVC - 14 DAYS:	9/21/95	1045	9504893	Soil Gas			Std. Time	49
<p><b>Notes:</b> ① Original lab report to be sent to Mr. Larry De Fluri, R.E. Wright Environmental, Inc., 3240 Schoolhouse Road, Middletown, PA 17057, Telephone No. (717) 944-5501.</p> <p>② Copy of Report Should be sent to Ms. Carol Dickerson, Zeneca Inc Concord Plaza, Hanley Bldg., Wilmington, DE 19897, Telephone No. (302) 886-5123.</p>								
Relinquished by: (Signature) <b>Lee A. Thomas</b>		Date <b>9-21-95</b>	Time <b>1250</b>	Received by: (Signature) <b>Tobert De Lut</b>		Date <b>9/22/95</b>	Time <b>9:00 AM</b>	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	
Disposal Method				White Copy : Accompanies Samples Yellow Copy : Sampler				
Disposed by: (Signature)		Date	Time					



Performance Analytical Inc.  
Air Quality Laboratory

OCT 26 1995  
FBI - LOS ANGELES

LABORATORY REPORT

Client: R.E. WRIGHT ENVIRONMENTAL, INC. Date of Report: 10/04/95  
Address: 3240 Schoolhouse Road Date Received: 09/29/95  
Middletown, PA 17057 PAI Project No: P95-8896  
Contact: Mr. Larry DeFluri Purchase Order: Verbal  
Client Project ID: Landfill B #95287

---

One (1) Stainless Steel Summa Canister labeled: "SVE-21 Days"

---

The sample was received at the laboratory under chain of custody on September 29, 1995. The sample was received intact. The dates of analyses are indicated on the attached data sheets.

Volatile Organic Compound Analysis

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5989 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Christopher Casteel  
Manager of Technical Operations

Reviewed and Approved:

Michael Tudy  
Laboratory Director



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 10/3/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 10/4/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A

PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14

Date Sampled : N/A

Analyst : Chris Casteel

Date Received : N/A

Instrument : HP 5989A/Entech 7000

Date Analyzed : 10/3/95

Matrix : Summa Canister

Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 10/4/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE - 21 Days

PAI Sample ID : 9504984

Test Code : GC/MS EPA TO-14

Date Sampled : 9/28/95

Analyst : Chris Casteel

Date Received : 9/29/95

Instrument : HP 5989A/Entech 7000

Date Analyzed : 10/3/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.001 Liter(s)

Pi 1 = 0.2

Pf 1 = 2.5

D.F. = 1.15

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1,000	ND	150
79-01-6	Trichloroethene	8,000	1,000	1,500	190
10061-01-5	cis-1,3-Dichloropropene	ND	1,000	ND	220
108-10-1	4-Methyl-2-pentanone	ND	1,000	ND	240
10061-02-6	trans-1,3-Dichloropropene	ND	1,000	ND	220
79-00-5	1,1,2-Trichloroethane	ND	1,000	ND	190
108-88-3	Toluene	520 TR	1,000	140 TR	270
124-48-1	Dibromochloromethane	ND	1,000	ND	120
591-78-6	2-Hexanone	ND	1,000	ND	240
106-93-4	1,2-Dibromoethane	ND	1,000	ND	130
127-18-4	Tetrachloroethene	63,000	1,000	9,400	150
108-90-7	Chlorobenzene	ND	1,000	ND	220
100-41-4	Ethylbenzene	580 TR	1,000	130 TR	230
75-25-2	Bromoform	ND	1,000	ND	98
100-42-5	Styrene	ND	1,000	ND	240
1330-20-7	m,p-Xylenes	840 TR	1,000	190 TR	230
95-47-6	o-Xylene	ND	1,000	ND	230
79-34-5	1,1,2,2-Tetrachloroethane	ND	1,000	ND	150
541-73-1	1,3-Dichlorobenzene	ND	1,000	ND	170
106-46-7	1,4-Dichlorobenzene	ND	1,000	ND	170
95-50-1	1,2-Dichlorobenzene	ND	1,000	ND	170

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 10/4/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE - 21 Days  
PAI Sample ID : 9504984

Test Code : GC/MS EPA TO-14                      Date Sampled : 9/28/95  
Analyst : Chris Casteel                      Date Received : 9/29/95  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 10/3/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 0.001 Liter(s)

Pi 1 = 0.2

Pf 1 = 2.5

D.F. = 1.15

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1,000	ND	490
75-01-4	Vinyl Chloride	1,600	1,000	630	390
75-00-3	Chloroethane	ND	1,000	ND	380
74-83-9	Bromomethane	ND	1,000	ND	260
67-64-1	Acetone	ND	1,000	ND	420
75-69-4	Trichlorofluoromethane	ND	1,000	ND	180
75-35-4	1,1-Dichloroethene	ND	1,000	ND	250
75-09-2	Methylene chloride	ND	1,000	ND	290
75-15-0	Carbon Disulfide	6,900	1,000	2,200	320
76-13-1	Trichlorotrifluoroethane	ND	1,000	ND	130
156-60-5	trans-1,2-Dichloroethene	ND	1,000	ND	250
156-59-2	cis-1,2-Dichloroethene	21,000	1,000	5,300	250
75-34-3	1,1-Dichloroethane	1,100	1,000	270	250
1634-04-4	Methyl tert-Butyl Ether	ND	1,000	ND	280
108-05-4	Vinyl Acetate	ND	1,000	ND	280
78-93-3	2-Butanone	ND	1,000	ND	340
67-66-3	Chloroform	2,900	1,000	600	210
107-06-2	1,2-Dichloroethane	ND	1,000	ND	250
71-55-6	1,1,1-Trichloroethane	ND	1,000	ND	190
71-43-2	Benzene	ND	1,000	ND	310
56-23-5	Carbon Tetrachloride	4,900	1,000	790	160
78-87-5	1,2-Dichloropropane	ND	1,000	ND	220

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 10/4/95



**Performance Analytical Inc.**  
Environmental Testing and Consulting

20954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709-2915

**Chain of Custody Record**  
**Analytical Services Request**

Client/Project Name <b>SMC - NIAGARA FALLS</b>		Address/Phone (717) 944-5501 3240 Schoolhouse Road Middletown, PA 17057		ANALYSES		PAI Project No. <b>P958896</b>	
Project Location <b>LANDFILL B</b>		Client Project No. <b>95287</b>					
Contact <b>Larry J. DeFlux</b>	Sampler (Signature) <b>Lee A. Thomas</b>		P.O. No.	<b>F-014</b>			
Sample Identification No.	Date	Time	Lab Sample No.	Type of Sample		Expected Turnaround Time	Remarks
SVE - 21 DAYS	9/28/95	1045	9504984	Soil Gas	X	Std. Time	11
Notes &							
<p>(1) Original lab report to be sent to Mr. Larry DeFlux, R.E. Wright Environmental, Inc. 3240 Schoolhouse Road, Middletown, PA 17057, Telephone No. (717) 944-5501.</p> <p>(2) Copy of report should be sent to Ms Carol Dickerson, Zenerca, Inc., Concord Plaza, Hanby Bldg, Wilmington, DE 19897, Telephone No. (302) 886-5123.</p>							
Relinquished by: (Signature) <b>Lee A. Thomas</b>		Date 9-28-95	Time 1158	Received by: (Signature) <b>Patricia J. DeFlux</b>	Date 9/29/95	Time 9:00 AM	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time	
Disposal Method				White Copy : Accompanies Samples Yellow Copy : Sampler			
Disposed by: (Signature)		Date	Time				



**Performance Analytical Inc.**  
Air Quality Laboratory

**LABORATORY REPORT**

Client: **R.E. WRIGHT ENVIRONMENTAL, INC.** Date of Report: **10/18/95**  
Address: **3240 Schoolhouse Road** Date Received: **10/06/95**  
**Middletown, PA 17057** PAI Project No: **P95-8930**  
Contact: **Mr. Larry DeFluri** Purchase Order: **Verbal**  
Client Project ID: **Landfill B**

---

One (1) Stainless Steel Summa Canister labeled: **"SVE-28 Days"**

---

The sample was received at the laboratory under chain of custody on October 6, 1995. The sample was received intact. The dates of analyses are indicated on the attached data sheets.

**Volatile Organic Compound Analysis**

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Finnigan Model 4500 GC/MS/DS interfaced to a Tekmar 5010 Automatic Desorber. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Kathleen Aguilera  
Analytical Chemist

Reviewed and Approved:

Michael Tuday  
Laboratory Director



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : N/A

PAI Sample ID : PAI Method Blank

Test Code : GC/MS EPA TO-14

Date Sampled : N/A

Analyst : Kathleen Aguilera

Date Received : N/A

Instrument : Finnigan 4500C/Tekmar 5010

Date Analyzed : 10/10/95

Matrix : Summa Canister

Volume(s) Analyzed : 1.00 (Liter)

Pi 1 = 0.0 Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT ug/m3	REPORTING LIMIT ug/m3	RESULT ppb	REPORTING LIMIT ppb
74-87-3	Chloromethane	ND	5.0	ND	2.4
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0
75-00-3	Chloroethane	ND	5.0	ND	1.9
74-83-9	Bromomethane	ND	5.0	ND	1.3
67-64-1	Acetone	ND	20	ND	8.4
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.90
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3
75-09-2	Methylene chloride	ND	5.0	ND	1.5
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.66
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4
108-05-4	Vinyl Acetate	ND	10	ND	2.8
78-93-3	2-Butanone	ND	10	ND	3.4
67-66-3	Chloroform	ND	5.0	ND	1.0
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.93
71-43-2	Benzene	ND	5.0	ND	1.6
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : SGS

Date : 10/17/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : N/A

PAI Sample ID : PAI Method Blank

Test Code : GC/MS EPA TO-14

Date Sampled : N/A

Analyst : Kathleen Aguilera

Date Received : N/A

Instrument : Finnigan 4500C/Tekmar 5010

Date Analyzed : 10/10/95

Matrix : Summa Canister

Volume(s) Analyzed : 1.00 (Liter)

Pi 1 = 0.0 Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT ug/m3	REPORTING LIMIT ug/m3	RESULT ppb	REPORTING LIMIT ppb
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75
79-01-6	Trichloroethene	ND	5.0	ND	0.94
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1
108-10-1	4-Methyl-2-pentanone	ND	10	ND	2.4
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.93
108-88-3	Toluene	ND	5.0	ND	1.3
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59
591-78-6	2-Hexanone	ND	10	ND	2.4
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.66
127-18-4	Tetrachloroethene	ND	5.0	ND	0.75
108-90-7	Chlorobenzene	ND	5.0	ND	1.1
100-41-4	Ethylbenzene	ND	5.0	ND	1.2
75-25-2	Bromoform	ND	5.0	ND	0.49
100-42-5	Styrene	ND	5.0	ND	1.2
1330-20-7	m- & p-Xylenes	ND	5.0	ND	1.2
95-47-6	o-Xylene	ND	5.0	ND	1.2
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.74
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.84
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.84
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : S. S.

Date : 10/17/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : N/A

PAI Sample ID : PAI Method Blank

Test Code : GC/MS EPA TO-14

Date Sampled : N/A

Analyst : Chris Parnell

Date Received : N/A

Instrument : Finnigan 4500C/Tekmar 5010

Date Analyzed : 10/11/95

Matrix : Summa Canister

Volume(s) Analyzed : 1.00 (Liter)

Pi 1 = 0.0 Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT ug/m3	REPORTING LIMIT ug/m3	RESULT ppb	REPORTING LIMIT ppb
74-87-3	Chloromethane	ND	5.0	ND	2.4
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0
75-00-3	Chloroethane	ND	5.0	ND	1.9
74-83-9	Bromomethane	ND	5.0	ND	1.3
67-64-1	Acetone	ND	20	ND	8.4
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.90
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3
75-09-2	Methylene chloride	ND	5.0	ND	1.5
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.66
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4
108-05-4	Vinyl Acetate	ND	10	ND	2.8
78-93-3	2-Butanone	ND	10	ND	3.4
67-66-3	Chloroform	ND	5.0	ND	1.0
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.93
71-43-2	Benzene	ND	5.0	ND	1.6
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : SJS

Date : 10/17/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : N/A

PAI Sample ID : PAI Method Blank

Test Code : GC/MS EPA TO-14

Date Sampled : N/A

Analyst : Chris Parnell

Date Received : N/A

Instrument : Finnigan 4500C/Tekmar 5010

Date Analyzed : 10/11/95

Matrix : Summa Canister

Volume(s) Analyzed : 1.00 (Liter)

Pi 1 = 0.0 Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT ug/m3	REPORTING LIMIT ug/m3	RESULT ppb	REPORTING LIMIT ppb
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75
79-01-6	Trichloroethene	ND	5.0	ND	0.94
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1
108-10-1	4-Methyl-2-pentanone	ND	10	ND	2.4
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.93
108-88-3	Toluene	ND	5.0	ND	1.3
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59
591-78-6	2-Hexanone	ND	10	ND	2.4
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.66
127-18-4	Tetrachloroethene	ND	5.0	ND	0.75
108-90-7	Chlorobenzene	ND	5.0	ND	1.1
100-41-4	Ethylbenzene	ND	5.0	ND	1.2
75-25-2	Bromoform	ND	5.0	ND	0.49
100-42-5	Styrene	ND	5.0	ND	1.2
1330-20-7	m- & p-Xylenes	ND	5.0	ND	1.2
95-47-6	o-Xylene	ND	5.0	ND	1.2
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.74
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.84
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.84
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : (Signature)

Date : 10/17/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : SVE - 28 DAYS  
PAI Sample ID : 9505136

Test Code : GC/MS EPA TO-14  
Analyst : Kathleen Aguilera  
Instrument : Finnigan 4500C/Tekmar 5010  
Matrix : Summa Canister

Date Sampled : 10/5/95  
Date Received : 10/6/95  
Date Analyzed : 10/10-11/95  
Volume(s) Analyzed : 0.010 (Liter)  
0.0020 (Liter)

Pi 1 = 0.4 Pf 1 = 2.8  
D.F. = 1.16

CAS #	COMPOUND	RESULT ug/m3	REPORTING LIMIT ug/m3	RESULT ppb	REPORTING LIMIT ppb
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	1,600	500	610	200
75-00-3	Chloroethane	ND	500	ND	190
74-83-9	Bromomethane	ND	500	ND	130
67-64-1	Acetone	ND	2,000	ND	840
75-69-4	Trichlorofluoromethane	ND	500	ND	90
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	ND	500	ND	150
75-15-0	Carbon Disulfide	7,600	500	2,400	160
76-13-1	Trichlorotrifluoroethane	ND	500	ND	66
156-60-5	trans-1,2-Dichloroethene	510	500	130	130
156-59-2	cis-1,2-Dichloroethene	23,000	500	5,900	130
75-34-3	1,1-Dichloroethane	1,000	500	260	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	1,000	ND	280
78-93-3	2-Butanone	ND	1,000	ND	340
67-66-3	Chloroform	3,200	500	660	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	540	500	100	93
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	7,500	500	1,200	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : SJ

Date : 10/17/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : SVE - 28 DAYS  
PAI Sample ID : 9505136

Test Code : GC/MS EPA TO-14  
Analyst : Kathleen Aguilera  
Instrument : Finnigan 4500C/Tekmar 5010  
Matrix : Summa Canister

Date Sampled : 10/5/95  
Date Received : 10/6/95  
Date Analyzed : 10/10-11/95  
Volume(s) Analyzed : 0.010 (Liter)  
0.0020 (Liter)

Pi 1 = 0.4 Pf 1 = 2.8  
D.F. = 1.16

CAS #	COMPOUND	RESULT ug/m3	REPORTING LIMIT ug/m3	RESULT ppb	REPORTING LIMIT ppb
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	11,000	500	2,000	94
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pentanone	ND	1,000	ND	240
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	93
108-88-3	Toluene	ND	500	ND	130
124-48-1	Dibromochloromethane	ND	500	ND	59
591-78-6	2-Hexanone	ND	1,000	ND	240
106-93-4	1,2-Dibromoethane	ND	500	ND	66
127-18-4	Tetrachloroethene	99,000	500	15,000	75
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	1,500	500	340	120
75-25-2	Bromoform	ND	500	ND	49
100-42-5	Styrene	ND	500	ND	120
1330-20-7	m- & p-Xylenes	2,300	500	530	120
95-47-6	o-Xylene	760	500	170	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	74
541-73-1	1,3-Dichlorobenzene	ND	500	ND	84
106-46-7	1,4-Dichlorobenzene	ND	500	ND	84
95-50-1	1,2-Dichlorobenzene	ND	500	ND	84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : SB

Date :

10/17/95



# Performance Analytical Inc.

Environmental Testing and Consulting

20954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709-2915

## Chain of Custody Record Analytical Services Request

Client/Project Name <b>SMC - NIAGARA FALLS</b>		Address/Phone (917) 944-5501 3240 Schoolhouse Road Middletown, PA 17057		ANALYSES		PAI Project No. <b>P958930</b>		
Project Location <b>LANDFILL B</b>		Client Project No.						
Contact <b>Larry J. DeFluri</b>	Sampler (Signature) <b>Lee A. Thomas</b>		P.O. No.					
Sample Identification No.	Date	Time	Lab Sample No.	Type of Sample	T-OIL		Expected Turnaround Time	Remarks
SVE - 28 DAYS	10/5/95		9505136	Soil Gas			Std. Time	14
NOTES:								
<p>(1) Original lab report to be sent to Mr. Larry DeFluri, Middletown, PA.</p> <p>(2) Copy of lab report to be sent to Ms Carol Dickerson, Wilmington, DE</p>								
Relinquished by: (Signature) <b>Lee A. Thomas</b>		Date <b>10-5-95</b>	Time <b>0900</b>	Received by: (Signature) <b>Karen D. Lut</b>		Date <b>10/6/95</b>	Time <b>9:00 a.m.</b>	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	
Disposal Method				White Copy : Accompanies Samples				
Disposed by: (Signature)				Date	Time	Yellow Copy : Sampler		



**Performance Analytical Inc.**  
Air Quality Laboratory

**LABORATORY REPORT**

Client: **R.E. WRIGHT ENVIRONMENTAL, INC.** Date of Report: **10/24/95**  
Address: **3240 Schoolhouse Road** Date Received: **10/13/95**  
**Middletown, PA 17057** PAI Project No: **P95-8971**  
Contact: **Mr. Larry DeFluri** Purchase Order: **Verbal**  
Client Project ID: **Landfill B #95287**

---

One (1) Stainless Steel Summa Canister labeled: **"SVE-35 Days (5 Weeks)"**

---

The sample was received at the laboratory under chain of custody on October 13, 1995. The sample was received intact. The dates of analyses are indicated on the attached data sheets.

**Volatile Organic Compound Analysis**

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5989 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Reviewed and Approved:

Chris Parnell  
Senior Chemist

Christopher Casteel  
Manager of Technical Operations



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14                      Date Sampled : N/A  
Analyst : Chris Casteel                      Date Received : N/A  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 10/17/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0  
Pf 1 = 0.0                      D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : SG

Date : 10/23/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 10/17/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : SG

Date : 10/23/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 10/20/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

Date :



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 10/20/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pantanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : SLG

Date : 10/22/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-35 Days (5 Weeks)  
PAI Sample ID : 9505382

Test Code : GC/MS EPA TO-14                      Date Sampled : 10/12/95  
Analyst : Chris Casteel                      Date Received : 10/13/95  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 10/17/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = -0.1

Pf 1 = 2.5

D.F. = 1.18

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	1,100	500	440	200
75-00-3	Chloroethane	ND	500	ND	190
74-83-9	Bromomethane	ND	500	ND	130
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	90
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	ND	500	ND	150
75-15-0	Carbon Disulfide	4,600	500	1,500	160
76-13-1	Trichlorotrifluoroethane	ND	500	ND	66
156-60-5	trans-1,2-Dichloroethene	380 TR	500	97 TR	130
156-59-2	cis-1,2-Dichloroethene	16,000	500	4,000	130
75-34-3	1,1-Dichloroethane	770	500	190	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
67-66-3	Chloroform	2,300	500	470	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	93
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	4,400	500	700	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : *[Signature]*

Date : *10/23/95*



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

**Client : R. E. Wright Environmental, Inc.**

**Client Sample ID : SVE-35 Days (5 Weeks)**  
**PAI Sample ID : 9505382**

Test Code : GC/MS EPA TO-14	Date Sampled : 10/12/95
Analyst : Chris Casteel	Date Received : 10/13/95
Instrument : HP 5989A/Entech 7000	Date Analyzed : 10/17/95
Matrix : Summa Canister	Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = -0.1

Pf 1 = 2.5

D.F. = 1.18

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	5,700	500	1,100	94
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pentanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	93
108-88-3	Toluene	ND	500	ND	130
124-48-1	Dibromochloromethane	ND	500	ND	59
591-78-6	2-Hexanone	ND	500	ND	120
106-93-4	1,2-Dibromoethane	ND	500	ND	66
127-18-4	Tetrachloroethene	38,000	500	5,700	75
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	300 TR	500	70 TR	120
75-25-2	Bromoform	ND	500	ND	49
100-42-5	Styrene	ND	500	ND	120
1330-20-7	m,p-Xylenes	530	500	120	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	74
541-73-1	1,3-Dichlorobenzene	ND	500	ND	84
106-46-7	1,4-Dichlorobenzene	ND	500	ND	84
95-50-1	1,2-Dichlorobenzene	ND	500	ND	84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : S. J.

Date :

10/23/95



Performance Analytical Inc.  
Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-35 Days (5 Weeks)  
PAI Sample ID : 9505382 Dup

Test Code : GC/MS EPA TO-14                          Date Sampled : 10/12/95  
Analyst : Chris Casteel                          Date Received : 10/13/95  
Instrument : HP 5989A/Entech 7000                          Date Analyzed : 10/20/95  
Matrix : Summa Canister                          Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = -0.1

Pf 1 = 2.5

D.F. = 1.18

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	1,100	500	430	200
75-00-3	Chloroethane	ND	500	ND	190
74-83-9	Bromomethane	ND	500	ND	130
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	90
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	ND	500	ND	150
75-15-0	Carbon Disulfide	4,800	500	1,600	160
76-13-1	Trichlorotrifluoroethane	ND	500	ND	66
156-60-5	trans-1,2-Dichloroethene	400 TR	500	100 TR	130
156-59-2	cis-1,2-Dichloroethene	17,000	500	4,200	130
75-34-3	1,1-Dichloroethane	850	500	210	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
67-66-3	Chloroform	2,300	500	480	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	93
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	4,400	500	700	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : SJ

Date : 10/23/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-35 Days (5 Weeks)  
PAI Sample ID : 9505382 Dup

Test Code : GC/MS EPA TO-14  
Analyst : Chris Casteel  
Instrument : HP 5989A/Entech 7000  
Matrix : Summa Canister

Date Sampled : 10/12/95  
Date Received : 10/13/95  
Date Analyzed : 10/20/95  
Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = -0.1

Pf 1 = 2.5

D.F. = 1.18

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	5,800	500	1,100	94
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pantanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	93
108-88-3	Toluene	ND	500	ND	130
124-48-1	Dibromochloromethane	ND	500	ND	59
591-78-6	2-Hexanone	ND	500	ND	120
106-93-4	1,2-Dibromoethane	ND	500	ND	66
127-18-4	Tetrachloroethene	42,000	500	6,300	75
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	270 TR	500	62 TR	120
75-25-2	Bromoform	ND	500	ND	49
100-42-5	Styrene	ND	500	ND	120
1330-20-7	m,p-Xylenes	520	500	120	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	74
541-73-1	1,3-Dichlorobenzene	ND	500	ND	84
106-46-7	1,4-Dichlorobenzene	ND	500	ND	84
95-50-1	1,2-Dichlorobenzene	ND	500	ND	84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

Date : 10/22/95



# Performance Analytical Inc.

Environmental Testing and Consulting

20954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709-2915

## Chain of Custody Record Analytical Services Request

Client/Project Name <b>SMC - NIAGARA FALLS</b>		Address/Phone (717) 944-5501 R.E. Wright Environmental, Inc. 3240 Schoolhouse Road Middletown, PA 17057		ANALYSES		PAI Project No. <b>P 958971</b>		
Project Location <b>LANDFILL B</b>		Client Project No. <b>REWET Proj # 95287</b>						
Contact <b>Larry J. DeFluri</b>	Sampler (Signature) <b>Lee A. Thomas</b>		P.O. No. <b>1-014</b>					
Sample Identification No.	Date	Time	Lab Sample No.	Type of Sample			Expected Turnaround Time	Remarks
SVE-35 Days (5 weeks)	10/12/95	1045	95053P2	Soil Gas			Std. Time	196
NOTES: ① Original lab report to be sent to Mr. Larry DeFluri, Middletown, PA ② Copy of lab report to be sent to Ms (are) Dickerson, Wilmington, DE								
Relinquished by: (Signature) <b>Lee A. Thomas</b>		Date <b>10/12/95</b>	Time <b>1130</b>	Received by: (Signature) <b>Ron P. T. T.</b>		Date <b>10/13/95</b>	Time <b>9:00 A.M.</b>	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	
Disposal Method				White Copy : Accompanies Samples				
Disposed by: (Signature)				Date	Time	Yellow Copy : Sampler		



Performance Analytical Inc.  
Air Quality Laboratory

NOV 30 1995

## LABORATORY REPORT

Client: R.E. WRIGHT ENVIRONMENTAL, INC. Date of Report: 11/01/95  
Address: 3240 Schoolhouse Road Date Received: 10/20/95  
Middletown, PA 17057 PAI Project No: P95-9003  
Contact: Mr. Larry DeFluri Purchase Order: Verbal  
Client Project ID: Landfill B #95287

---

One (1) Stainless Steel Summa Canister labeled: "SVE-42 Days (6 Weeks)"

---

The sample was received at the laboratory under chain of custody on October 20, 1995. The sample was received intact. The dates of analyses are indicated on the attached data sheets.

### Volatile Organic Compound Analysis

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5989 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Christopher Casteel  
Manager of Technical Operations

Reviewed and Approved:

Michael Tuday  
Laboratory Director



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14                      Date Sampled : N/A  
Analyst : Chris Casteel                      Date Received : N/A  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 10/23/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : SL

Date : 11/1/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 10/23/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : SLP

Date : 11/1/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-42 Days (6 Weeks)  
PAI Sample ID : 9505530

Test Code : GC/MS EPA TO-14                      Date Sampled : 10/19/95  
Analyst : Chris Casteel                      Date Received : 10/20/95  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 10/23/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 0.005 Liter(s)  
    0.001 Liter(s)

Pi 1 = 0.2

Pf 1 = 3.0

D.F. = 1.19

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	200	ND	98
75-01-4	Vinyl Chloride	820	200	330	79
75-00-3	Chloroethane	ND	200	ND	76
74-83-9	Bromomethane	ND	200	ND	52
67-64-1	Acetone	130 TR	200	54 TR	84
75-69-4	Trichlorofluoromethane	ND	200	ND	36
75-35-4	1,1-Dichloroethene	170 TR	200	44 TR	51
75-09-2	Methylene chloride	160 TR	200	47 TR	58
75-15-0	Carbon Disulfide	2,900	200	920	64
76-13-1	Trichlorotrifluoroethane	ND	200	ND	26
156-60-5	trans-1,2-Dichloroethene	290	200	74	51
156-59-2	cis-1,2-Dichloroethene	9,800	200	2,500	51
75-34-3	1,1-Dichloroethane	550	200	140	50
1634-04-4	Methyl tert-Butyl Ether	ND	200	ND	56
108-05-4	Vinyl Acetate	ND	200	ND	57
78-93-3	2-Butanone	ND	200	ND	68
67-66-3	Chloroform	1,500	200	310	41
107-06-2	1,2-Dichloroethane	ND	200	ND	50
71-55-6	1,1,1-Trichloroethane	260	200	49	37
71-43-2	Benzene	120 TR	200	37 TR	63
56-23-5	Carbon Tetrachloride	3,500	200	570	32
78-87-5	1,2-Dichloropropane	ND	200	ND	44

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

Date : 11/11/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-42 Days (6 Weeks)  
PAI Sample ID : 9505530

Test Code : GC/MS EPA TO-14

Date Sampled : 10/19/95

Analyst : Chris Casteel

Date Received : 10/20/95

Instrument : HP 5989A/Entech 7000

Date Analyzed : 10/23/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.005 Liter(s)  
0.001 Liter(s)

Pi 1 = 0.2

Pf 1 = 3.0

D.F. = 1.19

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	200	ND	30
79-01-6	Trichloroethene	4,800	200	900	38
10061-01-5	cis-1,3-Dichloropropene	ND	200	ND	44
108-10-1	4-Methyl-2-pentanone	ND	200	ND	49
10061-02-6	trans-1,3-Dichloropropene	ND	200	ND	44
79-00-5	1,1,2-Trichloroethane	ND	200	ND	37
108-88-3	Toluene	ND	200	ND	53
124-48-1	Dibromochloromethane	ND	200	ND	24
591-78-6	2-Hexanone	ND	200	ND	49
106-93-4	1,2-Dibromoethane	ND	200	ND	26
127-18-4	Tetrachloroethene	42,000	200	6,200	30
108-90-7	Chlorobenzene	ND	200	ND	44
100-41-4	Ethylbenzene	360	200	82	46
75-25-2	Bromoform	ND	200	ND	20
100-42-5	Styrene	ND	200	ND	47
1330-20-7	m,p-Xylenes	590	200	140	46
95-47-6	o-Xylene	190 TR	200	44 TR	46
79-34-5	1,1,2,2-Tetrachloroethane	ND	200	ND	29
541-73-1	1,3-Dichlorobenzene	ND	200	ND	34
106-46-7	1,4-Dichlorobenzene	ND	200	ND	34
95-50-1	1,2-Dichlorobenzene	ND	200	ND	34

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

Date : 11/1/95



**Performance Analytical Inc.**  
Environmental Testing and Consulting

20954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709-2915

**Chain of Custody Record**  
**Analytical Services Request**

Client/Project Name <b>SMC - NIAGARA FALLS</b>		Address/Phone <b>(717) 944-5501</b> <b>R.E. Wright Environmental, Inc.</b> <b>3249 Schoolhouse Road</b> <b>Middletown, PA 17057</b>		ANALYSES		PAI Project No. <b>P95 9003</b>		
Project Location <b>LANDFILL B</b>		Client Project No. <b>REWEI Proj # 95287</b>						
Contact <b>Larry J. DeFluri</b>	Sampler (Signature) <b>Lee Q. Thomas</b>	P.O. No.						
Sample Identification No.	Date <b>10/19/95</b>	Time <b>1045</b>	Lab Sample No. <b>9505530</b>	Type of Sample <b>Soil Gas</b>	<b>X</b>	<b>10/4</b>	Expected Turnaround Time <b>Std. Time 63</b>	Remarks
<p><b>Notes:</b></p> <p>① Original lab report to be sent to Mr. Larry DeFluri, Middletown, PA</p> <p>② Copy of lab report to be sent to Ms. Carol Dickerson, Wilmington, DE.</p>								
Relinquished by: (Signature) <b>Lee Q. Thomas</b>		Date <b>10/19/95</b>	Time <b>1115</b>	Received by: (Signature) <b>Solent Dr. 105</b>		Date <b>10/20/95</b>	Time <b>9:00 A.M.</b>	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	
Disposal Method				White Copy : Accompanies Samples Yellow Copy : Sampler				
Disposed by: (Signature)		Date	Time					



Performance Analytical Inc.

Air Quality Laboratory

NOV 13 1995

LABORATORY REPORT

PAI

Client: R.E. WRIGHT ENVIRONMENTAL, INC. Date of Report: 11/09/95  
Address: 3240 Schoolhouse Road Date Received: 10/27/95  
Middletown, PA 17057 PAI Project No: P95-9039  
Contact: Mr. Larry DeFluri Purchase Order: Verbal  
Client Project ID: Landfill B #95287

---

One (1) Stainless Steel Summa Canister labeled: "SVE-49 Days (7 Weeks)"

---

The sample was received at the laboratory under chain of custody on October 27, 1995. The sample was received intact. The dates of analyses are indicated on the attached data sheets.

Volatile Organic Compound Analysis

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5989 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Reviewed and Approved:

Chris Parnell  
Senior Chemist

Christopher Casteel  
Manager of Technical Operations



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A

PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14

Date Sampled : N/A

Analyst : Chris Casteel

Date Received : N/A

Instrument : HP 5989A/Entech 7000

Date Analyzed : 11/2/95

Matrix : Summa Canister

Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 11/7/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14                      Date Sampled : N/A  
Analyst : Chris Casteel                      Date Received : N/A  
Instrument : HP 5989A/Entech 7000              Date Analyzed : 11/2/95  
Matrix : Summa Canister                      Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 11/7/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-49 Days (7 Weeks)

PAI Sample ID : 950563S

Test Code : GC/MS EPA TO-14

Date Sampled : 10/26/95

Analyst : Chris Casteel

Date Received : 10/27/95

Instrument : HP 5890A/Entech 7000

Date Analyzed : 11/2/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.0050 Liter(s)

0.0025 Liter(s)

Pi 1 = 0.2

Pf 1 = 3.0

D.F. = 1.19

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	200	ND	98
75-01-4	Vinyl Chloride	590	200	230	79
75-00-3	Chloroethane	ND	200	ND	76
74-83-9	Bromomethane	ND	200	ND	52
67-64-1	Acetone	ND	200	ND	84
75-69-4	Trichlorofluoromethane	ND	200	ND	36
75-35-4	1,1-Dichloroethene	ND	200	ND	51
75-09-2	Methylene chloride	ND	200	ND	58
75-15-0	Carbon Disulfide	2,600	200	850	64
76-13-1	Trichlorotrifluoroethane	ND	200	ND	26
156-60-5	trans-1,2-Dichloroethene	240	200	62	51
156-59-2	cis-1,2-Dichloroethene	9,600	200	2,400	51
75-34-3	1,1-Dichloroethane	520	200	130	50
1634-04-4	Methyl tert-Butyl Ether	ND	200	ND	56
108-05-4	Vinyl Acetate	ND	200	ND	57
78-93-3	2-Butanone	ND	200	ND	68
67-66-3	Chloroform	1,400	200	290	41
107-06-2	1,2-Dichloroethane	ND	200	ND	50
71-55-6	1,1,1-Trichloroethane	290	200	53	37
71-43-2	Benzene	550	200	170	63
56-23-5	Carbon Tetrachloride	3,600	200	580	32
78-87-5	1,2-Dichloropropane	ND	200	ND	44

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 11/11/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-49 Days (7 Weeks)

PAI Sample ID : 9505635

Test Code : GC/MS EPA TO-14

Date Sampled : 10/26/95

Analyst : Chris Casteel

Date Received : 10/27/95

Instrument : HP 5890A/Entech 7000

Date Analyzed : 11/2/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.0050 Liter(s)

0.0025 Liter(s)

Pi 1 = 0.2

Pf 1 = 3.0

D.F. = 1.19

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	200	ND	30
79-01-6	Trichloroethene	4,500	200	850	38
10061-01-5	cis-1,3-Dichloropropene	ND	200	ND	44
108-10-1	4-Methyl-2-pentanone	ND	200	ND	49
10061-02-6	trans-1,3-Dichloropropene	ND	200	ND	44
79-00-5	1,1,2-Trichloroethane	ND	200	ND	37
108-88-3	Toluene	150 TR	200	39 TR	53
124-48-1	Dibromochloromethane	ND	200	ND	24
591-78-6	2-Hexanone	ND	200	ND	49
106-93-4	1,2-Dibromoethane	ND	200	ND	26
127-18-4	Tetrachloroethene	41,000	200	6,100	30
108-90-7	Chlorobenzene	ND	200	ND	44
100-41-4	Ethylbenzene	340	200	78	46
75-25-2	Bromoform	ND	200	ND	20
100-42-5	Styrene	ND	200	ND	47
1330-20-7	m,p-Xylenes	600	200	140	46
95-47-6	o-Xylene	180 TR	200	42 TR	46
79-34-5	1,1,2,2-Tetrachloroethane	ND	200	ND	29
541-73-1	1,3-Dichlorobenzene	ND	200	ND	34
106-46-7	1,4-Dichlorobenzene	ND	200	ND	34
95-50-1	1,2-Dichlorobenzene	ND	200	ND	34

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 11/7/95

Performance Analytical Inc.  
Environmental Testing and Consulting

26954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709-2915

Chain of Custody Record  
Analytical Services Request

Client/Project Name <b>SMC- NIAGARA FALLS</b>		Address/Phone (717) 944-5501 R.C. Wright Environmental, Inc. 3240 Schoolhouse Road Middletown, PA 17057		PAI Project No. <b>P959039</b>		
Project Location <b>LANDFILL B</b>		Client Project No. <b>RWEL Proj. # 95287</b>		ANALYSES		
Contact <b>Larry J. DeFluri</b>	Sampler (Signature) <b>Lee A. Thomas</b>		P.O. No.			
Sample Identification No.	Date	Time	Lab Sample No.	Type of Sample	Expected Turnaround Time	Remarks
SVE - 49 Days (7 weeks)	10/26/95	1205	95056.35	Soil Gas	Std. Time	16
Notes: ① Original lab report to be sent to Mr. Larry DeFluri, Middletown, PA. ② Copy of lab report to be sent to Ms. Carol Dickerson, Wilmington, DE						
Relinquished by: (Signature) <b>Lee A. Thomas</b>		Date <b>10/26/95</b>	Time <b>1230</b>	Received by: (Signature) <b>Karen D. Lo</b>	Date <b>10/27/95</b>	Time <b>9:00 a.m.</b>
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time
Disposal Method				White Copy : Accompanies Samples		
Disposed by: (Signature)				Yellow Copy : Sampler		



# Performance Analytical Inc.

Air Quality Laboratory

## LABORATORY REPORT

Client: R.E. WRIGHT ENVIRONMENTAL, INC. Date of Report: 11/21/95  
Address: 3240 Schoolhouse Road Date Received: 11/03/95  
Middletown, PA 17057 PAI Project No: P95-9063  
Contact: Mr. Larry DeFluri Purchase Order: Verbal  
Client Project ID: Landfill B #95287

---

One (1) Stainless Steel Summa Canister labeled: "SVE-56 Days (8 Weeks)"

---

The sample was received at the laboratory under chain of custody on November 3, 1995. The sample was received intact. The dates of analyses are indicated on the attached data sheets.

### Volatile Organic Compound Analysis

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5989 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x-1</sub>, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Christopher Casteel  
Manager of Technical Operations

Reviewed and Approved:

Michael Tuday  
Laboratory Director



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 11/17/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

Date : 11/21/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 11/17/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0  
Pf 1 = 0.0 D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pantanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : *[Signature]*

Date : *11/21/95*



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-56 Days (8 Weeks)  
PAI Sample ID : 9505711

Test Code : GC/MS EPA TO-14 Date Sampled : 11/2/95  
Analyst : Chris Casteel Date Received : 11/3/95  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 11/17/95  
Matrix : Summa Canister Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = 0.0

Pf 1 = 2.5

D.F. = 1.17

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	760	500	300	200
75-00-3	Chloroethane	ND	500	ND	190
74-83-9	Bromomethane	ND	500	ND	130
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	90
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	400 TR	500	120 TR	150
75-15-0	Carbon Disulfide	2,700	500	870	160
76-13-1	Trichlorotrifluoroethane	ND	500	ND	66
156-60-5	trans-1,2-Dichloroethene	ND	500	ND	130
156-59-2	cis-1,2-Dichloroethene	10,000	500	2,600	130
75-34-3	1,1-Dichloroethane	650	500	160	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
67-66-3	Chloroform	1,300	500	270	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	280 TR	500	52 TR	93
71-43-2	Benzene	520	500	160	160
56-23-5	Carbon Tetrachloride	4,000	500	640	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

Date : 11/26/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-56 Days (8 Weeks)  
PAI Sample ID : 9505711

Test Code : GC/MS EPA TO-14 Date Sampled : 11/2/95  
Analyst : Chris Casteel Date Received : 11/3/95  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 11/17/95  
Matrix : Summa Canister Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = 0.0

Pf 1 = 2.5

D.F. = 1.17

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	6,200	500	1,200	94
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pantanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	93
108-88-3	Toluene	3,100	500	820	130
124-48-1	Dibromochloromethane	ND	500	ND	59
591-78-6	2-Hexanone	ND	500	ND	120
106-93-4	1,2-Dibromoethane	ND	500	ND	66
127-18-4	Tetrachloroethene	44,000	500	6,600	75
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	1,400	500	320	120
75-25-2	Bromoform	ND	500	ND	49
100-42-5	Styrene	ND	500	ND	120
1330-20-7	m,p-Xylenes	1,100	500	250	120
95-47-6	o-Xylene	360 TR	500	84 TR	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	74
541-73-1	1,3-Dichlorobenzene	ND	500	ND	84
106-46-7	1,4-Dichlorobenzene	ND	500	ND	84
95-50-1	1,2-Dichlorobenzene	ND	500	ND	84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RE

Date : 11/21/95



# Performance Analytical Inc.

Air Quality Laboratory

## LABORATORY REPORT

Client:	R.E. WRIGHT ENVIRONMENTAL, INC.	Date of Report:	11/16/95
Address:	3240 Schoolhouse Road Middletown, PA 17057	Date Received:	11/10/95
		PAI Project No:	P95-9090
Contact:	Mr. Larry DeFluri	Purchase Order:	Verbal
Client Project ID: Landfill B #95287			

---

One (1) Stainless Steel Summa Canister labeled: "SVE-63 Days (9 Weeks)"

---

The sample was received at the laboratory under chain of custody on November 10, 1995. The sample was received intact. The dates of analyses are indicated on the attached data sheets.

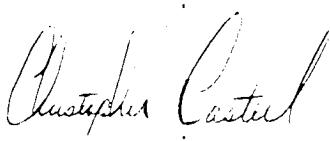
### Volatile Organic Compound Analysis

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5989 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x-1</sub>, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

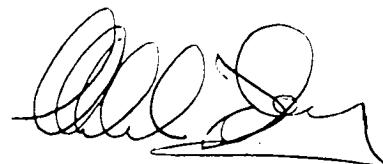
---

Data Release Authorization:



Christopher Casteel  
Manager of Technical Operations

Reviewed and Approved:



Michael Tuday  
Laboratory Director



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 11/13/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0  
Pf 1 = 0.0 D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 11/15/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 11/13/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0  
Pf 1 = 0.0 D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 11/15/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-63 Days (9 Weeks)  
PAI Sample ID : 9505819

Test Code : GC/MS EPA TO-14                          Date Sampled : 11/9/95  
Analyst : Chris Casteel                          Date Received : 11/10/95  
Instrument : HP 5989A/Entech 7000                          Date Analyzed : 11/13/95  
Matrix : Summa Canister                          Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = 0.9

Pf 1 = 3.0

D.F. = 1.13

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	680	500	270	200
75-00-3	Chloroethane	ND	500	ND	190
74-83-9	Bromomethane	ND	500	ND	130
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	90
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	280 TR	500	83 TR	150
75-15-0	Carbon Disulfide	2,300	500	730	160
76-13-1	Trichlorotrifluoroethane	ND	500	ND	66
156-60-5	trans-1,2-Dichloroethene	ND	500	ND	130
156-59-2	cis-1,2-Dichloroethene	9,200	500	2,400	130
75-34-3	1,1-Dichloroethane	510	500	130	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
67-66-3	Chloroform	1,400	500	300	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	310 TR	500	57 TR	93
71-43-2	Benzene	780	500	240	160
56-23-5	Carbon Tetrachloride	3,900	500	630	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 11/15/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

**Client : R. E. Wright Environmental, Inc.**

**Client Sample ID : SVE-63 Days (9 Weeks)**  
**PAI Sample ID : 9505819**

**Test Code : GC/MS EPA TO-14**

**Date Sampled : 11/9/95**

**Analyst : Chris Casteel**

**Date Received : 11/10/95**

**Instrument : HP 5989A/Entech 7000**

**Date Analyzed : 11/13/95**

**Matrix : Summa Canister**

**Volume(s) Analyzed : 0.002 Liter(s)**

**Pi 1 = 0.9**

**Pf 1 = 3.0**

**D.F. = 1.13**

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	4,800	500	910	94
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pentanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	93
108-88-3	Toluene	ND	500	ND	130
124-48-1	Dibromochloromethane	ND	500	ND	59
591-78-6	2-Hexanone	ND	500	ND	120
106-93-4	1,2-Dibromoethane	ND	500	ND	66
127-18-4	Tetrachloroethene	40,000	500	6,000	75
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	330 TR	500	77 TR	120
75-25-2	Bromoform	ND	500	ND	49
100-42-5	Styrene	ND	500	ND	120
1330-20-7	m,p-Xylenes	580	500	130	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	74
541-73-1	1,3-Dichlorobenzene	ND	500	ND	84
106-46-7	1,4-Dichlorobenzene	ND	500	ND	84
95-50-1	1,2-Dichlorobenzene	ND	500	ND	84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 11/15/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-63 Days (9 Weeks)  
PAI Sample ID : 9505819 Dup

Test Code : GC/MS EPA TO-14                          Date Sampled : 11/9/95  
Analyst : Chris Casteel                          Date Received : 11/10/95  
Instrument : HP 5989A/Entech 7000                          Date Analyzed : 11/13/95  
Matrix : Summa Canister                          Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = 0.9

Pf 1 = 3.0

D.F. = 1.13

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	670	500	260	200
75-00-3	Chloroethane	ND	500	ND	190
74-83-9	Bromomethane	ND	500	ND	130
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	90
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	300 TR	500	86 TR	150
75-15-0	Carbon Disulfide	2,200	500	710	160
76-13-1	Trichlorotrifluoroethane	ND	500	ND	66
156-60-5	trans-1,2-Dichloroethene	ND	500	ND	130
156-59-2	cis-1,2-Dichloroethene	9,000	500	2,300	130
75-34-3	1,1-Dichloroethane	460 TR	500	110 TR	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
67-66-3	Chloroform	1,500	500	310	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	290 TR	500	54 TR	93
71-43-2	Benzene	740	500	230	160
56-23-5	Carbon Tetrachloride	4,000	500	640	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 11/15/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-63 Days (9 Weeks)  
PAI Sample ID : 9505819 Dup

Test Code : GC/MS EPA TO-14

Date Sampled : 11/9/95

Analyst : Chris Casteel

Date Received : 11/10/95

Instrument : HP 5989A/Entech 7000

Date Analyzed : 11/13/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = 0.9

Pf 1 = 3.0

D.F. = 1.13

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	4,700	500	880	94
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pentanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	93
108-88-3	Toluene	ND	500	ND	130
124-48-1	Dibromochloromethane	ND	500	ND	59
591-78-6	2-Hexanone	ND	500	ND	120
106-93-4	1,2-Dibromoethane	ND	500	ND	66
127-18-4	Tetrachloroethene	39,000	500	5,800	75
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	300 TR	500	69 TR	120
75-25-2	Bromoform	ND	500	ND	49
100-42-5	Styrene	ND	500	ND	120
1330-20-7	m,p-Xylenes	600	500	140	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	74
541-73-1	1,3-Dichlorobenzene	ND	500	ND	84
106-46-7	1,4-Dichlorobenzene	ND	500	ND	84
95-50-1	1,2-Dichlorobenzene	ND	500	ND	84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 11/15/95



Performance Analytical Inc.  
Air Quality Laboratory

LABORATORY REPORT

Client: R.E. WRIGHT ENVIRONMENTAL, INC. Date of Report: 11/30/95  
Address: 3240 Schoolhouse Road Date Received: 11/28/95  
Middletown, PA 17057 PAI Project No: P95-9164  
Contact: Mr. Larry DeFluri Purchase Order: Verbal  
Client Project ID: Landfill B #95287

---

One (1) Stainless Steel Summa Canister labeled: "SVE-Restart (11/27/95)"

---

The sample was received at the laboratory under chain of custody on November 28, 1995. The sample was received intact. The client requested and received 24 hour rush results. The dates of analyses are indicated on the attached data sheets.

Volatile Organic Compound Analysis

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5989 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Christopher Casteel  
Manager of Technical Operations

Reviewed and Approved:

Michael Tuday  
Laboratory Director



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 11/29/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by: 86

Date: 11/29/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 11/29/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by: S.G.

Date: 11/29/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-Restart (11/27/95)  
PAI Sample ID : 9506040

Test Code : GC/MS EPA TO-14  
Analyst : Chris Casteel  
Instrument : HP 5989A/Entech 7000  
Matrix : Summa Canister

Date Sampled : 11/27/95  
Date Received : 11/28/95  
Date Analyzed : 11/29/95  
Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = -0.1

Pf 1 = 2.6

D.F. = 1.18

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	1,300	500	500	200
75-00-3	Chloroethane	ND	500	ND	190
74-83-9	Bromomethane	ND	500	ND	130
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	90
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	430 TR	500	120 TR	150
75-15-0	Carbon Disulfide	1,000	500	330	160
76-13-1	Trichlorotrifluoroethane	ND	500	ND	66
156-60-5	trans-1,2-Dichloroethene	350 TR	500	89 TR	130
156-59-2	cis-1,2-Dichloroethene	13,000	500	3,400	130
75-34-3	1,1-Dichloroethane	690	500	170	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
67-66-3	Chloroform	2,100	500	430	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	93
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	5,800	500	930	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by :

Date : 11/29/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-Restart (11/27/95)  
PAI Sample ID : 9506040

Test Code : GC/MS EPA TO-14  
Analyst : Chris Casteel  
Instrument : HP 5989A/Entech 7000  
Matrix : Summa Canister

Date Sampled : 11/27/95  
Date Received : 11/28/95  
Date Analyzed : 11/29/95  
Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = -0.1

Pf 1 = 2.6

D.F. = 1.18

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	5,600	500	1,000	94
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pentanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	93
108-88-3	Toluene	ND	500	ND	130
124-48-1	Dibromochloromethane	ND	500	ND	59
591-78-6	2-Hexanone	ND	500	ND	120
106-93-4	1,2-Dibromoethane	ND	500	ND	66
127-18-4	Tetrachloroethene	52,000	500	7,800	75
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	550	500	130	120
75-25-2	Bromoform	ND	500	ND	49
100-42-5	Styrene	ND	500	ND	120
1330-20-7	m,p-Xylenes	910	500	210	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	74
541-73-1	1,3-Dichlorobenzene	ND	500	ND	84
106-46-7	1,4-Dichlorobenzene	ND	500	ND	84
95-50-1	1,2-Dichlorobenzene	ND	500	ND	84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : S.S.

Date : 11/29/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-Restart (11/27/95)

PAI Sample ID : 9506040 Dup

Test Code : GC/MS EPA TO-14

Date Sampled : 11/27/95

Analyst : Chris Casteel

Date Received : 11/28/95

Instrument : HP 5989A/Entech 7000

Date Analyzed : 11/29/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = -0.1

Pf 1 = 2.6

D.F. = 1.18

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	1,200	500	490	200
75-00-3	Chloroethane	ND	500	ND	190
74-83-9	Bromomethane	ND	500	ND	130
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	90
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	420 TR	500	120 TR	150
75-15-0	Carbon Disulfide	950	500	310	160
76-13-1	Trichlorotrifluoroethane	ND	500	ND	66
156-60-5	trans-1,2-Dichloroethene	370 TR	500	95 TR	130
156-59-2	cis-1,2-Dichloroethene	13,000	500	3,300	130
75-34-3	1,1-Dichloroethane	680	500	170	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
67-66-3	Chloroform	2,100	500	440	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	93
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	5,500	500	880	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : S. A.

Date :

11/30/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-Restart (11/27/95)  
PAI Sample ID : 9506040 Dup

Test Code : GC/MS EPA TO-14 Date Sampled : 11/27/95  
Analyst : Chris Casteel Date Received : 11/28/95  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 11/29/95  
Matrix : Summa Canister Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = -0.1

Pf 1 = 2.6

D.F. = 1.18

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	5,200	500	970	94
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pantanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	93
108-88-3	Toluene	ND	500	ND	130
124-48-1	Dibromochloromethane	ND	500	ND	59
591-78-6	2-Hexanone	ND	500	ND	120
106-93-4	1,2-Dibromoethane	ND	500	ND	66
127-18-4	Tetrachloroethene	52,000	500	7,700	75
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	610	500	140	120
75-25-2	Bromoform	ND	500	ND	49
100-42-5	Styrene	ND	500	ND	120
1330-20-7	m,p-Xylenes	950	500	220	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	74
541-73-1	1,3-Dichlorobenzene	ND	500	ND	84
106-46-7	1,4-Dichlorobenzene	ND	500	ND	84
95-50-1	1,2-Dichlorobenzene	ND	500	ND	84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : 

Date : 11/30/95



# Performance Analytical Inc.

Environmental Testing and Consulting

20954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709-2915

## Chain of Custody Record Analytical Services Request

Client/Project Name <i>SMC - NIAGARA FALLS</i>		Address/Phone (717) 944-5501		ANALYSES		PAI Project No. <i>P 95 9164</i>	
Project Location <i>LANDFILL B</i>		Client Project No. <i># REWEI PROJ. 95287</i>					
Contact <i>Larry J. DeFluri</i>	Sampler (Signature) <i>Lee A. Thomas</i>		P.O. No.				
Sample Identification No.	Date	Time	Lab Sample No.	Type of Sample	<i>F</i>	<i>014</i>	Expected Turnaround Time
SVE - RESTART (11/27/95)	11/27/95	1600	9506040	Soil Gas			24 Hrs. Rapid Turnaround (as per Conversation with M. Tudor E.L. Thomas on 11/27/95)
NOTES: ① Test results to be faxed to Larry DeFluri at Construction Site, Lewiston, NY. (716) 285-4269 ② Original lab report to be sent to Larry DeFluri at Middletown, PA ③ Copy of lab report to be sent to Ms Carol Dickerson, Wilmington, DE. ④ Canister's bottom ring welds were broken when received.							
Relinquished by: (Signature) <i>Lee A. Thomas</i>		Date <i>11/27/95</i>	Time <i>1630</i>	Received by: (Signature) <i>John D. T</i>		Date <i>11/28/95</i>	Time <i>9:00 AM</i>
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time
Disposal Method				White Copy : Accompanies Samples Yellow Copy : Sampler			
Disposed by: (Signature)		Date	Time				



# Performance Analytical Inc.

Air Quality Laboratory

## LABORATORY REPORT

Client: R.E. WRIGHT ENVIRONMENTAL, INC. Date of Report: 12/08/95  
Address: 3240 Schoolhouse Road Date Received: 12/04/95  
Middletown, PA 17057 PAI Project No: P95-9193  
Contact: Mr. Larry DeFluri Purchase Order: Verbal  
Client Project ID: Landfill B #95287

---

One (1) Stainless Steel Summa Canister labeled: "SVE - 12 Weeks"

---

The sample was received at the laboratory under chain of custody on December 4, 1995. The sample was received intact. The dates of analyses are indicated on the attached data sheets.

### Volatile Organic Compound Analysis

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5989 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Christopher Casteel  
Manager of Technical Operations

Reviewed and Approved:

Michael Tudy  
Laboratory Director



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 12/4/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 12/8/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : N/A  
PAI Sample ID : Method Blank

Test Code : GC/MS EPA TO-14 Date Sampled : N/A  
Analyst : Chris Casteel Date Received : N/A  
Instrument : HP 5989A/Entech 7000 Date Analyzed : 12/4/95  
Matrix : Summa Canister Volume(s) Analyzed : 1.000 Liter(s)

Pi 1 = 0.0

Pf 1 = 0.0

D.F. = 1.00

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 12/8/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-12 Weeks  
PAI Sample ID : 9506143

Test Code : GC/MS EPA TO-14  
Analyst : Chris Casteel  
Instrument : HP 5989A/Entech 7000  
Matrix : Summa Canister

Date Sampled : 12/1/95  
Date Received : 12/4/95  
Date Analyzed : 12/5/95  
Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = 0.2

Pf 1 = 3.0

D.F. = 1.19

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	510	500	200	200
75-00-3	Chloroethane	ND	500	ND	190
74-83-9	Bromomethane	ND	500	ND	130
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	90
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	ND	500	ND	150
75-15-0	Carbon Disulfide	870	500	280	160
76-13-1	Trichlorotrifluoroethane	ND	500	ND	66
156-60-5	trans-1,2-Dichloroethene	ND	500	ND	130
156-59-2	cis-1,2-Dichloroethene	7,300	500	1,900	130
75-34-3	1,1-Dichloroethane	460 TR	500	120 TR	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
67-66-3	Chloroform	1,400	500	290	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	93
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	2,800	500	450	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RC

Date : 12/8/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-12 Weeks  
PAI Sample ID : 9506143

Test Code : GC/MS EPA TO-14  
Analyst : Chris Casteel  
Instrument : HP 5989A/Entech 7000  
Matrix : Summa Canister

Date Sampled : 12/1/95  
Date Received : 12/4/95  
Date Analyzed : 12/5/95  
Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = 0.2

Pf 1 = 3.0

D.F. = 1.19

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	3,000	500	570	94
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pentanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	93
108-88-3	Toluene	ND	500	ND	130
124-48-1	Dibromochloromethane	ND	500	ND	59
591-78-6	2-Hexanone	ND	500	ND	120
106-93-4	1,2-Dibromoethane	ND	500	ND	66
127-18-4	Tetrachloroethene	30,000	500	4,500	75
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	ND	500	ND	120
75-25-2	Bromoform	ND	500	ND	49
100-42-5	Styrene	ND	500	ND	120
1330-20-7	m,p-Xylenes	360 TR	500	83 TR	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	74
541-73-1	1,3-Dichlorobenzene	ND	500	ND	84
106-46-7	1,4-Dichlorobenzene	ND	500	ND	84
95-50-1	1,2-Dichlorobenzene	ND	500	ND	84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by: RC

Date: 12/5/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 1 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-12 Weeks  
PAI Sample ID : 9506143 Dup

Test Code : GC/MS EPA TO-14  
Analyst : Chris Casteel  
Instrument : HP 5989A/Entech 7000  
Matrix : Summa Canister

Date Sampled : 12/1/95  
Date Received : 12/4/95  
Date Analyzed : 12/5/95  
Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = 0.2

Pf 1 = 3.0

D.F. = 1.19

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	470 TR	500	190 TR	200
75-00-3	Chloroethane	ND	500	ND	190
74-83-9	Bromomethane	ND	500	ND	130
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	90
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	ND	500	ND	150
75-15-0	Carbon Disulfide	850	500	270	160
76-13-1	Trichlorotrifluoroethane	ND	500	ND	66
156-60-5	trans-1,2-Dichloroethene	ND	500	ND	130
156-59-2	cis-1,2-Dichloroethene	7,100	500	1,800	130
75-34-3	1,1-Dichloroethane	510	500	130	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
67-66-3	Chloroform	1,300	500	270	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	93
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	2,800	500	450	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 12/8/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : R. E. Wright Environmental, Inc.

Client Sample ID : SVE-12 Weeks  
PAI Sample ID : 9506143 Dup

Test Code : GC/MS EPA TO-14  
Analyst : Chris Casteel  
Instrument : HP 5989A/Entech 7000  
Matrix : Summa Canister

Date Sampled : 12/1/95  
Date Received : 12/4/95  
Date Analyzed : 12/5/95  
Volume(s) Analyzed : 0.002 Liter(s)

Pi 1 = 0.2

Pf 1 = 3.0

D.F. = 1.19

CAS #	COMPOUND	RESULT (UG/M3)	REPORTING LIMIT (UG/M3)	RESULT (PPB)	REPORTING LIMIT (PPB)
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	2,900	500	550	94
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pentanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	93
108-88-3	Toluene	ND	500	ND	130
124-48-1	Dibromochloromethane	ND	500	ND	59
591-78-6	2-Hexanone	ND	500	ND	120
106-93-4	1,2-Dibromoethane	ND	500	ND	66
127-18-4	Tetrachloroethene	28,000	500	4,200	75
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	ND	500	ND	120
75-25-2	Bromoform	ND	500	ND	49
100-42-5	Styrene	ND	500	ND	120
1330-20-7	m,p-Xylenes	380 TR	500	87 TR	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	74
541-73-1	1,3-Dichlorobenzene	ND	500	ND	84
106-46-7	1,4-Dichlorobenzene	ND	500	ND	84
95-50-1	1,2-Dichlorobenzene	ND	500	ND	84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : RG

Date : 12/8/95



# Performance Analytical Inc.

Environmental Testing and Consulting

20954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709 2915

## Chain of Custody Record Analytical Services Request

Client/Project Name <b>S.M.C. - NIAGARA FALLS</b>		Address/Phone <b>3240 Schoolhouse Rd. Middletown PA. 17057</b>		ANALYSES		PAI Project No. <b>P959193</b>
Project Location <b>LANDFILL B</b>		Client Project No. <b>95287</b>				
Contact <b>LARRY J. DeFlus</b>	Sampler (Signature) <b>SC J. DeFl.</b>		P.O. No.	<b>T-O-14</b>		
Sample Identification No.	Date	Time	Lab Sample No.	Type of Sample	Expected Turnaround Time	Remarks
<b>SYE- 12 weeks</b>	<b>12/01/95</b>	<b>12:50</b>	<b>9506143</b>	<b>SOIL GAS</b>	<b>1 WEEK</b>	
<b>Notes:</b> <b>PLEASE FAX RESULTS TO R.E. WRIGHT ATTN: LARRY DeFLUS - Middletown, Pa.</b>						
Relinquished by: (Signature) <b>SC J. DeFl.</b>		Date <b>12/01</b>	Time	Received by: (Signature) <b>Kobus De Fl</b>	Date <b>12/4/95</b>	Time <b>9:00 p.m.</b>
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time
Disposal Method				White Copy : Accompanies Samples Yellow Copy : Sampler		
Disposed by: (Signature)		Date	Time			



# Performance Analytical Inc.

Air Quality Laboratory

## LABORATORY REPORT

Client:	R.E. WRIGHT ENVIRONMENTAL, INC.	Date of Report:	12/19/95
Address:	3240 Schoolhouse Road Middletown, PA 17057	Date Received:	12/11/95
		PAI Project No:	P95-9235
Contact:	Mr. Larry DeFluri	Purchase Order:	Verbal
Client Project ID:	Landfill B #95287		

---

One (1) Stainless Steel Summa Canister labeled: "SVE - 13 Weeks"

---

The sample was received at the laboratory under chain of custody on December 11, 1995. The sample was received intact. The dates of analyses are indicated on the attached data sheets.

### Volatile Organic Compound Analysis

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5972 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Chris Parnell  
Senior Chemist

Reviewed and Approved:

Michael Tuday  
Laboratory Director



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

Page 1 of 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : N/A

PAI Sample ID : PAI Method Blank

Test Code : GC/MS EPA TO-14

Date Sampled : N/A

Analyst : Chris Parnell

Date Received : N/A

Instrument : Entech 7000/HP 5972 MSD

Date Analyzed : 12/18/95

Matrix : Summa Canister

Volume(s) Analyzed : 1.000 (liters)

Pi 1 = N/A

Pf 1 = N/A

D.F. = 1.00

CAS #	COMPOUND	RESULT ug/m <sup>3</sup>	REPORTING LIMIT ug/m <sup>3</sup>	RESULT ppb	REPORTING LIMIT ppb
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	1.0	ND	0.26
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene Chloride	ND	1.0	ND	0.29
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	ND	1.0	ND	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

ND = Not Detected

TR = Below Indicated Reporting Limit

Verified By: RG Date: 12/19/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

Page 2 of 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : N/A

PAI Sample ID : PAI Method Blank

Test Code : GC/MS EPA TO-14

Date Sampled : N/A

Analyst : Chris Parnell

Date Received : N/A

Instrument : Entech 7000/HP 5972 MSD

Date Analyzed : 12/18/95

Matrix : Summa Canister

Volume(s) Analyzed : 1.000 (liters)

Pi 1 = N/A

Pf 1 = N/A

D.F. = 1.00

CAS #	COMPOUND	RESULT	REPORTING	RESULT	REPORTING
		ug/m <sup>3</sup>	LIMIT ug/m <sup>3</sup>	ppb	LIMIT ppb
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-02-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-Pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	ND	1.0	ND	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
1330-20-7	m- & p-Xylene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

ND = Not Detected

TR = Below Indicated Reporting Limit

Verified By: RC

Date: 12/19/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

Page 1 of 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : SVE-13 Weeks

PAI Sample ID : 9506349

Test Code : GC/MS EPA TO-14

Date Sampled : 12/8/95

Analyst : Chris Parnell

Date Received : 12/11/95

Instrument : Entech 7000/HP 5972 MSD

Date Analyzed : 12/18/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.002 (liters)

P<sub>i</sub> 1 = 0.7

P<sub>f</sub> 1 = 3.0

D.F. = 1.15

CAS #	COMPOUND	RESULT	REPORTING	RESULT	REPORTING
		ug/m <sup>3</sup>	ug/m <sup>3</sup>	ppb	ppb
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	430 TR	500	170 TR	200
74-83-9	Bromomethane	ND	500	ND	130
75-00-3	Chloroethane	ND	500	ND	190
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	89
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene Chloride	ND	500	ND	140
76-13-1	Trichlorotrifluoroethane	ND	500	ND	65
75-15-0	Carbon Disulfide	890	500	290	160
156-60-5	trans-1,2-Dichloroethene	ND	500	ND	130
75-34-3	1,1-Dichloroethane	260 TR	500	65 TR	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
156-59-2	cis-1,2-Dichloroethene	5,300	500	1,300	130
67-66-3	Chloroform	840	500	170	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	92
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	1,600	500	250	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

ND = Not Detected

TR = Below Indicated Reporting Limit

Verified By: RC

Date: 12/19/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

Page 2 of 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : SVE-13 Weeks  
PAI Sample ID : 9506349

Test Code : GC/MS EPA TO-14

Date Sampled : 12/8/95

Analyst : Chris Parnell

Date Received : 12/11/95

Instrument : Entech 7000/HP 5972 MSD

Date Analyzed : 12/18/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.002 (liters)

Pi 1 = 0.7

Pf 1 = 3.0

D.F. = 1.15

CAS #	COMPOUND	RESULT ug/m <sup>3</sup>	REPORTING LIMIT ug/m <sup>3</sup>	RESULT ppb	REPORTING LIMIT ppb
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	2,000	500	380	93
10061-02-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-Pentanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	92
108-88-3	Toluene	ND	500	ND	130
591-78-6	2-Hexanone	ND	500	ND	120
124-48-1	Dibromochloromethane	ND	500	ND	59
106-93-4	1,2-Dibromoethane	ND	500	ND	65
127-18-4	Tetrachloroethene	24,000	500	3,500	74
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	ND	500	ND	120
1330-20-7	m- & p-Xylene	400 TR	500	92 TR	120
75-25-2	Bromoform	ND	500	ND	48
100-42-5	Styrene	ND	500	ND	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	73
541-73-1	1,3-Dichlorobenzene	ND	500	ND	83
106-46-7	1,4-Dichlorobenzene	ND	500	ND	83
95-50-1	1,2-Dichlorobenzene	ND	500	ND	83

ND = Not Detected

TR = Below Indicated Reporting Limit

Verified By: RG

Date: 12/19/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

Page 1 of 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : SVE-13 Weeks

PAI Sample ID : 9506349 (Laboratory Duplicate)

Test Code : GC/MS EPA TO-14

Date Sampled : 12/8/95

Analyst : Chris Parnell

Date Received : 12/11/95

Instrument : Enitech 7000/HP 5972 MSD

Date Analyzed : 12/18/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.002 (liters)

Pi 1 = 0.7

Pf 1 = 3.0

D.F. = 1.15

CAS #	COMPOUND	RESULT	REPORTING	RESULT	REPORTING
		ug/m <sup>3</sup>	limit ug/m <sup>3</sup>	ppb	limit ppb
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	410 TR	500	160 TR	200
74-83-9	Bromomethane	ND	500	ND	130
75-00-3	Chloroethane	ND	500	ND	190
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	89
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene Chloride	ND	500	ND	140
76-13-1	Trichlorotrifluoroethane	ND	500	ND	65
75-15-0	Carbon Disulfide	1,000	500	320	160
156-60-5	trans-1,2-Dichloroethene	ND	500	ND	130
75-34-3	1,1-Dichloroethane	240 TR	500	60 TR	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
156-59-2	cis-1,2-Dichloroethene	4,400	500	1,100	130
67-66-3	Chloroform	780	500	160	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	92
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	1,400	500	230	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

ND = Not Detected

TR = Below Indicated Reporting Limit

Verified By: RGE

Date: 12/19/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

Page 2 of 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : SVE-13 Weeks

PAI Sample ID : 9506349 (Laboratory Duplicate)

Test Code : GC/MS EPA TO-14

Date Sampled : 12/8/95

Analyst : Chris Parnell

Date Received : 12/11/95

Instrument : Entech 7000/HP 5972 MSD

Date Analyzed : 12/18/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.002 (liters)

P<sub>i</sub> 1 = 0.7

P<sub>f</sub> 1 = 3.0

D.F. = 1.15

CAS #	COMPOUND	RESULT ug/m <sup>3</sup>	REPORTING LIMIT ug/m <sup>3</sup>	RESULT ppb	REPORTING LIMIT ppb
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	1,900	500	350	93
10061-02-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-Pentanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	92
108-88-3	Toluene	ND	500	ND	130
591-78-6	2-Hexanone	ND	500	ND	120
124-48-1	Dibromochloromethane	ND	500	ND	59
106-93-4	1,2-Dibromoethane	ND	500	ND	65
127-18-4	Tetrachloroethene	21,000	500	3,100	74
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	ND	500	ND	120
1330-20-7	m- & p-Xylene	340 TR	500	78 TR	120
75-25-2	Bromoform	ND	500	ND	48
100-42-5	Styrene	ND	500	ND	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	73
541-73-1	1,3-Dichlorobenzene	ND	500	ND	83
106-46-7	1,4-Dichlorobenzene	ND	500	ND	83
95-50-1	1,2-Dichlorobenzene	ND	500	ND	83

ND = Not Detected

TR = Below Indicated Reporting Limit

Verified By: RC

Date: 12/19/95

# Performance Analytical Inc.

Environmental Testing and Consulting

20954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709-2915

## Chain of Custody Record Analytical Services Request

Client/Project Name <b>SMC - NIAGARA FALLS</b>		Address/Phone 717-944-5501 R.E. WRIGHT Environmental 3240 Schoolhouse Rd middletown PA 17057		ANALYSES		PAI Project No. <b>P959235</b>	
Project Location <b>Landfill B SVE System Removal Proj #95287</b>		Client Project No.					
Contact <b>Larry J. DeFluri</b>	Sampler (Signature) <i>Scott R. L.</i>	P.O. No.					
Sample Identification No.	Date <b>SVE - 13 weeks</b>	Time <b>12-8-95</b>	Lab Sample No. <b>9506349</b>	Type of Sample <b>Soil Gas</b>	1	Expected Turnaround Time <b>7 day Turnaround</b>	Remarks <b>33</b>
<i>Notes</i>		<ul style="list-style-type: none"> <li>(1) Original Lab report to be sent to Mr. Larry DeFluri, Middletown, PA</li> <li>(2) Copy of Lab Report to be sent to Ms. Carol Dickerson, Wilmington, DE</li> </ul>					
Relinquished by: (Signature) <i>Scott R. L.</i>		Date <b>12-8-95</b>	Time <b>10:00</b>	Received by: (Signature) <i>Robert D. L.</i>	Date <b>12-11-95</b>		Time <b>9:00 A.M.</b>
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date		Time
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date		Time
Disposal Method				White Copy : Accompanies Samples Yellow Copy : Sampler			
Disposed by: (Signature)		Date	Time				



## Performance Analytical Inc.

Air Quality Laboratory

### LABORATORY REPORT

Client: R.E. WRIGHT ENVIRONMENTAL, INC. Date of Report: 12/19/95  
Address: 3240 Schoolhouse Road Date Received: 12/19/95  
Middletown, PA 17057 PAI Project No: P95-9284  
Contact: Mr. Larry DeFluri Purchase Order: Verbal  
Client Project ID: Landfill B #95287

---

One (1) Stainless Steel Summa Canister labeled: "SVE"

---

The sample was received at the laboratory under chain of custody on December 19, 1995. The sample was received intact. The client requested and received 24 hour rush results. The dates of analyses are indicated on the attached data sheets.

#### Volatile Organic Compound Analysis

The sample was analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Hewlett Packard Model 5972 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

---

Data Release Authorization:

Chris Parnell  
Senior Chemist

Reviewed and Approved:

Michael Tudy  
Laboratory Director



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

Page 1 of 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : N/A

PAI Sample ID : PAI Method Blank

Test Code : GC/MS EPA TO-14

Date Sampled : N/A

Analyst : Chris Parnell

Date Received : N/A

Instrument : Entech 7000/HP 5972 MSD

Date Analyzed : 12/18/95

Matrix : Summa Canister

Volume(s) Analyzed : 1.000 (liters)

Pi 1 = N/A

Pf 1 = N/A

D.F. = 1.00

CAS #	COMPOUND	RESULT ug/m <sup>3</sup>	REPORTING LIMIT ug/m <sup>3</sup>	RESULT ppb	REPORTING LIMIT ppb
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	1.0	ND	0.26
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene Chloride	ND	1.0	ND	0.29
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	ND	1.0	ND	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

ND = Not Detected

TR = Below Indicated Reporting Limit

Verified By: RC- Date: 12/19/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

Page 2 of 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : N/A

PAI Sample ID : PAI Method Blank

Test Code : GC/MS EPA TO-14

Date Sampled : N/A

Analyst : Chris Parnell

Date Received : N/A

Instrument : Entech 7000/HP 5972 MSD

Date Analyzed : 12/18/95

Matrix : Summa Canister

Volume(s) Analyzed : 1.000 (liters)

Pi 1 = N/A

Pf 1 = N/A

D.F. = 1.00

CAS #	COMPOUND	RESULT ug/m <sup>3</sup>	REPORTING LIMIT ug/m <sup>3</sup>	RESULT ppb	REPORTING LIMIT ppb
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-02-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-Pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	ND	1.0	ND	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
1330-20-7	m- & p-Xylene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

ND = Not Detected

TR = Below Indicated Reporting Limit

Verified By: RG

Date: 12/18/95



# Performance Analytical Inc.

Air Quality Laboratory

REC'D 12/19/95

## RESULTS OF ANALYSIS

Page 1 of 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : SVE

PAI Sample ID : 9506534

Test Code : GC/MS EPA TO-14

Date Sampled : 12/18/95

Analyst : Chris Parnell

Date Received : 12/19/95

Instrument : Enitech 7000/HP 5972 MSD

Date Analyzed : 12/19/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.002 (liters)  
0.001 (liters)

Pi 1 = 0.4

Pf 1 = 2.2

D.F. = 1.12

CAS #	COMPOUND	RESULT ug/m <sup>3</sup>	REPORTING LIMIT ug/m <sup>3</sup>	RESULT ppb	REPORTING LIMIT ppb
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	520	500	200	200
74-83-9	Bromomethane	ND	500	ND	130
75-00-3	Chloroethane	ND	500	ND	190
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	89
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene Chloride	ND	500	ND	140
76-13-1	Trichlorotrifluoroethane	ND	500	ND	65
75-15-0	Carbon Disulfide	680	500	220	160
156-60-5	trans-1,2-Dichloroethene	ND	500	ND	130
75-34-3	1,1-Dichloroethane	320 TR	500	80 TR	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
156-59-2	cis-1,2-Dichloroethene	7,100	500	1,800	130
67-66-3	Chloroform	1,000	500	210	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	92
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	2,200	500	350	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

ND = Not Detected

TR = Below Indicated Reporting Limit

Verified By: RG Date: 12/19/95



# Performance Analytical Inc.

Air Quality Laboratory

## RESULTS OF ANALYSIS

Page 2 of 2

Client : R.E. Wright Environmental, Inc.

Client Sample ID : SVE  
PAI Sample ID : 9506534

Test Code : GC/MS EPA TO-14

Date Sampled : 12/18/95

Analyst : Chris Parnell

Date Received : 12/19/95

Instrument : Entech 7000/HP 5972 MSD

Date Analyzed : 12/19/95

Matrix : Summa Canister

Volume(s) Analyzed : 0.002 (liters)  
0.001 (liters)

Pi 1 = 0.4

Pf 1 = 2.2

D.F. = 1.12

CAS #	COMPOUND	RESULT ug/m <sup>3</sup>	REPORTING LIMIT ug/m <sup>3</sup>	RESULT ppb	REPORTING LIMIT ppb
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	2,900	500	530	93
10061-02-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-Pentanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	92
108-88-3	Toluene	ND	500	ND	130
591-78-6	2-Hexanone	ND	500	ND	120
124-48-1	Dibromochloromethane	ND	500	ND	59
106-93-4	1,2-Dibromoethane	ND	500	ND	65
127-18-4	Tetrachloroethene	31,000	500	4,600	74
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	ND	500	ND	120
1330-20-7	m- & p-Xylene	510	500	120	120
75-25-2	Bromoform	ND	500	ND	48
100-42-5	Styrene	ND	500	ND	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	73
541-73-1	1,3-Dichlorobenzene	ND	500	ND	83
106-46-7	1,4-Dichlorobenzene	ND	500	ND	83
95-50-1	1,2-Dichlorobenzene	ND	500	ND	83

ND = Not Detected

TR = Below Indicated Reporting Limit

Verified By: RG

Date: 12/19/95

# Performance Analytical Inc.

Environmental Testing and Consulting

20954 Osborne Street  
Canoga Park, California 91304  
Phone 818 709-1139  
Fax 818 709-2915

## Chain of Custody Record Analytical Services Request

Client/Project Name		Address/Phone		ANALYSES		PAT Project No.	
SMC - NIAGARA FALLS		R.I.E. WATKINS 3240 Schoolhouse Rd Middletown PA 17057				P959284	
Project Location		Client Project No.					
Landfill, B		REWA1 Proj 95287					
Contact	Sampler (Signature)		P.O. No.				
Larry DeFluri	<i>S. DeFluri</i>						
Sample Identification No.	Date	Time	Lab Sample No.	Type of Sample	10/14	Expected Turnaround Time	Remarks
SVE	12/18-95	1645	9506534	SOIL GAS		(24 hr Turnaround)	54
<p><i>Notes:</i></p> <ol style="list-style-type: none"> <li>① original lab report to be sent to Mr. Larry DeFluri Middletown</li> <li>② copy of lab report to be sent to Mrs. Carol Dickerson - Wilmington</li> </ol>							
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time
<i>S. DeFluri</i>		12-18-95	17:00	<i>Lori D. L.</i>		12/19/95	9:00 AM
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time
Disposal Method							
Disposed by: (Signature)		Date	Time	White Copy : Accompanies Samples Yellow Copy : Sampler			



## **APPENDIX E**

### **Post-Remediation Soil Boring Logs**

SOIL BORING LOG				Boring No. AMBP-1	Piezometer No.	
Client: Stawter Mgt Co. Project No. 95287				Location		
Phase	Task	Surface Elev.		Page of 1		
Depth Feet	Blow Counts	Re- covery/ RQD.	Overburden/Lithologic Description	PID (PPM)	Graphic Log	Well Construction Graphic
0	Ground Surface		SILTY CLAY moderate brown trace sand, much roots/organic matter, slightly moist	5		
2	2-4-6-6		Same as above w/o organic matter trace gravel, black, reddish brown mottled concretions.	10.8		
4	6-7-6-7		SILTY CLAY dark yellowish brown w/ little carbon con- cretions, trace sand and gravel, dry.	14.7		
6	7-7-11-20		CLAY dusty brown, stiff variable texture/concretions (reddish brown - light brown) trace carbon.	14.6		
8	16-17-18-18		CLAY pale brown w/ much silt. Stiff trace sand mottles of light olive gray clay	15.3		
10	10-10-11-16		CLAY moderate brown variable texture w/ very pale orange, lt. brown concretions. Some silt trace sand.	16.0		
12						

Driller SJB	Blown/Bailed Yield NA	Bentonite Seal NA
Logged By BEW	Well Casing NA Dia. To	Filter Pack Qty. NA
Drilling Started	Casing Type NA	Filter Pack Type NA
Drilling Completed	Well Screen NA Dia. To	Static Water Level NA MSL
Well Construction NA	Screen Type NA	Date _____
Well Developed NA	Slot Size NA	Notes: _____
Water Bearing Zones NA	Drilling Mud N/A NA	
	Grout Type NA	

SOIL BORING LOG				Boring No. EWBP-1	Piezometer No.	
Client: Stauffer Mgt Co. Project No. 95287				Location		
Phase	Task	Surface Elev.		Page of 1		
Depth Feet	Blow Counts	Re- covery/ RQD.	Overburden/Lithologic Description	PID (ppm)	Graphic Log	Well Construction Graphic
						Well Construction Details
						T.O.C. Elev.
0	Ground Surface					
0	6-5-8-8		SILTY CLAY Tight brown dry, trace sand, stiff, trace mottles (black, mod. brown)	11.6		
3	10-10-16-12		Same as above	15.1		
6	4-6-11-10		CLAY moderate brown w/some silt, moist trace sand variable mottles (black, gray, lt. brown)	16.2		
6	16-11-11-16		CLAY moderate brown with much silt and carbon (black) some sand and gravel, variable texture	17.1		
9	8-9-6-5		Same as above	22.4		
12			VOID no return	-		
12	4-4-16-18		Same as above w/less silt and carbon very moist	37		
15	7-14-501		Same as above wet	73		
18						
Driller STB Logged By BEW		Blown/Balled Yield NA		Bentonite Seal NA		
Drilling Started _____		Well Casing NA Dia. _____ To _____		Filter Pack Qty. NA		
Drilling Completed _____		Casing Type NA		Filter Pack Type NA		
Well Construction NA		Well Screen NA Dia. _____ To _____		Static Water Level NA MSL		
Well Developed NA		Screen Type NA		Date _____		
Water Bearing Zones NA		Slot Size NA		Notes: _____		
		Drilling Mud N/A NA				
		Grout Type NA				

Driller <u>STB</u>	Blown/Balled Yield <u>NA</u>	Bentonite Seal <u>NA</u>
Logged By <u>BEW</u>	Well Casing <u>NA</u> Dia. _____ To _____	Filter Pack Qty. <u>NA</u>
Drilling Started _____	Casing Type <u>NA</u>	Filter Pack Type <u>NA</u>
Drilling Completed _____	Well Screen <u>NA</u> Dia. _____ To _____	Static Water Level <u>NA</u> MSL
Well Construction <u>NA</u>	Screen Type <u>NA</u>	Date _____
Well Developed <u>NA</u>	Slot Size <u>NA</u>	Notes: _____ _____ _____
Water Bearing Zones <u>NA</u>	Drilling Mud N/A <u>NA</u>	
	Grout Type <u>NA</u>	

APPENDIX F

## **APPENDIX F**

### **Post-Remediation Soil Sampling Laboratory Reports**

R.E. WRIGHT CONSTRUCTION SITE

**STAUFFER MANAGEMENT COMPANY**

**S. M. C. NIAGARA FALLS -95281**

Prepared By:



"A Company Dedicated to Honesty, Quality and Service"

QA/QC VERIFICATION FOR PROJECT ID 541D

The following report, as well as the supporting data, have been carefully reviewed for accuracy, adherence to the cited methods, and completeness. All data contained in this report was generated in accordance with the AES Laboratory Quality Assurance/Quality Control Program.

Kellys - Ruppel

Organic Chemistry

W. Joseph McDougal

Quality Control

Frank J. Stewart

Project Manager

---

All 'Total' results on soil matrices are calculated on a dry weight basis, unless otherwise noted.  
Analyses noted as 'Performed in the laboratory' require immediate testing and should be performed in the field.

The following are standard abbreviations:

BQL - Below Quantifiable Limits

ND - None Detected

NG - No Growth of Colonies

NR - Not Requested

CLIENT: R.E. WRIGHT CONSTRUCTION SITE  
 SAMPLE ID: PMBP1-10-14  
 COLLECTION METHOD: GRAB  
 COLLECTION DATE(S): 12/21/95 - 10:00  
 SAMPLE TYPE: SOIL

AES CLIENT ID: LARRY  
 AES SAMPLE ID: 541D-1  
 PROJECT ID: 541D

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Benzene	ND	µg/kg	35	350 *	SW 846 8240
Carbon disulfide	ND	µg/kg	52.5	350	SW 846 8240
Carbon tetrachloride	ND	µg/kg	70	350	SW 846 8240
Chloroform	ND	µg/kg	35	350	SW 846 8240
Methylene chloride	ND	µg/kg	35	350	SW 846 8240
Tetrachloroethene	77 **	µg/kg	52.5	350	SW 846 8240
Toluene	ND	µg/kg	35	350	SW 846 8240
Trichloroethene	ND	µg/kg	52.5	350	SW 846 8240
Chlorobenzene	ND	µg/kg	1.5	10	SW 846 8240

\* High limit due to sample matrix; dilution was required.

\*\* Estimated result, above detection limit but not quantifiable.

CLIENT: R.E. WRIGHT CONSTRUCTION SITE  
 SAMPLE ID: EWBP1-12-15  
 COLLECTION METHOD: GRAB  
 COLLECTION DATE(S): 12/21/95 - 10:45  
 SAMPLE TYPE: SOIL

AES CLIENT ID: LARRY  
 AES SAMPLE ID: 541D-2

PROJECT ID: 541D

Analytical Parameters	Analytical Results	Units	Method Detection Limit	Practical Quantifiable Limit	Method
Benzene	ND	µg/kg	300	3000 *	SW 846 8240
Carbon disulfide	ND	µg/kg	450	3000	SW 846 8240
Carbon tetrachloride	ND	µg/kg	600	3000	SW 846 8240
Chloroform	ND	µg/kg	300	3000	SW 846 8240
Methylene chloride	ND	µg/kg	300	3000	SW 846 8240
Tetrachloroethene	59000	µg/kg	450	3000	SW 846 8240
Toluene	ND	µg/kg	300	3000	SW 846 8240
Trichloroethene	1600 **	µg/kg	450	3000	SW 846 8240
Chlorobenzene	ND	µg/kg	450	3000	SW 846 8240

\* High limit due to sample matrix; dilution was required.

\*\* Estimated result, above detection limit but not quantifiable.

CLIENT: R.E. WRIGHT CONSTRUCTION SITE  
 SAMPLE ID: PMBP2-10-12  
 COLLECTION METHOD: GRAB  
 COLLECTION DATE(S): 12/21/95 - 11:40  
 SAMPLE TYPE: SOIL

AES CLIENT ID: LARRY  
 AES SAMPLE ID: 541D-3

PROJECT ID: 541D

Analytical Parameters	Analytical Results	Units	Method Detection Limit	Practical Quantifiable Limit	Method
Benzene	ND	µg/kg	35	350 *	SW 846 8240
Carbon disulfide	180 **	µg/kg	52.5	350	SW 846 8240
Carbon tetrachloride	490	µg/kg	70	350	SW 846 8240
Chloroform	270 **	µg/kg	35	350	SW 846 8240
Methylene chloride	270 **	µg/kg	35	350	SW 846 8240
Tetrachloroethene	130 **	µg/kg	52.5	350	SW 846 8240
Toluene	ND	µg/kg	35	350	SW 846 8240
Trichloroethene	ND	µg/kg	52.5	350	SW 846 8240
Chlorobenzene	ND	µg/kg	1.5	10	SW 846 8240

\* High limit due to sample matrix; dilution was required.

\*\* Estimated result, above detection limit but not quantifiable.

CLIENT: R.E. WRIGHT CONSTRUCTION SITE  
SAMPLE ID: METHOD BLANK  
COLLECTION METHOD:  
COLLECTION DATE(S):  
SAMPLE TYPE:

AES CLIENT ID: LARRY  
PROJECT ID: 541D

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Benzene	ND	µg/kg	1.0	10	SW 846 8240
Carbon disulfide	ND	µg/kg	1.5	10	SW 846 8240
Carbon tetrachloride	ND	µg/kg	2.0	10	SW 846 8240
Chloroform	ND	µg/kg	1.0	10	SW 846 8240
Methylene chloride	ND	µg/kg	1.0	10	SW 846 8240
Tetrachloroethene	ND	µg/kg	1.5	10	SW 846 8240
Toluene	ND	µg/kg	1.0	10	SW 846 8240
Trichloroethene	ND	µg/kg	1.5	10	SW 846 8240
Chlorobenzene	ND	µg/kg	1.5	10	SW 846 8240

ADVANCED ENVIRONMENTAL SERVICES, INC.  
QUALITY CONTROL REPORT

PAGE 5

=====

CLIENT: R.E. WRIGHT CONSTRUCTION SITE

AES CLIENT ID: LARRY  
PROJECT ID: 541D

=====

ACCURACY

Analytical Parameter(s)	Method	Sample ID	Type	Percent Recovery
Benzene	SW 846 8240	---	Independent Standard	102
Toluene	SW 846 8240	---	Independent Standard	100
Trichloroethene	SW 846 8240	---	Independent Standard	88
Chlorobenzene	SW 846 8240	---	Independent Standard	88
1,1-Dichloroethene	SW 846 8240	---	Independent Standard	100

ADVANCED ENVIRONMENTAL SERVICES, INC.  
QUALITY CONTROL REPORT

PAGE 6

CLIENT: R.E. WRIGHT CONSTRUCTION SITE

AES CLIENT ID: LARRY  
PROJECT ID: 541D

ACCURACY - SURROGATE RECOVERIES

Analytical Parameter(s)	Method	Sample ID	Acceptable Range	Percent Recovery
1,2-Dichloroethane-d4	SW 846 8240	541D-1	70-121	74
1,2-Dichloroethane-d4	SW 846 8240	541D-2	70-121	77
1,2-Dichloroethane-d4	SW 846 8240	541D-3	70-121	76
1,2-Dichloroethane-d4	SW 846 8240	BLANK	70-121	79
Toluene-d8	SW 846 8240	541D-1	81-117	101
Toluene-d8	SW 846 8240	541D-2	81-117	96
Toluene-d8	SW 846 8240	541D-3	81-117	98
Toluene-d8	SW 846 8240	BLANK	81-117	101
4-Bromofluorobenzene	SW 846 8240	541D-1	74-121	96
4-Bromofluorobenzene	SW 846 8240	541D-2	74-121	94
4-Bromofluorobenzene	SW 846 8240	541D-3	74-121	93
4-Bromofluorobenzene	SW 846 8240	BLANK	74-121	98

## Advanced Environmental Services

AES Job Code 612

## Sample Traceability Report

AES Job No. 541D

Note: Areas marked using a dash indicate that no sample preparation was required under the applied methodology.

**ADVANCED**

# CHAIN OF CUSTODY RECORD

ENVIRONMENTAL SERVICES, INC.  
2186 LIBERTY DRIVE  
NIAGARA FALLS, NEW YORK 14304

(716) 283-3120  
(800) 791-3120  
FAX (716) 283-4727

PROJECT NAME: S.M.C. - Niagara Falls

SAMPLER'S SIGNATURE: Fa. J. Kef.

## CONTAINER CLASSIFICATION

**PROJECT I.D. #:** 95281

**JOB CODE:** FAT 26 57110  
GZ 5410

**NOTE:** Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

1. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
<i>S. J. Bell</i>	12-21-95	12:55	<i>Douglas Jr.</i>
2. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
<i>Douglas Jr.</i>	12/21/95	1750	<i>Jamie K Kennedy</i>
3. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

R.E. WRIGHT CONSTRUCTION SITE

**STAUFFER MANAGEMENT COMPANY**

**S. M. C. NIAGARA FALLS -95281**

Prepared By:



*"A Company Dedicated to Honesty, Quality and Service"*

QA/QC VERIFICATION FOR PROJECT ID 6118

The following report, as well as the supporting data, have been carefully reviewed for accuracy, adherence to the cited methods, and completeness. All data contained in this report was generated in accordance with the AES Laboratory Quality Assurance/Quality Control Program.

Susan Scroch

Organic Chemistry

W. Joseph Mc Daugall

Quality Control

Frank J. Lewow

Project Manager

---

All 'Total' results on soil matrices are calculated on a dry weight basis, unless otherwise noted.  
Analyses noted as 'Performed in the laboratory' require immediate testing and should be performed in the field.

The following are standard abbreviations:

BQL - Below Quantifiable Limits  
ND - None Detected  
NG - No Growth of Colonies  
NR - Not Requested

CLIENT: R.E. WRIGHT CONSTRUCTION SITE  
 SAMPLE ID: EWBP1-12-15  
 COLLECTION METHOD: GRAB  
 COLLECTION DATE(S): 12/21/95 - 10:45  
 SAMPLE TYPE: SOIL

AES CLIENT ID: LARRY  
 AES SAMPLE ID: 6118-1

PROJECT ID: 6118

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Benzene	ND	µg/kg	30 *	300 *	SW 846 8240
Carbon disulfide	70 **	µg/kg	45	300	SW 846 8240
Carbon tetrachloride	250 **	µg/kg	60	300	SW 846 8240
Chloroform	130 **	µg/kg	30	300	SW 846 8240
Methylene chloride	ND	µg/kg	30	300	SW 846 8240
Tetrachloroethene	3900	µg/kg	45	300	SW 846 8240
Toluene	ND	µg/kg	30	300	SW 846 8240
Trichloroethene	98 **	µg/kg	45	300	SW 846 8240
Chlorobenzene	220 **	µg/kg	45	300	SW 846 8240

\* High limit due to sample matrix; dilution was required for all 8240 compounds.

\*\* Estimated result, above detection limit but not quantifiable.

CLIENT: R.E. WRIGHT CONSTRUCTION SITE  
SAMPLE ID: METHOD BLANK  
COLLECTION METHOD:  
COLLECTION DATE(S):  
SAMPLE TYPE:

AES CLIENT ID: LARRY

PROJECT ID: 6118

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Benzene	ND	µg/kg	1.0	10	SW 846 8240
Carbon disulfide	ND	µg/kg	1.5	10	SW 846 8240
Carbon tetrachloride	ND	µg/kg	2.0	10	SW 846 8240
Chloroform	ND	µg/kg	1.0	10	SW 846 8240
Methylene chloride	ND	µg/kg	1.0	10	SW 846 8240
Tetrachloroethene	ND	µg/kg	1.5	10	SW 846 8240
Toluene	ND	µg/kg	1.0	10	SW 846 8240
Trichloroethene	ND	µg/kg	1.5	10	SW 846 8240
Chlorobenzene	ND	µg/L	1.5	10	SW 846 8240

ADVANCED ENVIRONMENTAL SERVICES, INC.  
QUALITY CONTROL REPORT

PAGE 3

CLIENT: R.E. WRIGHT CONSTRUCTION SITE

AES CLIENT ID: LARRY  
PROJECT ID: 6118

ACCURACY

Analytical Parameter(s)	Method	Sample ID	Type	Percent Recovery
Benzene	SW 846 8240	---	Independent Standard	84
Toluene	SW 846 8240	---	Independent Standard	88
Trichloroethene	SW 846 8240	---	Independent Standard	86
Chlorobenzene	SW 846 8240	---	Independent Standard	90

ADVANCED ENVIRONMENTAL SERVICES, INC.  
QUALITY CONTROL REPORT

PAGE 4

CLIENT: R.E. WRIGHT CONSTRUCTION SITE

AES CLIENT ID: LARRY  
PROJECT ID: 6118

ACCURACY - SURROGATE RECOVERIES

Analytical Parameter(s)	Method	Sample ID	Acceptable Range	Percent Recovery
1,2-Dichloroethane-d4	SW 846 8240	6118-1	70-121	99
1,2-Dichloroethane-d4	SW 846 8240	BLANK	70-121	99
Toluene-d8	SW 846 8240	6118-1	81-117	99
Toluene-d8	SW 846 8240	BLANK	81-117	103
4-Bromofluorobenzene	SW 846 8240	6118-1	74-121	99
4-Bromofluorobenzene	SW 846 8240	BLANK	74-121	100

## Advanced Environmental Services

AES Job Code 612

## Sample Traceability Report

AES Job No. 6118

Note: Areas marked using a dash indicate that no sample preparation was required under the applied methodology.

**ADVANCED**  
ENVIRONMENTAL SERVICES, INC.

ENVIRONMENTAL SERVICES, INC.  
2186 LIBERTY DRIVE  
NIAGARA FALLS, NEW YORK 14304

(716) 283-3120  
(800) 791-3120  
FAX (716) 283-4727

## CHAIN OF CUSTODY RECORD

GTZ 6118

PROJECT NAME: S.M.C. - NiAGARA FALLS

SAMPLER'S SIGNATURE: F. G. J. Kek

**NOTE:** Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

1. RELINQUISHED BY: <i>Sam J. Huff</i>	DATE 12-21-95	TIME 12:55	RECEIVED BY: <i>Douglas Jr.</i>
2. RELINQUISHED BY: <i>Jeanne K. Kennedy</i>	DATE 12/21/95	TIME 1750	RECEIVED BY: <i>Jeanne K. Kennedy</i>
3. RELINQUISHED BY:	DATE	TIME	RECEIVED BY: