SDMS Document
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FINAL REPORT
VACUUM, WIPE, AND SOIL SAMPLING
CORNELL DUBILIER ELECTRONICS
SOUTH PLAINFIELD, NJ
DECEMBER 1998

U.S. EPA Work Assignment No.: 3-262
Weston Work Order No.: 03347-143-001-3262-01
U.S. EPA Contract No.: 68-C4-0022

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1.0 INTRODUCTION

1.1 Objective of this Study

The objective of this project was to perform vacuum, wipe, and soil sampling in residences and businesses located adjacent to the Hamilton Industrial Park in South Plainfield, New Jersey to determine the extent of polychlorinated biphenyls (PCBs) contamination. The Response Engineering Analytical Contract (REAC) was tasked by the United States Environmental Protection Agency/Environmental Response Team Center (U.S. EPA/ERTC) to collect and analyze the samples.

1.2 Site Background

The Hamilton Industrial Park, the former site of Cornell Dubilier Electronics, consists of ten buildings located at 333 Hamilton Blvd., South Plainfield, NJ, and is currently owned by D.S.C. of Newark Enterprises. The buildings are rented by thirteen small businesses. Prior on-site investigations have identified PCB contamination in the soil.

Initial residential vacuum sampling was previously performed by REAC. Based on the initial results, several houses which showed elevated PCB contamination were chosen for decontamination and re-sampling. The initial sampling area was also expanded to include houses further away from the site. Several houses with contamination levels near the action level were also chosen for re-sampling, and several additional residences, which had not previously been accessible, were chosen for initial vacuum sampling. In addition, several businesses located adjacent to the site were chosen to have wipe sampling performed.

2.0 METHODOLOGY

On 26 and 27 October 1998, REAC personnel performed wipe and soil sampling for PCBs at thirteen businesses adjacent to the Hamilton Industrial Park. The wipe samples were collected by wiping a 3 inch (in.) by 3 in. cotton gauze pad moistened with pesticide grade hexane over an area of 100 square centimeters (cm^2) which was marked off by using a 10 centimeter (cm) by 10 cm dedicated template. The gauze pad was then placed in a 40-milliliter (ml) jar and returned to REAC for analysis. Wipe sampling locations can be found in Table 1.

Soil samples were collected by removing surface soil (0 in. to 1 in. in depth) using a dedicated stainless steel trowel at each location. The soil sample was placed inside a 16-ounce (oz) glass jar and returned to REAC for analysis. Prior to analysis the samples were sieved through a 100 mesh to separate the fine dust below 150-micron (μm). Soil sampling locations can be found in Table 2.

On 28 October 1998, REAC personnel performed vacuum sampling in residences for PCBs using Nilfisk vacuums equipped with High Efficiency Particulate Air (HEPA) filters. Seven samples were collected from the six residences. Previous sampling at three residences (135 Delmore Ave., First Floor, 135 Delmore Ave., Second Floor, 237 Delmore Ave.) showed levels of PCB contamination near the action level. These houses were chosen for re-sampling to further quantify the level of contamination. Three houses were also chosen for initial sampling (401 Hamilton Blvd., 403A Hamilton Blvd., 126 Spicer Ave.). The HEPA vacuum accessories consisted of a 3-in-1 floor nozzle, two connected 22 in. stainless steel straight tubes, a 6.5 foot (ft.) plastic hose, and a collection pan with a dedicated paper collection bag inside a GS-80 polyliner. The accessories were all replaced between samples to avoid cross contamination. The samples were collected by measuring a designated area of floor space in a room and vacuuming accumulated dust from the measured

area. The designated sample area was initially 1 meter squared (m^2) but, due to low sample mass, it was increased and the total area vacuumed was recorded. Visual inspection of the collection bag was used to determine if adequate sample was collected. Samples were collected from carpeted and non-carpeted areas. Sample area and number of samples were both dependent on the size of the residence and the volume of dust collected. Table 3 contains sample location, area and mass collected. The samples were returned to REAC where the contents of the bags were screened through a 150 μm sieve. The samples were then weighed, transferred to an 8 oz. glass jar and submitted for analysis. Tables 3 contains the vacuum sampling locations. Sample area and mass can also be found in this table.

All samples were analyzed for PCBs using U.S. EPA SW-846 Method 8080, *Organochlorine Pesticides and PCBs*.

Field data sheets can be referenced in Appendix A.

3.0 RESULTS

The results of the PCB analysis in wipe samples can be found in Table 4. The results of the PCB analysis in soil samples can be found in Table 5. The results of the PCB analysis in vacuum dust samples can be found in Table 6. The final analytical report can be referenced in Appendix B.

4.0 DISCUSSION OF RESULTS

4.1 Wipe Sampling

No PCBs were detected above the method detection limit (MDL) in any samples.

4.2 Soil Sampling

All seven soil samples showed levels of Aroclor 1254 above the MDL with concentrations ranging from 120 to 7,100 micrograms per kilogram (µg/kg). One sample (Sample #11738, Barbato Trailer) showed weathered Aroclor 1254. Weathering indicates that the Aroclor in question is present, but due to breakdown, most predominant peaks are present with some changed peak ratios.

4.3 Vacuum Sampling

All seven vacuum dust samples showed levels of weathered Aroclor 1254 above the MDL with concentrations ranging from 230 to 39,000 µg/kg.

Table 1
Wipe Sampling Locations
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	Location
11730	417 Hamilton Blvd., *Winfall*, workstation near file cabinet
11731	417 Hamilton Blvd., *Winfall*, center office desk
11734	321 Spicer Ave., *Barbato Construction*, general office area desk
11735	321 Spicer Ave., *Barbato Construction*, upstairs office desk
11736	321 Spicer Ave., *Barbato Construction*, front office desk
11739	405 Spicer Ave., *Department of Public Works*, Superintendent's desk
11740	405 Spicer Ave., *Department of Public Works*, sign making room workstation
11741	405 Spicer Ave., *Department of Public Works*, lunch room table
11743	408 Hamilton Blvd., *Chin Bros.*, front office counter
11745	420 Hamilton Blvd., *Custom Cleaners*, counter top next to cash register
11746	430 Hamilton Blvd., *Moore's Stone and Garden*, counter top next to cash register
11747	510 Hamilton Blvd., *Kape Insurance*, receptionist's desk top
11748	510 Hamilton Blvd., *Kape Insurance*, front office desk
11749	409 Hamilton Blvd., *Harry's Liquors*, counter top next to cash register
11750	409 Hamilton Blvd., *Breaktime Restaurant*, counter top
11753	340 Hamilton Blvd., *Pizza Stop*, counter top next to cash register
11754	340 Hamilton Blvd., *Evergreen Chinese Restaurant*, counter top next to cash register
11755	340 Hamilton Blvd., *1 Stop Barber*, stereo door
11756	340 Hamilton Blvd., *1 Stop Barber*, center workstation
11758	340 Hamilton Blvd., *Before and After*, reception desk
11759	340 Hamilton Blvd., *Before and After*, workstation

Table 2
Soil Sampling Locations
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	Location	Sample Mass (grams)
11732	417 Hamilton Blvd., next to garbage bin	12.68
11733	417 Hamilton Blvd., parking lot	36.48
11737	321 Spicer Ave., back yard near shed	64.09
11738	321 Spicer Ave., back yard near trailer	19.81
11742	405 Spicer Ave., back parking lot	65.38
11744	408 Hamilton Blvd., parking lot	54.62
11757	340 Hamilton Blvd., back entrance	59.11

Table 3
Vacuum Sampling Locations
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	Location	Sample Area (square meters)	Sample Mass (grams)
19210	237 Delmore Ave., composite	46.4	0.86
19211	135 Delmore Ave., upstairs composite	20.5	0.40
19212	135 Delmore Ave., downstairs composite	28.3	0.19
19213	126 Spicer Ave., living room	14.9	1.48
19214	126 Spicer Ave., bedroom	3.8	6.22
19215	401 Hamilton Ave., composite	18.7	6.51
19216	403A Hamilton Blvd., composite	8.9	0.86

Shading indicates residence was re-sampled

Table 4
Analysis of Wipe Samples for PCBs
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	11730		11731		11734		11735		11736	
Location	Winfall Workstation		Winfall Center Desk		Barbato Center Desk		Barbato Upstairs Desk		Barbato Front Office	
AROCLOR	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$
1016	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1221	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5
1232	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1242	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1248	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1254	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1260	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3

Conc. denotes concentration
PCBs denotes polychlorinated biphenyls
MDL denotes method detection limit
$\mu g/100cm^2$ denotes micrograms per hundred centimeters square
U denotes not detected above the MDL

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Table 4 (cont'd)
Analysis of Wipe Samples for PCBs
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	11746		11747		11748		11749		11750	
Location	Moores Counter		Kape Insurance Reception Desk		Kape Insurance Front Office Desk		Harry's Florist Counter		Breaktime Counter	
AROCLOR	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$
1016	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1221	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5
1232	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1242	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1248	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1254	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1260	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3

Conc. denotes concentration
PCBs denotes polychlorinated biphenyls
MDL denotes method detection limit
$\mu g/100cm2$ denotes micrograms per hundred centimeters square
U denotes not detected above the MDL

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Table 4 (cont'd)
Analysis of Wipe Samples for PCBs
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

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Sample ID	11739		11740		11741		11743		11745	
Location	Public Works Super		Public Works Sign Room		Public Works Lunch Room		Chin Bros. Counter		Custom Cleaners Counter	
AROCLOR	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$
1016	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1221	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5
1232	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1242	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1248	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1254	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1260	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3

Conc. denotes concentration
PCBs denotes polychlorinated biphenyls
MDL denotes method detection limit
$\mu g/100cm^2$ denotes micrograms per hundred centimeters square
U denotes not detected above the MDL

Table 4 (cont'd)
Analysis of Wipe Samples for PCBs
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	11753		11754		11755		11756		11758	
Location	Pizza Stop Counter		Evergreen Counter		One Stop Stereo Door		One Stop Center Work Station		Band A Reception Desk	
AROCLOR	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$
1016	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1221	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5
1232	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1242	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1248	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1254	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1260	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3

Conc. denotes concentration
PCBs denotes polychlorinated biphenyls
MDL denotes method detection limit
$\mu g/100cm^2$ denotes micrograms per hundred centimeters square
U denotes not detected above the MDL

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Table 4 (cont'd)
Analysis of Wipe Samples for PCBs
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	11759	
Location	Band A Workstation	
AROCLOR	Conc. $\mu g/100cm^2$	MDL $\mu g/100cm^2$
1016	U	1.3
1221	U	2.5
1232	U	1.3
1242	U	1.3
1248	U	1.3
1254	U	1.3
1260	U	1.3

Conc. denotes concentration
PCBs denotes polychlorinated biphenyls
MDL denotes method detection limit
$\mu g/100cm^2$ denotes micrograms per hundred centimeters square
U denotes not detected above the MDL

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Table 5
Analysis of Soil Samples for PCBs
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	11732		11733		11737		11738		11742	
Location	Winfall Garbage		Winfall Parking Lot		Barbato Shed		Barbato Trailer		Public Works Lot	
AROCLOR	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
1016	U	150	U	43	U	47	U	130	U	84
1221	U	300	U	85	U	94	U	260	U	170
1232	U	150	U	43	U	47	U	130	U	84
1242	U	150	U	43	U	47	U	130	U	84
1248	U	150	U	43	U	47	U	130	U	84
1254	1,000	150	220	43	320	47	7,100	130	120	84
1260	U	150	U	43	U	47	U	130	U	84

Conc. denotes concentration
PCBs denotes polychlorinated biphenyls
MDL denotes method detection limit
µg/kg denotes micrograms per kilogram
U denotes not detected above the MDL

w/in acceptable [illegible]

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Table 5 (cont'd)
Analysis of Soil Samples for PCBs
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	11744		11757	
Location	Chin Bros. Lot		340 HamiltonAve.	
AROCLOR	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
1016	U	84	U	46
1221	U	170	U	92
1232	U	84	U	46
1242	U	84	U	46
1248	U	84	U	46
1254	570	84	540	46
1260	U	84	U	46

Conc. denotes concentration
PCBs denotes polychlorinated biphenyls
MDL denotes method detection limit
µg/kg denotes micrograms per kilogram
U not denotes detected above the MDL

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Table 6
Analysis of Vacuum Dust Samples for PCBs
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	19210		19211		19212		19213		19214	
Location	237 Delmore Ave.		135 Delmore Ave. 2nd Floor Composite		135 Delmore Ave. 1st Floor Composite		126 Spicer Ave. Living Room		126 Spicer Ave. Bedroom	
AROCLOR	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
1016	U	290	U	630	U	1,300	U	170	U	40
1221	U	580	U	1300	U	2,600	U	340	U	80
1232	U	290	U	630	U	1,300	U	170	U	40
1242	U	290	U	630	U	1,300	U	170	U	40
1248	U	290	U	630	U	1,300	U	170	U	40
1254	1,900 W	290	900 W	630	620 W	1,300	660 W	170	230 W	40
1260	U	290	U	630	U	1,300	U	170	U	40

Conc. denotes concentration
PCBs denotes polychlorinated biphenyls
MDL denotes method detection limit
µg/kg denotes micrograms per kilogram
U denotes not detected above the MDL
J denotes detected below the MDL
W denotes weathered

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Table 6 (cont'd)
Analysis of Vacuum Dust Samples for PCBs
Cornell Dubilier Electronics
South Plainfield, NJ
December 1998

Sample ID	19215		19216	
Location	401 Hamilton Blvd.		403 A Hamilton Blvd.	
AROCLOR	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
1016	U	38,000	U	290
1221	U	77,000	U	580
1232	U	38,000	U	290
1242	U	38,000	U	290
1248	U	38,000	U	290
1254	39,000 W	38,000	1,600 W	290
1260	U	38,000	U	290

Conc. denotes concentration
PCBs denotes polychlorinated biphenyls
MDL denotes method detection limit
µg/kg denotes micrograms per kilogram
U denotes not detected above the MDL
W denotes weathered

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APPENDIX A
Field Data Sheets
Cornell Dubilier Electronics
South Plainfield, NJ
Final Report
December 1998

U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Vacuum Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

Site: C.D.f.

WA#: 3-262

Sampler: Robbins/Fauna

U.S. EPA/ERTC WAM: Burchette

Date: 10/28/98

REAC Task Leader: Robbins

Occupants Name: [redacted]

Address: 135 Delmore Ave upstairs

Location (s) of area sampled	Area (Units:)
LR → Sample # 19211	185 x 140 total area 16.7 m²
~~Kitchen~~ BR	140 x 142 total area 12.82 m²
	Total Area Sampled = 20.54 m²

Type of surface: Carpet, Floor, Style: Plush, Hardwood, Cement, Level Loop, Tile, Multilevel, Vinyl, Shag, Other, Other

Sketch:

LR
Couch 39x80
Chair 37x41
Chair 37x41
Desk 20x45
Total furniture area 4.55 m²

BR
Bed 55x84
Dresser 18x48
Dresser 18x48
Dresser 16x32
Total furniture area 4.43 m²

Total area Sampled = 16.7 + 12.82 − 4.55 − 4.43 = 20.54 m²

Comments: Composited of all areas

Date Sieved: _____ Total Dust = _____ g Sieve No. 100 Particle size retention: 150 µm

Pan & Sample Wt: _____ g - Pan Tare Wt: _____ g = Net Wt: 0.40 g g (Fine Dust)

Dust Loading: _____ g/m²

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U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Vacuum Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

Site: Cornell Dubilier Electronics

WA#: 3-262

Sampler: Robbins/Fama

U.S. EPA/ERTC WAM: Burchette

Date: 10/28/98

REAC Task Leader: Robbins

Occupants Nam[redacted]

Address: 237 Delmore

Location (s) of area sampled		Area (Units: M^2)	
Living Room	19210	249" X 133"	21.3
Dining Room		111 X 114	8.1
		160 X 165	17.0
		Total Area Sampled =	46.4 M^2

Type of surface: Carpet Style: Plush ~~Level Loop~~ Multilevel Shag Other

Floor Hardwood Cement Tile Vinyl Other

Sketch:

Composite

Comments: [redacted]

Date Sieved: _____ Total Dust = _____ g Sieve No. 100 Particle size retention: 150 µm

Pan & Sample Wt: _____ g Pan Tare Wt: _____ g = Net Wt: 0.86 g (Fine Dust)

Dust Loading: _____ g/m²

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U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Vacuum Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

REAC

Site: C.D.E.

WA#: 3-262

Sampler: Robbins/Dean

U.S. EPA/ERTC WAM: Burchette

Date: 10/28/99

REAC Task Leader: Robbins

Occupants Name: [redacted]

Address: 135 Delmore ~~Upstairs~~ Downstairs

Location (s) of area sampled		Area (Units: _____)
LR	Sample #	138"x185" (16.47m²) Total Room area
BR 1 (master)	19212	124"x138" (11.04m²)
BR 2		140"x142" (12.82)
~~Hall~~		~~124"x35~~
		Total Area Sampled = ~~22.2 m²~~ 28.33 m²

Type of surface: (Carpet) Style: Plush (Level Loop) Multilevel Shag Other

Floor Hardwood Cement Tile Vinyl Other

Sketch:

LR
35x78 Couch
42x35 Chair
31x32 Chair
335 m² total furn. area

BR 1
Bed 42"x84"
Dresser 18"x40"
Dresser 18"x30"
total furn area 3.09 m²

BR
Bed 42x84
Bed 42x84
Dresser 18x35
Dresser 18x52
5.56 total furniture area

Total area Sampled = Total Room Area - Furniture

Composite of all areas Total Area = 16.47+11.04+12.82-335-3.09-5.56
= 28.33m²

Comments: [redacted]

Date Sieved: _____ Total Dust = _____ g Sieve No. 100 Particle size retention: 150 um

Pan & Sample Wt: _____ g - Pan Tare Wt: _____ g = Net Wt: 0.19 g g (Fine Dust)

Dust Loading: _____ g/m²

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U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Vacuum Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

Site: Cornell Dubilier Electronics

WA#: 3-262

Sampler: Robbins/Fama

U.S. EPA/ERTC WAM: Burchette

Date: 10/28/98

REAC Task Leader: Robbins

Occupants Name: [redacted]

Address: 126 Spicer

Location (s) of area sampled		Area (Units: m²)
Living Room	19213	20E x 14W (total Room area) 14.9 m²
Bedroom	19214	55 x 10 3.8 m²
		Total Area Sampled =

Type of surface: Carpet Style: Plush Level Loop Multilevel Shag Other

Floor Hardwood Cement Tile Vinyl Other

Sketch:

LR
Area - 30x32
Dresser 36x16
Lowerer 64x32
Total 10 + 32
4.46

Bedroom
~~55 x 10~~ (KR)

Living Room total area = total Room area - Furniture
19.32 m² - 4.46 m² = 14.86

Comments: [redacted]

Date Sieved: _____ Total Dust = _____ g Sieve No. 100 Particle size retention: 150 um

Pan & Sample Wt: _____ g - Pan Tare Wt: _____ g = Net Wt: LR 1.48 g (Fine Dust)

BR 6.22

Dust Loading: _____ g/m²

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U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Vacuum Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

Site: C.D.F.

WA#: 3-262

Sampler: Robbins/Fama

U.S. EPA/ERTC WAM: Burchette

Date: 10/28/98

REAC Task Leader: Robbins

Occupants Name: ——

Address: 401 Hamilton apartment on Left

Location (s) of area sampled	Area (Units:)
Bedroom on Left	131 x 120
Bedroom on Right	105 x 127
	Total Area Sampled = 18.7 m²

Type of surface: Carpet Style: Plush Level Loop Multilevel Shag Other

Floor Hardwood Cement Tile Vinyl Other

Sketch:

Composite Sample of all areas

19215

Comments: [redacted]

Date Sieved: _____ Total Dust = _____ g Sieve No. 100 Particle size retention: 150 µm

Pan & Sample Wt: _____ g - Pan Tare Wt: _____ g = Net Wt: 6.51 g (Fine Dust)

Dust Loading: _____ g/m²

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U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Vacuum Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

Site: Cornell Dubilier Electronics

WA#: 3-262

Sampler: ~~10/24/98~~ Robbins/Fama

U.S. EPA/ERTC WAM: Burchette

Date: 10/28/98

REAC Task Leader: Robbins

Occupants Name: [redacted]

Address: 403A Hamilton

Location (s) of area sampled	Area (Units: _____)
Living Room area Rug	63x96
Childs Bedroom	87x53, 20x29, 32x22
Master BR	54x42
	Total Area Sampled = 8.9 m²

Type of surface: Carpet Style: Plush Level Loop Multilevel Shag Other

Floor Hardwood Cement Tile Vinyl Other

Sketch:

19216 Composite Sample of All areas

Comment: [redacted]

Composite of LR + BR [redacted]

Date Sieved: _____ Total Dust = _____ g Sieve No. 160 Particle size retention: 150 µm

Pan & Sample Wt: _____ g - Pan Tare Wt: _____ g = Net Wt: 0.86 g (Fine Dust)

Dust Loading: _____ g/m²

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ENVIRONMENTAL RESPONSE TEAM CENTER

Page ___ of ___

WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/26/98

REAC Task Leader: Robbins

Name: Winfall

Temperature (°F): ___

Street Address: 417 Hamilton Blvd

Relative Humidity (%): ___

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11730	08:30	workstation - near file cabinet at back of building	
11731	08:32	Center office Desk left corner	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

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ENVIRONMENTAL RESPONSE TEAM CENTER

Page ___ of ___

WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/26/92

REAC Task Leader: Robbins

Name: Barbato Construction

Temperature (°F): ____

Street Address: 321 Spicer Ave.

Relative Humidity (%): ____

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11734	0852	General office area - center desk Left side	
11735	0856	upstairs office - center of Desk Right office as coming upstairs	
11736	0857	Front office - left side of desk	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

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ENVIRONMENTAL RESPONSE TEAM CENTER

Page ___ of ___

WIPE SAMPLING WORK SHEET

Rev. 11/97

Roy F. Weston Inc.

REAC Project, Edison, NJ

EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/26/98

REAC Task Leader: Robbins

Name: Public Works

Temperature (°F) : ___

Street Address: Spicer + Belmont 405 Spicer Ave

Relative Humidity (%): ___

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11739	09:16	Super's Desk - Front of Desk 10" off center to Left.	
11740	09.19	Sign room work Station "	
11741	09.22	Lunch Room table - Round table in center of room. along Edge of table	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

ENVIRONMENTAL RESPONSE TEAM CENTER

Page ___ of ___

WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/26/98

REAC Task Leader: Robbins

Name: Chin Bros.

Temperature (°F) :

Street Address: 408 Hamilton Blvd

Relative Humidity (%):

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11743	10:00	office counter center	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

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ENVIRONMENTAL RESPONSE TEAM CENTER
WIPE SAMPLING WORK SHEET

Page ___ of ___

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/26/98

REAC Task Leader: Robbins

Name: Custom Cleaners

Temperature (°F) :

Street Address: 420 Hamilton Blvd

Relative Humidity (%):

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11745	10:05	Counter Top Next to Cash Register	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

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ENVIRONMENTAL RESPONSE TEAM CENTER

WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/26/98

REAC Task Leader: Robbins

Name: Moores Store + Garden

Temperature (°F): ____

Street Address: 430 Hamilton Blvd

Relative Humidity (%): ____

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11746	10:10	Counter top Next to Cash Register (Left Side of Register)	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

ENVIRONMENTAL RESPONSE TEAM CENTER

Page ___ of ___

WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/26/98

REAC Task Leader: Robbins

Name: Kape Insurance

Temperature (°F): ___

Street Address: 510 Hamilton Blvd

Relative Humidity (%): ___

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11747		Receptionists Desk top above Computer Keyboard	
11748		front office Desk - near center "	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

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ENVIRONMENTAL RESPONSE TEAM CENTER

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WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/26/98

REAC Task Leader: Robbins

Name: Harry's Liquors

Temperature (°F): ____

Street Address: 409 Hamilton Blvd

Relative Humidity (%): ____

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11749		Countertop - Right Side of Cash Register	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

ENVIRONMENTAL RESPONSE TEAM CENTER

Page ___ of ___

WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/26/98

REAC Task Leader: Robbins

Name: Breaktime Luncheonette

Temperature (°F) : ___

Street Address: 409 Hamilton Blvd

Relative Humidity (%): ___

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11750		Countertop	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

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ENVIRONMENTAL RESPONSE TEAM CENTER

WIPE SAMPLING WORK SHEET

Rev. 11/97

Roy F. Weston Inc.

REAC Project, Edison, NJ

EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: S. Fama

EPA/ERT WAM: Burchette

Date: 10/26/98

REAC Task Leader: Robbins

Name:

Temperature (°F) :

Street Address:

Relative Humidity (%):

Town:

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11751		Field Blank	
11752		MS/MSD	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened witl pesticide grade hexane.

ENVIRONMENTAL RESPONSE TEAM CENTER
WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: ~~10/27/98~~ Robbins

EPA/ERT WAM: Burchette

Date: 10/27/98

REAC Task Leader: Robbins

Name: Pizza Stop

Temperature (°F) : ___

Street Address: 348 Hamilton Blvd

Relative Humidity (%): ___

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11753	08:39	Left counter to left of Cash Register	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

ENVIRONMENTAL RESPONSE TEAM CENTER

WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/27/02

REAC Task Leader: Robbins

Name: Evergreen Chinese

Temperature (°F) :

Street Address: 340 Hamilton Blvd

Relative Humidity (%):

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11754		Countertop - Left Side of Cash Register	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

ENVIRONMENTAL RESPONSE TEAM CENTER
WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/27/98

REAC Task Leader: Robbins

Name: 1 Stop Barber

Temperature (°F) : ____

Street Address: 340 Hamilton Blvd

Relative Humidity (%): ____

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11755		Stereo Door	
11756		Center workstation	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

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ENVIRONMENTAL RESPONSE TEAM CENTER

Page ___ of ___

WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: Robbins

EPA/ERT WAM: Burchette

Date: 10/27/98

REAC Task Leader: Robbins

Name: Before + After

Temperature (°F): ___

Street Address: 340 Hamilton Blvd

Relative Humidity (%): ___

Town: South Plainfield

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11758	1010	Reception Desk	
11759	1012	work station near door going into hair salon	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

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ENVIRONMENTAL RESPONSE TEAM CENTER
WIPE SAMPLING WORK SHEET

Rev. 11/97
Roy F. Weston Inc.
REAC Project, Edison, NJ
EPA Contract No. 68-C4-0022

PRE POST FOLLOW-UP

Site: Cornell Dubilier Electronics Site

WA#: 3-262

Prepared By: S. Fama

EPA/ERT WAM: Burchette

Date: 10/27/98

REAC Task Leader: Robbins

Name:

Temperature (°F) :

Street Address:

Relative Humidity (%):

Town:

Sample #	Time	Sample Location Description	Results (ug/100cm²)
11760		Field Blank	
11761		MS/MSD	

General Comments: For the wipe samples a 10cm x 10cm area is wiped with a cotton gauze pad moistened with pesticide grade hexane.

U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Soil Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

Site: Cornell Dubilier Electronics

WA#: 3-262

Sampler: Robbins

U.S. EPA/ERTC WAM: Burchette

Date: 10/22/98

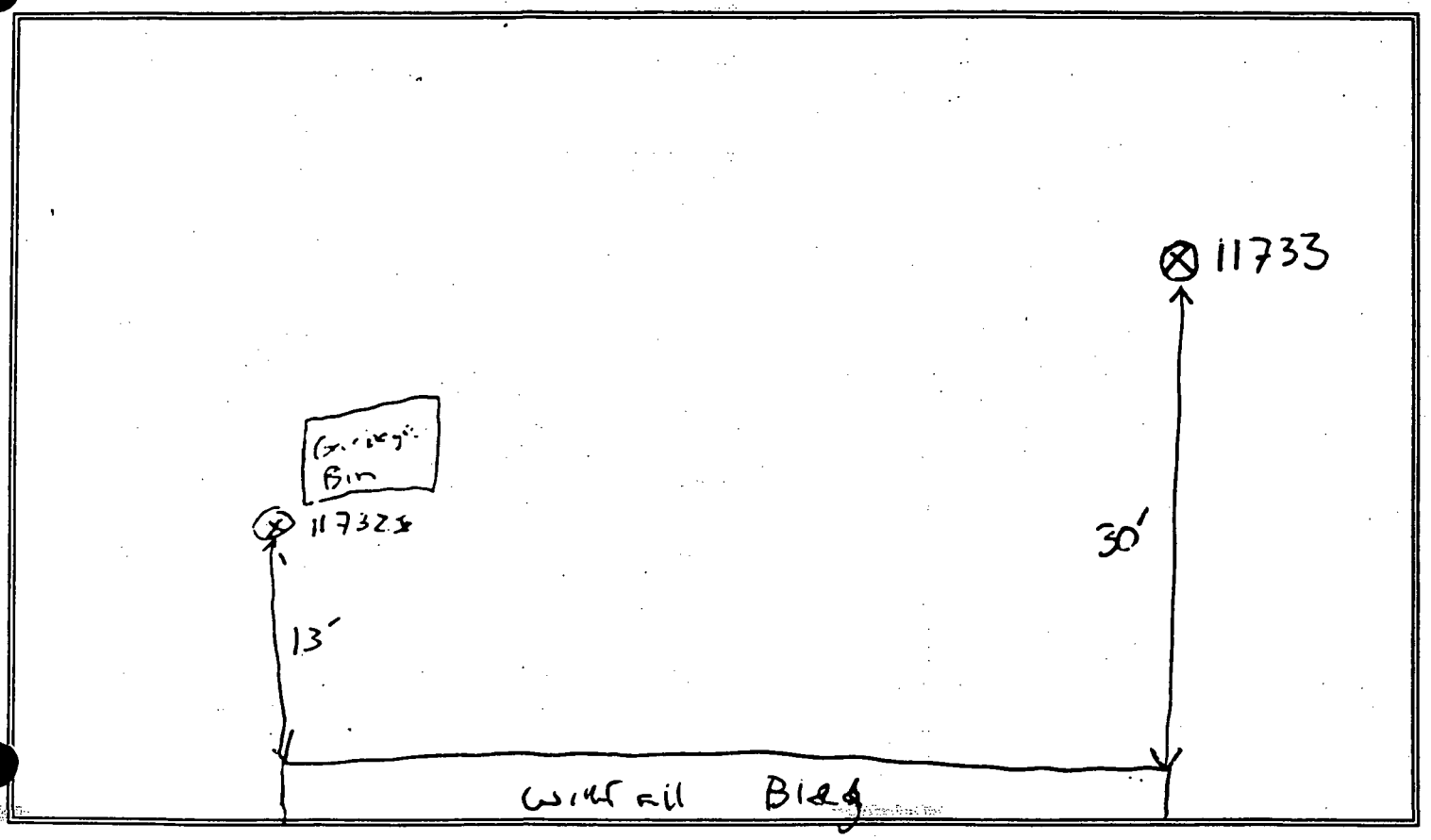
REAC Task Leader: Robbins

Occupants Name: Gwinfall

Address: 417 Hamilton Blvd, South Plainfield

Sample Number	Location (s) Sampled
11732	Next to garbage Bin
11733	Parking lot ~~[illegible]~~ Corner of Concrete Slab

Sampling Diagram



Comments: (X) Indicates Sample Post Sieve Mass 12.68g (11732)
Post Sieve mass 36.48g (11733)

202045

U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Soil Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

Site: Cornell Dubilier Electronics

WA#: 3-262

Sampler: Robbins

U.S. EPA/ERTC WAM: Burchette

Date: 10/22/98

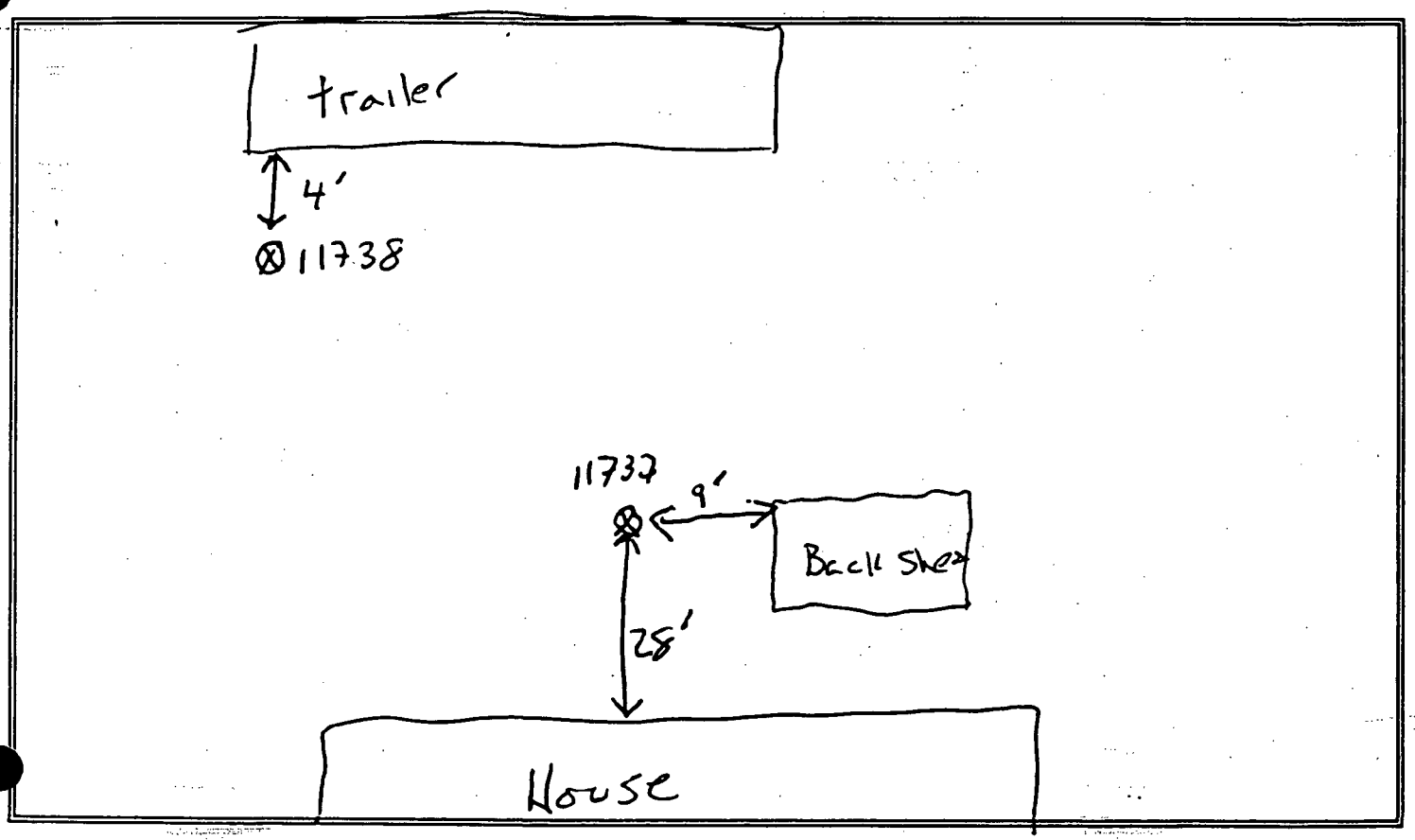
REAC Task Leader: Robbins

Occupants Name: Barbara Construction

Address: 321 Spizer

Sample Number	Location (s) Sampled
11737	Back yard near Shed
11738	Back yard near trailer

Sampling Diagram



Comments: ⊗ indicates Sample taken Post Sieve mass 64.09g (1173
Post Sieve mass 19.81g (1

202046

U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Soil Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

Site: Cornell Dubilier Electronics

WA#: 3-262

Sampler: Robbins

U.S. EPA/ERTC WAM: Burchette

Date: 10/21/98

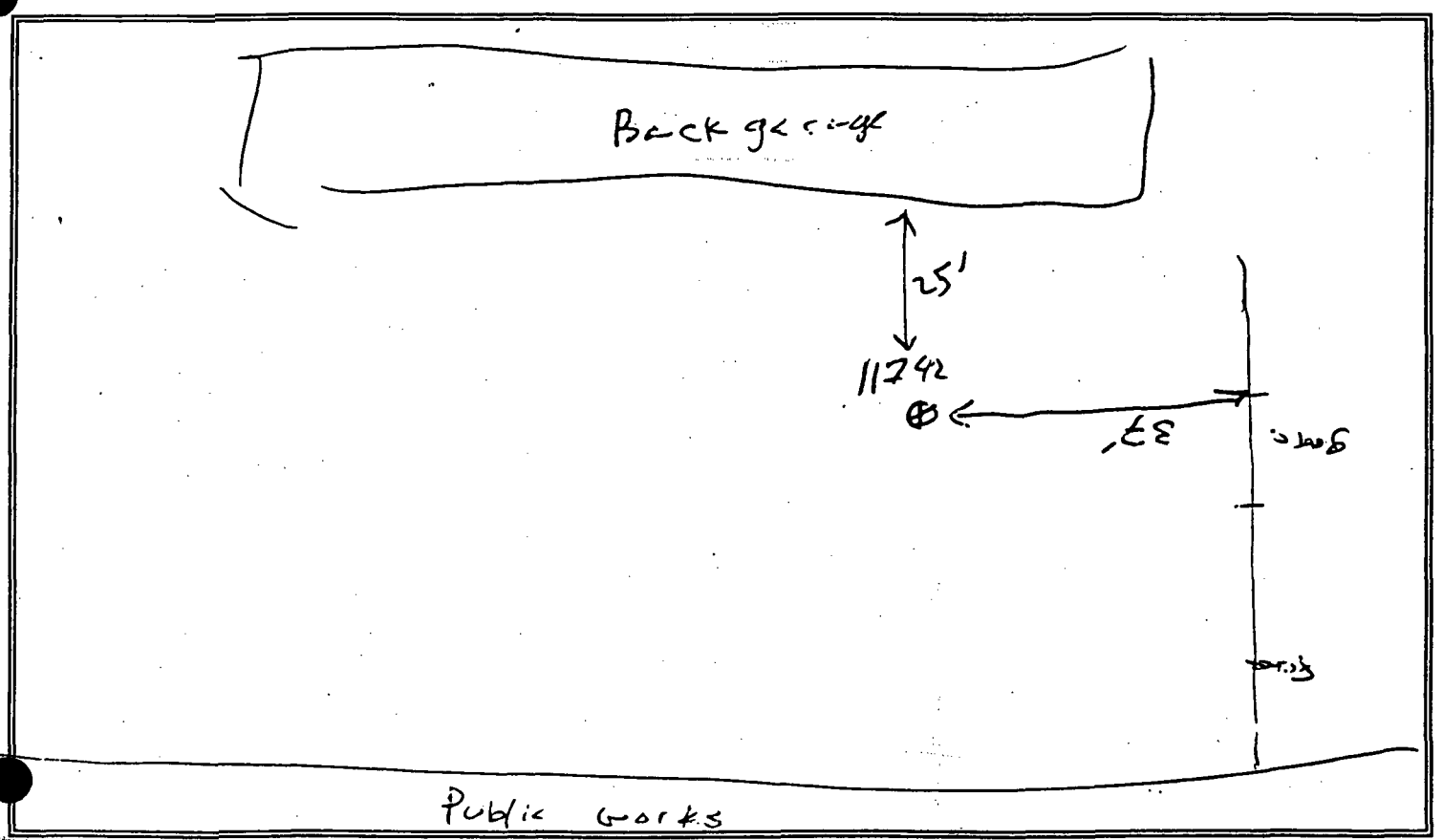
REAC Task Leader: Robbins

Occupants Name: Public Works

Address: ~~Hamilton~~ Spicer + Belmont 405 Spicer Ave

Sample Number	Location (s) Sampled
11742	Back Parking Lot

Sampling Diagram



Comments: Post Sieve mass 65.38 g (11742)

202047

U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Soil Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

Site: Cornell Dubilier Electronics

WA#: 3-262

Sampler: Robbins

U.S. EPA/ERTC WAM: Burchette

Date: 10/26/98

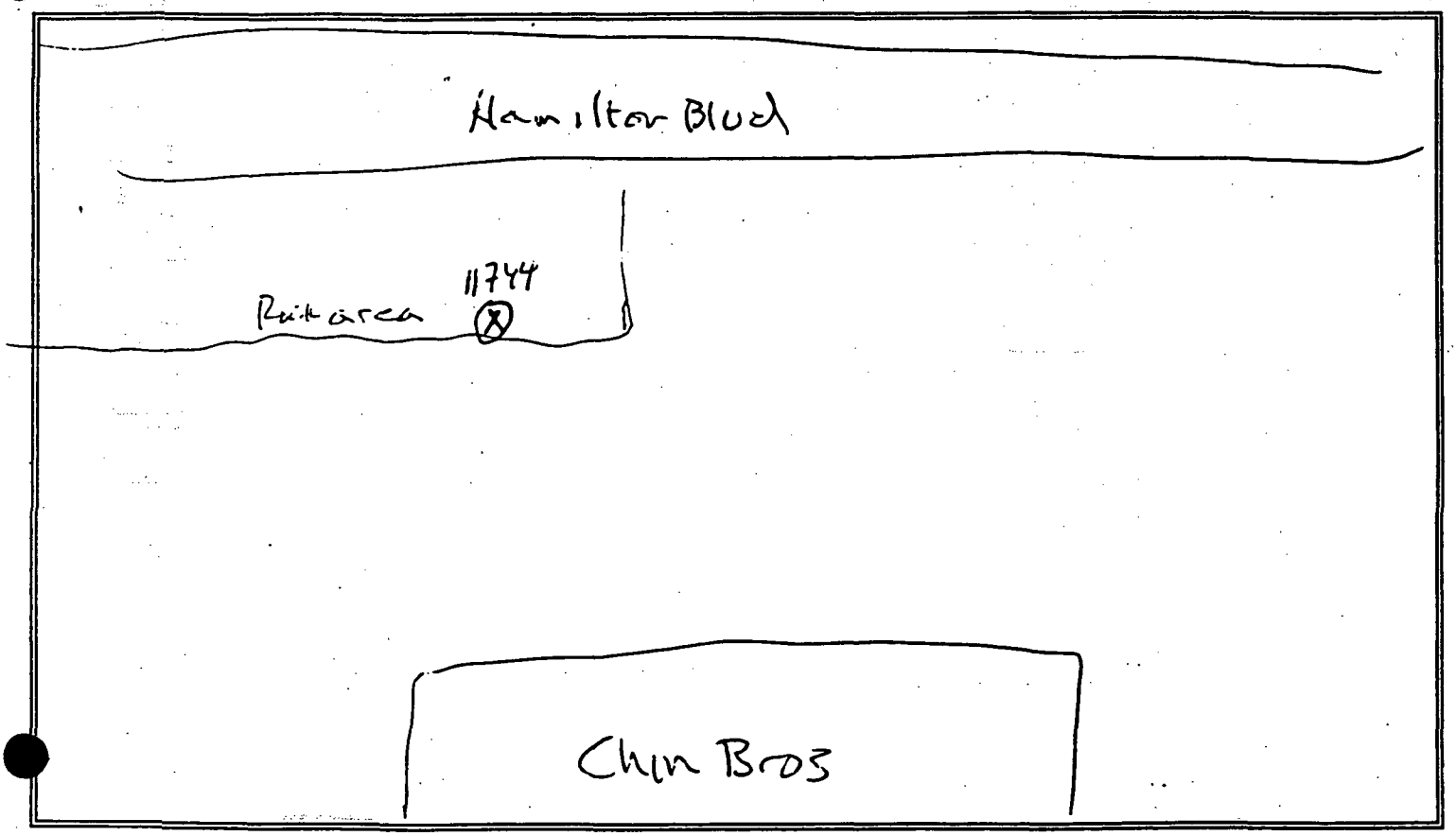
REAC Task Leader: Robbins

Occupants Name: Chin Bros.

Address: 408 Hamilton Blvd

Sample Number	Location (s) Sampled
11744	Parking Lot. Rock area in front Parking Lot

Sampling Diagram



Comments: Post Serve Mass 54.62g (11744)

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U.S. EPA/Environmental Response Team Center
Response Engineering Analytical Contract
Soil Sampling Work Sheet

Roy F. Weston Inc., Edison, NJ
EPA Contract No. 68-C4-0022

Site: Cornell Dubilier Electronics

WA#: 3-262

Sampler: Robbins

U.S. EPA/ERTC WAM: Burchette

Date: 10/27/98

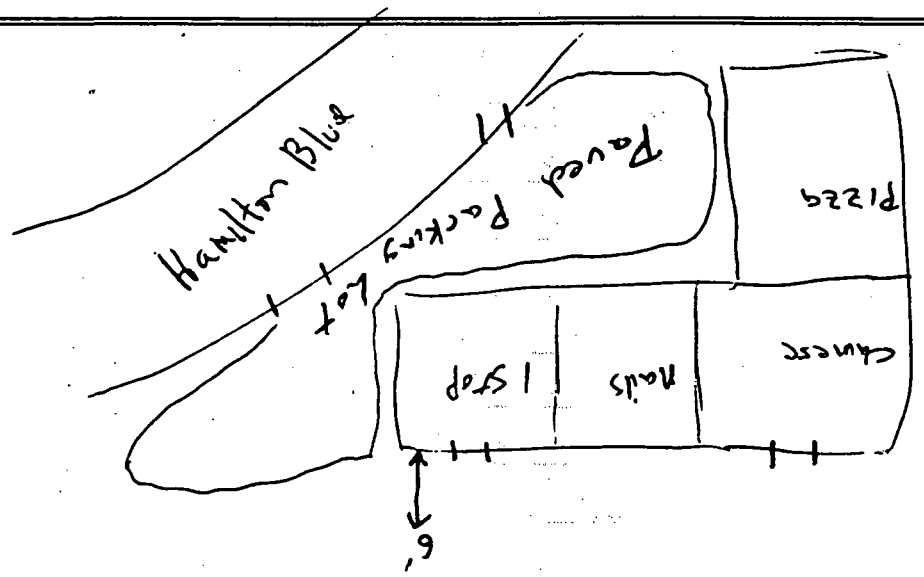
REAC Task Leader: Robbins

Occupants Name: Hamilton Blvd Associates

Address: 346 Hamilton Blvd

Sample Number	Location (s) Sampled
11757	Back entrance

Sampling Diagram



Comments: Post sieve mass 59.11 g (11757)

202049

APPENDIX B
Analytical Report
Cornell Dubilier Electronics
South Plainfield, NJ
Final Report
December 1998

ANALYTICAL REPORT

Prepared by
Roy F. Weston, Inc.

Cornell Dubilier
South Plainfield, NJ

December 1998

EPA Work Assignment No. 3-262
WESTON Work Order No. 03347-143-001-3262-01
EPA Contract No. 68-C4-0022

Submitted to
S. Burchette
EPA-ERTC

Michael Morgante for K.R. 12/9/98
K. Robbins Date
Task Leader

Vinod Kansal 12/9/98
V. Kansal Date
Analytical Section Leader

Vinod Kansal 12/9/98
E. Gilardi Date
Program Manager

Analysis by:
REAC

Prepared by:
M. Gillespie

Reviewed by:
M. Barkley

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Appendix will be furnished on request.

Introduction

REAC in response to WA #3-262, provided analytical support for environmental samples collected from the Cornell Dubilier Electronics Site, located in South Plainfield, NJ as described in the following table. The support also included QA/QC, data review, and preparation of an analytical report containing a summary of the analytical methods, the results, and the QA/QC results.

The samples were treated with procedures consistent with those described in SOP #1008.

COC #	Number of Samples	Sampling Date	Date Received	Matrix	Analysis	Laboratory
09168	6	10/26/98	10/26/98	Soil	PCB	REAC
09169	17	10/26/98	10/26/98	Wipes	PCB	REAC
09171	8	10/27/98	10/27/98	Wipes	PCB	REAC
09172	1	10/27/98	10/27/98	Soil	PCB	REAC
09193	7	10/28/98	11/2/98	Dust	PCB	REAC

Case Narrative

PCB Data Package H495 - PCB in Soil and Wipes

Review of the chromatographs for the soil samples (11732, 11733, 11737, 11738, 11742, 11744 and 11757) indicates the reported concentration of Aroclor 1254 is biased low by approximately 10% in these samples.

Review of the chromatographs indicates that trace amounts of Aroclor 1248 are present. This Aroclor was not quantitated.

In the end of sequence check of 11/4/98 (instrument N) the %D for Aroclor 1254 peak #5 was not calculated due to coelution with contaminant peaks. No samples were quantified under this check; the data is not affected.

In the end of sequence check of 11/5/98 (instrument N) the average %D for Aroclor 1254 (32%) exceeded the acceptable QC limit. No samples were quantified under this check; the data is not affected.

In the end of sequence check of 11/2/98 (instrument J) the %D for DCBP (surrogate, 61%) exceeded the acceptable QC limit. No samples were quantified under this check; the data is not affected.

Case Narrative (cont.)

In the continuing calibration check of 11/4/98 (instrument J) the %D for DCBP (surrogate, 40%) exceeded the acceptable QC limit. This analytical sequence was used for Aroclor 1254 dilutions only; the data is not affected.

In the end of sequence check of 11/4/98 (instrument J) the %D for DCBP (surrogate, 28%) exceeded the acceptable QC limit. No samples were quantified under this check; the data is not affected.

One surrogate recovery exceeded the acceptable QC limit for samples 11732, 11733, 11737, 11738, 11742, 11744 and 11757; the data is not affected.

PCB Data Package H502 - PCB in Dust

Due to limited amount of sample available, no percent solids was performed for this analysis. The results are reported on actual weight received.

For the end of sequence check of 11/7/98 the percent difference (%D) for DCBP (surrogate, 41%) exceeded the acceptable QC limit. No associated samples were quantified under this calibration check; the data is not affected.

Due to matrix interference both surrogate compounds were diluted below the detection limit for sample 19215. The data for this sample should be regarded as estimated.

Both surrogate recoveries exceeded the acceptable QC limit in the Blank Spike (BS). The BS results should be regarded as estimated.

One surrogate recovery exceeded the acceptable QC limit for sample 19214; the data is not affected.

Due to matrix interference the Aroclor 1254 results for all samples are considered weathered (W) and should be regarded as estimated.

Summary of Abbreviations

AA	Atomic Absorption
B	The analyte was found in the blank
BFB	Bromofluorobenzene
BPQL	Below the Practical Quantitation Limit
BS/BSD	Blank Spike/Blank Spike Duplicate
C	Centigrade
D	(Surrogate and MS/MSD Table) this value is from a diluted sample and was not calculated (Result Table) this result was obtained from a diluted sample
Dioxin	Denotes Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans and/or PCDD and PCDF
CLP	Contract Laboratory Protocol
COC	Chain of Custody
CONC	Concentration
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
DFTPP	Decafluorotriphenylphosphine
DL	Detection Limit
E	The value is greater than the highest linear standard and is estimated
EMPC	Estimated maximum possible concentration
ICAP	Inductively Coupled Argon Plasma
ISTD	Internal Standard
J	The value is below the method detection limit and is estimated
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MDL	Method Detection Limit
MI	Matrix Interference
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MW	Molecular Weight
NA	either Not Applicable or Not Available
NC	Not Calculated
NR	Not Requested
NS	Not Spiked
% D	Percent Difference
% REC	Percent Recovery
PQL	Practical Quantitation Limit
PPBV	Parts per billion by volume
QL	Quantitation Limit
RPD	Relative Percent Difference
RSD	Relative Standard Deviation
SIM	Selected Ion Mode
TCLP	Toxic Characteristics Leaching Procedure
U	Denotes not detected
W	Weathered sample; the value should be regarded as estimated
m^3	cubic meter
L	liter
mL	milliliter
µL	microliter
*	denotes a value that exceeds the acceptable QC limit

Abbreviations that are specific to a particular table are explained in footnotes on that table

Revision 10/16/97

	cubic meter	kg	kilogram	µg	microgram
	liter	g	gram	pg	picogram
	milliliter	mg	milligram		

Analytical Procedure for PCB in Soil

Extraction Procedure

The soil samples were extracted by the Soxhlet method. A thirty gram aliquot was spiked with a surrogate solution consisting of tetrachloro-m-xylene and decachlorobiphenyl, mixed with approximately 30 g anhydrous sodium sulfate, and Soxhlet extracted for sixteen hours with 300 mL 1:1 hexane:acetone. The final extract was concentrated to five mL.

Gas Chromatographic Analysis

The extract was analyzed for PCBs using simultaneous dual column injections. The analysis was done on an HP 5890 GC/ECD system, equipped with an HP 7673A automatic sampler, and controlled with an HP-ChemStation. The following conditions were employed:

First Column	DB-608, 30 meter, 0.32mm fused silica capillary, 0.50 µm film thickness
Injector Temperature	200 °C
Detector Temperature	325 °C
Second Column	Rtx-CLPesticides, 30 meter, 0.32mm fused silica capillary, 0.50 µm film thickness
Injector Temperature	200 °C
Detector Temperature	325 °C
Temperature Program (both columns)	70 °C for 1 minute 30 °C/min to 150 °C, 0.5 min at 150 °C 8 °C/min to 275 °C, 10 min at 275 °C

The gas chromatographs were calibrated using 5 PCB standards at 250, 500, 1000, 2000, and 5000 µg/L. Five representative peaks were chosen and the responses from each mixture were used to calculate the response factors (RF) of the analyte. The average RF was used to calculate the concentrations of the PCBs in the samples. Quantification was based on the DB-608 column (signal 1), and identity of the analyte was confirmed using the Rtx-CLPesticides column (signal 2). A fingerprint gas chromatogram was run using each of the seven Aroclor mixtures; calibration curves were run only if a particular Aroclor was found in the sample.

The PCB results, listed in Table 1.1, were calculated from the following formula:

$$C_u = \frac{(DF) \times (A_u) \times (V_t)}{(RF_{ave}) \times (V_i) \times (W) \times (D)}$$

where

C_u	=	Concentration of analyte (µg/kg)
DF	=	Dilution Factor
A_u	=	Area or peak height
V_t	=	Volume of sample (mL)
RF_{ave}	=	Average response factor
V_i	=	Volume of extract injected (µL)
W	=	Weight of sample (g)
D	=	Decimal percent solids

Response Factor calculation:

The RF for each specific analyte is quantitated based on the area response from the continuing calibration check as follows:

$$RF = \frac{A_u}{total\ pg\ injected}$$

where

A_u = Area or peak height

and

$$RF_{ave} = \frac{RF_1 + \ldots + RF_n}{n}$$

where

n = number of samples

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Analytical Procedure for PCB in Dust

Extraction Procedure

Due to the insufficient sample amounts available, the entire mass of dust collected was extracted with 30 mL of hexane three times in a shaker. After the extraction, all three extracts were combined and concentrated to a final volume of one mL, then a sulfuric acid clean-up was performed.

Gas Chromatographic Analysis

The extract was analyzed for PCBs using simultaneous dual column injections. The analysis was done on an HP 5890, equipped with a HP 7673A automatic sampler, and controlled with an HP Chem-Station. The following conditions were employed:

First Column	DB-608, 30 meter, 0.32mm fused silica capillary, 0.50 µm film thickness
Injector Temperature	200° C
Detector Temperature	325° C
Second Column	Rtx-CLPesticides, 30 meter, 0.32mm fused silica capillary, 0.50 µm film thickness
Injector Temperature	200° C
Detector Temperature	325° C
Temperature Program-(both columns)	70 ° C for 1 minute 30 °C/min to 150°C, 0.5 min at 150°C 8 °C/min to 275°C, 10 min at 275°C
Injection Volume	2 µl

The gas chromatographs were calibrated using 5 PCB standards at 250, 500, 1000, 2000, and 5000 µg/L. Five representative peaks were chosen and the responses from each mixture were used to calculate the response factors (RF) of the analyte. The average RF was used to calculate the concentration of PCB's in the sample. Quantification was based on the DB-608 column (signal 1) and the identity of the analyte was confirmed using the Rtx-CLPesticides column (signal 2). A fingerprint chromatogram was run using each of the seven Aroclor mixtures; calibration curves were run only if a particular Aroclor or toxaphene was found in the sample.

The PCB results, listed in Table 1.2, are calculated by using the following formula:

$$C_u = \frac{(DF)x(A_u)x(V_i)}{(RF_{avg})x(V_e)x(W x D)}$$

where

C	=	Concentration of analyte (µg/kg)
DF	=	Dilution Factor
A	=	Area or peak height
V	=	Volume of sample (mL)
RF_{avg}	=	Average response factor
V	=	Volume of extract injected (µL)
W	=	Weight of sample (g)
D	=	Decimal percent solids

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Response Factor calculation:

The RF for each specific analyte is quantitated based on the area response from the continuing calibration check as follows:

$$RF = \frac{A_u}{total\ pg\ injected}$$

where

A_u = Area or peak height

and

$$RF_{ave} = \frac{RF_1 + \ldots + RF_n}{n}$$

where

n = number of samples

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Analytical Procedure for PCB in Wipes

Extraction Procedure

The entire wipe was spiked with a surrogate solution consisting of tetrachloro-m-xylene and decachlorobiphenyl, and Soxhlet extracted with 300 mL of hexane. The combined extracts were filtered and concentrated to 5.0 mL.

Gas Chromatographic Analysis

The extract was analyzed for PCBs using simultaneous dual column injections. The analysis was done on an HP 5890 GC/ECD system, equipped with an HP 7673A automatic sampler, and controlled with an HP-ChemStation. The following conditions were employed:

First Column	DB-608, 30 meter, 0.32mm fused silica capillary, 0.50 μm film thickness
Second Column	RTx-1701, 30 meter, 0.32mm fused silica capillary, 0.50 μm film thickness
Injector Temperature	200° C
Detector Temperature	325° C
Temperature Program	70°C for 1 minute 30°C/min to 150°C, 0.5 min at 150°C 8°C/min to 275°C, 10 min at 275°C
Injection Volume	2 μL

The gas chromatographs were calibrated using 5 Aroclor 1254 standards at 250, 500, 1000, 2000, and 5000 μg/L. The response from each mixture were used to calculate the response factors (RF) of each analyte. The average RF was used to calculate the concentrations of PCB in the samples. Quantification was based on the DB-608 column (signal 1), and identity of the analyte was confirmed using the RTx-1701 column (signal 2). A fingerprint gas chromatogram was run using each of the seven Aroclor mixtures.

The PCB results, listed in Table 1.3, were calculated from the following formula:

$$C_u = \frac{(DF)x(A_u)x(V_t)}{(RF_{ave})x(V_i)x(W)}$$

where

C_u	=	Concentration of analyte (μg/100cm^2 or total μg if no area is wiped)
DF	=	Dilution Factor
A_u	=	Area or peak height
V_t	=	Volume of sample (mL)
RF_{ave}	=	Average response factor
V_i	=	Volume of extract injected (μL)
W	=	Area sampled (100 cm^2) *where applicable*

Response Factor calculation:

The RF for each specific analyte is quantitated based on the area response from the continuing calibration check as follows:

$$RF = \frac{A_u}{total\ pg\ injected}$$

where

A_u = Area or peak height

and

$$RF_{ave} = \frac{RF_1 + \ldots + RF_n}{n}$$

where

n = number of samples

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Table 1.1 Results of the Analysis for PCB in Soil
WA# 3-262 Cornell Dubilier Electronic Site
Based on dry weight

Client ID	SBLK102698		11732		11733		11737		11738	
Location	-		Winfall Garbage		Winfall Parking Lot		Barbato Shed		Barbato Trailor	
Percent Solid	100		83		96		87		96	
Analyte	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
Aroclor 1016	U	42	U	150	U	43	U	47	U	130
Aroclor 1221	U	83	U	300	U	85	U	94	U	260
Aroclor 1232	U	42	U	150	U	43	U	47	U	130
Aroclor 1242	U	42	U	150	U	43	U	47	U	130
Aroclor 1248	U	42	U	150	U	43	U	47	U	130
Aroclor 1254	U	42	1000	150	220	43	320	47	7100	130
Aroclor 1260	U	42	U	150	U	43	U	47	U	130

Client ID	11742		11744		SBLK10279801		11757	
Location	Public Works Lot		Chin Bros Lot		-		340 Hamilton Back	
Percent Solid	99		96		100		91	
Analyte	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
Aroclor 1016	U	84	U	43	U	42	U	46
Aroclor 1221	U	170	U	87	U	83	U	92
Aroclor 1232	U	84	U	43	U	42	U	46
Aroclor 1242	U	84	U	43	U	42	U	46
Aroclor 1248	U	84	U	43	U	42	U	46
Aroclor 1254	120	84	570	43	U	42	540	46
Aroclor 1260	U	84	U	43	U	42	U	46

Table 1.2 Results of the Analysis for PCB in Dust
WA# 3-262 Cornell Dubilier Electronic Site
Based on actual weight received

Client ID	Lab Blk		19210		19211		19212		19213	
Location	-		237 Delmore		135 Delmore upstairs		135 Delmore Downstairs		126 Spicer LR	
Analyte	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
Aroclor 1016	U	25	U	290	U	630	U	1300	U	170
Aroclor 1221	U	50	U	580	U	1300	U	2600	U	340
Aroclor 1232	U	25	U	290	U	630	U	1300	U	170
Aroclor 1242	U	25	U	290	U	630	U	1300	U	170
Aroclor 1248	U	25	U	290	U	630	U	1300	U	170
Aroclor 1254	U	25	1900 W	290	900 W	630	620 W	1300	660 W	170
Aroclor 1260	U	25	U	290	U	630	U	1300	U	170

Client ID	19214		19215		19216	
Location	126 Spicer BR		401 Hamilton		403 A Hamilton	
Analyte	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
Aroclor 1016	U	40	U	38000	U	290
Aroclor 1221	U	80	U	77000	U	580
Aroclor 1232	U	40	U	38000	U	290
Aroclor 1242	U	40	U	38000	U	290
Aroclor 1248	U	40	U	38000	U	290
Aroclor 1254	230 W	40	39000 W	38000	1600 W	290
Aroclor 1260	U	40	U	38000	U	290

Table 1.3 Results of the Analysis for PCB in Wipes
WA# 3-262 Cornell Dubilier Electronics Site

Client ID	BLK102698		11730		11731		11734		11735	
Location	---		Winfall Workstation		Winfall Center Desk		Barbato Center Desk		Barbato Upstairs Desk	
Units	µg		µg/100cm2		µg/100cm2		µg/100cm2		µg/100cm2	
Analyte	Conc.	MDL	Conc.	MDL	Conc.	MDL	Conc.	MDL	Conc.	MDL
Aroclor 1016	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1221	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5
Aroclor 1232	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1242	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1248	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1254	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1260	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3

Client ID	11736		11739		11740		11741		11743	
Location	Barbato Front Office		Public Works Super		Public Works Sign Room		Public Works Lunch Room		Chin Bros counter	
Units	µg/100cm2		µg/100cm2		µg/100cm2		µg/100cm2		µg/100cm2	
Analyte	Conc.	MDL	Conc.	MDL	Conc.	MDL	Conc.	MDL	Conc.	MDL
Aroclor 1016	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1221	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5
Aroclor 1232	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1242	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1248	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1254	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1260	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3

Client ID	11745		11746		11747		11748		11749	
Location	Custom Cleaners Counter		Moores Counter		Kape Receptionist Desk		Kape Front office Desk		Harry's Counter	
Units	µg/100cm2		µg/100cm2		µg/100cm2		µg/100cm2		µg/100cm2	
Analyte	Conc.	MDL	Conc.	MDL	Conc.	MDL	Conc.	MDL	Conc.	MDL
Aroclor 1016	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1221	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5
Aroclor 1232	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1242	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1248	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1254	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1260	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3

Table 1.3 (cont.) Results of the Analysis for PCB in Wipes
WA# 3-262 Cornell Dubilier Electronics Site

Client ID	11750		11751		BLK102798		11753		11754	
Location	Breaktime Counter		Field Blank		—		Pizza Stop Counter		Evergreen Counter	
Units	µg/100cm2		µg/100cm2		µg		µg/100cm2		µg/100cm2	
Analyte	Conc.	MDL	Conc.	MDL	Conc.	MDL	Conc.	MDL	Conc.	MDL
Aroclor 1016	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1221	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5
Aroclor 1232	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1242	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1248	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1254	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1260	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3

Client ID	11755		11756		11758		11759		11760	
Location	One Stop Stereo Door.		One Stop Center Work Station		Band A Reception Desk		Band A WorkStation		Field Blank	
Units	µg/100cm2		µg/100cm2		µg/100cm2		µg/100cm2		µg/100cm2	
Analyte	Conc.	MDL	Conc.	MDL	Conc.	MDL	Conc.	MDL	Conc.	MDL
Aroclor 1016	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1221	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5
Aroclor 1232	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1242	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1248	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1254	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Aroclor 1260	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3

QA/QC for PCB

Results of the Surrogate Recoveries for PCB in Soil

Prior to extraction each sample was spiked with a two compound surrogate mixture consisting of tetachloro-m-xylene (TCMX) and decachlorobiphenyl (DCBP). The results of the surrogate recoveries for PCBs in soil, listed in Table 2.1, ranged from 22-102%. Thirteen out of 22 recoveries are within the acceptable QC limits.

Results of the MS/MSD Analysis for PCB in Soil

Sample 11742 was chosen for MS/MSD analysis for PCBs in soil. The results of the spike recoveries, listed in Table 2.2, ranged from 30-53%. There are no QC limits available for this analysis. The RPD, also listed in Table 2.2, was 55 and no QC limit is available for this analysis.

Results of the Surrogate Recoveries for PCB in Dust

Prior to extraction each sample was spiked with a two compound surrogate mixture consisting of tetachloro-m-xylene (TCMX) and decachlorobiphenyl (DCBP). The results of the surrogate recoveries for PCBs in dust, listed in Table 2.3, ranged from 0-83%. Ten out of 18 reported recoveries are within the acceptable QC limits. Two surrogates were diluted below detection limits due to matrix interference.

Results of the BS/BSD Analysis for PCB in Dust

The results of the blank spike recoveries for PCB in dust, listed in Table 2.4, ranged from 85-89%. There are no QC limits available for this analysis. The RPD, also listed in Table 2.4, was 5 and no QC limit is available for this analysis.

Results of the Surrogate Recoveries for PCB in Wipes

Prior to extraction each sample was spiked with a two compound surrogate mixture consisting of tetachloro-m-xylene (TCMX) and decachlorobiphenyl (DCBP). The results of the surrogate recoveries for PCBs in wipes, listed in Table 2.5, ranged from 80-105% and all 58 recoveries are within the acceptable QC limits.

Results of the BS/BSD Analysis for PCB in Wipes

The results of the blank spike recoveries for PCB in wipes, listed in Table 2.6, ranged from 70-87%. There are no QC limits available for this analysis. The RPDs, also listed in Table 2.6, ranged from 0 to 5 and no QC limit is available for this analysis.

Table 2.1 Results of the Surrogate Recoveries for PCB in Soil
WA#3-262 Cornell Dubilier Electronics Site

Sample ID	Percent Recovery TCMX	DCBP
SBLK102698	85	102
11732	86	36 *
11733	97	40 *
11737	88	33 *
11738	91	38 *
11742	83	27 *
11742MS	76	22 *
11742MSD	98	28 *
11744	90	29 *
SBLK10279801	72	99
11757	88	33 *

	ADVISORY QC Limits
Tetrachloro-m-xylene (TCMX)	60-150
Decachlorobiphenyl (DCBP)	60-150

Table 2.2 Results of the MS/MSD Analysis for PCB in Soil
WA#3-262 Cornell Dubilier Electronic Site
Results Based on Dry Weight

Sample ID: 11742

Compound	Sample Conc µg/kg	MS Spike Added µg/kg	MS Conc µg/kg	MS % Rec	MSD Spike Added µg/kg	MSD Conc µg/kg	MSD % Rec	RPD
Aroclor 1254	122	593	298	30	630	459	53	55

Table 2.3 Results of the Surrogate Recoveries for PCB in Dust
WA#3-262 Cornell Dubilier Electronics Site

Sample ID	Percent Recovery TCMX		Percent Recovery DCBP	
Lab Blank	70		68	
19210	71		47	*
19211	73		48	*
19212	76		53	*
19213	75		49	*
19214	83		0	*
19215	D	*	D	*
19216	70		48	*
BS	59	*	58	*
BSD	68		69	

	ADVISORY QC Limits
Tetrachloro-m-xylene (TCMX)	60-150
Decachlorobiphenyl (DCBP)	60-150

Table 2.4 Results of the BS/BSD Analysis for PCB in Dust
WA#3-262 Cornell Dubilier Electronic Site

Sample ID: Blank spike/ Blank spike duplicate

Compound	Sample Conc µg/kg	BS Spike Added µg/kg	BS Conc µg/kg	BS % Rec	BSD Spike Added µg/kg	BSD Conc µg/kg	BSD % Rec	RPD
Aroclor 1254	U	100	85	85	100	89	89	5

Table 2.5 Results of the Surrogate Recoveries for PCB in Wipes
WA# 3-262 Cornell Dubilier Electronics Site

Sample ID	Percent Recovery TCMX	DCBP
BLK102698	80	95
11730	91	100
11731	90	100
11734	85	89
11735	89	97
11736	93	103
11739	94	102
11740	90	102
11741	88	98
11743	90	101
11745	89	94
11746	85	93
11747	82	92
11748	87	97
11749	87	94
11750	88	99
11751	91	90
BS	89	100
BSD	90	95
BLK102798	83	93
11753	83	95
11754	91	102
11755	90	94
11756	88	98
11758	92	96
11759	92	104
11760	93	105
BS	87	95
BSD	88	95

	ADVISORY QC Limits
Tetrachloro-m-xylene (TCMX)	60-150
Decachlorobiphenyl (DCBP)	60-150

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Table 2.6 Results of the BS/BSD Analysis for PCB in Wipes
WA#3-262 Cornell Dubilier Electronics Site

Sample ID: 11752

Compound	Sample Conc µg	BS Spike Added µg	BS Conc µg	BS % Rec	BSD Spike Added µg	BSD Conc µg	BSD % Rec	RPD
Aroclor 1254	U	10.00	8.68	87	10.00	8.32	83	5

Sample ID: 11761

Compound	Sample Conc µg	BS Spike Added µg	BS Conc µg	BS % Rec	BSD Spike Added µg	BSD Conc µg	BSD % Rec	RPD
Aroclor 1254	U	10.00	6.96	70	10.00	6.98	70	0

REAC, Edison, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Cornell Dubilier Electronics Site
Project Number: 05347-143-001-3262-01
RFW Contact: Ken Robbins Phone: 732-321-4200

No: 09168

SHEET NO. 1 OF 1

102698

Sample Identification / Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	PCB's	Grams
608	11732	Wintelli Garage	S	10/26/98	1	4oz./None	✓	12.68
609	11733	Wintelli Firewall	↓	↓	↓	↓	↓	36.48
610	11737	Exterior Shed						64.09
611	11738	Berpeto Trailer						19.81
612	11742	Public Works Lot						65.38
613	11744	Chin Bros Lot	↓	↓	↓	↓	↓	54.62

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other	SL -	Sludge	A -	Air

Special Instructions:
OZ-OUNCE
PCB-Poly chlorinated biphenyl

*RUSH

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All/Analysis	[illegible]	10/26/98	C Gasser	10/26/98	16:15	All/Analysis	C Gasser	10/26/98	M. Young	10/26/98	4:40

FORM #4 8/94

202073

REAC, E[illegible]on, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHA[illegible] OF CUSTODY RECORD

Project Name: Cornell Dubilier Electronics
Project Number: 03347-143-00,-3262-01
RFW Contact: Ken Robbins Phone: 732-381-4200

No: 09169

SHEET NO. 1 OF 1

10269E -

Sample Identification / Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	PCB's	Area
614	11730	Winfall Workstation	X	10/26/98	1	40 ml Amber Vial/None	✓	100 cm2
615	11731	Winfall Center Desk						
616	11734	Barbato Center Desk						
617	11735	Barbato Vestibule Desk						
618	11736	Barbato Front office						
619	11739	Public Works Super						
620	11740	Public Works Sign Room						
621	11741	Public Works Lunchroom						
622	11743	Chin Bros Counter						
623	11745	Custom Cleaners Counter						
624	11746	Moares Counter						
625	11747	Kape Receptionist Desk						
626	11748	Kape Front office Desk						
627	11749	Harry's Counter						
628	11750	Breaktime Counter						
629	11751	Field Blank						0
630	11752	MS/MSD						0

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other— wipe	SL -	Sludge	A -	Air

Special Instructions:

PCB - polychlorinated biphenyl
mL - milliliter
MS/MSD - Media Spike/Media Spike Duplicate
Cm2 - Square Centimeter

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All/analysis	All/analysis	10/26/98	C Gassen	10/26/98	16:15	All/Analysis	C Gassen	10/26/98	M. Yovnin	10/26/98	4:00

M #4

6/94

202074

REAC, E[illegible]on, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHA[illegible] OF CUSTODY RECORD

Project Name [illegible]
Project Number [illegible]
RFW Contact [illegible] Phone [illegible]

No: 09171

SHEET NO. 1 OF 1

102798-

Sample Identification / Analyses Requested

REAC #	Sample No	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	PCB	Area (cm²)		
632	[illegible]	[illegible]	✓	[illegible]		40 ml Amber Vial [illegible]	✓	100		
633	[illegible]	[illegible]								
634	[illegible]	[illegible]								
635	[illegible]	[illegible]								
636	[illegible]	[illegible]								
637	[illegible]	[illegible]						✓		
638	[illegible]	[illegible]						0		
639	[illegible]	MS/MSD	✓	✓	✓	✓	✓	0		

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other - wipe	SL -	Sludge	A -	Air

Special Instructions:

ml - milliliter
PCB - polychlorinated biphenyl
cm² - squared centimeter
MS/MSD - Media spike/media spike duplicate

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
[illegible]	[illegible]	10/27/98	C Gasser	10/27/98	14:10	All/Analysis	C Gasser	10/27/98	M. Young	10/27/98	2:30 pm

FORM #4 8/94

00023

202075

REAC, E[illegible]on, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHA[illegible] OF CUSTODY RECORD

Project Name: Cornell Dubilier Electronics Site
Project Number: 03347-143-001-3262-01
RFW Contact: Ken Robbins Phone: 732-321-4200

No: 09172

SHEET NO. 1 OF 1

102798 -

Sample Identification / Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	PCB	Grams		
631	11757	340 [illegible] Back	S	10/27/98	1	4oz/NONE	✓	59.11		

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other	SL -	Sludge	A -	Air

Special Instructions:
OZ - OUNCE
PCB - polychlorinated biphenyl

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All/Analysis	[illegible]	10/27/98	C Gasser	10/27/98	14:10	All/Analysis	C Gasser	10/27/98	M. Yourin	10/27/98	2:34

202076

FORM #4 8/94

REAC, Edison, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Cornell Dubilier Electronics Site
Project Number: 03347-143-001-3262-01
RFW Contact: Ken Robbins Phone: 732-321-4200

No: 09172

SHEET NO. 1 OF 1

102798 -

Sample Identification / Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	PCB	Grams		
631	11757	340 Hamilton Beck	S	10/27/98	1	4oz/NONE	✓	59.11		

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other	SL -	Sludge	A -	Air

Special Instructions:
OZ - ounce
PCB - polychlorinated biphenyl

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All/Analysis	[signature]	10/27/98	C Gasser	10/27/98	14:10	All/Analysis	C Gasser	10/27/98	M. Yavin	10/27/98	2:34

FORM #4

202077

REAC, Edison, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Cornell Dubilier Electronics Site
Project Number: 03347-143-001-3262-01
RFW Contact: Ken Robbins Phone: 732-321-4200

No: 0917

SHEET NO. 1 OF

102798-

Sample Identification / Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	PCB	Area (cm²)
632	11753	Pizza Stop Counter	X	10/27/98	1	40 ml Amber Vial/none	✓	100
633	11754	Evergreen Counter						
634	11755	One Stop Stereo Door						
635	11756	One Stop Center Work Station						
636	11758	Band A Reception Desk						
637	11759	Band A Work Station						
638	11760	Field Blank						0
639	11761	MS/MSD						0

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other wipe	SL -	Sludge	A -	Air

Special Instructions:
ml - milliliter
PCB - polychlorinated biphenyl
cm² - squared centimeter
MS/MSD - Media spike/media spike duplicate

FOR SUBCONTRACTING USE ONLY
FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All/Analysis	[signature]	10/27/98	C Gasser	10/27/98	14:10	All/Analysis	C Gasser	10/27/98	M. Young	10/27/98	[illegible]

FORM #

202078

REAC, E[illegible]on, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHA[illegible] OF CUSTODY RECORD

Project Name: Cornell Dubilier
Project Number: 63377 143-001-3262-01
RFW Contact: Robbins Phone: X4298

No: 09193

SHEET NO. 1 OF 1

1(.)1)

Sample Identification

Analyses Requested

REAC #	Sample No.	Sampling Location (1)	Matrix	Date Collected	# of Bottles	Container/Preservative	PCB's (2)	(3) (Mass (g))		
664	19210	137 D [illegible]	X	10/20/98	1	40 oz glass/None		0.56		
665	19211	135 D [illegible]						0.40		
666	19212	135 D [illegible]						0.19		
667	19213	126 [illegible] LR						1.48		
668	19214	126 [illegible] BR						6.22		
669	19215	40 Hamilton						6.51		
670	19216	40 A Hamilton						0.86		

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other - Vacuum Dust	SL -	Sludge	A -	Air

Special Instructions:

(1) LR - Living Room
BR - Bedroom

(2) PCBs - Polychlorinated Biphenyls

(3) g - grams

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All/Analysis	[illegible]	11/2/98	C Gasser	11/2/98	10 50	All/Analysis	C Gasser	11/2/98	Matthew J. [illegible]	11/2/98	11:00 AM

FORM #4 8/94

00025

202079

REAC, Edison, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

202080

Project Name: Cornell Dubilier Electronics
Project Number: 03347-143-001-3262-01
RFW Contact: Ken Robbins Phone: 732-381-4200

No: 09169

SHEET NO. 1 OF 1

102698-

Sample Identification / Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	PCB's	Area
614	11730	Winfall Workstation	X	10/26/98	1	40 ml Amber Vial/None	✓	100 cm²
615	11731	Winfall Center Desk						
616	11734	Barbato Center Desk						
617	11735	Barbato Upstairs Desk						
618	11736	Barbato Front office						
619	11739	Public Works Super						
620	11740	Public Works Sign Room						
621	11741	Public Works Lunchroom						
622	11743	Chin Bros Counter						
623	11745	Custom Cleaners Counter						
624	11746	Moores Counter						
625	11747	Kape Receptionist Desk						
626	11748	Kape Front office Desk						
627	11749	Harry's Counter						
628	11750	Breaktime Counter						
629	11751	Field Blank						0
630	11752	MS/MSD						0

Matrix:
SD - Sediment
DS - Drum Solids
DL - Drum Liquids
X - Other - wipe
PW - Potable Water
GW - Groundwater
SW - Surface Water
SL - Sludge
S - Soil
W - Water
O - Oil
A - Air

Special Instructions:
PCB - polychlorinated biphenyl
ml - milliliter
MS/MSD - Media Spike/Media Spike Duplicate
Cm² - Square Centimeter

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All/Analysis	All/Analysis	10/26/98	C Gasser	10/26/98	16:15	All/Analysis	C Gasser	10/26/98	M. Young	10/26/98	[illegible]

RM #

REAC, Edison, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

202081

Project Name: Cornell Dubilier Electronics Site
Project Number: 03347-143-001-3262-01
RFW Contact: Ken Robbins Phone: 732-324-4200

No: 09168

SHEET NO. 1 OF 1

102678-

Sample Identification / **Analyses Requested**

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	PCB's	Grams
608	11732	Winfall Garbage	S	10/26/98	1	4oz./None	✓	12.68
609	11733	Winfall Parking Lot						36.48
610	11737	Barbato Shed						64.09
611	11738	Barbato trailor						19.81
612	11742	Public Works Lot						65.38
613	11744	Chin Bros. Lot						54.62

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other	SL -	Sludge	A -	Air

Special Instructions:
OZ-OUNCE
PCB-Polychlorinated biphenyl

*RUSH

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
all/analysis	[illegible]	10/26/98	C Hasser	10/26/98	16:15	All/Analysis	C Hasser	10/26/98	M. Youmin	[illegible]	[illegible]

FORM #4

REAC, Edison, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Corn in Dubilier
Project Number: C3377-143-001-3262-01
RFW Contact: Robbins Phone: X4298

No: 09193

SHEET NO. 1 OF 1

110298

Sample Identification (1) / Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	PCBs (2)	Mass (g) (3)
664	19210	137D [illegible]	X	10/25/9[illegible]	1	40z glass/None		0.86
665	19211	135 Delano upstairs						0.40
666	19212	137D - Downstairs						0.19
667	19213	126 [illegible] LR						1.48
668	19214	126 [illegible] BR						6.22
669	19215	401 [illegible]						6.51
670	19216	403A [illegible]						0.86

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other Vacuum Dust	SL -	Sludge	A -	Air

Special Instructions:

(1) LR - Living Room
BR - Bedroom

(2) PCBs - Polychlorinated Biphenyls

(3) g - grams

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All/Analysis	[illegible]	11/2/98	C Gasser	11/2/98	10:50	All/Analysis	C Gasser	11/2/98	[illegible]	11/2/98	[illegible]

202082