

April 25, 2014

Mr. Bernard P. Orlan  
Director, Environmental Health & Safety  
New York City Department of Education  
44-36 Vernon Blvd., 3<sup>rd</sup> Floor  
Long Island City, NY 11101

**Re: PCB Wipe Sampling Report**  
**P.S. 46K**  
**Cardno ATC Project: No. 42672.4572**  
**Work Order No. 00535076 03**

Dear Mr. Orlan:

Cardno ATC was retained by NYC-DOE to perform a limited PCB wipe sampling inspection at K046 located at 100 Clermont Avenue, Brooklyn, NY 11205. The inspection was performed by Mr. Sydney Williams on April 24, 2014 and it was limited to wipe samples collection and analysis within Room #312 to determine if any surface was contaminated with PCB spill, following the removal of leaking T-12 light fixture ballast and clean up services. The light fixture ballast was removed by Triumvirate Environmental, a hazardous waste management contractor retained by NYC-DOE to provide removal and clean up services.

### **BACKGROUND**

Polychlorinated biphenyls are a group of man-made chemicals that can cause a number of different harmful effects. PCB's are either oily liquids or solids and are colorless to light yellow. There are no known natural sources of PCB's in the environment. PCB's were used mainly in making electrical transformers, capacitors and other heat transfer devices but some were also used in building materials.

PCB's may be present in older fluorescent light fixtures in any school building that had fluorescent lights installed before 1979 and never had a lighting upgrade. The ballast is a transformer inside the light fixture that is not accessible unless the light is disassembled. PCB's are contained within the light ballasts' capacitors and in the ballasts' potting material (a black tar-like substance used to protect the capacitor). As the ballast ages, it can overheat causing a burning or smoky odor or in some cases, causing tar from the potting material or oil to drip from the fixture.

Indications of leaking PCB ballasts may include the presence of an oily film on the metal casing, a leaking putty-like compound (the potting material), or discoloration of the metal casing. Other leaking signs include drips, buzzing, and discoloration of the light ends. Almost all ballast casings are a single color (often black or white) with a contrasting label. Leaks, when present, are usually found around the metal seams of the casing. Indications of burning PCB ballast may include: an acrid and burning tar odor; melted tar oozing from the casing seams; and visible electrical lead bushings. It is very rare for PCB ballasts to actually catch on fire.

## Evaluation Criteria for PCB Spills

PCB manufacture, use, storage and disposal are regulated by U.S. EPA under TSCA and Part 761, Title 40 of the Code of Federal Regulations (40 CFR Part 761). TSCA regulates any materials or wastes that contain PCBs at concentrations of 50 ppm (parts per million) or greater. Light ballasts containing PCB oil in the small capacitor or the potting compound are included in this regulation. Leaking PCB ballasts are regulated as hazardous wastes and toxic substances. Proper handling and cleanup of leaking PCB ballasts is necessary to protect public health and the environment. TSCA regulates disposal of PCB wastes with concentrations over 1 ppm. Leaking PCB light ballasts often generate wastes in excess of 1 ppm. In addition, PCBs are regulated under TSCA if an impervious surface shows 10 micrograms (ug) per 100 square centimeters (cm<sup>2</sup>) of PCBs. Examples of this in the classroom are the surfaces of floors, desks, and bookcases.

## PCB WIPE SAMPLES

Cardno ATC collected a total of five (5) samples (four surface samples and one blank) within Room #312 and subsequently sent them to New York Environmental and Analytical Labs., Inc. for analysis via EPA 8082 Method. All samples were obtained in accordance with EPA 40CFR 761.123 and NYC-DOE "PCB Light Ballasts Wipe Sampling Protocol" and included using a 10x10 cm template to outline the sample area and a sterile gauze pad wetted with hexane or reagent grade acetone to collect the sample. The hexane or reagent grade acetone wetted pad was used to wipe the area outlined with the 100 cm<sup>2</sup> template or the measured area if the area is an irregular surface. The area was wiped completely twice, from left to right and then from top to bottom. For waxed surfaces such as floors the wetting agent used is de-ionized water or distilled water because solvents used on waxed surfaces will not give an accurate analysis for PCB's. The wipe media was then inserted into a 6 ounce sterilized glass vial and delivered to the laboratory.

The following table summarizes the inspection results:

**Table 1.0 PCB Wipe Sample Results (after ballast removal and clean-up)**

Sample Id. No.	Location	Type of Surface Sampled	Sample Media	Detection Limit (ug/cm <sup>2</sup> )	Result (ug/cm <sup>2</sup> )
01	Blank	Blank	Gauze Pad w/ hexane or reagent acetone	3	<3
02	Room #312	Floor-12x12 dark green VFT (x=20.0, y=5.0)	Gauze Pad w/ deionized water	0.03	<0.03
03	Room #312	Floor-12x12 dark green VFT (x=21.0, y=5.0)	Gauze Pad w/ deionized water	0.03	<0.03
04	Room #312	Floor-12x12 dark green VFT (x=20.0, y=6.0)	Gauze Pad w/ deionized water	0.03	<0.03

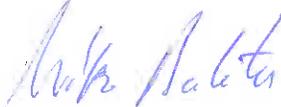
Sample Id. No.	Location	Type of Surface Sampled	Sample Media	Detection Limit (ug/cm <sup>2</sup> )	Result (ug/cm <sup>2</sup> )
05	Room #312	Floor-12x12 dark green VFT (x=21.0, y=6.0)	Gauze Pad w/ deionized water	0.03	<0.03

### CONCLUSIONS

Wipe samples obtained from floor within Room #312 show PCB concentrations to be below detection limit.

Cardno ATC is pleased to be of service to the New York City Department of Education. Please feel free to contact us at (212) 353 8280 ext. 268 if you should have any questions or comments concerning this report.

**Cardno ATC**



Mike Balota  
Project Manager

- Appendixes: A- PCB Data and Chain of Custody Forms  
B- PCB Analytical Results  
C- Laboratory Certifications  
D- NYC DOE Work Order Request

**APPENDIX A**

**PCB DATA AND CHAIN OF CUSTODY FORMS**

**PCB WIPE SAMPLING COC**

**PROJECT INFORMATION**

1. Client: <b>NYC-DOE</b>	2. Project Name: <b>K046</b>	3a. ATC Project No.: <b>42672. 4572</b>	4a. Project Manager: <b>Dragos Balota</b>
	2a. Project Address: <b>700 EIGHTH AVENUE BKN</b>	3b. Task No.: <b>0001</b>	4b. Inspector: <b>Sydney Williams</b>
5. Date: <b>4-24-14</b>	6. Building Name: <b>K046</b>	8. Turnaround Time: <b>RUSH (6 hours or less)</b>	
	7. Location: Room # <b>312</b>	9. Comments (Field) Analyze all samples via 8082 Method.	

**WIPE SAMPLE LOCATION**

10. Sample ID No.	11. LAB ID No.	12. Room No.	13A. Surface Sampled	13B. Sample Coordinates (x and y)	14. MEDIA	15. Area Sampled (cm²)	16. MDL (ug/cm²)	16A. RESULT (ug/cm²)
1		312	BLANK	--	Gauze Pad w/ Hexane		305	ND L305
2		312	12"X12" DARK GREEN VINYL FLOOR TILE	X-20'0" Y-5'0"	GAUZE PAD WITH DELEON H20	100	0.03	<0.03
3		312	12"X12" DARK GREEN VINYL FLOOR TILE	X-21'X0 Y.5'0"	GAUZE PAD WITH DELEON H20	100	0.03	<0.03
4		312	12"X12" DARK GREEN VINYL FLOOR TILE	X-20'0" Y.6'0"	GAUZE PAD WITH DELEON H20	100	0.03	<0.03
5		312	12"X12" DARK GREEN VINYL FLOOR TILE	X 21'0" Y 6'0"	GAUZE PAD WITH DELEON H20	100	0.03	<0.03
								

**CHAIN OF CUSTODY**

17. Relinquished By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal
I. SYDNEY Williams			P. Emmel	4-24-14	1130	Field Walk In <input checked="" type="checkbox"/>
II.						US Mail <input type="checkbox"/>
III.						Fed-Ex <input type="checkbox"/>
						Other <input type="checkbox"/>

**LABORATORY INFORMATION**

24. Name and Signature: 24a. Analyzed By: <i>K Cheung</i>	25. Date: <b>4-24-14</b>	26 Time: <b>1700</b>	27. Comments: Please email results to <a href="mailto:dragos.balota@cardno.com">dragos.balota@cardno.com</a>
24b. Analyzed By:			
24c. QC By: <i>JT</i>			

**APPENDIX B**

**PCB ANALYTICAL RESULTS**

**CLIENT:** Cardno ATC  
104 E. 25 St. 10th fl.  
New York, NY 10011  
  
42672.4572  
**PROJECT:** K046  
100 Clermont Ave., Bkn

**REPORT NO.** 2141449  
**PROJECT NO.** 40145  
  
**SAMPLED:** 4/24/14  
**RECEIVED:** 4/24/14  
**ANALYZED:** 4/24/14  
**REPORTED:** 4/24/14

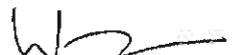
**ANALYTICAL REPORT**

**PCB WIPE**  
**GC/ECD (EPA METHOD 8082A/3550C)**

**COMPOSITED SAMPLE ID:** 1  
**MATRIX:** SURFACE WIPE  
**SAMPLE LOCATION:** **Blank**

**BATCH NO.** C3706-1

TYPE OF PCB	CAS NO.	RESULT (ug)	MINIMUM DETECTION LIMIT (ug)
PCB 1016	12674-11-2	<3	3
PCB 1221	11104-28-2	<3	3
PCB 1232	11141-16-5	<3	3
PCB 1242	53469-21-9	<3	3
PCB 1248	12672-29-6	<3	3
PCB 1254	11097-69-1	<3	3
PCB 1260	11096-82-5	<3	3

  
NICOLE CHEUNG  
CHEMIST

  
LI TSANG  
LABORATORY DIRECTOR

The report relates only to the items tested, as received by the laboratory. This report cannot be used in part and may only be used in full with this laboratory's approval. This report must not be used in any way to claim product endorsement by New York Environmental and ELAP of NYSDOH.

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**REPORTED:** 4/24/14

## ANALYTICAL REPORT

**PCB WIPE**  
GC/ECD (EPA METHOD 8082A/3550C)

COMPOSITED SAMPLE ID: 2

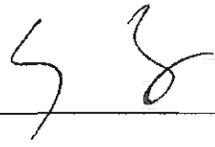
BATCH NO. C3706-2

MATRIX: SURFACE WIPE

SAMPLE LOCATION: Room 312 (12"x12" Dark Green Vinyl Floor Tile)

TYPE OF PCB	CAS NO.	RESULT (ug/cm <sup>2</sup> )	MINIMUM DETECTION LIMIT (ug/cm <sup>2</sup> )
PCB 1016	12674-11-2	<0.03	0.03
PCB 1221	11104-28-2	<0.03	0.03
PCB 1232	11141-16-5	<0.03	0.03
PCB 1242	53469-21-9	<0.03	0.03
PCB 1248	12672-29-6	<0.03	0.03
PCB 1254	11097-69-1	<0.03	0.03
PCB 1260	11096-82-5	<0.03	0.03

  
NICOLE CHEUNG  
CHEMIST

  
LI TSANG  
LABORATORY DIRECTOR

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100 Clermont Ave., Bkn

**REPORT NO.** 2141449  
**PROJECT NO.** 40145

**SAMPLED:** 4/24/14  
**RECEIVED:** 4/24/14  
**ANALYZED:** 4/24/14  
**REPORTED:** 4/24/14

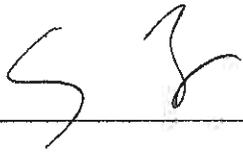
**ANALYTICAL REPORT**

**PCB WIPE**  
**GC/ECD (EPA METHOD 8082A/3550C)**

COMPOSITED SAMPLE ID: 3 BATCH NO. C3706-3  
MATRIX: SURFACE WIPE  
SAMPLE LOCATION: Room 312 (12"x12" Dark Green Vinyl Floor Tile)

TYPE OF PCB	CAS NO.	RESULT (ug/cm <sup>2</sup> )	MINIMUM DETECTION LIMIT (ug/cm <sup>2</sup> )
PCB 1016	12674-11-2	<0.03	0.03
PCB 1221	11104-28-2	<0.03	0.03
PCB 1232	11141-16-5	<0.03	0.03
PCB 1242	53469-21-9	<0.03	0.03
PCB 1248	12672-29-6	<0.03	0.03
PCB 1254	11097-69-1	<0.03	0.03
PCB 1260	11096-82-5	<0.03	0.03

  
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CHEMIST

  
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**REPORT NO.** 2141449  
**PROJECT NO.** 40145  
  
**SAMPLED:** 4/24/14  
**RECEIVED:** 4/24/14  
**ANALYZED:** 4/24/14  
**REPORTED:** 4/24/14

**ANALYTICAL REPORT**

**PCB WIPE**  
**GC/ECD (EPA METHOD 8082A/3550C)**

**COMPOSITED SAMPLE ID:** 4 **BATCH NO.** C3706-4  
**MATRIX:** SURFACE WIPE  
**SAMPLE LOCATION:** Room 312 (12"x12" Dark Green Vinyl Floor Tile)

TYPE OF PCB	CAS NO.	RESULT (ug/cm <sup>2</sup> )	MINIMUM DETECTION LIMIT (ug/cm <sup>2</sup> )
PCB 1016	12674-11-2	<0.03	0.03
PCB 1221	11104-28-2	<0.03	0.03
PCB 1232	11141-16-5	<0.03	0.03
PCB 1242	53469-21-9	<0.03	0.03
PCB 1248	12672-29-6	<0.03	0.03
PCB 1254	11097-69-1	<0.03	0.03
PCB 1260	11096-82-5	<0.03	0.03

  
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CHEMIST

  
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K046  
100 Clermont Ave., Bkn

**REPORT NO.** 2141449  
**PROJECT NO.** 40145

**SAMPLED:** 4/24/14  
**RECEIVED:** 4/24/14  
**ANALYZED:** 4/24/14  
**REPORTED:** 4/24/14

**ANALYTICAL REPORT**

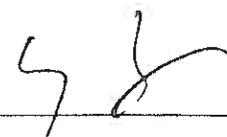
**PCB WIPE**  
**GC/ECD (EPA METHOD 8082A/3550C)**

COMPOSITED SAMPLE ID: 5  
MATRIX: SURFACE WIPE  
SAMPLE LOCATION: Room 312 (12"x12" Dark Green Vinyl Floor Tile)

BATCH NO. C3706-5

TYPE OF PCB	CAS NO.	RESULT (ug/cm <sup>2</sup> )	MINIMUM DETECTION LIMIT (ug/cm <sup>2</sup> )
PCB 1016	12674-11-2	<0.03	0.03
PCB 1221	11104-28-2	<0.03	0.03
PCB 1232	11141-16-5	<0.03	0.03
PCB 1242	53469-21-9	<0.03	0.03
PCB 1248	12672-29-6	<0.03	0.03
PCB 1254	11097-69-1	<0.03	0.03
PCB 1260	11096-82-5	<0.03	0.03

  
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CHEMIST

  
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## APPENDIX C

### LABOARTORY CERTIFICATIONS

NEW YORK STATE DEPARTMENT OF HEALTH  
WADSWORTH CENTER

Expires 12:01 AM April 01, 2015  
Issued April 01, 2014



CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 602 Public Health Law of New York State

MR. LI TSANG  
NY ENVIRONMENTAL AND ANALYTICAL LABS INC  
88 HARBOR ROAD  
PORT WASHINGTON, NY 11050

NY Lab Id No: 11510

Is hereby APPROVED as an Environmental Laboratory in conformance with the  
National Environmental Laboratory Accreditation Conference Standards (2003) for the category:  
**ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE**  
All approved analytes are listed below.

Characteristic Testing

TCLP

EPA 131E

Polychlorinated Biphenyls

PCB-1019

EPA

PCB-1221

EPA

PCB-1252

EPA

PCB-1242

EPA

PCB-1346

EPA 8002A

PCB-1254

EPA 8062A

PCB-1260

EPA 8082A

Sample Preparation Methods

EPA 8050C



STATE OF NEW YORK  
DEPARTMENT OF HEALTH

Serial No.: 50889

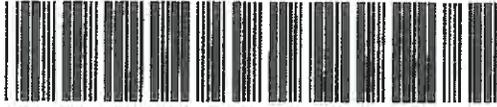
Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on security paper. Dismissed accreditation depends on successful ongoing participation in this program. Consumers are urged to call (518) 485-2670 to verify the laboratory's accreditation status.

**APPENDIX D**

**NYC DOE WORK ORDER REQUEST**

Facility: DSF DIVISION OF SCHOOL FACILITIES  
 Unit : K Project :  
 W/O Type: CO Task Pri: 04 Tsk Dspln: H  
 Planner : SNAPOLIT NAPOLITANO  
 W/O Title : 75/13K046/REMOVE & REPLACE SMOKING B  
 W/O Task Title: 75/13K046/PREFORM PCB TEST IN RM. 31  
 Written To : P.S. 46 - BROOKLYN

Completed By:

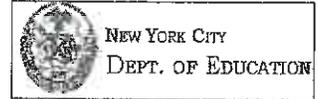


4572

**Work Order Package**

00535076 03

Rpt : TIPMC11  
Date: 04/23/2014



Page: 1

**Work Order Task Written To**

Facility : DSF	Unit : K	Op Sys : GEO-13
Division : ABLDG K046	Area : ISC4	Sys/Cls: K046
Equipment : ABLDG K046	Component:	
Work Item :	Eqt. List:	Ops Review Reqd: N
Equip. Tag:	Alt:	
UTC :	Tbl/Brkdwn: (Past 12 mo)	
Catalog ID:	Job Type : ET UCR: GN14	
Client/Act:		
Location : K02 04500011 000001 100 CLERMONT AV, BROOKLYN, NY 11205		
Cost Centr: G839	Activity :	User Def:
Percentage: 100.000	Acct No. : GL	

**Work Order Task Instructions**

PREFORM PCB TEST IN RM. 312 SMOKING BALLAST  
 Building Manager GARY GRANT 718-852-6387  
 \*\*\*\*\*  
 ASSIGNED TO ATC 4/23/14

**Completion Comments on Work Performed**

Completion Comments Required : N

Comments:

Comments:

Comments:

Continued on Additional Sheets? : \_\_\_\_\_