May 5, 2015

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

Re: PCB Wipe Sampling Report
P.S. 138K
Cardno ATC Project: No. Z214DB-6831
Work Order No. 00574430 04

Dear Mr. Orlan:

Cardno ATC was retained by NYC-DOE to perform a limited PCB wipe sampling inspection at K138 located at 760 Prospect Place, Brooklyn, NY 11216. The inspection was performed by Mr. Ricardo Vilchez on May 4, 2015 and it was limited to wipe samples collection and analysis within Room #425 to determine if any surface was contaminated with PCB, following the removal of failed T-12 light fixture ballast. 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^2) 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 three (3) samples (two surface samples and one blank) within Room #425 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^2 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)

Sample Id. No.	Location	Type of Surface Sampled	Sample Media	Detection Limit (ug/cm^2)	Result (ug/cm^2)
01	Blank	Blank	Gauze Pad w/ hexane or reagent acetone	3	<3
02	Room #425	Student's Desk Top (x=21, y=14)	Gauze Pad w/ hexane or reagent acetone	0.03	<0.03
03	Room #425	Floor- 12x12 gray VFT (x=19, y=13)	Gauze Pad w/ deionized water	0.03	<0.03

CONCLUSIONS

Wipe samples obtained from desk and floor within Room #425 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

M. Balota

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

Cardno ATC
Shaping the Future

Page 1 of 1
BATCH NO.

PCB WIPE SAMPLING COC

P# 45854

PROJECT INFORMATION

1. Client:	2. Project Name: PS-138K	3a. ATC Project No.: ~~42672-~~ Z2149B6831	4a. Project Manager: Dragos Balota
NYC-DOE	2a. Project Address: 801 PARK PL, BKLYN, NY 11216	3b. Task No.: 0001	4b. Inspector: Ricardo Vilchez
5. Date: 05-04-15	6. Building Name: / 7. Location: Room # 425	8. Turnaround Time: **RUSH (6 hours or less)**	9. Comment s (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)
425-01		425	BLANK	—	Gauze Pad w/ Hexane	—	3ug	ND <3ug
425-02		425	STUDENT'S DESK TOP	x → 21' y → 14'	GAUZE PAD W/HEXANE	100	0.03	<0.03
425-03		425	12'x12', GRAY, VINYL FLOOR TILE	x → 19' y → 13'	GAUZE PAD W/ DEION WATER	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. RICARDO VILCHEZ	05-04-15		Emily Brochie	5-4-15	1:00pm	Field	
						Walk In	✓
II.						US Mail	
						Fed-Ex	
III.						Other	

LABORATORY INFORMATION

24. Name and Signature:	25. Date	26 Time	27. Comments:
24a. Analyzed By: Wai S Cheng WC	5/14/15	1630	**Please email results to dragos.balota@cardno.com**
24b. Analyzed By:			
24c. QC By:			

APPENDIX B

PCB ANALYTICAL RESULTS

NEW YORK ENVIRONMENTAL

88 Harbor Road
Port Washington, NY 11050
Tel. (516) 944-9500 Fax (516) 944-9507
www.nyenvironmental.com

ANALYTICAL REPORT for PCBs

Project Information

NYE Project No.: **42854**
Client Project No.: **See Comments**
Street: **801 Park Place**
City: **Brooklyn, NY**

Batch Information

Batch No.: **C6169**
Field Tech: **Client**
Total Samples: **3**
Date Sampled: **5/4/2015**
Date Received: **5/4/2015**
Date Analyzed: **5/4/2015**
Date Reported: **5/5/2015**

Client Information

Client No.: **18810**
Name: **Cardno ATC**
Street: **104 E. 25th Street, 10th Floor**
City/State/Zip: **New York NY 10010**
Phone/Fax: **(212) 353-8280 (212) 353-8306**
Contact: **M Bonezzi**

SAMPLE INFORMATION

Field Sample ID: **425-1**
Sample Location **Blank**
Sample Batch No. **C6169-1**
Matrix: **Wipe**

ANALYTICAL RESULTS

PCB ID	CAS No.	Result (µg)	MDL (µg)
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

Comment: **Applicant No.: K138 / Z214DB.6831**

Lab. Certification
ELAP #: 11510
Testing Method
GC/ECD
EPA 3550C (prep) & 8082A (analysis)

W. Cheung
Chemist

Li Tsang
Laboratory Director

2151316

NEW YORK ENVIRONMENTAL

88 Harbor Road
Port Washington, NY 11050
Tel. (516) 944-9500 Fax (516) 944-9507
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ANALYTICAL REPORT for PCBs

Project Information

NYE Project No.: **42854**
Client Project No.: **See Comments**
Street: **801 Park Place**
City: **Brooklyn, NY**

Batch Information

Batch No.: **C6169**
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Date Sampled: **5/4/2015**
Date Received: **5/4/2015**
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Client No.: **18810**
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Street: **104 E. 25th Street, 10th Floor**
City/State/Zip: **New York NY 10010**
Phone/Fax: **(212) 353-8280 (212) 353-8306**
Contact: **M Bonezzi**

SAMPLE INFORMATION

Field Sample ID: **425-2**
Sample Location: **Room 425, Student's Desk Top**
Sample Batch No. **C6169-2**
Matrix: **Wipe**

ANALYTICAL RESULTS

PCB ID	CAS No.	Result (µg/cm²)	MDL (µg/cm²)
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

Comment: **Applicant No.: K138 / Z214DB.6831**

Lab. Certification
ELAP #: 11510
Testing Method
GC/ECD
EPA 3550C (prep) & 8082A (analysis)

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ANALYTICAL REPORT for PCBs

Project Information

NYE Project No.: **42854**
Client Project No.: **See Comments**
Street: **801 Park Place**
City: **Brooklyn, NY**

Batch Information

Batch No.: **C6169**
Field Tech: **Client**
Total Samples: **3**
Date Sampled: **5/4/2015**
Date Received: **5/4/2015**
Date Analyzed: **5/4/2015**
Date Reported: **5/5/2015**

Client Information

Client No.: **18810**
Name: **Cardno ATC**
Street: **104 E. 25th Street, 10th Floor**
City/State/Zip: **New York NY 10010**
Phone/Fax: **(212) 353-8280 (212) 353-8306**
Contact: **M Bonezzi**

SAMPLE INFORMATION

Field Sample ID: **425-3**
Sample Location: **Room 425, Gray 12x12 Vinyl Floor Tile**
Sample Batch No. **C6169-3**
Matrix: **Wipe**

ANALYTICAL RESULTS

PCB ID	CAS No.	Result (µg/cm²)	MDL (µg/cm²)
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

Comment: **Applicant No.: K138 / Z214DB.6831**

Lab. Certification
ELAP #: 11510
Testing Method
GC/ECD
EPA 3550C (prep) & 8082A (analysis)

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Cardno ATC
Shaping the Future

Page 1 of 1
BATCH NO.

PCB WIPE SAMPLING COC

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P# 40854

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NYC-DOE	2a. Project Address: 801 PARK PL, BKLYN, NY 11216	3b. Task No.: 0001	4b. Inspector: Ricardo Vilchez
5. Date: 05-04-15	6. Building Name:	8. Turnaround Time: **RUSH (6 hours or less)**	9. Comment s (Field) Analyze all samples via 8082 Method.
	7. Location: Room # 425		

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)
425-01		425	BLANK	——	Gauze Pad w/ Hexane	——	3ug	ND <3ug
425-02		425	STUDENT'S DESK TOP	x → 21' y → 14'	GAUZE PAD W/HEXANE	100	0.03	<0.03
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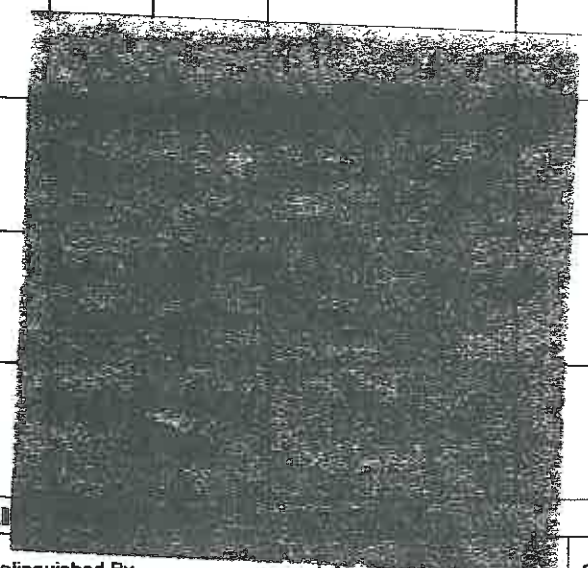

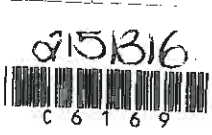

CHAI

17. Relinquished By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal	
I. RICARDO VILCHEZ	05-04-15		Emily Brodie	5-4-15	1:00pm	Field	
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III.						Fed-Ex	
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LABORATORY INFORMATION

24. Name and Signature:	25. Date	26 Time	27. Comments:
24a. Analyzed By: Wai S Cheng WC	5/14/15	1630	Please email results to dragos.balota@cardno.com
24b. Analyzed By:			
24c. QC By:			

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 502 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 1311

Polychlorinated Biphenyls

PCB-1016	EPA [illegible]
PCB-1221	EPA [illegible]
PCB-1232	EPA [illegible]
PCB-1242	EPA [illegible]
PCB-1248	EPA 8082A
PCB-1254	EPA 8082A
PCB-1260	EPA 8082A

Sample Preparation Methods

	EPA 3500C

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Serial No.: 50660

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 blue paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 486-3670 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: 71 Tsk Dspln: H
Planner : DSCANNA SCANNAPIECO
W/O Title : 75/17K138/ "FAILED & SMOKING" T-12 B
W/O Task Title: 75/17K138/ PERFORM PCB WIPE SAMPLING
Written To : P.S. 138 - BROOKLYN
Completed By:

6831

Work Order Package

00574430 04

Rpt : TIPMC11
Date: 05/04/2015

NEW YORK CITY DEPT. OF EDUCATION

Page: 1

Work Order Task Written To

Facility : DSF Unit : K Op Sys : GEO-17
Division : Area : ISC5 Sys/Cls: K138
Equipment : ABLDG K138 Component:
Work Item : Eqt. List: Ops Review Reqd: N
Equip. Tag: Alt:
UTC : Tbl/Brkdwn: (Past 12 mo)
Catalog ID: Job Type : EA UCR: LB15
Client/Act: AANA7413 ALEXANDER ANASTASIA
Location : K01 23300026 000001 760 PROSPECT PL, BROOKLYN, NY 11216
Cost Centr: G839 Activity : User Def:
Percentage: 100.000 Acct No. : GL

Work Order Task Instructions

Perform PCB wipe sampling in room #425
Custodian: A.Anastasia 718 221-1642
ASSIGNED TO ATC ON 5/4/15

Completion Comments on Work Performed

Completion Comments Required : N

Comments:

Comments:

Comments:

Continued on Additional Sheets? : _____

***** E N D O F R E P O R T *****