PCB SOURCE WINDOW SAMPLING REPORT

McKinley Elementary School
Buildings C
2410 Santa Monica Boulevard
Santa Monica, California 90404

Prepared for:

Santa Monica-Malibu Unified School District
Facilities Improvements Projects
2828 4th Street
Santa Monica, California 90405

Project No.: SMSD-18-8096
Reported Date: March 1, 2019

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EXECUTIVE SUMMARY

On behalf of the Santa Monica-Malibu Unified School District (District), Alta Environmental (Alta) has prepared this supplemental report summarizing additional polychlorinated biphenyl compound (PCB) bulk sampling activities completed at McKinley Elementary School, located at 2401 Santa Monica Boulevard, Santa Monica, California. Select Building C windows were assessed for the potential presence of PCBs in window caulking and casing materials and to characterize these materials for off-site waste disposal.

Based on the findings of our investigation and in consultation with the District, the sampled building materials should be characterized for disposal as follows:

Building Material	Waste Category
Window Caulking	PCB Bulk Product Waste

Removal of material characterized as PCB Bulk Product Waste should be conducted using proper engineering controls including, but not limited to, the following: containment, worker training and worker protection. PCB waste should be characterized, packaged, labelled and disposed in accordance with Toxic Substances Control Act (TSCA) 40 CFR 762 and California hazardous waste regulation set forth in Title 22, Division 4.5 of the California Code of Regulations.

Material characterized as Excluded PCB Product is not regulated by the U.S. Environmental Protection Agency under TSCA.

Other building related regulated substances (lead and asbestos) were determined to be present at the subject locations and it is Alta's understanding that the demolition contractor will adhere to other regulatory requirements for handling and disposal of identified asbestos-containing materials and lead-based paints.

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REPORTED: March 1, 2019 **PROJECT NO.:** SMSD-18-8096

CLIENT: Santa Monica-Malibu Unified School District
Facility Improvements Projects
2828 4th Street
Santa Monica, California 90405

ATTENTION: Mr. Ricardo Perea

REF: PCB Source Window Sampling Report
Building C
McKinley Elementary School
2401 Santa Monica Boulevard, CA 90404

1 INTRODUCTION/BACKGROUND

The United States Environmental Protection Agency (EPA) believes that there was a potentially widespread use of building materials containing polychlorinated biphenyl compounds (PCBs) in schools and other buildings constructed or renovated between 1950 and 1979. Historically, PCBs were used as a primary source as a plasticizing agent in caulking and glazing materials, as additives to paints and floor finishes, as a sealant for heating systems and plumbing, and as insulators in ballasts and other electrical equipment. The manufacture and use of PCBs were banned in the United States in 1976, and PCB compounds were phased out between 1978 and 1979.

Additionally, PCBs in manufactured materials may move directly into adjoining materials, particularly porous materials such as wood, concrete, and other types of masonry. In schools with manufactured PCB sources, many kinds of building material have been found to have measurable levels of PCBs and are potential secondary PCB sources.

2 PURPOSE OF INSPECTION AND SAMPLING

Building materials included in this report (select Building C windows) were evaluated for PCBs only. A survey of asbestos-containing materials (ACM) and lead-based paint (LBP) has been completed for this building. The results and findings for ACM and LBP are included in a separate document.

The objective of the sampling was to obtain samples from a sufficient number of locations to:

- Serve as a representative indication of the variety of potentially PCB-impacted materials
- Draw conclusions of the potential presence of PCB-impact materials
- Determine if a site-specific remediation work plan is required to address materials with ≥50 parts per million (ppm) PCBs prior to undertaking the demolition and disposal of building materials; and,
- Categorize each type of building material for off-site disposal related solely to its PCB content. In general, PCB-impacted materials can be sorted and classified into the following categories:
    - PCB Bulk Product Waste (PCB concentration ≥ 50 parts-per-million [ppm]). According to EPA Memorandum, “PCB Bulk Product Waste Reinterpretation,” dated October 24, 2012, building materials “coated or serviced” with PCB bulk product waste (e.g., caulk, paint, mastic, sealants) at the time of designation for disposal are to be managed as a PCB bulk

product waste. The reinterpretation document allows for disposal of both PCB Bulk Product Waste and PCB Remediation Waste together as a single waste stream (PCB Bulk Product Waste).

- Excluded PCB Product-all materials containing (PCB concentration <50 ppm).

3 SCOPE OF SERVICES

Alta, at the direction of the District, collected source bulk samples from two non-Type K windows within the northwest corner of Building C, one in the girls restroom and one in the adult restroom. The sampling was conducted on November 19, 2018 and was completed in accordance with the *USEPA Region I Standard Operation Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyl* (USEPA 2011).

4 METHODOLOGY

Alta's source bulk sampling as completed as follows:

- A one-inch drill bit, screwdriver, razor blade, chisel, or similar tool was used to collect the samples.
- A polyethylene drop-sheet was placed below the impacted area to capture any dust and debris which may have dislodged during the sample collection.
- Samples were labelled, packaged, and documented on a chain of custody for shipping to the laboratory.
- Samples were shipped to the laboratory in a chilled ice chest.
- Sampled areas were patched using a non-PCB sealant. It should be noted that the patch is temporary and only intended to provide a barrier to the exposed sampled substrates.
- Each sample location was documented using digital photographs.
- Prior to use, reuseable sampling was decontaminated using a two-step decontamination process consisting of an initial wash with a phosphate-free cleaning solution, followed by a rinse with de-ionized water. After the two-step decontamination procedures, the equipment was placed on top of clean paper towels (or equivalent material) and set to dry individually. Each piece of equipment was inspected by Alta for evidence of residual dust and debris.
- Investigation derived waste (IDW) generated during the sampling event was packaged on site inside a one-gallon bucket and labeled. Based on our review of the sample results, the generated IDW was characterized for disposal as Excluded PCB Product.

The Detection Limit (DL) used by the laboratory for this project was 0.5 ppm. In some cases, the DL was raised above 0.5 ppm due to matrix interferences, but in those cases, the DL did not exceed ≥ 50 ppm, which is currently being used as approved by the USEPA to defined PCB Bulk Product Waste.

All samples prepared by the laboratory using EPA Method 3540 for Soxhlet extraction and were analyzed for PCBs using EPA Method 8082A.

5 RESULTS

A total of three source samples were collected during this investigation. The information included in Table 1.0 is a summary of the sampling results and is intended to be used in conjunction with the material inventories included in Appendix A and the laboratory results included in Appendix B

Table 1.0
Summary of Laboratory Results

Component Sampled[1]	Sample Description	Sample ID	Total PCBs[2] (PPM)
Girls Restroom	Window Caulking – Primary	111918 – FR1	277
Adult Restroom	Window Caulking – Duplicate	111918 – FR2	697
Adult Restroom	Window Caulking – Primary	111918 – FR3	436

Notes:
[1]All samples were collected from the two restrooms located in the northwest corner of Building C
[2]All detected concentrations of PCBs were noted as Aroclor 1254

6 QUALITY CONTROL

Sample extraction and analysis was completed by Enviro-Chem, located at 1214 East Lexington Avenue, Pomona, California. Enviro-Chem is a laboratory accredited by the California State Environmental Laboratory Accreditation Program. Based on a review of the laboratory QC data associated with the sample analysis, the recovery and precision are within the acceptable limits of the laboratory.

7 CONCLUSIONS

Based on the findings of our investigation and in consultation with the District, the sampled building materials should be characterized for disposal as follows:

Building Material	Waste Category
Window Caulking	PCB Bulk Product Waste

8 RECOMMENDATIONS

Removal and offsite disposal of *PCB Bulk Product Waste* material and surrounding porous materials should be conducted using proper engineering controls including, but not limited to containment, worker training, worker protection. Generated PCB waste should be characterized, packaged, labelled and disposed offsite in accordance with TSCA 40 CFR 761 and California hazardous waste regulations set forth in Title 22, Division 4.5 of the California Code of Regulations.

A site-specific work plan for the removal of identified *PCB Bulk Product Waste* should be prepared by the abatement contractor, reviewed and approved by the District prior to the start of any removal action.

Asbestos-containing materials and lead-based paints have previously been identified at the site and are described in a separate report. Removal of ACMs and LBP is subject to local, state and federal requirements. A survey record and abatement plan have been prepared for this site which is to be used for the removal and waste disposal of ACM and LBP.

9 ASSUMPTIONS AND LIMITATIONS

The findings, conclusions and recommendations contained herein are intended for use by the District and its contractors for the purpose of characterizing generated building material waste for offsite disposal.

This report was prepared exclusively for use by the District and may not be relied upon by any other person or entity without Alta Environmental's express written permission. The information, conclusions and recommendations described in this report apply to conditions existing at certain locations when services were performed and are intended only for the specific purposes, locations, time frames and project parameters indicated. Alta Environmental cannot be responsible for the impact of any changes in environmental standards, practices or regulations after the performance of services.

In performing our professional services, we have applied engineering and scientific judgment and used a level of effort consistent with the current standard of practice for similar types of studies.

As applicable, Alta Environmental has relied in good faith upon representations and information furnished by individuals with respect to operations and existing property conditions, to the extent that they have not been contradicted by data obtained from other sources. Accordingly, Alta Environmental accepts no responsibility for any deficiencies, omissions, misrepresentations, or fraudulent acts of persons interviewed.

Alta Environmental will not accept any liability for loss, injury claim, or damage arising directly or indirectly from any use or reliance on this report. Alta Environmental makes no warranty, expressed or implied.

This report is issued with the understanding that the client, the property owner, or its representative is responsible for ensuring that the information, conclusions, and recommendations contained herein are brought to the attention of the appropriate regulatory agencies, as required.

Material quantities are in some cases listed within this document. These quantities are not intended to be used for removal bidding purposes. Nor is this document intended as a contract manual. Work methods and sequence, coordination of participants, applicable codes, engineering controls, required submittals, and notifications should in all cases be addressed in a separate and independent bidding and contract document. If you have any questions, please do not hesitate to contact the undersigned at (562) 495-5777. We appreciate the opportunity to be of service to Santa Monica-Malibu Unified School District.

10 SIGNATORY

Respectfully submitted by:

Alta Environmental

Jonathan Barkman
Project Manager

Respectfully submitted by:

Alta Environmental

David R. Schack
VP, Building Sciences

Appendix A
Sample Inventories

Summary of Source Bulk Sampling

CLIENT: SMMUSD
PROJECT NO: SMSD-18-8096
PROJECT: McKinley Elementary School Sampling
Date: November 19, 2018

Building Name	Sample Number	Component ID	Sample Description	Sample Location	Total PCBs (ppm)
C	111918-FR1	Restroom Windows	Grey rubberized caulking	Staff Restroom windows - North end east window	277
C	111918-FR2	Restroom Windows	Grey rubberized caulking (duplicate)	Staff Restroom windows - North end center window	697
C	111918-FR3	Restroom Windows	Grey rubberized caulking	Staff Restroom windows - North end center window	436

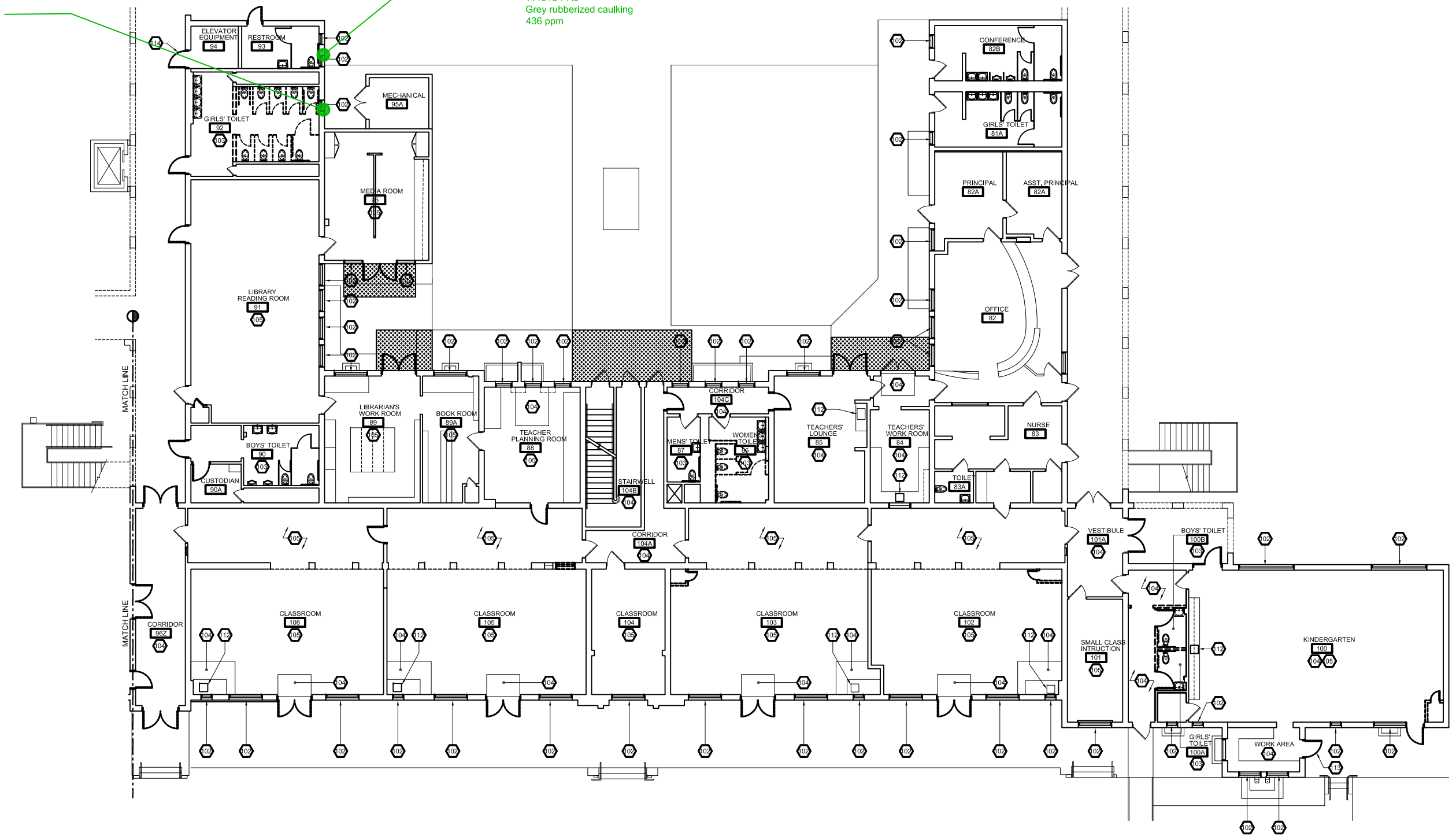
Note: These windows are specific to the staff restroom located at the southwest corner of the building adjacent to the library.

Appendix B
Sample Location Maps

111918-FR1
Grey Rubberized caulking
277 ppm

111918-FR2
Grey Rubberized caulking
697 ppm

111918-FR3
Grey rubberized caulking
436 ppm



Source Bulk Sample Location Map - Building C

McKinley Elementary School
2401 Santa Monica Boulevard
Santa Monica, California

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DATE: February 2019 | Project No.: SMSD-18-8096

Appendix C
Laboratory Reports

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: December 3, 2018

Mr. David Schack
Alta Environmental
3777 Long Beach Blvd, Annex Building
Long Beach, CA 90807
Tel:(562)495-5777 Email:David.Schack@altaenviron.com

Project: **McKinley E.S. - Bldg C**
Lab I.D.: **181121-63, -64, -65**

Dear Mr. Schack:

The **analytical results** for the solid samples, received by our laboratory on November 21, 2018, are attached. The samples were received chilled, intact, and accompanying chain of custody.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Andy Wang
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Alta Environmental**
3777 Long Beach Blvd, Annex Building, Long Beach, CA 90807
Tel: (562) 495-5777 Email: David.Schack@altaenviron.com

PROJECT: **McKinley E.S. - Bldg C**
DATE SAMPLED: 11/20/18
MATRIX: SOLID
REPORT TO: MR. DAVID SCHACK

DATE RECEIVED: 11/21/18
DATE EXTRACTED: 11/26-27/18
DATE ANALYZED: 11/27-28/18
DATE REPORTED: 12/03/18

PCBs ANALYSIS
METHOD: EPA 3540C/8082
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	TOTAL PCBs*	DF
111918-FR1	181121-63	ND	ND	ND	ND	ND	277 ***	ND	277 ***	100
111918-FR2	181121-64	ND	ND	ND	ND	ND	697 ***	ND	697 ***	100
111918-FR3	181121-65	ND	ND	ND	ND	ND	436 ***	ND	436 ***	100
Method Blank		ND	ND	ND	ND	ND	ND	ND	ND	1
	PQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = DF X PQL
ND = Non-Detected Or Below the Actual Detection Limit
* = Sum of the PCB 1016, 1221, 1232, 1242, 1248, 1254 and 1260
*** = The concentration exceeds the TTLC Limit of 50, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Appendix D
Photographs

Appendix D – Photo Log

Photo 1: Example Window Type – Building C Northwest Adult Restroom

Photo 2: Sample 1111918-FR3
Adult Restroom Window Primary Sample

Appendix D – Photo Log

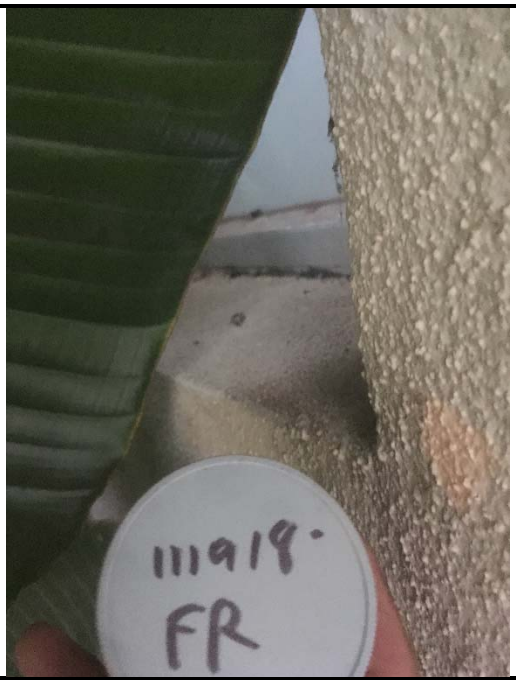

Photo 3: Sample 1111918-FR2
Adult Restroom Window Duplicate Sample

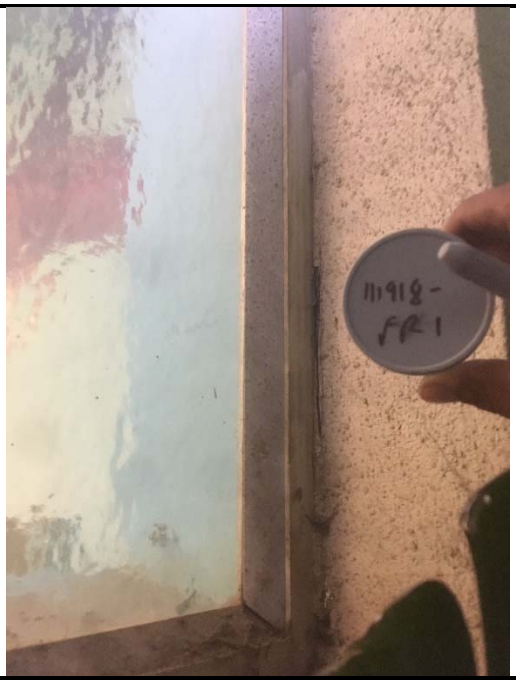

Photo 4: Sample 111918-FR1
Girls Restroom Primary Sample