

MEMORANDUM

To: Carey Upton, Chief Operations Officer

From: Ramboll Environ US Corporation

Subject: **Update on Post-Renovation Summer 2016 Air and Surface Wipe Sampling for PCBs at Juan Cabrillo Elementary School**

Ramboll Environ US Corporation (Ramboll Environ) is providing the Santa Monica-Malibu Unified School District (SMMUSD or District) this update on post-renovation confirmatory air and surface wipe sampling performed at JCES in October 2016. This sampling was conducted in accordance with the United States Environmental Protection Agency’s (USEPA’s) November 2, 2015 approval letter (November 2015 Approval).¹ This update serves as an interim report on sampling results, and the results are preliminary pending completion of third-party data validation.

November 3, 2016

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CONFIRMATORY SAMPLING ASSOCIATED WITH JCES RENOVATION PROJECT

SMMUSD is currently nearing completion of a window replacement project in Building F of JCES. The replacement project included removal of windows as well as porous building materials surrounding the windows in Building F, Rooms 16 through 23. The removal of porous materials in Rooms 18, 19, 22, and 23 included material that had been encapsulated during the caulk removal work conducted in Summer 2015². Immediately subsequent to the removal of the windows and surrounding porous substrates by SMMUSD’s contractors in June/July 2016, Ramboll Environ collected confirmatory bulk samples of building materials previously adjacent to the windows that was still remaining in the classrooms. As reported in the *Update on Summer 2016 Air, Surface Wipe, and Bulk Sampling at Malibu High School and Juan Cabrillo Elementary School*, dated August 29, 2016, all bulk samples were below the USEPA remediation goal of ≤ 1 ppm PCBs³ with detected concentrations ranging between 0.0084 to 0.87 ppm.

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¹ USEPA, 2015. Letter from Jeff Scott/USEPA to Sandra Lyon/SMMUSD, November 2. Available online: <http://www.smmusd.org/publicnotices/MalibuSupplementalApproval.pdf>.

² Ramboll Environ, 2015. Conclusion of PCB Sampling Pilot Study and 2015 PCB Removal Activities Report for Malibu High School and Juan Cabrillo Elementary School. October.

³ Ibid.

In October 2016, after removal of containment (i.e., polyethylene sheeting installed to prevent the migration of dust during renovation/demolition activities), and completion of installation of new building materials (i.e., windows, walls and flooring), confirmatory post-renovation indoor air and surface wipe samples from building surfaces within the rooms⁴ were collected in the following rooms at JCES:

- Building F (Rooms 16 through 23)
- Building C (Room 6)⁵

Table A-1 shows preliminary results for confirmatory post-renovation indoor air samples. PCBs were not detected above the PCB laboratory reporting limit and were, therefore, below the relevant USEPA Exposure Levels for Evaluating PCBs in Indoor School Air.⁶ Table A-2 shows preliminary results for confirmatory post-renovation surface wipe samples. PCBs were not detected above the PCB laboratory reporting limit and were, therefore, below USEPA's Region IX surface wipe benchmark for schools of 1 µg/100 cm².

Attachment:

A: Tables – Post-Renovation Air and Surface Wipe Sampling Results

⁴ Note that all moveable furniture and classroom materials were removed prior to initiation of this JCES renovation project.

⁵ Renovations at Building C (Room 6) consisted of removing and replacing interior walls; the windows were not replaced as these were installed in the late 1990s according to SMMUSD. Confirmatory air and surface wipe samples were performed in Building C (Room 6) as PCBs were previously detected in wipe samples collected from the original walls of this room.

⁶ USEPA. 2015. Exposure Levels for Evaluation of PCBs in Indoor School Air. February 2016. Available online: <https://www.epa.gov/pcbs/exposure-levels-evaluation-polychlorinated-biphenyls-pcbs-indoor-school-air>. USEPA cited these health-protective exposure levels in their November 2015 Approval. USEPA's health-protective exposure levels are 200 nanograms per cubic meter (ng/m³) (children 3 to less than 6 years old), 300 ng/m³ (elementary school - 6 to less than 12 years old), 500 ng/m³ (middle school – 12 to less than 15 years old), 600 ng/m³ (high school – 15 to less than 19 years old), and 500 ng/m³ (faculty/adults), respectively.

**ATTACHMENT A
TABLES – SAMPLING RESULTS**

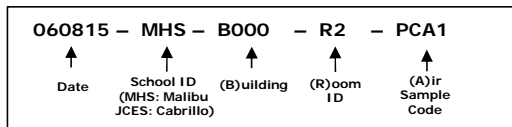
Table A-1. Preliminary Summary of PCB Air Sampling Results for Summer 2016 JCES Renovation (Post-Renovation)

Juan Cabrillo Elementary School
Malibu, California

Building	Room Placard ID	Floor Plan Room ID	Room Description	Sampling Date ^a	Sample ID	Total PCBs (ng/m ³)
JCES						
F	R16	16	Special education student occupational therapy room	10/7/2016	100716-JCES-BF-R16-PCA01	ND (<69)
	R17	17	Computer room	10/7/2016	100716-JCES-BF-R17-PCA01	ND (<69)
	R18	18	PTA room	10/7/2016	100716-JCES-BF-R18-PCA01	ND (<69)
			PTA room (duplicate)		100716-JCES-BF-R18-PCA02	ND (<69)
	R19	19	Music room	10/7/2016	100716-JCES-BF-R19-PCA01	ND (<68)
	R20	20	Science laboratory	10/7/2016	100716-JCES-BF-R20-PCA01	ND (<69)
	R21	21	Special education classroom	10/7/2016	100716-JCES-BF-R21-PCA01	ND (<68)
	R22	22	Art classroom	10/7/2016	100716-JCES-BF-R22-PCA01	ND (<68)
R23	23	Overflow room/music room	10/7/2016	100716-JCES-BF-R23-PCA01	ND (<68)	
C	R6	135	Psychologist's office	10/7/2016	100716-JCES-BC-R6-PCA01	ND (<68)
Field Blanks and Ambient				10/7/2016	100716-JCES-AOD	ND (<68)
					100716-JCES-AFB	NA

Notes:

- The data presented in this table is preliminary, pending completion of third-party data validation.
- Analytical report P1604767 was provided by the laboratory, ALS Environmental. Samples were analyzed by USEPA method TO-10A.
- No concentrations were greater than USEPA's Exposure Levels for Evaluation of PCBs in Indoor School Air of 200, 300, 500, 600, and 500 ng/m³ for children 3 to less than 6 years old, elementary school (6 to less than 12 years old), middle school, high school, and faculty/adults, respectively.
- If no Aroclors were detected, total PCBs are shown as less than (<) the highest method reporting limit.
- Duplicate samples were collected adjacent to the primary sample.
- Example of sample ID:



^[a] Air samples were collected over a 24-hour period with the windows and doors closed, and ventilation off. With the exception of R21 (electrical outlets not working so lights could not be turned on), and R20 and R22 (lights are on timer that turned off overnight), all lights were turned on during the duration of air testing. Start date is given.

Abbreviations:

ng/m³ = nanograms per cubic meter
 BMP = Best Management Practice
 FB = field blank
 JCES = Juan Cabrillo Elementary School
 NA = not applicable
 ND = Compound was analyzed for but not detected above the laboratory reporting limit

OD = outdoor
 PC = post containment
 PCB = polychlorinated biphenyl
 TO = toxic organic
 USEPA = United States Environmental Protection Agency

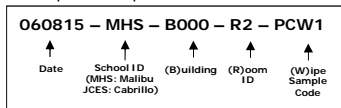
Table A-2. Preliminary Summary of PCB Surface Wipe Sampling Results for Summer 2016 JCES Renovation (Post-Renovation)

Malibu High School and Juan Cabrillo Elementary School
Malibu, California

Building	Room Placard ID	Floor Plan Room ID	Room Description	Sample Location	Surface Description	Sampling Date	Sample ID	Total PCB Surface Wipe Concentration (µg/100 cm ²)
JCES								
F	R16	16	Special education student occupational therapy room	counter top, sink adjacent	laminates	10/7/2016	100716-JCES-BF-R16-PCW01	ND (<0.10)
				counter top, sink adjacent (duplicate)	laminates		100716-JCES-BF-R16-PCW02	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BF-R16-PCW03	ND (<0.10)
				wall	stucco with paint		100716-JCES-BF-R16-PCW04	ND (<0.10)
	R17	17	Computer room	counter top, sink adjacent	laminates	10/7/2016	100716-JCES-BF-R17-PCW01	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BF-R17-PCW02	ND (<0.10)
				wall	stucco with paint		100716-JCES-BF-R17-PCW03	ND (<0.10)
	R18	18	PTA room	counter top, sink adjacent	laminates	10/7/2016	100716-JCES-BF-R18-PCW01	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BF-R18-PCW02	ND (<0.10)
				wall (replicate)	sheet rock with paint		100716-JCES-BF-R18-PCW03	ND (<0.10)
				wall	stucco with paint		100716-JCES-BF-R18-PCW04	ND (<0.10)
	R19	19	Music room	counter top, sink adjacent	laminates	10/7/2016	100716-JCES-BF-R19-PCW01	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BF-R19-PCW02	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BF-R19-PCW03	ND (<0.10)
	R20	20	Science laboratory	counter top, sink adjacent	laminates	10/7/2016	100716-JCES-BF-R20-PCW01	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BF-R20-PCW02	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BF-R20-PCW03	ND (<0.10)
	R21	21	Special education classroom	counter top, sink adjacent	laminates	10/7/2016	100716-JCES-BF-R21-PCW01	ND (<0.10)
				counter top, sink adjacent (replicate)	laminates		100716-JCES-BF-R21-PCW02	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BF-R21-PCW03	ND (<0.10)
				wall	stucco with paint		100716-JCES-BF-R21-PCW04	ND (<0.10)
F	R22	22	Art classroom	counter top, sink adjacent	laminates	10/7/2016	100716-JCES-BF-R22-PCW01	ND (<0.10)
				counter top, sink adjacent (replicate)	laminates		100716-JCES-BF-R22-PCW02	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BF-R22-PCW03	ND (<0.10)
				wall	stucco with paint		100716-JCES-BF-R22-PCW04	ND (<0.10)
	R23	23	Overflow room/ music room	counter top, sink adjacent	laminates	10/7/2016	100716-JCES-BF-R23-PCW01	ND (<0.10)
wall	sheet rock with paint	100716-JCES-BF-R23-PCW02	ND (<0.10)					
wall (duplicate)	sheet rock with paint	100716-JCES-BF-R23-PCW03	ND (<0.10)					
wall	stucco with paint	100716-JCES-BF-R23-PCW04	ND (<0.10)					
C	R6	135	Psychologist's office	wall	sheet rock with paint	10/7/2016	100716-JCES-BC-R6-PCW01	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BC-R6-PCW02	ND (<0.10)
				wall (duplicate)	sheet rock with paint		100716-JCES-BC-R6-PCW03	ND (<0.10)
				wall	sheet rock with paint		100716-JCES-BC-R6-PCW04	ND (<0.10)
Field Blanks						10/7/2016	100716-JCES-WFB-HEX	ND (<0.10)

Notes:

- The data presented in this table is preliminary, pending completion of third-party data validation.
- Analytical report 1610501 was provided by the laboratory, ALS Environmental. Samples were analyzed by USEPA method SW 8082. Sample area was 100 cm².
- If no Aroclors were detected, total PCBs are shown as less than (<) the highest method reporting limit.
- Duplicate samples were collected adjacent to the primary sample. Replicate samples were collected in the same location as the primary sample, after the primary sample was collected.
- Example of sample ID:



Abbreviations:

µg/100 cm² = micrograms per 100 square centimeters
 cm² = square centimeters
 FB = field blank
 HEX = hexane

JCES = Juan Cabrillo Elementary School
 ND = Testing result not detected above the reporting limit
 PCB = polychlorinated biphenyl

PC = post containment
 SW = solid waste
 USEPA = United States Environmental Protection Agency