



ENVIRONMENTAL COMPLIANCE SERVICES, INC.

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Mr. John Lebeaux
Town Administrator
Town of Princeton
6 Town Hall drive
Princeton, MA 01541

April 15, 2015

RE: Thomas Prince School
November 2014 Indoor Air and Wipe Sampling for PCB's

Dear Mr. Lebeaux,

During November 2014, indoor air and wipe sampling was conducted by ECS at the Thomas Prince School. The analytical results were favorable as PCB's were not detected above laboratory analytical reporting limits in any of the samples.

Refer to the attached table for summaries of the results of indoor air and wipe sampling performed during November 2014.

Sincerely,

Environmental Compliance Services, Inc.

A handwritten signature in blue ink, appearing to read 'Charles E. Klingler', with a long horizontal flourish extending to the right.

Charles E. Klingler, LSP
Worcester Branch Manager

WHERE BUSINESS AND THE ENVIRONMENT CONVERGE

> CONNECTICUT > FLORIDA > MASSACHUSETTS > NEW HAMPSHIRE > NORTH CAROLINA > OHIO > PENNSYLVANIA > VERMONT >

Table 1
INDOOR AIR SAMPLING RESULTS
USEPA Method TO-10A

Sample Location	Sampling Date	Method		Notes	Sample Designation	Total Aroclor	Total Homolog's	Aroclor (EPA Method 8082)				Homolog's (EPA Method 680)										
		Aroclor (8082)	Homolog's (680)					1221	1242	1248	1254	Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl	
Classroom 100	8/20/2011	x	x	4,6,11	RM 100	288	54.2	174	114	< 47.8	< 47.8	< 12	39.2	15	< 23.9	< 23.9	< 23.9	< 35.9	< 35.9	< 59.8	< 59.8	
	3/22/2012		x			21.83							< 2.47	17.5	4.33	< 4.94	< 4.94	< 4.94	< 7.40	< 7.40	< 12.3	< 12.3
	12/28/2012		x			ND							< 2.17	< 2.17	< 2.17	< 4.33	< 4.33	< 4.33	< 6.49	< 6.49	< 10.8	< 10.8
	12/23/2013		x			ND							< 2.45	< 2.45	< 2.45	< 4.89	< 4.89	< 4.89	< 7.34	< 7.34	< 12.2	< 12.2
Classroom 102	8/20/2011	x		4,6	RM 102	102.7		60.3	42.4	< 48	< 48											
	12/28/2012		x		RM 102		ND					< 2.16	< 2.16	< 2.16	< 4.31	< 4.31	< 4.31	< 6.47	< 6.47	< 10.8	< 10.8	
	11/11/2014		x		RM 102		ND					< 2.50	< 2.50	< 2.50	< 5.01	< 5.01	< 5.01	< 7.51	< 7.51	< 12.5	< 12.5	
Classroom 104	8/20/2011	x		4,6	RM 104	254		123	131	< 48	< 48											
	12/28/2012		x		RM 104		ND					< 2.16	< 2.16	< 2.16	< 4.31	< 4.31	< 4.31	< 6.47	< 6.47	< 10.8	< 10.8	
	11/11/2014		x		RM 104		ND					< 2.65	< 2.65	< 2.65	< 5.30	< 5.30	< 5.30	< 7.95	< 7.95	< 13.3	< 13.3	
Classroom 106	8/20/2011	x		4,6	RM 106	534		317	217	< 47.9	< 47.9											
	9/22/2011		x	4,6	RM 106		72.52					< 2.46	5.52	24.6	25.6	16.8	< 4.93	< 7.39	< 7.39	< 12.3	< 12.3	
	3/22/2012		x		RM 106		55.4					< 2.47	26.7	28.7	< 4.94	< 4.94	< 4.94	< 7.41	< 7.41	< 12.4	< 12.4	
	12/28/2012		x		RM 106		ND					< 2.14	< 2.14	< 2.14	< 4.27	< 4.27	< 4.27	< 6.41	< 6.41	< 10.7	< 10.7	
	12/23/2013		x		RM 106		ND					< 2.40	< 2.40	< 2.40	< 4.80	< 4.80	< 4.80	< 7.20	< 7.20	< 12.0	< 12.0	
Classroom 108	8/20/2011	x		4,6	RM 108	360		196	164	< 48.7	< 48.7											
	8/20/2011	x		4,6	RM 108A	171.6		82	89.6	< 49.9	< 49.9											
	11/8/2011		x		RM 108		25.6					< 2.5	13.7	11.9	< 5	< 5	< 5	< 7.5	< 7.5	< 12.5	< 12.5	
	12/28/2012		x		RM 108		ND					< 2.37	< 2.37	< 2.37	< 4.74	< 4.74	< 4.74	< 7.11	< 7.11	< 11.8	< 11.8	
Classroom 110	8/20/2011	x		4,6	RM 110	191.9		104	87.9	< 49.2	< 49.2											
	12/28/2012		x		RM 110		ND					< 2.43	< 2.43	< 2.43	< 4.85	< 4.85	< 4.85	< 7.28	< 7.28	< 12.1	< 12.1	
	12/23/2013		x		RM 110		ND					< 2.43	< 2.43	< 2.43	< 4.87	< 4.87	< 4.87	< 7.30	< 7.30	< 12.2	< 12.2	
Cafeteria	8/20/2011	x		4,6	CAF/AUD A	169.1		104	65.1	< 44.3	< 44.3											
	8/20/2011	x		4,6	CAF/AUD B	197.3		119	78.3	< 48.4	< 48.4											
	8/20/2011	x		4,6	CAF/AUD DUP	197.7		121	76.7	< 48.4	< 48.4											
	9/22/2011		x		CAF/AUD		6.28					< 2.51	< 2.51	6.28	< 5.01	< 5.01	< 5.01	< 7.52	< 7.52	< 12.5	< 12.5	
	9/22/2011		x		CAF/AUD DUP		11.8					< 2.4	< 2.4	5.98	5.82	< 4.81	< 4.81	< 7.21	< 7.21	< 12	< 12	
	3/22/2012		x		Cafeteria		ND					< 2.48	< 2.48	< 2.48	< 4.95	< 4.95	< 4.95	< 7.43	< 7.43	< 12.4	< 12.4	
	12/23/2013		x		Cafeteria		ND					< 2.51	< 2.51	< 2.51	< 5.03	< 5.03	< 5.03	< 7.54	< 7.54	< 12.6	< 12.6	
	11/11/2014		x		RM-Caf		ND					< 2.47	< 2.47	< 2.47	< 4.94	< 4.94	< 4.94	< 7.40	< 7.40	< 12.3	< 12.3	
Classroom 201	8/1/2011	x		4,9,10	201	322		110	< 48.7	92	120											
	3/22/2012		x			171.47							< 2.46	7.07	19.8	65.6	79	< 4.92	< 7.38	< 7.38	< 12.3	< 12.3
	12/28/2012		x			ND							< 2.36	< 2.36	< 2.36	< 4.72	< 4.72	< 4.72	< 7.08	< 7.08	< 11.8	< 11.8
	12/23/2013		x			ND							< 2.42	< 2.42	< 2.42	< 4.83	< 4.83	< 4.83	< 7.25	< 7.25	< 12.1	< 12.1
Classroom 203	8/1/2011	x		4,9,10	203	318.9		131	< 48.9	72.9	115											
	3/22/2012		x			131.9							< 2.50	26.1	20.7	48.5	36.6	< 4.99	< 7.49	< 7.49	< 12.5	< 12.5
	12/28/2012		x			ND							< 2.32	< 2.32	< 2.32	< 4.63	< 4.63	< 4.63	< 6.94	< 6.94	< 11.6	< 11.6
	11/11/2014		x			ND							< 2.48	< 2.48	< 2.48	< 4.96	< 4.96	< 4.96	< 7.43	< 7.43	< 12.4	< 12.4

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		Aroclor (8082)	Homolog's (680)					1221	1242	1248	1254	Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl	
Classroom 205	8/1/2011		x	4,9,10	205	661.2		84.2	<46.9	224	353	<2.44	5.59	<2.44	102	113	<4.88	<7.31	<7.31	<12.2	<12.2	
	3/22/2012		x			220.59							<2.35	<2.35	<2.35	<4.70	<4.70	<4.70	<7.04	<7.04	<11.7	<11.7
	12/28/2012		x			ND							<2.47	<2.47	<2.47	<4.94	<4.94	<4.94	<7.40	<7.40	<12.3	<12.3
	12/23/2013		x			ND																
Classroom 207	8/1/2011	x		4,9,10	207	591		218	<46.8	149	224	<2.49	6.71	15.4	71.3	40.7	<4.98	<7.47	<7.47	<12.4	<12.4	
	3/22/2012		x			134.11							<2.32	<2.32	<2.32	<4.63	<4.63	<4.63	<6.94	<6.94	<11.6	<11.6
	12/28/2012		x			ND							<2.47	<2.47	<2.47	<4.94	<4.94	<4.94	<7.41	<7.41	<12.3	<12.3
	11/11/2014		x			ND							<2.54	<2.54	<2.54	<5.07	<5.07	<5.07	<7.61	<7.61	<12.7	<12.7
	11/11/2014		x			207 DUP	ND															
Classroom 209	8/1/2011	x		4,9,10	209	1021		249	<41.7	266	506											
	9/22/2011		x		RM 209	900.87						5.87	12	77.1	250	487	68.9	<7.45	<7.45	<12.4	<12.4	
	11/8/2011		x		RM 209	179.01						3.3	6.55	20.8	48.2	94.6	5.56	<7.5	<7.5	<12.5	<12.5	
	3/22/2012		x		RM 209	311.8						<2.44	15.6	23.2	88.6	168	16.4	<7.31	<7.31	<12.2	<12.2	
	3/22/2012		x		RM 209 DUP	248.73						<2.45	11.0	7.23	84.5	146	<4.9	<7.35	<7.35	<12.2	<12.2	
	3/22/2012		x		RM 209 AVERAGE	280.27							13.3	15.2	86.55	157	8.2					
	12/28/2012		x		RM 209	ND						<2.30	<2.30	<2.30	<4.61	<4.61	<4.61	<6.91	<6.91	<11.5	<11.5	
	12/28/2012		x		RM 209 DUPLICATE	ND						<2.30	<2.30	<2.30	<4.61	<4.61	<4.61	<6.91	<6.91	<11.5	<11.5	
	12/23/2013		x		RM 209	ND						<2.40	<2.40	<2.40	<4.81	<4.81	<4.81	<7.21	<7.21	<12.0	<12.0	
	12/23/2013		x		RM 209 DUPLICATE	ND						<2.41	<2.41	<2.41	<4.81	<4.81	<4.81	<7.22	<7.22	<12.0	<12.0	
Classroom 211	8/1/2011	x		4,9,10	211	396.3		187	<50.2	74.3	135											
	3/22/2012		x			78.35							<2.43	21.3	8.25	25.0	23.8	<4.86	<7.29	<7.29	<12.2	<12.2
	12/28/2012		x			ND							<2.28	<2.28	<2.28	<4.57	<4.57	<4.57	<6.85	<6.85	<11.4	<11.4
	11/11/2014		x			ND							<2.46	<2.46	<2.46	<4.92	<4.92	<4.92	<7.38	<7.38	<12.3	<12.3
Library	8/20/2011	x		4,6	LIBRARY A	144.2		80.8	63.4	<47.5	<47.5											
	8/20/2011	x		4,6	LIBRARY B	158.5		88.2	70.3	<49.7	<49.7											
	9/22/2011		x		LIBRARY	18.64						<2.44	3.04	15.6	<4.88	<4.88	<4.88	<7.32	<7.32	<12.2	<12.2	
	3/22/2012		x		LIBRARY	3.86						<2.48	<2.48	3.86	<4.96	<4.96	<4.96	<7.44	<7.44	<12.4	<12.4	
12/23/2013		x		LIBRARY	ND						<2.44	<2.44	<2.44	<4.88	<4.88	<4.88	<7.31	<7.31	<12.2	<12.2		
Computer Lab 111	8/20/2011	x		4,6	RM 111	155.7		94.8	60.9	<49.6	<49.6											
	9/22/2011		x		RM 111	23.29						8.69	4.17	3.91	6.52	<4.97	<4.97	<7.45	<7.45	<12.4	<12.4	
Home Economics 112	8/20/2011	x	x	4,5,11,12	RM 112	24.8	ND	24.8	<48.9	<48.9	<48.9	<12.2	<12.2	<12.2	<24.4	<24.4	<24.4	<36.7	<36.7	<61.1	<61.1	
	8/20/2011	x			RM 112 (DUP)	ND		<66.9	<66.9	<66.9	<66.9											
Off Library 113	8/20/2011	x		4,6	RM 113	140.3		87.4	52.9	<50.3	<50.3											
	9/22/2011		x		RM 113	14.74						<2.46	2.92	6.72	5.1	<4.93	<4.93	<7.39	<7.39	<12.3	<12.3	
Office Common Area 13	8/20/2011	x	x	4,6,11	RM 13	148.6	13.3	95.7	52.9	<49.3	<49.3	<12.3	13.3	<12.3	<24.6	<24.6	<24.6	<37	<37	<61.6	<61.6	
	9/22/2011		x		RM 13	4.98						<2.45	<2.45	4.98	<4.91	<4.91	<4.91	<7.36	<7.36	<12.3	<12.3	

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Sample Location	Sampling Date	Method		Notes	Sample Designation	Total Aroclor	Total Homolog's	Aroclor (EPA Method 8082)				Homolog's (EPA Method 680)									
		Aroclor (8082)	Homolog's (680)					1221	1242	1248	1254	Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl

Notes:
 Concentrations in nanograms (billionth of a gram) per cubic meter (ng/m3).
 "<" or "ND" denotes = Not Detected at laboratory reporting limit.
 Yellow shading denotes = Post Abatement Indoor Air Sampling

08/01/11 - Initial IAS round - limited to 200-wing classrooms
 08/20/11 - 2nd IAS round - comprehensive round throughout building
 09/22/11 - 3rd IAS round - targeted to show effects of initial "cleaning".
 11/08/11 - 4th IAS round - Limited to classrooms 209 & 108.
 3/22/12 - 5th IAS Round - Post Abatement 200-Wing, Cafeteria & Kitchen
 12/28/12 - 6th IAS Round - Post Abatement 100-Wing
 12/23/13 - 7th IAS Round - 1 year following completed Abatement
 11/11/14 - 8th IAS Round - 2 years following completed Abatement

Public Health Levels of PCBs in School Indoor Air - Guidance

Age (years)	ng/m ³	
1-<2	70	
2-<3	70	
3-<6	100	
6-<12	300	Elementary School
12-<15	450	Middle School
15-<19	600	High School
19+	450	Adult

Table 1
2014 - ANNUAL CLASSROOM WIPE SAMPLE RESULTS

SAMPLE ID	Date	Aroclor	Concentration ug/100cm ²	Notes	SAMPLE LOCATION and COMMENTS
201 Int	11/11/2014		<0.5	1	1st block up from bottom
201 Ext	11/11/2014		<0.5	1	Southern Sill
203 Int	11/11/2014		<0.5	1	3rd block up from bottom, middle block between windows
205 Int	11/11/2014		<0.5	1	5th block up from bottom, middle block between windows
205 EXT	11/11/2014		<0.5		Column - Middle, north face, at window sill
207 Int	11/11/2014		<0.5	2	3rd block up from bottom, middle block between windows
207 Ext	11/11/2014		<0.5	1	Brick at vent on Northern end
209 Int	11/11/2014		<0.5	2	2nd block up from bottom, middle block between windows
209 Ext	11/11/2014		<0.5		N face of S column - 5' from ground
211 Int	11/11/2014		<0.5	2	4th block up from bottom, middle block between windows
211 Ext	11/11/2014		<0.5	1	Northern Sill
100 Int	11/11/2014		<0.5	1	2nd block up, N Side
102 Int	11/11/2014		<0.5	1	2nd block up, S Side
102 Ext	11/11/2014		<0.5		North side of S column at lower end of lower window
104 Int	11/11/2014		<0.5	1	4th block up adj to window, north side
104 Ext	11/11/2014		<0.5		S side of N column, mid lower window
106 Int	11/11/2014		<0.5	1	4th block down
108 Int	11/11/2014		<0.5	1	3rd block up from window sil, north side, adj to window
108 Ext	11/11/2014		<0.5	1	S side of S column, mid lower window
110 Int	11/11/2014		<0.5	1	3rd block up from window sil, south side of window, adj to window

Notes:

- All samples collected as hexane wipes over a 100 square centimeter (cm²) area.
- All 100 Wing Room Int samples collected from parrallel and perpendicular face of block.
- All 200 Wing Room Int samples collected from face of block parrallel to interior of room.
- Regulatory exposure limit for unrestricted use in school is 1 ug/100 cm²
- <0.1 = Not Detected at the Practical Quantitation Limit (PQL).
- Bold indicates value greater than 1 ug/100 cm²
- 1). Epoxy coating covered by veneer of latex paint.
- 2). Epoxy coating not covered by veneer of latex paint.