

School / Facility Radon Testing Report Form

Instructions: Submit one testing report form per-facility per-round of testing. Include the following as attachments: Attachment 1- Summary Data Tables – containing the following: (see attached samples tables)

- Testing Results lab/detector Identification, by room number/name (alpha-numeric order) as depicted on facility map/floor plan provided by the facility/school at the time of test device deployment;
- Summary Results list of rooms by test result ≥2.0-pCi/L; ≥2.7-pCi/L; ≥4.0-pCi/L; and ≥8.0-pCi/L;
- QA/QC Results (field blanks and duplicates) indicating location collected; trip and office blanks; and spike sample results;
- Invalid Measurement Locations missed locations, missing and or damaged/compromised testing devices. Attachment 2 – Laboratory Report(s)

Attachment 3 – Sampling Location Map(s) – indicating approximate location of samples, duplicates and blanks.

School Year: 23-24

Facility:	Burnt Mills Elementary School
Address	1211 Chilids Street
Address:	Silver Spring, MD 20901

	□ Scheduled Re-Testing (2 or 5-year schedule)
Reason for Testing:	Clearance Testing (Post-Mitigation)
Reason for resting.	System(s) Performance Testing (Post-Mitigation)
	New Construction/Facility
Facility Current Dadon	Active Mitigation (2-year regular schedule)
Facility Current Radon Status:	No Active Mitigation (5-year regular schedule)
	☑ Not Previously Tested
Round of Testing:	☑ Initial Testing -or- □ Follow-up Testing
Testing Status:	oxtimes No Further Testing Needed - or - $oxtimes$ Follow-Up Testing Required

Conclusion (When Testing Status is - No Further Testing Needed)

Mitigation -	Facility Radon Status:
🛛 Not Required or Considered	No Change in Status
□ Required (>8.0-pCi/L)	
□ Required (≥4.0-pCi/L)	 Active Mitigation (2-year regular schedule) No Active Mitigation (5-year regular schedule)
☐ Consider (≥2.0 & <4.0-pCi/L)	IND ACTIVE INITIGATION (5-year regular schedule)



Detector and Deployment

	🛛 Passive	🛛 Charcoal Absorptic	on (CAD) 🗌 Alpha Track (ATD) 🗌 Other			
Detector/Device	🗌 Continuous	□ Continuous □ Electret ion Chamber (EIC) □ Electronic Integration (EID)				
Type:	Other-Specify here:					
Detector/Device	Air Chek – Radon T	Tost Kits				
Name:		est Kits				
Manufacturer:	Radon Lab					
Person(s) Deploying or Retrieving Test Devices and certification number		Organization/Company				
John Adams		KCI Technologies, Inc.				
If noncertified individuals, the qualified measurement professional providing oversight -						
Tyler McCleaf, CSP – Cert. #111004-RMP		KCI Technologies, Inc.				

Testing

Short-Term	Length of	2	2	2	2	2	Date of Deployment and	0	01/23/24	
□ Long-Term	Test (days):	3	Retrieval (mm/dd/yy):	01/26/24						
Does the test period include weekends, school breaks or holidays?			□ Yes	🛛 No						
If " Yes " please explai	in/detail in the s	pace below:								
Was HVAC operating under occupied conditions?				🛛 Yes	🗆 No					
If " No " please explain/detail in the space below:										



Testing (continued)

	Detectors Deployed		
	Ground-Contact Upper-Level(s)		
Test Locations ¹	56	0	56
Duplicates ²	5	0	5
Field Blanks ³	3	0	3
		Grand Total	64

1 – include all detectors deployed (duplicates, field blanks); 1 detector per occupied (or intended to be occupied) ground-contact space \leq 2,000-square feet; large spaces \geq 2,000-square feet - 1 detector per 2,000-square feet or part thereof); and upper floors - 10% of all occupied or intended to be occupied rooms <u>per floor</u> (these are in addition to ground contact locations)

2 - 10% of all locations tested, per floor

3 – 5% of all locations tested, per floor

Quality Assurance / Quality Control (QA/QC)

A Quality Assurance plan that is consistent with ANSI/AARST MS-QA (Radon Measurement Systems Quality Assurance) was submitted under separate cover, and is available to review at the MCPS Radon Testing and Mitigation Program website. The following number of QA/QC samples are associated this facility.

Spike Samples ¹ 6	Trip Blank(s) ²	1	Office Blank(s) ^{3,4}	1
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1 - 3% of EIC detectors; and 3% from <u>each LOT</u> of CAD and ATD detectors; a <u>maximum of 6-spiked</u> <u>measurements</u> per month for both EIC detectors and <u>each LOT</u> of CAD and ATD detectors.

2 – One per shipping container from start of detector deployment

3 - One per facility tested as devices are removed/allocated from the storage location for deployment;

4 - One additional blank, <u>analyzed prior to deployment</u>, for storage locations that have not been evaluated or monitored, for detectors that have been stored for more than 30-day durations.

Spike Sample Lab Results. Measured values are satisfactory, i.e., within ± 25% of the chamber's reference value.	🛛 Yes	🗆 No
Quality Control measurements comply with QA/QC requirements in the QA plan previously submitted?	🛛 Yes	🗆 No



Quality Assurance / Quality Control (QA/QC) (continued)

If "**No**" to either, please describe any QC measurements that were missing or outside of control tolerances established in the QAP here:

Summary of Test Results¹ and Determination of Valid Measurements²

	Ground-Contact	Upper-Level(s)	Total
Number of test locations:	56	0	56
Number of locations ≥8.0-pCi/L:	0	0	0
Number of locations ≥4.0 and ≤8-pCi/L:	0	0	0
Number of locations ≥2.7 and ≤4-pCi/L:	0	0	0
Number of locations ≥2.0 and ≤4-pCi/L:	0	0	0
Number of missing required test locations ³ :	0	0	0
Percentage of missing test locations for the facility ^{4,5} :	0	0	0

1 – for locations with multiple test results, report consistent with Section 7.2(When Two Test Results Disagree) and 8.1.2 (Averaging) of ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings;

2 - the allowance is to be calculated individually for Ground-Contact and Upper-Level(s) Test Locations;

3 – includes missed or inaccessible locations upon deployment or retrieval, damaged (not able to analyze) and missing detectors upon retrieval;

4 – if all valid measurements are <4.0-pCi/L and the total number of test locations are \geq 18, there is an allowance of \leq 33%. If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023;

5 – if any valid measurements are \geq 4.0-pCi/L and the total number of test locations are \geq 20, there is an allowance of \leq 25% of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023.



Summary of Test Results¹ and Determination of Valid Measurements² (continued)

Were test devices deployed in all occupied and intended to be occupied rooms in contact with	\boxtimes	Yes	
the ground, and, if applicable, 10% of upper floor rooms?		No	
Were valid measurements obtained in all occupied and intended to be occupied rooms in	\boxtimes	Yes	
contact with the ground, and, if applicable, 10% of upper floor rooms?		No	
If Yes to both above – then Testing Status – 'No Further Testing Needed' mark 'NA' below and comple	te Co		
		section	
If No to either above, were all results obtained under 4.0-pCi/L and were there sufficient valid		Yes	
measurements obtained? ^{1,2}		No	
If Yes – then Testing Status - 'No Further Testing Needed' complete Conclusion section			
If No, then Testing Status - 'Follow-up Testing Required' continue below	X	NA	
1 – if all valid measurements are <4.0-pCi/L and the total number of test locations are ≥18, there is an allowance of			

 \leq 33%. If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the allowance; 2 – if any valid measurements are \geq 4.0-pCi/L and the total number of test locations are \geq 20, there is an allowance of \leq 25% of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Ma-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the allowance of \leq 25% of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the allowance.

- If 'No Further Testing Needed' complete conclusions section on first page.
- If 'Follow-up Testing Required' complete Follow-up Testing described below and the conclusion section on the first page for only the valid measurements/results obtained

Follow-Up Testing (if required)

Required if –

- 1- Not enough valid results were obtained from a facility (table above);
- 2- Any results $\geq 4.0 pCi/L$; and
- 3- At the discretion of MCPS IAQ Staff

Follow-up Testing:

- 1- If an insufficient number of valid measurements obtained during initial round:
 - o return to facility to test locations that require valid measurements
- 2- Follow-up Testing for valid measurements ≥ 4.0-pCi/L

Initial Result(s)	Procedure	Follow-up Result	Conclusion
		≥4.0	Mitigation Required
≥ 4.0-pCi/L	i/L 1- Short-term follow-up test 2- Average the results of the two tests	<4.0 but >2.0	Consider Mitigation
		<2.0	Not Required or Considered

• Complete second School/Facility Radon Testing Report Form for only Follow-up Testing locations.

Attachment 1: Summary Data Tables

Table 1- Radon Testing Results				
Burnt Mills Elementary School				
: 01/23/2024 - 0'	1/26/2024			
Room / Area	Result			
	< 0.3			
	< 0.3			
	0.5			
-	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	0.6			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	< 0.3			
	-			

Table 1- F	Table 1- Radon Testing Results				
Burnt Mills Elementary School					
Test Period: 01/23/2024 - 01/26/2024					
11284777	168	< 0.3			
11284778	170	< 0.3			
11284779	172	< 0.3			
11284781	176	< 0.3			
11284780	178	< 0.3			
11284782	182	< 0.3			
11284783	184	< 0.3			
11284768	186	< 0.3			
11284769	188	< 0.3			
11284773	188	< 0.3			
11284761	194	< 0.3			
11284619	206	< 0.3			
11284620	210	< 0.3			
11284621	210	< 0.3			
11284622	210	< 0.3			
11284623	214	< 0.3			
11284627	226	< 0.3			
11284774	108A	< 0.3			
11284763	108B	< 0.3			
11284799	132 OFFICE	< 0.3			
11284787	144E	< 0.3			
11284767	162A	< 0.3			
11284776	162A	< 0.3			
11284784	162A	< 0.3			
11284788	STAGE	< 0.3			
11284789	STAGE	< 0.3			

	Bur				Table 2 - Summary Testing Results ≥2.0 pCi/L					
	Dui	Burnt Mills Elementary School								
	Test P	eriod: 01/23	/2024 - 01/26/202	24						
′ pCi/L	≥2.7 and <4	.0 pCi/L	≥4.0 and <8	3.0 pCi/l	≥8.0 pC	;i/L				
Result	Room / Area	Result	Room / Area	Result	Room / Area	Result				
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
	Result	pCi/L ≥2.7 and <4 Result Room / Area	pCi/L ≥2.7 and <4.0 pCi/L Result Room / Area Result	pCi/L ≥2.7 and <4.0 pCi/L ≥4.0 and <8 Result Room / Area Result Room / Area	Result Room / Area Result Room / Area Result	pCi/L ≥2.7 and <4.0 pCi/L ≥4.0 and <8.0 pCi/I ≥8.0 pC Result Room / Area Result Room / Area Result Room / Area				

	Table 3 - QC Radon Testing Results				
		lementary School			
Tes	t Period: 01	/23/2024 - 01/26/20	24		
Kit Number	QC Type	Room / Area	Result		
11284612	D	120	< 0.3		
11284611	FB	120	< 0.3		
11284602	D	129	< 0.3		
11284769	D	188	< 0.3		
11284621	D	210	< 0.3		
11284622	FB	210	< 0.3		
11284776	D	162a	< 0.3		
11284784	FB	162a	< 0.3		
11463691	OB	OFFICE BLANK	< 0.3		
11463647	TB	TRAVEL BLANK	< 0.3		

Table 4 - Summary of Invalid Measurement Locations					
Burnt Mills Elementary School					
Te	st Period: 01/23/2	24 - 01/26/24			
Kit Number	Room/Area	Result			
N/A	N/A	N/A			

Attachment 2: Laboratory Reports

Radon test result report for: BURNT MILLS ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11284775	100	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284766	101	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284765	102	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	0.5 ± 0.4	2024-01-31
11284764	103	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284770	107	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284762	108	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284774	108A	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284763	108B	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284618	111	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284610	112	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284617	113	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284616	115	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284608	116	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284615	117	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284609	118	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284794	120	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284612	120	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284611	120	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284795	122	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284614	123	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284613	125	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	0.6 ± 0.4	2024-01-31
11284796	126	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284601	127	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284798	128	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284605	129	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284602	129	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284800	132	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284799	132 OFFICE	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284797	133	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284606	141	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284787	144E	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284603	147	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284791	148	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284792	148	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284604	149	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284790	152	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284793	154	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31

Radon test result report for: BURNT MILLS ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11284786	156	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284785	158	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284607	159	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284772	162	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284771	162	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284767	162A	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284784	162A	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284776	162A	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284777	168	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284778	170	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284779	172	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284781	176	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284780	178	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284782	182	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284783	184	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284768	186	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284769	188	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284773	188	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284761	194	2024-01-23 @ 4:00 am	2024-01-26 @ 12:00 am	< 0.3	2024-01-31
11284619	206	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284622	210	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284620	210	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284621	210	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284623	214	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284627	226	2024-01-23 @ 5:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284788	STAGE	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31
11284789	STAGE	2024-01-23 @ 4:00 am	2024-01-26 @ 1:00 am	< 0.3	2024-01-31

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for: KCI MAIN

	alyzed	Analyzed	pCi/L	Ended	Started	Room Id	Kit #
11462647 TP 2024 01 22 @ 8:00 am 2024 01 26 @ 2:00 pm < 0.3 202	-01-30	2024-01-30	< 0.3	2024-01-26 @ 2:00 pm	2024-01-23 @ 8:00 am	OB	11463691
11403047 IB 2024-01-23 @ 8.00 all 2024-01-20 @ 2.00 pll < 0.5 2024	-01-30	2024-01-30	< 0.3	2024-01-26 @ 2:00 pm	2024-01-23 @ 8:00 am	TB	11463647

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for: STORAGE KCI

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11635097	Storage	2024-01-07 @ 9:00 am	2024-01-11 @ 9:00 am	< 0.3	2024-01-15
	0				

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIE	5. Inc Job Number 213327
NOMINAL Conditions: Radon Conc 49.5	pCi/L Rel. Hum <u>24.7</u> % Temp. <u>69.8</u> F
Date Start: 1/19/24 Date Stop: 1/22/24	Date Start: Date Stop:
Time Start: 2831 Time Stop: 2831	Time Start: Time Stop:
Device No.'s: (6) CHAR T3AGS -	Device No.'s:
11284003, 11284005, 11284006	
11294007, 11284008, 11284013	
F3 Left	
Date Start: Date Stop:	Date Start: Date Stop:
Time Start: Time Stop:	Time Start: Time Stop:
Device No.'s:	Device No.'s:
-	
Date Start: Date Stop:	Date Start: Date Stop:
Time Start: Time Stop:	Time Start: Time Stop:
Device No.'s:	Device No.'s:

Note: All times are in 24-hour (military) notation, Eastern Standard Time (EST) Background = 7 μR/h Elevation = 820 ft

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for: BOWSER MORNER MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11284003	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	47.0 ± 3.8	2024-01-29
11284005	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	43.4 ± 3.5	2024-01-29
11284006	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	42.1 ± 3.4	2024-01-29
11284007	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	46.4 ± 3.7	2024-01-29
11284008	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	46.2 ± 3.7	2024-01-29
11284013	SK	2024-01-19 @ 9:00 am	2024-01-22 @ 9:00 am	45.6 ± 3.6	2024-01-29



 $E\,\text{ngineers}\, \cdot\, P\,\text{lanners}\, \cdot\, S\,\text{cientists}\, \cdot\, C\,\text{onstruction}\,\, M\,\text{anagers}$

Corporate Office: 936 Ridgebrook road • Sparks , Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing January 23rd to January 26th

Name of Schools:

- 1. Thomas S. Wootton HS
- 2. Sligo MS
- 3. White Oak MS
- 4. Rosa M. Parks MD
- 5. Clopper Mill ES
- 6. Thomas W. Pyle MS
- 7. Burnt Mills ES

	Date	Initials
Radon Test Kits Deployed	01/23/2024	BMU
Radon Test Kits Collected	01/26/2024	BAUL
Radon Test Kits Shipped to Lab*	01/26/2024	BMU
Radon Test Kits Received by Lab*	01/30/2024	KUM

*All samples sent to Air Check, Inc., 2 Saber Way, Ward Hill, MA 01835

Attachment 3: Sampling Location Map



936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

Site Name	Burnt Mills Elementary School
Date of Report	2/21/2020
Round of Testing	Initial
	Follow-up
	Post Remediation
	2 year testing
(5 year testing
	HVAC Upgrade
	Window Replacement
	New Addition
	New Facility
# of Rooms Tested	46
# Rooms ≥4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.2 pCi/L

MCPS RADON TESTING - EXECUTIVE SUMMARY

Project Status

Current Project Status at this time: Testing Complete; no further action.



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2/21/2020

Mr. Richard Cox, MS Environmental Team Leader Montgomery County Public Schools Division of Maintenance Gaithersburg, Maryland 20879

Re: Radon Testing Services

KCI Job #12146341126

Location: Burnt Mills Elementary School 1211 Chilids Street Silver Spring, Maryland 20901

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a "short-term" 3-day radon test for the Burnt Mills Elementary School, located at 1211 Chilids Street in Silver Spring, Maryland 20901 (subject site).

SCOPE OF SERVICES

KCI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. KCI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*. A National Radon Proficiency Program (NRPP) Radon Measurement Provider (certification #111004 RT) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from www.montgomerycountymd.gov/dep/air/radon or www.epa.gov/radon.

KCI visited the site on 1/6/2020 and deployed fifty-five (55) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

A floor plan map of the building with the test locations is included as Appendix A of this report.

As a quality control measure, KCI included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted sixty (60) test kits to Bowser-Morner, Inc. as spike samples. The spiked tests were exposed to a known radon concentration by Bowser-Morner, Inc. prior to being returned to the laboratory for analysis.

KCI returned to the site on 1/9/2020 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, Inc. is a National Radon Safety Board (NRSB) radon measurement provider and is a certified analytical laboratory for radon analysis (certification #ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

EVALUATION OF TESTING CONDITIONS

These tests represent:

• Follow-up to initial testing.

These tests were conducted to:

• Evaluate radon concentrations at the facility.

According to AARST, *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*, ideal testing conditions would be when the building is fully occupied and the heating system is active. For this test, the facility's HVAC system was operating in heating mode; therefore, KCI concludes that this test was conducted during ideal testing conditions.

KCI recorded observations of the following conditions in each room at the time of deployment and collection of the radon test kits:

- Indoor temperature,
- HVAC Operation,
- Dehumidifier operation,
- Humidifier operation,
- Ceiling fan operation, and
- Open windows or doors.

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the upper-20s and high temperatures were in the mid-50s. Maximum sustained winds ranged from 10-23 miles per hour. Average humidity was around 64%. 0.32 inches of precipitation (rain) was recorded during the testing period.

RESULTS

The sampling locations and analytical results are listed on Table 1 (Attachment B). The quality control sample locations and analytical results are listed on Table 2 (Attachment B). Sampling locations and associated test kit identification numbers and relevant field observations are listed on Table 3 (Attachment B). The laboratory analytical results are included in Attachment C. Laboratory results and exposure data for the spike samples are also included in Attachment C.

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 piC/L	None	N/A
≤4.0 piC/L	See Attachment B	See Attachment B

Quality Control Samples			
Results of Blank Canisters:	The office blanks, and lab transit blanks had test results of less than the laboratory detection limit of 0.3 pCi/L.		
Adequate Laboratory Precision?	Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved.		
Spike Sample Analysis:	The Spike sample analysis results indicate the laboratory is operating within statistical control limits.		

Our professional services have been performed in accordance with customary principles and practices in the field of industrial hygiene and engineering. If you have any questions or comments regarding this report, please feel free to contact me at 410-316-7800.

Sincerely,

Mr. Tyler P. McCleaf Radon Measurement Provider 111004 RT

KCI Technologies, Inc.

Attachments:

A- Floor Plan with Test Locations

B - Tables 1-3, Radon Test Summary Spreadsheets

C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

- AC- Activated Charcoal
- ACI- Air Chek, Inc.
- D- Duplicate
- FB- Field Blank
- KCI- KCI Technologies, Inc.
- **OB- Office Blank**
- PM- Project Manager
- QC- Quality Control

Table 1- Radon Testing Results					
Bu	Burnt Mills Elementary School				
Test	Test Period: 1/6/2020-1/9/2020				
Kit Number	Room / Area	Result			
9347501	MAIN OFFICE	0.9			
9347502	PRINCIPAL'S OFFICE	< 0.3			
9347503	HEALTH ROOM	0.9			
9347504	WORK ROOM	0.7			
9347505	CONF. ROOM	0.7			
9347506	1	0.9			
9347507	5	2			
9347508	2	1.1			
9347509	3	1.3			
9347510	4	0.7			
9347511	5	2.2			
9347512	22	< 0.3			
9347513	23	< 0.3			
9347514	STAGE	1.1			
9347515	ALL PURPOSE ROOM	1			
9347516	ALL PURPOSE ROOM	1.6			
9347517	K21	0.9			
9347518	A1	0.7			
9347519	A3	< 0.3			
9347520	A2	0.6			
9347521	A1	< 0.3			
9347522	К20	1.3			
9347523	A1	0.8			
9347524	BLDG. SERVICES	1.3			
9347525	B1	< 0.3			
9347526	MUSIC	0.9			
9347527	ART	< 0.3			
9347528	B2	< 0.3			
9347529	MEDIA CENTER	0.5			
9347530	STAFF LOUNGE	0.9			
9347531	A4	0.8			
9347532	MEDIA CENTER	< 0.3			
9347533	12	< 0.3			
9347534	15A	1			
9347535	13	0.5			
9347536	14	0.9			
9347537	15	1.2			
9347538	B4	0.9			
9347539	11	< 0.3			
9347540	11A	0.9			
9347541	12	< 0.3			
9347542	17	1.3			

9347543	B3	1.2
9347544	12	1
9347545	B5	2
9347546	18	1.5
9347547	CHILD CARE	< 0.3
9347548	19	1
9347549	16	0.8
9347550	GYM	< 0.3
9347551	GYM	< 0.3
9347552	GYM	< 0.3
9347553	PE OFFICE	0.7
9347554	9	0.6
9347556	6	1
9348307	OFFICE BLANK	< 0.3

Table 2- Radon Testing Results					
	Burnt Mills Elei	mentary School			
	Test Period: 1/6	/2020-1/9/2020			
Kit Number	QC Type	Room / Area	Result		
9347511	D	5	2.2		
9347523	D	A1	0.8		
9347521	FB	A1	<0.3		
9347529	9347529 D MEDIA CENTER 0.5				
9347533	D	12	<0.3		
9347541	FB	12	<0.3		
9347551	9347551 D GYM <0.3				
9348319	TRANSIT BLANK	NA	<0.3		
9348320	TRANSIT BLANK	NA	<0.3		
9348313	TRANSIT BLANK	NA	<0.3		

Sum	mary of Missed Locations	
	t Mills Elementary School	
Test Peri	iod: 01/06/2020 - 01/09/202	0
Kit Number	Room/Area	Result
-	N/A	-

Summary of Missing, Compromised and >/= 4 piC/L Tests				
	Burnt Mills Elementary School			
Tes	t Period: 01/06/2020 - 01/09/2020			
Kit Number	Room/Area	Result		
-	N/A	-		

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within \pm 25% of the chamber's reference value (25.7 pCi/L).

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340067	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340035	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	22.5 ± 2.3 D	2020-01-03
9340003	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$25.2 \pm 2.4 \text{ D}$	2020-01-03
9340089	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	23.3 ± 2.3 D	2020-01-03
9340072	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$18.3 \pm 2.0 \text{ D}$	2020-01-03
9340040	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$27.3 \pm 2.6 \text{ D}$	2020-01-03
9340008	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$24.8 \pm 2.5 \text{ D}$	2020-01-03
9340094	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.7 ± 2.5 D	2020-01-03
9340099	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$27.5 \pm 2.6 \text{ D}$	2020-01-03
9340077	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$25.2 \pm 2.5 \text{ D}$	2020-01-03
9340045	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$24.7 \pm 2.4 \text{ D}$	2020-01-03
9340013	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$25.9 \pm 2.6 \text{ D}$	2020-01-03
9340018	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	29.1 ± 2.8 D	2020-01-03
9341704	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340050	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$27.2 \pm 2.6 \text{ D}$	2020-01-03
9340023	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.2 ± 2.7 D	2020-01-03
9341709	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$25.5 \pm 2.4 \text{ D}$	2020-01-03
9340055	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$27.8 \pm 2.6 \text{ D}$	2020-01-03
9340060	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.3 ± 2.5 D	2020-01-03
9340028	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$23.9 \pm 2.3 \text{ D}$	2020-01-03
9341714	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	28.3 ± 2.7 D	2020-01-03
9340082	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.4 \pm 2.6 \text{ D}$	2020-01-03
9340065	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$24.2 \pm 2.4 \text{ D}$	2020-01-03
9340033	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.2 \pm 2.5 \text{ D}$	2020-01-03
9341719	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.7 ± 2.5 D	2020-01-03
9340001	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.3 \pm 2.5 \text{ D}$	2020-01-03
9340087	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$24.8 \pm 2.4 \text{ D}$	2020-01-03
9340070	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$19.5 \pm 2.4 \text{ D}$	2020-01-03
9340038	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.7 ± 2.3 D	2020-01-03
9340006	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$25.2 \pm 2.4 \text{ D}$	2020-01-03
9340092	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$31.4 \pm 2.8 \text{ D}$	2020-01-03
9340097	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.7 \pm 2.5 \text{ D}$	2020-01-03
9340075	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$29.6 \pm 2.6 \text{ D}$	2020-01-03
9340043	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.1 ± 2.6 D	2020-01-03
9340011	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.8 \pm 2.5 \text{ D}$	2020-01-03
9340016	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$23.2 \pm 2.4 \text{ D}$	2020-01-03
9341702	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.8 ± 2.5 D	2020-01-03

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value (25.7 pCi/L).

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340048	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.5 ± 2.4 D	2020-01-03
9340021	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.7 ± 2.6 D	2020-01-03
9341707	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$25.8 \pm 2.4 \text{ D}$	2020-01-03
9340053	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$25.8 \pm 2.5 \text{ D}$	2020-01-03
9340058	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$28.5 \pm 2.7 \text{ D}$	2020-01-03
9340026	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$25.9 \pm 2.4 \text{ D}$	2020-01-03
9341712	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$24.3 \pm 2.4 \text{ D}$	2020-01-03
9340080	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340063	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$25.8 \pm 2.5 \text{ D}$	2020-01-03
9340031	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$24.9 \pm 2.4 \text{ D}$	2020-01-03
9341717	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$25.7 \pm 2.4 \text{ D}$	2020-01-03
9340085	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.9 \pm 2.5 \text{ D}$	2020-01-03
9340068	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.2 \pm 2.5 \text{ D}$	2020-01-03
9340036	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$23.6 \pm 2.3 \text{ D}$	2020-01-03
9340004	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.9 \pm 2.6 \text{ D}$	2020-01-03
9340090	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.3 \pm 2.5 \text{ D}$	2020-01-03
9340073	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.8 \pm 2.5 \text{ D}$	2020-01-03
9340041	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$25.6 \pm 2.4 \text{ D}$	2020-01-03
9340009	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.1 ± 2.4 D	2020-01-03
9340095	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$25.2 \pm 2.5 \text{ D}$	2020-01-03
9340100	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$24.5 \pm 2.4 \text{ D}$	2020-01-03
9340078	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$25.0 \pm 2.4 \text{ D}$	2020-01-03
9340046	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$28.0 \pm 2.6 \text{ D}$	2020-01-03
9340014	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$21.8 \pm 2.8 \text{ D}$	2020-01-03
9340019	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.0 \pm 2.5 \text{ D}$	2020-01-03
9341705	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$27.8 \pm 2.6 \text{ D}$	2020-01-03
9340051	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$25.5 \pm 2.4 \text{ D}$	2020-01-03
9340056	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$27.7 \pm 2.6 \text{ D}$	2020-01-03
9340024	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$28.3 \pm 2.5 \text{ D}$	2020-01-03
9341710	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$24.2 \pm 2.3 \text{ D}$	2020-01-03
9340061	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$28.9 \pm 2.6 \text{ D}$	2020-01-03
9340029	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$23.0 \pm 2.3 \text{ D}$	2020-01-03
9341715	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$27.0 \pm 2.5 \text{ D}$	2020-01-03
9340083	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$24.9 \pm 2.4 \text{ D}$	2020-01-03
9340066	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$25.1 \pm 2.4 \text{ D}$	2020-01-03
9340034	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.4 \pm 2.5 \text{ D}$	2020-01-03
9341720	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.3 ± 2.5 D	2020-01-03

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within \pm 25% of the chamber's reference value (25.7 pCi/L).

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340002	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.7 ± 2.5 D	2020-01-03
9340088	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.4 ± 2.5 D	2020-01-03
9340071	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$24.9 \pm 2.4 \text{ D}$	2020-01-03
9340039	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.9 ± 2.5 D	2020-01-03
9340007	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.9 \pm 2.4 \text{ D}$	2020-01-03
9340093	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.5 D	2020-01-03
9340098	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.8 \pm 2.5 \text{ D}$	2020-01-03
9340076	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.5 D	2020-01-03
9340044	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$25.2 \pm 2.5 \text{ D}$	2020-01-03
9340012	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$22.5 \pm 2.2 \text{ D}$	2020-01-03
9340017	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.3 ± 2.5 D	2020-01-03
9341703	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.0 \pm 2.5 \text{ D}$	2020-01-03
9340049	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.0 \pm 2.5 \text{ D}$	2020-01-03
9340022	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.6 ± 2.6 D	2020-01-03
9341708	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$28.8 \pm 2.8 \text{ D}$	2020-01-03
9340054	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.8 \pm 2.5 \text{ D}$	2020-01-03
9340059	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.5 \pm 2.6 \text{ D}$	2020-01-03
9340027	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.6 ± 2.5 D	2020-01-03
9341713	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.5 \pm 2.5 \text{ D}$	2020-01-03
9340081	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	18.4 ± 2.1 D	2020-01-03
9340064	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.5 \pm 2.5 \text{ D}$	2020-01-03
9340032	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.1 ± 2.4 D	2020-01-03
9341718	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$23.7 \pm 2.4 \text{ D}$	2020-01-03
9340086	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.9 \pm 2.6 \text{ D}$	2020-01-03
9340069	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$25.6 \pm 2.5 \text{ D}$	2020-01-03
9340037	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$28.4 \pm 2.6 \text{ D}$	2020-01-03
9340005	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	???? DIF1	2020-01-03
9340091	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.5 \pm 2.5 \text{ D}$	2020-01-03
9340096	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$26.2 \pm 2.5 \text{ D}$	2020-01-03
9340074	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$27.7 \pm 2.5 \text{ D}$	2020-01-03
9340042	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.6 \pm 2.5 \text{ D}$	2020-01-03
9340010	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$27.5 \pm 2.5 \text{ D}$	2020-01-03
9341701	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	$22.9 \pm 2.3 \text{ D}$	2020-01-03
9340047	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$26.7 \pm 2.5 \text{ D}$	2020-01-03
9340015	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$25.4 \pm 2.5 \text{ D}$	2020-01-03
9340020	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$24.1 \pm 2.4 \text{ D}$	2020-01-03
9341706	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	31.0 ± 2.7 D	2020-01-03

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value (25.7 pCi/L).

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340052	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$27.4 \pm 2.6 \text{ D}$	2020-01-03
9340057	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.3 ± 2.5 D	2020-01-03
9340025	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.1 ± 2.4 D	2020-01-03
9341711	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	22.5 ± 2.2 D	2020-01-03
9340079	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.9 ± 2.5 D	2020-01-03
9340062	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.6 ± 2.5 D	2020-01-03
9340030	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	$25.0 \pm 2.4 \text{ D}$	2020-01-03
9341716	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340084	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.5 ± 2.3 D	2020-01-03

EXPOSURE IN BOWSER- M	MORNER RADON CHAMBER	
CLIENT KCI TEchnol	agics Inc. Job Number 193598	
NOMINAL Conditions: Radon Conc	_pCi/L Rel. Hum% Temp	F
	Date Start: $12 21 19$ Date Stop: $12 23 19$ Time Start: 0830 Time Stop: 0830	Temp °F RH % Avg pCi/L
	(Gravp 4) Device No.'s: (20) Chan. Bags- <u>9340061 thno</u> 9340089	70.0 35.5
	52	
	Date Start: (2) (1) (1) (1) (2)	Temp °F RH % Avg pCi/L
	(Group 5) Device No.'s: (20) Chan. Bags- 9340081 thru 9340100	70.0 50.1 25.5
	Q 5	
	Date Start: <u>12/21/19</u> Date Stop: <u>12/23</u> /19 Time Start: <u>0849</u> Time Stop: <u>0849</u> (Group 6) Device No.'s: <u>(20) Char. Bags -</u>	Temp °F RH % Avg pCi/L
	9341701 thad 9341720	70.9 50.1 25.5
	RS	

100

Note: All times are in 24-hour (military) notation, Eastern Standard Time (EST) Background = 7 μR/h Elevation = 820 ft

Radon test result report for: BURNT MILLS ES 309

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9347506	1	2020-01-06 @ 8:00 am	2020-01-09 @ 9:00 am	0.9 ± 0.4	2020-01-14
9347539	11	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9347540	11A	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	0.9 ± 0.4	2020-01-14
9347533	12	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	< 0.3	2020-01-14
9347541	12	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	< 0.3	2020-01-14
9347544	12	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	1.0 ± 0.5	2020-01-14
9347535	13	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	0.5 ± 0.4	2020-01-14
9347536	14	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	0.9 ± 0.4	2020-01-14
9347537	15	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	1.2 ± 0.5	2020-01-14
9347534	15A	2020-01-06 @ 9:00 am	2020-01-09 @ 10:00 am	1.0 ± 0.5	2020-01-14
9347549	16	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	0.8 ± 0.4	2020-01-14
9347542	17	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	1.3 ± 0.5	2020-01-14
9347546	18	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	1.5 ± 0.5	2020-01-14
9347548	19	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	1.0 ± 0.4	2020-01-14
9347508	2	2020-01-06 @ 8:00 am	2020-01-09 @ 9:00 am	1.1 ± 0.5	2020-01-14
9347512	22	2020-01-06 @ 9:00 am	2020-01-09 @ 10:00 am	< 0.3	2020-01-14
9347513	23	2020-01-06 @ 9:00 am	2020-01-09 @ 10:00 am	< 0.3	2020-01-14
9347509	3	2020-01-06 @ 8:00 am	2020-01-09 @ 9:00 am	1.3 ± 0.5	2020-01-14
9347510	4	2020-01-06 @ 8:00 am	2020-01-09 @ 9:00 am	0.7 ± 0.4	2020-01-14
9347556	6	2020-01-06 @ 10:00 am	2020-01-09 @ 9:00 am	1.0 ± 0.4	2020-01-14
9347554	9	2020-01-06 @ 10:00 am	2020-01-09 @ 9:00 am	0.6 ± 0.4	2020-01-14
9347518	A1	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	0.7 ± 0.5	2020-01-14
9347523	A1	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	0.8 ± 0.5	2020-01-14
9347521	A1	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9347520	A2	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	0.6 ± 0.4	2020-01-14
9347519	A3	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9347531	A4	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	0.8 ± 0.4	2020-01-14
9347516	ALL PURPOSE ROOM	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	1.6 ± 0.5	2020-01-14
9347515	ALL PURPOSE ROOM	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	1.0 ± 0.5	2020-01-14
9347527	ART	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9347525	B1	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9347528	B2	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9347543	В3	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	1.2 ± 0.4	2020-01-14
9347538	B4	2020-01-06 @ 9:00 am	2020-01-09 @ 10:00 am	0.9 ± 0.5	2020-01-14
9347545	В5	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	2.0 ± 0.5	2020-01-14
9347524	BLDG. SERVICES	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	1.3 ± 0.5	2020-01-14
9347547	CHILD CARE	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	< 0.3	2020-01-14

Air Chek 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

Radon test result report for: BURNT MILLS ES 309

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9347505	CONF. ROOM	2020-01-06 @ 8:00 am	2020-01-09 @ 9:00 am	0.7 ± 0.4	2020-01-14
9347550	GYM	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	< 0.3	2020-01-14
9347551	GYM	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	< 0.3	2020-01-14
9347552	GYM	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	< 0.3	2020-01-14
9347503	HEALTH ROOM	2020-01-06 @ 8:00 am	2020-01-09 @ 9:00 am	0.9 ± 0.5	2020-01-14
9347522	K20	2020-01-06 @ 9:00 am	2020-01-09 @ 10:00 am	1.3 ± 0.5	2020-01-14
9347517	K21	2020-01-06 @ 9:00 am	2020-01-09 @ 10:00 am	0.9 ± 0.4	2020-01-14
9347501	MAIN OFFICE	2020-01-06 @ 8:00 am	2020-01-09 @ 9:00 am	0.9 ± 0.5	2020-01-14
9347529	MEDIA CENTER	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	0.5 ± 0.4	2020-01-14
9347532	MEDIA CENTER	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9347526	MUSIC	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	0.9 ± 0.5	2020-01-14
9347553	PE OFFICE	2020-01-06 @ 10:00 am	2020-01-09 @ 10:00 am	0.7 ± 0.4	2020-01-14
9347502	PRINCIPAL'S OFFICE	2020-01-06 @ 8:00 am	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9347530	STAFF LOUNGE	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	0.9 ± 0.4	2020-01-14
9347514	STAGE	2020-01-06 @ 9:00 am	2020-01-09 @ 9:00 am	1.1 ± 0.5	2020-01-14
9347504	WORK ROOM	2020-01-06 @ 8:00 am	2020-01-09 @ 9:00 am	0.7 ± 0.4	2020-01-14

Air Chek 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for: BURNT MILLS ES R

	2020-01-14
9347507 5 2020-01-06 @ 8:00 am 2020-01-09 @ 9:00 am 2.0 ± 0.5	2020-01-14

Air Chek 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS Corporate Office: 936 Ridgebrook road • Sparks , Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

Radon Test Kit Chain of Custody

Project Name: MCPS Radon 2019 Week 3

Name of Schools:

- 1. Bannockburn E.S.
- 2. Bethesda E.S.
- 3. Bethesda-Chevy Chase H.S.
- 4. Bradley Hill E.S.
- 5. Burning Tree E.S.
- 6. Burnt Mills E.S.
- 7. East Silver Springs E.S.
- 8. Einstein H.S.
- 9. Flora Singer E.S.
- 10. Key M.S.
- 11. Montgomery Blair H.S.

- 12. Montgomery Knolls E.S.
- 13. Newport Mills M.S.
- 14. Oak View E.S.
- 15. Rock View E.S.
- 16. Roscoe Nix E.S.
- 17. Sligo M.S.
- 18. Spring Mill Center
- 19. Springbrook H.S.
- 20. Westland M.S.
- 21. Woodlin M.S.

	Date	Initials
Radon Test Kits Deployed	1/6/20 to 1/7/20	TM
Radon Test Kits Collected	1/9/20 to 1/10/20	M
Radon Test Kits Shipped to Lab*	1/10/20	TM
Radon Test Kits Received by Lab*	1/13/202	M

*All samples sent to Air Check, Inc., 1936 Butler Bridge Rd, Mills River, NC 28759



936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

MCPS RADON TESTING

Executive Summary: Burnt Mills Elementary School

Date of Test Report:	1/22/2016
Round of Testing:	Initial
	Follow-up
	Post Remediation
# Rooms Tested:	55
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	2.9

Project Status: Initial testing completed; no further action at this time.



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January 22, 2016

Mr. Richard Cox Indoor Air Quality Team Leader Montgomery County Public Schools 850 Hungerford Drive Rockville, MD 20850

Re:	Radon Testing Services
	KCI Job # 12146341.21
Location:	Burnt Mills Elementary School
	11211 Childs Street
	Silver Spring, MD 20901

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) pursuant to completing a "short-term" 3 day radon test for the Burnt Mills Elementary School, located at 11211 Childs Street in Silver Spring, Maryland 20901 (subject site).

Scope of Services:

KCI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. KCI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*. A National Radon Safety Board (NRSB) Radon Measurement Specialist (certification #14SS056) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from www.montgomerycountymd.gov/dep/air/radon or www.epa.gov/radon.

KCI visited the site on December 28, 2015 and deployed sixty-qpg (63) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, KCI included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted six (6) test kits to Bowser-Morner, Inc. as spike samples. The spiked tests were exposed to a known radon concentration by Bowser-Morner prior to being returned to the laboratory for analysis.

KCI returned to the site on December 31, 2015 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936

Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages $\leq 65^{\circ}$ F.

KCI concludes that the test period reasonably represents normal conditions when the building is significantly occupied. Clear characterization of the radon hazard is most likely to be observed under this normal operating condition. Based on the evaluation of test conditions, this test should reasonably characterize radon hazards.

KCI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. KCI recorded observations of the following conditions in each room at the time of deployment and collection of the radon test kits:

- Indoor temperature,
- HVAC Operation,
- Dehumidifier operation,
- Humidifier operation,
- Ceiling fan operation, and
- Open windows or doors.

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 piC/L	None	n/a
<4.0 piC/L	See Attachn	nent B
Notes:		

D- Duplicate sample

All field blanks, office blank, and lab transit blanks had test results of less than the laboratory detection limit of 0.3 pCi/L. Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved. The Spike sample analysis results indicate the laboratory is operating within statistical control limits.

The sampling locations, field observations, and analytical results are listed on Table 1 (Attachment B). The laboratory analytical results are also attached (Attachment C). Laboratory results and exposure data for the spike samples are also included in Attachment C.

Our professional services have been performed in accordance with customary principles and practices in the field of industrial hygiene and engineering. If you have any questions or comments regarding this report, please feel free to contact me at (410) 316-7800.

Mr. Richard Cox January 22, 2016 Page 4

Sincerely,

James Makler

James M. Moulsdale Radon Measurement Specialist KCI Technologies, Inc.

Attachments:

- A- Floor Plan with Test Locations B- Table 1-Radon Test Summary Spreadsheet
- C- Laboratory Analytical Results

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

- AC- Activated Charcoal
- ACI- Air Chek, Inc.
- D- Duplicate
- FB- Field Blank
- KCI- KCI Technologies, Inc.
- **OB-** Office Blank
- PM- Project Manager
- QC- Quality Control

Radon Testing Results					
Burnt Mills ES Test Period: 12/28/15-12/31/15					
16;					
Kit Number	Room / Area	Result			
7714099	1	1.5			
7714072	2	0.7			
7714100	3	1.8			
7714073	4	< 0.3			
7714076	5	1.6			
7714080	10	0.7			
7714055	11	0.9			
7714057	12	< 0.3			
7714060	13	0.7			
7714063	14	< 0.3			
7714058	15	1			
7714041	16	< 0.3			
7714039	17	1.2			
7714062	18	< 0.3			
7714093	19	0.9			
7714051	11A	1.1			
7714061	15A	0.7			
7714056	ART	1			
7714082	CLASS	1.7			
7714065	CLASS	0.6			
7714089	CLASS	1.9			
7714052	CLASS	1.1			
7714091	CLASS	< 0.3			
7714079	CLASS	< 0.3			
7714088	CLASS	< 0.3			
7714024	CLASS	0.7			
7714023	CONFERENCE	< 0.3			
7714086	GYM	< 0.3			
7714084	GYM	1.6			
7714090	GYM	< 0.3			
7714083	K20	< 0.3			
7714066	K21	< 0.3			
7714092	LIBRARY	0.6			
7714040	LIBRARY	< 0.3			
7714095	LOUNGE	1.2			
7714028	ML1011	< 0.3			
7714021	ML547	< 0.3			
7714032	ML769	< 0.3			
7714033	ML921	< 0.3			
7714030	MPR	1.5			
7714025	MPR	2.8			
7714081	MU	0.7			
7714071	MUSIC	0.6			
7714096	NURSE	< 0.3			
7714067	NURSE	< 0.3			
7714087	OFFICE	< 0.3			

Table Note: * Missing or Compromised Sample

Radon Testing Results Burnt Mills ES Test Period: 12/28/15-12/31/15			
Kit Number	Room / Area	Result	
7714077	OFFICE	2.9	
7714068	OFFICE	< 0.3	
7714098	OFFICE	< 0.3	
7714097	OFFICE	< 0.3	
7714013	OFFICE	0.6	
7714085	OFFICE	0.9	
7714002	READING	< 0.3	

Radon Testing Results Burnt Mills ES Test Period: 12/28/15-12/31/15					
Kit Number					
7714059	D (13)	0.6			
7714064	D (18)	< 0.3			
7714031	D (ML547)	< 0.3			
7714078	D (MU)	< 0.3			
7714075	D (MUSIC)	< 0.3			
7714042	FB (CLASS)	< 0.3			
7714026	FB (ML769)	< 0.3			
7710525	OB (0)	< 0.3			

ATTACHMENT C

Laboratory Analytical Results

Januates LABORATORY ANALYSIS 16, REPORT **

Radon test result report for: BURNT MILLS ES. MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7710525	0	2015-12-28 @ 4:00 pm	2015-12-31 @ 12:00 pm	< 0.3	2016-01-05
7714099	1	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	1.5 ± 0.4	2016-01-05
7714080	10	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	0.7 ± 0.4	2016-01-05
7714055	11	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	0.9 ± 0.4	2016-01-05
7714051	11A	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	1.1 ± 0.4	2016-01-05
7714057	12	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714059	13	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	0.6 ± 0.4	2016-01-05
7714060	13	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	0.7 ± 0.4	2016-01-05
7714063	14	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714058	15	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	1.0 ± 0.4	2016-01-05
7714061	15A	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	0.7 ± 0.4	2016-01-05
7714041	16	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714039	17	2015-12-28 @ 2:00 pm	2015-12-31 @ 11:00 am	1.2 ± 0.4	2016-01-05
7714062	18	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714064	18	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714093	19	2015-12-28 @ 3:00 pm	2015-12-31 @ 10:00 am	0.9 ± 0.4	2016-01-05
7714072	2	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	0.7 ± 0.4	2016-01-05
7714100	3	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	1.8 ± 0.4	2016-01-05
7714073	4	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714076	5	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	1.6 ± 0.4	2016-01-05
7714056	ART	2015-12-28 @ 1:00 pm	2015-12-31 @ 10:00 am	1.0 ± 0.4	2016-01-05
7714065	CLASS	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	0.6 ± 0.4	2016-01-05
7714079	CLASS	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714082	CLASS	2015-12-28 @ 2:00 pm	2015-12-31 @ 12:00 pm	1.7 ± 0.4	2016-01-05
7714024	CLASS	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	0.7 ± 0.4	2016-01-05
7714088	CLASS	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714089	CLASS	2015-12-28 @ 2:00 pm	2015-12-31 @ 11:00 am	1.9 ± 0.4	2016-01-05
7714091	CLASS	2015-12-28 @ 3:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714042	CLASS	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714052	CLASS	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	1.1 ± 0.4	2016-01-05
7714023	CONFERENCE	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714084	GYM	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	1.6 ± 0.4	2016-01-05
7714086	GYM	2015-12-28 @ 3:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714090	GYM	2015-12-28 @ 3:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714083	K20	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714066	K21	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714092	LIBRARY	2015-12-28 @ 2:00 pm	2015-12-31 @ 11:00 am	0.6 ± 0.3	2016-01-05

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

Januare LABORATORY ANALYSIS 16, REPORT **

Radon test result report for: BURNT MILLS ES. MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7714040	LIBRARY	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714095	LOUNGE	2015-12-28 @ 1:00 pm	2015-12-31 @ 10:00 am	1.2 ± 0.4	2016-01-05
7714028	ML1011	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714021	ML547	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714031	ML547	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714026	ML769	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714032	ML769	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714033	ML921	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714025	MPR	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	2.8 ± 0.5	2016-01-05
7714030	MPR	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	1.5 ± 0.4	2016-01-05
7714078	MU	2015-12-28 @ 1:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714081	MU	2015-12-28 @ 1:00 pm	2015-12-31 @ 10:00 am	0.7 ± 0.4	2016-01-05
7714071	MUSIC	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	0.6 ± 0.4	2016-01-05
7714075	MUSIC	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05
7714067	NURSE	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714096	NURSE	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714068	OFFICE	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714077	OFFICE	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	2.9 ± 0.5	2016-01-05
7714013	OFFICE	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	0.6 ± 0.4	2016-01-05
7714085	OFFICE	2015-12-28 @ 2:00 pm	2015-12-31 @ 10:00 am	0.9 ± 0.4	2016-01-05
7714087	OFFICE	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714097	OFFICE	2015-12-28 @ 3:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714098	OFFICE	2015-12-28 @ 1:00 pm	2015-12-31 @ 11:00 am	< 0.3	2016-01-05
7714002	READING	2015-12-28 @ 1:00 pm	2015-12-31 @ 10:00 am	< 0.3	2016-01-05

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Januates LABORATORY ANALYSIS 15, REPORT **

Radon test result report for: MCPS PHASE 3 & 4 TRANSIT BLANKS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7708218	TRAMSIT 4	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708200	TRANSIT 1	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708190	TRANSIT 10	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708189	TRANSIT 11	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708191	TRANSIT 12	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708188	TRANSIT 13	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708197	TRANSIT 14	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708186	TRANSIT 15	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708185	TRANSIT 16	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708184	TRANSIT 17	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708182	TRANSIT 18	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708187	TRANSIT 18	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708199	TRANSIT 2	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708181	TRANSIT 20	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708180	TRANSIT 21	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708183	TRANSIT 22	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708178	TRANSIT 23	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708179	TRANSIT 24	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708177	TRANSIT 25	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708176	TRANSIT 26	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708174	TRANSIT 27	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708173	TRANSIT 28	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708175	TRANSIT 29	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708198	TRANSIT 3	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708172	TRANSIT 30	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708194	TRANSIT 5	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708196	TRANSIT 6	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708193	TRANSIT 7	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708192	TRANSIT 8	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708195	TRANSIT 9	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23

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Decembe	LABORATORY ANALYSIS
23,	DEDODT **
2015	REPORT **

Radon test result report for: MCPS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7706380	101	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	25.2	2015-12-23
7706381	102	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	26.5	2015-12-23
7706208	103	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	27.7	2015-12-23
7705132	104	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	28.6	2015-12-23
7706366	105	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	26.5	2015-12-23
7706211	106	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	26.1	2015-12-23

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Note: Spike samples are test canisters that are deliberately exposed to a controlled high level of radon in a laboratory. They provide a quality control measure in the testing process and do NOT reflect radon levels in the building being tested.

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies -	Inc. Job Number 173224
0	pCi/L Rel. Hum <u>49.6</u> % Temp. <u>69.9</u> F
Date Start: 12/18/15 Date Stop: 12/21/15	Date Start: Date Stop:
Time Start: <u>0929</u> Time Stop: <u>0929</u>	Time Start: Time Stop:
Device No.'s: 7705132,7706208,	Device No.'s:
7706211,7706366,	
7706380, 7706381	
F3 Loft	
Date Start: Date Stop:	Date Start: Date Stop:
Time Start: Time Stop:	Time Start: Time Stop:
Device No.'s:	Device No.'s:
Date Start: Date Stop:	Date Start: Date Stop:
Time Start: Time Stop:	Time Start: Time Stop:
Device No.'s:	Device No.'s:
5. 8	

Note: All times are in 24-hour (military) notation, Eastern Standard Time (EST) Background = 7 μR/h Elevation = 820 ft



 ENGINEERS
 PLANNERS
 SCIENTISTS
 CONSTRUCTION
 MANAGERS

 Corporate Office:
 936 Ridgebrook road
 • Sparks , Maryland
 21152 • 410-316-7800 • (Fax)
 410-316-7935

Chain of Custody

Project Name: MCPS Radon Phase III

Name of Schools:

1. Burnt Mills ES	13. Georgian Frost ES	25. Northlake Center
2. Burtonsville ES	14. Germantown ES	26. Olney ES
3. Cedar Grove ES	15. Goshen ES	27. Rosa Parks MS
4. Cloverly ES	16. Greencastle ES	28. Poolesville ES
5. Cold Spring ES	17. Greenwood ES	29. Poolesville HS
6. Damascus HS	18. Lake Seneca ES	30. Potomac ES
7. Darnestown ES	19. Laytonsville ES	31. Rock Terrace HS
8. Diamond ES	20. Col. E. Brooke MS	32. Rosemary Hills ES
9. Charles R. Drew ES	21. Luxmanor ES	33. Carl Sandburg
10. DuFief ES	22. Magruder HS	34. Sequoyah ES
11. Thomas Edison HS	23. Thur. Marshall ES	35. Stedwick ES
12. Robert Frost MS	24. Monocacy ES	36. Whetstone ES

	Date	Initials
Radon Test Kits Deployed	12/28/15	JM
Radon Test Kits Sampled	12/31/15	M
Radon Test Kits Shipped to Lab*	12/31/15	JM
Radon Test Kits Received by Lab*	114/16	JM

*All samples sent to Air Check, Inc., 1936 Butler Bridge Road, Mills River, NC 28758