



## School / Facility Radon Testing Report Form

School Year: **24-25**

Facility:	Neelsville Middle School		
Address:	11700 Neelsville Church Road		
	Germantown, MD 20876		
Reason for Testing:	Scheduled Re-Testing - <input type="checkbox"/> 2-year or <input checked="" type="checkbox"/> 5-year schedule <input type="checkbox"/> Clearance Testing (Post-Mitigation) <input type="checkbox"/> Building Envelope or HVAC Upgrades <input checked="" type="checkbox"/> New Construction – Addition or Facility		
Current Radon Status:	<input type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule) <input checked="" type="checkbox"/> Not Previously Tested (New Facility)		
Round of Testing:	<input type="checkbox"/> Initial Testing -or- <input checked="" type="checkbox"/> Follow-up Testing		
Testing Status:	<input checked="" type="checkbox"/> No Further Testing Needed -or- <input type="checkbox"/> Follow-Up Testing Required		

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

Mitigation -	Facility Radon Status:		
<input type="checkbox"/> Not Required <input checked="" type="checkbox"/> Required ( $\geq 4.0$ -pCi/L) Rooms: 115	<input type="checkbox"/> No Change in Status <input checked="" type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule)		
Number of Rooms Tested	63	Lowest Value (pCi/L)	< 0.3
Number of Rooms ( $\geq 4.0$ -pCi/L)	1	Highest Value (pCi/L)	12.0

**Instructions:** Submit one testing report form per-facility. 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  $\geq 2.0$ -pCi/L;  $\geq 2.7$ -pCi/L;  $\geq 4.0$ -pCi/L; and  $\geq 8.0$ -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.

### Detector and Deployment

Detector/Device Type:	<input checked="" type="checkbox"/> Passive <input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Charcoal Absorption (CAD) <input type="checkbox"/> Alpha Track (ATD) <input type="checkbox"/> Other <input type="checkbox"/> Electret ion Chamber (EIC) <input type="checkbox"/> Electronic Integration (EID)	<i>Other—Specify here:</i>	
Detector/Device Name:	Air Chek – Radon Test Kits			
Manufacturer:	Radon Lab			
Person(s) Deploying or Retrieving Test Devices and certification number			Organization/Company	
Brittany Maas			KCI Technologies, Inc.	
Shakia Dawkins			KCI Technologies, Inc.	
<i>If noncertified individuals, the qualified measurement professional providing oversight -</i>				
Tyler McCleaf, CSP – Cert. #111004 – RMP			KCI Technologies, Inc.	

### Testing

<input checked="" type="checkbox"/> Short-Term <input type="checkbox"/> Long-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	03/03/25	03/31/25
				03/06/25	04/03/25
Does the test period include weekends, school breaks or holidays?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<i>If “Yes” please explain/detail in the space below:</i>					
Was HVAC operating under occupied conditions?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<i>If “No” please explain/detail in the space below:</i>					

Testing (continued)

Round of Testing	Detectors Deployed				Total
	Ground-Contact		Upper-Level(s)		
	Initial	Follow-Up	Initial	Follow-Up	
Test Locations <sup>1</sup>	56	2	6	0	64
Duplicates <sup>2</sup>	5	1	1	0	7
Field Blanks <sup>3</sup>	3	1	0	0	4
Grand Total					75

1 – include all detectors deployed (duplicates, field blanks); 1 detector per occupied (or intended to be occupied) ground-contact space ≤ 2,000-square feet; large spaces ≥ 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 per floor (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.

Round of Testing	QA/QC Samples		Total
	Initial	Follow-Up	
Spikes <sup>1</sup>	Not applicable		10
Trip Blanks <sup>2</sup>	1	1	2
Office Blanks <sup>3, 4</sup>	1	1	2
			14

1 - 3% of EIC detectors; and 3% from each LOT of CAD and ATD detectors; a maximum of 6-spiked measurements per month for both EIC detectors and each LOT 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, analyzed prior to deployment, for storage locations that have not been evaluated or monitored, for detectors that have been stored for more than 30-day durations.

**Quality Assurance / Quality Control** (continued)

Spike Sample Lab Results. Measured values are satisfactory, i.e., within $\pm 25\%$ of the chamber's reference value?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Quality Control measurements comply with QA/QC requirements in the submitted testing organization's/company's QA plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<b>Round of Testing</b>
	<b>Initial</b>
	<b>Follow-Up</b>
All Field, Trip and Office Blanks are $\leq$ (less than or equal to) to the Method Detection Limit?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For all Duplicate Samples <sup>1</sup> , the higher value is $\leq 2x$ the lower value?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For all Duplicate Samples <sup>1</sup> , Relative Percent Difference(s) (RPD) <sup>2</sup> are less than the Warning Level <sup>3</sup> ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For all Duplicate Samples <sup>1</sup> , Relative Percent Difference(s) (RPD) <sup>2</sup> are less than the Control Level <sup>3</sup> ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

1 – Duplicate Control – a “NO” response constitute a control failure and the space/location represented by the duplicate sample becomes an invalid measurement location and should be listed in the “Invalid Measurement Locations” Table attached to this report.

2 - The objective of duplicate tests is to assess the precision error of the measurement method or, how well two side-by-side measurements agree or disagree. Precision involving duplicates is calculated by using Relative Percent Difference (RPD). RPD is equal to the difference between the higher test result minus the lower value test result divided by the average of the two duplicate test results, multiplied by 100. The RPD result is then compared to the warning and control limits.

3 - The Warning Level is set at the deviation from ideal performance that would be expected to occur by chance only 5% of the time, and Control Limits are set at that deviation from ideal performance that would be expected to occur by chance only 1% of the time. The Warning Level indicates a potential problem, which should be investigated. The Control Level indicates that the measurement system should be subject to corrective action.

The control and warning levels for duplicates, based on the averaged duplicate test result, are -

Average concentration of the two duplicate test results	Warning Level	Control Level
< 2.0-pCi/L	1-pCi/L	Not applicable
Between 2.0 and 3.9-pCi/L	50% RPD	67% RPD
$\geq 4.0$ -pCi/L	28% RPD	36% RPD

Summary of Test Results<sup>1</sup> and Determination of Valid Measurements<sup>2</sup>

Round of Testing	Ground-Contact		Upper-Level(s)		Total
	Initial	Follow-Up	Initial	Follow-Up	
Number of test locations:	56	1	6	0	63
Number of locations $\geq 8.0$ -pCi/L:	0	1	0	0	1
Number of locations $\geq 4.0$ and $\leq 8$ -pCi/L:	1	0	0	0	1
Number of locations $\geq 2.7$ and $< 4$ -pCi/L:	0	0	0	0	0
Number of locations $\geq 2.0$ and $< 2.7$ -pCi/L:	2	0	0	0	2
Number of missing required test locations <sup>3</sup> :	0	0	0	0	0
Number of failed duplicate control locations:	0	0	0	0	0
Percentage of missing test locations for the facility <sup>4,5</sup> :	0	0	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 Results<sup>1</sup> and Determination of Valid Measurements<sup>2</sup> (continued)

	Round of Testing	Initial	Follow-Up
Were test devices deployed in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Were valid measurements obtained in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<i>If Yes to both above – then Testing Status – ‘No Further Testing Needed’ mark ‘NA’ below and complete Conclusions section</i>			
<b>If No to either above, were all results obtained under 4.0-pCi/L and were sufficient valid measurements obtained?<sup>1,2</sup></b> <i>If Yes, then - ‘No Further Testing Needed’ complete Conclusion section on first page. If No, then - ‘Follow-up Testing Required’ continue below.</i>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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 ≤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 ≥4.0-pCi/L and the total number of test locations are ≥20, there is an allowance of ≤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 number the allowance.

**Follow-Up Testing**

**Required –**

- If an insufficient number (greater than the allowance provided above) of valid measurements were obtained during the initial round of testing (the “missing required test locations” in the table above);
- Any location test results ≥ 4.0-pCi/L;
- Any location where duplicates fail QC checks; and or
- At the discretion of MCPS IAQ Staff

Reason for Follow-Up Testing	Testing Procedure	Follow-up Result	Conclusion
Insufficient Number of Measurements	Follow same procedures as Initial Testing	Not Applicable	Follow Initial Testing procedures
Results ≥ 4.0-pCi/L	Deploy two Short-term follow-up tests and required blanks and duplicates; Average the results of the two tests	≥4.0	Mitigation Required
Failed QC checks		≥2.0 and <4.0	Consider Mitigation
		<2.0	Mitigation Not Required

➤ ***If follow-up testing identifies additional spaces requiring additional testing it will be performed as part of the ongoing follow-testing round.***

**Attachment 1:**  
**Summary Data Tables**

<b>Table 1- Radon Testing Results</b>		
<b>Neelsville Middle School</b>		
<b>Test Period: 3/3/2025 - 3/6/2025</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
11886978	102	2.7
11886980	102	2.7
11886918	104	0.8
11886913	111	0.9
11886902	113	1.1
11886909	115	4.2
11886910	115	4.0
11886908	116	0.6
11886915	117	1.5
11886923	121	0.9
11886926	123	1.3
11886921	125	0.6
11886922	130	< 0.3
11886919	131	< 0.3
11886929	131	< 0.3
11886930	131	< 0.3
11886925	132	< 0.3
11886920	133	< 0.3
11886933	135	0.8
11886927	136	< 0.3
11886912	137	0.5
11886914	141	0.9
11886916	141	0.9
11886939	142	0.6
11886942	143	< 0.3
11886934	151	< 0.3
11886935	151	< 0.3
11886936	151	< 0.3
11886956	154	< 0.3
11886953	157	< 0.3
11886955	158	< 0.3
11886954	159	0.7
11886940	162	0.5
11886937	164	< 0.3
11886938	164	< 0.3
11886952	175	< 0.3
11886961	175	< 0.3
11886970	182	0.7

<b>Table 1- Radon Testing Results</b>		
<b>Neelsville Middle School</b>		
<b>Test Period: 3/3/2025 - 3/6/2025</b>		
11886967	184	0.6
11886944	196	1.1
11886946	223	0.6
11886962	223	< 0.3
11886963	226	< 0.3
11886964	323	< 0.3
11886950	331	< 0.3
11886949	373	< 0.3
11886907	101A	1.1
11886905	101B	< 0.3
11886904	101C	0.7
11886903	101D	< 0.3
11886906	112B	2.8
11886924	121A	0.8
11886928	125A	< 0.3
11886931	134A	0.5
11886932	134B	< 0.3
11886941	143A	< 0.3
11886948	143B	< 0.3
11886911	143C	< 0.3
11886947	143E	< 0.3
11886901	143F	< 0.3
11886971	182A	< 0.3
11886959	182C	< 0.3
11886969	182C	< 0.3
11886972	182C	< 0.3
11886958	184A	1.1
11886968	184B	< 0.3
11886960	184C	1.2
11886951	184E	1.1
11886957	193E	0.6
11886945	212B	< 0.3
11886917	MAIN OFFICE	< 0.3



<b>Table 3 - QC Radon Testing Results</b>			
<b>Neelsville Middle School</b>			
<b>Test Period: 3/3/2025 - 3/6/2025</b>			
<b>Kit Number</b>	<b>QC Type</b>	<b>Room / Area</b>	<b>Result</b>
11886980	D	102	2.7
11886910	D	115	4.0
11886929	D	131	< 0.3
11886930	FB	131	< 0.3
11886916	D	141	0.9
11886936	D	151	< 0.3
11886938	FB	164	< 0.3
11886972	D	182C	< 0.3
11886969	FB	182C	< 0.3
11886966	OB	OFFICE BLANK	< 0.3
11886999	TB	TRAVEL BLANK	< 0.3

**Table 3a - Duplicate Worksheet / Data Validation**

**Neelsville Middle School**

**Test Period: 3/3/2025 - 3/6/2025**

Sample ID		Duplicate Concentrations (pCi/L) and OC Checks								
Kit Numbers	Room / Area	Higher	Lower	Check #1 (Pass/Fail)	2x the Lower	Check #2 (Pass/Fail)	Average	Relative Percent Difference (RPD)	Check #3	
11886980	11886978	102	2.7	2.7	✓	5.4	PASS	2.7	0.0%	✓
11886910	11886909	115	4.2	4.0	✓	8.0	PASS	4.1	4.9%	✓
11886929	11886919	131	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11886916	11886914	141	0.9	0.9	✓	1.8	PASS	0.9	<1-pCi/L	✓
11886936	11886935	151	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓

**NOTES:**

QC Check #1 - Data Entry

QC Check #2 - Higher duplicate concentration is < or = to 2x the Lower

QC Check #3 - Meets RPD Limits, by average duplicate concentration

- enter 2 if RPD is BELOW warning and control levels, AND passes QC Check 1 and 2
- enter 1 if RPD is ABOVE warning and BELOW control levels, AND passes QC Check 1 and 2
- enter 0 if RPD is ABOVE control level, or 'FAILS' QC Check 1 or 2

Average (pCi/L)	Warning Level	Control Level
< 2.0	1-pCi/L	NA
Between 2.0 and 3.9	50% RPD	67% RPD
≥ 4.0	28% RPD	36% RPD



<b>Table 1- Radon Testing Results</b>		
<b>Neelsville Middle School RT</b>		
<b>Test Period: 3/31/2025 - 4/3/2025</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
11887270	115	9.6
11887277	115	10.7
11887278	115	0.5
11887290	115	12.0



<b>Table 3 - QC Radon Testing Results</b>			
<b>Neelsville Middle School RT</b>			
<b>Test Period: 3/31/2025 - 4/3/2025</b>			
<b>Kit Number</b>	<b>QC Type</b>	<b>Room / Area</b>	<b>Result</b>
11887277	D	115	10.7
11887278	FB	115	0.5
11886694	OB	OFFICE BLANK	< 0.3
11886589	TB	TRAVEL BLANK	< 0.3

**Table 3a - Duplicate Worksheet / Data Validation**

**Neelsville Middle School RT**

**Test Period: 3/31/2025 - 4/3/2025**

Sample ID		Duplicate Concentrations (pCi/L) and OC Checks								
Kit Numbers		Room / Area	Higher	Lower	Check #1 (Pass/Fail)	2x the Lower	Check #2 (Pass/Fail)	Average	Relative Percent Difference (RPD)	Check #3
11887277	11887270 11887290	115	12.0	9.6	✓	19.2	PASS	10.8	22.2%	✓
								<b>Average (pCi/L)</b>	<b>Warning Level</b>	<b>Control Level</b>
								< 2.0	1-pCi/L	NA
								Between 2.0 and 3.9	50% RPD	67% RPD
								≥ 4.0	28% RPD	36% RPD

**NOTES:**

QC Check #1 - Data Entry

QC Check #2 - Higher duplicate concentration is < or = to 2x the Lower

QC Check #3 - Meets RPD Limits, by average duplicate concentration

- enter 2 if RPD is BELOW warning and control levels, AND passes QC Check 1 and 2
- enter 1 if RPD is ABOVE warning and BELOW control levels, AND passes QC Check 1 and 2
- enter 0 if RPD is ABOVE control level, or 'FAILS' QC Check 1 or 2



**Attachment 2:**  
**Laboratory Reports**

Radon test result report for:  
**NEELSVILLE MS**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11886907	101A	2025-03-03 @ 8:00 am	2025-03-06 @ 7:00 am	1.1 ± 0.4	2025-03-10
11886905	101B	2025-03-03 @ 8:00 am	2025-03-06 @ 7:00 am	< 0.3	2025-03-10
11886904	101C	2025-03-03 @ 8:00 am	2025-03-06 @ 9:00 am	0.7 ± 0.3	2025-03-10
11886903	101D	2025-03-03 @ 8:00 am	2025-03-06 @ 7:00 am	< 0.3	2025-03-10
11886978	102	2025-03-03 @ 10:00 am	2025-03-06 @ 8:00 am	2.7 ± 0.4	2025-03-10
11886980	102	2025-03-03 @ 10:00 am	2025-03-06 @ 8:00 am	2.7 ± 0.4	2025-03-10
11886918	104	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.8 ± 0.3	2025-03-10
11886913	111	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.9 ± 0.3	2025-03-10
11886906	112B	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	2.8 ± 0.4	2025-03-10
11886902	113	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	1.1 ± 0.3	2025-03-10
11886910	115	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	4.0 ± 0.4	2025-03-10
11886909	115	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	4.2 ± 0.4	2025-03-10
11886908	116	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.6 ± 0.3	2025-03-10
11886915	117	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	1.5 ± 0.4	2025-03-10
11886923	121	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.9 ± 0.3	2025-03-10
11886924	121A	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.8 ± 0.3	2025-03-10
11886926	123	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	1.3 ± 0.3	2025-03-10
11886921	125	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.6 ± 0.3	2025-03-10
11886928	125A	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886922	130	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886919	131	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886930	131	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886929	131	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886925	132	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886920	133	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886931	134A	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.5 ± 0.3	2025-03-10
11886932	134B	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886933	135	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.8 ± 0.3	2025-03-10
11886927	136	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886912	137	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.5 ± 0.3	2025-03-10
11886914	141	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.9 ± 0.3	2025-03-10
11886916	141	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.9 ± 0.4	2025-03-10
11886939	142	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	0.6 ± 0.3	2025-03-10
11886942	143	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886941	143A	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886948	143B	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886911	143C	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10

Radon test result report for:  
**NEELSVILLE MS**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11886947	143E	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886901	143F	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886935	151	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886934	151	2025-03-03 @ 8:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886936	151	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886956	154	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886953	157	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886955	158	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886954	159	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	0.7 ± 0.3	2025-03-10
11886940	162	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	0.5 ± 0.3	2025-03-10
11886937	164	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886938	164	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886961	175	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886952	175	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886970	182	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	0.7 ± 0.3	2025-03-10
11886971	182A	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886972	182C	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886969	182C	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886959	182C	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886967	184	2025-03-03 @ 10:00 am	2025-03-06 @ 9:00 am	0.6 ± 0.3	2025-03-10
11886958	184A	2025-03-03 @ 10:00 am	2025-03-06 @ 9:00 am	1.1 ± 0.3	2025-03-10
11886968	184B	2025-03-03 @ 10:00 am	2025-03-06 @ 9:00 am	< 0.3	2025-03-10
11886960	184C	2025-03-03 @ 10:00 am	2025-03-06 @ 9:00 am	1.2 ± 0.3	2025-03-10
11886951	184E	2025-03-03 @ 10:00 am	2025-03-06 @ 9:00 am	1.1 ± 0.3	2025-03-10
11886957	193E	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	0.6 ± 0.3	2025-03-10
11886944	196	2025-03-03 @ 10:00 am	2025-03-06 @ 7:00 am	1.1 ± 0.4	2025-03-10
11886945	212B	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886946	223	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	0.6 ± 0.3	2025-03-10
11886962	223	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886963	226	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886964	323	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886950	331	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886949	373	2025-03-03 @ 9:00 am	2025-03-06 @ 8:00 am	< 0.3	2025-03-10
11886917	MAIN OFFICE	2025-03-03 @ 8:00 am	2025-03-06 @ 7:00 am	< 0.3	2025-03-10

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March 10, 2025

**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:

**OFFICE  
MAIN**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
11886966	OB	2025-03-03 @ 11:00 am	2025-03-06 @ 11:00 am	< 0.3	2025-03-10

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

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March 10, 2025

**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:

**TRAVEL  
MAIN**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
11886999	TB	2025-03-03 @ 11:00 am	2025-03-06 @ 11:00 am	< 0.3	2025-03-10

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

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 20001560

NOMINAL Conditions: Radon Conc 50.6 pCi/L Rel. Hum 50.6% Temp. 70.8 F

Date Start: 12/14/24 Date Stop: 12/17/24 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0815 Time Stop: 0815 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (3) CHAR BAGS Device No.'s: \_\_\_\_\_

11477880, 11477883, 11477896

B4 Right

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  $\mu$ R/h Elevation = 820 ft**

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December 23, 2024

**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:

**SK  
MAIN**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
11477880	SK1	2024-12-14 @ 8:00 am	2024-12-17 @ 8:00 am	52.0 ± 4.2	2024-12-23
11477883	SK2	2024-12-14 @ 8:00 am	2024-12-17 @ 8:00 am	54.6 ± 4.4	2024-12-23
11477896	SK3	2024-12-14 @ 8:00 am	2024-12-17 @ 8:00 am	45.5 ± 3.6	2024-12-23

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



### Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing March 3<sup>rd</sup> – March 6<sup>th</sup>, 2025

Name of Schools:

1. Col. Zadok Magruder HS
2. S. Christa McAuliffe ES
3. Ronald McNair ES
4. Montgomery Village MS
5. Neelsville MS

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	Date	Initials
Radon Test Kits Deployed	3/3/2025	DM
Radon Test Kits Collected	3/6/2025	AM
Radon Test Kits Shipped to Lab*	3/6/2025	AM
Radon Test Kits Received by Lab*	3/8/2025	DM

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

**P4792 / TYLER MCCLEAF**

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<b>Kit Number</b>	<b>Start Date</b>	<b>Start Time</b>	<b>End Date</b>	<b>End Time</b>	<b>Temp.</b>	<b>Facility</b>	<b>Building</b>	<b>Room</b>	<b>Project ID</b>	<b>Floor</b>	<b>Result</b>
11887270	2025-03-31	9:00 am	2025-04-03	12:00 pm	70			115	NEELSVILLE MS - RETESTING	1	9.6
11887277	2025-03-31	9:00 am	2025-04-03	12:00 pm	70			115	NEELSVILLE MS - RETESTING	1	10.7
11887278	2025-03-31	9:00 am	2025-04-03	12:00 pm	70			115	NEELSVILLE MS - RETESTING	1	0.5
11887290	2025-03-31	9:00 am	2025-04-03	12:00 pm	70			115	NEELSVILLE MS - RETESTING	1	12.0

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

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April 7, 2025

**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:

**KCI  
MAIN**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
11886694	OB	2025-03-31 @ 11:00 am	2025-04-04 @ 9:00 am	< 0.3	2025-04-07
11886589	TB	2025-03-31 @ 11:00 am	2025-04-04 @ 9:00 am	< 0.3	2025-04-07

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

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 20002919

NOMINAL Conditions: Radon Conc 7.0 pCi/L Rel. Hum 51.4 % Temp. 70.7 F

Date Start: 3/7/25 Date Stop: 3/10/25 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0832 Time Stop: 0832 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (7) CHAR BAGS Device No.'s: \_\_\_\_\_

11886401 thru 11886406,

11886410

G3 Right

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  $\mu$ R/h Elevation = 820 ft**

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March 19, 2025

**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:

**QC  
MAIN**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
11886401	SK1	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.8 ± 1.1	2025-03-19
11886405	SK2	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.1 ± 1.1	2025-03-19
11886406	SK3	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.7 ± 1.1	2025-03-19
11886403	SK4	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.9 ± 1.2	2025-03-19
11886404	SK5	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.6 ± 1.2	2025-03-19
11886410	SK6	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.0 ± 1.1	2025-03-19
11886402	SK7	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	8.6 ± 1.2	2025-03-19

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



### Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing March 31<sup>st</sup> – April 3<sup>rd</sup>, 2025

Name of Schools:

1. Hallie Wells MS
2. Neelsville MS
3. Quince Orchard HS
4. Redland MS
5. Ridgeview MS
6. Rosemont ES

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	Date	Initials
Radon Test Kits Deployed	3/31/2025	BMM
Radon Test Kits Collected	4/03/2025	BMM
Radon Test Kits Shipped to Lab*	4/03/2025	BMM
Radon Test Kits Received by Lab*	4/07/2025	BMM

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



**MCPS RADON TESTING – EXECUTIVE SUMMARY**

Site Name	Neelsville Middle School
Date of Test Report	4/6/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	81
# Rooms $\geq$ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.5 pCi/L

Project Status:  
Initial testing completed; no further action needed.



April 6, 2022

Brian T. Croyle, PG, CHMM  
Environmental Specialist  
Montgomery County Public Schools  
Gaithersburg, MD 20879

Re: **Radon Testing Services**  
KCI Job # 122108316

Location: Neelsville MS  
11700 Neelsville Church Rd.  
Germantown, MD 20876

Dear Mr. Croyle:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools (MCPS) pursuant to completing a “short-term” 3 day radon test for the Neelsville MS, located at 11700 Neelsville Church Rd. Germantown, MD 20876 (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 Specialist (certification #111004 RT) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from <https://www.montgomeryschoolsmd.org> or [www.epa.gov/radon](http://www.epa.gov/radon).

KCI visited the site on February 15, 2022 and deployed ninety four (94) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all 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 also included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted 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 February 18, 2022 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:**

These tests represent:

- Follow-up to post-mitigation biennial testing.

These tests were conducted to:

- Confirm the success of the mitigation system(s).

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 during 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 20s and high temperatures ranged from the high 30s to the high 40s Fahrenheit. Maximum sustained winds ranged from 5-18 miles per hour. Average humidity was around 15% with 1.5 inches of precipitation (rain) was recorded during 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:

<b>Radon Concentration</b>	<b>Room</b>	<b>Result</b>
≥4.0 pCi/L	None	N/A
<4.0 pCi/L	See Attachment B	

<b>Quality Control Samples</b>	
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) 891-1769.

Sincerely,



Tyler P. McCleaf  
Radon Measurement Provider  
#111004 RT  
KCI Technologies, Inc.

Attachments:     A- Floor Plan with Test Locations  
                      B- Table 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 Check, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

OC- Quality Control

Table 1- Radon Testing Results		
Neelsville MS		
Test Period: 02/15/2022 - 02/18/2022		
Kit Number	Room / Area	Result
11123403	100	1.1
11122594	101	1.2
11123414	102	0.9
11123407	103	2.5
11123436	106	1.3
11123411	107	0.9
11123410	108	0.5
11123417	109	< 0.3
11123427	109	0.5
11123428	109	0.6
11123419	110	1.1
11123406	111	0.6
11123412	112	0.7
11122595	113	< 0.3
11122596	114	0.9
11123408	115	< 0.3
11123416	116	< 0.3
11123421	117	< 0.3
11123401	120	1.3
11123409	121	1.6
11123415	122	1.1
11123420	122	1.3
11122600	206	0.7
11122598	207	1.0
11115113	210	0.7
11115129	211	1.6
11115137	213	1.3
11115127	214	0.9
11115147	215	0.8
11115130	216	0.9
11115120	217	1.1
11115136	217	1.0
11115142	218	0.8
11115138	219	0.8
11115119	220	1.6
11115141	221	0.7
11115122	222	0.8
11115123	223	0.8
11115128	225	< 0.3
11115144	225	0.8
11115135	226	0.8
11115121	227	< 0.3

Table 1- Radon Testing Results		
Neelsville MS		
Test Period: 02/15/2022 - 02/18/2022		
Kit Number	Room / Area	Result
11115124	228	1.0
11115131	228	< 0.3
11115132	228	0.9
11115126	229	< 0.3
11115140	230	0.6
11115125	231	< 0.3
11115139	232	< 0.3
11115143	235	< 0.3
11115146	236	< 0.3
11115145	237	< 0.3
11115102	239	< 0.3
11115111	239	0.9
11115118	240	0.7
11115116	241	0.8
11115112	242	0.8
11115103	243	0.7
11115115	245	0.7
11115107	246	< 0.3
11115106	247	0.8
11115105	248	< 0.3
11115101	249	< 0.3
11115108	249	< 0.3
11115110	249	< 0.3
11115133	250	< 0.3
11115109	251	1.0
11115134	252	1.1
11123429	111A	< 0.3
11123404	111C	< 0.3
11122593	111D	< 0.3
11123402	111D	< 0.3
11123405	111D	0.5
11123430	111E	< 0.3
11115149	AG AUX GYM	1.1
11115148	AG AUX. GYM	1.3
11123424	ASP ASST PRINCIPAL	0.8
11123432	ASP ASST PRINCIPAL	0.8
11123413	CAFETERIA	1.0
11123418	CAFETERIA	0.9
11123426	FOOD SERVICE OFFICE	< 0.3
11123434	FOOD SERVICE OFFICE	< 0.3
11123423	GOF GENERAL OFFICE	0.9
11123422	GYM	1.0

Table 1- Radon Testing Results		
Neelsville MS		
Test Period: 02/15/2022 - 02/18/2022		
Kit Number	Room / Area	Result
11123435	GYM	1.1
11123425	KITCHEN OF5	< 0.3
11115104	MEDIA CENTER	0.8
11115114	MEDIA CENTER	< 0.3
11123439	OFFICE CONF ROOM	0.7
11123433	OFFICE WORK ROOM	0.9
11123431	PR PRINCIPAL OFFICE	0.9
11123437	SECURITY OFFICE	1.3
11122599	STAFF LOUNGE	0.8
11123438	STAGE	1.5

Table 2- Radon Testing Results			
Neelsville MS			
Test Period: 02/15/2022 - 02/18/2022			
Kit Number	QC Type	Room / Area	Result
11123434	D	Food Service Office	< 0.3
11123417	D	109	< 0.3
11123428	FB	109	0.6
11123415	D	122	1.1
11123402	D	111D	< 0.3
11122593	FB	111D	< 0.3
11115111	D	239	0.9
11115101	D	249	< 0.3
11115108	FB	249	< 0.3
11115136	D	217	1.0
11115124	D	228	1.0
11115131	FB	228	< 0.3
11115128	D	225	< 0.3
11131660	OB	OFFICE BLANK	< 0.3
11131661	TB	TRAVEL BLANK	< 0.3



# ATTACHMENT C

## Laboratory Analytical Results

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11123403	100	2022-02-15 @ 12:00 pm	2022-02-18 @ 9:00 am	1.1 ± 0.3	2022-02-22
11122594	101	2022-02-15 @ 12:00 pm	2022-02-18 @ 9:00 am	1.2 ± 0.3	2022-02-22
11123414	102	2022-02-15 @ 10:00 am	2022-02-18 @ 9:00 am	0.9 ± 0.3	2022-02-22
11123407	103	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	2.5 ± 0.4	2022-02-22
11123436	106	2022-02-15 @ 10:00 am	2022-02-18 @ 10:00 am	1.3 ± 0.3	2022-02-22
11123411	107	2022-02-15 @ 10:00 am	2022-02-18 @ 10:00 am	0.9 ± 0.3	2022-02-22
11123410	108	2022-02-15 @ 10:00 am	2022-02-18 @ 10:00 am	0.5 ± 0.3	2022-02-22
11123427	109	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	0.5 ± 0.3	2022-02-22
11123417	109	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123428	109	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	0.6 ± 0.3	2022-02-22
11123419	110	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	1.1 ± 0.4	2022-02-22
11123406	111	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	0.6 ± 0.3	2022-02-22
11123429	111A	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123404	111C	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123405	111D	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.5 ± 0.3	2022-02-22
11123402	111D	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11122593	111D	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123430	111E	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123412	112	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	0.7 ± 0.3	2022-02-22
11122595	113	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11122596	114	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	0.9 ± 0.3	2022-02-22
11123408	115	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123416	116	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123421	117	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123401	120	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	1.3 ± 0.3	2022-02-22
11123409	121	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	1.6 ± 0.4	2022-02-22
11123415	122	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	1.1 ± 0.3	2022-02-22
11123420	122	2022-02-15 @ 11:00 am	2022-02-18 @ 10:00 am	1.3 ± 0.4	2022-02-22
11122600	206	2022-02-15 @ 12:00 pm	2022-02-18 @ 11:00 am	0.7 ± 0.3	2022-02-22
11122598	207	2022-02-15 @ 12:00 pm	2022-02-18 @ 11:00 am	1.0 ± 0.3	2022-02-22
11115113	210	2022-02-15 @ 12:00 pm	2022-02-18 @ 11:00 am	0.7 ± 0.3	2022-02-22
11115129	211	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	1.6 ± 0.4	2022-02-22
11115137	213	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	1.3 ± 0.4	2022-02-22
11115127	214	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	0.9 ± 0.3	2022-02-22
11115147	215	2022-02-15 @ 2:00 pm	2022-02-18 @ 11:00 am	0.8 ± 0.3	2022-02-22
11115130	216	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	0.9 ± 0.3	2022-02-22
11115136	217	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	1.0 ± 0.3	2022-02-22

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11115120	217	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	1.1 ± 0.4	2022-02-22
11115142	218	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	0.8 ± 0.3	2022-02-22
11115138	219	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	0.8 ± 0.3	2022-02-22
11115119	220	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	1.6 ± 0.4	2022-02-22
11115141	221	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	0.7 ± 0.3	2022-02-22
11115122	222	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	0.8 ± 0.3	2022-02-22
11115123	223	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	0.8 ± 0.3	2022-02-22
11115144	225	2022-02-15 @ 2:00 pm	2022-02-18 @ 11:00 am	0.8 ± 0.3	2022-02-22
11115128	225	2022-02-15 @ 2:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115135	226	2022-02-15 @ 2:00 pm	2022-02-18 @ 12:00 pm	0.8 ± 0.3	2022-02-22
11115121	227	2022-02-15 @ 2:00 pm	2022-02-18 @ 12:00 pm	< 0.3	2022-02-22
11115131	228	2022-02-15 @ 2:00 pm	2022-02-18 @ 12:00 pm	< 0.3	2022-02-22
11115132	228	2022-02-15 @ 2:00 pm	2022-02-18 @ 12:00 pm	0.9 ± 0.3	2022-02-22
11115124	228	2022-02-15 @ 2:00 pm	2022-02-18 @ 12:00 pm	1.0 ± 0.3	2022-02-22
11115126	229	2022-02-15 @ 2:00 pm	2022-02-18 @ 12:00 pm	< 0.3	2022-02-22
11115140	230	2022-02-15 @ 1:00 pm	2022-02-18 @ 12:00 pm	0.6 ± 0.3	2022-02-22
11115125	231	2022-02-15 @ 2:00 pm	2022-02-18 @ 12:00 pm	< 0.3	2022-02-22
11115139	232	2022-02-15 @ 2:00 pm	2022-02-18 @ 12:00 pm	< 0.3	2022-02-22
11115143	235	2022-02-15 @ 2:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115146	236	2022-02-15 @ 2:00 pm	2022-02-18 @ 12:00 pm	< 0.3	2022-02-22
11115145	237	2022-02-15 @ 2:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115111	239	2022-02-15 @ 12:00 pm	2022-02-18 @ 11:00 am	0.9 ± 0.3	2022-02-22
11115102	239	2022-02-15 @ 12:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115118	240	2022-02-15 @ 12:00 pm	2022-02-18 @ 11:00 am	0.7 ± 0.3	2022-02-22
11115116	241	2022-02-15 @ 12:00 pm	2022-02-18 @ 12:00 pm	0.8 ± 0.3	2022-02-22
11115112	242	2022-02-15 @ 12:00 pm	2022-02-18 @ 12:00 pm	0.8 ± 0.3	2022-02-22
11115103	243	2022-02-15 @ 12:00 pm	2022-02-18 @ 12:00 pm	0.7 ± 0.3	2022-02-22
11115115	245	2022-02-15 @ 1:00 pm	2022-02-18 @ 12:00 pm	0.7 ± 0.3	2022-02-22
11115107	246	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115106	247	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	0.8 ± 0.3	2022-02-22
11115105	248	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115108	249	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115101	249	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115110	249	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115133	250	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115109	251	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	1.0 ± 0.3	2022-02-22
11115134	252	2022-02-15 @ 1:00 pm	2022-02-18 @ 11:00 am	1.1 ± 0.3	2022-02-22

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11115149	AG AUX GYM	2022-02-15 @ 2:00 pm	2022-02-18 @ 9:00 am	1.1 ± 0.3	2022-02-22
11115148	AG AUX. GYM	2022-02-15 @ 2:00 pm	2022-02-18 @ 9:00 am	1.3 ± 0.3	2022-02-22
11123424	ASP ASST PRINCIPAL	2022-02-15 @ 9:00 am	2022-02-18 @ 9:00 am	0.8 ± 0.3	2022-02-22
11123432	ASP ASST PRINCIPAL	2022-02-15 @ 10:00 am	2022-02-18 @ 12:00 pm	0.8 ± 0.3	2022-02-22
11123413	CAFETERIA	2022-02-15 @ 10:00 am	2022-02-18 @ 10:00 am	1.0 ± 0.3	2022-02-22
11123418	CAFETERIA	2022-02-15 @ 10:00 am	2022-02-18 @ 10:00 am	0.9 ± 0.3	2022-02-22
11123434	FOOD SERVICE OFFICE	2022-02-15 @ 10:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123426	FOOD SERVICE OFFICE	2022-02-15 @ 10:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11123423	GOF GENERAL OFFICE	2022-02-15 @ 9:00 am	2022-02-18 @ 9:00 am	0.9 ± 0.3	2022-02-22
11123435	GYM	2022-02-15 @ 10:00 am	2022-02-18 @ 9:00 am	1.1 ± 0.3	2022-02-22
11123422	GYM	2022-02-15 @ 10:00 am	2022-02-18 @ 9:00 am	1.0 ± 0.3	2022-02-22
11123425	KITCHEN OF5	2022-02-15 @ 10:00 am	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11115114	MEDIA CENTER	2022-02-15 @ 12:00 pm	2022-02-18 @ 11:00 am	< 0.3	2022-02-22
11115104	MEDIA CENTER	2022-02-15 @ 12:00 pm	2022-02-18 @ 11:00 am	0.8 ± 0.3	2022-02-22
11123439	OFFICE CONF ROOM	2022-02-15 @ 10:00 am	2022-02-18 @ 9:00 am	0.7 ± 0.3	2022-02-22
11123433	OFFICE WORK ROOM	2022-02-15 @ 9:00 am	2022-02-18 @ 9:00 am	0.9 ± 0.3	2022-02-22
11123431	PR PRINCIPAL OFFICE	2022-02-15 @ 10:00 am	2022-02-18 @ 9:00 am	0.9 ± 0.3	2022-02-22
11123437	SECURITY OFFICE	2022-02-15 @ 10:00 am	2022-02-18 @ 10:00 am	1.3 ± 0.3	2022-02-22
11122599	STAFF LOUNGE	2022-02-15 @ 12:00 pm	2022-02-18 @ 11:00 am	0.8 ± 0.3	2022-02-22
11123438	STAGE	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	1.5 ± 0.3	2022-02-22

**EXPOSURE IN BOWSER-MORNER RADON CHAMBER**

CLIENT KCI Technologies, Inc. Job Number 204186

NOMINAL Conditions: Radon Conc 25.8 pCi/L Rel. Hum 50.1 % Temp. 70.9 F

Date Start: 2/18/22 Date Stop: 2/21/22 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0911 Time Stop: 0911 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (3) Char Bags - Device No.'s: \_\_\_\_\_

11113484, 1112998, 20107126 \_\_\_\_\_

23 Right

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  $\mu$ R/h Elevation = 820 ft**

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

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Kit Number	Start Date	Start Time	End Date	End Time	Temp.	Facility	Building	Room	Project ID	Floor	Result
11113484	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK1		1	27.9
11122998	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK2		1	26.0
20107126	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK3		1	27.6

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### Radon Test Kit Chain of Custody

**Project Name:** MCPS Radon – February 2022 Schools

**Name of Schools:**

1. Damascus HS
2. Germantown ES
3. Great Seneca Creek ES
4. Lake Seneca ES
5. S. Christa McAuliffe ES
6. Northwest HS
7. Waters Landing ES
8. Seneca Valley HS
9. Cedar Grove ES
10. Capt. James E. Daly ES
11. Neelsville MS
12. Dr. Sally K. Ride ES

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	Date	Initials
Radon Test Kits Deployed	02/15/2022	DM
Radon Test Kits Collected	02/18/2022	DM
Radon Test Kits Shipped to Lab*	02/18/2022	DM
Radon Test Kits Received by Lab*	02/21/2022	DM

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



**MONTGOMERY COUNTY PUBLIC SCHOOLS  
RADON TESTING**

**Executive Summary:**  
**Neelsville Middle School**  
11700 Neelsville Church Road,  
Germantown, MD 20876

Date of Test Report:	3/15/2019
Round of Testing:	Initial <b>Follow-up</b> Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested:	5
# of Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	<0.4
High Value:	1.0

**Project Status**

**Retesting completed:** No further action at this time.



March 15, 2019

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

Re: Radon Testing Services

Location: Neelsville Middle School  
11700 Neelsville Church Road,  
Germantown, MD 20876

Dear Mr. Cox:

Intertek-PSI (PSI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of a "short-term" 3-day radon test for Neelsville Middle School, located at 11700 Neelsville Church Road, Germantown, MD 20876 (subject site).

### **Scope of Services:**

PSI 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. PSI 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 #14SS007) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from [www.montgomerycountymd.gov/dep/air/radon](http://www.montgomerycountymd.gov/dep/air/radon) or [www.epa.gov/radon](http://www.epa.gov/radon).

PSI visited the site on February 25, 2019 and deployed five (5) activated charcoal (AC) radon test kit. PSI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. PSI returned to the site on February 28, 2019 to retrieve the radon sampling test kit. A floor plan map of the building with the test location is included as Attachment A of this report.

PSI shipped all radon tests via overnight delivery to AccuStar Labs for analysis by gamma-ray spectroscopy. Accustar Labs is a NRSB certified analytical laboratory for radon analysis located at 929 Mount Zion Road, Lebanon, Pennsylvania (certification # ARLO007).

### **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  $\leq 65^{\circ}\text{F}$ .

PSI 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.



PSI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. PSI 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 pCi/L	None	NA
≤ 4.0 pCi/L	See Attachment B	

Notes:  
D -Duplicate Sample

The office blank and lab transit blanks had test results of less than the laboratory detection limit of 0.4 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 (703) 698-9300.



# **ATTACHMENT B**

Radon Test Summary Spreadsheet

<b>Radon Testing Results</b>		
<b>Neelsville Middle School</b>		
<b>Testing period: 2/25/19 - 2/28/19</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result (pCi/L)</b>
3923436	122	0.8
3923432	208	0.7
3923464	252- Security Room	<0.4
3923435	Staff Lounge	<0.4
3923465	Work Room Office	1.0

**Table Notes:**

D – Duplicate

FB – Field Blank

OB – Office Blank

TB – Transit Blank

QC – Quality Control

# **ATTACHMENT C**

Laboratory Analytical Results

NRPP 105011 AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

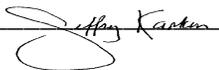
MCPS Radon Survey Neelsville MS  
11700 Neelsville Church Road  
Germantown MD 20876

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
3220669	3923465	02/25/2019 7:15 am	02/28/2019 6:55 am	Floor Main Work Room Office	1.0
3220670	3923435	02/25/2019 7:40 am	02/28/2019 6:56 am	Floor Main Room Staff Lounge	< 0.4
3220671	3923464	02/25/2019 7:42 am	02/28/2019 6:57 am	Floor Main 252 Security Room	< 0.4
3220672	3923432	02/25/2019 7:45 am	02/28/2019 6:58 am	Floor Main Room 208	0.7
3220673	3923436	02/25/2019 7:48 am	02/28/2019 6:59 am	Floor Main Room 122	0.8

**Comment:** A copy of this report was e-mailed to Intertek-PSI (VA)

Distributed by: Intertek-PSI (VA)

Date Received: 03/04/2019    Date Logged: 03/04/2019    Date Analyzed: 03/05/2019    Date Reported: 03/05/2019

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.



## MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

**Executive Summary:**  
**Neelsville Middle School**  
11700 Neelsville Church Road,  
Germantown, MD 20876

Date of Test Report:	02/05/2019
Round of Testing:	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing <b>HVAC Upgrade</b> Window Replacement New Addition New Facility
# of Rooms Tested:	76
# of Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	< 0.4
High Value:	1.8

### Project Status

**Initial testing complete:** Missing or compromised samples need re-test.



February 5, 2019

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

Re: Radon Testing Services

Location: Neelsville Middle School  
11700 Neelsville Church Road,  
Germantown, MD 20876

Dear Mr. Cox:

Intertek-PSI (PSI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of a “short-term” 3-day radon test for Neelsville Middle School, located at 11700 Neelsville Church Road, Germantown, MD 20876 (subject site).

**Scope of Services:**

PSI 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. PSI 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 #14SS007) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from [www.montgomerycountymd.gov/dep/air/radon](http://www.montgomerycountymd.gov/dep/air/radon) or [www.epa.gov/radon](http://www.epa.gov/radon).

PSI visited the site on December 3, 2018 and deployed ninety-three (93) activated charcoal (AC) radon test kits. PSI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. PSI returned to the site on December 6, 2018 to retrieve the radon sampling test kits. A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, PSI included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, PSI submitted ten (10) 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.

PSI shipped all radon tests via overnight delivery to AccuStar Labs for analysis by gamma-ray spectroscopy. Accustar Labs is a NRSB certified analytical laboratory for radon analysis located at 929 Mount Zion Road, Lebanon, Pennsylvania (certification # ARL0007) and 2 Saber Way, Haverhill, Massachusetts (certification # ARL0017).



### **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  $\leq 65^{\circ}\text{F}$ .

PSI 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.

PSI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. PSI 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:

<b>Radon Concentration</b>	<b>Room</b>	<b>Result</b>
$\geq 4.0$ pCi/L	None	NA
$\leq 4.0$ pCi/L	See Attachment B	

Notes:

D -Duplicate Sample

The office blank and lab transit blanks had test results of less than the laboratory detection limit of 0.4 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 (703) 698-9300.



Respectfully Submitted,

**INTERTEK-PSI**

Nand Kaushik, P.E.  
Department Manager, Environmental Services  
[Nand.Kaushik@intertek.com](mailto:Nand.Kaushik@intertek.com)

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

# **ATTACHMENT B**

Radon Test Summary Spreadsheet

<b>Radon Testing Results</b>		
<b>Neelsville Middle School</b>		
<b>Testing period: 12/3/18 - 12/6/18</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result (pCi/L)</b>
3919186	100	<0.4
3919187	101	<0.4
3919188	101 Storage	<0.4
3919189	102	0.7
3919031	103	1.6
3919032	106	<0.4
3919037	107	<0.4
3919038	108	<0.4
3919151	109	<0.4
3919152	110	<0.4
3919153	111	<0.4
3919154	111A	<0.4
3919156	111C	<0.4
3919155	111D	<0.4
3919204	112	<0.4
3919206	112	<0.4
3919203	113	<0.4
3919202	114	<0.4
3919201	115	<0.4
3919159	116	<0.4
3919158	117	<0.4
3919209	120	<0.4
3919207	121	<0.4
3919208	121	<0.4
3919205	121B	<0.4
3919101	205	0.5
3919106	206	<0.4
3919107	207	<0.4
3919165	210	<0.4
3919166	211	1.3
3919167	212	0.6
3919168	213	<0.4
3919169	214	<0.4
3919191	215	<0.4
3919192	216	<0.4
3919193	217	<0.4
3919194	218	<0.4
3919195	219	<0.4
3919196	220	<0.4
3919197	221	<0.4
3919198	222	<0.4
3919199	223	<0.4
3918991	224	<0.4

<b>Radon Testing Results</b>		
<b>Neelsville Middle School</b>		
<b>Testing period: 12/3/18 - 12/6/18</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result (pCi/L)</b>
3918992	225	<0.4
3918993	226	<0.4
3918994	227	<0.4
3918995	228	<0.4
3918996	229	<0.4
3918997	230	<0.4
3918998	230	<0.4
3919162	238	<0.4
3919161	239	<0.4
3918999	242	<0.4
3919181	244	<0.4
3919182	244 Studio	<0.4
3919183	250	<0.4
3919184	251	<0.4
3919185	252	<0.4
3919003	Assistant Principal 1	<0.4
3919004	Assistant Principal 2	<0.4
3919105	Attendance Office	<0.4
3919102	Aux Gym	0.5
3919039	Building Services	<0.4
3888437	Cafeteria	0.6
3888461	Cafeteria	1.0
3919006	Conference Room	<0.4
3919002	Copy Room	<0.4
3919009	Counseling	<0.4
3919103	Gym	1.8
3919007	Health	<0.4
3919008	Health Office	<0.4
3919034	Kitchen	0.6
3919035	Kitchen Office	<0.4
3919108	LMC	<0.4
3919109	LMC	<0.4
3919001	Main Office	<0.4
3919163	Media Center Office	1.0
3919005	Principal	<0.4
3919036	School Store	0.4
3919164	Taping	<0.4
3919033	Team Office	<0.4

<b>Radon Testing Results</b>		
<b>Neelsville Middle School</b>		
<b>Testing period: 12/3/18 - 12/6/18</b>		
<b>Kit Number</b>	<b>QC Type</b>	<b>Result (pCi/L)</b>
3919190	102 (D)	0.9
3919160	116 (D)	<0.4
3919170	214 (D)	<0.4
3919200	223 (D)	<0.4
3919000	242 (D) (MISSING)	--
3919040	Building Services (D)	<0.4
3919010	Counseling (D)	<0.4
3919110	LMC (D)	<0.4
3923178	Field Blank	<0.4
3923177	Field Blank	<0.4
3922993	Office Blank	<0.4
3922994	Trip Blank	<0.4

**Table Notes:**

D – Duplicate

FB – Field Blank

OB – Office Blank

TB – Transit Blank

QC – Quality Control

# **ATTACHMENT C**

Laboratory Analytical Results

NELAC NY 11769  
NRPP 103216 AL  
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
Neelsville Middle School  
MD 20876 USA

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2404449	3919001	12/03/2018 8:30 am	12/06/2018 8:02 am	Bldg Neelsville Middle School Flr 1 Rm Main Offic	< 0.4
2404450	3919002	12/03/2018 8:31 am	12/06/2018 8:04 am	Bldg Neelsville Middle School Flr 1 Rm Copy Rm	< 0.4
2404451	3919003	12/03/2018 8:32 am	12/06/2018 8:03 am	Bldg Neelsville Middle School Flr 1 Rm Assistant	< 0.4
2404452	3919004	12/03/2018 8:33 am	12/06/2018 8:03 am	Bldg Neelsville Middle School Flr 1 Rm Assistant	< 0.4
2404453	3919005	12/03/2018 8:34 am	12/06/2018 8:04 am	Bldg Neelsville Middle School Flr 1 Rm Principi	< 0.4
2404454	3919006	12/03/2018 8:35 am	12/06/2018 8:04 am	Bldg Neelsville Middle School Flr 1 Rm Conferenc	< 0.4
2404455	3919007	12/03/2018 8:36 am	12/06/2018 8:06 am	Bldg Neelsville Middle School Flr 1 Rm Health	< 0.4
2404456	3919008	12/03/2018 8:37 am	12/06/2018 8:07 am	Bldg Neelsville Middle School Flr 1 Rm Health Off	< 0.4
2404457	3919009	12/03/2018 8:37 am	12/06/2018 8:08 am	Bldg Neelsville Middle School Flr 1 Rm Counselin	< 0.4
2404458	3919010	12/03/2018 8:40 am	12/06/2018 8:08 am	Bldg Neelsville Middle School Flr 1 Rm Counselin	< 0.4
2404459	3919101	12/03/2018 8:42 am	12/06/2018 8:08 am	Bldg Neelsville Middle School Floor 1 Room 205	0.5

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Report Approved By: 

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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NELAC NY 11769  
NRPP 103216 AL  
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
Neelsville Middle School  
MD 20876 USA

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2404460	3919102	12/03/2018 8:44 am	12/06/2018 8:15 am	Bldg Neelsville Middle School Flr 1 Rm Aux Gym	0.5
2404461	3919103	12/03/2018 8:44 am	12/06/2018 8:12 am	Bldg Neelsville Middle School Floor 1 Room Gym	1.8
2404462	3919105	12/03/2018 8:48 am	12/06/2018 8:13 am	Bldg Neelsville Middle School Flr 1 Rm Attendanc	< 0.4
2404463	3919106	12/03/2018 8:50 am	12/06/2018 8:17 am	Bldg Neelsville Middle School Floor 1 Room 206	< 0.4
2404464	3919107	12/03/2018 8:51 am	12/06/2018 8:16 am	Bldg Neelsville Middle School Floor 1 Room 207	< 0.4
2404465	3919108	12/03/2018 8:52 am	12/06/2018 8:17 am	Bldg Neelsville Middle School Floor 1 Room LMC	< 0.4
2404466	3919109	12/03/2018 8:52 am	12/06/2018 8:18 am	Bldg Neelsville Middle School Floor 1 Room LMC	< 0.4
2404467	3919110	12/03/2018 8:54 am	12/06/2018 8:19 am	Bldg Neelsville Middle School Floor 1 Room LMC	< 0.4
2404468	3919161	12/03/2018 8:54 am	12/06/2018 8:19 am	Bldg Neelsville Middle School Floor 1 Room 239	< 0.4
2404469	3919162	12/03/2018 8:55 am	12/06/2018 8:20 am	Bldg Neelsville Middle School Floor 1 Room 238	< 0.4
2404470	3919163	12/03/2018 8:55 am	12/06/2018 8:20 am	Bldg Neelsville Middle School Flr 1 Rm Media Ce	1.0

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NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
Neelsville Middle School  
MD 20876 USA

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2404471	3919164	12/03/2018 8:56 am	12/06/2018 8:21 am	Bldg Neelsville Middle School Flr 1 Rm Taping	< 0.4
2404472	3919165	12/03/2018 8:57 am	12/06/2018 8:23 am	Bldg Neelsville Middle School Floor 1 Room 210	< 0.4
2404473	3919166	12/03/2018 8:58 am	12/06/2018 8:23 am	Bldg Neelsville Middle School Floor 1 Room 211	1.3
2404474	3919167	12/03/2018 8:59 am	12/06/2018 8:25 am	Bldg Neelsville Middle School Floor 1 Room 212	0.6
2404475	3919168	12/03/2018 9:00 am	12/06/2018 8:23 am	Bldg Neelsville Middle School Floor 1 Room 213	< 0.4
2404476	3919169	12/03/2018 9:00 am	12/06/2018 8:25 am	Bldg Neelsville Middle School Floor 1 Room 214	< 0.4
2404477	3919170	12/03/2018 9:00 am	12/06/2018 8:25 am	Bldg Neelsville Middle School Floor 1 Room 214	< 0.4
2404478	3919191	12/03/2018 9:00 am	12/06/2018 8:25 am	Bldg Neelsville Middle School Floor 1 Room 215	< 0.4
2404479	3919192	12/03/2018 9:01 am	12/06/2018 8:26 am	Bldg Neelsville Middle School Floor 1 Room 216	< 0.4
2404480	3919194	12/03/2018 9:03 am	12/06/2018 8:28 am	Bldg Neelsville Middle School Floor 1 Room 218	< 0.4
2404481	3919195	12/03/2018 9:04 am	12/06/2018 8:29 am	Bldg Neelsville Middle School Floor 1 Room 219	< 0.4

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NRSB ARL0017

Laboratory Report for:

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Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
Neelsville Middle School  
MD 20876 USA

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2404482	3919196	12/03/2018 9:05 am - 12/06/2018 8:30 am	Bldg Neelsville Middle School Floor 1 Room 220	< 0.4
2404483	3919197	12/03/2018 9:06 am - 12/06/2018 8:33 am	Bldg Neelsville Middle School Floor 1 Room 221	< 0.4
2404484	3919198	12/03/2018 9:06 am - 12/06/2018 8:33 am	Bldg Neelsville Middle School Floor 1 Room 222	< 0.4
2404485	3919199	12/03/2018 9:08 am - 12/06/2018 8:32 am	Bldg Neelsville Middle School Floor 1 Room 223	< 0.4
2404486	3919200	12/03/2018 9:08 am - 12/06/2018 8:32 am	Bldg Neelsville Middle School Floor 1 Room 223	< 0.4
2404487	3918991	12/03/2018 9:09 am - 12/06/2018 8:33 am	Bldg Neelsville Middle School Floor 1 Room 224	< 0.4
2404488	3918992	12/03/2018 9:10 am - 12/06/2018 8:35 am	Bldg Neelsville Middle School Floor 1 Room 225	< 0.4
2404489	3918993	12/03/2018 9:11 am - 12/06/2018 8:35 am	Bldg Neelsville Middle School Floor 1 Room 226	< 0.4
2404490	3918994	12/03/2018 9:15 am - 12/06/2018 8:38 am	Bldg Neelsville Middle School Floor 1 Room 227	< 0.4
2404491	3918995	12/03/2018 9:20 am - 12/06/2018 8:38 am	Bldg Neelsville Middle School Floor 1 Room 228	< 0.4
2404492	3918996	12/03/2018 9:16 am - 12/06/2018 8:38 am	Bldg Neelsville Middle School Floor 1 Room 229	< 0.4

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NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

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2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
Neelsville Middle School  
MD 20876 USA

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2404493	3918997	12/03/2018 9:18 am	12/06/2018 8:36 am	Bldg Neelsville Middle School Floor 1 Room 230	< 0.4
2404494	3918998	12/03/2018 9:22 am	12/06/2018 8:37 am	Bldg Neelsville Middle School Floor 1 Room 230	< 0.4
2404495	3918999	12/03/2018 9:25 am	12/06/2018 8:42 am	Bldg Neelsville Middle School Floor 1 Room 242	< 0.4
2404496	3919181	12/03/2018 9:27 am	12/06/2018 8:41 am	Bldg Neelsville Middle School Floor 1 Room 244	< 0.4
2404497	3919182	12/03/2018 9:30 am	12/06/2018 8:44 am	Bldg Neelsville Middle School Flr 1 Rm 244 Studi	< 0.4
2404498	3919183	12/03/2018 9:31 am	12/06/2018 8:43 am	Bldg Neelsville Middle School Floor 1 Room 250	< 0.4
2404499	3919184	12/03/2018 9:32 am	12/06/2018 8:45 am	Bldg Neelsville Middle School Floor 1 Room 251	< 0.4
2404500	3919185	12/03/2018 9:33 am	12/06/2018 8:45 am	Bldg Neelsville Middle School Floor 1 Room 252	< 0.4
2404501	3919186	12/03/2018 9:38 am	12/06/2018 8:48 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404502	3919187	12/03/2018 9:39 am	12/06/2018 8:48 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404503	3919188	12/03/2018 9:14 am	12/06/2018 8:49 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4

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NELAC NY 11769  
NRPP 103216 AL  
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Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
Neelsville Middle School  
MD 20876 USA

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2404504	3919189	12/03/2018 9:42 am	12/06/2018 8:49 am	Bldg Neelsville Middle School Flr Lower Level Rm	0.7
2404505	3919190	12/03/2018 9:42 am	12/06/2018 8:49 am	Bldg Neelsville Middle School Flr Lower Level Rm	0.9
2404506	3919031	12/03/2018 9:46 am	12/06/2018 8:50 am	Bldg Neelsville Middle School Flr Lower Level Rm	1.6
2404507	3919032	12/03/2018 9:47 am	12/06/2018 8:50 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404508	3919033	12/03/2018 9:50 am	12/06/2018 8:55 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404509	3919034	12/03/2018 9:55 am	12/06/2018 8:52 am	Bldg Neelsville Middle School Flr Lower Level Rm	0.6
2404510	3919035	12/03/2018 9:57 am	12/06/2018 8:52 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404511	3919036	12/03/2018 9:59 am	12/06/2018 8:53 am	Bldg Neelsville Middle School Flr Lower Level Rm	0.4
2404512	3919037	12/03/2018 10:02 am	12/06/2018 8:57 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404513	3919038	12/03/2018 10:03 am	12/06/2018 8:57 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404514	3919039	12/03/2018 10:04 am	12/06/2018 8:55 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4

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NELAC NY 11769  
NRPP 103216 AL  
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
Neelsville Middle School  
MD 20876 USA

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2404515	3919151	12/03/2018 10:08 am	12/06/2018 8:58 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404516	3919152	12/03/2018 10:09 am	12/06/2018 8:58 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404517	3919153	12/03/2018 10:10 am	12/06/2018 8:59 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404518	3919154	12/03/2018 10:11 am	12/06/2018 9:01 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404519	3919155	12/03/2018 10:12 am	12/06/2018 9:01 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404520	3919156	12/03/2018 10:14 am	12/06/2018 9:02 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404521	3919158	12/03/2018 10:16 am	12/06/2018 9:06 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404522	3919159	12/03/2018 10:17 am	12/06/2018 9:08 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404523	3919160	12/03/2018 10:17 am	12/06/2018 9:08 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404524	3919201	12/03/2018 10:21 am	12/06/2018 9:09 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404525	3919202	12/03/2018 10:22 am	12/06/2018 9:09 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4

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Report Reviewed By: 

Report Approved By: 

Shawn Price, Director of Laboratory Operations, AccuStar Labs

**Disclaimer:**

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NELAC NY 11769  
NRPP 103216 AL  
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
Neelsville Middle School  
MD 20876 USA

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2404526	3919203	12/03/2018 10:22 am	12/06/2018 9:10 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404527	3919204	12/03/2018 10:23 am	12/06/2018 9:10 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404528	3919205	12/03/2018 10:21 am	12/06/2018 9:14 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404529	3919206	12/03/2018 10:25 am	12/06/2018 9:07 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404530	3919207	12/03/2018 10:08 am	12/06/2018 9:02 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404531	3919208	12/03/2018 10:28 am	12/06/2018 9:02 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404532	3919209	12/03/2018 10:30 am	12/06/2018 9:04 am	Bldg Neelsville Middle School Flr Lower Level Rm	< 0.4
2404533	3923178	12/03/2018 8:30 am	12/06/2018 9:14 am	Bldg Neelsville Middle School	< 0.4
2404534	3923177	12/03/2018 8:30 am	12/06/2018 9:14 am	Bldg Neelsville Middle School	< 0.4
2404535	3922993	12/03/2018 6:00 am	12/06/2018 9:14 am	Bldg Neelsville Middle School	< 0.4
2404536	3922994	12/03/2018 6:00 am	12/06/2018 9:14 am	Bldg Neelsville Middle School	< 0.4

**Comment:** A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

Date Received: 12/08/2018    Date Logged:    Date Analyzed: 12/09/2018    Date Reported: 12/21/2018

Report Reviewed By: 

Report Approved By: 

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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NELAC NY 11769  
NRPP 103216 AL  
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
Neelsville Middle School  
MD 20876 USA

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2404447	3888437	12/03/2018 9:51 am - 12/06/2018 8:51 am	Bldg Neelsville Middle School Flr Lower Level Rm	0.6
2404448	3888461	12/03/2018 9:52 am - 12/06/2018 8:51 am	Bldg Neelsville Middle School Flr Lower Level Rm	1.0

**Comment:** A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

Date Received: 12/08/2018    Date Logged:    Date Analyzed: 12/10/2018    Date Reported: 01/02/2019

Report Reviewed By: 

Report Approved By: 

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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NRPP 105011 AL  
NRSB ARL0007  
Ohio RL41

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested:

Intertek-PSI (VA)  
2930 Eskridge Road  
Fairfax VA 22031

MCPS Radon Survey  
4514 Taylorsville Road  
Dayton OH 45424

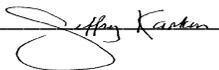
Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
3204125	3926831	12/07/2018 9:47 am - 12/10/2018 9:47 am	Spike	36.1
3204126	3926832	12/07/2018 9:47 am - 12/10/2018 9:47 am	Spike	34.8
3204127	3926833	12/07/2018 9:47 am - 12/10/2018 9:47 am	Spike	33.7
3204128	3926834	12/07/2018 9:47 am - 12/10/2018 9:47 am	Spike	35.8
3204129	3926835	12/07/2018 9:47 am - 12/10/2018 9:47 am	Spike	35.0
3204130	3926836	12/07/2018 9:47 am - 12/10/2018 9:47 am	Spike	34.5
3204131	3926837	12/07/2018 9:47 am - 12/10/2018 9:47 am	Spike	34.6
3204132	3926838	12/07/2018 9:47 am - 12/10/2018 9:47 am	Spike	34.3
3204133	3926839	12/07/2018 9:47 am - 12/10/2018 9:47 am	Spike	33.2
3204134	3926840	12/07/2018 9:47 am - 12/10/2018 9:47 am	Spike	34.0

**Comment:** A copy of this report was e-mailed to Intertek-PSI (VA)

Test Performed By: Unknown

Distributed by: Intertek-PSI (VA)

Date Received: 12/12/2018    Date Logged: 12/12/2018    Date Analyzed: 12/12/2018    Date Reported: 12/13/2018

Report Reviewed By: 

Report Approved By: 

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Shawn Price, Director of Laboratory Operations, AccuStar Labs

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# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT Intertek - PSI

Job Number 187732

NOMINAL Conditions: Radon Conc 32.6 pCi/L Rel. Hum 49.1 % Temp. 70.1 F

Date Start: 12/7/18 Date Stop: 12/10/18

Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0947 Time Stop: 0947

Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (10) Char. Cans-

Device No.'s: \_\_\_\_\_

3926831 thru 3926840

G2 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  $\mu$ R/h Elevation = 820 ft



## Chain of Custody

Project Name: MCPS Radon Survey 2018

Name of Schools:

- |  |                                |
|--|--------------------------------|
| 1. Ewing Center                            | 13. Garrett Park ES Annex      |
| 2. Department of Food & Nutrition Services | 14. Goshen ES                  |
| 3. Damascus HS                             | 15. Kingsley Wilderness Center |
| 4. Edison HS                               | 16. Kensington Parkwood ES     |
| 5. Emory Grove Center                      | 17. Monocacy ES                |
| 6. John Poole MS                           | 18. Lakewood ES                |
| 7. Lakelands Park MS                       | 19. Little Bennett ES          |
| 8. Laytonsville ES                         | 20. Lois P. Rockwell ES        |
| 9. Gaithersburg HS                         | 21. Olney ES                   |
| 10. Neelsville MS                          | 22. North Chevy Chase ES       |
| 11. Sequoyah ES                            | 23. Woodfield ES               |
| 12. Clarksburg ES Annex                    | 24. Wootton HS                 |

---

	Date	Initials
Radon Test Kits Deployed	12/03/2018	ML
Radon Test Kits Sampled	12/06/2018	ML
Radon Test Kits Shipped to Lab*	12/06/2018	ML
Radon Test Kits Received by Lab*	12/07/2018; 12/08/2018	ML

\*All samples sent to AccuStar Laboratories, 929 Mount Zion Road, Lebanon, PA 17046 and 2 Saber Way, Haverhill, MA 01835





## MCPS RADON TESTING

### Executive Summary: Neelsville Middle School

Date of Test Report:	4/15/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	2
# Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	0.5
High Value:	3.3

### Project Status:

Retesting completed; no further action at this time.



April 15, 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 # 12146341.31

Location: Neelsville Middle School  
11700 Neelsville Church Road  
Germantown, MD 20876

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 Neelsville Middle School, located at 11700 Neelsville Church Road in Germantown, Maryland 20876 (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](http://www.montgomerycountymd.gov/dep/air/radon) or [www.epa.gov/radon](http://www.epa.gov/radon).

KCI visited the site on March 8, 2016 and deployed three (3) 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 March 11, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to AccuStar Labs for analysis by gamma-ray spectroscopy. Accustar Labs is a NRSB certified analytical laboratory for radon analysis (certification # ARL0007) located at 929 Mount

Zion Road, Lebanon, Pennsylvania.

**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:

<b>Radon Concentration</b>	<b>Room</b>	<b>Result</b>
$\geq 4.0$ pCi/L	none	n/a
$< 4.0$ pCi/L	See Attachment B	

Notes:  
D- Duplicate sample

The office blank and lab transit blanks had test results of less than the laboratory detection limit of 0.4 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.

Sincerely,



James M. Mouldale  
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 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

\*Office blanks were submitted at a rate of 1% for all samples deployed in Phase 11 testing. Office blanks were not submitted under each school individually.

<b>Radon Testing Results</b>		
<b>Neelsville MS</b>		
<b>Test Period: 03/08/16-03/11/16</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
3028941	213	3.3
3028877	GYM	0.5
3028707	* GYM (Missing)	-

Table Note:

\* Missing or Compromised Sample

# ATTACHMENT C

## Laboratory Analytical Results

NRPP 10511AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 12146341

KCI Technologies  
936 Ridgebrook Rd  
Sparks MD 21152

Neelsville MS  
11700 Neelsville Church Road  
Germantown MD 20876

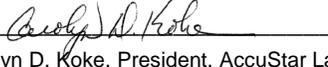
Log Number	Device Number	Test Exposure Duration:		Area Tested	Result (pCi/L)
3016740	3028941	03/08/2016 4:03 pm	03/11/2016 2:47 pm	Unit 213	3.3
3016741	3028877	03/08/2016 4:11 pm	03/11/2016 2:44 pm	Gym	0.5

**Comment:** Device #3028707 was not received with this datasheet. A copy of this report was emailed to tehsin@kci.com.

Distributed by: KCI Technologies, Inc.

Date Received: 03/15/2016    Date Logged: 03/15/2016    Date Analyzed: 03/15/2016    Date Reported: 03/16/2016

Report Reviewed By: 

Report Approved By:   
Carolyn D. Koke, President, AccuStar Labs

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Radon Device Type Open Face Canister

Send Written Report To:

Name KCI Technologies, Inc  
Address 936 Ridgebrook Road  
Address  
City / Town Sparks  
State/Province Postal Code MD 21152  
Report Country Baltimore County  
Email Address tehsin@kci.com

Site Tested:

Site Name NEELSVILLE MS  
Address 11700 NEELSVILLE CHURCH RD  
Address  
City / Town GERMANTOWN  
State/Province Postal Code MD 20876  
Test Country Montgomery County  
Project Number 12146341

Contact Information:

Contact Tehsin Aurangabadwala  
Telephone 410-891-1726  
Technician  
Cert. Number  
Signature

Lab Use Only	Device Number	Building Number	Unit Number	Floor	Name of Room	Start Date mm/dd/yyyy	Start Time hh:mm am / pm	Stop Date mm/dd/yyyy	Stop Time hh:mm am / pm	Lab Use Only
	3078941		213		729	03/08/2016	4:13 PM	03/10/2016	2:47 pm	
	3078767		GYM		GYM 70°F	03/08/2016	4:11 PM	03/10/2016	Missing	
	3078877		GYM		GYM 70°F	03/08/2016	4:11 PM	03/10/2016	2:44 pm	
						03/07/2016		03/10/2016		
						03/07/2016		03/10/2016		
						03/07/2016		03/10/2016		
						03/07/2016		03/10/2016		
						03/07/2016		03/10/2016		
						03/07/2016		03/10/2016		
						03/07/2016		03/10/2016		
						03/07/2016		03/10/2016		

NRPP 10511AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 12146341

KCI Technologies  
936 Ridgebrook Rd  
Sparks MD 21152

MCPS Radon Phase 11 Office Blank

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3016739	3029191	03/08/2016 10:00 am 03/11/2016 10:00 am	Office Blank	<0.4

**Comment:** A copy of this report was emailed to tehsin@kci.com.

Distributed by: KCI Technologies, Inc.

Date Received: 03/15/2016 Date Logged: 03/15/2016 Date Analyzed: 03/15/2016 Date Reported: 03/16/2016

Report Reviewed By: 

Report Approved By: 

Carolyn D. Koke, President, AccuStar Labs

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NRPP 10511AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested:

KCI Technologies  
936 Ridgebrook Rd  
Sparks MD 21152

MCPS  
Transit Blanks

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result (pCi/L)
3010588	3028953	01/19/2016 1:00 pm	01/22/2016 9:30 am	1	< 0.4
3010589	3028955	01/19/2016 1:00 pm	01/22/2016 9:30 am	2	< 0.4
3010590	3028954	01/19/2016 1:00 pm	01/22/2016 9:30 am	3	< 0.4
3010591	3028997	01/19/2016 1:00 pm	01/22/2016 9:30 am	4	< 0.4

**Comment:** AMENDED REPORT for 3028953-8955, 3028997 on 2/22/16 to add all missing information from the blank datasheet. A copy of this report was emailed to james.mouldale@kci.com.

Distributed by: KCI Technologies, Inc.

Date Received: 01/27/2016    Date Logged: 01/27/2016    Date Analyzed: 01/28/2016    Date Reported: 01/28/2016

Report Reviewed By: Christie Bates

Report Approved By: Carolyn D. Koke

Carolyn D. Koke, President, AccuStar Labs

**Disclaimer:**

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Return canisters for analysis to:  
**AccuStar Labs**  
 929 Mt. Zion Rd., Lebanon, PA 17046  
 800-523-4964

RECEIVED JAN 27 2016  
**AccuStar Labs - Lebanon, PA**  
**INFORMATION FORM - Large Buildings -**  
**Projects - Apartments**

Instructions on back of form  
 Read instructions carefully  
 Discrepancies will invalidate tests

**Test Site Info**

Name of Building/Project or Owner: Transit  
 Site Address: Transit  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ County: \_\_\_\_\_  
 Projects Contact Name: Don Coale Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Do not use this form in  
 New Jersey or Florida  
 Call for correct forms.

Multi-Page Report Y-N

LAB USE ONLY	
Wgt. Gain	pCi/L
	204
	204
	204
	204

Detector Serial#	ROOM NAME & NUMBER - LOCATION OF DETECTOR IN ROOM (indicate duplicates and blanks)	Floor	Start Date	Start Time Include AM/PM	Stop Date	Stop Time Include AM/PM
3028953	Transit	1	1/19/16	approx: 00pm 1/23/16		9:30am
8955	Transit	1	1/19/16			
8954	Transit	1	1/19/16			
8997	Transit	1	1/19/16			

1/27/2016

KCI Technologies, Inc.

3010588 3028953 ACPC275B EXP12/31/2018

**Structure Type:** (circle one or more) Basement - Crawlspace - Slab on Grade - Other  
**Test Purpose:** (Circle all that apply) Initial Screening - Follow Up Test - Post Mitigation - Real Estate - Other  
**Building Type:** (Circle One) Residential - Non Residential Private Day Care - Private School Day Care in Public School - Public School

Both Placed by and Retrieved by signatures are required  
 Canisters placed by \_\_\_\_\_ # \_\_\_\_\_  
 Canisters retrieved by \_\_\_\_\_ # \_\_\_\_\_

Send Results To: \_\_\_\_\_  
 Company Name: KCI Tech  
 Address: 936 Ridgebrook  
 City: Sparks State: MD Zip: 21152  
 Phone: 410-599-3826  
 EMAIL Results to: James.Mouldale@kci.com

Were general operating conditions maintained?  
 Yes - No explain if NO  
 Were closed building conditions maintained?  
 Yes - No explain if NO  
 Normal Temp. Yes - No  
 Normal Humidity Yes - No  
 Windy Y-N Rainy Y-N

Make sure information is complete and correct.  
 If a recalculation is requested there is a \$10.00 recalc fee PER Canister.

Mailing: PO Box 990 Jonestown, PA 17038  
 Shipping: 929 Mt Zion Road, Lebanon, PA 17046  
 800-523-4964 fax 717-274-5662  
 NEHA 10511AL NRSB ARL 0007

# TCS INDUSTRIES, INC.

(717) 657-7032

RADON GAS DETECTION

www.radondetek.com

4326 Crestview Road, Harrisburg, PA 17112

James Mouldale  
KCI  
936 Ridgebrook Rd.  
Sparks, MD 21152

April 04, 2016

Dear Mr. Mouldale:

The spike exposure data were:

Start 04/04/16 @ 1110 hrs EDT  
End 04/06/16 @ 1113 hrs EDT

AC 3029218, 3029219, 3029220, 3029217, 3029214, 3029217, and 3029166

Average radon concentration was 10.6 pCi/L +/- 5%

Avg. Temp. was 71F  
Avg. RH was 51%  
Elevation was 490 feet above sea level

Sincerely,



Carl H. Distenfeld, CHP

\*\*\*\*\*  
TCS Radon Chamber NRSB CHM 0002  
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NRPP 10511AL  
NRSB ARL0007

EPA Method #402-R-92-004  
Charcoal Canister  
NRPP Device Code 6048  
NRSB Device Code 10317

Laboratory Report for:

Property Tested:

KCI Technologies  
936 Ridgebrook Rd  
Sparks MD 21152

MCPS  
Radon Spike Sample Laboratory Results

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3020102	3029166	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.9
3020103	3029214	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.5
3020104	3029217	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	10.7
3020105	3029218	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.3
3020106	3029219	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.0
3020107	3029220	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	10.5

**Comment:** A copy of this report was emailed to james.mouldsdale@kci.com.

Distributed by: KCI Technologies, Inc.

Date Received: 04/07/2016 Date Logged: 04/07/2016 Date Analyzed: 04/07/2016 Date Reported: 04/08/2016

**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.

Report Reviewed By: 

Report Approved By:   
Carolyn D. Koke, President, AccuStar Labs

**Disclaimer:**

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.



### MCPS RADON TESTING

#### Executive Summary: Neelsville Middle School

Date of Test Report:	2/17/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	84
# Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	3.1

#### Project Status:

Initial testing completed; missing or compromised samples need re-test.  
Initial testing completed; locked/inaccessible rooms need testing (Gym, Aux Gym).



February 17, 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 # 12146341.25

Location: Neelsville Middle School  
11700 Neelsville Church Road  
Germantown, MD 20876

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 Neelsville Middle School, located at 11700 Neelsville Church Road in Germantown, Maryland 20876 (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](http://www.montgomerycountymd.gov/dep/air/radon) or [www.epa.gov/radon](http://www.epa.gov/radon).

KCI visited the site on January 19, 2016 and deployed one hundred-two (102) 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 January 22, 2016 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:

<b>Radon Concentration</b>	<b>Room</b>	<b>Result</b>
$\geq 4.0$ pCi/L	none	n/a
$< 4.0$ pCi/L	See Attachment B	

Notes:  
D- Duplicate sample

The field blanks, office blanks, 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.

Sincerely,



James M. Mouldale  
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 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

<b>Radon Testing Results</b>		
<b>Neelsville Middle School</b>		
<b>Test Period: 01/19/16-01/22/16</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
7718722	100	< 0.3
7718723	101	0.6
7718724	102	0.7
7718725	103	2.1
7718726	104	1.6
7718729	105	1.3
7718730	105	1
7718731	106	1.8
7718718	107	< 0.3
7718717	108	0.6
7718716	109	0.9
7718715	110	0.7
7718710	111	0.7
7718704	112	< 0.3
7718702	113	< 0.3
7718701	114	< 0.3
7718703	115	< 0.3
7718705	116	< 0.3
7718707	117	< 0.3
7718713	120	2.2
7718711	121	1.6
7718708	122	2.1
7718734	207	1
7718740	208	0.9
7718742	211	3.1
7718743	212	2.5
7718777	214	< 0.3
7718745	216	0.9
7718747	217	0.9
7718749	218	< 0.3
7718751	219	< 0.3
7718753	220	< 0.3
7718754	221	< 0.3
7718755	222	0.6
7718756	223	< 0.3
7718757	224	0.5
7718776	225	1
7718758	226	0.6
7718759	227	< 0.3
7718760	228	< 0.3
7718761	229	< 0.3
7718762	230	< 0.3
7718763	231	0.6
7718764	232	0.5
7718765	233	0.6
7718767	234	0.6

Table Note:

\* Missing or Compromised Sample

<b>Radon Testing Results</b>		
<b>Neelsville Middle School</b>		
<b>Test Period: 01/19/16-01/22/16</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
7718768	235	< 0.3
7718769	236	< 0.3
7718770	237	0.8
7718775	238	1
7718738	239	0.8
7718771	240	1.2
7718772	241	0.8
7718773	242	0.8
7718774	243	0.8
7718739	244	1
7718778	245	0.6
7718780	246	0.8
7718781	247	1
7718782	248	0.6
7718783	249	< 0.3
7718784	250	< 0.3
7718785	251	1
7718706	116A	< 0.3
7718709	121 B	2.3
7718733	206 ART	0.7
7718741	210 ART	< 0.3
7718744	* 213 (missing)	0
7718799	ASP RM	0.8
7718720	CAFE	1.2
7718721	CAFE	1.9
7718787	GUI A	< 0.3
7718788	GUI B	0.5
7718790	GUI D	0.6
7718791	GUI E	< 0.3
7718786	GUI MAIN	0.6
7718795	HR	0.7
7718793	HR MAIN	0.7
7718794	HR OFFICE	0.7
7718796	MAIN OFFICE	1.1
7718735	MEDIA CENTER	0.7
7718736	MEDIA CENTER	0.8
7718737	MEDIA CENTER OFF	2.2
7718798	P RM	0.7
7718719	SECURITY RM	0.9
7718732	STAFF LOUNGE	0.7
7718797	WORK RM	0.6

Table Note:

\* Missing or Compromised Sample

<b>Radon Testing Results</b>		
<b>Neelsville Middle School</b>		
<b>Test Period: 01/19/16-01/22/16</b>		
<b>Kit Number</b>	<b>QC Type</b>	<b>Result</b>
7718727	D (104)	1.7
7718714	D (120)	2
7718712	D (121)	1.8
7718746	D (216)	< 0.3
7718750	D (218)	< 0.3
7718766	D (233)	< 0.3
7718779	D (245)	0.6
7718800	D (ASP RM)	0.8
7718789	D (GUI C)	< 0.3
7718792	D (GUI E)	0.7
7718728	FB (104)	< 0.3
7718748	FB (217)	< 0.3
7718752	FB (219)	< 0.3
7722180	OB (0)	< 0.3
7722187	OB (0)	< 0.3

Table Note:

\* Missing or Compromised Sample

# ATTACHMENT C

## Laboratory Analytical Results

February 11, 2016 **LABORATORY ANALYSIS REPORT** \*\*

Radon test result report for:  
**NEELSVILLE MIDDLE SCHOOL  
 MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7722180	0	2016-01-19 @ 5:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7722187	0	2016-01-19 @ 5:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7718722	100	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718723	101	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	0.6 ± 0.3	2016-01-26
7718724	102	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-27
7718725	103	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	2.1 ± 0.4	2016-01-26
7718726	104	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	1.6 ± 0.3	2016-01-26
7718728	104	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718727	104	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	1.7 ± 0.4	2016-01-27
7718730	105	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	1.0 ± 0.3	2016-01-26
7718729	105	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	1.3 ± 0.4	2016-01-27
7718731	106	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	1.8 ± 0.4	2016-01-26
7718718	107	2016-01-19 @ 10:00 am	2016-01-22 @ 5:00 am	< 0.3	2016-01-26
7718717	108	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	0.6 ± 0.3	2016-01-26
7718716	109	2016-01-19 @ 10:00 am	2016-01-22 @ 5:00 am	0.9 ± 0.3	2016-01-26
7718715	110	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26
7718710	111	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-27
7718704	112	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-27
7718702	113	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718701	114	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718703	115	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718705	116	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718706	116A	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718707	117	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-27
7718713	120	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	2.2 ± 0.4	2016-01-27
7718714	120	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	2.0 ± 0.4	2016-01-27
7718711	121	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	1.6 ± 0.3	2016-01-26
7718712	121	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	1.8 ± 0.4	2016-01-26
7718709	121 B	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	2.3 ± 0.4	2016-01-26
7718708	122	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	2.1 ± 0.4	2016-01-27
7718733	206 ART	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26
7718734	207	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	1.0 ± 0.3	2016-01-26
7718740	208	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	0.9 ± 0.3	2016-01-26
7718741	210 ART	2016-01-19 @ 11:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718742	211	2016-01-19 @ 11:00 am	2016-01-22 @ 6:00 am	3.1 ± 0.4	2016-01-26
7718743	212	2016-01-19 @ 11:00 am	2016-01-22 @ 6:00 am	2.5 ± 0.4	2016-01-26
7718744	213	@	@		

February 11, 2016 **LABORATORY ANALYSIS REPORT \*\***

Radon test result report for:  
**NEELSVILLE MIDDLE SCHOOL  
 MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7718777	214	2016-01-19 @ 12:00 pm	2016-01-22 @ 6:00 am	< 0.3	2016-01-27
7718746	216	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718745	216	2016-01-19 @ 11:00 am	2016-01-22 @ 6:00 am	0.9 ± 0.3	2016-01-27
7718747	217	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	0.9 ± 0.3	2016-01-26
7718748	217	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718749	218	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718750	218	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718751	219	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718752	219	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718753	220	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718754	221	2016-01-19 @ 11:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-27
7718755	222	2016-01-19 @ 11:00 am	2016-01-22 @ 6:00 am	0.6 ± 0.3	2016-01-27
7718756	223	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718757	224	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	0.5 ± 0.3	2016-01-26
7718776	225	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	1.0 ± 0.3	2016-01-26
7718758	226	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	0.6 ± 0.3	2016-01-26
7718759	227	2016-01-19 @ 11:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718760	228	2016-01-19 @ 11:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718761	229	2016-01-19 @ 11:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718762	230	2016-01-19 @ 12:00 pm	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718763	231	2016-01-19 @ 12:00 pm	2016-01-22 @ 6:00 am	0.6 ± 0.3	2016-01-26
7718764	232	2016-01-19 @ 12:00 pm	2016-01-22 @ 6:00 am	0.5 ± 0.3	2016-01-26
7718765	233	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	0.6 ± 0.3	2016-01-26
7718766	233	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718767	234	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	0.6 ± 0.3	2016-01-26
7718768	235	2016-01-19 @ 12:00 pm	2016-01-22 @ 6:00 am	< 0.3	2016-01-27
7718769	236	2016-01-19 @ 12:00 pm	2016-01-22 @ 6:00 am	< 0.3	2016-01-27
7718770	237	2016-01-19 @ 12:00 pm	2016-01-22 @ 6:00 am	0.8 ± 0.3	2016-01-26
7718775	238	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	1.0 ± 0.3	2016-01-26
7718738	239	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	0.8 ± 0.3	2016-01-26
7718771	240	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	1.2 ± 0.3	2016-01-26
7718772	241	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	0.8 ± 0.3	2016-01-26
7718773	242	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	0.8 ± 0.3	2016-01-26
7718774	243	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	0.8 ± 0.3	2016-01-26
7718739	244	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	1.0 ± 0.3	2016-01-26
7718778	245	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	0.6 ± 0.3	2016-01-26
7718779	245	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	0.6 ± 0.3	2016-01-26

February 11, 2016  
**LABORATORY ANALYSIS  
REPORT \*\***

Radon test result report for:  
**NEELSVILLE MIDDLE SCHOOL  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7718780	246	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	0.8 ± 0.3	2016-01-26
7718781	247	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	1.0 ± 0.3	2016-01-26
7718782	248	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	0.6 ± 0.3	2016-01-26
7718783	249	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718784	250	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7718785	251	2016-01-19 @ 12:00 pm	2016-01-22 @ 7:00 am	1.0 ± 0.3	2016-01-26
7718799	ASP RM	2016-01-19 @ 1:00 pm	2016-01-22 @ 7:00 am	0.8 ± 0.3	2016-01-26
7718800	ASP RM	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	0.8 ± 0.3	2016-01-27
7718720	CAFE	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	1.2 ± 0.3	2016-01-26
7718721	CAFE	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	1.9 ± 0.4	2016-01-26
7718787	GUI A	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	< 0.3	2016-01-27
7718788	GUI B	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	0.5 ± 0.3	2016-01-26
7718789	GUI C	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718790	GUI D	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	0.6 ± 0.3	2016-01-26
7718791	GUI E	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7718792	GUI E	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26
7718786	GUI MAIN	2016-01-19 @ 12:00 pm	2016-01-22 @ 6:00 am	0.6 ± 0.3	2016-01-26
7718795	HR	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-27
7718793	HR MAIN	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26
7718794	HR OFFICE	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-27
7718796	MAIN OFFICE	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	1.1 ± 0.3	2016-01-27
7718735	MEDIA CENTER	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	0.7 ± 0.3	2016-01-26
7718736	MEDIA CENTER	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	0.8 ± 0.3	2016-01-26
7718737	MEDIA CENTER OFF	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	2.2 ± 0.4	2016-01-26
7718798	P RM	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26
7718719	SECURITY RM	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	0.9 ± 0.3	2016-01-26
7718732	STAFF LOUNGE	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-27
7718797	WORK RM	2016-01-19 @ 1:00 pm	2016-01-22 @ 6:00 am	0.6 ± 0.3	2016-01-27

February 2, 2016  
**LABORATORY ANALYSIS REPORT**

Radon test result report for:  
**MCPS PHASE 5 & 6 TRANSIT BLANKS**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7722194	1	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718494	10	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718475	11	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718495	12	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718496	13	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718497	14	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718498	15	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718499	16	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718500	17	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718296	18	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718295	19	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722195	2	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716789	20	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716785	21	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-26
7716791	22	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716786	23	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716793	24	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718274	25	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716792	26	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718294	27	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718293	28	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718292	29	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722197	3	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718290	30	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722198	4	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722199	5	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722211	6	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718491	7	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718476	8	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-26
7718479	9	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27

February  
15,  
2016

**\*\*LABORATORY ANALYSIS  
REPORT \*\***

Spike Sample Laboratory Results

Radon test result report for:  
**MCPS**

<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
7718273	101A	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.5 ± 0.6	2016-02-04
7718281	102B	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.4 ± 0.6	2016-02-04
7718282	103C	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.3 ± 0.6	2016-02-04
7718288	104D	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.7 ± 0.6	2016-02-04
7718289	105E	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.6 ± 0.6	2016-02-04
7718291	106F	2016-01-30 @ 9:00 am	2016-02-01 @ 9:00 am	6.5 ± 0.6	2016-02-04

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

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 KCF Technologies Inc. Job Number 173704

NOMINAL Conditions: Radon Conc 5.9 pCi/L Rel. Hum 45.9 % Temp. 79.0 F

Date Start: 11/30/16 Date Stop: 2/1/16 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0926 Time Stop: 0926 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (6) Char. Bags - Device No.'s: \_\_\_\_\_

7718281, 7718282, 7718291, \_\_\_\_\_

7718288, 7718289, 7718273 \_\_\_\_\_

ε3 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  $\mu$ R/h Elevation = 820 ft



### Chain of Custody

Project Name: MCPS Radon Phase VI

Name of Schools:

- |                          |                              |                           |
|--------------------------|------------------------------|---------------------------|
| 1. Francis Scott Key MS  | 12. Little Bennett ES        | 23. Rolling Terrace ES    |
| 2. Gaithersburg ES       | 13. Loiderman MS             | 24. Roscoe Nix ES         |
| 3. Gaithersburg MS       | 14. Longview ES              | 25. Sally K. Ride ES      |
| 4. Galway ES             | 15. Meadow Hall ES           | 26. Spark Matsunaga ES    |
| 5. Great Seneca Creek ES | 16. Neelsville MS            | 27. Tacoma Park ES        |
| 6. Harmony Hills ES      | 17. New Hampshire Estates ES | 28. Thomas Pyle MS        |
| 7. John Poole MS         | 18. North Bethesda MS        | 29. Wayside ES            |
| 8. Judith A. Resnik ES   | 19. Northwest HS             | 30. Westbrook ES (retest) |
| 9. Kemp Mill ES          | 20. Pine Crest ES            | 31. Westland MS (retest)  |
| 10. Kingsview MS         | 21. Radnor Center            | 32. William B. Gibbs ES   |
| 11. Lakelands Park MS    | 22. Ritchie Park ES          | 33. William Tyler Page ES |

	Date	Initials
Radon Test Kits Deployed	1/19/16	JM
Radon Test Kits Sampled	1/22/16	JM
Radon Test Kits Shipped to Lab*	1/22/16	JM
Radon Test Kits Received by Lab*	1/26/16	JM

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

