



## School / Facility Radon Testing Report Form

**Instructions:** Submit one testing report form per-facility per-round of testing. Include the following as attachments:

Attachment 1- Summary Data Tables – containing the following: (see attached samples tables)

- Testing Results – lab/detector Identification, by room number/name (alpha-numeric order) as depicted on facility map/floor plan provided by the facility/school at the time of test device deployment;
- Summary Results – list of rooms by test result  $\geq 2.0$ -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.

School Year: **23-24**

Facility:	Thomas W. Pyle Middle School
Address:	6311 Wilson Lane
	Bethesda, MD 20817

Reason for Testing:	<input checked="" type="checkbox"/> Scheduled Re-Testing (2 or 5-year schedule) <input type="checkbox"/> Clearance Testing (Post-Mitigation) <input type="checkbox"/> System(s) Performance Testing (Post-Mitigation) <input type="checkbox"/> New Construction/Facility
Facility Current Radon Status:	<input type="checkbox"/> Active Mitigation (2-year regular schedule) <input checked="" type="checkbox"/> No Active Mitigation (5-year regular schedule) <input type="checkbox"/> Not Previously Tested
Round of Testing:	<input checked="" type="checkbox"/> Initial Testing <b>-or-</b> <input type="checkbox"/> Follow-up Testing
Testing Status:	<input checked="" type="checkbox"/> No Further Testing Needed <b>-or-</b> <input type="checkbox"/> Follow-Up Testing Required

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

Mitigation -	Facility Radon Status:
<input checked="" type="checkbox"/> Not Required or Considered <input type="checkbox"/> Required ( $>8.0$ -pCi/L) <input type="checkbox"/> Required ( $\geq 4.0$ -pCi/L) <input type="checkbox"/> Consider ( $\geq 2.0$ & $<4.0$ -pCi/L)	<input checked="" type="checkbox"/> No Change in Status <input type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule)

**Detector and Deployment**

Detector/Device Type:	<input checked="" type="checkbox"/> Passive	<input checked="" type="checkbox"/> Charcoal Absorption (CAD)	<input type="checkbox"/> Alpha Track (ATD)	<input type="checkbox"/> Other
	<input type="checkbox"/> Continuous	<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	
John Adams			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	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	01/23/24
<input type="checkbox"/> Long-Term				01/26/24
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)

	Detectors Deployed		
	Ground-Contact	Upper-Level(s)	Total
Test Locations <sup>1</sup>	87	6	93
Duplicates <sup>2</sup>	8	1	9
Field Blanks <sup>3</sup>	4	1	5
Grand Total			107

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.

Spike Samples <sup>1</sup>	6	Trip Blank(s) <sup>2</sup>	1	Office Blank(s) <sup>3,4</sup>	1
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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.

Spike Sample Lab Results. Measured values are satisfactory, i.e., within ± 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 QA plan previously submitted?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

	Ground-Contact	Upper-Level(s)	Total
Number of test locations:	87	6	93
Number of locations ≥8.0-pCi/L:	0	0	0
Number of locations ≥4.0 and ≤8-pCi/L:	0	0	0
Number of locations ≥2.7 and ≤4-pCi/L:	0	0	0
Number of locations ≥2.0 and ≤4-pCi/L:	0	0	0
Number of missing required test locations <sup>3</sup> :	1	0	1
Percentage of missing test locations for the facility <sup>4,5</sup> :	1.1%	0	1.1%

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 ≥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;

5 – 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.

**Summary of Test Results<sup>1</sup> and Determination of Valid Measurements<sup>2</sup> (continued)**

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
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
<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</b> , were all results obtained under 4.0-pCi/L <b>and</b> were there sufficient valid measurements obtained? <sup>1,2</sup> <i>If Yes – then Testing Status - ‘No Further Testing Needed’ complete Conclusion section</i> <i>If No, then Testing Status - ‘Follow-up Testing Required’ continue below</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input 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.

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

**Follow-Up Testing (if required)**

Required if –

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

Follow-up Testing:

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

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

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

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

<b>Table 1- Radon Testing Results</b>		
<b>Thomas W. Pyle Middle School</b>		
<b>Test Period: 01/23/2024 - 01/26/2024</b>		
Kit Number	Room / Area	Result
11284739	39	< 0.3
11284738	40	< 0.3
11284752	41	< 0.3
11284750	42	< 0.3
11284748	43	< 0.3
11284747	44	0.8
11284457	102	< 0.3
11284456	110	< 0.3
11284726	111	0.9
11284455	112	0.8
11284736	113	< 0.3
11284481	114	0.7
11284732	115	< 0.3
11284474	116	< 0.3
11284475	116	0.6
11284476	116	< 0.3
11284472	117	< 0.3
11284473	117	< 0.3
11284727	120	< 0.3
11284737	120	N/A
11284492	121	< 0.3
11284499	123	< 0.3
11284500	125	0.7
11284495	127	< 0.3
11284735	128	0.7
11284494	129	0.9
11284734	130	1.0
11284491	131	< 0.3
11284733	132	< 0.3
11284729	134	< 0.3
11284730	134	< 0.3
11284731	134	< 0.3
11284711	135	< 0.3
11284710	137	< 0.3
11284712	137	< 0.3
11284709	139	< 0.3
11284708	141	0.6
11284714	142	0.9

<b>Table 1- Radon Testing Results</b>		
<b>Thomas W. Pyle Middle School</b>		
<b>Test Period: 01/23/2024 - 01/26/2024</b>		
11284720	142	< 0.3
11284707	143	< 0.3
11284706	145	< 0.3
11284718	146	< 0.3
11284722	148	< 0.3
11284723	148	< 0.3
11284724	148	< 0.3
11284702	150	< 0.3
11284704	151	< 0.3
11284703	152	0.6
11284705	153	< 0.3
11284758	216	< 0.3
11284759	230	< 0.3
11284753	240	< 0.3
11284754	245	< 0.3
11284755	251	< 0.3
11284756	251	0.6
11284757	251	< 0.3
11284760	307	< 0.3
11284462	100A	< 0.3
11284463	100B	< 0.3
11284464	100C	0.6
11284461	100E	0.7
11284460	100G	< 0.3
11284459	100H	< 0.3
11284458	100K	0.7
11284470	102A	< 0.3
11284471	102A	< 0.3
11284469	102D	< 0.3
11284468	102E	< 0.3
11284467	102F	< 0.3
11284466	102G	< 0.3
11284465	102H	< 0.3
11284741	117Y	< 0.3
11284742	117Y	< 0.3
11284479	118B	0.7
11284477	118D	0.8
11284478	118E	0.8
11284482	118I	1.2
11284486	118K	1.1



<b>Table 1- Radon Testing Results</b>		
<b>Thomas W. Pyle Middle School</b>		
<b>Test Period: 01/23/2024 - 01/26/2024</b>		
11284487	118P	0.9
11284488	118P	0.6
11284484	118T	0.5
11284485	118T	< 0.3
11284745	119I	< 0.3
11284483	119L	< 0.3
11284493	119R	< 0.3
11284746	120B	< 0.3
11284496	125A	< 0.3
11284497	125A	< 0.3
11284498	125A	< 0.3
11284490	133A	< 0.3
11284489	133B	< 0.3
11284701	133C	< 0.3
11284728	134D	< 0.3
11284721	142A	0.7
11284716	142B	0.7
11284725	142B	0.7
11284719	144A	< 0.3
11284717	144B	0.8
11284715	144C	< 0.3
11284480	17M	< 0.3
11284751	41A	< 0.3
11284749	43C	0.6
11284740	BOYS LOCKER ROOM	< 0.3
11284744	GIRLS GYM COACH OFFICE	< 0.3
11284743	GYM CONF ROOM	< 0.3
11284451	MAIN OFFICE	0.6
11284713	MEDIA CENTER OFFICE	< 0.3



<b>Table 3 - QC Radon Testing Results</b>			
<b>Thomas W. Pyle Middle School</b>			
<b>Test Period: 01/23/2024 - 01/26/2024</b>			
<b>Kit Number</b>	<b>QC Type</b>	<b>Room / Area</b>	<b>Result</b>
11284470	D	102a	< 0.3
11284475	D	116	0.6
11284474	FB	116	< 0.3
11284730	D	134	< 0.3
11284729	FB	134	< 0.3
11284710	D	137	< 0.3
11284723	D	148	< 0.3
11284722	FB	148	< 0.3
11284756	D	251	0.6
11284757	FB	251	< 0.3
11284487	D	118p	0.9
11284496	D	125a	< 0.3
11284497	FB	125a	< 0.3
11284725	D	142b	0.7
11463691	OB	OFFICE BLANK	< 0.3
11463647	TB	TRAVEL BLANK	< 0.3



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

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11284462	100A	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284463	100B	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284464	100C	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	0.6 ± 0.4	2024-01-31
11284461	100E	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	0.7 ± 0.4	2024-01-31
11284460	100G	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284459	100H	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284458	100K	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	0.7 ± 0.4	2024-01-31
11284457	102	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284470	102A	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284471	102A	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284469	102D	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284468	102E	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284467	102F	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284466	102G	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284465	102H	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284456	110	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284726	111	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	0.9 ± 0.4	2024-01-31
11284455	112	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	0.8 ± 0.4	2024-01-31
11284736	113	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284481	114	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	0.7 ± 0.4	2024-01-31
11284732	115	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284474	116	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284476	116	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284475	116	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	0.6 ± 0.4	2024-01-31
11284472	117	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284473	117	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284742	117Y	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284741	117Y	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284479	118B	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	0.7 ± 0.4	2024-01-31
11284477	118D	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	0.8 ± 0.4	2024-01-31
11284478	118E	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	0.8 ± 0.4	2024-01-31
11284482	118I	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	1.2 ± 0.4	2024-01-31
11284486	118K	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	1.1 ± 0.4	2024-01-31
11284487	118P	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	0.9 ± 0.4	2024-01-31
11284488	118P	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	0.6 ± 0.4	2024-01-31
11284484	118T	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	0.5 ± 0.4	2024-01-31
11284485	118T	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11284745	119I	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284483	119L	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284493	119R	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284727	120	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284746	120B	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284492	121	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284499	123	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284500	125	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	0.7 ± 0.4	2024-01-31
11284498	125A	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284496	125A	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284497	125A	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284495	127	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284735	128	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	0.7 ± 0.4	2024-01-31
11284494	129	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	0.9 ± 0.4	2024-01-31
11284734	130	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	1.0 ± 0.4	2024-01-31
11284491	131	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284733	132	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284490	133A	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284489	133B	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284701	133C	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284731	134	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284730	134	2024-01-23 @ 2:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284729	134	2024-01-23 @ 2:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284728	134D	2024-01-23 @ 2:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284711	135	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284712	137	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284710	137	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284709	139	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284708	141	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	0.6 ± 0.4	2024-01-31
11284714	142	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	0.9 ± 0.4	2024-01-31
11284720	142	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284721	142A	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	0.7 ± 0.4	2024-01-31
11284725	142B	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	0.7 ± 0.4	2024-01-31
11284716	142B	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	0.7 ± 0.4	2024-01-31
11284707	143	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284719	144A	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284717	144B	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	0.8 ± 0.4	2024-01-31

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11284715	144C	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284706	145	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284718	146	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284723	148	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284722	148	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284724	148	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284702	150	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284704	151	2024-01-23 @ 1:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284703	152	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	0.6 ± 0.4	2024-01-31
11284705	153	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31
11284480	17M	2024-01-23 @ 12:00 pm	2024-01-26 @ 9:00 am	< 0.3	2024-01-31
11284758	216	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284759	230	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284753	240	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284754	245	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284755	251	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284757	251	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284756	251	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	0.6 ± 0.4	2024-01-31
11284760	307	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284739	39	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284738	40	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284752	41	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284751	41A	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284750	42	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284748	43	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284749	43C	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	0.6 ± 0.4	2024-01-31
11284747	44	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	0.8 ± 0.4	2024-01-31
11284740	BOYS LOCKER ROOM	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284744	GIRLS GYM COACH OFFICE	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284743	GYM CONF ROOM	2024-01-23 @ 3:00 pm	2024-01-26 @ 11:00 am	< 0.3	2024-01-31
11284451	MAIN OFFICE	2024-01-23 @ 11:00 am	2024-01-26 @ 9:00 am	0.6 ± 0.4	2024-01-31
11284713	MEDIA CENTER OFFICE	2024-01-23 @ 2:00 pm	2024-01-26 @ 10:00 am	< 0.3	2024-01-31



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January 30, 2024

**\*\* 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>
11463691	OB	2024-01-23 @ 8:00 am	2024-01-26 @ 2:00 pm	< 0.3	2024-01-30
11463647	TB	2024-01-23 @ 8:00 am	2024-01-26 @ 2:00 pm	< 0.3	2024-01-30

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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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January 29, 2024

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

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Radon test result report for:  
**STORAGE**  
**KCI**

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

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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 213327

NOMINAL Conditions: Radon Conc 49.5 pCi/L Rel. Hum 24.7 % Temp. 69.8 F

Date Start: 1/19/24 Date Stop: 1/22/24 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0831 Time Stop: 0831 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (6) CHAR BAGS - Device No.'s: \_\_\_\_\_

11284003, 11284005, 11284006

11284007, 11284008, 11284013

F3 Left

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

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

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

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

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

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

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

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January 29, 2024

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

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Radon test result report for:  
**BOWSER MORNER  
MAIN**

---

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

---

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 January 23<sup>rd</sup> to January 26<sup>th</sup>

Name of Schools:

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

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

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



### Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing January 22<sup>nd</sup> to January 25<sup>th</sup>

Name of Schools:

1. Fields Road ES
2. Germantown ES
3. Highland View ES
4. Westbrook ES
5. John T. Baker MS
6. Herbert Hoover MS

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	Date	Initials
Radon Test Kits Deployed	01/22/2024	BMM
Radon Test Kits Collected	01/25/2024	BMM
Radon Test Kits Shipped to Lab*	01/25/2024	BMM
Radon Test Kits Received by Lab*	01/29/2024	BMM

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

**Attachment 3:**  
**Sampling Location Map**



**MCPS RADON TESTING – EXECUTIVE SUMMARY**

Site Name	Thomas Pyle Middle School
Date of Test Report	2/21/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	89
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.3 pCi/L

Project Status:

Initial testing completed; Testing complete, no further action needed.





February 21, 2022

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

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

Location: Thomas Pyle Middle School  
6311 Wilson Lane  
Bethesda, MD 20817

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 Thomas Pyle Middle School, located at 6311 Wilson Lane Bethesda, MD 20817 (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 January 18, 2022 and deployed one hundred and four (104) 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 January 21, 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 initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

KCI recorded observations of the following conditions in each room 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 30s and high temperatures ranged from the mid 30s to the mid 40s Fahrenheit. Maximum sustained winds ranged from 7-20 miles per hour. Average humidity was around 50% with .05 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	

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

Our professional services have been performed in accordance with customary principles and practices in the field of industrial hygiene and engineering. If you have any questions or comments regarding this report, please feel free to contact me at (410) 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		
Thomas Pyle MS		
Test Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result
11106815	39	< 0.3
11106802	40	< 0.3
11106808	40	< 0.3
11106829	41	< 0.3
11106822	42	< 0.3
11106804	43	0.8
11106827	44	1.3
11106887	101	< 0.3
11106848	102	< 0.3
11106831	110	< 0.3
11106865	111	< 0.3
11106850	112	< 0.3
11106864	112	< 0.3
11106842	113	< 0.3
11106839	114	< 0.3
11106876	114	< 0.3
11106874	115	< 0.3
11106832	116	< 0.3
11106843	121	< 0.3
11106844	123	< 0.3
11106846	125	< 0.3
11106852	127	< 0.3
11106838	128	0.6
11106807	129	< 0.3
11106826	129	< 0.3
11106851	130	0.6
11106926	132	0.6
11106918	134	< 0.3
11106825	135	< 0.3
11106834	137	< 0.3
11106917	138	< 0.3
11106813	139	< 0.3
11106920	140	0.6
11106805	141	< 0.3
11106806	143	< 0.3
11106817	145	0.5
11106818	145	< 0.3
11106814	146	< 0.3
11106821	146	< 0.3
11106828	148	< 0.3
11106835	149	< 0.3
11106811	150	< 0.3

Table 1- Radon Testing Results		
Thomas Pyle MS		
Test Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result
11106820	151	0.6
11106819	152	0.6
11106812	153	< 0.3
11106882	208	< 0.3
11106878	216	< 0.3
11106890	244	< 0.3
11106883	303	< 0.3
11106924	100A	< 0.3
11106909	100B	< 0.3
11106928	100C	< 0.3
11106910	100E	< 0.3
11106912	100G	0.6
11106929	100H	< 0.3
11106923	100K	< 0.3
11106877	102A	< 0.3
11106803	102D	0.6
11106840	102E	< 0.3
11106849	102E	< 0.3
11106847	102F	< 0.3
11106873	102G	< 0.3
11106870	102H	0.6
11106860	117Y	< 0.3
11106867	118B	< 0.3
11106841	118E	0.7
11106862	118P	< 0.3
11106824	119G	< 0.3
11106853	119G	< 0.3
11106809	119I	< 0.3
11106823	119L	< 0.3
11106845	119L	< 0.3
11106884	119R	< 0.3
11106891	119R	< 0.3
11106833	120B	< 0.3
11106859	125A	< 0.3
11106810	131A	0.8
11106885	133A	< 0.3
11106886	133A	< 0.3
11106801	133B	< 0.3
11106816	133C	< 0.3
11106919	134C	< 0.3
11106913	134D	< 0.3
11106927	134D	< 0.3



Table 1- Radon Testing Results		
Thomas Pyle MS		
Test Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result
11106925	140B	< 0.3
11106915	144A	< 0.3
11106922	144A	< 0.3
11106921	144C	0.5
11106881	222B	< 0.3
11106837	36A	< 0.3
11106830	41A	< 0.3
11106836	41A	< 0.3
11106875	BACK GYM	< 0.3
11106861	BOYS LR	< 0.3
11106858	CAFE	< 0.3
11106866	CAFE	< 0.3
11106854	GYM	0.6
11106857	GYM	< 0.3
11106868	GYM	< 0.3
11106869	GYM BR	< 0.3
11106908	MAIN OFFICE	< 0.3
11106914	MC	0.6
11106916	MC	< 0.3
11106907	MC OFFICE	< 0.3

Table 2- Radon Testing Results			
Thomas Pyle MS			
Test Period: 01/18/22-01/21/22			
Kit Number	QC Type	Room / Area	Result
11106927	D	134d	< 0.3
11106915	FB	144a	< 0.3
11106814	D	146	< 0.3
11106818	D	145	< 0.3
11106836	D	41a	< 0.3
11106808	FB	40	< 0.3
11106826	D	129	< 0.3
11106823	D	119L	< 0.3
11106824	FB	119G	< 0.3
11106868	D	Gym	< 0.3
11106839	D	114	< 0.3
11106864	FB	112	< 0.3
11106840	D	102e	< 0.3
11106891	D	119r	< 0.3
11106886	FB	133a	< 0.3
11106397	OB	OFFICE BLANK	< 0.3
11106400	FB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Thomas Pyle MS		
Test Period: 01/18/22-01/21/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and $\geq 4$ piC/L Tests		
Thomas Pyle MS		
Test Period: 01/18/22-01/21/22		
Kit Number	Room/Area	Result
	NA	

Table Note:  
\* Missing or Compromised Sample

# ATTACHMENT C

## Laboratory Analytical Results

Radon test result report for:  
**THOMAS PYLE MS**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106924	100A	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106909	100B	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106928	100C	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106910	100E	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106912	100G	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106929	100H	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106923	100K	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106887	101	2022-01-18 @ 1:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106848	102	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106877	102A	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106803	102D	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	0.6 ± 0.4	2022-01-26
11106849	102E	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106840	102E	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106847	102F	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106873	102G	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106870	102H	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	0.6 ± 0.4	2022-01-26
11106831	110	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106865	111	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106850	112	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106864	112	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106842	113	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106839	114	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106876	114	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106874	115	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106832	116	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106860	117Y	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106867	118B	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106841	118E	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	0.7 ± 0.4	2022-01-26
11106862	118P	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106824	119G	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106853	119G	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106809	119I	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106823	119L	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106845	119L	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106891	119R	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106884	119R	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106833	120B	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26

Radon test result report for:  
**THOMAS PYLE MS**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106843	121	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106844	123	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106846	125	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106859	125A	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106852	127	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106838	128	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	0.6 ± 0.4	2022-01-26
11106807	129	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106826	129	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106851	130	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	0.6 ± 0.4	2022-01-26
11106810	131A	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	0.8 ± 0.4	2022-01-26
11106926	132	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106885	133A	2022-01-18 @ 1:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106886	133A	2022-01-18 @ 1:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106801	133B	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106816	133C	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106918	134	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106919	134C	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106913	134D	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106927	134D	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106825	135	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106834	137	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106917	138	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106813	139	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106920	140	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106925	140B	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106805	141	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106806	143	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106915	144A	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106922	144A	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106921	144C	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	0.5 ± 0.4	2022-01-26
11106817	145	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	0.5 ± 0.4	2022-01-26
11106818	145	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106814	146	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106821	146	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106828	148	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106835	149	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106811	150	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26

Radon test result report for:  
**THOMAS PYLE MS**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106820	151	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106819	152	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106812	153	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106882	208	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106878	216	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106881	222B	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106890	244	2022-01-18 @ 1:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106883	303	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106837	36A	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106815	39	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106808	40	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106802	40	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106829	41	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106836	41A	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106830	41A	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106822	42	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106804	43	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	0.8 ± 0.4	2022-01-26
11106827	44	2022-01-18 @ 11:00 am	2022-01-21 @ 10:00 am	1.3 ± 0.4	2022-01-26
11106875	BACK GYM	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106861	BOYS LR	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106866	CAFE	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106858	CAFE	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106854	GYM	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	0.6 ± 0.4	2022-01-26
11106857	GYM	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106868	GYM	2022-01-18 @ 12:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106869	GYM BR	2022-01-18 @ 11:00 am	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106908	MAIN OFFICE	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106914	MC	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106916	MC	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106907	MC OFFICE	2022-01-18 @ 10:00 am	2022-01-21 @ 10:00 am	< 0.3	2022-01-26

**EXPOSURE IN BOWSER-MORNER RADON CHAMBER**

CLIENT KCI Technologies, Inc. Job Number 203404

NOMINAL Conditions: Radon Conc 16.2 pCi/L Rel. Hum 28.8 % Temp. 59.9 F

Date Start: 12/24/21 Date Stop: 12/27/21 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0809 Time Stop: 0809 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (2) Char Bags - Device No.'s: \_\_\_\_\_

9341721, 9341722

64 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**



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December 31, 2021

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

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Radon test result report for:

**SK**  
**MA** MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within  $\pm 25\%$  of the chamber's reference value (16.2 pCi/L).

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
9341721	1	2021-12-24 @ 8:00 am	2021-12-27 @ 8:00 am	11.6 $\pm$ 0.9	2021-12-31
9341722	1	2021-12-24 @ 8:00 am	2021-12-27 @ 8:00 am	15.4 $\pm$ 1.2	2021-12-31

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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 – January 2022 Schools

Name of Schools:

1. Poolesville ES
2. Rosa Parks MS
3. Seven Locks ES
4. Somerset ES
5. Thomas Pyle MS
6. Walt Whitman HS
7. Walter Johnson HS
8. Westland MS
9. Wyngate ES

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	Date	Initials
Radon Test Kits Deployed	01/18/2022	JM
Radon Test Kits Collected	01/21/2022	JM
Radon Test Kits Shipped to Lab*	01/21/2022	JM
Radon Test Kits Received by Lab*	01/23/2022	JM

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

RADON SCREENING SURVEY – FOLLOW-UP THOMAS W. PYLE MIDDLE SCHOOL

6311 Wilson Lane, Bethesda, Maryland 20817

EXECUTIVE SUMMARY

Date of Test Report:	3/29/16 Follow-Up
Round of Testing:	Initial <span style="border: 1px solid red; border-radius: 50%; padding: 2px;">Follow-up</span> Post Remediation
# Rooms Tested	5
# Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	<0.4
High Value:	0.6
Confirmed Rooms $\geq$ 4.0 pCi/L US EPA Action Level	0

**Summary of Sampling Events  $\geq$  4.0 pCi/L**

Room	Result (pCi/L) 2/18/16 (Rev 1 Initial)	Result (pCi/L) 3/29/16 Follow-Up	Average Result (pCi/L)
111A	0.5 Tampered	No Access	0.5
117	<0.3 Tampered	0.5	0.4
122	--- Missing	<0.4	<0.4
126	<0.3 Tampered	0.6	0.5
135	--- Missing	0.4	0.4
140A	--- Missing	<0.4	<0.4



## MCPS RADON TESTING

### Executive Summary: Thomas W. Pyle Middle School

Date of Test Report:	3/29/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	5
# Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	< 0.4
High Value:	0.6

#### Project Status:

Retesting completed; no further action at this time.



March 29, 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: Thomas W. Pyle Middle School  
6311 Wilson Lane  
Bethesda, MD 20817

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 Thomas W. Pyle Middle School, located at 6311 Wilson Lane in Bethesda, Maryland 20817 (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 eleven (11) 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 field blank, office blanks, 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>Thomas W. Pyle MS</b>		
<b>Test Period: 03/08/16-03/11/16</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
3028958	117	0.5
3028869	122	<0.4
3028957	122	<0.4
3028870	126	<0.4
3028960	126	<0.4
3028868	126	0.6
3028993	126	<0.4
3029116	135	0.4
3028959	140A	<0.4

Table Note:

\* Missing or Compromised Sample

<b>Radon Testing Results</b>		
<b>Thomas W. Pyle MS</b>		
<b>Test Period: 03/08/16-03/11/16</b>		
<b>Kit Number</b>	<b>QC Type</b>	<b>Result</b>
3029117	D (135)	<0.4
3029118	FB (135)	<0.4

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


Thomas W. Pyle Middle School  
6311 Wilson Lane  
Bethesda MD 20817

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3016742	3028958	03/08/2016 10:10 am 03/11/2016 9:51 am	Unit 117 Weight Room First Floor	0.5
3016743	3028957	03/08/2016 10:15 am 03/11/2016 9:54 am	Unit 122 Cafeteria First Floor	<0.4
3016744	3028869	03/08/2016 10:17 am 03/11/2016 9:55 am	Unit 122 Cafeteria First Floor	<0.4
3016745	3028960	03/08/2016 10:25 am 03/11/2016 9:50 am	Unit 126 Gym First Floor	<0.4
3016746	3028870	03/08/2016 10:26 am 03/11/2016 9:50 am	Unit 126 Gym First Floor	<0.4
3016747	3028868	03/08/2016 10:29 am 03/11/2016 9:49 am	Unit 126 Gym First Floor	0.6
3016748	3028993	03/08/2016 10:31 am 03/11/2016 9:49 am	Unit 126 Gym First Floor	<0.4
3016749	3029116	03/08/2016 10:42 am 03/11/2016 9:42 am	Unit 135 First Floor	0.4
3016750	3029117	03/08/2016 10:43 am 03/11/2016 9:42 am	Unit 135 First Floor	<0.4
3016751	3029118	03/08/2016 10:44 am 03/11/2016 9:42 am	Unit 135 First Floor	<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: 03/16/2016 Date Reported: 03/16/2016

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.

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

Thomas W. Pyle Middle School  
6311 Wilson Lane  
Bethesda MD 20817

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3016752	3028959	03/08/2016 10:50 am 03/11/2016 9:39 am	Unit 140A First Floor	<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: 03/16/2016 Date Reported: 03/16/2016

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.

**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: Thomas W. Pyle Middle School  
Address: 6311 Wilson Lane  
Address:  
City / Town: Bethesda  
State/Province Postal Code: MD 20817  
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
	3028958		117	1	weight room 73	03/08/2016	10:10	03/11/2016	09:51	
	3028957		122	1	Cafeteria	03/07/2016	10:15	03/11/2016	09:54	
	3028869		122	1	Cafeteria	03/07/2016	10:17	03/11/2016	09:55	
	3028960		124	1	Gym	03/08/2016	10:25	03/11/2016	09:50	
	3028870		126	1	Gym	03/08/2016	10:26	03/11/2016	09:50	
	3028868		126	1	Gym	03/08/2016	10:29	03/11/2016	09:49	
	3028993		126	1	Gym	03/08/2016	10:31	03/11/2016	09:49	
	3029116		135	1		03/07/2016	10:42	03/11/2016	09:42	
	3029117		135	1		03/08/2016	10:43	03/11/2016	09:42	
	3029118		135	1		03/08/2016	10:44	03/11/2016	09:42	

Rev E1512 3028959 140A test must start before the expiration date shown on your device or test results will be invalid 3/18/2016 10:50 3/11/2016 09:59



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

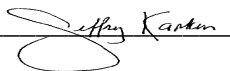
MCPS Radon Phase 11 Office Blank

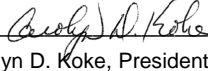
Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3016739	3029191	03/08/2016 10:00 am 03/11/2016 10:00 am	Office Blank	<0.4

**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

**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.

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Radon Device Type Open Face Canister

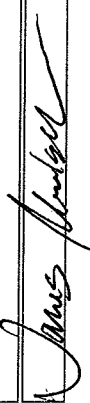
**Send Written Report To:**

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 MLPS Office Blank  
 Address 936 Ridgebrook Rd  
 Address  
 City / Town Sparks  
 State/Province Postal Code MD 21152  
 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
	3029191	1	1	1	Office Blank	03/08/2016	10:00 am	03/11/2016	10:00 am	

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:**

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.

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

**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 County: \_\_\_\_\_  
 Site Address: Transit State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 City: \_\_\_\_\_ Email: \_\_\_\_\_

Projects Contact Name: Don Coale Phone: \_\_\_\_\_

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: 09pm	1/22/16	9:30am
8955	Transit	1	1/19/16	↓	↓	↓
8954	Transit	1	1/19/16	↓	↓	↓
8997	Transit	1	1/19/16	↓	↓	↓

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

LAB USE ONLY	
Wgt. Gain	pCi/L
	<0.4
	<0.4
	<0.4
	<0.4

Multi-Page Report Y-N

1/27/2016

KCI Technologies, Inc.  
 3010588 3028953 ACPC275B EXP12/31/2018

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

Canisters retrieved by \_\_\_\_\_ # \_\_\_\_\_  
 Owner waives confidentiality by signing here \_\_\_\_\_ Date 1/22/16

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	

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

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 Mouldsdale  
KCI  
936 Ridgebrook Rd.  
Sparks, MD 21152

April 04, 2016

Dear Mr. Mouldsdale:

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  
\*\*\*\*\*

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:**

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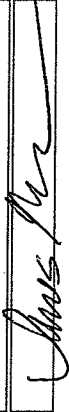
**Send Written Report To:**

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: MCRS  
 Address: 850 Hagerford Dr  
 Address:  
 City / Town: Rockville  
 State/Province Postal Code: MD 20850  
 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	Temp	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
	3029166	1		1	1		4/4/16	11:10am	4/6/16	11:15am	
	3029214	1		1	2						
	3029217	1		1	3						
	3029218	1		1	4						
	3029219	1		1	5						
	3029220	1		1	6						



## MCPS RADON TESTING

### Executive Summary: Thomas W. Pyle Middle School

Date of Test Report:	2/18/2016 (Rev 1)
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	84
# Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	3.2

#### Project Status:

Initial testing completed; missing or compromised samples need re-test.





February 18, 2016 (Rev 1)

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: Thomas W. Pyle Middle School  
6311 Wilson Lane  
Bethesda, MD 20817

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 Thomas W. Pyle Middle School, located at 6311 Wilson Lane in Bethesda, Maryland 20817 (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 (100) 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

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

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

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

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

<b>Radon Testing Results</b>		
<b>Thomas Pyle Middle School</b>		
<b>Test Period: 01/19/16-01/22/16</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
7722444	36	< 0.3
7722445	39	0.6
7722446	40	< 0.3
7722448	41	< 0.3
7722449	42	0.7
7722451	43	0.7
7722452	44	1.5
7722453	45	3.2
7722401	100	< 0.3
7722491	102	< 0.3
7722490	110	< 0.3
7722488	111	< 0.3
7722484	112	< 0.3
7722485	113	< 0.3
7722483	114	< 0.3
7722482	115	< 0.3
7722481	116	< 0.3
7722469	119	< 0.3
7722468	121	< 0.3
7722479	122	< 0.3
7722465	123	< 0.3
7722464	125	< 0.3
7722477	126	< 0.3
7722460	127	< 0.3
7722461	128	< 0.3
7722458	129	< 0.3
7722459	130	< 0.3
7722457	131	< 0.3
7722421	132	0.9
7722455	133	< 0.3
7722416	134	< 0.3
7722439	137	< 0.3
7722422	138	< 0.3
7722438	139	< 0.3
7722423	140	1
7722437	141	< 0.3
7722425	142	0.7
7722426	142	0.7
7722436	143	< 0.3
7722435	145	0.6
7722429	146	< 0.3
7722430	148	0.7
7722431	150	< 0.3
7722434	151	< 0.3
7722432	152	< 0.3
7722433	153	< 0.3

Table Note:

\* Missing or Compromised Sample

Radon Testing Results		
Thomas Pyle Middle School		
Test Period: 01/19/16-01/22/16		
Kit Number	Room / Area	Result
7722410	208	< 0.3
7722411	209	< 0.3
7722415	214	< 0.3
7722413	218	< 0.3
7722404	100A	< 0.3
7722405	100B	< 0.3
7722406	100C	< 0.3
7722408	100E	0.7
7722409	100G	0.6
7722407	100H	< 0.3
7722492	102A	< 0.3
7722493	102D	< 0.3
7722494	102E	< 0.3
7722495	102F	< 0.3
7722496	102G	< 0.3
7722497	102H	< 0.3
7722487	110A	< 0.3
7722489	* 111A (tampered)	0.5
7722474	* 117 (tampered)	< 0.3
7722473	118A	< 0.3
7722471	118B	< 0.3
7722470	118D	< 0.3
7722475	120B	< 0.3
7722480	* 122 (missing)	0
7722466	123A	< 0.3
7722467	123B	< 0.3
7722462	125A	< 0.3
7722476	* 126 (tampered)	< 0.3
7722478	126B	0.8
7722456	132A	0.6
7722420	134C	< 0.3
7722419	134D	< 0.3
7722498	* 135 (missing)	0
7722424	* 140A (missing)	0
7722427	144A	0.7
7722428	144B	0.7
7722414	218A	< 0.3
7722442	36A	< 0.3
7722443	36C	< 0.3
7722447	41A	< 0.3
7722450	43C	0.6

Table Note:

\* Missing or Compromised Sample

<b>Radon Testing Results</b>		
<b>Thomas Pyle Middle School</b>		
<b>Test Period: 01/19/16-01/22/16</b>		
<b>Kit Number</b>	<b>QC Type</b>	<b>Result</b>
7722402	D (100)	< 0.3
7722486	D (113)	< 0.3
7722472	D (118B)	< 0.3
7722463	D (125A)	0.6
7722417	D (134)	0.7
7722499	* D (135:missing)	0
7722440	D (137)	< 0.3
7722412	D (209)	< 0.3
7722454	D (45)	3.1
7722403	FB (100)	< 0.3
7722418	FB (134)	< 0.3
7722441	FB (137)	< 0.3
7719452	OB (0)	< 0.3

Table Note:

\* Missing or Compromised Sample



**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

# ATTACHMENT C

## Laboratory Analytical Results

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

Radon test result report for:  
**THOMAS PYLE MIDDLE SCHOOL MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7719452	0	2016-01-19 @ 4:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7722401	100	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722402	100	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722403	100	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722404	100A	2016-01-19 @ 9:00 am	2016-01-22 @ 8:00 am	< 0.3	2016-01-26
7722405	100B	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722406	100C	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722408	100E	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26
7722409	100G	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	0.6 ± 0.3	2016-01-26
7722407	100H	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722491	102	2016-01-19 @ 11:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722492	102A	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722493	102D	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722494	102E	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722495	102F	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722496	102G	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722497	102H	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722490	110	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722487	110A	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722488	111	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722489	111A	2016-01-19 @ 11:00 am	2016-01-22 @ 7:00 am	0.5 ± 0.3	2016-01-26
7722484	112	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722485	113	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722486	113	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722483	114	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722482	115	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722481	116	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722474	117	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722473	118A	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722471	118B	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722472	118B	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722470	118D	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722469	119	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722475	120B	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722468	121	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722480	122	@	@		
7722479	122	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26

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

Radon test result report for:  
**THOMAS PYLE MIDDLE SCHOOL**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7722465	123	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722466	123A	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722467	123B	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722464	125	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722462	125A	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722463	125A	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	0.6 ± 0.3	2016-01-26
7722476	126	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722477	126	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722478	126B	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	0.8 ± 0.3	2016-01-26
7722460	127	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722461	128	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722458	129	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722459	130	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722457	131	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722421	132	2016-01-19 @ 9:00 am	2016-01-22 @ 7:00 am	0.9 ± 0.3	2016-01-26
7722456	132A	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	0.6 ± 0.3	2016-01-26
7722455	133	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722416	134	2016-01-19 @ 9:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722417	134	2016-01-19 @ 9:00 am	2016-01-22 @ 7:00 am	0.7 ± 0.3	2016-01-26
7722418	134	2016-01-19 @ 9:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722420	134C	2016-01-19 @ 9:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722419	134D	2016-01-19 @ 9:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722498	135	@	@		
7722499	135	@	@		
7722439	137	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722440	137	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722441	137	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722422	138	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722438	139	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722423	140	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	1.0 ± 0.3	2016-01-26
7722424	140A	@	@		
7722437	141	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722425	142	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26
7722426	142	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26
7722436	143	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722427	144A	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26
7722428	144B	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26

February 11, 2016  
**LABORATORY ANALYSIS REPORT**

Radon test result report for:  
**THOMAS PYLE MIDDLE SCHOOL  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7722435	145	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	0.6 ± 0.3	2016-01-26
7722429	146	2016-01-19 @ 9:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722430	148	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	0.7 ± 0.3	2016-01-26
7722431	150	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722434	151	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722432	152	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722433	153	2016-01-19 @ 10:00 am	2016-01-22 @ 6:00 am	< 0.3	2016-01-26
7722410	208	2016-01-19 @ 9:00 am	2016-01-22 @ 8:00 am	< 0.3	2016-01-26
7722411	209	2016-01-19 @ 9:00 am	2016-01-22 @ 8:00 am	< 0.3	2016-01-26
7722412	209	2016-01-19 @ 9:00 am	2016-01-22 @ 8:00 am	< 0.3	2016-01-26
7722415	214	2016-01-19 @ 9:00 am	2016-01-22 @ 8:00 am	< 0.3	2016-01-26
7722413	218	2016-01-19 @ 9:00 am	2016-01-22 @ 8:00 am	< 0.3	2016-01-26
7722414	218A	2016-01-19 @ 9:00 am	2016-01-22 @ 8:00 am	< 0.3	2016-01-26
7722444	36	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722442	36A	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722443	36C	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722445	39	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	0.6 ± 0.3	2016-01-26
7722446	40	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722448	41	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722447	41A	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	< 0.3	2016-01-26
7722449	42	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	0.7 ± 0.3	2016-01-26
7722451	43	2016-01-19 @ 10:00 am	2016-01-22 @ 8:00 am	0.7 ± 0.3	2016-01-26
7722450	43C	2016-01-19 @ 10:00 am	2016-01-22 @ 7:00 am	0.6 ± 0.3	2016-01-26
7722452	44	2016-01-19 @ 10:00 am	2016-01-22 @ 8:00 am	1.5 ± 0.3	2016-01-26
7722453	45	2016-01-19 @ 10:00 am	2016-01-22 @ 8:00 am	3.2 ± 0.4	2016-01-26
7722454	45	2016-01-19 @ 10:00 am	2016-01-22 @ 8:00 am	3.1 ± 0.5	2016-01-26

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