

School / Facility Radon Testing Report Form

School Year: **24-25**

Facility:	Rockville High School		
Address:	2100 Baltimore Road		
	Rockville, MD 20851		
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 checked="" type="checkbox"/> Building Envelope or HVAC Upgrades <input type="checkbox"/> New Construction – Addition or 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 (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"/> Consider (≥ 2.0 & < 4.0 -pCi/L) <input type="checkbox"/> Required (≥ 4.0 -pCi/L) Rooms:	<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)		
Number of Rooms Tested	90	Lowest Value (pCi/L)	< 0.3
Number of Rooms (≥ 4.0 -pCi/L)	0	Highest Value (pCi/L)	2.5

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 ≥ 2.0 -pCi/L; ≥ 2.7 -pCi/L; ≥ 4.0 -pCi/L; and ≥ 8.0 -pCi/L;
- QA/QC Results - (field blanks and duplicates) indicating location collected; trip and office blanks; and spike sample results;
- Invalid Measurement Locations – missed locations, missing and or damaged/compromised testing devices.

Attachment 2 – Laboratory Report(s)

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

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)
Other—Specify here:		
Detector/Device Name:	Air Chek – Radon Test Kits	
Manufacturer:	Radon Lab	
Person(s) Deploying or Retrieving Test Devices and certification number		Organization/Company
Shannon King		KCI Technologies, Inc.
If noncertified individuals, the qualified measurement professional providing oversight -		
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):	02/03/25	03/24/25
<input type="checkbox"/> Long-Term				02/06/25	03/27/25
Does the test period include weekends, school breaks or holidays?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If “Yes” please explain/detail in the space below:					
Was HVAC operating under occupied conditions?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If “No” please explain/detail in the space below:					

Testing (continued)

Round of Testing	Detectors Deployed				Total
	Ground-Contact		Upper-Level(s)		
	Initial	Follow-Up	Initial	Follow-Up	
Test Locations ¹	78	2	11	0	91
Duplicates ²	9	1	2	0	12
Field Blanks ³	5	1	1	0	7
Grand Total					110

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 ¹	Not applicable		10
Trip Blanks ²	1	1	2
Office Blanks ^{3, 4}	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
Round of Testing	Initial Follow-Up
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 ¹ , the higher value is $\leq 2x$ the lower value?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For all Duplicate Samples ¹ , Relative Percent Difference(s) (RPD) ² are less than the Warning Level ³ ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For all Duplicate Samples ¹ , Relative Percent Difference(s) (RPD) ² are less than the Control Level ³ ?	<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
≥ 4.0 -pCi/L	28% RPD	36% RPD

Summary of Test Results¹ and Determination of Valid Measurements²

Round of Testing	Ground-Contact		Upper-Level(s)		Total
	Initial	Follow-Up	Initial	Follow-Up	
Number of test locations:	78	1	11	0	90
Number of locations ≥ 8.0 -pCi/L:	0	0	0	0	0
Number of locations ≥ 4.0 and ≤ 8 -pCi/L:	0	0	0	0	0
Number of locations ≥ 2.7 and < 4 -pCi/L:	0	0	0	0	0
Number of locations ≥ 2.0 and < 2.7 -pCi/L:	1	0	0	0	1
Number of missing required test locations ³ :	4	0	0	0	4
Number of failed duplicate control locations:	1	0	0	0	1
Percentage of missing test locations for the facility ^{4,5} :	5.12%	0	0	0	4.44%

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 $\leq 33\%$. If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023;

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

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

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 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>		
If No to either above, were all results obtained under 4.0-pCi/L and were sufficient valid measurements obtained?^{1,2} <i>If Yes, then - ‘No Further Testing Needed’ complete Conclusion section on first page.</i> <i>If No, then - ‘Follow-up Testing Required’ continue below.</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	<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.

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

Table 1- Radon Testing Results		
Rockville High School		
Test Period: 2/3/2025 - 2/6/2025		
Kit Number	Room / Area	Result
11950912	1000	< 0.3
11950941	1001	< 0.3
11950942	1001	< 0.3
11950970	1005	< 0.3
11950973	1011	< 0.3
11950972	1012	< 0.3
11950975	1013	< 0.3
11950976	1013	< 0.3
11950977	1015	< 0.3
11950978	1015	< 0.3
11950980	1017	< 0.3
11950982	1019	< 0.3
11950981	1020	< 0.3
11950983	1021	< 0.3
11950991	1022	0.7
11950984	1023	< 0.3
11950992	1024	< 0.3
11950985	1025	< 0.3
11950987	1025	< 0.3
11950986	1027	< 0.3
11950988	1029	< 0.3
11950993	1030	< 0.3
11950994	1030	< 0.3
11950996	1032	0.6
11950997	1032	< 0.3
11950995	1033	< 0.3
11950999	1035	< 0.3
11950998	1036	< 0.3
11931405	1037	< 0.3
11951000	1038	< 0.3
11931403	1039	< 0.3
11950933	1050	< 0.3
11950968	1053	< 0.3
11950967	1057	< 0.3
11950966	1059	< 0.3
11950937	1062	0.7
11950945	1066	< 0.3

Table 1- Radon Testing Results		
Rockville High School		
Test Period: 2/3/2025 - 2/6/2025		
Kit Number	Room / Area	Result
11950944	1067	< 0.3
11950931	1069	< 0.3
11950932	1070	< 0.3
11950943	1076	0.6
11950952	1080	< 0.3
11950951	1081	0.5
11950939	1083	0.6
11950940	1083	< 0.3
11950946	1084	0.8
11950949	1084	0.7
11950948	1087	0.6
11950953	1089	< 0.3
11950954	1091	< 0.3
11950950	1093	< 0.3
11950957	1093	0.6
11950955	1095	1.2
11950956	1095	< 0.3
11950958	1097	1.0
11950959	1103	0.6
11950961	1105	0.6
11950962	1107	1.0
11950965	1109	0.8
11931404	2014	< 0.3
11931409	2027	0.8
11931410	2034	< 0.3
11931412	2059	0.7
11931406	2071	< 0.3
11931411	2071	< 0.3
11931407	2099	< 0.3
11931408	2129	0.7
11931401	2135	1.2
11931415	3009	< 0.3
11931420	3009	< 0.3
11931414	3012	< 0.3
11931419	3012	< 0.3
11931413	3039	< 0.3
11950923	1000A	< 0.3

Table 1- Radon Testing Results		
Rockville High School		
Test Period: 2/3/2025 - 2/6/2025		
Kit Number	Room / Area	Result
11950924	1000B	< 0.3
11950906	1002A	< 0.3
11950909	1002B	< 0.3
11950908	1002C	< 0.3
11950910	1002D	< 0.3
11950914	1002G	< 0.3
11950913	1002H	< 0.3
11950915	1002I	0.6
11950916	1002K	< 0.3
11950917	1002K	< 0.3
11950918	1003A	< 0.3
11950926	1003C	< 0.3
11950927	1003C	< 0.3
11950929	1003D	< 0.3
11950936	1003F	< 0.3
11950935	1003H	0.7
11950934	1003I	< 0.3
11950930	1003J	< 0.3
11950928	1003K	< 0.3
11950921	1003L	2.0
11950922	1003L	2.5
11950925	1003M	< 0.3
11950919	1003N	< 0.3
11950920	1003O	< 0.3
11950974	1011A	0.5
11950979	1013A	< 0.3
11950989	1031C	< 0.3
11950990	1031C	< 0.3
11950969	1049A	< 0.3
11950971	1049B	0.5
11950947	1083F	< 0.3
11950907	MAIN OFFICE	0.5

[illegible]

Table 3 - QC Radon Testing Results			
Rockville High School			
Test Period: 2/3/2025 - 2/6/2025			
Kit Number	QC Type	Room / Area	Result
11950942	D	1001	< 0.3
11950976	D	1013	< 0.3
11950978	FB	1015	< 0.3
11950987	D	1025	< 0.3
11950994	D	1030	< 0.3
11950997	FB	1032	< 0.3
11950964	D	1054	Missing Kit
11950940	FB	1083	< 0.3
11950949	D	1084	0.7
11950957	D	1093	0.6
11950956	FB	1095	< 0.3
11931411	D	2071	< 0.3
11931415	FB	3009	< 0.3
11931419	D	3012	< 0.3
11950917	D	1002K	< 0.3
11950927	FB	1003C	< 0.3
11950922	D	1003L	2.5
11931691	OB	OFFICE BLANK	< 0.3
11931692	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation										
Rockville High School										
Test Period: 2/3/2025 - 2/6/2025										
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
11931406	11931411	2071	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11931414	11931419	3012	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11950916	11950917	1002K	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11950921	11950922	1003L	2.5	2.0	✓	4.0	PASS	2.3	22.2%	✓
11950941	11950942	1001	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11950946	11950949	1084	0.8	0.7	✓	1.4	PASS	0.8	<1-pCi/L	✓
11950950	11950957	1093	0.6	0.3	✓	0.6	PASS	0.5	<1-pCi/L	✓
11950963	11950964	1054	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11950975	11950976	1013	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11950985	11950987	1025	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11950993	11950994	1030	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

Table 1- Radon Testing Results		
Rockville High School RT		
Test Period: 3/24/2025 - 3/27/2025		
Kit Number	Room / Area	Result
11892488	1054	< 0.3
11892489	1054	< 0.3
11892490	1054	< 0.3
11892491	1054	< 0.3

[illegible]

Table 3 - QC Radon Testing Results			
Rockville High School RT			
Test Period: 3/24/2025 - 3/27/2025			
Kit Number	QC Type	Room / Area	Result
11892490	D	1054	< 0.3
11892491	FB	1054	< 0.3
11951800	OB	OFFICE BLANK	< 0.3
11892493	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation										
Rockville High School RT										
Test Period: 3/24/2025 - 3/27/2025										
Sample ID			Duplicate Concentrations (pCi/L) and QC 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
11892490	11892488 11892489	1054	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

[illegible]

Attachment 2:

Laboratory Reports

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11950912	1000	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950923	1000A	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950924	1000B	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950942	1001	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950941	1001	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950906	1002A	2025-02-03 @ 8:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950909	1002B	2025-02-03 @ 8:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950908	1002C	2025-02-03 @ 8:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950910	1002D	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950914	1002G	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950913	1002H	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950915	1002I	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	0.6 ± 0.3	2025-02-10
11950917	1002K	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950916	1002K	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950918	1003A	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950927	1003C	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950926	1003C	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950929	1003D	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950936	1003F	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950935	1003H	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	0.7 ± 0.3	2025-02-10
11950934	1003I	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950930	1003J	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950928	1003K	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950921	1003L	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	2.0 ± 0.4	2025-02-10
11950922	1003L	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	2.5 ± 0.4	2025-02-10
11950925	1003M	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950919	1003N	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950920	1003O	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950970	1005	2025-02-03 @ 10:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950973	1011	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950974	1011A	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	0.5 ± 0.3	2025-02-10
11950972	1012	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950975	1013	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950976	1013	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950979	1013A	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950977	1015	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950978	1015	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11950980	1017	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950982	1019	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950981	1020	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950983	1021	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950991	1022	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	0.7 ± 0.3	2025-02-10
11950984	1023	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950992	1024	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950987	1025	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950985	1025	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950986	1027	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950988	1029	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950994	1030	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950993	1030	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950990	1031C	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950989	1031C	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950996	1032	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	0.6 ± 0.3	2025-02-10
11950997	1032	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950995	1033	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950999	1035	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950998	1036	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11931405	1037	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11951000	1038	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11931403	1039	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950969	1049A	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950971	1049B	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	0.5 ± 0.3	2025-02-10
11950933	1050	2025-02-03 @ 9:00 am	2025-02-06 @ 10:00 am	< 0.3	2025-02-10
11950968	1053	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950967	1057	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950966	1059	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950937	1062	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	0.7 ± 0.3	2025-02-10
11950945	1066	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950944	1067	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950931	1069	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950932	1070	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950943	1076	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	0.6 ± 0.3	2025-02-10
11950952	1080	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950951	1081	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	0.5 ± 0.3	2025-02-10

February 10, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11950940	1083	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950939	1083	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	0.6 ± 0.3	2025-02-10
11950947	1083F	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950949	1084	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	0.7 ± 0.3	2025-02-10
11950946	1084	2025-02-03 @ 9:00 am	2025-02-06 @ 11:00 am	0.8 ± 0.3	2025-02-10
11950948	1087	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	0.6 ± 0.3	2025-02-10
11950953	1089	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950954	1091	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950957	1093	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	0.6 ± 0.3	2025-02-10
11950950	1093	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950956	1095	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10
11950955	1095	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	1.2 ± 0.3	2025-02-10
11950958	1097	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	1.0 ± 0.3	2025-02-10
11950959	1103	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	0.6 ± 0.3	2025-02-10
11950961	1105	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	0.6 ± 0.3	2025-02-10
11950962	1107	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	1.0 ± 0.3	2025-02-10
11950965	1109	2025-02-03 @ 10:00 am	2025-02-06 @ 11:00 am	0.8 ± 0.3	2025-02-10
11931404	2014	2025-02-03 @ 11:00 am	2025-02-06 @ 12:00 pm	< 0.3	2025-02-10
11931409	2027	2025-02-03 @ 11:00 am	2025-02-06 @ 12:00 pm	0.8 ± 0.3	2025-02-10
11931410	2034	2025-02-03 @ 11:00 am	2025-02-06 @ 12:00 pm	< 0.3	2025-02-10
11931412	2059	2025-02-03 @ 11:00 am	2025-02-06 @ 12:00 pm	0.7 ± 0.3	2025-02-10
11931406	2071	2025-02-03 @ 11:00 am	2025-02-06 @ 12:00 pm	< 0.3	2025-02-10
11931411	2071	2025-02-03 @ 11:00 am	2025-02-06 @ 12:00 pm	< 0.3	2025-02-10
11931407	2099	2025-02-03 @ 11:00 am	2025-02-06 @ 12:00 pm	< 0.3	2025-02-10
11931408	2129	2025-02-03 @ 11:00 am	2025-02-06 @ 12:00 pm	0.7 ± 0.3	2025-02-10
11931401	2135	2025-02-03 @ 11:00 am	2025-02-06 @ 12:00 pm	1.2 ± 0.3	2025-02-10
11931415	3009	2025-02-03 @ 12:00 pm	2025-02-06 @ 12:00 pm	< 0.3	2025-02-10
11931420	3009	2025-02-03 @ 12:00 pm	2025-02-06 @ 12:00 pm	< 0.3	2025-02-10
11931419	3012	2025-02-03 @ 12:00 pm	2025-02-06 @ 12:00 pm	< 0.3	2025-02-10
11931414	3012	2025-02-03 @ 12:00 pm	2025-02-06 @ 12:00 pm	< 0.3	2025-02-10
11931413	3039	2025-02-03 @ 11:00 am	2025-02-06 @ 12:00 pm	< 0.3	2025-02-10
11950907	MAIN OFFICE	2025-02-03 @ 8:00 am	2025-02-06 @ 10:00 am	0.5 ± 0.3	2025-02-10

February 11, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**OFFICE
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11931691	O	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10

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

February 11, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**TRAVEL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11931692	T	2025-02-03 @ 11:00 am	2025-02-06 @ 11:00 am	< 0.3	2025-02-10



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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing February 3rd – February 6th, 2025

Name of Schools:

1. A. Mario Loiederman MS
2. Parkland MS
3. Rockville HS
4. Stone Mill ES
5. Wyngate ES

	Date	Initials
Radon Test Kits Deployed	2/3/2025	DM
Radon Test Kits Collected	2/6/2025	DM
Radon Test Kits Shipped to Lab*	2/6/2025	DM
Radon Test Kits Received by Lab*	2/8/2025	DM

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

April 2, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892488	1054	2025-03-24 @ 3:00 pm	2025-03-27 @ 2:00 pm	< 0.3	2025-04-02
11892489	1054	2025-03-24 @ 3:00 pm	2025-03-27 @ 2:00 pm	< 0.3	2025-04-02
11892490	1054	2025-03-24 @ 3:00 pm	2025-03-27 @ 2:00 pm	< 0.3	2025-04-02
11892491	1054	2025-03-24 @ 3:00 pm	2025-03-27 @ 2:00 pm	< 0.3	2025-04-02

April 3, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**OFFICE
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11886664	OB	2025-03-24 @ 11:00 am	2025-03-27 @ 11:00 am	< 0.3	2025-04-02
11886692	OB	2025-03-25 @ 11:00 am	2025-03-28 @ 11:00 am	< 0.3	2025-04-02
11951800	OB	2025-03-24 @ 11:00 am	2025-03-28 @ 11:00 am	< 0.3	2025-04-02

April 3, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**TRAVEL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11886691	TB	2025-03-24 @ 11:00 am	2025-03-27 @ 11:00 am	< 0.3	2025-04-02
11886693	TB	2025-03-25 @ 11:00 am	2025-03-28 @ 11:00 am	< 0.3	2025-04-02
11892493	TB	2025-03-24 @ 11:00 am	2025-03-28 @ 11:00 am	< 0.3	2025-04-02

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 μ R/h Elevation = 820 ft

March 19, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

QC
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
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

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



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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing March 24th – March 27th, 2025

Name of Schools:

- | | |
|----------------------|----------------------------|
| 1. Beverly Farms ES | 7. Julius West MS |
| 2. Bradley Hills ES | 8. Parkland MS |
| 3. Cabin John MS | 9. Rockville HS |
| 4. Springbrook HS | 10. Westland MS |
| 5. Thomas Edison HS | 11. Charles W. Woodward HS |
| 6. Walter Johnson HS | 12. Walt Whitman HS |

	Date	Initials
Radon Test Kits Deployed	3/24/2025	BMM
Radon Test Kits Collected	3/27/2025	BMM
Radon Test Kits Shipped to Lab*	3/28/2025	BMM
Radon Test Kits Received by Lab*	4/01/2025	BMM

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



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Rockville High School
Date of Test Report	05/12/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	1
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	<0.3 pCi/L

Project Status

Current Project Status at this time: Testing completed; no further action needed



May 12, 2022

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

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

Location: Rockville High School
2100 Baltimore Rd.
Rockville, MD 20851

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 Rockville High School, located at 2100 Baltimore Rd. Rockville, MD 20851 (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.

KCI visited the site on March 22, 2022 and deployed three (3) 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.

KCI sampled the following locations during this follow-up test:

1. Rooms with missing test kits from the Radon 2022 testing period (i.e. test kit was deployed but not recovered),
2. Rooms with invalidated test kits from the Radon 2022 testing period (e.g. an open window in the room or disturbed test kit),
3. Rooms which were locked/inaccessible during the Radon 2022 testing period,
4. Rooms with elevated radon results (i.e. ≥ 3.5 pCi/L),
5. Rooms previously tested for radon but not tested in Radon 2022, and
6. Additional rooms that require testing (if applicable.)

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 March 25, 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 low 40°Fs and high temperatures ranged from the low 50°Fs to the low 70°Fs. Maximum sustained winds ranged from 0-29 miles per hour. Average humidity was around 56% with 0.51 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:

Radon Concentration	Room	Result
≥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		
Rockville HS RT		
Test Period: 03/22/2022 - 03/25/2022		
Kit Number	Room / Area	Result
11131719	1001	< 0.3
11131720	1001	< 0.3
11131754	1001	< 0.3

Table 2- Radon Testing Results			
Rockville HS RT			
Test Period: 03/22/2022 - 03/25/2022			
Kit Number	QC Type	Room / Area	Result
11131754	D	1001	< 0.3
11131719	FB	1001	< 0.3
11139902	OB	OFFICE BLANK	< 0.3
11139928	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

March 28, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ROCKVILLE HS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131754	1001	2022-03-22 @ 1:00 pm	2022-03-25 @ 12:00 pm	< 0.3	2022-03-28
11131720	1001	2022-03-22 @ 1:00 pm	2022-03-25 @ 12:00 pm	< 0.3	2022-03-28
11131719	1001	2022-03-22 @ 1:00 pm	2022-03-25 @ 12:00 pm	< 0.3	2022-03-28

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 204620

NOMINAL Conditions: Radon Conc 27.0 pCi/L Rel. Hum 50.1 % Temp. 70.0 F

Date Start: 3/18/22 Date Stop: 3/21/22 Date Start: _____ Date Stop: _____

Time Start: 0705 Time Stop: 0705 Time Start: _____ Time Stop: _____

Device No.'s: (5) Char Bags - Device No.'s: _____

11139367, 11139368, 11139371, _____

11139710, 11139717 _____

E3 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 μ R/h Elevation = 820 ft

March 30, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139367	SK1	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.9 \pm 2.1	2022-03-30
11139368	SK2	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	23.9 \pm 2.0	2022-03-30
11139371	SK3	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.7 \pm 2.1	2022-03-30
11139710	SK4	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	26.4 \pm 2.1	2022-03-30
11139717	SK5	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	24.6 \pm 2.0	2022-03-30

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



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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – March 2022 Schools – Retesting

Name of Schools:

1. Herbert Hoover MS
2. Parkland MS
3. Redland MS
4. Rock Creek Valley ES
5. Tilden MS
6. Rockville HS
7. Wootton HS
8. Capt. James E. Daly ES
9. Clarksburg HS
10. Clearspring ES
11. Hallie Wells MS
12. Northwest HS
13. Paint Branch HS
14. Rocky Hills MS
15. Seneca Valley HS
16. Sherwood HS
17. Wilson Wims ES

	Date	Initials
Radon Test Kits Deployed	03/22/2022	BMM
Radon Test Kits Collected	03/25/2022	BMM
Radon Test Kits Shipped to Lab*	03/25/2022	BMM
Radon Test Kits Received by Lab*	03/28/2022	BMM

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



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Rockville High 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	117
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.1 pCi/L

Project Status:

Initial testing completed; Missing or compromised kits need re-sampling.



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: Rockville HS
2100 Baltimore Rd.
Rockville, MD 20851

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 Rockville HS, located at 2100 Baltimore Rd. Rockville, MD 20851 (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.

KCI visited the site on February 7, 2022 and deployed one hundred and thirty five (135) 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 10, 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 concentration levels 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 50s Fahrenheit. Maximum sustained winds ranged from 3-12 miles per hour. Average humidity was around 23% with 0.1 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:

Radon Concentration	Room	Result
≥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		
Rockville HS		
Test Period: 02/7/2022 - 02/10/2022		
Kit Number	Room / Area	Result
11113403	1000	< 0.3
11113401	1001	< 0.3
11113402	1001	NA
11105831	1002	< 0.3
11113438	1003	< 0.3
11113437	1005	0.5
11113423	1011	0.6
11113435	1012	0.6
11113421	1013	< 0.3
11113422	1013	< 0.3
11113420	1015	< 0.3
11113419	1017	0.8
11113418	1019	< 0.3
11113436	1020	0.7
11113417	1021	0.6
11113431	1022	0.6
11113432	1022	< 0.3
11113433	1022	< 0.3
11113416	1023	< 0.3
11113430	1024	< 0.3
11113415	1025	0.8
11113414	1027	0.7
11113434	1029	< 0.3
11113429	1030	< 0.3
11113428	1032	< 0.3
11113409	1033	0.7
11113408	1035	0.8
11113427	1036	0.6
11113407	1037	0.6
11113426	1038	0.5
11113406	1039	0.8
11113455	1049	0.5
11113469	1050	< 0.3
11105897	1054	0.6
11105899	1054	< 0.3
11105891	1057	< 0.3
11105892	1057	0.7
11105893	1057	< 0.3
11105894	1059	< 0.3
11105895	1060	< 0.3
11105844	1062	1.1
11113456	1067	0.8

Table 1- Radon Testing Results		
Rockville HS		
Test Period: 02/7/2022 - 02/10/2022		
Kit Number	Room / Area	Result
11105845	1069	0.5
11105846	1070	0.8
11105848	1071	0.6
11105849	1073	0.7
11105850	1075	< 0.3
11105852	1076	< 0.3
11105853	1076	0.6
11105854	1076	0.8
11105851	1077	< 0.3
11105858	1080	< 0.3
11105863	1081	< 0.3
11105859	1083	< 0.3
11105862	1083	< 0.3
11105867	1084	< 0.3
11105873	1084	< 0.3
11105871	1087	0.6
11105872	1087	0.6
11105875	1089	< 0.3
11105876	1091	0.6
11105877	1093	0.5
11105878	1095	0.9
11105889	1097	0.7
11105890	1097	0.6
11105882	1101	< 0.3
11105880	1103	0.7
11105881	1103	< 0.3
11105883	1105	0.7
11105887	1107	0.9
11105888	1109	0.7
11113466	2010	< 0.3
11113465	2014	< 0.3
11113462	2017	< 0.3
11113463	2017	< 0.3
11113464	2017	< 0.3
11113467	2067	0.5
11113461	2071	< 0.3
11113460	2091	0.8
11113459	2099	< 0.3
11113457	2114	< 0.3
11113458	2115	< 0.3
11113468	3039	< 0.3
11113405	1000B	< 0.3

Table 1- Radon Testing Results		
Rockville HS		
Test Period: 02/7/2022 - 02/10/2022		
Kit Number	Room / Area	Result
11113404	1000C	< 0.3
11105832	1002A	< 0.3
11105833	1002B	< 0.3
11105834	1002C	< 0.3
11105835	1002D	< 0.3
11105836	1002D	< 0.3
11105837	1002F	< 0.3
11105838	1002G	0.5
11105839	1002H	< 0.3
11105840	1002I	< 0.3
11105841	1002I	< 0.3
11105842	1002J	< 0.3
11105843	1002K	< 0.3
11113439	1003A	< 0.3
11113440	1003C	< 0.3
11113441	1003D	0.6
11113443	1003D	< 0.3
11113442	1003F	< 0.3
11113444	1003F	< 0.3
11113445	1003I	< 0.3
11113446	1003J	< 0.3
11113448	1003J	< 0.3
11113449	1003L	< 0.3
11113450	1003M	0.6
11113451	1003N	< 0.3
11113452	1003O	< 0.3
11113453	1003O	< 0.3
11113454	1003O	< 0.3
11113425	1011A	0.8
11113424	1013A	< 0.3
11113411	1031B	0.6
11113412	1031B	< 0.3
11113413	1031B	< 0.3
11113410	1031C	0.6
11105898	1053A	< 0.3
11105900	1053B	0.6
11105896	1055B	< 0.3
11105847	1070A	< 0.3
11105860	1083A	< 0.3
11105861	1083B	< 0.3
11105865	1083C	0.6
11105866	1083F	< 0.3

Table 1- Radon Testing Results		
Rockville HS		
Test Period: 02/7/2022 - 02/10/2022		
Kit Number	Room / Area	Result
11105868	1084D	0.6
11105869	1084E	< 0.3
11105870	1084F	< 0.3
11105874	1087 DARK ROOM	< 0.3
11105879	1095 OFFICE	1.1
11105885	1101B	0.6
11105886	1101C	0.6
11105855	AUDITORIUM	< 0.3
11105857	AUDITORIUM	0.8

Table 2- Radon Testing Results			
Rockville HS			
Test Period: 02/7/2022 - 02/10/2022			
Kit Number	QC Type	Room / Area	Result
11105841	D	1002I	< 0.3
11105851	D	1075	< 0.3
11105852	FB	1076	< 0.3
11105862	D	1083	< 0.3
11105872	D	1087	0.6
11105873	FB	1087	< 0.3
11105881	D	1103	< 0.3
11105892	D	1057	0.7
11105893	FB	1057	< 0.3
11113402	D	1001	NA
11113412	D	1031B	< 0.3
11113413	FB	1031B	< 0.3
11113422	D	1013	< 0.3
11113433	D	1022	< 0.3
11113432	FB	1022	< 0.3
11113443	D	1003D	< 0.3
11113454	D	1003O	< 0.3
11113453	FB	1003O	< 0.3
11113464	D	2017	< 0.3
11113481	OB	OFFICE BLANK	< 0.3
11113483	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11113403	1000	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113405	1000B	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-15
11113404	1000C	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113401	1001	2022-02-07 @ 2:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11113402	1001	2022-02-07 @ 2:00 pm	2022-02-10 @ 2:00 pm	???? IF1	2022-02-14
11105831	1002	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-15
11105832	1002A	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-15
11105833	1002B	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-15
11105834	1002C	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-15
11105836	1002D	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11105835	1002D	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-15
11105837	1002F	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11105838	1002G	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	0.5 ± 0.3	2022-02-14
11105839	1002H	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11105841	1002I	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11105840	1002I	2022-02-07 @ 11:00 am	2022-02-10 @ 4:00 pm	< 0.3	2022-02-15
11105842	1002J	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11105843	1002K	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	< 0.3	2022-02-15
11113438	1003	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113439	1003A	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113440	1003C	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113441	1003D	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	0.6 ± 0.4	2022-02-14
11113443	1003D	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113442	1003F	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113444	1003F	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113445	1003I	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113448	1003J	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113449	1003L	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113450	1003M	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	0.6 ± 0.3	2022-02-15
11113452	1003O	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113453	1003O	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113454	1003O	2022-02-07 @ 3:00 pm	2022-02-10 @ 1:00 pm	< 0.3	2022-02-14
11113437	1005	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	0.5 ± 0.3	2022-02-14
11113423	1011	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11113425	1011A	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.8 ± 0.3	2022-02-14
11113435	1012	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11113422	1013	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11113421	1013	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113424	1013A	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113420	1015	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113419	1017	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.8 ± 0.3	2022-02-14
11113418	1019	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113436	1020	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.7 ± 0.3	2022-02-14
11113417	1021	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11113431	1022	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11113432	1022	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113433	1022	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-15
11113416	1023	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113430	1024	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113415	1025	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.8 ± 0.3	2022-02-14
11113434	1029	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113429	1030	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-15
11113411	1031B	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11113412	1031B	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113413	1031B	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113410	1031C	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11113428	1032	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-15
11113409	1033	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.7 ± 0.3	2022-02-14
11113408	1035	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.8 ± 0.3	2022-02-14
11113427	1036	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11113407	1037	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.6 ± 0.3	2022-02-14
11113426	1038	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.5 ± 0.3	2022-02-14
11113406	1039	2022-02-07 @ 2:00 pm	2022-02-10 @ 3:00 pm	0.8 ± 0.3	2022-02-14
11113455	1049	2022-02-07 @ 3:00 pm	2022-02-10 @ 4:00 pm	0.5 ± 0.3	2022-02-14
11113469	1050	2022-02-07 @ 4:00 pm	2022-02-10 @ 4:00 pm	< 0.3	2022-02-14
11105898	1053A	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105900	1053B	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-14
11105899	1054	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105897	1054	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-14
11105896	1055B	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105891	1057	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105893	1057	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105892	1057	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	0.7 ± 0.3	2022-02-14
11105894	1059	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11105895	1060	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105844	1062	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	1.1 ± 0.4	2022-02-14
11113456	1067	2022-02-07 @ 3:00 pm	2022-02-10 @ 4:00 pm	0.8 ± 0.3	2022-02-14
11105845	1069	2022-02-07 @ 11:00 am	2022-02-10 @ 1:00 pm	0.5 ± 0.3	2022-02-14
11105846	1070	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	0.8 ± 0.3	2022-02-14
11105847	1070A	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105848	1071	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-15
11105849	1073	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	0.7 ± 0.3	2022-02-14
11105850	1075	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105854	1076	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	0.8 ± 0.3	2022-02-14
11105853	1076	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-15
11105852	1076	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-15
11105858	1080	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105863	1081	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105862	1083	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-15
11105859	1083	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-15
11105860	1083A	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105861	1083B	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105865	1083C	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-14
11105866	1083F	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-15
11105873	1084	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105867	1084	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105868	1084D	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-14
11105869	1084E	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105870	1084F	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105871	1087	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-14
11105872	1087	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-15
11105874	1087 DARK ROOM	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105875	1089	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105876	1091	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-14
11105877	1093	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.5 ± 0.3	2022-02-14
11105878	1095	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.9 ± 0.3	2022-02-14
11105879	1095 OFFICE	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	1.1 ± 0.3	2022-02-14
11105890	1097	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-14
11105889	1097	2022-02-07 @ 1:00 pm	2022-02-10 @ 2:00 pm	0.7 ± 0.3	2022-02-15
11105882	1101	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105885	1101B	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.6 ± 0.4	2022-02-15

February 15, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**ROCKVILLE HS
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11105886	1101C	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.6 ± 0.3	2022-02-15
11105880	1103	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.7 ± 0.3	2022-02-14
11105881	1103	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105883	1105	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.7 ± 0.3	2022-02-14
11105887	1107	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.9 ± 0.3	2022-02-14
11105888	1109	2022-02-07 @ 12:00 pm	2022-02-10 @ 2:00 pm	0.7 ± 0.3	2022-02-14
11113466	2010	2022-02-07 @ 4:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113465	2014	2022-02-07 @ 4:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-15
11113463	2017	2022-02-07 @ 4:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113462	2017	2022-02-07 @ 4:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-15
11113464	2017	2022-02-07 @ 4:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-15
11113467	2067	2022-02-07 @ 4:00 pm	2022-02-10 @ 3:00 pm	0.5 ± 0.4	2022-02-15
11113461	2071	2022-02-07 @ 4:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-15
11113460	2091	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	0.8 ± 0.3	2022-02-14
11113459	2099	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113457	2114	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113458	2115	2022-02-07 @ 3:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11113468	3039	2022-02-07 @ 4:00 pm	2022-02-10 @ 3:00 pm	< 0.3	2022-02-14
11105855	AUDITORIUM	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11105857	AUDITORIUM	2022-02-07 @ 11:00 am	2022-02-10 @ 2:00 pm	0.8 ± 0.3	2022-02-15

February 15, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**ROCKVILLE HS
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11113446	1003J	2022-02-07 @ 9:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11113451	1003N	2022-02-07 @ 9:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14
11113414	1027	2022-02-07 @ 10:00 am	2022-02-10 @ 3:00 pm	0.7 ± 0.3	2022-02-14
11105851	1077	2022-02-07 @ 9:00 am	2022-02-10 @ 2:00 pm	< 0.3	2022-02-14

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 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 μ R/h Elevation = 820 ft

April 6, 2022

**** LABORATORY ANALYSIS REPORT ****

Pg 1 of 1

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

Kit 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

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







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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – February 2022 Schools

Name of Schools:

1. Lincoln Center
2. Wootton HS
3. Rockville HS
4. Richard Montgomery HS
5. Rocking Horse Rd. Center
6. Blair G. Ewing Center
7. Twinbrook ES
8. Rock Creek Valley ES
9. Luxmanor ES
10. Tilden MS

	Date	Initials
Radon Test Kits Deployed	02/07/2022	
Radon Test Kits Collected	02/10/2022	
Radon Test Kits Shipped to Lab*	02/10/2022	
Radon Test Kits Received by Lab*	02/14/2022	

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

RADON SCREENING SURVEY – FOLLOW-UP ROCKVILLE HIGH SCHOOL

2100 Baltimore Road, Rockville Maryland 20851

EXECUTIVE SUMMARY

Date of Test Report:	4/6/16 Follow-Up
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested	4
# Rooms \geq 4.0 pCi/L:	0
Low Value:	<0.4
High Value:	0.5
Confirmed Rooms \geq 4.0 pCi/L US EPA Action Level	0

Summary of Sampling Events ≥ 4.0 pCi/L

[illegible]



MCPS RADON TESTING

Executive Summary: Rockville High School

Date of Test Report:	4/6/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	4
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.4
High Value:	0.5

Project Status:

Retesting completed; no further action at this time.



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

April 6, 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: Rockville High School
2100 Baltimore Road
Rockville, MD 20851

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 Rockville High School, located at 2100 Baltimore Road in Rockville, Maryland 20851 (subject site).

Scope of Services:

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

KCI visited the site on March 21, 2016 and deployed five (5) 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 TCS Industries Inc. as spike samples. The spiked tests were exposed to a known radon concentration by TCS prior to being returned to the laboratory for analysis.

KCI returned to the site on March 24, 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:

Radon Concentration	Room	Result
≥ 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. Moulds
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.

Radon Testing Results		
Rockville High School		
Test Period: 03/21/16-03/24/16		
Kit Number	Room / Area	Result
3029124	1080	<0.4
3029122	2067	<0.4
3029130	3009	0.4
3029259	1003L	0.4

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Rockville High School		
Test Period: 03/21/16-03/24/16		
Kit Number	QC Type	Result
3029123	D (1080)	0.5

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

Rockville HS
2100 Baltimore Road
Rockville MD 20851

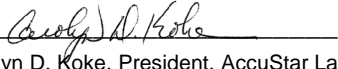
Log Number	Device Number	Test Exposure Duration:		Area Tested	Result (pCi/L)
3018367	3029259	03/21/2016 2:00 pm	03/24/2016 12:00 pm	Unit 1003L First Floor	0.4
3018368	3029124	03/21/2016 2:05 pm	03/24/2016 12:05 pm	Unit 1080 First Floor	<0.4
3018369	3029123	03/21/2016 2:07 pm	03/24/2016 12:06 pm	Unit 1080 First Floor	0.5
3018370	3029122	03/21/2016 2:10 pm	03/24/2016 12:10 pm	Unit 2067 Second Floor	<0.4
3018371	3029130	03/21/2016 2:15 pm	03/24/2016 12:15 pm	Unit 3009 Third Floor	0.4

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

Distributed by: KCI Technologies, Inc.

Date Received: 03/28/2016 Date Logged: 03/28/2016 Date Analyzed: 03/28/2016 Date Reported: 03/29/2016

Report Reviewed By: 

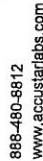
Report Approved By: 

Disclaimer:

Carolyn D. Koke, President, AccuStar Labs

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

MCPS Radon Phase 11 (re-testing) Office Blank

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3018362	3029232	03/21/2016 8:00 am 03/24/2016 8:00 am	Unit O First Floor Main Room	<0.4

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

Distributed by: KCI Technologies, Inc.

Date Received: 03/28/2016 Date Logged: 03/28/2016 Date Analyzed: 03/28/2016 Date Reported: 03/29/2016

Report Reviewed By: Grace Heubling

Report Approved By: Carolyn D. Koke

Disclaimer:

Carolyn D. Koke, President, AccuStar Labs

The uncertainty of this radon measurement is $\sim \pm 10\%$. 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.



Radon Device Type Open Face Canister

Site Tested:

Site Name	KC1 OFFICE
Address	936 RIDGEBROOK RD
Address	
City / Town	SPARKS
State/Province	MD
Postal Code	21152
Test Country	Montgomery County
Project Number	12146341

Contact

Tehsin Aurangabadwala
410-891-1726

[illegible]

Test must start before the expiration date shown on your device or test results will be invalid

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.mouldsdales@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

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.

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

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	9:00am	1/22/16	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

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

Send Results To:

Company Name: KCI Tech

Address: 936 Ridgebrook

City: Sparks

Phone: 410-599-3826

EMAIL Results to: James.Mouldale@kci.com

Attention: James Mouldale

State: MD Zip 21152

Fax: _____

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

Revision 5
4/2015

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

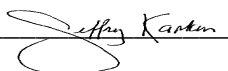
Log Number	Device Number	Test Exposure Duration:		Area Tested	Result (pCi/L)
3020102	3029166	04/04/2016 11:10 am	04/06/2016 11:13 am	Not Indicated	11.9
3020103	3029214	04/04/2016 11:10 am	04/06/2016 11:13 am	Not Indicated	11.5
3020104	3029217	04/04/2016 11:10 am	04/06/2016 11:13 am	Not Indicated	10.7
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

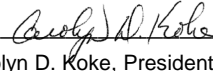
Comment: A copy of this report was emailed to james.mouldsdale@kci.com.

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:

The uncertainty of this radon measurement is $\pm 10\%$. 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: Rockville High School

Date of Test Report:	2/10/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	105
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	2.6

Project Status:

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



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

February 10, 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 # 12146341.24

Location: Rockville High School
2100 Baltimore Road
Rockville, MD 20851

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 Rockville High School, located at 2100 Baltimore Road in Rockville, Maryland 20851 (subject site).

Scope of Services:

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

KCI visited the site on January 11, 2016 and deployed one hundred thirty (130) 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 14, 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:

Radon Concentration	Room	Result
≥ 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,



H. Allen Bennett
Certified Industrial Hygienist
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

Radon Testing Results		
Rockville High School		
Test Period: 01/11/16-01/14/16		
Kit Number	Room / Area	Result
7721932	1000	< 0.3
7721918	1000	< 0.3
7721936	1001	< 0.3
7721926	1002	0.5
7721914	1003	< 0.3
7721983	1005	0.6
7721984	1011	< 0.3
7721981	1012	0.6
7721988	1013	< 0.3
7721992	1015	< 0.3
7722000	1017	1.3
7721997	1019	0.7
7721996	1020	< 0.3
7721999	1021	< 0.3
7721994	1022	< 0.3
7721986	1023	< 0.3
7721998	1024	< 0.3
7712551	1025	0.6
7712550	1027	< 0.3
7721989	1030	< 0.3
7721990	1032	0.6
7712544	1033	< 0.3
7712541	1035	0.7
7721993	1036	0.7
7712540	1037	< 0.3
7712537	1038	< 0.3
7712535	1039	< 0.3
7721938	1049	< 0.3
7721939	1054	< 0.3
7721941	1054	0.6
7721946	1057	< 0.3
7721950	1059	< 0.3
7721943	1060	< 0.3
7721977	1062	0.9
7721980	1067	0.7
7721979	1069	1
7721972	1070	0.7
7721975	1075	0.8
7721971	1076	0.8
7721964	1076	1.1
7721965	1081	0.9
7721952	1083	2.2
7721959	1084	2.6
7721948	1089	< 0.3
7721961	1093	0.8
7721951	1095	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Rockville High School		
Test Period: 01/11/16-01/14/16		
Kit Number	Room / Area	Result
7721949	1097	0.6
7721947	1097	0.7
7721944	1103	< 0.3
7721940	1105	0.8
7721957	1107	1.3
7721953	1109	1
7712542	2015	< 0.3
7712563	2015	< 0.3
7712538	2027	< 0.3
7712539	2039	< 0.3
7712562	2042	0.5
7712536	2051	0.6
7712546	2076	< 0.3
7712570	2101	< 0.3
7712574	2119	0.6
7712553	2034	< 0.3
7712532	3014	< 0.3
7712554	3019	< 0.3
7712555	3033	< 0.3
7721928	1000 B	< 0.3
7721920	1000 C	< 0.3
7721902	1002 A	0.8
7721937	1002 B	< 0.3
7721934	1002 C	< 0.3
7721933	1002 D	0.6
7721921	1002 E	< 0.3
7721923	1002 F	0.6
7721919	1002 H	0.7
7721925	1002 I	< 0.3
7721922	1002 J	0.6
7721929	1002 K	< 0.3
7721927	1002 L	< 0.3
7721924	1003 B	< 0.3
7721909	1003 C	< 0.3
7721910	1003 D	< 0.3
7721915	1003 H	0.6
7721912	1003 I	< 0.3
7721904	1003 J	< 0.3
7721906	1003 K	< 0.3
7721908	* 1003 L (Tampered)	0.8
7721917	1003 M	< 0.3
7721913	1003 N	< 0.3
7721931	1003A	0.7
7721974	1011 A	< 0.3
7721987	1011 D	< 0.3
7721978	1011 E	< 0.3
7721985	1013 D	< 0.3
7721995	1015 C	< 0.3
7712545	1031 B	< 0.3
7712547	1031 C	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Rockville High School		
Test Period: 01/11/16-01/14/16		
Kit Number	Room / Area	Result
7721903	1050 PB	< 0.3
7721911	1053 A	1
7721905	1053 B	< 0.3
7721945	1055B	< 0.3
7721976	1070 A	< 0.3
7721960	1076 A	0.7
7721966	* 1080 (Missing)	0
7721970	1080 B	1.2
7721969	1080 D	1.1
7721967	1080C	1.2
7721956	1083 F	1.1
7721955	1095 B	0.7
7722543	* 2067 (Damaged -Voided by Lab)	0
7722533	* 3009 (Damaged -Voided by Lab)	0

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Rockville High School		
Test Period: 01/11/16-01/14/16		
Kit Number	QC Type	Result
7721901	D (1002)	< 0.3
7721935	D (1003 N)	< 0.3
7721991	D (1013)	< 0.3
7712534	D (1024)	< 0.3
7712549	D (1031 B)	< 0.3
7721907	D (1053 A)	1.1
7721968	D (1070 A)	0.8
7721963	D (1081)	1.1
7721954	D (1107)	1
7712566	D (2042)	0.6
7712559	D (2076)	< 0.3
7721930	FB (1002)	< 0.3
7721916	FB (1003 N)	< 0.3
7721982	FB (1024)	< 0.3
7721942	FB (1055 B)	< 0.3
7721973	FB (1070 A)	< 0.3
7721958	FB (1107)	< 0.3
7712558	FB (3019)	< 0.3
7720174	OB (0)	< 0.3
7721800	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 10, 2016
**** LABORATORY ANALYSIS
REPORT ****

Radon test result report for:
**ROCKVILLE HIGH SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7720174	0	2016-01-11 @ 3:00 pm	2016-01-14 @ 12:00 pm	< 0.3	2016-01-18
7721800	0	2016-01-11 @ 3:00 pm	2016-01-14 @ 12:00 pm	< 0.3	2016-01-18
7721918	1000	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721932	1000	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721928	1000 B	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721920	1000 C	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721936	1001	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721901	1002	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721926	1002	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.5 ± 0.3	2016-01-18
7721930	1002	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721902	1002 A	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.8 ± 0.3	2016-01-18
7721937	1002 B	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721934	1002 C	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721933	1002 D	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721921	1002 E	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721923	1002 F	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721919	1002 H	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.7 ± 0.3	2016-01-18
7721925	1002 I	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721922	1002 J	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721929	1002 K	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721927	1002 L	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721914	1003	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721924	1003 B	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721909	1003 C	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721910	1003 D	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721915	1003 H	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721912	1003 I	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721904	1003 J	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721906	1003 K	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721908	1003 L	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	0.8 ± 0.3	2016-01-18
7721917	1003 M	2016-01-11 @ 10:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721913	1003 N	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721916	1003 N	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721935	1003 N	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721931	1003A	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	0.7 ± 0.3	2016-01-18
7721983	1005	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.6 ± 0.3	2016-01-18
7721984	1011	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18

Radon test result report for:
ROCKVILLE HIGH SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7721974	1011 A	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721987	1011 D	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721978	1011 E	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721981	1012	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.6 ± 0.3	2016-01-18
7721988	1013	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721991	1013	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721985	1013 D	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721992	1015	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721995	1015 C	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7722000	1017	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.3 ± 0.3	2016-01-18
7721997	1019	2016-01-11 @ 1:00 pm	2016-01-14 @ 10:00 am	0.7 ± 0.3	2016-01-18
7721996	1020	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721999	1021	2016-01-11 @ 1:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721994	1022	2016-01-11 @ 1:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721986	1023	2016-01-11 @ 1:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7712534	1024	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7721982	1024	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7721998	1024	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712551	1025	2016-01-11 @ 2:00 pm	2016-01-14 @ 10:00 am	0.6 ± 0.3	2016-01-18
7712550	1027	2016-01-11 @ 2:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721989	1030	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712545	1031 B	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712549	1031 B	2016-01-11 @ 2:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7712547	1031 C	2016-01-11 @ 2:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721990	1032	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	0.6 ± 0.3	2016-01-18
7712544	1033	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712541	1035	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	0.7 ± 0.3	2016-01-18
7721993	1036	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	0.7 ± 0.3	2016-01-18
7712540	1037	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712537	1038	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712535	1039	2016-01-11 @ 1:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7721938	1049	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721903	1050 PB	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721907	1053 A	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	1.1 ± 0.3	2016-01-18
7721911	1053 A	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	1.0 ± 0.3	2016-01-18
7721905	1053 B	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721939	1054	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18

Radon test result report for:
ROCKVILLE HIGH SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7721941	1054	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721942	1055 B	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721945	1055B	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721946	1057	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721950	1059	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721943	1060	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721977	1062	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.9 ± 0.3	2016-01-18
7721980	1067	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.7 ± 0.3	2016-01-18
7721979	1069	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.0 ± 0.3	2016-01-18
7721972	1070	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.7 ± 0.3	2016-01-18
7721968	1070 A	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.8 ± 0.3	2016-01-18
7721973	1070 A	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721976	1070 A	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721975	1075	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.8 ± 0.3	2016-01-18
7721964	1076	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.1 ± 0.3	2016-01-18
7721971	1076	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.8 ± 0.3	2016-01-18
7721960	1076 A	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	0.7 ± 0.3	2016-01-18
7721966	1080	@	@		
7721970	1080 B	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.2 ± 0.3	2016-01-18
7721969	1080 D	2016-01-11 @ 12:00 pm	2016-01-14 @ 10:00 am	1.1 ± 0.3	2016-01-18
7721967	1080C	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.2 ± 0.3	2016-01-18
7721963	1081	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.1 ± 0.3	2016-01-18
7721965	1081	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	0.9 ± 0.3	2016-01-18
7721952	1083	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	2.2 ± 0.4	2016-01-18
7721956	1083 F	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	1.1 ± 0.3	2016-01-18
7721959	1084	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	2.6 ± 0.4	2016-01-18
7721948	1089	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721961	1093	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	0.8 ± 0.3	2016-01-18
7721951	1095	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	< 0.3	2016-01-18
7721955	1095 B	2016-01-11 @ 11:00 am	2016-01-14 @ 10:00 am	0.7 ± 0.3	2016-01-18
7721947	1097	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	0.7 ± 0.3	2016-01-18
7721949	1097	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721944	1103	2016-01-11 @ 11:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721940	1105	2016-01-11 @ 11:00 am	2016-01-14 @ 9:00 am	0.8 ± 0.3	2016-01-18
7721954	1107	2016-01-11 @ 11:00 am	2016-01-14 @ 9:00 am	1.0 ± 0.3	2016-01-18
7721957	1107	2016-01-11 @ 11:00 am	2016-01-14 @ 9:00 am	1.3 ± 0.3	2016-01-18
7721958	1107	2016-01-11 @ 11:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18

February 10, 2016

**** LABORATORY ANALYSIS
REPORT ****

Radon test result report for:

**ROCKVILLE HIGH SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7721953	1109	2016-01-11 @ 11:00 am	2016-01-14 @ 9:00 am	1.0 ± 0.3	2016-01-18
7712542	2015	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712563	2015	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712538	2027	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712539	2039	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712566	2042	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	0.6 ± 0.3	2016-01-18
7712562	2042	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	0.5 ± 0.3	2016-01-18
7712536	2051	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	0.6 ± 0.3	2016-01-18
7722543	2067	2016-01-11 @ 1:00 pm	2016-01-14 @ 10:00 am	???? EI	2016-01-26
7712546	2076	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712559	2076	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712570	2101	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712574	2119	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	0.6 ± 0.3	2016-01-18
7712553	2034	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7722533	3009	2016-01-11 @ 1:00 pm	2016-01-14 @ 10:00 am	???? EI	2016-01-27
7712532	3014	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712554	3019	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712558	3019	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18
7712555	3033	2016-01-11 @ 2:00 pm	2016-01-14 @ 11:00 am	< 0.3	2016-01-18

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

December
23,
2015

****LABORATORY ANALYSIS
REPORT ****

Spike Sample Laboratory Results

Radon test result report for:
MCPS

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

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 KCI Technologies Inc. Job Number 173224

NOMINAL Conditions: Radon Conc 26.9 pCi/L Rel. Hum 49.6 % Temp. 69.9 F

Date Start: 12/18/15 Date Stop: 12/21/15 Date Start: _____ Date Stop: _____

Time Start: 0929 Time Stop: 0929 Time Start: _____ Time Stop: _____

Device No.'s: 7705132, 7706208, Device No.'s: _____

7706211, 7706366, _____

7706380, 7706381 _____

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 μ R/h Elevation = 820 ft



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

Chain of Custody

Project Name: MCPS Radon Phase V

Name of Schools:

- | | | |
|-------------------------|---------------------------|-------------------------|
| 1. Arcola ES | 11. Clopper Mill ES | 21. Parkland Magnet MS |
| 2. Argyle ES | 12. College Gardens ES | 22. Rachel Carson ES |
| 3. Bells Mill ES | 13. Eastern MS | 23. Roberto Clemente MS |
| 4. Bethesda ES | 14. Fallsmead ES | 24. Rock Creek ES |
| 5. Brookhaven ES | 15. Fields Road ES | 25. Rockview ES |
| 6. Burning Tree ES | 16. Flower Hill ES | 26. Rockville HS |
| 7. Capt. James Daly ES | 17. Flower Valley ES | 27. Rocky Hill MS |
| 8. Carderock Springs ES | 18. Fox Chapel ES | 28. Seneca Valley HS |
| 9. Cashell ES | 19. Glen Haven ES | 29. Westover ES |
| 10. Clearspring ES | 20. James Hubert Blake HS | 30. William Farquar MS |
-

	Date	Initials
Radon Test Kits Deployed	1/11/16	JM
Radon Test Kits Sampled	1/14/16	JM
Radon Test Kits Shipped to Lab*	1/15/16	JM
Radon Test Kits Received by Lab*	1/18/16	JM

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