School / Facility Radon Testing Report Form

School Year: **24-25**

Facility:	Rosemont Elementary School
Address:	16400 Alden Avenue
	Gaithersburg, MD 20877
Reason for Testing:	Scheduled Re-Testing - ☒ 2-year or ☐ 5-year schedule ☐ Clearance Testing (Post-Mitigation) ☒ Building Envelope or HVAC Upgrades ☐ New Construction – Addition or Facility
Current Radon Status:	☒ Active Mitigation (2-year regular schedule) ☐ No Active Mitigation (5-year regular schedule) ☐ Not Previously Tested (New Facility)
Round of Testing:	☐ Initial Testing **-or-** ☒ Follow-up Testing
Testing Status:	☒ No Further Testing Needed **-or-** ☐ Follow-Up Testing Required

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

Mitigation -	**Facility Radon Status:**		
☒ Not Required ☐ Required (≥4.0-pCi/L) Rooms:	☒ No Change in Status ☐ Active Mitigation (2-year regular schedule) ☐ No Active Mitigation (5-year regular schedule)		
Number of Rooms Tested	56	Lowest Value (pCi/L)	< 0.3
Number of Rooms (≥4.0-pCi/L)	0	Highest Value (pCi/L)	1.5

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.

MCPS DEM SUSTAINABILITY & COMPLIANCE

School / Facility Radon Testing Report Form

Detector and Deployment

Detector/Device Type:	☒ Passive ☐ Continuous	☒ Charcoal Absorption (CAD) ☐ Alpha Track (ATD) ☐ Other ☐ Electret ion Chamber (EIC) ☐ 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
Brittany Maas	KCI Technologies, Inc.
Shakia Dawkins	KCI Technologies, Inc.
If noncertified individuals, the qualified measurement professional providing oversight -	
Tyler McCleaf, CSP – Cert. #111004 – RMP	KCI Technologies, Inc.

Testing

☒ Short-Term ☐ Long-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	03/04/25 03/07/25	03/31/25 04/03/25
Does the test period include weekends, school breaks or holidays?				☐ Yes ☒ No	
*If "**Yes**" please explain/detail in the space below:*					
Was HVAC operating under occupied conditions?				☒ Yes ☐ No	
*If "**No**" please explain/detail in the space below:*					

Testing (continued)

	Detectors Deployed				
	Ground-Contact		Upper-Level(s)		Total
Round of Testing	Initial	Follow-Up	Initial	Follow-Up	
Test Locations[1]	52	2	3	0	55
Duplicates[2]	4	1	1	0	5
Field Blanks[3]	2	1	1	0	3
				Grand Total	63

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.

	QA/QC Samples		Total
Round of Testing	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 ± 25% of the chamber's reference value?	☒ Yes ☐ No	
Quality Control measurements comply with QA/QC requirements in the submitted testing organization's/company's QA plan?	☒ Yes ☐ No	
Round of Testing	**Initial**	**Follow-Up**
All Field, Trip and Office Blanks are **≤** (less than or equal to) to the Method Detection Limit?	☒ Yes ☐ No	☒ Yes ☐ No
For all Duplicate Samples[1], the higher value is **≤ 2x** the lower value?	☐ Yes ☒ No	☒ Yes ☐ No
For all Duplicate Samples[1], Relative Percent Difference(s) (RPD)[2] are less than the Warning Level[3]?	☒ Yes ☐ No	☒ Yes ☐ No
For all Duplicate Samples[1], Relative Percent Difference(s) (RPD)[2] are less than the Control Level[3]?	☒ Yes ☐ No	☒ Yes ☐ 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 Results[1] and Determination of Valid Measurements[2]

	Ground-Contact		Upper-Level(s)		Total
Round of Testing	**Initial**	**Follow-Up**	**Initial**	**Follow-Up**	
Number of test locations:	52	1	3	0	56
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:	0	0	0	0	0
Number of missing required test locations[3]:	1	0	0	0	1
Number of failed duplicate control locations:	1	0	0	0	1
Percentage of missing test locations for the facility[4,5]:	1.92%	0	0	0	1.78%

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

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

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

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

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

Summary of Test Results[1] and Determination of Valid Measurements[2] (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?	☐ Yes ☒ No	☒ Yes ☐ 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?	☐ Yes ☒ No	☐ Yes ☒ No
If Yes to both above *– then Testing Status –* ***'No Further Testing Needed'*** *mark 'NA' below and complete Conclusions section*		
If No to either above, were all results obtained under 4.0-pCi/L **and** were sufficient valid measurements obtained?[1,2] ***If Yes,*** *then -* ***'No Further Testing Needed'*** *complete Conclusion section on first page.* ***If No****, then -* ***'Follow-up Testing Required'*** *continue below.*	☐ Yes ☒ No ☐ NA	☒ Yes ☐ No ☐ 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		
Rosemont Elementary School		
Test Period: 3/4/2025 - 3/7/2025		
Kit Number	Room / Area	Result
11886609	100	0.6
11886633	101	< 0.3
11886649	103	< 0.3
11886612	104	< 0.3
11886650	105	0.6
11886621	106	0.5
11886613	107	< 0.3
11886614	107	< 0.3
11886622	108	1.4
11886602	109	0.6
11886627	110	0.9
11886628	110	1.4
11886618	111	1.2
11886636	112	0.8
11886641	113	1.5
11886642	114	0.7
11886634	115	1.1
11886630	116	1.5
11886643	116	1.3
11886637	117	1.3
11886644	118	1.1
11886657	120	< 0.3
11886658	120	< 0.3
11886659	120	0.7
11886667	121	< 0.3
11886645	122	0.5
11886660	123	0.5
11886624	124	< 0.3
11886673	125	< 0.3
11886666	126	0.6
11886623	127	0.6
11886668	127	0.8
11886674	128	0.6
11886640	205	< 0.3
11886631	212	< 0.3
11886632	212	< 0.3
11886648	212	< 0.3
11886647	220	0.7

Table 1- Radon Testing Results		
Rosemont Elementary School		
Test Period: 3/4/2025 - 3/7/2025		
11886610	100A	< 0.3
11886606	100A OFFICE	< 0.3
11886611	100B	< 0.3
11886620	100C	0.6
11886638	101B	< 0.3
11886601	104B	0.9
11886629	110A	0.7
11886626	110B	0.9
11886635	110C	0.7
11886617	110D	0.8
11886603	111A	< 0.3
11886607	111A	1.0
11886608	111A	1.1
11886651	APR	0.7
11886652	APR	< 0.3
11886619	FIGUEROA	< 0.3
11886615	GYM	0.5
11886616	GYM	0.6
11886661	GYM OFFICE	0.7
11886654	LINKAGES	0.9
11886639	LINKAGES 1	0.7
11886646	LINKAGES 2	< 0.3
11886653	LINKAGES 3	1.5
11886605	PRINCIPAL	< 0.3
11886604	WORKROOM	< 0.3

Table 2 - Summary Testing Results ≥2.0 pCi/L							
Rosemont Elementary School							
Test Period: 3/4/2025 - 3/7/2025							
≥2.0 and <2.7 pCi/L		≥2.7 and <4.0 pCi/L		≥4.0 and <8.0 pCi/l		≥8.0 pCi/L	
Room / Area	Result	Room / Area	Result	Room / Area	Result	Room / Area	Result
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 3 - QC Radon Testing Results			
Rosemont Elementary School			
Test Period: 3/4/2025 - 3/7/2025			
Kit Number	**QC Type**	**Room / Area**	**Result**
11886630	D	116	1.5
11886659	D	120	0.7
11886657	FB	120	< 0.3
11886623	D	127	0.6
11886648	D	212	< 0.3
11886631	FB	212	< 0.3
11886607	D	111A	1.0
11886603	FB	111A	< 0.3
11887000	OB	OFFICE BLANK	< 0.3
11886974	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation

Rosemont Elementary School

Test Period: 3/4/2025 - 3/7/2025

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
11886630	11886643	116	1.5	1.3	✓	2.6	PASS	1.4	<1-pCi/L	✓
11886659	11886658	120	0.7	0.3	✓	0.6	FAIL	0.5	<1-pCi/L	✓
11886623	11886668	127	0.8	0.6	✓	1.2	PASS	0.7	<1-pCi/L	✓
11886648	11886632	212	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11886607	11886608	111A	1.1	1.0	✓	2.0	PASS	1.1	<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 4 - Summary of Invalid Measurement Locations		
Rosemont Elementary School		
Test Period: 3/4/25 - 3/7/25		
Kit Number	**Room/Area**	**Reason**
N/A	102	Missed Location

Table 1- Radon Testing Results		
Rosemont Elementary School RT		
Test Period: 4/1/2025 - 4/4/2025		
Kit Number	Room / Area	Result
11887297	120	< 0.3
11887298	120	< 0.3
11887299	120	< 0.3
11887293	120	< 0.3

Table 2 - Summary Testing Results ≥2.0 pCi/L							
Rosemont Elementary School RT							
Test Period: 4/1/2025 - 4/4/2025							
≥2.0 and <2.7 pCi/L		≥2.7 and <4.0 pCi/L		≥4.0 and <8.0 pCi/l		≥8.0 pCi/L	
Room / Area	Result	Room / Area	Result	Room / Area	Result	Room / Area	Result
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 3 - QC Radon Testing Results			
Rosemont Elementary School RT			
Test Period: 4/1/2025 - 4/4/2025			
Kit Number	**QC Type**	**Room / Area**	**Result**
11887299	D	120	< 0.3
11887293	FB	120	< 0.3
11886694	OB	OFFICE BLANK	< 0.3
11886589	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation										
Rosemont Elementary School RT										
Test Period: 4/1/2025 - 4/4/2025										
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
11887299	11887297 11887298	120	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 4 - Summary of Invalid Measurement Locations		
Rosemont Elementary School RT		
Test Period: 4/1/2025 - 4/4/2025		
Kit Number	**Room/Area**	**Reason**
N/A	N/A	N/A

Attachment 2:

Laboratory Reports

March 11, 2025

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
ROSEMONT ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11886609	100	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.6 ± 0.4	2025-03-11
11886610	100A	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	< 0.3	2025-03-11
11886606	100A OFFICE	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	< 0.3	2025-03-11
11886611	100B	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	< 0.3	2025-03-11
11886620	100C	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.6 ± 0.3	2025-03-11
11886633	101	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886638	101B	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886649	103	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886612	104	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	< 0.3	2025-03-11
11886601	104B	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.9 ± 0.4	2025-03-11
11886650	105	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11886621	106	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.5 ± 0.3	2025-03-11
11886614	107	2025-03-04 @ 11:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886613	107	2025-03-04 @ 11:00 am	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886622	108	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	1.4 ± 0.4	2025-03-11
11886602	109	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.6 ± 0.3	2025-03-11
11886628	110	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	1.4 ± 0.4	2025-03-11
11886627	110	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.9 ± 0.3	2025-03-11
11886629	110A	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.7 ± 0.3	2025-03-11
11886626	110B	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.9 ± 0.4	2025-03-11
11886635	110C	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.7 ± 0.3	2025-03-11
11886617	110D	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.8 ± 0.4	2025-03-11
11886618	111	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	1.2 ± 0.4	2025-03-11
11886607	111A	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	1.0 ± 0.4	2025-03-11
11886608	111A	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	1.1 ± 0.4	2025-03-11
11886603	111A	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	< 0.3	2025-03-11
11886636	112	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	0.8 ± 0.3	2025-03-11
11886641	113	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	1.5 ± 0.4	2025-03-11
11886642	114	2025-03-04 @ 12:00 pm	2025-03-07 @ 9:00 am	0.7 ± 0.3	2025-03-11
11886634	115	2025-03-04 @ 12:00 pm	2025-03-07 @ 9:00 am	1.1 ± 0.4	2025-03-11
11886630	116	2025-03-04 @ 12:00 pm	2025-03-07 @ 9:00 am	1.5 ± 0.4	2025-03-11
11886643	116	2025-03-04 @ 12:00 pm	2025-03-07 @ 9:00 am	1.3 ± 0.3	2025-03-11
11886637	117	2025-03-04 @ 12:00 pm	2025-03-07 @ 9:00 am	1.3 ± 0.4	2025-03-11
11886644	118	2025-03-04 @ 12:00 pm	2025-03-07 @ 9:00 am	1.1 ± 0.3	2025-03-11
11886659	120	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.7 ± 0.3	2025-03-11
11886657	120	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886658	120	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11

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

March 11, 2025

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
ROSEMONT ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11886667	121	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886645	122	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.5 ± 0.3	2025-03-11
11886660	123	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.5 ± 0.3	2025-03-11
11886624	124	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886673	125	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886666	126	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11886623	127	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11886668	127	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.8 ± 0.3	2025-03-11
11886674	128	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11886640	205	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886632	212	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886648	212	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886631	212	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886647	220	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.7 ± 0.3	2025-03-11
11886652	APR	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886651	APR	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.7 ± 0.3	2025-03-11
11886619	FIGUEROA	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	< 0.3	2025-03-11
11886615	GYM	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.5 ± 0.3	2025-03-11
11886616	GYM	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.6 ± 0.3	2025-03-11
11886661	GYM OFFICE	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.7 ± 0.3	2025-03-11
11886654	LINKAGES	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.9 ± 0.4	2025-03-11
11886639	LINKAGES 1	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	0.7 ± 0.4	2025-03-11
11886646	LINKAGES 2	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	< 0.3	2025-03-11
11886653	LINKAGES 3	2025-03-04 @ 12:00 pm	2025-03-07 @ 10:00 am	1.5 ± 0.3	2025-03-11
11886605	PRINCIPAL	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	< 0.3	2025-03-11
11886604	WORKROOM	2025-03-04 @ 11:00 am	2025-03-07 @ 9:00 am	< 0.3	2025-03-11

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

March 11, 2025 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
OFFICE
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11887000	OB	2025-03-04 @ 11:00 am	2025-03-07 @ 11:00 am	< 0.3	2025-03-11

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

March 11, 2025 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
TRAVEL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11886974	TB	2025-03-04 @ 11:00 am	2025-03-07 @ 11:00 am	< 0.3	2025-03-11

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 20001560

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

Date Start: 12/14/24 Date Stop: 12/17/24	Date Start: _____ Date Stop: _____
Time Start: 0815 Time Stop: 0815	Time Start: _____ Time Stop: _____
Device No.'s: (3) CHAR BAGS	Device No.'s: _____
11477880, 11477883, 11477896	_____
_____	_____
B4 Right	
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
_____	_____
_____	_____
_____	_____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
_____	_____
_____	_____
_____	_____

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

December 23, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SK
MAIN

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

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

KCI TECHNOLOGIES

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 – Testing March 4th – March 7th, 2025

Name of Schools:

1. Poolesville HS
2. Quince Orchard HS
3. Redland MS
4. Ridgeview MS
5. Rocky Hill MS
6. Rosemont ES
7. Poolesville ES

	Date	Initials
Radon Test Kits Deployed	3/4/2025	
Radon Test Kits Collected	3/7/2025	
Radon Test Kits Shipped to Lab*	3/7/2025	
Radon Test Kits Received by Lab*	3/10/2025	

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

April 7, 2025

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
ROSEMONT ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11887293	120	2025-04-01 @ 7:00 pm	2025-04-04 @ 9:00 am	< 0.3	2025-04-07
11887297	120	2025-04-01 @ 7:00 pm	2025-04-04 @ 9:00 am	0.5 ± 0.3	2025-04-07
11887298	120	2025-04-01 @ 7:00 pm	2025-04-04 @ 9:00 am	< 0.3	2025-04-07
11887299	120	2025-04-01 @ 7:00 pm	2025-04-04 @ 9:00 am	< 0.3	2025-04-07

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

April 7, 2025

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
KCI
MAIN

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 20002919

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

Date Start: 3/7/25 Date Stop: 3/10/25	Date Start: _____ Date Stop: _____
Time Start: 0832 Time Stop: 0832	Time Start: _____ Time Stop: _____
Device No.'s: (7) CHAR BAGS	Device No.'s: _____
11886401 thru 11886406,	
11886410	
G3 Right	
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____

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

KCI TECHNOLOGIES

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 – Testing March 31st – April 3rd, 2025

Name of Schools:

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

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

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Rosemont Elementary School
Date of Test Report	1/25/2023
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 ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	<0.3 pCi/L

Project Status:

1. Post mitigation testing completed.

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

January 25, 2023

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

Re: **Radon Testing Services**
KCI Job # 122210551

Location: Rosemont Elementary School
16400 Alden Avenue
Gaithersburg, MD 20877

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 Rosemont Elementary School located at 16400 Alden Ave. Gaithersburg, MD 20877 (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 December 19, 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.

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 December 22, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Accustar Labs - MA for analysis by gamma-ray spectroscopy.

Accustar Labs - MA is a NRSB certified analytical laboratory for radon analysis (certification #ARL0017) located at 2 Saber Way, Ward Hill, MA 01835.

Evaluation of Testing Conditions:

These tests represent:

- Follow up to post mitigation biennial testing.

These tests were conducted to:

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

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate temperatures ranged from 23°F to 55°F. Maximum sustained winds ranged from 0-18 miles per hour. Average humidity was around 75% with 0.0 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 piC/L	None	N/A
<4.0 piC/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 McCleaf

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
QC- Quality Control

Table 1- Radon Testing Results		
Rosemont ES		
Test Period: 12/19/2022 - 12/22/2022		
Kit Number	Room / Area	Result
11633327	109	< 0.3
11633333	109	< 0.3
11633337	109	< 0.3

Table 2- Radon Testing Results			
Rosemont ES			
Test Period: 12/19/22 - 12/22/22			
Kit Number	QC Type	Room / Area	Result
11633333	D	109	< 0.3
11633337	FB	109	< 0.3
11288518	OB	OFFICE BLANK	< 0.3
11287685	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Rosemont ES		
Test Period: 12/19/22 - 12/22/22		
Kit Number	Room/Area	Result
	N/A	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Rosemont ES		
Test Period: 12/19/22 - 12/22/22		
Kit Number	Room/Area	Result
	N/A	

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

December 28, 2022 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633327	109	2022-12-19 @ 10:00 am	2022-12-22 @ 9:00 am	< 0.3	2022-12-28
11633333	109	2022-12-19 @ 10:00 am	2022-12-22 @ 9:00 am	< 0.3	2022-12-28
11633337	109	2022-12-19 @ 10:00 am	2022-12-22 @ 9:00 am	< 0.3	2022-12-28

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 KC I TECHNOLOGIES, INC Job Number 208343

NOMINAL Conditions: Radon Conc 34.7 pCi/L Rel. Hum 49.4 % Temp. 69.6 F

Date Start: 12/24/22 Date Stop: 12/27/22	Date Start: _____ Date Stop: _____
Time Start: 0810 Time Stop: 0810	Time Start: _____ Time Stop: _____
Device No.'s: (5) CHAR BAGS -	Device No.'s: _____
11285109, 11285110, 11285101	_____
THRU 11285103	_____
BY CRF	_____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
_____	_____
_____	_____
_____	_____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
_____	_____
_____	_____
_____	_____

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

December 29, 2022 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
OFFICE
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11285110	SK1	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	31.7 ± 2.5	2022-12-29
11285101	SK2	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	30.1 ± 2.4	2022-12-29
11285103	SK3	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	34.0 ± 2.7	2022-12-29
11285102	SK4	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	30.9 ± 2.5	2022-12-29
11285109	SK5	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	32.0 ± 2.6	2022-12-29

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

KCI TECHNOLOGIES

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 – Week 3 December Schools

Name of Schools:

1. Clopper Mill ES
2. Cold Spring ES
3. Fox Chapel ES
4. Gaithersburg HS
5. Longview School
6. North Lake Center
7. Ronald McNair ES
8. Rosemont ES
9. S. Christa McAuliffe ES
10. Spark M. Matsunaga ES
11. William B. Gibbs, JR. ES

	Date	Initials
Radon Test Kits Deployed	12/19/2022	BMM
Radon Test Kits Collected	12/22/2022	BMM
Radon Test Kits Shipped to Lab*	12/22/2022	BMM
Radon Test Kits Received by Lab*	12/28/2022	BMM

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Rosemont Elementary School
Date of Test Report	05/27/2022
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 ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.1 pCi/L

Project Status

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

Mitigation needed - Room 109

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

May 27, 2022

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

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

Location: Rosemont Elementary School
16400 Alden Ave.
Gaithersburg, MD 20877

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 Rosemont Elementary School, located at 16400 Alden Ave. Gaithersburg, MD 20877 (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 28, 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 piC/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 31, 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 mid 20°Fs and high temperatures ranged from the low 50°Fs to the mid 70°Fs. Maximum sustained winds ranged from 0-33 miles per hour. Average humidity was around 47% with 0.23 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 piC/L	None	N/A
<4.0 piC/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 McCleaf

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
QC- Quality Control

Table 1- Radon Testing Results		
Rosemont ES RT		
Test Period: 03/28/2022 - 03/31/2022		
Kit Number	Room / Area	Result
11139923	110D	< 0.3
11139931	110D	1.1
11139932	110D	0.9

Table 2- Radon Testing Results			
Rosemont ES RT			
Test Period: 03/28/2022 - 03/31/2022			
Kit Number	QC Type	Room / Area	Result
11139931	D	110D	1.1
11139923	FB	110D	< 0.3
11139883	OB	OFFICE BLANK	< 0.3
11139841	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Rosemont ES RT		
Test Period: 03/28/22 - 03/31/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Rosemont ES RT		
Test Period: 03/28/22 - 03/31/22		
Kit Number	Room/Area	Result
	NA	

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

April 4, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139923	110D	2022-03-28 @ 12:00 pm	2022-03-31 @ 11:00 am	< 0.3	2022-04-04
11139931	110D	2022-03-28 @ 12:00 pm	2022-03-31 @ 11:00 am	1.1 ± 0.3	2022-04-04
11139932	110D	2022-03-28 @ 12:00 pm	2022-03-31 @ 11:00 am	0.9 ± 0.3	2022-04-04

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 Eight	_____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
_____	_____
_____	_____
_____	_____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
_____	_____
_____	_____
_____	_____

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

March 30, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within ± 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 ± 2.1	2022-03-30
11139368	SK2	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	23.9 ± 2.0	2022-03-30
11139371	SK3	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.7 ± 2.1	2022-03-30
11139710	SK4	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	26.4 ± 2.1	2022-03-30
11139717	SK5	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	24.6 ± 2.0	2022-03-30

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

KCI TECHNOLOGIES

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. Rock Terrace School
2. S. Christa McAuliffe ES
3. Cedar Grove ES
4. DuFief ES
5. Emory Grove Center
6. Gaithersburg ES
7. Gaithersburg MS
8. Jones Lane ES
9. Rachel Carson ES
10. Rosemont ES
11. Shady Grove MS
12. Summit Hall ES
13. Albert Einstein HS
14. Eastern MS
15. Montgomery Blair HS
16. Newport Mill MS
17. Strawberry Knoll ES

	Date	Initials
Radon Test Kits Deployed	03/28/2022	BMM
Radon Test Kits Collected	03/31/2022	BMM
Radon Test Kits Shipped to Lab*	04/01/2022	BMM
Radon Test Kits Received by Lab*	04/04/2022	BMM

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Rosemont Elementary School
Date of Test Report	4/7/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	56
# Rooms ≥ 4.0 pCi/L	1
Lowest Value	<0.3 pCi/L
Highest Value	4.3 pCi/L

Project Status:
Initial testing completed; Missing, Elevated, or compromised samples need re-sampling

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

April 7, 2022

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

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

Location: Rosemont ES
16400 Alden Ave.
Gaithersburg, MD 20877

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 Rosemont ES, located at 16400 Alden Ave. Gaithersburg, MD 20878 (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 22, 2022 and deployed sixty five (65) 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 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 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 20s and high temperatures ranged from the high 30s to the high 40s Fahrenheit. Maximum sustained winds ranged from 5-18 miles per hour. Average humidity was around 15% with 1.5 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 piC/L	109	4.3
<4.0 piC/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 McCleaf

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
QC- Quality Control

Table 1- Radon Testing Results		
Rosemont ES		
Test Period: 02/22/2022 - 02/25/2022		
Kit Number	Room / Area	Result
11114166	101	0.8
11114146	102	< 0.3
11114147	103	1.3
11114122	104	1.6
11114128	105	1.2
11114113	106	1.7
11114120	107	< 0.3
11114114	108	2.5
11114137	109	4.3
11114139	109	4.3
11114104	110	2.3
11114106	110	2.0
11131075	111	1.3
11114129	112	1.4
11131023	113	2.0
11114112	114	1.5
11114130	115	1.9
11114119	116	1.3
11114125	117	2.2
11114132	117	2.4
11114124	118	0.9
11114148	120	0.7
11114163	121	< 0.3
11114172	121	< 0.3
11114159	122	< 0.3
11114110	123	< 0.3
11114149	124	< 0.3
11114141	125	< 0.3
11114140	126	< 0.3
11114133	127	0.9
11114134	128	< 0.3
11114155	212	1.2
11114143	220	< 0.3
11114152	225	< 0.3
11114117	100 MAIN	< 0.3
11114118	100A	< 0.3
11114108	100B	< 0.3
11114115	100C	0.9
11114107	100D	1.3
11114123	100E	< 0.3
11114153	100F PRINCIPAL	< 0.3
11114111	101B	< 0.3
11114144	103A	< 0.3
11114135	103A1	0.9
11114151	103A2	< 0.3

Table 1- Radon Testing Results		
Rosemont ES		
Test Period: 02/22/2022 - 02/25/2022		
Kit Number	Room / Area	Result
11114142	103A3	1.2
11114127	103A4	0.7
11114116	104B	1.2
11114103	110A	1.4
11114131	110B	1.7
11114101	110C	1.6
11131082	110D	NA
11114102	111A	2.3
11114105	111A	< 0.3
11114138	111A	1.9
11114156	ALL PURPOSE	1.0
11114157	ALL PURPOSE	1.2
11114121	ASSISTANT PRINCIPAL	< 0.3
11114109	GYM	< 0.3
11114145	GYM	< 0.3
11114126	GYM OFFICE	1.1
11114165	GYM OFFICE	< 0.3
11114158	KITCHEN OFFICE	< 0.3
11114136	STAGE	0.6
11114150	STAGE	1.0

Table 2- Radon Testing Results			
Rosemont ES			
Test Period: 02/22/2022 - 02/25/2022			
Kit Number	QC Type	Room / Area	Result
11114139	D	109	4.3
11114102	D	111A	2.3
11114105	FB	111A	< 0.3
11114132	D	117	2.4
11114150	D	Stage	0.6
11114136	FB	Stage	1.0
11114172	D	121	< 0.3
11114126	D	Gym Office	1.1
11114165	FB	Gym Office	< 0.3
11139384	OB	OFFICE BLANK	< 0.3
11131222	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Rosemont ES		
Test Period: 02/22/22 - 02/25/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Rosemont ES		
Test Period: 02/22/22 - 02/25/22		
Kit Number	Room/Area	Result
11114107	110D	Missing

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

March 16, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11114117	100 MAIN	2022-02-22 @ 12:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114118	100A	2022-02-22 @ 12:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114108	100B	2022-02-22 @ 12:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114115	100C	2022-02-22 @ 12:00 pm	2022-02-25 @ 10:00 am	0.9 ± 0.5	2022-03-03
11114107	100D	2022-02-22 @ 12:00 pm	2022-02-25 @ 10:00 am	1.3 ± 0.5	2022-03-03
11114123	100E	2022-02-22 @ 12:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114153	100F PRINCIPAL	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114166	101	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	0.8 ± 0.5	2022-03-03
11114111	101B	2022-02-22 @ 1:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114146	102	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114147	103	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	1.3 ± 0.5	2022-03-03
11114144	103A	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114135	103A1	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	0.9 ± 0.5	2022-03-03
11114151	103A2	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114142	103A3	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	1.2 ± 0.5	2022-03-03
11114127	103A4	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	0.7 ± 0.5	2022-03-03
11114122	104	2022-02-22 @ 1:00 pm	2022-02-25 @ 10:00 am	1.6 ± 0.5	2022-03-03
11114116	104B	2022-02-22 @ 1:00 pm	2022-02-25 @ 10:00 am	1.2 ± 0.5	2022-03-03
11114128	105	2022-02-22 @ 1:00 pm	2022-02-25 @ 10:00 am	1.2 ± 0.5	2022-03-03
11114113	106	2022-02-22 @ 1:00 pm	2022-02-25 @ 10:00 am	1.7 ± 0.5	2022-03-03
11114120	107	2022-02-22 @ 1:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114114	108	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	2.5 ± 0.6	2022-03-03
11114137	109	2022-02-22 @ 1:00 pm	2022-02-25 @ 10:00 am	4.3 ± 0.7	2022-03-03
11114139	109	2022-02-22 @ 1:00 pm	2022-02-25 @ 10:00 am	4.3 ± 0.7	2022-03-03
11114104	110	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	2.3 ± 0.6	2022-03-03
11114106	110	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	2.0 ± 0.6	2022-03-03
11114103	110A	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	1.4 ± 0.5	2022-03-03
11114131	110B	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	1.7 ± 0.5	2022-03-03
11114101	110C	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	1.6 ± 0.5	2022-03-03
11131075	111	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	1.3 ± 0.5	2022-03-03
11114102	111A	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	2.3 ± 0.6	2022-03-03
11114105	111A	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114138	111A	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	1.9 ± 0.5	2022-03-03
11114129	112	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	1.4 ± 0.5	2022-03-03
11131023	113	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	2.0 ± 0.5	2022-03-03
11114112	114	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	1.5 ± 0.5	2022-03-03
11114130	115	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	1.9 ± 0.5	2022-03-03

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

March 16, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11114119	116	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	1.3 ± 0.5	2022-03-03
11114125	117	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	2.2 ± 0.5	2022-03-03
11114132	117	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	2.4 ± 0.5	2022-03-03
11114124	118	2022-02-22 @ 1:00 pm	2022-02-25 @ 11:00 am	0.9 ± 0.5	2022-03-03
11114148	120	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	0.7 ± 0.4	2022-03-03
11114172	121	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114163	121	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114159	122	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114110	123	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114149	124	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114141	125	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114140	126	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114133	127	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	0.9 ± 0.5	2022-03-03
11114134	128	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114155	212	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	1.2 ± 0.5	2022-03-03
11114143	220	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114152	225	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114156	ALL PURPOSE	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	1.0 ± 0.5	2022-03-03
11114157	ALL PURPOSE	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	1.2 ± 0.5	2022-03-03
11114121	ASSISTANT PRINCIPAL	2022-02-22 @ 12:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114145	GYM	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114109	GYM	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114165	GYM OFFICE	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	< 0.3	2022-03-03
11114126	GYM OFFICE	2022-02-22 @ 2:00 pm	2022-02-25 @ 11:00 am	1.1 ± 0.5	2022-03-03
11114158	KITCHEN OFFICE	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	< 0.3	2022-03-03
11114136	STAGE	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	0.6 ± 0.5	2022-03-03
11114150	STAGE	2022-02-22 @ 2:00 pm	2022-02-25 @ 10:00 am	1.0 ± 0.5	2022-03-03

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 59.1 % 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 - 11113484, 11192998, 20107126	Device No.'s: _____
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 µR/h Elevation = 820 ft

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within ± 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

KCI TECHNOLOGIES

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. Dufief ES
2. Emory Grove Center
3. Fields Road ES
4. Forest Oak MS
5. Gaithersburg ES
6. Gaithersburg MS
7. Jones Lane ES
8. Rachel Carson ES
9. Rosemont ES
10. Shady Grove MS
11. Summit Hall ES
12. Washington Grove ES

	Date	Initials
Radon Test Kits Deployed	02/22/2022	JM
Radon Test Kits Collected	02/25/2022	JM
Radon Test Kits Shipped to Lab*	02/25/2022	JM
Radon Test Kits Received by Lab*	02/28/2022	JM

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

RADON SCREENING SURVEY – FOLLOW-UP ROSEMOUNT ELEMENTARY SCHOOL

16400 Alden Ave, Gaithersburg, Maryland 20877

EXECUTIVE SUMMARY

Date of Test Report:	3/14/16 Follow-Up
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested	3
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	0.7
High Value:	1.1
Confirmed Rooms ≥ 4.0 pCi/L US EPA Action Level	0

Summary of Sampling Events ≥ 4.0 pCi/L

Room	Result (pCi/L) 2/29/16 (Rev 1 Initial)	Result (pCi/L) 3/14/16 Follow-Up	Average Result (pCi/L)
127	1.2 (Open Window)	0.9	1.1
128	1.7 (Open Window)	1.1	1.4
130 Gym	1.1 (Open Door)	0.7	0.9
130 Gym	<0.3 (Open Door)	Missing	<0.3

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

MCPS RADON TESTING

Executive Summary: Rosemont Elementary School

Date of Test Report:	3/14/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	3
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	0.7
High Value:	1.1

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

March 14, 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 # 12146341.29

Location: Rosemont Elementary School
16400 Alden Avenue
Gaithersburg, MD 20877

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 Sequoyah Elementary School, located at 16400 Alden Avenue in Gaithersburg, Maryland 20877 (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 February 22, 2016 and deployed six (6) 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 February 25, 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 ≤ 65° 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. Note that strong storms and heavy rainfall were recorded during the test period. The unusual weather conditions may have resulted in atypical radon test results for this facility.

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

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

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 piC/L	none	n/a
<4.0 piC/L	See Attachment B	

Notes:
D- Duplicate sample

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

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

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

Sincerely,

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

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

ATTACHMENT 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 9 testing. Office blanks were not submitted under each school individually.

Radon Testing Results		
Rosemont Elementary School		
Test Period: 02/22/16-02/25/16		
Kit Number	**Room / Area**	**Result**
7726853	127	0.9
7726813	128	1.1
7726806	GYM - 130	0.7
7726812	* GYM - 130 (Missing)	-

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Rosemont Elementary School		
Test Period: 02/22/16-02/25/16		
Kit Number	**QC Type**	**Result**
7726821	D (128)	1.1
7726822	FB (GYM - 130)	< 0.3

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

March 8, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ROSEMONT ELEMENTARY SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7726853	127	2016-02-22 @ 10:00 am	2016-02-25 @ 9:00 am	0.9 ± 0.3	2016-02-29
7726813	128	2016-02-22 @ 10:00 am	2016-02-25 @ 9:00 am	1.1 ± 0.3	2016-02-29
7726821	128	2016-02-22 @ 10:00 am	2016-02-25 @ 9:00 am	1.1 ± 0.3	2016-02-29
7726812	GYM - 130	@	@		
7726806	GYM - 130	2016-02-22 @ 11:00 am	2016-02-25 @ 9:00 am	0.7 ± 0.3	2016-02-29
7726822	GYM - 130	2016-02-22 @ 11:00 am	2016-02-25 @ 9:00 am	< 0.3	2016-02-29

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

March 9, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

MCPS
Phase 9 Office Blanks

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7712568	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7712584	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719460	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719481	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719497	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719498	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29

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

March 9, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

MCPS
Phase 9 Office Blanks

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7731626	0	2016-02-23 @ 2:00 pm	2016-02-26 @ 3:00 pm	< 0.3	2016-03-01
7731633	0	2016-02-23 @ 2:00 pm	2016-02-26 @ 3:00 pm	< 0.3	2016-03-01
7735204	0	2016-02-23 @ 2:00 pm	2016-02-26 @ 3:00 pm	< 0.3	2016-03-01

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

February 23, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

TRANSIT- PHASE 7, 8, 9
NONE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7734937	1	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734946	10	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734955	11	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734956	12	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734959	13	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734930	14	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734953	15	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734954	16	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734940	17	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734949	18	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734948	19	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734939	2	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734942	20	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734929	21	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734933	22	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734934	23	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734936	24	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734943	25	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734944	26	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734935	27	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734928	28	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734952	29	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734947	3	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734931	30	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734932	31	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718520	32	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718523	33	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718522	34	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718521	35	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734945	4	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734960	5	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734958	6	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734951	7	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734957	8	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734938	9	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23

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

February 15, 2016

** LABORATORY ANALYSIS REPORT **

Spike Sample Laboratory Results

Radon test result report for:

MCPS

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

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCF Technologies Inc. Job Number 173704

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

Date Start: 1/30/16 Date Stop: 2/1/16	Date Start: _____ Date Stop: _____
Time Start: 0926 Time Stop: 0926	Time Start: _____ Time Stop: _____
Device No.'s: (6) Char. Bags -	Device No.'s: _____
7718281, 7718282, 7718291,	_____
7718288, 7718289, 7718273	_____
E3 Left	_____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
_____	_____
_____	_____
_____	_____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
_____	_____
_____	_____
_____	_____

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

KCI TECHNOLOGIES

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 Phase 9

Name of Schools:

1. Rocking Horse Road ES
2. Rockwell ES
3. Oakland Terrace ES
4. Rosemont ES
5. Beall ES
6. Cresthaven ES
7. Quince Orchard HS
8. Smith Center
9. Ashburton ES
10. Bannockburn ES
11. Bradley Hills ES
12. Cannon Road ES
13. Flora M. Singer ES
14. Clarksburg HS
15. Briggs Chaney MS
16. Broad Acres ES
17. Belmont ES
18. Emory Grove Center
19. Forest Knolls ES
20. Baker MS
21. MLK MS
22. Richard Montgomery HS
23. Sherwood HS
24. Walter Johnson HS
25. Diamond ES
26. Newport Mill MS
27. Drew ES
28. Monocacy ES
29. Potomac ES
30. Rock Terrace School
31. Rosa Parks MS
32. Rosemary Hills ES
33. Sequoyah ES
34. Damascus HS
35. Einstein ES
36. Forest Oak MS
37. Hoover MS
38. Julius West MS
39. John F. Kennedy HS
40. Travilah ES
41. Watkins Mill HS
42. Northwood HS
43. Lincoln Center

	Date	Initials
Radon Test Kits Deployed	2/22/16	JM
Radon Test Kits Collected	2/25/16	JM
Radon Test Kits Shipped to Lab*	2/25/16	JM
Radon Test Kits Received by Lab*	2/29/16	JM

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

KCI TECHNOLOGIES

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 Phase 9

Name of Schools:

1. Banneker MS
2. Bethesda-Chevy Chase HS
3. Burtonsville ES
4. Chevy Chase ES
5. Clopper Mill ES
6. Edison HS
7. Flower Hill ES
8. Flower Valley ES
9. Greencastle ES
10. Maryvale ES
11. Montgomery Blair HS
12. Poolesville HS
13. Rachel Carson ES
14. Stedwick ES
15. Watkins Mill ES
16. Laytonsville ES
17. Lincoln Center

	Date	Initials
Radon Test Kits Deployed	2/23/16	JM
Radon Test Kits Collected	2/26/16	JM
Radon Test Kits Shipped to Lab*	2/26/16	JM
Radon Test Kits Received by Lab*	3/01/16	JM

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

MCPS RADON TESTING

Executive Summary: Rosemont Elementary School

Date of Test Report:	2/29/2016 (Rev 1)
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	63
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	3.2

Project Status:
Initial testing completed; compromised samples need re-test.

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

February 29, 2016 (Rev 1)

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

Re: **Radon Testing Services**
KCI Job # 12146341.19

Location: Rosemont Elementary School
16400 Alden Avenue
Gaithersburg, MD 20877

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 Rosemont Elementary School, located at 16400 Alden Avenue in Gaithersburg, Maryland 20877 (subject site).

Scope of Services:

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

KCI visited the site on December 15, 2016 and deployed hundred seventy-seven (77) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

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

KCI returned to the site on December 18, 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 ≤ 65° F.

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

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

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

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 piC/L	none	n/a
<4.0 piC/L	See Attachment B	

Notes:
D- Duplicate sample

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

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

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

Sincerely,

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

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

ATTACHMENT 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

Radon Testing Results		
Rosemont E.S.		
Test Period: 12/15/15-12/18/15		
Kit Number	**Room / Area**	**Result**
7704847	1	0.6
7706345	101	0.7
7706339	102	1.2
7706327	103	0.9
7706337	104	1.4
7706336	105	1.2
7704818	106	1.5
7706343	107	0.7
7704892	108	2.6
7706316	109	2.8
7704826	110	1.7
7706333	111	1.6
7706326	112	1.9
7706334	113	1.3
7704817	114	2.3
7706338	115	3.2
7704816	116	2.2
7704855	117	2.4
7704814	118	1.2
7706332	120	2.2
7706346	121	0.6
7706331	122	1.1
7706352	123	0.8
7706350	124	0.6
7706314	125	1.2
7706306	126	0.8
7706347	131	0.7
7704835	204	1.6
7704837	207	1.0
7704834	210	1.3
7706324	101A	0.7
7706325	101B	1.1
7704838	101C	1.2
7704839	101D	0.9
7706323	103A	2.1
7704895	104B	1.4
7704830	110A	1.7
7704831	113A	2.1
7706319	115A	2.3
7706344	117A	1.8
7704815	118A	0.9
7706307	* 127 (Open Window/Exterior Door)	1.2
7706308	* 128 (Open Window/Exterior Door)	1.7
7706301	* 130 GYM (Open Window/Exterior Door)	< 0.3
7706303	* 130 GYM (Open Window/Exterior Door)	1.1
7704827	ALL PURP STORAGE	1.4

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Rosemont E.S.		
Test Period: 12/15/15-12/18/15		
Kit Number	**Room / Area**	**Result**
7706329	ALL PURPOSE ROOM	1.8
7706313	ALL PURPOSE ROOM	1.7
7704823	ASSIST PRINCE	1.0
7706322	BUILD SERV OFF	0.8
7704824	CONF. OFF	1.0
7704825	HEALTH ROOM	0.8
7704828	HR1	1.1
7706311	KITCHEN	0.9
7704821	MAIN OFFICE	0.7
7706315	MEDIA CENT OFF	1.9
7704819	MEDIA CENTER	2.3
7704820	MEDIA CENTER	2.7
7704822	MEDIA STORAGE	2.7
7704833	PRINCIPAL	0.7
7706321	PTA	1.0
7706318	SPED	2.5
7704836	STAFF LOUNGE	1.2
7706328	STAGE	1.3
7704840	STORAGE A	1.3
7706305	WORKRM 1	2.0

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Rosemont E.S.		
Test Period: 12/15/15-12/18/15		
Kit Number	**QC Type**	**Result**
7706317	D (109)	2.5
7706335	D (115)	2.6
7706342	D (117)	2.2
7706349	D (121)	0.8
7706309	* D (128:Open Window/Exterior Door)	1.6
7706304	* D (130 GYM:Open Window/Exterior Door)	0.7
7704807	D (ALL PURP STORAGE)	0.6
7706312	D (KITCHEN)	1.1
7706330	FB (126)	< 0.3
7706341	FB (SPED)	< 0.3
7704360	OB (OFFICE BLANK)	< 0.3

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

December 31, 2015

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ROSEMONT E.S.

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7706345	101	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	0.7 ± 0.3	2015-12-22
7706324	101A	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	0.7 ± 0.3	2015-12-22
7706325	101B	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	1.1 ± 0.3	2015-12-22
7704838	101C	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7704839	101D	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.9 ± 0.3	2015-12-22
7706339	102	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7706327	103	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	0.9 ± 0.3	2015-12-22
7706323	103A	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	2.1 ± 0.3	2015-12-22
7706337	104	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.4 ± 0.3	2015-12-22
7704895	104B	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.4 ± 0.3	2015-12-22
7706336	105	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7704818	106	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.5 ± 0.3	2015-12-22
7706343	107	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	0.7 ± 0.3	2015-12-22
7704892	108	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	2.6 ± 0.3	2015-12-22
7706316	109	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	2.8 ± 0.4	2015-12-22
7706317	109	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	2.5 ± 0.4	2015-12-22
7704826	110	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.7 ± 0.3	2015-12-22
7704830	110A	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.7 ± 0.4	2015-12-22
7706333	111	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	1.6 ± 0.3	2015-12-22
7706326	112	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	1.9 ± 0.3	2015-12-22
7706334	113	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	1.3 ± 0.3	2015-12-22
7704831	113A	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	2.1 ± 0.3	2015-12-22
7704817	114	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	2.3 ± 0.4	2015-12-22
7706335	115	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	2.6 ± 0.4	2015-12-22
7706338	115	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	3.2 ± 0.4	2015-12-22
7706319	115A	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	2.3 ± 0.4	2015-12-22
7704816	116	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	2.2 ± 0.4	2015-12-22
7706342	117	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	2.2 ± 0.3	2015-12-22
7704855	117	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	2.4 ± 0.4	2015-12-22
7706344	117A	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	1.8 ± 0.3	2015-12-22
7704814	118	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7704815	118A	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	0.9 ± 0.3	2015-12-22
7706332	120	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	2.2 ± 0.3	2015-12-22
7706346	121	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	0.6 ± 0.3	2015-12-22
7706349	121	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7706331	122	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	1.1 ± 0.3	2015-12-22
7706352	123	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22

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

December 31, 2015

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ROSEMONT E.S.

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7706350	124	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	0.6 ± 0.3	2015-12-22
7706314	125	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7706330	126	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7706306	126	2015-12-15 @ 1:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7706307	127	2015-12-15 @ 1:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7706308	128	2015-12-15 @ 1:00 pm	2015-12-18 @ 12:00 pm	1.7 ± 0.3	2015-12-22
7706309	128	2015-12-15 @ 1:00 pm	2015-12-18 @ 11:00 am	1.6 ± 0.3	2015-12-22
7706301	130 GYMNASIUM	2015-12-15 @ 1:00 pm	2015-12-18 @ 12:00 pm	< 0.3	2015-12-22
7706303	130 GYMNASIUM	2015-12-15 @ 1:00 pm	2015-12-18 @ 11:00 am	1.1 ± 0.3	2015-12-22
7706304	130 GYMNASIUM	2015-12-15 @ 1:00 pm	2015-12-18 @ 11:00 am	0.7 ± 0.3	2015-12-22
7706347	131	2015-12-15 @ 1:00 pm	2015-12-18 @ 10:00 am	0.7 ± 0.3	2015-12-22
7704835	204	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	1.6 ± 0.3	2015-12-22
7704837	207	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	1.0 ± 0.3	2015-12-22
7704834	210	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	1.3 ± 0.3	2015-12-22
7706329	ALL PURP ROOM	2015-12-15 @ 10:00 pm	2015-12-18 @ 10:00 am	1.8 ± 0.3	2015-12-22
7704827	ALL PURP STORAGE	2015-12-15 @ 4:00 pm	2015-12-18 @ 10:00 am	1.4 ± 0.3	2015-12-22
7704807	ALL PURP STORAGE	2015-12-15 @ 4:00 pm	2015-12-18 @ 10:00 am	0.6 ± 0.3	2015-12-22
7706313	ALL PURPOSE RM	2015-12-15 @ 2:00 pm	2015-12-18 @ 10:00 am	1.7 ± 0.4	2015-12-22
7704823	ASSIST PRINCE	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	1.0 ± 0.3	2015-12-22
7706322	BUIL SERV OFF	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7704824	CONFERENCE OFF	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	1.0 ± 0.3	2015-12-22
7704825	HEALTH ROOM	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7704828	HR1	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	1.1 ± 0.3	2015-12-22
7706311	KITCHEN	2015-12-15 @ 2:00 pm	2015-12-18 @ 10:00 am	0.9 ± 0.3	2015-12-22
7706312	KITCHEN	2015-12-15 @ 2:00 pm	2015-12-18 @ 10:00 am	1.1 ± 0.3	2015-12-22
7704821	MAIN OFFICE	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	0.7 ± 0.3	2015-12-22
7706315	MEDIA CENT OFF	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	1.9 ± 0.3	2015-12-22
7704819	MEDIA CENTER	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	2.3 ± 0.3	2015-12-22
7704820	MEDIA CENTER	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	2.7 ± 0.3	2015-12-22
7704822	MEDIA STORAGE	2015-12-15 @ 3:00 pm	2015-12-18 @ 11:00 am	2.7 ± 0.4	2015-12-22
7704847	O1	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	0.6 ± 0.3	2015-12-22
7704833	PRINCIPAL	2015-12-15 @ 3:00 pm	2015-12-18 @ 12:00 pm	0.7 ± 0.3	2015-12-22
7706321	PTA	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	1.0 ± 0.3	2015-12-22
7706341	SPED	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7706318	SPED	2015-12-15 @ 2:00 pm	2015-12-18 @ 11:00 am	2.5 ± 0.4	2015-12-22
7704836	STAFF LOUNGE	2015-12-15 @ 4:00 pm	2015-12-18 @ 12:00 pm	1.2 ± 0.3	2015-12-22
7706328	STAGE	2015-12-15 @ 2:00 pm	2015-12-18 @ 10:00 am	1.3 ± 0.3	2015-12-22

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

December 31, 2015

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ROSEMONT E.S.

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7704840	STORAGE A	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.3 ± 0.3	2015-12-22
7706305	WORKROOM 1	2015-12-15 @ 10:00 pm	2015-12-18 @ 11:00 am	2.0 ± 0.4	2015-12-22

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

December 31, 2015

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ROSEMONT E.S.
OFFICE BLANK

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7704360	OFFICE BLANK	2015-12-15 @ 3:00 pm	2015-12-18 @ 3:00 pm	< 0.3	2015-12-22

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

December 29, 2015

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

TRANSIT DEC 14 2015
NONE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7704395	TRANSIT 1	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706508	TRANSIT 10	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706510	TRANSIT 11	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706511	TRANSIT 12	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706505	TRANSIT 13	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704371	TRANSIT 14	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706506	TRANSIT 15	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704381	TRANSIT 16	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704399	TRANSIT 17	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704390	TRANSIT 18	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704396	TRANSIT 2	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704364	TRANSIT 3	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704370	TRANSIT 4	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7704368	TRANSIT 5	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706524	TRANSIT 6	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706526	TRANSIT 7	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706518	TRANSIT 8	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16
7706516	TRANSIT 9	2015-12-13 @ 10:00 am	2015-12-15 @ 10:00 am	< 0.3	2015-12-16

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

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, 7706211, 7706366, 7706380, 7706381 F3 Left	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: _____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____

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

KCI TECHNOLOGIES

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 Phase I

Name of Schools:

1. Westland M.S.
2. East Silver Spring E.S.
3. Oakland Terrace E.S.
4. Rocking Horse Road E.S.
5. Beall E.S.
6. South Lake E.S.
7. Jones Lane E.S.
8. Quince Orchard H.S.
9. Damascus E.S.
10. Westbrooke E.S.
11. Highland View E.S.
12. Cresthaven E.S.
13. Viers Mill E.S.
14. Smith Center
15. Rosemont E.S.
16. Ridgeview M.S.
17. Rockwell E.S.
18. Oak View E.S.
19. Jackson Road E.S.
20. Highland E.S.
21. Watkins Mill E.S.

	Date	Initials
Radon Test Kits Deployed	12/15/15	KM
Radon Test Kits Collected	12/18/15	KM
Radon Test Kits Shipped to Lab*	12/18/15	KM
Radon Test Kits Received by Lab*	12/22/15	KM

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