

School Year: **24-25**

Facility:	Argyle Middle School		
Address:	2400 Bel Pre Road		
	Silver Spring, MD 20906		
Reason for Testing:	Scheduled Re-Testing - <input type="checkbox"/> 2-year or <input checked="" type="checkbox"/> 5-year schedule <input type="checkbox"/> Clearance Testing (Post-Mitigation) <input type="checkbox"/> Building Envelope or HVAC Upgrades <input type="checkbox"/> New Construction – Addition or Facility		
Current Radon Status:	<input type="checkbox"/> Active Mitigation (2-year regular schedule) <input checked="" type="checkbox"/> No Active Mitigation (5-year regular schedule) <input type="checkbox"/> Not Previously Tested (New Facility)		
Round of Testing:	<input type="checkbox"/> Initial Testing -or- <input checked="" type="checkbox"/> Follow-up Testing		
Testing Status:	<input checked="" type="checkbox"/> No Further Testing Needed -or- <input type="checkbox"/> Follow-Up Testing Required		

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

Mitigation -	Facility Radon Status:		
<input checked="" type="checkbox"/> Not Required <input type="checkbox"/> Required (≥ 4.0 -pCi/L) Rooms:	<input checked="" type="checkbox"/> No Change in Status <input type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule)		
Number of Rooms Tested	45	Lowest Value (pCi/L)	< 0.3
Number of Rooms (≥ 4.0 -pCi/L)	0	Highest Value (pCi/L)	0.9

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

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

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

Attachment 2 – Laboratory Report(s)

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

Detector and Deployment

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

Testing

<input checked="" type="checkbox"/> Short-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	12/02/24	03/11/25
<input type="checkbox"/> Long-Term				12/05/24	03/14/25
Does the test period include weekends, school breaks or holidays?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<i>If “Yes” please explain/detail in the space below:</i>					
Was HVAC operating under occupied conditions?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<i>If “No” please explain/detail in the space below:</i>					

Testing (continued)

Round of Testing	Detectors Deployed				Total
	Ground-Contact		Upper-Level(s)		
	Initial	Follow-Up	Initial	Follow-Up	
Test Locations ¹	41	0	0	4	45
Duplicates ²	4	0	0	1	5
Field Blanks ³	2	0	0	1	3
Grand Total					53

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

2 - 10% of all locations tested, per floor

3 – 5% of all locations tested, per floor

Quality Assurance / Quality Control (QA/QC)

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

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

1 - 3% of EIC detectors; and 3% from each LOT of CAD and ATD detectors; a maximum of 6-spiked measurements per month for both EIC detectors and each LOT of CAD and ATD detectors.

2 – One per shipping container from start of detector deployment

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

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

Quality Assurance / Quality Control (continued)

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

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

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

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

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

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

Summary of Test Results¹ and Determination of Valid Measurements²

Round of Testing	Ground-Contact		Upper-Level(s)		Total
	Initial	Follow-Up	Initial	Follow-Up	
Number of test locations:	41	0	0	4	45
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 :	0	0	4	0	0
Number of failed duplicate control locations:	0	0	0	0	0
Percentage of missing test locations for the facility ^{4,5} :	0	0	100%	0	0

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

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

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

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

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

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

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

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

Follow-Up Testing

Required –

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

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

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

Attachment 1:
Summary Data Tables

Table 1- Radon Testing Results		
Argyle Middle School		
Test Period: 12/02/2024 - 12/05/2024		
Kit Number	Room / Area	Result
11903604	101	< 0.3
11903633	102	0.6
11903634	103	0.5
11903615	104	< 0.3
11903605	105	0.9
11903606	106	< 0.3
11903613	106	< 0.3
11903620	106	< 0.3
11903624	107	0.6
11903612	108	< 0.3
11903621	109	< 0.3
11903614	110	0.9
11903631	111	< 0.3
11903663	120	< 0.3
11903664	120	< 0.3
11903665	121	0.7
11903650	122	< 0.3
11903659	123	< 0.3
11903649	124	< 0.3
11903652	125	< 0.3
11903655	126	< 0.3
11903644	127	0.8
11903656	128	< 0.3
11903648	129	< 0.3
11903657	130	< 0.3
11903643	131	0.5
11903619	105C	< 0.3
11903622	109C	0.7
11903641	120A	< 0.3
11903646	120A	< 0.3
11903601	CAFETERIA	< 0.3
11903632	CAFETERIA	< 0.3
11903623	CONFERENCE	0.6
11903607	COUNSELING	< 0.3
11903608	COUNSELING ANDICH	< 0.3
11903611	COUNSELING CONFERENCE	< 0.3
11903603	COUNSELING DEWITT	< 0.3
11903609	COUNSELING FORD	< 0.3
11903602	COUNSELING LILJA	< 0.3
11903610	COUNSELING LILJA	0.5
11903627	KITCHEN OFFICE	< 0.3

Table 1- Radon Testing Results		
Argyle Middle School		
Test Period: 12/02/2024 - 12/05/2024		
Kit Number	Room / Area	Result
11903628	KITCHEN OFFICE	< 0.3
11903617	MAIN OFFICE	< 0.3
11903625	PRINCIPAL	< 0.3
11903618	PRINCIPAL INTERN	0.5
11903626	SECRETARY	< 0.3
11903629	STAFF DINING	< 0.3

Table 3 - QC Radon Testing Results			
Argyle Middle School			
Test Period: 12/02/2024 - 12/05/2024			
Kit Number	QC Type	Room / Area	Result
11903613	D	106	< 0.3
11903620	FB	106	< 0.3
11903664	D	120	< 0.3
11903646	FB	120A	< 0.3
11903610	D	COUNSELING LILJA	0.5
11903628	D	KITCHEN OFFICE	< 0.3
11892899	OB	OFFICE BLANK	< 0.3
11892900	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation

Argyle Middle School

Test Period: 12/02/2024 - 12/05/2024

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	
11903602	11903610	Counseling Lijja	0.5	0.3	✓	0.6	PASS	0.4	<1-pCi/L	✓
11903606	11903620	106	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11903627	11903628	Kitchen Office	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11903646	11903641	120A	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓

NOTES:

QC Check #1 - Data Entry

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

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

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

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

Table 1- Radon Testing Results		
Argyle Middle School RT		
Test Period: 3/11/2025 - 3/14/2025		
Kit Number	Room / Area	Result
11892424	232	< 0.3
11892425	232	0.5
11892426	235	< 0.3
11892427	203	< 0.3
11892428	203	< 0.3
11892429	211	< 0.3

Table 3 - QC Radon Testing Results			
Argyle Middle School RT			
Test Period: 3/11/2025 - 3/14/2025			
Kit Number	QC Type	Room / Area	Result
11892425	D	232	0.5
11892427	FB	203	< 0.3
11886599	OB	OFFICE BLANK	< 0.3
11886600	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation

Argyle Middle School RT

Test Period: 3/11/2025 - 3/14/2025

Sample ID			Duplicate Concentrations (pCi/L) and OC Checks							
Kit Numbers		Room / Area	Higher	Lower	Check #1 (Pass/Fail)	2x the Lower	Check #2 (Pass/Fail)	Average	Relative Percent Difference (RPD)	Check #3
11892425	11892424	232	0.5	0.3	✓	0.6	PASS	0.4	<1-pCi/L	✓
11892428	11892427	203	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

Attachment 2:
Laboratory Reports

Radon test result report for:
ARGYLE MS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11903604	101	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903633	102	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.6 ± 0.3	2024-12-09
11903634	103	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.5 ± 0.3	2024-12-09
11903615	104	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903605	105	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.9 ± 0.4	2024-12-09
11903606	106	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903613	106	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903620	106	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903614	110	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.9 ± 0.3	2024-12-09
11903631	111	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903664	120	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903663	120	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903641	120A	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903646	120A	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903665	121	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	0.7 ± 0.4	2024-12-09
11903650	122	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903659	123	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903649	124	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903652	125	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903655	126	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903644	127	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	0.8 ± 0.4	2024-12-09
11903656	128	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903648	129	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903657	130	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903643	131	2024-12-02 @ 9:00 am	2024-12-05 @ 8:00 am	0.5 ± 0.3	2024-12-09
11903632	CAFETERIA	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903601	CAFETERIA	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903623	CONFERENCE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.6 ± 0.4	2024-12-09
11903607	COUNSELING	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903608	COUNSELING ANDICH	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903611	COUNSELING CONFERENCE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903603	COUNSELING DEWITT	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903609	COUNSELING FORD	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903602	COUNSELING LILJA	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903610	COUNSELING LILJA	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.5 ± 0.3	2024-12-09
11903628	KITCHEN OFFICE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903627	KITCHEN OFFICE	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09

December 9, 2024

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ARGYLE MS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11903617	MAIN OFFICE	2024-12-02 @ 7:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903625	PRINCIPAL	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903618	PRINCIPAL INTERN	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.5 ± 0.4	2024-12-09
11903626	SECRETARY	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903629	STAFF DINING	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09

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

December 9, 2024

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11903619	105C	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903624	107	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.6 ± 0.4	2024-12-09
11903612	108	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903621	109	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	< 0.3	2024-12-09
11903622	109C	2024-12-02 @ 8:00 am	2024-12-05 @ 8:00 am	0.7 ± 0.4	2024-12-09

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

P4792 / TYLER MCCLEAF

Kit Number	Start Date	Start Time	End Date	End Time	Temp.	Facility	Building	Room	Project ID	Floor	Result
11892899	2024-12-02	11:00 am	2024-12-05	11:00 am	70	OFFICE	MAIN	O		1	< 0.3
11892900	2024-12-02	11:00 am	2024-12-05	11:00 am	70	TRAVEL	MAIN	T		1	< 0.3
11904003	2024-12-02	10:00 am	2024-12-05	11:00 am	70	JAMES HUBERT BLAKE HS	MAIN	SMALL GYM		1	1.4
11904272	2024-12-03	11:00 am	2024-12-06	11:00 am	70	TRAVEL	MAIN	T		1	< 0.3
11904291	2024-12-03	11:00 am	2024-12-06	11:00 am	70	OFFICE	MAIN	O		1	< 0.3

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 μ R/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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing December 2nd – December 5th, 2024

Name of Schools:

- 1. Argyle MS
- 2. Benjamin Banneker MS
- 3. Belmont ES
- 4. James Hubert Blake HS
- 5. Briggs Chaney MS
- 6. Burtonsville ES

	Date	Initials
Radon Test Kits Deployed	12/02/2024	BMM
Radon Test Kits Collected	12/05/2024	BMM
Radon Test Kits Shipped to Lab*	12/05/2024	BMM
Radon Test Kits Received by Lab*	12/09/2024	BMM

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

March 17, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892427	203	2025-03-11 @ 9:00 am	2025-03-14 @ 11:00 am	< 0.3	2025-03-17
11892428	203	2025-03-11 @ 9:00 am	2025-03-14 @ 11:00 am	< 0.3	2025-03-17
11892429	203	2025-03-11 @ 9:00 am	2025-03-14 @ 11:00 am	< 0.3	2025-03-17
11892424	232	2025-03-11 @ 9:00 am	2025-03-14 @ 11:00 am	< 0.3	2025-03-17
11892425	232	2025-03-11 @ 9:00 am	2025-03-14 @ 11:00 am	0.5 ± 0.3	2025-03-17
11892426	232	2025-03-11 @ 9:00 am	2025-03-14 @ 11:00 am	< 0.3	2025-03-17

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

March 17, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**OFFICE
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892446	OB	2025-03-11 @ 11:00 am	2025-03-14 @ 11:00 am	< 0.3	2025-03-17
11886599	OB	2025-03-10 @ 11:00 am	2025-03-13 @ 11:00 am	< 0.3	2025-03-17

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

March 17, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**TRAVEL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892444	TB	2025-03-11 @ 11:00 am	2025-03-14 @ 11:00 am	< 0.3	2025-03-17
11886600	TB	2025-03-10 @ 11:00 am	2025-03-13 @ 11:00 am	< 0.3	2025-03-17

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 μ R/h Elevation = 820 ft**

March 19, 2025

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**QC
MAIN**

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

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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Re-Testing March 11th – March 14th, 2025

Name of Schools:

1. Albert Einstein HS
2. Argyle MS
3. Belmont ES
4. Benjamin Banneker MS
5. Cannon Road ES
6. Dr. Charles R. Drew ES
7. East Silver Spring ES
8. James Hubert Blake HS
9. William Farquhar MS

	Date	Initials
Radon Test Kits Deployed	3/11/2025	BMM
Radon Test Kits Collected	3/14/2025	BMM
Radon Test Kits Shipped to Lab*	3/14/2025	BMM
Radon Test Kits Received by Lab*	3/16/2025	BMM

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



MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Argyle Middle School
Date of Report	2/28/2020
Round of Testing	Initial Follow-up Post Remediation 2 year testing 5 year testing HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested	3
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	<0.3 pCi/L

Project Status

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



2/28/2020

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

Re: Radon Testing Services

KCI Job #12146341.126

Location: Argyle Middle School

2400 Bel Pre Road
Silver Spring, Maryland 20906

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a “short-term” 3-day radon test for the Argyle Middle School, located at 2400 Bel Pre Road in Silver Spring, Maryland 20906 (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 #111004 RT) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from www.montgomerycountymd.gov/dep/air/radon or www.epa.gov/radon.

KCI visited the site on 2/11/2020 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.

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

1. Rooms with missing test kits from the December 2019 testing period (i.e. test kit was deployed but not recovered),

-
2. Rooms with invalidated test kits from the December 2019 testing period (e.g. an open window in the room or disturbed test kit),
 3. Rooms which were locked/inaccessible during the December 2019 testing period,
 4. Rooms with elevated December 2019 results (i.e. ≥ 3.5 pCi/L),
 5. Rooms previously tested for radon but not tested in December 2019, and
 6. Additional rooms that require testing (if applicable.)

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

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

KCI returned to the site on 2/14/2020 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, Inc. is a 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 at the time of deployment and collection of the radon test kits:

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the mid-20s to the upper-40s; and high temperatures ranged from the lower-40s to the upper-50s. Maximum sustained winds ranged from 14-24 miles per hour. Average humidity was approximately 74%. A total of 1.32 inches of rain were recorded during the testing period. The weather conditions during the testing period may have resulted in atypical radon test results for this facility.

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Mr. Tyler P. McCleaf
 Radon Measurement Provider
 KCI Technologies, Inc.

Attachments:

A- Floor Plan with Test Locations

B - Tables 1-3, Radon Test Summary Spreadsheets

C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

Floor Plan Legend

X-Sample Location (in red)

X- Previous Sample Location

1- Not Samled; No Ground Contact

2- Not Samled; Unoccupied (e.g. Storage, Mechanical)

3- Not Samled; High Humidity/Moisture

4- Not Samled; Bathroom/Hallway

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Table 1- Radon Testing Results		
Argyle Middle School		
Test Period: 02/11/20-02/14/20		
Kit Number	Room / Area	Result
9339790	AUXILIARY GYM	< 0.3
9346971	201	< 0.3
9346973	GYM	< 0.3
9346974	AUXILIARY GYM	< 0.3
9346975	GYM	< 0.3
9348502	OFFICE BLANK	< 0.3

Table 2- Radon Testing Results			
Argyle Middle School			
Test Period: 02/11/20-02/14/20			
Kit Number	QC Type	Room / Area	Result
9348522	TRANSIT BLANK	NA	0.7
9341735	TRANSIT BLANK	NA	<0.3

ATTACHMENT C

Laboratory Analytical Results

February 19, 2020

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

ARGYLE MS

MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9346971	201	2020-02-11 @ 8:00 am	2020-02-14 @ 11:00 am	< 0.3	2020-02-19
9339790	AUXILIARY GYM	2020-02-11 @ 8:00 am	2020-02-14 @ 11:00 am	< 0.3	2020-02-19
9346974	AUXILIARY GYM	2020-02-11 @ 8:00 am	2020-02-14 @ 11:00 am	< 0.3	2020-02-19
9346975	GYM	2020-02-11 @ 8:00 am	2020-02-14 @ 11:00 am	< 0.3	2020-02-19
9346973	GYM	2020-02-11 @ 8:00 am	2020-02-14 @ 11:00 am	< 0.3	2020-02-19

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 194523

NOMINAL Conditions: Radon Conc 25.8 pCi/L Rel. Hum 49.8 % Temp. 70.2 F

Date Start: 2/21/20 Date Stop: 2/24/20 Date Start: _____ Date Stop: _____

Time Start: 0745 Time Stop: 0745 Time Start: _____ Time Stop: _____

Device No.'s: (9) Char Bags - Device No.'s: _____

9341725 thru 9341733

52 ceph

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

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

Device No.'s: _____ Device No.'s: _____

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

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

Device No.'s: _____ Device No.'s: _____

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

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9341725	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.9 \pm 1.6	2020-02-26
9341730	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.1 \pm 1.6	2020-02-26
9341728	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.9 \pm 1.6	2020-02-26
9341726	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	25.8 \pm 1.5	2020-02-26
9341731	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	25.1 \pm 1.5	2020-02-26
9341729	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.2 \pm 1.6	2020-02-26
9341727	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	27.2 \pm 1.6	2020-02-26
9341732	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	27.3 \pm 1.6	2020-02-26



Radon Test Kit Chain of Custody

Project Name: MCPS Radon 2019 Week 2

Name of Schools:

- | | |
|-----------------------|-------------------|
| 1. Argyle M.S. | 6. Fallsmead E.S. |
| 2. Banneker M.S. | 7. Farquhar M.S. |
| 3. Bel Pre E.S. | 8. Kennedy H.S. |
| 4. Blake H.S. | 9. Magruder H.S. |
| 5. Briggs Chaney M.S. | 10. Wheaton H.S. |

	Date	Initials
Radon Test Kits Deployed	2/11/20	JM
Radon Test Kits Collected	2/14/20	JM
Radon Test Kits Shipped to Lab*	2/14/20	JM
Radon Test Kits Received by Lab*	2/17/20	JM

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



MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Argyle Middle School
Date of Report	2/3/2020
Round of Testing	Initial Follow-up Post Remediation 2 year testing 5 year testing HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested	67
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.5 pCi/L

Project Status

Current Project Status at this time: Testing Complete; missed locations and missing/compromised tests to be sampled.



2/3/2020

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

Re: Radon Testing Services

KCI Job #12146341126

Location: Argyle Middle School

2400 Bel Pre Road
Silver Spring, Maryland 20906

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a “short-term” 3-day radon test for the Argyle Middle School, located at 2400 Bel Pre Road in Silver Spring, Maryland 20906 (subject site).

SCOPE OF SERVICES

KCI conducted radon testing at the subject site to evaluate indoor radon levels relative to the USEPA's recommended action level of 4.0 picocuries per Liter (pCi/L) - the level at which EPA recommends that schools take action to reduce the level. KCI conducted the radon testing in accordance with American Association of Radon Scientists and Technologists (AARST) *Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*. A National Radon Proficiency Program (NRPP) Radon Measurement Provider (certification #111004 RT) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from <https://www.montgomeryschoolsmd.org/departments/facilities/maintenance/default.aspx?id=458858> or www.epa.gov/radon.

KCI visited the site on 12/16/2019 and deployed eighty-three (83) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

KCI returned to the site on 12/19/2019 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, Inc. is a National Radon Safety Board (NRSB) radon measurement provider and is a certified analytical laboratory for radon analysis (certification #ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

EVALUATION OF TESTING CONDITIONS

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the lower-20s and high temperatures were in the lower-40s. Maximum sustained winds ranged from 12-26 miles per hour. Average humidity was around 67%. 0.54 inches of precipitation (rain and snow) was recorded during the testing period.

RESULTS

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Mr. Tyler P. McCleaf
Radon Measurement Provider
111004 RT

KCI Technologies, Inc.

Attachments:

A- Floor Plan with Test Locations

B - Tables 1-3, Radon Test Summary Spreadsheets

C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Table 1- Radon Testing Results		
Argyle Middle School		
Test Period: 12/16/2019-12/19/2019		
Kit Number	Room / Area	Result
9340801	MAIN OFFICE	0.7
9340802	MAIN OFFICE 1	< 0.3
9340803	MAIN OFFICE 2	< 0.3
9340804	MAIN OFFICE 2	0.5
9340805	MAIN OFFICE CONFERENCE	< 0.3
9340806	MAIN OFFICE 3	< 0.3
9340807	GUIDANCE OFFICE LOBBY	< 0.3
9340808	GUIDANCE OFFICE LOBBY	< 0.3
9340809	GUIDANCE OFFICE 2	0.7
9340810	GUIDANCE OFFICE 1	0.6
9340811	GUIDANCE OFFICE 3	< 0.3
9340812	GUIDANCE OFFICE 4	< 0.3
9340813	GUIDANCE GRU	< 0.3
9340814	201	MISSING
9340815	202	< 0.3
9340816	202C	< 0.3
9340817	GUIDANCE GRU	< 0.3
9340818	205	< 0.3
9340819	205C	0.5
9340820	204	< 0.3
9340821	203	< 0.3
9340822	206	< 0.3
9340823	207	< 0.3
9340824	209	< 0.3
9340825	208	< 0.3
9340826	208	< 0.3
9340827	209C	< 0.3
9340828	209C	0.8
9340829	210	< 0.3
9340830	211	< 0.3
9340831	222	< 0.3
9340832	222	< 0.3
9340833	GYM	< 0.3
9340834	GYM	0.7
9340835	STAGE	0.6
9340836	GYM	< 0.3
9340837	221	< 0.3
9340838	220	< 0.3
9340839	IMC WORKROOM	< 0.3
9340840	IMC	< 0.3
9340841	IMC	< 0.3
9340842	236	< 0.3
9340843	235 CONF	0.7
9340844	234	0.7
9340845	234	0.6
9340846	235	< 0.3
9340847	233	0.6
9340848	233	< 0.3
9340849	230A	0.6
9340850	230	0.6

9340851	231	< 0.3
9340852	232	0.8
9340853	232	0.9
9340854	CAFE	0.6
9340855	CAFE	0.8
9340856	CAFE	0.6
9340857	102	0.6
9340858	101	0.6
9340859	103	< 0.3
9340860	105	0.7
9340861	106	< 0.3
9340862	104	< 0.3
9340863	105C	0.5
9340864	105C	0.8
9340865	108	< 0.3
9340866	109	< 0.3
9340867	109	< 0.3
9340868	107	< 0.3
9340869	109C	0.6
9340870	111	< 0.3
9340871	110	0.6
9340872	124	< 0.3
9340873	126	0.6
9340874	122	1.3
9340875	122	0.6
9340876	120A	0.6
9340877	120	< 0.3
9340878	131	1
9340879	BUILDING SERVICES OFFICE	0.6
9340880	130	< 0.3
9340881	128	0.5
9340882	129	0.8
9340883	127	0.8
9340884	127	0.6
9340885	121	0.9
9340886	123	1.1
9340887	125	0.9
9340888	121	< 0.3
9340889	STAFF DINING	< 0.3
9340890	GYM	MISSING
9341372	OFFICE BLANK	0.6

Table 2- Radon Testing Results			
Argyle Middle School			
Test Period: 12/16/2019-12/19/2019			
Kit Number	QC Type	Room / Area	Result
9340804	D	MAIN OFFICE 2	0.5
9340808	FB	GUIDANCE OFFICE LOBBY	<0.3
9340817	D	GUIDANCE GRU	<0.3
9340826	D	208	<0.3
9340827	FB	209C	<0.3
9340834	D	GYM	0.7
9340845	D	234	0.6
9340848	FB	233	<0.3
9340852	D	232	0.8
9340864	D	105C	0.8
9340867	FB	109	<0.3
9340884	D	127	0.6
9340888	FB	121	<0.3
9341377	TRANSIT BLANK	NA	0.5
9341379	TRANSIT BLANK	NA	< 0.3
9341380	TRANSIT BLANK	NA	< 0.3
9341398	TRANSIT BLANK	NA	< 0.3

ATTACHMENT C

Laboratory Analytical Results

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340858	101	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.4	2019-12-23
9340857	102	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.4	2019-12-23
9340859	103	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340862	104	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340860	105	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.7 ± 0.4	2019-12-23
9340864	105C	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.8 ± 0.4	2019-12-23
9340863	105C	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.5 ± 0.4	2019-12-23
9340861	106	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340868	107	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340865	108	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340866	109	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340867	109	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340869	109C	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.4	2019-12-23
9340871	110	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.4	2019-12-23
9340870	111	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340877	120	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340876	120A	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.3	2019-12-23
9340888	121	2019-12-16 @ 10:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340885	121	2019-12-16 @ 10:00 am	2019-12-19 @ 8:00 am	0.9 ± 0.3	2019-12-23
9340874	122	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	1.3 ± 0.4	2019-12-23
9340875	122	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.4	2019-12-23
9340886	123	2019-12-16 @ 10:00 am	2019-12-19 @ 8:00 am	1.1 ± 0.4	2019-12-23
9340872	124	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340887	125	2019-12-16 @ 10:00 am	2019-12-19 @ 8:00 am	0.9 ± 0.4	2019-12-23
9340873	126	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.4	2019-12-23
9340883	127	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.8 ± 0.4	2019-12-23
9340884	127	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.4	2019-12-23
9340881	128	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.5 ± 0.4	2019-12-23
9340882	129	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.8 ± 0.3	2019-12-23
9340880	130	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	< 0.3	2019-12-23
9340878	131	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	1.0 ± 0.3	2019-12-23
9340815	202	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340816	202C	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340821	203	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340820	204	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340818	205	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340819	205C	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	0.5 ± 0.4	2019-12-23

Radon test result report for:
ARGYLE MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340822	206	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340823	207	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340825	208	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340826	208	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340824	209	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340827	209C	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340828	209C	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	0.8 ± 0.4	2019-12-23
9340829	210	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340830	211	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340838	220	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340837	221	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340832	222	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340831	222	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340850	230	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	0.6 ± 0.4	2019-12-23
9340849	230A	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	0.6 ± 0.4	2019-12-23
9340851	231	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340852	232	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	0.8 ± 0.4	2019-12-23
9340853	232	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	0.9 ± 0.4	2019-12-23
9340847	233	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	0.6 ± 0.4	2019-12-23
9340848	233	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340844	234	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	0.7 ± 0.4	2019-12-23
9340845	234	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	0.6 ± 0.4	2019-12-23
9340846	235	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340843	235 CONF	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	0.7 ± 0.4	2019-12-23
9340842	236	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340879	BUILDING SERVICES OFFICE	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.4	2019-12-23
9340856	CAFE	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.4	2019-12-23
9340854	CAFE	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.6 ± 0.4	2019-12-23
9340855	CAFE	2019-12-16 @ 10:00 am	2019-12-19 @ 9:00 am	0.8 ± 0.3	2019-12-23
9340813	GUIDANCE GRU	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340817	GUIDANCE GRU	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340810	GUIDANCE OFFICE 1	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	0.6 ± 0.4	2019-12-23
9340809	GUIDANCE OFFICE 2	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	0.7 ± 0.4	2019-12-23
9340811	GUIDANCE OFFICE 3	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340812	GUIDANCE OFFICE 4	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340808	GUIDANCE OFFICE LOBBY	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340807	GUIDANCE OFFICE LOBBY	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340836	GYM	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340834	GYM	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	0.7 ± 0.3	2019-12-23
9340833	GYM	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340841	IMC	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340840	IMC	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340839	IMC WORKROOM	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340801	MAIN OFFICE	2019-12-16 @ 7:00 am	2019-12-19 @ 7:00 am	0.7 ± 0.4	2019-12-23
9340802	MAIN OFFICE 1	2019-12-16 @ 7:00 am	2019-12-19 @ 7:00 am	< 0.3	2019-12-23
9340803	MAIN OFFICE 2	2019-12-16 @ 7:00 am	2019-12-19 @ 7:00 am	< 0.3	2019-12-23
9340804	MAIN OFFICE 2	2019-12-16 @ 7:00 am	2019-12-19 @ 7:00 am	0.5 ± 0.4	2019-12-23
9340806	MAIN OFFICE 3	2019-12-16 @ 8:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340805	MAIN OFFICE CONFERENCE	2019-12-16 @ 7:00 am	2019-12-19 @ 7:00 am	< 0.3	2019-12-23
9340889	STAFF DINING	2019-12-16 @ 10:00 am	2019-12-19 @ 8:00 am	< 0.3	2019-12-23
9340835	STAGE	2019-12-16 @ 9:00 am	2019-12-19 @ 8:00 am	0.6 ± 0.4	2019-12-23

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc. Job Number 193598

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

Temp °F 70.1
RH % 50.1
Avg pCi/L 25.4

Date Start: 12/21/19 Date Stop: 12/23/19

Time Start: 0815 Time Stop: 0815

(Group 1)
Device No.'s: (20) Char. Bags-

9340001 thru 9340020

55

Temp °F 70.1
RH % 50.1
Avg pCi/L 25.4

Date Start: 12/21/19 Date Stop: 12/23/19

Time Start: 0829 Time Stop: 0820

(Group 2)
Device No.'s: (20) Char. Bags-

9340021 thru 9340040

54

Temp °F 70.1
RH % 50.1
Avg pCi/L 25.4

Date Start: 12/21/19 Date Stop: 12/23/19

Time Start: 0825 Time Stop: 0825

(Group 3)
Device No.'s: (20) Char. Bags-

9340041 thru 9340060

53

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

Radon test result report for:

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

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

Radon test result report for:**S****N/A**

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

Radon test result report for:**S****N/A**

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

January 3, 2020

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

S

N/A

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

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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon 2019 Week 2

Name of Schools:

- | | |
|-------------------------------|---------------------|
| 1. Argyle M.S. | 13. Candelwood E.S. |
| 2. Banneker M.S. | 14. Drew E.S. |
| 3. Bel Pre E.S. | 15. Fallsmead E.S. |
| 4. Bells Mill E.S. | 16. Farquhar M.S. |
| 5. Bethesda Maintenance Depot | 17. Kennedy H.S. |
| 6. Beverly Farms E.S. | 18. Luxmanor E.S. |
| 7. Blake H.S. | 19. Magruder H.S. |
| 8. Dufief E.S. | 20. Redland M.S. |
| 9. Briggs Chaney M.S. | 21. Shriver E.S. |
| 10. Brookhaven E.S. | 22. Smith Center |
| 11. Burtonsville E.S. | 23. Viers Mill E.S. |
| 12. Cabin John M.S. | 24. Wheaton H.S. |

	Date	Initials
Radon Test Kits Deployed	12/16/19 to 12/17/19	
Radon Test Kits Collected	12/19/19 to 12/20/19	
Radon Test Kits Shipped to Lab*	12/20/19	
Radon Test Kits Received by Lab*	12/23/19	

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



MCPS RADON TESTING

Executive Summary: Argyle Middle School

Date of Test Report:	2/03/2016 (Rev 1)
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	47
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.5

Project Status:

Initial testing completed; no further action at this time.



February 3, 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 # 12146341.24

Location: Argyle Middle School
2400 Bel Pre Road
Silver Spring, MD 20906

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 Argyle Middle School, located at 2400 Bel Pre Road in Silver Spring, Maryland 20906 (subject site).

Scope of Services:

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

KCI visited the site on January 11, 2016 and deployed fifty-six (56) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

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

KCI returned to the site on January 14, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936

Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

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

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

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

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

Results:

The results of the radon test analysis indicated the following:

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

Notes:
D- Duplicate sample

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

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

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

Sincerely,



H. Allen Bennett
Certified Industrial Hygienist
KCI Technologies, Inc.

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

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		
Argyle Middle School		
Test Period: 01/11/16-01/14/16		
Kit Number	Room / Area	Result
7721725	101	< 0.3
7721717	102	< 0.3
7721719	103	< 0.3
7721716	104	< 0.3
7721720	105	0.7
7721718	106	< 0.3
7721709	107	< 0.3
7721707	108	< 0.3
7721710	109	< 0.3
7721715	110	0.9
7721713	111	< 0.3
7721728	120	0.6
7721703	121	1.5
7721723	122	0.6
7721705	123	0.6
7721727	124	< 0.3
7721704	125	1
7721726	126	< 0.3
7721702	127	0.6
7721729	128	< 0.3
7721706	129	0.9
7721731	130	< 0.3
7721724	131	0.8
7721732	132	< 0.3
7721758	204	< 0.3
7721755	232	< 0.3
7721751	236	< 0.3
7721714	102C	< 0.3
7721708	105C	< 0.3
7721733	109C	< 0.3
7721735	120A	< 0.3
7721754	236A	< 0.3
7721759	CLINIC	< 0.3
7721721	DR	0.6
7721748	GUID A	< 0.3
7721744	GUID B	< 0.3
7721746	GUID C	< 0.3
7721736	GUID D	< 0.3
7721742	GUID E	< 0.3
7721747	GUIDANCE	< 0.3
7721722	KITCHEN OFFICE	< 0.3
7721711	MECH RM 1 OFFICE	< 0.3
7721743	OFF A	< 0.3
7721749	OFF B	< 0.3
7721740	OFFICE	< 0.3
7721739	PRINC CONF RM	0.6

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Argyle Middle School		
Test Period: 01/11/16-01/14/16		
Kit Number	Room / Area	Result
7721738	PRINCIPAL	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Argyle Middle School		
Test Period: 01/11/16-01/14/16		
Kit Number	QC Type	Result
7721712	D (105C)	< 0.3
7721750	D (236)	< 0.3
7721730	D (DR)	< 0.3
7721737	D (GUID B)	< 0.3
7721745	D (OFFICE)	< 0.3
7721734	FB (123)	< 0.3
7721701	FB (125)	< 0.3
7721741	FB (OFF A)	< 0.3
7718265	OB (0)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

February 1, 2016
LABORATORY ANALYSIS REPORT **

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7718265	0	2016-01-11 @ 2:00 pm	2016-01-14 @ 1:00 pm	< 0.3	2016-01-18
7721725	101	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721717	102	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721714	102C	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721719	103	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721716	104	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721720	105	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.7 ± 0.3	2016-01-18
7721708	105C	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721712	105C	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721718	106	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721709	107	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721707	108	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721710	109	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721733	109C	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721715	110	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.9 ± 0.3	2016-01-18
7721713	111	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721728	120	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721735	120A	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721703	121	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	1.5 ± 0.3	2016-01-18
7721723	122	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721734	123	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721705	123	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721727	124	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721701	125	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721704	125	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	1.0 ± 0.3	2016-01-18
7721726	126	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721702	127	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721729	128	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721706	129	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.9 ± 0.3	2016-01-18
7721731	130	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721724	131	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.8 ± 0.3	2016-01-18
7721732	132	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721758	204	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721755	232	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721750	236	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721751	236	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721754	236A	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18

February 1, 2016
****LABORATORY ANALYSIS REPORT****

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7721759	CLINIC	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721721	DR	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	0.6 ± 0.3	2016-01-18
7721730	DR	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721748	GUID A	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721737	GUID B	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721744	GUID B	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721746	GUID C	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721736	GUID D	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721742	GUID E	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721747	GUIDANCE	2016-01-11 @ 10:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721722	KITCHEN OFFICE	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721711	MECH RM 1 OFFICE	2016-01-11 @ 9:00 am	2016-01-14 @ 9:00 am	< 0.3	2016-01-18
7721741	OFF A	2016-01-11 @ 10:00 am	2016-01-14 @ 8:00 am	< 0.3	2016-01-18
7721743	OFF A	2016-01-11 @ 10:00 am	2016-01-14 @ 8:00 am	< 0.3	2016-01-18
7721749	OFF B	2016-01-11 @ 10:00 am	2016-01-14 @ 8:00 am	< 0.3	2016-01-18
7721740	OFFICE	2016-01-11 @ 10:00 am	2016-01-14 @ 8:00 am	< 0.3	2016-01-18
7721745	OFFICE	2016-01-11 @ 10:00 am	2016-01-14 @ 8:00 am	< 0.3	2016-01-18
7721739	PRINC CONF RM	2016-01-11 @ 10:00 am	2016-01-14 @ 8:00 am	0.6 ± 0.3	2016-01-18
7721738	PRINCIPAL	2016-01-11 @ 10:00 am	2016-01-14 @ 8:00 am	< 0.3	2016-01-18

February 2, 2016
LABORATORY ANALYSIS REPORT

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

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

December
23,
2015

**LABORATORY ANALYSIS
REPORT ****

Spike Sample Laboratory Results

Radon test result report for:

MCPS

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

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc. Job Number 173224

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

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

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

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

7706211, 7706366, _____

7706380, 7706381 _____

F3 Left

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

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

Device No.'s: _____ Device No.'s: _____

Date Start: _____ Date Stop: _____ Date Start: _____ Date Stop: _____

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

Device No.'s: _____ Device No.'s: _____

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



Chain of Custody

Project Name: MCPS Radon Phase V

Name of Schools:

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

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

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

M. A. CECIL & ASSOCIATES, INC.
4475 Shannon Way, Port Republic, Maryland 20676 (301) 855-7710
INDUSTRIAL HYGIENE AND ENVIRONMENTAL HEALTH

September 7, 2011

Mr. Sean Yarup
Montgomery County Public Schools
16651 Crabbs Branch Way
Rockville, Maryland 20855

Re: Argyle Elementary School - Retest

Dear Mr. Yarup:

Environmental radon testing has been completed at Argyle Elementary.

A charcoal canister was placed in the cafeteria of the school. The canister was placed on August 24, 2011 and retrieved on August 26, 2011. The detected radon concentration, <0.5 pico curies per liter (pCi/l) of air, was below the EPA recommended level of 4.0 pCi/l.

Should you have any questions concerning this report please do not hesitate to contact us.

Sincerely,



Michael A. Cecil, CIH

RECEIVED

OCT 25 2011

ENVIRONMENTAL
SERVICE/IAQ

M. A. CECIL & ASSOCIATES, INC.
4475 Shannon Way, Port Republic, Maryland 20676 (301) 855-7710
INDUSTRIAL HYGIENE AND ENVIRONMENTAL HEALTH

July 15, 2010

Mr. Sean Yarup
Montgomery County Public Schools
16651 Crabbs Branch Way
Rockville, Maryland 20855

Re: Radon Evaluation- Arcola Elementary

Dear Mr. Yarup:

Environmental radon testing was completed at Arcola Elementary.

Charcoal canisters were placed in twenty-five locations on the first floor of the school. The canisters were placed on June 29, 2010 and retrieved on July 2, 2010. The results, expressed as pico Curies per liter (pCi/l) of air, and the sampling locations are summarized in the attached table.

The detected radon concentrations for all 25 sampling locations were below the EPA recommended level of 4.0 pico curries per liter of air.

Should you have any questions concerning this report please do not hesitate to contact us.

Sincerely,

Kim Fowler
Industrial Hygienist

Michael A. Cecil, CIH

Environmental Radon Testing Results
Arcola Elementary
June 29, 2010

Location	Detected Radon Concentration (pCi/l)
Room 012	2.0
Room 016	0.7
Room 007	<0.5
Room 018	0.5
Room 009	1.0
Room 022	<0.5
Room 013	0.9
Room 024	<0.5
Room 015	0.6
Room 028	1.1
Room 019	0.6
Room 025	1.1
Room 040	0.6
Room 027	0.6
Room 044	1.0
Room 031	<0.5
Room 046	0.7.
Room 003	<0.5
Room 010	0.7
Room 006	2.1
Room 004	1.9
Room 008	0.6
Room 101	<0.5
Room 100C	0.7
Room 100H	1.0