School / Facility Radon Testing Report Form

School Year: **24-25**

Facility:	Farmland Elementary School
Address:	7000 Old Gate Rd.
	Rockville, MD 20852
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	40	Lowest Value (pCi/L)	<0.3
Number of Rooms (≥4.0-pCi/L)	0	Highest Value (pCi/L)	2.2

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 Labs	

Person(s) Deploying or Retrieving Test Devices and certification number	Organization/Company
Tyler McCleaf, CSP Cert. # 111004-RMP	KCI Technologies, Inc.
If noncertified individuals, the qualified measurement professional providing oversight -	

Testing

☒ Short-Term ☐ Long-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	1/28/2025 1/31/2025
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]	37	0	3	0	40
Duplicates[2]	4	0	0	0	4
Field Blanks[3]	2	0	0	0	2
				Grand Total	46

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	0	1
Office Blanks[3, 4]	1	0	1
			12

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:	37	0	3	0	40
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:	2	0	1	0	3
Number of missing required test locations[3]:	0	0	0	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	0	0	0

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

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

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

4 – if all valid measurements are <4.0-pCi/L and the total number of test locations are ≥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		
Farmland Elementary School		
Test Period: 1/28/2025 - 1/31/2025		
Kit Number	Room / Area	Result
11930810	103	1.0
11930828	104	< 0.3
11930822	106	0.6
11930830	107	1.1
11930821	108	< 0.3
11930829	111	0.6
11930835	111	0.9
11930820	112	0.7
11930827	115	< 0.3
11930819	123	< 0.3
11930834	129	< 0.3
11930846	129	< 0.3
11930843	130	0.6
11930841	130	< 0.3
11930845	131	< 0.3
11930831	134	0.9
11930842	135	0.7
11930838	137	1.4
11930844	138	2.2
11930815	141	1.0
11930808	141	1.4
11930854	151	0.7
11930852	154	0.8
11930853	155	0.6
11930851	155	< 0.3
11930806	157	0.7
11930811	157	< 0.3
11930823	161	0.6
11930860	173	< 0.3
11930801	200	0.7
11930804	217	< 0.3
11930807	238	2.2
11930833	100B	< 0.3
11930818	100C	0.7
11930817	100D	< 0.3
11930836	APR	0.7
11930837	APR	0.8

Table 1- Radon Testing Results		
Farmland Elementary School		
Test Period: 1/28/2025 - 1/31/2025		
Kit Number	Room / Area	Result
11930812	GYM	0.9
11930814	GYM	< 0.3
11930813	GYM OFFICE	0.8
11930825	HEALTH	< 0.3
11930826	HEALTH OFFICE	< 0.3
11930824	KITCHEN OFFICE	2.1
11930805	MAIN OFFICE	< 0.3
11930832	MEDIA OFFICE	< 0.3
11930809	WORK ROOM	0.7

Table 2 - Summary Testing Results ≥2.0 pCi/L							
Farmland Elementary School							
Test Period: 1/28/2025 - 1/31/2025							
≥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
KITCHEN OFFICE	2.1	N/A	N/A	N/A	N/A	N/A	N/A
238	2.2						
138	2.2						

Table 3 - QC Radon Testing Results			
Farmland Elementary School			
Test Period: 1/28/2025 - 1/31/2025			
Kit Number	**QC Type**	**Room / Area**	**Result**
11930829	D	111	0.6
11930834	FB	129	< 0.3
11930843	D	130	0.6
11930815	D	141	1.0
11930853	D	155	0.6
11930811	FB	157	< 0.3
11906899	OB	OFFICE BLANK	< 0.3
11926699	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation

Farmland Elementary School

Test Period: 01/28/2025 - 01/31/2025

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
11930835	11930829	111	0.9	0.6	✓	1.2	PASS	0.8	<1-pCi/L	✓
11930841	11930854	130	0.6	0.3	✓	0.6	PASS	0.5	<1-pCi/L	✓
11930808	11930815	141	1.4	1.0	✓	2.0	PASS	1.2	<1-pCi/L	✓
11930851	11930853	155	0.6	0.3	✓	0.6	PASS	0.5	<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		
Farmland Elementary School		
Test Period: 1/28/25 - 1/31/25		
Kit Number	**Room/Area**	**Reason**
N/A	N/A	N/A

Attachment 2:

Laboratory Reports

February 4, 2025

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
FARMLAND ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11930833	100B	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930818	100C	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	0.7 ± 0.3	2025-02-04
11930817	100D	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930810	103	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	1.0 ± 0.3	2025-02-04
11930828	104	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930822	106	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	0.6 ± 0.3	2025-02-04
11930830	107	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	1.1 ± 0.4	2025-02-04
11930821	108	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930835	111	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	0.9 ± 0.3	2025-02-04
11930829	111	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	0.6 ± 0.3	2025-02-04
11930820	112	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	0.7 ± 0.3	2025-02-04
11930827	115	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930819	123	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930846	129	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930834	129	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930843	130	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.6 ± 0.4	2025-02-04
11930841	130	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930845	131	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930831	134	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.9 ± 0.3	2025-02-04
11930842	135	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.7 ± 0.3	2025-02-04
11930838	137	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	1.4 ± 0.4	2025-02-04
11930844	138	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	2.2 ± 0.4	2025-02-04
11930815	141	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	1.0 ± 0.4	2025-02-04
11930808	141	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	1.4 ± 0.4	2025-02-04
11930854	151	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.7 ± 0.3	2025-02-04
11930852	154	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.8 ± 0.3	2025-02-04
11930851	155	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930853	155	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.6 ± 0.4	2025-02-04
11930806	157	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.7 ± 0.3	2025-02-04
11930811	157	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930823	161	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.6 ± 0.3	2025-02-04
11930860	173	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930801	200	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.7 ± 0.3	2025-02-04
11930804	217	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930807	238	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	2.2 ± 0.4	2025-02-04
11930836	APR	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.7 ± 0.3	2025-02-04
11930837	APR	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.8 ± 0.3	2025-02-04

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

February 4, 2025 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
FARMLAND ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11930814	GYM	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930812	GYM	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.9 ± 0.3	2025-02-04
11930813	GYM OFFICE	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	0.8 ± 0.3	2025-02-04
11930825	HEALTH	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930826	HEALTH OFFICE	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930824	KITCHEN OFFICE	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	2.1 ± 0.4	2025-02-04
11930805	MAIN OFFICE	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930832	MEDIA OFFICE	2025-01-28 @ 12:00 pm	2025-01-31 @ 10:00 am	< 0.3	2025-02-04
11930809	WORK ROOM	2025-01-28 @ 11:00 am	2025-01-31 @ 10:00 am	0.7 ± 0.3	2025-02-04

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February 4, 2025 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
OFFICE
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11906885	O	2025-01-27 @ 11:00 am	2025-01-30 @ 11:00 am	< 0.3	2025-02-04
11906899	O	2025-01-28 @ 11:00 am	2025-01-31 @ 11:00 am	< 0.3	2025-02-04

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February 4, 2025 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
TRAVEL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11906900	T	2025-01-27 @ 11:00 am	2025-01-30 @ 11:00 am	< 0.3	2025-02-04
11926699	T	2025-01-28 @ 11:00 am	2025-01-31 @ 11:00 am	< 0.3	2025-02-04

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 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

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

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

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing January 28th – January 31st, 2024

Name of Schools:

1. Carderock Springs ES
2. Cold Springs ES
3. Concord Center
4. DuFief ES
5. Thomas Edison HS
6. Fallsmead ES
7. Farmland ES

	Date	Initials
Radon Test Kits Deployed	01/28/2025	
Radon Test Kits Collected	01/31/2025	
Radon Test Kits Shipped to Lab*	01/31/2025	
Radon Test Kits Received by Lab*	02/03/2025	

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

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MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Farmland Elementary School
Date of Test Report	05/12/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	2
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.3 pCi/L

Project Status

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

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May 12, 2022

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

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

Location: Farmland Elementary School
7000 Old Gate Rd.
Rockville, MD 20852

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 Farmland Elementary School, located at 7000 Old Gate Rd. Rockville, MD 20852 (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 21, 2022 and deployed four (4) 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 24, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the low 40°Fs and high temperatures ranged from the low 50°Fs to the low 70°Fs. Maximum sustained winds ranged from 0-29 miles per hour. Average humidity was around 56% with 0.51 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 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		
Farmland ES RT		
Test Period: 03/21/2022 - 03/24/2022		
Kit Number	Room / Area	Result
11139262	103	2.3
11139271	103	2.3
11139273	103	< 0.3
11139275	141	1.1

Table 2- Radon Testing Results			
Farmland ES RT			
Test Period: 03/21/2022 - 03/24/2022			
Kit Number	QC Type	Room / Area	Result
11139262	D	103	2.3
11139273	FB	103	< 0.3
11139902	OB	OFFICE BLANK	< 0.3
11139928	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Farmland ES RT		
Test Period: 03/21/22 - 03/24/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Farmland ES RT		
Test Period: 03/21/22 - 03/24/22		
Kit Number	Room/Area	Result
	NA	

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

March 28, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139262	103	2022-03-21 @ 12:00 pm	2022-03-24 @ 11:00 am	2.3 ± 0.4	2022-03-28
11139271	103	2022-03-21 @ 12:00 pm	2022-03-24 @ 11:00 am	2.3 ± 0.4	2022-03-28
11139273	103	2022-03-21 @ 12:00 pm	2022-03-24 @ 11:00 am	< 0.3	2022-03-28
11139275	141	2022-03-21 @ 11:00 am	2022-03-24 @ 11:00 am	1.1 ± 0.3	2022-03-28

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204620

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

Date Start: 3/18/22 Date Stop: 3/21/22	Date Start: _____ Date Stop: _____
Time Start: 0705 Time Stop: 0705	Time Start: _____ Time Stop: _____
Device No.'s: (5) Char Bags -	Device No.'s: _____
11139367, 11139368, 11139371,	_____
11139710, 11139717	_____
E3 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

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Radon Test Kit Chain of Custody

Project Name: MCPS Radon – March 2022 Schools – Retesting

Name of Schools:

1. Rosa Parks MS
2. Poolesville ES
3. Wyngate ES
4. Seven Locks ES
5. Walt Whitman HS
6. Somerset ES
7. Rock Creek Forest ES
8. Walter Johnson HS
9. Westbrook ES
10. Westland MS
11. Farmland ES
12. College Gardens ES
13. Julius West MS
14. Robert Frost MS
15. Carl Sandburg Learning Center

	Date	Initials
Radon Test Kits Deployed	03/21/2022	BMM
Radon Test Kits Collected	03/24/2022	BMM
Radon Test Kits Shipped to Lab*	03/25/2022	BMM
Radon Test Kits Received by Lab*	03/28/2022	BMM

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

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MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Farmland Elementary School
Date of Test Report	2/21/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	41
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.5 pCi/L

Project Status:
Initial testing completed; Missing or Compromised tests to be re-sampled

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February 21, 2022

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

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

Location: Farmland Elementary School
7000 Old Gate Rd.
Rockville, MD 20852

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 Farmland Elementary School, located at 7000 Old Gate Rd. Rockville, MD 20852 (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 January 19, 2022 and deployed fifty (50) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

KCI returned to the site on January 22, 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 50s and high temperatures ranged from the mid 40s to the low 60s Fahrenheit. Maximum sustained winds ranged from 7-15 miles per hour. Average humidity was around 50% with .15 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		
Farmland ES		
Test Period: 01/25/2022-01/28/2022		
Kit Number	Room / Area	Result
11105793	102	< 0.3
11107318	104	< 0.3
11107317	106	< 0.3
11105794	107	0.8
11105797	107	1.5
11107311	108	< 0.3
11107320	111	0.7
11107328	112	0.9
11107312	115	1.0
11107313	116	< 0.3
11107314	116	< 0.3
11107321	116	< 0.3
11107327	116	< 0.3
11107319	123	< 0.3
11107326	129	< 0.3
11107309	130	< 0.3
11107325	131	< 0.3
11107308	134	< 0.3
11107307	135	< 0.3
11107303	137	< 0.3
11107304	138	0.6
11107306	138	< 0.3
11107302	150	0.7
11107324	150	0.6
11107333	150	< 0.3
11107345	150	< 0.3
11107315	151	< 0.3
11107343	154	0.5
11107323	155	< 0.3
11107330	157	< 0.3
11107334	161	< 0.3
11107344	173	< 0.3
11107342	201	< 0.3
11107332	230	< 0.3
11107338	250	< 0.3
11105789	100A	< 0.3
11105800	100B	< 0.3
11105798	100C	< 0.3
11105795	100D	< 0.3
11105796	100F	< 0.3
11106133	102A	< 0.3
11106111	102C	< 0.3

Table 1- Radon Testing Results		
Farmland ES		
Test Period: 01/25/2022-01/28/2022		
Kit Number	Room / Area	Result
11107310	116A	< 0.3
11107337	170C	< 0.3
11107352	1-OUTSIDE	< 0.3
11107329	2-OUTSIDE	< 0.3
11107322	3-OUTSIDE	< 0.3
11107336	4-OUTSIDE	< 0.3
11105791	MAIN OFFICE	< 0.3
11107346	OUTSIDE-1	< 0.3

Table 2- Radon Testing Results			
Farmland ES			
Test Period: 12/13/2021-12/16/2021			
Kit Number	QC Type	Room / Area	Result
11105797	D	107	1.5
11107314	D	116	< 0.3
11107321	FB	116	< 0.3
11107306	D	138	< 0.3
11107302	D	150	0.7
11107333	FB	150	< 0.3
11107352	D	1-outside	< 0.3
11106126	OB	OFFICE BLANK	< 0.3
11105790	TB	TRAVEL Blank	< 0.3

Summary of Missed Locations		
Farmland ES		
Test Period: 01/25/22 - 01/28/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Farmland ES		
Test Period: 01/25/22 - 01/28/22		
Kit Number	Room/Area	Result
11107335	103	Missing
11107305	141	Missing

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

February 1, 2022 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
FARMLAND ES
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11107352	1-OUTSIDE	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11105789	100A	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11105800	100B	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11105798	100C	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11105795	100D	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11105796	100F	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11105793	102	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11106133	102A	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11106111	102C	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107318	104	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107317	106	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11105797	107	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	1.5 ± 0.3	2022-01-31
11105794	107	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	0.8 ± 0.3	2022-01-31
11107311	108	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107320	111	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	0.7 ± 0.3	2022-01-31
11107328	112	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	0.9 ± 0.3	2022-01-31
11107312	115	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	1.0 ± 0.3	2022-01-31
11107313	116	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107321	116	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107327	116	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107314	116	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107310	116A	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107319	123	2022-01-25 @ 2:00 pm	2022-01-28 @ 11:00 am	< 0.3	2022-01-31
11107326	129	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107309	130	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107325	131	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107308	134	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107307	135	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107303	137	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107306	138	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107304	138	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	0.6 ± 0.3	2022-01-31
11107333	150	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107324	150	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	0.6 ± 0.3	2022-01-31
11107345	150	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107302	150	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	0.7 ± 0.3	2022-01-31
11107315	151	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107343	154	2022-01-25 @ 3:00 pm	2022-01-28 @ 11:00 am	0.5 ± 0.3	2022-01-31

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

February 1, 2022 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
FARMLAND ES
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11107323	155	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107330	157	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107334	161	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107337	170C	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107344	173	2022-01-25 @ 3:00 pm	2022-01-28 @ 11:00 am	< 0.3	2022-01-31
11107329	2-OUTSIDE	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107342	201	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107332	230	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107338	250	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107322	3-OUTSIDE	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107336	4-OUTSIDE	2022-01-25 @ 2:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11105791	MAIN OFFICE	2022-01-25 @ 1:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31
11107346	OUTSIDE-1	2022-01-25 @ 3:00 pm	2022-01-28 @ 10:00 am	< 0.3	2022-01-31

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 203404

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

Date Start: 12/24/21 Date Stop: 12/27/21	Date Start: _____ Date Stop: _____
Time Start: 0809 Time Stop: 0809	Time Start: _____ Time Stop: _____
Device No.'s: (2) Char Bags - 9341721, 9341722	Device No.'s: _____
G4 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

December 31, 2021 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

SK MA

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

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

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 – January 2022 Schools

Name of Schools:

1. Carver Educational Center
2. College Gardens ES
3. Farmland ES
4. Julius West MS
5. Maryvale ES
6. Robert Frost MS
7. Rock Creek Forest ES
8. Sandburg Learning Center
9. Westbrook ES

	Date	Initials
Radon Test Kits Deployed	01/19/2022	
Radon Test Kits Collected	01/22/2022	
Radon Test Kits Shipped to Lab*	01/22/2022	
Radon Test Kits Received by Lab*	01/24/2022	

*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: Farmland Elementary School

Date of Test Report:	1/28/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	41
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	3.1

Project Status:
Initial testing 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

January 28, 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 # 12146341.22

Location: Farmland Elementary School
7000 Old Gate Road
Rockville, MD 20852

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 Farmland Elementary School, located at 7000 Old Gate Road in Rockville, Maryland 20852 (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 4, 2016 and deployed fifty (50) 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 7, 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 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		
Farmland ES		
Test Period: 01/04/16-01/07/16		
Kit Number	**Room / Area**	**Result**
7708688	100	< 0.3
7708663	102	< 0.3
7707671	103	< 0.3
7707669	104	< 0.3
7707666	106	< 0.3
7707670	107	< 0.3
7706218	108	< 0.3
7707667	111	< 0.3
7708671	112	< 0.3
7708642	115	< 0.3
7706228	116	< 0.3
7708678	116	1
7708672	123	< 0.3
7708673	129	< 0.3
7706212	130	0.6
7708670	131	0.7
7708679	134	0.6
7706226	135	0.6
7708691	137	1
7708685	138	1
7714985	141	< 0.3
7707672	150	0.8
7707673	150	0.6
7707683	151	1
7707680	154	3.1
7707682	155	1
7707679	157	1.1
7707681	161	1.4
7707677	170	1.5
7707678	173	0.9
7707689	205	< 0.3
7707690	238	0.6
7707684	255	0.9
7707688	255	0.8
7707687	277	1.2
7708687	100B	0.6
7708664	100C	0.8
7708659	100D	0.6
7708660	102C	< 0.3
7708669	116A	0.8
7707676	170C	2.3

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Farmland ES		
Test Period: 01/04/16-01/07/16		
Kit Number	**QC Type**	**Result**
7708667	D (100)	0.7
7708681	D (116A)	0.9
7708700	D (138)	0.8
7707674	D (150)	0.7
7707685	D (255)	0.8
7708692	FB (100)	< 0.3
7707675	FB (150)	< 0.3
7707686	FB (255)	< 0.3
7720610	OB (0)	< 0.3

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

January 25, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

FARMLAND ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7720610	0	2016-01-04 @ 3:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7708688	100	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7708692	100	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7708667	100	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.7 ± 0.3	2016-01-12
7708687	100B	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-11
7708664	100C	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.8 ± 0.3	2016-01-11
7708659	100D	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-11
7708663	102	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7708660	102C	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7707671	103	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7707669	104	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7707666	106	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7707670	107	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7706218	108	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7707667	111	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7708671	112	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-12
7708642	115	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7708678	116	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	1.0 ± 0.3	2016-01-12
7706228	116	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-12
7708669	116A	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.8 ± 0.3	2016-01-12
7708681	116A	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.9 ± 0.3	2016-01-12
7708672	123	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7708673	129	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-12
7706212	130	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-12
7708670	131	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.7 ± 0.3	2016-01-12
7708679	134	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-12
7706226	135	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-12
7708691	137	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	1.0 ± 0.3	2016-01-12
7708700	138	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	0.8 ± 0.3	2016-01-11
7708685	138	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	1.0 ± 0.4	2016-01-12
7714985	141	2016-01-04 @ 11:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7707672	150	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	0.8 ± 0.3	2016-01-11
7707673	150	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-11
7707674	150	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	0.7 ± 0.3	2016-01-11
7707675	150	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7707683	151	2016-01-04 @ 12:00 pm	2016-01-07 @ 11:00 am	1.0 ± 0.3	2016-01-11
7707680	154	2016-01-04 @ 12:00 pm	2016-01-07 @ 11:00 am	3.1 ± 0.4	2016-01-11

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

January 25, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

FARMLAND ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7707682	155	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	1.0 ± 0.3	2016-01-11
7707679	157	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	1.1 ± 0.3	2016-01-11
7707681	161	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	1.4 ± 0.3	2016-01-11
7707677	170	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	1.5 ± 0.3	2016-01-11
7707676	170C	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	2.3 ± 0.4	2016-01-11
7707678	173	2016-01-04 @ 12:00 pm	2016-01-07 @ 10:00 am	0.9 ± 0.3	2016-01-12
7707689	205	2016-01-04 @ 12:00 pm	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7707690	238	2016-01-04 @ 12:00 pm	2016-01-07 @ 11:00 am	0.6 ± 0.3	2016-01-11
7707684	255	2016-01-04 @ 12:00 pm	2016-01-07 @ 11:00 am	0.9 ± 0.3	2016-01-12
7707685	255	2016-01-04 @ 12:00 pm	2016-01-07 @ 11:00 am	0.8 ± 0.3	2016-01-12
7707686	255	2016-01-04 @ 12:00 pm	2016-01-07 @ 11:00 am	< 0.3	2016-01-12
7707688	255	2016-01-04 @ 12:00 pm	2016-01-07 @ 11:00 am	0.8 ± 0.3	2016-01-12
7707687	277	2016-01-04 @ 12:00 pm	2016-01-07 @ 11:00 am	1.2 ± 0.3	2016-01-12

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

January 15, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

MCPS PHASE 3 & 4
TRANSIT BLANKS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7708218	TRAMSIT 4	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708200	TRANSIT 1	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708190	TRANSIT 10	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708189	TRANSIT 11	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708191	TRANSIT 12	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708188	TRANSIT 13	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708197	TRANSIT 14	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708186	TRANSIT 15	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708185	TRANSIT 16	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708184	TRANSIT 17	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708182	TRANSIT 18	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708187	TRANSIT 18	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708199	TRANSIT 2	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708181	TRANSIT 20	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708180	TRANSIT 21	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708183	TRANSIT 22	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708178	TRANSIT 23	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708179	TRANSIT 24	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708177	TRANSIT 25	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708176	TRANSIT 26	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708174	TRANSIT 27	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708173	TRANSIT 28	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708175	TRANSIT 29	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708198	TRANSIT 3	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708172	TRANSIT 30	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708194	TRANSIT 5	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708196	TRANSIT 6	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708193	TRANSIT 7	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708192	TRANSIT 8	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708195	TRANSIT 9	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23

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

Chain of Custody

Project Name: MCPS Radon Phase IV

Name of Schools:

1. Albert Einstein HS
2. Bel Pre ES
3. Benjamin Banneker MS
4. Bethesda Chevy Chase HS
5. Beverly Farms ES
6. Cabin John MS
7. Chevy Chase ES
8. Farmland ES
9. Forest Oak MS
10. Gaithersburg HS
11. Garrett Park ES
12. Herbert Hoover MS
13. Kohn F. Kennedy HS
14. Julius West MS
15. Kensington Parkwood ES
16. Lakewood ES
17. Mill Creek ES
18. Montgomery Blair HS
19. Montgomery Village MS
20. Northwood HS
21. Paint Branch ES
22. Rock Creek Forest ES
23. Stephen Knolls School
24. Strathmore ES
25. Summit Hall ES
26. Travilah ES
27. Twinbrook ES
28. Waters Landing ES
29. Watkins Mill HAS
30. Weller Road ES
31. White Oak MS
32. Winston Churchill HS

	Date	Initials
Radon Test Kits Deployed	1/4/16	JM
Radon Test Kits Sampled	1/7/16	JM
Radon Test Kits Shipped to Lab*	1/8/16	JM
Radon Test Kits Received by Lab*	1/11/16	JM

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

Note: tests kits deployed at Montgomery Blair HS 1/4/16 and 1/5/16, test kits sampled at Montgomery Blair HS 1/7/16 and 1/8/16