

School / Facility Radon Testing Report Form

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

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

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

School Year: **23-24**

Facility:	Oak View Elementary School
Address:	400 East Wayne Avenue
	Silver Spring, MD 20901

Reason for Testing:	<input checked="" type="checkbox"/> Scheduled Re-Testing (2 or 5-year schedule) <input type="checkbox"/> Clearance Testing (Post-Mitigation) <input type="checkbox"/> System(s) Performance Testing (Post-Mitigation) <input type="checkbox"/> New Construction/Facility
Facility Current Radon Status:	<input checked="" type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule) <input type="checkbox"/> Not Previously Tested
Round of Testing:	<input checked="" type="checkbox"/> Initial Testing -or- <input 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 or Considered <input type="checkbox"/> Required (>8.0 -pCi/L) <input type="checkbox"/> Required (≥ 4.0 -pCi/L) <input type="checkbox"/> Consider (≥ 2.0 & <4.0 -pCi/L)	<input checked="" type="checkbox"/> No Change in Status <input type="checkbox"/> Active Mitigation (2-year regular schedule) <input type="checkbox"/> No Active Mitigation (5-year regular schedule)

Detector and Deployment

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

Testing

<input checked="" type="checkbox"/> Short-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	01/29/2024
<input type="checkbox"/> Long-Term				02/01/2024
Does the test period include weekends, school breaks or holidays?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<i>If “Yes” please explain/detail in the space below:</i>				
Was HVAC operating under occupied conditions?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<i>If “No” please explain/detail in the space below:</i>				

Testing (continued)

	Detectors Deployed		
	Ground-Contact	Upper-Level(s)	Total
Test Locations ¹	47	1	48
Duplicates ²	5	0	5
Field Blanks ³	2	0	2
Grand Total			55

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

2 - 10% of all locations tested, per floor

3 – 5% of all locations tested, per floor

Quality Assurance / Quality Control (QA/QC)

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

Spike Samples ¹	6	Trip Blank(s) ²	1	Office Blank(s) ^{3,4}	1
----------------------------	---	----------------------------	---	--------------------------------	---

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

2 – One per shipping container from start of detector deployment

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

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

Spike Sample Lab Results. Measured values are satisfactory, i.e., within ± 25% of the chamber's reference value.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Quality Control measurements comply with QA/QC requirements in the QA plan previously submitted?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

Summary of Test Results¹ and Determination of Valid Measurements²

	Ground-Contact	Upper-Level(s)	Total
Number of test locations:	47	1	48
Number of locations ≥ 8.0 -pCi/L:	0	0	0
Number of locations ≥ 4.0 and ≤ 8 -pCi/L:	0	0	0
Number of locations ≥ 2.7 and ≤ 4 -pCi/L:	1	0	1
Number of locations ≥ 2.0 and ≤ 4 -pCi/L:	2	0	2
Number of missing required test locations ³ :	0	0	0
Percentage of missing test locations for the facility ^{4,5} :	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 $\leq 33\%$. 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)

Were test devices deployed in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Were valid measurements obtained in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	<input 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 there sufficient valid measurements obtained? ^{1,2} <i>If Yes – then Testing Status - ‘No Further Testing Needed’ complete Conclusion section</i> <i>If No, then Testing Status - ‘Follow-up Testing Required’ continue below</i>	<input 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.

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

Follow-Up Testing (if required)

Required if –

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

Follow-up Testing:

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

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

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

Attachment 1:
Summary Data Tables

Table 1- Radon Testing Results		
Oak View Elementary School		
Test Period: 01/29/2024 - 02/01/2024		
Kit Number	Room / Area	Result
11633536	101	1.0
11633544	101	1.4
11633523	102	0.9
11633522	104	3.5
11633531	106	1.2
11633513	107	0.9
11633514	108	0.8
11633512	110	0.9
11633502	111	1.6
11633541	111	1.7
11633526	112	0.6
11633532	114	< 0.3
11633534	114	< 0.3
11633533	117	0.8
11633529	119	0.9
11633528	121	< 0.3
11633543	122	0.8
11633520	123	0.6
11633504	124	< 0.3
11633521	125	0.5
11633539	127	0.6
11633548	127	< 0.3
11633549	127	< 0.3
11633540	128	0.9
11633527	132	< 0.3
11633508	138	0.7
11633525	138	< 0.3
11633509	140	1.0
11633503	145	0.6
11633507	147	0.8
11633537	202	0.6
11633545	204	< 0.3
11633538	205	0.6
11633547	206	< 0.3
11633546	207	< 0.3
11633550	209	< 0.3
11633517	100A	< 0.3
11633516	100B	1.1
11633518	100E	0.6
11633505	100F	0.8
11633506	100H	0.6
11633530	101D	0.8
11633535	101D	0.7

Table 1- Radon Testing Results		
Oak View Elementary School		
Test Period: 01/29/2024 - 02/01/2024		
Kit Number	Room / Area	Result
11633524	102A	0.8
11633519	110A	0.6
11633542	117A	0.6
11633511	124A	< 0.3
11633510	124B	< 0.3
11633557	BUILDING SERVICES OFFICE	2.3
11633558	BUILDING SERVICES OFFICE	2.5
11633501	CAFETERIA	0.5
11633556	CAFETERIA	0.6
11633553	KITCHEN OFFICE	0.6
11633515	MAIN OFFICE	0.7
11633555	STAGE	0.8

Table 3 - QC Radon Testing Results			
Oak View Elementary School			
Test Period: 01/29/2024 - 02/01/2024			
Kit Number	QC Type	Room / Area	Result
11633541	D	111	1.7
11633534	FB	114	<0.3
11633548	D	127	<0.3
11633549	FB	127	<0.3
11633508	D	138	0.7
11633535	D	101d	0.7
11633558	D	Building Services office	2.5

Attachment 2:
Laboratory Reports

Radon test result report for:
OAKVIEW ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633517	100A	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633516	100B	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	1.1 ± 0.3	2024-02-05
11633518	100E	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633505	100F	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.8 ± 0.3	2024-02-05
11633506	100H	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633544	101	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	1.4 ± 0.3	2024-02-05
11633536	101	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	1.0 ± 0.3	2024-02-05
11633535	101D	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.7 ± 0.3	2024-02-05
11633530	101D	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.8 ± 0.3	2024-02-05
11633523	102	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.9 ± 0.3	2024-02-05
11633524	102A	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.8 ± 0.3	2024-02-05
11633522	104	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	3.5 ± 0.4	2024-02-05
11633531	106	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	1.2 ± 0.3	2024-02-05
11633513	107	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.9 ± 0.3	2024-02-05
11633514	108	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.8 ± 0.3	2024-02-05
11633512	110	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.9 ± 0.3	2024-02-05
11633519	110A	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633502	111	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	1.6 ± 0.3	2024-02-05
11633541	111	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	1.7 ± 0.4	2024-02-05
11633526	112	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633532	114	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633534	114	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633533	117	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.8 ± 0.3	2024-02-05
11633542	117A	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633529	119	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.9 ± 0.3	2024-02-05
11633528	121	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633543	122	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.8 ± 0.3	2024-02-05
11633520	123	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633504	124	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633511	124A	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633510	124B	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633521	125	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.5 ± 0.3	2024-02-05
11633548	127	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633539	127	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633549	127	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633540	128	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.9 ± 0.3	2024-02-05
11633527	132	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633525	138	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633508	138	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.7 ± 0.3	2024-02-05
11633509	140	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	1.0 ± 0.3	2024-02-05
11633503	145	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633507	147	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.8 ± 0.3	2024-02-05
11633537	202	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633545	204	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633538	205	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633547	206	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633546	207	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633550	209	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	< 0.3	2024-02-05
11633557	BUILDING SERVICES OFFICE	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	2.3 ± 0.4	2024-02-05
11633558	BUILDING SERVICES OFFICE	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	2.5 ± 0.4	2024-02-05
11633556	CAFETERIA	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633501	CAFETERIA	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.5 ± 0.3	2024-02-05
11633553	KITCHEN OFFICE	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.6 ± 0.3	2024-02-05
11633515	MAIN OFFICE	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.7 ± 0.3	2024-02-05
11633555	STAGE	2024-01-29 @ 1:00 pm	2024-02-01 @ 10:00 am	0.8 ± 0.3	2024-02-05

February 7, 2024

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
OFFICE BLANK
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11285577	OB	2024-01-29 @ 10:00 am	2024-02-01 @ 11:00 am	< 0.3	2024-02-05

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

February 7, 2024

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
TRAVEL BLANK
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633585	TB	2024-01-29 @ 10:00 am	2024-02-01 @ 11:00 am	< 0.3	2024-02-05

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

January 29, 2024

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
STORAGE
KCI

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 213327

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

Date Start: 1/19/24 Date Stop: 1/22/24 Date Start: _____ Date Stop: _____

Time Start: 0831 Time Stop: 0831 Time Start: _____ Time Stop: _____

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

11284003, 11284005, 11284006 _____

11284007, 11284008, 11284013 _____

F3 Left

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

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

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

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

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

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

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

January 29, 2024

**** LABORATORY ANALYSIS REPORT ****

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

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

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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing January 29th – February 1st 2024

Name of Schools:

- 1. John F. Kennedy HS
- 2. Francis Scott Key MS
- 3. Montgomery Village MS
- 4. Oak View ES
- 5. North Chevy Chase ES
- 6. Cabin Branch ES

	Date	Initials
Radon Test Kits Deployed	01/29/2024	OM
Radon Test Kits Collected	02/01/2024	JW
Radon Test Kits Shipped to Lab*	02/01/2024	OM
Radon Test Kits Received by Lab*	02/05/2024	OM

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

Attachment 3:
Sampling Location Map



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Oakview Elementary School
Date of Test Report	4/26/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	43
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.6 pCi/L

Project Status:
Initial testing completed; no further action needed.



April 26, 2022

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

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

Location: Oakview Elementary School
400 East Wayne Ave.
Silver Spring, MD 20901

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 Oakview ES, located at 400 East Wayne Ave. Silver Spring, MD 20901 (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 1, 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 March 4, 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 biennial post-mitigation testing.

These tests were conducted to:

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

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the 20s and high temperatures ranged from the high 50s to the low 60s Fahrenheit. Maximum sustained winds ranged from 9-17 miles per hour. Average humidity was around 40% with 0 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

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

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

Our professional services have been performed in accordance with customary principles and practices in the field of industrial hygiene and engineering. If you have any questions or comments regarding this report, please feel free to contact me at (410) 891-1769.

Sincerely,



Tyler P. McCleaf
Radon Measurement Provider
#111004 RT
KCI Technologies, Inc.

Attachments: A- Floor Plan with Test Locations
 B- Table 1-3, Radon Test Summary Spreadsheets
 C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Check, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

OC- Quality Control

Table 1- Radon Testing Results		
Oak View ES		
Test Period: 03/01/2022 - 03/04/2022		
Kit Number	Room / Area	Result
11132408	100	0.9
11132420	104	1.2
11132404	106	0.9
11133053	107	0.7
11133047	108	0.9
11132595	110	0.9
11132419	111	1.1
11133042	112	1.2
11133043	112	< 0.3
11133063	114	1.2
11130377	117	1.1
11133054	117	0.8
11132599	119	0.9
11132598	121	0.7
11132596	122	0.9
11132597	123	0.7
11132600	123	1.0
11132417	124	0.7
11132402	125	< 0.3
11132587	127	< 0.3
11132401	128	< 0.3
11132405	135	0.6
11132411	135	< 0.3
11132422	138	0.9
11132425	140	0.6
11132418	145	0.8
11132409	147	< 0.3
11132421	147	< 0.3
11132403	202	0.8
11132588	202	0.5
11132593	204	0.6
11133041	205	0.6
11133062	206	< 0.3
11133061	207	< 0.3
11132412	209	0.8
11132594	209	< 0.3
11133045	214	1.6
11132415	100A	< 0.3
11132414	100B	0.9
11132416	100E	1.0
11132413	100F	0.9
11132410	124A	0.7

Table 1- Radon Testing Results		
Oak View ES		
Test Period: 03/01/2022 - 03/04/2022		
Kit Number	Room / Area	Result
11132406	124B	0.5
11132407	APR	0.8
11132426	APR	< 0.3
11132590	GYM	1.0
11133029	GYM	0.8
11133034	GYM OFFICE	0.9
11132424	HEALTH	0.9
11132423	KITCHEN OFFICE	0.9

Table 2- Radon Testing Results			
Oak View ES			
Test Period: 03/01/2022 - 03/04/2022			
Kit Number	QC Type	Room / Area	Result
11132421	D	147	< 0.3
11132411	FB	135	< 0.3
11132594	D	209	< 0.3
11132588	D	202	0.5
11133043	FB	112	< 0.3
11133054	D	117	0.8
11132600	D	123	1.0
11130861	OB	OFFICE BLANK	< 0.3
11130854	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

March 8, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
OAKVIEW ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11130377	117	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	1.1 ± 0.3	2022-03-07

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

Radon test result report for:
OAKVIEW ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11132408	100	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	0.9 ± 0.3	2022-03-07
11132415	100A	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11132414	100B	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	0.9 ± 0.3	2022-03-07
11132416	100E	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	1.0 ± 0.3	2022-03-07
11132413	100F	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	0.9 ± 0.3	2022-03-07
11132420	104	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	1.2 ± 0.3	2022-03-07
11132404	106	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.9 ± 0.3	2022-03-07
11133053	107	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.7 ± 0.3	2022-03-07
11133047	108	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.9 ± 0.3	2022-03-07
11132595	110	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.9 ± 0.3	2022-03-07
11132419	111	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	1.1 ± 0.3	2022-03-07
11133042	112	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	1.2 ± 0.3	2022-03-07
11133043	112	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	< 0.3	2022-03-07
11133063	114	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	1.2 ± 0.3	2022-03-07
11133054	117	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.8 ± 0.3	2022-03-07
11132599	119	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.9 ± 0.3	2022-03-07
11132598	121	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.7 ± 0.3	2022-03-07
11132596	122	2022-03-01 @ 12:00 pm	2022-03-04 @ 12:00 pm	0.9 ± 0.3	2022-03-07
11132600	123	2022-03-01 @ 12:00 pm	2022-03-04 @ 12:00 pm	1.0 ± 0.3	2022-03-07
11132597	123	2022-03-01 @ 12:00 pm	2022-03-04 @ 12:00 pm	0.7 ± 0.3	2022-03-07
11132417	124	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.7 ± 0.3	2022-03-07
11132410	124A	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.7 ± 0.3	2022-03-07
11132406	124B	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.5 ± 0.3	2022-03-07
11132402	125	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11132587	127	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11132401	128	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11132405	135	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.6 ± 0.3	2022-03-07
11132411	135	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	< 0.3	2022-03-07
11132422	138	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	0.9 ± 0.3	2022-03-07
11132425	140	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	0.6 ± 0.3	2022-03-07
11132418	145	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	0.8 ± 0.3	2022-03-07
11132421	147	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11132409	147	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11132588	202	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.5 ± 0.3	2022-03-07
11132403	202	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.8 ± 0.3	2022-03-07
11132593	204	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.6 ± 0.3	2022-03-07
11133041	205	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.6 ± 0.3	2022-03-07

March 8, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**OAKVIEW ES
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11133062	206	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	< 0.3	2022-03-07
11133061	207	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	< 0.3	2022-03-07
11132412	209	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.8 ± 0.3	2022-03-07
11132594	209	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	< 0.3	2022-03-07
11133045	214	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	1.6 ± 0.3	2022-03-07
11132407	APR	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	0.8 ± 0.3	2022-03-07
11132426	APR	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11133029	GYM	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	0.8 ± 0.3	2022-03-07
11132590	GYM	2022-03-01 @ 11:00 am	2022-03-04 @ 12:00 pm	1.0 ± 0.3	2022-03-07
11133034	GYM OFFICE	2022-03-01 @ 12:00 pm	2022-03-04 @ 12:00 pm	0.9 ± 0.3	2022-03-07
11132424	HEALTH	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	0.9 ± 0.3	2022-03-07
11132423	KITCHEN OFFICE	2022-03-01 @ 11:00 am	2022-03-04 @ 11:00 am	0.9 ± 0.3	2022-03-07

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204620

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

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

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

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

11139367, 11139368, 11139371, _____

11139710, 11139717 _____

E3 Right

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

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

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

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

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

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

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

March 30, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

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

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

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

March 30, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**RSH
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139726	BASEMENT	2022-03-20 @ 8:00 am	2022-03-23 @ 7:00 am	0.9 ± 0.5	2022-03-30
11139725	DINING	2022-03-20 @ 8:00 am	2022-03-23 @ 7:00 am	< 0.3	2022-03-30

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 – March 2022 Schools

Name of Schools:

1. Newport Mill MS
2. Rock View ES
3. Eastern MS
4. Blair, Montgomery HS
5. Montgomery Knolls ES
6. Northwood HS
7. Oakview ES
8. Pine Crest ES
9. Arcola ES
10. Glenallen ES

	Date	Initials
Radon Test Kits Deployed	03/01/2022	PM
Radon Test Kits Collected	03/04/2022	PM
Radon Test Kits Shipped to Lab*	03/04/2022	PM
Radon Test Kits Received by Lab*	03/07/2022	PM

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



MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Oak View Elementary School
Date of Report	3/5/2020
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	1
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.7 pCi/L

Project Status

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



3/5/2020

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: Oak View Elementary School

400 East Wayne Avenue
Silver Spring, Maryland 20901

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 Oak View Elementary School, located at 400 East Wayne Avenue in Silver Spring, Maryland 20901 (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 2/18/2020 and deployed two (2) 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 nine (9) 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 2/21/2020 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 lower-40s; and high temperatures ranged from the upper-30s to the upper-50s. Maximum sustained winds ranged from 13-21 miles per hour. Average humidity was approximately 50%. A total of .01 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		
Oak View Elementary School		
Test Period: 02/18/20-02/21/20		
Kit Number	Room / Area	Result
9348569	130	0.7
9348571	OFFICE BLANK	< 0.3

Table 2- Radon Testing Results			
Oak View Elementary School			
Test Period: 02/18/20-02/21/20			
Kit Number	QC Type	Room / Area	Result
9348506	TRANSIT BLANK	NA	< 0.3

ATTACHMENT C

Laboratory Analytical Results

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

March 5, 2020

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9341733		2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.4 \pm 1.6	2020-02-26

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

March 5, 2020

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

S

N/A

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

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 Kit Chain of Custody

Project Name: MCPS Radon 2019 Week 3

Name of Schools:

1. Bannockburn E.S.
2. Bradley Hills E.S.
3. East Silver Spring E.S.
4. Einstein H.S.
5. Flora M. Singer E.S.
6. Francis Scott Key M.S.
7. Jones Lane E.S
8. Montgomery Blair H.S.
9. Oak View E.S.
10. Redland M.S.
11. Springbrook H.S.

	Date	Initials
Radon Test Kits Deployed	2/18/20	
Radon Test Kits Collected	2/21/20	
Radon Test Kits Shipped to Lab*	2/21/20	
Radon Test Kits Received by Lab*	2/24/20	

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



MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Oak View Elementary School
Date of Report	2/21/2020
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	52
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.7 pCi/L

Project Status

Current Project Status at this time: Testing Complete; no further action.



2/21/2020

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: Oak View Elementary School

400 East Wayne Avenue
Silver Spring, Maryland 20901

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 Oak View Elementary School, located at 400 East Wayne Avenue in Silver Spring, Maryland 20901 (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 www.montgomerycountymd.gov/dep/air/radon or www.epa.gov/radon.

KCI visited the site on 1/7/2020 and deployed sixty-five (65) 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 1/10/2020 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 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 upper-20s and high temperatures were in the mid-50s. Maximum sustained winds ranged from 10-23 miles per hour. Average humidity was around 64%. 0.32 inches of precipitation (rain) 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		
Newport Mill MS		
Test Period: 1/7/2020-1/10-2020		
Kit Number	Room / Area	Result
9339995	GIRL LOCKER OFFICE	0.6
9339996	116	1.7
9339999	WEIGHT ROOM	0.9
9340000	WEIGHT ROOM	1.4
9347614	221	< 0.3
9347615	218	< 0.3
9347616	220	< 0.3
9347619	219	< 0.3
9347620	209	< 0.3
9347624	212	< 0.3
9347625	MAIL ROOM	< 0.3
9347626	216	0.6
9347627	305	0.8
9347628	307	0.8
9347629	MAIN OFFICE	0.8
9347630	223	< 0.3
9347631	302	1.1
9347632	407	0.9
9347633	411	< 0.3
9347634	413	1.5
9347635	202	< 0.3
9347636	200	< 0.3
9347637	304	1.5
9347638	308	1.7
9347639	409	0.8
9347640	309	1.2
9347641	204	0.6
9347642	ASSISTANT PRINCIPAL GLASPIE	1.4
9347643	402	1.1
9347644	412D	< 0.3
9347645	412	0.9
9347646	400	1.4
9347647	CONFERENCE ROOM M.O.	0.7
9347648	211D	< 0.3
9347649	PRINCIPAL SECRETARY	< 0.3
9347650	207	< 0.3
9347651	STAFF DEVELOPMENT	0.7
9347652	412C	1.4
9347653	CAFETERIA	0.7
9347654	SECURITY	0.8
9347655	211	0.7
9347656	PRINCIPAL OFFICE	0.6

9347657	217	< 0.3
9347658	NURSE OFFICE	0.7
9347659	MEDIA CENTER	0.8
9347660	KITCHEN OFFICE	< 0.3
9347661	OFFICE M.O.	0.8
9347662	211E	< 0.3
9347663	211C	< 0.3
9347664	210	< 0.3
9347665	BOY LOCKER OFFICE	1
9347666	NURSE OFFICE	< 0.3
9347667	210	< 0.3
9347668	104A	0.5
9347669	210	< 0.3
9347670	CAFETERIA	0.7
9347671	CAFETERIA	0.7
9347672	NURSE OFFICE	< 0.3
9347673	102	0.8
9347674	1220	< 0.3
9347675	207	< 0.3
9347676	207	< 0.3
9347677	104A	< 0.3
9347678	CAFETERIA	0.8
9347679	GYM	1.1
9347680	GYM	1
9347681	120	1.3
9347682	306	0.9
9347683	118	1.9
9347684	GYM	1.1
9347685	GYM	1
9347686	105	0.8
9347687	120	1.6
9347688	201	< 0.3
9347689	412C	1.3
9347690	414	1
9347691	MEDIA CENTER OFFICE	0.9
9347692	1207	< 0.3
9347693	MEDIA CENTER	1
9347694	115	0.9
9347695	115	< 0.3
9347696	MEDIA CENTER	1.1
9347697	110	0.9
9347698	MEDIA CENTER WORK ROOM	0.9
9347699	412A	< 0.3
9347700	115	0.9
9348317	OFFICE BLANK	< 0.3

Table 2- Radon Testing Results			
Newport Mill MS			
Test Period: 1/7/2020-1/10-2020			
Kit Number	QC Type	Room / Area	Result
9347650	D	207	<0.3
9347676	FB	207	<0.3
9347664	D	210	<0.3
9347669	FB	210	<0.3
9347670	D	CAFETERIA	0.7
9347668	D	104A	0.5
9347687	D	120	1.6
9347672	D	NURSE OFFICE	<0.3
9347666	FB	NURSE OFFICE	<0.3
9347689	D	412C	1.3
9347700	D	115	0.9
9347695	FB	115	<0.3
9348319	TRANSIT BLANK	NA	<0.3
9348320	TRANSIT BLANK	NA	<0.3
9348313	TRANSIT BLANK	NA	<0.3

ATTACHMENT C

Laboratory Analytical Results

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:

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

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

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
9340052	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.4 \pm 2.6 D	2020-01-03
9340057	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.3 \pm 2.5 D	2020-01-03
9340025	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.1 \pm 2.4 D	2020-01-03
9341711	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	22.5 \pm 2.2 D	2020-01-03
9340079	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.9 \pm 2.5 D	2020-01-03
9340062	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.6 \pm 2.5 D	2020-01-03
9340030	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.0 \pm 2.4 D	2020-01-03
9341716	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 \pm 2.4 D	2020-01-03
9340084	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.5 \pm 2.3 D	2020-01-03

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc Job Number 193598

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

Date Start: 12/21/19 Date Stop: 12/23/19
Time Start: 0830 Time Stop: 0830
(Group 4)
Device No.'s: (20) Char. Bags -
9340061 thru 9340080

Temp of _____ 70.0
RH % _____ 50.1
Avg pCi/L _____ 25.5

52

Date Start: 12/21/19 Date Stop: 12/23/19
Time Start: 0835 Time Stop: 0835
(Group 5)
Device No.'s: (20) Char. Bags -
9340081 thru 9340100

Temp of _____ 70.0
RH % _____ 50.1
Avg pCi/L _____ 25.5

25

Date Start: 12/21/19 Date Stop: 12/23/19
Time Start: 0840 Time Stop: 0840
(Group 6)
Device No.'s: (20) Char. Bags -
9341701 thru 9341720

Temp of _____ 70.0
RH % _____ 50.1
Avg pCi/L _____ 25.5

25

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:
NEWPORT MILL MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9347673	102	2020-01-07 @ 10:00 am	2020-01-10 @ 9:00 am	0.8 ± 0.4	2020-01-14
9347668	104A	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	0.5 ± 0.4	2020-01-14
9347677	104A	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	< 0.3	2020-01-14
9347686	105	2020-01-07 @ 10:00 am	2020-01-10 @ 8:00 am	0.8 ± 0.4	2020-01-14
9347697	110	2020-01-07 @ 12:00 pm	2020-01-10 @ 8:00 am	0.9 ± 0.4	2020-01-14
9347695	115	2020-01-07 @ 12:00 pm	2020-01-10 @ 9:00 am	< 0.3	2020-01-14
9347700	115	2020-01-07 @ 12:00 pm	2020-01-10 @ 9:00 am	0.9 ± 0.3	2020-01-14
9347694	115	2020-01-07 @ 12:00 pm	2020-01-10 @ 9:00 am	0.9 ± 0.4	2020-01-14
9339996	116	2020-01-07 @ 12:00 pm	2020-01-10 @ 8:00 am	1.7 ± 0.4	2020-01-14
9347683	118	2020-01-07 @ 12:00 pm	2020-01-10 @ 8:00 am	1.9 ± 0.4	2020-01-14
9347681	120	2020-01-07 @ 9:00 am	2020-01-10 @ 9:00 am	1.3 ± 0.4	2020-01-14
9347687	120	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	1.6 ± 0.4	2020-01-14
9347692	1207	2020-01-07 @ 11:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347674	1220	2020-01-07 @ 11:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347636	200	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	< 0.3	2020-01-14
9347688	201	2020-01-07 @ 10:00 am	2020-01-10 @ 8:00 am	< 0.3	2020-01-14
9347635	202	2020-01-07 @ 8:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347641	204	2020-01-07 @ 9:00 am	2020-01-10 @ 7:00 am	0.6 ± 0.3	2020-01-14
9347676	207	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	< 0.3	2020-01-14
9347650	207	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	< 0.3	2020-01-14
9347675	207	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	< 0.3	2020-01-14
9347620	209	2020-01-07 @ 7:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347664	210	2020-01-07 @ 9:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347669	210	2020-01-07 @ 9:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347667	210	2020-01-07 @ 9:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347655	211	2020-01-07 @ 9:00 am	2020-01-10 @ 7:00 am	0.7 ± 0.4	2020-01-14
9347663	211C	2020-01-07 @ 9:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347648	211D	2020-01-07 @ 9:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347662	211E	2020-01-07 @ 9:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347624	212	2020-01-07 @ 8:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347626	216	2020-01-07 @ 8:00 am	2020-01-10 @ 7:00 am	0.6 ± 0.4	2020-01-14
9347657	217	2020-01-07 @ 10:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347615	218	2020-01-07 @ 8:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347619	219	2020-01-07 @ 8:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347616	220	2020-01-07 @ 8:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347614	221	2020-01-07 @ 8:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347630	223	2020-01-07 @ 8:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14

Radon test result report for:
NEWPORT MILL MS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9347631	302	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	1.1 ± 0.4	2020-01-14
9347637	304	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	1.5 ± 0.4	2020-01-14
9347627	305	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	0.8 ± 0.3	2020-01-14
9347682	306	2020-01-07 @ 12:00 pm	2020-01-10 @ 9:00 am	0.9 ± 0.4	2020-01-14
9347628	307	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	0.8 ± 0.3	2020-01-14
9347638	308	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	1.7 ± 0.4	2020-01-14
9347640	309	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	1.2 ± 0.4	2020-01-14
9347646	400	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	1.4 ± 0.3	2020-01-14
9347643	402	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	1.1 ± 0.4	2020-01-14
9347632	407	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	0.9 ± 0.4	2020-01-14
9347639	409	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	0.8 ± 0.4	2020-01-14
9347633	411	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	< 0.3	2020-01-14
9347645	412	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	0.9 ± 0.4	2020-01-14
9347699	412A	2020-01-07 @ 12:00 pm	2020-01-10 @ 9:00 am	< 0.3	2020-01-14
9347652	412C	2020-01-07 @ 12:00 pm	2020-01-10 @ 9:00 am	1.4 ± 0.4	2020-01-14
9347689	412C	2020-01-07 @ 12:00 pm	2020-01-10 @ 9:00 am	1.3 ± 0.4	2020-01-14
9347644	412D	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	< 0.3	2020-01-14
9347634	413	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	1.5 ± 0.4	2020-01-14
9347690	414	2020-01-07 @ 11:00 am	2020-01-10 @ 8:00 am	1.0 ± 0.4	2020-01-14
9347642	ASSISTANT PRINCIPAL GLASPIE	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	1.4 ± 0.4	2020-01-14
9347665	BOY LOCKER OFFICE	2020-01-07 @ 10:00 am	2020-01-10 @ 9:00 am	1.0 ± 0.4	2020-01-14
9347653	CAFETERIA	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	0.7 ± 0.3	2020-01-14
9347678	CAFETERIA	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	0.8 ± 0.4	2020-01-14
9347671	CAFETERIA	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	0.7 ± 0.4	2020-01-14
9347670	CAFETERIA	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	0.7 ± 0.4	2020-01-14
9347647	CONFERENCE ROOM M.O.	2020-01-07 @ 8:00 am	2020-01-10 @ 8:00 am	0.7 ± 0.4	2020-01-14
9339995	GIRL LOCKER OFFICE	2020-01-07 @ 12:00 pm	2020-01-10 @ 8:00 am	0.6 ± 0.3	2020-01-14
9347685	GYM	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	1.0 ± 0.4	2020-01-14
9347679	GYM	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	1.1 ± 0.4	2020-01-14
9347684	GYM	2020-01-07 @ 10:00 am	2020-01-10 @ 8:00 am	1.1 ± 0.4	2020-01-14
9347680	GYM	2020-01-07 @ 10:00 am	2020-01-10 @ 8:00 am	1.0 ± 0.4	2020-01-14
9347660	KITCHEN OFFICE	2020-01-07 @ 9:00 am	2020-01-10 @ 8:00 am	< 0.3	2020-01-14
9347625	MAIL ROOM	2020-01-07 @ 7:00 am	2020-01-10 @ 7:00 am	< 0.3	2020-01-14
9347629	MAIN OFFICE	2020-01-07 @ 7:00 am	2020-01-10 @ 8:00 am	0.8 ± 0.4	2020-01-14
9347693	MEDIA CENTER	2020-01-07 @ 12:00 pm	2020-01-10 @ 8:00 am	1.0 ± 0.4	2020-01-14
9347659	MEDIA CENTER	2020-01-07 @ 12:00 pm	2020-01-10 @ 8:00 am	0.8 ± 0.4	2020-01-14
9347696	MEDIA CENTER	2020-01-07 @ 12:00 pm	2020-01-10 @ 8:00 am	1.1 ± 0.4	2020-01-14

Radon test result report for:
**NEWPORT MILL MS
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9347691	MEDIA CENTER OFFICE	2020-01-07 @ 12:00 pm	2020-01-10 @ 8:00 am	0.9 ± 0.4	2020-01-14
9347698	MEDIA CENTER WORK ROOM	2020-01-07 @ 12:00 pm	2020-01-10 @ 8:00 am	0.9 ± 0.3	2020-01-14
9347658	NURSE OFFICE	2020-01-07 @ 10:00 am	2020-01-10 @ 9:00 am	0.7 ± 0.4	2020-01-14
9347666	NURSE OFFICE	2020-01-07 @ 10:00 am	2020-01-10 @ 9:00 am	< 0.3	2020-01-14
9347672	NURSE OFFICE	2020-01-07 @ 10:00 am	2020-01-10 @ 9:00 am	< 0.3	2020-01-14
9347661	OFFICE M.O.	2020-01-07 @ 8:00 am	2020-01-10 @ 9:00 am	0.8 ± 0.4	2020-01-14
9347656	PRINCIPAL OFFICE	2020-01-07 @ 9:00 am	2020-01-10 @ 9:00 am	0.6 ± 0.4	2020-01-14
9347649	PRINCIPAL SECRETARY	2020-01-07 @ 8:00 am	2020-01-10 @ 9:00 am	< 0.3	2020-01-14
9347654	SECURITY	2020-01-07 @ 9:00 am	2020-01-10 @ 9:00 am	0.8 ± 0.4	2020-01-14
9347651	STAFF DEVELOPMENT	2020-01-07 @ 11:00 am	2020-01-10 @ 8:00 am	0.7 ± 0.3	2020-01-14
9339999	WEIGHT ROOM	2020-01-07 @ 1:00 pm	2020-01-10 @ 9:00 am	0.9 ± 0.4	2020-01-14
9340000	WEIGHT ROOM	2020-01-07 @ 1:00 pm	2020-01-10 @ 9:00 am	1.4 ± 0.4	2020-01-14



Radon Test Kit Chain of Custody

Project Name: MCPS Radon 2019 Week 3

Name of Schools:

- | | |
|------------------------------|----------------------------|
| 1. Bannockburn E.S. | 12. Montgomery Knolls E.S. |
| 2. Bethesda E.S. | 13. Newport Mills M.S. |
| 3. Bethesda-Chevy Chase H.S. | 14. Oak View E.S. |
| 4. Bradley Hill E.S. | 15. Rock View E.S. |
| 5. Burning Tree E.S. | 16. Roscoe Nix E.S. |
| 6. Burnt Mills E.S. | 17. Sligo M.S. |
| 7. East Silver Springs E.S. | 18. Spring Mill Center |
| 8. Einstein H.S. | 19. Springbrook H.S. |
| 9. Flora Singer E.S. | 20. Westland M.S. |
| 10. Key M.S. | 21. Woodlin M.S. |
| 11. Montgomery Blair H.S. | |

	Date	Initials
Radon Test Kits Deployed	1/6/20 to 1/7/20	JM
Radon Test Kits Collected	1/9/20 to 1/10/20	JM
Radon Test Kits Shipped to Lab*	1/10/20	JM
Radon Test Kits Received by Lab*	1/13/202	JM

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



MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Oakview Elementary School
Date of Report	February 2, 2018
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	42
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	< 0.3 pCi/L
Highest Value	2.5 pCi/L

Current Project Status at this time: Testing Completed; no further action at this time.



February 2, 2018

Mr. Richard Cox, MS
Team Leader
Montgomery County Public Schools
Division of Maintenance
Rockville, Maryland 20855

Re: Radon Testing Services

KCI Job #1214694182

Location: Oakview Elementary School

400 East Wayne Ave.
Silver Spring, Maryland 20901

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 Oakview Elementary School, located at 400 East Wayne Ave. in Silver Spring, Maryland 20901 (subject site).

SCOPE OF SERVICES

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

KCI visited the site on December 4, 2017 and deployed fifty-one (51) 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 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 December 7, 2017 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:

- Post-mitigation biennial testing.

These tests were conducted to:

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

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

KCI recorded observations of the following conditions in each room 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 high-20s to mid-40s and high temperatures ranged from the low-40s to mid-50s. Maximum sustained winds ranged from 12-17 miles per hour. Average humidity was around 65%. 0.16 Inches of precipitation was recorded during the testing period.

RESULTS

The sampling locations, field observations, 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). Missing/compromised tests, missed rooms, and locked rooms 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 field blank, office blank, and lab transit blank 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,



James Mouldsdale, CHMM
Radon Measurement Specialist
KCI Technologies, Inc.

Attachments:

B- Tables 1-3, Radon Test Summary Spreadsheets

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		
Oakview Elementary School		
Test Period: 12/04/17-12/07/17		
Kit Number	Room / Area	Result
7194102	100	1.6
7194140	101	2.3
7194141	101	1.4
7194108	102	1.6
7194138	104	1.0
7194137	106	0.9
7194136	107	< 0.3
7194135	108	0.9
7194125	110	1.9
7194127	111	0.7
7194126	112	0.9
7194128	114	< 0.3
7194130	117	< 0.3
7194131	119	< 0.3
7194132	121	< 0.3
7194133	122	< 0.3
7194134	123	0.7
7194118	124	1.2
7194120	125	0.6
7194122	127	0.8
7194123	130	< 0.3
7194113	138	1.0
7194124	139	0.8
7194114	140	2.1
7194116	145	0.8
7194112	147	0.6
7194111	149	0.8
7194144	202	0.6
7194146	204	0.6
7194145	205	0.7
7194149	206	0.6
7194148	207	0.7
7194150	209	< 0.3
7194104	100A	1.5
7194105	100B	1.9
7194106	100D	1.9
7194107	100E	1.7
7194110	100F	2.2
7194142	101D	2.5
7194109	102A	1.6
7194119	124A	1.2
7194117	124B	0.9
7194121	125WR	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Oakview Elementary School		
Test Period: 12/04/17-12/07/17		
Kit Number	QC Type	Result
7194103	D (100)	1.9
7194143	D (101D)	2.4
7194129	D (114)	< 0.3
7194115	D (140)	1.7
7194147	D (204)	< 0.3
7194101	FB (100)	< 0.3
7194139	FB (104)	< 0.3
7193826	OB (OFFICE BLANK)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:

**OAKVIEW ELEMENTARY SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7194102	100	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	1.6 ± 0.4	2017-12-12
7194103	100	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	1.9 ± 0.5	2017-12-12
7194101	100	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	< 0.3	2017-12-12
7194104	100A	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	1.5 ± 0.5	2017-12-12
7194105	100B	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	1.9 ± 0.5	2017-12-12
7194106	100D	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	1.9 ± 0.5	2017-12-12
7194107	100E	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	1.7 ± 0.5	2017-12-12
7194110	100F	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	2.2 ± 0.5	2017-12-12
7194140	101	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	2.3 ± 0.5	2017-12-12
7194141	101	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	1.4 ± 0.4	2017-12-12
7194142	101D	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	2.5 ± 0.5	2017-12-12
7194143	101D	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	2.4 ± 0.5	2017-12-12
7194108	102	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	1.6 ± 0.4	2017-12-12
7194109	102A	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	1.6 ± 0.4	2017-12-12
7194139	104	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194138	104	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	1.0 ± 0.4	2017-12-12
7194137	106	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	0.9 ± 0.4	2017-12-12
7194136	107	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194135	108	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	0.9 ± 0.4	2017-12-12
7194125	110	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	1.9 ± 0.5	2017-12-12
7194127	111	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	0.7 ± 0.4	2017-12-12
7194126	112	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	0.9 ± 0.4	2017-12-12
7194128	114	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194129	114	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194130	117	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194131	119	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194132	121	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194133	122	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194134	123	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	0.7 ± 0.4	2017-12-12
7194118	124	2017-12-04 @ 11:00 am	2017-12-07 @ 6:00 am	1.2 ± 0.5	2017-12-12
7194119	124A	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	1.2 ± 0.4	2017-12-12
7194117	124B	2017-12-04 @ 11:00 am	2017-12-07 @ 6:00 am	0.9 ± 0.4	2017-12-12
7194120	125	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	0.6 ± 0.4	2017-12-12
7194121	125WR	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194122	127	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	0.8 ± 0.4	2017-12-12
7194123	130	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194113	138	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	1.0 ± 0.4	2017-12-12

Radon test result report for:**OAKVIEW ELEMENTARY SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7194124	139	2017-12-04 @ 11:00 am	2017-12-07 @ 7:00 am	0.8 ± 0.4	2017-12-12
7194114	140	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	2.1 ± 0.4	2017-12-12
7194115	140	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	1.7 ± 0.5	2017-12-12
7194116	145	2017-12-04 @ 11:00 am	2017-12-07 @ 6:00 am	0.8 ± 0.5	2017-12-12
7194112	147	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	0.6 ± 0.4	2017-12-12
7194111	149	2017-12-04 @ 10:00 am	2017-12-07 @ 6:00 am	0.8 ± 0.4	2017-12-12
7194144	202	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	0.6 ± 0.4	2017-12-12
7194146	204	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	0.6 ± 0.4	2017-12-12
7194147	204	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7194145	205	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	0.7 ± 0.4	2017-12-12
7194149	206	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	0.6 ± 0.4	2017-12-12
7194148	207	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	0.7 ± 0.4	2017-12-12
7194150	209	2017-12-04 @ 12:00 pm	2017-12-07 @ 7:00 am	< 0.3	2017-12-12
7193826	OFFICE BLANK	2017-12-04 @ 11:00 am	2017-12-07 @ 11:00 am	< 0.3	2017-12-12



Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase

Names of Schools:

1. Brooke Grove Elementary School
2. Brown Station Elementary School
3. Diamond Elementary School Addition
4. Dufief Elementary School
5. Emory Grove Center
6. Fields Road Elementary School
7. Facilities Maintenance Depot
8. Forest Oak Middle School
9. Francis Scott Key Middle School
10. Gaithersburg Elementary School
11. Gaithersburg Middle School
12. Germantown Elementary School
13. Greenwood Elementary School
14. Jones Lane Elementary School
14. Newport Mill Middle School
15. Oakview Elementary School
16. Quince Orchard High School
17. Robert Frost Middle School
18. Rosa Parks Middle School
19. South Lake Elementary School

	Date	Initials
Radon Test Kits Deployed	12/04/17	JM
Radon Test Kits Collected	12/07/17	JM
Radon Test Kits Shipped to Lab*	12/07/17	JM
Radon Test Kits Received by Lab*	12/11/17	JM

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

Radon test result report for:**TRANSIT 2****MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7193838	TRANSIT 1	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7979384	TRANSIT 10	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7979385	TRANSIT 11	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7984056	TRANSIT 12	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7983834	TRANSIT 13	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7194097	TRANSIT 14	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7194092	TRANSIT 15	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7193840	TRANSIT 16	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7979072	TRANSIT 17	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7979071	TRANSIT 18	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7979065	TRANSIT 19	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	0.6 ± 0.4	2017-12-13
7978194	TRANSIT 2	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7985660	TRANSIT 20	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7985661	TRANSIT 21	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	0.7 ± 0.4	2017-12-13
7193843	TRANSIT 22	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7984055	TRANSIT 23	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7983813	TRANSIT 24	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7983827	TRANSIT 25	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7978193	TRANSIT 3	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7978189	TRANSIT 4	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	0.5 ± 0.4	2017-12-13
7986187	TRANSIT 5	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7986188	TRANSIT 6	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7986177	TRANSIT 7	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7979077	TRANSIT 8	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13
7979386	TRANSIT 9	2017-12-05 @ 2:00 pm	2017-12-08 @ 2:00 pm	< 0.3	2017-12-13

December 19, 2017

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS - Spike Sample Laboratory Results. Measured values are satisfactory, i.e. within $\pm 25\%$ of the chamber's reference value (27.7 pCi/L).

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7975075	S1	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	25.6 \pm 0.7	2017-12-07
7975064	S2	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	27.4 \pm 0.8	2017-12-07
7975063	S3	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	26.3 \pm 0.7	2017-12-07
7975065	S4	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	23.0 \pm 0.7	2017-12-07
7975069	S5	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	25.6 \pm 0.7	2017-12-07
7975070	S6	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	23.0 \pm 0.7	2017-12-07

Air Chek, Inc. 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 182393

NOMINAL Conditions: Radon Conc 27.7 pCi/L Rel. Hum 49.1 % Temp. 70.1 F

Date Start: 12/1/17 Date Stop: 12/4/17 Date Start: _____ Date Stop: _____

Time Start: 1049 Time Stop: 1049 Time Start: _____ Time Stop: _____

Device No.'s: (6) Char. Bags. Device No.'s: _____

7975075, 7975064, 7975063, _____

7975065, 7975069, 7975070 _____

F4 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



MCPS RADON TESTING

Executive Summary: Oakview Elementary School

Date of Test Report:	10/19/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	6
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.5

Project Status:

Post remediation testing completed; no further action at this time.



October 19, 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 # 12146341.54

Location: Oakview Elementary School
400 East Wayne Avenue
Silver Spring, MD 20901

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 Oakview Elementary School, located at 400 East Wayne Avenue in Silver Spring, Maryland 20904 (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 September 26, 2016 and deployed eight (8) 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 September 29, 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:

These tests represent:

- Post-mitigation testing for radon mitigation systems installed recently.

To expedite the testing, tests were conducted in September as soon as students and staff returned to:

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

Future periodic testing should be conducted during the heating season in ideal conditions as described below. 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 cooling mode; therefore, KCI concludes that this test was not 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 50s and high temperatures in the mid-60s to mid-70s. Maximum sustained winds ranged from 3-15 miles per hour. Average humidity ranged from 71 to 89 percent. Rain (1.83 inches in Gaithersburg, MD) was recorded on 9/29/16. The weather conditions during the testing period may have resulted in atypical radon test results for this facility.

Results:

The results of the radon test analysis indicated the following:

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

Notes:

D- Duplicate sample

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

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

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

Sincerely,



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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Radon Testing Results		
Oak View Elementary School		
Test Period: 09/26/16-09/29/16		
Kit Number	Room / Area	Result
7802841	202	1.5
7802835	204	< 0.3
7802836	205	< 0.3
7802833	206	0.5
7802832	207	< 0.3
7802831	209	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Oak View Elementary School		
Test Period: 09/26/16-09/29/16		
Kit Number	QC Type	Result
7802842	D (202)	1.1
7802834	FB (205)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

October 7, 2016

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**OAKVIEW ELEMENTARY SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7802841	202	2016-09-26 @ 12:00 pm	2016-09-29 @ 11:00 am	1.5 ± 0.3	2016-10-03
7802842	202	2016-09-26 @ 12:00 pm	2016-09-29 @ 11:00 am	1.1 ± 0.3	2016-10-03
7802835	204	2016-09-26 @ 12:00 pm	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802836	205	2016-09-26 @ 12:00 pm	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802834	205	2016-09-26 @ 12:00 pm	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802833	206	2016-09-26 @ 12:00 pm	2016-09-29 @ 11:00 am	0.5 ± 0.3	2016-10-03
7802832	207	2016-09-26 @ 12:00 pm	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802831	209	2016-09-26 @ 12:00 pm	2016-09-29 @ 11:00 am	< 0.3	2016-10-03

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

October 7, 2016

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS Radon

Phase 18 Office Blanks

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7802697	1	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7801899	10	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802932	11	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802935	12	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802915	13	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802941	2	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802942	3	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802919	4	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802918	5	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802917	6	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802916	7	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802952	8	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802928	9	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03

Radon test result report for:

MCPS Radon

Phase 18 Transit Blanks

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7714274	1	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802962	10	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714295	11	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714299	12	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714273	13	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714270	14	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802965	2	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802696	3	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802690	4	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714275	5	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714298	6	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802990	7	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802974	8	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802694	9	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03

October 12, 2016

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**MCPS Radon
Spike Sample Results**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7769880	101	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	22.9 ± 1.0	2016-09-28
7769884	102	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	22.4 ± 1.0	2016-09-28
7769885	103	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	23.0 ± 1.0	2016-09-28
7769890	104	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	22.3 ± 1.0	2016-09-28
7769891	105	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	26.8 ± 1.2	2016-09-28
7769899	106	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	24.1 ± 1.1	2016-09-28

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 176788

NOMINAL Conditions: Radon Conc 26.1 pCi/L Rel. Hum 49.6 % Temp. 70.0 F

Date Start: 9/24/16 Date Stop: 9/26/16 Date Start: _____ Date Stop: _____

Time Start: 0758 Time Stop: 0758 Time Start: _____ Time Stop: _____

Device No.'s: (6) Char. Bags - Device No.'s: _____

7769899, 7769884, 7769885, _____

7769889, 7769890, 7769891 _____

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**



Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase 18

Name of Schools:

- | | |
|-------------------------------------|--|
| 1. Wood Acres Elementary School | 14. Lourie Center |
| 2. Walt Whitman High School | 15. Shriver Elementary School |
| 3. Burning Tree Elementary School | 16. Viers Mill Elementary School |
| 4. Ashburton Elementary School | 17. Highland Elementary School |
| 5. Bethesda Maintenance | 18. Newport Middle School |
| 6. Bethesda Transportation | 19. Albert Einstein High School |
| 7. Herbert Hoover Middle School | 20. Sligo Middle School |
| 8. Cold Spring Elementary School | 21. East Silver Spring Elementary School |
| 9. Garret Park Elementary School | 22. Oak View Elementary School |
| 10. Rock View Elementary School | 23. Roscoe Nix Elementary School |
| 11. Francis Scott Key Middle School | 24. Northwood High School |
| 12. Montgomery Blair High School | 25. Springbrook High School |
| 13. Stephen Knolls School | 26. John F. Kennedy High School |

	Date	Initials
Radon Test Kits Deployed	9/26/16	JM
Radon Test Kits Collected	9/29/16	JM
Radon Test Kits Shipped to Lab*	9/30/16	JM
Radon Test Kits Received by Lab*	10/03/16	JM

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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase 18

Name of Schools:

- | | |
|--|-----------------------------------|
| 1. Damascus High School | 17. Watkins Mills High School |
| 2. Cedar Grove Elementary School | 18. Forest Oak Middle School |
| 3. Hallie Wells Middle School | 19. Gaithersburg Middle School |
| 4. Clarksburg Elementary School | 20. Emory Grove |
| 5. Clarksburg High School | 21. Fields Road Elementary School |
| 6. Woodlin Elementary School | 22. Beall Elementary School |
| 7. Flora Singer Elementary School | 23. Julius West Middle School |
| 8. Spring Mill Center | 24. Thomas Wootton High School |
| 9. Dr. Charles Drew Elementary School | 25. Robert Frost High School |
| 10. William Farquah Middle School | 26. Travilah Elementary School |
| 11. Rosa Parks Middle School | 27. Jones Lane Elementary School |
| 12. Blair Ewing Center | 28. Longview School |
| 13. Lathrop Smith Environmental Center | 29. Rock Terrace High School |
| 14. Sequoyah Elementary School | 30. Germantown Elementary School |
| 15. Shady Grove Middle School | 31. Lake Seneca Elementary School |
| 16. Captain James Daly Elementary School | |

	Date	Initials
Radon Test Kits Deployed	9/27/16	JM
Radon Test Kits Collected	9/30/16	JM
Radon Test Kits Shipped to Lab*	9/30/16	JM
Radon Test Kits Received by Lab*	10/03/16	JM

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

RADON SCREENING SURVEY – FOLLOW-UP OAKVIEW ELEMENTARY SCHOOL

400 East Wayne Avenue, Silver Spring, Maryland 20904

EXECUTIVE SUMMARY

Date of Test Report:	3/8/16
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested	2
# Rooms \geq 4.0 pCi/L:	2
Low Value:	4.1
High Value:	5.4
Confirmed Rooms \geq 4.0 pCi/L US EPA Action Level	1

Summary of Sampling Events \geq 4.0 pCi/L

Room	Result (pCi/L) 2/24/16 (Rev 1) Initial	Result (pCi/L) 3/8/16	Average Result (pCi/L)
204	5.5	5.4	5.5
209	3.3	4.1	3.7



MCPS RADON TESTING

Executive Summary: Oakview Elementary School

Date of Test Report:	3/8/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	2
# Rooms \geq 4.0 pCi/L:	2
Low Value:	4.1
High Value:	5.4

Rooms with results \geq 4.0 pCi/L:
Room 204 (5.4 pCi/L), Room 209 (4.1 pCi/L)

Project Status:

Retesting completed; use the average of the initial and re-test results in a room to determine if remediation is necessary.



March 8, 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 # 12146341.28

Location: Oakview Elementary School
400 East Wayne Avenue
Silver Spring, MD 20901

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 Oakview Elementary School, located at 400 East Wayne Avenue in Silver Spring, Maryland 20904 (subject site).

Scope of Services:

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

KCI visited the site on February 8, 2016 and deployed four (4) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

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

KCI returned to the site on February 11, 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	204	5.4, 5.4(D)
	209	4.1
< 4.0 pCi/L	See Attachment B	

Notes:
D- Duplicate sample

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

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

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

Sincerely,



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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank*

PM- Project Manager

QC- Quality Control

*Office blanks were submitted at a rate of 1% for all samples deployed in Phase 8 testing. Office blanks were not submitted under each school individually.

Radon Testing Results		
Oakview Elementary School		
Test Period: 02/08/16-02/11/16		
Kit Number	Room / Area	Result
7730283	204	5.4
7730285	209	4.1

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Oakview Elementary School		
Test Period: 02/08/16-02/11/16		
Kit Number	QC Type	Result
7730287	D (204)	5.4
7730289	FB (209)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

February 25, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**OAKVIEW ELEMENTARY SCHOOL
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7730283	204	2016-02-08 @ 9:00 am	2016-02-11 @ 8:00 am	5.4 ± 0.6	2016-02-15
7730287	204	2016-02-08 @ 9:00 am	2016-02-11 @ 8:00 am	5.4 ± 0.6	2016-02-15
7730285	209	2016-02-08 @ 9:00 am	2016-02-11 @ 8:00 am	4.1 ± 0.5	2016-02-15
7730289	209	2016-02-08 @ 9:00 am	2016-02-11 @ 8:00 am	< 0.3	2016-02-15

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

February 25, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**MCPS RADON
PHASE 8
OFFICE BLANKS**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7729754	0	2016-02-08 @ 4:00 pm	2016-02-11 @ 5:00 pm	< 0.3	2016-02-15
7729757	0	2016-02-08 @ 4:00 pm	2016-02-11 @ 5:00 pm	< 0.3	2016-02-15
7729758	0	2016-02-08 @ 4:00 pm	2016-02-11 @ 5:00 pm	< 0.3	2016-02-15

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

February 23, 2016
LABORATORY ANALYSIS REPORT

Radon test result report for:
TRANSIT- PHASE 7, 8, 9
NONE

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

February
15,
2016

****LABORATORY ANALYSIS
REPORT ****

Spike Sample Laboratory Results

Radon test result report for:
MCPS

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

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCF Technologies Inc. Job Number 173704

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

Date Start: 1/30/16 Date Stop: 2/1/16 Date Start: _____ Date Stop: _____

Time Start: 0926 Time Stop: 0926 Time Start: _____ Time Stop: _____

Device No.'s: (6) Char. Bags - Device No.'s: _____

7718281, 7718282, 7718291, _____

7718288, 7718289, 7718273 _____

ε3 Left

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

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

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

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

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

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

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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase 8

Name of Schools:

- | | |
|--------------------------|--------------------------|
| 1. Blair G. Ewing Center | 12. Jackson Road ES |
| 2. Cedar Grove ES | 13. Jones Lane ES |
| 3. Clarksburg ES | 14. Lake Seneca ES |
| 4. Cloverly ES | 15. Laytonsville ES |
| 5. Cold Spring ES | 16. Montgomery Knolls ES |
| 6. Damascus ES | 17. North Chevy Chase ES |
| 7. Dufief ES | 18. Oakview ES |
| 8. East Silver Spring | 19. Randolph Maint |
| 9. Georgian Forest ES | 20. Robert Frost MS |
| 10. Germantown ES | 21. Shady Grove Maint |
| 11. Glenallen ES | 22. Viers Mill ES |

	Date	Initials
Radon Test Kits Deployed	2/8/16	JM
Radon Test Kits Collected	2/11/16	JM
Radon Test Kits Shipped to Lab*	12/11/16	JM
Radon Test Kits Received by Lab*	12/15/16	JM

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



MCPS RADON TESTING

Executive Summary: Oak View Elementary School

Date of Test Report:	2/24/2016 (Rev 1)
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	36
# Rooms \geq 4.0 pCi/L:	1
Low Value:	< 0.3
High Value:	5.5

Rooms with results \geq 4.0 pCi/L:
Room: 204 (5.5 pCi/L)

Project Status:
Initial testing completed; re-test needed for results \geq 4.0 pCi/L.



February 24, 2016 (Rev 1)

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

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

Location: Oak View Elementary School
400 E. Wayne Avenue
Silver Spring, MD 20901

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 Oak View Elementary School, located at 400 E. Wayne Avenue in Silver Spring, Maryland 20901 (subject site).

Scope of Services:

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

KCI visited the site on December 15, 2016 and deployed forty-eight (48) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

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

KCI returned to the site on December 18, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936

Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages $\leq 65^{\circ}$ 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	204	5.5
< 4.0 pCi/L	See Attachment B	

Notes:
D- Duplicate sample

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

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

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

Sincerely,



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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

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		
Oak View ES		
Test Period: 12/15/15-12/18/15		
Kit Number	Room / Area	Result
7704175	100	0.8
7704131	102	0.8
7704186	104	2.6
7704139	106	2.1
7704183	107	0.9
7704182	110	2.4
7704141	111	1.2
7704134	112	1.4
7704136	114	1.0
7704137	117	< 0.3
7704181	119	0.7
7704138	121	< 0.3
7704113	122	0.8
7704179	123	0.9
7704184	124	0.7
7704194	124	0.5
7704192	125	0.6
7704142	127	< 0.3
7704133	128	0.5
7704130	133	0.7
7704188	138	0.5
7704191	140	1.1
7704190	145	0.5
7704140	147	0.6
7704197	202	2.9
7704143	204	5.5
7704157	205	1.5
7704145	206	2.9
7704149	207	3.1
7704146	209	3.3
7704171	100A	0.6
7704173	100B	1.0
7704172	100E	1.8
7704178	100F	1.4
7704187	102A	< 0.3
7704174	CAFE	0.5
7706247	CAFE	< 0.3
7704176	GYM	1.2
7704177	GYM	1.4

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Oak View ES		
Test Period: 12/15/15-12/18/15		
Kit Number	QC Type	Result
7704132	D (100F)	1.3
7704185	D (110)	2.3
7704189	D (145)	0.6
7704195	D (205)	2.1
7704196	D (209)	2.7
7704180	FB (119)	< 0.3
7704193	FB (202)	< 0.3
7704144	FB (204)	< 0.3
7704397	OB (OFFICE BLANK)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

December
30,
2015

**LABORATORY ANALYSIS
REPORT ****

Radon test result report for:

**OAK VIEW ES
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7704175	100	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7704171	100A	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	0.6 ± 0.3	2015-12-22
7704173	100B	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.0 ± 0.3	2015-12-22
7704172	100E	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.8 ± 0.3	2015-12-22
7704178	100F	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.4 ± 0.3	2015-12-22
7704132	100F	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	1.3 ± 0.3	2015-12-22
7704131	102	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7704187	102A	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7704186	104	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	2.6 ± 0.4	2015-12-22
7704139	106	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	2.1 ± 0.4	2015-12-22
7704183	107	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.9 ± 0.3	2015-12-22
7704182	110	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	2.4 ± 0.4	2015-12-22
7704185	110	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	2.3 ± 0.4	2015-12-22
7704141	111	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7704134	112	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.4 ± 0.3	2015-12-22
7704136	114	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.0 ± 0.3	2015-12-22
7704137	117	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7704180	119	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7704181	119	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.7 ± 0.3	2015-12-22
7704138	121	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7704113	122	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.8 ± 0.3	2015-12-22
7704179	123	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.9 ± 0.3	2015-12-22
7704184	124	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	0.7 ± 0.3	2015-12-22
7704194	124	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	0.5 ± 0.3	2015-12-22
7704192	125	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	0.6 ± 0.3	2015-12-22
7704142	127	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	< 0.3	2015-12-22
7704133	128	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	0.5 ± 0.3	2015-12-22
7704130	133	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	0.7 ± 0.3	2015-12-22
7704188	138	2015-12-15 @ 4:00 pm	2015-12-18 @ 10:00 am	0.5 ± 0.3	2015-12-22
7704191	140	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.1 ± 0.3	2015-12-22
7704189	145	2015-12-15 @ 4:00 pm	2015-12-18 @ 10:00 am	0.6 ± 0.3	2015-12-22
7704190	145	2015-12-15 @ 4:00 pm	2015-12-18 @ 10:00 am	0.5 ± 0.3	2015-12-22
7704140	147	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	0.6 ± 0.3	2015-12-22
7704193	202	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	< 0.3	2015-12-22
7704197	202	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	2.9 ± 0.4	2015-12-22
7704144	204	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	< 0.3	2015-12-22
7704143	204	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	5.5 ± 0.5	2015-12-22

December
30,
2015

**** LABORATORY ANALYSIS
REPORT ****

Radon test result report for:

**OAK VIEW ES
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7704157	205	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	1.5 ± 0.3	2015-12-22
7704195	205	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	2.1 ± 0.4	2015-12-22
7704145	206	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	2.9 ± 0.4	2015-12-22
7704149	207	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	3.1 ± 0.4	2015-12-22
7704146	209	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	3.3 ± 0.4	2015-12-22
7704196	209	2015-12-15 @ 3:00 pm	2015-12-18 @ 10:00 am	2.7 ± 0.4	2015-12-22
7704174	CAFE	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	0.5 ± 0.3	2015-12-22
7706247	CAFE	2015-12-15 @ 5:00 pm	2015-12-18 @ 11:00 am	< 0.3	2015-12-22
7704176	GYM	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.2 ± 0.3	2015-12-22
7704177	GYM	2015-12-15 @ 4:00 pm	2015-12-18 @ 11:00 am	1.4 ± 0.3	2015-12-22

December
30,
2015

**** LABORATORY ANALYSIS
REPORT ****

Radon test result report for:

**OAK VIEW ES
OFFICE BLANK**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7704397	OFFICE BLANK	2015-12-15 @ 3:00 pm	2015-12-18 @ 3:00 pm	< 0.3	2015-12-22

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

December
29,
2015

**LABORATORY ANALYSIS
REPORT ****

Radon test result report for:
TRANSIT DEC 14 2015
NONE

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

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**



Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase I

Name of Schools:

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

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

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