



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Eastern Middle School
Date of Test Report	05/27/2022
Round of Testing	<p>Initial</p> <p><u>Follow-up</u></p> <p>Post Remediation</p> <p>2 Year Testing</p> <p>5 Year Testing</p> <p>HVAC Upgrade</p> <p>Window Replacement</p> <p>New Addition</p> <p>New Facility</p>
# Rooms Tested	7
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.6 pCi/L

Project Status

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



May 27, 2022

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

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

Location: Eastern Middle School
300 University Blvd. East
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 Eastern Middle School, located at 300 University Blvd. East, 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 28, 2022 and deployed eleven (11) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

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

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

KCI returned to the site on March 31, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the mid 20°Fs and high temperatures ranged from the low 50°Fs to the mid 70°Fs. Maximum sustained winds ranged from 0-33 miles per hour. Average humidity was around 47% with 0.23 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 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		
Eastern MS RT		
Test Period: 03/28/2022 - 03/31/2022		
Kit Number	Room / Area	Result
11140013	115	0.8
11140012	204	< 0.3
11140003	301	1.2
11140004	313	1.6
11140025	100 FAIR	1.2
11140002	AUX GYM	0.9
11140009	AUX GYM	< 0.3
11140011	AUX GYM	< 0.3
11140015	AUX GYM	< 0.3
11140010	GYM	0.5
11140026	GYM	0.6

Table 2- Radon Testing Results			
East Silver Spring ES RT			
Test Period: 03/29/2022 - 04/01/2022			
Kit Number	QC Type	Room / Area	Result
11139869	D	100b	0.9
11139868	FB	103	< 0.3
11139883	OB	OFFICE BLANK	< 0.3
11139841	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

April 4, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
EASTERN MS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11140025	100 FAIR	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	1.2 ± 0.3	2022-04-04
11140013	115	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	0.8 ± 0.3	2022-04-04
11140012	204	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	< 0.3	2022-04-04
11140003	301	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	1.2 ± 0.3	2022-04-04
11140004	313	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	1.6 ± 0.3	2022-04-04
11140002	AUX GYM	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	0.9 ± 0.3	2022-04-04
11140009	AUX GYM	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	< 0.3	2022-04-04
11140011	AUX GYM	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	< 0.3	2022-04-04
11140015	AUX GYM	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	< 0.3	2022-04-04
11140010	GYM	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	0.5 ± 0.3	2022-04-04
11140026	GYM	2022-03-28 @ 11:00 am	2022-03-31 @ 11:00 am	0.6 ± 0.3	2022-04-04

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204620

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

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

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

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

11139367, 11139368, 11139371, _____

11139710, 11139717 _____

E3 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



Radon Test Kit Chain of Custody

Project Name: MCPS Radon – March 2022 Schools – Retesting

Name of Schools:

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

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

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



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Eastern Middle 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	61
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.9 pCi/L

Project Status:

Initial testing completed; Compromised or missing samples need re-sampling



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: Eastern Middle School
300 University Blvd., East
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 Eastern MS, located at 300 University Blvd., East 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 sixty eight (68) 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 initial testing.

These tests were conducted to:

- Evaluate radon concentration levels at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the 20s and high temperatures ranged from the high 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		
Eastern MS		
Test Period: 03/01/2022 - 03/04/2022		
Kit Number	Room / Area	Result
11133462	100	0.6
11133464	100	2.4
11133466	100	1.2
11133481	101	< 0.3
11133492	102	< 0.3
11133491	104	< 0.3
11133485	105	< 0.3
11133489	106	1.3
11133495	108	1.8
11133496	108	1.5
11133490	109	< 0.3
11133797	113	0.6
11133600	114	0.6
11133494	115	NA
11133500	116	1.4
11133499	117	0.7
11133588	200	< 0.3
11133587	201	1.7
11133597	202	< 0.3
11133599	204	0.6
11133595	206	< 0.3
11133596	208	< 0.3
11133593	210	< 0.3
11133594	210	< 0.3
11133589	212	< 0.3
11133583	300	0.8
11133576	302	0.6
11133584	303	1.2
11133582	304	0.8
11133885	305	< 0.3
11133581	306	0.9
11133590	307	< 0.3
11133591	307	< 0.3
11133586	308	1.5
11133580	309	< 0.3
11133578	315	1.7
11133564	501	< 0.3
11133562	503	1.3
11133563	503	1.2
11133574	601	0.9
11133565	611	0.6
11133569	711	0.7

Table 1- Radon Testing Results		
Eastern MS		
Test Period: 03/01/2022 - 03/04/2022		
Kit Number	Room / Area	Result
11133566	811	< 0.3
11133479	100 ADAMS	1.4
11133474	100 BUSINESS	1.3
11133477	100 BUSINESS	1.3
11133470	100 CONFERENCE ROOM	1.2
11133473	100 FENNER	1.3
11133480	100 MAIL	1.1
11133468	100 PRINCIPAL	1.3
11133469	100 PRINCIPAL CONFERENCE	1.6
11133467	100 PRINCIPAL SECRETARY	1.7
11133472	100 TAYLOR	1.3
11133493	102 FILM	0.7
11133482	103 DAWKINS	< 0.3
11133478	103 FIALLO	< 0.3
11133475	103 MAIN	< 0.3
11133476	103 PULVER	0.5
11133484	103 WILAON	< 0.3
11133483	105 107 MAIN	< 0.3
11133487	105 107 MAIN	0.5
11133486	105 CONFERENCE	< 0.3
11133488	105 COORDINATOR	< 0.3
11133498	113 OFFICE	0.6
11133592	201 STAFF	2.9
11133570	CAFETERIA	1.0
11133571	CAFETERIA	< 0.3
11133572	CAFETERIA	0.9

Table 2- Radon Testing Results			
Eastern MS			
Test Period: 03/01/2022 - 03/04/2022			
Kit Number	QC Type	Room / Area	Result
11133466	D	100	1.2
11133462	FB	100	0.6
11133474	D	100 business	1.3
11133487	D	105 107 main	0.5
11133485	FB	105 107 main	< 0.3
11133496	D	108	1.5
11219101	D	204	NA
11133594	FB	210	< 0.3
11133590	D	307	< 0.3
11133573	D	Gym	NA
11133571	FB	Cafeteria	< 0.3
11133570	D	Cafeteria	1.0
11133563	D	503	1.2
11130861	OB	OFFICE BLANK	< 0.3
11130854	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:
EASTERN MS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11133466	100	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.2 ± 0.3	2022-03-07
11133464	100	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	2.4 ± 0.3	2022-03-07
11133462	100	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	0.6 ± 0.3	2022-03-07
11133479	100 ADAMS	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.4 ± 0.3	2022-03-07
11133474	100 BUSINESS	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.3 ± 0.3	2022-03-07
11133477	100 BUSINESS	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.3 ± 0.3	2022-03-07
11133470	100 CONFERENCE ROOM	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.2 ± 0.3	2022-03-07
11133473	100 FENNER	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.3 ± 0.3	2022-03-07
11133480	100 MAIL	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.1 ± 0.3	2022-03-07
11133468	100 PRINCIPAL	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.3 ± 0.3	2022-03-07
11133469	100 PRINCIPAL CONFERENCE	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.6 ± 0.3	2022-03-07
11133467	100 PRINCIPAL SECRETARY	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.7 ± 0.3	2022-03-07
11133472	100 TAYLOR	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	1.3 ± 0.3	2022-03-07
11133481	101	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133492	102	2022-03-01 @ 12:00 pm	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133493	102 FILM	2022-03-01 @ 12:00 pm	2022-03-04 @ 9:00 am	0.7 ± 0.3	2022-03-07
11133482	103 DAWKINS	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133478	103 FIALLO	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133475	103 MAIN	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133476	103 PULVER	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	0.5 ± 0.3	2022-03-07
11133484	103 WILAON	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133491	104	2022-03-01 @ 12:00 pm	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133485	105	2022-03-01 @ 12:00 pm	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133483	105 107 MAIN	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133487	105 107 MAIN	2022-03-01 @ 11:00 am	2022-03-04 @ 9:00 am	0.5 ± 0.3	2022-03-07
11133486	105 CONFERENCE	2022-03-01 @ 12:00 pm	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133488	105 COORDINATOR	2022-03-01 @ 12:00 pm	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133489	106	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	1.3 ± 0.3	2022-03-07
11133496	108	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	1.5 ± 0.3	2022-03-07
11133495	108	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	1.8 ± 0.3	2022-03-07
11133490	109	2022-03-01 @ 12:00 pm	2022-03-04 @ 9:00 am	< 0.3	2022-03-07
11133797	113	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	0.6 ± 0.3	2022-03-08
11133498	113 OFFICE	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	0.6 ± 0.3	2022-03-07
11133600	114	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	0.6 ± 0.3	2022-03-07
11133494	115	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	???? IF1	2022-03-07
11133500	116	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	1.4 ± 0.3	2022-03-07
11133499	117	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	0.7 ± 0.3	2022-03-07

Radon test result report for:
EASTERN MS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11133588	200	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133587	201	2022-03-01 @ 1:00 pm	2022-03-04 @ 10:00 am	1.7 ± 0.3	2022-03-07
11133592	201 STAFF	2022-03-01 @ 1:00 pm	2022-03-04 @ 10:00 am	2.9 ± 0.3	2022-03-07
11133597	202	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133599	204	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	0.6 ± 0.3	2022-03-07
11133595	206	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133596	208	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133594	210	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133593	210	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133589	212	2022-03-01 @ 12:00 pm	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133583	300	2022-03-01 @ 1:00 pm	2022-03-04 @ 11:00 am	0.8 ± 0.3	2022-03-07
11133576	302	2022-03-01 @ 1:00 pm	2022-03-04 @ 11:00 am	0.6 ± 0.3	2022-03-07
11133584	303	2022-03-01 @ 1:00 pm	2022-03-04 @ 11:00 am	1.2 ± 0.3	2022-03-07
11133582	304	2022-03-01 @ 1:00 pm	2022-03-04 @ 11:00 am	0.8 ± 0.3	2022-03-07
11133885	305	2022-03-01 @ 1:00 pm	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133581	306	2022-03-01 @ 1:00 pm	2022-03-04 @ 11:00 am	0.9 ± 0.3	2022-03-07
11133590	307	2022-03-01 @ 1:00 pm	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11133591	307	2022-03-01 @ 1:00 pm	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11133586	308	2022-03-01 @ 1:00 pm	2022-03-04 @ 10:00 am	1.5 ± 0.3	2022-03-07
11133580	309	2022-03-01 @ 1:00 pm	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133578	315	2022-03-01 @ 1:00 pm	2022-03-04 @ 10:00 am	1.7 ± 0.3	2022-03-07
11133564	501	2022-03-01 @ 2:00 pm	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11133563	503	2022-03-01 @ 2:00 pm	2022-03-04 @ 11:00 am	1.2 ± 0.3	2022-03-07
11133562	503	2022-03-01 @ 2:00 pm	2022-03-04 @ 11:00 am	1.3 ± 0.3	2022-03-07
11133574	601	2022-03-01 @ 2:00 pm	2022-03-04 @ 11:00 am	0.9 ± 0.3	2022-03-07
11133565	611	2022-03-01 @ 2:00 pm	2022-03-04 @ 11:00 am	0.6 ± 0.3	2022-03-07
11133569	711	2022-03-01 @ 2:00 pm	2022-03-04 @ 11:00 am	0.7 ± 0.3	2022-03-07
11133566	811	2022-03-01 @ 2:00 pm	2022-03-04 @ 11:00 am	< 0.3	2022-03-07
11133571	CAFETERIA	2022-03-01 @ 1:00 pm	2022-03-04 @ 10:00 am	< 0.3	2022-03-07
11133570	CAFETERIA	2022-03-01 @ 1:00 pm	2022-03-04 @ 10:00 am	1.0 ± 0.3	2022-03-07
11133572	CAFETERIA	2022-03-01 @ 1:00 pm	2022-03-04 @ 10:00 am	0.9 ± 0.3	2022-03-07

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 light

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