

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

#### Westland Middle School Site Name Date of Test Report 05/12/2022 Round of Testing Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility # Rooms Tested 1 $\# \text{Rooms} \ge 4.0 \text{ pCi/L}$ 0 Lowest Value <0.3 pCi/L Highest Value 0.7 pCi/L

### MCPS RADON TESTING – EXECUTIVE SUMMARY

#### **Project Status**

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



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

May 12, 2022

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

Re:	<b>Radon Testing Services</b>
	KCI Job # 122108316

Location: Westland Middle School 5511 Massachusetts Ave. Bethesda, MD 20816

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 Westland Middle School, located at 5511 Massachusetts Ave. Bethesda, MD 20816 (subject site).

#### Scope of Services:

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

KCI visited the site on March 21, 2022 and deployed three (3) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

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

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

KCI returned to the site on March 24, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

#### **Evaluation of Testing Conditions:**

These tests represent:

• Follow-up to initial testing.

These tests were conducted to:

• Evaluate radon concentrations at the facility.

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

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

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

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

#### **Results:**

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

The results of the radon test analysis indicated the following:

<b>Radon Concentration</b>	Room	Result
≥4.0 piC/L	None	N/A
<4.0 piC/L	See Attachment B	

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

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

Sincerely,

Tyler McCleaf

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

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

## ATTACHMENT A

Floor Plan With Test Locations

## ATTACHMENT B

## Radon Test Summary Spreadsheet

### Table Notes:

AC- Activated Charcoal ACI- Air Check, Inc. D- Duplicate FB- Field Blank KCI- KCI Technologies, Inc. OB- Office Blank PM- Project Manager OC- Quality Control

Table 1- Radon Testing Results				
	Westland MS RT			
Te	Test Period: 03/21/2022 - 03/24/2022			
Kit Number	Room / Area	Result		
11139263 152 < 0.3		< 0.3		
11139264	152	< 0.3		
11139265	11139265 152 0.7			

Table 2- Radon Testing Results					
	Westlar	nd MS RT			
	Test Period: 03/21/2022 - 03/24/2022				
Kit Number	QC Type	Room / Area	Result		
11139263	D	152			
11139264	FB	152			
11139902	OB	OFFICE BLANK	< 0.3		
11139928	ТВ	TRAVEL BLANK	< 0.3		

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

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

Table Note:

\* Missing or Compromised Sample

## ATTACHMENT C

# Laboratory Analytical Results

### **\*\* LABORATORY ANALYSIS REPORT \*\***

### Radon test result report for: Westland MS RT

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139263	152	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11139264	152	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11139265	152	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	0.7	2022-03-28

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, I	Job N	umber 204620
NOMINAL Conditions: Radon Conc 27.0 p	Ci/L Rel. Hum 50, 1	_% Temp. <u>70.0</u> 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		е 
E3 Right	· · · · · · · · · · · · · · · · · · ·	
Date Start: Date Stop:	Date Start:	Date Stop:
Time Start: Time Stop:	Time Start:	Time Stop:
Device No.'s:	Device No.'s:	
	·	fi .
8 4 2		,e
Date Start: Date Stop:	Date Start:	Date Stop:
Time Start: Time Stop:	Time Start:	_ Time Stop:
Device No.'s:	Device No.'s:	

1

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

March 30, 2022

### **\*\* LABORATORY ANALYSIS REPORT \*\***

#### Radon test result report for:

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within  $\pm$  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



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS Corporate Office: 936 Ridgebrook road • Sparks , Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

### Radon Test Kit Chain of Custody

Project Name: MCPS Radon – March 2022 Schools – Retesting

Name of Schools:

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

	Date	Initials
Radon Test Kits Deployed	03/21/2022	13MM
Radon Test Kits Collected	03/24/2022	BMM
Radon Test Kits Shipped to Lab*	03/25/2022	BMM
Radon Test Kits Received by Lab*	03/28/2022	Bann

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



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

Site Name	Westland Middle
	School
Date of Test Report	2/21/2022
Round of Testing	Initial
	Follow-up
	Post Remediation
	2 Year Testing
	5 Year Testing
	HVAC Upgrade
	Window Replacement
	New Addition
	New Facility
# Rooms Tested	68
# Rooms $\geq$ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.7 pCi/L

### MCPS RADON TESTING – EXECUTIVE SUMMARY

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



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

February 21, 2022

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

Re:	<b>Radon Testing Services</b>	
	KCI Job # 122108316	
Location:	Westland Middle School	
	5511 Massachusetts Ave.	
	Bethesda, MD 20816	

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 Westland Middle School, located at 5511 Massachusetts Ave. Bethesda, MD 20816 (subject site).

#### Scope of Services:

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

KCI visited the site on January 18, 2022 and deployed seventy eight (78) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

KCI returned to the site on January 21, 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.

Mr. Brian Croyle February 21, 2022 Page 3

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 post-mitigation biennial testing.

These tests were conducted to:

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

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the 30s and high temperatures ranged from the mid 30s to the mid 40s Fahrenheit. Maximum sustained winds ranged from 7-20 miles per hour. Average humidity was around 50% with .05 inches of precipitation (rain) was recorded during testing period.

#### **Results:**

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Tyler McCleaf

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

Attachments:

A- Floor Plan with Test LocationsB- Table 1-3, Radon Test Summary SpreadsheetsC- 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			
Westland MS			
1	est Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result	
11106627	101	< 0.3	
11106628	101	< 0.3	
11106630	102	< 0.3	
11106635	102	< 0.3	
11106675	108	< 0.3	
11106663	110	< 0.3	
11106672	111	< 0.3	
11106653	112	< 0.3	
11106664	113	< 0.3	
11106665	114	< 0.3	
11106654	115	< 0.3	
11106658	116	0.7	
11106666	117	< 0.3	
11106667	117	< 0.3	
11106660	118	< 0.3	
11106661	119	< 0.3	
11106662	119	< 0.3	
11106655	120	0.7	
11106656	120	< 0.3	
11106657	121	< 0.3	
11106646	125	< 0.3	
11106616	127	< 0.3	
11106648	128	< 0.3	
11106649	128	< 0.3	
11106608	129	< 0.3	
11106650	130	< 0.3	
11106652	130	< 0.3	
11106640	131	< 0.3	
11106647	133	< 0.3	
11106626	135	< 0.3	
11106632	136	< 0.3	
11106615	137	< 0.3	
11106623	137	< 0.3	
11106625	137	< 0.3	
11106633	138	< 0.3	
11106622	139	< 0.3	
11106637	139	< 0.3	
11106638	139	< 0.3	
11106634	140	< 0.3	
11106617	142	< 0.3	
11106643	148	< 0.3	
11106609	151	< 0.3	

Table 1- Radon Testing Results				
Westland MS				
7	Fest Period: 01/18/2022-01/21/2022			
Kit Number	Room / Area	Result		
11106677	203	< 0.3		
11106678	210	< 0.3		
11106670	214	0.7		
11106669	221	< 0.3		
11106676	229	< 0.3		
11106612	100 MAIN OFFICE	< 0.3		
11106619	100B	< 0.3		
11106611	100C	< 0.3		
11106604	100D	< 0.3		
11106605	100E	< 0.3		
11106620	100F	< 0.3		
11106618	100G	< 0.3		
11106613	100H	< 0.3		
11106603	101B	< 0.3		
11106606	101C	< 0.3		
11106610	101D	< 0.3		
11106636	101E	< 0.3		
11106629	101F	< 0.3		
11106659	118/116	0.6		
11106601	128A	< 0.3		
11106641	130 OFFICE	< 0.3		
11106642	130A	< 0.3		
11106602	130C	< 0.3		
11106607	130C	< 0.3		
11106631	130C	< 0.3		
11106624	130D	< 0.3		
11106639	131/133	< 0.3		
11106644	149 GYM	< 0.3		
11106645	149/GYM	< 0.3		
11106671	CAFETERIA	< 0.3		
11106673	CAFETERIA	< 0.3		
11106674	CAFETERIA	< 0.3		
11106668	CAFETERIA STAGE	< 0.3		
11106614	CALM ROOM	< 0.3		
11106621	EATING AREA OUTSIDE MAIN OFFICE	< 0.3		
11106682	KITCHEN	< 0.3		

Table 2- Radon Testing Results				
	Westla	nd MS		
	Test Period: 01/1	18/22-01/21/22		
Kit Number	QC Type	Room / Area	Result	
11106628	D	101	< 0.3	
11106622	FB	130	< 0.3	
11106638	D	139	< 0.3	
11106615	D	137	< 0.3	
11106631	11106631 FB 130c < 0.3			
11106602	D	130c	< 0.3	
11106649	D	128	< 0.3	
11106661	D	119	< 0.3	
11106667	11106667 FB 117 < 0.3			
11106673	D	Cafeteria	< 0.3	
11106397	OB	OFFICE BLANK	< 0.3	
11106400	FB	TRAVEL BLANK	< 0.3	

Summary of Missed Locations		
Westland MS		
٦	Test Period: 01/18/22-01/21/22	
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests			
Westland MS			
-	Test Period: 01/18/22-01/21/22		
Kit Number	Room/Area	Result	
11106651	152	Missing	

Table Note:

\* Missing or Compromised Sample

## ATTACHMENT C

# Laboratory Analytical Results

#### Radon test result report for: WESTLAND MS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106612	100 MAIN OFFICE	2022-01-18 @ 12:00	pm 2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106619	100B	2022-01-18 @ 12:00	pm 2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106611	100C	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106604	100D	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106605	100E	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106620	100F	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106618	100G	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106613	100H	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106628	101	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106627	101	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106603	101B	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106606	101C	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106610	101D	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106636	101E	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106629	101F	2022-01-18 @ 12:00	pm 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106630	102	2022-01-18 @ 1:00 µ	om 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106635	102	2022-01-18 @ 1:00 µ	om 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106675	108	2022-01-18 @ 3:00 µ	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106663	110	2022-01-18 @ 3:00 g	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106672	111	2022-01-18 @ 3:00 g	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106653	112	2022-01-18 @ 3:00 g	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106664	113	2022-01-18 @ 3:00 g	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106665	114	2022-01-18 @ 2:00 g	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106654	115	2022-01-18 @ 2:00 g	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106658	116	2022-01-18 @ 2:00 g	om 2022-01-21 @ 10:00 am	$0.7 \pm 0.4$	2022-01-26
11106667	117	2022-01-18 @ 2:00 g	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106666	117	2022-01-18 @ 2:00 g	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106660	118	2022-01-18 @ 2:00 g	om 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106659	118/116	2022-01-18 @ 2:00 g	om 2022-01-21 @ 10:00 am	$0.6 \pm 0.4$	2022-01-26
11106662	119	2022-01-18 @ 2:00 g	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106661	119	2022-01-18 @ 2:00 g	om 2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106655	120	2022-01-18 @ 2:00 p	om 2022-01-21 @ 10:00 am	$0.7 \pm 0.4$	2022-01-26
11106656	120	2022-01-18 @ 2:00 p	om 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106657	121	2022-01-18 @ 2:00 p	om 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106646	125	2022-01-18 @ 2:00 p	om 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106616	127	2022-01-18 @ 2:00 p	om 2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106648	128	2022-01-18 @ 2:00 p	om 2022-01-21 @ 10:00 am	< 0.3	2022-01-26

#### Radon test result report for: WESTLAND MS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106649	128	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106601	128A	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106608	129	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106652	130	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106650	130	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106641	130 OFFICE	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106642	130A	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106631	130C	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106602	130C	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106607	130C	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106624	130D	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106640	131	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106639	131/133	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106647	133	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106626	135	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106632	136	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106615	137	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106623	137	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106625	137	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106633	138	2022-01-18 @ 1:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106622	139	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106637	139	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106638	139	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106634	140	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106617	142	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106643	148	2022-01-18 @ 1:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106644	149 GYM	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106645	149/GYM	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106609	151	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106677	203	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106678	210	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106670	214	2022-01-18 @ 4:00 pm	2022-01-21 @ 11:00 am	$0.7 \pm 0.4$	2022-01-26
11106669	221	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106676	229	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106671	CAFETERIA	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106673	CAFETERIA	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106674	CAFETERIA	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26

### **\*\* LABORATORY ANALYSIS REPORT \*\***

#### Radon test result report for: WESTLAND MS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106668	CAFETERIA STAGE	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106614	CALM ROOM	2022-01-18 @ 12:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106621	EATING AREA OUTSIDE MAIN OFFICE	2022-01-18 @ 12:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106682	KITCHEN	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106614 11106621 11106682	CALM ROOM EATING AREA OUTSIDE MAIN OFFICE KITCHEN	2022-01-18 @ 12:00 pm 2022-01-18 @ 12:00 pm 2022-01-18 @ 3:00 pm	2022-01-21 @ 10:00 am 2022-01-21 @ 10:00 am 2022-01-21 @ 11:00 am	< 0.3 < 0.3 < 0.3	2022-01-2 2022-01-2 2022-01-2

EXPOSURE IN BOWSER-	MORNER RADON CHAMBER
CLIENT KCI Technologie	5, Jnc. Job Number 203404
NOMINAL Conditions: Radon Conc. 16.2	_pCi/L Rel. Hum <u>28.8</u> % Temp. <u>59.9</u> F
Date Start: 12/24/21 Date Stop: 12/27/2	Date Start: Date Stop:
Time Start: 0809 Time Stop: 0809	_ Time Start: Time Stop:
Device No.'s: (2) Char Bags-	Device No.'s:
9341721,9341722	
р.	
syldt	
Date Start: Date Stop:	Date Start: Date Stop:
Time Start: Time Stop:	Time Start: Time Stop:
Device No.'s:	Device No.'s:
	·
5° 2	
Date Start: Date Stop:	Date Start: Date Stop:
Time Start: Time Stop:	Time Start: Time Stop:
Device No.'s:	Device No.'s:
	2 

1\_

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

### **\*\* LABORATORY ANALYSIS REPORT \*\***

Radon test result report for:

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

Kit # Ro	om Id	Started	Ended	pCi/L	Analyzed
9341721	1	2021-12-24 @ 8:00 am	2021-12-27 @ 8:00 am	$11.6 \pm 0.9$	2021-12-31
9341722	1	2021-12-24 @ 8:00 am	2021-12-27 @ 8:00 am	$15.4 \pm 1.2$	2021-12-31



ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS Corporate Office: 936 Ridgebrook road • Sparks, Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

### Radon Test Kit Chain of Custody

Project Name: MCPS Radon – January 2022 Schools

Name of Schools:

- 1. Poolesville ES
- 2. Rosa Parks MS
- 3. Seven Locks ES
- 4. Somerset ES
- 5. Thomas Pyle MS
- 6. Walt Whitman HS
- 7. Walter Johnson HS
- 8. Westland MS
- 9. Wyngate ES

	Date	Initials
Radon Test Kits Deployed	01/18/2022	M
Radon Test Kits Collected	01/21/2022	M
Radon Test Kits Shipped to Lab*	01/21/2022	TM
Radon Test Kits Received by Lab*	01/23/2022	M

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