

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

### MCPS RADON TESTING – EXECUTIVE SUMMARY

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

### **Project Status**

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

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May 12, 2022

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

Re: Radon Testing Services

KCI Job # 122108316

Location: Captain James E. Daly Elementary School

20301 Brandermill Dr. Germantown, MD 20876

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 Captain James E. Daly Elementary School, located at 20301 Brandermill Dr. Germantown, MD 20876 (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 22, 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 25, 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.

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The results of the radon test analysis indicated the following:

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

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

Tyler McCleaf

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			
	Capt. James E. Daly ES RT		
Te	est Period: 03/22/2022 - 03/25/2022		
Kit Number	Kit Number Room / Area Result		
11131739 119 < 0.3		< 0.3	
11131740 119 < 0.3		< 0.3	
11131745 119 < 0.3			

Table 2- Radon Testing Results				
	Capt. James	E. Daly ES RT		
	Test Period: 03/22/2022 - 03/25/2022			
Kit Number   QC Type   Room / Area   Result				
11131740	D	119	< 0.3	
11131739 FB 119 < 0.3				
11139902 OB OFFICE BLANK < 0.3				
11139928	ТВ	TRAVEL BLANK	< 0.3	

Summary of Missed Locations			
	Capt. James E. Daly ES RT		
Test Period: 03/22/22 - 03/25/22			
Kit Number	Kit Number Room/Area Result		
	NA		

Summary of Missing, Compromised and >/= 4 piC/L Tests			
Capt. James E. Daly ES RT			
Test Period: 03/22/22 - 03/25/22			
Kit Number Room/Area Result			
	NA		

#### Table Note:

<sup>\*</sup> Missing or Compromised Sample

## ATTACHMENT C

# Laboratory Analytical Results

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

### Radon test result report for:

### **JAMES DALY ES**

Kit#	Room Id	Started	Ended	pCi/L	Analyzed
11131739	119	2022-03-22 @ 11:00 am	2022-03-25 @ 10:00 am	< 0.3	2022-03-28
11131740	119	2022-03-22 @ 11:00 am	2022-03-25 @ 10:00 am	< 0.3	2022-03-28
11131745	119	2022-03-22 @ 11:00 am	2022-03-25 @ 10:00 am	< 0.3	2022-03-28

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

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, I	10b Number 204620
NOMINAL Conditions: Radon Conc 27. 0 p	Ci/L Rel. Hum <u>50.1</u> % Temp. <u>70.0</u>
Date Start: 3/18/22 Date Stop: 3/21/22	Date Start: Date Stop:
Time Start: <u>0795</u> Time Stop: <u>0795</u>	(
Device No.'s: (5) Char Bags-	Device No.'s:
11139367 11139368, 11139371,	
11139710, 11139717	C
E3 Right	
Date Start: Date Stop:	Date Start: Date Stop:
Time Start: Time Stop:	Time Start: Time Stop:
Device No.'s:	Device No.'s:
	ř
* a	
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 =  $7 \mu R/h$  Elevation = 820 ft

### \*\* 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

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### 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. Herbert Hoover MS
- 2. Parkland MS
- 3. Redland MS
- 4. Rock Creek Valley ES
- 5. Tilden MS
- 6. Rockville HS
- 7. Wootton HS
- 8. Capt. James E. Daly ES
- 9. Clarksburg HS
- 10.Clearspring ES
- 11. Hallie Wells MS
- 12.Northwest HS
- 13. Paint Branch HS
- 14.Rocky Hills MS
- 15.Seneca Valley HS
- 16.Sherwood HS
- 17. Wilson Wims ES

	Date	Initials
Radon Test Kits Deployed	03/22/2022	SMM
Radon Test Kits Collected	03/25/2022	BMM
Radon Test Kits Shipped to Lab*	03/25/2022	BMM
Radon Test Kits Received by Lab*	03/28/2022	BIMM

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



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#### MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Captain James E.
	Daly Elementary
	School
Date of Test Report	4/6/2022
Round of Testing	(Initial)
	Follow-up
	Post Remediation
	2 Year Testing
	5 Year Testing
	HVAC Upgrade
	Window Replacement
	New Addition
	New Facility
# Rooms Tested	45
# Rooms $\geq$ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.5 pCi/L

Project Status:

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

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April 6, 2022

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

**Re:** Radon Testing Services

KCI Job # 122108316

Location: Capt. James E. Daly ES

20301 Brandermill Dr. Germantown, MD 20876

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 Capt. James E. Daly ES, located at 20301 Brandermill Dr. Germantown, MD 20876 (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 <a href="https://www.montgomeryschoolsmd.org">https://www.montgomeryschoolsmd.org</a> or <a href="https://www.montgomeryschoolsmd.org">www.epa.gov/radon</a>.

KCI visited the site on February 15, 2022 and deployed fifty two (52) 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 February 18, 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.

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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 30s to the high 40s Fahrenheit. Maximum sustained winds ranged from 5-18 miles per hour. Average humidity was around 15% with 1.5 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 Attachn	nent B

KCI TECHNOLOGIES, INC. WWW.kci.com

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.

Tyler McCleaf

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
Capt. James E. Daly ES

Test Period: 02/15/2022 - 02/18/2022

Kit Number	Room / Area	Result
11122286	110	< 0.3
11122295	118	< 0.3
11114280	120	< 0.3
11114263	121	< 0.3
11114266	124	1.4
11114260	125	0.7
11114283	127	< 0.3
11114274	128	< 0.3
11114281	129	< 0.3
11114287	132	< 0.3
11114267	133	< 0.3
11114288	134	< 0.3
11114289	135	0.6
11114264	136	< 0.3
11114269	136	< 0.3
11114284	137	0.6
11114271	138	< 0.3
11114270	139	< 0.3
11122277	142	< 0.3
11122300	143	< 0.3
11122299	144	< 0.3
11114273	145	< 0.3
11114272	146	< 0.3
11114278	146	< 0.3
11114265	147	< 0.3
11114279	148	< 0.3
11114286	149	< 0.3
11114262	209	< 0.3
11114258	214	< 0.3
11114276	221	< 0.3
11114268	227	< 0.3
11114282	100B MEDIA	< 0.3
11122285	103 WORKROOM	< 0.3
11122296	122 GYM	< 0.3
11122297	122 GYM	< 0.3
11114275	ASSISTANT PRINCIPALS OFFICE	0.6
11122288	CAFETERIA	< 0.3
11122291	CAFETERIA	< 0.3
11122261	CONFERENCE	1.5
11122298	GYM OFFICE	< 0.3
11114259	HEALTH	< 0.3
11114256	HEALTH OFFICE	< 0.3

Table 1- Radon Testing Results							
Capt. James E. Daly ES							
Te	Test Period: 02/15/2022 - 02/18/2022						
Kit Number	Room / Area	Result					
11122293	KITCHEN OFFICE AREA	0.5					
11122253	MAIN OFFICE	< 0.3					
11114295	MEDIA CENTER	< 0.3					
11114296	< 0.3						
11114297	MEDIA CENTER	< 0.3					
11114261	MEDIA WORKROOM	< 0.3					
11114277	PRINCIPALS OFFICE	0.7					
11122294	STAFF LOUNGE	< 0.3					
11122292 STAGE 0.5							
11114257	TELEPHONE	< 0.3					

Table 2 Daday Testing Desults								
Table 2- Radon Testing Results								
Capt. James E. Daly ES								
	Test Period: 02/15/2022 - 02/18/2022							
Kit Number	QC Type	Room / Area	Result					
11122292	D	Stage	0.5					
11114272	D	146	< 0.3					
11114278	FB	146	< 0.3					
11114269	D	136	< 0.3					
11114296	D	Media Center	< 0.3					
11114297	Media Center	< 0.3						
11114263	11114263 D 121 < 0.3							
11131660	ОВ	OFFICE BLANK	< 0.3					
11131661	ТВ	TRAVEL BLANK	< 0.3					

	Summary of Missed Locations	1						
Capt. James E. Daly ES								
	Test Period: 02/15/22 - 02/18/22							
Test Period: 02/15/22 - 02/18/22								
		- II						
Kit Number	Room/Area	Result						
NA	119	NA						

Summary o	Summary of Missing, Compromised and >/= 4 piC/L Tests							
	Capt. James E. Daly ES							
	Test Period: 02/15/22 - 02/18/22							
Kit Number	Room/Area	Result						
	NA							

Table Note:

<sup>\*</sup> Missing or Compromised Sample

## ATTACHMENT C

# Laboratory Analytical Results

Radon test result report for:

## Capt. James E. Daly ES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11114282	100B MEDIA	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122285	103 WORKROOM	2022-02-15 @ 10:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122286	110	2022-02-15 @ 10:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122295	118	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114280	120	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114263	121	2022-02-15 @ 12:00 pm	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122296	122 GYM	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122297	122 GYM	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114266	124	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	$1.4 \pm 0.3$	2022-02-22
11114260	125	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	$0.7 \pm 0.4$	2022-02-22
11114283	127	2022-02-15 @ 12:00 pm	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114274	128	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114281	129	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114287	132	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114267	133	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114288	134	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114289	135	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	$0.6 \pm 0.3$	2022-02-22
11114264	136	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114269	136	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114284	137	2022-02-15 @ 12:00 pm	2022-02-18 @ 9:00 am	$0.6 \pm 0.3$	2022-02-22
11114271	138	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114270	139	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122277	142	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122300	143	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122299	144	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114273	145	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114278	146	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114272	146	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114265	147	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114279	148	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114286	149	2022-02-15 @ 11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114262	209	2022-02-15 @ 12:00 pm	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11114258	214	•	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114276	221	•	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11114268	227	•	2022-02-18 @ 10:00 am	< 0.3	2022-02-22
11114275	ASSISTANT PRINCIPALS OFFICE	•		$0.6 \pm 0.3$	2022-02-22
11122291	CAFETERIA	2022-02-15 @ 10:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22

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

Radon test result report for:

## Capt. James E. Daly ES

Kit#	Room Id	Started		Ended	pCi/L	Analyzed
11122288	CAFETERIA	2022-02-15 @	10:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122261	CONFERENCE	2022-02-15 @	10:00 am	2022-02-18 @ 9:00 am	$1.5 \pm 0.4$	2022-02-22
11122298	GYM OFFICE	2022-02-15 @	11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114259	HEALTH	2022-02-15 @	10:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114256	HEALTH OFFICE	2022-02-15 @	10:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122293	KITCHEN OFFICE AREA	2022-02-15 @	10:00 am	2022-02-18 @ 9:00 am	$0.5 \pm 0.3$	2022-02-22
11122253	MAIN OFFICE	2022-02-15 @	10:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114295	MEDIA CENTER	2022-02-15 @	11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114296	MEDIA CENTER	2022-02-15 @	11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114297	MEDIA CENTER	2022-02-15 @	11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114261	MEDIA WORKROOM	2022-02-15 @	11:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11114277	PRINCIPALS OFFICE	2022-02-15 @	12:00 pm	2022-02-18 @ 10:00 am	$0.7 \pm 0.3$	2022-02-22
11122294	STAFF LOUNGE	2022-02-15 @	10:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22
11122292	STAGE	2022-02-15 @	10:00 am	2022-02-18 @ 9:00 am	$0.5 \pm 0.3$	2022-02-22
11114257	TELEPHONE	2022-02-15 @	10:00 am	2022-02-18 @ 9:00 am	< 0.3	2022-02-22

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### **EXPOSURE IN BOWSER-MORNER RADON CHAMBER**

CLIENT KCI Technologies	Inc. Job Number 204186
	pCi/L Rel. Hum 50.1 % Temp. 70.9
Date Start: <u>a / 18 b-2</u> Date Stop: <u>2/a 1/a</u>	2 Date Start: Date Stop:
Time Start: Q911 Time Stop: Q911	Time Start: Time Stop:
Device No.'s: (3) Char Bog 5-	Device No.'s:
11113484, 11112998, 20107126	
23 Right	
Date Start: Date Stop:	Date Start: Date Stop:
Time Start: Time Stop:	Time Start: Time Stop:
Device No.'s:	Device No.'s:
	×
(C)	
9	
Date Start: Date Stop:	Date Start: Date Stop:
Time Start: Time Stop:	Time Start: Time Stop:
Device No.'s:	Device No.'s:
	3:

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

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 Number	<b>Start Date</b>	<b>Start Time</b>	<b>End Date</b>	<b>End Time</b>	Temp.	Facility	Building	Room	Project ID	Floor	Result
11113484	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK1		1	27.9
11122998	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK2		1	26.0
20107126	2022-02-18	9:00 am	2022-02-21	9:00 am	71	OFFICE	MAIN	SK3		1	27.6

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### 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 - February 2022 Schools

#### Name of Schools:

- 1. Damascus HS
- 2. Germantown ES
- 3. Great Seneca Creek ES
- 4. Lake Seneca ES
- 5. S. Christa McAuliffe ES
- 6. Northwest HS
- 7. Waters Landing ES
- 8. Seneca Valley HS
- 9. Cedar Grove ES
- 10.Capt. James E. Daly ES
- 11. Neelsville MS
- 12.Dr. Sally K. Ride ES

	Date	Initials
Radon Test Kits Deployed	02/15/2022	(Jan)
Radon Test Kits Collected	02/18/2022	OM
Radon Test Kits Shipped to Lab*	02/18/2022	(200)
Radon Test Kits Received by Lab*	02/21/2022	mo

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