



**MCPS RADON TESTING – EXECUTIVE SUMMARY**

Site Name	Walter Johnson High School
Date of Test Report	05/12/2022
Round of Testing	Initial <u>Follow-up</u> Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	9
# Rooms $\geq$ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.6 pCi/L

**Project Status**

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



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: Walter Johnson High School  
6400 Rock Spring Dr.  
Bethesda, MD 20814

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 Walter Johnson High School, located at 6400 Rock Spring Dr. Bethesda, MD 20814 (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](http://www.epa.gov/radon).

KCI visited the site on March 21, 2022 and deployed twelve (12) 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.  $\geq 3.5$  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 24, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

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

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

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

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

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

### **Results:**

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

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 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		
Walter Johnson HS RT		
Test Period: 03/21/2022 - 03/24/2022		
Kit Number	Room / Area	Result
11133890	102	< 0.3
11139522	102	< 0.3
11132615	159	< 0.3
11132624	248	< 0.3
11132623	100E	0.6
11132613	100J	< 0.3
11133857	100J	< 0.3
11133898	100J	< 0.3
11133899	100L	< 0.3
11132685	102C	< 0.3
11139521	G69	< 0.3
11133896	G71	< 0.3



Table 2- Radon Testing Results			
Walter Johnson HS RT			
Test Period: 03/21/2022 - 03/24/2022			
Kit Number	QC Type	Room / Area	Result
11132613	D	100J	< 0.3
11133898	FB	100J	< 0.3
11139902	OB	OFFICE BLANK	< 0.3
11139928	TB	TRAVEL BLANK	< 0.3



# ATTACHMENT C

## Laboratory Analytical Results

March 28, 2022

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

Radon test result report for:  
**Walter Johnson HS RT**

<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
11133890	102	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11139522	102	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11132615	159	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11132624	248	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11132623	100E	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	0.6	2022-03-28
11132913	100J	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11133857	100J	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11133898	100J	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11133899	100L	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11132685	102C	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11139521	G69	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 am	< 0.3	2022-03-28
11133896	G71	2022-03-21 @ 9:00 am	2022-03-24 @ 8:00 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, 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  $\mu$ R/h Elevation = 820 ft

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March 30, 2022

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

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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).

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
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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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. 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

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

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



**MCPS RADON TESTING – EXECUTIVE SUMMARY**

Site Name	Walter Johnson High 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	139
# Rooms $\geq$ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.9 pCi/L

Project Status:

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





February 21, 2022

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

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

Location: Walter Johnson High School  
6400 Rock Spring Dr.  
Bethesda, MD 20814

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 Walter Johnson High School, located at 6400 Rock Spring Dr. Bethesda, MD 20814 (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](http://www.epa.gov/radon).

KCI visited the site on January 18, 2022 and deployed one hundred and sixty three (163) 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.

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:

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

<b>Quality Control Samples</b>	
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		
Walter Johnson HS		
Test Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result
11106566	100	< 0.3
11106406	104	< 0.3
11106402	106	< 0.3
11106403	106	< 0.3
11106405	106	< 0.3
11106409	108	< 0.3
11106407	110	< 0.3
11106404	113	< 0.3
11106411	117	< 0.3
11106410	118	< 0.3
11106408	130	< 0.3
11106412	132	0.6
11106564	133	< 0.3
11106578	133	0.7
11106591	133	< 0.3
11106598	134	< 0.3
11106599	135	< 0.3
11106590	137	< 0.3
11106592	140	< 0.3
11106580	141	< 0.3
11106593	142	< 0.3
11106594	145	< 0.3
11106587	146	0.6
11106588	146	< 0.3
11106595	146	0.6
11106596	147	< 0.3
11106597	148	< 0.3
11106600	149	< 0.3
11106548	151	< 0.3
11106555	154	0.8
11106558	154	< 0.3
11106543	155	0.6
11106577	156	0.8
11106573	158	< 0.3
11106576	158	0.6
11106522	159	NA
11106524	160	< 0.3
11106539	160	0.9
11106584	165	< 0.3
11106581	166	< 0.3
11106585	166	< 0.3
11106586	166	< 0.3

Table 1- Radon Testing Results		
Walter Johnson HS		
Test Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result
11106572	167	0.8
11106583	168	1.2
11106519	172	< 0.3
11106514	173	< 0.3
11106513	174	< 0.3
11106505	184	< 0.3
11106507	190	< 0.3
11106527	191	< 0.3
11106516	192	< 0.3
11106528	193	< 0.3
11106520	194	< 0.3
11106521	194	< 0.3
11106515	195	< 0.3
11106517	196	< 0.3
11106473	203	< 0.3
11106470	224	< 0.3
11106467	231	< 0.3
11106468	231	< 0.3
11106469	231	< 0.3
11106456	246	< 0.3
11106466	256	< 0.3
11106471	258	< 0.3
11106557	100A	< 0.3
11106561	100B	< 0.3
11106552	100C	< 0.3
11106560	100D	< 0.3
11106562	100F	0.7
11106567	100F	< 0.3
11106568	100F	< 0.3
11106554	100G	< 0.3
11106559	100H	< 0.3
11106401	104B	< 0.3
11106547	154C	0.7
11106538	155B	0.5
11106533	155C	< 0.3
11106525	155D	< 0.3
11106544	155E	0.6
11106535	155F	< 0.3
11106530	155G	< 0.3
11106526	155H	0.6
11106537	155H	< 0.3
11106545	155J	0.7



Table 1- Radon Testing Results		
Walter Johnson HS		
Test Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result
11106534	155K	< 0.3
11106551	155L	< 0.3
11106540	155M	< 0.3
11106549	155N	< 0.3
11106550	155P	< 0.3
11106523	155Q	0.6
11106571	156A	0.9
11106575	158D	< 0.3
11106570	158E	< 0.3
11106541	159B	< 0.3
11106518	159C	0.5
11106531	159D	< 0.3
11106532	159D	< 0.3
11106536	159D	< 0.3
11106542	159E	< 0.3
11106553	160A	< 0.3
11106565	160B	0.5
11106546	160C	< 0.3
11106589	160E	< 0.3
11106506	170 CAFETERIA	< 0.3
11106508	170 CAFETERIA	< 0.3
11106556	170C	0.9
11106529	181A	1.3
11106569	199 GYM	< 0.3
11106574	199 GYM	< 0.3
11106563	199B	< 0.3
11106579	A5 AUDITORIUM	0.8
11106582	A5 AUDITORIUM	0.9
11106455	G02	< 0.3
11106462	G03	< 0.3
11106431	G05	< 0.3
11106460	G05	< 0.3
11106448	G06	< 0.3
11106461	G07	< 0.3
11106416	G09	0.7
11106439	G10	< 0.3
11106440	G11	< 0.3
11106465	G12	< 0.3
11106454	G13	< 0.3
11106447	G14	< 0.3
11106424	G20	0.9
11106436	G20	0.7

Table 1- Radon Testing Results		
Walter Johnson HS		
Test Period: 01/18/2022-01/21/2022		
Kit Number	Room / Area	Result
11106437	G20	< 0.3
11106428	G21	1.8
11106434	G22	1.0
11106417	G25	0.9
11106426	G27	0.7
11106413	G31	1.0
11106419	G32	1.5
11106420	G33	0.8
11106422	G34	1.9
11106421	G35	< 0.3
11106414	G36	1.2
11106418	G36	1.0
11106423	G37	1.2
11106427	G39	< 0.3
11106435	G40	< 0.3
11106464	G41	< 0.3
11106429	G43	0.6
11106430	G44	< 0.3
11106438	G44B	< 0.3
11106442	G46	< 0.3
11106432	G51 SECOND GYM	0.6
11106446	G51 SECOND GYM	0.9
11106443	G52	0.6
11106425	G53	< 0.3
11106451	G53	< 0.3
11106444	G59	0.7
11106415	G64	< 0.3
11106441	G65 WEIGHT ROOM	< 0.3
11106450	G81	< 0.3
11106449	G82	< 0.3
11106452	G83	0.9
11106445	G84	< 0.3
11106433	G85	< 0.3
11106457	G86	< 0.3
11106458	G86	< 0.3
11106459	G86	< 0.3
11106453	G87	0.9

Table 2- Radon Testing Results			
Walter Johnson HS			
Test Period: 01/18/22-01/21/22			
Kit Number	QC Type	Room / Area	Result
11106520	D	194	< 0.3
11106532	D	159D	< 0.3
11106536	FB	159D	< 0.3
11106537	D	155H	< 0.3
11106568	D	100F	< 0.3
11106567	FB	100F	< 0.3
11106555	D	154	0.8
11106585	D	166	< 0.3
11106586	FB	166	< 0.3
11106576	D	158	0.6
11106587	D	146	0.6
11106588	FB	146	< 0.3
11106591	D	133	< 0.3
11106403	D	106	< 0.3
11106402	FB	106	< 0.3
11106418	D	G36	1
11106436	D	G20	0.7
11106437	FB	G20	< 0.3
11106451	D	G53	< 0.3
11106457	D	G86	< 0.3
11106458	FB	G86	< 0.3
11106431	D	G05	< 0.3
11106469	D	231	< 0.3
11106397	OB	OFFICE BLANK	< 0.3
11106400	FB	TRAVEL BLANK	< 0.3



# ATTACHMENT C

## Laboratory Analytical Results

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106406	104	2022-01-18 @ 2:00 pm	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106401	104B	2022-01-18 @ 2:00 pm	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106577	156	2022-01-18 @ 12:00 pm	2022-01-21 @ 9:00 am	0.8 ± 0.4	2022-01-26
11106571	156A	2022-01-18 @ 12:00 pm	2022-01-21 @ 9:00 am	0.9 ± 0.4	2022-01-26
11106473	203	2022-01-18 @ 5:00 pm	2022-01-21 @ 1:00 pm	< 0.3	2022-01-26
11106470	224	2022-01-18 @ 5:00 pm	2022-01-21 @ 1:00 pm	< 0.3	2022-01-26
11106468	231	2022-01-18 @ 5:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106467	231	2022-01-18 @ 5:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106469	231	2022-01-18 @ 5:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106456	246	2022-01-18 @ 5:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106466	256	2022-01-18 @ 5:00 pm	2022-01-21 @ 1:00 pm	< 0.3	2022-01-26
11106471	258	2022-01-18 @ 5:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106579	A5 AUDITORIUM	2022-01-18 @ 12:00 pm	2022-01-21 @ 8:00 am	0.8 ± 0.4	2022-01-26
11106582	A5 AUDITORIUM	2022-01-18 @ 12:00 pm	2022-01-21 @ 8:00 am	0.9 ± 0.5	2022-01-26
11106455	G02	2022-01-18 @ 5:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106462	G03	2022-01-18 @ 5:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106460	G05	2022-01-18 @ 5:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106431	G05	2022-01-18 @ 5:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106448	G06	2022-01-18 @ 5:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106461	G07	2022-01-18 @ 5:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106416	G09	2022-01-18 @ 4:00 pm	2022-01-21 @ 11:00 am	0.7 ± 0.4	2022-01-26
11106439	G10	2022-01-18 @ 4:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106440	G11	2022-01-18 @ 4:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106465	G12	2022-01-18 @ 4:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106454	G13	2022-01-18 @ 4:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106447	G14	2022-01-18 @ 4:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106436	G20	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.7 ± 0.4	2022-01-26
11106437	G20	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106424	G20	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.9 ± 0.4	2022-01-26
11106428	G21	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	1.8 ± 0.4	2022-01-26
11106434	G22	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	1.0 ± 0.4	2022-01-26
11106417	G25	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.9 ± 0.4	2022-01-26
11106426	G27	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.7 ± 0.4	2022-01-26
11106413	G31	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	1.0 ± 0.4	2022-01-26
11106419	G32	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	1.5 ± 0.4	2022-01-26
11106420	G33	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	0.8 ± 0.4	2022-01-26
11106422	G34	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	1.9 ± 0.5	2022-01-26

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106421	G35	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106414	G36	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	1.2 ± 0.4	2022-01-26
11106418	G36	2022-01-18 @ 2:00 pm	2022-01-21 @ 11:00 am	1.0 ± 0.4	2022-01-26
11106423	G37	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	1.2 ± 0.4	2022-01-26
11106427	G39	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106435	G40	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106464	G41	2022-01-18 @ 5:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106429	G43	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.6 ± 0.4	2022-01-26
11106430	G44	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106438	G44B	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106442	G46	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106432	G51 SECOND GYM	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.6 ± 0.4	2022-01-26
11106446	G51 SECOND GYM	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.9 ± 0.4	2022-01-26
11106443	G52	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	0.6 ± 0.4	2022-01-26
11106451	G53	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106425	G53	2022-01-18 @ 3:00 pm	2022-01-21 @ 11:00 am	< 0.3	2022-01-26
11106444	G59	2022-01-18 @ 3:00 pm	2022-01-21 @ 10:00 am	0.7 ± 0.4	2022-01-26
11106415	G64	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106441	G65 WEIGHT ROOM	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106450	G81	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106449	G82	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106452	G83	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	0.9 ± 0.4	2022-01-26
11106445	G84	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106433	G85	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106459	G86	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106458	G86	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106457	G86	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106453	G87	2022-01-18 @ 4:00 pm	2022-01-21 @ 12:00 pm	0.9 ± 0.4	2022-01-26

Radon test result report for:  
**SCHOOL**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106566	100	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106557	100A	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106561	100B	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106552	100C	2022-01-18 @ 11:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106560	100D	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106568	100F	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106562	100F	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	0.7 ± 0.4	2022-01-26
11106567	100F	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106554	100G	2022-01-18 @ 11:00 am	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106559	100H	2022-01-18 @ 11:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106402	106	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106405	106	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106403	106	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106409	108	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106407	110	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106404	113	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106411	117	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106410	118	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106408	130	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106412	132	2022-01-18 @ 2:00 pm	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106578	133	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	0.7 ± 0.4	2022-01-26
11106564	133	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106591	133	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106598	134	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106599	135	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106590	137	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106592	140	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106580	141	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106593	142	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106594	145	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106588	146	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106587	146	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106595	146	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	0.6 ± 0.4	2022-01-26
11106596	147	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106597	148	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106600	149	2022-01-18 @ 1:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106548	151	2022-01-18 @ 11:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26



Radon test result report for:  
**SCHOOL**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106558	154	2022-01-18 @ 11:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106555	154	2022-01-18 @ 11:00 am	2022-01-21 @ 9:00 am	0.8 ± 0.4	2022-01-26
11106547	154C	2022-01-18 @ 11:00 am	2022-01-21 @ 9:00 am	0.7 ± 0.4	2022-01-26
11106543	155	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	0.6 ± 0.4	2022-01-26
11106538	155B	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	0.5 ± 0.4	2022-01-26
11106533	155C	2022-01-18 @ 10:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106525	155D	2022-01-18 @ 10:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106544	155E	2022-01-18 @ 10:00 am	2022-01-21 @ 8:00 am	0.6 ± 0.4	2022-01-26
11106535	155F	2022-01-18 @ 10:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106530	155G	2022-01-18 @ 10:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106537	155H	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106526	155H	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	0.6 ± 0.4	2022-01-26
11106545	155J	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	0.7 ± 0.4	2022-01-26
11106534	155K	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106551	155L	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106540	155M	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106549	155N	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106550	155P	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106523	155Q	2022-01-18 @ 10:00 am	2022-01-21 @ 9:00 am	0.6 ± 0.4	2022-01-26
11106576	158	2022-01-18 @ 12:00 pm	2022-01-21 @ 12:00 pm	0.6 ± 0.4	2022-01-26
11106573	158	2022-01-18 @ 12:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106575	158D	2022-01-18 @ 12:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106570	158E	2022-01-18 @ 12:00 pm	2022-01-21 @ 12:00 pm	< 0.3	2022-01-26
11106522	159	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	???? FI	2022-01-26
11106541	159B	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106518	159C	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	0.5 ± 0.4	2022-01-26
11106531	159D	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106532	159D	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106536	159D	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106542	159E	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106539	160	2022-01-18 @ 11:00 am	2022-01-21 @ 9:00 am	0.9 ± 0.4	2022-01-26
11106524	160	2022-01-18 @ 11:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106553	160A	2022-01-18 @ 11:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106565	160B	2022-01-18 @ 11:00 am	2022-01-21 @ 12:00 pm	0.5 ± 0.4	2022-01-26
11106546	160C	2022-01-18 @ 11:00 am	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106589	160E	2022-01-18 @ 12:00 pm	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106584	165	2022-01-18 @ 12:00 pm	2022-01-21 @ 9:00 am	< 0.3	2022-01-26

Radon test result report for:  
**SCHOOL**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11106585	166	2022-01-18 @ 12:00 pm	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106586	166	2022-01-18 @ 12:00 pm	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106581	166	2022-01-18 @ 12:00 pm	2022-01-21 @ 9:00 am	< 0.3	2022-01-26
11106572	167	2022-01-18 @ 12:00 pm	2022-01-21 @ 9:00 am	0.8 ± 0.4	2022-01-26
11106583	168	2022-01-18 @ 12:00 pm	2022-01-21 @ 9:00 am	1.2 ± 0.4	2022-01-26
11106556	170C	2022-01-18 @ 11:00 am	2022-01-21 @ 8:00 am	0.9 ± 0.4	2022-01-26
11106519	172	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106514	173	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106513	174	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106507	190	2022-01-18 @ 8:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106527	191	2022-01-18 @ 8:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106516	192	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106528	193	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106520	194	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106521	194	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106515	195	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106517	196	2022-01-18 @ 9:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106569	199 GYM	2022-01-18 @ 12:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106574	199 GYM	2022-01-18 @ 12:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26
11106563	199B	2022-01-18 @ 12:00 pm	2022-01-21 @ 10:00 am	< 0.3	2022-01-26

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January 27, 2022

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

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Radon test result report for:

**SCHOOL**

**WALTER JOHNSON HS**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
11106508	170 CAFETERIA	2022-01-18 @ 8:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106506	170 CAFETERIA	2022-01-18 @ 8:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26
11106529	181A	2022-01-18 @ 8:00 am	2022-01-21 @ 8:00 am	1.3 ± 0.4	2022-01-26
11106505	184	2022-01-18 @ 8:00 am	2022-01-21 @ 8:00 am	< 0.3	2022-01-26

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

**EXPOSURE IN BOWSER-MORNER RADON CHAMBER**

CLIENT KCI Technologies, Inc. Job Number 203404

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

Date Start: 12/24/21 Date Stop: 12/27/21 Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: 0809 Time Stop: 0809 Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: (2) Char Bags- Device No.'s: \_\_\_\_\_

9341721, 9341722

G4 left

Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_ Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_ Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: \_\_\_\_\_ Device No.'s: \_\_\_\_\_

Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_ Date Start: \_\_\_\_\_ Date Stop: \_\_\_\_\_

Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_ Time Start: \_\_\_\_\_ Time Stop: \_\_\_\_\_

Device No.'s: \_\_\_\_\_ Device No.'s: \_\_\_\_\_

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

---

December 31, 2021

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

---

Radon test result report for:

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

---

<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
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

---

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 – 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	JM
Radon Test Kits Collected	01/21/2022	JM
Radon Test Kits Shipped to Lab*	01/21/2022	JM
Radon Test Kits Received by Lab*	01/23/2022	JM

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

RADON SCREENING SURVEY – FOLLOW-UP WALTER JOHNSON HIGH SCHOOL

6400 Rock Spring Drive< Bethesda, Maryland 20814

EXECUTIVE SUMMARY

Date of Test Report:	3/14/16 Follow-Up
Round of Testing:	Initial <span style="border: 1px solid red; border-radius: 50%; padding: 2px;">Follow-up</span> Post Remediation
# Rooms Tested	18
# Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	<0.3
High Value:	2.0
Confirmed Rooms $\geq$ 4.0 pCi/L US EPA Action Level	0

Summary of Sampling Events  $\geq$  4.0 pCi/L

Room	Result (pCi/L) 1/15/16 (Initial)	Result (pCi/L) 3/14/16 Follow-Up	Average Result (pCi/L)
100G	--- Missing	1.2	1.2
104B	--- Missing	<0.3	<0.3
108	--- Missing	<0.3	<0.3
114	--- Missing	<0.3	<0.3
118	--- Missing	<0.3	<0.3
122	--- Missing	<0.3	<0.3
152	--- Missing	<0.3	<0.3
160	--- Missing	0.8	0.8
169	--- Missing	1.2	1.2
173	--- Missing	<0.3	<0.3
181	--- Missing	2.0	2.0
Commons	--- Missing	<0.3	<0.3
G20	--- Missing	2.0	2.0
G40	--- Missing	1.7	1.7
G46	--- Missing	0.8	0.8
G51	--- Missing	1.2	1.2
GYM	<0.3 Tampered	<0.3	<0.3
258 (D)	--- Missing	<0.3	<0.3
258 (FB)	--- Missing	<0.3	<0.3



## MCPS RADON TESTING

Executive Summary: Walter Johnson High School

Date of Test Report:	3/14/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	18
# Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	2.0

Project Status:

Retesting completed; no further action at this time.





March 14, 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 # 12146341.29

Location: Walter Johnson High School  
6400 Rock Spring Drive  
Bethesda, MD 20814

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 Walter Johnson High School, located at 6400 Rock Spring Drive in Bethesda, Maryland 20814 (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](http://www.montgomerycountymd.gov/dep/air/radon) or [www.epa.gov/radon](http://www.epa.gov/radon).

KCI visited the site on February 22, 2016 and deployed twenty-three (23) 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 25, 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. Note that strong storms and heavy rainfall were recorded during the test period. The unusual weather conditions may have resulted in atypical radon test results for this facility.

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:

<b>Radon Concentration</b>	<b>Room</b>	<b>Result</b>
$\geq 4.0$ pCi/L	none	n/a
$< 4.0$ 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 9 testing. Office blanks were not submitted under each school individually.

<b>Radon Testing Results</b>		
<b>Walter Johnson High School</b>		
<b>Test Period: 02/22/16-02/25/16</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
7732345	108	< 0.3
7732343	114	< 0.3
7732377	118	< 0.3
7732383	122	< 0.3
7732385	152	< 0.3
7732386	160	0.6
7732397	160	0.8
7732394	169	1.2
7732351	173	< 0.3
7732344	181	2.0
7732398	258	< 0.3
7732349	100G	1.2
7732350	104B	< 0.3
7732393	COMMONS	< 0.3
7732352	G20	2.0
7732347	G40	1.7
7732346	G46	0.8
7732348	G51	1.2
7732353	GYM	< 0.3
7732354	GYM	< 0.3

Table Note:

\* Missing or Compromised Sample

<b>Radon Testing Results</b>		
<b>Walter Johnson High School</b>		
<b>Test Period: 02/22/16-02/25/16</b>		
<b>Kit Number</b>	<b>QC Type</b>	<b>Result</b>
7732342	D (104B)	< 0.3
7732355	D (258)	< 0.3
7732384	FB (114)	< 0.3

Table Note:

\* Missing or Compromised Sample



# ATTACHMENT C

## Laboratory Analytical Results

March 8, 2016 **\*\* LABORATORY ANALYSIS REPORT \*\***

Radon test result report for:  
**WALTER JOHNSON HIGH SCHOOL  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7732349	100G	2016-02-22 @ 10:00 am	2016-02-25 @ 7:00 am	1.2 ± 0.3	2016-02-29
7732342	104B	2016-02-22 @ 10:00 am	2016-02-25 @ 7:00 am	< 0.3	2016-02-29
7732350	104B	2016-02-22 @ 10:00 am	2016-02-25 @ 7:00 am	< 0.3	2016-02-29
7732345	108	2016-02-22 @ 10:00 am	2016-02-25 @ 9:00 am	< 0.3	2016-02-29
7732343	114	2016-02-22 @ 10:00 am	2016-02-25 @ 7:00 am	< 0.3	2016-02-29
7732384	114	2016-02-22 @ 10:00 am	2016-02-25 @ 7:00 am	< 0.3	2016-02-29
7732377	118	2016-02-22 @ 10:00 am	2016-02-25 @ 7:00 am	< 0.3	2016-02-29
7732383	122	2016-02-22 @ 10:00 am	2016-02-25 @ 7:00 am	< 0.3	2016-02-29
7732385	152	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	< 0.3	2016-02-29
7732386	160	2016-02-22 @ 10:00 am	2016-02-25 @ 8:00 am	0.6 ± 0.3	2016-02-29
7732397	160	2016-02-22 @ 10:00 am	2016-02-25 @ 8:00 am	0.8 ± 0.3	2016-02-29
7732394	169	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	1.2 ± 0.4	2016-02-29
7732351	173	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	< 0.3	2016-02-29
7732344	181	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	2.0 ± 0.4	2016-02-29
7732355	258	2016-02-22 @ 11:00 am	2016-02-25 @ 9:00 am	< 0.3	2016-02-29
7732398	258	2016-02-22 @ 11:00 am	2016-02-25 @ 9:00 am	< 0.3	2016-02-29
7732393	COMMONS	2016-02-22 @ 11:00 am	2016-02-25 @ 9:00 am	< 0.3	2016-02-29
7732352	G20	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	2.0 ± 0.4	2016-02-29
7732347	G40	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	1.7 ± 0.4	2016-02-29
7732346	G46	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	0.8 ± 0.3	2016-02-29
7732348	G51	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	1.2 ± 0.4	2016-02-29
7732353	GYM	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	< 0.3	2016-02-29
7732354	GYM	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	< 0.3	2016-02-29

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March 9, 2016 **\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:  
**MCPS**  
**Phase 9 Office Blanks**

---

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7712568	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7712584	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719460	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719481	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719497	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29
7719498	0	2016-02-22 @ 6:00 pm	2016-02-25 @ 3:00 pm	< 0.3	2016-02-29

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

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March 9, 2016 **\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:  
**MCPS**  
**Phase 9 Office Blanks**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
7731626	0	2016-02-23 @ 2:00 pm	2016-02-26 @ 3:00 pm	< 0.3	2016-03-01
7731633	0	2016-02-23 @ 2:00 pm	2016-02-26 @ 3:00 pm	< 0.3	2016-03-01
7735204	0	2016-02-23 @ 2:00 pm	2016-02-26 @ 3:00 pm	< 0.3	2016-03-01

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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**

<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
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 9

Name of Schools:

- |                          |                           |                        |
|--------------------------|---------------------------|------------------------|
| 1. Rocking Horse Road ES | 16. Broad Acres ES        | 31. Rosa Parks MS      |
| 2. Rockwell ES           | 17. Belmont ES            | 32. Rosemary Hills ES  |
| 3. Oakland Terrace ES    | 18. Emory Grove Center    | 33. Sequoyah ES        |
| 4. Rosemont ES           | 19. Forest Knolls ES      | 34. Damascus HS        |
| 5. Beall ES              | 20. Baker MS              | 35. Einstein ES        |
| 6. Cresthaven ES         | 21. MLK MS                | 36. Forest Oak MS      |
| 7. Quince Orchard HS     | 22. Richard Montgomery HS | 37. Hoover MS          |
| 8. Smith Center          | 23. Sherwood HS           | 38. Julius West MS     |
| 9. Ashburton ES          | 24. Walter Johnson HS     | 39. John F. Kennedy HS |
| 10. Bannockburn ES       | 25. Diamond ES            | 40. Travilah ES        |
| 11. Bradley Hills ES     | 26. Newport Mill MS       | 41. Watkins Mill HS    |
| 12. Cannon Road ES       | 27. Drew ES               | 42. Northwood HS       |
| 13. Flora M. Singer ES   | 28. Monocacy ES           | 43. Lincoln Center     |
| 14. Clarksburg HS        | 29. Potomac ES            |                        |
| 15. Briggs Chaney MS     | 30. Rock Terrace School   |                        |

---

	Date	Initials
Radon Test Kits Deployed	2/22/16	JM
Radon Test Kits Collected	2/25/16	JM
Radon Test Kits Shipped to Lab*	2/25/16	JM
Radon Test Kits Received by Lab*	2/29/16	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 9

Name of Schools:

- |                            |                         |
|----------------------------|-------------------------|
| 1. Banneker MS             | 10. Maryvale ES         |
| 2. Bethesda-Chevy Chase HS | 11. Montgomery Blair HS |
| 3. Burtonsville ES         | 12. Poolesville HS      |
| 4. Chevy Chase ES          | 13. Rachel Carson ES    |
| 5. Clopper Mill ES         | 14. Stedwick ES         |
| 6. Edison HS               | 15. Watkins Mill ES     |
| 7. Flower Hill ES          | 16. Laytonsville ES     |
| 8. Flower Valley ES        | 17. Lincoln Center      |
| 9. Greencastle ES          |                         |

---

	Date	Initials
Radon Test Kits Deployed	2/23/16	JM
Radon Test Kits Collected	2/26/16	JM
Radon Test Kits Shipped to Lab*	2/26/16	JM
Radon Test Kits Received by Lab*	3/01/16	JM

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



## MCPS RADON TESTING

### Executive Summary: Walter Johnson High School

Date of Test Report:	1/15/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	124
# Rooms $\geq$ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	2.6

#### Project Status:

Initial testing completed; missing or compromised samples need re-test.



January 15, 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 # 12146341.20

Location: Walter Johnson High School  
6400 Rock Spring Drive  
Bethesda, MD 20814

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 Walter Johnson High School, located at 6400 Rock Spring Drive in Bethesda, Maryland 20814 (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](http://www.montgomerycountymd.gov/dep/air/radon) or [www.epa.gov/radon](http://www.epa.gov/radon).

KCI visited the site on December 21, 2015 and deployed one hundred thirty-nine (139) 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 24, 2015 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:

<b>Radon Concentration</b>	<b>Room</b>	<b>Result</b>
$\geq 4.0$ pCi/L	None	n/a
$< 4.0$ pCi/L	See Attachment B	

Notes:

D- Duplicate sample

All field blanks, 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 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

<b>Radon Testing Results</b>		
<b>Walter Johnson H.S.</b>		
<b>Test Period: 12/21/15-12/24/15</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
7710371	101	< 0.3
7710356	104	< 0.3
7710372	106	< 0.3
7710373	107	< 0.3
7710359	110	< 0.3
7710380	113	< 0.3
7710382	115	< 0.3
7710381	116	< 0.3
7710386	117	< 0.3
7710378	121	0.6
7710351	123	< 0.3
7710379	124	0.8
7710387	124	< 0.3
7710389	124	0.8
7710390	140	< 0.3
7710340	142	< 0.3
7710309	143	< 0.3
7710368	148	< 0.3
7710364	151	0.9
7710367	154	0.9
7710347	155	< 0.3
7710370	156	1.6
7710336	160	0.7
7710339	160	1
7710343	160	0.8
7710312	165	< 0.3
7710360	166	0.7
7710350	167	1
7710344	168	1.1
7710349	172	< 0.3
7710326	174	< 0.3
7710346	174	< 0.3
7710323	184	0.6
7710334	190	< 0.3
7710317	191	< 0.3
7710321	192	0.5
7710332	193	0.5
7710301	195	< 0.3
7710445	214	< 0.3
7710424	223	< 0.3
7710430	258	< 0.3
7710392	100A	< 0.3
7710397	100B	< 0.3
7710398	100C	< 0.3
7710399	100D	0.6
7710400	100F	0.8

Table Note:

\* Missing or Compromised Sample



<b>Radon Testing Results</b>		
<b>Walter Johnson H.S.</b>		
<b>Test Period: 12/21/15-12/24/15</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
7710395	* 100G (missing)	-
7710396	100H	< 0.3
7710388	100J	< 0.3
7710376	100K	0.8
7710384	100L	0.7
7710369	* 104B (missing)	-
7710358	* 108 (missing)	-
7710377	* 114 (missing)	-
7710375	* 118 (missing)	-
7710383	* 122 (missing)	-
7710357	138B	< 0.3
7710354	138C	< 0.3
7710353	138D	< 0.3
7710352	138E	< 0.3
7710374	138F	0.6
7710355	138G	< 0.3
7710363	* 152 (missing)	-
7710341	154C	1.3
7710337	* 160 (missing)	-
7710345	160A	0.5
7710362	160B	1.1
7710338	160C	0.8
7710342	160D	1.1
7710348	* 169 (missing)	-
7710335	170C	< 0.3
7710319	171C	< 0.3
7710325	* 173 (missing)	-
7710315	* 181 (missing)	-
7710320	190D	< 0.3
7710318	191B	< 0.3
7710331	AUDITORIUM	1.5
7710333	AUDITORIUM	0.8
7710327	CAFETERIA	0.5
7710329	CAFETERIA	< 0.3
7710391	COMMONS	< 0.3
7710361	* COMMONS (missing)	-
7710460	G10	< 0.3
7710466	G11	0.6
7710464	G12	< 0.3
7710463	G13	< 0.3
7710465	G14	< 0.3
7710437	* G20 (missing)	-
7710467	G21	2.6
7710469	G22	1.5
7710468	G25	0.7
7710459	G27	0.7
7710438	G31	0.7
7710408	G32	< 0.3
7710407	G33	< 0.3
7710450	G34	0.7

Table Note:

\* Missing or Compromised Sample

<b>Radon Testing Results</b>		
<b>Walter Johnson H.S.</b>		
<b>Test Period: 12/21/15-12/24/15</b>		
<b>Kit Number</b>	<b>Room / Area</b>	<b>Result</b>
7710436	G35	< 0.3
7710461	G37	< 0.3
7710409	G39	1.2
7710447	G40	1.1
7710462	* G40 (missing)	-
7710441	G43	0.8
7710440	G44	< 0.3
7710421	* G46 (missing)	-
7710456	G51	1.2
7710457	* G51 (missing)	-
7710422	G52	1.1
7710411	G53	0.8
7710414	G64	< 0.3
7710455	G64	< 0.3
7710423	G65	0.7
7710401	G76	0.7
7710425	G81	< 0.3
7710420	G82	< 0.3
7710448	G83	1
7710449	G84	0.8
7710434	G85	0.5
7710454	G86	< 0.3
7710451	G87	0.6
7710435	G87A	0.9
7710324	GYM	0.6
7710303	* GYM (tampered)	< 0.3
7710393	MAIN OFFICE	< 0.3
7710394	MAIN OFFICE	< 0.3

Table Note:

\* Missing or Compromised Sample

<b>Radon Testing Results</b>		
<b>Walter Johnson H.S.</b>		
<b>Test Period: 12/21/15-12/24/15</b>		
<b>Kit Number</b>	<b>QC Type</b>	<b>Result</b>
7710365	D (151)	0.5
7710328	D (181)	0.7
7710433	* D (258:missing)	-
7710330	D (AUDITORIUM)	0.9
7710458	D (G25)	1.4
7710439	D (G40)	1
7710413	D (G64)	< 0.3
7710432	D (G85)	0.6
7710316	FB (170C)	< 0.3
7710443	FB (214)	< 0.3
7710429	* FB (258:missing)	-
7710470	FB (G25)	< 0.3
7710410	FB (G44)	< 0.3
7710304	OB (0)	< 0.3
7710305	OB (0)	< 0.3

Table Note:

\* Missing or Compromised Sample

# ATTACHMENT C

## Laboratory Analytical Results

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January 13, 2016  
**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:  
**WALTER JOHNSON**  
**MAIN**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
7710439	G40	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28

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

January 13, 2016  
**\*\* LABORATORY ANALYSIS REPORT \*\***

Radon test result report for:  
**WALTER JOHNSON**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7710460		2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710467		2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	2.6 ± 0.5	2015-12-29
7710304	0	2015-12-21 @ 4:00 pm	2015-12-24 @ 12:00 pm	< 0.3	2015-12-29
7710305	0	2015-12-21 @ 4:00 pm	2015-12-24 @ 12:00 pm	< 0.3	2015-12-29
7710392	100A	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7710397	100B	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710398	100C	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710399	100D	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-28
7710400	100F	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7710395	100G	@	@		
7710396	100H	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710388	100J	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7710376	100K	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7710384	100L	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	0.7 ± 0.3	2015-12-28
7710385	100M	@	@		
7710371	101	2015-12-21 @ 10:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710356	104	2015-12-21 @ 10:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7710369	104B	@	@		
7710372	106	2015-12-21 @ 10:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710373	107	2015-12-21 @ 10:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710358	108	@	@		
7710359	110	2015-12-21 @ 10:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710380	113	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-29
7710377	114	@	@		
7710382	115	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710381	116	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710386	117	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710375	118	@	@		
7710378	121	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	0.6 ± 0.3	2015-12-28
7710383	122	@	@		
7710351	123	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710379	124	2015-12-21 @ 9:00 am	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7710387	124	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710389	124	2015-12-21 @ 10:00 am	2015-12-24 @ 8:00 am	0.8 ± 0.3	2015-12-28
7710357	138B	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-29
7710354	138C	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710353	138D	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28

January 13, 2016  
**\*\* LABORATORY ANALYSIS REPORT \*\***

Radon test result report for:  
**WALTER JOHNSON**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7710352	138E	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710374	138F	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.6 ± 0.3	2015-12-28
7710355	138G	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710390	140	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710340	142	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710309	143	2015-12-21 @ 12:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710368	148	2015-12-21 @ 10:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710364	151	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.9 ± 0.3	2015-12-28
7710365	151	2015-12-21 @ 10:00 am	2015-12-24 @ 9:00 am	0.5 ± 0.3	2015-12-28
7710363	152	@	@		
7710366	153	@	@		
7710367	154	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.9 ± 0.3	2015-12-28
7710341	154C	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	1.3 ± 0.4	2015-12-28
7710347	155	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710370	156	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	1.6 ± 0.4	2015-12-28
7710337	160	@	@		
7710336	160	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.7 ± 0.3	2015-12-28
7710339	160	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7710343	160	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7710345	160A	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.5 ± 0.3	2015-12-28
7710362	160B	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	1.1 ± 0.4	2015-12-29
7710338	160C	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.8 ± 0.3	2015-12-28
7710342	160D	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	1.1 ± 0.3	2015-12-28
7710312	165	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710360	166	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.7 ± 0.3	2015-12-29
7710350	167	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	1.0 ± 0.3	2015-12-28
7710344	168	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	1.1 ± 0.3	2015-12-28
7710348	169	@	@		
7710335	170C	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710316	170C	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710319	171C	2015-12-21 @ 12:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710349	172	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710325	173	@	@		
7710346	174	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710326	174	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710315	181	@	@		
7710328	181	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.7 ± 0.3	2015-12-29

January\*  
13,  
2016

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

Radon test result report for:  
**WALTER JOHNSON  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7710323	184	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.6 ± 0.3	2015-12-28
7710334	190	2015-12-21 @ 12:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710320	190D	2015-12-21 @ 12:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710317	191	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7710318	191B	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7710321	192	2015-12-21 @ 12:00 pm	2015-12-24 @ 9:00 am	0.5 ± 0.3	2015-12-28
7710332	193	2015-12-21 @ 12:00 pm	2015-12-24 @ 9:00 am	0.5 ± 0.3	2015-12-28
7710301	195	2015-12-21 @ 12:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710443	214	2015-12-21 @ 2:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710445	214	2015-12-21 @ 2:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710424	223	2015-12-21 @ 2:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710433	258	@	@		
7710429	258	@	@		
7710430	258	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710333	ADITORIUM	2015-12-21 @ 11:00 am	2015-12-24 @ 10:00 am	0.8 ± 0.3	2015-12-28
7710330	ADITORIUM	2015-12-21 @ 11:00 am	2015-12-24 @ 10:00 am	0.9 ± 0.3	2015-12-29
7710331	ADITORUM	2015-12-21 @ 11:00 am	2015-12-24 @ 10:00 am	1.5 ± 0.3	2015-12-28
7710327	CAFITERIA	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	0.5 ± 0.3	2015-12-28
7710329	CAFITERIA	2015-12-21 @ 11:00 am	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710361	COMMONS	@	@		
7710391	COMMONS	2015-12-21 @ 10:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710462	G09	@	@		
7710466	G11	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	0.6 ± 0.4	2015-12-29
7710464	G12	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710463	G13	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7710465	G14	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710437	G20	@	@		
7710469	G22	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	1.5 ± 0.4	2015-12-28
7710458	G25	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	1.4 ± 0.4	2015-12-28
7710470	G25	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710468	G25	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	0.7 ± 0.4	2015-12-29
7710459	G27	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.7 ± 0.3	2015-12-28
7710438	G31	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.7 ± 0.3	2015-12-28
7710408	G32	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710407	G33	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710450	G34	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.7 ± 0.3	2015-12-28
7710436	G35	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28



January 13, 2016  
**\*\* LABORATORY ANALYSIS REPORT \*\***

Radon test result report for:  
**WALTER JOHNSON**  
**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7710461	G37	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7710409	G39	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	1.2 ± 0.3	2015-12-28
7710447	G40	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	1.1 ± 0.4	2015-12-29
7710441	G43	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.8 ± 0.3	2015-12-28
7710410	G44	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710440	G44	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7710421	G46	@	@		
7710457	G51	@	@		
7710456	G51	2015-12-21 @ 12:00 pm	2015-12-24 @ 10:00 am	1.2 ± 0.4	2015-12-28
7710422	G52	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	1.1 ± 0.4	2015-12-28
7710411	G53	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.8 ± 0.3	2015-12-28
7710413	G64	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710414	G64	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710455	G64	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7710423	G65	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.7 ± 0.3	2015-12-28
7710401	G76	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.7 ± 0.3	2015-12-28
7710425	G81	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710420	G82	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-28
7710448	G83	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	1.0 ± 0.4	2015-12-28
7710449	G84	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.8 ± 0.3	2015-12-28
7710432	G85	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.6 ± 0.3	2015-12-28
7710434	G85	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.5 ± 0.3	2015-12-28
7710454	G86	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	< 0.3	2015-12-29
7710451	G87	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.6 ± 0.3	2015-12-28
7710435	G87A	2015-12-21 @ 1:00 pm	2015-12-24 @ 10:00 am	0.9 ± 0.3	2015-12-28
7710303	GYM	2015-12-21 @ 12:00 pm	2015-12-24 @ 9:00 am	< 0.3	2015-12-28
7710324	GYM	2015-12-21 @ 12:00 pm	2015-12-24 @ 9:00 am	0.6 ± 0.3	2015-12-28
7710393	MAIN OFFICE	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28
7710394	MAIN OFFICE	2015-12-21 @ 9:00 am	2015-12-24 @ 8:00 am	< 0.3	2015-12-28

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  $\mu$ R/h Elevation = 820 ft**



## Chain of Custody

Project Name: MCPS Radon Phase II

School Names:

- |                           |                             |                           |
|---------------------------|-----------------------------|---------------------------|
| 1. Bannockburn ES         | 11. Sherwood HS             | 21. Fairland ES           |
| 2. Walt Whitman HS        | 12. Hadley Farms            | 22. Cannon Road ES        |
| 3. Walter Johnson HS      | 13. S. Christa McAuliffe ES | 23. Richard Montgomery HS |
| 4. North Chevy Chase ES   | 14. Ronald A. McNair ES     | 24. Brooke Grove ES       |
| 5. Piney Branch ES        | 15. MLK MS                  | 25. Belmont ES            |
| 6. Forest Knolls ES       | 16. Ashburton ES            | 26. Emory Grove           |
| 7. Newport Mill MS        | 17. Bradley Hills ES        | 27. Clarksburg HS         |
| 8. Broad Acres ES         | 18. Flora M. Singer ES      | 28. Clarksburg ES         |
| 9. Briggs Chaney MS       | 19. Woodlin ES              | 29. John T. Baker MS      |
| 10. Blair G. Ewing Center | 20. Montgomery Knolls ES    |                           |

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	Date	Initials
Radon Test Kits Deployed	12/21/2015	JM
Radon Test Kits Collected	12/24/2015	JM
Radon Test Kits Shipped to Lab*	12/24/2015	JM
Radon Test Kits Received by Lab*	12/28/2015	JM

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