



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Little Bennett Elementary School
Date of Test Report	1/12/2023
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	50
# Rooms \geq 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.6 pCi/L

Project Status:

1. 5-Year retesting completed.



January 12, 2023

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

Re: **Radon Testing Services**
KCI Job # 122210551

Location: Little Bennett Elementary School
23930 Burdette Forest Road
Clarksburg, MD 20871

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 Little Bennett Elementary School, located at 23930 Burdette Forest Rd. Clarksburg, MD 20871 (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 December 13, 2022 and deployed fifty-seven (57) 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 December 16, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc.

is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow up to initial testing.

These tests were conducted to:

- Evaluate radon concentration levels at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate temperatures were between 22°F and 53°F. Maximum sustained winds ranged from 0-20 miles per hour. Average humidity was around 70% with 1.98 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 1- Radon Testing Results		
Little Bennett ES		
Test Period: 12/13/2022 - 12/16/2022		
Kit Number	Room / Area	Result
11285691	100	< 0.3
11285323	102	< 0.3
11285690	106	< 0.3
11285693	110	< 0.3
11285694	111	< 0.3
11285365	122	< 0.3
11285364	124	< 0.3
11285360	126	< 0.3
11285361	128	< 0.3
11285362	128	0.5
11285331	130	< 0.3
11285329	133	< 0.3
11285333	133	< 0.3
11285336	133	< 0.3
11285337	135	< 0.3
11285334	137	< 0.3
11285335	138	< 0.3
11285339	141	0.5
11285330	142	< 0.3
11285340	144	< 0.3
11285342	151	< 0.3
11285341	155	< 0.3
11285349	155	< 0.3
11285338	157	< 0.3
11285345	161	< 0.3
11285348	165	< 0.3
11285347	169	0.6
11285355	170	< 0.3
11285343	172	< 0.3
11285346	173	0.6
11285354	175	< 0.3
11285344	176	0.5
11285350	176	< 0.3
11285356	176	< 0.3
11285357	179	< 0.3
11285351	181	< 0.3
11285353	184	< 0.3
11285366	205	< 0.3
11285371	225	< 0.3
11285370	243	< 0.3
11285369	258	< 0.3
11285324	100B	< 0.3

Table 1- Radon Testing Results		
Little Bennett ES		
Test Period: 12/13/2022 - 12/16/2022		
Kit Number	Room / Area	Result
11285696	100C	< 0.3
11285695	100D	< 0.3
11285316	100E	< 0.3
11285315	107A	< 0.3
11285328	108B	< 0.3
11285699	108B	< 0.3
11285363	123A	< 0.3
11285332	130A	< 0.3
11285692	ALL PURPOSE ROOM 104	< 0.3
11285697	ALL PURPOSE ROOM 104	< 0.3
11285358	GYM 123	< 0.3
11285359	GYM 123	< 0.3
11285688	HEALTH OFFICE 102D	< 0.3
11285698	MEDIA CENTER 107	< 0.3
11285700	MEDIA CENTER 107	< 0.3

Table 2- Radon Testing Results			
Little Bennett ES			
Test Period: 12/13/22 - 12/16/22			
Kit Number	QC Type	Room / Area	Result
11285361	D	128	< 0.3
11285336	D	133	< 0.3
11285333	FB	133	< 0.3
11285349	D	155	< 0.3
11285344	D	176	0.5
11285356	FB	176	< 0.3
11285699	D	108B	< 0.3
11286988	OB	OFFICE BLANK	< 0.3
11286990	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11285691	100	2022-12-13 @ 3:00 pm	2022-12-16 @ 11:00 am	< 0.3	2022-12-19
11285324	100B	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285696	100C	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285695	100D	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285316	100E	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285323	102	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285690	106	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285315	107A	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285699	108B	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285328	108B	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285693	110	2022-12-13 @ 2:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285694	111	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285365	122	2022-12-13 @ 5:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285363	123A	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285364	124	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285360	126	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285362	128	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	0.5 ± 0.3	2022-12-19
11285361	128	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285331	130	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285332	130A	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285333	133	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285336	133	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285329	133	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285337	135	2022-12-13 @ 3:00 pm	2022-12-16 @ 1:00 pm	< 0.3	2022-12-19
11285334	137	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285335	138	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285339	141	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	0.5 ± 0.3	2022-12-19
11285330	142	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285340	144	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285342	151	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285341	155	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285349	155	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285338	157	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285345	161	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285348	165	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285347	169	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	0.6 ± 0.3	2022-12-19
11285355	170	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19

Radon test result report for:**MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11285343	172	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285346	173	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	0.6 ± 0.3	2022-12-19
11285354	175	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285356	176	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285350	176	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285344	176	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	0.5 ± 0.3	2022-12-19
11285357	179	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285351	181	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285353	184	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285366	205	2022-12-13 @ 5:00 pm	2022-12-16 @ 1:00 pm	< 0.3	2022-12-19
11285371	225	2022-12-13 @ 5:00 pm	2022-12-16 @ 1:00 pm	< 0.3	2022-12-19
11285370	243	2022-12-13 @ 5:00 pm	2022-12-16 @ 1:00 pm	< 0.3	2022-12-19
11285369	258	2022-12-13 @ 5:00 pm	2022-12-16 @ 1:00 pm	< 0.3	2022-12-19
11285692	ALL PURPOSE ROOM 104	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285697	ALL PURPOSE ROOM 104	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285358	GYM 123	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285359	GYM 123	2022-12-13 @ 4:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285688	HEALTH OFFICE 102D	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285698	MEDIA CENTER 107	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19
11285700	MEDIA CENTER 107	2022-12-13 @ 3:00 pm	2022-12-16 @ 12:00 pm	< 0.3	2022-12-19



Radon Test Kit Chain of Custody

Project Name: MCPS Radon – April 2022 Schools – Retesting

Name of Schools:

1. Mill Creek Towne ES
2. Clarksburg ES
3. Little Bennett ES
4. Lois P. Rockwell ES
5. Roberto Clemente MS

	Date	Initials
Radon Test Kits Deployed	12/13/2022	BULLY
Radon Test Kits Collected	12/16/2022	BULLY
Radon Test Kits Shipped to Lab*	12/16/2022	BULLY
Radon Test Kits Received by Lab*	12/19/2022	BULLY

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



MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

Executive Summary: Little Bennett Elementary School

23930 Burdette Forest Road
Clarksburg, MD 20871

Date of Test Report:	3/15/2019
Round of Testing:	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested:	3
# of Rooms \geq 4.0 pCi/L:	0
Low Value:	<0.4
High Value:	0.6

Project Status

Retesting completed: No further action at this time.



March 15, 2019

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

Re: Radon Testing Services

Location: Little Bennett Elementary School
23930 Burdette Forest Road
Clarksburg, MD 20871

Dear Mr. Cox:

Intertek-PSI (PSI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of a "short-term" 3-day radon test for Little Bennett Elementary School, located at 23930 Burdette Forest Road, Clarksburg, MD 20871 (subject site).

Scope of Services:

PSI 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. PSI 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 #14SS007) supervised the testing. Additional information on radon management and the health effects of radon exposure is available from www.montgomerycountymd.gov/dep/air/radon or www.epa.gov/radon.

PSI visited the site on February 25, 2019 and deployed four (4) activated charcoal (AC) radon test kit. PSI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. PSI returned to the site on February 28, 2019 to retrieve the radon sampling test kit. A floor plan map of the building with the test location is included as Attachment A of this report.

PSI shipped all radon tests via overnight delivery to AccuStar Labs for analysis by gamma-ray spectroscopy. Accustar Labs is a NRSB certified analytical laboratory for radon analysis located at 929 Mount Zion Road, Lebanon, Pennsylvania (certification # ARLO007).

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 $\leq 65^{\circ}\text{F}$.

PSI 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.



PSI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. PSI recorded observations of the following conditions in each room at the time of deployment and collection of the radon test kits:

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

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥ 4.0 pCi/L	None	NA
≤ 4.0 pCi/L	See Attachment B	

Notes:
D -Duplicate Sample

The office blank and lab transit blanks had test results of less than the laboratory detection limit of 0.4 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 (703) 698-9300.

ATTACHMENT B

Radon Test Summary Spreadsheet

Radon Testing Results		
Little Bennett Elementary School		
Testing period: 2/25/19 - 2/28/19		
Kit Number	Room / Area	Result (pCi/L)
3923462	133	<0.4
3923466	221	<0.4
3923461	100B	0.6

Table Notes:

D – Duplicate

FB – Field Blank

OB – Office Blank

TB – Transit Blank

QC – Quality Control

ATTACHMENT C

Laboratory Analytical Results

NRPP 105011 AL
NRSB ARL0007

EPA Method #402-R-92-004
Charcoal Canister
NRPP Device Code 6048
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)
2930 Eskridge Road
Fairfax VA 22031

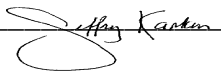
MCPS Radon Survey Little Bennett ES
23930 Burdette Forest Road
Clarksburg MD 20871

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
3220639	3923462	02/25/2019 7:00 am	02/28/2019 6:47 am	Floor Main Room 133	< 0.4
3220640	3923463	02/25/2019 7:00 am	02/28/2019 6:48 am	Floor Main Room 133 Duplicate	< 0.4
3220641	3923466	02/25/2019 7:05 am	02/28/2019 6:49 am	Floor Main Room 221	< 0.4
3220642	3923461	02/25/2019 7:05 am	02/28/2019 6:50 am	Floor Main Room 100B	0.6

Comment: A copy of this report was e-mailed to Intertek-PSI (VA)

Distributed by: Intertek-PSI (VA)

Date Received: 03/04/2019 Date Logged: 03/04/2019 Date Analyzed: 03/05/2019 Date Reported: 03/05/2019

Report Reviewed By: 

Report Approved By: 

Disclaimer:

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

Shawn Price, Director of Laboratory Operations, AccuStar Labs

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.



MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

Executive Summary: Little Bennett Elementary School

23930 Burdette Forest Road
Clarksburg, MD 20871

Date of Test Report:	02/21/2019
Round of Testing:	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested:	53
# of Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.4
High Value:	0.9

Project Status

Initial testing complete: Missing or compromised samples need re-test.



February 21, 2019

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

Re: Radon Testing Services

Location: Little Bennett Elementary School
23930 Burdette Forest Road
Clarksburg, MD 20871

Dear Mr. Cox:

Intertek-PSI (PSI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of a "short-term" 3-day radon test for Little Bennett Elementary School, located at 23930 Burdette Forest Road, Clarksburg, MD 20871 (subject site).

Scope of Services:

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PSI visited the site on December 3, 2018 and deployed sixty-seven (67) activated charcoal (AC) radon test kits. PSI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. PSI returned to the site on December 6, 2018 to retrieve the radon sampling test kits. A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, PSI included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, PSI submitted ten (10) test kits to Bowser-Morner Inc. as spike samples. The spiked tests were exposed to a known radon concentration by Bowser-Morner Inc. prior to being returned to the laboratory for analysis.

PSI shipped all radon tests via overnight delivery to AccuStar Labs for analysis by gamma-ray spectroscopy. Accustar Labs is a NRSB certified analytical laboratory for radon analysis located at 929 Mount Zion Road, Lebanon, Pennsylvania (certification # ARL0007) and 2 Saber Way, Haverhill, Massachusetts (certification # ARL0017).



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 $\leq 65^{\circ}\text{F}$.

PSI 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.

PSI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. PSI recorded observations of the following conditions in each room at the time of deployment and collection of the radon test kits:

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

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥ 4.0 pCi/L	None	NA
≤ 4.0 pCi/L	See Attachment B	

Notes:

D -Duplicate Sample

The office blank and lab transit blanks had test results of less than the laboratory detection limit of 0.4 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 (703) 698-9300.



Respectfully Submitted,

INTERTEK-PSI

A handwritten signature in black ink that reads "Nand Kaushik". The signature is written in a cursive, flowing style.

Nand Kaushik, P.E.
Department Manager, Environmental Services
Nand.Kaushik@intertek.com

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

ATTACHMENT B

Radon Test Summary Spreadsheet

Radon Testing Results		
Little Bennett Elementary School		
Testing period: 12/03/18 - 12/06/18		
Kit Number	Room / Area	Result (pCi/L)
3926905	100	0.6
3926878	100B (MISSING)	--
3926906	100C	< 0.4
3926907	100D	< 0.4
3926908	100E	< 0.4
3926904	102A	< 0.4
3926903	102D	< 0.4
3926874	104B	< 0.4
3926909	106	< 0.4
3926489	107A	< 0.4
3926872	108	< 0.4
3926873	108B	< 0.4
3926910	110	< 0.4
3926487	111	0.6
3926877	122	0.9
3926917	124	0.6
3926918	126	< 0.4
3926919	128	< 0.4
3926962	130	<0.4
3926964	130A	< 0.4
3926879	133 (MISSING)	--
3926875	135	< 0.4
3926966	137	< 0.4
3926965	138	< 0.4
3926967	141	< 0.4
3926968	142	< 0.4
3926969	144	< 0.4
3926970	151	< 0.4
3926971	155	< 0.4
3926972	157	< 0.4
3926973	161	< 0.4
3926974	165	0.5
3926975	165A	< 0.4
3926976	169	0.4
3926876	170	0.6
3926979	172	< 0.4
3926978	173	0.4
3926980	175	< 0.4
3926911	176	< 0.4
3926913	179	< 0.4
3926914	181	< 0.4
3926915	184	< 0.4
3926916	185	< 0.4

Radon Testing Results		
Little Bennett Elementary School		
Testing period: 12/03/18 - 12/06/18		
Kit Number	Room / Area	Result (pCi/L)
3926471	203	< 0.4
3926472	221	Unable to Report
3926473	225	< 0.4
3926474	245	< 0.4
3926475	246	< 0.4
3888363	APR	0.4
3888333	APR	<0.4
3926485	Gym	< 0.4
3926920	Gym	< 0.4
3926486	Gym Office	< 0.4
3926902	Health	< 0.4
3926490	IMC	< 0.4
3926901	IMC	< 0.4

Radon Testing Results		
Little Bennett Elementary School		
Testing period: 12/03/18 - 12/06/18		
Kit Number	QC Type	Result (pCi/L)
3926871	110 (D)	Unable to Report
3926488	111 (D)	< 0.4
3926963	130 (D)	0.4
3926880	133 (D) (MISSING)	--
3926962	151 (D)	< 0.4
3926977	169 (D)	< 0.4
3926912	176 (D)	< 0.4
3917535	Field Blank	0.4
3917556	Field Blank	< 0.4
3926860	Office Blank	Unable to Report
3926859	Transit Blank	< 0.4

Table Notes:

D – Duplicate

FB – Field Blank

OB – Office Blank

TB – Transit Blank

QC – Quality Control

ATTACHMENT C

Laboratory Analytical Results

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)
2930 Eskridge Road
Fairfax VA 22031


MCPS Radon Survey
Little Bennett ES
MD 20871 USA


Log Number	Device Number	Test Exposure Duration:		Area Tested		Result pCi/L
2404181	3926963	12/03/2018 11:15 am	12/06/2018 11:00 am	Floor First	Room 130	0.4
2404182	3926964	12/03/2018 11:17 am	12/06/2018 11:02 am	Floor First	Room 130A	< 0.4
2404183	3926965	12/03/2018 11:19 am	12/06/2018 11:03 am	Floor First	Room 138	< 0.4
2404184	3926966	12/03/2018 11:21 am	12/06/2018 11:04 am	Floor First	Room 137	< 0.4
2404185	3926967	12/03/2018 11:23 am	12/06/2018 11:05 am	Floor First	Room 141	< 0.4
2404186	3926968	12/03/2018 11:25 am	12/06/2018 11:06 am	Floor First	Room 142	< 0.4
2404187	3926969	12/03/2018 11:27 am	12/06/2018 11:07 am	Floor First	Room 144	< 0.4
2404188	3926970	12/03/2018 11:29 am	12/06/2018 11:08 am	Floor First	Room 151	< 0.4
2404189	3926962	12/03/2018 11:29 am	12/06/2018 11:08 am	Floor First	Room 151	< 0.4
2404190	3926971	12/03/2018 11:33 am	12/06/2018 11:10 am	Floor First	Room 155	< 0.4
2404191	3926975	12/03/2018 11:41 am	12/06/2018 11:14 am	Floor First	Room 165A	< 0.4

Comment: Unable to report results for devices 3926891 and 3926472. Counts were below blank counts. A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

Date Received: 12/12/2018 Date Logged: 12/12/2018 Date Analyzed: 12/13/2018 Date Reported: 12/21/2018

Report Reviewed By: 

Report Approved By: 

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)
2930 Eskridge Road
Fairfax VA 22031


MCPS Radon Survey
Little Bennett ES
MD 20871 USA


Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2404192	3926972	12/03/2018 11:35 am 12/06/2018 11:11 am	Floor First Room 157	< 0.4
2404193	3926973	12/03/2018 11:37 am 12/06/2018 11:12 am	Floor First Room 161	< 0.4
2404194	3926974	12/03/2018 11:39 am 12/06/2018 11:13 am	Floor First Room 165	0.5
2404195	3926976	12/03/2018 11:43 am 12/06/2018 11:15 am	Floor First Room 169	0.4
2404196	3926977	12/03/2018 11:43 am 12/06/2018 11:15 am	Floor First Room 169	< 0.4
2404197	3926978	12/03/2018 11:47 am 12/06/2018 11:17 am	Floor First Room 173	0.4
2404198	3926979	12/03/2018 11:49 am 12/06/2018 11:18 am	Floor First Room 172	< 0.4
2404199	3926980	12/03/2018 11:51 am 12/06/2018 11:19 am	Floor First Room 175	< 0.4
2404200	3926911	12/03/2018 11:55 am 12/06/2018 11:20 am	Floor First Room 176	< 0.4
2404201	3926912	12/03/2018 11:55 am 12/06/2018 11:20 am	Floor First Room 176	< 0.4
2404202	3926913	12/03/2018 11:57 am 12/06/2018 11:22 am	Floor First Room 179	< 0.4

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Distributed by: Intertek-PSI (VA)

Date Received: 12/12/2018 Date Logged: 12/12/2018 Date Analyzed: 12/13/2018 Date Reported: 12/21/2018

Report Reviewed By: 

Report Approved By: 

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)
2930 Eskridge Road
Fairfax VA 22031


MCPS Radon Survey
Little Bennett ES
MD 20871 USA


Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2404203	3926914	12/03/2018 11:59 am 12/06/2018 11:23 am	Floor First Room 181	< 0.4
2404204	3926915	12/03/2018 12:01 pm 12/06/2018 11:24 am	Floor First Room 184	< 0.4
2404205	3926916	12/03/2018 12:03 pm 12/06/2018 11:25 am	Floor First Room 185	< 0.4
2404206	3926917	12/03/2018 12:05 pm 12/06/2018 11:26 am	Floor First Room 124	0.6
2404207	3926918	12/03/2018 12:07 pm 12/06/2018 11:27 am	Floor First Room 126	< 0.4
2404208	3926919	12/03/2018 12:09 pm 12/06/2018 11:28 am	Floor First Room 128	< 0.4
2404209	3926920	12/03/2018 12:11 pm 12/06/2018 11:29 am	Floor First Room Gym	< 0.4
2404210	3926485	12/03/2018 12:13 pm 12/06/2018 11:30 am	Floor First Room Gym	< 0.4
2404211	3926486	12/03/2018 12:15 pm 12/06/2018 11:31 am	Floor First Room Gym Office	< 0.4
2404212	3926487	12/03/2018 12:17 pm 12/06/2018 11:32 am	Floor First Room 111	0.6
2404213	3926488	12/03/2018 12:17 pm 12/06/2018 11:32 am	Floor First Room 111	< 0.4

Comment: Unable to report results for devices 3926891 and 3926472. Counts were below blank counts. A copy of this report was emailed to Intertek-PSI (VA).

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)
2930 Eskridge Road
Fairfax VA 22031


MCPS Radon Survey
Little Bennett ES
MD 20871 USA


Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2404214	3926489	12/03/2018 12:21 pm 12/06/2018 11:34 am	Floor First Room 107A	< 0.4
2404215	3926490	12/03/2018 12:23 pm 12/06/2018 11:35 am	Floor First Room IMC	< 0.4
2404216	3926901	12/03/2018 12:25 pm 12/06/2018 11:36 am	Floor First Room IMC	< 0.4
2404217	3926902	12/03/2018 12:27 pm 12/06/2018 11:37 am	Floor First Room Health	< 0.4
2404218	3926903	12/03/2018 12:29 pm 12/06/2018 11:38 am	Floor First Room 102D	< 0.4
2404219	3926904	12/03/2018 12:31 pm 12/06/2018 11:39 am	Floor First Room 102A	< 0.4
2404220	3926905	12/03/2018 12:33 pm 12/06/2018 11:40 am	Floor First Room 100	0.6
2404221	3926906	12/03/2018 12:35 pm 12/06/2018 11:41 am	Floor First Room 100C	< 0.4
2404222	3926907	12/03/2018 12:37 pm 12/06/2018 11:42 am	Floor First Room 100D	< 0.4
2404223	3926908	12/03/2018 12:39 pm 12/06/2018 11:43 am	Floor First Room 100E	< 0.4
2404224	3926909	12/03/2018 12:41 pm 12/06/2018 11:44 am	Floor First Room 106	< 0.4

Comment: Unable to report results for devices 3926891 and 3926472. Counts were below blank counts. A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

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Report Reviewed By: 

Report Approved By: 

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)
2930 Eskridge Road
Fairfax VA 22031


MCPS Radon Survey
Little Bennett ES
MD 20871 USA


Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2404225	3926910	12/03/2018 12:45 pm 12/06/2018 11:45 am	Floor First Room 110	< 0.4
2404226	3926891	12/03/2018 12:45 pm 12/06/2018 11:45 am	Floor First Room 110	Invalid
2404227	3926892	12/03/2018 12:47 pm 12/06/2018 11:47 am	Floor First Room 108	< 0.4
2404228	3926893	12/03/2018 12:49 pm 12/06/2018 11:48 am	Floor First Room 108B	< 0.4
2404229	3926894	12/03/2018 12:51 pm 12/06/2018 11:49 am	Floor First Room 104B	< 0.4
2404230	3926895	12/03/2018 12:53 pm 12/06/2018 11:50 am	Floor First Room 135	< 0.4
2404231	3926896	12/03/2018 12:55 pm 12/06/2018 11:51 am	Floor First Room 170	0.6
2404232	3926897	12/03/2018 12:57 pm 12/06/2018 11:52 am	Floor First Room 122	0.9
2404233	3926471	12/03/2018 1:09 pm 12/06/2018 11:58 am	Floor Second Room 203	< 0.4
2404234	3926472	12/03/2018 1:11 pm 12/06/2018 11:59 am	Floor Second Room 221	Invalid
2404235	3926473	12/03/2018 1:13 pm 12/06/2018 12:00 pm	Floor Second Room 225	< 0.4

Comment: Unable to report results for devices 3926891 and 3926472. Counts were below blank counts. A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

Date Received: 12/12/2018 Date Logged: 12/12/2018 Date Analyzed: 12/13/2018 Date Reported: 12/21/2018

Report Reviewed By: 

Report Approved By: 

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)
2930 Eskridge Road
Fairfax VA 22031


MCPS Radon Survey
Little Bennett ES
MD 20871 USA


Log Number	Device Number	Test	Exposure	Duration:	Area Tested	Result pCi/L
2404236	3926474	12/03/2018	1:15 pm	12/06/2018 12:01 pm	Floor Second Room 245	< 0.4
2404237	3926475	12/03/2018	1:17 pm	12/06/2018 12:02 pm	Floor Second Room 246	< 0.4
2404238	3926860	12/03/2018	6:00 am	12/06/2018 6:00 pm	Floor NA Room Office Blank	Invalid
2404239	3926859	12/03/2018	6:00 am	12/06/2018 6:00 pm	Floor NA Room Transit Blank	< 0.4

Comment: Unable to report results for devices 3926891 and 3926472. Counts were below blank counts. A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

Date Received: 12/12/2018 Date Logged: 12/12/2018 Date Analyzed: 12/13/2018 Date Reported: 12/21/2018

Report Reviewed By: 

Report Approved By: 

Disclaimer:

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)
2930 Eskridge Road
Fairfax VA 22031


MCPS Radon Survey
Little Bennett ES
MD 20871 USA


Log Number	Device Number	Test Exposure Duration:				Area Tested		Result pCi/L
2391558	3917535	12/03/2018	11:15 am	12/06/2018	12:02 pm	Floor NA	Room Field Blank	0.4
2391559	3917556	12/03/2018	11:15 am	12/06/2018	12:02 pm	Floor NA	Room Field Blank	< 0.4

Comment: A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

Date Received: 12/12/2018 Date Logged: 12/12/2018 Date Analyzed: 12/14/2018 Date Reported: 01/02/2019

Report Reviewed By: 

Report Approved By: 

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

Property Tested: Project # 04481387-1

Intertek-PSI (VA)
2930 Eskridge Road
Fairfax VA 22031


MCPS Radon Survey
Little Bennett ES
Clarksburg MD 20871

Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2403623	3888363	12/03/2018 12:59 pm 12/06/2018 11:53 am	Unit 2 Floor First Room APR	0.4
2403624	3888333	12/03/2018 1:01 pm 12/06/2018 11:54 am	Bldg. J Unit 107 Floor First Room APR	< 0.4

Comment: A copy of this report was emailed to Intertek-PSI (VA).

Distributed by: Intertek-PSI (VA)

Date Received: 12/10/2018 Date Logged: 12/07/2018 Date Analyzed: 12/08/2018 Date Reported: 02/01/2019

Report Reviewed By: 

Report Approved By: 

Disclaimer:

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NRPP 105011 AL
NRSB ARL0007
Ohio RL41

EPA Method #402-R-92-004
Charcoal Canister
NRPP Device Code 6048
NRSB Device Code 10317

Laboratory Report for:

Property Tested:

Intertek-PSI (VA)
2930 Eskridge Road
Fairfax VA 22031

MCPS Radon Survey
4514 Taylorsville Road
Dayton OH 45424

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
3204125	3926831	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike	36.1
3204126	3926832	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike	34.8
3204127	3926833	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike	33.7
3204128	3926834	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike	35.8
3204129	3926835	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike	35.0
3204130	3926836	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike	34.5
3204131	3926837	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike	34.6
3204132	3926838	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike	34.3
3204133	3926839	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike	33.2
3204134	3926840	12/07/2018 9:47 am	12/10/2018 9:47 am	Spike	34.0

Comment: A copy of this report was e-mailed to Intertek-PSI (VA)

Test Performed By: Unknown

Distributed by: Intertek-PSI (VA)

Date Received: 12/12/2018 Date Logged: 12/12/2018 Date Analyzed: 12/12/2018 Date Reported: 12/13/2018

Report Reviewed By: 

Report Approved By: 

Disclaimer:

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Shawn Price, Director of Laboratory Operations, AccuStar Labs

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EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT Intertek - PSI

Job Number 187732

NOMINAL Conditions: Radon Conc 32.6 pCi/L Rel. Hum 49.1 % Temp. 70.1 F

Date Start: 12/7/18 Date Stop: 12/10/18

Date Start: _____ Date Stop: _____

Time Start: 0947 Time Stop: 0947

Time Start: _____ Time Stop: _____

Device No.'s: (10) Char. Cans-

Device No.'s: _____

3926831 thru 3926840

G2 left

Date Start: _____ Date Stop: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Device No.'s: _____

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



Chain of Custody

Project Name: MCPS Radon Survey 2018

Name of Schools:

- | | |
|--|--------------------------------|
| 1. Ewing Center | 13. Garrett Park ES Annex |
| 2. Department of Food & Nutrition Services | 14. Goshen ES |
| 3. Damascus HS | 15. Kingsley Wilderness Center |
| 4. Edison HS | 16. Kensington Parkwood ES |
| 5. Emory Grove Center | 17. Monocacy ES |
| 6. John Poole MS | 18. Lakewood ES |
| 7. Lakelands Park MS | 19. Little Bennett ES |
| 8. Laytonsville ES | 20. Lois P. Rockwell ES |
| 9. Gaithersburg HS | 21. Olney ES |
| 10. Neelsville MS | 22. North Chevy Chase ES |
| 11. Sequoyah ES | 23. Woodfield ES |
| 12. Clarksburg ES Annex | 24. Wootton HS |

	Date	Initials
Radon Test Kits Deployed	12/03/2018	ML
Radon Test Kits Sampled	12/06/2018	ML
Radon Test Kits Shipped to Lab*	12/06/2018	ML
Radon Test Kits Received by Lab*	12/07/2018; 12/08/2018	ML

*All samples sent to AccuStar Laboratories, 929 Mount Zion Road, Lebanon, PA 17046 and 2 Saber Way, Haverhill, MA 01835

RADON SCREENING SURVEY – FOLLOW-UP LITTLE BENNETT ELEMENTARY SCHOOL

23930 Burdette Forest Road, Clarksburg, Maryland 20871

EXECUTIVE SUMMARY

Date of Test Report:	4/12/16 Follow-Up
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested	4
# Rooms \geq 4.0 pCi/L:	0
Low Value:	<0.4
High Value:	0.7
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) 2/17/16 Initial	Result (pCi/L) 4/12/16 Follow-Up	Average Result (pCi/L)
100B	--- Missing	<0.4	<0.4
110	--- Missing	0.5	0.5
151	--- Missing	--- Tampered	n/a
181	--- Missing	0.7 Tampered	0.7



MCPS RADON TESTING

Executive Summary: Little Bennett Elementary School

Date of Test Report:	4/12/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	4
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.4
High Value:	0.7

Project Status:

Retesting completed; no further action at this time.



April 12, 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 # 12146341.31

Location: Little Bennett Elementary School
23930 Burdette Forest Road
Clarksburg, MD 20871

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 Little Bennett Elementary School, located at 23930 Burdette Forest Road in Clarksburg, Maryland 20871 (subject site).

Scope of Services:

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

KCI visited the site on March 8, 2016 and deployed five (5) 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, 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 March 11, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to AccuStar Labs for analysis by gamma-ray spectroscopy. Accustar Labs is a NRSB certified analytical laboratory for radon analysis (certification # ARL0007) located at 929 Mount

Zion Road, Lebanon, Pennsylvania.

Evaluation of Testing Conditions:

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages $\leq 65^{\circ}$ F.

KCI concludes that the test period reasonably represents normal conditions when the building is significantly occupied. Clear characterization of the radon hazard is most likely to be observed under this normal operating condition. Based on the evaluation of test conditions, this test should reasonably characterize radon hazards.

KCI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. KCI recorded observations of the following conditions in each room at the time of deployment and collection of the radon test kits:

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

Results:

The results of the radon test analysis indicated the following:

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

Notes:
D- Duplicate sample

The office blank and lab transit blanks had test results of less than the laboratory detection limit of 0.4 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 11 testing. Office blanks were not submitted under each school individually.

Radon Testing Results		
Little Bennett ES		
Test Period: 03/08/16-03/11/16		
Kit Number	Room / Area	Result
3028927	110	0.5
3028902	100B	<0.4
3028932	* 151 (Tampered)	-
3028905	* 181 (Tampered)	0.7

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Little Bennett ES		
Test Period: 03/08/16-03/11/16		
Kit Number	QC Type	Result
3028928	* D (110:Tampered)	<0.4

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

NRPP 10511AL
NRSB ARL0007

EPA Method #402-R-92-004
Charcoal Canister
NRPP Device Code 6048
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 12146341

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

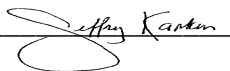
Little Bennett ES
23930 Burdette Forest Rd
Clarksburg MD 20871

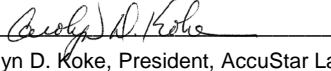
Log Number	Device Number	Test Exposure Duration:		Area Tested	Result (pCi/L)
3016775	3028902	03/08/2016 5:20 pm	03/11/2016 1:45 pm	Unit 100B	<0.4
3016776	3028927	03/08/2016 5:30 pm	03/11/2016 1:52 pm	Unit 110	0.5
3016777	3028932	03/08/2016 5:23 pm	03/11/2016	Unit 151	
3016778	3028905	03/08/2016 5:26 pm	03/11/2016 1:56 pm	Unit 181	0.7
3016779	3028928	03/08/2016 5:30 pm	03/11/2016 1:52 pm	Unit 110	<0.4

Comment: To complete your test, please provide the time the test ended for Device# 3028932. A copy of this report was emailed to tehsin@kci.com.

Distributed by: KCI Technologies, Inc.

Date Received: 03/15/2016 Date Logged: 03/15/2016 Date Analyzed: 03/15/2016 Date Reported: 03/16/2016

Report Reviewed By: 

Report Approved By: 
Carolyn D. Koke, President, AccuStar Labs

Disclaimer:

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

NRPP 10511AL
NRSB ARL0007

EPA Method #402-R-92-004
Charcoal Canister
NRPP Device Code 6048
NRSB Device Code 10317

Laboratory Report for:

Property Tested: Project # 12146341

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

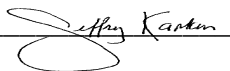
MCPS Radon Phase 11 Office Blank

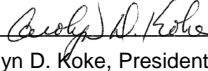
Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3016739	3029191	03/08/2016 10:00 am 03/11/2016 10:00 am	Office Blank	<0.4

Comment: A copy of this report was emailed to tehsin@kci.com.

Distributed by: KCI Technologies, Inc.

Date Received: 03/15/2016 Date Logged: 03/15/2016 Date Analyzed: 03/15/2016 Date Reported: 03/16/2016

Report Reviewed By: 

Report Approved By: 
Carolyn D. Koke, President, AccuStar Labs

Disclaimer:

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

NRPP 10511AL
NRSB ARL0007

EPA Method #402-R-92-004
Charcoal Canister
NRPP Device Code 6048
NRSB Device Code 10317

Laboratory Report for:

Property Tested:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

MCPS
Transit Blanks

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result (pCi/L)
3010588	3028953	01/19/2016 1:00 pm	01/22/2016 9:30 am	1	< 0.4
3010589	3028955	01/19/2016 1:00 pm	01/22/2016 9:30 am	2	< 0.4
3010590	3028954	01/19/2016 1:00 pm	01/22/2016 9:30 am	3	< 0.4
3010591	3028997	01/19/2016 1:00 pm	01/22/2016 9:30 am	4	< 0.4

Comment: AMENDED REPORT for 3028953-8955, 3028997 on 2/22/16 to add all missing information from the blank datasheet. A copy of this report was emailed to james.mouldsdales@kci.com.

Distributed by: KCI Technologies, Inc.

Date Received: 01/27/2016 Date Logged: 01/27/2016 Date Analyzed: 01/28/2016 Date Reported: 01/28/2016

Report Reviewed By: Christie Bates

Report Approved By: Carolyn D. Koke

Carolyn D. Koke, President, AccuStar Labs

Disclaimer:

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

Return canisters for analysis to:
AccuStar Labs
 929 Mt. Zion Rd., Lebanon, PA 17046
 800-523-4964

RECEIVED JAN 27 2016
AccuStar Labs - Lebanon, PA
INFORMATION FORM - Large Buildings -
Projects - Apartments

Instructions on back of form
 Read instructions carefully
 Discrepancies will invalidate tests

Test Site Info

Name of Building/Project or Owner: Transit County: _____
 Site Address: Transit State: _____ Zip: _____
 City: _____ Email: _____

Projects Contact Name: Don Coale Phone: _____

Detector Serial#	ROOM NAME & NUMBER - LOCATION OF DETECTOR IN ROOM (indicate duplicates and blanks)	Floor	Start Date	Start Time Include AM/PM	Stop Date	Stop Time Include AM/PM
3028953	Transit	1	1/19/16	approx: 00pm 1/23/16		9:30am
8955	Transit	1	1/19/16	↓	↓	↓
8954	Transit	1	1/19/16	↓	↓	↓
8997	Transit	1	1/19/16	↓	↓	↓

Do not use this form in
 New Jersey or Florida
 Call for correct forms.

LAB USE ONLY	
Wgt. Gain	pCi/L
	<0.4
	<0.4
	<0.4
	<0.4

Multi-Page Report Y-N

1/27/2016

KCI Technologies, Inc.
 3010588 3028953 ACPC275B EXP12/31/2018

Structure Type: (circle one or more) Basement - Crawlspace - Slab on Grade - Other
Test Purpose: (Circle all that apply) Initial Screening - Follow Up Test -
 Post Mitigation - Real Estate - Other
Building Type: (Circle One) Residential - Non Residential
 Private Day Care - Private School
 Day Care in Public School - Public School

Both Placed by and Retrieved by signatures are required
 Canisters placed by _____ # _____
 Canisters retrieved by _____ # _____

Send Results To: _____ Date: 1/27/16
 Company Name: KCI Tech
 Address: 936 Ridgebrook
 City: Sparks State: MD Zip: 21152
 Phone: 410-599-3826
 EMAIL Results to: James.Mouldale@kci.com
 Attention: James Mouldale

Were general operating conditions maintained?	Yes - No	explain if NO
Were closed building conditions maintained?	Yes - No	explain if NO
Normal Temp.	Yes - No	
Normal Humidity	Yes - No	
Windy Y-N	Rainy Y-N	

Make sure information is complete and correct.
 If a recalculation is requested there is a \$10.00 recalc fee PER Canister.

Mailing: PO Box 990 Jonestown, PA 17038
 Shipping: 929 Mt Zion Road, Lebanon, PA 17046
 800-523-4964 fax 717-274-5662
 NEHA 10511AL NRSB ARL 0007

TCS INDUSTRIES, INC.

(717) 657-7032

RADON GAS DETECTION

www.radondetek.com

4326 Crestview Road, Harrisburg, PA 17112

James Mouldale
KCI
936 Ridgebrook Rd.
Sparks, MD 21152

April 04, 2016

Dear Mr. Mouldale:

The spike exposure data were:

Start 04/04/16 @ 1110 hrs EDT
End 04/06/16 @ 1113 hrs EDT

AC 3029218, 3029219, 3029220, 3029217, 3029214, 3029217, and 3029166

Average radon concentration was 10.6 pCi/L +/- 5%

Avg. Temp. was 71F
Avg. RH was 51%
Elevation was 490 feet above sea level

Sincerely,



Carl H. Distenfeld, CHP

TCS Radon Chamber NRSB CHM 0002

NRPP 10511AL
NRSB ARL0007

EPA Method #402-R-92-004
Charcoal Canister
NRPP Device Code 6048
NRSB Device Code 10317

Laboratory Report for:

Property Tested:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

MCPS
Radon Spike Sample Laboratory Results


Log Number	Device Number	Test Exposure Duration:	Area Tested	Result (pCi/L)
3020102	3029166	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.9
3020103	3029214	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.5
3020104	3029217	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	10.7
3020105	3029218	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.3
3020106	3029219	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	11.0
3020107	3029220	04/04/2016 11:10 am 04/06/2016 11:13 am	Not Indicated	10.5

Comment: A copy of this report was emailed to james.mouldsdale@kci.com.

Distributed by: KCI Technologies, Inc.

Date Received: 04/07/2016 Date Logged: 04/07/2016 Date Analyzed: 04/07/2016 Date Reported: 04/08/2016

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.

Report Reviewed By: 

Report Approved By: 
Carolyn D. Koke, President, AccuStar Labs

Disclaimer:

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.


Send Written Report To:

Name: KCI Technologies, Inc
 Address: 936 Ridgebrook Road
 Address:
 City / Town: Sparks
 State/Province Postal Code: MD 21152
 Report Country: Baltimore County
 Email Address: tehsin@kci.com

Site Tested:

Site Name: MCRS
 Address: 850 Hagerford Dr
 Address:
 City / Town: Rockville
 State/Province Postal Code: MD 20850
 Test Country: Montgomery County
 Project Number: 12146341

Contact Information:

Contact: Tehsin Aurangabadwala
 Telephone: 410-891-1726
 Technician:
 Cert. Number:
 Signature: 

Lab Use Only	Device Number	Building Number	Unit Number	Floor	Name of Room	Temp	Start Date mm/dd/yyyy	Start Time hh:mm am / pm	Stop Date mm/dd/yyyy	Stop Time hh:mm am / pm	Lab Use Only
	3029166	1		1	1		4/4/16	11:10am	4/6/16	11:15am	
	3029214	1		1	2						
	3029217	1		1	3						
	3029218	1		1	4						
	3029219	1		1	5						
	3029220	1		1	6						



MCPS RADON TESTING

Executive Summary: Little Bennett Elementary School

Date of Test Report:	2/17/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	43
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.5

Project Status:

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



February 17, 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 # 12146341.25

Location: Little Bennett Elementary School
23930 Burdette Forest Road
Clarksburg, MD 20871

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 Little Bennett Elementary School, located at 23930 Burdette Forest Road in Clarksburg, Maryland 20871 (subject site).

Scope of Services:

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

KCI visited the site on January 19, 2016 and deployed fifty-two (52) 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 January 22, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936

Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages $\leq 65^{\circ}$ F.

KCI concludes that the test period reasonably represents normal conditions when the building is significantly occupied. Clear characterization of the radon hazard is most likely to be observed under this normal operating condition. Based on the evaluation of test conditions, this test should reasonably characterize radon hazards.

KCI also conducted observations of field conditions which could affect the results of the test and compiled weather data for the testing period. KCI recorded observations of the following conditions in each room at the time of deployment and collection of the radon test kits:

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

Results:

The results of the radon test analysis indicated the following:

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

Notes:
D- Duplicate sample

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

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

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

Sincerely,



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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Radon Testing Results		
Little Bennett Es		
Test Period: 01/19/16-01/22/16		
Kit Number	Room / Area	Result
7721653	100	< 0.3
7721667	104	< 0.3
7722501	104	< 0.3
7721669	106	0.6
7721658	107	< 0.3
7721690	111	< 0.3
7721698	122	< 0.3
7721685	123	< 0.3
7721689	123	< 0.3
7721656	124	0.6
7721659	126	< 0.3
7721693	128	< 0.3
7721664	130	< 0.3
7721696	133	< 0.3
7722537	135	< 0.3
7722532	137	< 0.3
7722528	138	< 0.3
7722512	141	< 0.3
7722510	142	0.9
7722508	144	< 0.3
7721678	155	< 0.3
7722558	157	0.8
7722502	161	< 0.3
7721684	165	0.7
7722527	169	0.8
7722509	170	0.9
7722531	172	1.5
7722511	173	< 0.3
7722504	175	0.6
7722505	176	< 0.3
7722507	179	< 0.3
7721681	184	0.7
7721695	203	< 0.3
7721654	207	< 0.3
7721668	* 100B (missing)	0
7721674	100C	< 0.3
7721700	100D	< 0.3
7721699	100E	< 0.3
7721697	102A	< 0.3
7721662	107A	< 0.3
7721694	* 110 (missing)	0
7721691	123A	0.9
7721680	* 151 (missing)	0
7721679	* 181 (missing)	0
7721687	200A	0.5

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Little Bennett Es		
Test Period: 01/19/16-01/22/16		
Kit Number	QC Type	Result
7722503	D (104)	< 0.3
7721672	D (106)	< 0.3
7721692	D (130)	0.6
7721676	D (165)	0.6
7721686	D (184)	< 0.3
7721673	FB (100)	< 0.3
7721671	OB (0)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

February 11, 2016
LABORATORY ANALYSIS REPORT **

Radon test result report for:
LITTLE BENNETT ES MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7721671	0	2016-01-19 @ 3:00 pm	2016-01-22 @ 11:00 am	< 0.3	2016-01-27
7721653	100	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-26
7721673	100	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721668	100B	@	@		
7721674	100C	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-26
7721700	100D	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721699	100E	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-26
7721697	102A	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7722503	104	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-26
7722501	104	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721667	104	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721669	106	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	0.6 ± 0.3	2016-01-27
7721672	106	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721658	107	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721662	107A	2016-01-19 @ 11:00 am	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7721694	110	@	@		
7721690	111	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721698	122	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721685	123	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721689	123	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721691	123A	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	0.9 ± 0.4	2016-01-27
7721656	124	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	0.6 ± 0.3	2016-01-27
7721659	126	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721693	128	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721664	130	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-26
7721692	130	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	0.6 ± 0.3	2016-01-27
7721696	133	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-26
7722537	135	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7722532	137	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-26
7722528	138	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7722512	141	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7722510	142	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.9 ± 0.3	2016-01-26
7722508	144	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721680	151	@	@		
7721678	155	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7722558	157	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.8 ± 0.3	2016-01-27
7722502	161	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27

February 11, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**LITTLE BENNETT ES
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7721676	165	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.6 ± 0.3	2016-01-26
7721684	165	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.7 ± 0.3	2016-01-27
7722527	169	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.8 ± 0.3	2016-01-27
7722509	170	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.9 ± 0.4	2016-01-27
7722531	172	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	1.5 ± 0.4	2016-01-27
7722511	173	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7722504	175	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	0.6 ± 0.3	2016-01-26
7722505	176	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7722507	179	2016-01-19 @ 12:00 pm	2016-01-22 @ 9:00 am	< 0.3	2016-01-26
7721679	181	@	@		
7721681	184	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	0.7 ± 0.3	2016-01-27
7721686	184	2016-01-19 @ 11:00 am	2016-01-22 @ 9:00 am	< 0.3	2016-01-27
7721687	200A	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	0.5 ± 0.3	2016-01-27
7721695	203	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27
7721654	207	2016-01-19 @ 12:00 pm	2016-01-22 @ 10:00 am	< 0.3	2016-01-27

February 2, 2016
LABORATORY ANALYSIS REPORT

Radon test result report for:
MCPS PHASE 5 & 6 TRANSIT BLANKS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7722194	1	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718494	10	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718475	11	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718495	12	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718496	13	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718497	14	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718498	15	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718499	16	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718500	17	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718296	18	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718295	19	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722195	2	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716789	20	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716785	21	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-26
7716791	22	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716786	23	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716793	24	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718274	25	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7716792	26	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718294	27	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718293	28	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718292	29	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722197	3	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718290	30	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722198	4	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722199	5	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7722211	6	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718491	7	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27
7718476	8	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-26
7718479	9	2016-01-19 @ 12:00 pm	2016-01-22 @ 12:00 pm	< 0.3	2016-01-27

February
15,
2016

**** LABORATORY ANALYSIS
REPORT ****

Spike Sample Laboratory Results

Radon test result report for:
MCPS

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

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCF Technologies Inc. Job Number 173704

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

Date Start: 11/30/16 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 μ R/h Elevation = 820 ft



Chain of Custody

Project Name: MCPS Radon Phase VI

Name of Schools:

- | | | |
|--------------------------|------------------------------|---------------------------|
| 1. Francis Scott Key MS | 12. Little Bennett ES | 23. Rolling Terrace ES |
| 2. Gaithersburg ES | 13. Loiderman MS | 24. Roscoe Nix ES |
| 3. Gaithersburg MS | 14. Longview ES | 25. Sally K. Ride ES |
| 4. Galway ES | 15. Meadow Hall ES | 26. Spark Matsunaga ES |
| 5. Great Seneca Creek ES | 16. Neelsville MS | 27. Tacoma Park ES |
| 6. Harmony Hills ES | 17. New Hampshire Estates ES | 28. Thomas Pyle MS |
| 7. John Poole MS | 18. North Bethesda MS | 29. Wayside ES |
| 8. Judith A. Resnik ES | 19. Northwest HS | 30. Westbrook ES (retest) |
| 9. Kemp Mill ES | 20. Pine Crest ES | 31. Westland MS (retest) |
| 10. Kingsview MS | 21. Radnor Center | 32. William B. Gibbs ES |
| 11. Lakelands Park MS | 22. Ritchie Park ES | 33. William Tyler Page ES |

	Date	Initials
Radon Test Kits Deployed	1/19/16	JM
Radon Test Kits Sampled	1/22/16	JM
Radon Test Kits Shipped to Lab*	1/22/16	JM
Radon Test Kits Received by Lab*	1/26/16	JM

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