



MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Montrose Center
Date of Test Report	2/17/2023
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	75
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.0 pCi/L

Project Status:

1. 5-Year retesting completed.



February 17, 2023

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

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

Location: Montrose Center
12301 Academy Way
Rockville, MD 20852

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 Montrose Center, located at 12301 Academy Way Rockville, MD 20852 (subject site).

Scope of Services:

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

KCI visited the site on January 24, 2023 and deployed eighty-five (85) 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 27, 2023 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Accustar Labs - MA. for analysis by gamma-ray spectroscopy.

Accustar Labs - MA is a NRSB certified analytical laboratory for radon analysis (certification #ARL0017) located at 2 Saber Way, Ward Hill, MA 01835.

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 ranged from the 31°F to 52°F. Maximum sustained winds ranged from 5-25 miles per hour. Average humidity was around 60% with .32 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		
Montrose Center		
Test Period: 01/24/2023 - 01/27/2023		
Kit Number	Room / Area	Result
11633988	103	0.6
11633967	104	< 0.3
11633979	107	< 0.3
11633968	108	< 0.3
11633960	110	< 0.3
11633965	110	0.6
11634000	110	< 0.3
11633959	112	< 0.3
11633969	113	< 0.3
11633961	114	< 0.3
11633970	115	0.7
11633917	120	< 0.3
11633915	121	1.0
11633916	122	< 0.3
11633923	123	< 0.3
11633926	123	< 0.3
11633925	124	< 0.3
11633910	125	< 0.3
11633924	129	0.8
11633918	130	< 0.3
11633913	133	0.7
11633948	134	< 0.3
11633947	135	0.6
11633942	137	< 0.3
11633941	139	0.6
11633907	140	0.5
11633909	141	< 0.3
11633908	144	< 0.3
11633929	146	0.5
11633928	149	< 0.3
11633919	150	0.6
11633995	151	< 0.3
11633930	152	0.5
11633920	153	< 0.3
11633932	154	0.6
11633922	157	< 0.3
11633931	157	< 0.3
11633940	159	0.8
11633911	162	0.6
11633933	163	0.6
11633934	163	< 0.3
11633939	164	< 0.3

Table 1- Radon Testing Results		
Montrose Center		
Test Period: 01/24/2023 - 01/27/2023		
Kit Number	Room / Area	Result
11633937	165	< 0.3
11633938	166	0.7
11633945	167	0.6
11633956	168	0.8
11633955	169	0.9
11633944	171	< 0.3
11633912	172	< 0.3
11633936	173	0.7
11633927	174	< 0.3
11633949	174	< 0.3
11633935	175	< 0.3
11633950	175	< 0.3
11633946	176	< 0.3
11633902	177	0.6
11633943	177	< 0.3
11633993	179	< 0.3
11633957	181	< 0.3
11633958	182	< 0.3
11633963	183	< 0.3
11633953	184	0.6
11633966	185	< 0.3
11633973	186	< 0.3
11633901	188	< 0.3
11633951	190	< 0.3
11633954	191	< 0.3
11633964	192	< 0.3
11633952	193	< 0.3
11633962	193	0.7
11633971	194	< 0.3
11633972	194	< 0.3
11633974	195	< 0.3
11633994	220	< 0.3
11633996	220	< 0.3
11633998	222	0.6
11633997	233	0.7
11633999	233	< 0.3
11633903	GYM	0.6
11633904	GYM	< 0.3
11633905	GYM SIDE 2	< 0.3
11633906	GYM SIDE 2	< 0.3
11633980	MAIN LOBBY	< 0.3
11633914	SPEECH	< 0.3

Table 1- Radon Testing Results		
Montrose Center		
Test Period: 01/24/2023 - 01/27/2023		
Kit Number	Room / Area	Result
11633921	SPEECH	< 0.3

Table 2- Radon Testing Results			
Montrose Center			
Test Period: 01/24/23 - 01/27/23			
Kit Number	QC Type	Room / Area	Result
11633960	D	109	< 0.3
11633926	D	123	< 0.3
11633931	FB	157	< 0.3
11633934	D	163	< 0.3
11633949	D	174	< 0.3
11633935	FB	175	< 0.3
11633972	FB	194	< 0.3
11633994	FB	220	< 0.3
11633999	D	233	< 0.3
11633921	D	Speech	< 0.3
11633975	OB	OFFICE BLANK	< 0.3
11633983	TB	TRAVEL BLANK	< 0.3

ATTACHMENT C

Laboratory Analytical Results

Radon test result report for:
MONTROSE CENTER
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633988	103	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	0.6 ± 0.3	2023-01-31
11633967	104	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633979	107	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633968	108	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11634000	110	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633965	110	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	0.6 ± 0.3	2023-01-31
11633960	110	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633959	112	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633969	113	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633961	114	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633970	115	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	0.7 ± 0.3	2023-01-31
11633917	120	2023-01-24 @ 9:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633915	121	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	1.0 ± 0.4	2023-01-31
11633916	122	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633923	123	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633926	123	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633925	124	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633910	125	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633924	129	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.8 ± 0.4	2023-01-31
11633918	130	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633913	133	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	0.7 ± 0.4	2023-01-31
11633948	134	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633947	135	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	0.6 ± 0.3	2023-01-31
11633942	137	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633941	139	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.3	2023-01-31
11633907	140	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	0.5 ± 0.4	2023-01-31
11633909	141	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633908	144	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633929	146	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	0.5 ± 0.3	2023-01-31
11633928	149	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633919	150	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	0.6 ± 0.3	2023-01-31
11633995	151	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633930	152	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	0.5 ± 0.3	2023-01-31
11633920	153	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633932	154	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	0.6 ± 0.3	2023-01-31
11633922	157	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633931	157	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31

Radon test result report for:
MONTROSE CENTER
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633940	159	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	0.8 ± 0.3	2023-01-31
11633911	162	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	0.6 ± 0.3	2023-01-31
11633933	163	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	0.6 ± 0.3	2023-01-31
11633934	163	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633939	164	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633937	165	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633938	166	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.7 ± 0.3	2023-01-31
11633945	167	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.3	2023-01-31
11633956	168	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.8 ± 0.3	2023-01-31
11633955	169	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.9 ± 0.3	2023-01-31
11633944	171	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633912	172	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633936	173	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.7 ± 0.3	2023-01-31
11633949	174	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633927	174	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633935	175	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633950	175	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633946	176	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633943	177	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633902	177	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.3	2023-01-31
11633993	179	2023-01-24 @ 11:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633957	181	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633958	182	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633963	183	2023-01-24 @ 11:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633953	184	2023-01-24 @ 11:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.4	2023-01-31
11633966	185	2023-01-24 @ 11:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633973	186	2023-01-24 @ 11:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633901	188	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633951	190	2023-01-24 @ 10:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633954	191	2023-01-24 @ 11:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633964	192	2023-01-24 @ 11:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633952	193	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633962	193	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	0.7 ± 0.3	2023-01-31
11633972	194	2023-01-24 @ 11:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633971	194	2023-01-24 @ 11:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633974	195	2023-01-24 @ 11:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633996	220	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31

February 1, 2023

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**MONTROSE CENTER
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11633994	220	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633998	222	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	0.6 ± 0.3	2023-01-31
11633997	233	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	0.7 ± 0.3	2023-01-31
11633999	233	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633904	GYM	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633903	GYM	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	0.6 ± 0.4	2023-01-31
11633905	GYM SIDE 2	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633906	GYM SIDE 2	2023-01-24 @ 9:00 am	2023-01-27 @ 9:00 am	< 0.3	2023-01-31
11633980	MAIN LOBBY	2023-01-24 @ 11:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633921	SPEECH	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31
11633914	SPEECH	2023-01-24 @ 10:00 am	2023-01-27 @ 10:00 am	< 0.3	2023-01-31

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 KC1 TECHNOLOGIES, INC Job Number 208343

NOMINAL Conditions: Radon Conc 34.7 pCi/L Rel. Hum 49.4 % Temp. 69.6 F

Date Start: 12/24/22 Date Stop: 12/27/22 Date Start: _____ Date Stop: _____

Time Start: 0810 Time Stop: 0810 Time Start: _____ Time Stop: _____

Device No.'s: (5) CHAR BAGS - Device No.'s: _____

11285109, 11285110, 11285101

THRU 11285103

BY 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**

December 29, 2022

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

OFFICE

MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11285110	SK1	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	31.7 ± 2.5	2022-12-29
11285101	SK2	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	30.1 ± 2.4	2022-12-29
11285103	SK3	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	34.0 ± 2.7	2022-12-29
11285102	SK4	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	30.9 ± 2.5	2022-12-29
11285109	SK5	2022-12-24 @ 8:00 am	2022-12-27 @ 8:00 am	32.0 ± 2.6	2022-12-29

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 – Week 2 January Schools

Name of Schools:

1. Springbrook HS
2. White Oak MS
3. Cloverly ES
4. Georgian Forest ES
5. Harmony Hills ES
6. Poolesville ES
7. Montrose Center
8. Kingsley Wilderness
9. Poolesville HS
10. Carl Sandburg Learning Center

	Date	Initials
Radon Test Kits Deployed	01/24/2023	BMMY
Radon Test Kits Collected	01/27/2023	BMM
Radon Test Kits Shipped to Lab*	01/27/2023	BMM
Radon Test Kits Received by Lab*	01/31/2023	BMM

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



MONTGOMERY COUNTY PUBLIC SCHOOLS RADON TESTING

Executive Summary:

Montrose Center

12301 Academy Way
Rockville, MD 20852

Date of Test Report:	02/06/2019
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:	78
# of Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.4
High Value:	1.2

Project Status

Initial testing complete: No further action at this time.



February 6, 2019

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

Re: Radon Testing Services

Location: Montrose Center
12301 Academy Way
Rockville, MD 20852

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 Montrose Center, located at 12301 Academy Way, Rockville, MD 20852 (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 December 4, 2018 and deployed ninety-two (92) 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 7, 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		
Montrose Center		
Testing period: 12/4/18 - 12/7/18		
Kit Number	Room / Area	Result (pCi/L)
3922901	102	<0.4
3922911	103	<0.4
3922914	106	<0.4
3922913	107	<0.4
3922912	108	<0.4
3922908	109	<0.4
3922907	110	<0.4
3922909	112	<0.4
3922905	113	<0.4
3922906	114	<0.4
3922916	115	0.8
3922923	116	0.6
3922904	117	<0.4
3922903	118	0.7
3922902	118	<0.4
3922915	120	0.6
3922921	121	0.5
3922919	122	0.6
3922917	123	<0.4
3922918	124	0.6
3922922	125	<0.4
3923024	129	<0.4
3888447	131	<0.4
3922657	133	<0.4
3922660	134	<0.4
3922658	135	<0.4
3922838	136	<0.4
3922837	137	<0.4
3922839	138	<0.4
3888439	139	<0.4
3923011	140	<0.4
3923014	141	<0.4
3923015	142	<0.4
3923016	143	<0.4
3923017	144	<0.4
3923018	145	<0.4
3923019	146	<0.4
3923021	147	0.5
3923022	148	0.4
3923023	149	0.6
3923013	150	<0.4
3923012	151	<0.4
3922836	152	<0.4

Radon Testing Results		
Montrose Center		
Testing period: 12/4/18 - 12/7/18		
Kit Number	Room / Area	Result (pCi/L)
3922835	153	<0.4
3922834	154	1.2
3922832	155	<0.4
3922831	156	<0.4
3922833	157	<0.4
3922655	158	<0.4
3922947	159A	<0.4
3922656	160	<0.4
3922653	161	0.4
3922654	162	<0.4
3922949	163	<0.4
3922948	164	<0.4
3922946	165	0.5
3922945	166	0.5
3922944	167	<0.4
3922927	169	0.7
3922926	170	<0.4
3922925	171	<0.4
3922924	172	0.4
3922928	173	0.4
3922929	174	<0.4
3922931	175	<0.4
3922932	176	<0.4
3922933	177	<0.4
3922934	178	<0.4
3922935	179	0.7
3922936	180	<0.4
3922937	181	<0.4
3922938	182	<0.4
3922939	183	<0.4
3922941	184	<0.4
3922942	185	<0.4
3922943	186	<0.4
3923025	207	0.5
3923027	226	0.4
3923026	231	<0.4

Radon Testing Results		
Montrose Center		
Testing period: 12/4/18 - 12/7/18		
Kit Number	QC Type	Result (pCi/L)
3922910	112 (D)	0.5
3922920	122 (D)	0.7
3922659	135 (D)	0.4
3922840	140 (D)	<0.4
3923020	146 (D)	<0.4
3922950	163(D)	<0.4
3922930	174 (D)	<0.4
3922940	183 (D)	<0.4
3923028	226 (D)	<0.4
3923167	Field Blank	<0.4
3923168	Field Blank	<0.4
3917537	Office Blank	<0.4
3917557	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

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
Montrose Center
North Bethesda MD 20852


Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2404934	3922658	12/04/2018 10:46 am 12/07/2018 9:19 am	Room 135	< 0.4
2404935	3922657	12/04/2018 10:45 am 12/07/2018 9:18 am	Room 133	< 0.4
2404936	3922659	12/04/2018 10:47 am 12/07/2018 9:20 am	Room 135 Duplicate	0.4
2404937	3922660	12/04/2018 10:49 am 12/07/2018 9:20 am	Room 134	< 0.4
2404938	3922901	12/04/2018 10:01 am 12/07/2018 8:52 am	Montrose Center Floor 1 Room 102	< 0.4
2404939	3922902	12/04/2018 10:03 am 12/07/2018 8:55 am	Montrose Center Floor 1 Room 118	< 0.4
2404940	3922903	12/04/2018 10:05 am 12/07/2018 8:56 am	Montrose Center Floor 1 Room 118	0.7
2404941	3922904	12/04/2018 10:07 am 12/07/2018 8:56 am	Montrose Center Floor 1 Room 117	< 0.4
2404942	3922905	12/04/2018 10:07 am 12/07/2018 8:57 am	Montrose Center Floor 1 Room 113	< 0.4
2404943	3922906	12/04/2018 10:08 am 12/07/2018 8:57 am	Montrose Center Floor 1 Room 114	< 0.4
2404944	3922907	12/04/2018 10:09 am 12/07/2018 8:58 am	Montrose Center Floor 1 Room 110	< 0.4

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Report Reviewed By: 

Report Approved By: 

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NRPP Device Code 6048
NRSB Device Code 10317

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Property Tested: Project # 04481387-1

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North Bethesda MD 20852


Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2404945	3922908	12/04/2018 10:09 am	12/07/2018 8:58 am	Montrose Center Floor 1 Room 109	< 0.4
2404946	3922909	12/04/2018 10:10 am	12/07/2018 8:59 am	Montrose Center Floor 1 Room 112	< 0.4
2404947	3922910	12/04/2018 10:11 am	12/07/2018 8:59 am	Montrose Center Floor 1 Room 112	0.5
2404948	3922911	12/04/2018 10:11 am	12/07/2018 8:59 am	Montrose Center Floor 1 Room 103	< 0.4
2404949	3922912	12/04/2018 10:12 am	12/07/2018 9:00 am	Montrose Center Floor 1 Room 108	< 0.4
2404950	3922913	12/04/2018 10:12 am	12/07/2018 9:00 am	Montrose Center Floor 1 Room 107	< 0.4
2404951	3922914	12/04/2018 10:04 am	12/07/2018 9:01 am	Montrose Center Floor 1 Room 106	< 0.4
2404952	3922915	12/04/2018 10:14 am	12/07/2018 9:01 am	Montrose Center Floor 1 Room 120	0.6
2404953	3922916	12/04/2018 10:15 am	12/07/2018 9:02 am	Montrose Center Floor 1 Room 115	0.8
2404954	3922917	12/04/2018 10:16 am	12/07/2018 9:02 am	Montrose Center Floor 1 Room 123	< 0.4
2404955	3922918	12/04/2018 10:17 am	12/07/2018 9:03 am	Montrose Center Floor 1 Room 124	0.6

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Log Number	Device Number	Test Exposure Duration:			Area Tested	Result pCi/L
2404956	3922919	12/04/2018	10:17 am	12/07/2018 9:03 am	Montrose Center Floor 1 Room 122	0.6
2404957	3922920	12/04/2018	10:18 am	12/07/2018 9:04 am	Montrose Center Floor 1 Room 122	0.7
2404958	3922921	12/04/2018	10:18 am	12/07/2018 9:04 am	Montrose Center Floor 1 Room 121	0.5
2404959	3922922	12/04/2018	10:19 am	12/07/2018 9:04 am	Montrose Center Floor 1 Room 125	< 0.4
2404960	3922923	12/04/2018	10:20 am	12/07/2018 8:57 am	Montrose Center Floor 1 Room 116	0.6
2404961	3922924	12/04/2018	10:21 am	12/07/2018 9:05 am	Montrose Center Floor 1 Room 172	0.4
2404962	3922925	12/04/2018	10:21 am	12/07/2018 9:06 am	Montrose Center Floor 1 Room 171	< 0.4
2404963	3922926	12/04/2018	10:23 am	12/07/2018 9:07 am	Montrose Center Floor 1 Room 170	< 0.4
2404964	3922927	12/04/2018	10:23 am	12/07/2018 9:07 am	Montrose Center Floor 1 Room 169	0.7
2404965	3922928	12/04/2018	10:04 am	12/07/2018 9:08 am	Montrose Center Floor 1 Room 173	0.4
2404966	3922929	12/04/2018	10:24 am	12/07/2018 9:09 am	Montrose Center Floor 1 Room 174	< 0.4

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Report Approved By: 

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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NRSB ARL0017

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
Montrose Center
North Bethesda MD 20852


Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2404967	3922930	12/04/2018 10:04 am	12/07/2018 9:09 am	Montrose Center Floor 1 Room 174	< 0.4
2404968	3922931	12/04/2018 10:25 am	12/07/2018 9:09 am	Montrose Center Floor 1 Room 175	< 0.4
2404969	3922932	12/04/2018 10:25 am	12/07/2018 9:09 am	Montrose Center Floor 1 Room 176	< 0.4
2404970	3922933	12/04/2018 10:26 am	12/07/2018 9:09 am	Montrose Center Floor 1 Room 177	< 0.4
2404971	3922934	12/04/2018 10:26 am	12/07/2018 9:09 am	Montrose Center Floor 1 Room 178	< 0.4
2404972	3922935	12/04/2018 10:27 am	12/07/2018 9:10 am	Montrose Center Floor 1 Room 179	0.7
2404973	3922936	12/04/2018 10:27 am	12/07/2018 9:10 am	Montrose Center Floor 1 Room 180	< 0.4
2404974	3922937	12/04/2018 10:28 am	12/07/2018 9:11 am	Montrose Center Floor 1 Room 181	< 0.4
2404975	3922938	12/04/2018 10:28 am	12/07/2018 9:11 am	Montrose Center Floor 1 Room 182	< 0.4
2404976	3922939	12/04/2018 10:29 am	12/07/2018 9:12 am	Montrose Center Floor 1 Room 183	< 0.4
2404977	3922940	12/04/2018 10:29 am	12/07/2018 9:12 am	Montrose Center Floor 1 Room 183	< 0.4

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Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2404978	3922941	12/04/2018 10:30 am	12/07/2018 9:13 am	Montrose Center Floor 1 Room 184	< 0.4
2404979	3922942	12/04/2018 10:30 am	12/07/2018 9:13 am	Montrose Center Floor 1 Room 185	< 0.4
2404980	3922943	12/04/2018 10:31 am	12/07/2018 9:15 am	Montrose Center Floor 1 Room 186	< 0.4
2404981	3922944	12/04/2018 10:39 am	12/07/2018 9:15 am	Montrose Center Floor 1 Room 167	< 0.4
2404982	3922945	12/04/2018 10:40 am	12/07/2018 9:16 am	Montrose Center Floor 1 Room 166	0.5
2404983	3922946	12/04/2018 10:40 am	12/07/2018 9:15 am	Montrose Center Floor 1 Room 165	0.5
2404984	3922947	12/04/2018 10:41 am	12/07/2018 9:15 am	Montrose Center Floor 1 Room 159A	< 0.4
2404985	3922948	12/04/2018 10:41 am	12/07/2018 9:16 am	Montrose Center Floor 1 Room 164	< 0.4
2404986	3922949	12/04/2018 10:42 am	12/07/2018 9:16 am	Montrose Center Floor 1 Room 163	< 0.4
2404987	3922950	12/04/2018 10:42 am	12/07/2018 9:17 am	Montrose Center Floor 1 Room 163	< 0.4
2404988	3922653	12/04/2018 10:43 am	12/07/2018 9:17 am	Montrose Center Floor 1 Room 161	0.4

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Log Number	Device Number	Test Exposure Duration:			Area Tested	Result pCi/L
2404989	3922654	12/04/2018	10:43 am	12/07/2018 9:18 am	Montrose Center Floor 1 Room 162	< 0.4
2404990	3922655	12/04/2018	10:44 am	12/07/2018 9:18 am	Montrose Center Floor 1 Room 158	< 0.4
2404991	3922656	12/04/2018	10:44 am	12/07/2018 9:18 am	Montrose Center Floor 1 Room 160	< 0.4
2404992	3922831	12/04/2018	10:51 am	12/07/2018 9:22 am	Montrose Center Floor 1 Room 156	< 0.4
2404993	3922832	12/04/2018	10:53 am	12/07/2018 9:22 am	Montrose Center Floor 1 Room 155	< 0.4
2404994	3922833	12/04/2018	10:54 am	12/07/2018 9:23 am	Montrose Center Floor 1 Room 157	< 0.4
2404995	3922834	12/04/2018	10:54 am	12/07/2018 9:24 am	Montrose Center Floor 1 Room 154	1.2
2404996	3922835	12/04/2018	10:54 am	12/07/2018 9:25 am	Montrose Center Floor 1 Room 153	< 0.4
2404997	3922836	12/04/2018	10:55 am	12/07/2018 9:23 am	Montrose Center Floor 1 Room 152	< 0.4
2404998	3922837	12/04/2018	10:55 am	12/07/2018 9:24 am	Montrose Center Floor 1 Room 137	< 0.4
2404999	3922838	12/04/2018	10:55 am	12/07/2018 9:25 am	Montrose Center Floor 1 Room 136	< 0.4

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2405000	3922839	12/04/2018 10:56 am	12/07/2018 9:26 am	Montrose Center Floor 1 Room 138	< 0.4
2405001	3922840	12/04/2018 10:57 am	12/07/2018 9:26 am	Montrose Center Floor 1 Room 140	< 0.4
2405002	3923011	12/04/2018 10:58 am	12/07/2018 9:24 am	Montrose Center Floor 1 Room 140	< 0.4
2405003	3923012	12/04/2018 10:58 am	12/07/2018 9:27 am	Montrose Center Floor 1 Room 151	< 0.4
2405004	3923013	12/04/2018 10:59 am	12/07/2018 9:27 am	Montrose Center Floor 1 Room 150	< 0.4
2405005	3923014	12/04/2018 11:00 am	12/07/2018 9:30 am	Montrose Center Floor 1 Room 141	< 0.4
2405006	3923015	12/04/2018 11:01 am	12/07/2018 9:31 am	Montrose Center Floor 1 Room 142	< 0.4
2405007	3923016	12/04/2018 11:01 am	12/07/2018 9:30 am	Montrose Center Floor 1 Room 143	< 0.4
2405008	3923017	12/04/2018 11:02 am	12/07/2018 9:28 am	Montrose Center Floor 1 Room 144	< 0.4
2405009	3923018	12/04/2018 11:02 am	12/07/2018 9:30 am	Montrose Center Floor 1 Room 145	< 0.4
2405010	3923019	12/04/2018 11:04 am	12/07/2018 9:29 am	Montrose Center Floor 1 Room 146	< 0.4

Comment: AMENDED REPORT for 3922657, 58, 59, 60 on 2/5/19 to include test start and end dates and times and areas tested

Distributed by: Intertek-PSI (VA)

Date Received: 12/08/2018 Date Logged: 12/08/2018 Date Analyzed: 12/12/2018 Date Reported: 01/15/2019

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.

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

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
Montrose Center
North Bethesda MD 20852


Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
2405011	3923020	12/04/2018 11:05 am	12/07/2018 9:29 am	Montrose Center Floor 1 Room 146	< 0.4
2405012	3923021	12/04/2018 11:05 am	12/07/2018 9:29 am	Montrose Center Floor 1 Room 147	0.5
2405013	3923022	12/04/2018 11:06 am	12/07/2018 9:31 am	Montrose Center Floor 1 Room 148	0.4
2405014	3923023	12/04/2018 11:07 am	12/07/2018 9:31 am	Montrose Center Floor 1 Room 149	0.6
2405015	3923024	12/04/2018 11:07 am	12/07/2018 2:39 pm	Montrose Center Floor 1 Room 129	< 0.4
2405016	3923025	12/04/2018 11:10 am	12/07/2018 9:35 am	Montrose Center Floor 2 Room 207	0.5
2405017	3923026	12/04/2018 11:15 am	12/07/2018 9:35 am	Montrose Center Floor 2 Room 231	< 0.4
2405018	3923027	12/04/2018 11:15 am	12/07/2018 9:35 am	Montrose Center Floor 2 Room 226	0.4
2405019	3923028	12/04/2018 11:15 am	12/07/2018 9:05 am	Montrose Center Floor 2 Room 226	< 0.4
2405020	3923167	12/04/2018 10:01 am	12/07/2018 9:35 am	Montrose Center Floor NA Room NA	< 0.4
2405021	3923168	12/04/2018 10:01 am	12/07/2018 9:35 am	Montrose Center Floor NA Room NA	< 0.4

Comment: AMENDED REPORT for 3922657, 58, 59, 60 on 2/5/19 to include test start and end dates and times and areas tested

Distributed by: Intertek-PSI (VA)

Date Received: 12/08/2018 Date Logged: 12/08/2018 Date Analyzed: 12/12/2018 Date Reported: 01/15/2019

Report Reviewed By: 

Report Approved By: 

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

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
Montrose Center
North Bethesda MD 20852


Log Number	Device Number	Test Date	Exposure Duration	Area Tested	Result pCi/L
2405022	3917537	12/04/2018	6:00 am - 12/07/2018 9:35 am	Montrose Center Floor NA Room NA	< 0.4
2405023	3917557	12/04/2018	6:00 am - 12/07/2018 9:35 am	Montrose Center Floor NA Room NA	< 0.4

Comment: AMENDED REPORT for 3922657, 58, 59, 60 on 2/5/19 to include test start and end dates and times and areas tested

Distributed by: Intertek-PSI (VA)

Date Received: 12/08/2018 Date Logged: 12/08/2018 Date Analyzed: 12/12/2018 Date Reported: 01/15/2019

Report Reviewed By: 

Report Approved By: 

Disclaimer:

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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.

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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
Montrose Center
MD 20852 USA


Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2404932	3888447	12/04/2018 10:46 am 12/07/2018 9:21 am	Bldg Montrose Center Floor 1 Room 131	< 0.4
2404933	3888439	12/04/2018 10:59 am 12/07/2018 9:26 am	Bldg Montrose Center Floor 1 Room 139	< 0.4

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

Distributed by: Intertek-PSI (VA)

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

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:

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

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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. Grosvenor Center (Luxmanor ES)
2. Montrose Center
3. Gibbs ES
4. Westbrook ES
5. Hadley Farms (Resnik ES)
6. Kingsview MS
7. Longview School
8. Lynnbrook Center
9. Magruder HS
10. McAuliffe ES
11. McNair ES
12. Mill Creek Towne ES
13. Martin Luther King MS
14. Montgomery Village MS
15. Great Seneca Creek ES
16. Quince Orchard HS
17. Redland MS
18. North Bethesda MS
19. Spark Matsunaga ES
20. Whetstone ES
21. Wood Acres ES

	Date	Initials
Radon Test Kits Deployed	12/04/2018	ML
Radon Test Kits Sampled	12/07/2018	ML
Radon Test Kits Shipped to Lab*	12/07/2018	ML
Radon Test Kits Received by Lab*	12/08/2018; 12/09/2018	ML

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



MCPS RADON TESTING

Executive Summary: Montrose Center

Date of Test Report:	2/25/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	61
# Rooms \geq 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.5

Project Status:

Initial testing completed; no further action at this time.



February 25, 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 # 12146341.26

Location: Montrose Center
12301 Academy Way
Rockville, MD 20852

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 Montrose Center, located at 12301 Academy Way in Rockville, Maryland 20852 (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 February 2, 2016 and deployed sixty-nine (69) 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 5, 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

The field blank, 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		
Montrose Center		
Test Period: 02/02/16-02/05/16		
Kit Number	Room / Area	Result
7731107	103	0.6
7731129	106	0.6
7731126	107	< 0.3
7731128	108	0.5
7731125	109	0.5
7731122	110	< 0.3
7731123	112	< 0.3
7731130	113	0.7
7731124	114	< 0.3
7731132	118	< 0.3
7731135	118	0.7
7727215	119	< 0.3
7727210	120	0.6
7721616	121	< 0.3
7727224	122	0.6
7717399	123	0.9
7721621	124	0.9
7731108	125	0.7
7727204	129	0.5
7718311	131	0.7
7731119	133	0.7
7731112	135	< 0.3
7722576	136	< 0.3
7731134	137	0.5
7717393	138	0.8
7718337	140	0.8
7731143	143	0.6
7721617	144	0.9
7731141	146	0.7
7731142	147	1.0
7731109	148	0.9
7721618	150	1.0
7731138	151	0.9
7722590	152	0.7
7731105	153	< 0.3
7718333	155	1.5
7719479	156	0.9
7731111	157	< 0.3
7717386	160	0.7
7721614	161	0.7
7731120	163	1.0
7731101	164	< 0.3
7731113	165	< 0.3
7731121	166	0.6
7731106	170	0.7
7719474	172	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Montrose Center		
Test Period: 02/02/16-02/05/16		
Kit Number	Room / Area	Result
7731115	173	< 0.3
7731139	175	0.7
7731103	176	0.9
7731140	177	0.6
7731116	178	0.8
7731127	179	< 0.3
7731102	180	0.6
7731137	181	< 0.3
7731133	182	< 0.3
7731114	183	< 0.3
7731104	184	0.8
7731110	185	0.7
7731118	186	< 0.3
7727209	207	0.7
7727223	214	< 0.3
7731131	115C	< 0.3

Table Note:

* Missing or Compromised Sample

Radon Testing Results		
Montrose Center		
Test Period: 02/02/16-02/05/16		
Kit Number	QC Type	Result
7731136	D (118)	0.8
7721620	D (152)	0.7
7721635	D (156)	0.7
7731117	D (163)	0.9
7731146	D (179)	0.6
7727219	FB (163)	< 0.3
7731158	OB (0)	< 0.3

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

February 23, 2016 **LABORATORY ANALYSIS REPORT** **

Radon test result report for:
MONTROSE CENTER
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7731107	103	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.6 ± 0.3	2016-02-09
7731129	106	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.6 ± 0.3	2016-02-09
7731126	107	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731128	108	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.5 ± 0.3	2016-02-09
7731125	109	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.5 ± 0.3	2016-02-09
7731122	110	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731123	112	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731130	113	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7731124	114	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731131	115C	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731132	118	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731135	118	2016-02-02 @ 1:00 pm	2016-02-05 @ 1:00 pm	0.7 ± 0.3	2016-02-09
7731136	118	2016-02-02 @ 1:00 pm	2016-02-05 @ 1:00 pm	0.8 ± 0.3	2016-02-09
7727215	119	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7727210	120	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.6 ± 0.3	2016-02-09
7721616	121	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7727224	122	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.6 ± 0.3	2016-02-09
7717399	123	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.9 ± 0.3	2016-02-09
7721621	124	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.9 ± 0.3	2016-02-09
7731108	125	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7727204	129	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.5 ± 0.3	2016-02-09
7718311	131	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7731119	133	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7731112	135	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7722576	136	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731134	137	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.5 ± 0.3	2016-02-09
7717393	138	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.8 ± 0.3	2016-02-09
7718337	140	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.8 ± 0.3	2016-02-09
7731143	143	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.6 ± 0.3	2016-02-09
7721617	144	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.9 ± 0.3	2016-02-09
7731141	146	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7731142	147	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	1.0 ± 0.3	2016-02-09
7731109	148	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.9 ± 0.3	2016-02-09
7721618	150	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	1.0 ± 0.3	2016-02-09
7731138	151	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.9 ± 0.3	2016-02-09
7722590	152	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7731105	153	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09

February 23, 2016
LABORATORY ANALYSIS REPORT

Radon test result report for:
**MONTROSE CENTER
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7718333	155	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	1.5 ± 0.3	2016-02-09
7719479	156	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.9 ± 0.3	2016-02-09
7721620	156	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7721635	156	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7731111	157	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7717386	160	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7721614	161	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7731117	163	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.9 ± 0.3	2016-02-09
7731120	163	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	1.0 ± 0.3	2016-02-09
7727219	163	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731101	164	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731113	165	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731121	166	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.6 ± 0.3	2016-02-09
7731106	170	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7719474	172	2016-02-02 @ 2:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731115	173	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731139	175	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7731103	176	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.9 ± 0.3	2016-02-09
7731140	177	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.6 ± 0.3	2016-02-09
7731116	178	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.8 ± 0.3	2016-02-09
7731127	179	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731146	179	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.6 ± 0.3	2016-02-09
7731102	180	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.6 ± 0.3	2016-02-09
7731137	181	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731133	182	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731114	183	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7731104	184	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.8 ± 0.3	2016-02-09
7731110	185	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	0.7 ± 0.3	2016-02-09
7731118	186	2016-02-02 @ 1:00 pm	2016-02-05 @ 12:00 pm	< 0.3	2016-02-09
7727209	207	2016-02-02 @ 2:00 pm	2016-02-05 @ 1:00 pm	0.7 ± 0.3	2016-02-09
7727223	214	2016-02-02 @ 2:00 pm	2016-02-05 @ 1:00 pm	< 0.3	2016-02-09

February 23, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**MONTROSE CENTER
OFFICE BLANK**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7731158	0	2016-02-02 @ 4:00 pm	2016-02-05 @ 3:00 pm	< 0.3	2016-02-09

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**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

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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

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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 μR/h Elevation = 820 ft**



Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase 7 (2-1-2016)

Name of School/Facility:

- | | | |
|----------------------------|-----------------------------|----------------------------|
| 1. Wyngate E.S. | 10. Bethesda Depot | 18. Stone Mill E.S. |
| 2. Seven Locks E.S. | 11. Bethesda Trans Depot | 19. Strawberry Knoll E.S. |
| 3. Takoma Park M.S. | 12. Sligo M.S. | 20. Shady Grove M.S. |
| 4. Somerset E.S. | 13. Stonegate E.S. | 21. Washington Grove E.S. |
| 5. Silver Spring Int. M.S. | 14. Randolph Transportation | 22. Sherwood E.S. |
| 6. Sligo Creek E.S. | 15. Earl B. Wood M.S. | 23. Woodfield E.S. |
| 7. Tilden M.S. | 16. Sargent Shriver E.S. | 24. Taylor Learning Center |
| 8. Tilden Center | 17. Thomas Wooten H.S. | 25. Kingsley Wilderness |
| 9. Bethesda Annex | | |

	Date	Initials
Radon Test Kits Deployed	2/1/16	JM
Radon Test Kits Collected	2/4/16	JM
Radon Test Kits Shipped to Lab*	2/4/16	JM
Radon Test Kits Received by Lab*	2/8/16	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 7 (2-2-2016)

Name of School/Facility:

- | | |
|--------------------------------|--------------------------------|
| 1. Concord Center | 8. Food & Nutritional Services |
| 2. Lynnbrook Center | 9. Fairland Center |
| 3. Carver (CESC) | 10. Redland M.S. (retest) |
| 4. Spring Mill (area 1 Office) | 11. Clarksburg Trans Depot |
| 5. Wheaton H.S | 12. Clarksburg Main Depot |
| 6. Montrose Center | 13. Clarksburg E.S. |
| 7. West Farm Trans Depot | |

	Date	Initials
Radon Test Kits Deployed	2/2/16	JM
Radon Test Kits Collected	2/5/16	JM
Radon Test Kits Shipped to Lab*	2/5/16	JM
Radon Test Kits Received by Lab*	2/9/16	JM

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