School / Facility Radon Testing Report Form

Instructions: *Submit one testing report form per-facility per-round of testing. Include the following as attachments:*
Attachment 1- Summary Data Tables – containing the following: (see attached samples tables)

- *Testing Results – lab/detector Identification, by room number/name (alpha-numeric order) as depicted on facility map/floor plan provided by the facility/school at the time of test device deployment;*
- *Summary Results – list of rooms by test result ≥2.0-pCi/L; ≥2.7-pCi/L; ≥4.0-pCi/L; and ≥8.0-pCi/L;*
- *QA/QC Results - (field blanks and duplicates) indicating location collected; trip and office blanks; and spike sample results;*
- *Invalid Measurement Locations – missed locations, missing and or damaged/compromised testing devices.*

Attachment 2 – Laboratory Report(s)
Attachment 3 – Sampling Location Map(s) – indicating approximate location of samples, duplicates and blanks.

School Year: **23-24**

Facility:	Sherwood Elementary School
Address:	1401 Olney-Sandy Spring Road
	Sandy Spring, MD 20860

Reason for Testing:	☒ Scheduled Re-Testing (2 or 5-year schedule) ☐ Clearance Testing (Post-Mitigation) ☐ System(s) Performance Testing (Post-Mitigation) ☐ New Construction/Facility
Facility Current Radon Status:	☐ Active Mitigation (2-year regular schedule) ☒ No Active Mitigation (5-year regular schedule) ☐ Not Previously Tested
Round of Testing:	☒ Initial Testing **-or-** ☐ Follow-up Testing
Testing Status:	☒ No Further Testing Needed **-or-** ☐ Follow-Up Testing Required

Conclusion (When Testing Status is - No Further Testing Needed)

Mitigation -	**Facility Radon Status:**
☒ Not Required or Considered ☐ Required (>8.0-pCi/L) ☐ Required (≥4.0-pCi/L) ☐ Consider (≥2.0 & <4.0-pCi/L)	☒ No Change in Status ☐ Active Mitigation (2-year regular schedule) ☐ No Active Mitigation (5-year regular schedule)

Detector and Deployment

MCPS DEM SUSTAINABILITY & COMPLIANCE

School / Facility Radon Testing Report Form

Detector/Device Type:	☒ Passive ☐ Continuous	☒ Charcoal Absorption (CAD) ☐ Alpha Track (ATD) ☐ Other ☐ Electret ion Chamber (EIC) ☐ Electronic Integration (EID)
	Other–Specify here:	
Detector/Device Name:	Air Chek – Radon Test Kits	
Manufacturer:	Radon Lab	

Person(s) Deploying or Retrieving Test Devices and certification number	Organization/Company
Tyler McCleaf	KCI Technologies, Inc.
If noncertified individuals, the qualified measurement professional providing oversight -	
Tyler McCleaf, CSP – Cert. #111004-RMP	KCI Technologies, Inc.

Testing

☒ Short-Term ☐ Long-Term	Length of Test (days):	3	Date of Deployment and Retrieval (mm/dd/yy):	02/05/2024 02/08/2024
Does the test period include weekends, school breaks or holidays?				☐ Yes ☒ No
*If "**Yes**" please explain/detail in the space below:*				
Was HVAC operating under occupied conditions?				☒ Yes ☐ No
*If "**No**" please explain/detail in the space below:*				

Testing (continued)

	Detectors Deployed		
	Ground-Contact	**Upper-Level(s)**	**Total**
Test Locations[1]	60	1	61
Duplicates[2]	5	0	5
Field Blanks[3]	3	0	3
		Grand Total	69

1 – include all detectors deployed (duplicates, field blanks); 1 detector per occupied (or intended to be occupied) ground-contact space ≤ 2,000-square feet; large spaces ≥ 2,000-square feet - 1 detector per 2,000-square feet or part thereof); and upper floors - 10% of all occupied or intended to be occupied rooms per floor (these are in addition to ground contact locations)
2 - 10% of all locations tested, per floor
3 – 5% of all locations tested, per floor

Quality Assurance / Quality Control (QA/QC)

A Quality Assurance plan that is consistent with ANSI/AARST MS-QA (Radon Measurement Systems Quality Assurance) was submitted under separate cover, and is available to review at the MCPS Radon Testing and Mitigation Program website. The following number of QA/QC samples are associated this facility.

Spike Samples[1]	6	Trip Blank(s)[2]	1	Office Blank(s)[3,4]	1

1 - 3% of EIC detectors; and 3% from each LOT of CAD and ATD detectors; a maximum of 6-spiked measurements per month for both EIC detectors and each LOT of CAD and ATD detectors.
2 – One per shipping container from start of detector deployment
3 – One per facility tested as devices are removed/allocated from the storage location for deployment;
4 - One additional blank, analyzed prior to deployment, for storage locations that have not been evaluated or monitored, for detectors that have been stored for more than 30-day durations.

Spike Sample Lab Results. Measured values are satisfactory, i.e., within ± 25% of the chamber's reference value.	☒ Yes ☐ No
Quality Control measurements comply with QA/QC requirements in the QA plan previously submitted?	☒ Yes ☐ No

Quality Assurance / Quality Control (QA/QC) (continued)

*If "**No**" to either, please describe any QC measurements that were missing or outside of control tolerances established in the QAP here:*

Summary of Test Results[1] and Determination of Valid Measurements[2]

	Ground-Contact	Upper-Level(s)	Total
Number of test locations:	60	1	61
Number of locations ≥8.0-pCi/L:	0	0	0
Number of locations ≥4.0 and ≤8-pCi/L:	0	0	0
Number of locations ≥2.7 and ≤4-pCi/L:	0	0	0
Number of locations ≥2.0 and ≤4-pCi/L:	0	0	0
Number of missing required test locations[3]:	0	0	0
Percentage of missing test locations for the facility[4,5]:	0	0	0

1 – for locations with multiple test results, report consistent with Section 7.2(When Two Test Results Disagree) and 8.1.2 (Averaging) of ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings;
2 - the allowance is to be calculated individually for Ground-Contact and Upper-Level(s) Test Locations;
3 – includes missed or inaccessible locations upon deployment or retrieval, damaged (not able to analyze) and missing detectors upon retrieval;
4 – if all valid measurements are <4.0-pCi/L and the total number of test locations are ≥18, there is an allowance of ≤33%. If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023;
5 – if any valid measurements are ≥4.0-pCi/L and the total number of test locations are ≥20, there is an allowance of ≤25% of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023.

Summary of Test Results[1] and Determination of Valid Measurements[2] (continued)

Were test devices deployed in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	☒ Yes ☐ No
Were valid measurements obtained in all occupied and intended to be occupied rooms in contact with the ground, and, if applicable, 10% of upper floor rooms?	☒ Yes ☐ No
***If Yes to both above** – then Testing Status – **'No Further Testing Needed'** mark 'NA' below and complete Conclusions section*	
If No to either above, were all results obtained under 4.0-pCi/L **and** were there sufficient valid measurements obtained?[1,2] ***If Yes** – then Testing Status - '**No Further Testing Needed**' complete Conclusion section* ***If No**, then Testing Status - '**Follow-up Testing Required**' continue below*	☐ Yes ☐ No ☒ NA

1 – if all valid measurements are <4.0-pCi/L and the total number of test locations are ≥18, there is an allowance of ≤33%. If less than 18 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the allowance;
2 – if any valid measurements are ≥4.0-pCi/L and the total number of test locations are ≥20, there is an allowance of ≤25% of the total locations tested. If less than 20 test locations please review section 6.2 of the ANSI/AARST MA-MFLB 2023 – Conducting Measurements of Radon in Multifamily, School, Commercial and Mix-Use Buildings to determine the number the allowance.

- **If 'No Further Testing Needed'** complete conclusions section on first page.
- **If 'Follow-up Testing Required'** – complete Follow-up Testing described below and the conclusion section on the first page for only the valid measurements/results obtained

Follow-Up Testing (if required)

Required if –

1- Not enough valid results were obtained from a facility (table above);
2- Any results ≥ 4.0 – pCi/L; and
3- At the discretion of MCPS IAQ Staff

Follow-up Testing:

1- If an insufficient number of valid measurements obtained during initial round:
   - return to facility to test locations that require valid measurements
2- Follow-up Testing for valid measurements ≥ 4.0-pCi/L

Initial Result(s)	Procedure	Follow-up Result	Conclusion
≥ 4.0-pCi/L	1- Short-term follow-up test 2- Average the results of the two tests	≥4.0	Mitigation Required
		<4.0 but >2.0	Consider Mitigation
		<2.0	Not Required or Considered

- **Complete second School/Facility Radon Testing Report Form for only Follow-up Testing locations.**

Attachment 1:

Summary Data Tables

Table 1- Radon Testing Results		
Sherwood Elementary School		
Test Period: 02/05/2024 - 02/08/2024		
Kit Number	Room / Area	Result
11469491	103	0.6
11469481	105	< 0.3
11469499	105	0.5
11469500	107	< 0.3
11469496	109	< 0.3
11469325	116	0.7
11469329	116	< 0.3
11469323	118	< 0.3
11469318	129	< 0.3
11469490	129	< 0.3
11469489	130	0.5
11469320	131	0.6
11469322	132	< 0.3
11469326	133	< 0.3
11469336	134	< 0.3
11469339	135	< 0.3
11469340	136	< 0.3
11469343	138	< 0.3
11469345	138	< 0.3
11469346	139	< 0.3
11469359	140	< 0.3
11469332	141	< 0.3
11469328	142	< 0.3
11469337	142	< 0.3
11469364	144	< 0.3
11469365	144	< 0.3
11469368	145	< 0.3
11469369	145	< 0.3
11469367	146	< 0.3
11469366	147	< 0.3
11469333	148	< 0.3
11469341	155	< 0.3
11469342	156	< 0.3
11469344	158	< 0.3
11469347	159	< 0.3
11469348	159	< 0.3
11469351	160	< 0.3
11469349	161	< 0.3

Table 1- Radon Testing Results		
Sherwood Elementary School		
Test Period: 02/05/2024 - 02/08/2024		
Kit Number	Room / Area	Result
11469350	167	0.6
11469353	168	0.5
11469352	169	< 0.3
11469354	169	< 0.3
11469355	171	< 0.3
11469356	172	< 0.3
11469357	173	< 0.3
11469358	174	< 0.3
11469362	175	0.6
11469361	177	< 0.3
11469360	208	0.5
11469363	140A	< 0.3
11469331	149B	< 0.3
11469324	APR	0.7
11469327	APR	< 0.3
11469488	ASP	< 0.3
11469321	CAFE OFFICE	0.7
11469485	CONFERENCE	< 0.3
11469497	GYM	< 0.3
11469498	GYM	0.7
11469319	GYM OFFICE	< 0.3
11469495	MAIN OFFICE	< 0.3
11469330	MEDIA	< 0.3
11469335	MEDIA	< 0.3
11469494	NURSE	< 0.3
11469493	NURSE OFFICE	< 0.3
11469492	PRINCIPAL	< 0.3
11469334	SENSORY	< 0.3
11469486	STAFF LOUNGE	< 0.3
11469338	TV	< 0.3
11469487	WORKROOM	< 0.3

Table 2 - Summary Testing Results ≥2.0 pCi/L							
Sherwood Elementary School							
Test Period: 02/5/2024 - 02/8/2024							
≥2.0 and <2.7 pCi/L		≥2.7 and <4.0 pCi/L		≥4.0 and <8.0 pCi/l		≥8.0 pCi/L	
Room / Area	Result	Room / Area	Result	Room / Area	Result	Room / Area	Result
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 3 - QC Radon Testing Results			
Sherwood Elementary School			
Test Period: 02/05/2024 - 02/08/2024			
Kit Number	**QC Type**	**Room / Area**	**Result**
11469499	D	105	0.5
11469325	FB	116	0.7
11469490	D	129	<0.3
11469343	FB	138	<0.3
11469328	D	142	<0.3
11469369	FB	145	<0.3
11469348	D	159	<0.3
11469352	D	169	<0.3
11470089	OB	OFFICE BLANK	< 0.3
11470096	TB	TRAVEL BLANK	< 0.3

Table 4 - Summary of Invalid Measurement Locations		
Sherwood Elementary School		
Test Period: 02/5/24 - 02/8/24		
Kit Number	**Room/Area**	**Result**
N/A	N/A	N/A

Attachment 2:

Laboratory Reports

February 14, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SHERWOOD ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11469491	103	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	0.6 ± 0.3	2024-02-12
11469481	105	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469499	105	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	0.5 ± 0.3	2024-02-12
11469500	107	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469496	109	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469325	116	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	0.7 ± 0.3	2024-02-12
11469329	116	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469323	118	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469490	129	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469318	129	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469489	130	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	0.5 ± 0.3	2024-02-12
11469320	131	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	0.6 ± 0.3	2024-02-12
11469322	132	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469326	133	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469336	134	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469339	135	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469340	136	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469345	138	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469343	138	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469346	139	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469359	140	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469363	140A	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469332	141	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469328	142	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469337	142	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469365	144	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469364	144	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469369	145	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469368	145	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469367	146	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469366	147	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469333	148	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469331	149B	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469341	155	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469342	156	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469344	158	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469348	159	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12

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

February 14, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SHERWOOD ES
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11469347	159	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469351	160	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469349	161	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469350	167	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	0.6 ± 0.3	2024-02-12
11469353	168	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	0.5 ± 0.3	2024-02-12
11469354	169	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469352	169	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469355	171	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469356	172	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469357	173	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469358	174	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469362	175	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	0.6 ± 0.3	2024-02-12
11469361	177	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469360	208	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	0.5 ± 0.3	2024-02-12
11469324	APR	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	0.7 ± 0.3	2024-02-12
11469327	APR	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469488	ASP	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469321	CAFE OFFICE	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	0.7 ± 0.3	2024-02-12
11469485	CONFERENCE	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469497	GYM	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469498	GYM	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	0.7 ± 0.4	2024-02-12
11469319	GYM OFFICE	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469495	MAIN OFFICE	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469335	MEDIA	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469330	MEDIA	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469494	NURSE	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469493	NURSE OFFICE	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469492	PRINCIPAL	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469334	SENSORY	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469486	STAFF LOUNGE	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469338	TV	2024-02-05 @ 1:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11469487	WORKROOM	2024-02-05 @ 12:00 pm	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12

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

February 13, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
KCI
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11470089	OB	2024-02-05 @ 8:00 am	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11478304	OB	2024-02-06 @ 8:00 am	2024-02-09 @ 12:00 pm	< 0.3	2024-02-12
11470096	TB	2024-02-05 @ 8:00 am	2024-02-08 @ 12:00 pm	< 0.3	2024-02-12
11478309	TB	2024-02-06 @ 8:00 am	2024-02-09 @ 12:00 pm	< 0.3	2024-02-12

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

January 29, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
STORAGE
KCI

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11635097	Storage	2024-01-07 @ 9:00 am	2024-01-11 @ 9:00 am	< 0.3	2024-01-15

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 213819

NOMINAL Conditions: Radon Conc 50.0 pCi/L Rel. Hum 28.9 % Temp. 69.1 F

Date Start: 2/23/24 Date Stop: 2/26/24

Time Start: 0812 Time Stop: 0812

Device No.'s: (6) CHAR BAGS

11478400, 11477842, 11477845,

11477852, 11477996, 11477999

E3 Left

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

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

March 1, 2024

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
FEB SK
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11477842	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	50.3 ± 4.0	2024-03-01
11477845	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	55.3 ± 4.4	2024-03-01
11477852	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	49.4 ± 4.0	2024-03-01
11477996	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	49.8 ± 4.0	2024-03-01
11477999	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	55.4 ± 4.4	2024-03-01
11478400	NA	2024-02-23 @ 8:00 am	2024-02-26 @ 8:00 am	47.0 ± 3.8	2024-03-01

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KCI TECHNOLOGIES

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Corporate Office: 936 Ridgebrook road • Sparks , Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Testing February 5th to February 8th 2024

Name of Schools:

1. Cedar Grove ES
2. College Gardens ES
3. Lois P. Rockwell ES
4. Clarksburg HS
5. Bayard Rustin ES
6. Sequoyah ES
7. Sherwood ES
8. Carver Educational Center

	Date	Initials
Radon Test Kits Deployed	02/05/2024	
Radon Test Kits Collected	02/08/2024	
Radon Test Kits Shipped to Lab*	02/08/2024	
Radon Test Kits Received by Lab*	02/12/2024	

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

Attachment 3:

Sampling Location Map

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MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Sherwood Elementary School
Date of Test Report	4/6/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	59
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.6 pCi/L

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

KCI TECHNOLOGIES

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April 6, 2022

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

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

Location: Sherwood ES
1401 Olney-Sandy Spring Rd.
Sandy Spring, MD 20860

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 Sherwood ES, located at 1401 Olney-Sandy Spring Rd. Sandy Spring, MD 20860 (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 February 8, 2022 and deployed sixty seven (67) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

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

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

KCI returned to the site on February 11, 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 low temperatures were in the 30s and high temperatures ranged from the mid 30s to the mid 50s Fahrenheit. Maximum sustained winds ranged from 3-12 miles per hour. Average humidity was around 23% with 0.1 inches of precipitation (rain) was recorded during testing period.

Results:

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Tyler McCleaf

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

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

ATTACHMENT A

Floor Plan With Test Locations

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

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

Table 1- Radon Testing Results		
Sherwood ES		
Test Period: 02/8/2022 - 02/11/2022		
Kit Number	Room / Area	Result
11115317	100	0.9
11115310	102	0.9
11115312	102	0.7
11115311	105	0.8
11115335	107	1.1
11115332	109	0.9
11115305	116	1.4
11115324	117	0.9
11115331	117	1.6
11115333	117	< 0.3
11115334	117	0.8
11115323	118	0.8
11115306	119	< 0.3
11115313	119	1.3
11115326	120	1.5
11115342	129	0.6
11115341	130	0.8
11115340	131	1.2
11115349	132	0.6
11115321	133	0.7
11115336	133	1.5
11115327	134	0.9
11115339	135	0.6
11115350	135	< 0.3
11115329	136	0.7
11115347	138	0.9
11115348	139	1.1
11115362	140	1.6
11115301	142	0.8
11115352	144	< 0.3
11115353	144	0.9
11115359	144	< 0.3
11115367	145	1.3
11115360	146	0.6
11115303	147	0.5
11115302	148	0.9
11115330	149	1.1
11115328	155	0.9
11115320	156	0.7
11115338	158	< 0.3
11115357	158	1.1
11115358	158	0.6

Table 1- Radon Testing Results		
Sherwood ES		
Test Period: 02/8/2022 - 02/11/2022		
Kit Number	Room / Area	Result
11115337	159	1.0
11115344	160	< 0.3
11115351	161	0.8
11115343	167	1.1
11115345	168	0.9
11115304	169	0.7
11115366	171	1.1
11115346	172	0.6
11115363	172	1.0
11115365	173	1.3
11115364	174	0.7
11115355	175	0.6
11115354	177	0.7
11115373	214	1.0
11115319	100A	0.6
11115318	100B	0.6
11115308	100C	0.9
11115316	100E	0.8
11115309	100H	0.9
11115315	100H1	0.7
11115325	100H2	1.0
11115322	113C	1.3
11115314	119D	1.5
11115356	140A	0.9
11115361	149A	< 0.3

Table 2- Radon Testing Results			
Sherwood ES			
Test Period: 02/8/2022 - 02/11/2022			
Kit Number	QC Type	Room / Area	Result
11115312	D	102	0.7
11115334	D	117	0.8
11115333	FB	117	< 0.3
11115321	D	133	0.7
11115358	D	158	0.6
11115338	FB	158	< 0.3
11115356	D	172	0.9
11115353	D	144	0.9
11115359	FB	144	< 0.3
11113478	OB	OFFICE BLANK	< 0.3
11113477	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Sherwood ES		
Test Period: 02/8/22 - 02/11/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Sherwood ES		
Test Period: 02/8/22 - 02/11/22		
Kit Number	Room/Area	Result
11115307	103	Missing

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

February 15, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11115317	100	2022-02-08 @ 11:00 am	2022-02-11 @ 9:00 am	0.9 ± 0.3	2022-02-14
11115319	100A	2022-02-08 @ 11:00 am	2022-02-11 @ 9:00 am	0.6 ± 0.3	2022-02-14
11115318	100B	2022-02-08 @ 11:00 am	2022-02-11 @ 9:00 am	0.6 ± 0.3	2022-02-14
11115308	100C	2022-02-08 @ 12:00 pm	2022-02-11 @ 9:00 am	0.9 ± 0.3	2022-02-14
11115316	100E	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.8 ± 0.3	2022-02-14
11115309	100H	2022-02-08 @ 12:00 pm	2022-02-11 @ 9:00 am	0.9 ± 0.3	2022-02-14
11115315	100H1	2022-02-08 @ 12:00 pm	2022-02-11 @ 9:00 am	0.7 ± 0.3	2022-02-15
11115325	100H2	2022-02-08 @ 12:00 pm	2022-02-11 @ 9:00 am	1.0 ± 0.3	2022-02-14
11115312	102	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.7 ± 0.3	2022-02-14
11115310	102	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.9 ± 0.3	2022-02-14
11115311	105	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.8 ± 0.3	2022-02-14
11115335	107	2022-02-08 @ 12:00 pm	2022-02-11 @ 9:00 am	1.1 ± 0.3	2022-02-14
11115332	109	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.9 ± 0.3	2022-02-14
11115322	113C	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	1.3 ± 0.3	2022-02-15
11115305	116	2022-02-08 @ 12:00 pm	2022-02-11 @ 9:00 am	1.4 ± 0.3	2022-02-14
11115333	117	2022-02-08 @ 12:00 pm	2022-02-11 @ 9:00 am	< 0.3	2022-02-14
11115324	117	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.9 ± 0.3	2022-02-15
11115331	117	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	1.6 ± 0.3	2022-02-15
11115334	117	2022-02-08 @ 12:00 pm	2022-02-11 @ 9:00 am	0.8 ± 0.3	2022-02-15
11115323	118	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.8 ± 0.3	2022-02-15
11115313	119	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	1.3 ± 0.3	2022-02-15
11115306	119	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	< 0.3	2022-02-15
11115314	119D	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	1.5 ± 0.3	2022-02-14
11115326	120	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	1.5 ± 0.3	2022-02-14
11115342	129	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.6 ± 0.3	2022-02-15
11115341	130	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.8 ± 0.3	2022-02-14
11115340	131	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	1.2 ± 0.3	2022-02-14
11115349	132	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.6 ± 0.3	2022-02-15
11115321	133	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.7 ± 0.3	2022-02-14
11115336	133	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	1.5 ± 0.3	2022-02-14
11115327	134	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.9 ± 0.3	2022-02-15

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February 15, 2022 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SHERWOOD ES
1

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11115350	135	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	< 0.3	2022-02-14
11115339	135	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.6 ± 0.3	2022-02-14
11115329	136	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	0.7 ± 0.3	2022-02-14
11115347	138	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.9 ± 0.3	2022-02-14
11115348	139	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	1.1 ± 0.3	2022-02-15
11115362	140	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	1.6 ± 0.3	2022-02-14
11115356	140A	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.9 ± 0.3	2022-02-14
11115301	142	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.8 ± 0.3	2022-02-15
11115353	144	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.9 ± 0.3	2022-02-14
11115359	144	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	< 0.3	2022-02-15
11115352	144	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	< 0.3	2022-02-15
11115367	145	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	1.3 ± 0.3	2022-02-14
11115360	146	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.6 ± 0.3	2022-02-14
11115303	147	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.5 ± 0.3	2022-02-14
11115302	148	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.9 ± 0.3	2022-02-14
11115330	149	2022-02-08 @ 12:00 pm	2022-02-11 @ 10:00 am	1.1 ± 0.3	2022-02-14
11115361	149A	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	< 0.3	2022-02-15
11115328	155	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.9 ± 0.3	2022-02-14
11115320	156	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.7 ± 0.3	2022-02-14
11115357	158	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	1.1 ± 0.3	2022-02-14
11115338	158	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	< 0.3	2022-02-15
11115358	158	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.6 ± 0.3	2022-02-15
11115337	159	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	1.0 ± 0.3	2022-02-15
11115344	160	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	< 0.3	2022-02-15
11115351	161	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.8 ± 0.3	2022-02-15
11115343	167	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	1.1 ± 0.3	2022-02-15
11115345	168	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.9 ± 0.3	2022-02-14
11115304	169	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.7 ± 0.3	2022-02-14
11115366	171	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	1.1 ± 0.3	2022-02-14
11115346	172	2022-02-08 @ 1:00 pm	2022-02-11 @ 11:00 am	0.6 ± 0.3	2022-02-14
11115363	172	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	1.0 ± 0.3	2022-02-15
11115365	173	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	1.3 ± 0.3	2022-02-15
11115364	174	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.7 ± 0.3	2022-02-15
11115355	175	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.6 ± 0.3	2022-02-15
11115354	177	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	0.7 ± 0.3	2022-02-14
11115373	214	2022-02-08 @ 1:00 pm	2022-02-11 @ 10:00 am	1.0 ± 0.3	2022-02-14

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EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204186

NOMINAL Conditions: Radon Conc 25.8 pCi/L Rel. Hum 59.1 % Temp. 70.9 F

Date Start: 2/18/22 Date Stop: 2/21/22	Date Start: _____ Date Stop: _____
Time Start: 0911 Time Stop: 0911	Time Start: _____ Time Stop: _____
Device No.'s: (3) Char Bags - 11113484, 11192998, 20107126	Device No.'s: _____
23 Right	
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____

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

MCPS - Spike Sample Lab Results. Measured values are satisfactory, i.e., within ± 25% of the chamber's reference value (25.7 pCi/L).

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

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KCI TECHNOLOGIES

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Corporate Office: 936 Ridgebrook road • Sparks , Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

Radon Test Kit Chain of Custody

Project Name: MCPS Radon – February 2022 Schools

Name of Schools:

1. Earle. B Wood MS
2. Flower Valley ES
3. Parkland MS
4. Herbert Hoover MS
5. Ritchie Park ES
6. Wayside ES
7. Potomac ES
8. Redland MS
9. Sequoyah ES
10. Sherwood ES
11. Rock Terrace School

	Date	Initials
Radon Test Kits Deployed	02/08/2022	
Radon Test Kits Collected	02/11/2022	
Radon Test Kits Shipped to Lab*	02/11/2022	
Radon Test Kits Received by Lab*	02/15/2022	

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

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MCPS RADON TESTING

Executive Summary: Sherwood Elementary School

Date of Test Report:	2/26/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	59
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.4

Project Status:
Initial testing completed; no further action at this time.

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February 26, 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: Sherwood Elementary School
1401 Olney-Sandy Spring Road
Sandy Spring, MD 20860

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 Sherwood Elementary School, located at 1401 Olney-Sandy Spring Road in Sandy Spring, Maryland 20860 (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 1, 2016 and deployed seventy-four (74) 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 4, 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 ≤ 65° 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 piC/L	none	n/a
<4.0 piC/L	See Attachment B	

Notes:
D- Duplicate sample

The 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. Moulsdale
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		
Sherwood Elementary School		
Test Period: 02/01/16-02/04/16		
Kit Number	**Room / Area**	**Result**
7730654	ALPRM	< 0.3
7730655	ALPRM	0.7
7730672	ASPRM	0.9
7730653	CLASS RM 105	0.8
7730604	CLASS RM 109	< 0.3
7730657	CLASS RM 116	1.4
7730606	CLASS RM 129	< 0.3
7730607	CLASS RM 130	1.2
7730608	CLASS RM 131	0.9
7730609	CLASS RM 132	< 0.3
7730611	CLASS RM 133	< 0.3
7730612	CLASS RM 134	0.5
7730619	CLASS RM 135	< 0.3
7730620	CLASS RM 135A	< 0.3
7730622	CLASS RM 138	1.3
7730624	CLASS RM 139	0.8
7730652	CLASS RM 140	0.7
7730643	CLASS RM 140 A	< 0.3
7730649	CLASS RM 144	0.6
7730647	CLASS RM 145	0.9
7730646	CLASS RM 146	0.9
7730648	CLASS RM 147	0.9
7730625	CLASS RM 155	0.8
7730626	CLASS RM 156	0.6
7730627	CLASS RM 158	< 0.3
7730628	CLASS RM 159	0.9
7730629	CLASS RM 160	< 0.3
7730631	CLASS RM 161	1.0
7730636	CLASS RM 168	1.1
7730644	CLASS RM 175	1.0
7730645	CLASS RM 177	1.0
7730633	CLASS RM 206	< 0.3
7730634	CLASS RM 208	< 0.3
7730664	CON RM 100 E	0.9
7730601	GYM	0.7
7730602	GYM	0.7
7730666	HEALTH RM 100 H	< 0.3
7730667	HEALTH RM 100H-A	0.8
7730668	HEALTH RM 100H-B	0.7
7730669	MAIN OFFICE	< 0.3
7730613	MEDIA CENTER 149	1.1
7730614	MEDIA CENTER 149	0.8
7730663	ML-085	0.7
7730615	OFFICE 103	1.1
7730605	OFFICE 107	< 0.3
7730658	OFFICE 118	0.7

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Sherwood Elementary School		
Test Period: 02/01/16-02/04/16		
Kit Number	**Room / Area**	**Result**
7730621	OFFICE 136	< 0.3
7730617	OFFICE 142	0.8
7730651	OFFICE 148	1.0
7730618	OFFICE 149 A	< 0.3
7730616	OFFICE 149 B	0.7
7730635	OFFICE 167	1.3
7730637	OFFICE 169	0.8
7730638	OFFICE 171	0.6
7730639	OFFICE 172	0.6
7730641	OFFICE 173	0.7
7730642	OFFICE 174	0.8
7730603	PE OFFICE	< 0.3
7730671	PRM	0.7
7730660	STAFF LOUNGE 120	< 0.3
7730656	STAGE	< 0.3
7730662	WORK RM 102	0.7

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Sherwood Elementary School		
Test Period: 02/01/16-02/04/16		
Kit Number	**QC Type**	**Result**
7730673	D (ASPRM)	< 0.3
7730610	D (CLASS RM 132)	< 0.3
7730623	D (CLASS RM 138)	0.7
7730650	D (CLASS RM 144)	0.6
7730630	D (CLASS RM 160)	0.6
7730670	D (MAIN OFFICE)	0.6
7730640	D (OFFICE 172)	0.8
7730661	D (STAFF LOUNGE 120)	0.6
7730632	FB (CLASS RM 161)	< 0.3
7730665	FB (CON RM 100 E)	< 0.3
7730659	FB (OFFICE 118)	< 0.3
7730696	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:

SHERWOOD ELEMENTARY SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7730696	0	2016-02-01 @ 3:00 pm	2016-02-04 @ 10:00 am	< 0.3	2016-02-09
7730654	ALPRM	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730655	ALPRM	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09
7730672	ASPRM	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7730673	ASPRM	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730653	CLASS RM 105	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7730604	CLASS RM 109	2016-02-01 @ 8:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730657	CLASS RM 116	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.4 ± 0.4	2016-02-09
7730606	CLASS RM 129	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730607	CLASS RM 130	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	1.2 ± 0.4	2016-02-09
7730608	CLASS RM 131	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.9 ± 0.4	2016-02-09
7730609	CLASS RM 132	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730610	CLASS RM 132	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730611	CLASS RM 133	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730612	CLASS RM 134	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.5 ± 0.3	2016-02-09
7730619	CLASS RM 135	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730620	CLASS RM 135A	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730622	CLASS RM 138	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	1.3 ± 0.4	2016-02-08
7730623	CLASS RM 138	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.7 ± 0.4	2016-02-09
7730624	CLASS RM 139	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7730652	CLASS RM 140	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09
7730643	CLASS RM 140 A	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730649	CLASS RM 144	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7730650	CLASS RM 144	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7730647	CLASS RM 145	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7730646	CLASS RM 146	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7730648	CLASS RM 147	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7730625	CLASS RM 155	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7730626	CLASS RM 156	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.6 ± 0.3	2016-02-09
7730627	CLASS RM 158	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730628	CLASS RM 159	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.9 ± 0.4	2016-02-09
7730629	CLASS RM 160	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730630	CLASS RM 160	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.3	2016-02-09
7730631	CLASS RM 161	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	1.0 ± 0.4	2016-02-09
7730632	CLASS RM 161	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730636	CLASS RM 168	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.1 ± 0.4	2016-02-09
7730644	CLASS RM 175	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.0 ± 0.4	2016-02-09

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

February 23, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

SHERWOOD ELEMENTARY SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7730645	CLASS RM 177	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.0 ± 0.4	2016-02-09
7730633	CLASS RM 206	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730634	CLASS RM 208	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730664	CON RM 100 E	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7730665	CON RM 100 E	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730601	GYM	2016-02-01 @ 8:00 am	2016-02-04 @ 7:00 am	0.7 ± 0.3	2016-02-09
7730602	GYM	2016-02-01 @ 8:00 am	2016-02-04 @ 7:00 am	0.7 ± 0.4	2016-02-09
7730666	HEALTH RM 100 H	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730667	HEALTH RM 100H-A	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7730669	MAIN OFFICE	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730670	MAIN OFFICE	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7730613	MEDIA CENTER 149	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	1.1 ± 0.4	2016-02-09
7730614	MEDIA CENTER 149	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7730615	OFFICE 103	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	1.1 ± 0.4	2016-02-09
7730605	OFFICE 107	2016-02-01 @ 8:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730658	OFFICE 118	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09
7730659	OFFICE 118	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730621	OFFICE 136	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730617	OFFICE 142	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7730651	OFFICE 148	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.0 ± 0.4	2016-02-09
7730618	OFFICE 149 A	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730616	OFFICE 149 B	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.7 ± 0.3	2016-02-08
7730635	OFFICE 167	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.3 ± 0.4	2016-02-09
7730637	OFFICE 169	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7730638	OFFICE 171	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.3	2016-02-08
7730639	OFFICE 172	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7730640	OFFICE 172	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7730641	OFFICE 173	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09
7730642	OFFICE 174	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7730603	PE OFFICE	2016-02-01 @ 8:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730671	PRM	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.3	2016-02-08
7730660	STAFF LOUNGE 120	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730661	STAFF LOUNGE 120	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7730656	STAGE	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730662	WORK RM 102	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09

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

February 23, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

SHERWOOD ELEMENTARY SCHOOL
PORTABLE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7730668	HEALTH RM 100H-B	2016-02-01 @ 11:00 am	2016-02-04 @ 8:0 am	0.7 ± 0.4	2016-02-09
7730663	ML-085	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09

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February 23, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

TRANSIT- PHASE 7, 8, 9
NONE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7734937	1	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734946	10	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734955	11	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734956	12	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734959	13	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734930	14	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734953	15	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734954	16	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734940	17	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734949	18	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734948	19	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734939	2	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734942	20	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734929	21	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734933	22	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734934	23	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734936	24	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734943	25	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734944	26	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734935	27	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734928	28	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734952	29	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734947	3	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734931	30	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734932	31	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718520	32	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718523	33	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718522	34	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718521	35	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734945	4	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734960	5	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734958	6	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734951	7	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734957	8	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734938	9	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23

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

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: 1/30/16 Date Stop: 2/1/16	Date Start: _____ Date Stop: _____
Time Start: 0926 Time Stop: 0926	Time Start: _____ Time Stop: _____
Device No.'s: (6) Char. Bags -	Device No.'s: _____
7718281, 7718282, 7718291,	_____
7718288, 7718289, 7718273	_____
E3 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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

Corporate Office: 936 Ridgebrook road • Sparks , Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

Radon Test Kit Chain of Custody

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

Name of School/Facility:

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

	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

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Radon Test Kit Chain of Custody

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

Name of School/Facility:

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

	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

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MCPS RADON TESTING

Executive Summary: Sherwood Elementary School

Date of Test Report:	2/26/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	59
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.4

Project Status:
Initial testing completed; no further action at this time.

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

February 26, 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: Sherwood Elementary School
1401 Olney-Sandy Spring Road
Sandy Spring, MD 20860

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 Sherwood Elementary School, located at 1401 Olney-Sandy Spring Road in Sandy Spring, Maryland 20860 (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 1, 2016 and deployed seventy-four (74) 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 4, 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 ≤ 65° 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 piC/L	none	n/a
<4.0 piC/L	See Attachment B	

Notes:
D- Duplicate sample

The 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. Moulsdale
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		
Sherwood Elementary School		
Test Period: 02/01/16-02/04/16		
Kit Number	**Room / Area**	**Result**
7730654	ALPRM	< 0.3
7730655	ALPRM	0.7
7730672	ASPRM	0.9
7730653	CLASS RM 105	0.8
7730604	CLASS RM 109	< 0.3
7730657	CLASS RM 116	1.4
7730606	CLASS RM 129	< 0.3
7730607	CLASS RM 130	1.2
7730608	CLASS RM 131	0.9
7730609	CLASS RM 132	< 0.3
7730611	CLASS RM 133	< 0.3
7730612	CLASS RM 134	0.5
7730619	CLASS RM 135	< 0.3
7730620	CLASS RM 135A	< 0.3
7730622	CLASS RM 138	1.3
7730624	CLASS RM 139	0.8
7730652	CLASS RM 140	0.7
7730643	CLASS RM 140 A	< 0.3
7730649	CLASS RM 144	0.6
7730647	CLASS RM 145	0.9
7730646	CLASS RM 146	0.9
7730648	CLASS RM 147	0.9
7730625	CLASS RM 155	0.8
7730626	CLASS RM 156	0.6
7730627	CLASS RM 158	< 0.3
7730628	CLASS RM 159	0.9
7730629	CLASS RM 160	< 0.3
7730631	CLASS RM 161	1.0
7730636	CLASS RM 168	1.1
7730644	CLASS RM 175	1.0
7730645	CLASS RM 177	1.0
7730633	CLASS RM 206	< 0.3
7730634	CLASS RM 208	< 0.3
7730664	CON RM 100 E	0.9
7730601	GYM	0.7
7730602	GYM	0.7
7730666	HEALTH RM 100 H	< 0.3
7730667	HEALTH RM 100H-A	0.8
7730668	HEALTH RM 100H-B	0.7
7730669	MAIN OFFICE	< 0.3
7730613	MEDIA CENTER 149	1.1
7730614	MEDIA CENTER 149	0.8
7730663	ML-085	0.7
7730615	OFFICE 103	1.1
7730605	OFFICE 107	< 0.3
7730658	OFFICE 118	0.7

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Sherwood Elementary School		
Test Period: 02/01/16-02/04/16		
Kit Number	**Room / Area**	**Result**
7730621	OFFICE 136	< 0.3
7730617	OFFICE 142	0.8
7730651	OFFICE 148	1.0
7730618	OFFICE 149 A	< 0.3
7730616	OFFICE 149 B	0.7
7730635	OFFICE 167	1.3
7730637	OFFICE 169	0.8
7730638	OFFICE 171	0.6
7730639	OFFICE 172	0.6
7730641	OFFICE 173	0.7
7730642	OFFICE 174	0.8
7730603	PE OFFICE	< 0.3
7730671	PRM	0.7
7730660	STAFF LOUNGE 120	< 0.3
7730656	STAGE	< 0.3
7730662	WORK RM 102	0.7

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Sherwood Elementary School		
Test Period: 02/01/16-02/04/16		
Kit Number	**QC Type**	**Result**
7730673	D (ASPRM)	< 0.3
7730610	D (CLASS RM 132)	< 0.3
7730623	D (CLASS RM 138)	0.7
7730650	D (CLASS RM 144)	0.6
7730630	D (CLASS RM 160)	0.6
7730670	D (MAIN OFFICE)	0.6
7730640	D (OFFICE 172)	0.8
7730661	D (STAFF LOUNGE 120)	0.6
7730632	FB (CLASS RM 161)	< 0.3
7730665	FB (CON RM 100 E)	< 0.3
7730659	FB (OFFICE 118)	< 0.3
7730696	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:

SHERWOOD ELEMENTARY SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7730696	0	2016-02-01 @ 3:00 pm	2016-02-04 @ 10:00 am	< 0.3	2016-02-09
7730654	ALPRM	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730655	ALPRM	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09
7730672	ASPRM	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7730673	ASPRM	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730653	CLASS RM 105	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7730604	CLASS RM 109	2016-02-01 @ 8:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730657	CLASS RM 116	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.4 ± 0.4	2016-02-09
7730606	CLASS RM 129	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730607	CLASS RM 130	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	1.2 ± 0.4	2016-02-09
7730608	CLASS RM 131	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.9 ± 0.4	2016-02-09
7730609	CLASS RM 132	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730610	CLASS RM 132	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730611	CLASS RM 133	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730612	CLASS RM 134	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.5 ± 0.3	2016-02-09
7730619	CLASS RM 135	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730620	CLASS RM 135A	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730622	CLASS RM 138	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	1.3 ± 0.4	2016-02-08
7730623	CLASS RM 138	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.7 ± 0.4	2016-02-09
7730624	CLASS RM 139	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7730652	CLASS RM 140	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09
7730643	CLASS RM 140 A	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730649	CLASS RM 144	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7730650	CLASS RM 144	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7730647	CLASS RM 145	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7730646	CLASS RM 146	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7730648	CLASS RM 147	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7730625	CLASS RM 155	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7730626	CLASS RM 156	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.6 ± 0.3	2016-02-09
7730627	CLASS RM 158	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730628	CLASS RM 159	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.9 ± 0.4	2016-02-09
7730629	CLASS RM 160	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730630	CLASS RM 160	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.3	2016-02-09
7730631	CLASS RM 161	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	1.0 ± 0.4	2016-02-09
7730632	CLASS RM 161	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730636	CLASS RM 168	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.1 ± 0.4	2016-02-09
7730644	CLASS RM 175	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.0 ± 0.4	2016-02-09

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

February 23, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

SHERWOOD ELEMENTARY SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7730645	CLASS RM 177	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.0 ± 0.4	2016-02-09
7730633	CLASS RM 206	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730634	CLASS RM 208	2016-02-01 @ 9:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730664	CON RM 100 E	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.9 ± 0.4	2016-02-09
7730665	CON RM 100 E	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730601	GYM	2016-02-01 @ 8:00 am	2016-02-04 @ 7:00 am	0.7 ± 0.3	2016-02-09
7730602	GYM	2016-02-01 @ 8:00 am	2016-02-04 @ 7:00 am	0.7 ± 0.4	2016-02-09
7730666	HEALTH RM 100 H	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730667	HEALTH RM 100H-A	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7730669	MAIN OFFICE	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730670	MAIN OFFICE	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7730613	MEDIA CENTER 149	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	1.1 ± 0.4	2016-02-09
7730614	MEDIA CENTER 149	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7730615	OFFICE 103	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	1.1 ± 0.4	2016-02-09
7730605	OFFICE 107	2016-02-01 @ 8:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730658	OFFICE 118	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09
7730659	OFFICE 118	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730621	OFFICE 136	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730617	OFFICE 142	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.8 ± 0.4	2016-02-09
7730651	OFFICE 148	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.0 ± 0.4	2016-02-09
7730618	OFFICE 149 A	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730616	OFFICE 149 B	2016-02-01 @ 9:00 am	2016-02-04 @ 7:00 am	0.7 ± 0.3	2016-02-08
7730635	OFFICE 167	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	1.3 ± 0.4	2016-02-09
7730637	OFFICE 169	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7730638	OFFICE 171	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.3	2016-02-08
7730639	OFFICE 172	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7730640	OFFICE 172	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7730641	OFFICE 173	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09
7730642	OFFICE 174	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	0.8 ± 0.4	2016-02-09
7730603	PE OFFICE	2016-02-01 @ 8:00 am	2016-02-04 @ 7:00 am	< 0.3	2016-02-09
7730671	PRM	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.3	2016-02-08
7730660	STAFF LOUNGE 120	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730661	STAFF LOUNGE 120	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.6 ± 0.4	2016-02-09
7730656	STAGE	2016-02-01 @ 10:00 am	2016-02-04 @ 8:00 am	< 0.3	2016-02-09
7730662	WORK RM 102	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09

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

February 23, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

SHERWOOD ELEMENTARY SCHOOL
PORTABLE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7730668	HEALTH RM 100H-B	2016-02-01 @ 11:00 am	2016-02-04 @ 8:0 am	0.7 ± 0.4	2016-02-09
7730663	ML-085	2016-02-01 @ 11:00 am	2016-02-04 @ 8:00 am	0.7 ± 0.4	2016-02-09

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

February 23, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

TRANSIT- PHASE 7, 8, 9
NONE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7734937	1	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734946	10	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734955	11	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734956	12	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734959	13	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734930	14	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734953	15	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734954	16	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734940	17	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734949	18	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734948	19	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734939	2	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734942	20	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734929	21	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734933	22	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734934	23	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734936	24	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734943	25	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734944	26	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734935	27	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734928	28	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734952	29	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734947	3	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734931	30	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734932	31	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718520	32	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718523	33	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718522	34	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7718521	35	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734945	4	2016-02-19 @ 3:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734960	5	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734958	6	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734951	7	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734957	8	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23
7734938	9	2016-02-19 @ 4:00 pm	2016-02-22 @ 11:00 am	< 0.3	2016-02-23

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

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

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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: 1/30/16 Date Stop: 2/1/16	Date Start: _____ Date Stop: _____
Time Start: 0926 Time Stop: 0926	Time Start: _____ Time Stop: _____
Device No.'s: (6) Char. Bags -	Device No.'s: _____
7718281, 7718282, 7718291,	_____
7718288, 7718289, 7718273	_____
E3 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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

Corporate Office: 936 Ridgebrook road • Sparks , Maryland 21152 • 410-316-7800 • (Fax) 410-316-7935

Radon Test Kit Chain of Custody

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

Name of School/Facility:

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

	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

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Radon Test Kit Chain of Custody

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

Name of School/Facility:

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

	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