School / Facility Radon Testing Report Form

School Year: **24-25**

Facility:	Albert Einstein High School
Address:	11135 Newport Mill Road
	Kensington, MD 20895
Reason for Testing:	Scheduled Re-Testing - ☒ 2-year or ☐ 5-year schedule ☐ Clearance Testing (Post-Mitigation) ☐ Building Envelope or HVAC Upgrades ☐ New Construction – Addition or Facility
Current Radon Status:	☒ Active Mitigation (2-year regular schedule) ☐ No Active Mitigation (5-year regular schedule) ☐ Not Previously Tested (New Facility)
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 ☐ Required (≥4.0-pCi/L) Rooms:	☒ No Change in Status ☐ Active Mitigation (2-year regular schedule) ☐ No Active Mitigation (5-year regular schedule)		
Number of Rooms Tested	108	Lowest Value (pCi/L)	< 0.3
Number of Rooms (≥4.0-pCi/L)	0	Highest Value (pCi/L)	1.8

Instructions: Submit one testing report form per-facility. 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.

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Detector and Deployment

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
Shannon King	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):	12/03/24 12/06/24	03/11/25 03/14/25
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
Round of Testing	Initial	Follow-Up	Initial	Follow-Up	
Test Locations[1]	99	4	7	0	110
Duplicates[2]	11	2	1	0	14
Field Blanks[3]	5	1	1	0	7
				Grand Total	131

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.

	QA/QC Samples		Total
Round of Testing	Initial	Follow-Up	
Spikes[1]	Not applicable		10
Trip Blanks[2]	1	1	1
Office Blanks[3, 4]	1	1	1
			12

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.

Quality Assurance / Quality Control (continued)

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 submitted testing organization's/company's QA plan?	☒ Yes ☐ No	
Round of Testing	**Initial**	**Follow-Up**
All Field, Trip and Office Blanks are **≤** (less than or equal to) to the Method Detection Limit?	☒ Yes ☐ No	☒ Yes ☐ No
For all Duplicate Samples[1], the higher value is **≤ 2x** the lower value?	☒ Yes ☐ No	☐ Yes ☒ No
For all Duplicate Samples[1], Relative Percent Difference(s) (RPD)[2] are less than the Warning Level[3]?	☒ Yes ☐ No	☒ Yes ☐ No
For all Duplicate Samples[1], Relative Percent Difference(s) (RPD)[2] are less than the Control Level[3]?	☒ Yes ☐ No	☒ Yes ☐ No

1 – Duplicate Control – a "NO" response constitute a control failure and the space/location represented by the duplicate sample becomes an invalid measurement location and should be listed in the "Invalid Measurement Locations" Table attached to this report.

2 - The objective of duplicate tests is to assess the precision error of the measurement method or, how well two side-by-side measurements agree or disagree. Precision involving duplicates is calculated by using Relative Percent Difference (RPD). RPD is equal to the difference between the higher test result minus the lower value test result divided by the average of the two duplicate test results, multiplied by 100. The RPD result is then compared to the warning and control limits.

3 - The Warning Level is set at the deviation from ideal performance that would be expected to occur by chance only 5% of the time, and Control Limits are set at that deviation from ideal performance that would be expected to occur by chance only 1% of the time. The Warning Level indicates a potential problem, which should be investigated. The Control Level indicates that the measurement system should be subject to corrective action.

The control and warning levels for duplicates, based on the averaged duplicate test result, are -

Average concentration of the two duplicate test results	**Warning Level**	**Control Level**
< 2.0-pCi/L	1-pCi/L	Not applicable
Between 2.0 and 3.9-pCi/L	50% RPD	67% RPD
≥ 4.0-pCi/L	28% RPD	36% RPD

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

	Ground-Contact		Upper-Level(s)		Total
Round of Testing	**Initial**	**Follow-Up**	**Initial**	**Follow-Up**	
Number of test locations:	99	2	7	0	108
Number of locations ≥8.0-pCi/L:	0	0	0	0	0
Number of locations ≥4.0 and ≤8-pCi/L:	0	0	0	0	0
Number of locations ≥2.7 and <4-pCi/L:	0	0	0	0	0
Number of locations ≥2.0 and <2.7-pCi/L:	0	0	0	0	0
Number of missing required test locations[3]:	0	0	0	0	0
Number of failed duplicate control locations:	2	1	0	0	3
Percentage of missing test locations for the facility[4,5]:	2.02%	0	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)

Round of Testing	Initial	Follow-Up
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	☒ 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	☒ 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 sufficient valid measurements obtained?[1,2] ***If Yes,** then - '**No Further Testing Needed**' complete Conclusion section on first page.* ***If No**, then - '**Follow-up Testing Required**' continue below.*	☐ Yes ☒ No ☐ NA	☐ 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.

Follow-Up Testing

Required –

- If an insufficient number (greater than the allowance provided above) of valid measurements were obtained during the initial round of testing (the "missing required test locations" in the table above);
- Any location test results ≥ 4.0-pCi/L;
- Any location where duplicates fail QC checks; and or
- At the discretion of MCPS IAQ Staff

Reason for Follow-Up Testing	Testing Procedure	Follow-up Result	Conclusion
Insufficient Number of Measurements	Follow same procedures as Initial Testing	Not Applicable	Follow Initial Testing procedures
Results ≥ 4.0-pCi/L	Deploy two Short-term follow-up tests and required blanks and duplicates; Average the results of the two tests	≥4.0	Mitigation Required
Failed QC checks		≥2.0 and <4.0	Consider Mitigation
		<2.0	Mitigation Not Required

- ***If follow-up testing identifies additional spaces requiring additional testing it will be performed as part of the ongoing follow-testing round.***

Attachment 1:

Summary Data Tables

Table 1- Radon Testing Results		
Albert Einstein High School		
Test Period: 12/03/2024 - 12/06/2024		
Kit Number	Room / Area	Result
11892936	18	< 0.3
11892929	19	< 0.3
11892923	22	< 0.3
11892935	22	< 0.3
11892928	24	< 0.3
11892933	24	< 0.3
11892922	25	< 0.3
11892921	26	< 0.3
11892924	28	< 0.3
11892914	29	< 0.3
11892927	30	< 0.3
11892920	31	< 0.3
11892925	31	< 0.3
11892926	31	< 0.3
11892913	32	< 0.3
11892918	33	< 0.3
11892919	34	< 0.3
11892912	35	< 0.3
11892906	37	< 0.3
11892917	38	< 0.3
11892905	39	< 0.3
11904024	101	< 0.3
11892949	102	< 0.3
11904020	103	< 0.3
11904019	105	0.8
11904091	108	< 0.3
11892903	112	< 0.3
11892910	113	< 0.3
11892915	114	0.6
11904027	115	1.3
11904052	115	1.0
11904063	116	0.5
11904071	116	< 0.3
11904041	121	< 0.3
11904069	128	< 0.3
11904070	130	< 0.3
11904064	132	< 0.3
11904050	134	< 0.3

Table 1- Radon Testing Results		
Albert Einstein High School		
Test Period: 12/03/2024 - 12/06/2024		
Kit Number	Room / Area	Result
11904057	136	< 0.3
11904018	136	< 0.3
11904017	136	< 0.3
11904033	149	< 0.3
11904059	153	< 0.3
11904080	155	< 0.3
11904025	162	< 0.3
11904072	166	< 0.3
11904078	168	< 0.3
11904079	172	< 0.3
11904065	174	< 0.3
11904084	175	0.8
11904089	176	< 0.3
11904090	176	< 0.3
11904067	180	< 0.3
11904085	181	0.8
11904087	182	0.6
11904086	182	0.8
11904088	182	< 0.3
11904081	186	< 0.3
11904096	190	< 0.3
11904100	191	< 0.3
11904098	192	< 0.3
11904097	192	< 0.3
11904092	192	< 0.3
11892937	222	< 0.3
11892931	224	< 0.3
11892943	250	< 0.3
11892944	252	< 0.3
11892945	267	< 0.3
11892902	1007	0.7
11892942	2040	< 0.3
11892938	2041	< 0.3
11892932	2041	< 0.3
11892939	2041	< 0.3
11904031	100A	< 0.3
11904029	100B	< 0.3
11904032	100C	0.5

Table 1- Radon Testing Results		
Albert Einstein High School		
Test Period: 12/03/2024 - 12/06/2024		
Kit Number	Room / Area	Result
11904038	100D	< 0.3
11904037	100E	< 0.3
11904047	100F	< 0.3
11904048	100F	< 0.3
11904046	100G	< 0.3
11904011	100H	< 0.3
11904040	104A	< 0.3
11904012	106B	< 0.3
11904082	108A	< 0.3
11892907	113A	0.7
11892904	113C	< 0.3
11892911	113C	0.6
11892916	114A	1.1
11904028	115A	0.6
11904035	115B	0.9
11904036	115C	0.8
11904043	115C	< 0.3
11904044	115c	< 0.3
11904045	115D	0.7
11904053	115E	1.8
11904051	115F	0.9
11904055	115G	1.1
11904060	119A	0.7
11904056	119B	0.9
11904062	119B	0.7
11904061	119D	< 0.3
11904042	121A	< 0.3
11904026	149A	< 0.3
11904077	151L	< 0.3
11904049	151L	< 0.3
11904066	155A	< 0.3
11904073	155C	< 0.3
11904034	164SM	< 0.3
11904058	166A	< 0.3
11892941	18A	< 0.3
11904099	190C	< 0.3
11892930	19A	< 0.3
11904039	204B	1.0

Table 1- Radon Testing Results		
Albert Einstein High School		
Test Period: 12/03/2024 - 12/06/2024		
Kit Number	Room / Area	Result
11892934	25A	< 0.3
11892908	AUDITORIUM	0.7
11904083	BOYS LR	< 0.3
11904074	BOYS LR OFFICE	0.5
11904075	GIRLS LR OFFICE	< 0.3
11892901	LITTLE THEATER	0.7
11904023	MAIN OFFICE	< 0.3
11904068	SMALL GYM	1.1
11892909	STAGE	< 0.3
11904095	WEIGHT ROOM	< 0.3

Table 2 - Summary Testing Results ≥2.0 pCi/L							
Albert Einstein High School							
Test Period: 12/03/2024 - 12/06/2024							
≥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			
Albert Einstein High School			
Test Period: 12/03/2024 - 12/06/2024			
Kit Number	**QC Type**	**Room / Area**	**Result**
11892933	D	24	< 0.3
11892926	FB	31	< 0.3
11892925	D	31	< 0.3
11904017	FB	136	< 0.3
11904018	D	136	< 0.3
11904086	D	182	0.8
11904088	FB	182	< 0.3
11904092	FB	192	< 0.3
11904097	D	192	< 0.3
11892932	D	2041	< 0.3
11892939	FB	2041	< 0.3
11904048	D	100F	< 0.3
11892911	D	113C	0.6
11904035	D	115B Work Room	0.9
11904043	D	115BC	< 0.3
11904044	FB	115C	< 0.3
11904049	D	151L	< 0.3
11904291	OB	OFFICE BLANK	< 0.3
11904272	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation										
Albert Einstein High School										
Test Period: 12/03/2024 - 12/06/2024										
Sample ID			Duplicate Concentrations (pCi/L) and QC Checks							
Kit Numbers		Room / Area	Higher	Lower	Check #1 (Pass/Fail)	2x the Lower	Check #2 (Pass/Fail)	Average	Relative Percent Difference (RPD)	Check #3
11904047	11904048	100F	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11904036	11904043	115C	0.8	0.3	✓	0.6	FAIL	0.6	<1-pCi/L	✗
11904062	11904056	119B	0.9	0.7	✓	1.4	PASS	0.8	<1-pCi/L	✓
11904057	11904018	136	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11904077	11904049	151L	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11904087	11904086	182	0.8	0.6	✓	1.2	PASS	0.7	<1-pCi/L	✓
11904084	11904094 (Missing)	175	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11904098	11904097	192	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11892904	11892911	113C	0.6	0.3	✓	0.6	PASS	0.5	<1-pCi/L	✓
11892920	11892925	31	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11892928	11892938	24	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11892938	11892932	2041	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓

NOTES:

QC Check #1 - Data Entry

QC Check #2 - Higher duplicate concentration is < or = to 2x the Lower

QC Check #3 - Meets RPD Limits, by average duplicate concentration

- enter 2 if RPD is BELOW warning and control levels, AND passes QC Check 1 and 2
- enter 1 if RPD is ABOVE warning and BELOW control levels, AND passes QC Check 1 and 2
- enter 0 if RPD is ABOVE control level, or 'FAILS' QC Check 1 or 2

Average (pCi/L)	Warning Level	Control Level
< 2.0	1-pCi/L	NA
Between 2.0 and 3.9	50% RPD	67% RPD
≥ 4.0	28% RPD	36% RPD

Table 4 - Summary of Invalid Measurement Locations		
Albert Einstein High School		
Test Period: 12/03/24 - 12/06/24		
Kit Number	**Room/Area**	**Reason**
11904094	175	Missing Kit
11904076	Girls' Locker Room	Missing Kit
11904054	115F	Missing Kit

Table 1- Radon Testing Results		
Albert Einstein High School RT		
Test Period: 3/11/2025 - 3/14/2025		
Kit Number	Room / Area	Result
11892417	115C	< 0.3
11892418	115C	< 0.3
11892419	115C	< 0.3
11892420	115C	< 0.3
11892421	175	0.8
11892422	175	0.7
11892423	175	< 0.3

Table 2 - Summary Testing Results ≥2.0 pCi/L							
Albert Einstein High School RT							
Test Period: 3/11/2025 - 3/14/2025							
≥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			
Albert Einstein High School RT			
Test Period: 3/11/2025 - 3/14/2025			
Kit Number	**QC Type**	**Room / Area**	**Result**
11892419	D	115C	< 0.3
11892420	FB	115C	< 0.3
11892423	D	175	< 0.3
11886599	OB	OFFICE BLANK	< 0.3
11886600	TB	TRAVEL BLANK	< 0.3

Table 3a - Duplicate Worksheet / Data Validation

Albert Einstein High School RT

Test Period: 3/11/2025 - 3/14/2025

Sample ID			Duplicate Concentrations (pCi/L) and QC Checks							
Kit Numbers		Room / Area	Higher	Lower	Check #1 (Pass/Fail)	2x the Lower	Check #2 (Pass/Fail)	Average	Relative Percent Difference (RPD)	Check #3
11892419	11892417 11892418	115C	0.3	0.3	✓	0.6	PASS	0.3	<1-pCi/L	✓
11892423	11892421 11892422	175	0.8	0.3	✓	0.6	FAIL	0.5	<1-pCi/L	✗

NOTES:

QC Check #1 - Data Entry

QC Check #2 - Higher duplicate concentration is < or = to 2x the Lower

QC Check #3 - Meets RPD Limits, by average duplicate concentration

- enter 2 if RPD is BELOW warning and control levels, AND passes QC Check 1 and 2
- enter 1 if RPD is ABOVE warning and BELOW control levels, AND passes QC Check 1 and 2
- enter 0 if RPD is ABOVE control level, or 'FAILS' QC Check 1 or 2

Average (pCi/L)	Warning Level	Control Level
< 2.0	1-pCi/L	NA
Between 2.0 and 3.9	50% RPD	67% RPD
≥ 4.0	28% RPD	36% RPD

Table 4 - Summary of Invalid Measurement Locations		
Albert Einstein High School RT		
Test Period: 3/11/25 - 3/14/25		
Kit Number	**Room/Area**	**Reason**
N/A	N/A	N/A

Attachment 2:

Laboratory Reports

December 10, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892902	1007	2024-12-03 @ 11:00 am	2024-12-06 @ 9:00 am	0.7 ± 0.3	2024-12-10
11904031	100A	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904029	100B WORKROOM	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904032	100C	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	0.5 ± 0.4	2024-12-10
11904038	100D	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904037	100E	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904048	100F	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904047	100F	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904046	100G	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904011	100H	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904024	101 MAIL ROOM	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11892949	102	2024-12-03 @ 12:00 pm	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904020	103	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904040	104A	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904019	105	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	0.8 ± 0.4	2024-12-10
11904012	106B	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904091	108	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904082	108A	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11892903	112	2024-12-03 @ 11:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11892910	113	2024-12-03 @ 11:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11892907	113A	2024-12-03 @ 11:00 am	2024-12-06 @ 8:00 am	0.7 ± 0.4	2024-12-10
11892904	113C	2024-12-03 @ 11:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11892911	113C DUPLICATE	2024-12-03 @ 11:00 am	2024-12-06 @ 8:00 am	0.6 ± 0.4	2024-12-10
11892915	114	2024-12-03 @ 11:00 am	2024-12-06 @ 8:00 am	0.6 ± 0.3	2024-12-10
11892916	114A	2024-12-03 @ 11:00 am	2024-12-06 @ 8:00 am	1.1 ± 0.4	2024-12-10
11904052	115	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	1.0 ± 0.4	2024-12-10
11904027	115	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	1.3 ± 0.4	2024-12-10
11904028	115A	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	0.6 ± 0.4	2024-12-10
11904035	115B	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	0.9 ± 0.4	2024-12-10
11904036	115C	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	0.8 ± 0.4	2024-12-10
11904043	115C DUPLICATE	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904045	115D	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	0.7 ± 0.3	2024-12-10
11904053	115E	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	1.8 ± 0.4	2024-12-10
11904051	115F	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	0.9 ± 0.4	2024-12-10
11904055	115G	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	1.1 ± 0.4	2024-12-10
11904063	116 CAFETERIA	2024-12-03 @ 9:00 am	2024-12-06 @ 8:00 am	0.5 ± 0.3	2024-12-10
11904071	116 CAFETERIA	2024-12-03 @ 9:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10

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

December 10, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11904060	119A	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	0.7 ± 0.3	2024-12-10
11904056	119B	2024-12-03 @ 9:00 am	2024-12-06 @ 8:00 am	0.9 ± 0.4	2024-12-10
11904062	119B WORK ROOM	2024-12-03 @ 9:00 am	2024-12-06 @ 8:00 am	0.7 ± 0.3	2024-12-10
11904061	119D	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904041	121	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904042	121A	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904069	128 STAFF DINING	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904070	130	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904064	132	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904050	134	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904057	136	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904018	136 DUPLICATE	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904033	149	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904026	149A	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904077	151L	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904049	151L DUPLICATE	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904059	153	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904080	155	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904066	155A	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904073	155C	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904025	162	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904034	164SM	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904072	166	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904058	166A	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904078	168	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904079	172	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904065	174	2024-12-03 @ 9:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904084	175 FOOTBALL OFFICE	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	0.8 ± 0.3	2024-12-10
11904090	176 MAIN GYM	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904089	176 MAIN GYM	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11892936	18	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11904067	180	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904085	181	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	0.8 ± 0.4	2024-12-10
11904087	182	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	0.6 ± 0.4	2024-12-10
11904086	182 DUPLICATE	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	0.8 ± 0.3	2024-12-10
11904081	186 PE OFFICE	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11892941	18A	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10

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

December 10, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892929	19	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11904096	190	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904099	190C	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904100	191	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904098	192	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904097	192 DUPLICATE	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11892930	19A	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892942	2040	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892938	2041	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892932	2041 DUPLICATE	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11904039	204B	2024-12-03 @ 8:00 am	2024-12-06 @ 8:00 am	1.0 ± 0.4	2024-12-10
11892935	22	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892923	22	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892937	222	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892931	224	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892928	24	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892933	24 DUPLICATE	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892922	25	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892943	250	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892944	252	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892934	25A	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892921	26	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892945	267	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892924	28	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892914	29	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892927	30	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892920	31	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892925	31	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892913	32	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892918	33	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892919	34	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892912	35	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892906	37	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892917	38	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892905	39	2024-12-03 @ 11:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11892908	AUDITORIUM	2024-12-03 @ 11:00 am	2024-12-06 @ 9:00 am	0.7 ± 0.4	2024-12-10
11904083	BOYS LR	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10

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

December 10, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11904074	BOYS LR OFFICE	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	0.5 ± 0.3	2024-12-10
11904044	FIELD BLANK	2024-12-03 @ 8:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892939	FIELD BLANK	2024-12-03 @ 12:00 pm	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11892926	FIELD BLANK	2024-12-03 @ 11:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11904017	FIELD BLANK	2024-12-03 @ 9:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11904092	FIELD BLANK	2024-12-03 @ 10:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11904088	FIELDBLANK	2024-12-03 @ 10:00 am	2024-12-06 @ 10:00 am	< 0.3	2024-12-10
11904075	GIRLS LR OFFICE	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11892901	LITTLE THEATER	2024-12-03 @ 11:00 am	2024-12-06 @ 9:00 am	0.7 ± 0.4	2024-12-10
11904023	MAIN OFFICE	2024-12-03 @ 7:00 am	2024-12-06 @ 8:00 am	< 0.3	2024-12-10
11904068	SMALL GYM	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	1.1 ± 0.4	2024-12-10
11892909	STAGE	2024-12-03 @ 11:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10
11904095	WEIGHT ROOM	2024-12-03 @ 10:00 am	2024-12-06 @ 9:00 am	< 0.3	2024-12-10

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P4792 / TYLER MCCLEAF

Kit Number	Start Date	Start Time	End Date	End Time	Temp.	Facility	Building	Room	Project ID	Floor	Result
11892899	2024-12-02	11:00 am	2024-12-05	11:00 am	70	OFFICE	MAIN	O		1	< 0.3
11892900	2024-12-02	11:00 am	2024-12-05	11:00 am	70	TRAVEL	MAIN	T		1	< 0.3
11904003	2024-12-02	10:00 am	2024-12-05	11:00 am	70	JAMES HUBERT BLAKE HS	MAIN	SMALL GYM		1	1.4
11904272	2024-12-03	11:00 am	2024-12-06	11:00 am	70	TRAVEL	MAIN	T		1	< 0.3
11904291	2024-12-03	11:00 am	2024-12-06	11:00 am	70	OFFICE	MAIN	O		1	< 0.3

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EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 20001560

NOMINAL Conditions: Radon Conc 50.6 pCi/L Rel. Hum 50.6 % Temp. 70.8 F

Date Start: 12/14/24 Date Stop: 12/17/24	Date Start: _____ Date Stop: _____
Time Start: 0815 Time Stop: 0815	Time Start: _____ Time Stop: _____
Device No.'s: (3) CHAR BAGS	Device No.'s: _____
11477880, 11477883, 11477896	_____
_____	_____
B4 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

December 23, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SK
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11477880	SK1	2024-12-14 @ 8:00 am	2024-12-17 @ 8:00 am	52.0 ± 4.2	2024-12-23
11477883	SK2	2024-12-14 @ 8:00 am	2024-12-17 @ 8:00 am	54.6 ± 4.4	2024-12-23
11477896	SK3	2024-12-14 @ 8:00 am	2024-12-17 @ 8:00 am	45.5 ± 3.6	2024-12-23

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

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 – Testing December 3rd – December 6th, 2024

Name of Schools:

1. Cannon Road ES
2. Cloverly ES
3. Dr. Charles R. Drew ES
4. East Silver Spring ES
5. Albert Einstein HS
6. Fairland ES
7. William H. Farquhar MS

	Date	Initials
Radon Test Kits Deployed	12/03/2024	BMM
Radon Test Kits Collected	12/06/2024	BMM
Radon Test Kits Shipped to Lab*	12/06/2024	BMM
Radon Test Kits Received by Lab*	12/10/2024	BMM

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

March 17, 2025

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892417	115C	2025-03-11 @ 9:00 am	2025-03-14 @ 9:00 am	< 0.3	2025-03-17
11892418	115C	2025-03-11 @ 9:00 am	2025-03-14 @ 9:00 am	< 0.3	2025-03-17
11892419	115C	2025-03-11 @ 9:00 am	2025-03-14 @ 9:00 am	< 0.3	2025-03-17
11892420	115C	2025-03-11 @ 9:00 am	2025-03-14 @ 9:00 am	< 0.3	2025-03-17
11892421	175	2025-03-11 @ 9:00 am	2025-03-14 @ 9:00 am	0.8 ± 0.3	2025-03-17
11892422	175	2025-03-11 @ 9:00 am	2025-03-14 @ 9:00 am	0.7 ± 0.3	2025-03-17
11892423	175	2025-03-11 @ 9:00 am	2025-03-14 @ 9:00 am	< 0.3	2025-03-17

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

March 17, 2025

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
OFFICE
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892446	OB	2025-03-11 @ 11:00 am	2025-03-14 @ 11:00 am	< 0.3	2025-03-17
11886599	OB	2025-03-10 @ 11:00 am	2025-03-13 @ 11:00 am	< 0.3	2025-03-17

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

March 17, 2025

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
TRAVEL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11892444	TB	2025-03-11 @ 11:00 am	2025-03-14 @ 11:00 am	< 0.3	2025-03-17
11886600	TB	2025-03-10 @ 11:00 am	2025-03-13 @ 11:00 am	< 0.3	2025-03-17

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 20002919

NOMINAL Conditions: Radon Conc 7.0 pCi/L Rel. Hum 51.4 % Temp. 70.7 F

Date Start: 3/7/25 Date Stop: 3/10/25	Date Start: _____ Date Stop: _____
Time Start: 0832 Time Stop: 0832	Time Start: _____ Time Stop: _____
Device No.'s: (7) CHAR BAGS	Device No.'s: _____
11886401 thru 11886406,	
11886410	
G3 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

March 19, 2025 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
QC
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11886401	SK1	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.8 ± 1.1	2025-03-19
11886405	SK2	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.1 ± 1.1	2025-03-19
11886406	SK3	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.7 ± 1.1	2025-03-19
11886403	SK4	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.9 ± 1.2	2025-03-19
11886404	SK5	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.6 ± 1.2	2025-03-19
11886410	SK6	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	7.0 ± 1.1	2025-03-19
11886402	SK7	2025-03-07 @ 9:00 am	2025-03-10 @ 9:00 am	8.6 ± 1.2	2025-03-19

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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 – Re-Testing March 11th – March 14th, 2025

Name of Schools:

1. Albert Einstein HS
2. Argyle MS
3. Belmont ES
4. Benjamin Banneker MS
5. Cannon Road ES
6. Dr. Charles R. Drew ES
7. East Silver Spring ES
8. James Hubert Blake HS
9. William Farquhar MS

	Date	Initials
Radon Test Kits Deployed	3/11/2025	BMM
Radon Test Kits Collected	3/14/2025	BMM
Radon Test Kits Shipped to Lab*	3/14/2025	BMM
Radon Test Kits Received by Lab*	3/16/2025	BMM

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Albert Einstein High School
Date of Test Report	2/16/2023
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	3
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	1.5 pCi/L

Project Status:

1. Post mitigation testing completed.

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

February 16, 2023

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

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

Location: Albert Einstein High School
11135 Newport Mill Road
Kensington, MD 20895

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 Albert Einstein High School, located at 11135 Newport Mill Rd. Kensington, MD 20895 (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 10, 2023 and deployed five (5) 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 13, 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 post mitigation biennial testing.

These tests were conducted to:

- Confirm the success of the mitigation system(s).

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate temperatures ranged from the 26°F to the mid 56°F. Maximum sustained winds ranged from 0-21 miles per hour. Average humidity was around 68% with .09 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		
Albert Einstein HS		
Test Period: 01/10/2023 - 01/13/2023		
Kit Number	Room / Area	Result
11287832	18	0.7
11288410	18	< 0.3
11288599	19	0.9
11288415	19A	1.5
11288574	19A	< 0.3

Table 2- Radon Testing Results			
Albert Einstein HS			
Test Period: 01/10/23 - 01/13/23			
Kit Number	QC Type	Room / Area	Result
11288410	D	18	< 0.3
11288574	FB	19A	< 0.3
11285162	OB	OFFICE BLANK	< 0.3
11284899	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Albert Einstein HS		
Test Period: 01/10/23 - 01/13/23		
Kit Number	Room/Area	Result
	N/A	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Albert Einstein HS		
Test Period: 01/10/23 - 01/13/23		
Kit Number	Room/Area	Result
	N/A	

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

January 16, 2023 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11288599	19	2023-01-10 @ 12:00 pm	2023-01-13 @ 11:00 am	0.9 ± 0.3	2023-01-16

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

January 16, 2023

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
ALBERT EINSTEIN
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11287832	18	2023-01-10 @ 1:00 pm	2023-01-13 @ 11:00 am	0.7 ± 0.3	2023-01-16
11288410	18	2023-01-10 @ 1:00 pm	2023-01-13 @ 11:00 am	< 0.3	2023-01-16
11288415	19A	2023-01-10 @ 12:00 pm	2023-01-13 @ 11:00 am	1.5 ± 0.3	2023-01-16
11288574	19A	2023-01-10 @ 12:00 pm	2023-01-13 @ 11:00 am	< 0.3	2023-01-16

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 KC I 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 CRF	_____
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

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

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 – Week 1 January Schools

Name of Schools:

1. Woodfield ES
2. Montgomery Village MS
3. Albert Einstein HS
4. Garrett Park Annex
5. Garrett Park ES
6. Kensington-Parkwood ES
7. Silver Creek MS
8. Stephen Knolls School
9. Highland View ES
10. MacDonald Knolls ECC
11. Montgomery Knolls ES
12. Rock Terrace HS

	Date	Initials
Radon Test Kits Deployed	01/10/2023	BMM
Radon Test Kits Collected	01/13/2023	BMM
Radon Test Kits Shipped to Lab*	01/13/2023	BMM
Radon Test Kits Received by Lab*	01/17/2023	BMM

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

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MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Albert Einstein High School
Date of Test Report	05/27/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	6
# Rooms ≥ 4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	0.6 pCi/L

Project Status

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

Mitigation needed lower level 08, 09, 09A

KCI TECHNOLOGIES

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

May 27, 2022

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

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

Location: Albert Einstein High School
11135 Newport Mill Rd.
Kensington, MD 20895

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 Albert Einstein High School, located at 11135 Newport Mill Rd. Kensington, MD 20895 (subject site).

Scope of Services:

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

KCI visited the site on March 28, 2022 and deployed eight (8) activated charcoal (AC) radon test kits. KCI deployed radon test kits in all frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance.

KCI sampled the following locations during this follow-up test:

1. Rooms with missing test kits from the Radon 2022 testing period (i.e. test kit was deployed but not recovered),
2. Rooms with invalidated test kits from the Radon 2022 testing period (e.g. an open window in the room or disturbed test kit),
3. Rooms which were locked/inaccessible during the Radon 2022 testing period,
4. Rooms with elevated radon results (i.e. ≥3.5 piC/L),
5. Rooms previously tested for radon but not tested in Radon 2022, and
6. Additional rooms that require testing (if applicable.)

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

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

KCI returned to the site on March 31, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the mid 20°Fs and high temperatures ranged from the low 50°Fs to the mid 70°Fs. Maximum sustained winds ranged from 0-33 miles per hour. Average humidity was around 47% with 0.23 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		
Albert Einstein HS RT		
Test Period: 03/28/2022 - 03/31/2022		
Kit Number	Room / Area	Result
11131779	18	< 0.3
11131785	19	< 0.3
11131791	33	0.5
11131795	33	0.6
11131796	33	< 0.3
11131738	113	< 0.3
11131800	131	< 0.3
11131789	19A	0.6

Table 2- Radon Testing Results			
Albert Einstein RT			
Test Period: 03/28/2022 - 03/31/2022			
Kit Number	QC Type	Room / Area	Result
11131791	D	33	0.5
11131796	FB	33	< 0.3
11139883	OB	OFFICE BLANK	< 0.3
11139841	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Albert Einstein HS RT		
Test Period: 03/28/22 - 03/31/22		
Kit Number	Room/Area	Result
	NA	

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Albert Einstein HS RT		
Test Period: 03/28/22 - 03/31/22		
Kit Number	Room/Area	Result
	NA	

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

April 4, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
ALBERT EINSTEIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11131738	113	2022-03-28 @ 9:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131800	131	2022-03-28 @ 9:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131779	18	2022-03-28 @ 10:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131785	19	2022-03-28 @ 10:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04
11131789	19A	2022-03-28 @ 10:00 am	2022-03-31 @ 10:00 am	0.6 ± 0.3	2022-04-04
11131791	33	2022-03-28 @ 9:00 am	2022-03-31 @ 10:00 am	0.5 ± 0.3	2022-04-04
11131795	33	2022-03-28 @ 9:00 am	2022-03-31 @ 10:00 am	0.6 ± 0.3	2022-04-04
11131796	33	2022-03-28 @ 9:00 am	2022-03-31 @ 10:00 am	< 0.3	2022-04-04

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204620

NOMINAL Conditions: Radon Conc 27.0 pCi/L Rel. Hum 50.1 % Temp. 70.0 F

Date Start: 3/18/22 Date Stop: 3/21/22	Date Start: _____ Date Stop: _____
Time Start: 0705 Time Stop: 0705	Time Start: _____ Time Stop: _____
Device No.'s: (5) Char Bags -	Device No.'s: _____
11139367, 11139368, 11139371,	_____
11139710, 11139717	_____
E3 Eight	_____
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

March 30, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139367	SK1	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.9 ± 2.1	2022-03-30
11139368	SK2	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	23.9 ± 2.0	2022-03-30
11139371	SK3	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.7 ± 2.1	2022-03-30
11139710	SK4	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	26.4 ± 2.1	2022-03-30
11139717	SK5	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	24.6 ± 2.0	2022-03-30

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

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 – March 2022 Schools – Retesting

Name of Schools:

1. Rock Terrace School
2. S. Christa McAuliffe ES
3. Cedar Grove ES
4. DuFief ES
5. Emory Grove Center
6. Gaithersburg ES
7. Gaithersburg MS
8. Jones Lane ES
9. Rachel Carson ES
10. Rosemont ES
11. Shady Grove MS
12. Summit Hall ES
13. Albert Einstein HS
14. Eastern MS
15. Montgomery Blair HS
16. Newport Mill MS
17. Strawberry Knoll ES

	Date	Initials
Radon Test Kits Deployed	03/28/2022	BMM
Radon Test Kits Collected	03/31/2022	BMM
Radon Test Kits Shipped to Lab*	04/01/2022	BMM
Radon Test Kits Received by Lab*	04/04/2022	BMM

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

KCI TECHNOLOGIES

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MCPS RADON TESTING – EXECUTIVE SUMMARY

Site Name	Albert E. Einstein High School
Date of Test Report	4/26/2022
Round of Testing	Initial Follow-up Post Remediation 2 Year Testing 5 Year Testing HVAC Upgrade Window Replacement New Addition New Facility
# Rooms Tested	124
# Rooms ≥ 4.0 pCi/L	3
Lowest Value	<0.3 pCi/L
Highest Value	4.4 pCi/L

Project Status:
Initial testing completed; Missing, elevated, or compromised samples need re-sampling

KCI TECHNOLOGIES

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

April 26, 2022

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

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

Location: Albert E. Einstein High School
11135 Newport Mill Rd.
Kensington, MD 20895

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 Albert E. Einstein HS, located at 11135 Newport Mill. Rd. Kensington, MD 20895 (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 28, 2022 and deployed one hundred and forty four (144) 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 March 3, 2022 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a

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

Evaluation of Testing Conditions:

These tests represent:

- Follow-up to post-mitigation biennial testing.

These tests were conducted to:

- Confirm the success of the mitigation system(s).

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

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

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

KCI also compiled weather data for the testing period and conducted observations of relevant field conditions. During the test period, weather records indicate low temperatures were in the 20s and high temperatures ranged from the high 50s to the low 60s Fahrenheit. Maximum sustained winds ranged from 9-17 miles per hour. Average humidity was around 40% with 0 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	8	4.4
	09A	4.3
	9	4.2
<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		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room / Area	Result
11122403	8	4.4
11122410	9	4.2
11122426	18	0.8
11122442	19	0.5
11122444	22	< 0.3
11122438	23	0.7
11122443	24	< 0.3
11122435	25	< 0.3
11122430	26	< 0.3
11122436	28	< 0.3
11122425	29	1.4
11122428	29	1.4
11122429	29	< 0.3
11122408	30	< 0.3
11122406	31	0.7
11122418	32	0.9
11122422	33	NA
11122413	34	1.0
11122419	35	< 0.3
11122414	37	0.7
11122421	38	< 0.3
11122427	38	< 0.3
11122412	39	1.1
11122480	101	< 0.3
11122479	102	< 0.3
11122483	112	< 0.3
11122470	114	0.9
11122473	115	1.0
11122474	115	1.2
11122453	117	1.1
11122457	121	0.8
11122460	130	< 0.3
11122456	132	< 0.3
11122461	134	< 0.3
11122462	136	< 0.3
11122446	137	< 0.3
11122401	138	< 0.3
11122459	138	0.8
11122455	140	< 0.3
11122466	142	< 0.3
11122465	144	< 0.3
11122424	146	< 0.3

Table 1- Radon Testing Results		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room / Area	Result
11122431	148	< 0.3
11134326	149	< 0.3
11122416	150	< 0.3
11122440	152	< 0.3
11134303	153	< 0.3
11122402	154	< 0.3
11134304	155	< 0.3
11134330	155	< 0.3
11122439	156	< 0.3
11134338	160	< 0.3
11134341	162	< 0.3
11134306	164	< 0.3
11134337	166	< 0.3
11134305	168	< 0.3
11134339	168	< 0.3
11134340	168	< 0.3
11134334	172	0.6
11134332	174	< 0.3
11134323	175	0.7
11134327	175	< 0.3
11134333	180	< 0.3
11134328	181	< 0.3
11134344	187	< 0.3
11134319	188	< 0.3
11134321	188	< 0.3
11134346	188	< 0.3
11122490	190	0.6
11122493	190	< 0.3
11122495	191	0.5
11122488	192	< 0.3
11134313	193	< 0.3
11122499	195	0.7
11134301	206	< 0.3
11134308	206	< 0.3
11134325	206	0.7
11134317	216	< 0.3
11134315	224	< 0.3
11134309	241	< 0.3
11134302	250	< 0.3
11134310	263	< 0.3
11134318	274	< 0.3
11122500	1007	< 0.3

Table 1- Radon Testing Results		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room / Area	Result
11134312	2040	< 0.3
11122405	09A	4.3
11122484	100 MAIN OFFICE	< 0.3
11122498	1007C	< 0.3
11122477	100A	< 0.3
11122472	100B	< 0.3
11122478	100C	< 0.3
11122481	100D	< 0.3
11122482	100D	< 0.3
11122485	100D	< 0.3
11122475	100E	< 0.3
11122476	100F	< 0.3
11122486	100G	0.5
11122471	100H	0.6
11122487	106B	< 0.3
11122468	115A	0.8
11122469	115B	1.3
11122464	115C	0.8
11122463	115D	0.8
11122441	115E	< 0.3
11122450	115E	1.9
11122454	115E	2.0
11122496	115F	0.9
11122467	115G	< 0.3
11122494	116 CAFETERIA	< 0.3
11122497	116 CAFETERIA	0.6
11122451	119A	0.7
11122452	119B	0.7
11122458	121A	< 0.3
11122447	135 MEDIA CENTER	< 0.3
11122448	135 MEDIA CENTER	< 0.3
11122432	135A	< 0.3
11122445	135A	< 0.3
11122449	135A	0.5
11122423	135B	< 0.3
11122437	135E	< 0.3
11134307	151L	< 0.3
11134342	155A	< 0.3
11134329	166A	< 0.3
11134343	189A	< 0.3
11122492	189O	0.9
11122489	190C	0.6

Table 1- Radon Testing Results		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room / Area	Result
11122433	19A	0.9
11122434	19A	0.8
11122415	25SM	< 0.3
11122407	29A	1.0
11122420	33A	1.2
11122417	38A	< 0.3
11122411	39B	< 0.3
11122409	39O	< 0.3
11134311	AUDITORIUM	0.9
11134314	AUDITORIUM	1.2
11122491	BOYS LOCKER ROOM	0.6
11134320	GIRLS LOCKER ROOM	< 0.3
11134331	GYM	< 0.3
11134335	GYM	< 0.3
11134322	SMALL GYM	0.9
11134345	SMALL GYM	1.7
11134336	WEIGHT ROOM	< 0.3
11134324	WRESTLING ROOM	< 0.3

Table 2- Radon Testing Results			
Albert E. Einstein HS			
Test Period: 02/28/2022 - 03/03/2022			
Kit Number	QC Type	Room / Area	Result
11122421	D	38	< 0.3
11122425	D	29	1.4
11122429	FB	29	< 0.3
11122434	D	19A	0.8
11122432	D	135A	< 0.3
11122445	FB	135A	< 0.3
11122401	D	138	< 0.3
11122450	D	115E	1.9
11122441	FB	115E	< 0.3
11122473	D	115	1.0
11122482	D	100D	< 0.3
11122481	FB	100D	< 0.3
11122490	D	190	0.6
11134321	D	188	< 0.3
11134346	FB	188	< 0.3
11134323	D	175	0.7
11134305	D	168	< 0.3
11134339	FB	168	< 0.3
11134325	D	206	0.7
11134301	FB	206	< 0.3
11130811	OB	OFFICE BLANK	< 0.3
11130816	TB	TRAVEL BLANK	< 0.3

Summary of Missed Locations		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room/Area	Result
NA	113	NA
NA	131	NA

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Albert E. Einstein HS		
Test Period: 02/28/2022 - 03/03/2022		
Kit Number	Room/Area	Result
11122403	08	4.4
11122510	09	4.2
11122405	09A	4.3
11122422	33	Compromised

Table Note:

* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

March 8, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11122403	08	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	4.4 ± 0.5	2022-03-08
11122410	09	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	4.2 ± 0.5	2022-03-08
11122405	09A	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	4.3 ± 0.5	2022-03-08
11122484	100 MAIN OFFICE	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122500	1007	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11122498	1007C	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11122477	100A	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-07
11122472	100B	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122478	100C	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-07
11122482	100D	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122481	100D	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122485	100D	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122475	100E	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122476	100F	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122486	100G	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	0.5 ± 0.4	2022-03-08
11122471	100H	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	0.6 ± 0.4	2022-03-08
11122480	101	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122479	102	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122487	106B	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122483	112	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122470	114	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.9 ± 0.3	2022-03-07
11122474	115	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	1.2 ± 0.4	2022-03-07
11122473	115	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	1.0 ± 0.4	2022-03-08
11122468	115A	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.8 ± 0.3	2022-03-08
11122469	115B	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	1.3 ± 0.4	2022-03-08
11122464	115C	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.8 ± 0.3	2022-03-08
11122463	115D	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.8 ± 0.4	2022-03-08
11122454	115E	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	2.0 ± 0.4	2022-03-08
11122441	115E	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122450	115E	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	1.9 ± 0.4	2022-03-08
11122496	115F	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	0.9 ± 0.3	2022-03-08
11122467	115G	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122494	116 CAFETERIA	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-07
11122497	116 CAFETERIA	2022-02-28 @ 1:00 pm	2022-03-03 @ 11:00 am	0.6 ± 0.3	2022-03-08
11122453	117	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	1.1 ± 0.4	2022-03-08
11122451	119A	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.7 ± 0.4	2022-03-08
11122452	119B	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.7 ± 0.3	2022-03-08

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

March 8, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11122457	121	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	0.8 ± 0.3	2022-03-08
11122458	121A	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122460	130	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122456	132	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122461	134	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122448	135 MEDIA CENTER	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122447	135 MEDIA CENTER	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122445	135A	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122432	135A	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122449	135A	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	0.5 ± 0.4	2022-03-08
11122423	135B	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122437	135E	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122462	136	2022-02-28 @ 12:00 pm	2022-03-03 @ 11:00 am	< 0.3	2022-03-08
11122446	137	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122459	138	2022-02-28 @ 12:00 pm	2022-03-03 @ 12:00 pm	0.8 ± 0.4	2022-03-08
11122401	138	2022-02-28 @ 12:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122455	140	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122466	142	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122465	144	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122424	146	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122431	148	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11134326	149	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122416	150	2022-02-28 @ 11:00 am	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11134307	151L	2022-02-28 @ 4:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122440	152	2022-02-28 @ 11:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134303	153	2022-02-28 @ 4:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122402	154	2022-02-28 @ 11:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134304	155	2022-02-28 @ 4:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134330	155	2022-02-28 @ 4:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134342	155A	2022-02-28 @ 4:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122439	156	2022-02-28 @ 11:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134338	160	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134341	162	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134306	164	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134337	166	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134329	166A	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134305	168	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08

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March 8, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11134340	168	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134339	168	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134334	172	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	0.6 ± 0.3	2022-03-07
11134332	174	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134327	175	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134323	175	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	0.7 ± 0.4	2022-03-08
11122426	18	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.8 ± 0.4	2022-03-07
11134333	180	2022-02-28 @ 3:00 pm	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134328	181	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134344	187	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134346	188	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11134319	188	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134321	188	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134343	189A	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11122492	189O	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.9 ± 0.4	2022-03-08
11122442	19	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.5 ± 0.4	2022-03-08
11122493	190	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11122490	190	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.6 ± 0.4	2022-03-08
11122489	190C	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.6 ± 0.4	2022-03-07
11122495	191	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.5 ± 0.3	2022-03-07
11122488	192	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134313	193	2022-02-28 @ 4:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-07
11122499	195	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.7 ± 0.3	2022-03-07
11122433	19A	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.9 ± 0.3	2022-03-07
11122434	19A	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.8 ± 0.4	2022-03-08
11134312	2040	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07
11134301	206	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11134308	206	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11134325	206	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	0.7 ± 0.4	2022-03-08
11134317	216	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122444	22	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134315	224	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122438	23	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.4	2022-03-08
11122443	24	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134309	241	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-07
11122435	25	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11134302	250	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08

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

March 8, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11122415	25SM	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122430	26	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134310	263	2022-02-28 @ 4:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11134318	274	2022-02-28 @ 5:00 pm	2022-03-03 @ 12:00 pm	< 0.3	2022-03-08
11122436	28	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122428	29	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	1.4 ± 0.4	2022-03-07
11122429	29	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-07
11122425	29	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	1.4 ± 0.3	2022-03-07
11122407	29A	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	1.0 ± 0.4	2022-03-08
11122408	30	2022-02-28 @ 10:00 am	2022-03-03 @ 8:00 am	< 0.3	2022-03-08
11122406	31	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	0.7 ± 0.4	2022-03-08
11122418	32	2022-02-28 @ 10:00 am	2022-03-03 @ 8:00 am	0.9 ± 0.4	2022-03-08
11122422	33	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	???? IF1	2022-03-07
11122420	33A	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	1.2 ± 0.4	2022-03-08
11122413	34	2022-02-28 @ 9:00 am	2022-03-03 @ 8:00 am	1.0 ± 0.3	2022-03-07
11122419	35	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122414	37	2022-02-28 @ 9:00 am	2022-03-03 @ 9:00 am	0.7 ± 0.3	2022-03-08
11122427	38	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122421	38	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122417	38A	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122412	39	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	1.1 ± 0.4	2022-03-08
11122411	39B	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11122409	39O	2022-02-28 @ 10:00 am	2022-03-03 @ 9:00 am	< 0.3	2022-03-08
11134314	AUDITORIUM	2022-02-28 @ 4:00 pm	2022-03-03 @ 10:00 am	1.2 ± 0.4	2022-03-07
11134311	AUDITORIUM	2022-02-28 @ 4:00 pm	2022-03-03 @ 10:00 am	0.9 ± 0.4	2022-03-08
11122491	BOYS LOCKER ROOM	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.6 ± 0.3	2022-03-08
11134320	GIRLS LOCKER ROOM	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134335	GYM	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134331	GYM	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134345	SMALL GYM	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	1.7 ± 0.3	2022-03-07
11134322	SMALL GYM	2022-02-28 @ 2:00 pm	2022-03-03 @ 10:00 am	0.9 ± 0.4	2022-03-08
11134336	WEIGHT ROOM	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08
11134324	WRESTLING ROOM	2022-02-28 @ 3:00 pm	2022-03-03 @ 10:00 am	< 0.3	2022-03-08

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies, Inc. Job Number 204620

NOMINAL Conditions: Radon Conc 27.0 pCi/L Rel. Hum 50.1 % Temp. 70.0 F

Date Start: 3/18/22 Date Stop: 3/21/22	Date Start: _____ Date Stop: _____
Time Start: 0705 Time Stop: 0705	Time Start: _____ Time Stop: _____
Device No.'s: (5) Char Bags -	Device No.'s: _____
11139367, 11139368, 11139371,	_____
11139710, 11139717	_____
E3 Eight	_____
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

March 30, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139367	SK1	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.9 ± 2.1	2022-03-30
11139368	SK2	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	23.9 ± 2.0	2022-03-30
11139371	SK3	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	25.7 ± 2.1	2022-03-30
11139710	SK4	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	26.4 ± 2.1	2022-03-30
11139717	SK5	2022-03-18 @ 7:00 am	2022-03-21 @ 7:00 am	24.6 ± 2.0	2022-03-30

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

March 30, 2022

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
RSH
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11139726	BASEMENT	2022-03-20 @ 8:00 am	2022-03-23 @ 7:00 am	0.9 ± 0.5	2022-03-30
11139725	DINING	2022-03-20 @ 8:00 am	2022-03-23 @ 7:00 am	< 0.3	2022-03-30

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

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 – March 2022 Schools

Name of Schools:

1. Marshall, Thurgood ES
2. Ridgeview MS
3. Travilah ES
4. Flower Hill ES
5. Resnik, Judith A. ES
6. Strawberry Knolls ES
7. Whetstone ES
8. Laytonsville ES
9. Stedwick ES
10. Watkins Mill ES
11. Watkins Mill HS
12. Einstein, Albert E. HS

	Date	Initials
Radon Test Kits Deployed	02/28/2022	
Radon Test Kits Collected	03/03/2022	
Radon Test Kits Shipped to Lab*	03/3/2022	
Radon Test Kits Received by Lab*	03/5/2022	

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

Soil and Land Use Technology, Inc.
1818 New York NE, Suite 231 • Washington, DC 20002
(301) 595-3783
www.SaLUTinc.com

MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Albert Einstein High School
Date of Report	12/24/2020
Round of Testing	Initial Follow-up **Post Remediation** 2 year testing 5 year testing HVAC Upgrade Window Replacement New Addition New Facility
# of Rooms Tested	3
# Rooms ≥4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	2.7 pCi/L

Project Status

Current Project Status at this time: Testing Complete

Soil and Land Use Technology, Inc.
1818 New York NE, Suite 231 • Washington, DC 20002
(301) 595-3783
www.SaLUTinc.com

12/24/2020

Brian Croyle, PG, CHMM
Environmental Specialist
Environmental Services/Indoor Air Quality
Montgomery County Public Schools
Division oof Sustainability and Compliance
Gaithersburg, Maryland 20879

Re: Radon Testing Services

SaLUT Job #20-173

Location: Albert Einstein High School
11135 Newport Mill Road, Kensington
Kensington, Maryland 20895

Dear Mr. Croyle:

Soil and Land Use Technology, Inc. (SaLUT) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a "Post Remediation radon test for the Albert Einstein High School, located at 11135 Newport Mill Road, Kensington in Kensington, Maryland 20895 (subject site).

SCOPE OF SERVICES

SaLUT 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. SaLUT 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*. 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.

SaLUT visited the site on 12/1/2020 and deployed six (6) activated charcoal (AC) radon test kits. SaLUT deployed radon test kits in remediated 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 Appendix A of this report.

As a quality control measure, SaLUT included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, SaLUT submitted one (1) test kit 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.

SaLUT returned to the site on 12/4/2020 to retrieve the radon sampling test kits. SaLUT shipped all radon tests via overnight delivery to EMSL Analytical, Inc. for analysis by gamma-ray spectroscopy. EMSL Analytical, Inc. is a National Radon Safety Board (NRSB) radon measurement provider and is a certified analytical laboratory for radon analysis (certification #109000 AL) located at 200 Route 130 North, Cinnaminson, NJ 08077.

EVALUATION OF TESTING CONDITIONS

These tests represent:

- Post Remediation Testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

SaLUT 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.

SaLUT 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 mid-30s and high temperatures were in the mid-50s. Maximum sustained winds ranged from 10-15 miles per hour. Average humidity was around 57%. 0.0 inches of precipitation (rain) was recorded during the 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	N/A	N/A
≤4.0 piC/L	See Attachment B	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 301-215-0163.

Sincerely,

Mark McGrath

Soil and Land Use Technology, Inc. (SaLUT)
1818 New York Avenue, NE, Suite 231
Washington, DC 20002
202-446-7211 Mobile
301-595-3783
202-379-9504 fax

Attachments:

A- Floor Plan with Test Locations

B - Tables 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

D- Duplicate

FB- Field Blank

OB- Office Blank

PM- Project Manager

QC- Quality Control

Table 1- Radon Testing Results		
Einstein High School		
Test Period: 12/1/2020-12/4/2020		
Kit Number	Room / Area	Result
440188	OFFICE BLANK	< 0.3
440235	Gym	0.7
440250	Gym	0.9
440216	Gym	0.3
440283	Gym Closet	2.7
440154	Weight Room	1.9

Table 2- Radon Testing Results			
Einstein High School			
Test Period: 12/1/2020-12/4/2020			
Kit Number	QC Type	Room / Area	Result
440188	FB	Gym	< 0.3
440250	D	Gym	0.9
437235	Transit Blank	N/A	0

ATTACHMENT C

Laboratory Analytical Results

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-0327
http://www.EMSL.com cinnaminsonradonlab@emsl.com

EMSL Order:	382013022
CustomerID:	SALU50
CustomerPO:	
ProjectID:	

Attn: **Indika Jayatilake**
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002

Phone:	(301) 595-3783
Fax:	(301) 595-3787
Received:	12/7/2020 08:10 AM
Analysis Date:	12/7/2020
Collected:	12/1/2020

Project: **Albert Einstein HS / 11135 Newport Mill Road**

Test Site: **Albert Einstein HS**
11135 Newport Mill Road
Kensington, MD 20895

Test Report: Radon in Air Test Results

Samples for EMSL Kit 252525

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
440188	Gym	-0.3	12/1/2020	12/4/2020	34	70	Blank
382013022-0001			10:20:00 AM	10:25:00 AM			
Sample Notes:							
440235	Gym	0.7	12/1/2020	12/4/2020	34	70	Customer
382013022-0002			10:20:00 AM	10:25:00 AM			
Sample Notes:							

Samples for EMSL Kit 252512

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
440250	Gym	0.9	12/1/2020	12/4/2020	34	70	Duplicate
382013022-0003			10:20:00 AM	10:25:00 AM			
Sample Notes:							
440216	Gym	0.3	12/1/2020	12/4/2020	34	70	Customer
382013022-0004			10:20:00 AM	10:25:00 AM			
Sample Notes:							
					Duplicate RPD = 100%		

Samples for EMSL Kit 252527

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
440283	Gym Closet	2.7	12/1/2020	12/4/2020	34	70	Customer
382013022-0005			10:20:00 AM	10:35:00 AM			
Sample Notes:							

Samples for EMSL Kit 252524

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
440154	Weight Room	1.9	12/1/2020	12/4/2020	34	70	Customer
382013022-0006			10:20:00 AM	10:35:00 AM			
Sample Notes:							

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-0327
http://www.EMSL.com cinnaminsonradonlab@emsl.com

EMSL Order:	382013022
CustomerID:	SALU50
CustomerPO:	
ProjectID:	

Attn: **Indika Jayatilake**
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002

Phone:	(301) 595-3783
Fax:	(301) 595-3787
Received:	12/7/2020 08:10 AM
Analysis Date:	12/7/2020
Collected:	12/1/2020

Project: **Albert Einstein HS / 11135 Newport Mill Road**

Test Site: **Albert Einstein HS**
11135 Newport Mill Road
Kensington, MD 20895

Test Report: Radon in Air Test Results

The radon test was performed using a liquid scintillation radon detector/s and counted on a liquid scintillation counter using approved EPA testing protocols for Radon in Air testing. The EPA recommends fixing your home if the average of two short-term tests taken in the lowest lived-in level of the home show radon levels that are equal to or greater than 4.0pCi/L.
The EPA recommends retesting your home every two years.

Please contact EMSL Analytical, Inc. or your State Health Department for further information.
All procedures used for generating this report are in complete accordance with the current EPA protocols for the analysis of Radon in Air.

Report Note

Analyst(s)

Racquel Hafiz (6)

Dominic Gehret, Radiochemistry Laboratory Manager, NJ Radon
Measurement Specialist MES 13910
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ FL RB2034/R2687,IL RNL2008202,IN RTL00935,IA RNLAB10005,KS KS-LB-0005/KS-MS-0482,ME SPC202,MN RL-0005,NE 474/RMB-1083,NJ 03036/MEB92525/MES13910,NY 10872,OH RL39,OK D9952,PA 2573/3393/68-00367,RI RMB-108/RI00179,WV RL000220,NRSB-ARL6006,NRPP

Report Amended: 12/09/2020 16:28:58 Replaces the Inital Report 12/09/2020 16:28:07. Reason Code: Data Entry-Change to Appearance

Please visit www.radontestinglab.com

OrderID: 382013022

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Radon Testing Chain of Custody

EMSL Order Number *(Lab Use Only)*:
EMSL CINNAMINSON, N.J. 382013022

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
PHONE: 1-800-220-3675
FAX: (856) 786-5974

2020 DEC -7 A 8:10

Company: SaLUT		**EMSL-Bill to:** ☐ Same ☐ Different If Bill to is Different note instructions in Comments**	
Street: 1818 New York Avenue, NE Suite 231		*Third Party Billing requires written authorization from third party*	
City: Washington	**State/Province:** DC	**Zip/Postal Code:** 20002	**Country:** US
Report To (Name): Indika Jayatilake		**Fax #:** 301-595-3787	
Telephone #: 301-595-3783		**Email Address:** ijayatilake@salutinc.com	
Project Name/Number: MCPS Albert Einstein HS			
Please Provide Results: ☐Fax ☐Email ☐Mail	**Purchase Order:**	**U.S. State Samples Taken:** MD	

Project Property Information

Project Name:		
Project Address: 11135 Newport Mill Rd		
City: Kensington	**State:** MD	**Zip Code:** 20895
County:	**Municipality:**	
Technician Name: Jude	**Technician Cert #:**	**Technician Signature:**

New Jersey Testing Information

NJDEP Laboratory Certification # 03036 **NJDEP Radon Business Certification #** MEB92525

1.) Is the radon test being conducted for the purpose of: ☐ Real Estate Transaction ☐ Homeowner Testing ☒ Other
2.) Test Conditions observed? ☒ Closed House ☐ Open House
3.) What is the building type? ☐ Residential ☐ Non-Residential ☐ Daycare ☒ School
4.) What is the building foundation type? ☐ Basement ☐ Crawlspace ☐ Slab on Grade ☐ Other
5.) For School Testing, please enter: School Code _____ Room Name/Number _____

Box Number	Device Number	Location	Exposure Period Beginning Date and Time	Exposure Period Ending Date and Time	Temperature °F	Humidity, %
252525	440188 Blank	Gym	12-1-2020 10.20 am	12-4-20 10.25	34	69.8
252525	440235 Sample	Gym	12-1-20 10.20 am	12-4-20 10.25	34	69.8
252512	440250 Duplicate	Gym	12-1-20 10-20	12-4-20 10.25	34	69.8
252512	440216 Sample	Gym	12-1-20 10-20	12-4-20 10.25	34	69.8
252527	440283 C/Sample	Gym closet	12-1-20 10.20	12-4-20 10.35	33.8	69.8
252524	440154 C/Sample	weight room	12-1-20 10.20	12-4-20 10-35	34	69.8

Client Sample # (s): - **Total # of Samples:**

Relinquished (Client): **Date:** **Time:**

Received (Lab): R. Hafiz **Date:** 12.7.20 **Time:**

Comments/Special Instructions:

OrderID: 382013022

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson NJ 08077
800-220-3675
radlab@emsl.com

RADON IN AIR CHAIN OF CUSTODY

Turnaround: ☐ Same Day ☐ Next Day ☐ Two Day

EMSL KIT ID NUMBER _____

SEND REPORT TO

EMSL CUSTOMER ID _____

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIPCODE _____

PHONE _____

EMAIL _____

SEND COPY OF REPORT TO

EMAIL _____

EMAIL _____

PROPERTY TESTED ☐ SAME AS ABOVE

NAME _____

ADDRESS _____

CITY _____

MUNICIPALITY _____ ☐ N/A

COUNTY _____

STATE _____ ZIPCODE _____

TECHNICIAN WHO DROPPED-OFF CANISTER(S)

NAME _____

CERTIFICATION # _____ ☐ N/A

SIGNATURE _____

TECHNICIAN WHO PICKED-UP CANISTER(S) ☐ SAME

NAME _____

CERTIFICATION # _____ ☐ N/A

SIGNATURE _____

NRPP ID 109000 ◆ AL NRSB-ARL-6006 ◆ NJDEP MEB92525
EMSL MAINTAINS MULTIPLE NATIONAL AND STATE CERTIFICATIONS FOR RADON ANALYSIS. PLEASE SEE OUR WEBSITE FOR THE MOST UP TO DATE LIST:
WWW.EMSL.COM

Expiration Date: 12/31/2022

INDOOR CANISTER COLLECTION CONDITIONS

TEMPERATURE 69.8 °F HUMIDITY 33.6 %

START DATE 12/01/20 TIME 10 :20 ☐ AM ☐ PM

STOP DATE ___/___/___ TIME ____:____ ☐ AM ☐ PM

LOCATION ☐ BASEMENT ☐ 1st FLOOR ☐ 2nd FLOOR

☐ BEDROOM ☐ LIVING ROOM ☐ OTHER _____

1ST CANISTER NUMBER 25 25 25

SAMPLE TYPE ☐ CUSTOMER ☐ DUPLICATE ☑ BLANK

2ND CANISTER NUMBER 25 26 12

SAMPLE TYPE ☐ CUSTOMER ☑ DUPLICATE ☐ BLANK

PROJECT BACKGROUND QUESTIONS

1. IS THIS A REAL ESTATE TRANSACTION? ☐ YES ☑ NO
2. IS THIS A POST MITIGATION TEST? ☑ YES ☐ NO
3. IS THIS A RETEST? ☐ YES ☑ NO
4. BUILDING CONDITIONS: ☐ OPEN ☐ CLOSED
5. BUILDING TYPE: ☐ RESIDENTIAL ☐ NON-RESIDENTIAL
   ☐ SINGLE FAMILY ☐ MULTI-UNIT
   ☐ COMMERCIAL ☑ SCHOOL ☐ DAYCARE
   ☐ OTHER _____
6. SCHOOL CODE _____ ☐ N/A
7. ROOM NUMBER _____ ☐ N/A
   ROOM LOCATION _____ ☐ N/A
8. WHAT IS THE BUILDING FOUNDATION TYPE
   ☐ BASEMENT ☐ CRAWLSPACE ☐ SLAB ON GRADE
   ☐ OTHER _____ ☐ N/A

NOTES: Gym

COC Revision 3.0; 01/03/2020

SAMPLES RELEASED TO THE LABORATORY

NAME _____

SIGNATURE _____

DATE ___/___/___ TIME ____:____ ☐ AM ☐ PM

SAMPLES RECEIVED BY THE LABORATORY

NAME _____

SIGNATURE _____

DATE ___/___/___ TIME ____:____ ☐ AM ☐ PM

OrderID: 382013022

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson NJ 08077
800-220-3675
radlab@emsl.com

RADON IN AIR CHAIN OF CUSTODY

Turnaround: ☐ Same Day ☐ Next Day ☐ Two Day

EMSL KIT ID NUMBER _____

SEND REPORT TO

EMSL CUSTOMER ID _____

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIPCODE _____

PHONE _____

EMAIL _____

SEND COPY OF REPORT TO

EMAIL _____

EMAIL _____

PROPERTY TESTED ☐ SAME AS ABOVE

NAME _____

ADDRESS _____

CITY _____

MUNICIPALITY _____ ☐ N/A

COUNTY _____

STATE _____ ZIPCODE _____

TECHNICIAN WHO DROPPED-OFF CANISTER(S)

NAME _____

CERTIFICATION # _____ ☐ N/A

SIGNATURE _____

TECHNICIAN WHO PICKED-UP CANISTER(S) ☐ SAME

NAME _____

CERTIFICATION # _____ ☐ N/A

SIGNATURE _____

NRPP ID 109000 ◆ AL NRSB-ARL-6006 ◆ NJDEP MEB92525
EMSL MAINTAINS MULTIPLE NATIONAL AND STATE CERTIFICATIONS FOR RADON ANALYSIS. PLEASE SEE OUR WEBSITE FOR THE MOST UP TO DATE LIST:
WWW.EMSL.COM

Expiration Date: 12/31/2022

INDOOR CANISTER COLLECTION CONDITIONS

TEMPERATURE 68.9 °F HUMIDITY 35.6 %

START DATE 12/01/20 TIME 10:20 ☑ AM ☐ PM

STOP DATE ___/___/___ TIME ____:____ ☐ AM ☐ PM

LOCATION ☐ BASEMENT ☐ 1st FLOOR ☐ 2nd FLOOR

☐ BEDROOM ☐ LIVING ROOM ☑ OTHER Gym

1ST CANISTER NUMBER 252527

SAMPLE TYPE ☑ CUSTOMER ☐ DUPLICATE ☐ BLANK

2ND CANISTER NUMBER _____

SAMPLE TYPE ☐ CUSTOMER ☐ DUPLICATE ☐ BLANK

PROJECT BACKGROUND QUESTIONS

1. IS THIS A REAL ESTATE TRANSACTION? ☐ YES ☑ NO
2. IS THIS A POST MITIGATION TEST? ☑ YES ☐ NO
3. IS THIS A RETEST? ☐ YES ☑ NO
4. BUILDING CONDITIONS: ☐ OPEN ☑ CLOSED
5. BUILDING TYPE: ☐ RESIDENTIAL ☐ NON-RESIDENTIAL
   ☐ SINGLE FAMILY ☐ MULTI-UNIT
   ☐ COMMERCIAL ☑ SCHOOL ☐ DAYCARE
   ☐ OTHER _____
6. SCHOOL CODE _____ ☐ N/A
7. ROOM NUMBER _____ ☐ N/A
   ROOM LOCATION _____ ☐ N/A
8. WHAT IS THE BUILDING FOUNDATION TYPE
   ☐ BASEMENT ☐ CRAWLSPACE ☐ SLAB ON GRADE
   ☐ OTHER _____ ☐ N/A

NOTES: weight room

COC Revision 3.0; 01/03/2020

SAMPLES RELEASED TO THE LABORATORY

NAME _____
SIGNATURE _____
DATE ___/___/___ TIME ____:____ ☐ AM ☐ PM

SAMPLES RECEIVED BY THE LABORATORY

NAME _____
SIGNATURE _____
DATE ___/___/___ TIME ____:____ ☐ AM ☐ PM

OrderID: 382013022

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson NJ 08077
800-220-3675
radlab@emsl.com

RADON IN AIR CHAIN OF CUSTODY

Turnaround: ☐ Same Day ☐ Next Day ☐ Two Day

EMSL KIT ID NUMBER _____

SEND REPORT TO

EMSL CUSTOMER ID _____

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIPCODE _____

PHONE _____

EMAIL _____

SEND COPY OF REPORT TO

EMAIL _____

EMAIL _____

PROPERTY TESTED ☐ SAME AS ABOVE

NAME _____

ADDRESS _____

CITY _____

MUNICIPALITY _____ ☐ N/A

COUNTY _____

STATE _____ ZIPCODE _____

TECHNICIAN WHO DROPPED-OFF CANISTER(S)

NAME _____

CERTIFICATION # _____ ☐ N/A

SIGNATURE _____

TECHNICIAN WHO PICKED-UP CANISTER(S) ☐ SAME

NAME _____

CERTIFICATION # _____ ☐ N/A

SIGNATURE _____

NRPP ID 109000 • AL NRSB-ARL-6006 • NJDEP MEB92525
EMSL MAINTAINS MULTIPLE NATIONAL AND STATE CERTIFICATIONS FOR RADON ANALYSIS. PLEASE SEE OUR WEBSITE FOR THE MOST UP TO DATE LIST:
WWW.EMSL.COM

Expiration Date: 12/31/2022

INDOOR CANISTER COLLECTION CONDITIONS

TEMPERATURE 69.8 °F HUMIDITY 34.2 %

START DATE 12 / 1 / 20 TIME 10:20 ☑ AM ☐ PM

STOP DATE ___/___/___ TIME ____:____ ☐ AM ☐ PM

LOCATION ☐ BASEMENT ☐ 1st FLOOR ☐ 2nd FLOOR

☐ BEDROOM ☐ LIVING ROOM ☑ OTHER Gym

1ST CANISTER NUMBER 252527

SAMPLE TYPE ☑ CUSTOMER ☐ DUPLICATE ☐ BLANK

2ND CANISTER NUMBER _____

SAMPLE TYPE ☐ CUSTOMER ☐ DUPLICATE ☐ BLANK

PROJECT BACKGROUND QUESTIONS

1. IS THIS A REAL ESTATE TRANSACTION? ☐ YES ☑ NO
2. IS THIS A POST MITIGATION TEST? ☑ YES ☐ NO
3. IS THIS A RETEST? ☐ YES ☑ NO
4. BUILDING CONDITIONS: ☐ OPEN ☑ CLOSED
5. BUILDING TYPE: ☐ RESIDENTIAL ☐ NON-RESIDENTIAL
   ☐ SINGLE FAMILY ☐ MULTI-UNIT
   ☐ COMMERCIAL ☑ SCHOOL ☐ DAYCARE
   ☐ OTHER _____
6. SCHOOL CODE _____ ☐ N/A
7. ROOM NUMBER _____ ☐ N/A
   ROOM LOCATION _____ ☐ N/A
8. WHAT IS THE BUILDING FOUNDATION TYPE
   ☐ BASEMENT ☐ CRAWLSPACE ☐ SLAB ON GRADE
   ☐ OTHER _____ ☐ N/A

NOTES: Gym closet

COC Revision 3.0; 01/03/2020

SAMPLES RELEASED TO THE LABORATORY

NAME _____

SIGNATURE _____

DATE ___/___/___ TIME ____:____ ☐ AM ☐ PM

SAMPLES RECEIVED BY THE LABORATORY

NAME _____

SIGNATURE _____

DATE ___/___/___ TIME ____:____ ☐ AM ☐ PM

KCI TECHNOLOGIES
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Albert Einstein High School
Date of Report	3/5/2020
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	6
# Rooms ≥4.0 pCi/L	1
Lowest Value	<0.3 pCi/L
Highest Value	5.8 pCi/L

Project Status

Current Project Status at this time: Retesting completed; Remediation Plan

KCI TECHNOLOGIES
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

3/5/2020

Mr. Richard Cox, MS
Team Leader
Montgomery County Public Schools
Division of Maintenance
Gaithersburg, Maryland 20879

Re: Radon Testing Services

KCI Job #12146341.126

Location: Albert Einstein High School
11135 Newport Mill Road
Kensington, Maryland 20895

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a "short-term" 3-day radon test for the Albert Einstein High School, located at 11135 Newport Mill Road in Kensington, Maryland 20895 (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 #111004 RT) 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 2/18/2020 and deployed seven (7) 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.

KCI sampled the following locations during this follow-up test:

1. Rooms with missing test kits from the December 2019 testing period (i.e. test kit was deployed but not recovered),

2. Rooms with invalidated test kits from the December 2019 testing period (e.g. an open window in the room or disturbed test kit),
3. Rooms which were locked/inaccessible during the December 2019 testing period,
4. Rooms with elevated December 2019 results (i.e. ≥3.5 piC/L),
5. Rooms previously tested for radon but not tested in December 2019, and
6. Additional rooms that require testing (if applicable.)

A floor plan map of the building with the test locations is included as Appendix 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 nine (9) 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.

KCI returned to the site on 2/21/2020 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, Inc. is a NRSB certified analytical laboratory for radon analysis (certification #ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

EVALUATION OF TESTING CONDITIONS

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

KCI recorded observations of the following conditions in each room 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.

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 mid-20s to the lower-40s; and high temperatures ranged from the upper-30s to the upper-50s. Maximum sustained winds ranged from 13-21 miles per hour. Average humidity was approximately 50%. A total of .01 inches of rain were recorded during the testing period. The weather conditions during the testing period may have resulted in atypical radon test results for this facility.

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). Follow-up 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	176	5.8
≤4.0 piC/L	See Attachment B	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 410-316-7800.

Sincerely,

Mr. Tyler P. McCleaf
Radon Measurement Provider
KCI Technologies, Inc.

Attachments:

A- Floor Plan with Test Locations

B - Tables 1-3, Radon Test Summary Spreadsheets

C- Laboratory Analytical Results

ATTACHMENT A

Floor Plan With Test Locations

Floor Plan Legend
X-Sample Location (in red)
X- Previous Sample Location
1- Not Samled; No Ground Contact
2- Not Samled; Unoccupied (e.g. Storage, Mechanical)
3- Not Samled; High Humidity/Moisture
4- Not Samled; Bathroom/Hallway

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

Table 1- Radon Testing Results		
Albert Einstein High School		
Test Period: 02/18/20-02/21/20		
Kit Number	Room / Area	Result
9346965	Art Gallery RM 112	<0.3
9346962	176	5.8
9346961	183 SMALL GYM	1.7
9346957	184 AUDITORIUM	0.8
9346904	39A	1.3
9346910	100D	< 0.3
9348571	OFFICE BLANK	< 0.3

Table 2- Radon Testing Results			
Albert Einstein High School			
Test Period: 02/18/20-02/21/20			
Kit Number	QC Type	Room / Area	Result
9348506	TRANSIT BLANK	NA	< 0.3

ATTACHMENT C

Laboratory Analytical Results

February 28, 2020 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9341725	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.9 ± 1.6	2020-02-26
9341730	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.1 ± 1.6	2020-02-26
9341728	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.9 ± 1.6	2020-02-26
9341726	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	25.8 ± 1.5	2020-02-26
9341731	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	25.1 ± 1.5	2020-02-26
9341729	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.2 ± 1.6	2020-02-26
9341727	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	27.2 ± 1.6	2020-02-26
9341732	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	27.3 ± 1.6	2020-02-26

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

March 5, 2020

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9341733		2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.4 ± 1.6	2020-02-26

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

March 5, 2020

** LABORATORY ANALYSIS REPORT **

Radon test result report for:
S
N/A

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9341729	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.2 ± 1.6	2020-02-26
9341727	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	27.2 ± 1.6	2020-02-26
9341732	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	27.3 ± 1.6	2020-02-26
9341725	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.9 ± 1.6	2020-02-26
9341730	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.1 ± 1.6	2020-02-26
9341728	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	26.9 ± 1.6	2020-02-26
9341726	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	25.8 ± 1.5	2020-02-26
9341731	N/A	2020-02-21 @ 8:00 am	2020-02-24 @ 8:00 am	25.1 ± 1.5	2020-02-26

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 194523

NOMINAL Conditions: Radon Conc 25.8 pCi/L Rel. Hum 49.8 % Temp. 70.2 F

Date Start: 2/21/20 Date Stop: 2/24/20	Date Start: _____ Date Stop: _____
Time Start: 0745 Time Stop: 0745	Time Start: _____ Time Stop: _____
Device No.'s: (9) Char Bags - 9341725 thru 9341733	Device No.'s: _____
52 Ccpt	
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

February 26, 2020 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
EINSTEIN HS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9346910	100D	2020-02-18 @ 12:00 pm	2020-02-21 @ 10:00 am	< 0.3	2020-02-26
9346962	176	2020-02-18 @ 12:00 pm	2020-02-21 @ 10:00 am	5.8 ± 0.7	2020-02-26
9346961	183 SMALL GYM	2020-02-18 @ 12:00 pm	2020-02-21 @ 10:00 am	1.7 ± 0.5	2020-02-26
9346957	184 AUDITORIUM	2020-02-18 @ 12:00 pm	2020-02-21 @ 10:00 am	0.8 ± 0.4	2020-02-26
9346904	39A	2020-02-18 @ 12:00 pm	2020-02-21 @ 10:00 am	1.3 ± 0.5	2020-02-26
9346965	ART GALLERY RM112	2020-02-18 @ 12:00 pm	2020-02-21 @ 10:00 am	< 0.3	2020-02-26

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

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 2019 Week 3

Name of Schools:

1. Bannockburn E.S.
2. Bradley Hills E.S.
3. East Silver Spring E.S.
4. Einstein H.S.
5. Flora M. Singer E.S.
6. Francis Scott Key M.S.
7. Jones Lane E.S
8. Montgomery Blair H.S.
9. Oak View E.S.
10. Redland M.S.
11. Springbrook H.S.

	Date	Initials
Radon Test Kits Deployed	2/18/20	
Radon Test Kits Collected	2/21/20	
Radon Test Kits Shipped to Lab*	2/21/20	
Radon Test Kits Received by Lab*	2/24/20	

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

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

MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Albert Einstein High School
Date of Report	2/21/2020
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	114
# Rooms ≥4.0 pCi/L	1
Lowest Value	<0.3 pCi/L
Highest Value	5.0 pCi/L

Project Status

Current Project Status at this time: Testing Complete; missed locations and missing/compromised tests to be sampled; elevated tests to be re-sampled.

KCI TECHNOLOGIES
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

2/21/2020

Mr. Richard Cox, MS
Environmental Team Leader
Montgomery County Public Schools
Division of Maintenance
Gaithersburg, Maryland 20879

Re: Radon Testing Services

KCI Job #12146341126

Location: Albert Einstein High School
11135 Newport Mill Road, Kensington
Kensington, Maryland 20895

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a "short-term" 3-day radon test for the Albert Einstein High School, located at 11135 Newport Mill Road, Kensington in Kensington, Maryland 20895 (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 Provider (certification #111004 RT) 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 1/6/2020 and deployed one-hundred forty (140) 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 Appendix 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 sixty (60) 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.

KCI returned to the site on 1/9/2020 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, Inc. is a National Radon Safety Board (NRSB) radon measurement provider and is a certified analytical laboratory for radon analysis (certification #ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

EVALUATION OF TESTING CONDITIONS

These tests represent:

- Follow-up to initial testing.

These tests were conducted to:

- Evaluate radon concentrations at the facility.

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

KCI recorded observations of the following conditions in each room 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.

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 upper-20s and high temperatures were in the mid-50s. Maximum sustained winds ranged from 10-23 miles per hour. Average humidity was around 64%. 0.32 inches of precipitation (rain) was recorded during the 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	176	5.0
≤4.0 piC/L	See Attachment B	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 410-316-7800.

Sincerely,

Mr. Tyler P. McCleaf
Radon Measurement Provider
111004 RT

KCI Technologies, Inc.

Attachments:

A- Floor Plan with Test Locations

B - Tables 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 Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Table 1- Radon Testing Results		
Einstein High School		
Test Period: 1/6/2020-1/9/2020		
Kit Number	Room / Area	Result
9339701	OFFICE BLANK	< 0.3
9346801	116	< 0.3
9346802	116A	< 0.3
9346803	100	< 0.3
9346804	101	< 0.3
9346805	100B	< 0.3
9346806	100A	< 0.3
9346807	100A	< 0.3
9346808	115B	1.5
9346809	115A	< 0.3
9346810	113	< 0.3
9346811	113	< 0.3
9346812	113B	< 0.3
9346813	113A	< 0.3
9346814	116	1
9346815	117	< 0.3
9346816	115G	0.8
9346817	115C	< 0.3
9346818	117	1.3
9346819	144	< 0.3
9346820	115A	< 0.3
9346821	121	< 0.3
9346822	140	< 0.3
9346823	115F	1.5
9346824	115D	0.7
9346825	119B	0.9
9346826	115D	0.8
9346827	115	< 0.3
9346828	114	0.8
9346829	119A	< 0.3
9346830	155	< 0.3
9346831	135E	< 0.3
9346832	TV CONTROL ROOM	< 0.3
9346833	137	< 0.3
9346834	142	< 0.3
9346835	121A	0.7
9346836	115E	1.8
9346837	MEDIA CENTER	< 0.3
9346838	135B	< 0.3
9346839	135A	< 0.3
9346840	138	< 0.3
9346841	140	< 0.3

9346842	151L	< 0.3
9346843	162	< 0.3
9346844	160	< 0.3
9346845	168	< 0.3
9346846	166	< 0.3
9346847	164S	0.8
9346848	160	< 0.3
9346849	156	< 0.3
9346850	154	< 0.3
9346851	MEDIA CENTER	< 0.3
9346852	135E	< 0.3
9346853	152	< 0.3
9346854	145	< 0.3
9346855	150	< 0.3
9346856	148	< 0.3
9346857	146	< 0.3
9346858	135E	0.6
9346859	155A	< 0.3
9346860	174	< 0.3
9346861	172	0.6
9346862	172	< 0.3
9346863	172	< 0.3
9346864	149	< 0.3
9346865	191	< 0.3
9346866	153	< 0.3
9346867	184	< 0.3
9346868	184	0.9
9346869	176	5
9346870	176	2.1
9346871	BACKSTAGE	0.6
9346872	176	1.6
9346873	176	1.8
9346874	WEIGHT ROOM	1.3
9346875	175	< 0.3
9346876	WRESTLING ROOM	1
9346877	WRESTLING ROOM	1
9346878	183	1.3
9346880	181	1.2
9346881	180	< 0.3
9346882	190C	< 0.3
9346883	190	< 0.3
9346884	193	< 0.3
9346885	184	0.9
9346887	BOYS TEAM ROOM	< 0.3
9346888	188	< 0.3
9346889	BOYS LOCKER ROOM	< 0.3
9346890	189B	< 0.3

9346891	189B	< 0.3
9346892	189E	0.6
9346893	1007	0.9
9346894	1007C	1.2
9346895	192	< 0.3
9346896	GIRLS LOCKER ROOM	< 0.3
9346897	185E.5	< 0.3
9346898	185E	0.5
9346899	185B	< 0.3
9346900	187	< 0.3
9346909	2040	< 0.3
9346913	245A	< 0.3
9346914	234	< 0.3
9346915	236	< 0.3
9346916	239	< 0.3
9346917	238	0.7
9346918	228	< 0.3
9346919	235	< 0.3
9346920	239	< 0.3
9346921	231	< 0.3
9346922	19	< 0.3
9346923	24	< 0.3
9346924	22	< 0.3
9346925	18	< 0.3
9346926	23	< 0.3
9346927	239	< 0.3
9346928	23	< 0.3
9346929	25A	< 0.3
9346930	25S	< 0.3
9346931	26	< 0.3
9346932	28	< 0.3
9346933	29	< 0.3
9346934	30	< 0.3
9346935	32	0.6
9346936	33	< 0.3
9346937	33	1.2
9346938	33	0.9
9346939	37	< 0.3
9346940	31	0.6
9346941	35	< 0.3
9346942	34	1.1
9346943	39B	< 0.3
9346944	39 OFFICE	0.8
9346946	38	< 0.3
9346948	100F	< 0.3
9346950	100E	< 0.3
9346951	100G	< 0.3

9346952	106B	< 0.3
9346953	106A	< 0.3
9346954	102	0.7
9346955	100A	< 0.3
9346956	100C	< 0.3
9346879	183	MISSING
9346886	184	MISSING
9346945	39A	MISSING
9346947	100D	MISSING
9346949	100D	MISSING

Table 2- Radon Testing Results			
Einstein High School			
Test Period: 1/6/2020-1/9/2020			
Kit Number	QC Type	Room / Area	Result
9346891	D	189B	<0.3
9346886	D	184	MISSING
9346867	FB	184	<0.3
9346876	D	WRESTLING ROOM	1
9346862	D	172	<0.3
9346863	FB	172	<0.3
9346848	D	160	<0.3
9346858	D	135E	0.6
9346831	FB	135E	<0.3
9346822	D	140	<0.3
9346826	D	115D	0.8
9346815	FB	117	<0.3
9346807	D	100A	<0.3
9346955	FB	100A	<0.3
9346949	D	100D	MISSING
9346938	D	33	0.9
9346936	FB	33	<0.3
9346928	D	28	<0.3
9346916	D	239	<0.3
9346920	FB	239	<0.3
9348319	TRANSIT BLANK	NA	<0.3
9348320	TRANSIT BLANK	NA	<0.3
9348313	TRANSIT BLANK	NA	<0.3

Summary of Missed Locations		
Albert Einstein High School		
Test Period: 01/06/2020 - 01/09/2020		
Kit Number	Room/Area	Result
-	ART GALLERY	-

Summary of Missing, Compromised and >/= 4 piC/L Tests		
Albert Einstein High School		
Test Period: 01/06/2020 - 01/09/2020		
Kit Number	Room/Area	Result
9346868	176	5.0
9346879	*183	MISSING
9346886	*184	MISSING
9346945	*39A	MISSING
9346947	*100D	MISSING
9346949	*100D	MISSING

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

January 3, 2020

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340067	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340035	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	22.5 ± 2.3 D	2020-01-03
9340003	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.2 ± 2.4 D	2020-01-03
9340089	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	23.3 ± 2.3 D	2020-01-03
9340072	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	18.3 ± 2.0 D	2020-01-03
9340040	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.3 ± 2.6 D	2020-01-03
9340008	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.8 ± 2.5 D	2020-01-03
9340094	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.7 ± 2.5 D	2020-01-03
9340099	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	27.5 ± 2.6 D	2020-01-03
9340077	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.2 ± 2.5 D	2020-01-03
9340045	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.7 ± 2.4 D	2020-01-03
9340013	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.9 ± 2.6 D	2020-01-03
9340018	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	29.1 ± 2.8 D	2020-01-03
9341704	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340050	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.2 ± 2.6 D	2020-01-03
9340023	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.2 ± 2.7 D	2020-01-03
9341709	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.5 ± 2.4 D	2020-01-03
9340055	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.8 ± 2.6 D	2020-01-03
9340060	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.3 ± 2.5 D	2020-01-03
9340028	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	23.9 ± 2.3 D	2020-01-03
9341714	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	28.3 ± 2.7 D	2020-01-03
9340082	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.4 ± 2.6 D	2020-01-03
9340065	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.2 ± 2.4 D	2020-01-03
9340033	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.2 ± 2.5 D	2020-01-03
9341719	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.7 ± 2.5 D	2020-01-03
9340001	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.3 ± 2.5 D	2020-01-03
9340087	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.8 ± 2.4 D	2020-01-03
9340070	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	19.5 ± 2.4 D	2020-01-03
9340038	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.7 ± 2.3 D	2020-01-03
9340006	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.2 ± 2.4 D	2020-01-03
9340092	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	31.4 ± 2.8 D	2020-01-03
9340097	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.7 ± 2.5 D	2020-01-03
9340075	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	29.6 ± 2.6 D	2020-01-03
9340043	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.1 ± 2.6 D	2020-01-03
9340011	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.8 ± 2.5 D	2020-01-03
9340016	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	23.2 ± 2.4 D	2020-01-03
9341702	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.8 ± 2.5 D	2020-01-03

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January 3, 2020

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340048	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.5 ± 2.4 D	2020-01-03
9340021	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.7 ± 2.6 D	2020-01-03
9341707	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.8 ± 2.4 D	2020-01-03
9340053	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.8 ± 2.5 D	2020-01-03
9340058	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.5 ± 2.7 D	2020-01-03
9340026	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.9 ± 2.4 D	2020-01-03
9341712	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.3 ± 2.4 D	2020-01-03
9340080	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340063	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.8 ± 2.5 D	2020-01-03
9340031	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.9 ± 2.4 D	2020-01-03
9341717	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.7 ± 2.4 D	2020-01-03
9340085	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.9 ± 2.5 D	2020-01-03
9340068	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.2 ± 2.5 D	2020-01-03
9340036	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	23.6 ± 2.3 D	2020-01-03
9340004	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.9 ± 2.6 D	2020-01-03
9340090	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.3 ± 2.5 D	2020-01-03
9340073	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.8 ± 2.5 D	2020-01-03
9340041	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.6 ± 2.4 D	2020-01-03
9340009	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.1 ± 2.4 D	2020-01-03
9340095	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.2 ± 2.5 D	2020-01-03
9340100	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.5 ± 2.4 D	2020-01-03
9340078	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.0 ± 2.4 D	2020-01-03
9340046	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.0 ± 2.6 D	2020-01-03
9340014	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	21.8 ± 2.8 D	2020-01-03
9340019	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.0 ± 2.5 D	2020-01-03
9341705	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	27.8 ± 2.6 D	2020-01-03
9340051	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.5 ± 2.4 D	2020-01-03
9340056	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.7 ± 2.6 D	2020-01-03
9340024	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.3 ± 2.5 D	2020-01-03
9341710	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.2 ± 2.3 D	2020-01-03
9340061	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	28.9 ± 2.6 D	2020-01-03
9340029	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	23.0 ± 2.3 D	2020-01-03
9341715	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	27.0 ± 2.5 D	2020-01-03
9340083	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.9 ± 2.4 D	2020-01-03
9340066	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340034	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.4 ± 2.5 D	2020-01-03
9341720	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.3 ± 2.5 D	2020-01-03

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January 3, 2020

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340002	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.7 ± 2.5 D	2020-01-03
9340088	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.4 ± 2.5 D	2020-01-03
9340071	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.9 ± 2.4 D	2020-01-03
9340039	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.9 ± 2.5 D	2020-01-03
9340007	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.9 ± 2.4 D	2020-01-03
9340093	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.5 D	2020-01-03
9340098	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.8 ± 2.5 D	2020-01-03
9340076	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.5 D	2020-01-03
9340044	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.2 ± 2.5 D	2020-01-03
9340012	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	22.5 ± 2.2 D	2020-01-03
9340017	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.3 ± 2.5 D	2020-01-03
9341703	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.0 ± 2.5 D	2020-01-03
9340049	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.0 ± 2.5 D	2020-01-03
9340022	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.6 ± 2.6 D	2020-01-03
9341708	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	28.8 ± 2.8 D	2020-01-03
9340054	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.8 ± 2.5 D	2020-01-03
9340059	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.5 ± 2.6 D	2020-01-03
9340027	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.6 ± 2.5 D	2020-01-03
9341713	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.5 ± 2.5 D	2020-01-03
9340081	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	18.4 ± 2.1 D	2020-01-03
9340064	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.5 ± 2.5 D	2020-01-03
9340032	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.1 ± 2.4 D	2020-01-03
9341718	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	23.7 ± 2.4 D	2020-01-03
9340086	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.9 ± 2.6 D	2020-01-03
9340069	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.6 ± 2.5 D	2020-01-03
9340037	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	28.4 ± 2.6 D	2020-01-03
9340005	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	???? DIF1	2020-01-03
9340091	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.5 ± 2.5 D	2020-01-03
9340096	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.2 ± 2.5 D	2020-01-03
9340074	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	27.7 ± 2.5 D	2020-01-03
9340042	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.6 ± 2.5 D	2020-01-03
9340010	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.5 ± 2.5 D	2020-01-03
9341701	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	22.9 ± 2.3 D	2020-01-03
9340047	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	26.7 ± 2.5 D	2020-01-03
9340015	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.4 ± 2.5 D	2020-01-03
9340020	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	24.1 ± 2.4 D	2020-01-03
9341706	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	31.0 ± 2.7 D	2020-01-03

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

January 3, 2020

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

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

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9340052	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.4 ± 2.6 D	2020-01-03
9340057	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	27.3 ± 2.5 D	2020-01-03
9340025	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.1 ± 2.4 D	2020-01-03
9341711	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	22.5 ± 2.2 D	2020-01-03
9340079	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	26.9 ± 2.5 D	2020-01-03
9340062	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.6 ± 2.5 D	2020-01-03
9340030	N/A	2019-12-21 @ 8:00 am	2019-12-23 @ 8:00 am	25.0 ± 2.4 D	2020-01-03
9341716	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	25.1 ± 2.4 D	2020-01-03
9340084	N/A	2019-12-21 @ 9:00 am	2019-12-23 @ 9:00 am	24.5 ± 2.3 D	2020-01-03

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EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc Job Number 193598

NOMINAL Conditions: Radon Conc _____ pCi/L Rel. Hum _____ % Temp. _____ F

Date Start: 12/21/19 Date Stop: 12/23/19

Time Start: 0830 Time Stop: 0830

(Group 4)
Device No.'s: (20) Char. Bags -

9340061 thru 9340080

52

Avg pCi/L 35.5 RH % 50.1 Temp °F 70.0

Date Start: 12/21/19 Date Stop: 12/23/19

Time Start: 0835 Time Stop: 0835

(Group 5)
Device No.'s: (20) Char. Bags -

9340081 thru 9340100

Q5

Avg pCi/L 35.5 RH % 50.1 Temp °F 70.0

Date Start: 12/21/19 Date Stop: 12/23/19

Time Start: 0840 Time Stop: 0840

(Group 6)
Device No.'s: (20) Char. Bags -

9341701 thru 9341720

R5

Avg pCi/L 35.5 RH % 50.1 Temp °F 70.0

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

January 14, 2020 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
EINSTEIN HS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9346803	100	2020-01-06 @ 6:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346893	1007	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	0.9 ± 0.4	2020-01-14
9346894	1007C	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	1.2 ± 0.4	2020-01-14
9346955	100A	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346807	100A	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346806	100A	2020-01-06 @ 6:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346805	100B	2020-01-06 @ 6:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346956	100C	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346950	100E	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346948	100F	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346951	100G	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346804	101	2020-01-06 @ 6:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346954	102	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	0.7 ± 0.5	2020-01-14
9346953	106A	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346952	106B	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346811	113	2020-01-06 @ 6:00 pm	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9346810	113	2020-01-06 @ 6:00 pm	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9346813	113A	2020-01-06 @ 6:00 pm	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9346812	113B	2020-01-06 @ 6:00 pm	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9346828	114	2020-01-06 @ 6:00 pm	2020-01-09 @ 8:00 am	0.8 ± 0.5	2020-01-14
9346827	115	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346809	115A	2020-01-06 @ 6:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346820	115A	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346808	115B	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	1.5 ± 0.5	2020-01-14
9346817	115C	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346826	115D	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	0.8 ± 0.5	2020-01-14
9346824	115D	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	0.7 ± 0.4	2020-01-14
9346836	115E	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	1.8 ± 0.5	2020-01-14
9346823	115F	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	1.5 ± 0.5	2020-01-14
9346816	115G	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	0.8 ± 0.5	2020-01-14
9346814	116	2020-01-06 @ 6:00 pm	2020-01-09 @ 8:00 am	1.0 ± 0.5	2020-01-14
9346801	116	2020-01-06 @ 6:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346802	116A	2020-01-06 @ 6:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346815	117	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346818	117	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	1.3 ± 0.5	2020-01-14
9346829	119A	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346825	119B	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	0.9 ± 0.5	2020-01-14

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January 14, 2020 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
EINSTEIN HS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9346821	121	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346835	121A	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	0.7 ± 0.5	2020-01-14
9346839	135A	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346838	135B	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346858	135E	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	0.6 ± 0.4	2020-01-14
9346831	135E	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346852	135E	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346833	137	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346840	138	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346841	140	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346822	140	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346834	142	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346819	144	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346854	145	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346857	146	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346856	148	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346864	149	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346855	150	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346842	151L	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346853	152	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346866	153	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346850	154	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346830	155	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346859	155A	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346849	156	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346848	160	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346844	160	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346843	162	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346847	164S	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	0.8 ± 0.5	2020-01-14
9346846	166	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346845	168	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346863	172	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346861	172	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	0.6 ± 0.4	2020-01-14
9346862	172	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346860	174	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346875	175	2020-01-06 @ 8:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346873	176	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	1.8 ± 0.5	2020-01-14

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January 14, 2020 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
EINSTEIN HS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9346869	176	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	5.0 ± 0.7	2020-01-14
9346872	176	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	1.6 ± 0.5	2020-01-14
9346870	176	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	2.1 ± 0.5	2020-01-14
9346925	18	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346881	180	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346880	181	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	1.2 ± 0.5	2020-01-14
9346878	183	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	1.3 ± 0.5	2020-01-14
9346868	184	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	0.9 ± 0.5	2020-01-14
9346885	184	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	0.9 ± 0.5	2020-01-14
9346867	184	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346899	185B	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346898	185E	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	0.5 ± 0.5	2020-01-14
9346897	185E.5	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346900	187	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346888	188	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346890	189B	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346891	189B	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346892	189E	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	0.6 ± 0.5	2020-01-14
9346922	19	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346883	190	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346882	190C	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346865	191	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346895	192	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346884	193	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346909	2040	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346924	22	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346918	228	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346928	23	2020-01-06 @ 7:00 pm	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9346926	23	2020-01-06 @ 7:00 pm	2020-01-09 @ 9:00 am	< 0.3	2020-01-14
9346921	231	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346914	234	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346919	235	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346915	236	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346917	238	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	0.7 ± 0.5	2020-01-14
9346920	239	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346916	239	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346927	239	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14

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January 14, 2020 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
EINSTEIN HS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9346923	24	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346913	245A	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346929	25A	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346930	25S	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346931	26	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346932	28	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346933	29	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346934	30	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346940	31	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	0.6 ± 0.4	2020-01-14
9346935	32	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	0.6 ± 0.5	2020-01-14
9346938	33	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	0.9 ± 0.5	2020-01-14
9346936	33	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346937	33	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	1.2 ± 0.5	2020-01-14
9346942	34	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	1.1 ± 0.5	2020-01-14
9346941	35	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346939	37	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346946	38	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346944	39 OFFICE	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	0.8 ± 0.4	2020-01-14
9346943	39B	2020-01-06 @ 7:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346871	BACKSTAGE	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	0.6 ± 0.5	2020-01-14
9346889	BOYS LOCKER ROOM	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346887	BOYS TEAM ROOM	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346896	GIRLS LOCKER ROOM	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346851	MEDIA CENTER	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346837	MEDIA CENTER	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346832	TV CONTROL ROOM	2020-01-06 @ 5:00 pm	2020-01-09 @ 8:00 am	< 0.3	2020-01-14
9346874	WEIGHT ROOM	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	1.3 ± 0.5	2020-01-14
9346876	WRESTLING ROOM	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	1.0 ± 0.4	2020-01-14
9346877	WRESTLING ROOM	2020-01-06 @ 4:00 pm	2020-01-09 @ 8:00 am	1.0 ± 0.5	2020-01-14

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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 2019 Week 3

Name of Schools:

1. Bannockburn E.S.
2. Bethesda E.S.
3. Bethesda-Chevy Chase H.S.
4. Bradley Hill E.S.
5. Burning Tree E.S.
6. Burnt Mills E.S.
7. East Silver Springs E.S.
8. Einstein H.S.
9. Flora Singer E.S.
10. Key M.S.
11. Montgomery Blair H.S.
12. Montgomery Knolls E.S.
13. Newport Mills M.S.
14. Oak View E.S.
15. Rock View E.S.
16. Roscoe Nix E.S.
17. Sligo M.S.
18. Spring Mill Center
19. Springbrook H.S.
20. Westland M.S.
21. Woodlin M.S.

	Date	Initials
Radon Test Kits Deployed	1/6/20 to 1/7/20	JM
Radon Test Kits Collected	1/9/20 to 1/10/20	JM
Radon Test Kits Shipped to Lab*	1/10/20	JM
Radon Test Kits Received by Lab*	1/13/202	JM

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

KCI TECHNOLOGIES
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Albert Einstein High School
Date of Report	March 12, 2018
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	39
# Rooms ≥4.0 pCi/L	0
Lowest Value	<0.3 pCi/L
Highest Value	3.4 pCi/L

Project Status

Current Project Status at this time: Retesting completed; no further action at this time.

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ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
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March 12, 2018

Mr. Richard Cox, MS
Team Leader
Montgomery County Public Schools
Division of Maintenance
Gaithersburg, Maryland 20879

Re: Radon Testing Services

KCI Job #1214634188

Location: Albert Einstein High School
11135 Newport Mill Rd.
Kensington, Maryland 20895

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a "short-term" 3-day radon test for the Albert Einstein High School, located at 11135 Newport Mill Rd. in Kensington, Maryland 20895 (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 13, 2018 and deployed forty-five (45) 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.

KCI sampled the following locations during this follow-up test:

1. Rooms not successfully tested,
2. Rooms with elevated November 2017 results (i.e. ≥3.5 piC/L).

A floor plan map of the building with the test locations is included as Appendix 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, Inc. prior to being returned to the laboratory for analysis.

KCI returned to the site on February 16, 2018 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, Inc. is a NRSB certified analytical laboratory for radon analysis (certification #ARL1402) located at 1936 Butler Bridge Road, Mills River, North Carolina.

EVALUATION OF TESTING CONDITIONS

These tests represent:

- Follow-up to post-mitigation biennial testing.

These tests were conducted to:

- Confirm the success of the mitigation system(s).

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

KCI recorded observations of the following conditions in each room 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.

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 ranged from the mid-20s to upper 40s and high temperatures ranged from the high-30s to the high-60s. Maximum sustained winds ranged from 10-18 miles per hour. Average humidity was around 73%. 0.30 Inches of precipitation was recorded during the 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). The laboratory analytical results are included in Attachment C. Laboratory results and exposure data for the spike samples are also included in Attachment C.

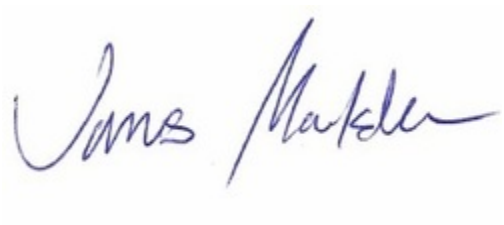
The results of the radon test analysis indicated the following:

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

Quality Control Samples	
Results of Blank Canisters:	The field blank, 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 410-316-7800.

Sincerely,



Radon Measurement Specialist
KCI Technologies, Inc.

Attachments:

B - Radon Test Summary Spreadsheets

C- Laboratory Analytical Results

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Table 1- Radon Testing Results		
Albert Einstein High School		
Test Period: 02/13/18-02/16/18		
Kit Number	**Room / Area**	**Result**
7978135	8	1.9
7978136	10	1.9
7978134	18	0.7
7978151	18	0.6
7978145	34	< 0.3
7978137	103	0.7
7978163	131	< 0.3
7978142	164	< 0.3
7978160	175	0.8
7978138	181	0.6
7978166	182	< 0.3
7978131	187	0.9
7978141	188	0.9
7978186	113A	< 0.3
7978190	113B	< 0.3
7978188	114A	< 0.3
7978187	116A	< 0.3
7978148	11LR (Boys locker room basement)	1.5
7978147	12LR (Girls locker room basement)	1.4
7978144	130	< 0.3
7978149	132	< 0.3
7978170	134	< 0.3
7978172	136	< 0.3
7978169	138	< 0.3
7978150	140	< 0.3
7978146	142	< 0.3
7978167	144	< 0.3
7978171	151L	< 0.3
7978168	185LR	1.4
7978140	189A	1.4
7978192	189B	1.5
7978191	189LR	1.1
7978196	* 195 (Missing)	-
7978139	29A	0.7
7978173	33A	0.6
7978162	GYM 176	2.0
7978158	GYM 176	2.9
7978132	GYM RM183	1.3
7978157	GYM RM183	1.6
7978156	KITCHEN 116K	0.5
7978159	STAGE RM194	< 0.3
7978152	WEIGHT RM 175B	3.4

Table Note:
* Missing or Compromised Sample

Table 2- Radon Testing Results		
Albert Einstein High School		
Test Period: 02/13/18-02/16/18		
Kit Number	**QC Type**	**Result**
7978143	D (116A)	< 0.3
7978165	D (138)	< 0.3
7978164	FB (138)	< 0.3

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

February 28, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HIGH SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7978136	10	2018-02-13 @ 8:00 am	2018-02-16 @ 8:00 am	1.9 ± 0.4	2018-02-20
7978137	103	2018-02-13 @ 10:00 am	2018-02-16 @ 8:00 am	0.7 ± 0.3	2018-02-20
7978186	113A	2018-02-13 @ 10:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978190	113B	2018-02-13 @ 10:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978188	114A	2018-02-13 @ 10:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978143	116A	2018-02-13 @ 10:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978187	116A	2018-02-13 @ 10:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978148	11LR	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	1.5 ± 0.4	2018-02-20
7978147	12LR	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	1.4 ± 0.3	2018-02-20
7978144	130	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978163	131	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978149	132	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978170	134	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978172	136	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978169	138	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978164	138	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978165	138	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978150	140	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978146	142	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978167	144	2018-02-13 @ 9:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20
7978171	151L	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	< 0.3	2018-02-20
7978142	164	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	< 0.3	2018-02-20
7978160	175	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	0.8 ± 0.3	2018-02-20
7978134	18	2018-02-13 @ 8:00 am	2018-02-16 @ 9:00 am	0.7 ± 0.3	2018-02-20
7978151	18	2018-02-13 @ 8:00 am	2018-02-16 @ 9:00 am	0.6 ± 0.3	2018-02-20
7978138	181	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	0.6 ± 0.3	2018-02-20
7978166	182	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	< 0.3	2018-02-20
7978168	185LR	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	1.4 ± 0.3	2018-02-20
7978131	187	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	0.9 ± 0.3	2018-02-20
7978141	188	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	0.9 ± 0.3	2018-02-20
7978140	189A	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	1.4 ± 0.4	2018-02-20
7978192	189B	2018-02-13 @ 10:00 am	2018-02-16 @ 9:00 am	1.5 ± 0.4	2018-02-20
7978191	189LR	2018-02-13 @ 10:00 am	2018-02-16 @ 9:00 am	1.1 ± 0.3	2018-02-20
7978196	195	@	@		
7978139	29A	2018-02-13 @ 8:00 am	2018-02-16 @ 8:00 am	0.7 ± 0.3	2018-02-20
7978173	33A	2018-02-13 @ 8:00 am	2018-02-16 @ 8:00 am	0.6 ± 0.3	2018-02-20
7978145	34	2018-02-13 @ 8:00 am	2018-02-16 @ 8:00 am	< 0.3	2018-02-20

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

February 28, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HIGH SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7978135	8	2018-02-13 @ 8:00 am	2018-02-16 @ 8:00 am	1.9 ± 0.4	2018-02-20
7978162	GYM 176	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	2.0 ± 0.4	2018-02-20
7978158	GYM 176	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	2.9 ± 0.4	2018-02-20
7978157	GYM RM183	2018-02-13 @ 10:00 am	2018-02-16 @ 9:00 am	1.6 ± 0.4	2018-02-20
7978132	GYM RM183	2018-02-13 @ 10:00 am	2018-02-16 @ 9:00 am	1.3 ± 0.3	2018-02-20
7978156	KITCHEN 116K	2018-02-13 @ 10:00 am	2018-02-16 @ 8:00 am	0.5 ± 0.3	2018-02-20
7978159	STAGE RM194	2018-02-13 @ 10:00 am	2018-02-16 @ 9:00 am	< 0.3	2018-02-20
7978152	WEIGHT RM 175B	2018-02-13 @ 9:00 am	2018-02-16 @ 9:00 am	3.4 ± 0.4	2018-02-20

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

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

Names of Schools:

1. Westbrook Elementary School
2. Westland Middle School
3. Walt Whitman High School
4. Cloverly Elementary School
5. Sligo Middle School
6. Flora Singer Elementary School
7. Albert Einstein High School
8. Roscoe Nix Elementary School
9. Mario Loiederman Middle School
10. Sargent Shriver Elementary School
11. Whetstone Elementary School
12. Brooke Grove Elementary School
13. Clearspring Elementary School
14. Beall Elementary School
15. Maryvale Elementary School
16. Lathrop E. Smith Center
17. Laytonsville Elementary School
18. Germantown Elementary School
19. Spring Mill Center
20. Northwood High School
21. E. Silver Spring Elementary School
22. Silver Spring Int. Middle School
23. Clarksburg High School
24. Rosa Parks Middle School
25. Greenwood Elementary School
26. Montgomery Knolls Elem. School
27. Watkins Mill Elementary School
28. Gaithersburg Elementary School
29. Viers Mill Elementary School
30. Rock View Elementary School

	Date	Initials
Radon Test Kits Deployed	2/13/18	JM
Radon Test Kits Collected	2/16/18	JM
Radon Test Kits Shipped to Lab*	2/16/18	JM
Radon Test Kits Received by Lab*	2/20/18	JM

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

February 27, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
OFFICE BLANKS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7979482	1	2018-02-13 @ 1:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986991	10	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7985684	11	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986987	12	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986993	13	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986990	14	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7979485	2	2018-02-13 @ 1:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7985686	3	2018-02-13 @ 1:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986995	4	2018-02-13 @ 1:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986989	5	2018-02-13 @ 1:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986998	6	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986986	7	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986985	8	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986997	9	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20

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

February 27, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
TRANSIT BLANKS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7984188	1	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7984044	10	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986582	11	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986999	12	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7987000	13	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7984196	14	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986996	2	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986994	3	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7986992	4	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7985680	5	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7985698	6	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7985699	7	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7985700	8	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20
7985872	9	2018-02-13 @ 2:00 pm	2018-02-16 @ 2:00 pm	< 0.3	2018-02-20

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

February 28, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS - Spike Sample Laboratory Results. Measured values are satisfactory, i.e. within ±25% of the chamber's reference value (20.9 pCi/L).

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7984181	1	2018-02-16 @ 11:00 am	2018-02-19 @ 11:00 am	19.7 ± 0.8	2018-02-21
7986621	2	2018-02-16 @ 11:00 am	2018-02-19 @ 11:00 am	19.4 ± 0.8	2018-02-21
7985683	3	2018-02-16 @ 11:00 am	2018-02-19 @ 11:00 am	19.5 ± 0.8	2018-02-21
7984168	4	2018-02-16 @ 11:00 am	2018-02-19 @ 11:00 am	20.5 ± 0.8	2018-02-21
7986618	5	2018-02-16 @ 11:00 am	2018-02-19 @ 11:00 am	19.9 ± 0.8	2018-02-21
7984169	6	2018-02-16 @ 11:00 am	2018-02-19 @ 11:00 am	20.4 ± 0.8	2018-02-21

Air Chek, Inc. 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 183530

NOMINAL Conditions: Radon Conc 20.9 pCi/L Rel. Hum 49.8 % Temp. 79.1 F

Date Start: 2/16/18 Date Stop: 2/19/18	Date Start: _____ Date Stop: _____
Time Start: 1052 Time Stop: 1052	Time Start: _____ Time Stop: _____
Device No.'s: (6) Char. Bags-	Device No.'s: _____
7984181, 7986621, 7985683,	_____
7984168, 7986618, 7984169	_____
G3 Middle	_____
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
936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

MCPS RADON TESTING - EXECUTIVE SUMMARY

Site Name	Albert Einstein High School
Date of Report	January 31, 2018
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	97
# Rooms ≥4.0 pCi/L	0
Lowest Value	< 0.3 pCi/L
Highest Value	2.0 pCi/L

Current Project Status at this time: Results satisfactory to date; missed locations and missing/ compromised tests to be sampled.

KCI TECHNOLOGIES
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

January 31, 2018

Mr. Richard Cox, MS
Team Leader
Montgomery County Public Schools
Division of Maintenance
Rockville, Maryland 20855

Re: Radon Testing Services

KCI Job #1214694182

Location: Albert Einstein High School
11135 Newport Mill Rd.
Kensington, Maryland 20895

Dear Mr. Cox:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to Montgomery County Public Schools pursuant to completing a "short-term" 3-day radon test for the Albert Einstein High School, located at 11135 Newport Mill Rd. in Kensington, Maryland 20895 (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 November 28, 2017 and deployed one-hundred and twelve (112) 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 Appendix 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, Inc. prior to being returned to the laboratory for analysis.

KCI returned to the site on December 1, 2017 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Aircheck, Inc. for analysis by gamma-ray spectroscopy. Aircheck, 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:

- Post-mitigation biennial testing.

These tests were conducted to:

- Confirm the success of the mitigation system(s).

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

KCI recorded observations of the following conditions in each room 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.

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 low-50s to mid-60s. Maximum sustained winds ranged from 8-15 miles per hour. Average humidity was around 65%. 0.02 Inches of precipitation was recorded during the testing period.

A magnitude 4.1 earthquake was reported on Thursday, November 30 near Dover, Delaware approximately 95 miles east of Gaithersburg, Maryland. The earthquake occurred during or just after the radon testing period for this facility. In general, enhanced radon emissions have been observed prior to earthquakes and this has been recorded all over the world, according to the research article entitled *Radon-222: A Potential Short-Term Earthquake Precursor,* published June 30, 2015 in the Journal of Earth Science and Climate

Change. The nearby earthquake, which occurred during or prior to the testing period, may have resulted in higher-than-normal radon test results for this facility.

RESULTS

The sampling locations, field observations, 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). Missing/ compromised tests, missed rooms, and locked rooms 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.

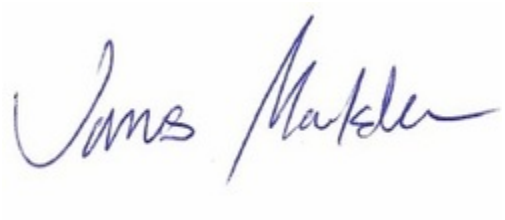
The results of the radon test analysis indicated the following:

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

Quality Control Samples	
Results of Blank Canisters:	The field blanks, 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 410-316-7800.

Sincerely,



James Moulsdale, CHMM
Radon Measurement Specialist
KCI Technologies, Inc.

Attachments:

B - Tables 1-3, Radon Test Summary Spreadsheets

C- Laboratory Analytical Results

ATTACHMENT B

Radon Test Summary Spreadsheet

Table Notes:

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

Radon Testing Results		
Albert Einstein High School		
Test Period: 11/28/17-12/01/17		
Kit Number	**Room / Area**	**Result**
7978638	9	1.6
7978634	18	< 0.3
7978636	19	< 0.3
7978628	22	< 0.3
7978635	23	< 0.3
7978627	24	< 0.3
7978631	25	< 0.3
7978646	26	< 0.3
7978629	28	0.5
7978624	29	0.6
7978648	30	< 0.3
7978642	31	< 0.3
7978623	32	< 0.3
7978641	33	0.8
7978639	34	< 0.3
7978647	35	0.7
7978651	37	< 0.3
7978652	38	0.6
7978653	39	0.6
7978644	100	< 0.3
7978645	101	< 0.3
7976159	102	< 0.3
7976145	105	< 0.3
7978620	107	< 0.3
7978614	108	< 0.3
7978606	112	< 0.3
7978613	113	< 0.3
7978603	114	< 0.3
7978602	115	0.7
7976157	116	< 0.3
7976184	116	0.6
7978609	117	< 0.3
7978605	121	< 0.3
7976178	128	< 0.3
7976148	135	< 0.3
7976152	135	< 0.3
7976187	145	< 0.3
7976176	146	< 0.3
7976177	148	< 0.3
7976150	149	< 0.3
7976147	150	< 0.3
7976171	152	< 0.3
7976149	153	< 0.3
7976186	154	< 0.3
7976172	155	< 0.3
7976185	156	< 0.3

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Albert Einstein High School		
Test Period: 11/28/17-12/01/17		
Kit Number	**Room / Area**	**Result**
7976180	160	< 0.3
7976181	162	< 0.3
7976175	166	< 0.3
7976170	168	< 0.3
7976165	172	< 0.3
7976179	174	< 0.3
7976169	180	< 0.3
7976188	190	< 0.3
7976190	191	< 0.3
7976189	192	< 0.3
7976198	193	0.5
7978621	208	< 0.3
7978625	223	< 0.3
7978650	245	< 0.3
7978622	259	< 0.3
7976192	1007	0.7
7976193	1007	1.1
7978657	2003	0.6
7978649	2039	< 0.3
7978637	080F	2.0
7976163	100A	< 0.3
7976162	100B	< 0.3
7976154	100C	< 0.3
7976146	100D	< 0.3
7976161	100E	< 0.3
7976156	100F	< 0.3
7976158	100G	< 0.3
7978640	104A	< 0.3
7978619	106B	< 0.3
7978618	115A	0.5
7978617	115B	0.7
7978616	115C	< 0.3
7978615	115D	0.8
7978610	115E	1.3
7978604	115F	< 0.3
7978607	115G	< 0.3
7978612	119A	< 0.3
7978611	119B	< 0.3
7976151	135A	< 0.3
7976153	135B	< 0.3
7976164	155A	< 0.3
7976174	155C	0.6
7978626	18A	< 0.3
7976191	190C	< 0.3
7978633	19A	< 0.3
7978632	25A	< 0.3
7976155	ASST PRIN	< 0.3
7976196	AUDITORIUM	0.6
7976197	AUDITORIUM	< 0.3
7976194	GYM	1.1

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Albert Einstein High School		
Test Period: 11/28/17-12/01/17		
Kit Number	**Room / Area**	**Result**
7976195	* GYM (Tampered)	0.8
7976173	OLD DANCE STUDIO	0.8
7976199	PE OFFICE	< 0.3
7976167	SMALL GYM	0.9
7976168	SMALL GYM	1.1
7976200	* WEIGHT ROOM (Tampered)	1.7
7976166	WRESTLING ROOM	< 0.3

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Albert Einstein High School		
Test Period: 11/28/17-12/01/17		
Kit Number	**QC Type**	**Result**
7978643	D (100)	< 0.3
7976160	D (100D)	< 0.3
7978608	D (115)	0.6
7976182	D (128)	< 0.3
7978630	D (25)	0.6
7976183	FB (128)	< 0.3
7978656	FB (2003)	< 0.3
7978574	OB (OB)	< 0.3
7978575	OB (OB)	< 0.3

Table Note:
* Missing or Compromised Sample

Summary of Missed Locations		
Albert Einstein High School		
Test Period: 11/28/17-12/02/17		
Kit Number	**Room / Area**	**Result**
-	8 (Missed location)	-
-	10 (Missed location)	-
-	103 (Missed location)	-
-	130 (Missed location)	-
-	132 (Missed location)	-
-	138 (Missed location)	-
-	176 (Missed location)	-
-	175 (Missed location)	-
-	181 (Missed location)	-
-	182 (Missed location)	-
-	187 (Missed location)	-
-	188 (Missed location)	-
-	194 (Missed location)	-
-	195 (Missed location)	-
-	113A (Missed location)	-
-	113B (Missed location)	-
-	114A (Missed location)	-
-	116A (Missed location)	-
-	151L (Missed location)	-
-	164 (Missed location)	-
-	175B (Missed location)	-
-	176 (Missed location)	-
-	18 (Missed location)	-
-	18 (Missed location)	-
-	189A (Missed location)	-
-	189B (Missed location)	-
-	194 (Missed location)	-
-	29A (Missed location)	-
-	33A (Missed location)	-
-	34 (Missed location)	-
-	STAGE (Missed location)	-
-	144 (Missed location)	-
-	142 (Missed location)	-
-	140 (Missed location)	-
-	131 (Missed location)	-
-	136 (Missed location)	-
-	134 (Missed location)	-

Summary of Missing, Compromised and ≥4 piC/L Tests			
Albert Einstein High School			
Test Period: 11/28/17-12/01/17			
Kit Number		**Room / Area**	**Result**
7976195	*	GYM (Tampered)	0.8
7976200	*	WEIGHT ROOM (Tampered)	1.7

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

December 19, 2017 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7978637	080F	2017-11-28 @ 11:00 am	2017-12-01 @ 11:00 am	2.0 ± 0.3	2017-12-04
7978644	100	2017-11-28 @ 11:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7978643	100	2017-11-28 @ 11:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976193	1007	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	1.1 ± 0.2	2017-12-04
7976192	1007	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	0.7 ± 0.3	2017-12-05
7976163	100A	2017-11-28 @ 11:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976162	100B	2017-11-28 @ 11:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976154	100C	2017-11-28 @ 10:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976160	100D	2017-11-28 @ 10:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976146	100D	2017-11-28 @ 10:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976161	100E	2017-11-28 @ 10:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976156	100F	2017-11-28 @ 10:00 am	2017-12-01 @ 11:00 am	< 0.3	2017-12-04
7976158	100G	2017-11-28 @ 10:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7978645	101	2017-11-28 @ 11:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976188	190	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-04
7976159	102	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978640	104A	2017-11-28 @ 11:00 am	2017-12-01 @ 11:00 am	< 0.3	2017-12-04
7976145	105	2017-11-28 @ 10:00 am	2017-12-01 @ 11:00 am	< 0.3	2017-12-04
7978619	106B	2017-11-28 @ 10:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-04
7978620	107	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978614	108	2017-11-28 @ 10:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7978606	112	2017-11-28 @ 10:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7978613	113	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978603	114	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978602	115	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	0.7 ± 0.3	2017-12-05
7978608	115	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	0.6 ± 0.3	2017-12-05
7978618	115A	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	0.5 ± 0.3	2017-12-04
7978617	115B	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	0.7 ± 0.2	2017-12-04
7978616	115C	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978615	115D	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	0.8 ± 0.3	2017-12-05
7978610	115E	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	1.3 ± 0.3	2017-12-05
7978604	115F	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978607	115G	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976184	116	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	0.6 ± 0.2	2017-12-04
7976157	116	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978609	117	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978612	119A	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05

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

December 19, 2017 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7978611	119B	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978605	121	2017-11-28 @ 10:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976178	128	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7976182	128	2017-11-28 @ 9:00 am	2017-12-01 @ 11:00 am	< 0.3	2017-12-05
7976183	128	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976152	135	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7976148	135	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976151	135A	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976153	135B	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7976187	145	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7976176	146	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976177	148	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976150	149	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7976147	150	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976171	152	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976149	153	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976186	154	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976172	155	2017-11-28 @ 9:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976164	155A	2017-11-28 @ 9:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976174	155C	2017-11-28 @ 9:00 am	2017-12-01 @ 9:00 am	0.6 ± 0.3	2017-12-05
7976185	156	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7976180	160	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7976181	162	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7976175	166	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976170	168	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976165	172	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7976179	174	2017-11-28 @ 9:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978634	18	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7976169	180	2017-11-28 @ 9:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7978626	18A	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978636	19	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7976191	190C	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-04
7976190	191	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976189	192	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976198	193	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	0.5 ± 0.3	2017-12-05
7978633	19A	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978656	2003	2017-11-28 @ 12:00 pm	2017-12-01 @ 11:00 am	< 0.3	2017-12-05

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

December 19, 2017 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HS
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7978657	2003	2017-11-28 @ 12:00 pm	2017-12-01 @ 11:00 am	0.6 ± 0.3	2017-12-05
7978649	2039	2017-11-28 @ 12:00 pm	2017-12-01 @ 11:00 am	< 0.3	2017-12-04
7978621	208	2017-11-28 @ 11:00 am	2017-12-01 @ 11:00 am	< 0.3	2017-12-04
7978628	22	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978625	223	2017-11-28 @ 11:00 am	2017-12-01 @ 11:00 am	< 0.3	2017-12-04
7978635	23	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978627	24	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978650	245	2017-11-28 @ 12:00 pm	2017-12-01 @ 11:00 am	< 0.3	2017-12-04
7978631	25	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978630	25	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	0.6 ± 0.3	2017-12-05
7978622	259	2017-11-28 @ 12:00 pm	2017-12-01 @ 11:00 am	< 0.3	2017-12-04
7978632	25A	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978646	26	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978629	28	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	0.5 ± 0.3	2017-12-05
7978624	29	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	0.6 ± 0.2	2017-12-04
7978648	30	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-05
7978642	31	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978623	32	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978641	33	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	0.8 ± 0.3	2017-12-05
7978639	34	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978647	35	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	0.7 ± 0.3	2017-12-04
7978651	37	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	< 0.3	2017-12-04
7978652	38	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	0.6 ± 0.3	2017-12-05
7978653	39	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	0.6 ± 0.3	2017-12-05
7978638	9	2017-11-28 @ 11:00 am	2017-12-01 @ 10:00 am	1.6 ± 0.3	2017-12-04
7976155	ASST PRIN	2017-11-28 @ 10:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-05
7976197	AUDITORIUM	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-04
7976196	AUDITORIUM	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	0.6 ± 0.3	2017-12-05
7976194	GYM	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	1.1 ± 0.3	2017-12-05
7976195	GYM	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	0.8 ± 0.3	2017-12-05
7976173	OLD DANCE STUDIO	2017-11-28 @ 9:00 am	2017-12-01 @ 9:00 am	0.8 ± 0.3	2017-12-04
7976199	PE OFFICE	2017-11-28 @ 9:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-04
7976167	SMALL GYM	2017-11-28 @ 9:00 am	2017-12-01 @ 9:00 am	0.9 ± 0.3	2017-12-05
7976168	SMALL GYM	2017-11-28 @ 9:00 am	2017-12-01 @ 9:00 am	1.1 ± 0.3	2017-12-05
7976200	WEIGHT ROOM	2017-11-28 @ 8:00 am	2017-12-01 @ 9:00 am	1.7 ± 0.3	2017-12-05
7976166	WRESTLING ROOM	2017-11-28 @ 9:00 am	2017-12-01 @ 9:00 am	< 0.3	2017-12-04

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December 19, 2017 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HS
OFFICE BLANK

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7978574	OB	2017-11-28 @ 3:00 pm	2017-12-01 @ 3:00 pm	< 0.3	2017-12-04
7978575	OB	2017-11-28 @ 3:00 pm	2017-12-01 @ 3:00 pm	< 0.3	2017-12-05

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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

Names of Schools:

1. Chevy Chase Elementary School
2. Greencastle Elementary School
3. English Manor
4. Rock View Elementary School
5. Wheaton Woods Elementary School
6. Sequoyah Elementary School
7. Fallsmead Elementary School
8. Beall Elementary School
9. Stephen Knolls School
10. Maryvale Elementary School
11. Redland Middle School
12. Walt Whitman High School
13. Springbrook High School
14. Blair G. Ewing Center
15. Viers Mill Elementary School
16. Albert Einstein High School
17. Wayside Elementary School
18. Thomas S. Wootton High School
19. Highland Elementary School
20. Bethesda Transportation Depot
21. Bethesda Maintenance Depot
22. Travilah Elementary School
23. Lathrop E. Smith Center

	Date	Initials
Radon Test Kits Deployed	11/28/17	JM
Radon Test Kits Collected	12/01/17	JM
Radon Test Kits Shipped to Lab*	12/01/17	JM
Radon Test Kits Received by Lab*	12/05/17	JM

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

December 19, 2017 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
TRANSIT 1
NONE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7978062	TRANSIT 1	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7975804	TRANSIT 10	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7977990	TRANSIT 11	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7978201	TRANSIT 12	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7978203	TRANSIT 13	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7978206	TRANSIT 14	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7978246	TRANSIT 15	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7978239	TRANSIT 16	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7978226	TRANSIT 17	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7975078	TRANSIT 18	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7975077	TRANSIT 19	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7978074	TRANSIT 2	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7975076	TRANSIT 20	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7975684	TRANSIT 21	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7975683	TRANSIT 22	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7975601	TRANSIT 23	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7978011	TRANSIT 24	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7978012	TRANSIT 25	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7978094	TRANSIT 26	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7975624	TRANSIT 27	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7834562	TRANSIT 28	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7977995	TRANSIT 29	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7978098	TRANSIT 3	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7977992	TRANSIT 30	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7978719	TRANSIT 4	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-05
7978732	TRANSIT 5	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7978731	TRANSIT 6	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7975806	TRANSIT 7	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7975815	TRANSIT 8	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04
7975805	TRANSIT 9	2017-11-27 @ 4:00 pm	2017-11-30 @ 4:00 pm	< 0.3	2017-12-04

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

December 19, 2017 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS - Spike Sample Laboratory Results. Measured values are satisfactory, i.e. within ±25% of the chamber's reference value (27.7 pCi/L).

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7975075	S1	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	25.6 ± 0.7	2017-12-07
7975064	S2	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	27.4 ± 0.8	2017-12-07
7975063	S3	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	26.3 ± 0.7	2017-12-07
7975065	S4	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	23.0 ± 0.7	2017-12-07
7975069	S5	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	25.6 ± 0.7	2017-12-07
7975070	S6	2017-12-01 @ 11:00 am	2017-12-04 @ 11:00 am	23.0 ± 0.7	2017-12-07

Air Chek, Inc. 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 182393

NOMINAL Conditions: Radon Conc 27.7 pCi/L Rel. Hum 49.1 % Temp. 70.1 F

Date Start: 12/1/17 Date Stop: 12/4/17

Time Start: 1049 Time Stop: 1049

Device No.'s: (6) Chan. Bags.

7975075, 7975064, 7975063,

7975065, 7975069, 7975070

F4 Right

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

MCPS RADON TESTING

Executive Summary: Albert Einstein High School

Date of Test Report:	11/28/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	4
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	0.6
High Value:	3.0

Project Status:
Post remediation testing completed; No further action at this time.

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

November 28, 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 # 12146341.60

Location: Albert Einstein High School
11135 Newport Mill Rd
Kensington, MD 20895

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 Albert Einstein High School, located at 11135 Newport Mill Rd, Kensington, MD 20895 (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 November 15, 2016 and deployed five (5) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, KCI included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted three (3) 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 November 18, 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:

These tests represent:

- Post-mitigation testing for radon mitigation systems installed recently

These tests were conducted to:

- Confirm the success of the mitigation system(s)

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

KCI recorded observations of the following conditions in each room 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.

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 60-70. Maximum sustained winds ranged from 8-14 miles per hour. Average humidity was around 65%. No precipitation was recorded during the testing period.

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 office blank and lab transit blank 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

Radon Testing Results		
Einstein High School		
Test Period: 11/15/16-11/18/16		
Kit Number	**Room / Area**	**Result**
7826504	10	3.0
7826505	102	0.6
7826501	100A	0.6
7826502	100C	0.7

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Einstein High School		
Test Period: 11/15/16-11/18/16		
Kit Number	**QC Type**	**Result**
7826503	D (102)	0.8

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

November 22, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
EINSTEIN HIGH SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7826504	10	2016-11-15 @ 9:00 am	2016-11-18 @ 9:00 am	3.0 ± 0.4	2016-11-21
7826501	100A	2016-11-15 @ 9:00 am	2016-11-18 @ 9:00 am	0.6 ± 0.3	2016-11-21
7826502	100C	2016-11-15 @ 9:00 am	2016-11-18 @ 9:00 am	0.7 ± 0.3	2016-11-21
7826503	102	2016-11-15 @ 9:00 am	2016-11-18 @ 9:00 am	0.8 ± 0.3	2016-11-21
7826505	102	2016-11-15 @ 9:00 am	2016-11-18 @ 9:00 am	0.6 ± 0.3	2016-11-21

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

November 22, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS Radon
Phase 19 BLANKS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7802909	OFFICE	2016-11-11 @ 10:00 am	2016-11-14 @ 10:00 am	< 0.3	2016-11-16
7802910	TRANSIT	2016-11-11 @ 10:00 am	2016-11-14 @ 10:00 am	< 0.3	2016-11-16

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

November 22, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS Radon
Spike Sample Results

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7802912	1	2016-11-11 @ 10:00 am	2016-11-14 @ 10:00 am	23.5 ± 0.8	2016-11-16
7802913	2	2016-11-11 @ 10:00 am	2016-11-14 @ 10:00 am	23.0 ± 0.8	2016-11-16
7802911	3	2016-11-11 @ 10:00 am	2016-11-14 @ 10:00 am	25.6 ± 0.9	2016-11-16

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc. Job Number 177376

NOMINAL Conditions: Radon Conc 26.3 pCi/L Rel. Hum 50.1 % Temp. 70.0 F

Date Start: 11/11/16 Date Stop: 11/14/16	Date Start: _____ Date Stop: _____
Time Start: 0958 Time Stop: 0958	Time Start: _____ Time Stop: _____
Device No.'s: (3) Char. Bags - 7802911 thru 7802913	Device No.'s: _____
GS Middle	
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 19

Names of Schools:

1. Wood Acres Elementary School
2. Walt Whitman High School
3. East Silver Spring Elementary School

	Date	Initials
Radon Test Kits Deployed	11/14/16	JM
Radon Test Kits Collected	11/17/16	JM
Radon Test Kits Shipped to Lab*	11/18/16	JM
Radon Test Kits Received by Lab*	11/21/16	JM

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

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 Phase 19

Names of Schools:

1. Montgomery Blair High School
2. Springbrook High School
3. Sligo Middle School
4. Einstein High School
5. John F. Kennedy High School
6. Blair Ewing Center
7. Rock Terrace School
8. Thomas Wootton High School
9. Fields Road Elementary School

	Date	Initials
Radon Test Kits Deployed	11/15/16	JM
Radon Test Kits Collected	11/18/16	JM
Radon Test Kits Shipped to Lab*	11/18/16	JM
Radon Test Kits Received by Lab*	11/21/16	JM

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

KCI TECHNOLOGIES

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

MCPS RADON TESTING

Executive Summary: Albert Einstein High School

Date of Test Report:	10/18/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	6
# Rooms ≥ 4.0 pCi/L:	0
Low Value:	< 0.3
High Value:	1.3

Project Status:
Post remediation testing completed; no further action for tested rooms. Test inaccessible/locked rooms (10, 100A, 100C, 102).

KCI TECHNOLOGIES

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

October 18, 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 # 12146341.54

Location: Albert Einstein High School
11135 Newport Mill Rd
Kensington, MD 20895

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 Albert Einstein High School, located at 11135 Newport Mill Rd, Kensington, MD 20895 (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 September 26, 2016 and deployed eight (8) 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 September 29, 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:

These tests represent:

- Post-mitigation testing for radon mitigation systems installed recently

To expedite the testing, tests were conducted in September as soon as students and staff returned to:

- Confirm the success of the mitigation system(s)

Future periodic testing should be conducted during the heating season in ideal conditions as described below. 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 cooling mode; therefore, KCI concludes that this test was not conducted during ideal testing conditions.

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.

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 50s and high temperatures in the mid-60s to mid-70s. Maximum sustained winds ranged from 3-15 miles per hour. Average humidity ranged from 71 to 89 percent. Rain (1.83 inches in Gaithersburg, MD) was recorded on 9/29/16. The weather conditions during the testing period may have resulted in atypical radon test results for this facility.

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 blank, lab transit blanks, and office 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

Radon Testing Results		
Albert Einstein High School		
Test Period: 09/26/16-09/29/16		
Kit Number	**Room / Area**	**Result**
7802519	8	1.1
7802470	9	1.3
7802518	100	< 0.3
7802469	101	< 0.3
-	* 10 (Inaccessible/Locked Room)	-
-	* 100A (Inaccessible/Locked Room)	-
7802460	100B	< 0.3
-	* 100C (Inaccessible/Locked Room)	-
-	* 102 (Inaccessible/Locked Room)	-
7802517	ART OFFICE 1	< 0.3

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Albert Einstein High School		
Test Period: 09/26/16-09/29/16		
Kit Number	**QC Type**	**Result**
7802510	D (ART OFFICE 1)	0.5
7802509	FB (ART OFFICE1)	< 0.3

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

October 7, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
ALBERT EINSTEIN HIGH SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7802518	100	2016-09-26 @ 5:00 pm	2016-09-29 @ 12:00 pm	< 0.3	2016-10-03
7802460	100B	2016-09-26 @ 5:00 pm	2016-09-29 @ 12:00 pm	< 0.3	2016-10-03
7802469	101	2016-09-26 @ 5:00 pm	2016-09-29 @ 12:00 pm	< 0.3	2016-10-03
7802519	8	2016-09-26 @ 5:00 pm	2016-09-29 @ 12:00 pm	1.1 ± 0.3	2016-10-03
7802470	9	2016-09-26 @ 4:00 pm	2016-09-29 @ 12:00 pm	1.3 ± 0.3	2016-10-03
7802517	ART OFFICE 1	2016-09-26 @ 5:00 pm	2016-09-29 @ 12:00 pm	< 0.3	2016-10-03
7802510	ART OFFICE 1	2016-09-26 @ 5:00 pm	2016-09-29 @ 12:00 pm	0.5 ± 0.3	2016-10-03
7802509	ART OFFICE1	2016-09-26 @ 5:00 pm	2016-09-29 @ 12:00 pm	< 0.3	2016-10-03

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

October 7, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS Radon
Phase 18 Office Blanks

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7802697	1	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7801899	10	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802932	11	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802935	12	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802915	13	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802941	2	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802942	3	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802919	4	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802918	5	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802917	6	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802916	7	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802952	8	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03
7802928	9	2016-09-26 @ 11:00 am	2016-09-29 @ 11:00 am	< 0.3	2016-10-03

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

October 7, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

MCPS Radon
Phase 18 Transit Blanks

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7714274	1	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802962	10	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714295	11	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714299	12	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714273	13	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714270	14	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802965	2	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802696	3	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802690	4	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714275	5	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7714298	6	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802990	7	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802974	8	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03
7802694	9	2016-09-26 @ 10:00 am	2016-09-29 @ 10:00 am	< 0.3	2016-10-03

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

October 12, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
MCPS Radon
Spike Sample Results

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7769880	101	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	22.9 ± 1.0	2016-09-28
7769884	102	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	22.4 ± 1.0	2016-09-28
7769885	103	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	23.0 ± 1.0	2016-09-28
7769890	104	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	22.3 ± 1.0	2016-09-28
7769891	105	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	26.8 ± 1.2	2016-09-28
7769899	106	2016-09-24 @ 8:00 am	2016-09-26 @ 8:00 am	24.1 ± 1.1	2016-09-28

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc. Job Number 176788

NOMINAL Conditions: Radon Conc 26.1 pCi/L Rel. Hum 49.6 % Temp. 79.0 F

Date Start: 9/24/16 Date Stop: 9/26/16	Date Start: _____ Date Stop: _____
Time Start: 0758 Time Stop: 0758	Time Start: _____ Time Stop: _____
Device No.'s: (6) Char. Bags -	Device No.'s: _____
7769899, 7769884, 7769885,	_____
7769889, 7769890, 7769891	_____
F3 Left	_____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
_____	_____
_____	_____
_____	_____
Date Start: _____ Date Stop: _____	Date Start: _____ Date Stop: _____
Time Start: _____ Time Stop: _____	Time Start: _____ Time Stop: _____
Device No.'s: _____	Device No.'s: _____
_____	_____
_____	_____
_____	_____

Note: All times are in 24-hour (military) notation, Eastern Standard Time (EST)
Background = 7 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 18

Name of Schools:

1. Wood Acres Elementary School
2. Walt Whitman High School
3. Burning Tree Elementary School
4. Ashburton Elementary School
5. Bethesda Maintenance
6. Bethesda Transportation
7. Herbert Hoover Middle School
8. Cold Spring Elementary School
9. Garret Park Elementary School
10. Rock View Elementary School
11. Francis Scott Key Middle School
12. Montgomery Blair High School
13. Stephen Knolls School
14. Lourie Center
15. Shriver Elementary School
16. Viers Mill Elementary School
17. Highland Elementary School
18. Newport Middle School
19. Albert Einstein High School
20. Sligo Middle School
21. East Silver Spring Elementary School
22. Oak View Elementary School
23. Roscoe Nix Elementary School
24. Northwood High School
25. Springbrook High School
26. John F. Kennedy High School

	Date	Initials
Radon Test Kits Deployed	9/26/16	JM
Radon Test Kits Collected	9/29/16	JM
Radon Test Kits Shipped to Lab*	9/30/16	JM
Radon Test Kits Received by Lab*	10/03/16	JM

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

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 Phase 18

Name of Schools:

1. Damascus High School
2. Cedar Grove Elementary School
3. Hallie Wells Middle School
4. Clarksburg Elementary School
5. Clarksburg High School
6. Woodlin Elementary School
7. Flora Singer Elementary School
8. Spring Mill Center
9. Dr. Charles Drew Elementary School
10. William Farquah Middle School
11. Rosa Parks Middle School
12. Blair Ewing Center
13. Lathrop Smith Environmental Center
14. Sequoyah Elementary School
15. Shady Grove Middle School
16. Captain James Daly Elementary School
17. Watkins Mills High School
18. Forest Oak Middle School
19. Gaithersburg Middle School
20. Emory Grove
21. Fields Road Elementary School
22. Beall Elementary School
23. Julius West Middle School
24. Thomas Wootton High School
25. Robert Frost High School
26. Travilah Elementary School
27. Jones Lane Elementary School
28. Longview School
29. Rock Terrace High School
30. Germantown Elementary School
31. Lake Seneca Elementary School

	Date	Initials
Radon Test Kits Deployed	9/27/16	JM
Radon Test Kits Collected	9/30/16	JM
Radon Test Kits Shipped to Lab*	9/30/16	JM
Radon Test Kits Received by Lab*	10/03/16	JM

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

RADON SCREENING SURVEY – FOLLOW-UP ALBERT EINSTEIN HIGH SCHOOL

11135 Newport Mill Road, Kensington, Maryland 20895

EXECUTIVE SUMMARY

Date of Test Report:	3/10/16 Follow-Up
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested	14
# Rooms ≥ 4.0 pCi/L:	1
Low Value:	<0.3
High Value:	5.1
Confirmed Rooms ≥ 4.0 pCi/L US EPA Action Level	1

Summary of Sampling Events ≥ 4.0 pCi/L

Room	Result (pCi/L) 1/27/16 Initial	Result (pCi/L) 3/10/16 Follow-Up	Average Result (pCi/L)
101	4.7	<0.3	2.5
100	4.6	<0.3	2.5
116	--- Missing	<0.3	<0.3
154	--- Missing	<0.3	<0.3
160	--- Missing	<0.3	<0.3
176	--- Missing	0.6	0.6
18	<0.3 Tampered	<0.3	<0.3
180	--- Missing	<0.3	<0.3
183	--- Missing	1.5	1.5
194	--- Missing	0.9	0.9
2039	--- Missing	<0.3	<0.3
208	--- Missing	<0.3	<0.3
34	1.5 Tampered	0.6	1.1
10	3.4	5.1	4.3

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MCPS RADON TESTING

Executive Summary: Albert Einstein High School

Date of Test Report:	3/10/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	14
# Rooms ≥ 4.0 pCi/L:	1
Low Value:	< 0.3
High Value:	5.1

Rooms with results ≥ 4.0 pCi/L:
Room 10 (5.1 pCi/L)

Project Status:
Retesting completed; use the average of the initial and re-test results in a room to determine if remediation is necessary.

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March 10, 2016

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

Re: **Radon Testing Services**
KCI Job # 12146341.29

Location: Albert Einstein High School
11135 Newport Mil Road
Kensington, MD 20895

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 Albert Einstein High School, located at 11135 Newport Mil Road in Kensington, Maryland 20895(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 22, 2016 and deployed seventeen (17) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, KCI included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted six (6) test kits to Bowser-Morner, Inc. as spike samples. The spiked tests were exposed to a known radon concentration by Bowser-Morner prior to being returned to the laboratory for analysis.

KCI returned to the site on February 25, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936

Butler Bridge Road, Mills River, North Carolina.

Evaluation of Testing Conditions:

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages ≤ 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. Note that strong storms and heavy rainfall were recorded during the test period. The unusual weather conditions may have resulted in atypical radon test results for this facility.

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

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

Results:

The results of the radon test analysis indicated the following:

Radon Concentration	Room	Result
≥4.0 piC/L	10	5.1
<4.0 piC/L	See Attachment B	

Notes:
D- Duplicate sample

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

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

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

Sincerely,

James M. 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

*Office blanks were submitted at a rate of 1% for all samples deployed in Phase 9 testing. Office blanks were not submitted under each school individually.

Radon Testing Results		
Albert Einstein High School		
Test Period: 02/22/16-02/25/16		
Kit Number	**Room / Area**	**Result**
7718550	10	5.1
7718548	18	< 0.3
7718552	34	0.6
7718540	100	< 0.3
7718539	101	< 0.3
7718556	116	< 0.3
7718538	154	< 0.3
7718542	160	< 0.3
7718543	176	0.6
7718537	180	< 0.3
7718541	183	1.5
7718546	194	0.9
7718535	208	< 0.3
7718544	2039	< 0.3

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Albert Einstein High School		
Test Period: 02/22/16-02/25/16		
Kit Number	**QC Type**	**Result**
7718551	* D (18:Missing)	-
7718545	FB (183)	< 0.3
7718536	FB (2039)	< 0.3

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

March 8, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ALBERT EINSTEIN HIGH SCHOOL
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7718550	10	2016-02-22 @ 12:00 pm	2016-02-25 @ 9:00 am	5.1 ± 0.5	2016-02-29
7718540	100	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	< 0.3	2016-02-29
7718539	101	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	< 0.3	2016-02-29
7718556	116	2016-02-22 @ 1:00 pm	2016-02-25 @ 8:00 am	< 0.3	2016-02-29
7718538	154	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	< 0.3	2016-02-29
7718542	160	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	< 0.3	2016-02-29
7718543	176	2016-02-22 @ 11:00 am	2016-02-25 @ 8:00 am	0.6 ± 0.3	2016-02-29
7718551	18	@	@		
7718548	18	2016-02-22 @ 12:00 pm	2016-02-25 @ 9:00 am	< 0.3	2016-02-29
7718537	180	2016-02-22 @ 12:00 pm	2016-02-25 @ 8:00 am	< 0.3	2016-02-29
7718541	183	2016-02-22 @ 12:00 pm	2016-02-25 @ 8:00 am	1.5 ± 0.4	2016-02-29
7718545	183	2016-02-22 @ 12:00 pm	2016-02-25 @ 8:00 am	< 0.3	2016-02-29
7718546	194	2016-02-22 @ 12:00 pm	2016-02-25 @ 8:00 am	0.9 ± 0.3	2016-02-29
7718536	2039	2016-02-22 @ 12:00 pm	2016-02-25 @ 9:00 am	< 0.3	2016-02-29
7718544	2039	2016-02-22 @ 12:00 pm	2016-02-25 @ 9:00 am	< 0.3	2016-02-29
7718535	208	2016-02-22 @ 12:00 pm	2016-02-25 @ 9:00 am	< 0.3	2016-02-29
7718552	34	2016-02-22 @ 12:00 pm	2016-02-25 @ 9:00 am	0.6 ± 0.3	2016-02-29

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

March 9, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

MCPS
Phase 9 Office Blanks

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

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March 9, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

MCPS
Phase 9 Office Blanks

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

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

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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 9

Name of Schools:

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

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

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

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 9

Name of Schools:

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

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

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

KCI TECHNOLOGIES

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MCPS RADON TESTING

Executive Summary: Albert Einstein High School

Date of Test Report:	1/27/2016
Round of Testing:	Initial Follow-up Post Remediation
# Rooms Tested:	113
# Rooms ≥ 4.0 pCi/L:	2
Low Value:	< 0.3
High Value:	4.7

Rooms with results ≥ 4.0 pCi/L:
Room 101 (4.7 pCi/L), Room 100 (4.6 pCi/L)

Project Status:
Initial testing completed; re-test needed for results ≥ 4.0 pCi/L.
Initial testing completed; missing or compromised samples need re-test.

KCI TECHNOLOGIES

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January 27, 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 # 12146341.22

Location: Albert Einstein High School
11135 Newport Mill Road
Kensington, MD 20895

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 Albert Einstein High School, located at 11135 Newport Mill Road in Kensington, Maryland 20895 (subject site).

Scope of Services:

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

KCI visited the site on January 4, 2016 and deployed one hundred thirty-seven (137) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

As a quality control measure, KCI included duplicate samples, field blanks, lab transit blanks, and office blanks in accordance with AARST recommendations. In addition, KCI submitted six (6) test kits to Bowser-Morner, Inc. as spike samples. The spiked tests were exposed to a known radon concentration by Bowser-Morner prior to being returned to the laboratory for analysis.

KCI returned to the site on January 7, 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	101	4.7
	100	4.6
<4.0 piC/L	See Attachment B	

Notes:
D- Duplicate sample

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

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

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

Sincerely,

James M. 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 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		
Albert Einstein High Scool		
Test Period: 01/04/16-01/07/16		
Kit Number	**Room / Area**	**Result**
7720210	8	1.9
7720209	9	2.5
7720217	10	3.4
7720248	19	0.7
7720245	22	0.5
7720246	23	0.6
7720242	24	0.5
7720216	25	< 0.3
7720211	26	< 0.3
7720228	28	0.6
7720218	29	0.9
7720206	30	0.7
7720205	31	0.8
7720213	32	0.7
7720203	33	1.7
7720399	35	< 0.3
7720395	37	0.5
7720354	38	< 0.3
7720378	39	0.6
7720344	39	< 0.3
7720243	100	4.6
7720391	100	0.8
7720239	101	4.7
7720374	101	0.7
7720360	102	< 0.3
7720370	103	0.6
7720351	105	0.8
7720349	107	< 0.3
7720389	112	< 0.3
7720348	113	< 0.3
7720361	114	0.6
7720369	115	< 0.3
7720376	116	< 0.3
7720388	117	< 0.3
7720375	121	0.9
7720382	128	< 0.3
7720367	130	< 0.3
7720372	132	< 0.3
7720373	135	< 0.3
7720350	135	< 0.3
7720257	138	< 0.3
7720282	145	< 0.3
7720253	148	< 0.3
7720250	149	< 0.3
7720252	152	< 0.3
7720254	153	< 0.3

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Albert Einstein High Scool		
Test Period: 01/04/16-01/07/16		
Kit Number	**Room / Area**	**Result**
7720278	155	< 0.3
7720280	156	< 0.3
7720215	162	< 0.3
7720268	166	0.5
7720276	168	< 0.3
7720261	172	< 0.3
7720274	174	< 0.3
7720263	175	0.7
7720270	176	1.2
7720279	176	0.5
7720267	181	< 0.3
7720269	182	0.9
7720231	187	0.8
7720229	187	1.1
7720227	188	0.8
7720225	190	3.5
7720251	192	3.4
7720230	193	1
7720234	194	< 0.3
7720249	195	0.6
7720222	223	< 0.3
7720247	259	< 0.3
7720235	1007	1.2
7720355	100 A	0.6
7720359	100 B	0.5
7720356	100 C	0.9
7720352	100 D	< 0.3
7720371	100 E	< 0.3
7720396	100 F	0.7
7720365	100 G	0.6
7720353	104A	< 0.3
7720392	106 A	< 0.3
7720366	106 B	< 0.3
7720363	106 B	0.6
7720385	113 A	< 0.3
7720347	113 B	< 0.3
7720345	114 A	0.7
7720368	115 A	< 0.3
7720397	115 B	< 0.3
7720393	115 C	0.7
7720379	115 D	< 0.3
7720387	115 E	0.9
7720394	115 F	0.6
7720357	115 G	< 0.3
7720384	* 116 (Missing)	0
7720390	116 A	0.7
7720383	119 A	< 0.3
7720381	119 B	< 0.3
7720281	151 L	< 0.3
7720256	* 154 (Missing)	0

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Albert Einstein High Scool		
Test Period: 01/04/16-01/07/16		
Kit Number	**Room / Area**	**Result**
7720275	155 A	0.6
7720271	155 C	0.7
7720272	* 160 (Missing)	0
7720212	164 SM	< 0.3
7720265	175 B	0.6
7720273	* 176 (Missing)	0
7720244	* 18 (tampered)	< 0.3
7720259	* 180 (Missing)	0
7720255	* 183 (Missing)	0
7720224	189 A	1.1
7720219	189 B	1
7720237	19 A	< 0.3
7720233	* 194 (Missing)	0
7720240	* 2039 (Missing)	0
7720221	* 208 (Missing)	0
7720220	245 A	0.6
7720241	25 A	0.5
7720214	29 A	0.7
7720201	33 A	2.2
7720202	* 34 (tampered)	1.5

Table Note:
* Missing or Compromised Sample

Radon Testing Results		
Albert Einstein High Scool		
Test Period: 01/04/16-01/07/16		
Kit Number	**QC Type**	**Result**
7720362	D (106 B)	< 0.3
7720358	D (107)	0.7
7720398	D (116 A)	0.8
7720386	D (119 B)	< 0.3
7720264	D (164 SM)	0.7
7720277	D (174)	< 0.3
7720226	D (195)	< 0.3
7720236	D (2039)	< 0.3
7720238	D (22)	0.6
7720364	D (35)	< 0.3
7720207	D (9)	2.7
7720380	FB (116 A)	< 0.3
7720258	FB (153)	< 0.3
7720260	FB (156)	< 0.3
7720266	* FB (183:Missing)	0
7720223	FB (194)	< 0.3
7720232	* FB (2039:Missing)	0
7720208	FB (28)	< 0.3
7720204	FB (35)	< 0.3
7720320	OB (0)	< 0.3
7720302	OB (0)	< 0.3

Table Note:
* Missing or Compromised Sample

ATTACHMENT C

Laboratory Analytical Results

January 25, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ALBERT EINSTEIN HIGH SCOOL
LOWER LEVEL

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7720217	10	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	3.4 ± 0.4	2016-01-11
7720244	18	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720248	19	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	0.7 ± 0.3	2016-01-12
7720237	19 A	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720240	2039	@	@		
7720245	22	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	0.5 ± 0.3	2016-01-11
7720238	22	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	0.6 ± 0.3	2016-01-11
7720246	23	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	0.6 ± 0.3	2016-01-12
7720242	24	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	0.5 ± 0.3	2016-01-11
7720216	25	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720241	25 A	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	0.5 ± 0.3	2016-01-11
7720211	26	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720208	28	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720228	28	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	0.6 ± 0.3	2016-01-11
7720218	29	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	0.9 ± 0.4	2016-01-12
7720214	29 A	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	0.7 ± 0.3	2016-01-11
7720206	30	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	0.7 ± 0.3	2016-01-12
7720205	31	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	0.8 ± 0.3	2016-01-11
7720213	32	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	0.7 ± 0.3	2016-01-11
7720203	33	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	1.7 ± 0.4	2016-01-12
7720201	33 A	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	2.2 ± 0.4	2016-01-12
7720202	34	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	1.5 ± 0.3	2016-01-11
7720354	38	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720344	39	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720378	39	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	0.6 ± 0.3	2016-01-12
7720210	8	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	1.9 ± 0.3	2016-01-11
7720209	9	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	2.5 ± 0.4	2016-01-11
7720207	9	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	2.7 ± 0.4	2016-01-12

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

January 25, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ALBERT EINSTEIN HIGH SCOOL
MAIN FLOOR

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7720391	100	2016-01-04 @ 9:00 am	2016-01-07 @ 9:00 am	0.8 ± 0.4	2016-01-12
7720355	100 A	2016-01-04 @ 9:00 am	2016-01-07 @ 9:00 am	0.6 ± 0.3	2016-01-11
7720359	100 B	2016-01-04 @ 9:00 am	2016-01-07 @ 9:00 am	0.5 ± 0.3	2016-01-11
7720356	100 C	2016-01-04 @ 9:00 am	2016-01-07 @ 9:00 am	0.9 ± 0.4	2016-01-12
7720352	100 D	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720371	100 E	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720396	100 F	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	0.7 ± 0.3	2016-01-11
7720365	100 G	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-11
7720374	101	2016-01-04 @ 9:00 am	2016-01-07 @ 9:00 am	0.7 ± 0.4	2016-01-12
7720360	102	2016-01-04 @ 9:00 am	2016-01-07 @ 9:00 am	< 0.3	2016-01-12
7720370	103	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-11
7720353	104A	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720351	105	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	0.8 ± 0.3	2016-01-11
7720392	106 A	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720362	106 B	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720363	106 B	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-11
7720366	106 B	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-12
7720349	107	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720358	107	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	0.7 ± 0.3	2016-01-12
7720389	112	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720348	113	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720385	113 A	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720347	113 B	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720361	114	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-11
7720345	114 A	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	0.7 ± 0.3	2016-01-11
7720369	115	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720368	115 A	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720397	115 B	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720393	115 C	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	0.7 ± 0.3	2016-01-11
7720379	115 D	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720387	115 E	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	0.9 ± 0.3	2016-01-11
7720394	115 F	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	0.6 ± 0.3	2016-01-11
7720357	115 G	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720384	116	@	@		
7720376	116	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720390	116 A	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	0.7 ± 0.3	2016-01-11
7720398	116 A	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	0.8 ± 0.3	2016-01-11

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

January 25, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ALBERT EINSTEIN HIGH SCOOL
MAIN FLOOR

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7720380	116 A	2016-01-04 @ 9:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720388	117	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720383	119 A	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720381	119 B	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720386	119 B	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720375	121	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	0.9 ± 0.4	2016-01-12
7720382	128	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720367	130	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720372	132	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720350	135	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720373	135	2016-01-04 @ 10:00 am	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720204	35	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720399	35	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720364	35	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720395	37	2016-01-04 @ 10:00 am	2016-01-07 @ 11:00 am	0.5 ± 0.3	2016-01-11

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

January 25, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ALBERT EINSTEIN HIGH SCOOL
MAIN LEVEL

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7720302	00	2016-01-04 @ 4:00 pm	2016-01-07 @ 4:00 pm	< 0.3	2016-01-12
7720320	00	2016-01-04 @ 4:00 pm	2016-01-07 @ 4:00 pm	< 0.3	2016-01-12
7720239	101	2016-01-04 @ 11:00 am	2016-01-07 @ 1:00 pm	4.7 ± 0.6	2016-01-12
7720257	138	2016-01-04 @ 1:00 pm	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720282	145	2016-01-04 @ 1:00 pm	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720253	148	2016-01-04 @ 1:00 pm	2016-01-07 @ 10:00 am	< 0.3	2016-01-11
7720250	149	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720281	151 L	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-12
7720252	152	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-12
7720254	153	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720258	153	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720256	154	@	@		
7720278	155	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720275	155 A	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	0.6 ± 0.3	2016-01-11
7720271	155 C	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	0.7 ± 0.3	2016-01-11
7720280	156	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720260	156	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-12
7720272	160	@	@		
7720215	162	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-12
7720212	164 SM	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720264	164 SM	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	0.7 ± 0.4	2016-01-12
7720268	166	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	0.5 ± 0.3	2016-01-12
7720276	168	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720261	172	2016-01-04 @ 1:00 pm	2016-01-07 @ 1:00 pm	< 0.3	2016-01-11
7720274	174	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720277	174	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720263	175	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	0.7 ± 0.3	2016-01-11
7720265	175 B	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	0.6 ± 0.3	2016-01-11
7720273	176	@	@		
7720279	176	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	0.5 ± 0.3	2016-01-12
7720259	180	@	@		
7720267	181	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720269	182	2016-01-04 @ 12:00 pm	2016-01-07 @ 1:00 pm	0.9 ± 0.4	2016-01-12
7720255	183	@	@		
7720266	183	@	@		

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

January 25, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ALBERT EINSTEIN HIGH SCOOL
UPPER LEVEL

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7720243	100	2016-01-04 @ 11:00 am	2016-01-07 @ 1:00 pm	4.6 ± 0.6	2016-01-12
7720235	1007	2016-01-04 @ 11:00 am	2016-01-07 @ 1:00 pm	1.2 ± 0.3	2016-01-12
7720231	187	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	0.8 ± 0.3	2016-01-11
7720229	187	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	1.1 ± 0.4	2016-01-12
7720227	188	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	0.8 ± 0.3	2016-01-12
7720224	189 A	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	1.1 ± 0.3	2016-01-11
7720219	189 B	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	1.0 ± 0.4	2016-01-12
7720225	190	2016-01-04 @ 11:00 am	2016-01-07 @ 1:00 pm	3.5 ± 0.5	2016-01-12
7720251	192	2016-01-04 @ 11:00 am	2016-01-07 @ 1:00 pm	3.4 ± 0.4	2016-01-11
7720230	193	2016-01-04 @ 12:00 pm	2016-01-07 @ 1:00 pm	1.0 ± 0.4	2016-01-12
7720233	194	@	@		
7720223	194	2016-01-04 @ 11:00 am	2016-01-07 @ 1:00 pm	< 0.3	2016-01-11
7720234	194	2016-01-04 @ 11:00 am	2016-01-07 @ 1:00 pm	< 0.3	2016-01-12
7720249	195	2016-01-04 @ 11:00 am	2016-01-07 @ 12:00 pm	0.6 ± 0.3	2016-01-11
7720226	195	2016-01-04 @ 11:00 am	2016-01-07 @ 12:00 pm	< 0.3	2016-01-11
7720232	2039	@	@		
7720236	2039	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-11
7720221	208	@	@		
7720222	223	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-12
7720220	245 A	2016-01-04 @ 11:00 am	2016-01-07 @ 1:00 pm	0.6 ± 0.3	2016-01-12
7720247	259	2016-01-04 @ 11:00 am	2016-01-07 @ 11:00 am	< 0.3	2016-01-12

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

January 25, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

ALBERT EINSTEIN
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7720270	176	2016-01-04 @ 12:00 pm	2016-01-07 @ 12:00 pm	1.2 ± 0.4	2016-01-12

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

January 15, 2016

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

MCPS PHASE 3 & 4
TRANSIT BLANKS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7708218	TRAMSIT 4	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708200	TRANSIT 1	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708190	TRANSIT 10	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708189	TRANSIT 11	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708191	TRANSIT 12	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708188	TRANSIT 13	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708197	TRANSIT 14	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708186	TRANSIT 15	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708185	TRANSIT 16	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708184	TRANSIT 17	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708182	TRANSIT 18	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708187	TRANSIT 18	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708199	TRANSIT 2	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708181	TRANSIT 20	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708180	TRANSIT 21	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708183	TRANSIT 22	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708178	TRANSIT 23	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708179	TRANSIT 24	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708177	TRANSIT 25	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708176	TRANSIT 26	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708174	TRANSIT 27	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708173	TRANSIT 28	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708175	TRANSIT 29	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708198	TRANSIT 3	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708172	TRANSIT 30	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708194	TRANSIT 5	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708196	TRANSIT 6	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708193	TRANSIT 7	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708192	TRANSIT 8	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23
7708195	TRANSIT 9	2015-12-18 @ 12:00 pm	2015-12-21 @ 12:00 pm	< 0.3	2015-12-23

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

December 23, 2015

** LABORATORY ANALYSIS REPORT **

Spike Sample Laboratory Results

Radon test result report for:

MCPS

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7706380	101	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	25.2	2015-12-23
7706381	102	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	26.5	2015-12-23
7706208	103	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	27.7	2015-12-23
7705132	104	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	28.6	2015-12-23
7706366	105	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	26.5	2015-12-23
7706211	106	2015-12-18 @ 9:00 am	2015-12-21 @ 9:00 am	26.1	2015-12-23

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

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

EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI Technologies Inc. Job Number 173224

NOMINAL Conditions: Radon Conc 26.9 pCi/L Rel. Hum 49.6 % Temp. 69.9 F

Date Start: 12/18/15 Date Stop: 12/21/15	Date Start: _____ Date Stop: _____
Time Start: 0929 Time Stop: 0929	Time Start: _____ Time Stop: _____
Device No.'s: 7705132, 7706208, 7706211, 7706366, 7706380, 7706381 F3 Left	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: _____
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

Chain of Custody

Project Name: MCPS Radon Phase IV

Name of Schools:

1. Albert Einstein HS
2. Bel Pre ES
3. Benjamin Banneker MS
4. Bethesda Chevy Chase HS
5. Beverly Farms ES
6. Cabin John MS
7. Chevy Chase ES
8. Farmland ES
9. Forest Oak MS
10. Gaithersburg HS
11. Garrett Park ES
12. Herbert Hoover MS
13. Kohn F. Kennedy HS
14. Julius West MS
15. Kensington Parkwood ES
16. Lakewood ES
17. Mill Creek ES
18. Montgomery Blair HS
19. Montgomery Village MS
20. Northwood HS
21. Paint Branch ES
22. Rock Creek Forest ES
23. Stephen Knolls School
24. Strathmore ES
25. Summit Hall ES
26. Travilah ES
27. Twinbrook ES
28. Waters Landing ES
29. Watkins Mill HAS
30. Weller Road ES
31. White Oak MS
32. Winston Churchill HS

	Date	Initials
Radon Test Kits Deployed	1/4/16	JM
Radon Test Kits Sampled	1/7/16	JM
Radon Test Kits Shipped to Lab*	1/8/16	JM
Radon Test Kits Received by Lab*	1/11/16	JM

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

Note: tests kits deployed at Montgomery Blair HS 1/4/16 and 1/5/16, test kits sampled at Montgomery Blair HS 1/7/16 and 1/8/16