# School / Facility Radon Testing Report Form

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

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

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

School Year: **23-24**

| | |
|---|---|
| Facility: | Sligo Middle School |
| Address: | 1401 Dennis Avenue |
| | Silver Spring, MD 20904 |

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

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

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

MCPS DEM SUSTAINABILITY & COMPLIANCE

# School / Facility Radon Testing Report Form

## 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 |
|---|---|
| Tyler McCleaf | KCI Technologies, Inc. |
| | |
| | |
| *If noncertified individuals, the qualified measurement professional providing oversight -* | |
| Tyler McCleaf, CSP – Cert. #111004-RMP | KCI Technologies, Inc. |

## Testing

| | | | | |
|---|---|---|---|---|
| ☒ Short-Term ☐ Long-Term | Length of Test (days): | 3 | Date of Deployment and Retrieval (mm/dd/yy): | 01/23/24 |
| | | | | 01/26/24 |
| Does the test period include weekends, school breaks or holidays? | | | | ☐ Yes ☒ No |
| *If "**Yes**" please explain/detail in the space below:* | | | | |
| Was HVAC operating under occupied conditions? | | | | ☒ Yes ☐ No |
| *If "**No**" please explain/detail in the space below:* | | | | |

**Testing** (continued)

| | Detectors Deployed | | |
|---|---|---|---|
| | **Ground-Contact** | **Upper-Level(s)** | **Total** |
| Test Locations[1] | 80 | 2 | 82 |
| Duplicates[2] | 8 | 1 | 9 |
| Field Blanks[3] | 5 | 0 | 5 |
| | | Grand Total | 96 |

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

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

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

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

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

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

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

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

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

| | Ground-Contact | Upper-Level(s) | Total |
|---|---|---|---|
| Number of test locations: | 80 | 2 | 82 |
| | | | |
| Number of locations ≥8.0-pCi/L: | 0 | 0 | 0 |
| Number of locations ≥4.0 and ≤8-pCi/L: | 0 | 0 | 0 |
| Number of locations ≥2.7 and ≤4-pCi/L: | 0 | 0 | 0 |
| Number of locations ≥2.0 and ≤4-pCi/L: | 1 | 0 | 1 |
| | | | |
| Number of missing required test locations[3]: | 0 | 0 | 0 |
| Percentage of missing test locations for the facility[4,5]: | 0 | 0 | 0 |

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

# School / Facility Radon Testing Report Form

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

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

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

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

## Follow-Up Testing (if required)

Required if –

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

Follow-up Testing:

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

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

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

# Attachment 1:

# Summary Data Tables

| Table 1- Radon Testing Results | | |
|---|---|---|
| **Sligo Middle School** | | |
| **Test Period: 01/23/2024 - 01/26/2024** | | |
| | | |
| Kit Number | Room / Area | Result |
| 11463581 | 13 | 1.0 |
| 11463582 | 15 | < 0.3 |
| 11463562 | 17 | 0.8 |
| 11463554 | 19 | < 0.3 |
| 11463561 | 19 | 0.6 |
| 11463555 | 21 | < 0.3 |
| 11463564 | 22 | < 0.3 |
| 11463563 | 23 | < 0.3 |
| 11463548 | 24 | < 0.3 |
| 11463556 | 25 | < 0.3 |
| 11463545 | 26 | < 0.3 |
| 11463530 | 28 | < 0.3 |
| 11463538 | 28 | < 0.3 |
| 11463576 | 29 | < 0.3 |
| 11463580 | 30 | < 0.3 |
| 11463572 | 32 | < 0.3 |
| 11463579 | 32 | < 0.3 |
| 11463507 | 100 | 1.3 |
| 11463515 | 101 | < 0.3 |
| 11463516 | 101 | < 0.3 |
| 11463517 | 102 | 0.8 |
| 11463532 | 103 | < 0.3 |
| 11463533 | 103 | 0.7 |
| 11463502 | 104 | < 0.3 |
| 11463534 | 105 | < 0.3 |
| 11463512 | 106 | < 0.3 |
| 11463505 | 107 | < 0.3 |
| 11463519 | 108 | < 0.3 |
| 11463506 | 109 | < 0.3 |
| 11463559 | 110 | 1.0 |
| 11463558 | 111 | < 0.3 |
| 11463529 | 112 | 0.8 |
| 11463557 | 113 | < 0.3 |
| 11463560 | 114 | 0.8 |
| 11463567 | 116 | 1.1 |
| 11463540 | 118 | 1.7 |
| 11463565 | 119 | < 0.3 |
| 11463566 | 119 | < 0.3 |

| Table 1- Radon Testing Results | | |
|---|---|---|
| **Sligo Middle School** | | |
| **Test Period: 01/23/2024 - 01/26/2024** | | |
| 11463573 | 122 | 0.5 |
| 11463574 | 122 | < 0.3 |
| 11463537 | 127 | < 0.3 |
| 11463590 | 214 | 0.7 |
| 11463584 | 217 | < 0.3 |
| 11463591 | 217 | < 0.3 |
| 11463571 | 021A | < 0.3 |
| 11463546 | 027B | < 0.3 |
| 11463547 | 027C | < 0.3 |
| 11463525 | 101 CONFERENCE | 0.6 |
| 11463526 | 101 INFANTS ROOM | 0.5 |
| 11463518 | 101 OFFICE | < 0.3 |
| 11463524 | 101 OFFICE | < 0.3 |
| 11463531 | 101/103 | 0.7 |
| 11463539 | 103A | < 0.3 |
| 11463527 | 103B | < 0.3 |
| 11463549 | 111A | 0.6 |
| 11463552 | 111B | < 0.3 |
| 11287178 | ASP | < 0.3 |
| 11287172 | ASP1 | 0.8 |
| 11463509 | BACON | < 0.3 |
| 11463553 | BASEMENT LOUNGE | < 0.3 |
| 11463543 | BLR | 0.6 |
| 11287162 | CAFE | < 0.3 |
| 11463501 | CAFE | 0.5 |
| 11287161 | CAFE OFFICE | 0.5 |
| 11463508 | CHAMBERS | < 0.3 |
| 11463510 | CHERIF | < 0.3 |
| 11287171 | CONFERENCE | < 0.3 |
| 11463544 | DANCE | 0.6 |
| 11287154 | FINANCE | < 0.3 |
| 11463550 | GIRLS GYM OFFICE | 0.9 |
| 11463551 | GLR | < 0.3 |
| 11463503 | GUIDANCE | < 0.3 |
| 11463504 | GUIDANCE CONFERENCE | < 0.3 |
| 11463520 | GYM | 0.6 |
| 11463528 | GYM | < 0.3 |
| 11463541 | GYM OFFICE | 0.9 |
| 11463542 | GYM OFFICE | 0.8 |
| 11463523 | IEP | < 0.3 |

| Table 1- Radon Testing Results | | |
|---|---|---|
| **Sligo Middle School** | | |
| **Test Period: 01/23/2024 - 01/26/2024** | | |
| 11463513 | M1 | 1.3 |
| 11463514 | M2 | 2.0 |
| 11463521 | M2 | 1.5 |
| 11287169 | MAILROOM | < 0.3 |
| 11287177 | MAIN OFFICE | < 0.3 |
| 11463568 | MEDIA | < 0.3 |
| 11463522 | MUSIC OFFICE | 1.5 |
| 11287164 | PRINCIPAL | < 0.3 |
| 11287163 | SECRETARY | < 0.3 |
| 11287153 | STAFF LOUNGE | < 0.3 |
| 11287170 | STAFF LOUNGE | < 0.3 |
| 11463511 | TIPTON | < 0.3 |
| 11463535 | WEIGHT ROOM | < 0.3 |
| 11463536 | WEIGHT ROOM | < 0.3 |
| 11463575 | WORKROOM | 0.6 |

| Table 2 - Summary Testing Results ≥2.0 pCi/L | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sligo Middle School | | | | | | | |
| Test Period: 01/23/2024 - 01/26/2024 | | | | | | | |
| ≥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 |
| M2 | 2.0 | N/A | N/A | N/A | N/A | N/A | N/A |
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| Table 3 - QC Radon Testing Results | | | |
|---|---|---|---|
| Sligo Middle School | | | |
| Test Period: 01/23/2024 - 01/26/2024 | | | |
| | | | |
| **Kit Number** | **QC Type** | **Room / Area** | **Result** |
| 11463554 | D | 19 | < 0.3 |
| 11463572 | FB | 32 | < 0.3 |
| 11463532 | D | 103 | < 0.3 |
| 11463566 | FB | 119 | < 0.3 |
| 11463574 | D | 122 | < 0.3 |
| 11463584 | D | 217 | < 0.3 |
| 11463524 | D | 101 office | < 0.3 |
| 11463541 | D | Gym office | 0.9 |
| 11463515 | FB | Infants and toddlers | < 0.3 |
| 11463514 | D | M2 | 2.0 |
| 11287170 | D | Staff lounge | < 0.3 |
| 11463535 | FB | Weight room | < 0.3 |
| 11463647 | TB | TRAVEL BLANK | < 0.3 |
| 11463691 | OB | OFFICE BLANK | < 0.3 |

| Table 4 - Summary of Invalid Measurement Locations | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 01/23/24 - 01/26/24 | | |
| | | |
| **Kit Number** | **Room/Area** | **Result** |
| N/A | N/A | N/A |
| | | |
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# Attachment 2:

# Laboratory Reports

January 30, 2024

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:

**SLIGO MS**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11463581 | 013 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | 1.0 ± 0.3 | 2024-01-30 |
| 11463582 | 015 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463562 | 017 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | 0.8 ± 0.3 | 2024-01-30 |
| 11463561 | 019 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | 0.6 ± 0.3 | 2024-01-30 |
| 11463554 | 019 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463555 | 021 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463571 | 021A | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463564 | 022 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463563 | 023 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463548 | 024 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463556 | 025 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463545 | 026 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463546 | 027B | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463547 | 027C | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463530 | 028 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463538 | 028 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463576 | 029 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463580 | 030 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463572 | 032 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463579 | 032 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463507 | 100 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | 1.3 ± 0.3 | 2024-01-30 |
| 11463516 | 101 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463515 | 101 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463525 | 101 CONFERENCE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | 0.6 ± 0.3 | 2024-01-30 |
| 11463526 | 101 INFANTS ROOM | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | 0.5 ± 0.3 | 2024-01-30 |
| 11463518 | 101 OFFICE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463524 | 101 OFFICE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463531 | 101/103 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | 0.7 ± 0.3 | 2024-01-30 |
| 11463517 | 102 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | 0.8 ± 0.3 | 2024-01-30 |
| 11463532 | 103 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463533 | 103 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | 0.7 ± 0.3 | 2024-01-30 |
| 11463539 | 103A | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463527 | 103B | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463502 | 104 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463534 | 105 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463512 | 106 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463505 | 107 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |

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

January 30, 2024

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:
**SLIGO MS**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11463519 | 108 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463506 | 109 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463559 | 110 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 1.0 ± 0.3 | 2024-01-30 |
| 11463558 | 111 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463549 | 111A | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 0.6 ± 0.3 | 2024-01-30 |
| 11463552 | 111B | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463529 | 112 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 0.8 ± 0.3 | 2024-01-30 |
| 11463557 | 113 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463560 | 114 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 0.8 ± 0.3 | 2024-01-30 |
| 11463567 | 116 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 1.1 ± 0.3 | 2024-01-30 |
| 11463540 | 118 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 1.7 ± 0.4 | 2024-01-30 |
| 11463566 | 119 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463565 | 119 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463574 | 122 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463573 | 122 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 0.5 ± 0.3 | 2024-01-30 |
| 11463537 | 127 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463590 | 214 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | 0.7 ± 0.3 | 2024-01-30 |
| 11463584 | 217 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463591 | 217 | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11287178 | ASP | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11287172 | ASP1 | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | 0.8 ± 0.4 | 2024-01-30 |
| 11463509 | BACON | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463553 | BASEMENT LOUNGE | 2024-01-23 @ 12:00 pm | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463543 | BLR | 2024-01-23 @ 11:00 am | 2024-01-26 @ 9:00 am | 0.6 ± 0.3 | 2024-01-30 |
| 11287162 | CAFE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463501 | CAFE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | 0.5 ± 0.3 | 2024-01-30 |
| 11287161 | CAFE OFFICE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | 0.5 ± 0.3 | 2024-01-30 |
| 11463508 | CHAMBERS | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463510 | CHERIF | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11287171 | CONFERENCE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463544 | DANCE | 2024-01-23 @ 11:00 am | 2024-01-26 @ 9:00 am | 0.6 ± 0.3 | 2024-01-30 |
| 11287154 | FINANCE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463550 | GIRLS GYM OFFICE | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 0.9 ± 0.3 | 2024-01-30 |
| 11463551 | GLR | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463503 | GUIDANCE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463504 | GUIDANCE CONFERENCE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463528 | GYM | 2024-01-23 @ 11:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |

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

January 30, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**SLIGO MS**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11463520 | GYM | 2024-01-23 @ 11:00 am | 2024-01-26 @ 9:00 am | 0.6 ± 0.3 | 2024-01-30 |
| 11463541 | GYM OFFICE | 2024-01-23 @ 11:00 am | 2024-01-26 @ 9:00 am | 0.9 ± 0.3 | 2024-01-30 |
| 11463542 | GYM OFFICE | 2024-01-23 @ 11:00 am | 2024-01-26 @ 9:00 am | 0.8 ± 0.3 | 2024-01-30 |
| 11463523 | IEP | 2024-01-23 @ 10:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463513 | M1 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 1.3 ± 0.4 | 2024-01-30 |
| 11463514 | M2 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 2.0 ± 0.4 | 2024-01-30 |
| 11463521 | M2 | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 1.5 ± 0.3 | 2024-01-30 |
| 11287169 | MAILROOM | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11287177 | MAIN OFFICE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463568 | MEDIA | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | < 0.3 | 2024-01-30 |
| 11463522 | MUSIC OFFICE | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 1.5 ± 0.4 | 2024-01-30 |
| 11287164 | PRINCIPAL | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11287163 | SECRETARY | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11287170 | STAFF LOUNGE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11287153 | STAFF LOUNGE | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463511 | TIPTON | 2024-01-23 @ 10:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463535 | WEIGHT ROOM | 2024-01-23 @ 11:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463536 | WEIGHT ROOM | 2024-01-23 @ 11:00 am | 2024-01-26 @ 9:00 am | < 0.3 | 2024-01-30 |
| 11463575 | WORKROOM | 2024-01-23 @ 11:00 am | 2024-01-26 @ 10:00 am | 0.6 ± 0.4 | 2024-01-30 |

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February 27, 2024 **** LABORATORY ANALYSIS REPORT ****

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

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11477882 | 022 | 2024-02-20 @ 10:00 am | 2024-02-23 @ 11:00 am | 0.9 ± 0.3 | 2024-02-27 |
| 11477885 | 022 | 2024-02-20 @ 10:00 am | 2024-02-23 @ 11:00 am | < 0.3 | 2024-02-27 |
| 11477886 | 022 | 2024-02-20 @ 10:00 am | 2024-02-23 @ 11:00 am | 1.1 ± 0.3 | 2024-02-27 |

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January 30, 2024

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:
**KCI**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11463691 | OB | 2024-01-23 @ 8:00 am | 2024-01-26 @ 2:00 pm | < 0.3 | 2024-01-30 |
| 11463647 | TB | 2024-01-23 @ 8:00 am | 2024-01-26 @ 2:00 pm | < 0.3 | 2024-01-30 |

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February 27, 2024 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**KCI**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11477832 | OB | 2024-02-23 @ 8:00 am | 2024-02-26 @ 11:00 am | < 0.3 | 2024-02-27 |
| 11482793 | OB | 2024-02-23 @ 8:00 am | 2024-02-26 @ 11:00 am | < 0.3 | 2024-02-27 |
| 11477841 | TB | 2024-02-23 @ 8:00 am | 2024-02-26 @ 11:00 am | < 0.3 | 2024-02-27 |
| 11482795 | TB | 2024-02-23 @ 8:00 am | 2024-02-26 @ 11:00 am | < 0.3 | 2024-02-27 |

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

Radon test result report for:
**STORAGE**
**KCI**

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

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# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 213327

NOMINAL Conditions: Radon Conc 49.5 pCi/L Rel. Hum 24.7 % Temp. 69.8 F

| | |
|---|---|
| Date Start: 1/19/24 Date Stop: 1/22/24 | Date Start: _____ Date Stop: _____ |
| Time Start: 0831 Time Stop: 0831 | Time Start: _____ Time Stop: _____ |
| Device No.'s: (6) CHAR BAGS - | Device No.'s: _____ |
| 11284003, 11284005, 11284006 | _____ |
| 11284007, 11284008, 11284013 | _____ |
| 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**

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

Radon test result report for:
**BOWSER MORNER**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11284003 | SK | 2024-01-19 @ 9:00 am | 2024-01-22 @ 9:00 am | 47.0 ± 3.8 | 2024-01-29 |
| 11284005 | SK | 2024-01-19 @ 9:00 am | 2024-01-22 @ 9:00 am | 43.4 ± 3.5 | 2024-01-29 |
| 11284006 | SK | 2024-01-19 @ 9:00 am | 2024-01-22 @ 9:00 am | 42.1 ± 3.4 | 2024-01-29 |
| 11284007 | SK | 2024-01-19 @ 9:00 am | 2024-01-22 @ 9:00 am | 46.4 ± 3.7 | 2024-01-29 |
| 11284008 | SK | 2024-01-19 @ 9:00 am | 2024-01-22 @ 9:00 am | 46.2 ± 3.7 | 2024-01-29 |
| 11284013 | SK | 2024-01-19 @ 9:00 am | 2024-01-22 @ 9:00 am | 45.6 ± 3.6 | 2024-01-29 |

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

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCI TECHNOLOGIES, INC Job Number 213819

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

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

Time Start: 0812 Time Stop: 0812

Device No.'s: (6) CHAR BAGS

11478400, 11477842, 11477845,

11477852, 11477996, 11477999

E3 Left

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

Date Start: _____ Date Stop: _____

Time Start: _____ Time Stop: _____

Device No.'s: _____

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

March 1, 2024

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:
**FEB SK**
**MAIN**

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

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KCI TECHNOLOGIES

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 January 23rd to January 26th

Name of Schools:

1. Thomas S. Wootton HS
2. Sligo MS
3. White Oak MS
4. Rosa M. Parks MD
5. Clopper Mill ES
6. Thomas W. Pyle MS
7. Burnt Mills ES

---

| | Date | Initials |
|---|---|---|
| Radon Test Kits Deployed | 01/23/2024 | |
| Radon Test Kits Collected | 01/26/2024 | |
| Radon Test Kits Shipped to Lab* | 01/26/2024 | |
| Radon Test Kits Received by Lab* | 01/30/2024 | |

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

KCI TECHNOLOGIES

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# Radon Test Kit Chain of Custody

Project Name: MCPS Radon – Retesting February 20th to the 23rd 2024

Name of Schools:

1. Fields Road ES
2. Highland View ES
3. John T. Baker MS
4. Sligo MS
5. White Oak MS
6. Laytonsville ES
7. Herbert Hoover MS
8. Thomas Wooton HS
9. Fairland ES
10. Cabin Branch ES
11. John F. Kennedy HS
12. Jackson Road ES
13. Clarksburg HS
14. North Chevy Chase ES

---

| | Date | Initials |
|---|---|---|
| Radon Test Kits Deployed | 02/20/2024 | |
| Radon Test Kits Collected | 02/23/2024 | |
| Radon Test Kits Shipped to Lab* | 02/23/2024 | |
| Radon Test Kits Received by Lab* | 02/27/2024 | |

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

# Attachment 3:

# Sampling Location Map

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# MCPS RADON TESTING – EXECUTIVE SUMMARY

| Site Name | Sligo Middle School |
|---|---|
| Date of Test Report | 5/11/2022 |
| Round of Testing | Initial<br>Follow-up<br>Post Remediation<br>2 Year Testing<br>5 Year Testing<br>HVAC Upgrade<br>Window Replacement<br>New Addition<br>New Facility |
| # Rooms Tested | 102 |
| # Rooms ≥ 4.0 pCi/L | 0 |
| Lowest Value | <0.3 pCi/L |
| Highest Value | 1.7 pCi/L |

Project Status:
Initial testing completed; No further action needed

KCI TECHNOLOGIES

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

May 11, 2022

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

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

Location: Sligo Middle School
1401 Dennis Ave.
Silver Spring, MD 20902

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 Sligo Middle School, located at 1401 Dennis Ave. Silver Spring, MD 20902 (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 15, 2022 and deployed one hundred seventeen (117) 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 18, 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 low 20s and high temperatures ranged from the mid 70s to the high 50s Fahrenheit. Maximum sustained winds ranged from 0-32 miles per hour. Average humidity was around 61% with 0.1 inches of precipitation (rain) was recorded during testing period.

**Results:**

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

The results of the radon test analysis indicated the following:

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

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

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

Sincerely,

Tyler McCleaf

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

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

# ATTACHMENT A

## Floor Plan With Test Locations

# ATTACHMENT B

# Radon Test Summary Spreadsheet

**Table Notes:**

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

| Table 1- Radon Testing Results | | |
|---|---|---|
| Sligo MS | | |
| Test Period: 03/15/2022 - 03/18/2022 | | |
| | | |
| Kit Number | Room / Area | Result |
| 11139643 | 13 | 1.2 |
| 11139645 | 15 | 0.7 |
| 11139608 | 17 | 1.0 |
| 11139606 | 19 | 0.6 |
| 11139607 | 21 | 1.1 |
| 11139635 | 22 | 0.6 |
| 11139642 | 23 | 0.5 |
| 11139646 | 24 | < 0.3 |
| 11139647 | 24 | < 0.3 |
| 11139636 | 25 | < 0.3 |
| 11139644 | 26 | < 0.3 |
| 11139640 | 27 | < 0.3 |
| 11139662 | 28 | < 0.3 |
| 11139663 | 29 | < 0.3 |
| 11139654 | 31 | < 0.3 |
| 11139205 | 100 | < 0.3 |
| 11139229 | 101 | < 0.3 |
| 11139204 | 102 | 0.5 |
| 11139225 | 103 | < 0.3 |
| 11139209 | 104 | < 0.3 |
| 11139218 | 105 | < 0.3 |
| 11139219 | 105 | < 0.3 |
| 11139231 | 105 | < 0.3 |
| 11139227 | 106 | 0.7 |
| 11139220 | 107 | 0.6 |
| 11139228 | 108 | < 0.3 |
| 11139230 | 109 | < 0.3 |
| 11139688 | 110 | 0.6 |
| 11139699 | 111 | < 0.3 |
| 11139687 | 112 | 1.2 |
| 11139691 | 112 | 1.4 |
| 11139700 | 113 | 0.8 |
| 11139679 | 114 | 1.2 |
| 11139689 | 115 | 0.6 |
| 11139680 | 116 | 1.7 |
| 11139683 | 117 | 0.6 |
| 11139652 | 118 | 1.3 |
| 11139653 | 118 | 0.7 |
| 11139657 | 118 | 1.2 |
| 11139676 | 119 | < 0.3 |
| 11139671 | 120 | < 0.3 |
| 11139678 | 121 | 0.6 |

| Table 1- Radon Testing Results | | |
|---|---|---|
| Sligo MS | | |
| Test Period: 03/15/2022 - 03/18/2022 | | |
| | | |
| Kit Number | Room / Area | Result |
| 11139672 | 122 | 0.6 |
| 11139656 | 123 | < 0.3 |
| 11139673 | 124 | < 0.3 |
| 11139655 | 125 | < 0.3 |
| 11139665 | 125 | < 0.3 |
| 11139669 | 126 | < 0.3 |
| 11139682 | 127 | 0.6 |
| 11139667 | 128 | < 0.3 |
| 11139670 | 129 | < 0.3 |
| 11139666 | 130 | < 0.3 |
| 11139674 | 131 | < 0.3 |
| 11139675 | 131 | < 0.3 |
| 11139677 | 131 | < 0.3 |
| 11139681 | 132 | < 0.3 |
| 11139242 | 217 | 0.7 |
| 11139251 | 218 | 0.7 |
| 11139641 | 022A | < 0.3 |
| 11139661 | 027A | < 0.3 |
| 11139214 | 101 CR | 0.6 |
| 11139223 | 101A | 0.7 |
| 11139217 | 101B | 0.7 |
| 11139232 | 101C | < 0.3 |
| 11139210 | 101D | < 0.3 |
| 11139221 | 102 CR | < 0.3 |
| 11139222 | 102 CR | < 0.3 |
| 11139697 | 111A | < 0.3 |
| 11139686 | 111B | < 0.3 |
| 11139693 | 111B | < 0.3 |
| 11139696 | 111B | < 0.3 |
| 11139692 | 113A | 0.7 |
| 11139690 | 113B | 0.6 |
| 11139249 | ADMINISTRATIVE SECRETARY OFFICE | < 0.3 |
| 11139253 | ASSISTANT PRINCIPAL OFFICE | < 0.3 |
| 11139259 | ASSISTANT PRINCIPAL OFFICE | < 0.3 |
| 11139639 | BLDG SERVICES OFFICE | 1.4 |
| 11139207 | BOYS LOCKER ROOM | 0.7 |
| 11139208 | BOYS PE OFFICE | 0.9 |
| 11139206 | CAFETERIA | 0.8 |
| 11139211 | CAFETERIA | 0.6 |
| 11139649 | COMMUNICATION CENTER | 0.6 |
| 11139202 | DANCE STUDIO | < 0.3 |
| 11139226 | DANCE STUDIO | < 0.3 |

| Table 1- Radon Testing Results | | |
|---|---|---|
| Sligo MS | | |
| Test Period: 03/15/2022 - 03/18/2022 | | |
| | | |
| Kit Number | Room / Area | Result |
| 11139213 | FINANCE OFFICE | < 0.3 |
| 11139216 | GIRLS LOCKER ROOM | 0.7 |
| 11139234 | GIRLS PE OFFICE | 0.6 |
| 11139241 | GO 1 | < 0.3 |
| 11139256 | GO 2 | < 0.3 |
| 11139260 | GO 3 | < 0.3 |
| 11139246 | GO 4 | < 0.3 |
| 11139203 | GO CR | 0.6 |
| 11139245 | GUIDANCE OFFICE | < 0.3 |
| 11139255 | GUIDANCE OFFICE | < 0.3 |
| 11139258 | GUIDANCE OFFICE | < 0.3 |
| 11139233 | GYM | 0.7 |
| 11139236 | GYM | 0.9 |
| 11139239 | HEALTH OFFICE | < 0.3 |
| 11139240 | HEALTH ROOM | < 0.3 |
| 11139212 | KITCHEN OFFICE | 0.8 |
| 11139648 | LOWER LEVEL LOUNGE | 0.6 |
| 11139698 | M-1 | 0.6 |
| 11139685 | M-2 | 0.7 |
| 11139694 | M-2 OFFICE | 0.7 |
| 11139250 | MAIN OFFICE | < 0.3 |
| 11139252 | MAIN OFFICE CONFERENCE ROOM | < 0.3 |
| 11139254 | MAIN OFFICE CONFERENCE ROOM | < 0.3 |
| 11139658 | MEDIA CENTER | 0.6 |
| 11139660 | MEDIA CENTER | 0.7 |
| 11139650 | MEDIA CENTER WORK ROOM | 0.5 |
| 11139651 | MEDIA SPECIALIST OFFICE | 0.7 |
| 11139224 | PE 2 WEIGHT ROOM | 0.6 |
| 11139257 | PRINCIPAL OFFICE | < 0.3 |
| 11139248 | STAFF WORK ROOM | < 0.3 |
| 11139664 | STAFF WORK ROOM | < 0.3 |
| 11139684 | TEAM ROOM B | 0.9 |
| 11139668 | TEAM ROOM C | < 0.3 |

| Table 2- Radon Testing Results | | | |
|---|---|---|---|
| Sligo MS | | | |
| Test Period: 03/15/2022 - 03/18/2022 | | | |
| | | | |
| Kit Number | QC Type | Room / Area | Result |
| 11139646 | D | 24 | < 0.3 |
| 11139652 | D | 118 | 1.3 |
| 11139653 | FB | 118 | 0.7 |
| 11139665 | D | 125 | < 0.3 |
| 11139675 | D | 131 | < 0.3 |
| 11139677 | FB | 131 | < 0.3 |
| 11139691 | D | 112 | 1.4 |
| 11139693 | D | 111B | < 0.3 |
| 11139686 | FB | 111B | < 0.3 |
| 11139226 | D | Dance Studio | < 0.3 |
| 11139231 | D | 105 | < 0.3 |
| 11139218 | FB | 105 | < 0.3 |
| 11139222 | D | 102 CR | < 0.3 |
| 11139255 | D | Guidance Office | < 0.3 |
| 11139245 | FB | Guidance Office | < 0.3 |
| 11138953 | OB | OFFICE BLANK | < 0.3 |
| 11138945 | TB | TRAVEL BLANK | < 0.3 |

| Summary of Missed Locations | | |
|---|---|---|
| Sligo MS | | |
| Test Period: 03/15/22 - 03/18/22 | | |
| | | |
| Kit Number | Room/Area | Result |
| | NA | |
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| Summary of Missing, Compromised and >/= 4 piC/L Tests | | |
|---|---|---|
| Sligo MS | | |
| Test Period: 03/15/22 - 03/18/22 | | |
| | | |
| Kit Number | Room/Area | Result |
| | NA | |
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Table Note:

* Missing or Compromised Sample

# ATTACHMENT C

# Laboratory Analytical Results

March 22, 2022

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11139643 | 013 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | 1.2 ± 0.3 | 2022-03-21 |
| 11139645 | 015 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | 0.7 ± 0.3 | 2022-03-21 |
| 11139608 | 017 | 2022-03-15 @ 9:00 am | 2022-03-18 @ 12:00 pm | 1.0 ± 0.3 | 2022-03-21 |
| 11139606 | 019 | 2022-03-15 @ 9:00 am | 2022-03-18 @ 12:00 pm | 0.6 ± 0.3 | 2022-03-21 |
| 11139607 | 021 | 2022-03-15 @ 9:00 am | 2022-03-18 @ 12:00 pm | 1.1 ± 0.3 | 2022-03-21 |
| 11139635 | 022 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | 0.6 ± 0.3 | 2022-03-21 |
| 11139641 | 022A | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139642 | 023 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | 0.5 ± 0.3 | 2022-03-21 |
| 11139646 | 024 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139647 | 024 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139636 | 025 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139644 | 026 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139640 | 027 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139661 | 027A | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139662 | 028 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139663 | 029 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139654 | 031 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139205 | 100 | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 12:00 pm | < 0.3 | 2022-03-21 |
| 11139229 | 101 | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139214 | 101 CR | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139223 | 101A | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139217 | 101B | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139232 | 101C | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139210 | 101D | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139204 | 102 | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 11:00 am | 0.5 ± 0.3 | 2022-03-21 |
| 11139221 | 102 CR | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139222 | 102 CR | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139225 | 103 | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139209 | 104 | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139231 | 105 | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139218 | 105 | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139219 | 105 | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139227 | 106 | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139220 | 107 | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139228 | 108 | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139230 | 109 | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139688 | 110 | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 10:00 am | 0.6 ± 0.3 | 2022-03-21 |

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March 22, 2022

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11139699 | 111 | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139697 | 111A | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139693 | 111B | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139686 | 111B | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139696 | 111B | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139687 | 112 | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 10:00 am | 1.2 ± 0.3 | 2022-03-21 |
| 11139691 | 112 | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 10:00 am | 1.4 ± 0.3 | 2022-03-21 |
| 11139700 | 113 | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 10:00 am | 0.8 ± 0.3 | 2022-03-21 |
| 11139692 | 113A | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 10:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139690 | 113B | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 10:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139679 | 114 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | 1.2 ± 0.3 | 2022-03-21 |
| 11139689 | 115 | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 10:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139680 | 116 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | 1.7 ± 0.3 | 2022-03-21 |
| 11139683 | 117 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139657 | 118 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 10:00 am | 1.2 ± 0.3 | 2022-03-21 |
| 11139652 | 118 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 10:00 am | 1.3 ± 0.3 | 2022-03-21 |
| 11139653 | 118 | 2022-03-15 @ 10:00 am | 2022-03-18 @ 10:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139676 | 119 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139671 | 120 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139678 | 121 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139672 | 122 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139656 | 123 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139673 | 124 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139665 | 125 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139655 | 125 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139669 | 126 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139682 | 127 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139667 | 128 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139670 | 129 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139666 | 130 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139675 | 131 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139674 | 131 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139677 | 131 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139681 | 132 | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139242 | 217 | 2022-03-15 @ 3:00 pm | 2022-03-18 @ 12:00 pm | 0.7 ± 0.3 | 2022-03-21 |
| 11139251 | 218 | 2022-03-15 @ 3:00 pm | 2022-03-18 @ 12:00 pm | 0.7 ± 0.3 | 2022-03-21 |
| 11139249 | ADMINISTRATIVE SECRETARY OFFICE | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |

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March 22, 2022

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11139259 | ASSISTANT PRINCIPAL OFFICE | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139253 | ASSISTANT PRINCIPAL OFFICE | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139639 | BLDG SERVICES OFFICE | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | 1.4 ± 0.3 | 2022-03-21 |
| 11139207 | BOYS LOCKER ROOM | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139208 | BOYS PE OFFICE | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | 0.9 ± 0.3 | 2022-03-21 |
| 11139211 | CAFETERIA | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 11:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139206 | CAFETERIA | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 11:00 am | 0.8 ± 0.3 | 2022-03-21 |
| 11139649 | COMMUNICATION CENTER | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139202 | DANCE STUDIO | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139226 | DANCE STUDIO | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139213 | FINANCE OFFICE | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 9:00 am | < 0.3 | 2022-03-21 |
| 11139216 | GIRLS LOCKER ROOM | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139234 | GIRLS PE OFFICE | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139241 | GO 1 | 2022-03-15 @ 3:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139256 | GO 2 | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139260 | GO 3 | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139246 | GO 4 | 2022-03-15 @ 3:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139203 | GO CR | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 11:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139255 | GUIDANCE OFFICE | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139258 | GUIDANCE OFFICE | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139245 | GUIDANCE OFFICE | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 11:00 am | < 0.3 | 2022-03-21 |
| 11139236 | GYM | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | 0.9 ± 0.3 | 2022-03-21 |
| 11139233 | GYM | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139239 | HEALTH OFFICE | 2022-03-15 @ 3:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139240 | HEALTH ROOM | 2022-03-15 @ 3:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139212 | KITCHEN OFFICE | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 11:00 am | 0.8 ± 0.3 | 2022-03-21 |
| 11139648 | LOWER LEVEL LOUNGE | 2022-03-15 @ 10:00 am | 2022-03-18 @ 12:00 pm | 0.6 ± 0.3 | 2022-03-21 |
| 11139698 | M-1 | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139685 | M-2 | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139694 | M-2 OFFICE | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 11:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139250 | MAIN OFFICE | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139252 | MAIN OFFICE CONFERENCE ROOM | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139254 | MAIN OFFICE CONFERENCE ROOM | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139660 | MEDIA CENTER | 2022-03-15 @ 10:00 am | 2022-03-18 @ 10:00 am | 0.7 ± 0.3 | 2022-03-21 |
| 11139658 | MEDIA CENTER | 2022-03-15 @ 10:00 am | 2022-03-18 @ 10:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139650 | MEDIA CENTER WORK ROOM | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | 0.5 ± 0.3 | 2022-03-21 |
| 11139651 | MEDIA SPECIALIST OFFICE | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | 0.7 ± 0.3 | 2022-03-21 |

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March 22, 2022

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 11139224 | PE 2 WEIGHT ROOM | 2022-03-15 @ 1:00 pm | 2022-03-18 @ 11:00 am | 0.6 ± 0.3 | 2022-03-21 |
| 11139257 | PRINCIPAL OFFICE | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139248 | STAFF WORK ROOM | 2022-03-15 @ 2:00 pm | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139664 | STAFF WORK ROOM | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |
| 11139684 | TEAM ROOM B | 2022-03-15 @ 12:00 pm | 2022-03-18 @ 10:00 am | 0.9 ± 0.3 | 2022-03-21 |
| 11139668 | TEAM ROOM C | 2022-03-15 @ 11:00 am | 2022-03-18 @ 10:00 am | < 0.3 | 2022-03-21 |

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# 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 |

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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 – March 2022 Schools

Name of Schools:

1. Singer, Flora M. ES
2. Sligo MS
3. Spring Mill Center
4. Fairland ES
5. Bel Pre ES
6. Shriver, Sargent ES
7. Strathmore ES
8. Viers Mill ES
9. Piney Branch ES

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| | Date | Initials |
|---|---|---|
| Radon Test Kits Deployed | 03/15/2022 | |
| Radon Test Kits Collected | 03/18/2022 | |
| Radon Test Kits Shipped to Lab* | 03/18/2022 | |
| Radon Test Kits Received by Lab* | 03/20/2022 | |

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

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# MCPS RADON TESTING - EXECUTIVE SUMMARY

| | |
|---|---|
| Site Name | Sligo Middle School |
| Date of Report | 2/21/2020 |
| Round of Testing | Initial<br>Follow-up<br>Post Remediation<br>**2 year testing**<br>5 year testing<br>HVAC Upgrade<br>Window Replacement<br>New Addition<br>New Facility |
| # of Rooms Tested | 100 |
| # 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; no further action.

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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: Sligo Middle School**
1401 Dennis Avenue,
Silver Spring, Maryland 20902

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 Sligo Middle School, located at 1401 Dennis Avenue, in Silver Spring, Maryland 20902 (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 1/7/2020 and deployed one-hundred nineteen (119) 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 1/10/2020 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 | None | 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 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 | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 1/7/2020-1/10/2020 | | |
| | | |
| Kit Number | Room / Area | Result |
| 9340189 | 115 | < 0.3 |
| 9340194 | 110 | 0.8 |
| 9340195 | 110 | 1 |
| 9340196 | 110 | < 0.3 |
| 9340197 | 124 | < 0.3 |
| 9340198 | TEAM ROOM B | 0.9 |
| 9340199 | SECURITY OFFICE | 1.3 |
| 9340200 | 104 | 0.8 |
| 9347729 | 118 | 2.7 |
| 9347734 | HEALTH ROOM | 0.5 |
| 9347741 | 116 | 1.3 |
| 9347742 | 121 | < 0.3 |
| 9347743 | 112 | 1 |
| 9347744 | 117 | < 0.3 |
| 9347745 | 114 | 1.2 |
| 9347746 | 119 | < 0.3 |
| 9347747 | HEALTH ROOM | < 0.3 |
| 9347748 | HEALTH ROOM OFFICE | < 0.3 |
| 9347749 | 127 | < 0.3 |
| 9347750 | MEDIA CENTER | < 0.3 |
| 9347751 | MEDIA CENTER | 0.8 |
| 9347752 | MEDIA WORK ROOM | 0.5 |
| 9347753 | CAFETERIA | < 0.3 |
| 9347754 | CAFETERIA | < 0.3 |
| 9347755 | 126 | < 0.3 |
| 9347756 | TEAM ROOM C | < 0.3 |
| 9347757 | MEDIA CENTER OFFICE | 0.6 |
| 9347758 | 125 | < 0.3 |
| 9347759 | 120 | < 0.3 |
| 9347760 | TV STUDIO | < 0.3 |
| 9347761 | 122 | 0.7 |
| 9347762 | 127 | < 0.3 |
| 9347763 | STAFF WORK ROOM | < 0.3 |
| 9347764 | 125 | < 0.3 |
| 9347765 | 125 | < 0.3 |
| 9347766 | 111 | < 0.3 |
| 9347767 | 123 | < 0.3 |
| 9347768 | 111 | < 0.3 |
| 9347769 | 113 | < 0.3 |
| 9347770 | 113B | 0.7 |
| 9347771 | 130 | < 0.3 |
| 9347772 | 113A | < 0.3 |

| | | |
|---|---|---|
| 9347773 | 132 | < 0.3 |
| 9347774 | 131 | < 0.3 |
| 9347775 | 128 | < 0.3 |
| 9347776 | 129 | < 0.3 |
| 9347777 | 111 | 0.5 |
| 9347778 | GYM OFFICE A | 0.5 |
| 9347779 | 111A | < 0.3 |
| 9347780 | GYM OFFICE | 0.9 |
| 9347781 | M-2 OFFICE | 0.9 |
| 9347782 | M-2 | 1 |
| 9347783 | DANCE STUDIO | 0.8 |
| 9347784 | DANCE STUDIO | 0.5 |
| 9347785 | 111B | 0.5 |
| 9347786 | M-1 | 0.7 |
| 9347787 | GYM | 0.8 |
| 9347788 | 15 | < 0.3 |
| 9347789 | STAGE | 1 |
| 9347790 | GYM | 1 |
| 9347791 | 21 | 0.6 |
| 9347792 | 19 | < 0.3 |
| 9347793 | 17 | 0.7 |
| 9347794 | PE 2 | < 0.3 |
| 9347797 | 027C | < 0.3 |
| 9347803 | MAIL ROOM | < 0.3 |
| 9347804 | MAIN OFFICE | < 0.3 |
| 9347805 | PRINCIPAL'S OFFICE | < 0.3 |
| 9347806 | CONFERENCE ROOM | < 0.3 |
| 9347807 | GO - CONFERENCE ROOM | < 0.3 |
| 9347808 | GO - CONFERENCE ROOM | < 0.3 |
| 9347809 | FINANCE OFFICE | < 0.3 |
| 9347810 | ASST. PRINCIPAL'S OFFICE | < 0.3 |
| 9347811 | GO -1 | < 0.3 |
| 9347812 | 100 | 0.6 |
| 9347813 | GUIDANCE OFFICE | < 0.3 |
| 9347814 | 101D | < 0.3 |
| 9347815 | GO - 2 | < 0.3 |
| 9347816 | GO - 3 | 0.9 |
| 9347817 | 102 | 0.8 |
| 9347818 | 101E | 0.5 |
| 9347819 | 102A | < 0.3 |
| 9347820 | 101B | 1.3 |
| 9347821 | 103B | 0.6 |
| 9347822 | 101A | < 0.3 |
| 9347823 | 101C | < 0.3 |
| 9347824 | 101C | 0.6 |
| 9347825 | 101C | 0.6 |
| 9347826 | 101 | 0.8 |

| | | |
|---|---|---|
| 9347827 | 106 | 0.8 |
| 9347828 | 108 | < 0.3 |
| 9347829 | 103 | 0.7 |
| 9347830 | 103A | < 0.3 |
| 9347831 | 109 | 0.6 |
| 9347832 | 107 | < 0.3 |
| 9347833 | 105 | < 0.3 |
| 9347834 | 104 | 1.1 |
| 9347835 | ASA'S OFFICE | < 0.3 |
| 9347836 | ADMIN SEC OFFICE | < 0.3 |
| 9347837 | GO-5 | 0.6 |
| 9347838 | 25 | < 0.3 |
| 9347839 | 15 | 0.8 |
| 9347840 | 31 | < 0.3 |
| 9347841 | 022A | < 0.3 |
| 9347842 | 22 | < 0.3 |
| 9347843 | 027A | < 0.3 |
| 9347844 | 027C | < 0.3 |
| 9347845 | 214 | 1.4 |
| 9347846 | 26 | < 0.3 |
| 9347847 | 15 | 0.9 |
| 9347848 | 24 | < 0.3 |
| 9347849 | 28 | < 0.3 |
| 9347850 | 30 | < 0.3 |
| 9347851 | 027B | < 0.3 |
| 9347852 | 23 | < 0.3 |
| 9347853 | 29 | < 0.3 |
| 9347854 | 15 | < 0.3 |
| 9347859 | 221 | 1.7 |
| 9347860 | 32 | < 0.3 |
| 9348309 | OFFICE BLANK | <0.3 |

| Table 2- Radon Testing Results | | | |
|---|---|---|---|
| Sligo Middle School | | | |
| Test Period: 1/7/2020-1/10/2020 | | | |
| | | | |
| Kit Number | QC Type | Room / Area | Result |
| 9347808 | D | GO- CONFERENCE ROOM | <0.3 |
| 9347824 | D | 101C | 0.6 |
| 9347823 | FB | 101C | <0.3 |
| 9347834 | D | 104 | 1.1 |
| 9340195 | D | 110 | 1 |
| 9340196 | FB | 110 | <0.3 |
| 9347747 | D | HEALTH ROOM | <0.3 |
| 9347758 | D | 125 | <0.3 |
| 9347765 | FB | 125 | <0.3 |
| 9347749 | D | 127 | <0.3 |
| 9347768 | D | 111 | <0.3 |
| 9347766 | FB | 111 | <0.3 |
| 9348319 | TRANSIT BLANK | NA | <0.3 |
| 9348320 | TRANSIT BLANK | NA | <0.3 |
| 9348313 | TRANSIT BLANK | NA | <0.3 |

| Summary of Missed Locations | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 01/07/2020 - 01/10/2020 | | |
| | | |
| Kit Number | Room/Area | Result |
| - | N/A | - |
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| Summary of Missing, Compromised and >/= 4 piC/L Tests | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 01/07/2020 - 01/10/2020 | | |
| | | |
| Kit Number | Room/Area | Result |
| - | N/A | - |
| | | |
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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 |

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 |
|---|---|---|---|---|---|
| 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 |

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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 |
|---|---|---|---|---|---|
| 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:
**SLIGO MS**
**778**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 9347854 | 015 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347847 | 015 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | 0.9 ± 0.3 | 2020-01-13 |
| 9347839 | 015 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | 0.8 ± 0.3 | 2020-01-13 |
| 9347788 | 015 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347793 | 017 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | 0.7 ± 0.3 | 2020-01-13 |
| 9347792 | 019 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347791 | 021 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | 0.6 ± 0.3 | 2020-01-13 |
| 9347842 | 022 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347841 | 022A | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347852 | 023 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347848 | 024 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347838 | 025 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347846 | 026 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347843 | 027A | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347851 | 027B | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347797 | 027C | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347844 | 027C | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347849 | 028 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347853 | 029 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347850 | 030 | 2020-01-07 @ 5:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347840 | 031 | 2020-01-07 @ 4:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347860 | 032 | 2020-01-07 @ 5:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347812 | 100 | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 1:00 pm | 0.6 ± 0.3 | 2020-01-13 |
| 9347826 | 101 | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 12:00 pm | 0.8 ± 0.3 | 2020-01-13 |
| 9347822 | 101A | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347820 | 101B | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 12:00 pm | 1.3 ± 0.3 | 2020-01-13 |
| 9347825 | 101C | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 1:00 pm | 0.6 ± 0.3 | 2020-01-13 |
| 9347823 | 101C | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347824 | 101C | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 1:00 pm | 0.6 ± 0.3 | 2020-01-13 |
| 9347814 | 101D | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347818 | 101E | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 1:00 pm | 0.5 ± 0.3 | 2020-01-13 |
| 9347817 | 102 | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 12:00 pm | 0.8 ± 0.3 | 2020-01-13 |
| 9347819 | 102A | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347829 | 103 | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 1:00 pm | 0.7 ± 0.3 | 2020-01-13 |
| 9347830 | 103A | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347821 | 103B | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 1:00 pm | 0.6 ± 0.3 | 2020-01-13 |
| 9340200 | 104 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 0.8 ± 0.3 | 2020-01-13 |

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

Radon test result report for:
**SLIGO MS**
**778**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 9347834 | 104 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 1.1 ± 0.3 | 2020-01-13 |
| 9347833 | 105 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347827 | 106 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 0.8 ± 0.3 | 2020-01-13 |
| 9347832 | 107 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347828 | 108 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347831 | 109 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 0.6 ± 0.3 | 2020-01-13 |
| 9340196 | 110 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9340194 | 110 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 0.8 ± 0.3 | 2020-01-13 |
| 9340195 | 110 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 1.0 ± 0.3 | 2020-01-13 |
| 9347766 | 111 | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347777 | 111 | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 0.5 ± 0.3 | 2020-01-13 |
| 9347768 | 111 | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347779 | 111A | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347785 | 111B | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 0.5 ± 0.3 | 2020-01-13 |
| 9347743 | 112 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 1.0 ± 0.3 | 2020-01-13 |
| 9347769 | 113 | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347772 | 113A | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347770 | 113B | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 0.7 ± 0.3 | 2020-01-13 |
| 9347745 | 114 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 1.2 ± 0.3 | 2020-01-13 |
| 9340189 | 115 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347741 | 116 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 1.3 ± 0.3 | 2020-01-13 |
| 9347744 | 117 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347729 | 118 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 2.7 ± 0.3 | 2020-01-13 |
| 9347746 | 119 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347759 | 120 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347742 | 121 | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347761 | 122 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | 0.7 ± 0.3 | 2020-01-13 |
| 9347767 | 123 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9340197 | 124 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347764 | 125 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347765 | 125 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347758 | 125 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347755 | 126 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347749 | 127 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347762 | 127 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347775 | 128 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347776 | 129 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |

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

Radon test result report for:
**SLIGO MS**
**778**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 9347771 | 130 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347774 | 131 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347773 | 132 | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347845 | 214 | 2020-01-07 @ 5:00 pm | 2020-01-10 @ 2:00 pm | 1.4 ± 0.3 | 2020-01-13 |
| 9347859 | 221 | 2020-01-07 @ 5:00 pm | 2020-01-10 @ 2:00 pm | 1.7 ± 0.3 | 2020-01-13 |
| 9347836 | ADMIN SEC OFFICE | 2020-01-07 @ 11:00 am | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347835 | ASA'S OFFICE | 2020-01-07 @ 11:00 am | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347810 | ASST. PRINCIPAL'S OFFICE | 2020-01-07 @ 11:00 am | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347754 | CAFETERIA | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347753 | CAFETERIA | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347806 | CONFERENCE ROOM | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347784 | DANCE STUDIO | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 0.5 ± 0.3 | 2020-01-13 |
| 9347783 | DANCE STUDIO | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 0.8 ± 0.3 | 2020-01-13 |
| 9347809 | FINANCE OFFICE | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 1:00 pm | < 0.3 | 2020-01-13 |
| 9347815 | GO - 2 | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347816 | GO - 3 | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 11:00 am | 0.9 ± 0.3 | 2020-01-13 |
| 9347808 | GO - CONFERENCE ROOM | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347807 | GO - CONFERENCE ROOM | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347811 | GO -1 | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347837 | GO-5 | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 11:00 am | 0.6 ± 0.3 | 2020-01-13 |
| 9347813 | GUIDANCE OFFICE | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347787 | GYM | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 0.8 ± 0.3 | 2020-01-13 |
| 9347790 | GYM | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 1.0 ± 0.3 | 2020-01-13 |
| 9347780 | GYM OFFICE | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 0.9 ± 0.3 | 2020-01-13 |
| 9347778 | GYM OFFICE A | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 0.5 ± 0.3 | 2020-01-13 |
| 9347747 | HEALTH ROOM | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347734 | HEALTH ROOM | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 11:00 am | 0.5 ± 0.3 | 2020-01-13 |
| 9347748 | HEALTH ROOM OFFICE | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347786 | M-1 | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 0.7 ± 0.3 | 2020-01-13 |
| 9347782 | M-2 | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 1.0 ± 0.3 | 2020-01-13 |
| 9347781 | M-2 OFFICE | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 0.9 ± 0.3 | 2020-01-13 |
| 9347803 | MAIL ROOM | 2020-01-07 @ 11:00 am | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347804 | MAIN OFFICE | 2020-01-07 @ 11:00 am | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347750 | MEDIA CENTER | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347751 | MEDIA CENTER | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | 0.8 ± 0.3 | 2020-01-13 |
| 9347757 | MEDIA CENTER OFFICE | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | 0.6 ± 0.3 | 2020-01-13 |
| 9347752 | MEDIA WORK ROOM | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | 0.5 ± 0.3 | 2020-01-13 |

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

Radon test result report for:
**SLIGO MS**
**778**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 9347794 | PE 2 | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | < 0.3 | 2020-01-13 |
| 9347805 | PRINCIPAL'S OFFICE | 2020-01-07 @ 12:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9340199 | SECURITY OFFICE | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 1.3 ± 0.3 | 2020-01-13 |
| 9347763 | STAFF WORK ROOM | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347789 | STAGE | 2020-01-07 @ 3:00 pm | 2020-01-10 @ 12:00 pm | 1.0 ± 0.3 | 2020-01-13 |
| 9340198 | TEAM ROOM B | 2020-01-07 @ 1:00 pm | 2020-01-10 @ 12:00 pm | 0.9 ± 0.3 | 2020-01-13 |
| 9347756 | TEAM ROOM C | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |
| 9347760 | TV STUDIO | 2020-01-07 @ 2:00 pm | 2020-01-10 @ 11:00 am | < 0.3 | 2020-01-13 |

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# 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

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# MCPS RADON TESTING - EXECUTIVE SUMMARY

| | |
|---|---|
| Site Name | Sligo Middle School |
| Date of Report | March 14, 2018 |
| Round of Testing | Initial<br>**Follow-up**<br>Post Remediation<br>2 year testing<br>5 year testing<br>HVAC Upgrade<br>Window Replacement<br>New Addition<br>New Facility |
| # of Rooms Tested | 21 |
| # Rooms ≥4.0 pCi/L | 0 |
| Lowest Value | <0.3 pCi/L |
| Highest Value | 1.4 pCi/L |

## Project Status

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

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March 14, 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: Sligo Middle School**
1401 Dennis Ave.
Silver Spring, Maryland 20902

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 Sligo Middle School, located at 1401 Dennis Ave. in Silver Spring, Maryland 20902 (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 twenty-five (25) 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 | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 02/13/18-02/16/18 | | |
| | | |
| **Kit Number** | **Room / Area** | **Result** |
| 7978128 | 24 | 0.6 |
| 7978109 | 103A | 0.6 |
| 7978122 | 27A (A room across from rm 23/25) | < 0.3 |
| 7978115 | 27B (B room across from 23/25) | < 0.3 |
| 7978121 | 27C (C room across from rm 23/25) | < 0.3 |
| 7978112 | ASA OFFICE | < 0.3 |
| 7978130 | BOYS LR | 0.6 |
| 7978106 | DANCE STUDIO | 0.6 |
| 7978111 | FINANCE | < 0.3 |
| 7978127 | GIRLS LR | 1.0 |
| 7978103 | KITCHEN | < 0.3 |
| 7978110 | KITCHEN LOUNGE | < 0.3 |
| 7978104 | KITCHEN OFFICE | < 0.3 |
| 7978129 | M OFFICE | 0.9 |
| 7978125 | MEDIA CENTER | < 0.3 |
| 7978124 | MEDIA CENTER | 0.8 |
| 7978107 | PE OFFICE | 0.7 |
| 7978108 | PE OFFICE AREA | 0.8 |
| 7978102 | PE2 WEIGHT ROOM | < 0.3 |
| 7978126 | SECURITY OFFICE | 1.3 |
| 7978105 | STAGE | 1.4 |
| 7978123 | STUDIO MNGR OFF | 0.6 |

Table Note:
* Missing or Compromised Sample

| Table 2 - Radon Testing Results | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 02/13/18-02/16/18 | | |
| | | |
| **Kit Number** | **QC Type** | **Result** |
| 7978114 | D (27C (C room across from room 23/25)) | < 0.3 |
| 7978113 | D (ASA OFFICE) | < 0.3 |
| 7978101 | FB (ASA OFFICE) | < 0.3 |

Table Note:
* Missing or Compromised Sample

# ATTACHMENT C

# Laboratory Analytical Results

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

Radon test result report for:
**SLIGO MIDDLE SCHOOL**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7978109 | 103A | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | 0.6 ± 0.3 | 2018-02-20 |
| 7978128 | 24 | 2018-02-13 @ 1:00 pm | 2018-02-16 @ 11:00 am | 0.6 ± 0.3 | 2018-02-20 |
| 7978122 | 27A | 2018-02-13 @ 1:00 pm | 2018-02-16 @ 11:00 am | < 0.3 | 2018-02-20 |
| 7978115 | 27B | 2018-02-13 @ 1:00 pm | 2018-02-16 @ 11:00 am | < 0.3 | 2018-02-20 |
| 7978114 | 27C | 2018-02-13 @ 1:00 pm | 2018-02-16 @ 11:00 am | < 0.3 | 2018-02-20 |
| 7978121 | 27C | 2018-02-13 @ 1:00 pm | 2018-02-16 @ 11:00 am | < 0.3 | 2018-02-20 |
| 7978101 | ASA OFFICE | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | < 0.3 | 2018-02-20 |
| 7978112 | ASA OFFICE | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | < 0.3 | 2018-02-20 |
| 7978113 | ASA OFFICE | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | < 0.3 | 2018-02-20 |
| 7978130 | BOYS LR | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | 0.6 ± 0.3 | 2018-02-20 |
| 7978106 | DANCE STUDIO | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | 0.6 ± 0.3 | 2018-02-20 |
| 7978111 | FINANCE | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | < 0.3 | 2018-02-20 |
| 7978127 | GIRLS LR | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 11:00 am | 1.0 ± 0.3 | 2018-02-20 |
| 7978103 | KITCHEN | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | < 0.3 | 2018-02-20 |
| 7978110 | KITCHEN LOUNGE | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | < 0.3 | 2018-02-20 |
| 7978104 | KITCHEN OFFICE | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | < 0.3 | 2018-02-20 |
| 7978129 | M OFFICE | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 11:00 am | 0.9 ± 0.3 | 2018-02-20 |
| 7978124 | MEDIA CENTER | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 11:00 am | 0.8 ± 0.3 | 2018-02-20 |
| 7978125 | MEDIA CENTER | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 11:00 am | < 0.3 | 2018-02-20 |
| 7978107 | PE OFFICE | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 11:00 am | 0.7 ± 0.3 | 2018-02-20 |
| 7978108 | PE OFFICE AREA | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | 0.8 ± 0.3 | 2018-02-20 |
| 7978102 | PE2 WEIGHT ROOM | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 10:00 am | < 0.3 | 2018-02-20 |
| 7978126 | SECURITY OFFICE | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 11:00 am | 1.3 ± 0.4 | 2018-02-20 |
| 7978105 | STAGE | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 11:00 am | 1.4 ± 0.4 | 2018-02-20 |
| 7978123 | STUDIO MNGR OFF | 2018-02-13 @ 12:00 pm | 2018-02-16 @ 11:00 am | 0.6 ± 0.3 | 2018-02-20 |

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# 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 |

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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 |

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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 |

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# 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 | Sligo Middle School |
| Date of Report | January 30, 2018 |
| Round of Testing | Initial<br>Follow-up<br>Post Remediation<br>**2 year testing**<br>5 year testing<br>HVAC Upgrade<br>Window Replacement<br>New Addition<br>New Facility |
| # of Rooms Tested | 75 |
| # Rooms ≥4.0 pCi/L | 0 |
| Lowest Value | < 0.3 pCi/L |
| Highest Value | 1.9 pCi/L |

## Project Status

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

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January 30, 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: Sligo Middle School**
1401 Dennis Ave.
Silver Spring , Maryland 20902

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 Sligo Middle School, located at 1401 Dennis Ave. in Silver Spring , Maryland 20902 (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 27, 2017 and deployed eighty-eight (88) 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 November 30, 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 (Attachement 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 blank, 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 | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 11/27/17-11/30/17 | | |
| | | |
| **Kit Number** | **Room / Area** | **Result** |
| 7976364 | 13 | < 0.3 |
| 7976363 | 15 | 1.1 |
| 7976362 | 17 | 1.1 |
| 7976361 | 19 | 0.9 |
| 7976360 | 21 | 0.8 |
| 7976372 | 22 | < 0.3 |
| 7976367 | 23 | 0.6 |
| 7976368 | 25 | 1.6 |
| 7976378 | 26 | < 0.3 |
| 7976376 | 28 | < 0.3 |
| 7976379 | 29 | 0.8 |
| 7976383 | 30 | < 0.3 |
| 7976375 | 31 | < 0.3 |
| 7976385 | 32 | < 0.3 |
| 7977535 | 100 | 1.9 |
| 7977533 | 102 | 0.5 |
| 7977522 | 103 | < 0.3 |
| 7977521 | 104 | 1.1 |
| 7977525 | 105 | 0.9 |
| 7977516 | 106 | 0.8 |
| 7977520 | 107 | 0.6 |
| 7977515 | 108 | 0.8 |
| 7977519 | 109 | 0.8 |
| 7977505 | 110 | 1.1 |
| 7977511 | 111 | < 0.3 |
| 7977504 | 112 | 0.6 |
| 7977503 | 114 | 0.7 |
| 7977501 | 116 | 1.6 |
| 7977506 | 117 | 1.0 |
| 7976350 | 118 | 1.6 |
| 7976355 | 127 | < 0.3 |
| 7976356 | 130 | 0.5 |
| 7976386 | 215 | 0.8 |
| 7976381 | 218 | 1.5 |
| 7977527 | 101A | < 0.3 |
| 7977528 | 101B | 1.0 |
| 7977529 | 101C | 0.9 |
| 7977530 | 101D | 1.1 |
| 7977531 | 101E | < 0.3 |
| 7977524 | * 103A (Tampered) | 0.7 |
| 7977526 | 103B | 0.6 |
| 7977512 | 111A | < 0.3 |
| 7976370 | 22A | 0.8 |
| 7976369 | 22B | 0.6 |
| 7976380 | 27A | < 0.3 |
| 7976374 | 27B | < 0.3 |

Table Note:
* Missing or Compromised Sample

| Radon Testing Results | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 11/27/17-11/30/17 | | |
| | | |
| **Kit Number** | **Room / Area** | **Result** |
| 7976377 | 27C | < 0.3 |
| 7977549 | ADMIN SEC OFFICE | < 0.3 |
| 7977544 | ASST PRINCIPAL OFFICE | < 0.3 |
| 7977547 | ASST PRINCIPAL | < 0.3 |
| 7976365 | BS MANAG OFF | 1.7 |
| 7976366 | BS OFFICE 2 | 1.0 |
| 7977541 | CAFETERIA | < 0.3 |
| 7977542 | CAFETERIA | 0.6 |
| 7977546 | CONFERENCE RM | < 0.3 |
| 7977540 | GUID A | < 0.3 |
| 7977539 | GUID B | < 0.3 |
| 7977537 | GUID C | 0.8 |
| 7977538 | GUID D | < 0.3 |
| 7977536 | GUID E | 0.9 |
| 7977534 | GUIDANCE CONF | 0.7 |
| 7977509 | GYM | 1.0 |
| 7977514 | GYM | 1.0 |
| 7976357 | HEALTH OFFICE | < 0.3 |
| 7976358 | HEALTH ROOM | < 0.3 |
| 7977508 | M1 | 0.7 |
| 7977513 | M2 | 0.8 |
| 7977550 | MAIL ROOM | < 0.3 |
| 7977545 | MAIN OFFICE | < 0.3 |
| 7976353 | MEDIA CENTER | 1.2 |
| 7976354 | * MEDIA CENTER (Tampered) | 1.0 |
| 7976352 | MEDIA SPECIALIST | 1.1 |
| 7977543 | PRINCIPLE | < 0.3 |
| 7976373 | TEAM ROOM A | 0.5 |
| 7977510 | TEAM ROOM B | 1.5 |
| 7976371 | VERIZON LINE IN | 1.4 |
| 7977518 | WEIGHT ROOM | < 0.3 |
| 7976351 | WORK ROOM | 1.2 |

Table Note:
* Missing or Compromised Sample

| Radon Testing Results | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 11/27/17-11/30/17 | | |
| | | |
| **Kit Number** | **QC Type** | **Result** |
| 7977532 | D (102) | < 0.3 |
| 7977517 | D (106) | 0.8 |
| 7976384 | D (215) | < 0.3 |
| 7976382 | D (31) | 0.6 |
| 7976359 | D (HEALTH ROOM) | < 0.3 |
| 7977507 | D (TEAM ROOM B) | 1.0 |
| 7977523 | FB (103) | < 0.3 |
| 7977502 | FB (114) | < 0.3 |
| 7977548 | FB (ASST PRINCIPAL) | < 0.3 |
| 7977276 | OB (OB) | < 0.3 |

Table Note:
* Missing or Compromised Sample

| Summary of Missed Locations | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 11/27/17-12/01/17 | | |
| | | |
| **Kit Number** | **Room / Area** | **Result** |
| - | ASA OFFICE (Missed location) | - |
| - | DANCE (Missed location) | - |
| - | FINANCE (Missed location) | - |
| - | PE OFFICE (Missed location) | - |
| - | PE OFFICE AREA (Missed location) | - |
| - | PE2 (Missed location) | - |
| - | SECURITY (Missed location) | - |
| - | STUDIO MANAGER OFFICE (Missed location) | - |
| - | M OFFICE (Missed location) | - |
| - | A RM ACROSS FROM 25 & 23 (Missed location) | - |
| - | B RM ACROSS FROM 25 & 23 (Missed location) | - |
| - | C RM ACROSS FROM 25 & 23 (Missed location) | - |

| Summary of Missing, Compromised and ≥4 piC/L Tests | | | |
|---|---|---|---|
| Sligo Middle School | | | |
| Test Period: 11/27/17-11/30/17 | | | |
| | | | |
| **Kit Number** | | **Room / Area** | **Result** |
| 7977524 | * | 103A (Tampered) | 0.7 |
| 7976354 | * | MEDIA CENTER (Tampered) | 1.0 |

Table Note:
* Missing or Compromised Sample

# ATTACHMENT C

# Laboratory Analytical Results

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

Radon test result report for:
**SLIGO MS**
**SLIGO MS**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7977535 | 100 | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 1.9 ± 0.4 | 2017-12-05 |
| 7977527 | 101A | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977528 | 101B | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 1.0 ± 0.3 | 2017-12-05 |
| 7977529 | 101C | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 0.9 ± 0.3 | 2017-12-05 |
| 7977530 | 101D | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 1.1 ± 0.3 | 2017-12-05 |
| 7977531 | 101E | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7977532 | 102 | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977533 | 102 | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 0.5 ± 0.3 | 2017-12-04 |
| 7977522 | 103 | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977523 | 103 | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977524 | 103A | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 0.7 ± 0.3 | 2017-12-05 |
| 7977526 | 103B | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 0.6 ± 0.3 | 2017-12-05 |
| 7977521 | 104 | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 1.1 ± 0.3 | 2017-12-04 |
| 7977525 | 105 | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 0.9 ± 0.3 | 2017-12-04 |
| 7977516 | 106 | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 0.8 ± 0.3 | 2017-12-04 |
| 7977517 | 106 | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 0.8 ± 0.3 | 2017-12-05 |
| 7977520 | 107 | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 0.6 ± 0.3 | 2017-12-04 |
| 7977515 | 108 | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 0.8 ± 0.3 | 2017-12-04 |
| 7977519 | 109 | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 0.8 ± 0.3 | 2017-12-04 |
| 7977505 | 110 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 1.1 ± 0.4 | 2017-12-05 |
| 7977511 | 111 | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977512 | 111A | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7977504 | 112 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 0.6 ± 0.3 | 2017-12-05 |
| 7977503 | 114 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 0.7 ± 0.3 | 2017-12-04 |
| 7977502 | 114 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977501 | 116 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 1.6 ± 0.3 | 2017-12-04 |
| 7977506 | 117 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 1.0 ± 0.3 | 2017-12-04 |
| 7976350 | 118 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 1.6 ± 0.3 | 2017-12-05 |
| 7976355 | 127 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7976364 | 13 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7976356 | 130 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 0.5 ± 0.3 | 2017-12-05 |
| 7976363 | 15 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 1.1 ± 0.3 | 2017-12-05 |
| 7976362 | 17 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 1.1 ± 0.3 | 2017-12-05 |
| 7976361 | 19 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 0.9 ± 0.3 | 2017-12-05 |
| 7976360 | 21 | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 0.8 ± 0.3 | 2017-12-04 |
| 7976384 | 215 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 12:00 pm | < 0.3 | 2017-12-05 |
| 7976386 | 215 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 12:00 pm | 0.8 ± 0.3 | 2017-12-05 |

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

Radon test result report for:
**SLIGO MS**
**SLIGO MS**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7976381 | 218 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 12:00 pm | 1.5 ± 0.3 | 2017-12-05 |
| 7976372 | 22 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7976370 | 22A | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | 0.8 ± 0.3 | 2017-12-04 |
| 7976369 | 22B | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | 0.6 ± 0.3 | 2017-12-04 |
| 7976367 | 23 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | 0.6 ± 0.3 | 2017-12-04 |
| 7976368 | 25 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | 1.6 ± 0.4 | 2017-12-05 |
| 7976378 | 26 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7976380 | 27A | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7976374 | 27B | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7976377 | 27C | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7976376 | 28 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7976379 | 29 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | 0.8 ± 0.3 | 2017-12-05 |
| 7976383 | 30 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7976375 | 31 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7976382 | 31 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | 0.6 ± 0.3 | 2017-12-05 |
| 7976385 | 32 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977549 | ADMIN SEC OFFICE | 2017-11-27 @ 12:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977544 | ASST PRINC. OFFC | 2017-11-27 @ 12:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977547 | ASST PRINCIPAL | 2017-11-27 @ 12:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977548 | ASST PRINCIPAL | 2017-11-27 @ 12:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7976365 | BS MANAG OFF | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | 1.7 ± 0.4 | 2017-12-05 |
| 7976366 | BS OFFICE 2 | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | 1.0 ± 0.3 | 2017-12-04 |
| 7977541 | CAFETERIA | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977542 | CAFETERIA | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 0.6 ± 0.3 | 2017-12-04 |
| 7977546 | CONFERENCE RM | 2017-11-27 @ 12:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7977540 | GUID A | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7977539 | GUID B | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977537 | GUID C | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 0.8 ± 0.3 | 2017-12-05 |
| 7977538 | GUID D | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977536 | GUID E | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 0.9 ± 0.3 | 2017-12-04 |
| 7977534 | GUIDANCE CONF | 2017-11-27 @ 1:00 pm | 2017-11-30 @ 11:00 am | 0.7 ± 0.3 | 2017-12-05 |
| 7977509 | GYM | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 1.0 ± 0.3 | 2017-12-04 |
| 7977514 | GYM | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 1.0 ± 0.3 | 2017-12-05 |
| 7976357 | HEALTH OFFICE | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 12:00 pm | < 0.3 | 2017-12-05 |
| 7976359 | HEALTH ROOM | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 12:00 pm | < 0.3 | 2017-12-04 |
| 7976358 | HEALTH ROOM | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 12:00 pm | < 0.3 | 2017-12-05 |
| 7977508 | M1 | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 0.7 ± 0.3 | 2017-12-04 |

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

Radon test result report for:
**SLIGO MS**
**SLIGO MS**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7977513 | M2 | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 0.8 ± 0.3 | 2017-12-05 |
| 7977550 | MAIL ROOM | 2017-11-27 @ 12:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7977545 | MAIN OFFICE | 2017-11-27 @ 12:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7976353 | MEDIA CENTER | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 1.2 ± 0.3 | 2017-12-04 |
| 7976354 | MEDIA CENTER | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 1.0 ± 0.3 | 2017-12-04 |
| 7976352 | MEDIA SPECIALIST | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 1.1 ± 0.3 | 2017-12-04 |
| 7977276 | OB | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 2:00 pm | < 0.3 | 2017-12-05 |
| 7977543 | PRINCIPLE | 2017-11-27 @ 12:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-04 |
| 7976373 | TEAM ROOM A | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 12:00 pm | 0.5 ± 0.3 | 2017-12-05 |
| 7977507 | TEAM ROOM B | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 1.0 ± 0.3 | 2017-12-04 |
| 7977510 | TEAM ROOM B | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | 1.5 ± 0.4 | 2017-12-05 |
| 7976371 | VERIZON LINE IN | 2017-11-27 @ 4:00 pm | 2017-11-30 @ 11:00 am | 1.4 ± 0.4 | 2017-12-05 |
| 7977518 | WEIGHT ROOM | 2017-11-27 @ 2:00 pm | 2017-11-30 @ 11:00 am | < 0.3 | 2017-12-05 |
| 7976351 | WORK ROOM | 2017-11-27 @ 3:00 pm | 2017-11-30 @ 11:00 am | 1.2 ± 0.4 | 2017-12-05 |

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December 21, 2017 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**SLIGO CREEK ES**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7976533 | 105A | @ | @ | | |
| 7976503 | 115 | @ | @ | | |

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# Radon Test Kit Chain of Custody

Project Name: MCPS Radon Phase

Names of Schools:

1. Montgomery Knolls Elementary School
2. New Hampshire Estates Elementary School
3. Montgomery Blair High School
4. Silver Creek Middle School
5. Sligo Creek Elementary School
6. East Silver Spring Elementary School
7. Silver Spring International Middle School
8. Woodlin Elementary School
9. Northwood High School
10. Spring Mill Center
11. Westbrook Elementary School
12. Westland Middle School
13. Cloverly Elementary School
14. Flora Singer Elementary School
15. Sligo Middle School
16. Mario Loiederman Middle School
17. Roscoe Nix Elementary School
18. Sargent Shriver Elementary School
19.
20.
21.
22.
23.
24.
25.
26.

---

| | Date | Initials |
|---|---|---|
| Radon Test Kits Deployed | 11/27/17 | JM |
| Radon Test Kits Collected | 11/30/17 | JM |
| Radon Test Kits Shipped to Lab* | 11/30/17 | JM |
| Radon Test Kits Received by Lab* | 12/04/17 | 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 |

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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 |

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# 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**

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# MCPS RADON TESTING

## Executive Summary: Sligo Middle School

| | |
|---|---|
| Date of Test Report: | 11/28/2016 |
| Round of Testing: | Initial<br>Follow-up<br>Post Remediation |
| | |
| # Rooms Tested: | 2 |
| # Rooms ≥ 4.0 pCi/L: | 0 |
| | |
| Low Value: | 1.0 |
| High Value: | 1.6 |

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

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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: Sligo Middle School
1401 Dennis Avenue
Silver Spring, MD 20902

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 Sligo Middle School, located at 1401 Dennis Avenue in Silver Spring, Maryland 20902 (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 14, 2016 and deployed two (2) 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 17, 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 high 20's to 30s and high temperatures were in the high 50s to low 60s. Maximum sustained winds ranged from 8-14 miles per hour. Average humidity ranged was around 55%. 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 | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 11/14/16-11/17/16 | | |
| | | |
| **Kit Number** | **Room / Area** | **Result** |
| 7802096 | 102 | 1 |
| 7802095 | 101E | 1.6 |

Table Note:
* Missing or Compromised Sample

# ATTACHMENT C

## Laboratory Analytical Results

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

Radon test result report for:
**SLIGO MIDDLE SCHOOL**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7802095 | 101E | 2016-11-14 @ 1:00 pm | 2016-11-17 @ 10:00 am | 1.6 ± 0.4 | 2016-11-21 |
| 7802096 | 102 | 2016-11-14 @ 1:00 pm | 2016-11-17 @ 10:00 am | 1.0 ± 0.4 | 2016-11-21 |

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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 |

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

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT 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**

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# 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

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# 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

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# MCPS RADON TESTING

## Executive Summary: Sligo Middle School

| | |
|---|---|
| Date of Test Report: | 10/20/2016 |
| Round of Testing: | Initial<br>Follow-up<br>Post Remediation |
| | |
| # Rooms Tested: | 43 |
| # Rooms ≥ 4.0 pCi/L: | 0 |
| | |
| Low Value: | < 0.3 |
| High Value: | 1.8 |

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

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October 20, 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: Sligo Middle School
1401 Dennis Avenue
Silver Spring, MD 20902

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 Sligo Middle School, located at 1401 Dennis Avenue in Silver Spring, Maryland 20902 (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 forty-eight (48) 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 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 | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 09/26/16-09/29/16 | | |
| | | |
| **Kit Number** | **Room / Area** | **Result** |
| 7802862 | 22 | 1.7 |
| 7802854 | 28 | 0.6 |
| 7802855 | 29 | 0.6 |
| 7802856 | 30 | 0.8 |
| 7802857 | 31 | 0.9 |
| 7802858 | 32 | 0.9 |
| 7802894 | 100 | 1.1 |
| 7802879 | 101 | 0.5 |
| 7802873 | 103 | 0.6 |
| 7802886 | 104 | < 0.3 |
| 7802870 | 105 | 0.6 |
| 7802872 | 107 | < 0.3 |
| 7802877 | 109 | 0.5 |
| 7802864 | 111 | < 0.3 |
| 7802869 | 113 | < 0.3 |
| 7802889 | 118 | 0.8 |
| 7802853 | 022A | 0.8 |
| 7802885 | 101 D | 0.8 |
| 7802880 | * 101 E (Missing) | - |
| 7802887 | 101B | < 0.3 |
| 7802893 | * 102 (Missing) | - |
| 7802878 | 103A | 0.7 |
| 7802871 | 103B | < 0.3 |
| 7802865 | 111A | < 0.3 |
| 7802900 | ADMIN SEC OFF | < 0.3 |
| 7802895 | ASA OFF | 0.5 |
| 7802897 | ASST PRINCIPAL | < 0.3 |
| 7802881 | GUIDANCE A | 0.6 |
| 7802882 | GUIDANCE B | 0.6 |
| 7802876 | GUIDANCE C | 0.7 |
| 7802883 | GUIDANCE D | < 0.3 |
| 7802896 | GUIDANCE E | 1.0 |
| 7802891 | HEALTH OFF | 0.6 |
| 7802850 | HEALTH RM | 0.5 |
| 7802866 | M-1 | < 0.3 |
| 7802867 | M-2 | < 0.3 |
| 7802890 | MAIN OFF CON RM | < 0.3 |
| 7802898 | MAIN OFFICE | < 0.3 |
| 7802868 | M-OFF | 0.8 |
| 7802888 | PE OFF | < 0.3 |
| 7802875 | PEOFF2 | 0.8 |
| 7802892 | PRINCIPAL OFF | < 0.3 |
| 7802863 | VERIZON IN LINE | 1.8 |

Table Note:
* Missing or Compromised Sample

| Radon Testing Results | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 09/26/16-09/29/16 | | |
| | | |
| **Kit Number** | **QC Type** | **Result** |
| 7802874 | D (103) | 0.6 |
| 7802861 | D (22) | 1.4 |
| 7802860 | D (32) | 0.7 |
| 7802884 | D (GUIDANCE B) | 0.9 |
| 7802899 | D (MAIN OFFICE) | < 0.3 |

Table Note:
* Missing or Compromised Sample

# ATTACHMENT C

## Laboratory Analytical Results

October 17, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**SLIGO MIDDLE SCHOOL**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7802853 | 022A | 2016-09-26 @ 11:00 am | 2016-09-29 @ 9:00 am | 0.8 ± 0.3 | 2016-10-03 |
| 7802894 | 100 | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | 1.1 ± 0.3 | 2016-10-03 |
| 7802879 | 101 | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | 0.5 ± 0.3 | 2016-10-03 |
| 7802885 | 101 D | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | 0.8 ± 0.3 | 2016-10-03 |
| 7802880 | 101 E | @ | @ | | |
| 7802887 | 101B | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | < 0.3 | 2016-10-03 |
| 7802893 | 102 | @ | @ | | |
| 7802873 | 103 | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | 0.6 ± 0.3 | 2016-10-03 |
| 7802874 | 103 | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | 0.6 ± 0.3 | 2016-10-03 |
| 7802878 | 103A | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | 0.7 ± 0.3 | 2016-10-03 |
| 7802871 | 103B | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | < 0.3 | 2016-10-03 |
| 7802886 | 104 | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | < 0.3 | 2016-10-03 |
| 7802870 | 105 | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | 0.6 ± 0.3 | 2016-10-03 |
| 7802872 | 107 | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | < 0.3 | 2016-10-03 |
| 7802877 | 109 | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | 0.5 ± 0.3 | 2016-10-03 |
| 7802864 | 111 | 2016-09-26 @ 10:00 am | 2016-09-29 @ 10:00 am | < 0.3 | 2016-10-03 |
| 7802865 | 111A | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | < 0.3 | 2016-10-03 |
| 7802869 | 113 | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | < 0.3 | 2016-10-03 |
| 7802889 | 118 | 2016-09-26 @ 9:00 am | 2016-09-29 @ 8:00 am | 0.8 ± 0.3 | 2016-10-03 |
| 7802861 | 22 | 2016-09-26 @ 11:00 am | 2016-09-29 @ 9:00 am | 1.4 ± 0.3 | 2016-10-03 |
| 7802862 | 22 | 2016-09-26 @ 11:00 am | 2016-09-29 @ 9:00 am | 1.7 ± 0.4 | 2016-10-03 |
| 7802854 | 28 | 2016-09-26 @ 11:00 am | 2016-09-29 @ 9:00 am | 0.6 ± 0.3 | 2016-10-03 |
| 7802855 | 29 | 2016-09-26 @ 11:00 am | 2016-09-29 @ 9:00 am | 0.6 ± 0.3 | 2016-10-03 |
| 7802856 | 30 | 2016-09-26 @ 11:00 am | 2016-09-29 @ 10:00 am | 0.8 ± 0.3 | 2016-10-03 |
| 7802857 | 31 | 2016-09-26 @ 11:00 am | 2016-09-29 @ 9:00 am | 0.9 ± 0.3 | 2016-10-03 |
| 7802858 | 32 | 2016-09-26 @ 11:00 am | 2016-09-29 @ 10:00 am | 0.9 ± 0.3 | 2016-10-03 |
| 7802860 | 32 | 2016-09-26 @ 11:00 am | 2016-09-29 @ 10:00 am | 0.7 ± 0.3 | 2016-10-03 |
| 7802900 | ADMIN SEC OFF | 2016-09-26 @ 9:00 am | 2016-09-29 @ 8:00 am | < 0.3 | 2016-10-03 |
| 7802895 | ASA OFF | 2016-09-26 @ 9:00 am | 2016-09-29 @ 8:00 am | 0.5 ± 0.3 | 2016-10-03 |
| 7802897 | ASST PRINCIPAL | 2016-09-26 @ 9:00 am | 2016-09-29 @ 8:00 am | < 0.3 | 2016-10-03 |
| 7802881 | GUIDANCE A | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | 0.6 ± 0.3 | 2016-10-03 |
| 7802882 | GUIDANCE B | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | 0.6 ± 0.3 | 2016-10-03 |
| 7802884 | GUIDANCE B | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | 0.9 ± 0.3 | 2016-10-03 |
| 7802876 | GUIDANCE C | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | 0.7 ± 0.3 | 2016-10-03 |
| 7802883 | GUIDANCE D | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | < 0.3 | 2016-10-03 |
| 7802896 | GUIDANCE E | 2016-09-26 @ 9:00 am | 2016-09-29 @ 9:00 am | 1.0 ± 0.3 | 2016-10-03 |
| 7802891 | HEALTH OFF | 2016-09-26 @ 9:00 am | 2016-09-29 @ 8:00 am | 0.6 ± 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 |

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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 |

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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 |

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

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT 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**

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# 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

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# 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

October 17, 2016 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**SLIGO MIDDLE SCHOOL**
**MAIN**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7802850 | HEALTH RM | 2016-09-26 @ 11:00 am | 2016-09-29 @ 10:00 am | 0.5 ± 0.3 | 2016-10-03 |
| 7802866 | M-1 | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | < 0.3 | 2016-10-03 |
| 7802867 | M-2 | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | < 0.3 | 2016-10-03 |
| 7802868 | M-OFF | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | 0.8 ± 0.3 | 2016-10-03 |
| 7802890 | MAIN OFF CON RM | 2016-09-26 @ 9:00 am | 2016-09-29 @ 8:00 am | < 0.3 | 2016-10-03 |
| 7802898 | MAIN OFFICE | 2016-09-26 @ 9:00 am | 2016-09-29 @ 8:00 am | < 0.3 | 2016-10-03 |
| 7802899 | MAIN OFFICE | 2016-09-26 @ 9:00 am | 2016-09-29 @ 8:00 am | < 0.3 | 2016-10-03 |
| 7802888 | PE OFF | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | < 0.3 | 2016-10-03 |
| 7802875 | PEOFF2 | 2016-09-26 @ 10:00 am | 2016-09-29 @ 9:00 am | 0.8 ± 0.3 | 2016-10-03 |
| 7802892 | PRINCIPAL OFF | 2016-09-26 @ 9:00 am | 2016-09-29 @ 8:00 am | < 0.3 | 2016-10-03 |
| 7802863 | VERIZON IN LINE | 2016-09-26 @ 11:00 am | 2016-09-29 @ 9:00 am | 1.8 ± 0.4 | 2016-10-03 |

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# RADON SCREENING SURVEY – FOLLOW-UP SLIGO MIDDLE SCHOOL

## 1401 Dennis Ave, Silver Spring, Maryland 20902

EXECUTIVE SUMMARY

| | |
|---|---|
| Date of Test Report: | 4/11/16 Follow-Up |
| Round of Testing: | Initial<br>Follow-up<br>Post Remediation |
| # Rooms Tested | 40 |
| # Rooms ≥ 4.0 pCi/L: | 3 |
| Low Value: | 1.1 |
| High Value: | 5.4 |
| Confirmed Rooms ≥ 4.0 pCi/L US EPA Action Level | 8 |

**Summary of Sampling Events ≥ 4.0 pCi/L**

| Room | Result (pCi/L) 2/29/16 Initial | Result (pCi/L) 4/11/16 Follow-Up | Average Result (pCi/L) |
|---|---|---|---|
| M2 | 11.3 | 3.5 | 7.4 |
| 100 | 8.5 | 4.4 | 6.5 |
| 104 | 8.2 | 5.4 | 6.8 |
| 111A | 7.1 | 3.1 | 5.1 |
| 30 | 6.4 | 4.2 | 5.3 |
| Health Office | 6.4 | 3.0 | 4.7 |
| M Office | 6.2 | 1.2 | 3.7 |
| Health | 5.8 | 2.6 | 4.2 |
| M1 | 5.8 | 2.0 | 3.9 |
| Principal Office | 5.3 | 3.2 | 4.3 |
| 102 | 5.2 | 1.8 | 3.5 |
| Assistant Principal | 4.6 | 2.3 | 3.5 |
| Verizon Line In | 4.5 | 2.2 Tampered | 3.4 |
| Guidance c | 4.4 | 2.3 | 3.4 |
| 109 | 4.2 | 2.9 | 3.6 |
| 101B | 4.2 | 2.4 | 3.3 |
| 101D | 4.2 | 2.4 | 3.3 |
| 101E | 4.1 | 2.7 | 3.4 |
| Conference Room | 4.1 | 3.4 | 3.8 |
| 111 | 4.0 | 2.7 | 3.4 |
| 103A | 4.0 | 3.3 | 3.7 |

| | | | |
|---|---|---|---|
| Admin Secretary Office | 4.0 | 2.1 | 3.1 |
| Guidance | 4.0 | 2.2 | 3.1 |
| 110 | 2.0 Window Open | 1.8 | 1.9 |
| 114 | 2.0 Window Open | 1.4 | 1.7 |
| 101 | 3.8 | 1.8 | 2.8 |
| 101A | 3.9 | 3.3 | 3.6 |
| 101C | 3.6 | 2.4 | 3.0 |
| 103B | 3.6 | 2.0 | 2.8 |
| 107 | 3.4 | 1.7 | 2.6 |
| 118 | 3.6 | 2.2 | 2.9 |
| 118 | 3.6 | 2.9 | 3.3 |
| 22 | 3.6 | 1.1 | 2.4 |
| ASA Office | 3.8 | 3.7 | 3.8 |
| BS Office 2 | 3.3 | 1.4 | 2.4 |
| Finance | 3.3 | 3.1 | 3.2 |
| Guid C | 3.7 | 2.3 | 3.0 |
| Mail Room | 3.5 | 2.5 | 3.0 |
| Main Office | 3.4 | 2.2 | 2.8 |
| PE Office | 3.5 | 2.0 | 2.8 |
| PE2 | 3.5 | 2.8 | 3.2 |
| | | | |
| | | | |
| | | | |

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# MCPS RADON TESTING

Executive Summary: Sligo Middle School

| | |
|---|---|
| Date of Test Report: | 4/11/2016 |
| Round of Testing: | Initial<br>Follow-up<br>Post Remediation |
| | |
| # Rooms Tested: | 40 |
| # Rooms ≥ 4.0 pCi/L: | 3 |
| | |
| Low Value: | 1.1 |
| High Value: | 5.4 |

Rooms with results ≥ 4.0 pCi/L:
104 (5.4 pCi/L), 100 (4.4 pCi/L), 30 (4.2 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.
Retesting completed; missing or compromised samples need re-test.

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April 11, 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 # 12146341.32

Location: Sligo Middle School
1401 Dennis Avenue
Silver Spring, MD 20902

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 Sligo Middle School, located at 1401 Dennis Avenue in Silver Spring, Maryland 20902 (subject site).

**Scope of Services:**

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

KCI visited the site on March 14, 2016 and deployed forty-one (41) 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 TCS Industries Inc. as spike samples. The spiked tests were exposed to a known radon concentration by TCS prior to being returned to the laboratory for analysis.

KCI returned to the site on March 17, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to AccuStar Labs for analysis by gamma-ray spectroscopy. Accustar Labs is a NRSB certified analytical laboratory for radon analysis (certification # ARL0007) located at 929 Mount

Zion Road, Lebanon, Pennsylvania.

**Evaluation of Testing Conditions:**

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages ≤ 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** | 104 | 5.4 |
| | 100 | 4.4 |
| | 30 | 4.2 |
| **<4.0 piC/L** | See Attachment B | |

Notes:
D- Duplicate sample

The office blank and lab transit blanks had test results of less than the laboratory detection limit of 0.4 pCi/L. Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved. The Spike sample analysis results indicate the laboratory is operating within statistical control limits.

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

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

Sincerely,

James M. 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 12 testing. Office blanks were not submitted under each school individually.

| Radon Testing Results | | |
|---|---|---|
| Sligo MS | | |
| Test Period: 03/14/16-03/17/16 | | |
| | | |
| **Kit Number** | **Room / Area** | **Result** |
| 3028726 | 22 | 1.1 |
| 3028762 | 30 | 4.2 |
| 3028906 | 100 | 4.4 |
| 3028769 | 101 | 1.8 |
| 3029108 | 102 | 1.8 |
| 3028907 | 104 | 5.4 |
| 3028767 | 107 | 1.7 |
| 3028768 | 109 | 2.9 |
| 3028765 | 110 | 1.8 |
| 3028746 | 111 | 2.7 |
| 3028745 | 114 | 1.4 |
| 3028764 | 118 | 2.2 |
| 3028728 | 118 | 2.9 |
| 3028748 | 101A | 3.3 |
| 3028925 | 101B | 2.4 |
| 3028749 | 101C | 2.4 |
| 3028929 | 101D | 2.4 |
| 3028750 | 101E | 2.7 |
| 3028920 | 103A | 3.3 |
| 3028924 | 103B | 2.0 |
| 3028930 | 111A | 3.1 |
| 3028908 | Admin Secretary Office | 2.1 |
| 3028935 | ASA Office | 3.7 |
| 3029107 | Asst Principle Office | 2.3 |
| 3028763 | BS Office 2 | 1.4 |
| 3028926 | Conference Room | 3.4 |
| 3028947 | Finance | 3.1 |
| 3028741 | Guid C | 2.3 |
| 3028743 | Guid Conf | 2.7 |
| 3029104 | Guidance | 2.2 |
| 3028937 | Health | 2.6 |
| 3029106 | Health Office | 3.0 |
| 3028744 | M Office | 1.2 |
| 3028761 | M1 | 2.0 |
| 3028747 | M2 | 3.5 |
| 3028909 | Mail Room | 2.5 |
| 3029109 | Main Office | 2.2 |
| 3028770 | PE 2 | 2.8 |
| 3028766 | PE Office | 2.0 |
| 3029101 | Principle Office | 3.2 |
| 3028742 | * Verizon Line (tampered) | 2.2 |

Table Note:
* Missing or Compromised Sample

# ATTACHMENT C

## Laboratory Analytical Results

AccuStar
Professional Radon Laboratory Services Since 1984

# Radon in Air

NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

Property Tested: Project # 12146341

Sligo Middle School
1401 Dennis Avenue
Silver Spring MD 20902

| Log Number | Device Number | Test Exposure Duration: | | Area Tested | Result (pCi/L) |
|---|---|---|---|---|---|
| 3017604 | 3028937 | 03/14/2016 8:58 am | 03/17/2016 8:13 am | Health | 2.6 |
| 3017605 | 3029106 | 03/14/2016 8:58 am | 03/17/2016 8:12 am | Health Office | 3.0 |
| 3017606 | 3028909 | 03/14/2016 9:06 am | 03/17/2016 8:05 am | Mail Room | 2.5 |
| 3017607 | 3029109 | 03/14/2016 9:09 am | 03/17/2016 8:04 am | Main Office | 2.2 |
| 3017608 | 3028908 | 03/14/2016 9:13 am | 03/17/2016 8:04 am | Admin Secretary Office | 2.1 |
| 3017609 | 3028926 | 03/14/2016 9:19 am | 03/17/2016 8:07 am | Conference Room | 3.4 |
| 3017610 | 3028935 | 03/14/2016 9:21 am | 03/17/2016 8:10 am | ASA Office | 3.7 |
| 3017611 | 3029107 | 03/14/2016 9:24 am | 03/17/2016 8:10 am | Asst. Principal Office | 2.3 |
| 3017612 | 3028947 | 03/14/2016 9:31 am | 03/17/2016 8:15 am | Finance | 3.1 |
| 3017613 | 3029101 | 03/14/2016 9:35 am | 03/17/2016 8:10 am | Principal Office | 3.2 |

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

Distributed by: KCI Technologies, Inc.

Date Received: 03/21/2016 Date Logged: 03/21/2016 Date Analyzed: 03/22/2016 Date Reported: 03/23/2016

Report Reviewed By: Grace E. Hebner

Report Approved By: Carolyn D. Koke

Carolyn D. Koke, President, AccuStar Labs

**Disclaimer:**

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

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NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

Property Tested: Project # 12146341

Sligo Middle School
1401 Dennis Avenue
Silver Spring MD 20902

| Log Number | Device Number | Test Exposure Duration: | | Area Tested | Result (pCi/L) |
|---|---|---|---|---|---|
| 3017614 | 3029104 | 03/14/2016 9:40 am | 03/17/2016 8:16 am | Guidance | 2.2 |
| 3017615 | 3028906 | 03/14/2016 9:43 am | 03/17/2016 8:51 am | 100 | 4.4 |
| 3017616 | 3028748 | 03/14/2016 10:01 am | 03/17/2016 8:21 am | 101A | 3.3 |
| 3017617 | 3028925 | 03/14/2016 10:01 am | 03/17/2016 8:20 am | 101B | 2.4 |
| 3017618 | 3028749 | 03/14/2016 10:02 am | 03/17/2016 8:22 am | 101C | 2.4 |
| 3017619 | 3028929 | 03/14/2016 10:02 am | 03/17/2016 8:21 am | 101D | 2.4 |
| 3017620 | 3028750 | 03/14/2016 10:02 am | 03/17/2016 8:20 am | 101E | 2.7 |
| 3017621 | 3028920 | 03/14/2016 10:07 am | 03/17/2016 8:22 am | 103A | 3.3 |
| 3017622 | 3028924 | 03/14/2016 10:07 am | 03/17/2016 8:22 am | 103B | 2.0 |
| 3017623 | 3029108 | 03/14/2016 10:10 am | 03/17/2016 8:20 am | 102 | 1.8 |

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NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

Property Tested: Project # 12146341

Sligo Middle School
1401 Dennis Avenue
Silver Spring MD 20902

| Log Number | Device Number | Test Exposure Duration: | | Area Tested | Result (pCi/L) |
|---|---|---|---|---|---|
| 3017624 | 3028769 | 03/14/2016 10:20 am | 03/17/2016 8:21 am | 101 | 1.8 |
| 3017625 | 3028767 | 03/14/2016 10:23 am | 03/17/2016 8:30 am | 107 | 1.7 |
| 3017626 | 3028768 | 03/14/2016 10:27 am | 03/17/2016 8:31 am | 109 | 2.9 |
| 3017627 | 3028746 | 03/14/2016 10:33 am | 03/17/2016 8:34 am | 111 | 2.7 |
| 3017628 | 3028747 | 03/14/2016 10:35 am | 03/17/2016 8:35 am | M2 | 3.5 |
| 3017629 | 3028930 | 03/14/2016 10:41 am | 03/17/2016 8:44 am | 111A | 3.1 |
| 3017630 | 3028766 | 03/14/2016 10:45 am | 03/17/2016 8:46 am | PE Office | 2.0 |
| 3017631 | 3028770 | 03/14/2016 10:47 am | 03/17/2016 8:50 am | PE2 | 2.8 |
| 3017632 | 3028765 | 03/14/2016 10:52 am | 03/17/2016 8:58 am | 110 | 1.8 |
| 3017633 | 3028745 | 03/14/2016 10:55 am | 03/17/2016 8:56 am | 114 | 1.4 |

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NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

Property Tested: Project # 12146341

Sligo Middle School
1401 Dennis Avenue
Silver Spring MD 20902

| Log Number | Device Number | Test Exposure Duration: | | Area Tested | Result (pCi/L) |
|---|---|---|---|---|---|
| 3017634 | 3028764 | 03/14/2016 10:58 am | 03/17/2016 8:54 am | 118 | 2.2 |
| 3017635 | 3028744 | 03/14/2016 11:01 am | 03/17/2016 9:00 am | M Office | 1.2 |
| 3017636 | 3028761 | 03/14/2016 11:07 am | 03/17/2016 8:43 am | M1 | 2.0 |
| 3017637 | 3028907 | 03/14/2016 11:10 am | 03/17/2016 8:29 am | 104 | 5.4 |
| 3017638 | 3028743 | 03/14/2016 11:18 am | 03/17/2016 8:17 am | Guidance Conf. | 2.7 |
| 3017639 | 3028741 | 03/14/2016 11:18 am | 03/17/2016 8:18 am | Guidence Conf. | 2.3 |
| 3017640 | 3028742 | 03/14/2016 11:24 am | 03/17/2016 9:04 am | Verizon Line In | 2.2 |
| 3017641 | 3028763 | 03/14/2016 11:26 am | 03/17/2016 9:02 am | BS Office 2 | 1.4 |
| 3017642 | 3028762 | 03/14/2016 11:31 am | 03/17/2016 9:06 am | 30 | 4.2 |
| 3017643 | 3028726 | 03/14/2016 11:33 am | 03/17/2016 9:06 am | 22 | 1.1 |

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

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Date Received: 03/21/2016 Date Logged: 03/21/2016 Date Analyzed: 03/22/2016 Date Reported: 03/23/2016

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# Radon in Air

NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

Property Tested: Project # 12146341

Sligo Middle School
1401 Dennis Avenue
Silver Spring MD 20902

| Log Number | Device Number | Test Exposure Duration: | | Area Tested | Result (pCi/L) |
|---|---|---|---|---|---|
| 3017644 | 3028728 | 03/14/2016 11:35 am | 03/17/2016 8:54 am | 118 | 2.9 |

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Distributed by: KCI Technologies, Inc.

Date Received: 03/21/2016 Date Logged: 03/21/2016 Date Analyzed: 03/22/2016 Date Reported: 03/23/2016

Report Reviewed By: Grace Ebenezer Report Approved By: Carolyn D. Koke

Carolyn D. Koke, President, AccuStar Labs

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AccuStar Labs
11 Awl Street
Medway MA 02053

888-480-8812
www.accustarlabs.com

# Radon Device Type Open Face Canister

PS 1/4

**Send Written Report To:**

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

**Site Tested:**

| | |
|---|---|
| Site Name | Sligo Middle School |
| Address | 1401 Dennis Ave |
| Address | |
| City / Town | Silver Spring |
| State/Province Postal Code | MD 20902 |
| Test Country | Montgomery County |
| Project Number | 12146341 |

**Contact Information:**

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

| Lab Use Only | Device Number | Building Number | Unit Number | Floor | Name of Room / Temp | Start Date mm/dd/yyyy | Start Time hh:mm am / pm | Stop Date mm/dd/yyyy | Stop Time hh:mm am / pm | Lab Use Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3028937 | | | | Health 72 | 3/14 | 8.58 AM | 3/17 | 8,13 am | |
| | 3029106 | | | | Health office 72 | 3/14 | 8.58 | | 8.12 | |
| | 3028909 | | | | Mail Room | | 9,06 | | 8,05 | |
| | 3029109 | | | | main office | | 9.09 | | 8.04 | |
| | 3028908 | | | | Admin Secretary Office | | 9.13 | | 8.04 | |
| | 3028926 | | | | Conference Room | | 9.19 | | 8.07 | |
| | 3028935 | | | | ASA office | | 9.21 | | 8.10 | |
| | 3029107 | | | | Asst. Prin Office | | 9.24 | | 8.10 | |
| | 3028947 | | | | Finance | | 9.31 | | 8.15 | |
| | 3029101 | | | | Principle office | | 9.35 | | 8.10 | |



***Test must start before the expiration date sh on your device or test results will be invalid***

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Medway MA 02053
888-480-8812
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# Radon Device Type Open Face Canister

**Send Written Report To:**

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

**Site Tested:**

| | |
|---|---|
| Site Name | Sligo MS |
| Address | 1401 Dennis Ave |
| Address | |
| City / Town | Silver Spring |
| State/Province Postal Code | MD 20902 |
| Test Country | Montgomery County |
| Project Number | 12146341 |

**Contact Information:**

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

| Lab Use Only | Device Number | Building Number | Unit Number | Floor | Name of Room / Temp | Start ~~Date~~ Time mm/dd/yyyy | Start ~~Time~~ Date hh:mm am / pm | Stop Date mm/dd/yyyy | Stop Time hh:mm am / pm | Lab Use Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3028769 | | | | 101 72 | 10,20 AM | 3/14 | | 8.21 am | |
| | 3028767 | | | | 107 | 10.23 | | | 8,30 | |
| | 3028768 | | | | 109 | 10,27 | | | 8,31 | |
| | 3028746 | | | | 111 | 10.33 | | | 8.34 | |
| | 3028747 | | | | PM2 | 10,35 | | | 8,35 | |
| | 3028730 | | | | 111A | 10.41 | | | 8,44 | |
| | 3028766 | | | | PE office | 10.45 | | | 8,46 | |
| | 3028770 | | | | PE 2 | 10,47 | | | 8,50 | |
| | 3028765 | | | | 110 | 10,52 | | | 8,58 | |
| | 3028745 | | | | 114 | 10,55 | | | 8.56 | |

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# Radon Device Type Open Face Canister

8 of 4/4

**Send Written Report To:**

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

**Site Tested:**

| | |
|---|---|
| Site Name | Sligo Middle School |
| Address | 1401 Dennis Ave |
| Address | |
| City / Town | Silver Spring |
| State/Province Postal Code | MD 20902 |
| Test Country | Montgomery County |
| Project Number | 12146341 |

**Contact Information:**

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

| Lab Use Only | Device Number | Building Number | Unit Number | Floor | Name of Room / Temp | Start Date mm/dd/yyyy | Start Time hh:mm am / pm | Stop Date mm/dd/yyyy | Stop Time hh:mm am / pm | Lab Use Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3028764 | | | 1 | 118 72 | 3/14/16 | 10.58 am | 3/17 | 8.54 am | |
| | 3028744 | | | 1 | moffice | | 11.01 am | | 9.00 AM | |
| | 3028761 | | | 1 | M1 | | 11.07 | | 8.43 | |
| | 3028907 | | | 1 | 104 | | 11.10 | | 8.29 | |
| | 3028743 | | | 1 | Guidance Conf. | | 11.18 | | 8:17 | |
| | 3028741 | | | 1 | Guidance C. | | 11.18 | | 8.18 | |
| | 3028742 | | | 1 | Verizon Mech Line Rm | | 11.24 | | 9.04 | |
| | 3028763 | | | 1 | BS office 2 | | 11.26 | | 9.02 | |
| | 3028762 | | | 1 | 30 | | 11.31 | | 9.06 | |
| | 3028726 | | | 1 | 22 | | 11.33 | | 9.06 | |
| | 3028728 | | | | 118 | | 11.35 | | 8.54 | |

Rev E1512

***Test must start before the expiration date sh on your device or test results will be invalid***

AccuStar
Professional Radon Laboratory Services Since 1984

# Radon in Air

NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

Property Tested: Project # 12146341

MCPS Radon Phase 12 Office Blank

| Log Number | Device Number | Test Exposure Duration: | | Area Tested | Result (pCi/L) |
|---|---|---|---|---|---|
| 3017546 | 3029151 | 03/14/2016 9:30 am | 03/17/2016 9:30 am | Unit # 0 Office First Floor | <0.4 |

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

Distributed by: KCI Technologies, Inc.

Date Received: 03/21/2016 Date Logged: 03/21/2016 Date Analyzed: 03/21/2016 Date Reported: 03/22/2016

Report Reviewed By: Grace E. Heverly Report Approved By: Carolyn D. Koke

Carolyn D. Koke, President, AccuStar Labs

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# Radon Device Type Open Face Canister

**Send Written Report To:**

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

**Site Tested:**

| | |
|---|---|
| Site Name | KCI OFFICE |
| Address | 936 RIDGEBROOK RD. |
| Address | |
| City / Town | SPARKS |
| State/Province Postal Code | MD 21152 |
| Test Country | Montgomery County |
| Project Number | 12146341 |

**Contact Information:**

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

| Lab Use Only | Device Number | Building Number | Unit Number | Floor | Name of Room / Temp | Start Date mm/dd/yyyy | Start Time hh:mm am / pm | Stop Date mm/dd/yyyy | Stop Time hh:mm am / pm | Lab Use Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3029151 | | 0 | 1 | OFFICE 70° | 3/14/16 | 9:30AM | 3/17/16 | 9:30AM | |
| | | | | | | | | | | |
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Rev E1512

***Test must start before the expiration date sh on your device or test results will be invalid***

AccuStar
Professional Radon Laboratory Services Since 1984

# Radon in Air

NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

Property Tested: Project # 12146341

MCPS Radon Phase 12 Office Blank

| Log Number | Device Number | Test Exposure Duration: | | Area Tested | Result (pCi/L) |
|---|---|---|---|---|---|
| 3017545 | 3029152 | 03/15/2016 9:30 am | 03/18/2016 9:30 am | Unit # 0 Office First Floor | <0.4 |

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

Distributed by: KCI Technologies, Inc.

Date Received: 03/21/2016 Date Logged: 03/21/2016 Date Analyzed: 03/21/2016 Date Reported: 03/22/2016

Report Reviewed By: Grace E. Hebner

Report Approved By: Carolyn D. Koke

Carolyn D. Koke, President, AccuStar Labs

**Disclaimer:**

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

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

AccuStar
Professional Radon Laboratory Services Since 1984

AccuStar Labs
11 Awl Street
Medway MA 02053
888-480-8812
www.accustarlabs.com

# Radon Device Type Open Face Canister

**Send Written Report To:**

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

**Site Tested:**

| | |
|---|---|
| Site Name | KCI OFFICE |
| Address | 936 RIDGEBROOK RD. |
| Address | |
| City / Town | SPARKS |
| State/Province Postal Code | MD 21152 |
| Test Country | Montgomery County |
| Project Number | 12146341 |

**Contact Information:**

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

| Lab Use Only | Device Number | Building Number | Unit Number | Floor | Name of Room Temp | Start Date mm/dd/yyyy | Start Time hh:mm am / pm | Stop Date mm/dd/yyyy | Stop Time hh:mm am / pm | Lab Use Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | 302915 | | 01 | 1 | OFFICE 4c° | 3/15/16 | 9:30 AM | 3/18/16 | 9:30AM | |
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***Test must start before the expiration date sh on your device or test results will be invalid***

AccuStar
Professional Radon Laboratory Services Since 1984

# Radon in Air

NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

Property Tested:

MCPS
Transit Blanks

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

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

Distributed by: KCI Technologies, Inc.

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

Report Reviewed By: Crystal Bates Report Approved By: Carolyn D. Koke

Carolyn D. Koke, President, AccuStar Labs

**Disclaimer:**

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

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

RECEIVED JAN 27 2016

# AccuStar Labs – Lebanon, PA
# INFORMATION FORM - Large Buildings - Projects - Apartments

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

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

## Test Site Info

Name of Building/Project or Owner Transit

Site Address: Transit

City: _____ State _____ Zip _____ County _____

Projects Contact Name: Jon Coale Phone: _____ Email: _____

Multi-Page Report Y-N

| Detector Serial# | ROOM NAME & NUMBER - LOCATION OF DETECTOR IN ROOM (indicate duplicates and blanks) | | Floor | Start Date | Start Time Include AM/PM | Stop Date | Stop Time Include AM/PM | LAB USE ONLY Wgt. Gain | LAB USE ONLY pCi/L |
|---|---|---|---|---|---|---|---|---|---|
| 12 3028953 | Transit | 3010588 | 1 | 1/19/16 | 1:00pm | 1/22/16 | 9:30am | | <0.4 |
| 1 8955 | Transit | 3010589 | 1 | 1/19/16 | ↓ | ↓ | ↓ | | <0.4 |
| 2 8954 | Transit | 3010590 | 1 | 1/19/16 | | | | | <0.4 |
| 3 8997 | Transit | 3010591 | 1 | 1/19/16 | | | | | <0.4 |
| | | | | | | | | | |
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KCI Technologies, Inc. 1/27/2016
3010588 **3028953** ACPC275B EXP12/31/2018

**Structure Type:** (circle one or more) Basement - Crawlspace - Slab on Grade - Other

**Test Purpose:** (Circle all that apply) Initial Screening - Follow Up Test - Post Mitigation - Real Estate - Other

**Building Type:** (Circle One) Residential - Non Residential; Private Day Care - Private School; Day Care in Public School - Public School

**Both Placed by and Retrieved by signatures are required** Certified Tester's Name # 

**Canisters placed by** _____ #_____

**Canisters retrieved by** _____ #_____

Owner waives confidentiality by signing here _____ Date 1/22/16

Were general operating conditions maintained? Yes - No explain if NO

Were closed building conditions maintained? Yes - No explain if NO

Normal Temp. Yes - No
Normal Humidity Yes - No
Windy Y-N Rainy Y-N

**Send Results To:**

Company Name: KCI Tech Attention: James Moulsdale

Address: 936 Ridgebrook

City: Sparks State: MD Zip 21152

Phone: 410-584-3826 Fax:

EMAIL Results to: James.Moulsdale@kci.com

Make sure information is complete and correct.

If a recalculation is requested there is a $10.00 recalc fee PER Canister.

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

# TCS INDUSTRIES, INC.

(717) 657-7032 RADON GAS DETECTION

www.radondetek.com 4326 Crestview Road, Harrisburg, PA 17112


James Moulsdale
KCI
936 Ridgebrook Rd.
Sparks, MD 21152

April 04, 2016

Dear Mr. Moulsdale:

The spike exposure data were:

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

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

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

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

Sincerely,

Carl H. Distenfeld, CHP

**********
TCS Radon Chamber NRSB CHM 0002
**********

AccuStar
Professional Radon Laboratory Services Since 1984

# Radon in Air

NRPP 10511AL
NRSB ARL0007

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

Laboratory Report for:

KCI Technologies
936 Ridgebrook Rd
Sparks MD 21152

Property Tested:

MCPS
Radon Spike Sample Laboratory Results

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

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

Distributed by: KCI Technologies, Inc.

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

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

Report Reviewed By: _____ Report Approved By: _____

Carolyn D. Koke, President, AccuStar Labs

**Disclaimer:**

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

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AccuStar
Professional Radon Laboratory Services Since 1984

AccuStar Labs
11 Awl Street
Medway MA 02053

888-480-8812
www.accustarlabs.com

# Radon Device Type Open Face Canister

**Send Written Report To:**

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

**Site Tested:**

| | |
|---|---|
| Site Name | MCPS |
| Address | 850 Hungerford Dr |
| Address | |
| City / Town | Rockville |
| State/Province Postal Code | MD 20850 |
| Test Country | Montgomery County |
| Project Number | 12146341 |

**Contact Information:**

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

| Lab Use Only | Device Number | Building Number | Unit Number | Floor | Name of Room Temp | Start Date mm/dd/yyyy | Start Time hh:mm am / pm | Stop Date mm/dd/yyyy | Stop Time hh:mm am / pm | Lab Use Only |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3029166 | 1 | | 1 | 1 | 4/4/16 | 11:10am | 4/6/16 | 11:13am | |
| | 3029214 | 1 | | 1 | 2 | | | | | |
| | 3029217 | 1 | | 1 | 3 | | | | | |
| | 3029218 | 1 | | 1 | 4 | | | | | |
| | 3029219 | 1 | | 1 | 5 | | | | | |
| | 3029220 | 1 | | 1 | 6 | | | | | |
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Rev E1512

***Test must start before the expiration date shown on your device or test results will be invalid***

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: Sligo Middle School

| | |
|---|---|
| Date of Test Report: | 2/29/2016 |
| Round of Testing: | Initial<br>Follow-up<br>Post Remediation |
| | |
| # Rooms Tested: | 83 |
| # Rooms ≥ 4.0 pCi/L: | 23 |
| | |
| Low Value: | < 0.3 |
| High Value: | 11.3 |

Rooms with results ≥ 4.0 pCi/L:
M2 (11.3 pCi/L), 100 (8.5 pCi/L), 104 (8.2 pCi/L), 111A (7.1 pCi/L), 30 (6.4 pCi/L), Health Office (6.4 pCi/L), M Office (6.2 pCi/L), Health (5.8 pCi/L), M1 (5.8 pCi/L), Principal Office (5.3 pCi/L), 102 (5.2 pCi/L), Assisstant Principal (4.6 pCi/L), Verizon Line In (4.5 pCi/L), Guidance c (4.4 pCi/L), 109 (4.2 pCi/L), 101B (4.2 pCi/L), 101D (4.2 pCi/L), 101E (4.1 pCi/L), Conference Room (4.1 pCi/L), 111 (4.0 pCi/L), 103A (4.0 pCi/L), Admin Secretary Office (4.0 pCi/L), Guidance E (4.0 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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936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

February 29, 2016

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

Re: **Radon Testing Services**
KCI Job # 12146341.26

Location: Sligo Middle School
1401 Dennis Avenue
Silver Spring, MD 20902

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 Sligo Middle School, located at 1401 Dennis Avenue in Silver Spring, Maryland 20902 (subject site).

**Scope of Services:**

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

KCI visited the site on February 1, 2016 and deployed one hundred (100) activated charcoal (AC) radon test kits. KCI deployed radon test kits in frequently-occupied ground contact rooms, and other areas, (if applicable) in accordance with AARST guidance. A floor plan map of the building with the test locations is included as Attachment A of this report.

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

KCI returned to the site on February 4, 2016 to retrieve the radon sampling test kits. KCI shipped all radon tests via overnight delivery to Airchek, Inc. for analysis by gamma-ray spectroscopy. Airchek, Inc. is a NRSB certified analytical laboratory for radon analysis (certification # ARL1402) located at 1936

Butler Bridge Road, Mills River, North Carolina.

**Evaluation of Testing Conditions:**

The operating condition that represents the greatest amount of significantly occupied time for this building is; heating active, with outdoor temperature averages ≤ 65° F.

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

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

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

**Results:**

The results of the radon test analysis indicated the following:

| Radon Concentration | Room | Result |
|---|---|---|
| **≥4.0 piC/L** | M2 | 11.3 |
| | 100 | 8.5 |
| | 104 | 8.2 |
| | 111A | 7.1 |
| | 30 | 6.4, 6.3(D) |
| | Health Office | 6.4 |
| | M Office | 6.2 |
| | Health | 5.8, 5.5(D) |
| | M1 | 5.8 |
| | Principal Office | 5.3 |
| | 102 | 4.9, 5.2(D) |
| | Assistant Principal | 4.6 |
| | Verizon line In | 4.5 |
| | Guidance C | 4.4 |
| | 109 | 4.2 |
| | 101B | 4.2 |
| | 101D | 4.2 |
| | 101E | 4.1 |
| | Conference Room | 4.1 |
| | 111 | 4.0 |
| | 103A | 4.0 |

| | | |
|---|---|---|
| **≥4.0 piC/L** | Admin Secretary Office | 4.0 |
| | Guidance E | 4.0 |
| **<4.0 piC/L** | See Attachment B | |

Notes:
D- Duplicate sample

The office blank and lab transit blanks had test results of less than the laboratory detection limit of 0.3 pCi/L. One field blank had a low concentration of radon detected, (0.6 piC/L) suggesting the test kit seal may have been compromised. Review of the duplicate sample analysis indicates that adequate laboratory measurement precision was achieved. The Spike sample analysis results indicate the laboratory is operating within statistical control limits.

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

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

Sincerely,

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

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

# ATTACHMENT A

## Floor Plan With Test Locations

# ATTACHMENT B

## Radon Test Summary Spreadsheet

**Table Notes:**

AC- Activated Charcoal

ACI- Air Chek, Inc.

D- Duplicate

FB- Field Blank

KCI- KCI Technologies, Inc.

OB- Office Blank

PM- Project Manager

QC- Quality Control

| Radon Testing Results | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 02/01/16-02/04/16 | | |
| | | |
| **Kit Number** | **Room / Area** | **Result** |
| 7718967 | 13 | 2.4 |
| 7718981 | 15 | 1.8 |
| 7718988 | 17 | 2.6 |
| 7718987 | 19 | 1.5 |
| 7718968 | 21 | 1.8 |
| 7718966 | 22 | 3.6 |
| 7718982 | 23 | 2.5 |
| 7718996 | 24 | 2.1 |
| 7718972 | 25 | 2.1 |
| 7727123 | 26 | 2.4 |
| 7718990 | 28 | 2.5 |
| 7718992 | 29 | 1.5 |
| 7718985 | 30 | 6.4 |
| 7718986 | 31 | 1.5 |
| 7718970 | 32 | 2.9 |
| 7721585 | 100 | 8.5 |
| 7721581 | 101 | 3.8 |
| 7721580 | 102 | 4.9 |
| 7721589 | 103 | 3.8 |
| 7721584 | 104 | 8.2 |
| 7721559 | 105 | 2.9 |
| 7721583 | 106 | 2.7 |
| 7721586 | 107 | 3.4 |
| 7719000 | 108 | 2.0 |
| 7721587 | 109 | 4.2 |
| 7718962 | 111 | 4.0 |
| 7721558 | 112 | 2.0 |
| 7721557 | 116 | 2.5 |
| 7718960 | 117 | 1.2 |
| 7721553 | 118 | 3.6 |
| 7718991 | 127 | 1.5 |
| 7718969 | 130 | 1.8 |
| 7721600 | 215 | 1.9 |
| 7721599 | 218 | 2.1 |
| 7718971 | 027A | 1.6 |
| 7718978 | 027B | 1.5 |
| 7718974 | 027C | 1.9 |
| 7721588 | 101A | 3.9 |
| 7721592 | 101B | 4.2 |
| 7721590 | 101C | 3.6 |
| 7721582 | 101D | 4.2 |
| 7721597 | 101E | 4.1 |
| 7721593 | 103A | 4.0 |
| 7721591 | 103B | 3.6 |
| 7718973 | * 110 (window cracked) | 2.0 |
| 7718958 | 111A | 7.1 |

Table Note:
* Missing or Compromised Sample

| Radon Testing Results | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 02/01/16-02/04/16 | | |
| | | |
| **Kit Number** | **Room / Area** | **Result** |
| 7727114 | * 114 (window cracked) | 2.0 |
| 7721655 | ADMIN SEC OFF | 4.0 |
| 7721561 | ASA OFFICE | 3.8 |
| 7721563 | ASSIST PRINCIPAL | 4.6 |
| 7718976 | BS MANAG OFF | 2.9 |
| 7718984 | BS OFFICE 2 | 3.3 |
| 7721595 | CAFETERIA | 2.2 |
| 7721596 | CAFETERIA | 2.2 |
| 7727126 | COMM LAB | 1.5 |
| 7721567 | CONF DOOM | 4.1 |
| 7718994 | DANCE STUDIO | 2.8 |
| 7721570 | FINANCE | 3.3 |
| 7721577 | GUID A | 3.2 |
| 7721572 | GUID B | 3.0 |
| 7721566 | GUID C | 4.4 |
| 7721568 | GUID CONF | 3.9 |
| 7721578 | GUID D | 2.1 |
| 7721579 | GUID E | 4.0 |
| 7721660 | GYM | 1.4 |
| 7727104 | GYM | 1.5 |
| 7721574 | HEALTH | 5.8 |
| 7721575 | HEALTH OFFICE | 6.4 |
| 7722181 | M OFFICE | 6.2 |
| 7718961 | M1 | 5.8 |
| 7718989 | M2 | 11.3 |
| 7721560 | MAIL ROOM | 3.5 |
| 7721565 | MAIN OFFICE | 3.4 |
| 7718963 | MEDIA CNTR | 1.0 |
| 7718975 | MEDIA CNTR | 1.5 |
| 7718964 | MEDIA OFFICE | 1.3 |
| 7718995 | MEDIA WORKROOM | 1.1 |
| 7718957 | PE OFFICE | 3.5 |
| 7718993 | PE OFFICE MEN | 2.2 |
| 7721594 | PE2 | 3.5 |
| 7721554 | PRINCIPAL OFFICE | 5.3 |
| 7718959 | SECURITY | 2.2 |
| 7718979 | STUDIO MANAG OFF | 1.4 |
| 7718980 | TEAM RM A | 1.5 |
| 7718997 | TEAM ROOM B | 2.3 |
| 7718965 | VERIZON LINE IN | 4.5 |

Table Note:
* Missing or Compromised Sample

| Radon Testing Results | | |
|---|---|---|
| Sligo Middle School | | |
| Test Period: 02/01/16-02/04/16 | | |
| | | |
| **Kit Number** | **QC Type** | **Result** |
| 7718999 | D (102) | 5.2 |
| 7727132 | D (106) | 2.1 |
| 7721556 | D (118) | 3.6 |
| 7721598 | D (215) | 1.5 |
| 7718983 | D (23) | 2.2 |
| 7718977 | D (30) | 6.3 |
| 7721569 | D (GUID C) | 3.7 |
| 7727110 | D (GYM) | 1.4 |
| 7721576 | D (HEALTH) | 5.5 |
| 7718998 | D (TEAM RM B) | 2.2 |
| 7721562 | FB (101D) | < 0.3 |
| 7721564 | FB (114) | < 0.3 |
| 7721555 | FB (ASSIST PRINCIPAL) | 0.6 |
| 7719161 | OB (0) | < 0.3 |

Table Note:
* Missing or Compromised Sample

# ATTACHMENT C

## Laboratory Analytical Results

February 23, 2016

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:

**SLIGO MIDDLE SCHOOL**
**1**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7719161 | | 2016-02-01 @ 3:00 pm | 2016-02-04 @ 12:00 pm | < 0.3 | 2016-02-09 |
| 7718971 | 027A | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.6 ± 0.4 | 2016-02-09 |
| 7718978 | 027B | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.5 ± 0.4 | 2016-02-08 |
| 7718974 | 027C | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.9 ± 0.4 | 2016-02-08 |
| 7721585 | 100 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 8.5 ± 0.8 | 2016-02-08 |
| 7721581 | 101 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.8 ± 0.6 | 2016-02-09 |
| 7721588 | 101A | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.9 ± 0.5 | 2016-02-08 |
| 7721592 | 101B | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 4.2 ± 0.5 | 2016-02-08 |
| 7721590 | 101C | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.6 ± 0.5 | 2016-02-08 |
| 7721562 | 101D | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | < 0.3 | 2016-02-08 |
| 7721582 | 101D | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 4.2 ± 0.5 | 2016-02-08 |
| 7721597 | 101E | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 4.1 ± 0.6 | 2016-02-09 |
| 7718999 | 102 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 5.2 ± 0.6 | 2016-02-08 |
| 7721580 | 102 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 4.9 ± 0.5 | 2016-02-08 |
| 7721589 | 103 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.8 ± 0.5 | 2016-02-08 |
| 7721593 | 103A | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 4.0 ± 0.6 | 2016-02-09 |
| 7721591 | 103B | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.6 ± 0.5 | 2016-02-08 |
| 7721584 | 104 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 8.2 ± 0.7 | 2016-02-08 |
| 7721559 | 105 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 2.9 ± 0.4 | 2016-02-08 |
| 7721583 | 106 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 2.7 ± 0.4 | 2016-02-08 |
| 7727132 | 106 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 2.1 ± 0.4 | 2016-02-08 |
| 7721586 | 107 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.4 ± 0.6 | 2016-02-09 |
| 7719000 | 108 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 2.0 ± 0.4 | 2016-02-08 |
| 7721587 | 109 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 4.2 ± 0.5 | 2016-02-08 |
| 7718973 | 110 | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 2.0 ± 0.4 | 2016-02-09 |
| 7718962 | 111 | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 4.0 ± 0.5 | 2016-02-08 |
| 7718958 | 111A | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 7.1 ± 0.7 | 2016-02-08 |
| 7721558 | 112 | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 2.0 ± 0.4 | 2016-02-08 |
| 7727114 | 114 | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 2.0 ± 0.4 | 2016-02-08 |
| 7721564 | 114 | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | < 0.3 | 2016-02-09 |
| 7721557 | 116 | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 2.5 ± 0.4 | 2016-02-08 |
| 7718960 | 117 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.2 ± 0.3 | 2016-02-08 |
| 7721553 | 118 | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 3.6 ± 0.6 | 2016-02-09 |
| 7721556 | 118 | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 3.6 ± 0.6 | 2016-02-09 |
| 7718991 | 127 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.5 ± 0.3 | 2016-02-08 |
| 7718967 | 13 | 2016-02-01 @ 11:00 am | 2016-02-04 @ 11:00 am | 2.4 ± 0.4 | 2016-02-08 |
| 7718969 | 130 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.8 ± 0.4 | 2016-02-09 |

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

February 23, 2016

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:

**SLIGO MIDDLE SCHOOL**
**1**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7718981 | 15 | 2016-02-01 @ 11:00 am | 2016-02-04 @ 11:00 am | 1.8 ± 0.4 | 2016-02-09 |
| 7718988 | 17 | 2016-02-01 @ 11:00 am | 2016-02-04 @ 11:00 am | 2.6 ± 0.4 | 2016-02-08 |
| 7718987 | 19 | 2016-02-01 @ 11:00 am | 2016-02-04 @ 11:00 am | 1.5 ± 0.4 | 2016-02-08 |
| 7718968 | 21 | 2016-02-01 @ 11:00 am | 2016-02-04 @ 11:00 am | 1.8 ± 0.4 | 2016-02-08 |
| 7721598 | 215 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 1.5 ± 0.4 | 2016-02-08 |
| 7721600 | 215 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 1.9 ± 0.5 | 2016-02-09 |
| 7721599 | 218 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 2.1 ± 0.4 | 2016-02-08 |
| 7718966 | 22 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 3.6 ± 0.5 | 2016-02-08 |
| 7718982 | 23 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 2.5 ± 0.4 | 2016-02-08 |
| 7718983 | 23 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 2.2 ± 0.4 | 2016-02-08 |
| 7718996 | 24 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 2.1 ± 0.5 | 2016-02-09 |
| 7718972 | 25 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 2.1 ± 0.5 | 2016-02-09 |
| 7727123 | 26 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 2.4 ± 0.4 | 2016-02-08 |
| 7718990 | 28 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 2.5 ± 0.4 | 2016-02-08 |
| 7718992 | 29 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.5 ± 0.4 | 2016-02-08 |
| 7718977 | 30 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 6.3 ± 0.6 | 2016-02-08 |
| 7718985 | 30 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 6.4 ± 0.6 | 2016-02-08 |
| 7718986 | 31 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.5 ± 0.4 | 2016-02-08 |
| 7718970 | 32 | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 2.9 ± 0.5 | 2016-02-09 |
| 7721655 | ADMIN SEC OFF | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 4.0 ± 0.6 | 2016-02-09 |
| 7721561 | ASA OFFICE | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 3.8 ± 0.5 | 2016-02-08 |
| 7721555 | ASSIST PRINCIPAL | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 0.6 ± 0.3 | 2016-02-08 |
| 7721563 | ASSIST PRINCIPAL | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 4.6 ± 0.6 | 2016-02-09 |
| 7718976 | BS MANAG OFF | 2016-02-01 @ 11:00 am | 2016-02-04 @ 11:00 am | 2.9 ± 0.5 | 2016-02-09 |
| 7718984 | BS OFFICE 2 | 2016-02-01 @ 11:00 am | 2016-02-04 @ 11:00 am | 3.3 ± 0.5 | 2016-02-09 |
| 7721595 | CAFETERIA | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 2.2 ± 0.4 | 2016-02-08 |
| 7721596 | CAFETERIA | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 2.2 ± 0.4 | 2016-02-08 |
| 7727126 | COMM LAB | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.5 ± 0.4 | 2016-02-08 |
| 7721567 | CONF DOOM | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 4.1 ± 0.5 | 2016-02-08 |
| 7718994 | DANCE STUDIO | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 2.8 ± 0.5 | 2016-02-09 |
| 7721570 | FINANCE | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.3 ± 0.5 | 2016-02-08 |
| 7721577 | GUID A | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.2 ± 0.5 | 2016-02-08 |
| 7721572 | GUID B | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.0 ± 0.5 | 2016-02-08 |
| 7721569 | GUID C | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.7 ± 0.5 | 2016-02-08 |
| 7721566 | GUID C | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 4.4 ± 0.6 | 2016-02-09 |
| 7721568 | GUID CONF | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.9 ± 0.6 | 2016-02-09 |
| 7721578 | GUID D | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 2.1 ± 0.4 | 2016-02-08 |

February 23, 2016

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:

**SLIGO MIDDLE SCHOOL**
**1**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|---|---|---|---|---|---|
| 7721579 | GUID E | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 4.0 ± 0.5 | 2016-02-08 |
| 7727104 | GYM | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 1.5 ± 0.4 | 2016-02-08 |
| 7721660 | GYM | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 1.4 ± 0.4 | 2016-02-09 |
| 7727110 | GYM | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 1.4 ± 0.4 | 2016-02-09 |
| 7721576 | HEALTH | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 5.5 ± 0.6 | 2016-02-08 |
| 7721574 | HEALTH | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 5.8 ± 0.7 | 2016-02-09 |
| 7721575 | HEALTH OFFICE | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 6.4 ± 0.6 | 2016-02-08 |
| 7718961 | M 1 | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 5.8 ± 0.7 | 2016-02-09 |
| 7722181 | M OFFICE | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 6.2 ± 0.7 | 2016-02-09 |
| 7718989 | M2 | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 11.3 ± 0.9 | 2016-02-08 |
| 7721560 | MAIL ROOM | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 3.5 ± 0.5 | 2016-02-08 |
| 7721565 | MAIN OFFICE | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 3.4 ± 0.5 | 2016-02-08 |
| 7718963 | MEDIA CNTR | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.0 ± 0.4 | 2016-02-09 |
| 7718975 | MEDIA CNTR | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.5 ± 0.4 | 2016-02-09 |
| 7718964 | MEDIA OFFICE | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.3 ± 0.4 | 2016-02-08 |
| 7718995 | MEDIA WORKROOM | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.1 ± 0.3 | 2016-02-08 |
| 7718957 | PE OFFICE | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 3.5 ± 0.5 | 2016-02-08 |
| 7718993 | PE OFFICE MEN | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 2.2 ± 0.4 | 2016-02-08 |
| 7721594 | PE2 | 2016-02-01 @ 2:00 pm | 2016-02-04 @ 11:00 am | 3.5 ± 0.5 | 2016-02-09 |
| 7721554 | PRINCIPAL OFFICE | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 5.3 ± 0.6 | 2016-02-08 |
| 7718959 | SECURITY | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 2.2 ± 0.5 | 2016-02-09 |
| 7718979 | STUDIO MANAG OFF | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.4 ± 0.4 | 2016-02-08 |
| 7718980 | TEAM RM A | 2016-02-01 @ 12:00 pm | 2016-02-04 @ 11:00 am | 1.5 ± 0.4 | 2016-02-09 |
| 7718998 | TEAM RM B | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 2.2 ± 0.4 | 2016-02-08 |
| 7718997 | TEAM ROOM B | 2016-02-01 @ 1:00 pm | 2016-02-04 @ 11:00 am | 2.3 ± 0.4 | 2016-02-08 |
| 7718965 | VERIZON LINE IN | 2016-02-01 @ 11:00 am | 2016-02-04 @ 11:00 am | 4.5 ± 0.5 | 2016-02-08 |

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February 23, 2016

# ** LABORATORY ANALYSIS REPORT **

Radon test result report for:

**TRANSIT- PHASE 7, 8, 9**
**NONE**

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

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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 |

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

# EXPOSURE IN BOWSER-MORNER RADON CHAMBER

CLIENT KCF Technologies Inc. Job Number 173704

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

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

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

# Radon Test Kit Chain of Custody

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

Name of School/Facility:

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

---

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

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

KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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

# Radon Test Kit Chain of Custody

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

Name of School/Facility:

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

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

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