Carnow, Conibear & Assoc., Ltd.
Environmental Consulting Services
600 W. Van Buren St., Suite 500, Chicago, IL 60607
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Radon Measurement Survey Report

Site:

Hermes School
1000 Jungles Avenue
Aurora, Illinois 60505

Survey Dates: May 7, 2018 thru May 10, 2018

Prepared For:

East Aurora School District 131
417 Fifth Street
Aurora, Illinois 60505

Carnow Conibear Project No. A146000137

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Radon Measurement Survey Report

Site:

Hermes School
1000 Jungles Avenue
Aurora, Illinois 60505

Surveyed by: Nicole Bennett

Nicole Bennett
Radon Measurement Professional

Report by: Nicole Bennett

Nicole Bennett
Radon Measurement Professional

Reviewed by:

Derek Lantry
Director, Technical Services

Report Issued: July 3, 2018

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APPENDICES

1.0 EXECUTIVE SUMMARY

Carnow, Conibear, & Assoc., Ltd. (Carnow Conibear) was contracted by East Aurora School District 131 to perform a radon measurement survey at the Hermes School located at 1000 Jungles Avenue in Aurora, Illinois. The survey was initiated on May 7, 2018 and completed on May 10, 2018 by Nicole Bennett, an Illinois Emergency Management Agency (IEMA) licensed Radon Measurement Professional (License No. RNI2016213). The scope of work included short term (two to four day) radon measurements in frequently occupied rooms with substantial ground contact. The radon sampling was performed following IEMA and the United States Environmental Protection Agency (USEPA) testing protocols for commercial and school radon measurements, the radon device manufacturer's recommendations, and Carnow Conibear's Quality Assurance Plan.

A total of seventy-nine (79) radon test devices were deployed including sixty-nine (69) single devices, six (6) duplicates, and four (4) blanks. Activated radon charcoal devices manufactured by Air Chek Inc. were utilized during the radon survey. The activated charcoal devices are passive devices containing activated carbon to measure radon. Testing was initiated on May 7, 2018 and completed on May 10, 2018.

Radon measurement results ranged from less than (<) 0.3 to 3.0 PicoCuries per liter (pCi/L). The radon measurement results indicate areas tested were below the EPA and IEMA recommended action level of 4.0 pCi/L during the time of the test. The average indoor radon concentrations are 1.3 pCi/L nationwide. The average outdoor radon concentration is 0.4 pCi/L.

Based on the radon measurement results Carnow Conibear recommends routine follow-up radon measurement survey every three (3) years, preferably at different seasonal times of the year. Additional radon testing is recommended if significant changes are made to the building's structural or mechanical components.

2.0 BACKGROUND

Radon is a naturally occurring, radioactive, colorless, odorless, tasteless gas produced from the decay of uranium and radium found in most soil and rock. Natural soils and rock such as granites, shales, and corals, contaminated soils from uranium processing mills, contaminated building materials, and groundwater water supplies directly from wells are a few common sources of radon. Radon can be found at some level in all indoor and outdoor air. Unlike most airborne contaminants radon is chemically inert, or chemically inactive. As a result, it is not chemically bound or attached to other materials and can move easily through porous materials or void space.

Typically, most radon gas is generated from the surrounding soil or bedrock, pulled through the soil or rock by air pressure differentials and enters the structure. However, radon gas can come from water, outside air, or contaminated building materials. The strength of the radon source has the biggest impact on indoor radon concentrations. The route of entry (i.e. through holes in the foundation), the building's ventilation rate, foundation type and differences in soils beneath the building can affect the indoor radon concentrations.

The primary health effect attributed to radon exposure is lung cancer. The World Health Organization (WHO), the National Academy of Sciences, the US Department of Health and Human Services, and the EPA classify radon as known human carcinogen. The EPA states radon is the largest source of radiation exposure and risk to the general public. When radon and products of radon decay are inhaled, decay can occur while in contact with the lung prior to being expelled. Because radon is chemically inert, most inhaled radon is rapidly exhaled. However, the inhaled decay products are readily deposited in the lungs, release energy in the form of radiation causing lung tissue damage and consequently increase the risk of lung cancer.

Radon concentrations in air are commonly expressed in picoCuries per liter (pCi/L) in the United States. An EPA national residential radon survey completed in 1991, determined the average indoor radon level is 1.3 pCi/L and the average outdoor level is about 0.4 pCi/L. The National Academy of Sciences' (NAS) latest report on radon, the Biological Effects of Ionizing Radiation (BEIR) VI Report (1999) estimates radon in indoor air causes about 21,000 lung cancer deaths each year in the United States. The EPA states that any level of radon carries some risk, there are no safe levels, and has established an action level of 4.0pCi/L.

3.0 SCOPE OF WORK

Carnow, Conibear was contracted by East Aurora School District 131 to perform a radon survey at the Hermes School located at 1000 Jungles Avenue in Aurora, Illinois.

The scope of work included short term radon measurements in frequently occupied rooms with substantial ground contact. The duration of short term measurements can range from two (2) to four (4) days. Prior to placement of the radon measurement devices a Quality Assurance Project Plan (QAPP) was developed and general observations were performed to verify test conditions, identify device placement locations, and determine structural and mechanical building components. The QAPP was created to document and describe the necessary quality assurance procedures, quality control activities, and provide a clear, concise, and complete plan for the radon measurement operations. Observations of test conditions verified closed building conditions were maintained at a minimum of twelve (12) hours prior to testing and throughout the measurement period. Closed building conditions are necessary for short term radon measurements in order to stabilize the radon and radon decay product concentrations and increase the reproducibility of the measurement. Closed building conditions require windows and exterior doors on all levels be kept closed (except for normal entry and exit) during the measurement period. Closed building conditions also require the normal operation of heating, ventilating, and air conditions systems.

Radon test devices were deployed in sixty-nine (69) locations. In addition, six (6) duplicates, and four (4) blanks, were utilized to measure precision and bias, and ensure quality data. Radon test devices were documented in a permanent log noting the address of the building measured, a diagram of the test area noting the exact locations of all measurement devices deployed, exact start and stop times of the measurement period, a description of the device used and serial number, and the name and IEMA license number of the Radon Measurement Professional. At the end of the measurement period the radon test devices were retrieved, resealed, and mailed to the laboratory for analysis.

The radon measurement results are reported in picoCurie per liter. A picoCurie per liter is 2.22 atomic radon disintegrations per minute for each liter of air. The results of the radon measurements are interpreted to determine the need for additional testing and assess the quality and confidence of the measurement data. Typically, follow-up measurements will be recommended in every room with results greater than 4.0 pCi/L. The recommendation to mitigate elevated levels of radon shall not be based on the initial measurement results.

4.0 METHODOLOGY

The radon testing was performed following requirements set forth by the IEMA, USEPA, and Carnow Conibear's Quality Assurance Plan. The radon measurement survey consisted of several phases. The initial phase consisted of preliminary testing protocol, including an explanation of services, instructions to comply with closed building conditions, the development of the Quality Assurance Project Plan, and determination of the testing period. Next, general observations of the building were performed to verify test conditions, identify device placement locations, and determine structural and mechanical building components.

The measurement phase included the radon testing device placement and retrieval. Activated radon charcoal devices manufactured by Air Chek Inc. were utilized during this radon survey. The activated charcoal devices are passive devices containing activated carbon to measure radon. Radon test devices were placed in such a way to limit unintentional interference from building occupants. The measurement devices were placed at least three feet from doors, windows to the outside, at least one foot from exterior walls, at least four feet from heat sources, out of the direct flow of ventilation ducts and sunlight, and suspended in the general breathing zone. Duplicate tests were conducted for a minimum of 10% of the total radon test devices deployed to measure precision. Field blanks were submitted for a minimum of 5% of the total number of radon test devices deployed to measure background gamma radiation. Spike tests were not submitted for this survey but are submitted for a minimum of three per 100 radon test devices or a minimum of three per year to measure laboratory accuracy. A total of seventy-nine (79) radon test devices were deployed including sixty-nine (69) single devices, six (6) duplicates, and four (4) blanks. At the end of the measurement period the radon measurement devices were retrieved, resealed, and shipped overnight to Air Chek Inc. for analysis. Air Chek Inc. calculates the radon concentration after measuring the gamma activity by the radon decay products produced from the random decay of the collected radon. The final phase consisted of interpreting the results and an assessment of the quality and confidence of the measurement data.

5.0 SUMMARY OF RESULTS

Table 1.0 Radon Measurement Device Results identify all the radon measurement devices deployed and the reported radon results. The radon measurement results are reported in picoCurie per liter (pCi/L).

Radon measurement results were below 4.0pCi/L. The radon measurement results indicate areas tested were below the EPA and IEMA recommended action level of 4.0 pCi/L during the time of the test. No testing abnormalities were noted during the radon measurement interval. Additionally, no radon mitigation system was observed.

Table 1.0 Radon Measurement Device Results

Hermes School -
1000 Jungles Avenue
Aurora, Illinois 60505

Device Location	Device Serial #	Start Date	Start Time	Stop Date	Stop Time	Result (pCi/L)	Comments
General Office 111	9044340	5/7/2018	3:09 PM	5/10/2018	4:22 PM	< 0.3	
General Office Room 111B	9044341	5/7/2018	3:11 PM	5/10/2018	4:21 PM	< 0.3	
General Office Room 111D	9044342	5/7/2018	3:13 PM	5/10/2018	4:19 PM	< 0.3	
General Office Room 111E	9044343	5/7/2018	3:14 PM	5/10/2018	4:21 PM	< 0.3	
General Office Room 111F	9044344	5/7/2018	3:15 PM	5/10/2018	4:21 PM	< 0.3	
Classroom 114	9044345	5/7/2018	3:16 PM	5/10/2018	4:20 PM	< 0.3	
Classroom 113	9044346	5/7/2018	3:17 PM	5/10/2018	4:21 PM	< 0.3	
Classroom 112	9044347	5/7/2018	3:18 PM	5/10/2018	4:20 PM	< 0.3	
Classroom 112	9044348	5/7/2018	3:18 PM	5/10/2018	4:20 PM	< 0.3	Duplicate RPD = 0.0%
Storage 110	9044349	5/7/2018	3:21 PM	5/10/2018	4:03 PM	0.6	
Classroom 108	9044350	5/7/2018	3:22 PM	5/10/2018	4:13 PM	< 0.3	
Kitchen/Storage 105	9044351	5/7/2018	3:24 PM	5/10/2018	4:13 PM	< 0.3	
Classroom 103	9044352	5/7/2018	3:25 PM	5/10/2018	4:12 PM	< 0.3	
Art Classroom 106	9044353	5/7/2018	3:27 PM	5/10/2018	4:13 PM	0.6	
Classroom 104	9044354	5/7/2018	3:29 PM	5/10/2018	4:14 PM	< 0.3	
Classroom 102	9044355	5/7/2018	3:30 PM	5/10/2018	4:14 PM	< 0.3	
Classroom 101	9044356	5/7/2018	3:32 PM	5/10/2018	4:12 PM	< 0.3	
Custodial Closet 202A	9044357	5/7/2018	3:35 PM	5/10/2018	4:03 PM	< 0.3	
Nurse's Station	9044358	5/7/2018	3:37 PM	5/10/2018	4:01 PM	0.7	
Boiler Room 201	9044359	5/7/2018	3:38 PM	5/10/2018	4:02 PM	3	

Table 1.0 Radon Measurement Device Results

Hermes School -
1000 Jungles Avenue
Aurora, Illinois 60505

Device Location	Device Serial #	Start Date	Start Time	Stop Date	Stop Time	Result (pCi/L)	Comments
Classroom 206	9044360	5/7/2018	3:39 PM	5/10/2018	3:59 PM	< 0.3	
Classroom 206	9044361	5/7/2018	3:39 PM	5/10/2018	4:03 PM	< 0.3	Duplicate RPD = 0.0%
Classroom 203	9033362	5/7/2018	3:40 PM	5/10/2018	4:01 PM	< 0.3	
Classroom 208	9044363	5/7/2018	3:41 PM	5/10/2018	4:02 PM	< 0.3	
Classroom 205	9044364	5/7/2018	3:42 PM	5/10/2018	4:02 PM	< 0.3	
Classroom 207	9044365	5/7/2018	3:43 PM	5/10/2018	4:00 PM	0.5	
Classroom 210	9044366	5/7/2018	3:44 PM	5/10/2018	4:01 PM	< 0.3	
Classroom 209	9044367	5/7/2018	3:46 PM	5/10/2018	4:00 PM	0.6	
Classroom 407	9044368	5/7/2018	3:49 PM	5/10/2018	3:13 PM	< 0.3	
Classroom 408	9044369	5/7/2018	3:50 PM	5/10/2018	3:14 PM	< 0.3	
Classroom 406	9044370	5/7/2018	3:52 PM	5/10/2018	3:13 PM	0.7	
Classroom 406	9044371	5/7/2018	3:52 PM	5/10/2018	3:13 PM	0.6	Duplicate RPD = 15.4%
Classroom 405	9044372	5/7/2018	3:55 PM	5/10/2018	3:15 PM	0.5	
Classroom 403	9044373	5/7/2018	3:56 PM	5/10/2018	3:15 PM	< 0.3	
Classroom 404	9044374	5/7/2018	3:58 PM	5/10/2018	3:13 PM	< 0.3	
Classroom 402	9044375	5/7/2018	4:00 PM	5/10/2018	3:16 PM	0.8	
Classroom 401	9044376	5/7/2018	4:01 PM	5/10/2018	3:15 PM	< 0.3	
Storage/Electrical Room 302	9044377	5/7/2018	4:02 PM	5/10/2018	3:14 PM	0.6	
Multipurpose Room 301	9044378	5/7/2018	4:04 PM	5/10/2018	3:18 PM	< 0.3	
Multipurpose Room 301	9044379	5/7/2018	4:05 PM	5/10/2018	3:19 PM	< 0.3	
Multipurpose Room Storage 301B	9044380	5/7/2018	4:06 PM	5/10/2018	3:19 PM	< 0.3	

Table 1.0 Radon Measurement Device Results

Hermes School -
1000 Jungles Avenue
Aurora, Illinois 60505

Device Location	Device Serial #	Start Date	Start Time	Stop Date	Stop Time	Result (pCi/L)	Comments
Classroom 303	9044381	5/7/2018	4:08 PM	5/10/2018	3:34 PM	< 0.3	
Classroom 304	9044382	5/7/2018	4:09 PM	5/10/2018	3:33 PM	0.8	
Classroom 305	9044383	5/7/2018	4:11 PM	5/10/2018	3:33 PM	< 0.3	
Classroom 306	9044384	5/7/2018	4:12 PM	5/10/2018	3:31 PM	< 0.3	
Mechanical Room 307	9044385	5/7/2018	4:14 PM	5/10/2018	3:33 PM	0.5	
Classroom 308	9044386	5/7/2018	4:15 PM	5/10/2018	3:32 PM	0.6	
Classroom 308	9044387	5/7/2018	4:15 PM	5/10/2018	3:32 PM	< 0.3	Duplicate RPD = 66.7%
Classroom 309	9044388	5/7/2018	4:17 PM	5/10/2018	3:33 PM	0.7	
Classroom 310	9044389	5/7/2018	4:19 PM	5/10/2018	3:31 PM	0.6	
Classroom 311	9044390	5/7/2018	4:20 PM	5/10/2018	3:32 PM	0.6	
Classroom 312	9044391	5/7/2018	4:22 PM	5/10/2018	3:34 PM	< 0.3	
Classroom 211	9044392	5/7/2018	4:24 PM	5/10/2018	3:39 PM	< 0.3	
Classroom 213	9044393	5/7/2018	4:25 PM	5/10/2018	3:39 PM	0.6	
Classroom 212	9044394	5/7/2018	4:27 PM	5/10/2018	3:40 PM	< 0.3	
Classroom 214	9044395	5/7/2018	4:28 PM	5/10/2018	3:38 PM	< 0.3	
Classroom 214	9044396	5/7/2018	4:28 PM	5/10/2018	3:38 PM	0.5	Duplicate RPD = 50.0%
Sprinkler Room 502	9044397	5/7/2018	4:29 PM	5/10/2018	3:49 PM	< 0.3	
Electrical Room 501	9044398	5/7/2018	4:30 PM	5/10/2018	3:49 PM	0.6	
Staff Lounge 504	9044399	5/7/2018	4:31 PM	5/10/2018	3:49 PM	< 0.3	
Classroom 506	9044400	5/7/2018	4:33 PM	5/10/2018	3:51 PM	< 0.3	
Classroom 505	9044501	5/7/2018	4:35 PM	5/10/2018	3:52 PM	< 0.3	

Table 1.0 Radon Measurement Device Results

Hermes School -
1000 Jungles Avenue
Aurora, Illinois 60505

Device Location	Device Serial #	Start Date	Start Time	Stop Date	Stop Time	Result (pCi/L)	Comments
Classroom 507	9044502	5/7/2018	4:37 PM	5/10/2018	3:52 PM	< 0.3	
Classroom 508	9044503	5/7/2018	4:39 PM	5/10/2018	3:51 PM	< 0.3	
Classroom 510	9044504	5/7/2018	4:40 PM	5/10/2018	3:48 PM	< 0.3	
Classroom 509	9044505	5/7/2018	4:41 PM	5/10/2018	3:48 PM	< 0.3	
Learning Resource Center 511	9044506	5/7/2018	4:43 PM	5/10/2018	3:50 PM	< 0.3	
Learning Resource Center 511	9044507	5/7/2018	4:44 PM	5/10/2018	3:50 PM	< 0.3	
Computer Lab 512	9044508	5/7/2018	4:46 PM	5/10/2018	3:48 PM	< 0.3	
Computer Lab 512	9044509	5/7/2018	4:46 PM	5/10/2018	3:52 PM	0.6	Duplicate RPD = 66.7%
Gymnasium 107	9044510	5/7/2018	4:49 PM	5/10/2018	4:26 PM	1.2	
Gymnasium 107	9044511	5/7/2018	4:50 PM	5/10/2018	4:26 PM	< 0.3	
Office 109A	9044512	5/7/2018	4:52 PM	5/10/2018	4:27 PM	0.8	
Stage 107	9044513	5/7/2018	4:54 PM	5/10/2018	4:27 PM	< 0.3	
Physical Education Storage 107A	9044514	5/7/2018	4:55 PM	5/10/2018	4:27 PM	< 0.3	
Hallway	9044515	5/7/2018	4:55 PM	5/10/2018	4:28 PM	< 0.3	Blank
Hallway	9044516	5/7/2018	4:56 PM	5/10/2018	4:28 PM	< 0.3	Blank
Hallway	9044517	5/7/2018	4:56 PM	5/10/2018	4:29 PM	< 0.3	Blank
Hallway	9044518	5/7/2018	4:56 PM	5/10/2018	4:29 PM	< 0.3	Blank

RPD - Relative Percent Difference = difference divided by the average of simultaneous results times 100. Results less than 4.0 pCi/L shall agree with a RPD of less than 67 percent. Results greater than 4.0 pCi/l shall agree with a RDP of less than 36 percent.
The EPA and IEMA recommended radon action level is 4.0 pCi/L.

6.0 CONCLUSIONS

Carnow, Conibear, & Assoc., Ltd. (Carnow Conibear) was contracted by East Aurora School District 131 to perform a radon survey at the Hermes School located at 1000 Jungles Avenue in Aurora, Illinois. The survey was initiated on May 7, 2018 and completed on May 10, 2018 by Nicole Bennett, an Illinois Emergency Management Agency (IEMA) licensed Radon Measurement Professional (License No. RNI2016213). The scope of work included short term (two to four day) radon measurements in frequently occupied rooms with substantial ground contact. The radon survey was performed in following the IEMA and the USEPA testing protocols for commercial and school radon measurements, the radon device manufacturer's recommendations, and the Carnow Conibear Quality Assurance Plan.

Radon measurement results ranged from less than (<) 0.3 to 3.0 pCi/L. The radon measurement results indicate radon concentrations for areas tested were below the EPA and IEMA recommended action level of 4.0 pCi/L during the time of the test. The average indoor radon concentrations are 1.3 pCi/L nationwide. The average outdoor radon concentration is 0.4 pCi/L.

Based on the radon measurement results Carnow Conibear recommends the following:

- A routine follow-up radon measurement survey every three (3) years, preferably at different seasonal times of the year. Follow-up radon testing is also recommended in locations with invalid test results.

- Additional radon testing if significant changes are made to the building's structural or mechanical components.

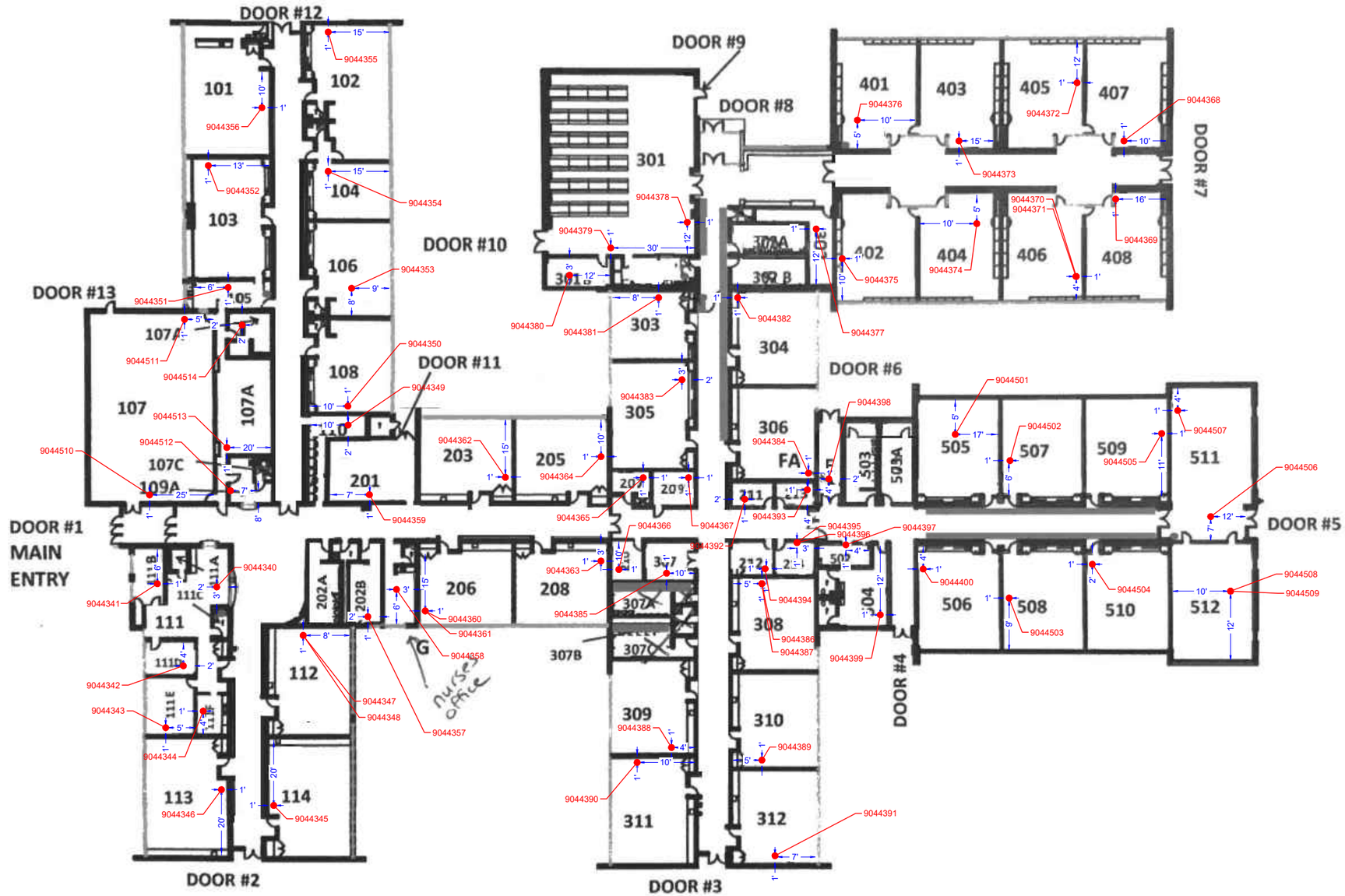
7.0 LIMITATIONS AND CONDITIONS

The information contained in this report was prepared for the exclusive use and reliance of East Aurora School District 131 and Carnow Conibear. This information is based on the specific parameters of the scope of work for this project and the regulations in force at the time of the report.

Carnow Conibear has applied prevailing industry standards and reasonable judgment and effort within the scope of work, while conducting the radon measurement survey. The standards, judgment, and effort used by Carnow Conibear personnel to investigate, assess, and determine the presence of potential environmental hazards and liabilities associated with the radon survey at the Hermes School, Aurora, Illinois are consistent with requirements outlined in federal and state guidelines. Carnow Conibear makes no warranty, express or implied, that the findings and interpretations in this report are a complete representation of the environmental hazards and liabilities, associated with the Hermes School, Aurora, Illinois.

APPENDIX A

Floor Plans – Radon Sampling Locations



1 RADON SAMPLE LOCATIONS
GROUND FLOOR PLAN

NOT TO SCALE

N TRUE NORTH

TESTED BY:
Derek Lantry
IEMA License #: RNI2004213

DRAWN BY:
J. Kalingasan

CHECKED BY:
D. Lantry

CLIENT:
East Aurora Public School District 131
417 Fifth Street
Aurora, Illinois, 60505

LEGEND:
Approximate location of activated charcoal radon measurement device
4482418 Radon measurement device serial number
0 10′ 20′

SHEET TITLE:
Radon Testing Locations at
Nicholas A. Hermes Elementary School
1000 Jungles Avenue
Aurora IL, 60505

Carnow, Conibear & Assoc., Ltd.
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CARNOW CONIBEAR

CCA PROJECT NO.
A146000137

SURVEY DATE:
5/7/2018 to 5/10/2018

SHEET NO.
Rn-1

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APPENDIX B

Laboratory Analysis Report

June 6, 2018

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

NICHOLAS A. HERMES ELEMENTARY SCHOO
1000 JUNGELS AVENUE, AURORA, IL

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9044353	ART CLASSROOM 106	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	0.6 ± 0.3	2018-05-14
9044359	BOILER ROOM 201	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	3.0 ± 0.4	2018-05-14
9044356	CLASSROOM 101	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044355	CLASSROOM 102	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044352	CLASSROOM 103	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044354	CLASSROOM 104	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044350	CLASSROOM 108	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044347	CLASSROOM 112	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044348	CLASSROOM 112	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044346	CLASSROOM 113	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044345	CLASSROOM 114	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044362	CLASSROOM 203	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044364	CLASSROOM 205	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044360	CLASSROOM 206	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044361	CLASSROOM 206	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044365	CLASSROOM 207	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.5 ± 0.3	2018-05-14
9044363	CLASSROOM 208	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044367	CLASSROOM 209	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.6 ± 0.3	2018-05-14
9044366	CLASSROOM 210	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044392	CLASSROOM 211	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044394	CLASSROOM 212	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044393	CLASSROOM 213	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.6 ± 0.3	2018-05-14
9044395	CLASSROOM 214	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044396	CLASSROOM 214	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.5 ± 0.3	2018-05-14
9044381	CLASSROOM 303	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044382	CLASSROOM 304	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.8 ± 0.3	2018-05-14
9044383	CLASSROOM 305	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044384	CLASSROOM 306	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044386	CLASSROOM 308	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.7 ± 0.3	2018-05-14
9044387	CLASSROOM 308	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044388	CLASSROOM 309	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.6 ± 0.3	2018-05-14
9044389	CLASSROOM 310	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.6 ± 0.3	2018-05-14
9044390	CLASSROOM 311	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.6 ± 0.3	2018-05-14
9044391	CLASSROOM 312	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044376	CLASSROOM 401	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	< 0.3	2018-05-14
9044375	CLASSROOM 402	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	0.8 ± 0.3	2018-05-14
9044373	CLASSROOM 403	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	< 0.3	2018-05-14

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June 6, 2018

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

NICHOLAS A. HERMES ELEMENTARY SCHOO
1000 JUNGELS AVENUE, AURORA, IL

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9044374	CLASSROOM 404	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	< 0.3	2018-05-14
9044372	CLASSROOM 405	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	0.5 ± 0.3	2018-05-14
9044370	CLASSROOM 406	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	0.7 ± 0.3	2018-05-14
9044371	CLASSROOM 406	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	0.6	2018-05-14
9044368	CLASSROOM 407	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	< 0.3	2018-05-14
9044369	CLASSROOM 408	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	< 0.3	2018-05-14
9044501	CLASSROOM 505	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044400	CLASSROOM 506	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044502	CLASSROOM 507	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044503	CLASSROOM 508	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044505	CLASSROOM 509	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044504	CLASSROOM 510	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044508	COMPUTER LAB 512	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044509	COMPUTER LAB 512	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	0.6 ± 0.3	2018-05-14
9044357	CUSTODIAL CLOSET 202A	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044398	ELECTRICAL ROOM 501	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	0.6 ± 0.3	2018-05-14
9044340	GENERAL OFFICE 111	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044341	GENERAL OFFICE ROOM 111B	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044342	GENERAL OFFICE ROOM 111D	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044343	GENERAL OFFICE ROOM 111E	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044344	GENERAL OFFICE ROOM 111F	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044511	GYMNASIUM 107	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044510	GYMNASIUM 107	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	1.2 ± 0.3	2018-05-14
9044517	HALLWAY	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044518	HALLWAY	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044515	HALLWAY	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044516	HALLWAY	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044351	KITCHEN/STORAGE 105	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044506	LEARNING RESOURCE CENTER 511	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044507	LEARNING RESOURCE CENTER 511	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044385	MECHANICAL ROOM 307	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.5 ± 0.3	2018-05-14
9044379	MULTIPURPOSE ROOM 301	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	< 0.3	2018-05-14
9044378	MULTIPURPOSE ROOM 301	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	< 0.3	2018-05-14
9044380	MULTIPURPOSE ROOM STORAGE 301B	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	< 0.3	2018-05-14
9044358	NURSE&APOS;S STATION	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	0.7 ± 0.3	2018-05-14
9044512	OFFICE 109A	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	0.8 ± 0.3	2018-05-14
9044514	PHYSICAL EDUCATION STORAGE 107A	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14

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June 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

NICHOLAS A. HERMES ELEMENTARY SCHOO
1000 JUNGELS AVENUE, AURORA, IL

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9044397	SPRINKLER ROOM 502	2018-05-07 @ 4:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044399	STAFF LOUNGE 504	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044513	STAGE 107	2018-05-07 @ 5:00 pm	2018-05-10 @ 4:00 pm	< 0.3	2018-05-14
9044349	STORAGE 110	2018-05-07 @ 3:00 pm	2018-05-10 @ 4:00 pm	0.6 ± 0.3	2018-05-14
9044377	STORAGE/ELECTRICAL ROOM 302	2018-05-07 @ 4:00 pm	2018-05-10 @ 3:00 pm	0.6 ± 0.3	2018-05-14

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APPENDIX C

Radon Measurement Professional License

Bruce Rauner
Governor

State of Illinois

James K. Joseph
Director

IEMA Division of Nuclear Safety

Pursuant to the Radon Industry Licensing Act, 420 ILCS 44 et seq. and 32 Illinois Adminstrative Code 422, Licensing of Radon Detection and Mitigation Services, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued.

This is to certify that **Nicole Bennett**

License Number **RNI2016213**

has met the requirements for **Radon Measurement Professional**

Issued - Expires **05/18/2016 - 05/31/2021**

Limited to Radon measurements of residential real estate, home environment, school and commercial buildings only.

SEAL OF THE STATE OF ILLINOIS
AUG. 26TH 1818

161391001

Patrick I. Daniels, Radon Program