

Radon Tests - MSDEC Main Building									
#	Location/Type	Placement Description	Serial #	Dated Opened	Time Opened	Date Closed	Time Closed	Radon Test Results	Remarks
1	101 Auditorium # 1		2913664	14-Nov-23	6:15 AM	16-Nov-23	6:53 AM	2.8	
1	101 Auditorium # 1	Retest	CRM #1	27-Nov-23	12:00 PM	29-Nov-23	12:15 PM	1.9	EPA Average
2	101 Auditorium # 2		2896346	14-Nov-23	6:16 AM	16-Nov-23	6:54 AM	2.9	
3	101 Auditorium # 3		2896375	14-Nov-23	6:17 AM	16-Nov-23	6:55 AM	2.4	
4	101 Auditorium # 3 - Duplicate		2899247	14-Nov-23	6:18 AM	16-Nov-23	6:56 AM	2.4	
5	101 Under Stage #1		2899241	14-Nov-23	6:19 AM	16-Nov-23	6:57 AM	2.4	
6	101 Under Stage #2		2899252	14-Nov-23	6:20 AM	16-Nov-23	6:58 AM	3.4	
7	101 Under Stage #3		2896368	14-Nov-23	6:21 AM	16-Nov-23	6:59 AM	3.1	
8	100 Room		2896341	14-Nov-23	6:22 AM	16-Nov-23	7:00 AM	1.2	
9	102 Room		2899240	14-Nov-23	6:23 AM	16-Nov-23	7:01 AM	1.1	
10	103 Room		2913761	14-Nov-23	6:24 AM	16-Nov-23	7:02 AM	1.2	
11	104 Room		2913721	14-Nov-23	6:25 AM	16-Nov-23	7:03 AM	1.0	
12	105 Room		2899240	14-Nov-23	6:26 AM	16-Nov-23	7:04 AM	0.3	
13	106 Room		2913346	14-Nov-23	6:27 AM	16-Nov-23	7:05 AM	1.6	
14	107 Room		2899304	14-Nov-23	6:28 AM	16-Nov-23	7:06 AM	1.9	
15	108 Room		2913744	14-Nov-23	6:29 AM	16-Nov-23	7:07 AM	1.3	
16	109 Room		2913757	14-Nov-23	6:30 AM	16-Nov-23	7:08 AM	1.9	
17	110 Room		2896340	14-Nov-23	6:31 AM	16-Nov-23	7:09 AM	1.5	
18	110A Room		2913379	14-Nov-23	6:32 AM	16-Nov-23	7:10 AM	1.5	
19	111 Room		2899324	14-Nov-23	6:33 AM	16-Nov-23	7:11 AM	2.0	
20	112 Room		2900059	14-Nov-23	6:34 AM	16-Nov-23	7:12 AM	1.5	
21	113 Room		2913717	14-Nov-23	6:35 AM	16-Nov-23	7:13 AM	1.1	
22	114 Room		2896347	14-Nov-23	6:36 AM	16-Nov-23	7:14 AM	0.4	
23	115 Room		2896339	14-Nov-23	6:37 AM	16-Nov-23	7:15 AM	1.4	
24	116 Room		2899323	14-Nov-23	6:38 AM	16-Nov-23	7:16 AM	0.8	
25	116 Room - Blank		2913746	14-Nov-23	6:39 AM	16-Nov-23	7:17 AM	0.1	
26	117 Media # 1		2913756	14-Nov-23	6:40 AM	16-Nov-23	7:18 AM	0.9	
27	117 Media # 2		2913702	14-Nov-23	6:41 AM	16-Nov-23	7:19 AM	1.2	
28	117 Media # 3		2913748	14-Nov-23	6:42 AM	16-Nov-23	7:20 AM	0.9	
29	118 Room		2913703	14-Nov-23	6:43 AM	16-Nov-23	7:21 AM	0.8	
30	119 Room		2913343	14-Nov-23	6:44 AM	16-Nov-23	7:22 AM	1.3	
31	120 Room		2896336	14-Nov-23	6:45 AM	16-Nov-23	7:23 AM	0.5	
32	122 Room		2913726	14-Nov-23	6:46 AM	16-Nov-23	7:24 AM	0.9	
33	124 Room		2913369	14-Nov-23	6:47 AM	16-Nov-23	7:25 AM	0.7	
34	126 Room		2913733	14-Nov-23	6:48 AM	16-Nov-23	7:26 AM	0.2	
35	128 Room		2899200	14-Nov-23	6:49 AM	16-Nov-23	7:27 AM	1.0	
36	130 Room		2896363	14-Nov-23	6:50 AM	16-Nov-23	7:28 AM	0.5	
37	132 Room		2913685	14-Nov-23	6:51 AM	16-Nov-23	7:29 AM	0.8	
38	132 Room - Duplicate		2913709	14-Nov-23	6:52 AM	16-Nov-23	7:30 AM	0.9	
39	134 Room		2913764	14-Nov-23	6:53 AM	16-Nov-23	7:31 AM	1.4	
40	136 Room		2913731	14-Nov-23	6:54 AM	16-Nov-23	7:32 AM	1.4	
41	138 Room		2896361	14-Nov-23	6:55 AM	16-Nov-23	7:33 AM	1.6	
42	138 Room - Office A		2896349	14-Nov-23	6:56 AM	16-Nov-23	7:34 AM	0.9	
43	138 Room - Office B		2896377	14-Nov-23	6:57 AM	16-Nov-23	7:35 AM	1.4	
44	141 Room		2913695	14-Nov-23	6:58 AM	16-Nov-23	7:36 AM	1.7	
45	142 Room		2913373	14-Nov-23	6:59 AM	16-Nov-23	7:37 AM	0.7	
46	142 Room - Duplicate		2913715	14-Nov-23	7:00 AM	16-Nov-23	7:38 AM	0.4	
47	142A Mech		2913768	14-Nov-23	6:29 AM	16-Nov-23	7:00 AM	1.1	
48	144 Little Theater		2913724	14-Nov-23	6:30 AM	16-Nov-23	7:01 AM	0.7	
49	144 Little Theater - Stage		2913725	14-Nov-23	6:31 AM	16-Nov-23	7:02 AM	0.7	
50	Basement Site Supervisor's Office #1		2896329	14-Nov-23	6:32 AM	16-Nov-23	7:03 AM	1.2	
51	Basement Site Supervisor's Office #2		2913669	14-Nov-23	6:33 AM	16-Nov-23	7:04 AM	1.4	
52	Basement Site Supervisor's Office #3		2913693	14-Nov-23	6:34 AM	16-Nov-23	7:05 AM	2.0	
53	143 Room		2913700	14-Nov-23	6:35 AM	16-Nov-23	7:06 AM	0.3	
54	145 Room		2896367	14-Nov-23	6:36 AM	16-Nov-23	7:07 AM	1.1	
55	146 Room		2913722	14-Nov-23	6:37 AM	16-Nov-23	7:08 AM	1.3	
56	146 Room Blank		2913745	14-Nov-23	6:38 AM	16-Nov-23	7:09 AM	0.8	
57	147 Room		2896374	14-Nov-23	6:39 AM	16-Nov-23	7:10 AM	1.0	
58	148 Room		2896300	14-Nov-23	6:40 AM	16-Nov-23	7:11 AM	0.8	
59	149 Room		2899310	14-Nov-23	6:41 AM	16-Nov-23	7:12 AM	1.4	
60	151 Room - Duplicate		2896366	14-Nov-23	6:42 AM	16-Nov-23	7:13 AM	0.1	
61	153 Room		2913367	14-Nov-23	6:43 AM	16-Nov-23	7:14 AM	0.2	
62	155 Room		2913751	14-Nov-23	6:44 AM	16-Nov-23	7:15 AM	0.2	
63	155 Room		2896266	14-Nov-23	6:45 AM	16-Nov-23	7:16 AM	0.7	
64	155C Room		2913752	14-Nov-23	6:46 AM	16-Nov-23	7:17 AM	0.6	
65	157 Room		2899319	14-Nov-23	6:47 AM	16-Nov-23	7:18 AM	1.1	
66	159 Room - Duplicate		2896295	14-Nov-23	6:48 AM	16-Nov-23	7:19 AM	0.9	
67	160 Cafeteria # 1		2913375	14-Nov-23	6:49 AM	16-Nov-23	7:20 AM	1.1	
68	160 Cafeteria # 2		2899145	14-Nov-23	6:50 AM	16-Nov-23	7:21 AM	0.4	
69	163 Cafeteria # 3		2913674	14-Nov-23	6:51 AM	16-Nov-23	7:22 AM	0.3	
70	163 Cafeteria # 3 Blank		2913340	14-Nov-23	6:52 AM	16-Nov-23	7:23 AM	0.4	
71	164 Culinary Arts Classroom		2899329	14-Nov-23	6:53 AM	16-Nov-23	7:24 AM	0.8	
72	165 Cafeteria # 4		2899371	14-Nov-23	6:54 AM	16-Nov-23	7:25 AM	0.3	
			2913762	14-Nov-23	6:55 AM	16-Nov-23	7:26 AM	0.4	Did get thrown around some.

Test Results	Average	RPD	Remarks
Initial	2.4	2.9	-34.48%
Duplicate	3.4		In Control

Test Results	Average	RPD	Remarks
Initial	0.8	0.85	-11.76%
Duplicate	0.9		Expected Range

Test Results	Average	RPD	Remarks
Initial	0.7	0.55	54.55%
Duplicate	0.4		Warning

Radon Tests - Gym								
1	●	Main Gym # 1	2896353	14-Nov-23	7:14 AM	16-Nov-23	7:24 AM	0.1
2	●	Main Gym # 2	2989259	14-Nov-23	7:15 AM	16-Nov-23	7:25 AM	0.8
3	●	Main Gym # 3	2896325	14-Nov-23	7:16 AM	16-Nov-23	7:26 AM	0.6
4	●	Main Gym # 4	2896371	14-Nov-23	7:17 AM	16-Nov-23	7:27 AM	0.4
5	●	Main Gym # 5	2913719	14-Nov-23	7:18 AM	16-Nov-23	7:28 AM	0.4
6	●	Main Gym # 6	2913728	14-Nov-23	7:19 AM	16-Nov-23	7:29 AM	0.7
7	●	Main Gym # 6 - Duplicate	2989287	14-Nov-23	7:20 AM	16-Nov-23	7:30 AM	0.7
8	●	East Gym - # 1	2896306	14-Nov-23	7:21 AM	16-Nov-23	7:31 AM	0.3
9	●	East Gym - # 2	2913691	14-Nov-23	7:22 AM	16-Nov-23	7:32 AM	0.4
10	●	East Gym - # 3	2913661	14-Nov-23	7:23 AM	16-Nov-23	7:33 AM	0.5
11	●	East Gym - # 4	2989212	14-Nov-23	7:24 AM	16-Nov-23	7:34 AM	0.2
12	●	Boys Training Room	2990063	14-Nov-23	7:25 AM	16-Nov-23	7:35 AM	0.5
13	●	Boys Office	2913760	14-Nov-23	7:26 AM	16-Nov-23	7:36 AM	0.4
14	●	Girls Training Room	2989284	14-Nov-23	7:27 AM	16-Nov-23	7:37 AM	0.4
15	●	Girls Office	2913720	14-Nov-23	7:28 AM	16-Nov-23	7:38 AM	0.3
16	●	Weight Room # 1	2896263	14-Nov-23	7:29 AM	16-Nov-23	7:39 AM	0.4
17	●	Weight Room # 2	2913372	14-Nov-23	7:30 AM	16-Nov-23	7:40 AM	0.6
18	●	Weight Room - Blank	2913759	14-Nov-23	7:31 AM	16-Nov-23	7:41 AM	0.5

Test Results		Average	RPD	Remarks
Initial	0.7	0.7	0.00%	Expected Range.
Duplicate	0.7			

Radon Tests - Annex							
1	101 Warehouse # 1	2990022	14-Nov-23	6:15 AM	16-Nov-23	6:49 AM	1.4
2	101 Warehouse # 2	2916926	14-Nov-23	6:16 AM	16-Nov-23	6:50 AM	0.8
3	101 Warehouse # 3	2989306	14-Nov-23	6:17 AM	16-Nov-23	6:51 AM	1.4
4	101 Warehouse # 4	2987445	14-Nov-23	6:16 AM	16-Nov-23	6:52 AM	1.2
5	101 Warehouse # 5	2987466	14-Nov-23	6:19 AM	16-Nov-23	6:53 AM	1.0
6	101 Warehouse # 6	2987273	14-Nov-23	6:20 AM	16-Nov-23	6:54 AM	1.4
7	101 Warehouse # 6 - Duplicate	2990058	14-Nov-23	6:21 AM	16-Nov-23	6:55 AM	1.2
8	104 Room Facilities	2989260	14-Nov-23	6:22 AM	16-Nov-23	6:56 AM	0.3
9	105 Facilities - Office Manager	2989316	14-Nov-23	6:23 AM	16-Nov-23	6:57 AM	0.6
10	106 Facilities - Main Office	2987441	14-Nov-23	6:24 AM	16-Nov-23	6:58 AM	0.6
11	106 Facilities - Main Office - Blank	2987499	14-Nov-23	6:25 AM	16-Nov-23	6:59 AM	0.2
12	107 Room	2987470	14-Nov-23	6:26 AM	16-Nov-23	7:00 AM	0.7
13	108 Carpentry Supervisor's Office	2987508	14-Nov-23	6:27 AM	16-Nov-23	7:01 AM	0.6
14	109 Grounds Supervisor's Office	2989286	14-Nov-23	6:28 AM	16-Nov-23	7:02 AM	0.4
15	110 Room	2913765	14-Nov-23	6:29 AM	16-Nov-23	7:03 AM	0.5
16	111 Custodial Supervisor's Office	2989290	14-Nov-23	6:30 AM	16-Nov-23	7:04 AM	0.7
17	112A Mechanical Conference Room	2987437	14-Nov-23	6:31 AM	16-Nov-23	7:05 AM	0.6
18	112B Mechanical Office	2987358	14-Nov-23	6:32 AM	16-Nov-23	7:06 AM	0.6
19	113 Facilities Conference Room	2989228	14-Nov-23	6:33 AM	16-Nov-23	7:07 AM	0.9
20	116 Mail Room	2987302	14-Nov-23	6:34 AM	16-Nov-23	7:08 AM	0.4
21	119 Facilities - Staff Break Room	2989196	14-Nov-23	6:35 AM	16-Nov-23	7:09 AM	0.7
22	120 Paint Shop	2989277	14-Nov-23	6:36 AM	16-Nov-23	7:10 AM	1.6
23	120 Paint Shop - Duplicate	2989337	14-Nov-23	6:37 AM	16-Nov-23	7:11 AM	0.7
24	120A Metal Shop # 1	2987289	14-Nov-23	6:38 AM	16-Nov-23	7:12 AM	0.7
25	120A Metal Shop # 2	2987296	14-Nov-23	6:39 AM	16-Nov-23	7:13 AM	1.1
	120B IMC	CRM #2	27-Nov-23	12:07 PM	29-Nov-23	12:20 PM	1.0
26	121 Wood Shop # 1	2990005	14-Nov-23	6:40 AM	16-Nov-23	7:14 AM	1.9
27	121 Wood Shop # 2	2987354	14-Nov-23	6:41 AM	16-Nov-23	7:15 AM	2.1
28	121 Wood Shop #1 - Blank	2989970	14-Nov-23	6:42 AM	16-Nov-23	7:16 AM	0.1
29	122 Stor Wood Shop	2989305	14-Nov-23	6:43 AM	16-Nov-23	7:17 AM	3.6
30	125 Locksmith's Office	2988043	14-Nov-23	6:44 AM	16-Nov-23	7:18 AM	1.6
31	134 Room	2987480	14-Nov-23	6:45 AM	16-Nov-23	7:19 AM	0.9
32	137 IT - Manager's Office	2987430	14-Nov-23	6:46 AM	16-Nov-23	7:20 AM	0.7
33	138 IT - Main Office	2987419	14-Nov-23	6:47 AM	16-Nov-23	7:21 AM	0.7
34	139 IT - Conference Room	2987457	14-Nov-23	6:48 AM	16-Nov-23	7:22 AM	0.1
35	141 IT - Break Room	2989308	14-Nov-23	6:49 AM	16-Nov-23	7:23 AM	0.7
36	146 Print Shop - Main Area	2990060	14-Nov-23	6:50 AM	16-Nov-23	7:24 AM	0.3
37	150 Band - Main Area	2989255	14-Nov-23	6:51 AM	16-Nov-23	7:25 AM	0.7
38	150 Band - Main Area - Duplicate	2990050	14-Nov-23	6:52 AM	16-Nov-23	7:26 AM	0.6
39	159 NTS	2990014	14-Nov-23	6:53 AM	16-Nov-23	7:27 AM	0.9
40	170 NTS - Office	2990015	14-Nov-23	6:54 AM	16-Nov-23	7:28 AM	0.6
41	171 NTS - Office	2987425	14-Nov-23	6:55 AM	16-Nov-23	7:29 AM	0.8
42	172 NTS - Break Room	2989991	14-Nov-23	6:56 AM	16-Nov-23	7:30 AM	0.6
43	175 NTS - Office	2987350	14-Nov-23	6:57 AM	16-Nov-23	7:31 AM	1.0
44	176 NTS - Office	2989989	14-Nov-23	6:58 AM	16-Nov-23	7:32 AM	0.6
45	177 NTS - Office	2987497	14-Nov-23	6:59 AM	16-Nov-23	7:33 AM	0.8
46	179 NTS - Main Office	2987443	14-Nov-23	7:00 AM	16-Nov-23	7:34 AM	0.8
47	179 NTS - Main Office - Duplicate	2987447	14-Nov-23	7:01 AM	16-Nov-23	7:35 AM	0.9

Test Results	Average	RPD	Remarks
Initial	1.4	1.3	15.38%
Duplicate	1.2		Expected Range

Test Results	Average	RPD	Remarks
Initial	1.6	1.65	-6.06%
Duplicate	1.7		Expected Range

Test Results	Average	RPD	Remarks
Initial	0.7	0.65	15.38%
Duplicate	0.6		Expected Range

Test Results	Average	RPD	Remarks
Initial	0.8	0.85	-11.76%
Duplicate	0.9		Expected Range

EPA Average

Radon Tests - Maslow								
1	101 Office		2896296	14-Nov-23	8:54 AM	16-Nov-23	9:06 AM	2.2
2	101 Office - Blank		2896370	14-Nov-23	8:55 AM	16-Nov-23	9:07 AM	0.1
3	102 Office		2913716	14-Nov-23	8:56 AM	16-Nov-23	9:08 AM	1.8
4	103 Office		2913705	14-Nov-23	8:57 AM	16-Nov-23	9:09 AM	1.4
5	103 Office - Duplicate		2987053	14-Nov-23	8:58 AM	16-Nov-23	9:10 AM	1.9
6	104 Office		2913692	14-Nov-23	8:59 AM	16-Nov-23	9:11 AM	2.0
7	105 Office		2913694	14-Nov-23	9:00 AM	16-Nov-23	9:12 AM	2.6
8	105 Office - Duplicate		2987485	14-Nov-23	9:01 AM	16-Nov-23	9:13 AM	2.9
9	106 Office		2896331	14-Nov-23	9:02 AM	16-Nov-23	9:14 AM	4.5
9	106 Office		CRM #3	27-Nov-23	12:10 PM	29-Nov-23	12:15 PM	3.2
10	107 Common Area		2989291	14-Nov-23	9:03 AM	16-Nov-23	9:15 AM	2.1
11	108 Corridor		2989995	14-Nov-23	9:04 AM	16-Nov-23	9:16 AM	2.1
12	111 Storage		2987468	14-Nov-23	9:05 AM	16-Nov-23	9:17 AM	1.1
13	112 Corridor		2987454	14-Nov-23	9:06 AM	16-Nov-23	9:18 AM	0.9
14	113 Office		2987335	14-Nov-23	9:07 AM	16-Nov-23	9:19 AM	2.0
15	117 Storage		2987462	14-Nov-23	9:08 AM	16-Nov-23	9:20 AM	1.8
16	118 Clothing Pantry Area		2989283	14-Nov-23	9:09 AM	16-Nov-23	9:21 AM	2.4
17	119 Storage		2990048	14-Nov-23	9:10 AM	16-Nov-23	9:22 AM	2.4
18	120 Corridor		2987333	14-Nov-23	9:11 AM	16-Nov-23	9:23 AM	2.4
EPA Average								
#	Type	Description						
1	Spike # 1 (Room 142-B)	Spiked to 22.1	2913767	14-Nov-23		16-Nov-23		27.3
2	Spike # 2 (Cafe 5)	Spiked to 22.1	2916087	14-Nov-23		16-Nov-23		24.5
3	Spike # 3 (Annex Room 180)	Spiked to 22.1	2913763	14-Nov-23		16-Nov-23		24.8
4	Spike # 4 (Maslow Room 121)	Spiked to 22.1	2913734	14-Nov-23		16-Nov-23		24.4

\*The E.P.A.'s recommended action level for radon is 4.0 pCi/L.

\*This is not a health based number.

\*Outdoor radon levels across the country average 0.4 pCi/L.

\*If an RPD test result over 4.0 pCi/L differs by 28% or more, the data quality should be questioned.

\*A trend in RPE values that are more than + 30% should be investigated

Spike #	Test Results	RPE	Remarks
Spike # 1	Spiked Value	22.1	23.53%
	Test Result	27.3	
			In Control

Spike #	Test Results	RPE	Remarks
Spike # 2	Spiked Value	22.1	10.86%
	Test Result	24.5	
			In Control

Spike #	Test Results	RPE	Remarks
Spike # 3	Spiked Value	22.1	12.22%
	Test Result	24.8	
			In Control

Spike #	Test Results	RPE	Remarks
Spike # 4	Spiked Value	22.1	10.41%
	Test Result	24.4	
			In Control

RPE Formula
Relative Percent Error (RPE) = $\frac{\text{Measured Value} - \text{Reference Value}}{\text{Reference Value}} \times 100\%$

Expected Range	In Control	Warning	Out of Control
Between + 10% and - 10%	Between + 20% and - 20%	Between + 30% and - 30%	Outside + 30% and - 30%

Test Results	Average	RPD	Remarks
Initial	1.4	1.65	-30.30%
Duplicate	1.9		In Control

Test Results	Average	RPD	Remarks
Initial	2.6	2.75	-10.91%
Duplicate	2.9		Expected Range

RPD Formula
Relative Percent Difference (RPD) = $\frac{\text{Initial Result} - \text{Duplicate Result}}{\text{Average of Both Results}} \times 100\%$

If Results Are:	Expected Range	In Control	Warning	Out of Control
2.0 - 3.9 pCi/L	0-25%	26-49%	50-67%	>67%
≥ 4.0 pCi/L	0-14%	15-27%	28-36%	>36%