

Appendix #6 - Acentech Seismograph Data

Blasting-Related Vibrations Measured inside Princeton Buildings

* PPV estimated based on RMS values measured in buildings

date	Andlinger 046chs PPV* (in/s)	Andlinger 111a PPV* (in/s)	Jadwin B50G PPV* (in/s)	Frick NMR PPV* (in/s)	Guyot 004 PPV* (in/s)	Schultz 050 PPV* (in/s)	Icahn 007B PPV* (in/s)
3/15/2022	0.0249	no data	0.0027	0.0036	0.0037	0.0038	0.0054
3/16/2022	0.0129	no data	0.0040	0.0040	0.0020	0.0033	0.0048
3/17/2022	0.0067	no data	0.0013	0.0026	0.0028	0.0010	0.0020
3/18/2022	0.0326	no data	0.0025	0.0062	0.0044	0.0039	0.0068
3/22/2022	0.0195	0.0033	0.0005	0.0052	0.0034	0.0028	0.0067
3/23/2022	0.0309	0.0033	0.0005	0.0093	0.0040	0.0050	0.0064
3/24/2022	0.0125	0.0079	0.0023	0.0057	0.0043	0.0023	0.0033
3/25/2022	0.0203	0.0056	0.0026	0.0065	0.0053	0.0029	0.0039
3/29/2022	0.0122	0.0085	0.0029	0.0062	0.0058	0.0036	0.0044
3/30/2022	0.0240	0.0121	0.0030	0.0075	0.0040	0.0039	0.0049
3/31/2022	0.0107	0.0049	0.0042	0.0049	0.0023	0.0025	0.0047
4/1/2022	0.0121	0.0044	0.0009	0.0010	0.0015	0.0012	0.0022
4/5/2022	0.0192	0.0036	0.0019	0.0030	0.0023	0.0014	0.0030
4/6/2022	0.0245	0.0121	0.0039	0.0066	0.0048	0.0027	0.0051
4/7/2022	0.0248	0.0077	0.0034	0.0052	0.0035	0.0030	0.0036
4/8/2022	0.0192	0.0099	0.0032	0.0034	0.0072	0.0034	0.0042
4/12/2022	0.0334	0.0095	0.0033	0.0051	0.0074	0.0039	0.0060
4/14/2022	0.0288	0.0042	0.0031	0.0051	0.0042	0.0032	0.0071
4/15/2022	0.0135	0.0081	0.0043	0.0066	0.0032	0.0042	0.0061
4/18/2022	0.0060	0.0018	0.0025	0.0037	0.0057	0.0023	0.0057
4/19/2022	0.0154	0.0048	0.0063	0.0031	0.0038	0.0045	0.0066
4/20/2022	0.0099	0.0044	0.0019	0.0045	0.0039	0.0019	0.0043

Notes:

Lab spaces are measured in root-mean-square (RMS) which is more typical for labs and sensitive spaces.

Peak Particle Velocity (PPV) measured in (in/s) is not being measured directly but can be calculated based on the root-mean-square (RMS) data measured in (micro-in/s).

The PPV measured levels are well below 2 in/s. Even in Andlinger, the highest level on April 22 was 60 times lower than 2 in/s.

We expect these levels to be lower because they are inside buildings however, our experience with inside/outside comparisons is usually on the order of 5x. (5 times lower inside than outside).

	Andlinger 046chs	Andlinger 111a	Jadwin B50G	Frick NMR	Guyot 004	Schultz 050	Icahn 007B
	level (micro-in/s) _{rms}	level (micro-in/s) _{rms}	level (micro-in/s) _{rms}	level (micro-in/s) _{rms}	level (micro-in/s) _{rms}	level (micro-in/s) _{rms}	level (micro-in/s) _{rms}
	17,629	no data	1,942	2,579	2,598	2,694	3,848
	9,117	no data	2,850	2,863	1,428	2,303	3,362
	4,737	no data	887	1,839	1,997	706	1,391
	23,020	no data	1,774	4,415	3,088	2,748	4,796
	13,791	2,309	323	3,704	2,411	1,960	4,727
	21,822	2,309	323	6,566	2,846	3,541	4,513
	8,845	5,578	1,598	4,006	3,055	1,605	2,353
	14,382	3,934	1,859	4,628	3,752	2,034	2,784
	8,636	6,019	2,067	4,374	4,076	2,561	3,108
	16,971	8,560	2,115	5,270	2,815	2,782	3,494
	7,536	3,441	2,977	3,457	1,627	1,735	3,339
4/1/2022	8,567	3,137	624	703	1,069	861	1,583
4/5/2022	13,608	2,577	1,365	2,128	1,643	998	2,141
4/6/2022	17,340	8,542	2,749	4,684	3,382	1,892	3,641
4/7/2022	17,501	5,452	2,381	3,642	2,489	2,141	2,574
4/8/2022	13,590	7,005	2,297	2,414	5,118	2,389	2,962
4/12/2022	23,650	6,708	2,312	3,577	5,212	2,751	4,242
4/14/2022	20,367	2,965	2,157	3,629	2,945	2,266	5,037
4/15/2022	9,536	5,701	3,017	4,675	2,269	2,970	4,312
4/18/2022	4,242	1,263	1,802	2,621	4,012	1,632	4,053
4/19/2022	10,920	3,362	4,439	2,178	2,660	3,175	4,644
4/20/2022	7,008	3,133	1,367	3,157	2,734	1,340	3,028