**Appendix**

Table A.1

Selected 121 earthquake swarms (with sub-cluster and micro-swarms) in the Nový Kostel area (50.19 – 50.26 °N and 12.43 – 12.46°E) during the period 1992 – 2016. Data provided by WEBNET/ T. Fischer, Charles University Prague. Shown are the swarm ID, coordinates, and focal depths of the swarm onset quakes (SOQs). MLmax refers to the maximum magnitude of the swarm. The diffusion distance was estimated by the horizontal and vertical distances between the hypocenter and a hypothetical infiltration line along the Libocký creek shown in Fig. 2. Further, the estimated diffusivities necessary to trigger the earthquake swarms which occurred after the six hydrological master events (Paragraph 4.1.1, Fig. 6). The three last rows indicate earthquake swarms which could be potentially triggered (X) by the respective diffusivity according to the analyzed range of effective diffusivities (Fig. 11).

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ID | Date | Lat °N | Long °E | Depth in m | MLmax | Diffusion distance in m | Diffusivity in m2/s 4.1.1. | Deff = 0.2 m2/s | Deff = 0.3 m2/s | Deff = 0.5 m2/s |
| 1 | 16.02.1992 | 50,2321 | 12,4496 | 7704 | 1,9 | 10082 |  |  |  |  |
| 2 | 29.05.1992 | 50,2427 | 12,4534 | 6821 | 0,4 | 8136 |  |  | X | X |
| 3 | 04.09.1992 | 50,2165 | 12,4533 | 8707 | 1,3 | 12000 |  |  |  | X |
| 4 | 03.10.1992 | 50,2427 | 12,4546 | 6661 | 0,7 | 7892 |  | X | X |  |
| 5 | 07.11.1992 | 50,2529 | 12,4454 | 7821 | 0,3 | 8926 |  | X | X | X |
| 6 | 01.01.1993 | 50,2331 | 12,4496 | 8286 | 1,7 | 10588 |  |  | X | X |
| 7 | 02.02.1993 | 50,2177 | 12,4517 | 8454 | -0,1 | 11769 |  |  | X | X |
| 8 | 17.09.1993 | 50,2428 | 12,4360 | 9895 | 1,4 | 12416 |  |  |  |  |
| 9 | 09.03.1994 | 50,2197 | 12,4481 | 9840 | 0,3 | 13255 | 2,07 |  |  |  |
| 10 | 04.12.1994 | 50,2532 | 12,4370 | 8266 | 2,2 | 9934 | 0,26 |  |  |  |
| 11 | 05.01.1995 | 50,2288 | 12,4473 | 8204 | 2,0 | 10990 | 0,29 |  |  |  |
| 12 | 16.12.1995 | 50,2349 | 12,4511 | 7633 | 0,3 | 9695 |  | X | X | X |
| 13 | 14.02.1996 | 50,2166 | 12,4505 | 8414 | 0,4 | 11895 |  |  | X | X |
| 14 | 01.08.1996 | 50,2412 | 12,4432 | 9102 | 1,5 | 11241 |  | X | X |  |
| 15 | 28.10.1996 | 50,2174 | 12,4479 | 9036 | 0,6 | 12638 |  | X | X |  |
| 16 | 13.01.1997 | 50,2364 | 12,4463 | 8957 | 3,1 | 11241 |  | X |  |  |
| 17 | 31.05.1997 | 50,2401 | 12,4457 | 9180 | 1,7 | 11227 |  | X |  |  |
| 18 | 08.03.1999 | 50,2387 | 12,4456 | 8943 | 1,8 | 11103 |  |  |  | X |
| 19 | 28.03.2000 | 50,2124 | 12,4569 | 7453 | 1,2 | 10804 | 1,92 | X | X |  |
| 20 | 28.08.2000 | 50,2158 | 12,4486 | 9880 | 3,0 | 11464 | 0,58 |  | X | X |
| 21 | 08.09.2000 | 50,2148 | 12,4487 | 9587 | 3,0 | 13329 | 0,74 |  |  | X |
| 22 | 17.09.2000 | 50,2188 | 12,4480 | 9470 | 2,8 | 12960 | 0,67 |  |  | X |
| 23 | 15.10.2000 | 50,2243 | 12,4420 | 8477 | 3,2 | 11972 | 0,51 |  | X | X |
| 24 | 06.11.2000 | 50,2053 | 12,4535 | 8934 | 3,3 | 13056 | 0,56 |  |  | X |
| 25 | 24.12.2000 | 50,2376 | 12,4496 | 7419 | 2,7 | 9383 |  | X | X |  |
| 26 | 13.01.2001 | 50,2374 | 12,4541 | 6708 | 2,1 | 8373 |  | X |  |  |
| 27 | 01.04.2001 | 50,2429 | 12,4472 | 7110 | 0,3 | 8842 |  |  |  |  |
| 28 | 13.06.2001 | 50,2113 | 12,4497 | 9305 | 1,7 | 13241 |  |  |  |  |
| 29 | 14.06.2001 | 50,2337 | 12,4534 | 7309 | 0,6 | 9301 |  |  |  | X |
| 30 | 12.07.2001 | 50,2446 | 12,4496 | 6692 | 1,4 | 8129 |  |  |  | X |
| 31 | 10.04.2003 | 50,1995 | 12,4545 | 9477 | 0,1 | 13966 |  |  | X | X |
| 32 | 02.08.2003 | 50,1977 | 12,4550 | 9286 | 0,0 | 13875 |  |  | X | X |
| 33 | 03.12.2003 | 50,2152 | 12,4450 | 9923 | -0,1 | 13893 |  | X | X | X |
| 34 | 11.01.2004 | 50,2094 | 12,4307 | 12927 | 0,4 | 18331 |  |  |  |  |
| 35 | 11.03.2004 | 50,2388 | 12,4445 | 8938 | 0,8 | 11167 |  | X |  |  |
| 36 | 01.08.2004 | 50,2081 | 12,4510 | 9040 | 0,1 | 13126 |  | X |  |  |
| 37 | 05.10.2004 | 50,2089 | 12,4348 | 11887 | 0,4 | 17043 |  |  |  |  |
| 38 | 24.10.2004 | 50,1986 | 12,4473 | 10337 | 1,1 | 15396 |  | X |  |  |
| 39 | 29.01.2005 | 50,2214 | 12,4492 | 10466 | 0,5 | 13677 |  |  |  |  |
| 40 | 16.03.2005 | 50,2203 | 12,4402 | 10157 | 0,6 | 14078 |  |  |  |  |
| 41 | 01.05.2005 | 50,2394 | 12,4525 | 7188 | 0,1 | 8814 |  |  | X | X |
| 42 | 04.05.2005 | 50,2193 | 12,4412 | 10157 | 0,1 | 14084 |  |  |  |  |
| 43 | 15.06.2005 | 50,2145 | 12,4411 | 10294 | 0,8 | 14589 |  |  |  |  |
| 44 | 10.10.2005 | 50,2384 | 12,4456 | 9282 | 0,6 | 11464 |  |  | X | X |
| 45 | 10.12.2005 | 50,2349 | 12,4455 | 9384 | 1,1 | 11837 |  |  | X | X |
| 46 | 01.01.2006 | 50,2203 | 12,4407 | 10180 | 1,1 | 14066 |  |  | X | X |
| 47 | 05.05.2006 | 50,2058 | 12,4362 | 11712 | 0,5 | 17004 | 7,00 |  |  |  |
| 48 | 26.05.2006 | 50,2202 | 12,4417 | 10149 | 1,9 | 13973 | 3,05 |  | X |  |
| 49 | 02.09.2006 | 50,2533 | 12,4406 | 8130 | 0,7 | 9540 | 0,33 |  | X | X |
| 50 | 01.10.2006 | 50,2532 | 12,4408 | 8270 | 0,2 | 9673 | 0,46 |  | X | X |
| 51 | 10.10.2006 | 50,1971 | 12,4481 | 10141 | 0,0 | 15257 | 1,09 |  |  |  |
| 52 | 28.11.2006 | 50,2055 | 12,4444 | 10520 | 0,4 | 15262 | 0,87 |  |  | X |
| 53 | 30.12.2006 | 50,1985 | 12,4553 | 9704 | 0,9 | 14212 | 0,67 |  |  | X |
| 54 | 09.02.2007 | 50,2045 | 12,4410 | 9837 | 1,8 | 14892 |  |  |  | X |
| 55 | 08.03.2007 | 50,2181 | 12,4425 | 9981 | 0,3 | 13907 |  |  | X | X |
| 56 | 20.05.2007 | 50,2362 | 12,4457 | 9235 | 0,6 | 11576 |  | X | X |  |
| 57 | 20.06.2007 | 50,2091 | 12,4300 | 12778 | 0,7 | 18254 |  |  |  |  |
| 58 | 24.06.2007 | 50,2596 | 12,4415 | 8270 | 1,1 | 9143 |  |  | X | X |
| 59 | 15.07.2007 | 50,2339 | 12,4444 | 8798 | 0,2 | 11403 |  | X |  | X |
| 60 | 08.08.2007 | 50,2087 | 12,4442 | 10645 | 0,8 | 15160 |  |  | X |  |
| 61 | 29.09.2007 | 50,1981 | 12,4540 | 9680 | 1,3 | 14309 |  |  |  |  |
| 62 | 01.11.2007 | 50,2085 | 12,4343 | 11958 | 1,3 | 17179 |  |  |  |  |
| 63 | 24.12.2007 | 50,2482 | 12,4493 | 6881 | 1,3 | 8068 |  |  | X | X |
| 64 | 02.04.2008 | 50,2062 | 12,4476 | 10327 | 0,3 | 14793 |  |  |  | X |
| 65 | 06.08.2008 | 50,1976 | 12,4475 | 10467 | 0,3 | 15587 |  |  |  | X |
| 66 | 20.08.2008 | 50,2221 | 12,4382 | 10436 | 0,2 | 14361 |  |  | X | X |
| 67 | 24.08.2008 | 50,2076 | 12,4493 | 9225 | 0,6 | 13467 |  |  | X | X |
| 68 | 05.10.2008 | 50,2023 | 12,4516 | 10038 | 3,7 | 14519 |  |  | X | X |
| 69 | 10.12.2008 | 50,2478 | 12,4458 | 7299 | 1,7 | 8760 |  | X | X |  |
| 70 | 01.01.2009 | 50,2410 | 12,4523 | 6602 | 0,6 | 8122 |  | X |  |  |
| 71 | 25.03.2009 | 50,2463 | 12,4486 | 6827 | 0,0 | 8206 |  |  |  |  |
| 72 | 06.04.2009 | 50,2006 | 12,4569 | 8340 | 0,7 | 12579 |  | X | X |  |
| 73 | 11.05.2009 | 50,2101 | 12,4531 | 8623 | 1,1 | 12412 | 2,53 | X |  |  |
| 74 | 28.07.2009 | 50,1967 | 12,4493 | 10184 | 0,8 | 15247 | 1,60 | X | X |  |
| 75 | 20.08.2009 | 50,2115 | 12,4502 | 9279 | 1,8 | 13165 | 1,01 | X |  |  |
| 76 | 21.11.2009 | 50,2069 | 12,4562 | 7423 | 0,1 | 11236 | 0,46 |  | X | X |
| 77 | 07.12.2009 | 50,1946 | 12,4555 | 9038 | 0,7 | 13826 | 0,66 | X |  | X |
| 78 | 16.12.2009 | 50,2372 | 12,4534 | 6620 | 0,8 | 8349 | 0,23 | X | X |  |
| 79 | 26.12.2009 | 50,2085 | 12,4470 | 10483 | 0,2 | 14818 | 0,71 | X |  | X |
| 80 | 23.01.2010 | 50,2008 | 12,4324 | 9845 | 0,2 | 15778 |  | X |  |  |
| 81 | 05.07.2010 | 50,1943 | 12,4499 | 9969 | 0,5 | 15170 |  |  |  |  |
| 82 | 28.07.2010 | 50,1912 | 12,4500 | 9994 | 0,0 | 15422 |  |  |  |  |
| 83 | 09.09.2010 | 50,2034 | 12,4489 | 10139 | 0,3 | 14725 |  |  |  |  |
| 84 | 15.09.2010 | 50,2164 | 12,4424 | 10090 | 0,9 | 14151 |  |  |  |  |
| 85 | 03.10.2010 | 50,2225 | 12,4396 | 10042 | -0,1 | 13840 |  |  |  |  |
| 86 | 02.11.2010 | 50,2043 | 12,4337 | 9976 | 0,1 | 15555 |  | X |  |  |
| 87 | 13.12.2010 | 50,2185 | 12,4428 | 10290 | 0,6 | 14165 |  |  |  |  |
| 88 | 26.12.2010 | 50,1969 | 12,4465 | 9648 | 1,5 | 14891 |  |  |  |  |
| 89 | 28.02.2011 | 50,2291 | 12,4449 | 8087 | 0,4 | 11018 | 2,48 |  | X | X |
| 90 | 12.03.2011 | 50,2448 | 12,4405 | 8817 | 0,8 | 10873 | 1,91 |  | X | X |
| 91 | 18.04.2011 | 50,2069 | 12,4476 | 10506 | 0,5 | 14920 | 2,18 |  |  | X |
| 92 | 01.05.2011 | 50,2180 | 12,4435 | 10438 | -0,1 | 14302 | 1,76 |  |  | X |
| 93 | 08.05.2011 | 50,2314 | 12,4438 | 8426 | -0,3 | 11261 | 1,02 |  | X | X |
| 94 | 12.06.2011 | 50,2146 | 12,4436 | 10326 | 0,3 | 14439 | 1,23 |  |  | X |
| 95 | 22.06.2011 | 50,1977 | 12,4485 | 10192 | 1,3 | 15235 | 1,34 |  |  | X |
| 96 | 23.08.2011 | 50,2304 | 12,4431 | 8267 | 3,4 | 11226 | 0,52 | X | X | X |
| 97 | 01.10.2011 | 50,2449 | 12,4454 | 9560 | 1,5 | 11267 | 0,45 | X | X | X |
| 98 | 01.01.2012 | 50,2363 | 12,4434 | 7732 | 1,3 | 10226 |  | X |  |  |
| 99 | 22.02.2012 | 50,1975 | 12,4487 | 10224 | 0,6 | 15268 |  |  | X | X |
| 100 | 02.03.2012 | 50,2587 | 12,4395 | 8192 | 1,7 | 9272 |  | X |  |  |
| 101 | 13.05.2012 | 50,2127 | 12,4442 | 10181 | 0,3 | 14395 |  | X | X |  |
| 102 | 18.10.2012 | 50,2588 | 12,4373 | 8355 | 0,4 | 9581 |  | X | X | X |
| 103 | 24.12.2012 | 50,2260 | 12,4355 | 9660 | 0,3 | 13480 |  | X | X | X |
| 104 | 01.01.2013 | 50,2193 | 12,4364 | 8324 | 2,3 | 12586 |  | X | X | X |
| 105 | 11.01.2013 | 50,2078 | 12,4423 | 9613 | 2,0 | 14329 |  | X | X | X |
| 106 | 10.03.2013 | 50,1989 | 12,4487 | 10111 | 0,7 | 15050 | 2,74 | X | X |  |
| 107 | 22.04.2013 | 50,2583 | 12,4400 | 8294 | 1,5 | 9370 | 0,68 |  |  | X |
| 108 | 01.05.2013 | 50,2587 | 12,4435 | 8382 | 1,7 | 9184 | 0,61 |  |  | X |
| 109 | 14.05.2013 | 50,2340 | 12,4508 | 7591 | 1,7 | 9743 | 0,62 |  |  | X |
| 110 | 30.08.2013 | 50,2601 | 12,4415 | 6859 | 2,2 | 7694 | 0,22 | X | X | X |
| 111 | 18.01.2014 | 50,2540 | 12,4410 | 9670 | 0,6 | 10999 | 0,28 | X | X | X |
| 112 | 14.02.2014 | 50,1920 | 12,4420 | 11250 | 0,6 | 17176 | 1,05 |  |  |  |
| 113 | 26.03.2014 | 50,2160 | 12,4360 | 11250 | 1,6 | 15788 | 0,77 |  | X | X |
| 114 | 24.05.2014 | 50,2210 | 12,4390 | 8150 | 4,4 | 12102 | 0,38 | X | X |  |
| 115 | 23.01.2015 | 50,2350 | 12,4542 | 7035 | -0,1 | 8874 |  |  |  |  |
| 116 | 04.06.2015 | 50,2522 | 12,4405 | 7152 | 1,2 | 8652 |  |  |  | X |
| 117 | 20.06.2015 | 50,2049 | 12,4541 | 9496 | 1,3 | 13607 |  |  |  |  |
| 118 | 04.07.2015 | 50,2179 | 12,4423 | 9027 | 1,1 | 12983 |  |  |  |  |
| 119 | 31.08.2015 | 50,2365 | 12,4444 | 6566 | 1,3 | 8975 |  |  |  |  |
| 120 | 21.05.2016 | 50,2480 | 12,4312 | 9206 | 0,6 | 11670 |  |  |  |  |
| 121 | 12.12.2016 | 50,2356 | 12,4466 | 6266 | 1,2 | 8590 |  |  |  |  |