

PERMESSO DI COSTRUIRE

AMPLIAMENTO DEL COMPARTO AUTODROMO DI MODENA

LOCALITA' MARZAGLIA – COMUNE DI MODENA

Provvedimento Autorizzatorio Unico (PAUR) e Valutazione di Impatto Ambientale (VIA), L.R. n. 4/2018, D.Lgs. 152/06
Progetto di modifica e ampliamento del comparto "Autodromo di Modena", in località Marzaglia, Comune di Modena (MO)



COMPARTO: AUTODROMO DI MODENA

PROPONENTE: AERAUTODROMO MODENA SPA

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STR – R02 - RELAZIONE DI CALCOLO PLINTI – ELEMENTI PRECOMPRESSI E PREFABBRICATI - COLLEGAMENTI – U.S. ALI ESTERNE

P.d.C.4

REALIZZAZIONE DI TRIBUNA E VISITOR
CENTER E REALIZZAZIONE DI POSTI AUTO
PDC 4 - VIA



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1. RELAZIONE DI CALCOLO PLINTI

PLINTI 1, 11, 13, 15, 17, 19, 21, 23, 25, 29, 3, 5, 53, 7, 9 (base rettangolare 450 x 450)

Peso proprio del plinto = 50625.0 kg

MATERIALI

Acciaio: B450C

E = 2060000 daN/cm², F_{yk} = 4500 daN/cm², f_{sd} = 3913 daN/cm²

Calcestruzzo: C30/37

R_{ck} = 370 daN/cm², E = 330170 daN/cm², f_{cd} = 204.7 daN/cm², f_{ctm} = 29.4 daN/cm², f_{ctd} = 13.7 daN/cm², P_{spec.} = 2500.0 daN/mq

Condizioni ambientali: aggressive

Sollecitazioni alla base del pilastro

Cmb.	Plin.	Tipo	V _x (daN)	V _y (daN)	N (daN)	M _x (daN cm)	M _y (daN cm)	T (daN cm)
1	1	SLU STR.	815.9	2501.1	-97080.0	668500.0	-172100.0	29760.0
2	1	SLU STR.	815.5	2831.8	-100600.0	757200.0	-171900.0	30390.0
3	1	SLU STR.	794.9	5459.5	-142100.0	1462000.0	-160200.0	45650.0
4	1	SLU STR.	794.5	5790.2	-145600.0	1551000.0	-160000.0	46280.0
5	1	SLU STR.	629.3	1950.5	-73590.0	521400.0	-133300.0	21950.0
6	1	SLU STR.	628.9	2281.2	-77110.0	610100.0	-133100.0	22580.0
7	1	SLU STR.	608.3	4908.9	-118600.0	1315000.0	-121500.0	37840.0
8	1	SLU STR.	608.0	5239.6	-122200.0	1404000.0	-121300.0	38470.0
9	1	SLU STR.	815.1	3162.5	-104100.0	845900.0	-171700.0	31020.0
10	1	SLU STR.	801.2	4572.0	-128600.0	1224000.0	-163800.0	40880.0
11	1	SLU STR.	800.5	5233.4	-135700.0	1402000.0	-163400.0	42140.0
12	1	SLU STR.	628.6	2611.9	-80630.0	698800.0	-132900.0	23220.0
13	1	SLU STR.	614.6	4021.4	-105100.0	1077000.0	-125000.0	33070.0
14	1	SLU STR.	613.9	4682.8	-112200.0	1254000.0	-124600.0	34340.0
15	1	SLE Rare	628.3	1935.5	-74200.0	517400.0	-132800.0	22480.0
16	1	SLE Rare	628.1	2155.9	-76550.0	576500.0	-132600.0	22900.0
17	1	SLE Rare	614.4	3907.8	-104200.0	1047000.0	-124900.0	33070.0
18	1	SLE Rare	614.1	4128.2	-106600.0	1106000.0	-124700.0	33500.0
19	1	SLE Rare	627.8	2376.4	-78900.0	635600.0	-132500.0	23330.0
20	1	SLE Rare	618.5	3316.1	-95220.0	887800.0	-127200.0	29900.0
21	1	SLE Rare	618.1	3757.0	-99920.0	1006000.0	-127000.0	30740.0
22	1	SLE Freq.	628.3	1935.5	-74200.0	517400.0	-132800.0	22480.0
23	1	SLE Freq.	618.5	3316.1	-95220.0	887800.0	-127200.0	29900.0
24	1	SLE Freq.	628.2	2023.7	-75140.0	541000.0	-132700.0	22650.0
25	1	SLE Freq.	619.9	3118.8	-92220.0	834900.0	-128000.0	28840.0
26	1	SLE Freq.	619.9	3207.0	-93160.0	858500.0	-128000.0	29010.0
27	1	SLE Quasi P.	628.3	1935.5	-74200.0	517400.0	-132800.0	22480.0
28	1	SLE Quasi P.	619.9	3118.8	-92220.0	834900.0	-128000.0	28840.0
29	1	SLU A1 sism.	43440.0	-5422.9	-16100.0	-606200.0	-1439000.0	-542700.0
30	1	SLU A1 sism.	44050.0	-4539.6	-40680.0	-369700.0	-1538000.0	-523300.0
31	1	SLU A1 sism.	38860.0	-22030.0	-52950.0	-1524000.0	-1244000.0	-717900.0
32	1	SLU A1 sism.	39480.0	-21140.0	-77530.0	-1288000.0	-1342000.0	-698500.0
33	1	SLU A1 sism.	-38240.0	27380.0	-106900.0	2958000.0	1086000.0	756200.0
34	1	SLU A1 sism.	-37620.0	28260.0	-131500.0	3194000.0	987500.0	775600.0
35	1	SLU A1 sism.	-42810.0	10780.0	-143800.0	2039000.0	1281000.0	580900.0
36	1	SLU A1 sism.	-42200.0	11660.0	-168300.0	2276000.0	1183000.0	600400.0
37	1	SLU A1 sism.	38470.0	6819.0	-7421.1	475600.0	-1034000.0	-756800.0
38	1	SLU A1 sism.	39090.0	7702.3	-32000.0	712100.0	-1132000.0	-737400.0
39	1	SLU A1 sism.	43830.0	-34270.0	-61630.0	-2606000.0	-1649000.0	-503800.0
40	1	SLU A1 sism.	44440.0	-33390.0	-86210.0	-2370000.0	-1747000.0	-484300.0
41	1	SLU A1 sism.	-43200.0	39620.0	-98230.0	4040000.0	1491000.0	542000.0
42	1	SLU A1 sism.	-42590.0	40510.0	-122800.0	4276000.0	1393000.0	561400.0

43	1	SLU A1 sism.	-37850.0	-1464.6	-152400.0	957600.0	876200.0	795100.0
44	1	SLU A1 sism.	-37230.0	-581.3	-177000.0	1194000.0	777700.0	814500.0
45	1	SLU A1 sism.	37580.0	24540.0	-1365.2	2200000.0	-1030000.0	-803100.0
46	1	SLU A1 sism.	38200.0	25420.0	-25940.0	2437000.0	-1129000.0	-783600.0
47	1	SLU A1 sism.	33010.0	7934.8	-38210.0	1282000.0	-834700.0	-978300.0
48	1	SLU A1 sism.	33630.0	8818.1	-62790.0	1519000.0	-933300.0	-958900.0
49	1	SLU A1 sism.	-32390.0	-2580.4	-121600.0	151100.0	677200.0	1017000.0
50	1	SLU A1 sism.	-31770.0	-1697.1	-146200.0	387600.0	578600.0	1036000.0
51	1	SLU A1 sism.	-36960.0	-19180.0	-158500.0	-767200.0	872600.0	841300.0
52	1	SLU A1 sism.	-36340.0	-18300.0	-183100.0	-530700.0	774000.0	860700.0
53	1	SLU A1 sism.	32620.0	36780.0	7316.4	3282000.0	-624900.0	-1017000.0
54	1	SLU A1 sism.	33240.0	37660.0	-17260.0	3519000.0	-723400.0	-997800.0
55	1	SLU A1 sism.	37970.0	-4307.1	-46900.0	200300.0	-1240000.0	-764100.0
56	1	SLU A1 sism.	38590.0	-3423.8	-71480.0	436800.0	-1338000.0	-744700.0
57	1	SLU A1 sism.	-37350.0	9661.5	-113000.0	1233000.0	1082000.0	802400.0
58	1	SLU A1 sism.	-36730.0	10540.0	-137500.0	1469000.0	983900.0	821800.0
59	1	SLU A1 sism.	-32000.0	-31430.0	-167200.0	-1849000.0	467300.0	1055000.0
60	1	SLU A1 sism.	-31380.0	-30540.0	-191800.0	-1613000.0	368800.0	1075000.0
61	1	SLU A1 sism.	20190.0	25430.0	-4893.5	1713000.0	-783200.0	116400.0
62	1	SLU A1 sism.	20800.0	26310.0	-29470.0	1949000.0	-881700.0	135800.0
63	1	SLU A1 sism.	4939.1	-29920.0	-127700.0	-1348000.0	-131900.0	-467800.0
64	1	SLU A1 sism.	5554.8	-29030.0	-152300.0	-1112000.0	-230400.0	-448300.0
65	1	SLU A1 sism.	-4314.9	35270.0	-32130.0	2782000.0	-25650.0	506000.0
66	1	SLU A1 sism.	-3699.2	36150.0	-56710.0	3018000.0	-124200.0	525400.0
67	1	SLU A1 sism.	-19560.0	-20080.0	-155000.0	-279300.0	625600.0	-78100.0
68	1	SLU A1 sism.	-18950.0	-19190.0	-179500.0	-42840.0	527100.0	-58680.0
69	1	SLU A1 sism.	18430.0	34420.0	-472.3	2555000.0	-660500.0	38240.0
70	1	SLU A1 sism.	19050.0	35300.0	-25050.0	2791000.0	-759000.0	57660.0
71	1	SLU A1 sism.	3183.1	-20930.0	-123300.0	-506500.0	-9226.0	-545900.0
72	1	SLU A1 sism.	3798.7	-20050.0	-147900.0	-270000.0	-107800.0	-526500.0
73	1	SLU A1 sism.	-2558.9	26280.0	-36560.0	1940000.0	-148300.0	584100.0
74	1	SLU A1 sism.	-1943.2	27170.0	-61140.0	2176000.0	-246800.0	603500.0
75	1	SLU A1 sism.	-17810.0	-29060.0	-159400.0	-1121000.0	503000.0	18.0
76	1	SLU A1 sism.	-17190.0	-28180.0	-184000.0	-884800.0	404400.0	19430.0
77	1	SLU A1 sism.	3643.7	66240.0	24050.0	5319000.0	567600.0	-597500.0
78	1	SLU A1 sism.	4259.4	67120.0	-533.8	5555000.0	469000.0	-578100.0
79	1	SLU A1 sism.	21480.0	-70720.0	-156700.0	-4954000.0	-1483000.0	246100.0
80	1	SLU A1 sism.	22100.0	-69840.0	-181200.0	-4718000.0	-1581000.0	265500.0
81	1	SLU A1 sism.	-20860.0	76080.0	-3196.2	6388000.0	1325000.0	-207800.0
82	1	SLU A1 sism.	-20240.0	76960.0	-27780.0	6624000.0	1227000.0	-188400.0
83	1	SLU A1 sism.	-3019.5	-60880.0	-183900.0	-3885000.0	-725100.0	635800.0
84	1	SLU A1 sism.	-2403.8	-60000.0	-208500.0	-3649000.0	-823600.0	655200.0
85	1	SLU A1 sism.	1887.6	75220.0	28470.0	6161000.0	690200.0	-675600.0
86	1	SLU A1 sism.	2503.3	76110.0	3887.5	6397000.0	591700.0	-656200.0
87	1	SLU A1 sism.	19730.0	-61730.0	-152200.0	-4112000.0	-1360000.0	168000.0
88	1	SLU A1 sism.	20340.0	-60850.0	-176800.0	-3876000.0	-1458000.0	187400.0
89	1	SLU A1 sism.	-19100.0	67090.0	-7617.5	5546000.0	1202000.0	-129700.0
90	1	SLU A1 sism.	-18490.0	67970.0	-32200.0	5782000.0	1104000.0	-110300.0
91	1	SLU A1 sism.	-1263.4	-69870.0	-188300.0	-4727000.0	-847800.0	713900.0
92	1	SLU A1 sism.	-647.7	-68990.0	-212900.0	-4491000.0	-946300.0	733300.0
221	1	SLU A1 sism.	14130.0	5028.2	-19210.0	365300.0	-440300.0	-110700.0
222	1	SLU A1 sism.	16180.0	7972.3	-101100.0	1154000.0	-768700.0	-46020.0
223	1	SLU A1 sism.	9558.0	-11580.0	-56060.0	-553000.0	-244900.0	-286000.0
224	1	SLU A1 sism.	11610.0	-8631.8	-138000.0	235200.0	-573300.0	-221200.0
225	1	SLU A1 sism.	-10370.0	14870.0	-46450.0	1434000.0	317300.0	278900.0
226	1	SLU A1 sism.	-8318.1	17810.0	-128400.0	2223000.0	-11200.0	343600.0
227	1	SLU A1 sism.	-14950.0	-1734.6	-83300.0	516200.0	512600.0	103700.0
228	1	SLU A1 sism.	-12890.0	1209.5	-165200.0	1304000.0	184200.0	168400.0
229	1	SLU A1 sism.	9169.3	17270.0	-10530.0	1447000.0	-35040.0	-324900.0
230	1	SLU A1 sism.	11220.0	20210.0	-92460.0	2235000.0	-363500.0	-260200.0
231	1	SLU A1 sism.	14520.0	-23820.0	-64740.0	-1635000.0	-650100.0	-71800.0
232	1	SLU A1 sism.	16570.0	-20870.0	-146700.0	-846500.0	-978500.0	-7091.0
233	1	SLU A1 sism.	-15330.0	27110.0	-37770.0	2516000.0	722500.0	64770.0
234	1	SLU A1 sism.	-13280.0	30060.0	-119700.0	3305000.0	394000.0	129500.0
235	1	SLU A1 sism.	-9981.7	-13980.0	-91980.0	-565600.0	107400.0	317900.0
236	1	SLU A1 sism.	-7929.4	-11030.0	-173900.0	222600.0	-221000.0	382600.0

237	1	SLU A1 sism.	12380.0	14020.0	-14790.0	1207000.0	-317600.0	-188800.0
238	1	SLU A1 sism.	14430.0	16960.0	-96720.0	1996000.0	-646000.0	-124100.0
239	1	SLU A1 sism.	7801.9	-2587.4	-51640.0	289000.0	-122200.0	-364100.0
240	1	SLU A1 sism.	9854.2	356.8	-133600.0	1077000.0	-450700.0	-299400.0
241	1	SLU A1 sism.	-8614.3	5880.9	-50870.0	592500.0	194600.0	357000.0
242	1	SLU A1 sism.	-6562.0	8825.1	-132800.0	1381000.0	-133900.0	421800.0
243	1	SLU A1 sism.	-13190.0	-10720.0	-87720.0	-325800.0	390000.0	181800.0
244	1	SLU A1 sism.	-11140.0	-7779.0	-169700.0	462400.0	61520.0	246500.0
245	1	SLU A1 sism.	7413.2	26260.0	-6106.1	2289000.0	87630.0	-403000.0
246	1	SLU A1 sism.	9465.5	29200.0	-88040.0	3077000.0	-240800.0	-338300.0
247	1	SLU A1 sism.	12770.0	-14830.0	-60320.0	-792800.0	-527400.0	-149900.0
248	1	SLU A1 sism.	14820.0	-11890.0	-142200.0	-4558.9	-855900.0	-85210.0
249	1	SLU A1 sism.	-13580.0	18120.0	-42190.0	1674000.0	599800.0	142900.0
250	1	SLU A1 sism.	-11530.0	21070.0	-124100.0	2463000.0	271400.0	207600.0
251	1	SLU A1 sism.	-8225.7	-22970.0	-96400.0	-1408000.0	-15250.0	396000.0
252	1	SLU A1 sism.	-6173.3	-20020.0	-178300.0	-619400.0	-343700.0	460700.0
1	11	SLU STR.	-1659.2	-2540.8	-120200.0	-669200.0	491600.0	-9019.7
2	11	SLU STR.	-1737.5	-3033.0	-124900.0	-800500.0	512800.0	-9247.8
3	11	SLU STR.	-2640.4	-6510.1	-179700.0	-1728000.0	763500.0	-13690.0
4	11	SLU STR.	-2718.7	-7002.3	-184400.0	-1859000.0	784800.0	-13910.0
5	11	SLU STR.	-1254.2	-2038.0	-91040.0	-537300.0	371600.0	-6696.8
6	11	SLU STR.	-1332.5	-2530.2	-95690.0	-668600.0	392900.0	-6924.9
7	11	SLU STR.	-2235.3	-6007.4	-150500.0	-1596000.0	643500.0	-11360.0
8	11	SLU STR.	-2313.6	-6499.5	-155200.0	-1727000.0	664800.0	-11590.0
9	11	SLU STR.	-1815.8	-3525.1	-129500.0	-931800.0	534100.0	-9475.9
10	11	SLU STR.	-2346.0	-5319.3	-161900.0	-1410000.0	681900.0	-12290.0
11	11	SLU STR.	-2502.6	-6303.7	-171200.0	-1673000.0	724400.0	-12740.0
12	11	SLU STR.	-1410.8	-3022.4	-100300.0	-799800.0	414100.0	-7153.0
13	11	SLU STR.	-1941.0	-4816.6	-132700.0	-1278000.0	562000.0	-9962.8
14	11	SLU STR.	-2097.6	-5800.9	-142000.0	-1541000.0	604500.0	-10420.0
15	11	SLE Rare	-1266.7	-1990.8	-91860.0	-524600.0	375300.0	-6833.2
16	11	SLE Rare	-1318.9	-2318.9	-94950.0	-612100.0	389500.0	-6985.3
17	11	SLE Rare	-1920.8	-4637.0	-131500.0	-1230000.0	556600.0	-9943.8
18	11	SLE Rare	-1973.0	-4965.1	-134600.0	-1318000.0	570800.0	-10100.0
19	11	SLE Rare	-1371.1	-2647.0	-98050.0	-699600.0	403600.0	-7137.4
20	11	SLE Rare	-1724.6	-3843.1	-119600.0	-1019000.0	502200.0	-9010.6
21	11	SLE Rare	-1829.0	-4499.4	-125800.0	-1194000.0	530500.0	-9314.8
22	11	SLE Freq.	-1266.7	-1990.8	-91860.0	-524600.0	375300.0	-6833.2
23	11	SLE Freq.	-1724.6	-3843.1	-119600.0	-1019000.0	502200.0	-9010.6
24	11	SLE Freq.	-1287.6	-2122.0	-93100.0	-559600.0	381000.0	-6894.1
25	11	SLE Freq.	-1659.2	-3578.5	-115700.0	-948000.0	484100.0	-8699.6
26	11	SLE Freq.	-1680.0	-3709.8	-116900.0	-983000.0	489700.0	-8760.4
27	11	SLE Quasi P.	-1266.7	-1990.8	-91860.0	-524600.0	375300.0	-6833.2
28	11	SLE Quasi P.	-1659.2	-3578.5	-115700.0	-948000.0	484100.0	-8699.6
29	11	SLU A1 sism.	40600.0	2476.9	-95480.0	-324800.0	-2829000.0	509000.0
30	11	SLU A1 sism.	40250.0	1932.1	-130500.0	-465400.0	-2670000.0	502200.0
31	11	SLU A1 sism.	46930.0	-18830.0	-54400.0	-1673000.0	-3494000.0	312100.0
32	11	SLU A1 sism.	46580.0	-19380.0	-89460.0	-1814000.0	-3334000.0	305400.0
33	11	SLU A1 sism.	-49900.0	12220.0	-141800.0	-82020.0	4302000.0	-322800.0
34	11	SLU A1 sism.	-50250.0	11670.0	-176900.0	-222600.0	4462000.0	-329500.0
35	11	SLU A1 sism.	-43570.0	-9089.2	-100800.0	-1431000.0	3638000.0	-519600.0
36	11	SLU A1 sism.	-43920.0	-9633.9	-135800.0	-1571000.0	3797000.0	-526400.0
37	11	SLU A1 sism.	46020.0	8117.0	-100900.0	149500.0	-3357000.0	336100.0
38	11	SLU A1 sism.	45670.0	7572.3	-136000.0	8925.8	-3198000.0	329300.0
39	11	SLU A1 sism.	41510.0	-24470.0	-48950.0	-2148000.0	-2965000.0	485000.0
40	11	SLU A1 sism.	41160.0	-25020.0	-84010.0	-2288000.0	-2806000.0	478200.0
41	11	SLU A1 sism.	-44480.0	17860.0	-147300.0	392300.0	3774000.0	-495600.0
42	11	SLU A1 sism.	-44830.0	17310.0	-182400.0	251700.0	3933000.0	-502400.0
43	11	SLU A1 sism.	-48990.0	-14730.0	-95320.0	-1905000.0	4166000.0	-346700.0
44	11	SLU A1 sism.	-49340.0	-15270.0	-130400.0	-2045000.0	4326000.0	-353500.0
45	11	SLU A1 sism.	47390.0	15610.0	-104400.0	834400.0	-3487000.0	307900.0
46	11	SLU A1 sism.	47040.0	15070.0	-139500.0	693800.0	-3327000.0	301100.0
47	11	SLU A1 sism.	53720.0	-5697.2	-63330.0	-514200.0	-4151000.0	111100.0
48	11	SLU A1 sism.	53370.0	-6241.9	-98390.0	-654800.0	-3992000.0	104300.0
49	11	SLU A1 sism.	-56680.0	-915.1	-132900.0	-1241000.0	4960000.0	-121700.0
50	11	SLU A1 sism.	-57040.0	-1459.9	-168000.0	-1382000.0	5119000.0	-128500.0

51	11	SLU A1 sism.	-50360.0	-22220.0	-91840.0	-2590000.0	4296000.0	-318500.0
52	11	SLU A1 sism.	-50710.0	-22770.0	-126900.0	-2730000.0	4455000.0	-325300.0
53	11	SLU A1 sism.	52810.0	21250.0	-109900.0	1309000.0	-4015000.0	135000.0
54	11	SLU A1 sism.	52460.0	20710.0	-144900.0	1168000.0	-3856000.0	128300.0
55	11	SLU A1 sism.	48300.0	-11340.0	-57880.0	-988500.0	-3623000.0	283900.0
56	11	SLU A1 sism.	47950.0	-11880.0	-92940.0	-1129000.0	-3464000.0	277100.0
57	11	SLU A1 sism.	-51270.0	4725.0	-138400.0	-766900.0	4432000.0	-294500.0
58	11	SLU A1 sism.	-51620.0	4180.3	-173400.0	-907500.0	4591000.0	-301300.0
59	11	SLU A1 sism.	-55770.0	-27860.0	-86390.0	-3064000.0	4824000.0	-145700.0
60	11	SLU A1 sism.	-56130.0	-28410.0	-121400.0	-3205000.0	4983000.0	-152400.0
61	11	SLU A1 sism.	1549.3	30740.0	-159600.0	1333000.0	441700.0	447500.0
62	11	SLU A1 sism.	1196.9	30200.0	-194700.0	1193000.0	601300.0	440700.0
63	11	SLU A1 sism.	22640.0	-40280.0	-22710.0	-3162000.0	-1773000.0	-208600.0
64	11	SLU A1 sism.	22280.0	-40820.0	-57760.0	-3302000.0	-1613000.0	-215300.0
65	11	SLU A1 sism.	-25600.0	33670.0	-173500.0	1406000.0	2581000.0	197900.0
66	11	SLU A1 sism.	-25950.0	33120.0	-208600.0	1266000.0	2741000.0	191200.0
67	11	SLU A1 sism.	-4515.2	-37360.0	-36620.0	-3089000.0	366800.0	-458100.0
68	11	SLU A1 sism.	-4867.6	-37900.0	-71670.0	-3229000.0	526400.0	-464900.0
69	11	SLU A1 sism.	3585.6	34680.0	-162300.0	1681000.0	244400.0	387100.0
70	11	SLU A1 sism.	3233.2	34140.0	-197400.0	1541000.0	404000.0	380400.0
71	11	SLU A1 sism.	24670.0	-36340.0	-25390.0	-2814000.0	-1970000.0	-268900.0
72	11	SLU A1 sism.	24320.0	-36880.0	-60440.0	-2955000.0	-1810000.0	-275700.0
73	11	SLU A1 sism.	-27640.0	29730.0	-170900.0	1059000.0	2778000.0	258300.0
74	11	SLU A1 sism.	-27990.0	29180.0	-205900.0	918000.0	2938000.0	251500.0
75	11	SLU A1 sism.	-6551.5	-41300.0	-33940.0	-3437000.0	564100.0	-397800.0
76	11	SLU A1 sism.	-6903.9	-41840.0	-69000.0	-3577000.0	723700.0	-404500.0
77	11	SLU A1 sism.	19600.0	49550.0	-177800.0	2915000.0	-1319000.0	-128700.0
78	11	SLU A1 sism.	19250.0	49000.0	-212900.0	2774000.0	-1159000.0	-135400.0
79	11	SLU A1 sism.	4581.9	-59080.0	-4539.6	-4743000.0	-11990.0	367600.0
80	11	SLU A1 sism.	4229.6	-59620.0	-39600.0	-4883000.0	147600.0	360800.0
81	11	SLU A1 sism.	-7547.9	52470.0	-191700.0	2987000.0	820500.0	-378200.0
82	11	SLU A1 sism.	-7900.2	51920.0	-226800.0	2847000.0	980100.0	-385000.0
83	11	SLU A1 sism.	-22570.0	-56160.0	-18450.0	-4670000.0	2127000.0	118000.0
84	11	SLU A1 sism.	-22920.0	-56700.0	-53510.0	-4810000.0	2287000.0	111300.0
85	11	SLU A1 sism.	21640.0	53490.0	-180500.0	3262000.0	-1516000.0	-189000.0
86	11	SLU A1 sism.	21290.0	52940.0	-215500.0	3122000.0	-1357000.0	-195800.0
87	11	SLU A1 sism.	6618.2	-55140.0	-7218.8	-4395000.0	-209300.0	307200.0
88	11	SLU A1 sism.	6265.8	-55680.0	-42280.0	-4536000.0	-49740.0	300500.0
89	11	SLU A1 sism.	-9584.2	48530.0	-189000.0	2640000.0	1018000.0	-317900.0
90	11	SLU A1 sism.	-9936.5	47980.0	-224100.0	2499000.0	1177000.0	-324600.0
91	11	SLU A1 sism.	-24600.0	-60100.0	-15770.0	-5018000.0	2325000.0	178400.0
92	11	SLU A1 sism.	-24960.0	-60640.0	-50830.0	-5158000.0	2484000.0	171600.0
221	11	SLU A1 sism.	9340.4	6521.8	-70810.0	-75840.0	-519500.0	225800.0
222	11	SLU A1 sism.	8165.9	4706.0	-187700.0	-544400.0	12520.0	203200.0
223	11	SLU A1 sism.	15670.0	-14790.0	-29730.0	-1424000.0	-1184000.0	28950.0
224	11	SLU A1 sism.	14490.0	-16600.0	-146600.0	-1893000.0	-651800.0	6359.3
225	11	SLU A1 sism.	-17810.0	9444.2	-84720.0	-3003.2	1620000.0	-23760.0
226	11	SLU A1 sism.	-18980.0	7628.3	-201600.0	-471600.0	2152000.0	-46350.0
227	11	SLU A1 sism.	-11480.0	-11860.0	-43640.0	-1352000.0	955600.0	-220600.0
228	11	SLU A1 sism.	-12660.0	-13680.0	-160500.0	-1820000.0	1488000.0	-243200.0
229	11	SLU A1 sism.	14760.0	12160.0	-76250.0	398500.0	-1048000.0	52920.0
230	11	SLU A1 sism.	13580.0	10350.0	-193100.0	-70100.0	-515700.0	30330.0
231	11	SLU A1 sism.	10250.0	-20430.0	-24280.0	-1899000.0	-655600.0	201800.0
232	11	SLU A1 sism.	9075.7	-22240.0	-141100.0	-2367000.0	-123600.0	179200.0
233	11	SLU A1 sism.	-12390.0	15080.0	-90170.0	471300.0	1092000.0	-196600.0
234	11	SLU A1 sism.	-13570.0	13270.0	-207000.0	2741.9	1624000.0	-219200.0
235	11	SLU A1 sism.	-16900.0	-17500.0	-38190.0	-1826000.0	1484000.0	-47730.0
236	11	SLU A1 sism.	-18070.0	-19320.0	-155000.0	-2294000.0	2016000.0	-70320.0
237	11	SLU A1 sism.	11380.0	10460.0	-73480.0	271900.0	-716800.0	165400.0
238	11	SLU A1 sism.	10200.0	8645.9	-190300.0	-196600.0	-184800.0	142800.0
239	11	SLU A1 sism.	17700.0	-10850.0	-32410.0	-1077000.0	-1381000.0	-31380.0
240	11	SLU A1 sism.	16530.0	-12660.0	-149300.0	-1545000.0	-849100.0	-53970.0
241	11	SLU A1 sism.	-19850.0	5504.2	-82040.0	-350800.0	1817000.0	36570.0
242	11	SLU A1 sism.	-21020.0	3688.4	-198900.0	-819300.0	2349000.0	13980.0
243	11	SLU A1 sism.	-13520.0	-15800.0	-40960.0	-1699000.0	1153000.0	-160200.0
244	11	SLU A1 sism.	-14700.0	-17620.0	-157800.0	-2168000.0	1685000.0	-182800.0

245	11	SLU A1 sism.	16790.0	16100.0	-78930.0	746200.0	-1245000.0	-7406.6
246	11	SLU A1 sism.	15620.0	14290.0	-195800.0	277700.0	-713000.0	-30000.0
247	11	SLU A1 sism.	12290.0	-16490.0	-26960.0	-1551000.0	-853000.0	141500.0
248	11	SLU A1 sism.	11110.0	-18300.0	-143800.0	-2020000.0	-321000.0	118900.0
249	11	SLU A1 sism.	-14430.0	11140.0	-87490.0	123500.0	1289000.0	-136300.0
250	11	SLU A1 sism.	-15600.0	9328.5	-204300.0	-345000.0	1821000.0	-158900.0
251	11	SLU A1 sism.	-18940.0	-21440.0	-35510.0	-2174000.0	1681000.0	12600.0
252	11	SLU A1 sism.	-20110.0	-23260.0	-152400.0	-2642000.0	2213000.0	-9992.5
1	13	SLU STR.	1037.7	2768.4	-124900.0	727000.0	-221500.0	1963.3
2	13	SLU STR.	1079.3	3277.3	-129800.0	862600.0	-231700.0	1962.4
3	13	SLU STR.	1576.9	6911.7	-187000.0	1830000.0	-347800.0	2886.1
4	13	SLU STR.	1618.5	7420.6	-191800.0	1966000.0	-358000.0	2885.1
5	13	SLU STR.	784.8	2212.3	-94610.0	581500.0	-167600.0	1428.0
6	13	SLU STR.	826.5	2721.2	-99450.0	717100.0	-177800.0	1427.1
7	13	SLU STR.	1324.0	6355.5	-156600.0	1685000.0	-293900.0	2350.7
8	13	SLU STR.	1365.7	6864.5	-161500.0	1821000.0	-304100.0	2349.8
9	13	SLU STR.	1121.0	3786.3	-134600.0	998200.0	-241900.0	1961.5
10	13	SLU STR.	1415.1	5668.7	-168400.0	1499000.0	-309900.0	2609.3
11	13	SLU STR.	1498.4	6686.6	-178000.0	1771000.0	-330300.0	2607.4
12	13	SLU STR.	868.1	3230.2	-104300.0	852700.0	-188000.0	1426.2
13	13	SLU STR.	1162.3	5112.6	-138000.0	1354000.0	-256000.0	2073.9
14	13	SLU STR.	1245.6	6130.5	-147700.0	1625000.0	-276400.0	2072.1
15	13	SLE Rare	792.4	2165.5	-95460.0	568900.0	-169200.0	1474.5
16	13	SLE Rare	820.2	2504.8	-98690.0	659300.0	-176000.0	1473.9
17	13	SLE Rare	1151.9	4927.7	-136800.0	1305000.0	-253400.0	2089.6
18	13	SLE Rare	1179.6	5267.0	-140000.0	1395000.0	-260200.0	2089.0
19	13	SLE Rare	847.9	2844.1	-101900.0	749700.0	-182800.0	1473.3
20	13	SLE Rare	1044.0	4099.0	-124400.0	1084000.0	-228100.0	1905.1
21	13	SLE Rare	1099.6	4777.6	-130900.0	1265000.0	-241700.0	1903.9
22	13	SLE Freq.	792.4	2165.5	-95460.0	568900.0	-169200.0	1474.5
23	13	SLE Freq.	1044.0	4099.0	-124400.0	1084000.0	-228100.0	1905.1
24	13	SLE Freq.	803.5	2301.2	-96750.0	605100.0	-171900.0	1474.3
25	13	SLE Freq.	1008.1	3822.8	-120300.0	1010000.0	-219700.0	1843.6
26	13	SLE Freq.	1019.2	3958.5	-121600.0	1046000.0	-222400.0	1843.3
27	13	SLE Quasi P.	792.4	2165.5	-95460.0	568900.0	-169200.0	1474.5
28	13	SLE Quasi P.	1008.1	3822.8	-120300.0	1010000.0	-219700.0	1843.6
29	13	SLU A1 sism.	54950.0	17840.0	-74350.0	1873000.0	-4278000.0	-113900.0
30	13	SLU A1 sism.	55600.0	18620.0	-112100.0	2077000.0	-4393000.0	-110500.0
31	13	SLU A1 sism.	48930.0	-9852.9	-121600.0	-6144.0	-3729000.0	-320400.0
32	13	SLU A1 sism.	49580.0	-9067.4	-159400.0	198100.0	-3845000.0	-316900.0
33	13	SLU A1 sism.	-47560.0	16710.0	-81170.0	1822000.0	3406000.0	320600.0
34	13	SLU A1 sism.	-46910.0	17500.0	-118900.0	2027000.0	3290000.0	324100.0
35	13	SLU A1 sism.	-53580.0	-10980.0	-128400.0	-56710.0	3954000.0	114200.0
36	13	SLU A1 sism.	-52930.0	-10190.0	-166200.0	147600.0	3838000.0	117600.0
37	13	SLU A1 sism.	49500.0	17430.0	-74670.0	1840000.0	-3751000.0	-294200.0
38	13	SLU A1 sism.	50150.0	18210.0	-112400.0	2044000.0	-3867000.0	-290700.0
39	13	SLU A1 sism.	54370.0	-9445.4	-121300.0	27010.0	-4256000.0	-140100.0
40	13	SLU A1 sism.	55030.0	-8659.9	-159000.0	231300.0	-4372000.0	-136600.0
41	13	SLU A1 sism.	-53010.0	16310.0	-81490.0	1789000.0	3933000.0	140300.0
42	13	SLU A1 sism.	-52360.0	17090.0	-119300.0	1994000.0	3817000.0	143800.0
43	13	SLU A1 sism.	-48140.0	-10570.0	-128100.0	-23550.0	3427000.0	294400.0
44	13	SLU A1 sism.	-47480.0	-9782.8	-165900.0	180700.0	3311000.0	297900.0
45	13	SLU A1 sism.	48190.0	16500.0	-74240.0	1741000.0	-3635000.0	-321100.0
46	13	SLU A1 sism.	48850.0	17280.0	-112000.0	1945000.0	-3751000.0	-317700.0
47	13	SLU A1 sism.	42170.0	-11190.0	-121500.0	-138100.0	-3086000.0	-527600.0
48	13	SLU A1 sism.	42830.0	-10410.0	-159300.0	66150.0	-3202000.0	-524100.0
49	13	SLU A1 sism.	-40810.0	18050.0	-81280.0	1954000.0	2763000.0	527800.0
50	13	SLU A1 sism.	-40160.0	18840.0	-119100.0	2159000.0	2647000.0	531300.0
51	13	SLU A1 sism.	-46830.0	-9637.1	-128500.0	75260.0	3311000.0	321400.0
52	13	SLU A1 sism.	-46180.0	-8851.6	-166300.0	279500.0	3195000.0	324800.0
53	13	SLU A1 sism.	42750.0	16090.0	-74560.0	1708000.0	-3108000.0	-501400.0
54	13	SLU A1 sism.	43400.0	16880.0	-112300.0	1912000.0	-3224000.0	-498000.0
55	13	SLU A1 sism.	47620.0	-10780.0	-121200.0	-105000.0	-3613000.0	-347300.0
56	13	SLU A1 sism.	48270.0	-9998.6	-158900.0	99310.0	-3729000.0	-343800.0
57	13	SLU A1 sism.	-46260.0	17640.0	-81600.0	1921000.0	3290000.0	347500.0
58	13	SLU A1 sism.	-45600.0	18430.0	-119400.0	2126000.0	3174000.0	351000.0

59	13	SLU A1 sism.	-41380.0	-9229.6	-128200.0	108400.0	2784000.0	501600.0
60	13	SLU A1 sism.	-40730.0	-8444.2	-166000.0	312700.0	2668000.0	505100.0
61	13	SLU A1 sism.	26090.0	49750.0	-21620.0	4048000.0	-2228000.0	279000.0
62	13	SLU A1 sism.	26750.0	50530.0	-59390.0	4252000.0	-2344000.0	282500.0
63	13	SLU A1 sism.	6024.2	-42550.0	-179100.0	-2216000.0	-400400.0	-409100.0
64	13	SLU A1 sism.	6677.4	-41760.0	-216900.0	-2012000.0	-516200.0	-405700.0
65	13	SLU A1 sism.	-4661.3	49410.0	-23670.0	4032000.0	76760.0	409400.0
66	13	SLU A1 sism.	-4008.0	50200.0	-61440.0	4237000.0	-39050.0	412800.0
67	13	SLU A1 sism.	-24730.0	-42890.0	-181100.0	-2231000.0	1905000.0	-278800.0
68	13	SLU A1 sism.	-24080.0	-42100.0	-218900.0	-2027000.0	1789000.0	-275300.0
69	13	SLU A1 sism.	24070.0	49340.0	-21590.0	4008000.0	-2035000.0	216800.0
70	13	SLU A1 sism.	24720.0	50130.0	-59360.0	4212000.0	-2151000.0	220300.0
71	13	SLU A1 sism.	3998.0	-42950.0	-179100.0	-2256000.0	-207500.0	-471300.0
72	13	SLU A1 sism.	4651.3	-42170.0	-216800.0	-2051000.0	-323300.0	-467800.0
73	13	SLU A1 sism.	-2635.1	49810.0	-23700.0	4072000.0	-116100.0	471500.0
74	13	SLU A1 sism.	-1981.9	50600.0	-61470.0	4276000.0	-231900.0	475000.0
75	13	SLU A1 sism.	-22700.0	-42480.0	-181200.0	-2192000.0	1712000.0	-216600.0
76	13	SLU A1 sism.	-22050.0	-41700.0	-219000.0	-1987000.0	1596000.0	-213200.0
77	13	SLU A1 sism.	7937.4	48390.0	-22680.0	3937000.0	-472000.0	-321900.0
78	13	SLU A1 sism.	8590.7	49170.0	-60450.0	4141000.0	-587800.0	-318400.0
79	13	SLU A1 sism.	24180.0	-41190.0	-178000.0	-2106000.0	-2157000.0	191800.0
80	13	SLU A1 sism.	24830.0	-40410.0	-215800.0	-1901000.0	-2272000.0	195200.0
81	13	SLU A1 sism.	-22820.0	48050.0	-24730.0	3922000.0	1833000.0	-191600.0
82	13	SLU A1 sism.	-22160.0	48840.0	-62500.0	4126000.0	1717000.0	-188100.0
83	13	SLU A1 sism.	-6574.5	-41530.0	-180100.0	-2121000.0	148400.0	322100.0
84	13	SLU A1 sism.	-5921.3	-40740.0	-217900.0	-1917000.0	32580.0	325600.0
85	13	SLU A1 sism.	5911.2	47990.0	-22650.0	3897000.0	-279100.0	-384100.0
86	13	SLU A1 sism.	6564.5	48770.0	-60420.0	4102000.0	-394900.0	-380600.0
87	13	SLU A1 sism.	22150.0	-41590.0	-178000.0	-2145000.0	-1964000.0	129600.0
88	13	SLU A1 sism.	22810.0	-40810.0	-215800.0	-1941000.0	-2080000.0	133100.0
89	13	SLU A1 sism.	-20790.0	48450.0	-24760.0	3962000.0	1640000.0	-129400.0
90	13	SLU A1 sism.	-20140.0	49240.0	-62530.0	4166000.0	1524000.0	-125900.0
91	13	SLU A1 sism.	-4548.4	-41130.0	-180100.0	-2081000.0	-44470.0	384300.0
92	13	SLU A1 sism.	-3895.1	-40340.0	-217900.0	-1877000.0	-160300.0	387800.0
221	13	SLU A1 sism.	18310.0	16530.0	-32670.0	1617000.0	-1453000.0	34120.0
222	13	SLU A1 sism.	20480.0	19140.0	-158600.0	2298000.0	-1839000.0	45650.0
223	13	SLU A1 sism.	12290.0	-11160.0	-79910.0	-262200.0	-905000.0	-172300.0
224	13	SLU A1 sism.	14460.0	-8544.0	-205800.0	418700.0	-1291000.0	-160800.0
225	13	SLU A1 sism.	-12450.0	16190.0	-34710.0	1602000.0	851600.0	164500.0
226	13	SLU A1 sism.	-10270.0	18810.0	-160600.0	2283000.0	465600.0	176000.0
227	13	SLU A1 sism.	-18470.0	-11500.0	-81960.0	-277300.0	1400000.0	-41970.0
228	13	SLU A1 sism.	-16290.0	-8880.9	-207900.0	403600.0	1014000.0	-30430.0
229	13	SLU A1 sism.	12860.0	16120.0	-32980.0	1584000.0	-926500.0	-146200.0
230	13	SLU A1 sism.	15040.0	18740.0	-158900.0	2265000.0	-1313000.0	-134600.0
231	13	SLU A1 sism.	17730.0	-10750.0	-79590.0	-229000.0	-1432000.0	7951.5
232	13	SLU A1 sism.	19910.0	-8136.6	-205500.0	451900.0	-1818000.0	19490.0
233	13	SLU A1 sism.	-17890.0	15780.0	-35030.0	1569000.0	1378000.0	-15800.0
234	13	SLU A1 sism.	-15720.0	18400.0	-160900.0	2250000.0	992500.0	-4264.3
235	13	SLU A1 sism.	-13020.0	-11090.0	-81640.0	-244200.0	873100.0	138300.0
236	13	SLU A1 sism.	-10840.0	-8473.4	-207600.0	436700.0	487100.0	149800.0
237	13	SLU A1 sism.	16280.0	16120.0	-32640.0	1577000.0	-1260000.0	-28050.0
238	13	SLU A1 sism.	18460.0	18740.0	-158500.0	2258000.0	-1647000.0	-16510.0
239	13	SLU A1 sism.	10260.0	-11560.0	-79880.0	-301700.0	-712100.0	-234500.0
240	13	SLU A1 sism.	12440.0	-8945.6	-205800.0	379100.0	-1098000.0	-223000.0
241	13	SLU A1 sism.	-10420.0	16590.0	-34750.0	1641000.0	658800.0	226600.0
242	13	SLU A1 sism.	-8243.5	19210.0	-160700.0	2322000.0	272700.0	238200.0
243	13	SLU A1 sism.	-16440.0	-11100.0	-81990.0	-237700.0	1207000.0	20200.0
244	13	SLU A1 sism.	-14260.0	-8479.3	-207900.0	443200.0	821100.0	31730.0
245	13	SLU A1 sism.	10830.0	15720.0	-32950.0	1544000.0	-733600.0	-208300.0
246	13	SLU A1 sism.	13010.0	18340.0	-158900.0	2225000.0	-1120000.0	-196800.0
247	13	SLU A1 sism.	15710.0	-11160.0	-79560.0	-268600.0	-1239000.0	-54210.0
248	13	SLU A1 sism.	17880.0	-8538.1	-205500.0	412300.0	-1625000.0	-42680.0
249	13	SLU A1 sism.	-15870.0	16180.0	-35060.0	1608000.0	1186000.0	46360.0
250	13	SLU A1 sism.	-13690.0	18800.0	-161000.0	2289000.0	799600.0	57900.0
251	13	SLU A1 sism.	-10990.0	-10690.0	-81670.0	-204600.0	680200.0	200500.0
252	13	SLU A1 sism.	-8817.5	-8071.8	-207600.0	476300.0	294200.0	212000.0

1	15	SLU STR.	816.9	2.8	-114100.0	-1989.0	-185000.0	1559.5
2	15	SLU STR.	827.2	3.0	-116600.0	-2074.6	-187200.0	1623.1
3	15	SLU STR.	1091.9	4.6	-157400.0	-3115.5	-251900.0	2406.1
4	15	SLU STR.	1102.2	4.7	-159900.0	-3201.1	-254000.0	2469.6
5	15	SLU STR.	610.6	2.2	-85810.0	-1502.2	-137700.0	1178.9
6	15	SLU STR.	620.9	2.3	-88310.0	-1587.8	-139800.0	1242.4
7	15	SLU STR.	885.6	3.9	-129100.0	-2628.7	-204500.0	2025.4
8	15	SLU STR.	895.9	4.0	-131600.0	-2714.3	-206700.0	2088.9
9	15	SLU STR.	837.5	3.2	-119000.0	-2160.2	-189300.0	1686.7
10	15	SLU STR.	1009.4	4.0	-144400.0	-2777.5	-231800.0	2152.1
11	15	SLU STR.	1030.0	4.4	-149400.0	-2948.7	-236100.0	2279.2
12	15	SLU STR.	631.2	2.5	-90810.0	-1673.4	-142000.0	1306.0
13	15	SLU STR.	803.1	3.4	-116100.0	-2290.7	-184500.0	1771.4
14	15	SLU STR.	823.7	3.7	-121100.0	-2461.9	-188800.0	1898.6
15	15	SLE Rare	620.6	2.2	-86900.0	-1517.9	-140300.0	1190.6
16	15	SLE Rare	627.5	2.3	-88560.0	-1575.0	-141700.0	1233.0
17	15	SLE Rare	804.0	3.3	-115800.0	-2268.9	-184900.0	1754.9
18	15	SLE Rare	810.9	3.4	-117400.0	-2326.0	-186300.0	1797.3
19	15	SLE Rare	634.4	2.4	-90230.0	-1632.0	-143200.0	1275.4
20	15	SLE Rare	749.0	3.0	-107100.0	-2043.6	-171500.0	1585.6
21	15	SLE Rare	762.7	3.2	-110400.0	-2157.7	-174400.0	1670.4
22	15	SLE Freq.	620.6	2.2	-86900.0	-1517.9	-140300.0	1190.6
23	15	SLE Freq.	749.0	3.0	-107100.0	-2043.6	-171500.0	1585.6
24	15	SLE Freq.	623.4	2.2	-87560.0	-1540.7	-140900.0	1207.6
25	15	SLE Freq.	730.6	2.9	-104200.0	-1968.5	-167000.0	1529.2
26	15	SLE Freq.	733.4	2.9	-104900.0	-1991.3	-167600.0	1546.2
27	15	SLE Quasi P.	620.6	2.2	-86900.0	-1517.9	-140300.0	1190.6
28	15	SLE Quasi P.	730.6	2.9	-104200.0	-1968.5	-167000.0	1529.2
29	15	SLU A1 sism.	58180.0	12500.0	-83360.0	382200.0	-4185000.0	289400.0
30	15	SLU A1 sism.	59060.0	12500.0	-119400.0	381400.0	-4334000.0	289800.0
31	15	SLU A1 sism.	58110.0	-11390.0	-83350.0	-345900.0	-4176000.0	65510.0
32	15	SLU A1 sism.	58980.0	-11400.0	-119400.0	-346700.0	-4325000.0	65870.0
33	15	SLU A1 sism.	-57520.0	11400.0	-89090.0	342800.0	3991000.0	-62810.0
34	15	SLU A1 sism.	-56650.0	11400.0	-125100.0	342000.0	3842000.0	-62450.0
35	15	SLU A1 sism.	-57600.0	-12500.0	-89090.0	-385300.0	4000000.0	-286700.0
36	15	SLU A1 sism.	-56720.0	-12500.0	-125100.0	-386200.0	3851000.0	-286300.0
37	15	SLU A1 sism.	58170.0	12120.0	-83350.0	355600.0	-4184000.0	91260.0
38	15	SLU A1 sism.	59040.0	12120.0	-119400.0	354800.0	-4332000.0	91620.0
39	15	SLU A1 sism.	58120.0	-11010.0	-83360.0	-319300.0	-4178000.0	263700.0
40	15	SLU A1 sism.	58990.0	-11010.0	-119400.0	-320100.0	-4326000.0	264000.0
41	15	SLU A1 sism.	-57530.0	11010.0	-89090.0	316200.0	3992000.0	-261000.0
42	15	SLU A1 sism.	-56660.0	11010.0	-125100.0	315300.0	3844000.0	-260600.0
43	15	SLU A1 sism.	-57580.0	-12110.0	-89090.0	-358700.0	3998000.0	-88560.0
44	15	SLU A1 sism.	-56710.0	-12110.0	-125100.0	-359500.0	3850000.0	-88200.0
45	15	SLU A1 sism.	58200.0	11500.0	-83350.0	344900.0	-4186000.0	-62590.0
46	15	SLU A1 sism.	59070.0	11500.0	-119400.0	344100.0	-4335000.0	-62230.0
47	15	SLU A1 sism.	58120.0	-12400.0	-83350.0	-383200.0	-4177000.0	-286500.0
48	15	SLU A1 sism.	59000.0	-12400.0	-119400.0	-384100.0	-4326000.0	-286100.0
49	15	SLU A1 sism.	-57540.0	12400.0	-89090.0	380100.0	3992000.0	289200.0
50	15	SLU A1 sism.	-56660.0	12400.0	-125100.0	379300.0	3843000.0	289500.0
51	15	SLU A1 sism.	-57610.0	-11490.0	-89090.0	-348000.0	4001000.0	65290.0
52	15	SLU A1 sism.	-56730.0	-11500.0	-125100.0	-348800.0	3852000.0	65650.0
53	15	SLU A1 sism.	58180.0	11110.0	-83350.0	318300.0	-4185000.0	-260700.0
54	15	SLU A1 sism.	59060.0	11110.0	-119400.0	317400.0	-4333000.0	-260400.0
55	15	SLU A1 sism.	58130.0	-12010.0	-83350.0	-356600.0	-4179000.0	-88340.0
56	15	SLU A1 sism.	59010.0	-12010.0	-119400.0	-357400.0	-4328000.0	-87980.0
57	15	SLU A1 sism.	-57550.0	12020.0	-89090.0	353500.0	3993000.0	91040.0
58	15	SLU A1 sism.	-56670.0	12020.0	-125100.0	352700.0	3845000.0	91400.0
59	15	SLU A1 sism.	-57600.0	-11110.0	-89090.0	-321400.0	3999000.0	263400.0
60	15	SLU A1 sism.	-56720.0	-11110.0	-125100.0	-322200.0	3851000.0	263800.0
61	15	SLU A1 sism.	17770.0	40000.0	-85370.0	1218000.0	-1334000.0	427300.0
62	15	SLU A1 sism.	18650.0	40000.0	-121400.0	1217000.0	-1483000.0	427700.0
63	15	SLU A1 sism.	17530.0	-39660.0	-85350.0	-1209000.0	-1304000.0	-319000.0
64	15	SLU A1 sism.	18400.0	-39660.0	-121400.0	-1210000.0	-1453000.0	-318600.0
65	15	SLU A1 sism.	-16940.0	39670.0	-87090.0	1206000.0	1119000.0	321700.0
66	15	SLU A1 sism.	-16060.0	39670.0	-123100.0	1205000.0	970100.0	322000.0

67	15	SLU A1 sism.	-17190.0	-39990.0	-87080.0	-1221000.0	1149000.0	-424600.0
68	15	SLU A1 sism.	-16310.0	-39990.0	-123100.0	-1222000.0	1000000.0	-424300.0
69	15	SLU A1 sism.	17780.0	39700.0	-85370.0	1207000.0	-1334000.0	321700.0
70	15	SLU A1 sism.	18650.0	39700.0	-121400.0	1206000.0	-1483000.0	322100.0
71	15	SLU A1 sism.	17530.0	-39960.0	-85350.0	-1220000.0	-1305000.0	-424600.0
72	15	SLU A1 sism.	18400.0	-39960.0	-121400.0	-1221000.0	-1453000.0	-424200.0
73	15	SLU A1 sism.	-16940.0	39970.0	-87090.0	1217000.0	1119000.0	427300.0
74	15	SLU A1 sism.	-16070.0	39970.0	-123100.0	1216000.0	970500.0	427600.0
75	15	SLU A1 sism.	-17190.0	-39690.0	-87080.0	-1210000.0	1149000.0	-319000.0
76	15	SLU A1 sism.	-16320.0	-39690.0	-123100.0	-1211000.0	1000000.0	-318700.0
77	15	SLU A1 sism.	17730.0	38710.0	-85350.0	1129000.0	-1329000.0	-233200.0
78	15	SLU A1 sism.	18610.0	38710.0	-121400.0	1128000.0	-1478000.0	-232800.0
79	15	SLU A1 sism.	17570.0	-38370.0	-85370.0	-1120000.0	-1309000.0	341500.0
80	15	SLU A1 sism.	18440.0	-38370.0	-121400.0	-1121000.0	-1458000.0	341900.0
81	15	SLU A1 sism.	-16980.0	38380.0	-87070.0	1117000.0	1124000.0	-338800.0
82	15	SLU A1 sism.	-16100.0	38380.0	-123100.0	1116000.0	975200.0	-338500.0
83	15	SLU A1 sism.	-17150.0	-38700.0	-87090.0	-1132000.0	1144000.0	235800.0
84	15	SLU A1 sism.	-16270.0	-38700.0	-123100.0	-1133000.0	994900.0	236200.0
85	15	SLU A1 sism.	17740.0	38410.0	-85350.0	1118000.0	-1329000.0	-338800.0
86	15	SLU A1 sism.	18610.0	38410.0	-121400.0	1117000.0	-1478000.0	-338400.0
87	15	SLU A1 sism.	17570.0	-38670.0	-85370.0	-1132000.0	-1310000.0	235900.0
88	15	SLU A1 sism.	18440.0	-38670.0	-121400.0	-1132000.0	-1458000.0	236300.0
89	15	SLU A1 sism.	-16980.0	38680.0	-87070.0	1128000.0	1124000.0	-233200.0
90	15	SLU A1 sism.	-16110.0	38680.0	-123100.0	1128000.0	975500.0	-232900.0
91	15	SLU A1 sism.	-17150.0	-38400.0	-87090.0	-1121000.0	1144000.0	341400.0
92	15	SLU A1 sism.	-16270.0	-38400.0	-123100.0	-1122000.0	995200.0	341800.0
221	15	SLU A1 sism.	16670.0	12120.0	-43350.0	369400.0	-1150000.0	165700.0
222	15	SLU A1 sism.	19580.0	12120.0	-163400.0	366600.0	-1646000.0	166900.0
223	15	SLU A1 sism.	16590.0	-11780.0	-43350.0	-358700.0	-1141000.0	-58190.0
224	15	SLU A1 sism.	19510.0	-11780.0	-163400.0	-361500.0	-1637000.0	-56980.0
225	15	SLU A1 sism.	-18050.0	11790.0	-45070.0	357600.0	1303000.0	60040.0
226	15	SLU A1 sism.	-15130.0	11780.0	-165100.0	354800.0	807200.0	61240.0
227	15	SLU A1 sism.	-18120.0	-12110.0	-45070.0	-370600.0	1312000.0	-163900.0
228	15	SLU A1 sism.	-15200.0	-12110.0	-165100.0	-373300.0	816100.0	-162600.0
229	15	SLU A1 sism.	16650.0	11730.0	-43350.0	342800.0	-1149000.0	-32440.0
230	15	SLU A1 sism.	19570.0	11730.0	-163400.0	340000.0	-1644000.0	-31240.0
231	15	SLU A1 sism.	16600.0	-11390.0	-43350.0	-332100.0	-1143000.0	140000.0
232	15	SLU A1 sism.	19520.0	-11400.0	-163400.0	-334900.0	-1638000.0	141200.0
233	15	SLU A1 sism.	-18060.0	11400.0	-45070.0	330900.0	1304000.0	-138100.0
234	15	SLU A1 sism.	-15140.0	11400.0	-165100.0	328200.0	808700.0	-136900.0
235	15	SLU A1 sism.	-18110.0	-11720.0	-45070.0	-343900.0	1310000.0	34290.0
236	15	SLU A1 sism.	-15190.0	-11730.0	-165100.0	-346700.0	814600.0	35500.0
237	15	SLU A1 sism.	16670.0	11820.0	-43350.0	358200.0	-1151000.0	60110.0
238	15	SLU A1 sism.	19580.0	11810.0	-163400.0	355400.0	-1646000.0	61310.0
239	15	SLU A1 sism.	16600.0	-12080.0	-43350.0	-369900.0	-1142000.0	-163800.0
240	15	SLU A1 sism.	19510.0	-12080.0	-163400.0	-372700.0	-1637000.0	-162600.0
241	15	SLU A1 sism.	-18050.0	12090.0	-45070.0	368800.0	1303000.0	165600.0
242	15	SLU A1 sism.	-15130.0	12090.0	-165100.0	366000.0	807500.0	166800.0
243	15	SLU A1 sism.	-18120.0	-11810.0	-45070.0	-359400.0	1312000.0	-58250.0
244	15	SLU A1 sism.	-15210.0	-11810.0	-165100.0	-362100.0	816400.0	-57050.0
245	15	SLU A1 sism.	16660.0	11430.0	-43350.0	331600.0	-1149000.0	-138000.0
246	15	SLU A1 sism.	19570.0	11430.0	-163400.0	328800.0	-1644000.0	-136800.0
247	15	SLU A1 sism.	16610.0	-11690.0	-43350.0	-343300.0	-1143000.0	34360.0
248	15	SLU A1 sism.	19520.0	-11700.0	-163400.0	-346100.0	-1639000.0	35560.0
249	15	SLU A1 sism.	-18060.0	11700.0	-45070.0	342100.0	1304000.0	-32510.0
250	15	SLU A1 sism.	-15150.0	11700.0	-165100.0	339400.0	809000.0	-31300.0
251	15	SLU A1 sism.	-18110.0	-11420.0	-45080.0	-332700.0	1310000.0	139900.0
252	15	SLU A1 sism.	-15200.0	-11430.0	-165100.0	-335500.0	814900.0	141100.0
1	17	SLU STR.	1050.0	-2738.1	-125000.0	-723900.0	-228000.0	-3338.9
2	17	SLU STR.	1091.9	-3245.5	-129900.0	-859300.0	-238400.0	-3391.0
3	17	SLU STR.	1594.1	-6863.2	-187100.0	-1825000.0	-357300.0	-4981.5
4	17	SLU STR.	1636.0	-7370.7	-192000.0	-1961000.0	-367700.0	-5033.7
5	17	SLU STR.	794.1	-2189.3	-94690.0	-579200.0	-172500.0	-2467.7
6	17	SLU STR.	836.0	-2696.8	-99530.0	-714600.0	-182900.0	-2519.9
7	17	SLU STR.	1338.2	-6314.4	-156800.0	-1681000.0	-301800.0	-4110.4
8	17	SLU STR.	1380.1	-6821.9	-161600.0	-1816000.0	-312200.0	-4162.5

9	17	SLU STR.	1133.8	-3753.0	-134700.0	-994800.0	-248800.0	-3443.2
10	17	SLU STR.	1430.8	-5625.7	-168500.0	-1495000.0	-318500.0	-4488.7
11	17	SLU STR.	1514.7	-6640.6	-178200.0	-1766000.0	-339300.0	-4593.0
12	17	SLU STR.	877.9	-3204.2	-104400.0	-850100.0	-193300.0	-2572.0
13	17	SLU STR.	1175.0	-5076.9	-138100.0	-1350000.0	-263000.0	-3617.6
14	17	SLU STR.	1258.8	-6091.8	-147800.0	-1621000.0	-283800.0	-3721.9
15	17	SLE Rare	801.8	-2142.3	-95540.0	-566600.0	-174100.0	-2524.6
16	17	SLE Rare	829.7	-2480.6	-98770.0	-656800.0	-181100.0	-2559.4
17	17	SLE Rare	1164.5	-4892.4	-136900.0	-1301000.0	-260300.0	-3619.7
18	17	SLE Rare	1192.4	-5230.7	-140200.0	-1391000.0	-267300.0	-3654.5
19	17	SLE Rare	857.7	-2818.9	-102000.0	-747100.0	-188000.0	-2594.1
20	17	SLE Rare	1055.7	-4067.4	-124500.0	-1081000.0	-234500.0	-3291.2
21	17	SLE Rare	1111.6	-4744.0	-131000.0	-1261000.0	-248300.0	-3360.7
22	17	SLE Freq.	801.8	-2142.3	-95540.0	-566600.0	-174100.0	-2524.6
23	17	SLE Freq.	1055.7	-4067.4	-124500.0	-1081000.0	-234500.0	-3291.2
24	17	SLE Freq.	812.9	-2277.7	-96830.0	-602700.0	-176900.0	-2538.5
25	17	SLE Freq.	1019.4	-3792.4	-120400.0	-1007000.0	-225900.0	-3181.7
26	17	SLE Freq.	1030.6	-3927.7	-121700.0	-1043000.0	-228600.0	-3195.6
27	17	SLE Quasi P.	801.8	-2142.3	-95540.0	-566600.0	-174100.0	-2524.6
28	17	SLE Quasi P.	1019.4	-3792.4	-120400.0	-1007000.0	-225900.0	-3181.7
29	17	SLU A1 sism.	42230.0	11370.0	-121600.0	158100.0	-3105000.0	527600.0
30	17	SLU A1 sism.	42890.0	10590.0	-159400.0	-45720.0	-3223000.0	523800.0
31	17	SLU A1 sism.	48170.0	-16310.0	-74300.0	-1720000.0	-3643000.0	320700.0
32	17	SLU A1 sism.	48840.0	-17090.0	-112100.0	-1924000.0	-3762000.0	316900.0
33	17	SLU A1 sism.	-46800.0	9509.1	-128600.0	-90280.0	3310000.0	-323300.0
34	17	SLU A1 sism.	-46140.0	8728.3	-166400.0	-294100.0	3192000.0	-327100.0
35	17	SLU A1 sism.	-40850.0	-18180.0	-81360.0	-1969000.0	2771000.0	-530100.0
36	17	SLU A1 sism.	-40190.0	-18960.0	-119200.0	-2172000.0	2653000.0	-533900.0
37	17	SLU A1 sism.	47670.0	10970.0	-121200.0	125000.0	-3630000.0	347300.0
38	17	SLU A1 sism.	48330.0	10180.0	-159000.0	-78830.0	-3748000.0	343500.0
39	17	SLU A1 sism.	42740.0	-15910.0	-74620.0	-1687000.0	-3118000.0	501000.0
40	17	SLU A1 sism.	43400.0	-16690.0	-112400.0	-1891000.0	-3237000.0	497200.0
41	17	SLU A1 sism.	-41360.0	9101.8	-128300.0	-123400.0	2785000.0	-503600.0
42	17	SLU A1 sism.	-40700.0	8321.0	-166100.0	-327200.0	2667000.0	-507400.0
43	17	SLU A1 sism.	-46290.0	-17770.0	-81690.0	-1935000.0	3297000.0	-349800.0
44	17	SLU A1 sism.	-45630.0	-18550.0	-119500.0	-2139000.0	3178000.0	-353600.0
45	17	SLU A1 sism.	49000.0	10010.0	-121800.0	18670.0	-3748000.0	319800.0
46	17	SLU A1 sism.	49660.0	9226.9	-159600.0	-185100.0	-3866000.0	316000.0
47	17	SLU A1 sism.	54940.0	-17680.0	-74520.0	-1860000.0	-4287000.0	112900.0
48	17	SLU A1 sism.	55610.0	-18460.0	-112300.0	-2063000.0	-4405000.0	109200.0
49	17	SLU A1 sism.	-53570.0	10870.0	-128400.0	49140.0	3953000.0	-115500.0
50	17	SLU A1 sism.	-52910.0	10090.0	-166200.0	-154700.0	3835000.0	-119300.0
51	17	SLU A1 sism.	-47620.0	-16810.0	-81150.0	-1829000.0	3415000.0	-322400.0
52	17	SLU A1 sism.	-46960.0	-17590.0	-119000.0	-2033000.0	3296000.0	-326100.0
53	17	SLU A1 sism.	54440.0	9600.5	-121500.0	-14430.0	-4273000.0	139500.0
54	17	SLU A1 sism.	55100.0	8819.7	-159300.0	-218200.0	-4392000.0	135700.0
55	17	SLU A1 sism.	49510.0	-17270.0	-74840.0	-1826000.0	-3762000.0	293200.0
56	17	SLU A1 sism.	50170.0	-18050.0	-112600.0	-2030000.0	-3880000.0	289500.0
57	17	SLU A1 sism.	-48130.0	10470.0	-128100.0	16040.0	3428000.0	-295800.0
58	17	SLU A1 sism.	-47470.0	9685.6	-165900.0	-187800.0	3310000.0	-299600.0
59	17	SLU A1 sism.	-53060.0	-16400.0	-81470.0	-1796000.0	3940000.0	-142100.0
60	17	SLU A1 sism.	-52400.0	-17190.0	-119300.0	-2000000.0	3822000.0	-145800.0
61	17	SLU A1 sism.	4129.8	43020.0	-179200.0	2262000.0	-231100.0	471100.0
62	17	SLU A1 sism.	4794.2	42240.0	-217000.0	2059000.0	-349500.0	467300.0
63	17	SLU A1 sism.	23950.0	-49260.0	-21630.0	-3998000.0	-2027000.0	-218400.0
64	17	SLU A1 sism.	24620.0	-50050.0	-59440.0	-4202000.0	-2145000.0	-222200.0
65	17	SLU A1 sism.	-22580.0	42460.0	-181300.0	2188000.0	1693000.0	215800.0
66	17	SLU A1 sism.	-21910.0	41680.0	-219100.0	1984000.0	1575000.0	212000.0
67	17	SLU A1 sism.	-2755.5	-49820.0	-23750.0	-4073000.0	-102300.0	-473700.0
68	17	SLU A1 sism.	-2091.0	-50600.0	-61560.0	-4277000.0	-220600.0	-477400.0
69	17	SLU A1 sism.	6160.9	42610.0	-179200.0	2221000.0	-424200.0	408700.0
70	17	SLU A1 sism.	6825.4	41830.0	-217000.0	2017000.0	-542500.0	405000.0
71	17	SLU A1 sism.	25980.0	-49670.0	-21700.0	-4040000.0	-2220000.0	-280700.0
72	17	SLU A1 sism.	26650.0	-50450.0	-59500.0	-4244000.0	-2338000.0	-284500.0
73	17	SLU A1 sism.	-24610.0	42870.0	-181200.0	2230000.0	1886000.0	278200.0
74	17	SLU A1 sism.	-23950.0	42090.0	-219000.0	2026000.0	1768000.0	274400.0

75	17	SLU A1 sism.	-4786.6	-49410.0	-23690.0	-4031000.0	90740.0	-411300.0
76	17	SLU A1 sism.	-4122.1	-50200.0	-61490.0	-4235000.0	-27570.0	-415100.0
77	17	SLU A1 sism.	22260.0	41660.0	-178100.0	2152000.0	-1982000.0	-129900.0
78	17	SLU A1 sism.	22920.0	40880.0	-215900.0	1948000.0	-2100000.0	-133700.0
79	17	SLU A1 sism.	5827.6	-47910.0	-22710.0	-3888000.0	-276000.0	382600.0
80	17	SLU A1 sism.	6492.1	-48690.0	-60510.0	-4092000.0	-394300.0	378800.0
81	17	SLU A1 sism.	-4453.3	41100.0	-180200.0	2078000.0	-57410.0	-385200.0
82	17	SLU A1 sism.	-3788.8	40320.0	-218000.0	1874000.0	-175700.0	-389000.0
83	17	SLU A1 sism.	-20880.0	-48470.0	-24830.0	-3963000.0	1648000.0	127300.0
84	17	SLU A1 sism.	-20220.0	-49250.0	-62630.0	-4166000.0	1530000.0	123600.0
85	17	SLU A1 sism.	24290.0	41250.0	-178200.0	2110000.0	-2175000.0	-192300.0
86	17	SLU A1 sism.	24950.0	40470.0	-216000.0	1906000.0	-2293000.0	-196000.0
87	17	SLU A1 sism.	7858.7	-48320.0	-22770.0	-3930000.0	-469000.0	320300.0
88	17	SLU A1 sism.	8523.2	-49100.0	-60580.0	-4134000.0	-587300.0	316500.0
89	17	SLU A1 sism.	-6484.4	41510.0	-180200.0	2119000.0	135600.0	-322800.0
90	17	SLU A1 sism.	-5819.9	40730.0	-218000.0	1916000.0	17290.0	-326600.0
91	17	SLU A1 sism.	-22910.0	-48060.0	-24760.0	-3921000.0	1841000.0	189700.0
92	17	SLU A1 sism.	-22250.0	-48840.0	-62570.0	-4125000.0	1723000.0	185900.0
221	17	SLU A1 sism.	10290.0	11630.0	-79930.0	308900.0	-721600.0	234200.0
222	17	SLU A1 sism.	12510.0	9028.5	-206000.0	-370400.0	-1116000.0	221600.0
223	17	SLU A1 sism.	16240.0	-16050.0	-32660.0	-1569000.0	-1260000.0	27330.0
224	17	SLU A1 sism.	18450.0	-18660.0	-158700.0	-2249000.0	-1655000.0	14720.0
225	17	SLU A1 sism.	-16420.0	11070.0	-82050.0	234400.0	1203000.0	-21090.0
226	17	SLU A1 sism.	-14200.0	8469.5	-208100.0	-445000.0	808500.0	-33690.0
227	17	SLU A1 sism.	-10470.0	-16610.0	-34780.0	-1644000.0	664200.0	-227900.0
228	17	SLU A1 sism.	-8253.9	-19220.0	-160800.0	-2323000.0	269900.0	-240500.0
229	17	SLU A1 sism.	15730.0	11220.0	-79600.0	275800.0	-1247000.0	53870.0
230	17	SLU A1 sism.	17950.0	8621.2	-205600.0	-403500.0	-1641000.0	41270.0
231	17	SLU A1 sism.	10800.0	-15650.0	-32980.0	-1536000.0	-735000.0	207600.0
232	17	SLU A1 sism.	13020.0	-18250.0	-159000.0	-2216000.0	-1129000.0	195000.0
233	17	SLU A1 sism.	-10980.0	10660.0	-81720.0	201300.0	677700.0	-201400.0
234	17	SLU A1 sism.	-8763.2	8062.2	-207700.0	-478100.0	283300.0	-214000.0
235	17	SLU A1 sism.	-15910.0	-16210.0	-35100.0	-1611000.0	1189000.0	-47630.0
236	17	SLU A1 sism.	-13690.0	-18810.0	-161100.0	-2290000.0	795100.0	-60240.0
237	17	SLU A1 sism.	12320.0	11220.0	-79990.0	267100.0	-914600.0	171800.0
238	17	SLU A1 sism.	14540.0	8619.1	-206000.0	-412300.0	-1309000.0	159200.0
239	17	SLU A1 sism.	18270.0	-16460.0	-32730.0	-1611000.0	-1453000.0	-35000.0
240	17	SLU A1 sism.	20490.0	-19070.0	-158800.0	-2291000.0	-1848000.0	-47610.0
241	17	SLU A1 sism.	-18450.0	11480.0	-81980.0	276300.0	1396000.0	41250.0
242	17	SLU A1 sism.	-16230.0	8878.9	-208000.0	-403100.0	1002000.0	28640.0
243	17	SLU A1 sism.	-12500.0	-16200.0	-34720.0	-1602000.0	857200.0	-165600.0
244	17	SLU A1 sism.	-10280.0	-18810.0	-160700.0	-2281000.0	462900.0	-178200.0
245	17	SLU A1 sism.	17760.0	10810.0	-79670.0	234000.0	-1440000.0	-8459.6
246	17	SLU A1 sism.	19980.0	8211.8	-205700.0	-445400.0	-1834000.0	-21070.0
247	17	SLU A1 sism.	12830.0	-16060.0	-33050.0	-1578000.0	-928000.0	145300.0
248	17	SLU A1 sism.	15050.0	-18660.0	-159100.0	-2257000.0	-1322000.0	132700.0
249	17	SLU A1 sism.	-13010.0	11070.0	-81660.0	243200.0	870700.0	-139100.0
250	17	SLU A1 sism.	-10790.0	8471.6	-207700.0	-436200.0	476300.0	-151700.0
251	17	SLU A1 sism.	-17940.0	-15800.0	-35040.0	-1569000.0	1382000.0	14710.0
252	17	SLU A1 sism.	-15720.0	-18400.0	-161100.0	-2248000.0	988100.0	2096.3
1	19	SLU STR.	-159.1	3085.0	-115800.0	825300.0	99550.0	-2118.2
2	19	SLU STR.	-140.1	3515.7	-120100.0	940500.0	95790.0	-2359.9
3	19	SLU STR.	113.7	6890.7	-170400.0	1845000.0	49310.0	-3943.1
4	19	SLU STR.	132.7	7321.5	-174700.0	1960000.0	45560.0	-4184.9
5	19	SLU STR.	-130.8	2414.1	-87740.0	645800.0	77910.0	-1644.7
6	19	SLU STR.	-111.7	2844.8	-91990.0	761000.0	74150.0	-1886.4
7	19	SLU STR.	142.0	6219.9	-142400.0	1665000.0	27670.0	-3469.6
8	19	SLU STR.	161.1	6650.6	-146600.0	1781000.0	23920.0	-3711.4
9	19	SLU STR.	-121.0	3946.5	-124300.0	1056000.0	92030.0	-2601.6
10	19	SLU STR.	31.8	5749.0	-154000.0	1539000.0	64390.0	-3395.6
11	19	SLU STR.	70.0	6610.6	-162500.0	1770000.0	56870.0	-3879.1
12	19	SLU STR.	-92.7	3275.6	-96230.0	876200.0	70390.0	-2128.2
13	19	SLU STR.	60.2	5078.1	-126000.0	1360000.0	42740.0	-2922.2
14	19	SLU STR.	98.3	5939.7	-134500.0	1590000.0	35230.0	-3405.6
15	19	SLE Rare	-126.1	2390.9	-88500.0	639600.0	77160.0	-1636.0
16	19	SLE Rare	-113.4	2678.1	-91330.0	716400.0	74650.0	-1797.2

17	19	SLE Rare	55.8	4928.1	-124900.0	1319000.0	43670.0	-2852.7
18	19	SLE Rare	68.5	5215.3	-127700.0	1396000.0	41160.0	-3013.8
19	19	SLE Rare	-100.6	2965.2	-94160.0	793200.0	72150.0	-1958.3
20	19	SLE Rare	1.2	4166.9	-114000.0	1115000.0	53710.0	-2487.7
21	19	SLE Rare	26.7	4741.3	-119600.0	1269000.0	48700.0	-2810.0
22	19	SLE Freq.	-126.1	2390.9	-88500.0	639600.0	77160.0	-1636.0
23	19	SLE Freq.	1.2	4166.9	-114000.0	1115000.0	53710.0	-2487.7
24	19	SLE Freq.	-121.0	2505.8	-89630.0	670300.0	76150.0	-1700.5
25	19	SLE Freq.	-17.0	3913.2	-110300.0	1047000.0	57060.0	-2366.0
26	19	SLE Freq.	-11.9	4028.1	-111500.0	1078000.0	56060.0	-2430.5
27	19	SLE Quasi P.	-126.1	2390.9	-88500.0	639600.0	77160.0	-1636.0
28	19	SLE Quasi P.	-17.0	3913.2	-110300.0	1047000.0	57060.0	-2366.0
29	19	SLU A1 sism.	56750.0	33910.0	-80470.0	3857000.0	-4395000.0	-13290.0
30	19	SLU A1 sism.	56800.0	34800.0	-112800.0	4095000.0	-4351000.0	-13810.0
31	19	SLU A1 sism.	49620.0	-3731.5	-135600.0	1146000.0	-3589000.0	-240900.0
32	19	SLU A1 sism.	49670.0	-2840.4	-167900.0	1384000.0	-3545000.0	-241500.0
33	19	SLU A1 sism.	-49710.0	10670.0	-52770.0	710900.0	3659000.0	236700.0
34	19	SLU A1 sism.	-49650.0	11560.0	-85090.0	949300.0	3703000.0	236200.0
35	19	SLU A1 sism.	-56840.0	-26970.0	-107900.0	-2000000.0	4465000.0	9082.9
36	19	SLU A1 sism.	-56780.0	-26080.0	-140200.0	-1762000.0	4509000.0	8560.0
37	19	SLU A1 sism.	50990.0	26400.0	-87090.0	3218000.0	-3804000.0	-199700.0
38	19	SLU A1 sism.	51050.0	27290.0	-119400.0	3456000.0	-3760000.0	-200200.0
39	19	SLU A1 sism.	55370.0	3778.4	-129000.0	1784000.0	-4180000.0	-54540.0
40	19	SLU A1 sism.	55430.0	4669.5	-161300.0	2023000.0	-4136000.0	-55070.0
41	19	SLU A1 sism.	-55460.0	3156.9	-59380.0	72200.0	4250000.0	50340.0
42	19	SLU A1 sism.	-55410.0	4048.0	-91710.0	310600.0	4294000.0	49810.0
43	19	SLU A1 sism.	-51080.0	-19460.0	-101300.0	-1361000.0	3874000.0	195500.0
44	19	SLU A1 sism.	-51020.0	-18570.0	-133600.0	-1123000.0	3918000.0	195000.0
45	19	SLU A1 sism.	49510.0	17550.0	-89250.0	2389000.0	-3645000.0	-111300.0
46	19	SLU A1 sism.	49570.0	18450.0	-121600.0	2628000.0	-3601000.0	-111900.0
47	19	SLU A1 sism.	42380.0	-20090.0	-144400.0	-321700.0	-2839000.0	-339000.0
48	19	SLU A1 sism.	42440.0	-19190.0	-176700.0	-83390.0	-2795000.0	-339500.0
49	19	SLU A1 sism.	-42470.0	27020.0	-43990.0	2178000.0	2909000.0	334800.0
50	19	SLU A1 sism.	-42410.0	27910.0	-76310.0	2417000.0	2953000.0	334300.0
51	19	SLU A1 sism.	-49600.0	-10620.0	-99120.0	-532600.0	3715000.0	107100.0
52	19	SLU A1 sism.	-49540.0	-9728.4	-131400.0	-294200.0	3759000.0	106600.0
53	19	SLU A1 sism.	43750.0	10040.0	-95870.0	1750000.0	-3054000.0	-297700.0
54	19	SLU A1 sism.	43810.0	10940.0	-128200.0	1989000.0	-3010000.0	-298300.0
55	19	SLU A1 sism.	48130.0	-12580.0	-137800.0	317000.0	-3430000.0	-152600.0
56	19	SLU A1 sism.	48190.0	-11680.0	-170100.0	555300.0	-3386000.0	-153100.0
57	19	SLU A1 sism.	-48230.0	19510.0	-50600.0	1540000.0	3500000.0	148400.0
58	19	SLU A1 sism.	-48170.0	20400.0	-82930.0	1778000.0	3544000.0	147900.0
59	19	SLU A1 sism.	-43840.0	-3109.7	-92500.0	106200.0	3124000.0	293500.0
60	19	SLU A1 sism.	-43790.0	-2218.5	-124800.0	344500.0	3168000.0	293000.0
61	19	SLU A1 sism.	27800.0	69690.0	-6455.2	5918000.0	-2517000.0	339800.0
62	19	SLU A1 sism.	27860.0	70580.0	-38780.0	6157000.0	-2473000.0	339300.0
63	19	SLU A1 sism.	4039.3	-55780.0	-190200.0	-3118000.0	171100.0	-419000.0
64	19	SLU A1 sism.	4097.3	-54890.0	-222600.0	-2880000.0	215100.0	-419500.0
65	19	SLU A1 sism.	-4131.1	62720.0	1857.5	4975000.0	-101000.0	414800.0
66	19	SLU A1 sism.	-4073.2	63610.0	-30470.0	5213000.0	-56940.0	414300.0
67	19	SLU A1 sism.	-27900.0	-62750.0	-181900.0	-4062000.0	2587000.0	-344000.0
68	19	SLU A1 sism.	-27840.0	-61860.0	-214200.0	-3823000.0	2631000.0	-344500.0
69	19	SLU A1 sism.	25630.0	64780.0	-9088.8	5478000.0	-2292000.0	310400.0
70	19	SLU A1 sism.	25690.0	65670.0	-41420.0	5716000.0	-2248000.0	309900.0
71	19	SLU A1 sism.	1868.3	-60690.0	-192900.0	-3558000.0	396100.0	-448400.0
72	19	SLU A1 sism.	1926.3	-59800.0	-225200.0	-3320000.0	440100.0	-449000.0
73	19	SLU A1 sism.	-1960.1	67620.0	4491.2	5415000.0	-326000.0	444200.0
74	19	SLU A1 sism.	-1902.2	68510.0	-27840.0	5653000.0	-282000.0	443700.0
75	19	SLU A1 sism.	-25730.0	-57850.0	-179300.0	-3622000.0	2362000.0	-314600.0
76	19	SLU A1 sism.	-25670.0	-56960.0	-211600.0	-3383000.0	2406000.0	-315100.0
77	19	SLU A1 sism.	8618.7	44660.0	-28510.0	3789000.0	-547100.0	-281500.0
78	19	SLU A1 sism.	8676.7	45550.0	-60830.0	4028000.0	-503000.0	-282000.0
79	19	SLU A1 sism.	23230.0	-30750.0	-168200.0	-988900.0	-1799000.0	202300.0
80	19	SLU A1 sism.	23280.0	-29860.0	-200500.0	-750600.0	-1755000.0	201800.0
81	19	SLU A1 sism.	-23320.0	37680.0	-20190.0	2846000.0	1869000.0	-206500.0
82	19	SLU A1 sism.	-23260.0	38570.0	-52520.0	3084000.0	1913000.0	-207000.0

83	19	SLU A1 sism.	-8710.6	-37720.0	-159900.0	-1933000.0	617100.0	277300.0
84	19	SLU A1 sism.	-8652.6	-36830.0	-192200.0	-1694000.0	661200.0	276800.0
85	19	SLU A1 sism.	6447.7	39750.0	-31140.0	3349000.0	-322100.0	-310900.0
86	19	SLU A1 sism.	6505.7	40640.0	-63470.0	3587000.0	-278000.0	-311500.0
87	19	SLU A1 sism.	21050.0	-35650.0	-170800.0	-1429000.0	-1574000.0	172900.0
88	19	SLU A1 sism.	21110.0	-34760.0	-203100.0	-1191000.0	-1530000.0	172400.0
89	19	SLU A1 sism.	-21150.0	42590.0	-17560.0	3286000.0	1644000.0	-177100.0
90	19	SLU A1 sism.	-21090.0	43480.0	-49890.0	3524000.0	1688000.0	-177600.0
91	19	SLU A1 sism.	-6539.6	-32810.0	-157200.0	-1492000.0	392100.0	306700.0
92	19	SLU A1 sism.	-6481.6	-31920.0	-189600.0	-1254000.0	436200.0	306200.0
221	19	SLU A1 sism.	19420.0	24730.0	-33060.0	2478000.0	-1628000.0	74830.0
222	19	SLU A1 sism.	19610.0	27700.0	-140800.0	3272000.0	-1481000.0	73080.0
223	19	SLU A1 sism.	12290.0	-12910.0	-88190.0	-233400.0	-821200.0	-152800.0
224	19	SLU A1 sism.	12480.0	-9935.5	-196000.0	561100.0	-674400.0	-154600.0
225	19	SLU A1 sism.	-12520.0	17760.0	-24750.0	1534000.0	788500.0	149800.0
226	19	SLU A1 sism.	-12320.0	20730.0	-132500.0	2328000.0	935400.0	148100.0
227	19	SLU A1 sism.	-19650.0	-19880.0	-79880.0	-1177000.0	1595000.0	-77820.0
228	19	SLU A1 sism.	-19450.0	-16910.0	-187600.0	-382600.0	1742000.0	-79560.0
229	19	SLU A1 sism.	13660.0	17220.0	-39680.0	1839000.0	-1037000.0	-111600.0
230	19	SLU A1 sism.	13860.0	20200.0	-147400.0	2633000.0	-889800.0	-113300.0
231	19	SLU A1 sism.	18050.0	-5396.0	-81580.0	405300.0	-1412000.0	33570.0
232	19	SLU A1 sism.	18240.0	-2425.6	-189300.0	1200000.0	-1265000.0	31830.0
233	19	SLU A1 sism.	-18270.0	10250.0	-31360.0	895100.0	1380000.0	-36560.0
234	19	SLU A1 sism.	-18080.0	13220.0	-139100.0	1690000.0	1526000.0	-38310.0
235	19	SLU A1 sism.	-13890.0	-12370.0	-73270.0	-538400.0	1004000.0	108600.0
236	19	SLU A1 sism.	-13700.0	-9398.2	-181000.0	256200.0	1151000.0	106800.0
237	19	SLU A1 sism.	17250.0	19830.0	-35700.0	2037000.0	-1403000.0	45410.0
238	19	SLU A1 sism.	17440.0	22800.0	-143500.0	2832000.0	-1256000.0	43670.0
239	19	SLU A1 sism.	10120.0	-17810.0	-90830.0	-673600.0	-596200.0	-182200.0
240	19	SLU A1 sism.	10310.0	-14840.0	-198600.0	120900.0	-449300.0	-184000.0
241	19	SLU A1 sism.	-10350.0	22670.0	-22120.0	1974000.0	563500.0	179300.0
242	19	SLU A1 sism.	-10150.0	25640.0	-129900.0	2769000.0	710400.0	177500.0
243	19	SLU A1 sism.	-17480.0	-14970.0	-77250.0	-736900.0	1370000.0	-48400.0
244	19	SLU A1 sism.	-17280.0	-12000.0	-185000.0	57660.0	1517000.0	-50140.0
245	19	SLU A1 sism.	11490.0	12320.0	-42310.0	1399000.0	-811700.0	-141000.0
246	19	SLU A1 sism.	11690.0	15290.0	-150100.0	2193000.0	-664800.0	-142700.0
247	19	SLU A1 sism.	15870.0	-10300.0	-84210.0	-34880.0	-1187000.0	4156.6
248	19	SLU A1 sism.	16070.0	-7331.8	-192000.0	759600.0	-1040000.0	2413.3
249	19	SLU A1 sism.	-16100.0	15160.0	-28730.0	1335000.0	1155000.0	-7145.4
250	19	SLU A1 sism.	-15910.0	18130.0	-136500.0	2130000.0	1301000.0	-8888.6
251	19	SLU A1 sism.	-11720.0	-7462.5	-70630.0	-98130.0	778900.0	138000.0
252	19	SLU A1 sism.	-11530.0	-4492.0	-178400.0	696400.0	925800.0	136300.0
1	21	SLU STR.	-420.5	-1.1	-103200.0	2937.9	152200.0	824.8
2	21	SLU STR.	-430.5	-1.2	-105600.0	3034.8	156500.0	858.9
3	21	SLU STR.	-406.2	-2.0	-141500.0	4352.2	168200.0	1266.1
4	21	SLU STR.	-416.2	-2.1	-143800.0	4449.1	172500.0	1300.2
5	21	SLU STR.	-335.2	-0.8	-77880.0	2216.4	119700.0	624.1
6	21	SLU STR.	-345.2	-0.9	-80250.0	2313.2	124000.0	658.2
7	21	SLU STR.	-320.9	-1.8	-116100.0	3630.6	135800.0	1065.4
8	21	SLU STR.	-330.9	-1.9	-118500.0	3727.5	140100.0	1099.5
9	21	SLU STR.	-440.5	-1.3	-108000.0	3131.6	160800.0	893.0
10	21	SLU STR.	-410.5	-1.7	-130000.0	3927.9	163400.0	1133.7
11	21	SLU STR.	-430.4	-2.0	-134700.0	4121.6	172000.0	1202.0
12	21	SLU STR.	-355.2	-1.1	-82610.0	2410.1	128300.0	692.3
13	21	SLU STR.	-325.2	-1.5	-104600.0	3206.4	131000.0	933.0
14	21	SLU STR.	-345.2	-1.7	-109400.0	3400.1	139500.0	1001.2
15	21	SLE Rare	-328.6	-0.8	-78750.0	2241.0	118200.0	629.9
16	21	SLE Rare	-335.2	-0.9	-80330.0	2305.6	121100.0	652.7
17	21	SLE Rare	-319.0	-1.5	-104200.0	3183.8	128900.0	924.1
18	21	SLE Rare	-325.7	-1.5	-105800.0	3248.4	131800.0	946.9
19	21	SLE Rare	-341.9	-1.0	-81910.0	2370.1	123900.0	675.4
20	21	SLE Rare	-321.9	-1.3	-96590.0	2901.0	125700.0	835.9
21	21	SLE Rare	-335.2	-1.4	-99750.0	3030.1	131400.0	881.4
22	21	SLE Freq.	-328.6	-0.8	-78750.0	2241.0	118200.0	629.9
23	21	SLE Freq.	-321.9	-1.3	-96590.0	2901.0	125700.0	835.9
24	21	SLE Freq.	-331.2	-0.9	-79380.0	2266.8	119400.0	639.0

25	21	SLE Freq.	-322.8	-1.2	-94040.0	2806.7	124700.0	806.5
26	21	SLE Freq.	-325.5	-1.2	-94670.0	2832.5	125800.0	815.6
27	21	SLE Quasi P.	-328.6	-0.8	-78750.0	2241.0	118200.0	629.9
28	21	SLE Quasi P.	-322.8	-1.2	-94040.0	2806.7	124700.0	806.5
29	21	SLU A1 sism.	54090.0	24400.0	-72740.0	1337000.0	-3619000.0	279900.0
30	21	SLU A1 sism.	54290.0	24400.0	-101500.0	1337000.0	-3600000.0	280100.0
31	21	SLU A1 sism.	54040.0	-9946.5	-72760.0	-401300.0	-3617000.0	57630.0
32	21	SLU A1 sism.	54250.0	-9949.5	-101600.0	-400700.0	-3598000.0	57840.0
33	21	SLU A1 sism.	-54900.0	9947.1	-86510.0	406300.0	3847000.0	-56230.0
34	21	SLU A1 sism.	-54690.0	9944.0	-115300.0	406900.0	3866000.0	-56010.0
35	21	SLU A1 sism.	-54940.0	-24400.0	-86530.0	-1332000.0	3849000.0	-278500.0
36	21	SLU A1 sism.	-54730.0	-24400.0	-115300.0	-1331000.0	3868000.0	-278300.0
37	21	SLU A1 sism.	54080.0	17550.0	-72740.0	889000.0	-3618000.0	92120.0
38	21	SLU A1 sism.	54290.0	17540.0	-101500.0	889700.0	-3599000.0	92330.0
39	21	SLU A1 sism.	54050.0	-3090.6	-72760.0	46380.0	-3617000.0	245400.0
40	21	SLU A1 sism.	54260.0	-3093.6	-101600.0	47030.0	-3598000.0	245600.0
41	21	SLU A1 sism.	-54900.0	3091.2	-86510.0	-41410.0	3848000.0	-244000.0
42	21	SLU A1 sism.	-54700.0	3088.1	-115300.0	-40770.0	3867000.0	-243800.0
43	21	SLU A1 sism.	-54930.0	-17550.0	-86530.0	-884000.0	3849000.0	-90720.0
44	21	SLU A1 sism.	-54730.0	-17550.0	-115300.0	-883400.0	3867000.0	-90510.0
45	21	SLU A1 sism.	54100.0	9958.3	-72740.0	410700.0	-3620000.0	-53670.0
46	21	SLU A1 sism.	54310.0	9955.3	-101500.0	411300.0	-3601000.0	-53450.0
47	21	SLU A1 sism.	54060.0	-24390.0	-72760.0	-1327000.0	-3618000.0	-275900.0
48	21	SLU A1 sism.	54270.0	-24390.0	-101600.0	-1327000.0	-3599000.0	-275700.0
49	21	SLU A1 sism.	-54910.0	24390.0	-86510.0	1332000.0	3849000.0	277300.0
50	21	SLU A1 sism.	-54700.0	24390.0	-115300.0	1333000.0	3868000.0	277600.0
51	21	SLU A1 sism.	-54960.0	-9957.7	-86540.0	-405700.0	3850000.0	55070.0
52	21	SLU A1 sism.	-54750.0	-9960.7	-115300.0	-405100.0	3869000.0	55280.0
53	21	SLU A1 sism.	54100.0	3102.4	-72740.0	-37000.0	-3620000.0	-241400.0
54	21	SLU A1 sism.	54300.0	3099.4	-101500.0	-36360.0	-3601000.0	-241200.0
55	21	SLU A1 sism.	54070.0	-17530.0	-72760.0	-879600.0	-3619000.0	-88160.0
56	21	SLU A1 sism.	54270.0	-17540.0	-101600.0	-879000.0	-3600000.0	-87950.0
57	21	SLU A1 sism.	-54920.0	17530.0	-86520.0	884600.0	3849000.0	89560.0
58	21	SLU A1 sism.	-54710.0	17530.0	-115300.0	885200.0	3868000.0	89770.0
59	21	SLU A1 sism.	-54950.0	-3101.8	-86530.0	41970.0	3850000.0	242800.0
60	21	SLU A1 sism.	-54740.0	-3104.8	-115300.0	42620.0	3869000.0	243100.0
61	21	SLU A1 sism.	15990.0	59420.0	-77530.0	3039000.0	-1007000.0	421600.0
62	21	SLU A1 sism.	16200.0	59410.0	-106300.0	3039000.0	-988600.0	421800.0
63	21	SLU A1 sism.	15850.0	-55080.0	-77610.0	-2755000.0	-1002000.0	-319300.0
64	21	SLU A1 sism.	16060.0	-55080.0	-106400.0	-2754000.0	-983100.0	-319100.0
65	21	SLU A1 sism.	-16700.0	55080.0	-81670.0	2760000.0	1232000.0	320700.0
66	21	SLU A1 sism.	-16490.0	55080.0	-110500.0	2760000.0	1251000.0	320900.0
67	21	SLU A1 sism.	-16850.0	-59410.0	-81740.0	-3034000.0	1238000.0	-420200.0
68	21	SLU A1 sism.	-16640.0	-59420.0	-110500.0	-3033000.0	1257000.0	-420000.0
69	21	SLU A1 sism.	16000.0	55080.0	-77530.0	2761000.0	-1008000.0	321500.0
70	21	SLU A1 sism.	16210.0	55080.0	-106300.0	2762000.0	-989000.0	321700.0
71	21	SLU A1 sism.	15850.0	-59410.0	-77610.0	-3032000.0	-1002000.0	-419400.0
72	21	SLU A1 sism.	16060.0	-59410.0	-106400.0	-3032000.0	-983500.0	-419200.0
73	21	SLU A1 sism.	-16710.0	59410.0	-81670.0	3037000.0	1233000.0	420800.0
74	21	SLU A1 sism.	-16500.0	59410.0	-110500.0	3038000.0	1252000.0	421000.0
75	21	SLU A1 sism.	-16850.0	-55080.0	-81740.0	-2756000.0	1238000.0	-320100.0
76	21	SLU A1 sism.	-16640.0	-55080.0	-110500.0	-2755000.0	1257000.0	-319900.0
77	21	SLU A1 sism.	15970.0	36560.0	-77540.0	1546000.0	-1006000.0	-204400.0
78	21	SLU A1 sism.	16180.0	36560.0	-106300.0	1547000.0	-987400.0	-204100.0
79	21	SLU A1 sism.	15870.0	-32230.0	-77600.0	-1262000.0	-1003000.0	306600.0
80	21	SLU A1 sism.	16080.0	-32230.0	-106400.0	-1262000.0	-984300.0	306800.0
81	21	SLU A1 sism.	-16730.0	32230.0	-81670.0	1267000.0	1234000.0	-305200.0
82	21	SLU A1 sism.	-16520.0	32220.0	-110500.0	1268000.0	1252000.0	-305000.0
83	21	SLU A1 sism.	-16820.0	-36560.0	-81730.0	-1541000.0	1237000.0	205800.0
84	21	SLU A1 sism.	-16620.0	-36560.0	-110500.0	-1541000.0	1255000.0	206000.0
85	21	SLU A1 sism.	15970.0	32230.0	-77540.0	1269000.0	-1007000.0	-304400.0
86	21	SLU A1 sism.	16180.0	32230.0	-106300.0	1269000.0	-987800.0	-304200.0
87	21	SLU A1 sism.	15880.0	-36560.0	-77600.0	-1540000.0	-1004000.0	206500.0
88	21	SLU A1 sism.	16080.0	-36560.0	-106400.0	-1539000.0	-984700.0	206700.0
89	21	SLU A1 sism.	-16730.0	36560.0	-81670.0	1545000.0	1234000.0	-205100.0
90	21	SLU A1 sism.	-16520.0	36560.0	-110500.0	1546000.0	1253000.0	-204900.0

91	21	SLU A1 sism.	-16830.0	-32230.0	-81730.0	-1264000.0	1237000.0	305800.0
92	21	SLU A1 sism.	-16620.0	-32230.0	-110500.0	-1263000.0	1256000.0	306000.0
221	21	SLU A1 sism.	15700.0	19350.0	-43950.0	1010000.0	-1027000.0	162000.0
222	21	SLU A1 sism.	16390.0	19340.0	-140000.0	1012000.0	-964700.0	162700.0
223	21	SLU A1 sism.	15660.0	-15000.0	-43970.0	-727700.0	-1026000.0	-60270.0
224	21	SLU A1 sism.	16350.0	-15010.0	-140000.0	-725600.0	-963000.0	-59550.0
225	21	SLU A1 sism.	-16990.0	15010.0	-48080.0	731200.0	1212000.0	61160.0
226	21	SLU A1 sism.	-16300.0	15000.0	-144100.0	733300.0	1275000.0	61880.0
227	21	SLU A1 sism.	-17040.0	-19340.0	-48110.0	-1007000.0	1214000.0	-161100.0
228	21	SLU A1 sism.	-16350.0	-19350.0	-144100.0	-1005000.0	1277000.0	-160400.0
229	21	SLU A1 sism.	15690.0	12490.0	-43950.0	562600.0	-1027000.0	-25780.0
230	21	SLU A1 sism.	16390.0	12480.0	-140000.0	564800.0	-964300.0	-25060.0
231	21	SLU A1 sism.	15660.0	-8146.0	-43970.0	-280000.0	-1026000.0	127500.0
232	21	SLU A1 sism.	16360.0	-8156.3	-140000.0	-277900.0	-963400.0	128200.0
233	21	SLU A1 sism.	-17000.0	8153.9	-48080.0	283500.0	1213000.0	-126600.0
234	21	SLU A1 sism.	-16310.0	8143.6	-144100.0	285600.0	1275000.0	-125900.0
235	21	SLU A1 sism.	-17030.0	-12480.0	-48100.0	-559100.0	1214000.0	26670.0
236	21	SLU A1 sism.	-16340.0	-12490.0	-144100.0	-557000.0	1276000.0	27390.0
237	21	SLU A1 sism.	15710.0	15010.0	-43950.0	732500.0	-1028000.0	61930.0
238	21	SLU A1 sism.	16400.0	15000.0	-140000.0	734700.0	-965100.0	62650.0
239	21	SLU A1 sism.	15660.0	-19330.0	-43970.0	-1006000.0	-1026000.0	-160300.0
240	21	SLU A1 sism.	16350.0	-19350.0	-140000.0	-1003000.0	-963400.0	-159600.0
241	21	SLU A1 sism.	-17000.0	19340.0	-48080.0	1009000.0	1213000.0	161200.0
242	21	SLU A1 sism.	-16310.0	19330.0	-144100.0	1011000.0	1275000.0	162000.0
243	21	SLU A1 sism.	-17040.0	-15010.0	-48110.0	-729000.0	1214000.0	-61040.0
244	21	SLU A1 sism.	-16350.0	-15020.0	-144100.0	-726900.0	1277000.0	-60320.0
245	21	SLU A1 sism.	15700.0	8157.2	-43950.0	284800.0	-1027000.0	-125800.0
246	21	SLU A1 sism.	16390.0	8147.0	-140000.0	287000.0	-964700.0	-125100.0
247	21	SLU A1 sism.	15670.0	-12480.0	-43970.0	-557800.0	-1027000.0	27440.0
248	21	SLU A1 sism.	16360.0	-12490.0	-140000.0	-555700.0	-963800.0	28160.0
249	21	SLU A1 sism.	-17010.0	12490.0	-48090.0	561300.0	1213000.0	-26540.0
250	21	SLU A1 sism.	-16310.0	12480.0	-144100.0	563400.0	1276000.0	-25830.0
251	21	SLU A1 sism.	-17040.0	-8149.4	-48100.0	-281300.0	1214000.0	126700.0
252	21	SLU A1 sism.	-16340.0	-8159.6	-144100.0	-279200.0	1277000.0	127500.0
1	23	SLU STR.	-234.2	-3104.2	-115600.0	-824400.0	115800.0	2502.2
2	23	SLU STR.	-217.6	-3535.9	-119800.0	-939600.0	112500.0	2756.0
3	23	SLU STR.	3.1	-6921.4	-170100.0	-1844000.0	73060.0	4507.3
4	23	SLU STR.	19.7	-7353.1	-174300.0	-1959000.0	69820.0	4761.0
5	23	SLU STR.	-187.5	-2428.7	-87580.0	-645100.0	90160.0	1934.6
6	23	SLU STR.	-170.9	-2860.4	-91810.0	-760400.0	86920.0	2188.3
7	23	SLU STR.	49.8	-6245.8	-142100.0	-1665000.0	47450.0	3939.6
8	23	SLU STR.	66.4	-6677.5	-146300.0	-1780000.0	44200.0	4193.4
9	23	SLU STR.	-201.0	-3967.6	-124100.0	-1055000.0	109300.0	3009.7
10	23	SLU STR.	-68.1	-5776.2	-153700.0	-1538000.0	85880.0	3905.8
11	23	SLU STR.	-34.9	-6639.6	-162200.0	-1769000.0	79390.0	4413.3
12	23	SLU STR.	-154.3	-3292.1	-96050.0	-875600.0	83680.0	2442.1
13	23	SLU STR.	-21.4	-5100.7	-125700.0	-1359000.0	60260.0	3338.1
14	23	SLU STR.	11.8	-5964.1	-134200.0	-1589000.0	53780.0	3845.6
15	23	SLE Rare	-183.3	-2405.6	-88330.0	-638900.0	89540.0	1929.0
16	23	SLE Rare	-172.3	-2693.4	-91160.0	-715800.0	87380.0	2098.2
17	23	SLE Rare	-25.1	-4950.4	-124700.0	-1319000.0	61060.0	3265.8
18	23	SLE Rare	-14.1	-5238.2	-127500.0	-1395000.0	58900.0	3434.9
19	23	SLE Rare	-161.2	-2981.2	-93980.0	-792600.0	85220.0	2267.4
20	23	SLE Rare	-72.6	-4187.0	-113800.0	-1115000.0	69600.0	2864.7
21	23	SLE Rare	-50.5	-4762.6	-119400.0	-1268000.0	65280.0	3203.1
22	23	SLE Freq.	-183.3	-2405.6	-88330.0	-638900.0	89540.0	1929.0
23	23	SLE Freq.	-72.6	-4187.0	-113800.0	-1115000.0	69600.0	2864.7
24	23	SLE Freq.	-178.9	-2520.7	-89460.0	-669700.0	88670.0	1996.7
25	23	SLE Freq.	-88.4	-3932.5	-110100.0	-1047000.0	72450.0	2731.1
26	23	SLE Freq.	-84.0	-4047.6	-111300.0	-1078000.0	71590.0	2798.7
27	23	SLE Quasi P.	-183.3	-2405.6	-88330.0	-638900.0	89540.0	1929.0
28	23	SLE Quasi P.	-88.4	-3932.5	-110100.0	-1047000.0	72450.0	2731.1
29	23	SLU A1 sism.	42200.0	20120.0	-143800.0	336600.0	-2796000.0	339400.0
30	23	SLU A1 sism.	42270.0	19220.0	-176100.0	98120.0	-2755000.0	340000.0
31	23	SLU A1 sism.	49320.0	-17530.0	-88800.0	-2379000.0	-3611000.0	111600.0
32	23	SLU A1 sism.	49390.0	-18430.0	-121100.0	-2617000.0	-3569000.0	112200.0

33	23	SLU A1 sism.	-49570.0	10570.0	-99210.0	523900.0	3714000.0	-106700.0
34	23	SLU A1 sism.	-49500.0	9669.8	-131500.0	285400.0	3756000.0	-106200.0
35	23	SLU A1 sism.	-42450.0	-27090.0	-44220.0	-2192000.0	2899000.0	-334500.0
36	23	SLU A1 sism.	-42380.0	-27990.0	-76490.0	-2430000.0	2941000.0	-333900.0
37	23	SLU A1 sism.	47960.0	12610.0	-137200.0	-302700.0	-3389000.0	153000.0
38	23	SLU A1 sism.	48030.0	11710.0	-169500.0	-541100.0	-3347000.0	153500.0
39	23	SLU A1 sism.	43570.0	-10020.0	-95400.0	-1740000.0	-3018000.0	298100.0
40	23	SLU A1 sism.	43640.0	-10920.0	-127700.0	-1978000.0	-2977000.0	298600.0
41	23	SLU A1 sism.	-43810.0	3057.3	-92610.0	-115300.0	3122000.0	-293100.0
42	23	SLU A1 sism.	-43740.0	2157.9	-124900.0	-353800.0	3163000.0	-292600.0
43	23	SLU A1 sism.	-48210.0	-19580.0	-50820.0	-1552000.0	3492000.0	-148100.0
44	23	SLU A1 sism.	-48140.0	-20480.0	-83090.0	-1791000.0	3534000.0	-147500.0
45	23	SLU A1 sism.	49470.0	3753.2	-135000.0	-1132000.0	-3549000.0	240800.0
46	23	SLU A1 sism.	49540.0	2853.9	-167300.0	-1371000.0	-3508000.0	241300.0
47	23	SLU A1 sism.	56590.0	-33900.0	-80040.0	-3848000.0	-4364000.0	12990.0
48	23	SLU A1 sism.	56660.0	-34800.0	-112300.0	-4087000.0	-4323000.0	13540.0
49	23	SLU A1 sism.	-56840.0	26940.0	-108000.0	1993000.0	4467000.0	-8081.3
50	23	SLU A1 sism.	-56770.0	26040.0	-140200.0	1754000.0	4509000.0	-7527.7
51	23	SLU A1 sism.	-49710.0	-10720.0	-52980.0	-722600.0	3653000.0	-235800.0
52	23	SLU A1 sism.	-49640.0	-11620.0	-85250.0	-961100.0	3694000.0	-235300.0
53	23	SLU A1 sism.	55220.0	-3758.7	-128400.0	-1772000.0	-4142000.0	54330.0
54	23	SLU A1 sism.	55290.0	-4658.1	-160700.0	-2010000.0	-4100000.0	54890.0
55	23	SLU A1 sism.	50830.0	-26390.0	-86640.0	-3209000.0	-3772000.0	199400.0
56	23	SLU A1 sism.	50900.0	-27290.0	-118900.0	-3447000.0	-3730000.0	200000.0
57	23	SLU A1 sism.	-51080.0	19430.0	-101400.0	1354000.0	3875000.0	-194500.0
58	23	SLU A1 sism.	-51010.0	18530.0	-133600.0	1115000.0	3917000.0	-193900.0
59	23	SLU A1 sism.	-55470.0	-3206.9	-59580.0	-83380.0	4245000.0	-49420.0
60	23	SLU A1 sism.	-55400.0	-4106.3	-91850.0	-321900.0	4287000.0	-48870.0
61	23	SLU A1 sism.	1771.2	60710.0	-192300.0	3570000.0	433000.0	449000.0
62	23	SLU A1 sism.	1840.6	59810.0	-224600.0	3332000.0	474700.0	449500.0
63	23	SLU A1 sism.	25510.0	-64810.0	-9044.9	-5482000.0	-2283000.0	-310200.0
64	23	SLU A1 sism.	25580.0	-65710.0	-41310.0	-5720000.0	-2241000.0	-309700.0
65	23	SLU A1 sism.	-25760.0	57850.0	-179000.0	3627000.0	2386000.0	315100.0
66	23	SLU A1 sism.	-25690.0	56950.0	-211200.0	3388000.0	2428000.0	315700.0
67	23	SLU A1 sism.	-2017.4	-67680.0	4328.9	-5425000.0	-329800.0	-444100.0
68	23	SLU A1 sism.	-1948.0	-68580.0	-27940.0	-5664000.0	-288100.0	-443500.0
69	23	SLU A1 sism.	3950.5	55800.0	-189700.0	3130000.0	207100.0	419400.0
70	23	SLU A1 sism.	4019.8	54900.0	-222000.0	2891000.0	248700.0	419900.0
71	23	SLU A1 sism.	27690.0	-69720.0	-6417.1	-5922000.0	-2509000.0	-339800.0
72	23	SLU A1 sism.	27760.0	-70620.0	-38680.0	-6161000.0	-2467000.0	-339300.0
73	23	SLU A1 sism.	-27940.0	62760.0	-181600.0	4067000.0	2612000.0	344700.0
74	23	SLU A1 sism.	-27870.0	61860.0	-213900.0	3829000.0	2654000.0	345300.0
75	23	SLU A1 sism.	-4196.6	-62770.0	1701.1	-4985000.0	-103800.0	-414500.0
76	23	SLU A1 sism.	-4127.3	-63670.0	-30560.0	-5223000.0	-62160.0	-413900.0
77	23	SLU A1 sism.	20970.0	35670.0	-170300.0	1439000.0	-1542000.0	-172400.0
78	23	SLU A1 sism.	21040.0	34770.0	-202600.0	1201000.0	-1500000.0	-171900.0
79	23	SLU A1 sism.	6318.7	-39770.0	-31040.0	-3351000.0	-307900.0	311200.0
80	23	SLU A1 sism.	6388.0	-40670.0	-63310.0	-3589000.0	-266200.0	311700.0
81	23	SLU A1 sism.	-6564.8	32810.0	-157000.0	1496000.0	411100.0	-306300.0
82	23	SLU A1 sism.	-6495.5	31910.0	-189200.0	1257000.0	452800.0	-305700.0
83	23	SLU A1 sism.	-21210.0	-42640.0	-17670.0	-3295000.0	1645000.0	177300.0
84	23	SLU A1 sism.	-21140.0	-43540.0	-49930.0	-3533000.0	1687000.0	177900.0
85	23	SLU A1 sism.	23150.0	30760.0	-167700.0	998800.0	-1768000.0	-202000.0
86	23	SLU A1 sism.	23220.0	29860.0	-200000.0	760300.0	-1726000.0	-201500.0
87	23	SLU A1 sism.	8497.9	-44680.0	-28410.0	-3791000.0	-533800.0	281600.0
88	23	SLU A1 sism.	8567.3	-45580.0	-60680.0	-4030000.0	-492200.0	282100.0
89	23	SLU A1 sism.	-8744.1	37720.0	-159600.0	1936000.0	637100.0	-276700.0
90	23	SLU A1 sism.	-8674.7	36820.0	-191900.0	1698000.0	678700.0	-276100.0
91	23	SLU A1 sism.	-23390.0	-37730.0	-20300.0	-2854000.0	1871000.0	206900.0
92	23	SLU A1 sism.	-23320.0	-38630.0	-52560.0	-3092000.0	1913000.0	207500.0
221	23	SLU A1 sism.	10000.0	17830.0	-90550.0	680400.0	-566200.0	182600.0
222	23	SLU A1 sism.	10230.0	14830.0	-198100.0	-114500.0	-427300.0	184500.0
223	23	SLU A1 sism.	17120.0	-19830.0	-35560.0	-2035000.0	-1381000.0	-45150.0
224	23	SLU A1 sism.	17350.0	-22830.0	-143100.0	-2830000.0	-1242000.0	-43310.0
225	23	SLU A1 sism.	-17530.0	14960.0	-77170.0	736600.0	1387000.0	48770.0
226	23	SLU A1 sism.	-17300.0	11960.0	-184700.0	-58340.0	1526000.0	50610.0

227	23	SLU A1 sism.	-10410.0	-22700.0	-22180.0	-1979000.0	572200.0	-179000.0
228	23	SLU A1 sism.	-10180.0	-25690.0	-129700.0	-2774000.0	711100.0	-177100.0
229	23	SLU A1 sism.	15760.0	10320.0	-83950.0	41120.0	-1159000.0	-3810.0
230	23	SLU A1 sism.	15990.0	7318.7	-191500.0	-753800.0	-1020000.0	-1964.8
231	23	SLU A1 sism.	11360.0	-12320.0	-42160.0	-1396000.0	-788400.0	141300.0
232	23	SLU A1 sism.	11600.0	-15320.0	-149700.0	-2191000.0	-649500.0	143100.0
233	23	SLU A1 sism.	-11770.0	7450.4	-70570.0	97320.0	794400.0	-137600.0
234	23	SLU A1 sism.	-11540.0	4452.5	-178100.0	-697600.0	933300.0	-135800.0
235	23	SLU A1 sism.	-16170.0	-15180.0	-28780.0	-1340000.0	1165000.0	7426.9
236	23	SLU A1 sism.	-15940.0	-18180.0	-136300.0	-2135000.0	1304000.0	9272.1
237	23	SLU A1 sism.	12180.0	12920.0	-87920.0	239700.0	-792100.0	153000.0
238	23	SLU A1 sism.	12410.0	9919.6	-195500.0	-555200.0	-653200.0	154900.0
239	23	SLU A1 sism.	19300.0	-24740.0	-32930.0	-2476000.0	-1607000.0	-74750.0
240	23	SLU A1 sism.	19530.0	-27740.0	-140500.0	-3271000.0	-1468000.0	-72900.0
241	23	SLU A1 sism.	-19710.0	19870.0	-79800.0	1177000.0	1613000.0	78360.0
242	23	SLU A1 sism.	-19480.0	16880.0	-187300.0	382400.0	1752000.0	80210.0
243	23	SLU A1 sism.	-12590.0	-17780.0	-24810.0	-1538000.0	798100.0	-149400.0
244	23	SLU A1 sism.	-12360.0	-20780.0	-132400.0	-2333000.0	937000.0	-147600.0
245	23	SLU A1 sism.	17940.0	5405.6	-81320.0	-399600.0	-1385000.0	-33400.0
246	23	SLU A1 sism.	18170.0	2407.7	-188900.0	-1195000.0	-1246000.0	-31560.0
247	23	SLU A1 sism.	13540.0	-17230.0	-39530.0	-1837000.0	-1014000.0	111700.0
248	23	SLU A1 sism.	13780.0	-20230.0	-147100.0	-2632000.0	-875500.0	113500.0
249	23	SLU A1 sism.	-13950.0	12360.0	-73200.0	538000.0	1020000.0	-108100.0
250	23	SLU A1 sism.	-13720.0	9363.5	-180700.0	-256900.0	1159000.0	-106200.0
251	23	SLU A1 sism.	-18350.0	-10270.0	-31410.0	-899000.0	1391000.0	37020.0
252	23	SLU A1 sism.	-18120.0	-13270.0	-139000.0	-1694000.0	1530000.0	38870.0
1	25	SLU STR.	259.8	3028.0	-117300.0	814500.0	-13010.0	-136.9
2	25	SLU STR.	288.8	3429.4	-121400.0	922600.0	-19440.0	-325.7
3	25	SLU STR.	668.6	6632.3	-170800.0	1785000.0	-99660.0	-1021.2
4	25	SLU STR.	697.7	7033.7	-175000.0	1893000.0	-106100.0	-1210.0
5	25	SLU STR.	187.6	2361.9	-88900.0	635400.0	-7634.9	-159.3
6	25	SLU STR.	216.6	2763.2	-93060.0	743500.0	-14060.0	-348.1
7	25	SLU STR.	596.4	5966.2	-142500.0	1606000.0	-94290.0	-1043.7
8	25	SLU STR.	625.4	6367.5	-146600.0	1714000.0	-100700.0	-1232.5
9	25	SLU STR.	317.9	3830.7	-125600.0	1031000.0	-25860.0	-514.5
10	25	SLU STR.	546.0	5551.0	-154800.0	1494000.0	-73670.0	-755.9
11	25	SLU STR.	604.0	6353.7	-163100.0	1710000.0	-86510.0	-1133.5
12	25	SLU STR.	245.6	3164.6	-97220.0	851600.0	-20480.0	-536.9
13	25	SLU STR.	473.7	4884.9	-126400.0	1315000.0	-68290.0	-778.4
14	25	SLU STR.	531.8	5687.6	-134700.0	1531000.0	-81140.0	-1156.0
15	25	SLE Rare	194.5	2343.5	-89640.0	630400.0	-8977.7	-128.8
16	25	SLE Rare	213.9	2611.0	-92420.0	702500.0	-13260.0	-254.6
17	25	SLE Rare	467.1	4746.3	-125300.0	1277000.0	-66740.0	-718.4
18	25	SLE Rare	486.4	5013.9	-128100.0	1350000.0	-71030.0	-844.2
19	25	SLE Rare	233.2	2878.6	-95190.0	774500.0	-17540.0	-380.5
20	25	SLE Rare	385.3	4025.5	-114600.0	1083000.0	-49410.0	-541.5
21	25	SLE Rare	424.0	4560.6	-120200.0	1227000.0	-57980.0	-793.2
22	25	SLE Freq.	194.5	2343.5	-89640.0	630400.0	-8977.7	-128.8
23	25	SLE Freq.	385.3	4025.5	-114600.0	1083000.0	-49410.0	-541.5
24	25	SLE Freq.	202.2	2450.5	-90750.0	659200.0	-10690.0	-179.1
25	25	SLE Freq.	358.0	3785.2	-111100.0	1019000.0	-43640.0	-482.5
26	25	SLE Freq.	365.8	3892.2	-112200.0	1047000.0	-45350.0	-532.9
27	25	SLE Quasi P.	194.5	2343.5	-89640.0	630400.0	-8977.7	-128.8
28	25	SLE Quasi P.	358.0	3785.2	-111100.0	1019000.0	-43640.0	-482.5
29	25	SLU A1 sism.	54000.0	35460.0	-125600.0	3479000.0	-3646000.0	-15340.0
30	25	SLU A1 sism.	54700.0	36290.0	-156700.0	3702000.0	-3775000.0	-16010.0
31	25	SLU A1 sism.	47240.0	-6491.9	-182300.0	360400.0	-2939000.0	-230300.0
32	25	SLU A1 sism.	47940.0	-5667.5	-213400.0	582700.0	-3067000.0	-231000.0
33	25	SLU A1 sism.	-47220.0	13240.0	-8721.6	1455000.0	2980000.0	230000.0
34	25	SLU A1 sism.	-46520.0	14060.0	-39840.0	1677000.0	2852000.0	229400.0
35	25	SLU A1 sism.	-53980.0	-28720.0	-65420.0	-1664000.0	3687000.0	15050.0
36	25	SLU A1 sism.	-53280.0	-27890.0	-96540.0	-1442000.0	3559000.0	14380.0
37	25	SLU A1 sism.	48440.0	24760.0	-132000.0	2511000.0	-3110000.0	-198800.0
38	25	SLU A1 sism.	49140.0	25580.0	-163200.0	2733000.0	-3238000.0	-199400.0
39	25	SLU A1 sism.	52790.0	4214.7	-175800.0	1329000.0	-3476000.0	-46910.0
40	25	SLU A1 sism.	53490.0	5039.1	-206900.0	1551000.0	-3604000.0	-47580.0

41	25	SLU A1 sism.	-52780.0	2531.2	-15180.0	485900.0	3517000.0	46620.0
42	25	SLU A1 sism.	-52080.0	3355.6	-46300.0	708200.0	3388000.0	45940.0
43	25	SLU A1 sism.	-48430.0	-18010.0	-58960.0	-695600.0	3151000.0	198500.0
44	25	SLU A1 sism.	-47730.0	-17190.0	-90080.0	-473200.0	3022000.0	197800.0
45	25	SLU A1 sism.	47160.0	12540.0	-135300.0	1449000.0	-3003000.0	-115400.0
46	25	SLU A1 sism.	47860.0	13370.0	-166400.0	1671000.0	-3132000.0	-116100.0
47	25	SLU A1 sism.	40400.0	-29410.0	-192000.0	-1670000.0	-2296000.0	-330400.0
48	25	SLU A1 sism.	41100.0	-28590.0	-223100.0	-1447000.0	-2425000.0	-331100.0
49	25	SLU A1 sism.	-40380.0	36160.0	985.4	3485000.0	2337000.0	330100.0
50	25	SLU A1 sism.	-39680.0	36980.0	-30140.0	3707000.0	2209000.0	329500.0
51	25	SLU A1 sism.	-47140.0	-5797.5	-55710.0	365800.0	3045000.0	115100.0
52	25	SLU A1 sism.	-46440.0	-4973.2	-86830.0	588200.0	2916000.0	114500.0
53	25	SLU A1 sism.	41600.0	1836.9	-141800.0	480400.0	-2467000.0	-298900.0
54	25	SLU A1 sism.	42300.0	2661.3	-172900.0	702800.0	-2595000.0	-299500.0
55	25	SLU A1 sism.	45950.0	-18710.0	-185500.0	-701000.0	-2833000.0	-147000.0
56	25	SLU A1 sism.	46650.0	-17880.0	-216700.0	-478700.0	-2961000.0	-147700.0
57	25	SLU A1 sism.	-45940.0	25450.0	-5475.4	2516000.0	2874000.0	146700.0
58	25	SLU A1 sism.	-45240.0	26280.0	-36600.0	2738000.0	2746000.0	146000.0
59	25	SLU A1 sism.	-41590.0	4909.0	-49250.0	1335000.0	2508000.0	298600.0
60	25	SLU A1 sism.	-40890.0	5733.4	-80370.0	1557000.0	2380000.0	297900.0
61	25	SLU A1 sism.	26460.0	76630.0	-18540.0	6409000.0	-2152000.0	321400.0
62	25	SLU A1 sism.	27160.0	77460.0	-49660.0	6632000.0	-2280000.0	320700.0
63	25	SLU A1 sism.	3918.9	-63220.0	-207500.0	-3987000.0	205200.0	-395300.0
64	25	SLU A1 sism.	4618.6	-62400.0	-238700.0	-3765000.0	76840.0	-395900.0
65	25	SLU A1 sism.	-3902.5	69970.0	16520.0	5802000.0	-164100.0	395000.0
66	25	SLU A1 sism.	-3202.9	70790.0	-14600.0	6024000.0	-292500.0	394300.0
67	25	SLU A1 sism.	-26450.0	-69890.0	-172500.0	-4594000.0	2193000.0	-321700.0
68	25	SLU A1 sism.	-25750.0	-69060.0	-203600.0	-4372000.0	2065000.0	-322300.0
69	25	SLU A1 sism.	24410.0	69760.0	-21450.0	5800000.0	-1959000.0	291300.0
70	25	SLU A1 sism.	25110.0	70580.0	-52570.0	6023000.0	-2088000.0	290700.0
71	25	SLU A1 sism.	1867.0	-70100.0	-210400.0	-4596000.0	398000.0	-425300.0
72	25	SLU A1 sism.	2566.6	-69270.0	-241600.0	-4374000.0	269600.0	-426000.0
73	25	SLU A1 sism.	-1850.6	76840.0	19430.0	6411000.0	-356900.0	425000.0
74	25	SLU A1 sism.	-1150.9	77670.0	-11690.0	6633000.0	-485300.0	424300.0
75	25	SLU A1 sism.	-24400.0	-63010.0	-169600.0	-3985000.0	2000000.0	-291600.0
76	25	SLU A1 sism.	-23700.0	-62190.0	-200700.0	-3763000.0	1872000.0	-292300.0
77	25	SLU A1 sism.	7945.9	40950.0	-40070.0	3180000.0	-363300.0	-290000.0
78	25	SLU A1 sism.	8645.6	41770.0	-71190.0	3403000.0	-491700.0	-290700.0
79	25	SLU A1 sism.	22440.0	-27530.0	-186000.0	-758000.0	-1583000.0	216100.0
80	25	SLU A1 sism.	23140.0	-26710.0	-217100.0	-535600.0	-1712000.0	215500.0
81	25	SLU A1 sism.	-22420.0	34280.0	-5013.2	2573000.0	1625000.0	-216400.0
82	25	SLU A1 sism.	-21720.0	35100.0	-36130.0	2795000.0	1496000.0	-217100.0
83	25	SLU A1 sism.	-7929.5	-34200.0	-150900.0	-1365000.0	404400.0	289800.0
84	25	SLU A1 sism.	-7229.8	-33380.0	-182100.0	-1143000.0	276100.0	289100.0
85	25	SLU A1 sism.	5894.0	34070.0	-42990.0	2571000.0	-170500.0	-320100.0
86	25	SLU A1 sism.	6593.6	34890.0	-74110.0	2794000.0	-298900.0	-320700.0
87	25	SLU A1 sism.	20380.0	-34410.0	-188900.0	-1367000.0	-1391000.0	186100.0
88	25	SLU A1 sism.	21080.0	-33580.0	-220000.0	-1145000.0	-1519000.0	185400.0
89	25	SLU A1 sism.	-20370.0	41150.0	-2101.1	3182000.0	1432000.0	-186400.0
90	25	SLU A1 sism.	-19670.0	41980.0	-33220.0	3404000.0	1303000.0	-187100.0
91	25	SLU A1 sism.	-5877.6	-27320.0	-148000.0	-756300.0	211600.0	319800.0
92	25	SLU A1 sism.	-5177.9	-26500.0	-179100.0	-534000.0	83270.0	319100.0
221	25	SLU A1 sism.	17760.0	26720.0	-48380.0	2511000.0	-1177000.0	71330.0
222	25	SLU A1 sism.	20090.0	29470.0	-152100.0	3252000.0	-1605000.0	69090.0
223	25	SLU A1 sism.	10990.0	-15230.0	-105100.0	-607600.0	-470000.0	-143700.0
224	25	SLU A1 sism.	13330.0	-12490.0	-208800.0	133500.0	-898000.0	-145900.0
225	25	SLU A1 sism.	-12610.0	20060.0	-13320.0	1904000.0	810700.0	144900.0
226	25	SLU A1 sism.	-10280.0	22800.0	-117100.0	2645000.0	382700.0	142700.0
227	25	SLU A1 sism.	-19370.0	-21900.0	-70010.0	-1215000.0	1518000.0	-70050.0
228	25	SLU A1 sism.	-17040.0	-19150.0	-173800.0	-473900.0	1090000.0	-72290.0
229	25	SLU A1 sism.	12200.0	16020.0	-54840.0	1543000.0	-640600.0	-112100.0
230	25	SLU A1 sism.	14530.0	18760.0	-158600.0	2284000.0	-1069000.0	-114300.0
231	25	SLU A1 sism.	16550.0	-4526.5	-98610.0	361000.0	-1007000.0	39760.0
232	25	SLU A1 sism.	18880.0	-1778.5	-202400.0	1102000.0	-1435000.0	37520.0
233	25	SLU A1 sism.	-18160.0	9348.8	-19780.0	935100.0	1347000.0	-38480.0
234	25	SLU A1 sism.	-15830.0	12100.0	-123500.0	1676000.0	919300.0	-40720.0

235	25	SLU A1 sism.	-13820.0	-11190.0	-63550.0	-246400.0	981200.0	113400.0
236	25	SLU A1 sism.	-11490.0	-8446.6	-167300.0	494800.0	553300.0	111100.0
237	25	SLU A1 sism.	15700.0	19850.0	-51290.0	1902000.0	-984400.0	41300.0
238	25	SLU A1 sism.	18040.0	22600.0	-155000.0	2643000.0	-1412000.0	39060.0
239	25	SLU A1 sism.	8941.4	-22110.0	-108000.0	-1217000.0	-277200.0	-173700.0
240	25	SLU A1 sism.	11270.0	-19360.0	-211700.0	-475500.0	-705100.0	-175900.0
241	25	SLU A1 sism.	-10560.0	26930.0	-10400.0	2513000.0	617900.0	175000.0
242	25	SLU A1 sism.	-8225.3	29680.0	-114100.0	3254000.0	189900.0	172700.0
243	25	SLU A1 sism.	-17320.0	-15020.0	-67100.0	-606000.0	1325000.0	-40020.0
244	25	SLU A1 sism.	-14990.0	-12280.0	-170800.0	135100.0	897100.0	-42260.0
245	25	SLU A1 sism.	10150.0	9140.6	-57750.0	933500.0	-447800.0	-142100.0
246	25	SLU A1 sism.	12480.0	11890.0	-161500.0	1675000.0	-875700.0	-144400.0
247	25	SLU A1 sism.	14500.0	-11400.0	-101500.0	-248000.0	-813800.0	9730.1
248	25	SLU A1 sism.	16830.0	-8654.9	-205300.0	493200.0	-1242000.0	7490.8
249	25	SLU A1 sism.	-16110.0	16230.0	-16860.0	1544000.0	1154000.0	-8455.8
250	25	SLU A1 sism.	-13780.0	18970.0	-120600.0	2285000.0	726500.0	-10700.0
251	25	SLU A1 sism.	-11770.0	-4318.2	-60640.0	362700.0	788400.0	143400.0
252	25	SLU A1 sism.	-9433.4	-1570.2	-164400.0	1104000.0	360500.0	141200.0
1	29	SLU STR.	169.8	-3057.3	-117400.0	-819500.0	7197.0	1452.7
2	29	SLU STR.	195.9	-3459.7	-121500.0	-927700.0	1413.9	1693.6
3	29	SLU STR.	536.2	-6676.1	-171000.0	-1792000.0	-70080.0	3023.6
4	29	SLU STR.	562.3	-7078.5	-175100.0	-1901000.0	-75870.0	3264.5
5	29	SLU STR.	119.6	-2384.0	-88960.0	-639100.0	7621.0	1154.6
6	29	SLU STR.	145.7	-2786.4	-93120.0	-747400.0	1837.9	1395.5
7	29	SLU STR.	486.0	-6002.9	-142600.0	-1612000.0	-69660.0	2725.5
8	29	SLU STR.	512.1	-6405.3	-146700.0	-1720000.0	-75440.0	2966.4
9	29	SLU STR.	222.0	-3862.1	-125700.0	-1036000.0	-4369.2	1934.5
10	29	SLU STR.	426.3	-5590.5	-154900.0	-1501000.0	-46900.0	2552.3
11	29	SLU STR.	478.5	-6395.3	-163200.0	-1717000.0	-58460.0	3034.1
12	29	SLU STR.	171.8	-3188.8	-97290.0	-855600.0	-3945.2	1636.4
13	29	SLU STR.	376.1	-4917.2	-126500.0	-1320000.0	-46470.0	2254.2
14	29	SLU STR.	428.3	-5722.0	-134800.0	-1537000.0	-58040.0	2736.0
15	29	SLE Rare	125.9	-2365.8	-89710.0	-634200.0	6442.6	1133.6
16	29	SLE Rare	143.3	-2634.0	-92480.0	-706300.0	2587.2	1294.2
17	29	SLE Rare	370.1	-4778.3	-125400.0	-1283000.0	-45080.0	2180.9
18	29	SLE Rare	387.5	-5046.6	-128200.0	-1355000.0	-48930.0	2341.5
19	29	SLE Rare	160.6	-2902.3	-95260.0	-778500.0	-1268.2	1454.8
20	29	SLE Rare	296.8	-4054.6	-114700.0	-1088000.0	-29620.0	1866.7
21	29	SLE Rare	331.6	-4591.1	-120300.0	-1233000.0	-37330.0	2187.9
22	29	SLE Freq.	125.9	-2365.8	-89710.0	-634200.0	6442.6	1133.6
23	29	SLE Freq.	296.8	-4054.6	-114700.0	-1088000.0	-29620.0	1866.7
24	29	SLE Freq.	132.8	-2473.1	-90820.0	-663000.0	4900.5	1197.9
25	29	SLE Freq.	272.4	-3813.3	-111100.0	-1023000.0	-24470.0	1762.0
26	29	SLE Freq.	279.4	-3920.6	-112300.0	-1052000.0	-26010.0	1826.2
27	29	SLE Quasi P.	125.9	-2365.8	-89710.0	-634200.0	6442.6	1133.6
28	29	SLE Quasi P.	272.4	-3813.3	-111100.0	-1023000.0	-24470.0	1762.0
29	29	SLU A1 sism.	40210.0	29380.0	-192200.0	1661000.0	-2252000.0	333700.0
30	29	SLU A1 sism.	40900.0	28530.0	-223300.0	1436000.0	-2377000.0	334300.0
31	29	SLU A1 sism.	46950.0	-12560.0	-135300.0	-1455000.0	-2961000.0	118800.0
32	29	SLU A1 sism.	47640.0	-13410.0	-166400.0	-1680000.0	-3087000.0	119300.0
33	29	SLU A1 sism.	-47090.0	5784.3	-55870.0	-367200.0	3038000.0	-115800.0
34	29	SLU A1 sism.	-46400.0	4938.2	-87000.0	-592000.0	2912000.0	-115300.0
35	29	SLU A1 sism.	-40360.0	-36160.0	1009.6	-3483000.0	2329000.0	-330700.0
36	29	SLU A1 sism.	-39670.0	-37010.0	-30120.0	-3708000.0	2203000.0	-330200.0
37	29	SLU A1 sism.	45750.0	18680.0	-185700.0	692900.0	-2785000.0	150300.0
38	29	SLU A1 sism.	46450.0	17830.0	-216800.0	468100.0	-2911000.0	150900.0
39	29	SLU A1 sism.	41410.0	-1860.5	-141800.0	-486600.0	-2428000.0	302100.0
40	29	SLU A1 sism.	42100.0	-2706.7	-172900.0	-711500.0	-2553000.0	302700.0
41	29	SLU A1 sism.	-41550.0	-4920.0	-49380.0	-1335000.0	2504000.0	-299200.0
42	29	SLU A1 sism.	-40860.0	-5766.1	-80520.0	-1560000.0	2379000.0	-298600.0
43	29	SLU A1 sism.	-45900.0	-25460.0	-5474.5	-2515000.0	2862000.0	-147400.0
44	29	SLU A1 sism.	-45210.0	-26300.0	-36610.0	-2740000.0	2736000.0	-146800.0
45	29	SLU A1 sism.	47080.0	6475.9	-182500.0	-366400.0	-2898000.0	230200.0
46	29	SLU A1 sism.	47770.0	5629.8	-213600.0	-591300.0	-3024000.0	230700.0
47	29	SLU A1 sism.	53820.0	-35470.0	-125600.0	-3482000.0	-3607000.0	15280.0
48	29	SLU A1 sism.	54510.0	-36320.0	-156700.0	-3707000.0	-3733000.0	15840.0

49	29	SLU A1 sism.	-53960.0	28690.0	-65580.0	1660000.0	3684000.0	-12310.0
50	29	SLU A1 sism.	-53270.0	27840.0	-96710.0	1435000.0	3558000.0	-11760.0
51	29	SLU A1 sism.	-47230.0	-13260.0	-8699.7	-1455000.0	2975000.0	-227200.0
52	29	SLU A1 sism.	-46540.0	-14100.0	-39830.0	-1680000.0	2849000.0	-226700.0
53	29	SLU A1 sism.	52620.0	-4228.4	-176000.0	-1335000.0	-3432000.0	46830.0
54	29	SLU A1 sism.	53310.0	-5074.5	-207100.0	-1559000.0	-3557000.0	47390.0
55	29	SLU A1 sism.	48270.0	-24760.0	-132100.0	-2514000.0	-3074000.0	198600.0
56	29	SLU A1 sism.	48970.0	-25610.0	-163200.0	-2739000.0	-3199000.0	199200.0
57	29	SLU A1 sism.	-48420.0	17980.0	-59090.0	692200.0	3151000.0	-195700.0
58	29	SLU A1 sism.	-47730.0	17140.0	-90230.0	467300.0	3025000.0	-195100.0
59	29	SLU A1 sism.	-52770.0	-2552.2	-15180.0	-487400.0	3508000.0	-43860.0
60	29	SLU A1 sism.	-52080.0	-3398.3	-46320.0	-712200.0	3383000.0	-43310.0
61	29	SLU A1 sism.	1801.0	70060.0	-210800.0	4586000.0	426600.0	427100.0
62	29	SLU A1 sism.	2492.0	69210.0	-242000.0	4361000.0	301200.0	427600.0
63	29	SLU A1 sism.	24240.0	-69760.0	-21230.0	-5800000.0	-1937000.0	-289300.0
64	29	SLU A1 sism.	24940.0	-70610.0	-52360.0	-6024000.0	-2062000.0	-288700.0
65	29	SLU A1 sism.	-24390.0	62980.0	-169900.0	3978000.0	2014000.0	292200.0
66	29	SLU A1 sism.	-23700.0	62130.0	-201100.0	3753000.0	1888000.0	292800.0
67	29	SLU A1 sism.	-1947.2	-76840.0	19660.0	-6408000.0	-350200.0	-424100.0
68	29	SLU A1 sism.	-1256.1	-77680.0	-11470.0	-6633000.0	-475600.0	-423600.0
69	29	SLU A1 sism.	3861.6	63190.0	-207900.0	3978000.0	232700.0	396000.0
70	29	SLU A1 sism.	4552.7	62340.0	-239000.0	3753000.0	107300.0	396600.0
71	29	SLU A1 sism.	26310.0	-76630.0	-18310.0	-6408000.0	-2131000.0	-320300.0
72	29	SLU A1 sism.	27000.0	-77480.0	-49450.0	-6633000.0	-2256000.0	-319800.0
73	29	SLU A1 sism.	-26450.0	69850.0	-172800.0	4586000.0	2207000.0	323300.0
74	29	SLU A1 sism.	-25760.0	69000.0	-204000.0	4361000.0	2082000.0	323800.0
75	29	SLU A1 sism.	-4007.8	-69970.0	16750.0	-5800000.0	-156300.0	-393100.0
76	29	SLU A1 sism.	-3316.8	-70810.0	-14380.0	-6025000.0	-281700.0	-392500.0
77	29	SLU A1 sism.	20270.0	34380.0	-189200.0	1359000.0	-1351000.0	-184100.0
78	29	SLU A1 sism.	20960.0	33530.0	-220300.0	1134000.0	-1477000.0	-183500.0
79	29	SLU A1 sism.	5775.6	-34080.0	-42840.0	-2573000.0	-159200.0	321900.0
80	29	SLU A1 sism.	6466.7	-34920.0	-73970.0	-2798000.0	-284600.0	322500.0
81	29	SLU A1 sism.	-5921.9	27300.0	-148300.0	750800.0	235700.0	-318900.0
82	29	SLU A1 sism.	-5230.8	26450.0	-179400.0	525900.0	110300.0	-318400.0
83	29	SLU A1 sism.	-20420.0	-41160.0	-1949.9	-3181000.0	1428000.0	187100.0
84	29	SLU A1 sism.	-19730.0	-42000.0	-33080.0	-3406000.0	1302000.0	187600.0
85	29	SLU A1 sism.	22330.0	27510.0	-186300.0	751000.0	-1545000.0	-215100.0
86	29	SLU A1 sism.	23020.0	26660.0	-217400.0	526100.0	-1670000.0	-214600.0
87	29	SLU A1 sism.	7836.2	-40950.0	-39930.0	-3181000.0	-353100.0	290900.0
88	29	SLU A1 sism.	8527.3	-41800.0	-71060.0	-3406000.0	-478500.0	291400.0
89	29	SLU A1 sism.	-7982.5	34170.0	-151200.0	1359000.0	429600.0	-287900.0
90	29	SLU A1 sism.	-7291.4	33320.0	-182400.0	1134000.0	304200.0	-287300.0
91	29	SLU A1 sism.	-22480.0	-34290.0	-4862.7	-2573000.0	1622000.0	218100.0
92	29	SLU A1 sism.	-21790.0	-35130.0	-36000.0	-2798000.0	1496000.0	218700.0
221	29	SLU A1 sism.	8850.0	22110.0	-108100.0	1213000.0	-254300.0	175700.0
222	29	SLU A1 sism.	11150.0	19290.0	-211900.0	463900.0	-672400.0	177600.0
223	29	SLU A1 sism.	15580.0	-19840.0	-51260.0	-1902000.0	-963500.0	-39190.0
224	29	SLU A1 sism.	17890.0	-22660.0	-155000.0	-2652000.0	-1381000.0	-37340.0
225	29	SLU A1 sism.	-17340.0	15030.0	-67250.0	605000.0	1333000.0	40860.0
226	29	SLU A1 sism.	-15040.0	12210.0	-171000.0	-144500.0	914500.0	42710.0
227	29	SLU A1 sism.	-10610.0	-26910.0	-10370.0	-2511000.0	623400.0	-174000.0
228	29	SLU A1 sism.	-8305.1	-29740.0	-114200.0	-3260000.0	205400.0	-172200.0
229	29	SLU A1 sism.	14390.0	11400.0	-101700.0	245400.0	-787700.0	-7635.5
230	29	SLU A1 sism.	16690.0	8584.1	-205400.0	-504100.0	-1206000.0	-5781.9
231	29	SLU A1 sism.	10040.0	-9132.0	-57740.0	-934100.0	-430100.0	144200.0
232	29	SLU A1 sism.	12350.0	-11950.0	-161500.0	-1684000.0	-848100.0	146000.0
233	29	SLU A1 sism.	-11800.0	4325.7	-60770.0	-363000.0	799200.0	-142500.0
234	29	SLU A1 sism.	-9497.5	1505.3	-164500.0	-1113000.0	381200.0	-140600.0
235	29	SLU A1 sism.	-16150.0	-16210.0	-16860.0	-1543000.0	1157000.0	9305.8
236	29	SLU A1 sism.	-13850.0	-19030.0	-120600.0	-2292000.0	738800.0	11160.0
237	29	SLU A1 sism.	10910.0	15240.0	-105200.0	605200.0	-448200.0	144700.0
238	29	SLU A1 sism.	13210.0	12420.0	-209000.0	-144300.0	-866300.0	146500.0
239	29	SLU A1 sism.	17640.0	-26710.0	-48350.0	-2510000.0	-1157000.0	-70240.0
240	29	SLU A1 sism.	19950.0	-29530.0	-152100.0	-3260000.0	-1575000.0	-68390.0
241	29	SLU A1 sism.	-19400.0	21900.0	-70160.0	1213000.0	1526000.0	71910.0
242	29	SLU A1 sism.	-17100.0	19080.0	-173900.0	463700.0	1108000.0	73770.0

243	29	SLU A1 sism.	-12670.0	-20040.0	-13280.0	-1902000.0	817300.0	-143000.0
244	29	SLU A1 sism.	-10370.0	-22860.0	-117100.0	-2652000.0	399300.0	-141100.0
245	29	SLU A1 sism.	16450.0	4533.2	-98740.0	-362800.0	-981600.0	-38690.0
246	29	SLU A1 sism.	18750.0	1712.8	-202500.0	-1112000.0	-1400000.0	-36840.0
247	29	SLU A1 sism.	12100.0	-16000.0	-54830.0	-1542000.0	-624000.0	113100.0
248	29	SLU A1 sism.	14410.0	-18820.0	-158600.0	-2292000.0	-1042000.0	115000.0
249	29	SLU A1 sism.	-13860.0	11200.0	-63680.0	245200.0	993100.0	-111400.0
250	29	SLU A1 sism.	-11560.0	8376.6	-167500.0	-504300.0	575000.0	-109600.0
251	29	SLU A1 sism.	-18210.0	-9339.4	-19770.0	-934400.0	1351000.0	40360.0
252	29	SLU A1 sism.	-15910.0	-12160.0	-123500.0	-1684000.0	932600.0	42210.0
1	3	SLU STR.	193.1	4.4	-87180.0	-12.1	-97150.0	368.0
2	3	SLU STR.	201.3	4.5	-89280.0	-16.1	-101200.0	383.8
3	3	SLU STR.	24.4	6.3	-119700.0	-38.1	-95070.0	573.0
4	3	SLU STR.	32.6	6.4	-121800.0	-42.1	-99090.0	588.8
5	3	SLU STR.	173.2	3.3	-65840.0	-10.4	-78870.0	278.3
6	3	SLU STR.	181.4	3.4	-67950.0	-14.4	-82900.0	294.2
7	3	SLU STR.	4.5	5.2	-98370.0	-36.4	-76790.0	483.3
8	3	SLU STR.	12.7	5.3	-100500.0	-40.4	-80820.0	499.2
9	3	SLU STR.	209.5	4.6	-91390.0	-20.1	-105200.0	399.7
10	3	SLU STR.	75.0	5.8	-109900.0	-30.3	-95690.0	511.5
11	3	SLU STR.	91.4	6.0	-114200.0	-38.3	-103700.0	543.2
12	3	SLU STR.	189.6	3.5	-70060.0	-18.4	-86920.0	310.0
13	3	SLU STR.	55.1	4.7	-88610.0	-28.6	-77420.0	421.8
14	3	SLU STR.	71.5	4.9	-92830.0	-36.6	-85470.0	453.5
15	3	SLE Rare	159.2	3.4	-66530.0	-9.8	-76530.0	281.0
16	3	SLE Rare	164.7	3.4	-67930.0	-12.5	-79210.0	291.6
17	3	SLE Rare	46.8	4.6	-88210.0	-27.1	-75150.0	417.6
18	3	SLE Rare	52.2	4.7	-89620.0	-29.8	-77830.0	428.2
19	3	SLE Rare	170.2	3.5	-69340.0	-15.1	-81900.0	302.1
20	3	SLE Rare	80.5	4.3	-81710.0	-21.9	-75560.0	376.6
21	3	SLE Rare	91.4	4.4	-84520.0	-27.2	-80930.0	397.8
22	3	SLE Freq.	159.2	3.4	-66530.0	-9.8	-76530.0	281.0
23	3	SLE Freq.	80.5	4.3	-81710.0	-21.9	-75560.0	376.6
24	3	SLE Freq.	161.4	3.4	-67090.0	-10.9	-77600.0	285.2
25	3	SLE Freq.	91.8	4.1	-79540.0	-20.2	-75700.0	363.0
26	3	SLE Freq.	94.0	4.2	-80100.0	-21.2	-76770.0	367.2
27	3	SLE Quasi P.	159.2	3.4	-66530.0	-9.8	-76530.0	281.0
28	3	SLE Quasi P.	91.8	4.1	-79540.0	-20.2	-75700.0	363.0
29	3	SLU A1 sism.	49930.0	-5761.6	-20930.0	-675800.0	-1776000.0	241500.0
30	3	SLU A1 sism.	48930.0	-5760.1	-42100.0	-675900.0	-1634000.0	241600.0
31	3	SLU A1 sism.	49890.0	-20930.0	-20970.0	-1167000.0	-1774000.0	22850.0
32	3	SLU A1 sism.	48890.0	-20920.0	-42140.0	-1167000.0	-1632000.0	22940.0
33	3	SLU A1 sism.	-48700.0	20930.0	-116900.0	1167000.0	1481000.0	-22210.0
34	3	SLU A1 sism.	-49700.0	20930.0	-138100.0	1167000.0	1623000.0	-22130.0
35	3	SLU A1 sism.	-48750.0	5768.4	-117000.0	675800.0	1482000.0	-240900.0
36	3	SLU A1 sism.	-49750.0	5769.9	-138200.0	675800.0	1624000.0	-240800.0
37	3	SLU A1 sism.	49930.0	5418.9	-20940.0	94470.0	-1775000.0	176500.0
38	3	SLU A1 sism.	48930.0	5420.4	-42110.0	94450.0	-1633000.0	176600.0
39	3	SLU A1 sism.	49890.0	-32110.0	-20960.0	-1937000.0	-1774000.0	87880.0
40	3	SLU A1 sism.	48890.0	-32110.0	-42130.0	-1937000.0	-1632000.0	87960.0
41	3	SLU A1 sism.	-48710.0	32110.0	-116900.0	1937000.0	1481000.0	-87240.0
42	3	SLU A1 sism.	-49710.0	32110.0	-138100.0	1937000.0	1623000.0	-87150.0
43	3	SLU A1 sism.	-48740.0	-5412.1	-117000.0	-94490.0	1482000.0	-175900.0
44	3	SLU A1 sism.	-49740.0	-5410.6	-138100.0	-94510.0	1624000.0	-175800.0
45	3	SLU A1 sism.	49950.0	20820.0	-20920.0	1160000.0	-1776000.0	-21390.0
46	3	SLU A1 sism.	48950.0	20820.0	-42090.0	1160000.0	-1634000.0	-21310.0
47	3	SLU A1 sism.	49900.0	5656.3	-20960.0	668500.0	-1774000.0	-240100.0
48	3	SLU A1 sism.	48900.0	5657.8	-42130.0	668400.0	-1633000.0	-240000.0
49	3	SLU A1 sism.	-48710.0	-5649.6	-117000.0	-668500.0	1481000.0	240700.0
50	3	SLU A1 sism.	-49720.0	-5648.1	-138100.0	-668500.0	1623000.0	240800.0
51	3	SLU A1 sism.	-48760.0	-20810.0	-117000.0	-1160000.0	1483000.0	22030.0
52	3	SLU A1 sism.	-49760.0	-20810.0	-138200.0	-1160000.0	1625000.0	22120.0
53	3	SLU A1 sism.	49940.0	32000.0	-20920.0	1930000.0	-1776000.0	-86420.0
54	3	SLU A1 sism.	48940.0	32000.0	-42090.0	1930000.0	-1634000.0	-86330.0
55	3	SLU A1 sism.	49910.0	-5524.2	-20950.0	-101900.0	-1775000.0	-175000.0
56	3	SLU A1 sism.	48910.0	-5522.7	-42120.0	-101900.0	-1633000.0	-175000.0

57	3	SLU A1 sism.	-48720.0	5530.9	-117000.0	101800.0	1481000.0	175700.0
58	3	SLU A1 sism.	-49720.0	5532.4	-138100.0	101800.0	1623000.0	175800.0
59	3	SLU A1 sism.	-48750.0	-31990.0	-117000.0	-1930000.0	1482000.0	87060.0
60	3	SLU A1 sism.	-49760.0	-31990.0	-138200.0	-1930000.0	1624000.0	87140.0
61	3	SLU A1 sism.	15470.0	21270.0	-54480.0	542300.0	-637600.0	404400.0
62	3	SLU A1 sism.	14470.0	21270.0	-75650.0	542300.0	-495700.0	404400.0
63	3	SLU A1 sism.	15310.0	-29270.0	-54620.0	-1095000.0	-632600.0	-324600.0
64	3	SLU A1 sism.	14310.0	-29270.0	-75800.0	-1095000.0	-490700.0	-324500.0
65	3	SLU A1 sism.	-14120.0	29280.0	-83290.0	1095000.0	339300.0	325200.0
66	3	SLU A1 sism.	-15120.0	29280.0	-104500.0	1095000.0	481200.0	325300.0
67	3	SLU A1 sism.	-14280.0	-21270.0	-83430.0	-542300.0	344300.0	-403700.0
68	3	SLU A1 sism.	-15280.0	-21270.0	-104600.0	-542400.0	486200.0	-403600.0
69	3	SLU A1 sism.	15470.0	29250.0	-54480.0	1093000.0	-637700.0	325500.0
70	3	SLU A1 sism.	14470.0	29250.0	-75650.0	1093000.0	-495800.0	325600.0
71	3	SLU A1 sism.	15310.0	-21300.0	-54620.0	-544500.0	-632700.0	-403500.0
72	3	SLU A1 sism.	14310.0	-21300.0	-75790.0	-544600.0	-490800.0	-403400.0
73	3	SLU A1 sism.	-14130.0	21310.0	-83290.0	544500.0	339400.0	404100.0
74	3	SLU A1 sism.	-15130.0	21310.0	-104500.0	544500.0	481300.0	404200.0
75	3	SLU A1 sism.	-14290.0	-29240.0	-83430.0	-1093000.0	344400.0	-324800.0
76	3	SLU A1 sism.	-15290.0	-29240.0	-104600.0	-1093000.0	486400.0	-324800.0
77	3	SLU A1 sism.	15440.0	58540.0	-54510.0	3110000.0	-636800.0	187600.0
78	3	SLU A1 sism.	14440.0	58540.0	-75680.0	3110000.0	-494900.0	187700.0
79	3	SLU A1 sism.	15330.0	-66540.0	-54600.0	-3663000.0	-633400.0	-107800.0
80	3	SLU A1 sism.	14330.0	-66540.0	-75770.0	-3663000.0	-491400.0	-107800.0
81	3	SLU A1 sism.	-14150.0	66550.0	-83310.0	3663000.0	340000.0	108500.0
82	3	SLU A1 sism.	-15150.0	66550.0	-104500.0	3663000.0	482000.0	108600.0
83	3	SLU A1 sism.	-14260.0	-58530.0	-83400.0	-3110000.0	343500.0	-187000.0
84	3	SLU A1 sism.	-15260.0	-58530.0	-104600.0	-3110000.0	485400.0	-186900.0
85	3	SLU A1 sism.	15440.0	66520.0	-54500.0	3661000.0	-637000.0	108700.0
86	3	SLU A1 sism.	14440.0	66520.0	-75670.0	3661000.0	-495000.0	108800.0
87	3	SLU A1 sism.	15340.0	-58570.0	-54600.0	-3112000.0	-633500.0	-186700.0
88	3	SLU A1 sism.	14340.0	-58570.0	-75770.0	-3112000.0	-491600.0	-186600.0
89	3	SLU A1 sism.	-14150.0	58580.0	-83310.0	3112000.0	340200.0	187400.0
90	3	SLU A1 sism.	-15150.0	58580.0	-104500.0	3112000.0	482100.0	187400.0
91	3	SLU A1 sism.	-14260.0	-66510.0	-83410.0	-3661000.0	343600.0	-108100.0
92	3	SLU A1 sism.	-15260.0	-66510.0	-104600.0	-3661000.0	485600.0	-108000.0
221	3	SLU A1 sism.	16580.0	3579.7	-29830.0	-30800.0	-801400.0	149100.0
222	3	SLU A1 sism.	13240.0	3584.7	-100400.0	-30860.0	-328300.0	149400.0
223	3	SLU A1 sism.	16530.0	-11580.0	-29880.0	-522100.0	-799900.0	-69560.0
224	3	SLU A1 sism.	13200.0	-11580.0	-100400.0	-522100.0	-326800.0	-69280.0
225	3	SLU A1 sism.	-13010.0	11590.0	-58640.0	522100.0	175400.0	70000.0
226	3	SLU A1 sism.	-16350.0	11590.0	-129200.0	522000.0	648500.0	70280.0
227	3	SLU A1 sism.	-13060.0	-3576.4	-58680.0	30820.0	176900.0	-148700.0
228	3	SLU A1 sism.	-16400.0	-3571.4	-129200.0	30760.0	650000.0	-148400.0
229	3	SLU A1 sism.	16570.0	14760.0	-29840.0	739500.0	-801200.0	84100.0
230	3	SLU A1 sism.	13240.0	14770.0	-100400.0	739500.0	-328100.0	84380.0
231	3	SLU A1 sism.	16540.0	-22770.0	-29870.0	-1292000.0	-800200.0	-4533.7
232	3	SLU A1 sism.	13200.0	-22760.0	-100400.0	-1292000.0	-327100.0	-4250.3
233	3	SLU A1 sism.	-13020.0	22770.0	-58640.0	1292000.0	175700.0	4976.3
234	3	SLU A1 sism.	-16360.0	22770.0	-129200.0	1292000.0	648800.0	5259.6
235	3	SLU A1 sism.	-13050.0	-14760.0	-58670.0	-739500.0	176700.0	-83660.0
236	3	SLU A1 sism.	-16390.0	-14750.0	-129200.0	-739600.0	649800.0	-83370.0
237	3	SLU A1 sism.	16580.0	11550.0	-29830.0	519900.0	-801600.0	70250.0
238	3	SLU A1 sism.	13250.0	11560.0	-100400.0	519800.0	-328500.0	70530.0
239	3	SLU A1 sism.	16530.0	-3610.1	-29870.0	28610.0	-800100.0	-148400.0
240	3	SLU A1 sism.	13200.0	-3605.0	-100400.0	28550.0	-327000.0	-148200.0
241	3	SLU A1 sism.	-13020.0	3613.3	-58640.0	-28590.0	175600.0	148900.0
242	3	SLU A1 sism.	-16350.0	3618.3	-129200.0	-28650.0	648700.0	149200.0
243	3	SLU A1 sism.	-13060.0	-11550.0	-58680.0	-519800.0	177100.0	-69800.0
244	3	SLU A1 sism.	-16400.0	-11550.0	-129300.0	-519900.0	650200.0	-69520.0
245	3	SLU A1 sism.	16570.0	22730.0	-29840.0	1290000.0	-801300.0	5222.0
246	3	SLU A1 sism.	13240.0	22740.0	-100400.0	1290000.0	-328200.0	5505.4
247	3	SLU A1 sism.	16540.0	-14790.0	-29870.0	-741700.0	-800300.0	-83410.0
248	3	SLU A1 sism.	13210.0	-14790.0	-100400.0	-741800.0	-327200.0	-83130.0
249	3	SLU A1 sism.	-13020.0	14790.0	-58650.0	741700.0	175800.0	83850.0
250	3	SLU A1 sism.	-16360.0	14800.0	-129200.0	741700.0	648900.0	84140.0

251	3	SLU A1 sism.	-13060.0	-22730.0	-58680.0	-1290000.0	176800.0	-4779.5
252	3	SLU A1 sism.	-16390.0	-22730.0	-129200.0	-1290000.0	649900.0	-4496.1
1	5	SLU STR.	807.5	-2488.4	-97100.0	-667500.0	-172200.0	-29770.0
2	5	SLU STR.	806.9	-2818.7	-100600.0	-756100.0	-172000.0	-30400.0
3	5	SLU STR.	782.3	-5440.9	-142200.0	-1461000.0	-160500.0	-45690.0
4	5	SLU STR.	781.6	-5771.2	-145700.0	-1549000.0	-160300.0	-46330.0
5	5	SLU STR.	623.0	-1940.9	-73610.0	-520600.0	-133400.0	-21960.0
6	5	SLU STR.	622.3	-2271.2	-77130.0	-609300.0	-133200.0	-22590.0
7	5	SLU STR.	597.7	-4893.4	-118700.0	-1314000.0	-121700.0	-37880.0
8	5	SLU STR.	597.1	-5223.8	-122200.0	-1402000.0	-121500.0	-38520.0
9	5	SLU STR.	806.2	-3149.1	-104100.0	-844800.0	-171800.0	-31040.0
10	5	SLU STR.	789.9	-4555.2	-128600.0	-1223000.0	-164000.0	-40920.0
11	5	SLU STR.	788.5	-5215.8	-135700.0	-1400000.0	-163600.0	-42180.0
12	5	SLU STR.	621.6	-2601.6	-80650.0	-697900.0	-133000.0	-23230.0
13	5	SLU STR.	605.3	-4007.7	-105100.0	-1076000.0	-125200.0	-33110.0
14	5	SLU STR.	603.9	-4668.3	-112200.0	-1253000.0	-124800.0	-34370.0
15	5	SLE Rare	622.0	-1925.8	-74220.0	-516500.0	-132900.0	-22490.0
16	5	SLE Rare	621.5	-2146.0	-76570.0	-575700.0	-132700.0	-22910.0
17	5	SLE Rare	605.1	-3894.1	-104300.0	-1045000.0	-125000.0	-33110.0
18	5	SLE Rare	604.7	-4114.4	-106600.0	-1104000.0	-124900.0	-33530.0
19	5	SLE Rare	621.1	-2366.2	-78920.0	-634800.0	-132600.0	-23340.0
20	5	SLE Rare	610.2	-3303.6	-95240.0	-886700.0	-127400.0	-29920.0
21	5	SLE Rare	609.3	-3744.1	-99940.0	-1005000.0	-127100.0	-30770.0
22	5	SLE Freq.	622.0	-1925.8	-74220.0	-516500.0	-132900.0	-22490.0
23	5	SLE Freq.	610.2	-3303.6	-95240.0	-886700.0	-127400.0	-29920.0
24	5	SLE Freq.	621.8	-2013.9	-75160.0	-540200.0	-132800.0	-22660.0
25	5	SLE Freq.	611.9	-3106.8	-92240.0	-833800.0	-128200.0	-28860.0
26	5	SLE Freq.	611.7	-3194.9	-93180.0	-857500.0	-128100.0	-29030.0
27	5	SLE Quasi P.	622.0	-1925.8	-74220.0	-516500.0	-132900.0	-22490.0
28	5	SLE Quasi P.	611.9	-3106.8	-92240.0	-833800.0	-128200.0	-28860.0
29	5	SLU A1 sism.	33000.0	-8047.7	-38140.0	-1292000.0	-834900.0	979700.0
30	5	SLU A1 sism.	33620.0	-8928.3	-62720.0	-1528000.0	-933500.0	960200.0
31	5	SLU A1 sism.	37530.0	-24650.0	-1319.9	-2210000.0	-1029000.0	803600.0
32	5	SLU A1 sism.	38150.0	-25530.0	-25900.0	-2446000.0	-1128000.0	784100.0
33	5	SLU A1 sism.	-36930.0	19320.0	-158600.0	778600.0	871400.0	-841800.0
34	5	SLU A1 sism.	-36310.0	18440.0	-183200.0	542500.0	772800.0	-861300.0
35	5	SLU A1 sism.	-32390.0	2714.7	-121800.0	-139500.0	677200.0	-1018000.0
36	5	SLU A1 sism.	-31780.0	1834.2	-146300.0	-375700.0	578500.0	-1037000.0
37	5	SLU A1 sism.	37970.0	4194.2	-46820.0	-210200.0	-1243000.0	765400.0
38	5	SLU A1 sism.	38590.0	3313.6	-71400.0	-446400.0	-1341000.0	745900.0
39	5	SLU A1 sism.	32560.0	-36890.0	7363.3	-3292000.0	-621200.0	1018000.0
40	5	SLU A1 sism.	33180.0	-37770.0	-17220.0	-3528000.0	-719900.0	998300.0
41	5	SLU A1 sism.	-31960.0	31560.0	-167300.0	1860000.0	463500.0	-1056000.0
42	5	SLU A1 sism.	-31340.0	30680.0	-191800.0	1624000.0	364900.0	-1076000.0
43	5	SLU A1 sism.	-37360.0	-9527.2	-113100.0	-1221000.0	1085000.0	-803600.0
44	5	SLU A1 sism.	-36750.0	-10410.0	-137700.0	-1457000.0	986400.0	-823100.0
45	5	SLU A1 sism.	38870.0	21900.0	-52870.0	1511000.0	-1244000.0	719200.0
46	5	SLU A1 sism.	39490.0	21020.0	-77450.0	1275000.0	-1343000.0	699800.0
47	5	SLU A1 sism.	43400.0	5298.6	-16050.0	593200.0	-1438000.0	543100.0
48	5	SLU A1 sism.	44020.0	4418.0	-40630.0	357000.0	-1537000.0	523600.0
49	5	SLU A1 sism.	-42800.0	-10630.0	-143900.0	-2025000.0	1281000.0	-581300.0
50	5	SLU A1 sism.	-42180.0	-11510.0	-168400.0	-2261000.0	1182000.0	-600800.0
51	5	SLU A1 sism.	-38260.0	-27230.0	-107000.0	-2943000.0	1086000.0	-757500.0
52	5	SLU A1 sism.	-37640.0	-28120.0	-131600.0	-3179000.0	987800.0	-777000.0
53	5	SLU A1 sism.	43840.0	34140.0	-61550.0	2593000.0	-1652000.0	505000.0
54	5	SLU A1 sism.	44460.0	33260.0	-86130.0	2357000.0	-1751000.0	485500.0
55	5	SLU A1 sism.	38430.0	-6943.4	-7365.2	-488600.0	-1031000.0	757400.0
56	5	SLU A1 sism.	39050.0	-7823.9	-31950.0	-724800.0	-1129000.0	737900.0
57	5	SLU A1 sism.	-37820.0	1610.3	-152500.0	-942900.0	872800.0	-795600.0
58	5	SLU A1 sism.	-37210.0	729.8	-177100.0	-1179000.0	774200.0	-815100.0
59	5	SLU A1 sism.	-43230.0	-39480.0	-98350.0	-4025000.0	1494000.0	-543200.0
60	5	SLU A1 sism.	-42620.0	-40360.0	-122900.0	-4261000.0	1396000.0	-562700.0
61	5	SLU A1 sism.	3237.1	20900.0	-123300.0	503900.0	-11070.0	547600.0
62	5	SLU A1 sism.	3854.5	20020.0	-147800.0	267700.0	-109700.0	528200.0
63	5	SLU A1 sism.	18350.0	-34440.0	-517.8	-2557000.0	-658500.0	-39440.0
64	5	SLU A1 sism.	18960.0	-35320.0	-25100.0	-2793000.0	-757200.0	-58920.0

65	5	SLU A1 sism.	-17740.0	29110.0	-159400.0	1125000.0	500800.0	1197.0
66	5	SLU A1 sism.	-17120.0	28230.0	-184000.0	888900.0	402200.0	-18280.0
67	5	SLU A1 sism.	-2630.8	-26230.0	-36650.0	-1935000.0	-146600.0	-585900.0
68	5	SLU A1 sism.	-2013.4	-27110.0	-61230.0	-2172000.0	-245300.0	-605400.0
69	5	SLU A1 sism.	4997.9	29890.0	-127700.0	1345000.0	-133900.0	469500.0
70	5	SLU A1 sism.	5615.3	29010.0	-152300.0	1109000.0	-232500.0	450000.0
71	5	SLU A1 sism.	20110.0	-25460.0	-4936.4	-1716000.0	-781300.0	-117600.0
72	5	SLU A1 sism.	20730.0	-26340.0	-29520.0	-1952000.0	-880000.0	-137000.0
73	5	SLU A1 sism.	-19500.0	20130.0	-155000.0	284000.0	623600.0	79330.0
74	5	SLU A1 sism.	-18880.0	19250.0	-179500.0	47880.0	525000.0	59850.0
75	5	SLU A1 sism.	-4391.6	-35220.0	-32230.0	-2776000.0	-23840.0	-507700.0
76	5	SLU A1 sism.	-3774.2	-36100.0	-56810.0	-3013000.0	-122500.0	-527200.0
77	5	SLU A1 sism.	19810.0	61710.0	-152200.0	4110000.0	-1371000.0	-166600.0
78	5	SLU A1 sism.	20420.0	60830.0	-176800.0	3874000.0	-1469000.0	-186100.0
79	5	SLU A1 sism.	1778.5	-75250.0	28430.0	-6163000.0	701100.0	674800.0
80	5	SLU A1 sism.	2395.9	-76130.0	3845.0	-6399000.0	602500.0	655300.0
81	5	SLU A1 sism.	-1172.1	69920.0	-188300.0	4731000.0	-858800.0	-713000.0
82	5	SLU A1 sism.	-554.8	69040.0	-212900.0	4495000.0	-957500.0	-732500.0
83	5	SLU A1 sism.	-19200.0	-67040.0	-7705.8	-5541000.0	1213000.0	128400.0
84	5	SLU A1 sism.	-18580.0	-67920.0	-32290.0	-5778000.0	1114000.0	108900.0
85	5	SLU A1 sism.	21570.0	70690.0	-156600.0	4951000.0	-1494000.0	-244700.0
86	5	SLU A1 sism.	22180.0	69810.0	-181200.0	4715000.0	-1592000.0	-264200.0
87	5	SLU A1 sism.	3539.3	-66270.0	24010.0	-5322000.0	578300.0	596700.0
88	5	SLU A1 sism.	4156.7	-67150.0	-573.6	-5558000.0	479700.0	577200.0
89	5	SLU A1 sism.	-2932.9	60930.0	-183900.0	3890000.0	-736000.0	-634900.0
90	5	SLU A1 sism.	-2315.5	60050.0	-208500.0	3654000.0	-834700.0	-654400.0
91	5	SLU A1 sism.	-20960.0	-76030.0	-3287.2	-6382000.0	1336000.0	206500.0
92	5	SLU A1 sism.	-20340.0	-76910.0	-27870.0	-6619000.0	1237000.0	187000.0
221	5	SLU A1 sism.	7805.2	2557.6	-51620.0	-291800.0	-122600.0	364900.0
222	5	SLU A1 sism.	9863.2	-377.6	-133600.0	-1079000.0	-451400.0	300000.0
223	5	SLU A1 sism.	12340.0	-14050.0	-14800.0	-1210000.0	-316800.0	188800.0
224	5	SLU A1 sism.	14400.0	-16980.0	-96730.0	-1997000.0	-645700.0	123800.0
225	5	SLU A1 sism.	-13170.0	10770.0	-87750.0	329400.0	389300.0	-181600.0
226	5	SLU A1 sism.	-11110.0	7832.1	-169700.0	-457800.0	60470.0	-246500.0
227	5	SLU A1 sism.	-8639.5	-5836.0	-50930.0	-588700.0	195100.0	-357700.0
228	5	SLU A1 sism.	-6581.5	-8771.2	-132900.0	-1376000.0	-133800.0	-422600.0
229	5	SLU A1 sism.	12780.0	14800.0	-60300.0	790000.0	-530500.0	150600.0
230	5	SLU A1 sism.	14830.0	11860.0	-142200.0	2817.7	-859300.0	85680.0
231	5	SLU A1 sism.	7367.6	-26290.0	-6112.6	-2292000.0	91070.0	403000.0
232	5	SLU A1 sism.	9425.6	-29220.0	-88050.0	-3079000.0	-237800.0	338100.0
233	5	SLU A1 sism.	-8201.9	23010.0	-96430.0	1411000.0	-18590.0	-395800.0
234	5	SLU A1 sism.	-6143.9	20070.0	-178400.0	624000.0	-347400.0	-460800.0
235	5	SLU A1 sism.	-13610.0	-18080.0	-42240.0	-1670000.0	603000.0	-143400.0
236	5	SLU A1 sism.	-11550.0	-21010.0	-124200.0	-2458000.0	274100.0	-208300.0
237	5	SLU A1 sism.	9566.0	11540.0	-56030.0	549200.0	-245400.0	286800.0
238	5	SLU A1 sism.	11620.0	8607.3	-138000.0	-238000.0	-574200.0	221800.0
239	5	SLU A1 sism.	14100.0	-5060.8	-19210.0	-368900.0	-439600.0	110600.0
240	5	SLU A1 sism.	16160.0	-7996.0	-101200.0	-1156000.0	-768400.0	45700.0
241	5	SLU A1 sism.	-14930.0	1782.4	-83330.0	-511600.0	512100.0	-103400.0
242	5	SLU A1 sism.	-12880.0	-1152.8	-165300.0	-1299000.0	183300.0	-168400.0
243	5	SLU A1 sism.	-10400.0	-14820.0	-46510.0	-1430000.0	317900.0	-279500.0
244	5	SLU A1 sism.	-8342.3	-17760.0	-128400.0	-2217000.0	-10980.0	-344500.0
245	5	SLU A1 sism.	14540.0	23780.0	-64720.0	1631000.0	-653300.0	72490.0
246	5	SLU A1 sism.	16590.0	20850.0	-146700.0	843800.0	-982100.0	7547.8
247	5	SLU A1 sism.	9128.4	-17300.0	-10530.0	-1451000.0	-31720.0	324900.0
248	5	SLU A1 sism.	11190.0	-20240.0	-92470.0	-2238000.0	-360600.0	260000.0
249	5	SLU A1 sism.	-9962.7	14020.0	-92010.0	570200.0	104200.0	-317700.0
250	5	SLU A1 sism.	-7904.7	11090.0	-174000.0	-217000.0	-224600.0	-382600.0
251	5	SLU A1 sism.	-15370.0	-27060.0	-37830.0	-2511000.0	725800.0	-65270.0
252	5	SLU A1 sism.	-13310.0	-30000.0	-119800.0	-3299000.0	396900.0	-130200.0
1	53	SLU STR.	75.1	-11.5	-105300.0	-1645.5	15700.0	151.5
2	53	SLU STR.	71.4	-11.9	-107700.0	-1687.5	18300.0	155.1
3	53	SLU STR.	233.8	-16.8	-143700.0	-2318.9	-7989.6	215.2
4	53	SLU STR.	230.1	-17.2	-146100.0	-2360.9	-5385.8	218.8
5	53	SLU STR.	38.0	-8.7	-79520.0	-1242.3	16990.0	114.1
6	53	SLU STR.	34.3	-9.1	-81970.0	-1284.3	19600.0	117.7

7	53	SLU STR.	196.7	-14.0	-117900.0	-1915.8	-6691.6	177.9
8	53	SLU STR.	193.0	-14.4	-120300.0	-1957.7	-4087.7	181.5
9	53	SLU STR.	67.7	-12.3	-110200.0	-1729.5	20900.0	158.7
10	53	SLU STR.	186.2	-15.3	-132100.0	-2116.9	-884.1	196.1
11	53	SLU STR.	178.8	-16.0	-137100.0	-2200.8	4323.6	203.3
12	53	SLU STR.	30.6	-9.5	-84420.0	-1326.3	22200.0	121.3
13	53	SLU STR.	149.1	-12.4	-106400.0	-1713.7	414.0	158.8
14	53	SLU STR.	141.7	-13.2	-111300.0	-1797.7	5621.7	166.0
15	53	SLE Rare	49.2	-8.8	-80350.0	-1255.6	14210.0	115.5
16	53	SLE Rare	46.7	-9.0	-81990.0	-1283.6	15950.0	117.9
17	53	SLE Rare	155.0	-12.3	-105900.0	-1704.5	-1577.5	158.0
18	53	SLE Rare	152.5	-12.6	-107600.0	-1732.5	158.4	160.4
19	53	SLE Rare	44.3	-9.3	-83620.0	-1311.6	17680.0	120.3
20	53	SLE Rare	123.2	-11.3	-98260.0	-1569.8	3159.6	145.2
21	53	SLE Rare	118.3	-11.8	-101500.0	-1625.8	6631.4	150.0
22	53	SLE Freq.	49.2	-8.8	-80350.0	-1255.6	14210.0	115.5
23	53	SLE Freq.	123.2	-11.3	-98260.0	-1569.8	3159.6	145.2
24	53	SLE Freq.	48.2	-8.9	-81010.0	-1266.8	14910.0	116.4
25	53	SLE Freq.	112.6	-10.9	-95700.0	-1524.9	4738.6	141.0
26	53	SLE Freq.	111.7	-11.0	-96350.0	-1536.1	5432.9	141.9
27	53	SLE Quasi P.	49.2	-8.8	-80350.0	-1255.6	14210.0	115.5
28	53	SLE Quasi P.	112.6	-10.9	-95700.0	-1524.9	4738.6	141.0
29	53	SLU A1 sism.	50660.0	29780.0	-145600.0	1790000.0	-2718000.0	277400.0
30	53	SLU A1 sism.	51390.0	29770.0	-173600.0	1789000.0	-2838000.0	277400.0
31	53	SLU A1 sism.	50620.0	-8595.5	-145500.0	-274300.0	-2717000.0	55200.0
32	53	SLU A1 sism.	51350.0	-8603.0	-173500.0	-275200.0	-2837000.0	55220.0
33	53	SLU A1 sism.	-51120.0	8581.1	-17870.0	272200.0	2847000.0	-54940.0
34	53	SLU A1 sism.	-50400.0	8573.7	-45860.0	271300.0	2727000.0	-54920.0
35	53	SLU A1 sism.	-51160.0	-29790.0	-17790.0	-1792000.0	2848000.0	-277200.0
36	53	SLU A1 sism.	-50440.0	-29800.0	-45780.0	-1793000.0	2728000.0	-277100.0
37	53	SLU A1 sism.	50650.0	19950.0	-145600.0	1083000.0	-2718000.0	90120.0
38	53	SLU A1 sism.	51380.0	19950.0	-173600.0	1082000.0	-2838000.0	90140.0
39	53	SLU A1 sism.	50630.0	1225.3	-145600.0	432600.0	-2718000.0	242500.0
40	53	SLU A1 sism.	51360.0	1217.9	-173500.0	431700.0	-2838000.0	242500.0
41	53	SLU A1 sism.	-51130.0	-1239.7	-17860.0	-434800.0	2847000.0	-242200.0
42	53	SLU A1 sism.	-50400.0	-1247.2	-45850.0	-435700.0	2727000.0	-242200.0
43	53	SLU A1 sism.	-51160.0	-19970.0	-17800.0	-1085000.0	2847000.0	-89860.0
44	53	SLU A1 sism.	-50430.0	-19980.0	-45790.0	-1086000.0	2727000.0	-89840.0
45	53	SLU A1 sism.	50680.0	8591.4	-145600.0	273100.0	-2719000.0	-55330.0
46	53	SLU A1 sism.	51400.0	8583.9	-173600.0	272200.0	-2839000.0	-55320.0
47	53	SLU A1 sism.	50630.0	-29780.0	-145600.0	-1791000.0	-2718000.0	-277600.0
48	53	SLU A1 sism.	51360.0	-29790.0	-173500.0	-1792000.0	-2838000.0	-277500.0
49	53	SLU A1 sism.	-51140.0	29770.0	-17850.0	1789000.0	2847000.0	277800.0
50	53	SLU A1 sism.	-50410.0	29760.0	-45840.0	1788000.0	2727000.0	277800.0
51	53	SLU A1 sism.	-51180.0	-8605.8	-17780.0	-275300.0	2848000.0	55600.0
52	53	SLU A1 sism.	-50450.0	-8613.2	-45770.0	-276200.0	2728000.0	55620.0
53	53	SLU A1 sism.	50670.0	-1229.4	-145600.0	-433800.0	-2718000.0	-242600.0
54	53	SLU A1 sism.	51400.0	-1236.9	-173600.0	-434700.0	-2838000.0	-242600.0
55	53	SLU A1 sism.	50640.0	-19960.0	-145600.0	-1084000.0	-2718000.0	-90250.0
56	53	SLU A1 sism.	51370.0	-19970.0	-173600.0	-1085000.0	-2838000.0	-90230.0
57	53	SLU A1 sism.	-51140.0	19940.0	-17840.0	1082000.0	2848000.0	90510.0
58	53	SLU A1 sism.	-50420.0	19940.0	-45830.0	1081000.0	2728000.0	90530.0
59	53	SLU A1 sism.	-51170.0	1215.0	-17790.0	431700.0	2848000.0	242900.0
60	53	SLU A1 sism.	-50440.0	1207.6	-45780.0	430800.0	2728000.0	242900.0
61	53	SLU A1 sism.	15080.0	67120.0	-101000.0	3667000.0	-771500.0	420300.0
62	53	SLU A1 sism.	15810.0	67120.0	-129000.0	3667000.0	-891600.0	420400.0
63	53	SLU A1 sism.	14950.0	-60780.0	-100700.0	-3214000.0	-768400.0	-320400.0
64	53	SLU A1 sism.	15680.0	-60790.0	-128700.0	-3215000.0	-888500.0	-320400.0
65	53	SLU A1 sism.	-15450.0	60770.0	-62670.0	3212000.0	898000.0	320600.0
66	53	SLU A1 sism.	-14720.0	60760.0	-90660.0	3211000.0	777900.0	320700.0
67	53	SLU A1 sism.	-15590.0	-67140.0	-62420.0	-3670000.0	901100.0	-420100.0
68	53	SLU A1 sism.	-14860.0	-67150.0	-90410.0	-3670000.0	781000.0	-420100.0
69	53	SLU A1 sism.	15090.0	60770.0	-101000.0	3212000.0	-771700.0	320500.0
70	53	SLU A1 sism.	15820.0	60760.0	-129000.0	3211000.0	-891800.0	320500.0
71	53	SLU A1 sism.	14950.0	-67130.0	-100800.0	-3669000.0	-768600.0	-420200.0
72	53	SLU A1 sism.	15680.0	-67140.0	-128700.0	-3670000.0	-888700.0	-420200.0

73	53	SLU A1 sism.	-15450.0	67120.0	-62660.0	3667000.0	898200.0	420500.0
74	53	SLU A1 sism.	-14730.0	67110.0	-90650.0	3666000.0	778100.0	420500.0
75	53	SLU A1 sism.	-15590.0	-60780.0	-62420.0	-3214000.0	901300.0	-320300.0
76	53	SLU A1 sism.	-14860.0	-60790.0	-90410.0	-3215000.0	781200.0	-320200.0
77	53	SLU A1 sism.	15060.0	34390.0	-101000.0	1311000.0	-769900.0	-204000.0
78	53	SLU A1 sism.	15790.0	34380.0	-129000.0	1310000.0	-890000.0	-204000.0
79	53	SLU A1 sism.	14970.0	-28040.0	-100800.0	-857700.0	-770100.0	304000.0
80	53	SLU A1 sism.	15700.0	-28050.0	-128800.0	-858600.0	-890100.0	304000.0
81	53	SLU A1 sism.	-15480.0	28030.0	-62640.0	855500.0	899600.0	-303700.0
82	53	SLU A1 sism.	-14750.0	28020.0	-90630.0	854600.0	779500.0	-303700.0
83	53	SLU A1 sism.	-15560.0	-34400.0	-62450.0	-1313000.0	899400.0	204300.0
84	53	SLU A1 sism.	-14830.0	-34410.0	-90440.0	-1314000.0	779400.0	204300.0
85	53	SLU A1 sism.	15060.0	28030.0	-101000.0	855800.0	-770100.0	-303800.0
86	53	SLU A1 sism.	15790.0	28020.0	-129000.0	854900.0	-890200.0	-303800.0
87	53	SLU A1 sism.	14980.0	-34400.0	-100800.0	-1313000.0	-770300.0	204100.0
88	53	SLU A1 sism.	15710.0	-34410.0	-128800.0	-1314000.0	-890300.0	204200.0
89	53	SLU A1 sism.	-15480.0	34380.0	-62630.0	1311000.0	899800.0	-203900.0
90	53	SLU A1 sism.	-14750.0	34380.0	-90620.0	1310000.0	779700.0	-203900.0
91	53	SLU A1 sism.	-15570.0	-28050.0	-62440.0	-857900.0	899600.0	304100.0
92	53	SLU A1 sism.	-14840.0	-28050.0	-90430.0	-858900.0	779600.0	304100.0
221	53	SLU A1 sism.	14190.0	22370.0	-68250.0	1260000.0	-630400.0	161100.0
222	53	SLU A1 sism.	16610.0	22340.0	-161500.0	1257000.0	-1031000.0	161100.0
223	53	SLU A1 sism.	14150.0	-16000.0	-68180.0	-804600.0	-629400.0	-61140.0
224	53	SLU A1 sism.	16570.0	-16030.0	-161500.0	-807600.0	-1030000.0	-61080.0
225	53	SLU A1 sism.	-16350.0	16010.0	-29930.0	804500.0	1039000.0	61370.0
226	53	SLU A1 sism.	-13920.0	15980.0	-123200.0	801500.0	638900.0	61420.0
227	53	SLU A1 sism.	-16390.0	-22360.0	-29850.0	-1260000.0	1040000.0	-160900.0
228	53	SLU A1 sism.	-13960.0	-22390.0	-123200.0	-1263000.0	639800.0	-160800.0
229	53	SLU A1 sism.	14180.0	12550.0	-68240.0	553000.0	-629900.0	-26230.0
230	53	SLU A1 sism.	16610.0	12520.0	-161500.0	549900.0	-1030000.0	-26170.0
231	53	SLU A1 sism.	14150.0	-6184.0	-68190.0	-97610.0	-629900.0	126200.0
232	53	SLU A1 sism.	16580.0	-6208.9	-161500.0	-100600.0	-1030000.0	126200.0
233	53	SLU A1 sism.	-16360.0	6187.0	-29920.0	97580.0	1040000.0	-125900.0
234	53	SLU A1 sism.	-13930.0	6162.2	-123200.0	94560.0	639400.0	-125900.0
235	53	SLU A1 sism.	-16380.0	-12540.0	-29860.0	-553000.0	1040000.0	26450.0
236	53	SLU A1 sism.	-13960.0	-12570.0	-123200.0	-556000.0	639300.0	26510.0
237	53	SLU A1 sism.	14190.0	16010.0	-68260.0	804800.0	-630500.0	61250.0
238	53	SLU A1 sism.	16620.0	15990.0	-161600.0	801800.0	-1031000.0	61310.0
239	53	SLU A1 sism.	14150.0	-22360.0	-68180.0	-1260000.0	-629600.0	-161000.0
240	53	SLU A1 sism.	16580.0	-22380.0	-161500.0	-1263000.0	-1030000.0	-160900.0
241	53	SLU A1 sism.	-16350.0	22360.0	-29920.0	1260000.0	1039000.0	161200.0
242	53	SLU A1 sism.	-13930.0	22340.0	-123200.0	1257000.0	639100.0	161300.0
243	53	SLU A1 sism.	-16390.0	-16010.0	-29850.0	-804800.0	1040000.0	-61020.0
244	53	SLU A1 sism.	-13970.0	-16030.0	-123100.0	-807900.0	640000.0	-60970.0
245	53	SLU A1 sism.	14180.0	6190.1	-68250.0	97860.0	-630000.0	-126100.0
246	53	SLU A1 sism.	16610.0	6165.2	-161500.0	94840.0	-1030000.0	-126000.0
247	53	SLU A1 sism.	14160.0	-12540.0	-68190.0	-552700.0	-630100.0	26330.0
248	53	SLU A1 sism.	16580.0	-12560.0	-161500.0	-555700.0	-1030000.0	26390.0
249	53	SLU A1 sism.	-16360.0	12540.0	-29910.0	552700.0	1040000.0	-26110.0
250	53	SLU A1 sism.	-13930.0	12520.0	-123200.0	549700.0	639600.0	-26050.0
251	53	SLU A1 sism.	-16380.0	-6187.1	-29860.0	-97890.0	1040000.0	126300.0
252	53	SLU A1 sism.	-13960.0	-6211.9	-123200.0	-100900.0	639500.0	126300.0
1	7	SLU STR.	-1631.6	2545.2	-120200.0	669100.0	486800.0	9124.6
2	7	SLU STR.	-1708.8	3037.5	-124800.0	800400.0	507900.0	9361.4
3	7	SLU STR.	-2598.5	6516.1	-179700.0	1727000.0	756400.0	13880.0
4	7	SLU STR.	-2675.7	7008.4	-184300.0	1859000.0	777400.0	14120.0
5	7	SLU STR.	-1233.3	2041.4	-91020.0	537200.0	368000.0	6776.6
6	7	SLU STR.	-1310.5	2533.7	-95670.0	668500.0	389100.0	7013.3
7	7	SLU STR.	-2200.2	6012.3	-150500.0	1596000.0	637600.0	11530.0
8	7	SLU STR.	-2277.4	6504.6	-155100.0	1727000.0	658600.0	11770.0
9	7	SLU STR.	-1786.1	3529.8	-129500.0	931600.0	529000.0	9598.1
10	7	SLU STR.	-2308.5	5324.8	-161800.0	1410000.0	675500.0	12450.0
11	7	SLU STR.	-2462.9	6309.4	-171100.0	1672000.0	717700.0	12930.0
12	7	SLU STR.	-1387.7	3026.0	-100300.0	799700.0	410200.0	7250.1
13	7	SLU STR.	-1910.1	4821.0	-132700.0	1278000.0	556700.0	10110.0
14	7	SLU STR.	-2064.6	5805.6	-141900.0	1541000.0	598900.0	10580.0

15	7	SLE Rare	-1245.6	1994.2	-91830.0	524500.0	371700.0	6913.5
16	7	SLE Rare	-1297.1	2322.4	-94930.0	612000.0	385700.0	7071.4
17	7	SLE Rare	-1890.2	4641.4	-131500.0	1230000.0	551400.0	10090.0
18	7	SLE Rare	-1941.7	4969.6	-134600.0	1318000.0	565400.0	10240.0
19	7	SLE Rare	-1348.6	2650.6	-98030.0	699500.0	399800.0	7229.3
20	7	SLE Rare	-1696.8	3847.3	-119600.0	1018000.0	497500.0	9133.6
21	7	SLE Rare	-1799.8	4503.7	-125800.0	1193000.0	525600.0	9449.3
22	7	SLE Freq.	-1245.6	1994.2	-91830.0	524500.0	371700.0	6913.5
23	7	SLE Freq.	-1696.8	3847.3	-119600.0	1018000.0	497500.0	9133.6
24	7	SLE Freq.	-1266.2	2125.5	-93070.0	559500.0	377300.0	6976.7
25	7	SLE Freq.	-1632.4	3582.5	-115600.0	947800.0	479500.0	8816.4
26	7	SLE Freq.	-1653.0	3713.8	-116900.0	982800.0	485100.0	8879.6
27	7	SLE Quasi P.	-1245.6	1994.2	-91830.0	524500.0	371700.0	6913.5
28	7	SLE Quasi P.	-1632.4	3582.5	-115600.0	947800.0	479500.0	8816.4
29	7	SLU A1 sism.	53800.0	5626.5	-63350.0	507100.0	-4163000.0	-110500.0
30	7	SLU A1 sism.	53440.0	6170.2	-98400.0	647400.0	-4004000.0	-103700.0
31	7	SLU A1 sism.	47420.0	-15680.0	-104400.0	-841800.0	-3495000.0	-307000.0
32	7	SLU A1 sism.	47070.0	-15140.0	-139500.0	-701500.0	-3336000.0	-300200.0
33	7	SLU A1 sism.	-50330.0	22300.0	-91790.0	2597000.0	4295000.0	317900.0
34	7	SLU A1 sism.	-50680.0	22850.0	-126800.0	2738000.0	4454000.0	324700.0
35	7	SLU A1 sism.	-56710.0	994.9	-132800.0	1248000.0	4963000.0	121400.0
36	7	SLU A1 sism.	-57060.0	1538.6	-167900.0	1389000.0	5122000.0	128100.0
37	7	SLU A1 sism.	48380.0	11270.0	-57900.0	981300.0	-3634000.0	-283300.0
38	7	SLU A1 sism.	48020.0	11810.0	-92940.0	1122000.0	-3475000.0	-276500.0
39	7	SLU A1 sism.	52840.0	-21320.0	-109900.0	-1316000.0	-4024000.0	-134200.0
40	7	SLU A1 sism.	52490.0	-20780.0	-144900.0	-1176000.0	-3865000.0	-127400.0
41	7	SLU A1 sism.	-55750.0	27940.0	-86330.0	3071000.0	4824000.0	145100.0
42	7	SLU A1 sism.	-56100.0	28490.0	-121400.0	3212000.0	4983000.0	151800.0
43	7	SLU A1 sism.	-51290.0	-4645.0	-138300.0	774100.0	4434000.0	294200.0
44	7	SLU A1 sism.	-51640.0	-4101.3	-173400.0	914400.0	4593000.0	301000.0
45	7	SLU A1 sism.	47030.0	18760.0	-54440.0	1667000.0	-3507000.0	-311000.0
46	7	SLU A1 sism.	46680.0	19310.0	-89490.0	1807000.0	-3348000.0	-304200.0
47	7	SLU A1 sism.	40650.0	-2545.9	-95500.0	318100.0	-2839000.0	-507500.0
48	7	SLU A1 sism.	40300.0	-2002.2	-130500.0	458400.0	-2680000.0	-500800.0
49	7	SLU A1 sism.	-43570.0	9167.3	-100700.0	1437000.0	3639000.0	518400.0
50	7	SLU A1 sism.	-43920.0	9710.9	-135700.0	1578000.0	3798000.0	525200.0
51	7	SLU A1 sism.	-49940.0	-12140.0	-141800.0	88330.0	4307000.0	321900.0
52	7	SLU A1 sism.	-50290.0	-11600.0	-176800.0	228600.0	4466000.0	328600.0
53	7	SLU A1 sism.	41610.0	24400.0	-48990.0	2141000.0	-2978000.0	-483800.0
54	7	SLU A1 sism.	41260.0	24950.0	-84030.0	2282000.0	-2819000.0	-477100.0
55	7	SLU A1 sism.	46070.0	-8185.7	-101000.0	-156100.0	-3368000.0	-334700.0
56	7	SLU A1 sism.	45720.0	-7642.1	-136000.0	-15810.0	-3209000.0	-327900.0
57	7	SLU A1 sism.	-48990.0	14810.0	-95240.0	1911000.0	4168000.0	345600.0
58	7	SLU A1 sism.	-49340.0	15350.0	-130300.0	2052000.0	4327000.0	352300.0
59	7	SLU A1 sism.	-44520.0	-17780.0	-147200.0	-385900.0	3778000.0	494700.0
60	7	SLU A1 sism.	-44870.0	-17240.0	-182300.0	-245600.0	3937000.0	501500.0
61	7	SLU A1 sism.	24790.0	36320.0	-25400.0	2812000.0	-1981000.0	268700.0
62	7	SLU A1 sism.	24440.0	36870.0	-60450.0	2953000.0	-1822000.0	275500.0
63	7	SLU A1 sism.	3536.6	-34710.0	-162300.0	-1684000.0	244100.0	-386400.0
64	7	SLU A1 sism.	3185.5	-34160.0	-197300.0	-1544000.0	403000.0	-379600.0
65	7	SLU A1 sism.	-6450.2	41330.0	-33930.0	3439000.0	556000.0	397200.0
66	7	SLU A1 sism.	-6801.3	41870.0	-68980.0	3580000.0	714900.0	404000.0
67	7	SLU A1 sism.	-27700.0	-29700.0	-170800.0	-1057000.0	2781000.0	-257900.0
68	7	SLU A1 sism.	-28050.0	-29160.0	-205800.0	-916700.0	2940000.0	-251100.0
69	7	SLU A1 sism.	22760.0	40260.0	-22720.0	3160000.0	-1785000.0	208600.0
70	7	SLU A1 sism.	22410.0	40810.0	-57770.0	3301000.0	-1626000.0	215300.0
71	7	SLU A1 sism.	1506.6	-30760.0	-159600.0	-1336000.0	440900.0	-446500.0
72	7	SLU A1 sism.	1155.5	-30220.0	-194600.0	-1196000.0	599800.0	-439700.0
73	7	SLU A1 sism.	-4420.2	37390.0	-36600.0	3091000.0	359200.0	457400.0
74	7	SLU A1 sism.	-4771.4	37930.0	-71650.0	3232000.0	518000.0	464200.0
75	7	SLU A1 sism.	-25670.0	-33640.0	-173500.0	-1405000.0	2585000.0	-197700.0
76	7	SLU A1 sism.	-26020.0	-33100.0	-208500.0	-1265000.0	2743000.0	-190900.0
77	7	SLU A1 sism.	6721.1	55120.0	-7219.5	4393000.0	-219400.0	-307400.0
78	7	SLU A1 sism.	6369.9	55670.0	-42270.0	4533000.0	-60560.0	-300600.0
79	7	SLU A1 sism.	21600.0	-53500.0	-180400.0	-3265000.0	-1518000.0	189700.0
80	7	SLU A1 sism.	21250.0	-52960.0	-215500.0	-3125000.0	-1359000.0	196500.0

81	7	SLU A1 sism.	-24520.0	60130.0	-15750.0	5020000.0	2318000.0	-178800.0
82	7	SLU A1 sism.	-24870.0	60670.0	-50800.0	5160000.0	2477000.0	-172100.0
83	7	SLU A1 sism.	-9634.7	-48500.0	-189000.0	-2638000.0	1020000.0	318200.0
84	7	SLU A1 sism.	-9985.8	-47960.0	-224000.0	-2497000.0	1178000.0	325000.0
85	7	SLU A1 sism.	4691.1	59060.0	-4546.6	4741000.0	-22600.0	-367500.0
86	7	SLU A1 sism.	4339.9	59610.0	-39590.0	4881000.0	136300.0	-360700.0
87	7	SLU A1 sism.	19570.0	-49560.0	-177800.0	-2917000.0	-1321000.0	129600.0
88	7	SLU A1 sism.	19220.0	-49020.0	-212800.0	-2777000.0	-1162000.0	136300.0
89	7	SLU A1 sism.	-22490.0	56190.0	-18420.0	4672000.0	2121000.0	-118700.0
90	7	SLU A1 sism.	-22840.0	56730.0	-53470.0	4812000.0	2280000.0	-111900.0
91	7	SLU A1 sism.	-7604.7	-52440.0	-191700.0	-2986000.0	822700.0	378400.0
92	7	SLU A1 sism.	-7955.8	-51900.0	-226700.0	-2845000.0	981600.0	385100.0
221	7	SLU A1 sism.	17760.0	10830.0	-32410.0	1075000.0	-1388000.0	31530.0
222	7	SLU A1 sism.	16590.0	12640.0	-149200.0	1543000.0	-858200.0	54110.0
223	7	SLU A1 sism.	11380.0	-10480.0	-73480.0	-274000.0	-720100.0	-165000.0
224	7	SLU A1 sism.	10210.0	-8667.2	-190300.0	193700.0	-190600.0	-142400.0
225	7	SLU A1 sism.	-13480.0	15830.0	-40940.0	1702000.0	1150000.0	160000.0
226	7	SLU A1 sism.	-14650.0	17640.0	-157800.0	2170000.0	1679000.0	182600.0
227	7	SLU A1 sism.	-19850.0	-5476.3	-82010.0	353100.0	1817000.0	-36480.0
228	7	SLU A1 sism.	-21020.0	-3664.1	-198800.0	820700.0	2347000.0	-13890.0
229	7	SLU A1 sism.	12340.0	16470.0	-26960.0	1549000.0	-859200.0	-141300.0
230	7	SLU A1 sism.	11170.0	18280.0	-143800.0	2017000.0	-329700.0	-118700.0
231	7	SLU A1 sism.	16800.0	-16120.0	-78930.0	-748200.0	-1249000.0	7825.4
232	7	SLU A1 sism.	15630.0	-14310.0	-195800.0	-280500.0	-719200.0	30410.0
233	7	SLU A1 sism.	-18900.0	21470.0	-35490.0	2176000.0	1678000.0	-12780.0
234	7	SLU A1 sism.	-20070.0	23280.0	-152300.0	2644000.0	2208000.0	9807.5
235	7	SLU A1 sism.	-14430.0	-11120.0	-87460.0	-121200.0	1289000.0	136300.0
236	7	SLU A1 sism.	-15600.0	-9304.0	-204300.0	346500.0	1818000.0	158900.0
237	7	SLU A1 sism.	15730.0	14770.0	-29740.0	1423000.0	-1191000.0	-28620.0
238	7	SLU A1 sism.	14560.0	16580.0	-146600.0	1891000.0	-661400.0	-6038.4
239	7	SLU A1 sism.	9354.4	-6538.5	-70800.0	74010.0	-523300.0	-225100.0
240	7	SLU A1 sism.	8184.0	-4726.3	-187600.0	541700.0	6203.5	-202600.0
241	7	SLU A1 sism.	-11450.0	11890.0	-43620.0	1354000.0	952800.0	220200.0
242	7	SLU A1 sism.	-12620.0	13700.0	-160400.0	1822000.0	1482000.0	242800.0
243	7	SLU A1 sism.	-17820.0	-9417.1	-84680.0	5069.2	1620000.0	23670.0
244	7	SLU A1 sism.	-18990.0	-7604.9	-201500.0	472700.0	2150000.0	46260.0
245	7	SLU A1 sism.	10310.0	20410.0	-24290.0	1897000.0	-662400.0	-201400.0
246	7	SLU A1 sism.	9139.3	22220.0	-141100.0	2365000.0	-132900.0	-178900.0
247	7	SLU A1 sism.	14770.0	-12180.0	-76260.0	-400200.0	-1052000.0	-52330.0
248	7	SLU A1 sism.	13600.0	-10370.0	-193100.0	67450.0	-522400.0	-29740.0
249	7	SLU A1 sism.	-16870.0	17530.0	-38160.0	1828000.0	1481000.0	47370.0
250	7	SLU A1 sism.	-18040.0	19340.0	-155000.0	2296000.0	2011000.0	69960.0
251	7	SLU A1 sism.	-12400.0	-15060.0	-90130.0	-469200.0	1092000.0	196500.0
252	7	SLU A1 sism.	-13570.0	-13240.0	-207000.0	-1489.0	1621000.0	219100.0
1	9	SLU STR.	-1751.8	1.8	-110200.0	-171.3	454000.0	190.2
2	9	SLU STR.	-1782.9	1.9	-112600.0	-175.6	461200.0	196.8
3	9	SLU STR.	-2506.6	2.5	-151700.0	-252.5	632300.0	277.4
4	9	SLU STR.	-2537.7	2.5	-154000.0	-256.8	639500.0	284.0
5	9	SLU STR.	-1302.5	1.4	-82910.0	-127.9	338500.0	144.2
6	9	SLU STR.	-1333.6	1.5	-85280.0	-132.2	345700.0	150.8
7	9	SLU STR.	-2057.3	2.0	-124400.0	-209.1	516700.0	231.4
8	9	SLU STR.	-2088.4	2.1	-126800.0	-213.4	523900.0	238.0
9	9	SLU STR.	-1814.0	1.9	-114900.0	-179.9	468500.0	203.4
10	9	SLU STR.	-2280.2	2.3	-139200.0	-228.2	578800.0	251.2
11	9	SLU STR.	-2342.4	2.4	-144000.0	-236.7	593200.0	264.4
12	9	SLU STR.	-1364.7	1.5	-87650.0	-136.5	352900.0	157.5
13	9	SLU STR.	-1830.8	1.9	-111900.0	-184.8	463200.0	205.3
14	9	SLU STR.	-1893.0	2.0	-116700.0	-193.3	477700.0	218.5
15	9	SLE Rare	-1327.9	1.4	-83960.0	-130.1	344600.0	145.4
16	9	SLE Rare	-1348.7	1.4	-85540.0	-133.0	349400.0	149.8
17	9	SLE Rare	-1831.1	1.8	-111600.0	-184.3	463400.0	203.5
18	9	SLE Rare	-1851.9	1.9	-113200.0	-187.1	468200.0	207.9
19	9	SLE Rare	-1369.4	1.5	-87120.0	-135.8	354200.0	154.2
20	9	SLE Rare	-1680.2	1.7	-103300.0	-168.0	427700.0	186.1
21	9	SLE Rare	-1721.7	1.8	-106500.0	-173.7	437400.0	194.9
22	9	SLE Freq.	-1327.9	1.4	-83960.0	-130.1	344600.0	145.4

23	9	SLE Freq.	-1680.2	1.7	-103300.0	-168.0	427700.0	186.1
24	9	SLE Freq.	-1336.2	1.4	-84590.0	-131.3	346500.0	147.2
25	9	SLE Freq.	-1629.9	1.7	-100500.0	-162.6	415900.0	180.3
26	9	SLE Freq.	-1638.2	1.7	-101200.0	-163.7	417800.0	182.0
27	9	SLE Quasi P.	-1327.9	1.4	-83960.0	-130.1	344600.0	145.4
28	9	SLE Quasi P.	-1629.9	1.7	-100500.0	-162.6	415900.0	180.3
29	9	SLU A1 sism.	59020.0	3644.8	-72540.0	-40130.0	-4146000.0	291400.0
30	9	SLU A1 sism.	57640.0	3645.3	-105700.0	-40210.0	-3887000.0	291400.0
31	9	SLU A1 sism.	58970.0	-14670.0	-72530.0	-480700.0	-4142000.0	72640.0
32	9	SLU A1 sism.	57580.0	-14670.0	-105700.0	-480800.0	-3883000.0	72660.0
33	9	SLU A1 sism.	-60840.0	14680.0	-95410.0	480500.0	4714000.0	-72300.0
34	9	SLU A1 sism.	-62230.0	14680.0	-128600.0	480400.0	4973000.0	-72280.0
35	9	SLU A1 sism.	-60900.0	-3641.9	-95400.0	39890.0	4719000.0	-291000.0
36	9	SLU A1 sism.	-62280.0	-3641.4	-128600.0	39800.0	4977000.0	-291000.0
37	9	SLU A1 sism.	59020.0	8521.1	-72540.0	202400.0	-4145000.0	87720.0
38	9	SLU A1 sism.	57630.0	8521.6	-105700.0	202300.0	-3886000.0	87750.0
39	9	SLU A1 sism.	58980.0	-19550.0	-72530.0	-723300.0	-4142000.0	276300.0
40	9	SLU A1 sism.	57590.0	-19550.0	-105700.0	-723300.0	-3883000.0	276300.0
41	9	SLU A1 sism.	-60850.0	19550.0	-95410.0	723000.0	4715000.0	-276000.0
42	9	SLU A1 sism.	-62240.0	19550.0	-128600.0	722900.0	4974000.0	-275900.0
43	9	SLU A1 sism.	-60890.0	-8518.3	-95400.0	-202600.0	4718000.0	-87390.0
44	9	SLU A1 sism.	-62270.0	-8517.8	-128600.0	-202700.0	4977000.0	-87360.0
45	9	SLU A1 sism.	59040.0	14620.0	-72530.0	478100.0	-4147000.0	-71190.0
46	9	SLU A1 sism.	57650.0	14620.0	-105700.0	478000.0	-3888000.0	-71170.0
47	9	SLU A1 sism.	58980.0	-3700.9	-72530.0	37490.0	-4143000.0	-289900.0
48	9	SLU A1 sism.	57590.0	-3700.4	-105700.0	37400.0	-3884000.0	-289900.0
49	9	SLU A1 sism.	-60850.0	3703.7	-95420.0	-37730.0	4716000.0	290300.0
50	9	SLU A1 sism.	-62240.0	3704.2	-128600.0	-37810.0	4974000.0	290300.0
51	9	SLU A1 sism.	-60910.0	-14620.0	-95410.0	-478300.0	4720000.0	71530.0
52	9	SLU A1 sism.	-62300.0	-14620.0	-128600.0	-478400.0	4979000.0	71550.0
53	9	SLU A1 sism.	59030.0	19500.0	-72530.0	720600.0	-4146000.0	-274800.0
54	9	SLU A1 sism.	57640.0	19500.0	-105700.0	720500.0	-3887000.0	-274800.0
55	9	SLU A1 sism.	58990.0	-8577.3	-72530.0	-205000.0	-4143000.0	-86270.0
56	9	SLU A1 sism.	57600.0	-8576.8	-105700.0	-205100.0	-3884000.0	-86250.0
57	9	SLU A1 sism.	-60860.0	8580.1	-95420.0	204800.0	4716000.0	86610.0
58	9	SLU A1 sism.	-62250.0	8580.6	-128600.0	204700.0	4975000.0	86640.0
59	9	SLU A1 sism.	-60900.0	-19490.0	-95410.0	-720900.0	4719000.0	275200.0
60	9	SLU A1 sism.	-62290.0	-19490.0	-128600.0	-720900.0	4978000.0	275200.0
61	9	SLU A1 sism.	17140.0	28880.0	-80550.0	656100.0	-1049000.0	419300.0
62	9	SLU A1 sism.	15750.0	28880.0	-113700.0	656100.0	-790500.0	419300.0
63	9	SLU A1 sism.	16950.0	-32190.0	-80530.0	-812600.0	-1036000.0	-309800.0
64	9	SLU A1 sism.	15560.0	-32190.0	-113700.0	-812600.0	-776900.0	-309800.0
65	9	SLU A1 sism.	-18820.0	32190.0	-87420.0	812300.0	1609000.0	310200.0
66	9	SLU A1 sism.	-20210.0	32190.0	-120600.0	812200.0	1868000.0	310200.0
67	9	SLU A1 sism.	-19010.0	-28880.0	-87390.0	-656400.0	1622000.0	-418900.0
68	9	SLU A1 sism.	-20400.0	-28880.0	-120500.0	-656500.0	1881000.0	-418900.0
69	9	SLU A1 sism.	17140.0	32170.0	-80550.0	811600.0	-1050000.0	310500.0
70	9	SLU A1 sism.	15760.0	32170.0	-113700.0	811500.0	-790900.0	310500.0
71	9	SLU A1 sism.	16950.0	-28890.0	-80520.0	-657100.0	-1036000.0	-418600.0
72	9	SLU A1 sism.	15560.0	-28890.0	-113700.0	-657200.0	-777200.0	-418600.0
73	9	SLU A1 sism.	-18820.0	28900.0	-87420.0	656900.0	1609000.0	419000.0
74	9	SLU A1 sism.	-20210.0	28900.0	-120600.0	656800.0	1868000.0	419000.0
75	9	SLU A1 sism.	-19020.0	-32170.0	-87390.0	-811800.0	1623000.0	-310200.0
76	9	SLU A1 sism.	-20400.0	-32170.0	-120500.0	-811900.0	1882000.0	-310200.0
77	9	SLU A1 sism.	17110.0	45130.0	-80550.0	1465000.0	-1047000.0	-259600.0
78	9	SLU A1 sism.	15720.0	45130.0	-113700.0	1464000.0	-788300.0	-259500.0
79	9	SLU A1 sism.	16980.0	-48440.0	-80530.0	-1621000.0	-1038000.0	369000.0
80	9	SLU A1 sism.	15590.0	-48440.0	-113700.0	-1621000.0	-779100.0	369000.0
81	9	SLU A1 sism.	-18850.0	48440.0	-87410.0	1621000.0	1611000.0	-368700.0
82	9	SLU A1 sism.	-20240.0	48440.0	-120600.0	1621000.0	1870000.0	-368600.0
83	9	SLU A1 sism.	-18980.0	-45130.0	-87390.0	-1465000.0	1620000.0	259900.0
84	9	SLU A1 sism.	-20370.0	-45130.0	-120500.0	-1465000.0	1879000.0	259900.0
85	9	SLU A1 sism.	17110.0	48430.0	-80550.0	1620000.0	-1048000.0	-368300.0
86	9	SLU A1 sism.	15720.0	48430.0	-113700.0	1620000.0	-788700.0	-368300.0
87	9	SLU A1 sism.	16980.0	-45150.0	-80530.0	-1465000.0	-1038000.0	260200.0
88	9	SLU A1 sism.	15600.0	-45150.0	-113700.0	-1466000.0	-779400.0	260300.0

89	9	SLU A1 sism.	-18860.0	45150.0	-87410.0	1465000.0	1611000.0	-259900.0
90	9	SLU A1 sism.	-20240.0	45150.0	-120600.0	1465000.0	1870000.0	-259900.0
91	9	SLU A1 sism.	-18980.0	-48420.0	-87390.0	-1620000.0	1620000.0	368700.0
92	9	SLU A1 sism.	-20370.0	-48420.0	-120500.0	-1620000.0	1879000.0	368700.0
221	9	SLU A1 sism.	18690.0	7505.7	-41860.0	142200.0	-1347000.0	164100.0
222	9	SLU A1 sism.	14070.0	7507.3	-152400.0	141900.0	-483700.0	164100.0
223	9	SLU A1 sism.	18630.0	-10810.0	-41850.0	-298400.0	-1343000.0	-54670.0
224	9	SLU A1 sism.	14010.0	-10810.0	-152400.0	-298700.0	-479600.0	-54600.0
225	9	SLU A1 sism.	-17270.0	10820.0	-48720.0	298400.0	1311000.0	54960.0
226	9	SLU A1 sism.	-21890.0	10820.0	-159200.0	298100.0	2174000.0	55030.0
227	9	SLU A1 sism.	-17330.0	-7504.0	-48710.0	-142200.0	1315000.0	-163800.0
228	9	SLU A1 sism.	-21950.0	-7502.4	-159200.0	-142500.0	2178000.0	-163700.0
229	9	SLU A1 sism.	18680.0	12380.0	-41860.0	384700.0	-1346000.0	-39590.0
230	9	SLU A1 sism.	14060.0	12380.0	-152400.0	384400.0	-483000.0	-39520.0
231	9	SLU A1 sism.	18640.0	-15690.0	-41850.0	-540900.0	-1343000.0	149000.0
232	9	SLU A1 sism.	14020.0	-15690.0	-152400.0	-541200.0	-480200.0	149100.0
233	9	SLU A1 sism.	-17280.0	15690.0	-48720.0	540900.0	1312000.0	-148700.0
234	9	SLU A1 sism.	-21900.0	15690.0	-159200.0	540600.0	2175000.0	-148600.0
235	9	SLU A1 sism.	-17320.0	-12380.0	-48710.0	-384700.0	1315000.0	39880.0
236	9	SLU A1 sism.	-21940.0	-12380.0	-159200.0	-385000.0	2178000.0	39950.0
237	9	SLU A1 sism.	18700.0	10800.0	-41860.0	297700.0	-1347000.0	55300.0
238	9	SLU A1 sism.	14070.0	10800.0	-152400.0	297400.0	-484000.0	55370.0
239	9	SLU A1 sism.	18640.0	-7521.7	-41850.0	-143000.0	-1343000.0	-163400.0
240	9	SLU A1 sism.	14010.0	-7520.0	-152400.0	-143200.0	-479900.0	-163400.0
241	9	SLU A1 sism.	-17270.0	7523.4	-48720.0	142900.0	1312000.0	163700.0
242	9	SLU A1 sism.	-21900.0	7525.0	-159200.0	142600.0	2175000.0	163800.0
243	9	SLU A1 sism.	-17330.0	-10800.0	-48710.0	-297700.0	1316000.0	-55010.0
244	9	SLU A1 sism.	-21950.0	-10790.0	-159200.0	-298000.0	2179000.0	-54940.0
245	9	SLU A1 sism.	18690.0	15670.0	-41860.0	540200.0	-1346000.0	-148400.0
246	9	SLU A1 sism.	14060.0	15680.0	-152400.0	539900.0	-483300.0	-148300.0
247	9	SLU A1 sism.	18650.0	-12400.0	-41850.0	-385500.0	-1344000.0	40210.0
248	9	SLU A1 sism.	14020.0	-12400.0	-152400.0	-385700.0	-480600.0	40280.0
249	9	SLU A1 sism.	-17280.0	12400.0	-48720.0	385400.0	1312000.0	-39920.0
250	9	SLU A1 sism.	-21910.0	12400.0	-159200.0	385100.0	2175000.0	-39850.0
251	9	SLU A1 sism.	-17320.0	-15670.0	-48720.0	-540200.0	1315000.0	148600.0
252	9	SLU A1 sism.	-21950.0	-15670.0	-159200.0	-540500.0	2178000.0	148700.0

Sollecitazioni alla base della fondazione

Cmb.	Plin.	Tipo	Vx (daN)	Vy (daN)	N (daN)	Mx (daN cm)	My (daN cm)	T (daN cm)
1	1	SLU STR.	815.9	2501.1	-162892.5	418391.0	-90515.0	29760.0
2	1	SLU STR.	815.5	2831.8	-166412.5	474020.0	-90351.0	30390.0
3	1	SLU STR.	794.9	5459.5	-207912.5	916047.0	-80710.0	45650.0
4	1	SLU STR.	794.5	5790.2	-211412.5	971976.0	-80546.0	46280.0
5	1	SLU STR.	629.3	1950.5	-124215.0	326353.0	-70371.0	21950.0
6	1	SLU STR.	628.9	2281.2	-127735.0	381982.0	-70207.0	22580.0
7	1	SLU STR.	608.3	4908.9	-169225.0	824109.0	-60666.0	37840.0
8	1	SLU STR.	608.0	5239.6	-172825.0	880038.0	-60503.0	38470.0
9	1	SLU STR.	815.1	3162.5	-169912.5	529650.0	-90187.0	31020.0
10	1	SLU STR.	801.2	4572.0	-194412.5	766800.0	-83681.0	40880.0
11	1	SLU STR.	800.5	5233.4	-201512.5	878659.0	-83354.0	42140.0
12	1	SLU STR.	628.6	2611.9	-131255.0	437612.0	-70043.0	23220.0
13	1	SLU STR.	614.6	4021.4	-155725.0	674862.0	-63538.0	33070.0
14	1	SLU STR.	613.9	4682.8	-162825.0	785721.0	-63210.0	34340.0
15	1	SLE Rare	628.3	1935.5	-124825.0	323854.0	-69968.0	22480.0
16	1	SLE Rare	628.1	2155.9	-127175.0	360907.0	-69792.0	22900.0
17	1	SLE Rare	614.4	3907.8	-154825.0	656224.0	-63465.0	33070.0
18	1	SLE Rare	614.1	4128.2	-157225.0	693177.0	-63289.0	33500.0
19	1	SLE Rare	627.8	2376.4	-129525.0	397960.0	-69716.0	23330.0
20	1	SLE Rare	618.5	3316.1	-145845.0	556193.0	-65346.0	29900.0
21	1	SLE Rare	618.1	3757.0	-150545.0	630299.0	-65194.0	30740.0
22	1	SLE Freq.	628.3	1935.5	-124825.0	323854.0	-69968.0	22480.0
23	1	SLE Freq.	618.5	3316.1	-145845.0	556193.0	-65346.0	29900.0
24	1	SLE Freq.	628.2	2023.7	-125765.0	338635.0	-69877.0	22650.0
25	1	SLE Freq.	619.9	3118.8	-142845.0	523016.0	-66006.0	28840.0

26	1	SLE Freq.	619.9	3207.0	-143785.0	537797.0	-66015.0	29010.0
27	1	SLE Quasi P.	628.3	1935.5	-124825.0	323854.0	-69968.0	22480.0
28	1	SLE Quasi P.	619.9	3118.8	-142845.0	523016.0	-66006.0	28840.0
29	1	SLU A1 sism.	43440.0	-5422.9	-66725.0	-63912.0	2905000.0	-542700.0
30	1	SLU A1 sism.	44050.0	-4539.6	-91305.0	84263.0	2867000.0	-523300.0
31	1	SLU A1 sism.	38860.0	-22030.0	-103575.0	679000.0	2642000.0	-717900.0
32	1	SLU A1 sism.	39480.0	-21140.0	-128155.0	826000.0	2606000.0	-698500.0
33	1	SLU A1 sism.	-38240.0	27380.0	-157525.0	220000.0	-2738000.0	756200.0
34	1	SLU A1 sism.	-37620.0	28260.0	-182125.0	368000.0	-2774500.0	775600.0
35	1	SLU A1 sism.	-42810.0	10780.0	-194425.0	961000.0	-3000000.0	580900.0
36	1	SLU A1 sism.	-42200.0	11660.0	-218925.0	1110000.0	-3037000.0	600400.0
37	1	SLU A1 sism.	38470.0	6819.0	-58046.1	-206301.0	2813000.0	-756800.0
38	1	SLU A1 sism.	39090.0	7702.3	-82625.0	-58125.0	2777000.0	-717900.0
39	1	SLU A1 sism.	43830.0	-34270.0	-112255.0	821000.0	2734000.0	-503800.0
40	1	SLU A1 sism.	44440.0	-33390.0	-136835.0	969000.0	2697000.0	-484300.0
41	1	SLU A1 sism.	-43200.0	39620.0	-148855.0	78000.0	-2829000.0	542000.0
42	1	SLU A1 sism.	-42590.0	40510.0	-173425.0	225000.0	-2866000.0	561400.0
43	1	SLU A1 sism.	-37850.0	-1464.6	-203025.0	1104057.0	-2908800.0	795100.0
44	1	SLU A1 sism.	-37230.0	-581.3	-227625.0	1252133.0	-2945300.0	814500.0
45	1	SLU A1 sism.	37580.0	24540.0	-51990.2	-254000.0	2728000.0	-803100.0
46	1	SLU A1 sism.	38200.0	25420.0	-76565.0	-105000.0	2691000.0	-783600.0
47	1	SLU A1 sism.	33010.0	7934.8	-88835.0	488520.0	2466300.0	-978300.0
48	1	SLU A1 sism.	33630.0	8818.1	-113415.0	637195.0	2429700.0	-958900.0
49	1	SLU A1 sism.	-32390.0	-2580.4	-172225.0	409137.0	-2561800.0	1017000.0
50	1	SLU A1 sism.	-31770.0	-1697.1	-196825.0	557312.0	-2598400.0	1036000.0
51	1	SLU A1 sism.	-36960.0	-19180.0	-209125.0	1150800.0	-2823400.0	841300.0
52	1	SLU A1 sism.	-36340.0	-18300.0	-233725.0	1299300.0	-2860000.0	860700.0
53	1	SLU A1 sism.	32620.0	36780.0	-43308.6	-396000.0	2637100.0	-1017000.0
54	1	SLU A1 sism.	33240.0	37660.0	-67885.0	-247000.0	2600600.0	-997800.0
55	1	SLU A1 sism.	37970.0	-4307.1	-97525.0	631008.0	2557000.0	-764100.0
56	1	SLU A1 sism.	38590.0	-3423.8	-122105.0	779184.0	2521000.0	-744700.0
57	1	SLU A1 sism.	-37350.0	9661.5	-163625.0	266849.0	-2653000.0	802400.0
58	1	SLU A1 sism.	-36730.0	10540.0	-188125.0	415000.0	-2689100.0	821800.0
59	1	SLU A1 sism.	-32000.0	-31430.0	-217825.0	1294000.0	-2732700.0	1055000.0
60	1	SLU A1 sism.	-31380.0	-30540.0	-242425.0	1441000.0	-2769200.0	1075000.0
61	1	SLU A1 sism.	20190.0	25430.0	-55518.5	-830000.0	1235800.0	116400.0
62	1	SLU A1 sism.	20800.0	26310.0	-80095.0	-682000.0	1198300.0	135800.0
63	1	SLU A1 sism.	4939.1	-29920.0	-178325.0	1644000.0	362013.0	-467800.0
64	1	SLU A1 sism.	5554.8	-29030.0	-202925.0	1791000.0	325082.0	-448300.0
65	1	SLU A1 sism.	-4314.9	35270.0	-82755.0	-745000.0	-457143.0	506000.0
66	1	SLU A1 sism.	-3699.2	36150.0	-107335.0	-597000.0	-494124.0	525400.0
67	1	SLU A1 sism.	-19560.0	-20080.0	-205625.0	1728700.0	-1330400.0	-78100.0
68	1	SLU A1 sism.	-18950.0	-19190.0	-230125.0	1876160.0	-1367900.0	-58680.0
69	1	SLU A1 sism.	18430.0	34420.0	-51097.3	-887000.0	1182500.0	38240.0
70	1	SLU A1 sism.	19050.0	35300.0	-75675.0	-739000.0	1146000.0	57660.0
71	1	SLU A1 sism.	3183.1	-20930.0	-173925.0	1586500.0	309079.0	-545900.0
72	1	SLU A1 sism.	3798.7	-20050.0	-198525.0	1735000.0	272074.0	-526500.0
73	1	SLU A1 sism.	-2558.9	26280.0	-87185.0	-688000.0	-404186.0	584100.0
74	1	SLU A1 sism.	-1943.2	27170.0	-111765.0	-541000.0	-441117.0	603500.0
75	1	SLU A1 sism.	-17810.0	-29060.0	-210025.0	1785000.0	-1278000.0	18.0
76	1	SLU A1 sism.	-17190.0	-28180.0	-234625.0	1933200.0	-1314600.0	19430.0
77	1	SLU A1 sism.	3643.7	66240.0	-26575.0	-1305000.0	931965.0	-597500.0
78	1	SLU A1 sism.	4259.4	67120.0	-51158.8	-1157000.0	894935.0	-578100.0
79	1	SLU A1 sism.	21480.0	-70720.0	-207325.0	2118000.0	665000.0	246100.0
80	1	SLU A1 sism.	22100.0	-69840.0	-231825.0	2266000.0	629000.0	265500.0
81	1	SLU A1 sism.	-20860.0	76080.0	-53821.2	-1220000.0	-761000.0	-207800.0
82	1	SLU A1 sism.	-20240.0	76960.0	-78405.0	-1072000.0	-797000.0	-188400.0
83	1	SLU A1 sism.	-3019.5	-60880.0	-234525.0	2203000.0	-1027046.0	635800.0
84	1	SLU A1 sism.	-2403.8	-60000.0	-259125.0	2351000.0	-1063977.0	655200.0
85	1	SLU A1 sism.	1887.6	75220.0	-22155.0	-1361000.0	878958.0	-675600.0
86	1	SLU A1 sism.	2503.3	76110.0	-46737.5	-1214000.0	842027.0	-656200.0
87	1	SLU A1 sism.	19730.0	-61730.0	-202825.0	2061000.0	613000.0	168000.0
88	1	SLU A1 sism.	20340.0	-60850.0	-227425.0	2209000.0	576000.0	187400.0
89	1	SLU A1 sism.	-19100.0	67090.0	-58242.5	-1163000.0	-708000.0	-129700.0
90	1	SLU A1 sism.	-18490.0	67970.0	-82825.0	-1015000.0	-745000.0	-110300.0
91	1	SLU A1 sism.	-1263.4	-69870.0	-238925.0	2260000.0	-974138.0	713900.0

92	1	SLU A1 sism.	-647.7	-68990.0	-263525.0	2408000.0	-1011069.0	733300.0
221	1	SLU A1 sism.	14130.0	5028.2	-69835.0	-137515.0	972700.0	-110700.0
222	1	SLU A1 sism.	16180.0	7972.3	-151725.0	356770.0	849300.0	-46020.0
223	1	SLU A1 sism.	9558.0	-11580.0	-106685.0	605000.0	710895.0	-286000.0
224	1	SLU A1 sism.	11610.0	-8631.8	-188625.0	1098375.0	587700.0	-221200.0
225	1	SLU A1 sism.	-10370.0	14870.0	-97075.0	-53000.0	-719700.0	278900.0
226	1	SLU A1 sism.	-8318.1	17810.0	-179025.0	442000.0	-843005.9	343600.0
227	1	SLU A1 sism.	-14950.0	-1734.6	-133925.0	689663.0	-982400.0	103700.0
228	1	SLU A1 sism.	-12890.0	1209.5	-215825.0	1183048.0	-1104800.0	168400.0
229	1	SLU A1 sism.	9169.3	17270.0	-61155.0	-280000.0	881890.0	-324900.0
230	1	SLU A1 sism.	11220.0	20210.0	-143085.0	214000.0	758500.0	-260200.0
231	1	SLU A1 sism.	14520.0	-23820.0	-115365.0	747000.0	801900.0	-71800.0
232	1	SLU A1 sism.	16570.0	-20870.0	-197325.0	1240500.0	678500.0	-7091.0
233	1	SLU A1 sism.	-15330.0	27110.0	-88395.0	-195000.0	-810500.0	64770.0
234	1	SLU A1 sism.	-13280.0	30060.0	-170325.0	299000.0	-934000.0	129500.0
235	1	SLU A1 sism.	-9981.7	-13980.0	-142605.0	832400.0	-890773.1	317900.0
236	1	SLU A1 sism.	-7929.4	-11030.0	-224525.0	1325600.0	-1013942.0	382600.0
237	1	SLU A1 sism.	12380.0	14020.0	-65415.0	-195000.0	920400.0	-188800.0
238	1	SLU A1 sism.	14430.0	16960.0	-147345.0	300000.0	797000.0	-124100.0
239	1	SLU A1 sism.	7801.9	-2587.4	-102265.0	547738.0	657987.0	-364100.0
240	1	SLU A1 sism.	9854.2	356.8	-184225.0	1041323.0	534718.0	-299400.0
241	1	SLU A1 sism.	-8614.3	5880.9	-101495.0	4409.0	-666829.0	357000.0
242	1	SLU A1 sism.	-6562.0	8825.1	-183425.0	498494.0	-790098.0	421800.0
243	1	SLU A1 sism.	-13190.0	-10720.0	-138345.0	746200.0	-929000.0	181800.0
244	1	SLU A1 sism.	-11140.0	-7779.0	-220325.0	1240300.0	-1052480.0	246500.0
245	1	SLU A1 sism.	7413.2	26260.0	-56731.1	-337000.0	828953.0	-403000.0
246	1	SLU A1 sism.	9465.5	29200.0	-138665.0	157000.0	705754.0	-338300.0
247	1	SLU A1 sism.	12770.0	-14830.0	-110945.0	690200.0	749600.0	-149900.0
248	1	SLU A1 sism.	14820.0	-11890.0	-192825.0	1184441.0	626100.0	-85210.0
249	1	SLU A1 sism.	-13580.0	18120.0	-92815.0	-138000.0	-758200.0	142900.0
250	1	SLU A1 sism.	-11530.0	21070.0	-174725.0	356000.0	-881600.0	207600.0
251	1	SLU A1 sism.	-8225.7	-22970.0	-147025.0	889000.0	-837815.1	396000.0
252	1	SLU A1 sism.	-6173.3	-20020.0	-228925.0	1382600.0	-961034.0	460700.0
1	11	SLU STR.	-1659.2	-2540.8	-186012.5	-415121.0	325676.0	-9019.7
2	11	SLU STR.	-1737.5	-3033.0	-190712.5	-497204.0	339047.0	-9247.8
3	11	SLU STR.	-2640.4	-6510.1	-245512.5	-1076991.0	499462.0	-13690.0
4	11	SLU STR.	-2718.7	-7002.3	-250212.5	-1158773.0	512933.0	-13910.0
5	11	SLU STR.	-1254.2	-2038.0	-141665.0	-333496.0	246182.0	-6696.8
6	11	SLU STR.	-1332.5	-2530.2	-146315.0	-415579.0	259653.0	-6924.9
7	11	SLU STR.	-2235.3	-6007.4	-201125.0	-995265.0	419968.0	-11360.0
8	11	SLU STR.	-2313.6	-6499.5	-205825.0	-1077048.0	433440.0	-11590.0
9	11	SLU STR.	-1815.8	-3525.1	-195312.5	-579286.0	352519.0	-9475.9
10	11	SLU STR.	-2346.0	-5319.3	-227712.5	-878070.0	447296.0	-12290.0
11	11	SLU STR.	-2502.6	-6303.7	-237012.5	-1042635.0	474139.0	-12740.0
12	11	SLU STR.	-1410.8	-3022.4	-150925.0	-497561.0	273025.0	-7153.0
13	11	SLU STR.	-1941.0	-4816.6	-183325.0	-796345.0	367902.0	-9962.8
14	11	SLU STR.	-2097.6	-5800.9	-192625.0	-960910.0	394745.0	-10420.0
15	11	SLE Rare	-1266.7	-1990.8	-142485.0	-325520.0	248629.0	-6833.2
16	11	SLE Rare	-1318.9	-2318.9	-145575.0	-380209.0	257610.0	-6985.3
17	11	SLE Rare	-1920.8	-4637.0	-182125.0	-766300.0	364520.0	-9943.8
18	11	SLE Rare	-1973.0	-4965.1	-185225.0	-821489.0	373501.0	-10100.0
19	11	SLE Rare	-1371.1	-2647.0	-148675.0	-434897.0	266492.0	-7137.4
20	11	SLE Rare	-1724.6	-3843.1	-170225.0	-634686.0	329743.0	-9010.6
21	11	SLE Rare	-1829.0	-4499.4	-176425.0	-744063.0	347605.0	-9314.8
22	11	SLE Freq.	-1266.7	-1990.8	-142485.0	-325520.0	248629.0	-6833.2
23	11	SLE Freq.	-1724.6	-3843.1	-170225.0	-634686.0	329743.0	-9010.6
24	11	SLE Freq.	-1287.6	-2122.0	-143725.0	-347396.0	252242.0	-6894.1
25	11	SLE Freq.	-1659.2	-3578.5	-166325.0	-590148.0	318184.0	-8699.6
26	11	SLE Freq.	-1680.0	-3709.8	-167525.0	-612024.0	321696.0	-8760.4
27	11	SLE Quasi P.	-1266.7	-1990.8	-142485.0	-325520.0	248629.0	-6833.2
28	11	SLE Quasi P.	-1659.2	-3578.5	-166325.0	-590148.0	318184.0	-8699.6
29	11	SLU A1 sism.	40600.0	2476.9	-146105.0	-572487.0	1231000.0	509000.0
30	11	SLU A1 sism.	40250.0	1932.1	-181125.0	-658611.0	1355000.0	502200.0
31	11	SLU A1 sism.	46930.0	-18830.0	-105025.0	210000.0	1199000.0	312100.0
32	11	SLU A1 sism.	46580.0	-19380.0	-140085.0	124000.0	1324000.0	305400.0
33	11	SLU A1 sism.	-49900.0	12220.0	-192425.0	-1304020.0	-688000.0	-322800.0

34	11	SLU A1 sism.	-50250.0	11670.0	-227525.0	-1389600.0	-563000.0	-329500.0
35	11	SLU A1 sism.	-43570.0	-9089.2	-151425.0	-522085.0	-719000.0	-519600.0
36	11	SLU A1 sism.	-43920.0	-9633.9	-186425.0	-607609.0	-595000.0	-526400.0
37	11	SLU A1 sism.	46020.0	8117.0	-151525.0	-662202.0	1245000.0	336100.0
38	11	SLU A1 sism.	45670.0	7572.3	-186625.0	-748300.2	1369000.0	329300.0
39	11	SLU A1 sism.	41510.0	-24470.0	-99575.0	299000.0	1186000.0	485000.0
40	11	SLU A1 sism.	41160.0	-25020.0	-134635.0	214000.0	1310000.0	478200.0
41	11	SLU A1 sism.	-44480.0	17860.0	-197925.0	-1393700.0	-674000.0	-495600.0
42	11	SLU A1 sism.	-44830.0	17310.0	-233025.0	-1479300.0	-550000.0	-502400.0
43	11	SLU A1 sism.	-48990.0	-14730.0	-145945.0	-432000.0	-733000.0	-346700.0
44	11	SLU A1 sism.	-49340.0	-15270.0	-181025.0	-518000.0	-608000.0	-353500.0
45	11	SLU A1 sism.	47390.0	15610.0	-155025.0	-726600.0	1252000.0	307900.0
46	11	SLU A1 sism.	47040.0	15070.0	-190125.0	-813200.0	1377000.0	301100.0
47	11	SLU A1 sism.	53720.0	-5697.2	-113955.0	55516.0	1221000.0	111100.0
48	11	SLU A1 sism.	53370.0	-6241.9	-149015.0	-30609.0	1345000.0	104300.0
49	11	SLU A1 sism.	-56680.0	-915.1	-183525.0	-1149488.0	-708000.0	-121700.0
50	11	SLU A1 sism.	-57040.0	-1459.9	-218625.0	-1236012.0	-585000.0	-128500.0
51	11	SLU A1 sism.	-50360.0	-22220.0	-142465.0	-368000.0	-740000.0	-318500.0
52	11	SLU A1 sism.	-50710.0	-22770.0	-177525.0	-453000.0	-616000.0	-325300.0
53	11	SLU A1 sism.	52810.0	21250.0	-160525.0	-816000.0	1266000.0	135000.0
54	11	SLU A1 sism.	52460.0	20710.0	-195525.0	-903000.0	1390000.0	128300.0
55	11	SLU A1 sism.	48300.0	-11340.0	-108505.0	145500.0	1207000.0	283900.0
56	11	SLU A1 sism.	47950.0	-11880.0	-143565.0	59000.0	1331000.0	277100.0
57	11	SLU A1 sism.	-51270.0	4725.0	-189025.0	-1239403.0	-695000.0	-294500.0
58	11	SLU A1 sism.	-51620.0	4180.3	-224025.0	-1325527.0	-571000.0	-301300.0
59	11	SLU A1 sism.	-55770.0	-27860.0	-137015.0	-278000.0	-753000.0	-145700.0
60	11	SLU A1 sism.	-56130.0	-28410.0	-172025.0	-364000.0	-630000.0	-152400.0
61	11	SLU A1 sism.	1549.3	30740.0	-210225.0	-1741000.0	596627.0	447500.0
62	11	SLU A1 sism.	1196.9	30200.0	-245325.0	-1827000.0	720991.0	440700.0
63	11	SLU A1 sism.	22640.0	-40280.0	-73335.0	866000.0	491000.0	-208600.0
64	11	SLU A1 sism.	22280.0	-40820.0	-108385.0	780000.0	615000.0	-215300.0
65	11	SLU A1 sism.	-25600.0	33670.0	-224125.0	-1961000.0	21000.0	197900.0
66	11	SLU A1 sism.	-25950.0	33120.0	-259225.0	-2046000.0	146000.0	191200.0
67	11	SLU A1 sism.	-4515.2	-37360.0	-87245.0	647000.0	-84723.0	-458100.0
68	11	SLU A1 sism.	-4867.6	-37900.0	-122295.0	561000.0	39641.0	-464900.0
69	11	SLU A1 sism.	3585.6	34680.0	-212925.0	-1787000.0	602955.0	387100.0
70	11	SLU A1 sism.	3233.2	34140.0	-248025.0	-1873000.0	727319.0	380400.0
71	11	SLU A1 sism.	24670.0	-36340.0	-76015.0	820000.0	497000.0	-268900.0
72	11	SLU A1 sism.	24320.0	-36880.0	-111065.0	733000.0	622000.0	-275700.0
73	11	SLU A1 sism.	-27640.0	29730.0	-221525.0	-1914000.0	14000.0	258300.0
74	11	SLU A1 sism.	-27990.0	29180.0	-256525.0	-2000000.0	139000.0	251500.0
75	11	SLU A1 sism.	-6551.5	-41300.0	-84565.0	693000.0	-91052.0	-397800.0
76	11	SLU A1 sism.	-6903.9	-41840.0	-119625.0	607000.0	33312.0	-404500.0
77	11	SLU A1 sism.	19600.0	49550.0	-228425.0	-2040000.0	641000.0	-128700.0
78	11	SLU A1 sism.	19250.0	49000.0	-263525.0	-2126000.0	766000.0	-135400.0
79	11	SLU A1 sism.	4581.9	-59080.0	-55164.6	1165000.0	446201.0	367600.0
80	11	SLU A1 sism.	4229.6	-59620.0	-90225.0	1079000.0	570555.0	360800.0
81	11	SLU A1 sism.	-7547.9	52470.0	-242325.0	-2260000.0	65712.0	-378200.0
82	11	SLU A1 sism.	-7900.2	51920.0	-277425.0	-2345000.0	190076.0	-385000.0
83	11	SLU A1 sism.	-22570.0	-56160.0	-69075.0	946000.0	-130000.0	118000.0
84	11	SLU A1 sism.	-22920.0	-56700.0	-104135.0	860000.0	-5000.0	111300.0
85	11	SLU A1 sism.	21640.0	53490.0	-231125.0	-2087000.0	648000.0	-189000.0
86	11	SLU A1 sism.	21290.0	52940.0	-266125.0	-2172000.0	772000.0	-195800.0
87	11	SLU A1 sism.	6618.2	-55140.0	-57843.8	1119000.0	452520.0	307200.0
88	11	SLU A1 sism.	6265.8	-55680.0	-92905.0	1032000.0	576844.0	300500.0
89	11	SLU A1 sism.	-9584.2	48530.0	-239625.0	-2213000.0	59584.0	-317900.0
90	11	SLU A1 sism.	-9936.5	47980.0	-274725.0	-2299000.0	183348.0	-324600.0
91	11	SLU A1 sism.	-24600.0	-60100.0	-66395.0	992000.0	-135000.0	178400.0
92	11	SLU A1 sism.	-24960.0	-60640.0	-101455.0	906000.0	-12000.0	171600.0
221	11	SLU A1 sism.	9340.4	6521.8	-121435.0	-728024.0	414543.0	225800.0
222	11	SLU A1 sism.	8165.9	4706.0	-238325.0	-1014998.0	829110.0	203200.0
223	11	SLU A1 sism.	15670.0	-14790.0	-80355.0	55000.0	383000.0	28950.0
224	11	SLU A1 sism.	14490.0	-16600.0	-197225.0	-233000.0	797200.0	6359.3
225	11	SLU A1 sism.	-17810.0	9444.2	-135345.0	-947422.3	-161000.0	-23760.0
226	11	SLU A1 sism.	-18980.0	7628.3	-252225.0	-1234434.0	254000.0	-46350.0
227	11	SLU A1 sism.	-11480.0	-11860.0	-94265.0	-166000.0	-192400.0	-220600.0

228	11	SLU A1 sism.	-12660.0	-13680.0	-211125.0	-452000.0	222000.0	-243200.0
229	11	SLU A1 sism.	14760.0	12160.0	-126875.0	-817500.0	428000.0	52920.0
230	11	SLU A1 sism.	13580.0	10350.0	-243725.0	-1105100.0	842300.0	30330.0
231	11	SLU A1 sism.	10250.0	-20430.0	-74905.0	144000.0	369400.0	201800.0
232	11	SLU A1 sism.	9075.7	-22240.0	-191725.0	-143000.0	783969.1	179200.0
233	11	SLU A1 sism.	-12390.0	15080.0	-140795.0	-1036700.0	-147000.0	-196600.0
234	11	SLU A1 sism.	-13570.0	13270.0	-257625.0	-1324258.0	267000.0	-219200.0
235	11	SLU A1 sism.	-16900.0	-17500.0	-88815.0	-76000.0	-206000.0	-47730.0
236	11	SLU A1 sism.	-18070.0	-19320.0	-205625.0	-362000.0	209000.0	-70320.0
237	11	SLU A1 sism.	11380.0	10460.0	-124105.0	-774100.0	421200.0	165400.0
238	11	SLU A1 sism.	10200.0	8645.9	-240925.0	-1061193.0	835200.0	142800.0
239	11	SLU A1 sism.	17700.0	-10850.0	-83035.0	8000.0	389000.0	-31380.0
240	11	SLU A1 sism.	16530.0	-12660.0	-199925.0	-279000.0	803900.0	-53970.0
241	11	SLU A1 sism.	-19850.0	5504.2	-132665.0	-901224.0	-168000.0	36570.0
242	11	SLU A1 sism.	-21020.0	3688.4	-249525.0	-1188138.0	247000.0	13980.0
243	11	SLU A1 sism.	-13520.0	-15800.0	-91585.0	-119000.0	-199000.0	-160200.0
244	11	SLU A1 sism.	-14700.0	-17620.0	-208425.0	-406000.0	215000.0	-182800.0
245	11	SLU A1 sism.	16790.0	16100.0	-129555.0	-863800.0	434000.0	-7406.6
246	11	SLU A1 sism.	15620.0	14290.0	-246425.0	-1151300.0	849000.0	-30000.0
247	11	SLU A1 sism.	12290.0	-16490.0	-77585.0	98000.0	376000.0	141500.0
248	11	SLU A1 sism.	11110.0	-18300.0	-194425.0	-190000.0	790000.0	118900.0
249	11	SLU A1 sism.	-14430.0	11140.0	-138115.0	-990500.0	-154000.0	-136300.0
250	11	SLU A1 sism.	-15600.0	9328.5	-254925.0	-1277853.0	261000.0	-158900.0
251	11	SLU A1 sism.	-18940.0	-21440.0	-86135.0	-30000.0	-213000.0	12600.0
252	11	SLU A1 sism.	-20110.0	-23260.0	-203025.0	-316000.0	202000.0	-9992.5
1	13	SLU STR.	1037.7	2768.4	-190712.5	450161.0	-117733.0	1963.3
2	13	SLU STR.	1079.3	3277.3	-195612.5	534866.0	-123768.0	1962.4
3	13	SLU STR.	1576.9	6911.7	-252812.5	1138835.0	-190111.0	2886.1
4	13	SLU STR.	1618.5	7420.6	-257612.5	1223940.0	-196146.0	2885.1
5	13	SLU STR.	784.8	2212.3	-145235.0	360273.0	-89118.0	1428.0
6	13	SLU STR.	826.5	2721.2	-150075.0	444978.0	-95153.0	1427.1
7	13	SLU STR.	1324.0	6355.5	-207225.0	1049447.0	-161496.0	2350.7
8	13	SLU STR.	1365.7	6864.5	-212125.0	1134551.0	-167531.0	2349.8
9	13	SLU STR.	1121.0	3786.3	-200412.5	619571.0	-129803.0	1961.5
10	13	SLU STR.	1415.1	5668.7	-234212.5	932133.0	-168388.0	2609.3
11	13	SLU STR.	1498.4	6686.6	-243812.5	1102342.0	-180458.0	2607.4
12	13	SLU STR.	868.1	3230.2	-154925.0	529682.0	-101188.0	1426.2
13	13	SLU STR.	1162.3	5112.6	-188625.0	842745.0	-139772.0	2073.9
14	13	SLU STR.	1245.6	6130.5	-198325.0	1011954.0	-151842.0	2072.1
15	13	SLE Rare	792.4	2165.5	-146085.0	352350.0	-89961.0	1474.5
16	13	SLE Rare	820.2	2504.8	-149315.0	408819.0	-93985.0	1473.9
17	13	SLE Rare	1151.9	4927.7	-187425.0	812232.0	-138213.0	2089.6
18	13	SLE Rare	1179.6	5267.0	-190625.0	868302.0	-142237.0	2089.0
19	13	SLE Rare	847.9	2844.1	-152525.0	465289.0	-98008.0	1473.3
20	13	SLE Rare	1044.0	4099.0	-175025.0	674097.0	-123698.0	1905.1
21	13	SLE Rare	1099.6	4777.6	-181525.0	787237.0	-131744.0	1903.9
22	13	SLE Freq.	792.4	2165.5	-146085.0	352350.0	-89961.0	1474.5
23	13	SLE Freq.	1044.0	4099.0	-175025.0	674097.0	-123698.0	1905.1
24	13	SLE Freq.	803.5	2301.2	-147375.0	374977.0	-91551.0	1474.3
25	13	SLE Freq.	1008.1	3822.8	-170925.0	627719.0	-118892.0	1843.6
26	13	SLE Freq.	1019.2	3958.5	-172225.0	650147.0	-120482.0	1843.3
27	13	SLE Quasi P.	792.4	2165.5	-146085.0	352350.0	-89961.0	1474.5
28	13	SLE Quasi P.	1008.1	3822.8	-170925.0	627719.0	-118892.0	1843.6
29	13	SLU A1 sism.	54950.0	17840.0	-124975.0	89000.0	1217000.0	-113900.0
30	13	SLU A1 sism.	55600.0	18620.0	-162725.0	215000.0	1167000.0	-110500.0
31	13	SLU A1 sism.	48930.0	-9852.9	-172225.0	979143.0	1164000.0	-320400.0
32	13	SLU A1 sism.	49580.0	-9067.4	-210025.0	1104840.0	1113000.0	-316900.0
33	13	SLU A1 sism.	-47560.0	16710.0	-131795.0	151000.0	-1350000.0	320600.0
34	13	SLU A1 sism.	-46910.0	17500.0	-169525.0	277000.0	-1401000.0	324100.0
35	13	SLU A1 sism.	-53580.0	-10980.0	-179025.0	1041290.0	-1404000.0	114200.0
36	13	SLU A1 sism.	-52930.0	-10190.0	-216825.0	1166600.0	-1455000.0	117600.0
37	13	SLU A1 sism.	49500.0	17430.0	-125295.0	97000.0	1199000.0	-294200.0
38	13	SLU A1 sism.	50150.0	18210.0	-163025.0	223000.0	1148000.0	-290700.0
39	13	SLU A1 sism.	54370.0	-9445.4	-171925.0	971548.9	1181000.0	-140100.0
40	13	SLU A1 sism.	55030.0	-8659.9	-209625.0	1097293.0	1131000.0	-136600.0
41	13	SLU A1 sism.	-53010.0	16310.0	-132115.0	158000.0	-1368000.0	140300.0

42	13	SLU A1 sism.	-52360.0	17090.0	-169925.0	285000.0	-1419000.0	143800.0
43	13	SLU A1 sism.	-48140.0	-10570.0	-178725.0	1033450.0	-1387000.0	294400.0
44	13	SLU A1 sism.	-47480.0	-9782.8	-216525.0	1158978.0	-1437000.0	297900.0
45	13	SLU A1 sism.	48190.0	16500.0	-124865.0	91000.0	1184000.0	-321100.0
46	13	SLU A1 sism.	48850.0	17280.0	-162625.0	217000.0	1134000.0	-317700.0
47	13	SLU A1 sism.	42170.0	-11190.0	-172125.0	980900.0	1131000.0	-527600.0
48	13	SLU A1 sism.	42830.0	-10410.0	-209925.0	1107150.0	1081000.0	-524100.0
49	13	SLU A1 sism.	-40810.0	18050.0	-131905.0	149000.0	-1318000.0	527800.0
50	13	SLU A1 sism.	-40160.0	18840.0	-169725.0	275000.0	-1369000.0	531300.0
51	13	SLU A1 sism.	-46830.0	-9637.1	-179125.0	1038970.0	-1372000.0	321400.0
52	13	SLU A1 sism.	-46180.0	-8851.6	-216925.0	1164663.0	-1423000.0	324800.0
53	13	SLU A1 sism.	42750.0	16090.0	-125185.0	99000.0	1167000.0	-501400.0
54	13	SLU A1 sism.	43400.0	16880.0	-162925.0	224000.0	1116000.0	-498000.0
55	13	SLU A1 sism.	47620.0	-10780.0	-171825.0	973000.0	1149000.0	-347300.0
56	13	SLU A1 sism.	48270.0	-9998.6	-209525.0	1099165.0	1098000.0	-343800.0
57	13	SLU A1 sism.	-46260.0	17640.0	-132225.0	157000.0	-1336000.0	347500.0
58	13	SLU A1 sism.	-45600.0	18430.0	-170025.0	283000.0	-1386000.0	351000.0
59	13	SLU A1 sism.	-41380.0	-9229.6	-178825.0	1031362.0	-1354000.0	501600.0
60	13	SLU A1 sism.	-40730.0	-8444.2	-216625.0	1157116.0	-1405000.0	505100.0
61	13	SLU A1 sism.	26090.0	49750.0	-72245.0	-927000.0	381000.0	279000.0
62	13	SLU A1 sism.	26750.0	50530.0	-110015.0	-801000.0	331000.0	282500.0
63	13	SLU A1 sism.	6024.2	-42550.0	-229725.0	2039000.0	202017.0	-409100.0
64	13	SLU A1 sism.	6677.4	-41760.0	-267525.0	2164000.0	151542.0	-405700.0
65	13	SLU A1 sism.	-4661.3	49410.0	-74295.0	-909000.0	-389367.0	409400.0
66	13	SLU A1 sism.	-4008.0	50200.0	-112065.0	-783000.0	-439852.0	412800.0
67	13	SLU A1 sism.	-24730.0	-42890.0	-231725.0	2058000.0	-568000.0	-278800.0
68	13	SLU A1 sism.	-24080.0	-42100.0	-269525.0	2183000.0	-619000.0	-275300.0
69	13	SLU A1 sism.	24070.0	49340.0	-72215.0	-926000.0	372000.0	216800.0
70	13	SLU A1 sism.	24720.0	50130.0	-109985.0	-801000.0	321000.0	220300.0
71	13	SLU A1 sism.	3998.0	-42950.0	-229725.0	2039000.0	192300.0	-471300.0
72	13	SLU A1 sism.	4651.3	-42170.0	-267425.0	2166000.0	141825.0	-467800.0
73	13	SLU A1 sism.	-2635.1	49810.0	-74325.0	-909000.0	-379610.0	471500.0
74	13	SLU A1 sism.	-1981.9	50600.0	-112095.0	-784000.0	-430085.0	475000.0
75	13	SLU A1 sism.	-22700.0	-42480.0	-231825.0	2056000.0	-558000.0	-216600.0
76	13	SLU A1 sism.	-22050.0	-41700.0	-269625.0	2183000.0	-609000.0	-213200.0
77	13	SLU A1 sism.	7937.4	48390.0	-73305.0	-902000.0	321741.0	-321900.0
78	13	SLU A1 sism.	8590.7	49170.0	-111075.0	-776000.0	271267.0	-318400.0
79	13	SLU A1 sism.	24180.0	-41190.0	-228625.0	2013000.0	261000.0	191800.0
80	13	SLU A1 sism.	24830.0	-40410.0	-266425.0	2140000.0	211000.0	195200.0
81	13	SLU A1 sism.	-22820.0	48050.0	-75355.0	-883000.0	-449000.0	-191600.0
82	13	SLU A1 sism.	-22160.0	48840.0	-113125.0	-758000.0	-499000.0	-188100.0
83	13	SLU A1 sism.	-6574.5	-41530.0	-230725.0	2032000.0	-509052.0	322100.0
84	13	SLU A1 sism.	-5921.3	-40740.0	-268525.0	2157000.0	-559546.0	325600.0
85	13	SLU A1 sism.	5911.2	47990.0	-73275.0	-902000.0	312024.0	-384100.0
86	13	SLU A1 sism.	6564.5	48770.0	-111045.0	-775000.0	261550.0	-380600.0
87	13	SLU A1 sism.	22150.0	-41590.0	-228625.0	2014000.0	251000.0	129600.0
88	13	SLU A1 sism.	22810.0	-40810.0	-266425.0	2140000.0	201000.0	133100.0
89	13	SLU A1 sism.	-20790.0	48450.0	-75385.0	-883000.0	-439000.0	-129400.0
90	13	SLU A1 sism.	-20140.0	49240.0	-113155.0	-758000.0	-490000.0	-125900.0
91	13	SLU A1 sism.	-4548.4	-41130.0	-230725.0	2032000.0	-499305.0	384300.0
92	13	SLU A1 sism.	-3895.1	-40340.0	-268525.0	2157000.0	-549809.0	387800.0
221	13	SLU A1 sism.	18310.0	16530.0	-83295.0	-36000.0	378000.0	34120.0
222	13	SLU A1 sism.	20480.0	19140.0	-209225.0	384000.0	209000.0	45650.0
223	13	SLU A1 sism.	12290.0	-11160.0	-130535.0	853800.0	324000.0	-172300.0
224	13	SLU A1 sism.	14460.0	-8544.0	-256425.0	1273103.0	155000.0	-160800.0
225	13	SLU A1 sism.	-12450.0	16190.0	-85335.0	-17000.0	-393400.0	164500.0
226	13	SLU A1 sism.	-10270.0	18810.0	-211225.0	402000.0	-561400.0	176000.0
227	13	SLU A1 sism.	-18470.0	-11500.0	-132585.0	872700.0	-447000.0	-41970.0
228	13	SLU A1 sism.	-16290.0	-8880.9	-258525.0	1291688.0	-615000.0	-30430.0
229	13	SLU A1 sism.	12860.0	16120.0	-83605.0	-28000.0	359500.0	-146200.0
230	13	SLU A1 sism.	15040.0	18740.0	-209525.0	391000.0	191000.0	-134600.0
231	13	SLU A1 sism.	17730.0	-10750.0	-130215.0	846000.0	341000.0	7951.5
232	13	SLU A1 sism.	19910.0	-8136.6	-256125.0	1265555.0	173000.0	19490.0
233	13	SLU A1 sism.	-17890.0	15780.0	-85655.0	-9000.0	-411000.0	-15800.0
234	13	SLU A1 sism.	-15720.0	18400.0	-211525.0	410000.0	-579500.0	-4264.3
235	13	SLU A1 sism.	-13020.0	-11090.0	-132265.0	864800.0	-428900.0	138300.0

236	13	SLU A1 sism.	-10840.0	-8473.4	-258225.0	1284041.0	-596900.0	149800.0
237	13	SLU A1 sism.	16280.0	16120.0	-83265.0	-35000.0	368000.0	-28050.0
238	13	SLU A1 sism.	18460.0	18740.0	-209125.0	384000.0	199000.0	-16510.0
239	13	SLU A1 sism.	10260.0	-11560.0	-130505.0	854300.0	313900.0	-234500.0
240	13	SLU A1 sism.	12440.0	-8945.6	-256425.0	1273661.0	146000.0	-223000.0
241	13	SLU A1 sism.	-10420.0	16590.0	-85375.0	-18000.0	-383200.0	226600.0
242	13	SLU A1 sism.	-8243.5	19210.0	-211325.0	401000.0	-551648.1	238200.0
243	13	SLU A1 sism.	-16440.0	-11100.0	-132615.0	872300.0	-437000.0	20200.0
244	13	SLU A1 sism.	-14260.0	-8479.3	-258525.0	1291129.0	-604900.0	31730.0
245	13	SLU A1 sism.	10830.0	15720.0	-83575.0	-28000.0	349400.0	-208300.0
246	13	SLU A1 sism.	13010.0	18340.0	-209525.0	391000.0	181000.0	-196800.0
247	13	SLU A1 sism.	15710.0	-11160.0	-130185.0	847400.0	332000.0	-54210.0
248	13	SLU A1 sism.	17880.0	-8538.1	-256125.0	1266114.0	163000.0	-42680.0
249	13	SLU A1 sism.	-15870.0	16180.0	-85685.0	-10000.0	-401000.0	46360.0
250	13	SLU A1 sism.	-13690.0	18800.0	-211625.0	409000.0	-569400.0	57900.0
251	13	SLU A1 sism.	-10990.0	-10690.0	-132295.0	864400.0	-418800.0	200500.0
252	13	SLU A1 sism.	-8817.5	-8071.8	-258225.0	1283482.0	-587545.0	212000.0
1	15	SLU STR.	816.9	2.8	-179912.5	-2272.0	-103314.0	1559.5
2	15	SLU STR.	827.2	3.0	-182412.5	-2374.6	-104483.0	1623.1
3	15	SLU STR.	1091.9	4.6	-223212.5	-3570.5	-142710.0	2406.1
4	15	SLU STR.	1102.2	4.7	-225712.5	-3672.1	-143779.0	2469.6
5	15	SLU STR.	610.6	2.2	-136435.0	-1719.2	-76644.0	1178.9
6	15	SLU STR.	620.9	2.3	-138935.0	-1820.8	-77713.0	1242.4
7	15	SLU STR.	885.6	3.9	-179725.0	-3016.7	-115941.0	2025.4
8	15	SLU STR.	895.9	4.0	-182225.0	-3118.3	-117109.0	2088.9
9	15	SLU STR.	837.5	3.2	-184812.5	-2476.2	-105551.0	1686.7
10	15	SLU STR.	1009.4	4.0	-210212.5	-3180.5	-130861.0	2152.1
11	15	SLU STR.	1030.0	4.4	-215212.5	-3384.7	-133099.0	2279.2
12	15	SLU STR.	631.2	2.5	-141435.0	-1922.4	-78882.0	1306.0
13	15	SLU STR.	803.1	3.4	-166725.0	-2627.7	-104192.0	1771.4
14	15	SLU STR.	823.7	3.7	-171725.0	-2830.9	-106429.0	1898.6
15	15	SLE Rare	620.6	2.2	-137525.0	-1734.9	-78238.0	1190.6
16	15	SLE Rare	627.5	2.3	-139185.0	-1803.0	-78951.0	1233.0
17	15	SLE Rare	804.0	3.3	-166425.0	-2600.9	-104502.0	1754.9
18	15	SLE Rare	810.9	3.4	-168025.0	-2669.0	-105215.0	1797.3
19	15	SLE Rare	634.4	2.4	-140855.0	-1871.0	-79763.0	1275.4
20	15	SLE Rare	749.0	3.0	-157725.0	-2340.6	-96603.0	1585.6
21	15	SLE Rare	762.7	3.2	-161025.0	-2476.7	-98128.0	1670.4
22	15	SLE Freq.	620.6	2.2	-137525.0	-1734.9	-78238.0	1190.6
23	15	SLE Freq.	749.0	3.0	-157725.0	-2340.6	-96603.0	1585.6
24	15	SLE Freq.	623.4	2.2	-138185.0	-1762.7	-78563.0	1207.6
25	15	SLE Freq.	730.6	2.9	-154825.0	-2254.5	-93937.0	1529.2
26	15	SLE Freq.	733.4	2.9	-155525.0	-2281.3	-94262.0	1546.2
27	15	SLE Quasi P.	620.6	2.2	-137525.0	-1734.9	-78238.0	1190.6
28	15	SLE Quasi P.	730.6	2.9	-154825.0	-2254.5	-93937.0	1529.2
29	15	SLU A1 sism.	58180.0	12500.0	-133985.0	-867800.0	1633000.0	289400.0
30	15	SLU A1 sism.	59060.0	12500.0	-170025.0	-868600.0	1572000.0	289800.0
31	15	SLU A1 sism.	58110.0	-11390.0	-133975.0	793100.0	1635000.0	65510.0
32	15	SLU A1 sism.	58980.0	-11400.0	-170025.0	793300.0	1573000.0	65870.0
33	15	SLU A1 sism.	-57520.0	11400.0	-139715.0	-797200.0	-1761000.0	-62810.0
34	15	SLU A1 sism.	-56650.0	11400.0	-175725.0	-798000.0	-1823000.0	-62450.0
35	15	SLU A1 sism.	-57600.0	-12500.0	-139715.0	864700.0	-1760000.0	-286700.0
36	15	SLU A1 sism.	-56720.0	-12500.0	-175725.0	863800.0	-1821000.0	-286300.0
37	15	SLU A1 sism.	58170.0	12120.0	-133975.0	-856400.0	1633000.0	91260.0
38	15	SLU A1 sism.	59040.0	12120.0	-170025.0	-857200.0	1572000.0	91620.0
39	15	SLU A1 sism.	58120.0	-11010.0	-133985.0	781700.0	1634000.0	263700.0
40	15	SLU A1 sism.	58990.0	-11010.0	-170025.0	780900.0	1573000.0	264000.0
41	15	SLU A1 sism.	-57530.0	11010.0	-139715.0	-784800.0	-1761000.0	-261000.0
42	15	SLU A1 sism.	-56660.0	11010.0	-175725.0	-785700.0	-1822000.0	-260600.0
43	15	SLU A1 sism.	-57580.0	-12110.0	-139715.0	852300.0	-1760000.0	-88560.0
44	15	SLU A1 sism.	-56710.0	-12110.0	-175725.0	851500.0	-1821000.0	-88200.0
45	15	SLU A1 sism.	58200.0	11500.0	-133975.0	-805100.0	1634000.0	-62590.0
46	15	SLU A1 sism.	59070.0	11500.0	-170025.0	-805900.0	1572000.0	-62230.0
47	15	SLU A1 sism.	58120.0	-12400.0	-133975.0	856800.0	1635000.0	-286500.0
48	15	SLU A1 sism.	59000.0	-12400.0	-170025.0	855900.0	1574000.0	-286100.0
49	15	SLU A1 sism.	-57540.0	12400.0	-139715.0	-859900.0	-1762000.0	289200.0

50	15	SLU A1 sism.	-56660.0	12400.0	-175725.0	-860700.0	-1823000.0	289500.0
51	15	SLU A1 sism.	-57610.0	-11490.0	-139715.0	801000.0	-1760000.0	65290.0
52	15	SLU A1 sism.	-56730.0	-11500.0	-175725.0	801200.0	-1821000.0	65650.0
53	15	SLU A1 sism.	58180.0	11110.0	-133975.0	-792700.0	1633000.0	-260700.0
54	15	SLU A1 sism.	59060.0	11110.0	-170025.0	-793600.0	1573000.0	-260400.0
55	15	SLU A1 sism.	58130.0	-12010.0	-133975.0	844400.0	1634000.0	-88340.0
56	15	SLU A1 sism.	59010.0	-12010.0	-170025.0	843600.0	1573000.0	-87980.0
57	15	SLU A1 sism.	-57550.0	12020.0	-139715.0	-848500.0	-1762000.0	91040.0
58	15	SLU A1 sism.	-56670.0	12020.0	-175725.0	-849300.0	-1822000.0	91400.0
59	15	SLU A1 sism.	-57600.0	-11110.0	-139715.0	789600.0	-1761000.0	263400.0
60	15	SLU A1 sism.	-56720.0	-11110.0	-175725.0	788800.0	-1821000.0	263800.0
61	15	SLU A1 sism.	17770.0	40000.0	-135995.0	-2782000.0	443000.0	427300.0
62	15	SLU A1 sism.	18650.0	40000.0	-172025.0	-2783000.0	382000.0	427700.0
63	15	SLU A1 sism.	17530.0	-39660.0	-135975.0	2757000.0	449000.0	-319000.0
64	15	SLU A1 sism.	18400.0	-39660.0	-172025.0	2756000.0	387000.0	-318600.0
65	15	SLU A1 sism.	-16940.0	39670.0	-137715.0	-2761000.0	-575000.0	321700.0
66	15	SLU A1 sism.	-16060.0	39670.0	-173725.0	-2762000.0	-635900.0	322000.0
67	15	SLU A1 sism.	-17190.0	-39990.0	-137705.0	2778000.0	-570000.0	-424600.0
68	15	SLU A1 sism.	-16310.0	-39990.0	-173725.0	2777000.0	-631000.0	-424300.0
69	15	SLU A1 sism.	17780.0	39700.0	-135995.0	-2763000.0	444000.0	321700.0
70	15	SLU A1 sism.	18650.0	39700.0	-172025.0	-2764000.0	382000.0	322100.0
71	15	SLU A1 sism.	17530.0	-39960.0	-135975.0	2776000.0	448000.0	-424600.0
72	15	SLU A1 sism.	18400.0	-39960.0	-172025.0	2775000.0	387000.0	-424200.0
73	15	SLU A1 sism.	-16940.0	39970.0	-137715.0	-2780000.0	-575000.0	427300.0
74	15	SLU A1 sism.	-16070.0	39970.0	-173725.0	-2781000.0	-636500.0	427600.0
75	15	SLU A1 sism.	-17190.0	-39690.0	-137705.0	2759000.0	-570000.0	-319000.0
76	15	SLU A1 sism.	-16320.0	-39690.0	-173725.0	2758000.0	-632000.0	-318700.0
77	15	SLU A1 sism.	17730.0	38710.0	-135975.0	-2742000.0	444000.0	-233200.0
78	15	SLU A1 sism.	18610.0	38710.0	-172025.0	-2743000.0	383000.0	-232800.0
79	15	SLU A1 sism.	17570.0	-38370.0	-135995.0	2717000.0	448000.0	341500.0
80	15	SLU A1 sism.	18440.0	-38370.0	-172025.0	2716000.0	386000.0	341900.0
81	15	SLU A1 sism.	-16980.0	38380.0	-137695.0	-2721000.0	-574000.0	-338800.0
82	15	SLU A1 sism.	-16100.0	38380.0	-173725.0	-2722000.0	-634800.0	-338500.0
83	15	SLU A1 sism.	-17150.0	-38700.0	-137715.0	2738000.0	-571000.0	235800.0
84	15	SLU A1 sism.	-16270.0	-38700.0	-173725.0	2737000.0	-632100.0	236200.0
85	15	SLU A1 sism.	17740.0	38410.0	-135975.0	-2723000.0	445000.0	-338800.0
86	15	SLU A1 sism.	18610.0	38410.0	-172025.0	-2724000.0	383000.0	-338400.0
87	15	SLU A1 sism.	17570.0	-38670.0	-135995.0	2735000.0	447000.0	235900.0
88	15	SLU A1 sism.	18440.0	-38670.0	-172025.0	2735000.0	386000.0	236300.0
89	15	SLU A1 sism.	-16980.0	38680.0	-137695.0	-2740000.0	-574000.0	-233200.0
90	15	SLU A1 sism.	-16110.0	38680.0	-173725.0	-2740000.0	-635500.0	-232900.0
91	15	SLU A1 sism.	-17150.0	-38400.0	-137715.0	2719000.0	-571000.0	341400.0
92	15	SLU A1 sism.	-16270.0	-38400.0	-173725.0	2718000.0	-631800.0	341800.0
221	15	SLU A1 sism.	16670.0	12120.0	-93975.0	-842600.0	517000.0	165700.0
222	15	SLU A1 sism.	19580.0	12120.0	-214025.0	-845400.0	312000.0	166900.0
223	15	SLU A1 sism.	16590.0	-11780.0	-93975.0	819300.0	518000.0	-58190.0
224	15	SLU A1 sism.	19510.0	-11780.0	-214025.0	816500.0	314000.0	-56980.0
225	15	SLU A1 sism.	-18050.0	11790.0	-95695.0	-821400.0	-502000.0	60040.0
226	15	SLU A1 sism.	-15130.0	11780.0	-215725.0	-823200.0	-705800.0	61240.0
227	15	SLU A1 sism.	-18120.0	-12110.0	-95695.0	840400.0	-500000.0	-163900.0
228	15	SLU A1 sism.	-15200.0	-12110.0	-215725.0	837700.0	-703900.0	-162600.0
229	15	SLU A1 sism.	16650.0	11730.0	-93975.0	-830200.0	516000.0	-32440.0
230	15	SLU A1 sism.	19570.0	11730.0	-214025.0	-833000.0	313000.0	-31240.0
231	15	SLU A1 sism.	16600.0	-11390.0	-93975.0	806900.0	517000.0	140000.0
232	15	SLU A1 sism.	19520.0	-11400.0	-214025.0	805100.0	314000.0	141200.0
233	15	SLU A1 sism.	-18060.0	11400.0	-95695.0	-809100.0	-502000.0	-138100.0
234	15	SLU A1 sism.	-15140.0	11400.0	-215725.0	-811800.0	-705300.0	-136900.0
235	15	SLU A1 sism.	-18110.0	-11720.0	-95695.0	828100.0	-501000.0	34290.0
236	15	SLU A1 sism.	-15190.0	-11730.0	-215725.0	826300.0	-704400.0	35500.0
237	15	SLU A1 sism.	16670.0	11820.0	-93975.0	-823800.0	516000.0	60110.0
238	15	SLU A1 sism.	19580.0	11810.0	-214025.0	-825600.0	312000.0	61310.0
239	15	SLU A1 sism.	16600.0	-12080.0	-93975.0	838100.0	518000.0	-163800.0
240	15	SLU A1 sism.	19510.0	-12080.0	-214025.0	835300.0	314000.0	-162600.0
241	15	SLU A1 sism.	-18050.0	12090.0	-95695.0	-840200.0	-502000.0	165600.0
242	15	SLU A1 sism.	-15130.0	12090.0	-215725.0	-843000.0	-705500.0	166800.0
243	15	SLU A1 sism.	-18120.0	-11810.0	-95695.0	821600.0	-500000.0	-58250.0

244	15	SLU A1 sism.	-15210.0	-11810.0	-215725.0	818900.0	-704600.0	-57050.0
245	15	SLU A1 sism.	16660.0	11430.0	-93975.0	-811400.0	517000.0	-138000.0
246	15	SLU A1 sism.	19570.0	11430.0	-214025.0	-814200.0	313000.0	-136800.0
247	15	SLU A1 sism.	16610.0	-11690.0	-93975.0	825700.0	518000.0	34360.0
248	15	SLU A1 sism.	19520.0	-11700.0	-214025.0	823900.0	313000.0	35560.0
249	15	SLU A1 sism.	-18060.0	11700.0	-95695.0	-827900.0	-502000.0	-32510.0
250	15	SLU A1 sism.	-15150.0	11700.0	-215725.0	-830600.0	-706000.0	-31300.0
251	15	SLU A1 sism.	-18110.0	-11420.0	-95705.0	809300.0	-501000.0	139900.0
252	15	SLU A1 sism.	-15200.0	-11430.0	-215725.0	807500.0	-705100.0	141100.0
1	17	SLU STR.	1050.0	-2738.1	-190812.5	-450093.0	-123004.0	-3338.9
2	17	SLU STR.	1091.9	-3245.5	-195712.5	-534747.0	-129210.0	-3391.0
3	17	SLU STR.	1594.1	-6863.2	-252912.5	-1138679.0	-197894.0	-4981.5
4	17	SLU STR.	1636.0	-7370.7	-257812.5	-1223933.0	-204101.0	-5033.7
5	17	SLU STR.	794.1	-2189.3	-145315.0	-360271.0	-93092.0	-2467.7
6	17	SLU STR.	836.0	-2696.8	-150155.0	-444925.0	-99299.0	-2519.9
7	17	SLU STR.	1338.2	-6314.4	-207425.0	-1049557.0	-167983.0	-4110.4
8	17	SLU STR.	1380.1	-6821.9	-212225.0	-1133811.0	-174190.0	-4162.5
9	17	SLU STR.	1133.8	-3753.0	-200512.5	-619501.0	-135417.0	-3443.2
10	17	SLU STR.	1430.8	-5625.7	-234312.5	-932433.0	-175417.0	-4488.7
11	17	SLU STR.	1514.7	-6640.6	-244012.5	-1101941.0	-187831.0	-4593.0
12	17	SLU STR.	877.9	-3204.2	-155025.0	-529679.0	-105506.0	-2572.0
13	17	SLU STR.	1175.0	-5076.9	-188725.0	-842311.0	-145505.0	-3617.6
14	17	SLU STR.	1258.8	-6091.8	-198425.0	-1011819.0	-157919.0	-3721.9
15	17	SLE Rare	801.8	-2142.3	-146165.0	-352367.0	-93924.0	-2524.6
16	17	SLE Rare	829.7	-2480.6	-149395.0	-408736.0	-98129.0	-2559.4
17	17	SLE Rare	1164.5	-4892.4	-187525.0	-811758.0	-143851.0	-3619.7
18	17	SLE Rare	1192.4	-5230.7	-190825.0	-867927.0	-148056.0	-3654.5
19	17	SLE Rare	857.7	-2818.9	-152625.0	-465206.0	-102233.0	-2594.1
20	17	SLE Rare	1055.7	-4067.4	-175125.0	-674260.0	-128933.0	-3291.2
21	17	SLE Rare	1111.6	-4744.0	-181625.0	-786599.0	-137142.0	-3360.7
22	17	SLE Freq.	801.8	-2142.3	-146165.0	-352367.0	-93924.0	-2524.6
23	17	SLE Freq.	1055.7	-4067.4	-175125.0	-674260.0	-128933.0	-3291.2
24	17	SLE Freq.	812.9	-2277.7	-147455.0	-374935.0	-95606.0	-2538.5
25	17	SLE Freq.	1019.4	-3792.4	-171025.0	-627761.0	-123960.0	-3181.7
26	17	SLE Freq.	1030.6	-3927.7	-172325.0	-650229.0	-125542.0	-3195.6
27	17	SLE Quasi P.	801.8	-2142.3	-146165.0	-352367.0	-93924.0	-2524.6
28	17	SLE Quasi P.	1019.4	-3792.4	-171025.0	-627761.0	-123960.0	-3181.7
29	17	SLU A1 sism.	42230.0	11370.0	-172225.0	-978900.0	1118000.0	527600.0
30	17	SLU A1 sism.	42890.0	10590.0	-210025.0	-1104720.0	1066000.0	523800.0
31	17	SLU A1 sism.	48170.0	-16310.0	-124925.0	-89000.0	1174000.0	320700.0
32	17	SLU A1 sism.	48840.0	-17090.0	-162725.0	-215000.0	1122000.0	316900.0
33	17	SLU A1 sism.	-46800.0	9509.1	-179225.0	-1041189.0	-1370000.0	-323300.0
34	17	SLU A1 sism.	-46140.0	8728.3	-217025.0	-1166929.0	-1422000.0	-327100.0
35	17	SLU A1 sism.	-40850.0	-18180.0	-131985.0	-151000.0	-1314000.0	-530100.0
36	17	SLU A1 sism.	-40190.0	-18960.0	-169825.0	-276000.0	-1366000.0	-533900.0
37	17	SLU A1 sism.	47670.0	10970.0	-171825.0	-972000.0	1137000.0	347300.0
38	17	SLU A1 sism.	48330.0	10180.0	-209625.0	-1096830.0	1085000.0	343500.0
39	17	SLU A1 sism.	42740.0	-15910.0	-125245.0	-96000.0	1156000.0	501000.0
40	17	SLU A1 sism.	43400.0	-16690.0	-163025.0	-222000.0	1103000.0	497200.0
41	17	SLU A1 sism.	-41360.0	9101.8	-178925.0	-1033583.0	-1351000.0	-503600.0
42	17	SLU A1 sism.	-40700.0	8321.0	-216725.0	-1159303.0	-1403000.0	-507400.0
43	17	SLU A1 sism.	-46290.0	-17770.0	-132315.0	-158000.0	-1332000.0	-349800.0
44	17	SLU A1 sism.	-45630.0	-18550.0	-170125.0	-284000.0	-1385000.0	-353600.0
45	17	SLU A1 sism.	49000.0	10010.0	-172425.0	-982330.0	1152000.0	319800.0
46	17	SLU A1 sism.	49660.0	9226.9	-210225.0	-1107792.0	1100000.0	316000.0
47	17	SLU A1 sism.	54940.0	-17680.0	-125145.0	-92000.0	1207000.0	112900.0
48	17	SLU A1 sism.	55610.0	-18460.0	-162925.0	-217000.0	1156000.0	109200.0
49	17	SLU A1 sism.	-53570.0	10870.0	-179025.0	-1037860.0	-1404000.0	-115500.0
50	17	SLU A1 sism.	-52910.0	10090.0	-216825.0	-1163700.0	-1456000.0	-119300.0
51	17	SLU A1 sism.	-47620.0	-16810.0	-131775.0	-148000.0	-1347000.0	-322400.0
52	17	SLU A1 sism.	-46960.0	-17590.0	-169625.0	-274000.0	-1400000.0	-326100.0
53	17	SLU A1 sism.	54440.0	9600.5	-172125.0	-974476.0	1171000.0	139500.0
54	17	SLU A1 sism.	55100.0	8819.7	-209925.0	-1100167.0	1118000.0	135700.0
55	17	SLU A1 sism.	49510.0	-17270.0	-125465.0	-99000.0	1189000.0	293200.0
56	17	SLU A1 sism.	50170.0	-18050.0	-163225.0	-225000.0	1137000.0	289500.0
57	17	SLU A1 sism.	-48130.0	10470.0	-178725.0	-1030960.0	-1385000.0	-295800.0

58	17	SLU A1 sism.	-47470.0	9685.6	-216525.0	-1156363.0	-1437000.0	-299600.0
59	17	SLU A1 sism.	-53060.0	-16400.0	-132095.0	-156000.0	-1366000.0	-142100.0
60	17	SLU A1 sism.	-52400.0	-17190.0	-169925.0	-281000.0	-1418000.0	-145800.0
61	17	SLU A1 sism.	4129.8	43020.0	-229825.0	-2040000.0	181878.0	471100.0
62	17	SLU A1 sism.	4794.2	42240.0	-267625.0	-2165000.0	129924.0	467300.0
63	17	SLU A1 sism.	23950.0	-49260.0	-72255.0	928000.0	368000.0	-218400.0
64	17	SLU A1 sism.	24620.0	-50050.0	-110065.0	803000.0	317000.0	-222200.0
65	17	SLU A1 sism.	-22580.0	42460.0	-231925.0	-2058000.0	-565000.0	215800.0
66	17	SLU A1 sism.	-21910.0	41680.0	-269725.0	-2184000.0	-616000.0	212000.0
67	17	SLU A1 sism.	-2755.5	-49820.0	-74375.0	909000.0	-377845.0	-473700.0
68	17	SLU A1 sism.	-2091.0	-50600.0	-112185.0	783000.0	-429699.0	-477400.0
69	17	SLU A1 sism.	6160.9	42610.0	-229825.0	-2040000.0	191889.0	408700.0
70	17	SLU A1 sism.	6825.4	41830.0	-267625.0	-2166000.0	140035.0	405000.0
71	17	SLU A1 sism.	25980.0	-49670.0	-72325.0	927000.0	378000.0	-280700.0
72	17	SLU A1 sism.	26650.0	-50450.0	-110125.0	801000.0	327000.0	-284500.0
73	17	SLU A1 sism.	-24610.0	42870.0	-231825.0	-2057000.0	-575000.0	278200.0
74	17	SLU A1 sism.	-23950.0	42090.0	-269625.0	-2183000.0	-627000.0	274400.0
75	17	SLU A1 sism.	-4786.6	-49410.0	-74315.0	910000.0	-387916.0	-411300.0
76	17	SLU A1 sism.	-4122.1	-50200.0	-112115.0	785000.0	-439780.0	-415100.0
77	17	SLU A1 sism.	22260.0	41660.0	-228725.0	-2014000.0	244000.0	-129900.0
78	17	SLU A1 sism.	22920.0	40880.0	-266525.0	-2140000.0	192000.0	-133700.0
79	17	SLU A1 sism.	5827.6	-47910.0	-73335.0	903000.0	306762.0	382600.0
80	17	SLU A1 sism.	6492.1	-48690.0	-111135.0	777000.0	254907.0	378800.0
81	17	SLU A1 sism.	-4453.3	41100.0	-230825.0	-2032000.0	-502738.0	-385200.0
82	17	SLU A1 sism.	-3788.8	40320.0	-268625.0	-2158000.0	-554583.0	-389000.0
83	17	SLU A1 sism.	-20880.0	-48470.0	-75455.0	884000.0	-440000.0	127300.0
84	17	SLU A1 sism.	-20220.0	-49250.0	-113255.0	759000.0	-492000.0	123600.0
85	17	SLU A1 sism.	24290.0	41250.0	-228825.0	-2015000.0	254000.0	-192300.0
86	17	SLU A1 sism.	24950.0	40470.0	-266625.0	-2141000.0	202000.0	-196000.0
87	17	SLU A1 sism.	7858.7	-48320.0	-73395.0	902000.0	316873.0	320300.0
88	17	SLU A1 sism.	8523.2	-49100.0	-111205.0	776000.0	265018.0	316500.0
89	17	SLU A1 sism.	-6484.4	41510.0	-230825.0	-2032000.0	-512839.0	-322800.0
90	17	SLU A1 sism.	-5819.9	40730.0	-268625.0	-2157000.0	-564704.0	-326600.0
91	17	SLU A1 sism.	-22910.0	-48060.0	-75385.0	885000.0	-450000.0	189700.0
92	17	SLU A1 sism.	-22250.0	-48840.0	-113195.0	759000.0	-502000.0	185900.0
221	17	SLU A1 sism.	10290.0	11630.0	-130555.0	-854100.0	307400.0	234200.0
222	17	SLU A1 sism.	12510.0	9028.5	-256625.0	-1273246.0	135000.0	221600.0
223	17	SLU A1 sism.	16240.0	-16050.0	-83285.0	36000.0	364000.0	27330.0
224	17	SLU A1 sism.	18450.0	-18660.0	-209325.0	-383000.0	190000.0	14720.0
225	17	SLU A1 sism.	-16420.0	11070.0	-132675.0	-872600.0	-439000.0	-21090.0
226	17	SLU A1 sism.	-14200.0	8469.5	-258725.0	-1291949.0	-611500.0	-33690.0
227	17	SLU A1 sism.	-10470.0	-16610.0	-85405.0	17000.0	-382800.0	-227900.0
228	17	SLU A1 sism.	-8253.9	-19220.0	-211425.0	-401000.0	-555487.0	-240500.0
229	17	SLU A1 sism.	15730.0	11220.0	-130225.0	-846200.0	326000.0	53870.0
230	17	SLU A1 sism.	17950.0	8621.2	-256225.0	-1265620.0	154000.0	41270.0
231	17	SLU A1 sism.	10800.0	-15650.0	-83605.0	29000.0	345000.0	207600.0
232	17	SLU A1 sism.	13020.0	-18250.0	-209625.0	-391000.0	173000.0	195000.0
233	17	SLU A1 sism.	-10980.0	10660.0	-132345.0	-864700.0	-420300.0	-201400.0
234	17	SLU A1 sism.	-8763.2	8062.2	-258325.0	-1284324.0	-593022.0	-214000.0
235	17	SLU A1 sism.	-15910.0	-16210.0	-85725.0	10000.0	-402000.0	-47630.0
236	17	SLU A1 sism.	-13690.0	-18810.0	-211725.0	-409000.0	-573900.0	-60240.0
237	17	SLU A1 sism.	12320.0	11220.0	-130615.0	-854900.0	317400.0	171800.0
238	17	SLU A1 sism.	14540.0	8619.1	-256625.0	-1274208.0	145000.0	159200.0
239	17	SLU A1 sism.	18270.0	-16460.0	-83355.0	35000.0	374000.0	-35000.0
240	17	SLU A1 sism.	20490.0	-19070.0	-209425.0	-384000.0	201000.0	-47610.0
241	17	SLU A1 sism.	-18450.0	11480.0	-132605.0	-871700.0	-449000.0	41250.0
242	17	SLU A1 sism.	-16230.0	8878.9	-258625.0	-1290987.0	-621000.0	28640.0
243	17	SLU A1 sism.	-12500.0	-16200.0	-85345.0	18000.0	-392800.0	-165600.0
244	17	SLU A1 sism.	-10280.0	-18810.0	-211325.0	-400000.0	-565100.0	-178200.0
245	17	SLU A1 sism.	17760.0	10810.0	-130295.0	-847000.0	336000.0	-8459.6
246	17	SLU A1 sism.	19980.0	8211.8	-256325.0	-1266583.0	164000.0	-21070.0
247	17	SLU A1 sism.	12830.0	-16060.0	-83675.0	28000.0	355000.0	145300.0
248	17	SLU A1 sism.	15050.0	-18660.0	-209725.0	-391000.0	183000.0	132700.0
249	17	SLU A1 sism.	-13010.0	11070.0	-132285.0	-863800.0	-430300.0	-139100.0
250	17	SLU A1 sism.	-10790.0	8471.6	-258325.0	-1283361.0	-602700.0	-151700.0
251	17	SLU A1 sism.	-17940.0	-15800.0	-85665.0	11000.0	-412000.0	14710.0

252	17	SLU A1 sism.	-15720.0	-18400.0	-211725.0	-408000.0	-583900.0	2096.3
1	19	SLU STR.	-159.1	3085.0	-181612.5	516805.0	83636.0	-2118.2
2	19	SLU STR.	-140.1	3515.7	-185912.5	588927.0	81783.0	-2359.9
3	19	SLU STR.	113.7	6890.7	-236212.5	1155926.0	60675.0	-3943.1
4	19	SLU STR.	132.7	7321.5	-240512.5	1227848.0	58832.0	-4184.9
5	19	SLU STR.	-130.8	2414.1	-138365.0	404394.0	64830.0	-1644.7
6	19	SLU STR.	-111.7	2844.8	-142615.0	476517.0	62977.0	-1886.4
7	19	SLU STR.	142.0	6219.9	-193025.0	1043015.0	41869.0	-3469.6
8	19	SLU STR.	161.1	6650.6	-197225.0	1115938.0	40026.0	-3711.4
9	19	SLU STR.	-121.0	3946.5	-190112.5	661350.0	79930.0	-2601.6
10	19	SLU STR.	31.8	5749.0	-219812.5	964099.0	67571.0	-3395.6
11	19	SLU STR.	70.0	6610.6	-228312.5	1108945.0	63866.0	-3879.1
12	19	SLU STR.	-92.7	3275.6	-146855.0	548639.0	61125.0	-2128.2
13	19	SLU STR.	60.2	5078.1	-176625.0	852189.0	48755.0	-2922.2
14	19	SLU STR.	98.3	5939.7	-185125.0	996034.0	45060.0	-3405.6
15	19	SLE Rare	-126.1	2390.9	-139125.0	400513.0	64554.0	-1636.0
16	19	SLE Rare	-113.4	2678.1	-141955.0	448594.0	63315.0	-1797.2
17	19	SLE Rare	55.8	4928.1	-175525.0	826193.0	49250.0	-2852.7
18	19	SLE Rare	68.5	5215.3	-178325.0	874475.0	48011.0	-3013.8
19	19	SLE Rare	-100.6	2965.2	-144785.0	496676.0	62087.0	-1958.3
20	19	SLE Rare	1.2	4166.9	-164625.0	698309.0	53834.0	-2487.7
21	19	SLE Rare	26.7	4741.3	-170225.0	794873.0	51367.0	-2810.0
22	19	SLE Freq.	-126.1	2390.9	-139125.0	400513.0	64554.0	-1636.0
23	19	SLE Freq.	1.2	4166.9	-164625.0	698309.0	53834.0	-2487.7
24	19	SLE Freq.	-121.0	2505.8	-140255.0	419725.0	64052.0	-1700.5
25	19	SLE Freq.	-17.0	3913.2	-160925.0	655681.0	55365.0	-2366.0
26	19	SLE Freq.	-11.9	4028.1	-162125.0	675194.0	54874.0	-2430.5
27	19	SLE Quasi P.	-126.1	2390.9	-139125.0	400513.0	64554.0	-1636.0
28	19	SLE Quasi P.	-17.0	3913.2	-160925.0	655681.0	55365.0	-2366.0
29	19	SLU A1 sism.	56750.0	33910.0	-131095.0	466000.0	1280000.0	-13290.0
30	19	SLU A1 sism.	56800.0	34800.0	-163425.0	615000.0	1329000.0	-13810.0
31	19	SLU A1 sism.	49620.0	-3731.5	-186225.0	1519151.0	1373000.0	-240900.0
32	19	SLU A1 sism.	49670.0	-2840.4	-218525.0	1668037.0	1422000.0	-241500.0
33	19	SLU A1 sism.	-49710.0	10670.0	-103395.0	-356100.0	-1312000.0	236700.0
34	19	SLU A1 sism.	-49650.0	11560.0	-135715.0	-206700.0	-1262000.0	236200.0
35	19	SLU A1 sism.	-56840.0	-26970.0	-158525.0	697000.0	-1219000.0	9082.9
36	19	SLU A1 sism.	-56780.0	-26080.0	-190825.0	846000.0	-1169000.0	8560.0
37	19	SLU A1 sism.	50990.0	26400.0	-137715.0	578000.0	1295000.0	-199700.0
38	19	SLU A1 sism.	51050.0	27290.0	-170025.0	727000.0	1345000.0	-200200.0
39	19	SLU A1 sism.	55370.0	3778.4	-179625.0	1406162.0	1357000.0	-54540.0
40	19	SLU A1 sism.	55430.0	4669.5	-211925.0	1556048.0	1407000.0	-55070.0
41	19	SLU A1 sism.	-55460.0	3156.9	-110005.0	-243486.0	-1296000.0	50340.0
42	19	SLU A1 sism.	-55410.0	4048.0	-142335.0	-94200.0	-1247000.0	49810.0
43	19	SLU A1 sism.	-51080.0	-19460.0	-151925.0	585000.0	-1234000.0	195500.0
44	19	SLU A1 sism.	-51020.0	-18570.0	-184225.0	734000.0	-1184000.0	195000.0
45	19	SLU A1 sism.	49510.0	17550.0	-139875.0	634000.0	1306000.0	-111300.0
46	19	SLU A1 sism.	49570.0	18450.0	-172225.0	783000.0	1356000.0	-111900.0
47	19	SLU A1 sism.	42380.0	-20090.0	-195025.0	1687300.0	1399000.0	-339000.0
48	19	SLU A1 sism.	42440.0	-19190.0	-227325.0	1835610.0	1449000.0	-339500.0
49	19	SLU A1 sism.	-42470.0	27020.0	-94615.0	-524000.0	-1338000.0	334800.0
50	19	SLU A1 sism.	-42410.0	27910.0	-126935.0	-374000.0	-1288000.0	334300.0
51	19	SLU A1 sism.	-49600.0	-10620.0	-149745.0	529400.0	-1245000.0	107100.0
52	19	SLU A1 sism.	-49540.0	-9728.4	-182025.0	678641.0	-1195000.0	106600.0
53	19	SLU A1 sism.	43750.0	10040.0	-146495.0	746000.0	1321000.0	-297700.0
54	19	SLU A1 sism.	43810.0	10940.0	-178825.0	895000.0	1371000.0	-298300.0
55	19	SLU A1 sism.	48130.0	-12580.0	-188425.0	1575000.0	1383000.0	-152600.0
56	19	SLU A1 sism.	48190.0	-11680.0	-220725.0	1723300.0	1433000.0	-153100.0
57	19	SLU A1 sism.	-48230.0	19510.0	-101225.0	-411000.0	-1323000.0	148400.0
58	19	SLU A1 sism.	-48170.0	20400.0	-133555.0	-262000.0	-1273000.0	147900.0
59	19	SLU A1 sism.	-43840.0	-3109.7	-143125.0	417166.0	-1260000.0	293500.0
60	19	SLU A1 sism.	-43790.0	-2218.5	-175425.0	566353.0	-1211000.0	293000.0
61	19	SLU A1 sism.	27800.0	69690.0	-57080.2	-1051000.0	263000.0	339800.0
62	19	SLU A1 sism.	27860.0	70580.0	-89405.0	-901000.0	313000.0	339300.0
63	19	SLU A1 sism.	4039.3	-55780.0	-240825.0	2460000.0	575026.0	-419000.0
64	19	SLU A1 sism.	4097.3	-54890.0	-273225.0	2609000.0	624825.0	-419500.0

65	19	SLU A1 sism.	-4131.1	62720.0	-48767.5	-1297000.0	-514114.0	414800.0
66	19	SLU A1 sism.	-4073.2	63610.0	-81095.0	-1148000.0	-464256.0	414300.0
67	19	SLU A1 sism.	-27900.0	-62750.0	-232525.0	2213000.0	-203000.0	-344000.0
68	19	SLU A1 sism.	-27840.0	-61860.0	-264825.0	2363000.0	-153000.0	-344500.0
69	19	SLU A1 sism.	25630.0	64780.0	-59713.8	-1000000.0	271000.0	310400.0
70	19	SLU A1 sism.	25690.0	65670.0	-92045.0	-851000.0	321000.0	309900.0
71	19	SLU A1 sism.	1868.3	-60690.0	-243525.0	2511000.0	582927.0	-448400.0
72	19	SLU A1 sism.	1926.3	-59800.0	-275825.0	2660000.0	632725.0	-449000.0
73	19	SLU A1 sism.	-1960.1	67620.0	-46133.9	-1347000.0	-522014.0	444200.0
74	19	SLU A1 sism.	-1902.2	68510.0	-78465.0	-1198000.0	-472216.0	443700.0
75	19	SLU A1 sism.	-25730.0	-57850.0	-229925.0	2163000.0	-211000.0	-314600.0
76	19	SLU A1 sism.	-25670.0	-56960.0	-262225.0	2313000.0	-161000.0	-315100.0
77	19	SLU A1 sism.	8618.7	44660.0	-79135.0	-677000.0	314769.0	-281500.0
78	19	SLU A1 sism.	8676.7	45550.0	-111455.0	-527000.0	364668.0	-282000.0
79	19	SLU A1 sism.	23230.0	-30750.0	-218825.0	2086100.0	524000.0	202300.0
80	19	SLU A1 sism.	23280.0	-29860.0	-251125.0	2235400.0	573000.0	201800.0
81	19	SLU A1 sism.	-23320.0	37680.0	-70815.0	-922000.0	-463000.0	-206500.0
82	19	SLU A1 sism.	-23260.0	38570.0	-103145.0	-773000.0	-413000.0	-207000.0
83	19	SLU A1 sism.	-8710.6	-37720.0	-210525.0	1839000.0	-253957.0	277300.0
84	19	SLU A1 sism.	-8652.6	-36830.0	-242825.0	1989000.0	-204059.0	276800.0
85	19	SLU A1 sism.	6447.7	39750.0	-81765.0	-626000.0	322670.0	-310900.0
86	19	SLU A1 sism.	6505.7	40640.0	-114095.0	-477000.0	372568.0	-311500.0
87	19	SLU A1 sism.	21050.0	-35650.0	-221425.0	2136000.0	531000.0	172900.0
88	19	SLU A1 sism.	21110.0	-34760.0	-253725.0	2285000.0	581000.0	172400.0
89	19	SLU A1 sism.	-21150.0	42590.0	-68185.0	-973000.0	-471000.0	-177100.0
90	19	SLU A1 sism.	-21090.0	43480.0	-100515.0	-824000.0	-421000.0	-177600.0
91	19	SLU A1 sism.	-6539.6	-32810.0	-207825.0	1789000.0	-261857.0	306700.0
92	19	SLU A1 sism.	-6481.6	-31920.0	-240225.0	1938000.0	-211959.0	306200.0
221	19	SLU A1 sism.	19420.0	24730.0	-83685.0	5000.0	314000.0	74830.0
222	19	SLU A1 sism.	19610.0	27700.0	-191425.0	502000.0	480000.0	73080.0
223	19	SLU A1 sism.	12290.0	-12910.0	-138815.0	1057600.0	407800.0	-152800.0
224	19	SLU A1 sism.	12480.0	-9935.5	-246625.0	1554646.0	573600.0	-154600.0
225	19	SLU A1 sism.	-12520.0	17760.0	-75375.0	-242000.0	-463500.0	149800.0
226	19	SLU A1 sism.	-12320.0	20730.0	-183125.0	255000.0	-296600.0	148100.0
227	19	SLU A1 sism.	-19650.0	-19880.0	-130505.0	811000.0	-370000.0	-77820.0
228	19	SLU A1 sism.	-19450.0	-16910.0	-238225.0	1308400.0	-203000.0	-79560.0
229	19	SLU A1 sism.	13660.0	17220.0	-90305.0	117000.0	329000.0	-111600.0
230	19	SLU A1 sism.	13860.0	20200.0	-198025.0	613000.0	496200.0	-113300.0
231	19	SLU A1 sism.	18050.0	-5396.0	-132205.0	944904.0	393000.0	33570.0
232	19	SLU A1 sism.	18240.0	-2425.6	-239925.0	1442558.0	559000.0	31830.0
233	19	SLU A1 sism.	-18270.0	10250.0	-81985.0	-129900.0	-447000.0	-36560.0
234	19	SLU A1 sism.	-18080.0	13220.0	-189725.0	368000.0	-282000.0	-38310.0
235	19	SLU A1 sism.	-13890.0	-12370.0	-123895.0	698600.0	-385000.0	108600.0
236	19	SLU A1 sism.	-13700.0	-9398.2	-231625.0	1196022.0	-219000.0	106800.0
237	19	SLU A1 sism.	17250.0	19830.0	-86325.0	54000.0	322000.0	45410.0
238	19	SLU A1 sism.	17440.0	22800.0	-194125.0	552000.0	488000.0	43670.0
239	19	SLU A1 sism.	10120.0	-17810.0	-141455.0	1107400.0	415800.0	-182200.0
240	19	SLU A1 sism.	10310.0	-14840.0	-249225.0	1604900.0	581700.0	-184000.0
241	19	SLU A1 sism.	-10350.0	22670.0	-72745.0	-293000.0	-471500.0	179300.0
242	19	SLU A1 sism.	-10150.0	25640.0	-180525.0	205000.0	-304600.0	177500.0
243	19	SLU A1 sism.	-17480.0	-14970.0	-127875.0	760100.0	-378000.0	-48400.0
244	19	SLU A1 sism.	-17280.0	-12000.0	-235625.0	1257660.0	-211000.0	-50140.0
245	19	SLU A1 sism.	11490.0	12320.0	-92935.0	167000.0	337300.0	-141000.0
246	19	SLU A1 sism.	11690.0	15290.0	-200725.0	664000.0	504200.0	-142700.0
247	19	SLU A1 sism.	15870.0	-10300.0	-134835.0	995120.0	400000.0	4156.6
248	19	SLU A1 sism.	16070.0	-7331.8	-242625.0	1492781.0	567000.0	2413.3
249	19	SLU A1 sism.	-16100.0	15160.0	-79355.0	-181000.0	-455000.0	-7145.4
250	19	SLU A1 sism.	-15910.0	18130.0	-187125.0	317000.0	-290000.0	-8888.6
251	19	SLU A1 sism.	-11720.0	-7462.5	-121255.0	648116.0	-393100.0	138000.0
252	19	SLU A1 sism.	-11530.0	-4492.0	-229025.0	1145599.0	-227200.0	136300.0
1	21	SLU STR.	-420.5	-1.1	-169012.5	3043.9	110152.0	824.8
2	21	SLU STR.	-430.5	-1.2	-171412.5	3151.8	113454.0	858.9
3	21	SLU STR.	-406.2	-2.0	-207312.5	4555.2	127583.0	1266.1
4	21	SLU STR.	-416.2	-2.1	-209612.5	4663.1	130885.0	1300.2
5	21	SLU STR.	-335.2	-0.8	-128505.0	2299.4	86177.0	624.1
6	21	SLU STR.	-345.2	-0.9	-130875.0	2407.2	89479.0	658.2

7	21	SLU STR.	-320.9	-1.8	-166725.0	3809.6	103708.0	1065.4
8	21	SLU STR.	-330.9	-1.9	-169125.0	3917.5	107010.0	1099.5
9	21	SLU STR.	-440.5	-1.3	-173812.5	3259.6	116755.0	893.0
10	21	SLU STR.	-410.5	-1.7	-195812.5	4101.9	122354.0	1133.7
11	21	SLU STR.	-430.4	-2.0	-200512.5	4317.6	128957.0	1202.0
12	21	SLU STR.	-355.2	-1.1	-133235.0	2515.1	92780.0	692.3
13	21	SLU STR.	-325.2	-1.5	-155225.0	3356.4	98479.0	933.0
14	21	SLU STR.	-345.2	-1.7	-160025.0	3572.1	104982.0	1001.2
15	21	SLE Rare	-328.6	-0.8	-129375.0	2323.0	85343.0	629.9
16	21	SLE Rare	-335.2	-0.9	-130955.0	2394.6	87578.0	652.7
17	21	SLE Rare	-319.0	-1.5	-154825.0	3329.8	96997.0	924.1
18	21	SLE Rare	-325.7	-1.5	-156425.0	3402.4	99232.0	946.9
19	21	SLE Rare	-341.9	-1.0	-132535.0	2467.1	89712.0	675.4
20	21	SLE Rare	-321.9	-1.3	-147215.0	3028.0	93511.0	835.9
21	21	SLE Rare	-335.2	-1.4	-150375.0	3172.1	97880.0	881.4
22	21	SLE Freq.	-328.6	-0.8	-129375.0	2323.0	85343.0	629.9
23	21	SLE Freq.	-321.9	-1.3	-147215.0	3028.0	93511.0	835.9
24	21	SLE Freq.	-331.2	-0.9	-130005.0	2351.8	86277.0	639.0
25	21	SLE Freq.	-322.8	-1.2	-144665.0	2927.7	92416.0	806.5
26	21	SLE Freq.	-325.5	-1.2	-145295.0	2956.5	93249.0	815.6
27	21	SLE Quasi P.	-328.6	-0.8	-129375.0	2323.0	85343.0	629.9
28	21	SLE Quasi P.	-322.8	-1.2	-144665.0	2927.7	92416.0	806.5
29	21	SLU A1 sism.	54090.0	24400.0	-123365.0	-1103000.0	1790000.0	279900.0
30	21	SLU A1 sism.	54290.0	24400.0	-152125.0	-1103000.0	1829000.0	280100.0
31	21	SLU A1 sism.	54040.0	-9946.5	-123385.0	593345.0	1787000.0	57630.0
32	21	SLU A1 sism.	54250.0	-9949.5	-152225.0	594253.0	1827000.0	57840.0
33	21	SLU A1 sism.	-54900.0	9947.1	-137135.0	-588411.1	-1643000.0	-56230.0
34	21	SLU A1 sism.	-54690.0	9944.0	-165925.0	-587504.0	-1603000.0	-56010.0
35	21	SLU A1 sism.	-54940.0	-24400.0	-137155.0	1108000.0	-1645000.0	-278500.0
36	21	SLU A1 sism.	-54730.0	-24400.0	-165925.0	1109000.0	-1605000.0	-278300.0
37	21	SLU A1 sism.	54080.0	17550.0	-123365.0	-866000.0	1790000.0	92120.0
38	21	SLU A1 sism.	54290.0	17540.0	-152125.0	-864300.0	1830000.0	92330.0
39	21	SLU A1 sism.	54050.0	-3090.6	-123385.0	355435.0	1788000.0	245400.0
40	21	SLU A1 sism.	54260.0	-3093.6	-152225.0	356392.0	1828000.0	245600.0
41	21	SLU A1 sism.	-54900.0	3091.2	-137135.0	-350531.0	-1642000.0	-244000.0
42	21	SLU A1 sism.	-54700.0	3088.1	-165925.0	-349583.0	-1603000.0	-243800.0
43	21	SLU A1 sism.	-54930.0	-17550.0	-137155.0	871000.0	-1644000.0	-90720.0
44	21	SLU A1 sism.	-54730.0	-17550.0	-165925.0	871600.0	-1606000.0	-90510.0
45	21	SLU A1 sism.	54100.0	9958.3	-123365.0	-585133.0	1790000.0	-53670.0
46	21	SLU A1 sism.	54310.0	9955.3	-152125.0	-584226.0	1830000.0	-53450.0
47	21	SLU A1 sism.	54060.0	-24390.0	-123385.0	1112000.0	1788000.0	-275900.0
48	21	SLU A1 sism.	54270.0	-24390.0	-152225.0	1112000.0	1828000.0	-275700.0
49	21	SLU A1 sism.	-54910.0	24390.0	-137135.0	-1107000.0	-1642000.0	277300.0
50	21	SLU A1 sism.	-54700.0	24390.0	-165925.0	-1106000.0	-1602000.0	277600.0
51	21	SLU A1 sism.	-54960.0	-9957.7	-137165.0	590067.0	-1646000.0	55070.0
52	21	SLU A1 sism.	-54750.0	-9960.7	-165925.0	590974.0	-1606000.0	55280.0
53	21	SLU A1 sism.	54100.0	3102.4	-123365.0	-347243.0	1790000.0	-241400.0
54	21	SLU A1 sism.	54300.0	3099.4	-152125.0	-346295.0	1829000.0	-241200.0
55	21	SLU A1 sism.	54070.0	-17530.0	-123385.0	873400.0	1788000.0	-88160.0
56	21	SLU A1 sism.	54270.0	-17540.0	-152225.0	875000.0	1827000.0	-87950.0
57	21	SLU A1 sism.	-54920.0	17530.0	-137145.0	-868400.0	-1643000.0	89560.0
58	21	SLU A1 sism.	-54710.0	17530.0	-165925.0	-867800.0	-1603000.0	89770.0
59	21	SLU A1 sism.	-54950.0	-3101.8	-137155.0	352146.0	-1645000.0	242800.0
60	21	SLU A1 sism.	-54740.0	-3104.8	-165925.0	353104.0	-1605000.0	243100.0
61	21	SLU A1 sism.	15990.0	59420.0	-128155.0	-2903000.0	592000.0	421600.0
62	21	SLU A1 sism.	16200.0	59410.0	-156925.0	-2902000.0	631400.0	421800.0
63	21	SLU A1 sism.	15850.0	-55080.0	-128235.0	2753000.0	583000.0	-319300.0
64	21	SLU A1 sism.	16060.0	-55080.0	-157025.0	2754000.0	622900.0	-319100.0
65	21	SLU A1 sism.	-16700.0	55080.0	-132295.0	-2748000.0	-438000.0	320700.0
66	21	SLU A1 sism.	-16490.0	55080.0	-161125.0	-2748000.0	-398000.0	320900.0
67	21	SLU A1 sism.	-16850.0	-59410.0	-132365.0	2907000.0	-447000.0	-420200.0
68	21	SLU A1 sism.	-16640.0	-59420.0	-161125.0	2909000.0	-407000.0	-420000.0
69	21	SLU A1 sism.	16000.0	55080.0	-128155.0	-2747000.0	592000.0	321500.0
70	21	SLU A1 sism.	16210.0	55080.0	-156925.0	-2746000.0	632000.0	321700.0
71	21	SLU A1 sism.	15850.0	-59410.0	-128235.0	2909000.0	583000.0	-419400.0
72	21	SLU A1 sism.	16060.0	-59410.0	-157025.0	2909000.0	622500.0	-419200.0

73	21	SLU A1 sism.	-16710.0	59410.0	-132295.0	-2904000.0	-438000.0	420800.0
74	21	SLU A1 sism.	-16500.0	59410.0	-161125.0	-2903000.0	-398000.0	421000.0
75	21	SLU A1 sism.	-16850.0	-55080.0	-132365.0	2752000.0	-447000.0	-320100.0
76	21	SLU A1 sism.	-16640.0	-55080.0	-161125.0	2753000.0	-407000.0	-319900.0
77	21	SLU A1 sism.	15970.0	36560.0	-128165.0	-2110000.0	591000.0	-204400.0
78	21	SLU A1 sism.	16180.0	36560.0	-156925.0	-2109000.0	630600.0	-204100.0
79	21	SLU A1 sism.	15870.0	-32230.0	-128225.0	1961000.0	584000.0	306600.0
80	21	SLU A1 sism.	16080.0	-32230.0	-157025.0	1961000.0	623700.0	306800.0
81	21	SLU A1 sism.	-16730.0	32230.0	-132295.0	-1956000.0	-439000.0	-305200.0
82	21	SLU A1 sism.	-16520.0	32220.0	-161125.0	-1954000.0	-400000.0	-305000.0
83	21	SLU A1 sism.	-16820.0	-36560.0	-132355.0	2115000.0	-445000.0	205800.0
84	21	SLU A1 sism.	-16620.0	-36560.0	-161125.0	2115000.0	-407000.0	206000.0
85	21	SLU A1 sism.	15970.0	32230.0	-128165.0	-1954000.0	590000.0	-304400.0
86	21	SLU A1 sism.	16180.0	32230.0	-156925.0	-1954000.0	630200.0	-304200.0
87	21	SLU A1 sism.	15880.0	-36560.0	-128225.0	2116000.0	584000.0	206500.0
88	21	SLU A1 sism.	16080.0	-36560.0	-157025.0	2117000.0	623300.0	206700.0
89	21	SLU A1 sism.	-16730.0	36560.0	-132295.0	-2111000.0	-439000.0	-205100.0
90	21	SLU A1 sism.	-16520.0	36560.0	-161125.0	-2110000.0	-399000.0	-204900.0
91	21	SLU A1 sism.	-16830.0	-32230.0	-132355.0	1959000.0	-446000.0	305800.0
92	21	SLU A1 sism.	-16620.0	-32230.0	-161125.0	1960000.0	-406000.0	306000.0
221	21	SLU A1 sism.	15700.0	19350.0	-94575.0	-925000.0	543000.0	162000.0
222	21	SLU A1 sism.	16390.0	19340.0	-190625.0	-922000.0	674300.0	162700.0
223	21	SLU A1 sism.	15660.0	-15000.0	-94595.0	772300.0	540000.0	-60270.0
224	21	SLU A1 sism.	16350.0	-15010.0	-190625.0	775400.0	672000.0	-59550.0
225	21	SLU A1 sism.	-16990.0	15010.0	-98705.0	-769800.0	-487000.0	61160.0
226	21	SLU A1 sism.	-16300.0	15000.0	-194725.0	-766700.0	-355000.0	61880.0
227	21	SLU A1 sism.	-17040.0	-19340.0	-98735.0	927000.0	-490000.0	-161100.0
228	21	SLU A1 sism.	-16350.0	-19350.0	-194725.0	930000.0	-358000.0	-160400.0
229	21	SLU A1 sism.	15690.0	12490.0	-94575.0	-686400.0	542000.0	-25780.0
230	21	SLU A1 sism.	16390.0	12480.0	-190625.0	-683200.0	674700.0	-25060.0
231	21	SLU A1 sism.	15660.0	-8146.0	-94595.0	534603.0	540000.0	127500.0
232	21	SLU A1 sism.	16360.0	-8156.3	-190625.0	537728.0	672600.0	128200.0
233	21	SLU A1 sism.	-17000.0	8153.9	-98705.0	-531886.0	-487000.0	-126600.0
234	21	SLU A1 sism.	-16310.0	8143.6	-194725.0	-528761.0	-356000.0	-125900.0
235	21	SLU A1 sism.	-17030.0	-12480.0	-98725.0	688900.0	-489000.0	26670.0
236	21	SLU A1 sism.	-16340.0	-12490.0	-194725.0	692000.0	-358000.0	27390.0
237	21	SLU A1 sism.	15710.0	15010.0	-94575.0	-768500.0	543000.0	61930.0
238	21	SLU A1 sism.	16400.0	15000.0	-190625.0	-765300.0	674900.0	62650.0
239	21	SLU A1 sism.	15660.0	-19330.0	-94595.0	927000.0	540000.0	-160300.0
240	21	SLU A1 sism.	16350.0	-19350.0	-190625.0	932000.0	671600.0	-159600.0
241	21	SLU A1 sism.	-17000.0	19340.0	-98705.0	-925000.0	-487000.0	161200.0
242	21	SLU A1 sism.	-16310.0	19330.0	-194725.0	-922000.0	-356000.0	162000.0
243	21	SLU A1 sism.	-17040.0	-15010.0	-98735.0	772000.0	-490000.0	-61040.0
244	21	SLU A1 sism.	-16350.0	-15020.0	-194725.0	775100.0	-358000.0	-60320.0
245	21	SLU A1 sism.	15700.0	8157.2	-94575.0	-530923.0	543000.0	-125800.0
246	21	SLU A1 sism.	16390.0	8147.0	-190625.0	-527698.0	674300.0	-125100.0
247	21	SLU A1 sism.	15670.0	-12480.0	-94595.0	690200.0	540000.0	27440.0
248	21	SLU A1 sism.	16360.0	-12490.0	-190625.0	693300.0	672200.0	28160.0
249	21	SLU A1 sism.	-17010.0	12490.0	-98715.0	-687700.0	-488000.0	-26540.0
250	21	SLU A1 sism.	-16310.0	12480.0	-194725.0	-684600.0	-355000.0	-25830.0
251	21	SLU A1 sism.	-17040.0	-8149.4	-98725.0	533639.0	-490000.0	126700.0
252	21	SLU A1 sism.	-16340.0	-8159.6	-194725.0	536764.0	-357000.0	127500.0
1	23	SLU STR.	-234.2	-3104.2	-181412.5	-513976.0	92382.0	2502.2
2	23	SLU STR.	-217.6	-3535.9	-185612.5	-586006.0	90741.0	2756.0
3	23	SLU STR.	3.1	-6921.4	-235912.5	-1151862.0	73372.0	4507.3
4	23	SLU STR.	19.7	-7353.1	-240112.5	-1223692.0	71791.0	4761.0
5	23	SLU STR.	-187.5	-2428.7	-138205.0	-402232.0	71413.0	1934.6
6	23	SLU STR.	-170.9	-2860.4	-142435.0	-474362.0	69832.0	2188.3
7	23	SLU STR.	49.8	-6245.8	-192725.0	-1040418.0	52433.0	3939.6
8	23	SLU STR.	66.4	-6677.5	-196925.0	-1112248.0	50842.0	4193.4
9	23	SLU STR.	-201.0	-3967.6	-189912.5	-658236.0	89201.0	3009.7
10	23	SLU STR.	-68.1	-5776.2	-219512.5	-960376.0	79073.0	3905.8
11	23	SLU STR.	-34.9	-6639.6	-228012.5	-1105036.0	75902.0	4413.3
12	23	SLU STR.	-154.3	-3292.1	-146675.0	-546393.0	68252.0	2442.1
13	23	SLU STR.	-21.4	-5100.7	-176325.0	-848933.0	58124.0	3338.1
14	23	SLU STR.	11.8	-5964.1	-184825.0	-992593.0	54963.0	3845.6

15	23	SLE Rare	-183.3	-2405.6	-138955.0	-398338.0	71207.0	1929.0
16	23	SLE Rare	-172.3	-2693.4	-141785.0	-446458.0	70154.0	2098.2
17	23	SLE Rare	-25.1	-4950.4	-175325.0	-823962.0	58547.0	3265.8
18	23	SLE Rare	-14.1	-5238.2	-178125.0	-871182.0	57493.0	3434.9
19	23	SLE Rare	-161.2	-2981.2	-144605.0	-494479.0	69100.0	2267.4
20	23	SLE Rare	-72.6	-4187.0	-164425.0	-696305.0	62341.0	2864.7
21	23	SLE Rare	-50.5	-4762.6	-170025.0	-791745.0	60234.0	3203.1
22	23	SLE Freq.	-183.3	-2405.6	-138955.0	-398338.0	71207.0	1929.0
23	23	SLE Freq.	-72.6	-4187.0	-164425.0	-696305.0	62341.0	2864.7
24	23	SLE Freq.	-178.9	-2520.7	-140085.0	-417626.0	70780.0	1996.7
25	23	SLE Freq.	-88.4	-3932.5	-160725.0	-653753.0	63609.0	2731.1
26	23	SLE Freq.	-84.0	-4047.6	-161925.0	-673241.0	63192.0	2798.7
27	23	SLE Quasi P.	-183.3	-2405.6	-138955.0	-398338.0	71207.0	1929.0
28	23	SLE Quasi P.	-88.4	-3932.5	-160725.0	-653753.0	63609.0	2731.1
29	23	SLU A1 sism.	42200.0	20120.0	-194425.0	-1675400.0	1424000.0	339400.0
30	23	SLU A1 sism.	42270.0	19220.0	-226725.0	-1823880.0	1472000.0	340000.0
31	23	SLU A1 sism.	49320.0	-17530.0	-139425.0	-626000.0	1321000.0	111600.0
32	23	SLU A1 sism.	49390.0	-18430.0	-171725.0	-774000.0	1370000.0	112200.0
33	23	SLU A1 sism.	-49570.0	10570.0	-149835.0	-533100.0	-1243000.0	-106700.0
34	23	SLU A1 sism.	-4500.0	9669.8	-182125.0	-681580.0	-1194000.0	-106200.0
35	23	SLU A1 sism.	-42450.0	-27090.0	-94845.0	517000.0	-1346000.0	-334500.0
36	23	SLU A1 sism.	-42380.0	-27990.0	-127115.0	369000.0	-1297000.0	-333900.0
37	23	SLU A1 sism.	47960.0	12610.0	-187825.0	-1563700.0	1407000.0	153000.0
38	23	SLU A1 sism.	48030.0	11710.0	-220125.0	-1712100.0	1456000.0	153500.0
39	23	SLU A1 sism.	43570.0	-10020.0	-146025.0	-738000.0	1339000.0	298100.0
40	23	SLU A1 sism.	43640.0	-10920.0	-178325.0	-886000.0	1387000.0	298600.0
41	23	SLU A1 sism.	-43810.0	3057.3	-143235.0	-421026.0	-1259000.0	-293100.0
42	23	SLU A1 sism.	-43740.0	2157.9	-175525.0	-569589.0	-1211000.0	-292600.0
43	23	SLU A1 sism.	-48210.0	-19580.0	-101445.0	406000.0	-1329000.0	-148100.0
44	23	SLU A1 sism.	-48140.0	-20480.0	-133715.0	257000.0	-1280000.0	-147500.0
45	23	SLU A1 sism.	49470.0	3753.2	-185625.0	-1507322.0	1398000.0	240800.0
46	23	SLU A1 sism.	49540.0	2853.9	-217925.0	-1656385.0	1446000.0	241300.0
47	23	SLU A1 sism.	56590.0	-33900.0	-130665.0	-458000.0	1295000.0	12990.0
48	23	SLU A1 sism.	56660.0	-34800.0	-162925.0	-607000.0	1343000.0	13540.0
49	23	SLU A1 sism.	-56840.0	26940.0	-158625.0	-701000.0	-1217000.0	-8081.3
50	23	SLU A1 sism.	-56770.0	26040.0	-190825.0	-850000.0	-1168000.0	-7527.7
51	23	SLU A1 sism.	-49710.0	-10720.0	-103605.0	349400.0	-1318000.0	-235800.0
52	23	SLU A1 sism.	-49640.0	-11620.0	-135875.0	200900.0	-1270000.0	-235300.0
53	23	SLU A1 sism.	55220.0	-3758.7	-179025.0	-1396131.0	1380000.0	54330.0
54	23	SLU A1 sism.	55290.0	-4658.1	-211325.0	-1544194.0	1429000.0	54890.0
55	23	SLU A1 sism.	50830.0	-26390.0	-137265.0	-570000.0	1311000.0	199400.0
56	23	SLU A1 sism.	50900.0	-27290.0	-169525.0	-718000.0	1360000.0	200000.0
57	23	SLU A1 sism.	-51080.0	19430.0	-152025.0	-589000.0	-1233000.0	-194500.0
58	23	SLU A1 sism.	-51010.0	18530.0	-184225.0	-738000.0	-1184000.0	-193900.0
59	23	SLU A1 sism.	-55470.0	-3206.9	-110205.0	237309.0	-1302000.0	-49420.0
60	23	SLU A1 sism.	-55400.0	-4106.3	-142475.0	88725.0	-1253000.0	-48870.0
61	23	SLU A1 sism.	1771.2	60710.0	-242925.0	-2501000.0	610122.0	449000.0
62	23	SLU A1 sism.	1840.6	59810.0	-275225.0	-2649000.0	658755.0	449500.0
63	23	SLU A1 sism.	25510.0	-64810.0	-59669.9	999000.0	268000.0	-310200.0
64	23	SLU A1 sism.	25580.0	-65710.0	-91935.0	851000.0	317000.0	-309700.0
65	23	SLU A1 sism.	-25760.0	57850.0	-229625.0	-2158000.0	-190000.0	315100.0
66	23	SLU A1 sism.	-25690.0	56950.0	-261825.0	-2307000.0	-141000.0	315700.0
67	23	SLU A1 sism.	-2017.4	-67680.0	-46296.1	1343000.0	-531537.0	-444100.0
68	23	SLU A1 sism.	-1948.0	-68580.0	-78565.0	1194000.0	-482904.0	-443500.0
69	23	SLU A1 sism.	3950.5	55800.0	-240325.0	-2450000.0	602147.0	419400.0
70	23	SLU A1 sism.	4019.8	54900.0	-272625.0	-2599000.0	650680.0	419900.0
71	23	SLU A1 sism.	27690.0	-69720.0	-57042.1	1050000.0	260000.0	-339800.0
72	23	SLU A1 sism.	27760.0	-70620.0	-89305.0	901000.0	309000.0	-339300.0
73	23	SLU A1 sism.	-27940.0	62760.0	-232225.0	-2209000.0	-182000.0	344700.0
74	23	SLU A1 sism.	-27870.0	61860.0	-264525.0	-2357000.0	-133000.0	345300.0
75	23	SLU A1 sism.	-4196.6	-62770.0	-48923.9	1292000.0	-523461.0	-414500.0
76	23	SLU A1 sism.	-4127.3	-63670.0	-81185.0	1144000.0	-474889.0	-413900.0
77	23	SLU A1 sism.	20970.0	35670.0	-220925.0	-2128000.0	555000.0	-172400.0
78	23	SLU A1 sism.	21040.0	34770.0	-253225.0	-2276000.0	604000.0	-171900.0
79	23	SLU A1 sism.	6318.7	-39770.0	-81665.0	626000.0	323967.0	311200.0
80	23	SLU A1 sism.	6388.0	-40670.0	-113935.0	478000.0	372600.0	311700.0

81	23	SLU A1 sism.	-6564.8	32810.0	-207625.0	-1785000.0	-245382.0	-306300.0
82	23	SLU A1 sism.	-6495.5	31910.0	-239825.0	-1934000.0	-196749.0	-305700.0
83	23	SLU A1 sism.	-21210.0	-42640.0	-68295.0	969000.0	-476000.0	177300.0
84	23	SLU A1 sism.	-21140.0	-43540.0	-100555.0	821000.0	-427000.0	177900.0
85	23	SLU A1 sism.	23150.0	30760.0	-218325.0	-2077200.0	547000.0	-202000.0
86	23	SLU A1 sism.	23220.0	29860.0	-250625.0	-2225700.0	596000.0	-201500.0
87	23	SLU A1 sism.	8497.9	-44680.0	-79035.0	677000.0	315992.0	281600.0
88	23	SLU A1 sism.	8567.3	-45580.0	-111305.0	528000.0	364525.0	282100.0
89	23	SLU A1 sism.	-8744.1	37720.0	-210225.0	-1836000.0	-237307.0	-276700.0
90	23	SLU A1 sism.	-8674.7	36820.0	-242525.0	-1984000.0	-188774.0	-276100.0
91	23	SLU A1 sism.	-23390.0	-37730.0	-70925.0	919000.0	-468000.0	206900.0
92	23	SLU A1 sism.	-23320.0	-38630.0	-103185.0	771000.0	-419000.0	207500.0
221	23	SLU A1 sism.	10000.0	17830.0	-141175.0	-1102600.0	433800.0	182600.0
222	23	SLU A1 sism.	10230.0	14830.0	-248725.0	-1597500.0	595700.0	184500.0
223	23	SLU A1 sism.	17120.0	-19830.0	-86185.0	-52000.0	331000.0	-45150.0
224	23	SLU A1 sism.	17350.0	-22830.0	-193725.0	-547000.0	493000.0	-43310.0
225	23	SLU A1 sism.	-17530.0	14960.0	-127795.0	-759400.0	-366000.0	48770.0
226	23	SLU A1 sism.	-17300.0	11960.0	-235325.0	-1254340.0	-204000.0	50610.0
227	23	SLU A1 sism.	-10410.0	-22700.0	-72805.0	291000.0	-468800.0	-179000.0
228	23	SLU A1 sism.	-10180.0	-25690.0	-180325.0	-205000.0	-306900.0	-177100.0
229	23	SLU A1 sism.	15760.0	10320.0	-134575.0	-990880.0	417000.0	-3810.0
230	23	SLU A1 sism.	15990.0	7318.7	-242125.0	-1485668.0	579000.0	-1964.8
231	23	SLU A1 sism.	11360.0	-12320.0	-92785.0	-164000.0	347600.0	141300.0
232	23	SLU A1 sism.	11600.0	-15320.0	-200325.0	-659000.0	510500.0	143100.0
233	23	SLU A1 sism.	-11770.0	7450.4	-121195.0	-647719.0	-382600.0	-137600.0
234	23	SLU A1 sism.	-11540.0	4452.5	-228725.0	-1142851.0	-220700.0	-135800.0
235	23	SLU A1 sism.	-16170.0	-15180.0	-79405.0	178000.0	-452000.0	7426.9
236	23	SLU A1 sism.	-15940.0	-18180.0	-186925.0	-317000.0	-290000.0	9272.1
237	23	SLU A1 sism.	12180.0	12920.0	-138545.0	-1052300.0	425900.0	153000.0
238	23	SLU A1 sism.	12410.0	9919.6	-246125.0	-1547163.0	587800.0	154900.0
239	23	SLU A1 sism.	19300.0	-24740.0	-83555.0	-2000.0	323000.0	-74750.0
240	23	SLU A1 sism.	19530.0	-27740.0	-191125.0	-497000.0	485000.0	-72900.0
241	23	SLU A1 sism.	-19710.0	19870.0	-130425.0	-810000.0	-358000.0	78360.0
242	23	SLU A1 sism.	-19480.0	16880.0	-237925.0	-1305600.0	-196000.0	80210.0
243	23	SLU A1 sism.	-12590.0	-17780.0	-75435.0	240000.0	-460900.0	-149400.0
244	23	SLU A1 sism.	-12360.0	-20780.0	-183025.0	-255000.0	-299000.0	-147600.0
245	23	SLU A1 sism.	17940.0	5405.6	-131945.0	-940160.0	409000.0	-33400.0
246	23	SLU A1 sism.	18170.0	2407.7	-239525.0	-1435772.0	571000.0	-31560.0
247	23	SLU A1 sism.	13540.0	-17230.0	-90155.0	-114000.0	340000.0	111700.0
248	23	SLU A1 sism.	13780.0	-20230.0	-197725.0	-609000.0	502500.0	113500.0
249	23	SLU A1 sism.	-13950.0	12360.0	-123825.0	-698000.0	-375000.0	-108100.0
250	23	SLU A1 sism.	-13720.0	9363.5	-231325.0	-1193247.0	-213000.0	-106200.0
251	23	SLU A1 sism.	-18350.0	-10270.0	-82035.0	128000.0	-444000.0	37020.0
252	23	SLU A1 sism.	-18120.0	-13270.0	-189625.0	-367000.0	-282000.0	38870.0
1	25	SLU STR.	259.8	3028.0	-183112.5	511696.0	12969.0	-136.9
2	25	SLU STR.	288.8	3429.4	-187212.5	579664.0	9443.0	-325.7
3	25	SLU STR.	668.6	6632.3	-236612.5	1121767.0	-32798.0	-1021.2
4	25	SLU STR.	697.7	7033.7	-240812.5	1189635.0	-36335.0	-1210.0
5	25	SLU STR.	187.6	2361.9	-139525.0	399208.0	11121.1	-159.3
6	25	SLU STR.	216.6	2763.2	-143685.0	467176.0	7600.0	-348.1
7	25	SLU STR.	596.4	5966.2	-193125.0	1009379.0	-34651.0	-1043.7
8	25	SLU STR.	625.4	6367.5	-197225.0	1077247.0	-38157.0	-1232.5
9	25	SLU STR.	317.9	3830.7	-191412.5	647932.0	5926.0	-514.5
10	25	SLU STR.	546.0	5551.0	-220612.5	938896.0	-19073.0	-755.9
11	25	SLU STR.	604.0	6353.7	-228912.5	1074631.0	-26106.0	-1133.5
12	25	SLU STR.	245.6	3164.6	-147845.0	535144.0	4083.0	-536.9
13	25	SLU STR.	473.7	4884.9	-177025.0	826508.0	-20916.0	-778.4
14	25	SLU STR.	531.8	5687.6	-185325.0	962243.0	-27959.0	-1156.0
15	25	SLE Rare	194.5	2343.5	-140265.0	396054.0	10472.4	-128.8
16	25	SLE Rare	213.9	2611.0	-143045.0	441399.0	8126.0	-254.6
17	25	SLE Rare	467.1	4746.3	-175925.0	802368.0	-20035.0	-718.4
18	25	SLE Rare	486.4	5013.9	-178725.0	848613.0	-22389.0	-844.2
19	25	SLE Rare	233.2	2878.6	-145815.0	486644.0	5781.0	-380.5
20	25	SLE Rare	385.3	4025.5	-165225.0	680454.0	-10881.0	-541.5
21	25	SLE Rare	424.0	4560.6	-170825.0	770944.0	-15580.0	-793.2
22	25	SLE Freq.	194.5	2343.5	-140265.0	396054.0	10472.4	-128.8

23	25	SLE Freq.	385.3	4025.5	-165225.0	680454.0	-10881.0	-541.5
24	25	SLE Freq.	202.2	2450.5	-141375.0	414152.0	9534.0	-179.1
25	25	SLE Freq.	358.0	3785.2	-161725.0	640482.0	-7837.0	-482.5
26	25	SLE Freq.	365.8	3892.2	-162825.0	657781.0	-8772.0	-532.9
27	25	SLE Quasi P.	194.5	2343.5	-140265.0	396054.0	10472.4	-128.8
28	25	SLE Quasi P.	358.0	3785.2	-161725.0	640482.0	-7837.0	-482.5
29	25	SLU A1 sism.	54000.0	35460.0	-176225.0	-67000.0	1754000.0	-15340.0
30	25	SLU A1 sism.	54700.0	36290.0	-207325.0	73000.0	1695000.0	-16010.0
31	25	SLU A1 sism.	47240.0	-6491.9	-232925.0	1009585.0	1785000.0	-230300.0
32	25	SLU A1 sism.	47940.0	-5667.5	-264025.0	1149446.0	1727000.0	-231000.0
33	25	SLU A1 sism.	-47220.0	13240.0	-59346.6	131000.0	-1742000.0	230000.0
34	25	SLU A1 sism.	-46520.0	14060.0	-90465.0	271000.0	-1800000.0	229400.0
35	25	SLU A1 sism.	-53980.0	-28720.0	-116045.0	1208000.0	-1711000.0	15050.0
36	25	SLU A1 sism.	-53280.0	-27890.0	-147165.0	1347000.0	-1769000.0	14380.0
37	25	SLU A1 sism.	48440.0	24760.0	-182625.0	35000.0	1734000.0	-198800.0
38	25	SLU A1 sism.	49140.0	25580.0	-213825.0	175000.0	1676000.0	-199400.0
39	25	SLU A1 sism.	52790.0	4214.7	-226425.0	907526.0	1803000.0	-46910.0
40	25	SLU A1 sism.	53490.0	5039.1	-257525.0	1047087.0	1745000.0	-47580.0
41	25	SLU A1 sism.	-52780.0	2531.2	-65805.0	232778.0	-1761000.0	46620.0
42	25	SLU A1 sism.	-52080.0	3355.6	-96925.0	372639.0	-1820000.0	45940.0
43	25	SLU A1 sism.	-48430.0	-18010.0	-109585.0	1105400.0	-1692000.0	198500.0
44	25	SLU A1 sism.	-47730.0	-17190.0	-140705.0	1245800.0	-1751000.0	197800.0
45	25	SLU A1 sism.	47160.0	12540.0	-185925.0	195000.0	1713000.0	-115400.0
46	25	SLU A1 sism.	47860.0	13370.0	-217025.0	334000.0	1654000.0	-116100.0
47	25	SLU A1 sism.	40400.0	-29410.0	-242625.0	1271000.0	1744000.0	-330400.0
48	25	SLU A1 sism.	41100.0	-28590.0	-273725.0	1412000.0	1685000.0	-331100.0
49	25	SLU A1 sism.	-40380.0	36160.0	-49639.6	-131000.0	-1701000.0	330100.0
50	25	SLU A1 sism.	-39680.0	36980.0	-80765.0	9000.0	-1759000.0	329500.0
51	25	SLU A1 sism.	-47140.0	-5797.5	-106335.0	945554.0	-1669000.0	115100.0
52	25	SLU A1 sism.	-46440.0	-4973.2	-137455.0	1085515.0	-1728000.0	114500.0
53	25	SLU A1 sism.	41600.0	1836.9	-192425.0	296709.0	1693000.0	-298900.0
54	25	SLU A1 sism.	42300.0	2661.3	-223525.0	436669.0	1635000.0	-299500.0
55	25	SLU A1 sism.	45950.0	-18710.0	-236125.0	1170000.0	1762000.0	-147000.0
56	25	SLU A1 sism.	46650.0	-17880.0	-267325.0	1309300.0	1704000.0	-147700.0
57	25	SLU A1 sism.	-45940.0	25450.0	-56100.4	-29000.0	-1720000.0	146700.0
58	25	SLU A1 sism.	-45240.0	26280.0	-87225.0	110000.0	-1778000.0	146000.0
59	25	SLU A1 sism.	-41590.0	4909.0	-99875.0	844096.0	-1651000.0	298600.0
60	25	SLU A1 sism.	-40890.0	5733.4	-130995.0	983656.0	-1709000.0	297900.0
61	25	SLU A1 sism.	26460.0	76630.0	-69165.0	-1254000.0	494000.0	321400.0
62	25	SLU A1 sism.	27160.0	77460.0	-100285.0	-1114000.0	436000.0	320700.0
63	25	SLU A1 sism.	3918.9	-63220.0	-258125.0	2335000.0	597092.0	-395300.0
64	25	SLU A1 sism.	4618.6	-62400.0	-289325.0	2475000.0	538697.0	-395900.0
65	25	SLU A1 sism.	-3902.5	69970.0	-34105.0	-1195000.0	-554351.0	395000.0
66	25	SLU A1 sism.	-3202.9	70790.0	-65225.0	-1055000.0	-612785.0	394300.0
67	25	SLU A1 sism.	-26450.0	-69890.0	-223125.0	2395000.0	-452000.0	-321700.0
68	25	SLU A1 sism.	-25750.0	-69060.0	-254225.0	2534000.0	-510000.0	-322300.0
69	25	SLU A1 sism.	24410.0	69760.0	-72075.0	-1176000.0	482000.0	291300.0
70	25	SLU A1 sism.	25110.0	70580.0	-103195.0	-1035000.0	423000.0	290700.0
71	25	SLU A1 sism.	1867.0	-70100.0	-261025.0	2414000.0	584699.0	-425300.0
72	25	SLU A1 sism.	2566.6	-69270.0	-292225.0	2553000.0	526264.0	-426000.0
73	25	SLU A1 sism.	-1850.6	76840.0	-31195.0	-1273000.0	-541958.0	425000.0
74	25	SLU A1 sism.	-1150.9	77670.0	-62315.0	-1134000.0	-600392.0	424300.0
75	25	SLU A1 sism.	-24400.0	-63010.0	-220225.0	2316000.0	-440000.0	-291600.0
76	25	SLU A1 sism.	-23700.0	-62190.0	-251325.0	2456000.0	-498000.0	-292300.0
77	25	SLU A1 sism.	7945.9	40950.0	-90695.0	-915000.0	431291.0	-290000.0
78	25	SLU A1 sism.	8645.6	41770.0	-121815.0	-774000.0	372856.0	-290700.0
79	25	SLU A1 sism.	22440.0	-27530.0	-236625.0	1995000.0	661000.0	216100.0
80	25	SLU A1 sism.	23140.0	-26710.0	-267725.0	2135400.0	602000.0	215500.0
81	25	SLU A1 sism.	-22420.0	34280.0	-55638.2	-855000.0	-617000.0	-216400.0
82	25	SLU A1 sism.	-21720.0	35100.0	-86755.0	-715000.0	-676000.0	-217100.0
83	25	SLU A1 sism.	-7929.5	-34200.0	-201525.0	2055000.0	-388549.0	289800.0
84	25	SLU A1 sism.	-7229.8	-33380.0	-232725.0	2195000.0	-446884.0	289100.0
85	25	SLU A1 sism.	5894.0	34070.0	-93615.0	-836000.0	418897.0	-320100.0
86	25	SLU A1 sism.	6593.6	34890.0	-124735.0	-695000.0	360463.0	-320700.0
87	25	SLU A1 sism.	20380.0	-34410.0	-239525.0	2074000.0	647000.0	186100.0
88	25	SLU A1 sism.	21080.0	-33580.0	-270625.0	2213000.0	589000.0	185400.0

89	25	SLU A1 sism.	-20370.0	41150.0	-52726.1	-933000.0	-605000.0	-186400.0
90	25	SLU A1 sism.	-19670.0	41980.0	-83845.0	-794000.0	-664000.0	-187100.0
91	25	SLU A1 sism.	-5877.6	-27320.0	-198625.0	1975700.0	-376156.0	319800.0
92	25	SLU A1 sism.	-5177.9	-26500.0	-229725.0	2116000.0	-434521.0	319100.0
221	25	SLU A1 sism.	17760.0	26720.0	-99005.0	-161000.0	599000.0	71330.0
222	25	SLU A1 sism.	20090.0	29470.0	-202725.0	305000.0	404000.0	69090.0
223	25	SLU A1 sism.	10990.0	-15230.0	-155725.0	915400.0	629000.0	-143700.0
224	25	SLU A1 sism.	13330.0	-12490.0	-259425.0	1382500.0	435000.0	-145900.0
225	25	SLU A1 sism.	-12610.0	20060.0	-63945.0	-102000.0	-450300.0	144900.0
226	25	SLU A1 sism.	-10280.0	22800.0	-167725.0	365000.0	-645300.0	142700.0
227	25	SLU A1 sism.	-19370.0	-21900.0	-120635.0	975000.0	-419000.0	-70050.0
228	25	SLU A1 sism.	-17040.0	-19150.0	-224425.0	1441100.0	-614000.0	-72290.0
229	25	SLU A1 sism.	12200.0	16020.0	-105465.0	-59000.0	579400.0	-112100.0
230	25	SLU A1 sism.	14530.0	18760.0	-209225.0	408000.0	384000.0	-114300.0
231	25	SLU A1 sism.	16550.0	-4526.5	-149235.0	813647.0	648000.0	39760.0
232	25	SLU A1 sism.	18880.0	-1778.5	-253025.0	1279849.0	453000.0	37520.0
233	25	SLU A1 sism.	-18160.0	9348.8	-70405.0	216.0	-469000.0	-38480.0
234	25	SLU A1 sism.	-15830.0	12100.0	-174125.0	466000.0	-663700.0	-40720.0
235	25	SLU A1 sism.	-13820.0	-11190.0	-114175.0	872600.0	-400800.0	113400.0
236	25	SLU A1 sism.	-11490.0	-8446.6	-217925.0	1339456.0	-595700.0	111100.0
237	25	SLU A1 sism.	15700.0	19850.0	-101915.0	-83000.0	585600.0	41300.0
238	25	SLU A1 sism.	18040.0	22600.0	-205625.0	383000.0	392000.0	39060.0
239	25	SLU A1 sism.	8941.4	-22110.0	-158625.0	994000.0	616936.1	-173700.0
240	25	SLU A1 sism.	11270.0	-19360.0	-262325.0	1460500.0	421900.0	-175900.0
241	25	SLU A1 sism.	-10560.0	26930.0	-61025.0	-180000.0	-438100.0	175000.0
242	25	SLU A1 sism.	-8225.3	29680.0	-164725.0	286000.0	-632630.0	172700.0
243	25	SLU A1 sism.	-17320.0	-15020.0	-117725.0	896000.0	-407000.0	-40020.0
244	25	SLU A1 sism.	-14990.0	-12280.0	-221425.0	1363100.0	-601900.0	-42260.0
245	25	SLU A1 sism.	10150.0	9140.6	-108375.0	19445.0	567200.0	-142100.0
246	25	SLU A1 sism.	12480.0	11890.0	-212125.0	486000.0	372300.0	-144400.0
247	25	SLU A1 sism.	14500.0	-11400.0	-152125.0	892000.0	636200.0	9730.1
248	25	SLU A1 sism.	16830.0	-8654.9	-255925.0	1358686.0	441000.0	7490.8
249	25	SLU A1 sism.	-16110.0	16230.0	-67485.0	-79000.0	-457000.0	-8455.8
250	25	SLU A1 sism.	-13780.0	18970.0	-171225.0	388000.0	-651500.0	-10700.0
251	25	SLU A1 sism.	-11770.0	-4318.2	-111265.0	794518.0	-388600.0	143400.0
252	25	SLU A1 sism.	-9433.4	-1570.2	-215025.0	1261020.0	-582838.9	141200.0
1	29	SLU STR.	169.8	-3057.3	-183212.5	-513773.0	24180.0	1452.7
2	29	SLU STR.	195.9	-3459.7	-187312.5	-581734.0	21005.9	1693.6
3	29	SLU STR.	536.2	-6676.1	-236812.5	-1124388.0	-16458.0	3023.6
4	29	SLU STR.	562.3	-7078.5	-240912.5	-1193149.0	-19639.0	3264.5
5	29	SLU STR.	119.6	-2384.0	-139585.0	-400699.0	19584.0	1154.6
6	29	SLU STR.	145.7	-2786.4	-143745.0	-468759.0	16410.9	1395.5
7	29	SLU STR.	486.0	-6002.9	-193225.0	-1011713.0	-21057.0	2725.5
8	29	SLU STR.	512.1	-6405.3	-197325.0	-1079474.0	-24228.0	2966.4
9	29	SLU STR.	222.0	-3862.1	-191512.5	-649795.0	17831.8	1934.5
10	29	SLU STR.	426.3	-5590.5	-220712.5	-941954.0	-4270.0	2552.3
11	29	SLU STR.	478.5	-6395.3	-229012.5	-1077475.0	-10611.0	3034.1
12	29	SLU STR.	171.8	-3188.8	-147915.0	-536720.0	13236.8	1636.4
13	29	SLU STR.	376.1	-4917.2	-177125.0	-828279.0	-8859.0	2254.2
14	29	SLU STR.	428.3	-5722.0	-185425.0	-964800.0	-15211.0	2736.0
15	29	SLE Rare	125.9	-2365.8	-140335.0	-397623.0	19027.6	1133.6
16	29	SLE Rare	143.3	-2634.0	-143105.0	-442896.0	16912.2	1294.2
17	29	SLE Rare	370.1	-4778.3	-176025.0	-805166.0	-8069.0	2180.9
18	29	SLE Rare	387.5	-5046.6	-178825.0	-850340.0	-10179.0	2341.5
19	29	SLE Rare	160.6	-2902.3	-145885.0	-488270.0	14795.8	1454.8
20	29	SLE Rare	296.8	-4054.6	-165325.0	-682543.0	64.0	1866.7
21	29	SLE Rare	331.6	-4591.1	-170925.0	-773890.0	-4167.0	2187.9
22	29	SLE Freq.	125.9	-2365.8	-140335.0	-397623.0	19027.6	1133.6
23	29	SLE Freq.	296.8	-4054.6	-165325.0	-682543.0	64.0	1866.7
24	29	SLE Freq.	132.8	-2473.1	-141445.0	-415692.0	18181.5	1197.9
25	29	SLE Freq.	272.4	-3813.3	-161725.0	-641668.0	2771.0	1762.0
26	29	SLE Freq.	279.4	-3920.6	-162925.0	-659938.0	1927.0	1826.2
27	29	SLE Quasi P.	125.9	-2365.8	-140335.0	-397623.0	19027.6	1133.6
28	29	SLE Quasi P.	272.4	-3813.3	-161725.0	-641668.0	2771.0	1762.0
29	29	SLU A1 sism.	40210.0	29380.0	-242825.0	-1277000.0	1769000.0	333700.0
30	29	SLU A1 sism.	40900.0	28530.0	-273925.0	-1417000.0	1713000.0	334300.0

31	29	SLU A1 sism.	46950.0	-12560.0	-185925.0	-199000.0	1734000.0	118800.0
32	29	SLU A1 sism.	47640.0	-13410.0	-217025.0	-339000.0	1677000.0	119300.0
33	29	SLU A1 sism.	-47090.0	5784.3	-106495.0	-945630.0	-1671000.0	-115800.0
34	29	SLU A1 sism.	-46400.0	4938.2	-137625.0	-1085818.0	-1728000.0	-115300.0
35	29	SLU A1 sism.	-40360.0	-36160.0	-49615.4	133000.0	-1707000.0	-330700.0
36	29	SLU A1 sism.	-39670.0	-37010.0	-80745.0	-7000.0	-1764000.0	-330200.0
37	29	SLU A1 sism.	45750.0	18680.0	-236325.0	-1175100.0	1790000.0	150300.0
38	29	SLU A1 sism.	46450.0	17830.0	-267425.0	-1314900.0	1734000.0	150900.0
39	29	SLU A1 sism.	41410.0	-1860.5	-192425.0	-300547.0	1713000.0	302100.0
40	29	SLU A1 sism.	42100.0	-2706.7	-223525.0	-440834.0	1657000.0	302700.0
41	29	SLU A1 sism.	-41550.0	-4920.0	-100005.0	-843003.0	-1651000.0	-299200.0
42	29	SLU A1 sism.	-40860.0	-5766.1	-131145.0	-983390.0	-1707000.0	-298600.0
43	29	SLU A1 sism.	-45900.0	-25460.0	-56099.5	31000.0	-1728000.0	-147400.0
44	29	SLU A1 sism.	-45210.0	-26300.0	-87235.0	-110000.0	-1785000.0	-146800.0
45	29	SLU A1 sism.	47080.0	6475.9	-233125.0	-1013991.0	1810000.0	230200.0
46	29	SLU A1 sism.	47770.0	5629.8	-264225.0	-1154279.0	1753000.0	230700.0
47	29	SLU A1 sism.	53820.0	-35470.0	-176225.0	65000.0	1775000.0	15280.0
48	29	SLU A1 sism.	54510.0	-36320.0	-207325.0	-75000.0	1718000.0	15840.0
49	29	SLU A1 sism.	-53960.0	28690.0	-116205.0	-1209000.0	-1712000.0	-12310.0
50	29	SLU A1 sism.	-53270.0	27840.0	-147335.0	-1349000.0	-1769000.0	-11760.0
51	29	SLU A1 sism.	-47230.0	-13260.0	-59324.7	-129000.0	-1748000.0	-227200.0
52	29	SLU A1 sism.	-46540.0	-14100.0	-90455.0	-270000.0	-1805000.0	-226700.0
53	29	SLU A1 sism.	52620.0	-4228.4	-226625.0	-912164.0	1830000.0	46830.0
54	29	SLU A1 sism.	53310.0	-5074.5	-257725.0	-1051552.0	1774000.0	47390.0
55	29	SLU A1 sism.	48270.0	-24760.0	-182725.0	-38000.0	1753000.0	198600.0
56	29	SLU A1 sism.	48970.0	-25610.0	-213825.0	-178000.0	1698000.0	199200.0
57	29	SLU A1 sism.	-48420.0	17980.0	-109715.0	-1105800.0	-1691000.0	-195700.0
58	29	SLU A1 sism.	-47730.0	17140.0	-140855.0	-1246700.0	-1748000.0	-195100.0
59	29	SLU A1 sism.	-52770.0	-2552.2	-65805.0	-232185.0	-1769000.0	-43860.0
60	29	SLU A1 sism.	-52080.0	-3398.3	-96945.0	-372373.0	-1825000.0	-43310.0
61	29	SLU A1 sism.	1801.0	70060.0	-261425.0	-2420000.0	606695.0	427100.0
62	29	SLU A1 sism.	2492.0	69210.0	-292625.0	-2560000.0	550403.0	427600.0
63	29	SLU A1 sism.	24240.0	-69760.0	-71855.0	1176000.0	487000.0	-289300.0
64	29	SLU A1 sism.	24940.0	-70610.0	-102985.0	1037000.0	432000.0	-288700.0
65	29	SLU A1 sism.	-24390.0	62980.0	-220525.0	-2320000.0	-425000.0	292200.0
66	29	SLU A1 sism.	-23700.0	62130.0	-251725.0	-2460000.0	-482000.0	292800.0
67	29	SLU A1 sism.	-1947.2	-76840.0	-30965.0	1276000.0	-544921.0	-424100.0
68	29	SLU A1 sism.	-1256.1	-77680.0	-62095.0	1135000.0	-601213.0	-423600.0
69	29	SLU A1 sism.	3861.6	63190.0	-258525.0	-2341000.0	618858.0	396000.0
70	29	SLU A1 sism.	4552.7	62340.0	-289625.0	-2481000.0	562566.0	396600.0
71	29	SLU A1 sism.	26310.0	-76630.0	-68935.0	1255000.0	500000.0	-320300.0
72	29	SLU A1 sism.	27000.0	-77480.0	-100075.0	1115000.0	444000.0	-319800.0
73	29	SLU A1 sism.	-26450.0	69850.0	-223425.0	-2399000.0	-438000.0	323300.0
74	29	SLU A1 sism.	-25760.0	69000.0	-254625.0	-2539000.0	-494000.0	323800.0
75	29	SLU A1 sism.	-4007.8	-69970.0	-33875.0	1197000.0	-557084.0	-393100.0
76	29	SLU A1 sism.	-3316.8	-70810.0	-65005.0	1056000.0	-613376.0	-392500.0
77	29	SLU A1 sism.	20270.0	34380.0	-239825.0	-2079000.0	676000.0	-184100.0
78	29	SLU A1 sism.	20960.0	33530.0	-270925.0	-2219000.0	619000.0	-183500.0
79	29	SLU A1 sism.	5775.6	-34080.0	-93465.0	835000.0	418359.0	321900.0
80	29	SLU A1 sism.	6466.7	-34920.0	-124595.0	694000.0	362068.0	322500.0
81	29	SLU A1 sism.	-5921.9	27300.0	-198925.0	-1979200.0	-356486.0	-318900.0
82	29	SLU A1 sism.	-5230.8	26450.0	-230025.0	-2119100.0	-412777.0	-318400.0
83	29	SLU A1 sism.	-20420.0	-41160.0	-52574.9	935000.0	-614000.0	187100.0
84	29	SLU A1 sism.	-19730.0	-42000.0	-83705.0	794000.0	-671000.0	187600.0
85	29	SLU A1 sism.	22330.0	27510.0	-236925.0	-2000000.0	688000.0	-215100.0
86	29	SLU A1 sism.	23020.0	26660.0	-268025.0	-2139900.0	632000.0	-214600.0
87	29	SLU A1 sism.	7836.2	-40950.0	-90555.0	914000.0	430522.0	290900.0
88	29	SLU A1 sism.	8527.3	-41800.0	-121685.0	774000.0	374231.0	291400.0
89	29	SLU A1 sism.	-7982.5	34170.0	-201825.0	-2058000.0	-368649.0	-287900.0
90	29	SLU A1 sism.	-7291.4	33320.0	-233025.0	-2198000.0	-424940.0	-287300.0
91	29	SLU A1 sism.	-22480.0	-34290.0	-55487.7	856000.0	-626000.0	218100.0
92	29	SLU A1 sism.	-21790.0	-35130.0	-86625.0	715000.0	-683000.0	218700.0
221	29	SLU A1 sism.	8850.0	22110.0	-158725.0	-998000.0	630695.0	175700.0
222	29	SLU A1 sism.	11150.0	19290.0	-262525.0	-1465100.0	442600.0	177600.0
223	29	SLU A1 sism.	15580.0	-19840.0	-101885.0	82000.0	594500.0	-39190.0
224	29	SLU A1 sism.	17890.0	-22660.0	-205625.0	-386000.0	408000.0	-37340.0

225	29	SLU A1 sism.	-17340.0	15030.0	-117875.0	-898000.0	-401000.0	40860.0
226	29	SLU A1 sism.	-15040.0	12210.0	-221625.0	-1365500.0	-589500.0	42710.0
227	29	SLU A1 sism.	-10610.0	-26910.0	-60995.0	180000.0	-437600.0	-174000.0
228	29	SLU A1 sism.	-8305.1	-29740.0	-164825.0	-286000.0	-625113.0	-172200.0
229	29	SLU A1 sism.	14390.0	11400.0	-152325.0	-894600.0	651300.0	-7635.5
230	29	SLU A1 sism.	16690.0	8584.1	-256025.0	-1362508.0	463000.0	-5781.9
231	29	SLU A1 sism.	10040.0	-9132.0	-108365.0	-20905.0	573900.0	144200.0
232	29	SLU A1 sism.	12350.0	-11950.0	-212125.0	-489000.0	386900.0	146000.0
233	29	SLU A1 sism.	-11800.0	4325.7	-111395.0	-795573.0	-380800.0	-142500.0
234	29	SLU A1 sism.	-9497.5	1505.3	-215125.0	-1263532.0	-568551.9	-140600.0
235	29	SLU A1 sism.	-16150.0	-16210.0	-67485.0	78000.0	-458000.0	9305.8
236	29	SLU A1 sism.	-13850.0	-19030.0	-171225.0	-389000.0	-646200.0	11160.0
237	29	SLU A1 sism.	10910.0	15240.0	-155825.0	-918800.0	642800.0	144700.0
238	29	SLU A1 sism.	13210.0	12420.0	-259625.0	-1386300.0	454700.0	146500.0
239	29	SLU A1 sism.	17640.0	-26710.0	-98975.0	161000.0	607000.0	-70240.0
240	29	SLU A1 sism.	19950.0	-29530.0	-202725.0	-307000.0	420000.0	-68390.0
241	29	SLU A1 sism.	-19400.0	21900.0	-120785.0	-977000.0	-414000.0	71910.0
242	29	SLU A1 sism.	-17100.0	19080.0	-224525.0	-1444300.0	-602000.0	73770.0
243	29	SLU A1 sism.	-12670.0	-20040.0	-63905.0	102000.0	-449700.0	-143000.0
244	29	SLU A1 sism.	-10370.0	-22860.0	-167725.0	-366000.0	-637700.0	-141100.0
245	29	SLU A1 sism.	16450.0	4533.2	-149365.0	-816121.0	663400.0	-38690.0
246	29	SLU A1 sism.	18750.0	1712.8	-253125.0	-1283280.0	475000.0	-36840.0
247	29	SLU A1 sism.	12100.0	-16000.0	-105455.0	58000.0	586000.0	113100.0
248	29	SLU A1 sism.	14410.0	-18820.0	-209225.0	-410000.0	399000.0	115000.0
249	29	SLU A1 sism.	-13860.0	11200.0	-114305.0	-874800.0	-392900.0	-111400.0
250	29	SLU A1 sism.	-11560.0	8376.6	-218125.0	-1341960.0	-581000.0	-109600.0
251	29	SLU A1 sism.	-18210.0	-9339.4	-70395.0	-457.0	-470000.0	40360.0
252	29	SLU A1 sism.	-15910.0	-12160.0	-174125.0	-468000.0	-658400.0	42210.0
1	3	SLU STR.	193.1	4.4	-152992.5	-454.1	-77841.0	368.0
2	3	SLU STR.	201.3	4.5	-155092.5	-469.1	-81072.0	383.8
3	3	SLU STR.	24.4	6.3	-185512.5	-670.1	-92630.0	573.0
4	3	SLU STR.	32.6	6.4	-187612.5	-684.1	-95831.0	588.8
5	3	SLU STR.	173.2	3.3	-116465.0	-342.4	-61553.0	278.3
6	3	SLU STR.	181.4	3.4	-118575.0	-357.4	-64764.0	294.2
7	3	SLU STR.	4.5	5.2	-148995.0	-558.4	-76342.0	483.3
8	3	SLU STR.	12.7	5.3	-151125.0	-573.4	-79553.0	499.2
9	3	SLU STR.	209.5	4.6	-157202.5	-484.1	-84253.0	399.7
10	3	SLU STR.	75.0	5.8	-175712.5	-605.3	-88189.0	511.5
11	3	SLU STR.	91.4	6.0	-180012.5	-634.3	-94562.0	543.2
12	3	SLU STR.	189.6	3.5	-120685.0	-372.4	-67965.0	310.0
13	3	SLU STR.	55.1	4.7	-139235.0	-493.6	-71911.0	421.8
14	3	SLU STR.	71.5	4.9	-143455.0	-522.6	-78324.0	453.5
15	3	SLE Rare	159.2	3.4	-117155.0	-346.8	-60606.0	281.0
16	3	SLE Rare	164.7	3.4	-118555.0	-356.5	-62740.0	291.6
17	3	SLE Rare	46.8	4.6	-138835.0	-490.1	-70472.0	417.6
18	3	SLE Rare	52.2	4.7	-140245.0	-499.8	-72606.0	428.2
19	3	SLE Rare	170.2	3.5	-119965.0	-366.1	-64884.0	302.1
20	3	SLE Rare	80.5	4.3	-132335.0	-446.9	-67508.0	376.6
21	3	SLE Rare	91.4	4.4	-135145.0	-466.2	-71786.0	397.8
22	3	SLE Freq.	159.2	3.4	-117155.0	-346.8	-60606.0	281.0
23	3	SLE Freq.	80.5	4.3	-132335.0	-446.9	-67508.0	376.6
24	3	SLE Freq.	161.4	3.4	-117715.0	-350.9	-61457.0	285.2
25	3	SLE Freq.	91.8	4.1	-130165.0	-433.2	-66523.0	363.0
26	3	SLE Freq.	94.0	4.2	-130725.0	-436.2	-67375.0	367.2
27	3	SLE Quasi P.	159.2	3.4	-117155.0	-346.8	-60606.0	281.0
28	3	SLE Quasi P.	91.8	4.1	-130165.0	-433.2	-66523.0	363.0
29	3	SLU A1 sism.	49930.0	-5761.6	-71555.0	-99637.0	3217000.0	241500.0
30	3	SLU A1 sism.	48930.0	-5760.1	-92725.0	-99888.0	3259000.0	241600.0
31	3	SLU A1 sism.	49890.0	-20930.0	-71595.0	926000.0	3215000.0	22850.0
32	3	SLU A1 sism.	48890.0	-20920.0	-92765.0	925000.0	3257000.0	22940.0
33	3	SLU A1 sism.	-48700.0	20930.0	-167525.0	-926000.0	-3389000.0	-22210.0
34	3	SLU A1 sism.	-49700.0	20930.0	-188725.0	-926000.0	-3347000.0	-22130.0
35	3	SLU A1 sism.	-48750.0	5768.4	-167625.0	98963.0	-3393000.0	-240900.0
36	3	SLU A1 sism.	-49750.0	5769.9	-188825.0	98812.0	-3351000.0	-240800.0
37	3	SLU A1 sism.	49930.0	5418.9	-71565.0	-447418.0	3218000.0	176500.0
38	3	SLU A1 sism.	48930.0	5420.4	-92735.0	-447589.0	3260000.0	176600.0

39	3	SLU A1 sism.	49890.0	-32110.0	-71585.0	1274000.0	3215000.0	87880.0
40	3	SLU A1 sism.	48890.0	-32110.0	-92755.0	1274000.0	3257000.0	87960.0
41	3	SLU A1 sism.	-48710.0	32110.0	-167525.0	-1274000.0	-3390000.0	-87240.0
42	3	SLU A1 sism.	-49710.0	32110.0	-188725.0	-1274000.0	-3348000.0	-87150.0
43	3	SLU A1 sism.	-48740.0	-5412.1	-167625.0	446724.0	-3392000.0	-175900.0
44	3	SLU A1 sism.	-49740.0	-5410.6	-188725.0	446553.0	-3350000.0	-175800.0
45	3	SLU A1 sism.	49950.0	20820.0	-71545.0	-922000.0	3219000.0	-21390.0
46	3	SLU A1 sism.	48950.0	20820.0	-92715.0	-922000.0	3261000.0	-21310.0
47	3	SLU A1 sism.	49900.0	5656.3	-71585.0	102868.0	3216000.0	-240100.0
48	3	SLU A1 sism.	48900.0	5657.8	-92755.0	102617.0	3257000.0	-240000.0
49	3	SLU A1 sism.	-48710.0	-5649.6	-167625.0	-103542.0	-3390000.0	240700.0
50	3	SLU A1 sism.	-49720.0	-5648.1	-188725.0	-103693.0	-3349000.0	240800.0
51	3	SLU A1 sism.	-48760.0	-20810.0	-167625.0	921000.0	-3393000.0	22030.0
52	3	SLU A1 sism.	-49760.0	-20810.0	-188825.0	921000.0	-3351000.0	22120.0
53	3	SLU A1 sism.	49940.0	32000.0	-71545.0	-1270000.0	3218000.0	-86420.0
54	3	SLU A1 sism.	48940.0	32000.0	-92715.0	-1270000.0	3260000.0	-86330.0
55	3	SLU A1 sism.	49910.0	-5524.2	-71575.0	450519.0	3216000.0	-175000.0
56	3	SLU A1 sism.	48910.0	-5522.7	-92745.0	450368.0	3258000.0	-175000.0
57	3	SLU A1 sism.	-48720.0	5530.9	-167625.0	-451293.0	-3391000.0	175700.0
58	3	SLU A1 sism.	-49720.0	5532.4	-188725.0	-451444.0	-3349000.0	175800.0
59	3	SLU A1 sism.	-48750.0	-31990.0	-167625.0	1269000.0	-3393000.0	87060.0
60	3	SLU A1 sism.	-49760.0	-31990.0	-188825.0	1269000.0	-3352000.0	87140.0
61	3	SLU A1 sism.	15470.0	21270.0	-105105.0	-1584700.0	909400.0	404400.0
62	3	SLU A1 sism.	14470.0	21270.0	-126275.0	-1584700.0	951300.0	404400.0
63	3	SLU A1 sism.	15310.0	-29270.0	-105245.0	1832000.0	898400.0	-324600.0
64	3	SLU A1 sism.	14310.0	-29270.0	-126425.0	1832000.0	940300.0	-324500.0
65	3	SLU A1 sism.	-14120.0	29280.0	-133915.0	-1833000.0	-1072700.0	325200.0
66	3	SLU A1 sism.	-15120.0	29280.0	-155125.0	-1833000.0	-1030800.0	325300.0
67	3	SLU A1 sism.	-14280.0	-21270.0	-134055.0	1584700.0	-1083700.0	-403700.0
68	3	SLU A1 sism.	-15280.0	-21270.0	-155225.0	1584600.0	-1041800.0	-403600.0
69	3	SLU A1 sism.	15470.0	29250.0	-105105.0	-1832000.0	909300.0	325500.0
70	3	SLU A1 sism.	14470.0	29250.0	-126275.0	-1832000.0	951200.0	325600.0
71	3	SLU A1 sism.	15310.0	-21300.0	-105245.0	1585500.0	898300.0	-403500.0
72	3	SLU A1 sism.	14310.0	-21300.0	-126415.0	1585400.0	940200.0	-403400.0
73	3	SLU A1 sism.	-14130.0	21310.0	-133915.0	-1586500.0	-1073600.0	404100.0
74	3	SLU A1 sism.	-15130.0	21310.0	-155125.0	-1586500.0	-1031700.0	404200.0
75	3	SLU A1 sism.	-14290.0	-29240.0	-134055.0	1831000.0	-1084600.0	-324800.0
76	3	SLU A1 sism.	-15290.0	-29240.0	-155225.0	1831000.0	-1042600.0	-324800.0
77	3	SLU A1 sism.	15440.0	58540.0	-105135.0	-2744000.0	907200.0	187600.0
78	3	SLU A1 sism.	14440.0	58540.0	-126305.0	-2744000.0	949100.0	187700.0
79	3	SLU A1 sism.	15330.0	-66540.0	-105225.0	2991000.0	899600.0	-107800.0
80	3	SLU A1 sism.	14330.0	-66540.0	-126395.0	2991000.0	941600.0	-107800.0
81	3	SLU A1 sism.	-14150.0	66550.0	-133935.0	-2992000.0	-1075000.0	108500.0
82	3	SLU A1 sism.	-15150.0	66550.0	-155125.0	-2992000.0	-1033000.0	108600.0
83	3	SLU A1 sism.	-14260.0	-58530.0	-134025.0	2743000.0	-1082500.0	-187000.0
84	3	SLU A1 sism.	-15260.0	-58530.0	-155225.0	2743000.0	-1040600.0	-186900.0
85	3	SLU A1 sism.	15440.0	66520.0	-105125.0	-2991000.0	907000.0	108700.0
86	3	SLU A1 sism.	14440.0	66520.0	-126295.0	-2991000.0	949000.0	108800.0
87	3	SLU A1 sism.	15340.0	-58570.0	-105225.0	2745000.0	900500.0	-186700.0
88	3	SLU A1 sism.	14340.0	-58570.0	-126395.0	2745000.0	942400.0	-186600.0
89	3	SLU A1 sism.	-14150.0	58580.0	-133935.0	-2746000.0	-1074800.0	187400.0
90	3	SLU A1 sism.	-15150.0	58580.0	-155125.0	-2746000.0	-1032900.0	187400.0
91	3	SLU A1 sism.	-14260.0	-66510.0	-134035.0	2990000.0	-1082400.0	-108100.0
92	3	SLU A1 sism.	-15260.0	-66510.0	-155225.0	2990000.0	-1040400.0	-108000.0
221	3	SLU A1 sism.	16580.0	3579.7	-80455.0	-388766.0	856600.0	149100.0
222	3	SLU A1 sism.	13240.0	3584.7	-151025.0	-389329.0	995700.0	149400.0
223	3	SLU A1 sism.	16530.0	-11580.0	-80505.0	635900.0	853100.0	-69560.0
224	3	SLU A1 sism.	13200.0	-11580.0	-151025.0	635900.0	993200.0	-69280.0
225	3	SLU A1 sism.	-13010.0	11590.0	-109265.0	-636900.0	-1125600.0	70000.0
226	3	SLU A1 sism.	-16350.0	11590.0	-179825.0	-637000.0	-986500.0	70280.0
227	3	SLU A1 sism.	-13060.0	-3576.4	-109305.0	388464.0	-1129100.0	-148700.0
228	3	SLU A1 sism.	-16400.0	-3571.4	-179825.0	387901.0	-990000.0	-148400.0
229	3	SLU A1 sism.	16570.0	14760.0	-80465.0	-736500.0	855800.0	84100.0
230	3	SLU A1 sism.	13240.0	14770.0	-151025.0	-737500.0	995900.0	84380.0
231	3	SLU A1 sism.	16540.0	-22770.0	-80495.0	985000.0	853800.0	-4533.7
232	3	SLU A1 sism.	13200.0	-22760.0	-151025.0	984000.0	992900.0	-4250.3

233	3	SLU A1 sism.	-13020.0	22770.0	-109265.0	-985000.0	-1126300.0	4976.3
234	3	SLU A1 sism.	-16360.0	22770.0	-179825.0	-985000.0	-987200.0	5259.6
235	3	SLU A1 sism.	-13050.0	-14760.0	-109295.0	736500.0	-1128300.0	-83660.0
236	3	SLU A1 sism.	-16390.0	-14750.0	-179825.0	735400.0	-989200.0	-83370.0
237	3	SLU A1 sism.	16580.0	11550.0	-80455.0	-635100.0	856400.0	70250.0
238	3	SLU A1 sism.	13250.0	11560.0	-151025.0	-636200.0	996500.0	70530.0
239	3	SLU A1 sism.	16530.0	-3610.1	-80495.0	389615.0	852900.0	-148400.0
240	3	SLU A1 sism.	13200.0	-3605.0	-151025.0	389053.0	993000.0	-148200.0
241	3	SLU A1 sism.	-13020.0	3613.3	-109265.0	-389918.0	-1126400.0	148900.0
242	3	SLU A1 sism.	-16350.0	3618.3	-179825.0	-390480.0	-986300.0	149200.0
243	3	SLU A1 sism.	-13060.0	-11550.0	-109305.0	635200.0	-1128900.0	-69800.0
244	3	SLU A1 sism.	-16400.0	-11550.0	-179925.0	635100.0	-989800.0	-69520.0
245	3	SLU A1 sism.	16570.0	22730.0	-80465.0	-983000.0	855700.0	5222.0
246	3	SLU A1 sism.	13240.0	22740.0	-151025.0	-984000.0	995800.0	5505.4
247	3	SLU A1 sism.	16540.0	-14790.0	-80495.0	737300.0	853700.0	-83410.0
248	3	SLU A1 sism.	13210.0	-14790.0	-151025.0	737200.0	993800.0	-83130.0
249	3	SLU A1 sism.	-13020.0	14790.0	-109275.0	-737300.0	-1126200.0	83850.0
250	3	SLU A1 sism.	-16360.0	14800.0	-179825.0	-738300.0	-987100.0	84140.0
251	3	SLU A1 sism.	-13060.0	-22730.0	-109305.0	983000.0	-1129200.0	-4779.5
252	3	SLU A1 sism.	-16390.0	-22730.0	-179825.0	983000.0	-989100.0	-4496.1
1	5	SLU STR.	807.5	-2488.4	-162912.5	-418661.0	-91446.0	-29770.0
2	5	SLU STR.	806.9	-2818.7	-166412.5	-474228.0	-91315.0	-30400.0
3	5	SLU STR.	782.3	-5440.9	-208012.5	-916909.0	-82272.0	-45690.0
4	5	SLU STR.	781.6	-5771.2	-211512.5	-971876.0	-82141.0	-46330.0
5	5	SLU STR.	623.0	-1940.9	-124235.0	-326509.0	-71101.0	-21960.0
6	5	SLU STR.	622.3	-2271.2	-127755.0	-382176.0	-70970.0	-22590.0
7	5	SLU STR.	597.7	-4893.4	-169325.0	-824657.0	-61926.0	-37880.0
8	5	SLU STR.	597.1	-5223.8	-172825.0	-879624.0	-61795.0	-38520.0
9	5	SLU STR.	806.2	-3149.1	-169912.5	-529895.0	-91185.0	-31040.0
10	5	SLU STR.	789.9	-4555.2	-194412.5	-767485.0	-85014.0	-40920.0
11	5	SLU STR.	788.5	-5215.8	-201512.5	-878418.0	-84752.0	-42180.0
12	5	SLU STR.	621.6	-2601.6	-131275.0	-437743.0	-70839.0	-23230.0
13	5	SLU STR.	605.3	-4007.7	-155725.0	-675233.0	-64668.0	-33110.0
14	5	SLU STR.	603.9	-4668.3	-162825.0	-786166.0	-64407.0	-34370.0
15	5	SLE Rare	622.0	-1925.8	-124845.0	-323922.0	-70703.0	-22490.0
16	5	SLE Rare	621.5	-2146.0	-127195.0	-361100.0	-70549.0	-22910.0
17	5	SLE Rare	605.1	-3894.1	-154925.0	-655587.0	-64487.0	-33110.0
18	5	SLE Rare	604.7	-4114.4	-157225.0	-692565.0	-64433.0	-33530.0
19	5	SLE Rare	621.1	-2366.2	-129545.0	-398178.0	-70495.0	-23340.0
20	5	SLE Rare	610.2	-3303.6	-145865.0	-556338.0	-66382.0	-29920.0
21	5	SLE Rare	609.3	-3744.1	-150565.0	-630593.0	-66174.0	-30770.0
22	5	SLE Freq.	622.0	-1925.8	-124845.0	-323922.0	-70703.0	-22490.0
23	5	SLE Freq.	610.2	-3303.6	-145865.0	-556338.0	-66382.0	-29920.0
24	5	SLE Freq.	621.8	-2013.9	-125785.0	-338813.0	-70621.0	-22660.0
25	5	SLE Freq.	611.9	-3106.8	-142865.0	-523121.0	-67013.0	-28860.0
26	5	SLE Freq.	611.7	-3194.9	-143805.0	-538012.0	-66932.0	-29030.0
27	5	SLE Quasi P.	622.0	-1925.8	-124845.0	-323922.0	-70703.0	-22490.0
28	5	SLE Quasi P.	611.9	-3106.8	-142865.0	-523121.0	-67013.0	-28860.0
29	5	SLU A1 sism.	33000.0	-8047.7	-88765.0	-487226.0	2465100.0	979700.0
30	5	SLU A1 sism.	33620.0	-8928.3	-113345.0	-635170.0	2428500.0	960200.0
31	5	SLU A1 sism.	37530.0	-24650.0	-51944.9	255000.0	2724000.0	803600.0
32	5	SLU A1 sism.	38150.0	-25530.0	-76525.0	107000.0	2687000.0	784100.0
33	5	SLU A1 sism.	-36930.0	19320.0	-209225.0	-1153400.0	-2821600.0	-841800.0
34	5	SLU A1 sism.	-36310.0	18440.0	-233825.0	-1301500.0	-2858200.0	-861300.0
35	5	SLU A1 sism.	-32390.0	2714.7	-172425.0	-410972.0	-2561800.0	-1018000.0
36	5	SLU A1 sism.	-31780.0	1834.2	-196925.0	-559117.0	-2599500.0	-1037000.0
37	5	SLU A1 sism.	37970.0	4194.2	-97445.0	-629617.0	2554000.0	765400.0
38	5	SLU A1 sism.	38590.0	3313.6	-122025.0	-777761.0	2518000.0	745900.0
39	5	SLU A1 sism.	32560.0	-36890.0	-43261.7	397000.0	2634800.0	1018000.0
40	5	SLU A1 sism.	33180.0	-37770.0	-67845.0	249000.0	2598100.0	998300.0
41	5	SLU A1 sism.	-31960.0	31560.0	-217925.0	-1296000.0	-2732500.0	-1056000.0
42	5	SLU A1 sism.	-31340.0	30680.0	-242425.0	-1444000.0	-2769100.0	-1076000.0
43	5	SLU A1 sism.	-37360.0	-9527.2	-163725.0	-268281.0	-2651000.0	-803600.0
44	5	SLU A1 sism.	-36750.0	-10410.0	-188325.0	-416000.0	-2688600.0	-823100.0
45	5	SLU A1 sism.	38870.0	21900.0	-103495.0	-679000.0	2643000.0	719200.0
46	5	SLU A1 sism.	39490.0	21020.0	-128075.0	-827000.0	2606000.0	699800.0

47	5	SLU A1 sism.	43400.0	5298.6	-66675.0	63344.0	2902000.0	543100.0
48	5	SLU A1 sism.	44020.0	4418.0	-91255.0	-84801.0	2865000.0	523600.0
49	5	SLU A1 sism.	-42800.0	-10630.0	-194525.0	-962000.0	-2999000.0	-581300.0
50	5	SLU A1 sism.	-42180.0	-11510.0	-219025.0	-1110000.0	-3036000.0	-600800.0
51	5	SLU A1 sism.	-38260.0	-27230.0	-157625.0	-220000.0	-2740000.0	-757500.0
52	5	SLU A1 sism.	-37640.0	-28120.0	-182225.0	-367000.0	-2776200.0	-777000.0
53	5	SLU A1 sism.	43840.0	34140.0	-112175.0	-821000.0	2732000.0	505000.0
54	5	SLU A1 sism.	44460.0	33260.0	-136755.0	-969000.0	2695000.0	485500.0
55	5	SLU A1 sism.	38430.0	-6943.4	-57990.2	205735.0	2812000.0	757400.0
56	5	SLU A1 sism.	39050.0	-7823.9	-82575.0	57591.0	2776000.0	737900.0
57	5	SLU A1 sism.	-37820.0	1610.3	-203125.0	-1103933.0	-2909200.0	-795600.0
58	5	SLU A1 sism.	-37210.0	729.8	-227725.0	-1251977.0	-2946800.0	-815100.0
59	5	SLU A1 sism.	-43230.0	-39480.0	-148975.0	-77000.0	-2829000.0	-543200.0
60	5	SLU A1 sism.	-42620.0	-40360.0	-173525.0	-225000.0	-2866000.0	-562700.0
61	5	SLU A1 sism.	3237.1	20900.0	-173925.0	-1586100.0	312643.0	547600.0
62	5	SLU A1 sism.	3854.5	20020.0	-198425.0	-1734300.0	275752.0	528200.0
63	5	SLU A1 sism.	18350.0	-34440.0	-51142.8	887000.0	1176500.0	-39440.0
64	5	SLU A1 sism.	18960.0	-35320.0	-75725.0	739000.0	1138800.0	-58920.0
65	5	SLU A1 sism.	-17740.0	29110.0	-210025.0	-1786000.0	-1273200.0	1197.0
66	5	SLU A1 sism.	-17120.0	28230.0	-234625.0	-1934100.0	-1309800.0	-18280.0
67	5	SLU A1 sism.	-2630.8	-26230.0	-87275.0	688000.0	-409678.0	-585900.0
68	5	SLU A1 sism.	-2013.4	-27110.0	-111855.0	539000.0	-446639.0	-605400.0
69	5	SLU A1 sism.	4997.9	29890.0	-178325.0	-1644000.0	365891.0	469500.0
70	5	SLU A1 sism.	5615.3	29010.0	-202925.0	-1792000.0	329031.0	450000.0
71	5	SLU A1 sism.	20110.0	-25460.0	-55561.4	830000.0	1229700.0	-117600.0
72	5	SLU A1 sism.	20730.0	-26340.0	-80145.0	682000.0	1193000.0	-137000.0
73	5	SLU A1 sism.	-19500.0	20130.0	-205625.0	-1729000.0	-1326400.0	79330.0
74	5	SLU A1 sism.	-18880.0	19250.0	-230125.0	-1877120.0	-1363000.0	59850.0
75	5	SLU A1 sism.	-4391.6	-35220.0	-82855.0	746000.0	-462997.0	-507700.0
76	5	SLU A1 sism.	-3774.2	-36100.0	-107435.0	597000.0	-499917.0	-527200.0
77	5	SLU A1 sism.	19810.0	61710.0	-202825.0	-2061000.0	610000.0	-166600.0
78	5	SLU A1 sism.	20420.0	60830.0	-227425.0	-2209000.0	573000.0	-186100.0
79	5	SLU A1 sism.	1778.5	-75250.0	-22195.0	1362000.0	878948.0	674800.0
80	5	SLU A1 sism.	2395.9	-76130.0	-46780.0	1214000.0	842088.0	655300.0
81	5	SLU A1 sism.	-1172.1	69920.0	-238925.0	-2261000.0	-976014.0	-713000.0
82	5	SLU A1 sism.	-554.8	69040.0	-263525.0	-2409000.0	-1012975.0	-732500.0
83	5	SLU A1 sism.	-19200.0	-67040.0	-58330.8	1163000.0	-707000.0	128400.0
84	5	SLU A1 sism.	-18580.0	-67920.0	-82915.0	1014000.0	-744000.0	108900.0
85	5	SLU A1 sism.	21570.0	70690.0	-207225.0	-2118000.0	663000.0	-244700.0
86	5	SLU A1 sism.	22180.0	69810.0	-231825.0	-2266000.0	626000.0	-264200.0
87	5	SLU A1 sism.	3539.3	-66270.0	-26615.0	1305000.0	932227.0	596700.0
88	5	SLU A1 sism.	4156.7	-67150.0	-51198.6	1157000.0	895366.0	577200.0
89	5	SLU A1 sism.	-2932.9	60930.0	-234525.0	-2203000.0	-1029293.0	-634900.0
90	5	SLU A1 sism.	-2315.5	60050.0	-259125.0	-2351000.0	-1066253.0	-654400.0
91	5	SLU A1 sism.	-20960.0	-76030.0	-53912.2	1221000.0	-760000.0	206500.0
92	5	SLU A1 sism.	-20340.0	-76910.0	-78495.0	1072000.0	-797000.0	187000.0
221	5	SLU A1 sism.	7805.2	2557.6	-102245.0	-547559.0	657924.0	364900.0
222	5	SLU A1 sism.	9863.2	-377.6	-184225.0	-1041239.0	534922.0	300000.0
223	5	SLU A1 sism.	12340.0	-14050.0	-65425.0	195000.0	917200.0	188800.0
224	5	SLU A1 sism.	14400.0	-16980.0	-147355.0	-299000.0	794300.0	123800.0
225	5	SLU A1 sism.	-13170.0	10770.0	-138375.0	-747600.0	-927700.0	-181600.0
226	5	SLU A1 sism.	-11110.0	7832.1	-220325.0	-1241012.0	-1050530.0	-246500.0
227	5	SLU A1 sism.	-8639.5	-5836.0	-101555.0	-5103.0	-668848.1	-357700.0
228	5	SLU A1 sism.	-6581.5	-8771.2	-183525.0	-498884.0	-791950.0	-422600.0
229	5	SLU A1 sism.	12780.0	14800.0	-110925.0	-690000.0	747500.0	150600.0
230	5	SLU A1 sism.	14830.0	11860.0	-192825.0	-1183182.0	623700.0	85680.0
231	5	SLU A1 sism.	7367.6	-26290.0	-56737.6	337000.0	827834.0	403000.0
232	5	SLU A1 sism.	9425.6	-29220.0	-138675.0	-157000.0	704763.0	338100.0
233	5	SLU A1 sism.	-8201.9	23010.0	-147055.0	-890000.0	-838778.9	-395800.0
234	5	SLU A1 sism.	-6143.9	20070.0	-229025.0	-1383000.0	-961791.0	-460800.0
235	5	SLU A1 sism.	-13610.0	-18080.0	-92865.0	138000.0	-758000.0	-143400.0
236	5	SLU A1 sism.	-11550.0	-21010.0	-174825.0	-357000.0	-880900.0	-208300.0
237	5	SLU A1 sism.	9566.0	11540.0	-106655.0	-604800.0	711201.9	286800.0
238	5	SLU A1 sism.	11620.0	8607.3	-188625.0	-1098727.0	587800.0	221800.0
239	5	SLU A1 sism.	14100.0	-5060.8	-69835.0	137182.0	970400.0	110600.0
240	5	SLU A1 sism.	16160.0	-7996.0	-151825.0	-356399.0	847600.0	45700.0

241	5	SLU A1 sism.	-14930.0	1782.4	-133955.0	-689843.0	-980900.0	-103400.0
242	5	SLU A1 sism.	-12880.0	-1152.8	-215925.0	-1183724.0	-1104700.0	-168400.0
243	5	SLU A1 sism.	-10400.0	-14820.0	-97135.0	52000.0	-722100.0	-279500.0
244	5	SLU A1 sism.	-8342.3	-17760.0	-179025.0	-441000.0	-845208.0	-344500.0
245	5	SLU A1 sism.	14540.0	23780.0	-115345.0	-747000.0	800700.0	72490.0
246	5	SLU A1 sism.	16590.0	20850.0	-197325.0	-1241200.0	676900.0	7547.8
247	5	SLU A1 sism.	9128.4	-17300.0	-61155.0	279000.0	881123.0	324900.0
248	5	SLU A1 sism.	11190.0	-20240.0	-143095.0	-214000.0	758400.0	260000.0
249	5	SLU A1 sism.	-9962.7	14020.0	-142635.0	-831800.0	-892067.0	-317700.0
250	5	SLU A1 sism.	-7904.7	11090.0	-224625.0	-1326000.0	-1015069.0	-382600.0
251	5	SLU A1 sism.	-15370.0	-27060.0	-88455.0	195000.0	-811200.0	-65270.0
252	5	SLU A1 sism.	-13310.0	-30000.0	-170425.0	-299000.0	-934100.0	-130200.0
1	53	SLU STR.	75.1	-11.5	-171112.5	-493.5	23209.0	151.5
2	53	SLU STR.	71.4	-11.9	-173512.5	-498.5	25440.0	155.1
3	53	SLU STR.	233.8	-16.8	-209512.5	-634.9	15387.4	215.2
4	53	SLU STR.	230.1	-17.2	-211912.5	-639.9	17622.2	218.8
5	53	SLU STR.	38.0	-8.7	-130145.0	-371.3	20788.0	114.1
6	53	SLU STR.	34.3	-9.1	-132595.0	-376.3	23030.0	117.7
7	53	SLU STR.	196.7	-14.0	-168525.0	-512.8	12975.4	177.9
8	53	SLU STR.	193.0	-14.4	-170925.0	-517.7	15210.3	181.5
9	53	SLU STR.	67.7	-12.3	-176012.5	-503.4	27672.0	158.7
10	53	SLU STR.	186.2	-15.3	-197912.5	-591.9	17732.9	196.1
11	53	SLU STR.	178.8	-16.0	-202912.5	-601.8	22202.6	203.3
12	53	SLU STR.	30.6	-9.5	-135045.0	-381.3	25261.0	121.3
13	53	SLU STR.	149.1	-12.4	-157025.0	-470.7	15320.0	158.8
14	53	SLU STR.	141.7	-13.2	-161925.0	-479.7	19790.7	166.0
15	53	SLE Rare	49.2	-8.8	-130975.0	-376.6	19126.0	115.5
16	53	SLE Rare	46.7	-9.0	-132615.0	-379.6	20620.0	117.9
17	53	SLE Rare	155.0	-12.3	-156525.0	-470.5	13917.5	158.0
18	53	SLE Rare	152.5	-12.6	-158225.0	-473.5	15407.4	160.4
19	53	SLE Rare	44.3	-9.3	-134245.0	-382.6	22105.0	120.3
20	53	SLE Rare	123.2	-11.3	-148885.0	-441.8	15480.6	145.2
21	53	SLE Rare	118.3	-11.8	-152125.0	-448.8	18461.4	150.0
22	53	SLE Freq.	49.2	-8.8	-130975.0	-376.6	19126.0	115.5
23	53	SLE Freq.	123.2	-11.3	-148885.0	-441.8	15480.6	145.2
24	53	SLE Freq.	48.2	-8.9	-131635.0	-377.8	19728.0	116.4
25	53	SLE Freq.	112.6	-10.9	-146325.0	-432.9	16001.6	141.0
26	53	SLE Freq.	111.7	-11.0	-146975.0	-434.1	16597.9	141.9
27	53	SLE Quasi P.	49.2	-8.8	-130975.0	-376.6	19126.0	115.5
28	53	SLE Quasi P.	112.6	-10.9	-146325.0	-432.9	16001.6	141.0
29	53	SLU A1 sism.	50660.0	29780.0	-196225.0	-1188000.0	2348000.0	277400.0
30	53	SLU A1 sism.	51390.0	29770.0	-224225.0	-1188000.0	2301000.0	277400.0
31	53	SLU A1 sism.	50620.0	-8595.5	-196125.0	585250.0	2345000.0	55200.0
32	53	SLU A1 sism.	51350.0	-8603.0	-224125.0	585096.0	2298000.0	55220.0
33	53	SLU A1 sism.	-51120.0	8581.1	-68495.0	-585912.0	-2265000.0	-54940.0
34	53	SLU A1 sism.	-50400.0	8573.7	-96485.0	-586066.0	-2313000.0	-54920.0
35	53	SLU A1 sism.	-51160.0	-29790.0	-68415.0	1187000.0	-2268000.0	-277200.0
36	53	SLU A1 sism.	-50440.0	-29800.0	-96405.0	1187000.0	-2316000.0	-277100.0
37	53	SLU A1 sism.	50650.0	19950.0	-196225.0	-912000.0	2347000.0	90120.0
38	53	SLU A1 sism.	51380.0	19950.0	-224225.0	-913000.0	2300000.0	90140.0
39	53	SLU A1 sism.	50630.0	1225.3	-196225.0	310070.0	2345000.0	242500.0
40	53	SLU A1 sism.	51360.0	1217.9	-224125.0	309915.0	2298000.0	242500.0
41	53	SLU A1 sism.	-51130.0	-1239.7	-68485.0	-310831.0	-2266000.0	-242200.0
42	53	SLU A1 sism.	-50400.0	-1247.2	-96475.0	-310985.0	-2313000.0	-242200.0
43	53	SLU A1 sism.	-51160.0	-19970.0	-68425.0	912000.0	-2269000.0	-89860.0
44	53	SLU A1 sism.	-50430.0	-19980.0	-96415.0	912000.0	-2316000.0	-89840.0
45	53	SLU A1 sism.	50680.0	8591.4	-196225.0	-586038.0	2349000.0	-55330.0
46	53	SLU A1 sism.	51400.0	8583.9	-224225.0	-586193.0	2301000.0	-55320.0
47	53	SLU A1 sism.	50630.0	-29780.0	-196225.0	1187000.0	2345000.0	-277600.0
48	53	SLU A1 sism.	51360.0	-29790.0	-224125.0	1187000.0	2298000.0	-277500.0
49	53	SLU A1 sism.	-51140.0	29770.0	-68475.0	-1188000.0	-2267000.0	277800.0
50	53	SLU A1 sism.	-50410.0	29760.0	-96465.0	-1188000.0	-2314000.0	277800.0
51	53	SLU A1 sism.	-51180.0	-8605.8	-68405.0	585276.9	-2270000.0	55600.0
52	53	SLU A1 sism.	-50450.0	-8613.2	-96395.0	585123.1	-2317000.0	55620.0
53	53	SLU A1 sism.	50670.0	-1229.4	-196225.0	-310858.0	2349000.0	-242600.0
54	53	SLU A1 sism.	51400.0	-1236.9	-224225.0	-311012.0	2302000.0	-242600.0

55	53	SLU A1 sism.	50640.0	-19960.0	-196225.0	912000.0	2346000.0	-90250.0
56	53	SLU A1 sism.	51370.0	-19970.0	-224225.0	912000.0	2299000.0	-90230.0
57	53	SLU A1 sism.	-51140.0	19940.0	-68465.0	-912000.0	-2266000.0	90510.0
58	53	SLU A1 sism.	-50420.0	19940.0	-96455.0	-913000.0	-2314000.0	90530.0
59	53	SLU A1 sism.	-51170.0	1215.0	-68415.0	310196.0	-2269000.0	242900.0
60	53	SLU A1 sism.	-50440.0	1207.6	-96405.0	310042.0	-2316000.0	242900.0
61	53	SLU A1 sism.	15080.0	67120.0	-151625.0	-3045000.0	736500.0	420300.0
62	53	SLU A1 sism.	15810.0	67120.0	-179625.0	-3045000.0	689400.0	420400.0
63	53	SLU A1 sism.	14950.0	-60780.0	-151325.0	2864000.0	726600.0	-320400.0
64	53	SLU A1 sism.	15680.0	-60790.0	-179325.0	2864000.0	679500.0	-320400.0
65	53	SLU A1 sism.	-15450.0	60770.0	-113295.0	-2865000.0	-647000.0	320600.0
66	53	SLU A1 sism.	-14720.0	60760.0	-141285.0	-2865000.0	-694100.0	320700.0
67	53	SLU A1 sism.	-15590.0	-67140.0	-113045.0	3044000.0	-657900.0	-420100.0
68	53	SLU A1 sism.	-14860.0	-67150.0	-141035.0	3045000.0	-705000.0	-420100.0
69	53	SLU A1 sism.	15090.0	60770.0	-151625.0	-2865000.0	737300.0	320500.0
70	53	SLU A1 sism.	15820.0	60760.0	-179625.0	-2865000.0	690200.0	320500.0
71	53	SLU A1 sism.	14950.0	-67130.0	-151425.0	3044000.0	726400.0	-420200.0
72	53	SLU A1 sism.	15680.0	-67140.0	-179325.0	3044000.0	679300.0	-420200.0
73	53	SLU A1 sism.	-15450.0	67120.0	-113285.0	-3045000.0	-646800.0	420500.0
74	53	SLU A1 sism.	-14730.0	67110.0	-141275.0	-3045000.0	-694900.0	420500.0
75	53	SLU A1 sism.	-15590.0	-60780.0	-113045.0	2864000.0	-657700.0	-320300.0
76	53	SLU A1 sism.	-14860.0	-60790.0	-141035.0	2864000.0	-704800.0	-320200.0
77	53	SLU A1 sism.	15060.0	34390.0	-151625.0	-2128000.0	736100.0	-204000.0
78	53	SLU A1 sism.	15790.0	34380.0	-179625.0	-2128000.0	689000.0	-204000.0
79	53	SLU A1 sism.	14970.0	-28040.0	-151425.0	1946300.0	726900.0	304000.0
80	53	SLU A1 sism.	15700.0	-28050.0	-179425.0	1946400.0	679900.0	304000.0
81	53	SLU A1 sism.	-15480.0	28030.0	-113265.0	-1947500.0	-648400.0	-303700.0
82	53	SLU A1 sism.	-14750.0	28020.0	-141255.0	-1947400.0	-695500.0	-303700.0
83	53	SLU A1 sism.	-15560.0	-34400.0	-113075.0	2127000.0	-656600.0	204300.0
84	53	SLU A1 sism.	-14830.0	-34410.0	-141065.0	2127000.0	-703600.0	204300.0
85	53	SLU A1 sism.	15060.0	28030.0	-151625.0	-1947200.0	735900.0	-303800.0
86	53	SLU A1 sism.	15790.0	28020.0	-179625.0	-1947100.0	688800.0	-303800.0
87	53	SLU A1 sism.	14980.0	-34400.0	-151425.0	2127000.0	727700.0	204100.0
88	53	SLU A1 sism.	15710.0	-34410.0	-179425.0	2127000.0	680700.0	204200.0
89	53	SLU A1 sism.	-15480.0	34380.0	-113255.0	-2127000.0	-648200.0	-203900.0
90	53	SLU A1 sism.	-14750.0	34380.0	-141245.0	-2128000.0	-695300.0	-203900.0
91	53	SLU A1 sism.	-15570.0	-28050.0	-113065.0	1947100.0	-657400.0	304100.0
92	53	SLU A1 sism.	-14840.0	-28050.0	-141055.0	1946100.0	-704400.0	304100.0
221	53	SLU A1 sism.	14190.0	22370.0	-118875.0	-977000.0	788600.0	161100.0
222	53	SLU A1 sism.	16610.0	22340.0	-212125.0	-977000.0	630000.0	161100.0
223	53	SLU A1 sism.	14150.0	-16000.0	-118805.0	795400.0	785600.0	-61140.0
224	53	SLU A1 sism.	16570.0	-16030.0	-212125.0	795400.0	627000.0	-61080.0
225	53	SLU A1 sism.	-16350.0	16010.0	-80555.0	-796500.0	-596000.0	61370.0
226	53	SLU A1 sism.	-13920.0	15980.0	-173825.0	-796500.0	-753100.0	61420.0
227	53	SLU A1 sism.	-16390.0	-22360.0	-80475.0	976000.0	-599000.0	-160900.0
228	53	SLU A1 sism.	-13960.0	-22390.0	-173825.0	976000.0	-756200.0	-160800.0
229	53	SLU A1 sism.	14180.0	12550.0	-118865.0	-702000.0	788100.0	-26230.0
230	53	SLU A1 sism.	16610.0	12520.0	-212125.0	-702100.0	631000.0	-26170.0
231	53	SLU A1 sism.	14150.0	-6184.0	-118815.0	520790.0	785100.0	126200.0
232	53	SLU A1 sism.	16580.0	-6208.9	-212125.0	520286.0	628000.0	126200.0
233	53	SLU A1 sism.	-16360.0	6187.0	-80545.0	-521122.0	-596000.0	-125900.0
234	53	SLU A1 sism.	-13930.0	6162.2	-173825.0	-521656.0	-753600.0	-125900.0
235	53	SLU A1 sism.	-16380.0	-12540.0	-80485.0	701000.0	-598000.0	26450.0
236	53	SLU A1 sism.	-13960.0	-12570.0	-173825.0	701000.0	-756700.0	26510.0
237	53	SLU A1 sism.	14190.0	16010.0	-118885.0	-796200.0	788500.0	61250.0
238	53	SLU A1 sism.	16620.0	15990.0	-212225.0	-797200.0	631000.0	61310.0
239	53	SLU A1 sism.	14150.0	-22360.0	-118805.0	976000.0	785400.0	-161000.0
240	53	SLU A1 sism.	16580.0	-22380.0	-212125.0	975000.0	628000.0	-160900.0
241	53	SLU A1 sism.	-16350.0	22360.0	-80545.0	-976000.0	-596000.0	161200.0
242	53	SLU A1 sism.	-13930.0	22340.0	-173825.0	-977000.0	-753900.0	161300.0
243	53	SLU A1 sism.	-16390.0	-16010.0	-80475.0	796200.0	-599000.0	-61020.0
244	53	SLU A1 sism.	-13970.0	-16030.0	-173725.0	795100.0	-757000.0	-60970.0
245	53	SLU A1 sism.	14180.0	6190.1	-118875.0	-521150.0	788000.0	-126100.0
246	53	SLU A1 sism.	16610.0	6165.2	-212125.0	-521684.0	631000.0	-126000.0
247	53	SLU A1 sism.	14160.0	-12540.0	-118815.0	701300.0	785900.0	26330.0
248	53	SLU A1 sism.	16580.0	-12560.0	-212125.0	700300.0	628000.0	26390.0

249	53	SLU A1 sism.	-16360.0	12540.0	-80535.0	-701300.0	-596000.0	-26110.0
250	53	SLU A1 sism.	-13930.0	12520.0	-173825.0	-702300.0	-753400.0	-26050.0
251	53	SLU A1 sism.	-16380.0	-6187.1	-80485.0	520818.0	-598000.0	126300.0
252	53	SLU A1 sism.	-13960.0	-6211.9	-173825.0	520294.0	-756500.0	126300.0
1	7	SLU STR.	-1631.6	2545.2	-186012.5	414579.0	323638.0	9124.6
2	7	SLU STR.	-1708.8	3037.5	-190612.5	496650.0	337016.0	9361.4
3	7	SLU STR.	-2598.5	6516.1	-245512.5	1075390.0	496548.0	13880.0
4	7	SLU STR.	-2675.7	7008.4	-250112.5	1158161.0	509827.0	14120.0
5	7	SLU STR.	-1233.3	2041.4	-141645.0	333060.0	244671.0	6776.6
6	7	SLU STR.	-1310.5	2533.7	-146295.0	415131.0	258049.0	7013.3
7	7	SLU STR.	-2200.2	6012.3	-201125.0	994771.0	417581.0	11530.0
8	7	SLU STR.	-2277.4	6504.6	-205725.0	1076542.0	430859.0	11770.0
9	7	SLU STR.	-1786.1	3529.8	-195312.5	578621.0	350395.0	9598.1
10	7	SLU STR.	-2308.5	5324.8	-227612.5	877517.0	444655.0	12450.0
11	7	SLU STR.	-2462.9	6309.4	-236912.5	1041059.0	471412.0	12930.0
12	7	SLU STR.	-1387.7	3026.0	-150925.0	497102.0	271427.0	7250.1
13	7	SLU STR.	-1910.1	4821.0	-183325.0	795898.0	365688.0	10110.0
14	7	SLU STR.	-2064.6	5805.6	-192525.0	960440.0	392444.0	10580.0
15	7	SLE Rare	-1245.6	1994.2	-142455.0	325082.0	247139.0	6913.5
16	7	SLE Rare	-1297.1	2322.4	-145555.0	379763.0	255991.0	7071.4
17	7	SLE Rare	-1890.2	4641.4	-182125.0	765856.0	362379.0	10090.0
18	7	SLE Rare	-1941.7	4969.6	-185225.0	821037.0	371231.0	10240.0
19	7	SLE Rare	-1348.6	2650.6	-148655.0	434444.0	264943.0	7229.3
20	7	SLE Rare	-1696.8	3847.3	-170225.0	633274.0	327817.0	9133.6
21	7	SLE Rare	-1799.8	4503.7	-176425.0	742635.0	345621.0	9449.3
22	7	SLE Freq.	-1245.6	1994.2	-142455.0	325082.0	247139.0	6913.5
23	7	SLE Freq.	-1696.8	3847.3	-170225.0	633274.0	327817.0	9133.6
24	7	SLE Freq.	-1266.2	2125.5	-143695.0	346954.0	250679.0	6976.7
25	7	SLE Freq.	-1632.4	3582.5	-166225.0	589546.0	316263.0	8816.4
26	7	SLE Freq.	-1653.0	3713.8	-167525.0	611419.0	319804.0	8879.6
27	7	SLE Quasi P.	-1245.6	1994.2	-142455.0	325082.0	247139.0	6913.5
28	7	SLE Quasi P.	-1632.4	3582.5	-166225.0	589546.0	316263.0	8816.4
29	7	SLU A1 sism.	53800.0	5626.5	-113975.0	-55552.0	1217000.0	-110500.0
30	7	SLU A1 sism.	53440.0	6170.2	-149025.0	30382.0	1340000.0	-103700.0
31	7	SLU A1 sism.	47420.0	-15680.0	-155025.0	726200.0	1247000.0	-307000.0
32	7	SLU A1 sism.	47070.0	-15140.0	-190125.0	812500.0	1371000.0	-300200.0
33	7	SLU A1 sism.	-50330.0	22300.0	-142415.0	367000.0	-738000.0	317900.0
34	7	SLU A1 sism.	-50680.0	22850.0	-177425.0	453000.0	-614000.0	324700.0
35	7	SLU A1 sism.	-56710.0	994.9	-183425.0	1148511.0	-708000.0	121400.0
36	7	SLU A1 sism.	-57060.0	1538.6	-218525.0	1235144.0	-584000.0	128100.0
37	7	SLU A1 sism.	48380.0	11270.0	-108525.0	-145700.0	1204000.0	-283300.0
38	7	SLU A1 sism.	48020.0	11810.0	-143565.0	-59000.0	1327000.0	-276500.0
39	7	SLU A1 sism.	52840.0	-21320.0	-160525.0	816000.0	1260000.0	-134200.0
40	7	SLU A1 sism.	52490.0	-20780.0	-195525.0	902000.0	1384000.0	-127400.0
41	7	SLU A1 sism.	-55750.0	27940.0	-136955.0	277000.0	-751000.0	145100.0
42	7	SLU A1 sism.	-56100.0	28490.0	-172025.0	363000.0	-627000.0	151800.0
43	7	SLU A1 sism.	-51290.0	-4645.0	-188925.0	1238597.0	-695000.0	294200.0
44	7	SLU A1 sism.	-51640.0	-4101.3	-224025.0	1324531.0	-571000.0	301000.0
45	7	SLU A1 sism.	47030.0	18760.0	-105065.0	-209000.0	1196000.0	-311000.0
46	7	SLU A1 sism.	46680.0	19310.0	-140115.0	-124000.0	1320000.0	-304200.0
47	7	SLU A1 sism.	40650.0	-2545.9	-146125.0	572687.0	1226000.0	-507500.0
48	7	SLU A1 sism.	40300.0	-2002.2	-181125.0	658621.0	1350000.0	-500800.0
49	7	SLU A1 sism.	-43570.0	9167.3	-151325.0	520272.0	-718000.0	518400.0
50	7	SLU A1 sism.	-43920.0	9710.9	-186325.0	606905.9	-594000.0	525200.0
51	7	SLU A1 sism.	-49940.0	-12140.0	-192425.0	1302330.0	-687000.0	321900.0
52	7	SLU A1 sism.	-50290.0	-11600.0	-227425.0	1388600.0	-563000.0	328600.0
53	7	SLU A1 sism.	41610.0	24400.0	-99615.0	-299000.0	1183000.0	-483800.0
54	7	SLU A1 sism.	41260.0	24950.0	-134655.0	-213000.0	1307000.0	-477100.0
55	7	SLU A1 sism.	46070.0	-8185.7	-151625.0	662474.0	1239000.0	-334700.0
56	7	SLU A1 sism.	45720.0	-7642.1	-186625.0	748398.0	1363000.0	-327900.0
57	7	SLU A1 sism.	-48990.0	14810.0	-145865.0	430000.0	-731000.0	345600.0
58	7	SLU A1 sism.	-49340.0	15350.0	-180925.0	517000.0	-607000.0	352300.0
59	7	SLU A1 sism.	-44520.0	-17780.0	-197825.0	1392100.0	-674000.0	494700.0
60	7	SLU A1 sism.	-44870.0	-17240.0	-232925.0	1478400.0	-550000.0	501500.0
61	7	SLU A1 sism.	24790.0	36320.0	-76025.0	-820000.0	498000.0	268700.0
62	7	SLU A1 sism.	24440.0	36870.0	-111075.0	-734000.0	622000.0	275500.0

63	7	SLU A1 sism.	3536.6	-34710.0	-212925.0	1787000.0	597758.0	-386400.0
64	7	SLU A1 sism.	3185.5	-34160.0	-247925.0	1872000.0	721545.0	-379600.0
65	7	SLU A1 sism.	-6450.2	41330.0	-84555.0	-694000.0	-89019.0	397200.0
66	7	SLU A1 sism.	-6801.3	41870.0	-119605.0	-607000.0	34767.0	404000.0
67	7	SLU A1 sism.	-27700.0	-29700.0	-221425.0	1913000.0	11000.0	-257900.0
68	7	SLU A1 sism.	-28050.0	-29160.0	-256425.0	1999300.0	135000.0	-251100.0
69	7	SLU A1 sism.	22760.0	40260.0	-73345.0	-866000.0	491000.0	208600.0
70	7	SLU A1 sism.	22410.0	40810.0	-108395.0	-780000.0	615000.0	215300.0
71	7	SLU A1 sism.	1506.6	-30760.0	-210225.0	1740000.0	591561.0	-446500.0
72	7	SLU A1 sism.	1155.5	-30220.0	-245225.0	1826000.0	715347.0	-439700.0
73	7	SLU A1 sism.	-4420.2	37390.0	-87225.0	-648000.0	-82822.0	457400.0
74	7	SLU A1 sism.	-4771.4	37930.0	-122275.0	-561000.0	40865.0	464200.0
75	7	SLU A1 sism.	-25670.0	-33640.0	-224125.0	1959000.0	18000.0	-197700.0
76	7	SLU A1 sism.	-26020.0	-33100.0	-259125.0	2045000.0	141000.0	-190900.0
77	7	SLU A1 sism.	6721.1	55120.0	-57844.5	-1119000.0	452705.0	-307400.0
78	7	SLU A1 sism.	6369.9	55670.0	-92895.0	-1034000.0	576431.0	-300600.0
79	7	SLU A1 sism.	21600.0	-53500.0	-231025.0	2085000.0	642000.0	189700.0
80	7	SLU A1 sism.	21250.0	-52960.0	-266125.0	2171000.0	766000.0	196500.0
81	7	SLU A1 sism.	-24520.0	60130.0	-66375.0	-993000.0	-134000.0	-178800.0
82	7	SLU A1 sism.	-24870.0	60670.0	-101425.0	-907000.0	-10000.0	-172100.0
83	7	SLU A1 sism.	-9634.7	-48500.0	-239625.0	2212000.0	56534.0	318200.0
84	7	SLU A1 sism.	-9985.8	-47960.0	-274625.0	2299000.0	179421.0	325000.0
85	7	SLU A1 sism.	4691.1	59060.0	-55171.6	-1165000.0	446507.0	-367500.0
86	7	SLU A1 sism.	4339.9	59610.0	-90215.0	-1080000.0	570293.0	-360700.0
87	7	SLU A1 sism.	19570.0	-49560.0	-228425.0	2039000.0	636000.0	129600.0
88	7	SLU A1 sism.	19220.0	-49020.0	-263425.0	2125000.0	760000.0	136300.0
89	7	SLU A1 sism.	-22490.0	56190.0	-69045.0	-947000.0	-128000.0	-118700.0
90	7	SLU A1 sism.	-22840.0	56730.0	-104095.0	-861000.0	-4000.0	-111900.0
91	7	SLU A1 sism.	-7604.7	-52440.0	-242325.0	2258000.0	62232.0	378400.0
92	7	SLU A1 sism.	-7955.8	-51900.0	-277325.0	2345000.0	186018.0	385100.0
221	7	SLU A1 sism.	17760.0	10830.0	-83035.0	-8000.0	388000.0	31530.0
222	7	SLU A1 sism.	16590.0	12640.0	-199825.0	279000.0	800800.0	54110.0
223	7	SLU A1 sism.	11380.0	-10480.0	-124105.0	774000.0	417900.0	-165000.0
224	7	SLU A1 sism.	10210.0	-8667.2	-240925.0	1060417.0	830400.0	-142400.0
225	7	SLU A1 sism.	-13480.0	15830.0	-91565.0	119000.0	-198000.0	160000.0
226	7	SLU A1 sism.	-14650.0	17640.0	-208425.0	406000.0	214000.0	182600.0
227	7	SLU A1 sism.	-19850.0	-5476.3	-132635.0	900730.0	-168000.0	-36480.0
228	7	SLU A1 sism.	-21020.0	-3664.1	-249425.0	1187109.0	245000.0	-13890.0
229	7	SLU A1 sism.	12340.0	16470.0	-77585.0	-98000.0	374800.0	-141300.0
230	7	SLU A1 sism.	11170.0	18280.0	-194425.0	189000.0	787300.0	-118700.0
231	7	SLU A1 sism.	16800.0	-16120.0	-129555.0	863800.0	431000.0	7825.4
232	7	SLU A1 sism.	15630.0	-14310.0	-246425.0	1150500.0	843800.0	30410.0
233	7	SLU A1 sism.	-18900.0	21470.0	-86115.0	29000.0	-212000.0	-12780.0
234	7	SLU A1 sism.	-20070.0	23280.0	-202925.0	316000.0	201000.0	9807.5
235	7	SLU A1 sism.	-14430.0	-11120.0	-138085.0	990800.0	-154000.0	136300.0
236	7	SLU A1 sism.	-15600.0	-9304.0	-254925.0	1276896.0	258000.0	158900.0
237	7	SLU A1 sism.	15730.0	14770.0	-80365.0	-54000.0	382000.0	-28620.0
238	7	SLU A1 sism.	14560.0	16580.0	-197225.0	233000.0	794600.0	-6038.4
239	7	SLU A1 sism.	9354.4	-6538.5	-121425.0	727863.0	412144.0	-225100.0
240	7	SLU A1 sism.	8184.0	-4726.3	-238225.0	1014332.0	824601.5	-202600.0
241	7	SLU A1 sism.	-11450.0	11890.0	-94245.0	165000.0	-192200.0	220200.0
242	7	SLU A1 sism.	-12620.0	13700.0	-211025.0	452000.0	220000.0	242800.0
243	7	SLU A1 sism.	-17820.0	-9417.1	-135305.0	946783.2	-162000.0	23670.0
244	7	SLU A1 sism.	-18990.0	-7604.9	-252125.0	1233194.0	251000.0	46260.0
245	7	SLU A1 sism.	10310.0	20410.0	-74915.0	-144000.0	368600.0	-201400.0
246	7	SLU A1 sism.	9139.3	22220.0	-191725.0	143000.0	781032.0	-178900.0
247	7	SLU A1 sism.	14770.0	-12180.0	-126885.0	817800.0	425000.0	-52330.0
248	7	SLU A1 sism.	13600.0	-10370.0	-243725.0	1104450.0	837600.0	-29740.0
249	7	SLU A1 sism.	-16870.0	17530.0	-88785.0	75000.0	-206000.0	47370.0
250	7	SLU A1 sism.	-18040.0	19340.0	-205625.0	362000.0	207000.0	69960.0
251	7	SLU A1 sism.	-12400.0	-15060.0	-140755.0	1036800.0	-148000.0	196500.0
252	7	SLU A1 sism.	-13570.0	-13240.0	-257625.0	1322511.0	264000.0	219100.0
1	9	SLU STR.	-1751.8	1.8	-176012.5	-355.3	278819.0	190.2
2	9	SLU STR.	-1782.9	1.9	-178412.5	-364.6	282909.0	196.8
3	9	SLU STR.	-2506.6	2.5	-217512.5	-501.5	381640.0	277.4
4	9	SLU STR.	-2537.7	2.5	-219812.5	-509.8	385730.0	284.0

5	9	SLU STR.	-1302.5	1.4	-133535.0	-267.9	208254.0	144.2
6	9	SLU STR.	-1333.6	1.5	-135905.0	-277.2	212344.0	150.8
7	9	SLU STR.	-2057.3	2.0	-175025.0	-413.1	310975.0	231.4
8	9	SLU STR.	-2088.4	2.1	-177425.0	-422.4	315065.0	238.0
9	9	SLU STR.	-1814.0	1.9	-180712.5	-373.9	287099.0	203.4
10	9	SLU STR.	-2280.2	2.3	-205012.5	-457.2	350784.0	251.2
11	9	SLU STR.	-2342.4	2.4	-209812.5	-475.7	358964.0	264.4
12	9	SLU STR.	-1364.7	1.5	-138275.0	-286.5	216434.0	157.5
13	9	SLU STR.	-1830.8	1.9	-162525.0	-369.8	280118.0	205.3
14	9	SLU STR.	-1893.0	2.0	-167325.0	-388.3	288398.0	218.5
15	9	SLE Rare	-1327.9	1.4	-134585.0	-271.1	211806.0	145.4
16	9	SLE Rare	-1348.7	1.4	-136165.0	-277.0	214532.0	149.8
17	9	SLE Rare	-1831.1	1.8	-162225.0	-368.3	280286.0	203.5
18	9	SLE Rare	-1851.9	1.9	-163825.0	-374.1	283013.0	207.9
19	9	SLE Rare	-1369.4	1.5	-137745.0	-282.8	217259.0	154.2
20	9	SLE Rare	-1680.2	1.7	-153925.0	-339.0	259682.0	186.1
21	9	SLE Rare	-1721.7	1.8	-157125.0	-350.7	265235.0	194.9
22	9	SLE Freq.	-1327.9	1.4	-134585.0	-271.1	211806.0	145.4
23	9	SLE Freq.	-1680.2	1.7	-153925.0	-339.0	259682.0	186.1
24	9	SLE Freq.	-1336.2	1.4	-135215.0	-273.3	212876.0	147.2
25	9	SLE Freq.	-1629.9	1.7	-151125.0	-329.6	252914.0	180.3
26	9	SLE Freq.	-1638.2	1.7	-151825.0	-331.7	253985.0	182.0
27	9	SLE Quasi P.	-1327.9	1.4	-134585.0	-271.1	211806.0	145.4
28	9	SLE Quasi P.	-1629.9	1.7	-151125.0	-329.6	252914.0	180.3
29	9	SLU A1 sism.	59020.0	3644.8	-123165.0	-404605.0	1756000.0	291400.0
30	9	SLU A1 sism.	57640.0	3645.3	-156325.0	-404735.0	1877000.0	291400.0
31	9	SLU A1 sism.	58970.0	-14670.0	-123155.0	986300.0	1755000.0	72640.0
32	9	SLU A1 sism.	57580.0	-14670.0	-156325.0	986200.0	1875000.0	72660.0
33	9	SLU A1 sism.	-60840.0	14680.0	-146035.0	-987500.0	-1370000.0	-72300.0
34	9	SLU A1 sism.	-62230.0	14680.0	-179225.0	-987600.0	-1250000.0	-72280.0
35	9	SLU A1 sism.	-60900.0	-3641.9	-146025.0	404081.0	-1371000.0	-291000.0
36	9	SLU A1 sism.	-62280.0	-3641.4	-179225.0	403942.0	-1251000.0	-291000.0
37	9	SLU A1 sism.	59020.0	8521.1	-123165.0	-649713.9	1757000.0	87720.0
38	9	SLU A1 sism.	57630.0	8521.6	-156325.0	-649863.0	1877000.0	87750.0
39	9	SLU A1 sism.	58980.0	-19550.0	-123155.0	1231700.0	1756000.0	276300.0
40	9	SLU A1 sism.	57590.0	-19550.0	-156325.0	1231700.0	1876000.0	276300.0
41	9	SLU A1 sism.	-60850.0	19550.0	-146035.0	-1232000.0	-1370000.0	-276000.0
42	9	SLU A1 sism.	-62240.0	19550.0	-179225.0	-1232100.0	-1250000.0	-275900.0
43	9	SLU A1 sism.	-60890.0	-8518.3	-146025.0	649230.0	-1371000.0	-87390.0
44	9	SLU A1 sism.	-62270.0	-8517.8	-179225.0	649080.9	-1250000.0	-87360.0
45	9	SLU A1 sism.	59040.0	14620.0	-123155.0	-983900.0	1757000.0	-71190.0
46	9	SLU A1 sism.	57650.0	14620.0	-156325.0	-984000.0	1877000.0	-71170.0
47	9	SLU A1 sism.	58980.0	-3700.9	-123155.0	407577.0	1755000.0	-289900.0
48	9	SLU A1 sism.	57590.0	-3700.4	-156325.0	407438.0	1875000.0	-289900.0
49	9	SLU A1 sism.	-60850.0	3703.7	-146045.0	-408101.0	-1369000.0	290300.0
50	9	SLU A1 sism.	-62240.0	3704.2	-179225.0	-408230.0	-1250000.0	290300.0
51	9	SLU A1 sism.	-60910.0	-14620.0	-146035.0	983700.0	-1371000.0	71530.0
52	9	SLU A1 sism.	-62300.0	-14620.0	-179225.0	983600.0	-1251000.0	71550.0
53	9	SLU A1 sism.	59030.0	19500.0	-123155.0	-1229400.0	1757000.0	-274800.0
54	9	SLU A1 sism.	57640.0	19500.0	-156325.0	-1229500.0	1877000.0	-274800.0
55	9	SLU A1 sism.	58990.0	-8577.3	-123155.0	652726.0	1756000.0	-86270.0
56	9	SLU A1 sism.	57600.0	-8576.8	-156325.0	652576.0	1876000.0	-86250.0
57	9	SLU A1 sism.	-60860.0	8580.1	-146045.0	-653209.9	-1370000.0	86610.0
58	9	SLU A1 sism.	-62250.0	8580.6	-179225.0	-653359.0	-1250000.0	86640.0
59	9	SLU A1 sism.	-60900.0	-19490.0	-146035.0	1228100.0	-1371000.0	275200.0
60	9	SLU A1 sism.	-62290.0	-19490.0	-179225.0	1228100.0	-1251000.0	275200.0
61	9	SLU A1 sism.	17140.0	28880.0	-131175.0	-2231900.0	665000.0	419300.0
62	9	SLU A1 sism.	15750.0	28880.0	-164325.0	-2231900.0	784500.0	419300.0
63	9	SLU A1 sism.	16950.0	-32190.0	-131155.0	2406400.0	659000.0	-309800.0
64	9	SLU A1 sism.	15560.0	-32190.0	-164325.0	2406400.0	779100.0	-309800.0
65	9	SLU A1 sism.	-18820.0	32190.0	-138045.0	-2406700.0	-273000.0	310200.0
66	9	SLU A1 sism.	-20210.0	32190.0	-171225.0	-2406800.0	-153000.0	310200.0
67	9	SLU A1 sism.	-19010.0	-28880.0	-138015.0	2231600.0	-279000.0	-418900.0
68	9	SLU A1 sism.	-20400.0	-28880.0	-171125.0	2231500.0	-159000.0	-418900.0
69	9	SLU A1 sism.	17140.0	32170.0	-131175.0	-2405400.0	664000.0	310500.0
70	9	SLU A1 sism.	15760.0	32170.0	-164325.0	-2405500.0	785100.0	310500.0

71	9	SLU A1 sism.	16950.0	-28890.0	-131145.0	2231900.0	659000.0	-418600.0
72	9	SLU A1 sism.	15560.0	-28890.0	-164325.0	2231800.0	778800.0	-418600.0
73	9	SLU A1 sism.	-18820.0	28900.0	-138045.0	-2233100.0	-273000.0	419000.0
74	9	SLU A1 sism.	-20210.0	28900.0	-171225.0	-2233200.0	-153000.0	419000.0
75	9	SLU A1 sism.	-19020.0	-32170.0	-138015.0	2405200.0	-279000.0	-310200.0
76	9	SLU A1 sism.	-20400.0	-32170.0	-171125.0	2405100.0	-158000.0	-310200.0
77	9	SLU A1 sism.	17110.0	45130.0	-131175.0	-3048000.0	664000.0	-259600.0
78	9	SLU A1 sism.	15720.0	45130.0	-164325.0	-3049000.0	783700.0	-259500.0
79	9	SLU A1 sism.	16980.0	-48440.0	-131155.0	3223000.0	660000.0	369000.0
80	9	SLU A1 sism.	15590.0	-48440.0	-164325.0	3223000.0	779900.0	369000.0
81	9	SLU A1 sism.	-18850.0	48440.0	-138035.0	-3223000.0	-274000.0	-368700.0
82	9	SLU A1 sism.	-20240.0	48440.0	-171225.0	-3223000.0	-154000.0	-368600.0
83	9	SLU A1 sism.	-18980.0	-45130.0	-138015.0	3048000.0	-278000.0	259900.0
84	9	SLU A1 sism.	-20370.0	-45130.0	-171125.0	3048000.0	-158000.0	259900.0
85	9	SLU A1 sism.	17110.0	48430.0	-131175.0	-3223000.0	663000.0	-368300.0
86	9	SLU A1 sism.	15720.0	48430.0	-164325.0	-3223000.0	783300.0	-368300.0
87	9	SLU A1 sism.	16980.0	-45150.0	-131155.0	3050000.0	660000.0	260200.0
88	9	SLU A1 sism.	15600.0	-45150.0	-164325.0	3049000.0	780600.0	260300.0
89	9	SLU A1 sism.	-18860.0	45150.0	-138035.0	-3050000.0	-275000.0	-259900.0
90	9	SLU A1 sism.	-20240.0	45150.0	-171225.0	-3050000.0	-154000.0	-259900.0
91	9	SLU A1 sism.	-18980.0	-48420.0	-138015.0	3222000.0	-278000.0	368700.0
92	9	SLU A1 sism.	-20370.0	-48420.0	-171125.0	3222000.0	-158000.0	368700.0
221	9	SLU A1 sism.	18690.0	7505.7	-92485.0	-608368.0	522000.0	164100.0
222	9	SLU A1 sism.	14070.0	7507.3	-203025.0	-608832.0	923300.0	164100.0
223	9	SLU A1 sism.	18630.0	-10810.0	-92475.0	782600.0	520000.0	-54670.0
224	9	SLU A1 sism.	14010.0	-10810.0	-203025.0	782300.0	921400.0	-54600.0
225	9	SLU A1 sism.	-17270.0	10820.0	-99345.0	-783600.0	-416000.0	54960.0
226	9	SLU A1 sism.	-21890.0	10820.0	-209825.0	-783900.0	-15000.0	55030.0
227	9	SLU A1 sism.	-17330.0	-7504.0	-99335.0	608199.0	-418000.0	-163800.0
228	9	SLU A1 sism.	-21950.0	-7502.4	-209825.0	607735.0	-17000.0	-163700.0
229	9	SLU A1 sism.	18680.0	12380.0	-92485.0	-853300.0	522000.0	-39590.0
230	9	SLU A1 sism.	14060.0	12380.0	-203025.0	-853600.0	923000.0	-39520.0
231	9	SLU A1 sism.	18640.0	-15690.0	-92475.0	1028100.0	521000.0	149000.0
232	9	SLU A1 sism.	14020.0	-15690.0	-203025.0	1027800.0	921800.0	149100.0
233	9	SLU A1 sism.	-17280.0	15690.0	-99345.0	-1028100.0	-416000.0	-148700.0
234	9	SLU A1 sism.	-21900.0	15690.0	-209825.0	-1028400.0	-15000.0	-148600.0
235	9	SLU A1 sism.	-17320.0	-12380.0	-99335.0	853300.0	-417000.0	39880.0
236	9	SLU A1 sism.	-21940.0	-12380.0	-209825.0	853000.0	-16000.0	39950.0
237	9	SLU A1 sism.	18700.0	10800.0	-92485.0	-782300.0	523000.0	55300.0
238	9	SLU A1 sism.	14070.0	10800.0	-203025.0	-782600.0	923000.0	55370.0
239	9	SLU A1 sism.	18640.0	-7521.7	-92475.0	609167.0	521000.0	-163400.0
240	9	SLU A1 sism.	14010.0	-7520.0	-203025.0	608804.0	921100.0	-163400.0
241	9	SLU A1 sism.	-17270.0	7523.4	-99345.0	-609437.0	-415000.0	163700.0
242	9	SLU A1 sism.	-21900.0	7525.0	-209825.0	-609901.0	-15000.0	163800.0
243	9	SLU A1 sism.	-17330.0	-10800.0	-99335.0	782300.0	-417000.0	-55010.0
244	9	SLU A1 sism.	-21950.0	-10790.0	-209825.0	781000.0	-16000.0	-54940.0
245	9	SLU A1 sism.	18690.0	15670.0	-92485.0	-1026800.0	523000.0	-148400.0
246	9	SLU A1 sism.	14060.0	15680.0	-203025.0	-1028100.0	922700.0	-148300.0
247	9	SLU A1 sism.	18650.0	-12400.0	-92475.0	854500.0	521000.0	40210.0
248	9	SLU A1 sism.	14020.0	-12400.0	-203025.0	854300.0	921400.0	40280.0
249	9	SLU A1 sism.	-17280.0	12400.0	-99345.0	-854600.0	-416000.0	-39920.0
250	9	SLU A1 sism.	-21910.0	12400.0	-209825.0	-854900.0	-16000.0	-39850.0
251	9	SLU A1 sism.	-17320.0	-15670.0	-99345.0	1026800.0	-417000.0	148600.0
252	9	SLU A1 sism.	-21950.0	-15670.0	-209825.0	1026500.0	-17000.0	148700.0

Pressione sul terreno ai vertici della base (daN/cm²):

(per le cmb. di tipo sism. le pressioni sono ottenute con sollecitazioni amplificate per $\gamma_{RD} = 1.10$)

Cmb.	Plin.	Tipo	P1 (x=225, y=225)	P2 (x=225, y=-225)	P3 (x=-225, y=-225)	P4 (x=-225, y=225)	Note
1	1	SLU STR.	-0.77	-0.83	-0.84	-0.78	Base interamente
compressa							
2	1	SLU STR.	-0.78	-0.85	-0.86	-0.80	Base interamente
compressa							
3	1	SLU STR.	-0.96	-1.08	-1.09	-0.97	Base interamente

compressa							
4	1	SLU STR.	-0.97	-1.10	-1.11	-0.99	Base interamente
compressa							
5	1	SLU STR.	-0.59	-0.63	-0.64	-0.60	Base interamente
compressa							
6	1	SLU STR.	-0.60	-0.65	-0.66	-0.61	Base interamente
compressa							
7	1	SLU STR.	-0.78	-0.89	-0.89	-0.79	Base interamente
compressa							
8	1	SLU STR.	-0.79	-0.91	-0.92	-0.80	Base interamente
compressa							
9	1	SLU STR.	-0.80	-0.87	-0.88	-0.81	Base interamente
compressa							
10	1	SLU STR.	-0.90	-1.01	-1.02	-0.92	Base interamente
compressa							
11	1	SLU STR.	-0.93	-1.05	-1.06	-0.94	Base interamente
compressa							
12	1	SLU STR.	-0.61	-0.67	-0.68	-0.62	Base interamente
compressa							
13	1	SLU STR.	-0.72	-0.81	-0.82	-0.73	Base interamente
compressa							
14	1	SLU STR.	-0.75	-0.85	-0.86	-0.76	Base interamente
compressa							
15	1	SLE Rare	-0.59	-0.63	-0.64	-0.60	Base interamente
compressa							
16	1	SLE Rare	-0.60	-0.65	-0.66	-0.61	Base interamente
compressa							
17	1	SLE Rare	-0.72	-0.80	-0.81	-0.73	Base interamente
compressa							
18	1	SLE Rare	-0.73	-0.82	-0.83	-0.73	Base interamente
compressa							
19	1	SLE Rare	-0.61	-0.66	-0.67	-0.62	Base interamente
compressa							
20	1	SLE Rare	-0.68	-0.75	-0.76	-0.69	Base interamente
compressa							
21	1	SLE Rare	-0.70	-0.78	-0.79	-0.71	Base interamente
compressa							
22	1	SLE Freq.	-0.59	-0.63	-0.64	-0.60	Base interamente
compressa							
23	1	SLE Freq.	-0.68	-0.75	-0.76	-0.69	Base interamente
compressa							
24	1	SLE Freq.	-0.59	-0.64	-0.65	-0.60	Base interamente
compressa							
25	1	SLE Freq.	-0.67	-0.74	-0.74	-0.68	Base interamente
compressa							
26	1	SLE Freq.	-0.67	-0.74	-0.75	-0.68	Base interamente
compressa							
27	1	SLE Quasi P.	-0.59	-0.63	-0.64	-0.60	Base interamente
compressa							
28	1	SLE Quasi P.	-0.67	-0.74	-0.74	-0.68	Base interamente
compressa							
29	1	SLU A1 sism.	-0.52	-0.52	-0.13	-0.14	Base interamente
compressa							
30	1	SLU A1 sism.	-0.63	-0.65	-0.27	-0.26	Base interamente
compressa							
31	1	SLU A1 sism.	-0.64	-0.73	-0.38	-0.29	Base interamente
compressa							
32	1	SLU A1 sism.	-0.75	-0.86	-0.52	-0.41	Base interamente
compressa							
33	1	SLU A1 sism.	-0.58	-0.61	-0.97	-0.94	Base interamente
compressa							
34	1	SLU A1 sism.	-0.69	-0.74	-1.11	-1.06	Base interamente
compressa							
35	1	SLU A1 sism.	-0.70	-0.83	-1.22	-1.09	Base interamente
compressa							
36	1	SLU A1 sism.	-0.81	-0.95	-1.35	-1.21	Base interamente

compressa							
37	1	SLU A1 sism.	-0.49	-0.46	-0.09	-0.12	Base interamente
compressa							
38	1	SLU A1 sism.	-0.59	-0.59	-0.22	-0.23	Base interamente
compressa							
39	1	SLU A1 sism.	-0.68	-0.79	-0.43	-0.32	Base interamente
compressa							
40	1	SLU A1 sism.	-0.79	-0.92	-0.56	-0.43	Base interamente
compressa							
41	1	SLU A1 sism.	-0.54	-0.55	-0.93	-0.92	Base interamente
compressa							
42	1	SLU A1 sism.	-0.65	-0.68	-1.06	-1.03	Base interamente
compressa							
43	1	SLU A1 sism.	-0.74	-0.88	-1.27	-1.12	Base interamente
compressa							
44	1	SLU A1 sism.	-0.85	-1.01	-1.40	-1.24	Base interamente
compressa							
45	1	SLU A1 sism.	-0.45	-0.42	-0.06	-0.09	Base interamente
compressa							
46	1	SLU A1 sism.	-0.56	-0.55	-0.19	-0.21	Base interamente
compressa							
47	1	SLU A1 sism.	-0.57	-0.63	-0.31	-0.24	Base interamente
compressa							
48	1	SLU A1 sism.	-0.68	-0.76	-0.44	-0.36	Base interamente
compressa							
49	1	SLU A1 sism.	-0.65	-0.71	-1.05	-0.99	Base interamente
compressa							
50	1	SLU A1 sism.	-0.76	-0.84	-1.18	-1.11	Base interamente
compressa							
51	1	SLU A1 sism.	-0.77	-0.92	-1.29	-1.14	Base interamente
compressa							
52	1	SLU A1 sism.	-0.88	-1.05	-1.43	-1.26	Base interamente
compressa							
53	1	SLU A1 sism.	-0.41	-0.36	-0.01	-0.07	Base interamente
compressa							
54	1	SLU A1 sism.	-0.52	-0.49	-0.15	-0.18	Base interamente
compressa							
55	1	SLU A1 sism.	-0.61	-0.69	-0.35	-0.27	Base interamente
compressa							
56	1	SLU A1 sism.	-0.72	-0.82	-0.49	-0.39	Base interamente
compressa							
57	1	SLU A1 sism.	-0.62	-0.65	-1.00	-0.97	Base interamente
compressa							
58	1	SLU A1 sism.	-0.72	-0.78	-1.13	-1.08	Base interamente
compressa							
59	1	SLU A1 sism.	-0.81	-0.98	-1.34	-1.17	Base interamente
compressa							
60	1	SLU A1 sism.	-0.92	-1.11	-1.47	-1.28	Base interamente
compressa							
61	1	SLU A1 sism.	-0.41	-0.30	-0.14	-0.25	Base interamente
compressa							
62	1	SLU A1 sism.	-0.52	-0.43	-0.27	-0.36	Base interamente
compressa							
63	1	SLU A1 sism.	-0.80	-1.01	-0.97	-0.75	Base interamente
compressa							
64	1	SLU A1 sism.	-0.91	-1.14	-1.10	-0.86	Base interamente
compressa							
65	1	SLU A1 sism.	-0.43	-0.33	-0.39	-0.49	Base interamente
compressa							
66	1	SLU A1 sism.	-0.54	-0.46	-0.52	-0.60	Base interamente
compressa							
67	1	SLU A1 sism.	-0.81	-1.04	-1.22	-0.99	Base interamente
compressa							
68	1	SLU A1 sism.	-0.92	-1.17	-1.35	-1.10	Base interamente
compressa							
69	1	SLU A1 sism.	-0.39	-0.27	-0.12	-0.23	Base interamente

compressa							
70	1	SLU A1 sism.	-0.50	-0.40	-0.25	-0.35	Base interamente
compressa							
71	1	SLU A1 sism.	-0.77	-0.98	-0.94	-0.73	Base interamente
compressa							
72	1	SLU A1 sism.	-0.88	-1.11	-1.08	-0.85	Base interamente
compressa							
73	1	SLU A1 sism.	-0.45	-0.36	-0.41	-0.50	Base interamente
compressa							
74	1	SLU A1 sism.	-0.56	-0.49	-0.55	-0.62	Base interamente
compressa							
75	1	SLU A1 sism.	-0.84	-1.07	-1.24	-1.00	Base interamente
compressa							
76	1	SLU A1 sism.	-0.94	-1.20	-1.37	-1.12	Base interamente
compressa							
77	1	SLU A1 sism.	-0.28	-0.11	0.00	-0.16	Parzializzata
78	1	SLU A1 sism.	-0.39	-0.24	-0.12	-0.27	Base interamente
compressa							
79	1	SLU A1 sism.	-0.93	-1.21	-1.12	-0.84	Base interamente
compressa							
80	1	SLU A1 sism.	-1.04	-1.34	-1.25	-0.95	Base interamente
compressa							
81	1	SLU A1 sism.	-0.30	-0.14	-0.24	-0.40	Base interamente
compressa							
82	1	SLU A1 sism.	-0.41	-0.26	-0.37	-0.51	Base interamente
compressa							
83	1	SLU A1 sism.	-0.95	-1.24	-1.37	-1.08	Base interamente
compressa							
84	1	SLU A1 sism.	-1.05	-1.36	-1.50	-1.19	Base interamente
compressa							
85	1	SLU A1 sism.	-0.26	-0.08	0.00	-0.14	Parzializzata
86	1	SLU A1 sism.	-0.37	-0.21	-0.10	-0.26	Base interamente
compressa							
87	1	SLU A1 sism.	-0.91	-1.18	-1.10	-0.83	Base interamente
compressa							
88	1	SLU A1 sism.	-1.02	-1.31	-1.23	-0.94	Base interamente
compressa							
89	1	SLU A1 sism.	-0.32	-0.16	-0.26	-0.41	Base interamente
compressa							
90	1	SLU A1 sism.	-0.43	-0.29	-0.39	-0.52	Base interamente
compressa							
91	1	SLU A1 sism.	-0.97	-1.26	-1.39	-1.10	Base interamente
compressa							
92	1	SLU A1 sism.	-1.08	-1.39	-1.53	-1.21	Base interamente
compressa							
221	1	SLU A1 sism.	-0.42	-0.40	-0.27	-0.29	Base interamente
compressa							
222	1	SLU A1 sism.	-0.78	-0.83	-0.72	-0.67	Base interamente
compressa							
223	1	SLU A1 sism.	-0.53	-0.61	-0.52	-0.44	Base interamente
compressa							
224	1	SLU A1 sism.	-0.90	-1.04	-0.97	-0.82	Base interamente
compressa							
225	1	SLU A1 sism.	-0.44	-0.43	-0.52	-0.53	Base interamente
compressa							
226	1	SLU A1 sism.	-0.80	-0.86	-0.97	-0.91	Base interamente
compressa							
227	1	SLU A1 sism.	-0.55	-0.64	-0.77	-0.68	Base interamente
compressa							
228	1	SLU A1 sism.	-0.92	-1.07	-1.22	-1.06	Base interamente
compressa							
229	1	SLU A1 sism.	-0.38	-0.34	-0.23	-0.26	Base interamente
compressa							
230	1	SLU A1 sism.	-0.74	-0.77	-0.67	-0.64	Base interamente
compressa							
231	1	SLU A1 sism.	-0.57	-0.67	-0.57	-0.47	Base interamente

compressa							
232	1	SLU A1 sism.	-0.94	-1.10	-1.01	-0.85	Base interamente
compressa							
233	1	SLU A1 sism.	-0.40	-0.37	-0.48	-0.50	Base interamente
compressa							
234	1	SLU A1 sism.	-0.76	-0.80	-0.92	-0.88	Base interamente
compressa							
235	1	SLU A1 sism.	-0.59	-0.70	-0.82	-0.71	Base interamente
compressa							
236	1	SLU A1 sism.	-0.95	-1.13	-1.26	-1.09	Base interamente
compressa							
237	1	SLU A1 sism.	-0.40	-0.37	-0.25	-0.28	Base interamente
compressa							
238	1	SLU A1 sism.	-0.76	-0.80	-0.69	-0.66	Base interamente
compressa							
239	1	SLU A1 sism.	-0.51	-0.58	-0.50	-0.43	Base interamente
compressa							
240	1	SLU A1 sism.	-0.88	-1.01	-0.94	-0.81	Base interamente
compressa							
241	1	SLU A1 sism.	-0.46	-0.46	-0.55	-0.54	Base interamente
compressa							
242	1	SLU A1 sism.	-0.82	-0.89	-0.99	-0.93	Base interamente
compressa							
243	1	SLU A1 sism.	-0.57	-0.67	-0.79	-0.70	Base interamente
compressa							
244	1	SLU A1 sism.	-0.94	-1.10	-1.24	-1.08	Base interamente
compressa							
245	1	SLU A1 sism.	-0.36	-0.31	-0.20	-0.25	Base interamente
compressa							
246	1	SLU A1 sism.	-0.72	-0.74	-0.65	-0.63	Base interamente
compressa							
247	1	SLU A1 sism.	-0.55	-0.64	-0.54	-0.45	Base interamente
compressa							
248	1	SLU A1 sism.	-0.92	-1.07	-0.99	-0.83	Base interamente
compressa							
249	1	SLU A1 sism.	-0.42	-0.40	-0.50	-0.52	Base interamente
compressa							
250	1	SLU A1 sism.	-0.78	-0.83	-0.94	-0.90	Base interamente
compressa							
251	1	SLU A1 sism.	-0.61	-0.73	-0.84	-0.72	Base interamente
compressa							
252	1	SLU A1 sism.	-0.98	-1.16	-1.28	-1.10	Base interamente
compressa							
1	11	SLU STR.	-0.97	-0.91	-0.87	-0.92	Base interamente
compressa							
2	11	SLU STR.	-1.00	-0.93	-0.89	-0.95	Base interamente
compressa							
3	11	SLU STR.	-1.32	-1.17	-1.11	-1.25	Base interamente
compressa							
4	11	SLU STR.	-1.35	-1.19	-1.13	-1.28	Base interamente
compressa							
5	11	SLU STR.	-0.74	-0.69	-0.66	-0.71	Base interamente
compressa							
6	11	SLU STR.	-0.77	-0.71	-0.68	-0.73	Base interamente
compressa							
7	11	SLU STR.	-1.09	-0.96	-0.90	-1.03	Base interamente
compressa							
8	11	SLU STR.	-1.12	-0.97	-0.92	-1.06	Base interamente
compressa							
9	11	SLU STR.	-1.03	-0.95	-0.90	-0.98	Base interamente
compressa							
10	11	SLU STR.	-1.21	-1.10	-1.04	-1.15	Base interamente
compressa							
11	11	SLU STR.	-1.27	-1.13	-1.07	-1.21	Base interamente
compressa							
12	11	SLU STR.	-0.80	-0.73	-0.69	-0.76	Base interamente

compressa							
13	11	SLU STR.	-0.98	-0.88	-0.83	-0.93	Base interamente
compressa							
14	11	SLU STR.	-1.04	-0.91	-0.86	-0.99	Base interamente
compressa							
15	11	SLE Rare	-0.74	-0.70	-0.67	-0.71	Base interamente
compressa							
16	11	SLE Rare	-0.76	-0.71	-0.68	-0.73	Base interamente
compressa							
17	11	SLE Rare	-0.97	-0.87	-0.82	-0.93	Base interamente
compressa							
18	11	SLE Rare	-0.99	-0.89	-0.84	-0.94	Base interamente
compressa							
19	11	SLE Rare	-0.78	-0.72	-0.69	-0.75	Base interamente
compressa							
20	11	SLE Rare	-0.90	-0.82	-0.78	-0.86	Base interamente
compressa							
21	11	SLE Rare	-0.94	-0.85	-0.80	-0.90	Base interamente
compressa							
22	11	SLE Freq.	-0.74	-0.70	-0.67	-0.71	Base interamente
compressa							
23	11	SLE Freq.	-0.90	-0.82	-0.78	-0.86	Base interamente
compressa							
24	11	SLE Freq.	-0.75	-0.70	-0.67	-0.72	Base interamente
compressa							
25	11	SLE Freq.	-0.88	-0.80	-0.76	-0.84	Base interamente
compressa							
26	11	SLE Freq.	-0.89	-0.81	-0.77	-0.85	Base interamente
compressa							
27	11	SLE Quasi P.	-0.74	-0.70	-0.67	-0.71	Base interamente
compressa							
28	11	SLE Quasi P.	-0.88	-0.80	-0.76	-0.84	Base interamente
compressa							
29	11	SLU A1 sism.	-0.84	-0.76	-0.60	-0.68	Base interamente
compressa							
30	11	SLU A1 sism.	-1.03	-0.94	-0.76	-0.85	Base interamente
compressa							
31	11	SLU A1 sism.	-0.58	-0.61	-0.45	-0.43	Base interamente
compressa							
32	11	SLU A1 sism.	-0.77	-0.79	-0.61	-0.60	Base interamente
compressa							
33	11	SLU A1 sism.	-0.99	-0.82	-0.91	-1.08	Base interamente
compressa							
34	11	SLU A1 sism.	-1.18	-1.00	-1.07	-1.25	Base interamente
compressa							
35	11	SLU A1 sism.	-0.73	-0.67	-0.76	-0.83	Base interamente
compressa							
36	11	SLU A1 sism.	-0.92	-0.84	-0.92	-1.00	Base interamente
compressa							
37	11	SLU A1 sism.	-0.87	-0.79	-0.62	-0.71	Base interamente
compressa							
38	11	SLU A1 sism.	-1.06	-0.96	-0.78	-0.88	Base interamente
compressa							
39	11	SLU A1 sism.	-0.55	-0.59	-0.43	-0.39	Base interamente
compressa							
40	11	SLU A1 sism.	-0.74	-0.77	-0.59	-0.56	Base interamente
compressa							
41	11	SLU A1 sism.	-1.02	-0.84	-0.93	-1.11	Base interamente
compressa							
42	11	SLU A1 sism.	-1.21	-1.02	-1.09	-1.28	Base interamente
compressa							
43	11	SLU A1 sism.	-0.70	-0.64	-0.74	-0.80	Base interamente
compressa							
44	11	SLU A1 sism.	-0.89	-0.82	-0.90	-0.97	Base interamente
compressa							
45	11	SLU A1 sism.	-0.90	-0.80	-0.64	-0.73	Base interamente

compressa							
46	11	SLU A1 sism.	-1.08	-0.98	-0.79	-0.90	Base interamente
compressa							
47	11	SLU A1 sism.	-0.64	-0.65	-0.49	-0.48	Base interamente
compressa							
48	11	SLU A1 sism.	-0.83	-0.82	-0.65	-0.65	Base interamente
compressa							
49	11	SLU A1 sism.	-0.94	-0.78	-0.88	-1.03	Base interamente
compressa							
50	11	SLU A1 sism.	-1.12	-0.96	-1.04	-1.20	Base interamente
compressa							
51	11	SLU A1 sism.	-0.68	-0.63	-0.73	-0.78	Base interamente
compressa							
52	11	SLU A1 sism.	-0.87	-0.81	-0.89	-0.95	Base interamente
compressa							
53	11	SLU A1 sism.	-0.93	-0.82	-0.66	-0.76	Base interamente
compressa							
54	11	SLU A1 sism.	-1.12	-1.00	-0.81	-0.93	Base interamente
compressa							
55	11	SLU A1 sism.	-0.61	-0.62	-0.47	-0.45	Base interamente
compressa							
56	11	SLU A1 sism.	-0.79	-0.80	-0.63	-0.62	Base interamente
compressa							
57	11	SLU A1 sism.	-0.97	-0.81	-0.90	-1.06	Base interamente
compressa							
58	11	SLU A1 sism.	-1.16	-0.98	-1.06	-1.23	Base interamente
compressa							
59	11	SLU A1 sism.	-0.65	-0.61	-0.71	-0.74	Base interamente
compressa							
60	11	SLU A1 sism.	-0.83	-0.78	-0.87	-0.91	Base interamente
compressa							
61	11	SLU A1 sism.	-1.19	-0.96	-0.88	-1.11	Base interamente
compressa							
62	11	SLU A1 sism.	-1.38	-1.14	-1.04	-1.28	Base interamente
compressa							
63	11	SLU A1 sism.	-0.34	-0.45	-0.39	-0.27	Base interamente
compressa							
64	11	SLU A1 sism.	-0.52	-0.63	-0.55	-0.44	Base interamente
compressa							
65	11	SLU A1 sism.	-1.24	-0.98	-0.98	-1.23	Base interamente
compressa							
66	11	SLU A1 sism.	-1.42	-1.16	-1.14	-1.41	Base interamente
compressa							
67	11	SLU A1 sism.	-0.38	-0.47	-0.48	-0.39	Base interamente
compressa							
68	11	SLU A1 sism.	-0.57	-0.64	-0.64	-0.56	Base interamente
compressa							
69	11	SLU A1 sism.	-1.21	-0.97	-0.89	-1.13	Base interamente
compressa							
70	11	SLU A1 sism.	-1.40	-1.15	-1.05	-1.30	Base interamente
compressa							
71	11	SLU A1 sism.	-0.35	-0.46	-0.40	-0.29	Base interamente
compressa							
72	11	SLU A1 sism.	-0.54	-0.64	-0.56	-0.46	Base interamente
compressa							
73	11	SLU A1 sism.	-1.22	-0.97	-0.97	-1.22	Base interamente
compressa							
74	11	SLU A1 sism.	-1.41	-1.14	-1.13	-1.39	Base interamente
compressa							
75	11	SLU A1 sism.	-0.37	-0.46	-0.47	-0.38	Base interamente
compressa							
76	11	SLU A1 sism.	-0.55	-0.63	-0.63	-0.55	Base interamente
compressa							
77	11	SLU A1 sism.	-1.30	-1.04	-0.95	-1.22	Base interamente
compressa							
78	11	SLU A1 sism.	-1.49	-1.21	-1.11	-1.39	Base interamente

compressa							
79	11	SLU A1 sism.	-0.23	-0.38	-0.32	-0.17	Base interamente
compressa							
80	11	SLU A1 sism.	-0.41	-0.55	-0.48	-0.34	Base interamente
compressa							
81	11	SLU A1 sism.	-1.35	-1.05	-1.04	-1.34	Base interamente
compressa							
82	11	SLU A1 sism.	-1.54	-1.23	-1.20	-1.51	Base interamente
compressa							
83	11	SLU A1 sism.	-0.27	-0.39	-0.41	-0.29	Base interamente
compressa							
84	11	SLU A1 sism.	-0.46	-0.57	-0.57	-0.46	Base interamente
compressa							
85	11	SLU A1 sism.	-1.32	-1.05	-0.96	-1.24	Base interamente
compressa							
86	11	SLU A1 sism.	-1.51	-1.22	-1.12	-1.41	Base interamente
compressa							
87	11	SLU A1 sism.	-0.24	-0.39	-0.33	-0.18	Base interamente
compressa							
88	11	SLU A1 sism.	-0.43	-0.56	-0.49	-0.35	Base interamente
compressa							
89	11	SLU A1 sism.	-1.33	-1.04	-1.03	-1.33	Base interamente
compressa							
90	11	SLU A1 sism.	-1.52	-1.22	-1.19	-1.50	Base interamente
compressa							
91	11	SLU A1 sism.	-0.25	-0.38	-0.40	-0.27	Base interamente
compressa							
92	11	SLU A1 sism.	-0.44	-0.56	-0.56	-0.44	Base interamente
compressa							
221	11	SLU A1 sism.	-0.67	-0.58	-0.52	-0.62	Base interamente
compressa							
222	11	SLU A1 sism.	-1.30	-1.16	-1.06	-1.19	Base interamente
compressa							
223	11	SLU A1 sism.	-0.42	-0.43	-0.38	-0.37	Base interamente
compressa							
224	11	SLU A1 sism.	-1.04	-1.01	-0.91	-0.94	Base interamente
compressa							
225	11	SLU A1 sism.	-0.72	-0.60	-0.62	-0.74	Base interamente
compressa							
226	11	SLU A1 sism.	-1.34	-1.18	-1.15	-1.31	Base interamente
compressa							
227	11	SLU A1 sism.	-0.46	-0.44	-0.47	-0.49	Base interamente
compressa							
228	11	SLU A1 sism.	-1.09	-1.03	-1.00	-1.06	Base interamente
compressa							
229	11	SLU A1 sism.	-0.71	-0.60	-0.54	-0.65	Base interamente
compressa							
230	11	SLU A1 sism.	-1.33	-1.19	-1.08	-1.22	Base interamente
compressa							
231	11	SLU A1 sism.	-0.38	-0.40	-0.36	-0.34	Base interamente
compressa							
232	11	SLU A1 sism.	-1.01	-0.99	-0.89	-0.90	Base interamente
compressa							
233	11	SLU A1 sism.	-0.75	-0.62	-0.64	-0.77	Base interamente
compressa							
234	11	SLU A1 sism.	-1.38	-1.20	-1.17	-1.34	Base interamente
compressa							
235	11	SLU A1 sism.	-0.43	-0.42	-0.45	-0.46	Base interamente
compressa							
236	11	SLU A1 sism.	-1.05	-1.01	-0.98	-1.03	Base interamente
compressa							
237	11	SLU A1 sism.	-0.69	-0.59	-0.53	-0.64	Base interamente
compressa							
238	11	SLU A1 sism.	-1.31	-1.17	-1.06	-1.20	Base interamente
compressa							
239	11	SLU A1 sism.	-0.44	-0.44	-0.38	-0.38	Base interamente

compressa							
240	11	SLU A1 sism.	-1.06	-1.02	-0.92	-0.95	Base interamente
compressa							
241	11	SLU A1 sism.	-0.70	-0.58	-0.61	-0.73	Base interamente
compressa							
242	11	SLU A1 sism.	-1.33	-1.17	-1.14	-1.29	Base interamente
compressa							
243	11	SLU A1 sism.	-0.45	-0.43	-0.46	-0.47	Base interamente
compressa							
244	11	SLU A1 sism.	-1.07	-1.02	-0.99	-1.04	Base interamente
compressa							
245	11	SLU A1 sism.	-0.73	-0.61	-0.55	-0.67	Base interamente
compressa							
246	11	SLU A1 sism.	-1.35	-1.20	-1.09	-1.24	Base interamente
compressa							
247	11	SLU A1 sism.	-0.40	-0.41	-0.36	-0.35	Base interamente
compressa							
248	11	SLU A1 sism.	-1.02	-1.00	-0.90	-0.92	Base interamente
compressa							
249	11	SLU A1 sism.	-0.74	-0.61	-0.63	-0.76	Base interamente
compressa							
250	11	SLU A1 sism.	-1.36	-1.19	-1.16	-1.33	Base interamente
compressa							
251	11	SLU A1 sism.	-0.41	-0.41	-0.44	-0.44	Base interamente
compressa							
252	11	SLU A1 sism.	-1.04	-1.00	-0.97	-1.01	Base interamente
compressa							
1	13	SLU STR.	-0.90	-0.96	-0.98	-0.92	Base interamente
compressa							
2	13	SLU STR.	-0.92	-0.99	-1.01	-0.94	Base interamente
compressa							
3	13	SLU STR.	-1.16	-1.31	-1.34	-1.19	Base interamente
compressa							
4	13	SLU STR.	-1.18	-1.34	-1.37	-1.20	Base interamente
compressa							
5	13	SLU STR.	-0.69	-0.74	-0.75	-0.70	Base interamente
compressa							
6	13	SLU STR.	-0.71	-0.76	-0.78	-0.72	Base interamente
compressa							
7	13	SLU STR.	-0.94	-1.08	-1.10	-0.96	Base interamente
compressa							
8	13	SLU STR.	-0.96	-1.11	-1.13	-0.98	Base interamente
compressa							
9	13	SLU STR.	-0.94	-1.02	-1.04	-0.96	Base interamente
compressa							
10	13	SLU STR.	-1.08	-1.21	-1.23	-1.11	Base interamente
compressa							
11	13	SLU STR.	-1.12	-1.26	-1.29	-1.14	Base interamente
compressa							
12	13	SLU STR.	-0.72	-0.79	-0.81	-0.74	Base interamente
compressa							
13	13	SLU STR.	-0.87	-0.98	-1.00	-0.89	Base interamente
compressa							
14	13	SLU STR.	-0.90	-1.04	-1.06	-0.92	Base interamente
compressa							
15	13	SLE Rare	-0.69	-0.74	-0.75	-0.70	Base interamente
compressa							
16	13	SLE Rare	-0.70	-0.76	-0.77	-0.72	Base interamente
compressa							
17	13	SLE Rare	-0.86	-0.97	-0.99	-0.88	Base interamente
compressa							
18	13	SLE Rare	-0.87	-0.99	-1.01	-0.89	Base interamente
compressa							
19	13	SLE Rare	-0.72	-0.78	-0.79	-0.73	Base interamente
compressa							
20	13	SLE Rare	-0.81	-0.90	-0.92	-0.83	Base interamente

compressa							
21	13	SLE Rare	-0.84	-0.94	-0.96	-0.85	Base interamente
compressa							
22	13	SLE Freq.	-0.69	-0.74	-0.75	-0.70	Base interamente
compressa							
23	13	SLE Freq.	-0.81	-0.90	-0.92	-0.83	Base interamente
compressa							
24	13	SLE Freq.	-0.70	-0.75	-0.76	-0.71	Base interamente
compressa							
25	13	SLE Freq.	-0.79	-0.88	-0.89	-0.81	Base interamente
compressa							
26	13	SLE Freq.	-0.80	-0.89	-0.90	-0.82	Base interamente
compressa							
27	13	SLE Quasi P.	-0.69	-0.74	-0.75	-0.70	Base interamente
compressa							
28	13	SLE Quasi P.	-0.79	-0.88	-0.89	-0.81	Base interamente
compressa							
29	13	SLU A1 sism.	-0.69	-0.70	-0.54	-0.53	Base interamente
compressa							
30	13	SLU A1 sism.	-0.87	-0.89	-0.74	-0.71	Base interamente
compressa							
31	13	SLU A1 sism.	-0.86	-0.99	-0.84	-0.71	Base interamente
compressa							
32	13	SLU A1 sism.	-1.04	-1.18	-1.04	-0.89	Base interamente
compressa							
33	13	SLU A1 sism.	-0.55	-0.57	-0.75	-0.73	Base interamente
compressa							
34	13	SLU A1 sism.	-0.73	-0.76	-0.95	-0.91	Base interamente
compressa							
35	13	SLU A1 sism.	-0.72	-0.86	-1.05	-0.91	Base interamente
compressa							
36	13	SLU A1 sism.	-0.90	-1.05	-1.24	-1.09	Base interamente
compressa							
37	13	SLU A1 sism.	-0.69	-0.70	-0.55	-0.53	Base interamente
compressa							
38	13	SLU A1 sism.	-0.87	-0.90	-0.74	-0.71	Base interamente
compressa							
39	13	SLU A1 sism.	-0.86	-0.99	-0.84	-0.71	Base interamente
compressa							
40	13	SLU A1 sism.	-1.04	-1.18	-1.03	-0.89	Base interamente
compressa							
41	13	SLU A1 sism.	-0.55	-0.57	-0.75	-0.73	Base interamente
compressa							
42	13	SLU A1 sism.	-0.73	-0.76	-0.95	-0.91	Base interamente
compressa							
43	13	SLU A1 sism.	-0.72	-0.86	-1.04	-0.91	Base interamente
compressa							
44	13	SLU A1 sism.	-0.90	-1.05	-1.24	-1.09	Base interamente
compressa							
45	13	SLU A1 sism.	-0.69	-0.70	-0.54	-0.53	Base interamente
compressa							
46	13	SLU A1 sism.	-0.86	-0.89	-0.74	-0.71	Base interamente
compressa							
47	13	SLU A1 sism.	-0.86	-0.99	-0.84	-0.71	Base interamente
compressa							
48	13	SLU A1 sism.	-1.03	-1.18	-1.04	-0.89	Base interamente
compressa							
49	13	SLU A1 sism.	-0.55	-0.57	-0.75	-0.73	Base interamente
compressa							
50	13	SLU A1 sism.	-0.73	-0.77	-0.95	-0.91	Base interamente
compressa							
51	13	SLU A1 sism.	-0.73	-0.86	-1.04	-0.91	Base interamente
compressa							
52	13	SLU A1 sism.	-0.90	-1.05	-1.24	-1.09	Base interamente
compressa							
53	13	SLU A1 sism.	-0.69	-0.70	-0.55	-0.53	Base interamente

compressa							
54	13	SLU A1 sism.	-0.86	-0.89	-0.75	-0.72	Base interamente
compressa							
55	13	SLU A1 sism.	-0.86	-0.99	-0.84	-0.71	Base interamente
compressa							
56	13	SLU A1 sism.	-1.03	-1.18	-1.03	-0.89	Base interamente
compressa							
57	13	SLU A1 sism.	-0.55	-0.58	-0.75	-0.73	Base interamente
compressa							
58	13	SLU A1 sism.	-0.73	-0.77	-0.95	-0.91	Base interamente
compressa							
59	13	SLU A1 sism.	-0.73	-0.86	-1.04	-0.90	Base interamente
compressa							
60	13	SLU A1 sism.	-0.90	-1.05	-1.24	-1.09	Base interamente
compressa							
61	13	SLU A1 sism.	-0.44	-0.32	-0.27	-0.39	Base interamente
compressa							
62	13	SLU A1 sism.	-0.62	-0.51	-0.47	-0.57	Base interamente
compressa							
63	13	SLU A1 sism.	-1.01	-1.28	-1.26	-0.99	Base interamente
compressa							
64	13	SLU A1 sism.	-1.19	-1.47	-1.45	-1.17	Base interamente
compressa							
65	13	SLU A1 sism.	-0.40	-0.28	-0.33	-0.45	Base interamente
compressa							
66	13	SLU A1 sism.	-0.58	-0.47	-0.53	-0.63	Base interamente
compressa							
67	13	SLU A1 sism.	-0.97	-1.24	-1.32	-1.05	Base interamente
compressa							
68	13	SLU A1 sism.	-1.15	-1.43	-1.52	-1.23	Base interamente
compressa							
69	13	SLU A1 sism.	-0.44	-0.32	-0.27	-0.39	Base interamente
compressa							
70	13	SLU A1 sism.	-0.62	-0.51	-0.47	-0.57	Base interamente
compressa							
71	13	SLU A1 sism.	-1.01	-1.28	-1.26	-0.99	Base interamente
compressa							
72	13	SLU A1 sism.	-1.19	-1.47	-1.45	-1.17	Base interamente
compressa							
73	13	SLU A1 sism.	-0.40	-0.28	-0.33	-0.45	Base interamente
compressa							
74	13	SLU A1 sism.	-0.58	-0.47	-0.53	-0.63	Base interamente
compressa							
75	13	SLU A1 sism.	-0.97	-1.24	-1.32	-1.05	Base interamente
compressa							
76	13	SLU A1 sism.	-1.15	-1.44	-1.52	-1.23	Base interamente
compressa							
77	13	SLU A1 sism.	-0.44	-0.32	-0.28	-0.40	Base interamente
compressa							
78	13	SLU A1 sism.	-0.62	-0.52	-0.48	-0.58	Base interamente
compressa							
79	13	SLU A1 sism.	-1.01	-1.28	-1.24	-0.98	Base interamente
compressa							
80	13	SLU A1 sism.	-1.19	-1.47	-1.44	-1.16	Base interamente
compressa							
81	13	SLU A1 sism.	-0.40	-0.28	-0.34	-0.46	Base interamente
compressa							
82	13	SLU A1 sism.	-0.58	-0.48	-0.54	-0.64	Base interamente
compressa							
83	13	SLU A1 sism.	-0.97	-1.24	-1.31	-1.04	Base interamente
compressa							
84	13	SLU A1 sism.	-1.15	-1.43	-1.50	-1.22	Base interamente
compressa							
85	13	SLU A1 sism.	-0.44	-0.32	-0.28	-0.40	Base interamente
compressa							
86	13	SLU A1 sism.	-0.62	-0.51	-0.48	-0.58	Base interamente

compressa							
87	13	SLU A1 sism.	-1.01	-1.28	-1.25	-0.98	Base interamente
compressa							
88	13	SLU A1 sism.	-1.19	-1.47	-1.44	-1.16	Base interamente
compressa							
89	13	SLU A1 sism.	-0.40	-0.29	-0.34	-0.46	Base interamente
compressa							
90	13	SLU A1 sism.	-0.58	-0.48	-0.54	-0.64	Base interamente
compressa							
91	13	SLU A1 sism.	-0.97	-1.24	-1.31	-1.04	Base interamente
compressa							
92	13	SLU A1 sism.	-1.15	-1.43	-1.50	-1.22	Base interamente
compressa							
221	13	SLU A1 sism.	-0.44	-0.43	-0.38	-0.39	Base interamente
compressa							
222	13	SLU A1 sism.	-1.02	-1.07	-1.04	-0.99	Base interamente
compressa							
223	13	SLU A1 sism.	-0.61	-0.72	-0.68	-0.57	Base interamente
compressa							
224	13	SLU A1 sism.	-1.19	-1.36	-1.34	-1.17	Base interamente
compressa							
225	13	SLU A1 sism.	-0.40	-0.39	-0.45	-0.45	Base interamente
compressa							
226	13	SLU A1 sism.	-0.98	-1.03	-1.11	-1.05	Base interamente
compressa							
227	13	SLU A1 sism.	-0.57	-0.68	-0.74	-0.63	Base interamente
compressa							
228	13	SLU A1 sism.	-1.15	-1.32	-1.40	-1.23	Base interamente
compressa							
229	13	SLU A1 sism.	-0.44	-0.43	-0.39	-0.39	Base interamente
compressa							
230	13	SLU A1 sism.	-1.02	-1.07	-1.05	-1.00	Base interamente
compressa							
231	13	SLU A1 sism.	-0.61	-0.72	-0.68	-0.56	Base interamente
compressa							
232	13	SLU A1 sism.	-1.19	-1.36	-1.34	-1.17	Base interamente
compressa							
233	13	SLU A1 sism.	-0.40	-0.40	-0.45	-0.45	Base interamente
compressa							
234	13	SLU A1 sism.	-0.98	-1.03	-1.11	-1.06	Base interamente
compressa							
235	13	SLU A1 sism.	-0.57	-0.68	-0.74	-0.62	Base interamente
compressa							
236	13	SLU A1 sism.	-1.15	-1.32	-1.40	-1.23	Base interamente
compressa							
237	13	SLU A1 sism.	-0.44	-0.43	-0.38	-0.39	Base interamente
compressa							
238	13	SLU A1 sism.	-1.02	-1.07	-1.04	-0.99	Base interamente
compressa							
239	13	SLU A1 sism.	-0.61	-0.72	-0.68	-0.57	Base interamente
compressa							
240	13	SLU A1 sism.	-1.19	-1.36	-1.34	-1.17	Base interamente
compressa							
241	13	SLU A1 sism.	-0.40	-0.40	-0.45	-0.45	Base interamente
compressa							
242	13	SLU A1 sism.	-0.98	-1.03	-1.11	-1.05	Base interamente
compressa							
243	13	SLU A1 sism.	-0.57	-0.68	-0.74	-0.63	Base interamente
compressa							
244	13	SLU A1 sism.	-1.15	-1.32	-1.40	-1.23	Base interamente
compressa							
245	13	SLU A1 sism.	-0.44	-0.43	-0.39	-0.39	Base interamente
compressa							
246	13	SLU A1 sism.	-1.02	-1.07	-1.05	-1.00	Base interamente
compressa							
247	13	SLU A1 sism.	-0.61	-0.72	-0.68	-0.57	Base interamente

compressa							
248	13	SLU A1 sism.	-1.19	-1.36	-1.34	-1.17	Base interamente
compressa							
249	13	SLU A1 sism.	-0.40	-0.40	-0.45	-0.45	Base interamente
compressa							
250	13	SLU A1 sism.	-0.98	-1.03	-1.11	-1.06	Base interamente
compressa							
251	13	SLU A1 sism.	-0.57	-0.68	-0.74	-0.62	Base interamente
compressa							
252	13	SLU A1 sism.	-1.15	-1.32	-1.40	-1.23	Base interamente
compressa							
1	15	SLU STR.	-0.88	-0.88	-0.90	-0.90	Base interamente
compressa							
2	15	SLU STR.	-0.89	-0.89	-0.91	-0.91	Base interamente
compressa							
3	15	SLU STR.	-1.09	-1.09	-1.11	-1.11	Base interamente
compressa							
4	15	SLU STR.	-1.11	-1.10	-1.12	-1.12	Base interamente
compressa							
5	15	SLU STR.	-0.67	-0.67	-0.68	-0.68	Base interamente
compressa							
6	15	SLU STR.	-0.68	-0.68	-0.69	-0.69	Base interamente
compressa							
7	15	SLU STR.	-0.88	-0.88	-0.89	-0.90	Base interamente
compressa							
8	15	SLU STR.	-0.89	-0.89	-0.91	-0.91	Base interamente
compressa							
9	15	SLU STR.	-0.91	-0.91	-0.92	-0.92	Base interamente
compressa							
10	15	SLU STR.	-1.03	-1.03	-1.05	-1.05	Base interamente
compressa							
11	15	SLU STR.	-1.05	-1.05	-1.07	-1.07	Base interamente
compressa							
12	15	SLU STR.	-0.69	-0.69	-0.70	-0.70	Base interamente
compressa							
13	15	SLU STR.	-0.82	-0.82	-0.83	-0.83	Base interamente
compressa							
14	15	SLU STR.	-0.84	-0.84	-0.85	-0.86	Base interamente
compressa							
15	15	SLE Rare	-0.67	-0.67	-0.68	-0.68	Base interamente
compressa							
16	15	SLE Rare	-0.68	-0.68	-0.69	-0.69	Base interamente
compressa							
17	15	SLE Rare	-0.82	-0.81	-0.83	-0.83	Base interamente
compressa							
18	15	SLE Rare	-0.82	-0.82	-0.84	-0.84	Base interamente
compressa							
19	15	SLE Rare	-0.69	-0.69	-0.70	-0.70	Base interamente
compressa							
20	15	SLE Rare	-0.77	-0.77	-0.79	-0.79	Base interamente
compressa							
21	15	SLE Rare	-0.79	-0.79	-0.80	-0.80	Base interamente
compressa							
22	15	SLE Freq.	-0.67	-0.67	-0.68	-0.68	Base interamente
compressa							
23	15	SLE Freq.	-0.77	-0.77	-0.79	-0.79	Base interamente
compressa							
24	15	SLE Freq.	-0.68	-0.68	-0.69	-0.69	Base interamente
compressa							
25	15	SLE Freq.	-0.76	-0.76	-0.77	-0.77	Base interamente
compressa							
26	15	SLE Freq.	-0.76	-0.76	-0.77	-0.77	Base interamente
compressa							
27	15	SLE Quasi P.	-0.67	-0.67	-0.68	-0.68	Base interamente
compressa							
28	15	SLE Quasi P.	-0.76	-0.76	-0.77	-0.77	Base interamente

compressa							
29	15	SLU A1 sism.	-0.83	-0.71	-0.50	-0.61	Base interamente
compressa							
30	15	SLU A1 sism.	-1.00	-0.89	-0.68	-0.79	Base interamente
compressa							
31	15	SLU A1 sism.	-0.72	-0.82	-0.61	-0.50	Base interamente
compressa							
32	15	SLU A1 sism.	-0.89	-1.00	-0.79	-0.68	Base interamente
compressa							
33	15	SLU A1 sism.	-0.63	-0.52	-0.75	-0.86	Base interamente
compressa							
34	15	SLU A1 sism.	-0.80	-0.70	-0.94	-1.04	Base interamente
compressa							
35	15	SLU A1 sism.	-0.52	-0.63	-0.86	-0.75	Base interamente
compressa							
36	15	SLU A1 sism.	-0.69	-0.80	-1.04	-0.93	Base interamente
compressa							
37	15	SLU A1 sism.	-0.83	-0.71	-0.50	-0.61	Base interamente
compressa							
38	15	SLU A1 sism.	-1.00	-0.89	-0.68	-0.79	Base interamente
compressa							
39	15	SLU A1 sism.	-0.72	-0.82	-0.61	-0.50	Base interamente
compressa							
40	15	SLU A1 sism.	-0.89	-0.99	-0.79	-0.68	Base interamente
compressa							
41	15	SLU A1 sism.	-0.63	-0.52	-0.75	-0.86	Base interamente
compressa							
42	15	SLU A1 sism.	-0.80	-0.70	-0.94	-1.04	Base interamente
compressa							
43	15	SLU A1 sism.	-0.52	-0.63	-0.86	-0.75	Base interamente
compressa							
44	15	SLU A1 sism.	-0.69	-0.80	-1.04	-0.93	Base interamente
compressa							
45	15	SLU A1 sism.	-0.82	-0.72	-0.50	-0.61	Base interamente
compressa							
46	15	SLU A1 sism.	-1.00	-0.89	-0.68	-0.79	Base interamente
compressa							
47	15	SLU A1 sism.	-0.71	-0.83	-0.61	-0.50	Base interamente
compressa							
48	15	SLU A1 sism.	-0.89	-1.00	-0.79	-0.68	Base interamente
compressa							
49	15	SLU A1 sism.	-0.63	-0.52	-0.75	-0.86	Base interamente
compressa							
50	15	SLU A1 sism.	-0.80	-0.69	-0.93	-1.04	Base interamente
compressa							
51	15	SLU A1 sism.	-0.52	-0.63	-0.86	-0.75	Base interamente
compressa							
52	15	SLU A1 sism.	-0.70	-0.80	-1.04	-0.93	Base interamente
compressa							
53	15	SLU A1 sism.	-0.82	-0.72	-0.50	-0.61	Base interamente
compressa							
54	15	SLU A1 sism.	-1.00	-0.89	-0.68	-0.79	Base interamente
compressa							
55	15	SLU A1 sism.	-0.71	-0.82	-0.61	-0.50	Base interamente
compressa							
56	15	SLU A1 sism.	-0.89	-1.00	-0.79	-0.68	Base interamente
compressa							
57	15	SLU A1 sism.	-0.63	-0.52	-0.75	-0.86	Base interamente
compressa							
58	15	SLU A1 sism.	-0.80	-0.69	-0.93	-1.04	Base interamente
compressa							
59	15	SLU A1 sism.	-0.52	-0.63	-0.86	-0.75	Base interamente
compressa							
60	15	SLU A1 sism.	-0.70	-0.80	-1.04	-0.94	Base interamente
compressa							
61	15	SLU A1 sism.	-0.88	-0.52	-0.46	-0.83	Base interamente

compressa							
62	15	SLU A1 sism.	-1.06	-0.69	-0.64	-1.01	Base interamente
compressa							
63	15	SLU A1 sism.	-0.52	-0.88	-0.82	-0.46	Base interamente
compressa							
64	15	SLU A1 sism.	-0.69	-1.06	-1.01	-0.64	Base interamente
compressa							
65	15	SLU A1 sism.	-0.82	-0.46	-0.54	-0.90	Base interamente
compressa							
66	15	SLU A1 sism.	-1.00	-0.63	-0.72	-1.08	Base interamente
compressa							
67	15	SLU A1 sism.	-0.46	-0.83	-0.90	-0.53	Base interamente
compressa							
68	15	SLU A1 sism.	-0.63	-1.00	-1.08	-0.72	Base interamente
compressa							
69	15	SLU A1 sism.	-0.88	-0.52	-0.46	-0.82	Base interamente
compressa							
70	15	SLU A1 sism.	-1.06	-0.69	-0.64	-1.01	Base interamente
compressa							
71	15	SLU A1 sism.	-0.52	-0.88	-0.82	-0.46	Base interamente
compressa							
72	15	SLU A1 sism.	-0.69	-1.06	-1.01	-0.64	Base interamente
compressa							
73	15	SLU A1 sism.	-0.83	-0.46	-0.53	-0.90	Base interamente
compressa							
74	15	SLU A1 sism.	-1.00	-0.63	-0.72	-1.08	Base interamente
compressa							
75	15	SLU A1 sism.	-0.46	-0.82	-0.90	-0.54	Base interamente
compressa							
76	15	SLU A1 sism.	-0.63	-1.00	-1.08	-0.72	Base interamente
compressa							
77	15	SLU A1 sism.	-0.88	-0.52	-0.46	-0.82	Base interamente
compressa							
78	15	SLU A1 sism.	-1.06	-0.69	-0.64	-1.00	Base interamente
compressa							
79	15	SLU A1 sism.	-0.52	-0.88	-0.82	-0.46	Base interamente
compressa							
80	15	SLU A1 sism.	-0.70	-1.05	-1.00	-0.65	Base interamente
compressa							
81	15	SLU A1 sism.	-0.82	-0.46	-0.54	-0.90	Base interamente
compressa							
82	15	SLU A1 sism.	-1.00	-0.64	-0.72	-1.08	Base interamente
compressa							
83	15	SLU A1 sism.	-0.46	-0.82	-0.90	-0.54	Base interamente
compressa							
84	15	SLU A1 sism.	-0.64	-1.00	-1.08	-0.72	Base interamente
compressa							
85	15	SLU A1 sism.	-0.88	-0.52	-0.46	-0.82	Base interamente
compressa							
86	15	SLU A1 sism.	-1.05	-0.70	-0.64	-1.00	Base interamente
compressa							
87	15	SLU A1 sism.	-0.52	-0.88	-0.82	-0.46	Base interamente
compressa							
88	15	SLU A1 sism.	-0.69	-1.06	-1.00	-0.64	Base interamente
compressa							
89	15	SLU A1 sism.	-0.82	-0.46	-0.54	-0.90	Base interamente
compressa							
90	15	SLU A1 sism.	-1.00	-0.64	-0.72	-1.08	Base interamente
compressa							
91	15	SLU A1 sism.	-0.46	-0.82	-0.90	-0.54	Base interamente
compressa							
92	15	SLU A1 sism.	-0.64	-1.00	-1.08	-0.72	Base interamente
compressa							
221	15	SLU A1 sism.	-0.55	-0.44	-0.37	-0.49	Base interamente
compressa							
222	15	SLU A1 sism.	-1.13	-1.02	-0.98	-1.09	Base interamente

compressa							
223	15	SLU A1 sism.	-0.44	-0.55	-0.48	-0.38	Base interamente
compressa							
224	15	SLU A1 sism.	-1.02	-1.13	-1.09	-0.98	Base interamente
compressa							
225	15	SLU A1 sism.	-0.49	-0.39	-0.45	-0.56	Base interamente
compressa							
226	15	SLU A1 sism.	-1.07	-0.96	-1.06	-1.17	Base interamente
compressa							
227	15	SLU A1 sism.	-0.38	-0.49	-0.56	-0.45	Base interamente
compressa							
228	15	SLU A1 sism.	-0.96	-1.07	-1.17	-1.06	Base interamente
compressa							
229	15	SLU A1 sism.	-0.55	-0.44	-0.38	-0.48	Base interamente
compressa							
230	15	SLU A1 sism.	-1.13	-1.02	-0.98	-1.09	Base interamente
compressa							
231	15	SLU A1 sism.	-0.44	-0.55	-0.48	-0.38	Base interamente
compressa							
232	15	SLU A1 sism.	-1.02	-1.13	-1.09	-0.98	Base interamente
compressa							
233	15	SLU A1 sism.	-0.49	-0.39	-0.45	-0.56	Base interamente
compressa							
234	15	SLU A1 sism.	-1.07	-0.97	-1.06	-1.17	Base interamente
compressa							
235	15	SLU A1 sism.	-0.39	-0.49	-0.56	-0.45	Base interamente
compressa							
236	15	SLU A1 sism.	-0.96	-1.07	-1.17	-1.06	Base interamente
compressa							
237	15	SLU A1 sism.	-0.55	-0.44	-0.38	-0.48	Base interamente
compressa							
238	15	SLU A1 sism.	-1.13	-1.02	-0.98	-1.09	Base interamente
compressa							
239	15	SLU A1 sism.	-0.44	-0.55	-0.49	-0.37	Base interamente
compressa							
240	15	SLU A1 sism.	-1.02	-1.13	-1.09	-0.98	Base interamente
compressa							
241	15	SLU A1 sism.	-0.49	-0.38	-0.45	-0.56	Base interamente
compressa							
242	15	SLU A1 sism.	-1.07	-0.96	-1.06	-1.17	Base interamente
compressa							
243	15	SLU A1 sism.	-0.39	-0.49	-0.56	-0.45	Base interamente
compressa							
244	15	SLU A1 sism.	-0.96	-1.07	-1.17	-1.06	Base interamente
compressa							
245	15	SLU A1 sism.	-0.55	-0.44	-0.38	-0.48	Base interamente
compressa							
246	15	SLU A1 sism.	-1.13	-1.02	-0.98	-1.09	Base interamente
compressa							
247	15	SLU A1 sism.	-0.44	-0.55	-0.48	-0.38	Base interamente
compressa							
248	15	SLU A1 sism.	-1.02	-1.13	-1.09	-0.98	Base interamente
compressa							
249	15	SLU A1 sism.	-0.49	-0.39	-0.45	-0.56	Base interamente
compressa							
250	15	SLU A1 sism.	-1.07	-0.96	-1.06	-1.17	Base interamente
compressa							
251	15	SLU A1 sism.	-0.39	-0.49	-0.56	-0.45	Base interamente
compressa							
252	15	SLU A1 sism.	-0.97	-1.07	-1.16	-1.06	Base interamente
compressa							
1	17	SLU STR.	-0.96	-0.90	-0.92	-0.98	Base interamente
compressa							
2	17	SLU STR.	-0.99	-0.92	-0.94	-1.01	Base interamente
compressa							
3	17	SLU STR.	-1.31	-1.16	-1.19	-1.34	Base interamente

compressa							
4	17	SLU STR.	-1.34	-1.18	-1.21	-1.37	Base interamente
compressa							
5	17	SLU STR.	-0.74	-0.69	-0.70	-0.75	Base interamente
compressa							
6	17	SLU STR.	-0.76	-0.71	-0.72	-0.78	Base interamente
compressa							
7	17	SLU STR.	-1.08	-0.94	-0.97	-1.10	Base interamente
compressa							
8	17	SLU STR.	-1.11	-0.96	-0.98	-1.13	Base interamente
compressa							
9	17	SLU STR.	-1.02	-0.94	-0.96	-1.04	Base interamente
compressa							
10	17	SLU STR.	-1.21	-1.08	-1.11	-1.23	Base interamente
compressa							
11	17	SLU STR.	-1.27	-1.12	-1.14	-1.29	Base interamente
compressa							
12	17	SLU STR.	-0.79	-0.72	-0.74	-0.81	Base interamente
compressa							
13	17	SLU STR.	-0.98	-0.87	-0.89	-1.00	Base interamente
compressa							
14	17	SLU STR.	-1.04	-0.90	-0.92	-1.06	Base interamente
compressa							
15	17	SLE Rare	-0.74	-0.69	-0.70	-0.75	Base interamente
compressa							
16	17	SLE Rare	-0.76	-0.70	-0.72	-0.77	Base interamente
compressa							
17	17	SLE Rare	-0.97	-0.86	-0.88	-0.99	Base interamente
compressa							
18	17	SLE Rare	-0.99	-0.88	-0.89	-1.01	Base interamente
compressa							
19	17	SLE Rare	-0.78	-0.72	-0.73	-0.79	Base interamente
compressa							
20	17	SLE Rare	-0.90	-0.81	-0.83	-0.92	Base interamente
compressa							
21	17	SLE Rare	-0.94	-0.84	-0.85	-0.96	Base interamente
compressa							
22	17	SLE Freq.	-0.74	-0.69	-0.70	-0.75	Base interamente
compressa							
23	17	SLE Freq.	-0.90	-0.81	-0.83	-0.92	Base interamente
compressa							
24	17	SLE Freq.	-0.75	-0.70	-0.71	-0.76	Base interamente
compressa							
25	17	SLE Freq.	-0.88	-0.80	-0.81	-0.89	Base interamente
compressa							
26	17	SLE Freq.	-0.89	-0.80	-0.82	-0.90	Base interamente
compressa							
27	17	SLE Quasi P.	-0.74	-0.69	-0.70	-0.75	Base interamente
compressa							
28	17	SLE Quasi P.	-0.88	-0.80	-0.81	-0.89	Base interamente
compressa							
29	17	SLU A1 sism.	-0.99	-0.86	-0.71	-0.84	Base interamente
compressa							
30	17	SLU A1 sism.	-1.18	-1.03	-0.89	-1.04	Base interamente
compressa							
31	17	SLU A1 sism.	-0.70	-0.69	-0.53	-0.55	Base interamente
compressa							
32	17	SLU A1 sism.	-0.89	-0.86	-0.72	-0.74	Base interamente
compressa							
33	17	SLU A1 sism.	-0.86	-0.73	-0.91	-1.04	Base interamente
compressa							
34	17	SLU A1 sism.	-1.05	-0.90	-1.09	-1.24	Base interamente
compressa							
35	17	SLU A1 sism.	-0.58	-0.56	-0.73	-0.75	Base interamente
compressa							
36	17	SLU A1 sism.	-0.77	-0.73	-0.91	-0.95	Base interamente

compressa							
37	17	SLU A1 sism.	-0.99	-0.86	-0.71	-0.84	Base interamente
compressa							
38	17	SLU A1 sism.	-1.18	-1.03	-0.89	-1.04	Base interamente
compressa							
39	17	SLU A1 sism.	-0.70	-0.69	-0.54	-0.55	Base interamente
compressa							
40	17	SLU A1 sism.	-0.89	-0.86	-0.72	-0.75	Base interamente
compressa							
41	17	SLU A1 sism.	-0.86	-0.73	-0.90	-1.04	Base interamente
compressa							
42	17	SLU A1 sism.	-1.05	-0.90	-1.09	-1.24	Base interamente
compressa							
43	17	SLU A1 sism.	-0.58	-0.56	-0.73	-0.75	Base interamente
compressa							
44	17	SLU A1 sism.	-0.77	-0.73	-0.91	-0.95	Base interamente
compressa							
45	17	SLU A1 sism.	-0.99	-0.86	-0.71	-0.84	Base interamente
compressa							
46	17	SLU A1 sism.	-1.18	-1.04	-0.89	-1.04	Base interamente
compressa							
47	17	SLU A1 sism.	-0.70	-0.69	-0.53	-0.54	Base interamente
compressa							
48	17	SLU A1 sism.	-0.89	-0.87	-0.71	-0.74	Base interamente
compressa							
49	17	SLU A1 sism.	-0.86	-0.72	-0.91	-1.04	Base interamente
compressa							
50	17	SLU A1 sism.	-1.05	-0.90	-1.09	-1.24	Base interamente
compressa							
51	17	SLU A1 sism.	-0.57	-0.55	-0.73	-0.75	Base interamente
compressa							
52	17	SLU A1 sism.	-0.76	-0.73	-0.91	-0.95	Base interamente
compressa							
53	17	SLU A1 sism.	-0.99	-0.86	-0.71	-0.84	Base interamente
compressa							
54	17	SLU A1 sism.	-1.18	-1.04	-0.89	-1.04	Base interamente
compressa							
55	17	SLU A1 sism.	-0.70	-0.69	-0.53	-0.55	Base interamente
compressa							
56	17	SLU A1 sism.	-0.90	-0.87	-0.72	-0.75	Base interamente
compressa							
57	17	SLU A1 sism.	-0.86	-0.72	-0.91	-1.04	Base interamente
compressa							
58	17	SLU A1 sism.	-1.05	-0.90	-1.09	-1.24	Base interamente
compressa							
59	17	SLU A1 sism.	-0.57	-0.55	-0.73	-0.75	Base interamente
compressa							
60	17	SLU A1 sism.	-0.76	-0.73	-0.91	-0.95	Base interamente
compressa							
61	17	SLU A1 sism.	-1.28	-1.01	-0.99	-1.26	Base interamente
compressa							
62	17	SLU A1 sism.	-1.47	-1.19	-1.17	-1.46	Base interamente
compressa							
63	17	SLU A1 sism.	-0.32	-0.44	-0.39	-0.27	Base interamente
compressa							
64	17	SLU A1 sism.	-0.51	-0.62	-0.58	-0.47	Base interamente
compressa							
65	17	SLU A1 sism.	-1.24	-0.97	-1.05	-1.32	Base interamente
compressa							
66	17	SLU A1 sism.	-1.44	-1.15	-1.23	-1.52	Base interamente
compressa							
67	17	SLU A1 sism.	-0.28	-0.40	-0.45	-0.33	Base interamente
compressa							
68	17	SLU A1 sism.	-0.47	-0.58	-0.63	-0.53	Base interamente
compressa							
69	17	SLU A1 sism.	-1.28	-1.01	-0.99	-1.26	Base interamente

compressa							
70	17	SLU A1 sism.	-1.47	-1.19	-1.17	-1.46	Base interamente
compressa							
71	17	SLU A1 sism.	-0.32	-0.44	-0.39	-0.27	Base interamente
compressa							
72	17	SLU A1 sism.	-0.51	-0.62	-0.58	-0.47	Base interamente
compressa							
73	17	SLU A1 sism.	-1.24	-0.97	-1.05	-1.32	Base interamente
compressa							
74	17	SLU A1 sism.	-1.43	-1.15	-1.23	-1.52	Base interamente
compressa							
75	17	SLU A1 sism.	-0.28	-0.40	-0.45	-0.33	Base interamente
compressa							
76	17	SLU A1 sism.	-0.47	-0.58	-0.63	-0.53	Base interamente
compressa							
77	17	SLU A1 sism.	-1.28	-1.01	-0.98	-1.25	Base interamente
compressa							
78	17	SLU A1 sism.	-1.47	-1.19	-1.16	-1.44	Base interamente
compressa							
79	17	SLU A1 sism.	-0.32	-0.44	-0.40	-0.28	Base interamente
compressa							
80	17	SLU A1 sism.	-0.51	-0.62	-0.58	-0.48	Base interamente
compressa							
81	17	SLU A1 sism.	-1.24	-0.97	-1.04	-1.31	Base interamente
compressa							
82	17	SLU A1 sism.	-1.43	-1.15	-1.22	-1.51	Base interamente
compressa							
83	17	SLU A1 sism.	-0.29	-0.40	-0.46	-0.34	Base interamente
compressa							
84	17	SLU A1 sism.	-0.48	-0.58	-0.64	-0.54	Base interamente
compressa							
85	17	SLU A1 sism.	-1.28	-1.01	-0.98	-1.25	Base interamente
compressa							
86	17	SLU A1 sism.	-1.47	-1.19	-1.16	-1.44	Base interamente
compressa							
87	17	SLU A1 sism.	-0.32	-0.44	-0.40	-0.28	Base interamente
compressa							
88	17	SLU A1 sism.	-0.52	-0.62	-0.58	-0.48	Base interamente
compressa							
89	17	SLU A1 sism.	-1.24	-0.97	-1.04	-1.31	Base interamente
compressa							
90	17	SLU A1 sism.	-1.43	-1.15	-1.22	-1.51	Base interamente
compressa							
91	17	SLU A1 sism.	-0.28	-0.40	-0.46	-0.34	Base interamente
compressa							
92	17	SLU A1 sism.	-0.48	-0.58	-0.64	-0.54	Base interamente
compressa							
221	17	SLU A1 sism.	-0.72	-0.61	-0.57	-0.68	Base interamente
compressa							
222	17	SLU A1 sism.	-1.36	-1.19	-1.17	-1.34	Base interamente
compressa							
223	17	SLU A1 sism.	-0.43	-0.44	-0.39	-0.38	Base interamente
compressa							
224	17	SLU A1 sism.	-1.07	-1.02	-1.00	-1.05	Base interamente
compressa							
225	17	SLU A1 sism.	-0.68	-0.57	-0.63	-0.74	Base interamente
compressa							
226	17	SLU A1 sism.	-1.32	-1.15	-1.23	-1.40	Base interamente
compressa							
227	17	SLU A1 sism.	-0.40	-0.40	-0.45	-0.45	Base interamente
compressa							
228	17	SLU A1 sism.	-1.03	-0.98	-1.05	-1.11	Base interamente
compressa							
229	17	SLU A1 sism.	-0.72	-0.61	-0.57	-0.68	Base interamente
compressa							
230	17	SLU A1 sism.	-1.36	-1.19	-1.17	-1.34	Base interamente

compressa							
231	17	SLU A1 sism.	-0.43	-0.44	-0.39	-0.39	Base interamente
compressa							
232	17	SLU A1 sism.	-1.07	-1.02	-1.00	-1.05	Base interamente
compressa							
233	17	SLU A1 sism.	-0.68	-0.57	-0.62	-0.74	Base interamente
compressa							
234	17	SLU A1 sism.	-1.32	-1.15	-1.23	-1.40	Base interamente
compressa							
235	17	SLU A1 sism.	-0.40	-0.40	-0.45	-0.45	Base interamente
compressa							
236	17	SLU A1 sism.	-1.03	-0.98	-1.06	-1.11	Base interamente
compressa							
237	17	SLU A1 sism.	-0.72	-0.61	-0.57	-0.68	Base interamente
compressa							
238	17	SLU A1 sism.	-1.36	-1.19	-1.17	-1.34	Base interamente
compressa							
239	17	SLU A1 sism.	-0.43	-0.44	-0.39	-0.38	Base interamente
compressa							
240	17	SLU A1 sism.	-1.07	-1.02	-1.00	-1.05	Base interamente
compressa							
241	17	SLU A1 sism.	-0.68	-0.57	-0.63	-0.74	Base interamente
compressa							
242	17	SLU A1 sism.	-1.32	-1.15	-1.23	-1.40	Base interamente
compressa							
243	17	SLU A1 sism.	-0.39	-0.40	-0.45	-0.45	Base interamente
compressa							
244	17	SLU A1 sism.	-1.03	-0.98	-1.05	-1.11	Base interamente
compressa							
245	17	SLU A1 sism.	-0.72	-0.61	-0.57	-0.68	Base interamente
compressa							
246	17	SLU A1 sism.	-1.36	-1.19	-1.17	-1.34	Base interamente
compressa							
247	17	SLU A1 sism.	-0.43	-0.44	-0.39	-0.39	Base interamente
compressa							
248	17	SLU A1 sism.	-1.07	-1.02	-1.00	-1.05	Base interamente
compressa							
249	17	SLU A1 sism.	-0.68	-0.57	-0.62	-0.74	Base interamente
compressa							
250	17	SLU A1 sism.	-1.32	-1.15	-1.23	-1.40	Base interamente
compressa							
251	17	SLU A1 sism.	-0.40	-0.40	-0.45	-0.45	Base interamente
compressa							
252	17	SLU A1 sism.	-1.03	-0.98	-1.06	-1.11	Base interamente
compressa							
1	19	SLU STR.	-0.87	-0.94	-0.93	-0.86	Base interamente
compressa							
2	19	SLU STR.	-0.88	-0.96	-0.95	-0.87	Base interamente
compressa							
3	19	SLU STR.	-1.09	-1.25	-1.24	-1.09	Base interamente
compressa							
4	19	SLU STR.	-1.11	-1.27	-1.26	-1.10	Base interamente
compressa							
5	19	SLU STR.	-0.66	-0.71	-0.71	-0.65	Base interamente
compressa							
6	19	SLU STR.	-0.68	-0.74	-0.73	-0.67	Base interamente
compressa							
7	19	SLU STR.	-0.89	-1.02	-1.02	-0.88	Base interamente
compressa							
8	19	SLU STR.	-0.90	-1.05	-1.04	-0.90	Base interamente
compressa							
9	19	SLU STR.	-0.90	-0.99	-0.98	-0.89	Base interamente
compressa							
10	19	SLU STR.	-1.03	-1.15	-1.14	-1.02	Base interamente
compressa							
11	19	SLU STR.	-1.06	-1.20	-1.20	-1.05	Base interamente

compressa							
12	19	SLU STR.	-0.69	-0.77	-0.76	-0.69	Base interamente
compressa							
13	19	SLU STR.	-0.82	-0.93	-0.93	-0.81	Base interamente
compressa							
14	19	SLU STR.	-0.85	-0.98	-0.98	-0.85	Base interamente
compressa							
15	19	SLE Rare	-0.66	-0.72	-0.71	-0.66	Base interamente
compressa							
16	19	SLE Rare	-0.68	-0.73	-0.73	-0.67	Base interamente
compressa							
17	19	SLE Rare	-0.82	-0.92	-0.92	-0.81	Base interamente
compressa							
18	19	SLE Rare	-0.83	-0.94	-0.94	-0.82	Base interamente
compressa							
19	19	SLE Rare	-0.69	-0.75	-0.74	-0.68	Base interamente
compressa							
20	19	SLE Rare	-0.77	-0.86	-0.86	-0.76	Base interamente
compressa							
21	19	SLE Rare	-0.79	-0.90	-0.89	-0.78	Base interamente
compressa							
22	19	SLE Freq.	-0.66	-0.72	-0.71	-0.66	Base interamente
compressa							
23	19	SLE Freq.	-0.77	-0.86	-0.86	-0.76	Base interamente
compressa							
24	19	SLE Freq.	-0.67	-0.72	-0.72	-0.66	Base interamente
compressa							
25	19	SLE Freq.	-0.76	-0.84	-0.83	-0.75	Base interamente
compressa							
26	19	SLE Freq.	-0.76	-0.85	-0.84	-0.75	Base interamente
compressa							
27	19	SLE Quasi P.	-0.66	-0.72	-0.71	-0.66	Base interamente
compressa							
28	19	SLE Quasi P.	-0.76	-0.84	-0.83	-0.75	Base interamente
compressa							
29	19	SLU A1 sism.	-0.70	-0.76	-0.59	-0.53	Base interamente
compressa							
30	19	SLU A1 sism.	-0.85	-0.94	-0.76	-0.68	Base interamente
compressa							
31	19	SLU A1 sism.	-0.91	-1.11	-0.93	-0.73	Base interamente
compressa							
32	19	SLU A1 sism.	-1.06	-1.28	-1.10	-0.88	Base interamente
compressa							
33	19	SLU A1 sism.	-0.45	-0.40	-0.57	-0.62	Base interamente
compressa							
34	19	SLU A1 sism.	-0.60	-0.57	-0.74	-0.77	Base interamente
compressa							
35	19	SLU A1 sism.	-0.66	-0.75	-0.91	-0.82	Base interamente
compressa							
36	19	SLU A1 sism.	-0.81	-0.92	-1.08	-0.96	Base interamente
compressa							
37	19	SLU A1 sism.	-0.73	-0.80	-0.63	-0.56	Base interamente
compressa							
38	19	SLU A1 sism.	-0.88	-0.98	-0.80	-0.70	Base interamente
compressa							
39	19	SLU A1 sism.	-0.88	-1.07	-0.89	-0.71	Base interamente
compressa							
40	19	SLU A1 sism.	-1.04	-1.24	-1.06	-0.85	Base interamente
compressa							
41	19	SLU A1 sism.	-0.47	-0.44	-0.61	-0.64	Base interamente
compressa							
42	19	SLU A1 sism.	-0.63	-0.61	-0.78	-0.79	Base interamente
compressa							
43	19	SLU A1 sism.	-0.63	-0.71	-0.87	-0.79	Base interamente
compressa							
44	19	SLU A1 sism.	-0.78	-0.88	-1.04	-0.94	Base interamente

compressa							
45	19	SLU A1 sism.	-0.73	-0.82	-0.65	-0.56	Base interamente
compressa							
46	19	SLU A1 sism.	-0.89	-0.99	-0.81	-0.71	Base interamente
compressa							
47	19	SLU A1 sism.	-0.94	-1.17	-0.98	-0.76	Base interamente
compressa							
48	19	SLU A1 sism.	-1.10	-1.34	-1.15	-0.91	Base interamente
compressa							
49	19	SLU A1 sism.	-0.41	-0.34	-0.52	-0.59	Base interamente
compressa							
50	19	SLU A1 sism.	-0.57	-0.52	-0.69	-0.74	Base interamente
compressa							
51	19	SLU A1 sism.	-0.62	-0.69	-0.86	-0.79	Base interamente
compressa							
52	19	SLU A1 sism.	-0.78	-0.86	-1.02	-0.93	Base interamente
compressa							
53	19	SLU A1 sism.	-0.76	-0.86	-0.69	-0.59	Base interamente
compressa							
54	19	SLU A1 sism.	-0.91	-1.03	-0.85	-0.73	Base interamente
compressa							
55	19	SLU A1 sism.	-0.92	-1.13	-0.94	-0.74	Base interamente
compressa							
56	19	SLU A1 sism.	-1.07	-1.30	-1.11	-0.88	Base interamente
compressa							
57	19	SLU A1 sism.	-0.44	-0.39	-0.56	-0.61	Base interamente
compressa							
58	19	SLU A1 sism.	-0.59	-0.56	-0.73	-0.76	Base interamente
compressa							
59	19	SLU A1 sism.	-0.60	-0.65	-0.82	-0.76	Base interamente
compressa							
60	19	SLU A1 sism.	-0.75	-0.82	-0.98	-0.91	Base interamente
compressa							
61	19	SLU A1 sism.	-0.37	-0.23	-0.20	-0.33	Base interamente
compressa							
62	19	SLU A1 sism.	-0.52	-0.40	-0.36	-0.48	Base interamente
compressa							
63	19	SLU A1 sism.	-1.07	-1.39	-1.31	-0.99	Base interamente
compressa							
64	19	SLU A1 sism.	-1.22	-1.56	-1.48	-1.14	Base interamente
compressa							
65	19	SLU A1 sism.	-0.29	-0.12	-0.19	-0.36	Base interamente
compressa							
66	19	SLU A1 sism.	-0.45	-0.29	-0.36	-0.51	Base interamente
compressa							
67	19	SLU A1 sism.	-0.99	-1.28	-1.31	-1.02	Base interamente
compressa							
68	19	SLU A1 sism.	-1.14	-1.45	-1.47	-1.16	Base interamente
compressa							
69	19	SLU A1 sism.	-0.38	-0.25	-0.21	-0.34	Base interamente
compressa							
70	19	SLU A1 sism.	-0.53	-0.42	-0.38	-0.49	Base interamente
compressa							
71	19	SLU A1 sism.	-1.08	-1.41	-1.33	-1.00	Base interamente
compressa							
72	19	SLU A1 sism.	-1.23	-1.58	-1.50	-1.15	Base interamente
compressa							
73	19	SLU A1 sism.	-0.28	-0.10	-0.17	-0.35	Base interamente
compressa							
74	19	SLU A1 sism.	-0.44	-0.28	-0.34	-0.50	Base interamente
compressa							
75	19	SLU A1 sism.	-0.98	-1.26	-1.29	-1.01	Base interamente
compressa							
76	19	SLU A1 sism.	-1.13	-1.44	-1.46	-1.15	Base interamente
compressa							
77	19	SLU A1 sism.	-0.46	-0.37	-0.33	-0.41	Base interamente

compressa							
78	19	SLU A1 sism.	-0.61	-0.54	-0.49	-0.56	Base interamente
compressa							
79	19	SLU A1 sism.	-0.98	-1.25	-1.18	-0.91	Base interamente
compressa							
80	19	SLU A1 sism.	-1.13	-1.43	-1.35	-1.06	Base interamente
compressa							
81	19	SLU A1 sism.	-0.38	-0.26	-0.32	-0.44	Base interamente
compressa							
82	19	SLU A1 sism.	-0.53	-0.43	-0.49	-0.59	Base interamente
compressa							
83	19	SLU A1 sism.	-0.90	-1.14	-1.18	-0.94	Base interamente
compressa							
84	19	SLU A1 sism.	-1.05	-1.32	-1.34	-1.08	Base interamente
compressa							
85	19	SLU A1 sism.	-0.47	-0.38	-0.34	-0.42	Base interamente
compressa							
86	19	SLU A1 sism.	-0.62	-0.56	-0.51	-0.57	Base interamente
compressa							
87	19	SLU A1 sism.	-0.99	-1.27	-1.20	-0.92	Base interamente
compressa							
88	19	SLU A1 sism.	-1.14	-1.44	-1.37	-1.06	Base interamente
compressa							
89	19	SLU A1 sism.	-0.37	-0.24	-0.30	-0.43	Base interamente
compressa							
90	19	SLU A1 sism.	-0.52	-0.41	-0.47	-0.58	Base interamente
compressa							
91	19	SLU A1 sism.	-0.89	-1.13	-1.16	-0.93	Base interamente
compressa							
92	19	SLU A1 sism.	-1.04	-1.30	-1.33	-1.07	Base interamente
compressa							
221	19	SLU A1 sism.	-0.43	-0.43	-0.39	-0.39	Base interamente
compressa							
222	19	SLU A1 sism.	-0.94	-1.01	-0.95	-0.88	Base interamente
compressa							
223	19	SLU A1 sism.	-0.64	-0.78	-0.73	-0.59	Base interamente
compressa							
224	19	SLU A1 sism.	-1.15	-1.36	-1.28	-1.08	Base interamente
compressa							
225	19	SLU A1 sism.	-0.36	-0.33	-0.39	-0.42	Base interamente
compressa							
226	19	SLU A1 sism.	-0.87	-0.90	-0.94	-0.91	Base interamente
compressa							
227	19	SLU A1 sism.	-0.57	-0.67	-0.72	-0.62	Base interamente
compressa							
228	19	SLU A1 sism.	-1.08	-1.25	-1.28	-1.10	Base interamente
compressa							
229	19	SLU A1 sism.	-0.46	-0.48	-0.43	-0.42	Base interamente
compressa							
230	19	SLU A1 sism.	-0.97	-1.05	-0.99	-0.90	Base interamente
compressa							
231	19	SLU A1 sism.	-0.62	-0.74	-0.69	-0.56	Base interamente
compressa							
232	19	SLU A1 sism.	-1.13	-1.32	-1.24	-1.05	Base interamente
compressa							
233	19	SLU A1 sism.	-0.38	-0.37	-0.43	-0.44	Base interamente
compressa							
234	19	SLU A1 sism.	-0.89	-0.94	-0.98	-0.93	Base interamente
compressa							
235	19	SLU A1 sism.	-0.54	-0.63	-0.68	-0.59	Base interamente
compressa							
236	19	SLU A1 sism.	-1.05	-1.21	-1.24	-1.08	Base interamente
compressa							
237	19	SLU A1 sism.	-0.44	-0.45	-0.41	-0.40	Base interamente
compressa							
238	19	SLU A1 sism.	-0.95	-1.03	-0.96	-0.89	Base interamente

compressa							
239	19	SLU A1 sism.	-0.65	-0.80	-0.74	-0.60	Base interamente
compressa							
240	19	SLU A1 sism.	-1.16	-1.37	-1.30	-1.09	Base interamente
compressa							
241	19	SLU A1 sism.	-0.35	-0.31	-0.37	-0.41	Base interamente
compressa							
242	19	SLU A1 sism.	-0.86	-0.88	-0.93	-0.90	Base interamente
compressa							
243	19	SLU A1 sism.	-0.56	-0.66	-0.71	-0.61	Base interamente
compressa							
244	19	SLU A1 sism.	-1.07	-1.23	-1.26	-1.09	Base interamente
compressa							
245	19	SLU A1 sism.	-0.47	-0.49	-0.45	-0.43	Base interamente
compressa							
246	19	SLU A1 sism.	-0.98	-1.07	-1.00	-0.91	Base interamente
compressa							
247	19	SLU A1 sism.	-0.63	-0.76	-0.71	-0.57	Base interamente
compressa							
248	19	SLU A1 sism.	-1.14	-1.33	-1.26	-1.06	Base interamente
compressa							
249	19	SLU A1 sism.	-0.37	-0.35	-0.41	-0.43	Base interamente
compressa							
250	19	SLU A1 sism.	-0.88	-0.93	-0.96	-0.92	Base interamente
compressa							
251	19	SLU A1 sism.	-0.53	-0.62	-0.67	-0.58	Base interamente
compressa							
252	19	SLU A1 sism.	-1.04	-1.19	-1.22	-1.07	Base interamente
compressa							
1	21	SLU STR.	-0.84	-0.84	-0.83	-0.83	Base interamente
compressa							
2	21	SLU STR.	-0.85	-0.85	-0.84	-0.84	Base interamente
compressa							
3	21	SLU STR.	-1.03	-1.03	-1.02	-1.02	Base interamente
compressa							
4	21	SLU STR.	-1.04	-1.04	-1.03	-1.03	Base interamente
compressa							
5	21	SLU STR.	-0.64	-0.64	-0.63	-0.63	Base interamente
compressa							
6	21	SLU STR.	-0.65	-0.65	-0.64	-0.64	Base interamente
compressa							
7	21	SLU STR.	-0.83	-0.83	-0.82	-0.82	Base interamente
compressa							
8	21	SLU STR.	-0.84	-0.84	-0.83	-0.83	Base interamente
compressa							
9	21	SLU STR.	-0.87	-0.87	-0.85	-0.85	Base interamente
compressa							
10	21	SLU STR.	-0.97	-0.98	-0.96	-0.96	Base interamente
compressa							
11	21	SLU STR.	-1.00	-1.00	-0.98	-0.98	Base interamente
compressa							
12	21	SLU STR.	-0.66	-0.66	-0.65	-0.65	Base interamente
compressa							
13	21	SLU STR.	-0.77	-0.77	-0.76	-0.76	Base interamente
compressa							
14	21	SLU STR.	-0.80	-0.80	-0.78	-0.78	Base interamente
compressa							
15	21	SLE Rare	-0.64	-0.64	-0.63	-0.63	Base interamente
compressa							
16	21	SLE Rare	-0.65	-0.65	-0.64	-0.64	Base interamente
compressa							
17	21	SLE Rare	-0.77	-0.77	-0.76	-0.76	Base interamente
compressa							
18	21	SLE Rare	-0.78	-0.78	-0.77	-0.77	Base interamente
compressa							
19	21	SLE Rare	-0.66	-0.66	-0.65	-0.65	Base interamente

compressa								
20	21	SLE Rare	-0.73	-0.73	-0.72	-0.72	Base interamente	
compressa								
21	21	SLE Rare	-0.75	-0.75	-0.74	-0.74	Base interamente	
compressa								
22	21	SLE Freq.	-0.64	-0.64	-0.63	-0.63	Base interamente	
compressa								
23	21	SLE Freq.	-0.73	-0.73	-0.72	-0.72	Base interamente	
compressa								
24	21	SLE Freq.	-0.65	-0.65	-0.64	-0.64	Base interamente	
compressa								
25	21	SLE Freq.	-0.72	-0.72	-0.71	-0.71	Base interamente	
compressa								
26	21	SLE Freq.	-0.72	-0.72	-0.71	-0.71	Base interamente	
compressa								
27	21	SLE Quasi P.	-0.64	-0.64	-0.63	-0.63	Base interamente	
compressa								
28	21	SLE Quasi P.	-0.72	-0.72	-0.71	-0.71	Base interamente	
compressa								
29	21	SLU A1 sism.	-0.80	-0.65	-0.42	-0.56	Base interamente	
compressa								
30	21	SLU A1 sism.	-0.94	-0.80	-0.56	-0.70	Base interamente	
compressa								
31	21	SLU A1 sism.	-0.69	-0.77	-0.53	-0.45	Base interamente	
compressa								
32	21	SLU A1 sism.	-0.83	-0.91	-0.67	-0.59	Base interamente	
compressa								
33	21	SLU A1 sism.	-0.61	-0.53	-0.75	-0.82	Base interamente	
compressa								
34	21	SLU A1 sism.	-0.75	-0.68	-0.89	-0.96	Base interamente	
compressa								
35	21	SLU A1 sism.	-0.50	-0.64	-0.86	-0.71	Base interamente	
compressa								
36	21	SLU A1 sism.	-0.64	-0.79	-1.00	-0.85	Base interamente	
compressa								
37	21	SLU A1 sism.	-0.78	-0.67	-0.43	-0.55	Base interamente	
compressa								
38	21	SLU A1 sism.	-0.93	-0.81	-0.57	-0.69	Base interamente	
compressa								
39	21	SLU A1 sism.	-0.70	-0.75	-0.51	-0.47	Base interamente	
compressa								
40	21	SLU A1 sism.	-0.85	-0.90	-0.65	-0.61	Base interamente	
compressa								
41	21	SLU A1 sism.	-0.59	-0.55	-0.76	-0.81	Base interamente	
compressa								
42	21	SLU A1 sism.	-0.74	-0.69	-0.90	-0.95	Base interamente	
compressa								
43	21	SLU A1 sism.	-0.51	-0.63	-0.84	-0.73	Base interamente	
compressa								
44	21	SLU A1 sism.	-0.66	-0.77	-0.98	-0.87	Base interamente	
compressa								
45	21	SLU A1 sism.	-0.77	-0.69	-0.45	-0.53	Base interamente	
compressa								
46	21	SLU A1 sism.	-0.91	-0.83	-0.59	-0.67	Base interamente	
compressa								
47	21	SLU A1 sism.	-0.65	-0.80	-0.56	-0.42	Base interamente	
compressa								
48	21	SLU A1 sism.	-0.80	-0.95	-0.70	-0.56	Base interamente	
compressa								
49	21	SLU A1 sism.	-0.64	-0.50	-0.71	-0.86	Base interamente	
compressa								
50	21	SLU A1 sism.	-0.79	-0.64	-0.85	-1.00	Base interamente	
compressa								
51	21	SLU A1 sism.	-0.53	-0.61	-0.82	-0.75	Base interamente	
compressa								
52	21	SLU A1 sism.	-0.67	-0.75	-0.96	-0.89	Base interamente	

compressa							
53	21	SLU A1 sism.	-0.75	-0.70	-0.47	-0.51	Base interamente
compressa							
54	21	SLU A1 sism.	-0.89	-0.85	-0.61	-0.65	Base interamente
compressa							
55	21	SLU A1 sism.	-0.67	-0.78	-0.55	-0.43	Base interamente
compressa							
56	21	SLU A1 sism.	-0.81	-0.93	-0.69	-0.57	Base interamente
compressa							
57	21	SLU A1 sism.	-0.63	-0.51	-0.73	-0.84	Base interamente
compressa							
58	21	SLU A1 sism.	-0.77	-0.66	-0.87	-0.98	Base interamente
compressa							
59	21	SLU A1 sism.	-0.55	-0.59	-0.81	-0.76	Base interamente
compressa							
60	21	SLU A1 sism.	-0.69	-0.74	-0.95	-0.90	Base interamente
compressa							
61	21	SLU A1 sism.	-0.86	-0.48	-0.40	-0.79	Base interamente
compressa							
62	21	SLU A1 sism.	-1.01	-0.63	-0.54	-0.92	Base interamente
compressa							
63	21	SLU A1 sism.	-0.49	-0.85	-0.78	-0.41	Base interamente
compressa							
64	21	SLU A1 sism.	-0.64	-1.00	-0.92	-0.55	Base interamente
compressa							
65	21	SLU A1 sism.	-0.81	-0.44	-0.50	-0.86	Base interamente
compressa							
66	21	SLU A1 sism.	-0.95	-0.59	-0.64	-1.00	Base interamente
compressa							
67	21	SLU A1 sism.	-0.43	-0.82	-0.87	-0.49	Base interamente
compressa							
68	21	SLU A1 sism.	-0.58	-0.96	-1.01	-0.63	Base interamente
compressa							
69	21	SLU A1 sism.	-0.85	-0.49	-0.41	-0.77	Base interamente
compressa							
70	21	SLU A1 sism.	-1.00	-0.64	-0.55	-0.91	Base interamente
compressa							
71	21	SLU A1 sism.	-0.48	-0.86	-0.79	-0.40	Base interamente
compressa							
72	21	SLU A1 sism.	-0.62	-1.01	-0.93	-0.54	Base interamente
compressa							
73	21	SLU A1 sism.	-0.82	-0.43	-0.49	-0.87	Base interamente
compressa							
74	21	SLU A1 sism.	-0.96	-0.58	-0.63	-1.01	Base interamente
compressa							
75	21	SLU A1 sism.	-0.44	-0.81	-0.86	-0.50	Base interamente
compressa							
76	21	SLU A1 sism.	-0.59	-0.95	-1.00	-0.64	Base interamente
compressa							
77	21	SLU A1 sism.	-0.81	-0.53	-0.46	-0.73	Base interamente
compressa							
78	21	SLU A1 sism.	-0.96	-0.68	-0.59	-0.87	Base interamente
compressa							
79	21	SLU A1 sism.	-0.54	-0.80	-0.72	-0.47	Base interamente
compressa							
80	21	SLU A1 sism.	-0.69	-0.95	-0.86	-0.61	Base interamente
compressa							
81	21	SLU A1 sism.	-0.75	-0.50	-0.55	-0.81	Base interamente
compressa							
82	21	SLU A1 sism.	-0.90	-0.64	-0.69	-0.95	Base interamente
compressa							
83	21	SLU A1 sism.	-0.49	-0.76	-0.82	-0.54	Base interamente
compressa							
84	21	SLU A1 sism.	-0.63	-0.91	-0.96	-0.68	Base interamente
compressa							
85	21	SLU A1 sism.	-0.80	-0.54	-0.47	-0.72	Base interamente

compressa							
86	21	SLU A1 sism.	-0.95	-0.69	-0.60	-0.86	Base interamente
compressa							
87	21	SLU A1 sism.	-0.53	-0.81	-0.73	-0.46	Base interamente
compressa							
88	21	SLU A1 sism.	-0.68	-0.96	-0.87	-0.60	Base interamente
compressa							
89	21	SLU A1 sism.	-0.76	-0.49	-0.54	-0.82	Base interamente
compressa							
90	21	SLU A1 sism.	-0.91	-0.63	-0.68	-0.96	Base interamente
compressa							
91	21	SLU A1 sism.	-0.50	-0.75	-0.81	-0.55	Base interamente
compressa							
92	21	SLU A1 sism.	-0.64	-0.90	-0.95	-0.69	Base interamente
compressa							
221	21	SLU A1 sism.	-0.56	-0.44	-0.37	-0.49	Base interamente
compressa							
222	21	SLU A1 sism.	-1.05	-0.93	-0.84	-0.96	Base interamente
compressa							
223	21	SLU A1 sism.	-0.45	-0.55	-0.48	-0.38	Base interamente
compressa							
224	21	SLU A1 sism.	-0.93	-1.04	-0.95	-0.85	Base interamente
compressa							
225	21	SLU A1 sism.	-0.51	-0.40	-0.47	-0.57	Base interamente
compressa							
226	21	SLU A1 sism.	-0.99	-0.89	-0.93	-1.04	Base interamente
compressa							
227	21	SLU A1 sism.	-0.39	-0.52	-0.58	-0.46	Base interamente
compressa							
228	21	SLU A1 sism.	-0.88	-1.00	-1.05	-0.92	Base interamente
compressa							
229	21	SLU A1 sism.	-0.55	-0.46	-0.39	-0.48	Base interamente
compressa							
230	21	SLU A1 sism.	-1.03	-0.94	-0.85	-0.94	Base interamente
compressa							
231	21	SLU A1 sism.	-0.47	-0.54	-0.47	-0.40	Base interamente
compressa							
232	21	SLU A1 sism.	-0.95	-1.02	-0.93	-0.86	Base interamente
compressa							
233	21	SLU A1 sism.	-0.49	-0.42	-0.48	-0.55	Base interamente
compressa							
234	21	SLU A1 sism.	-0.97	-0.90	-0.95	-1.02	Base interamente
compressa							
235	21	SLU A1 sism.	-0.41	-0.50	-0.57	-0.47	Base interamente
compressa							
236	21	SLU A1 sism.	-0.89	-0.98	-1.03	-0.94	Base interamente
compressa							
237	21	SLU A1 sism.	-0.55	-0.45	-0.38	-0.48	Base interamente
compressa							
238	21	SLU A1 sism.	-1.04	-0.94	-0.85	-0.95	Base interamente
compressa							
239	21	SLU A1 sism.	-0.44	-0.56	-0.49	-0.37	Base interamente
compressa							
240	21	SLU A1 sism.	-0.92	-1.05	-0.96	-0.84	Base interamente
compressa							
241	21	SLU A1 sism.	-0.52	-0.39	-0.46	-0.58	Base interamente
compressa							
242	21	SLU A1 sism.	-1.00	-0.88	-0.92	-1.05	Base interamente
compressa							
243	21	SLU A1 sism.	-0.40	-0.51	-0.57	-0.47	Base interamente
compressa							
244	21	SLU A1 sism.	-0.89	-0.99	-1.04	-0.93	Base interamente
compressa							
245	21	SLU A1 sism.	-0.54	-0.47	-0.40	-0.47	Base interamente
compressa							
246	21	SLU A1 sism.	-1.02	-0.95	-0.86	-0.93	Base interamente

compressa							
247	21	SLU A1 sism.	-0.46	-0.55	-0.48	-0.39	Base interamente
compressa							
248	21	SLU A1 sism.	-0.94	-1.03	-0.94	-0.85	Base interamente
compressa							
249	21	SLU A1 sism.	-0.50	-0.41	-0.47	-0.56	Base interamente
compressa							
250	21	SLU A1 sism.	-0.98	-0.89	-0.94	-1.03	Base interamente
compressa							
251	21	SLU A1 sism.	-0.42	-0.49	-0.55	-0.48	Base interamente
compressa							
252	21	SLU A1 sism.	-0.90	-0.97	-1.02	-0.95	Base interamente
compressa							
1	23	SLU STR.	-0.94	-0.87	-0.86	-0.92	Base interamente
compressa							
2	23	SLU STR.	-0.96	-0.88	-0.87	-0.95	Base interamente
compressa							
3	23	SLU STR.	-1.25	-1.09	-1.08	-1.24	Base interamente
compressa							
4	23	SLU STR.	-1.27	-1.11	-1.10	-1.26	Base interamente
compressa							
5	23	SLU STR.	-0.71	-0.66	-0.65	-0.70	Base interamente
compressa							
6	23	SLU STR.	-0.74	-0.68	-0.67	-0.73	Base interamente
compressa							
7	23	SLU STR.	-1.02	-0.89	-0.88	-1.02	Base interamente
compressa							
8	23	SLU STR.	-1.05	-0.90	-0.90	-1.04	Base interamente
compressa							
9	23	SLU STR.	-0.99	-0.90	-0.89	-0.98	Base interamente
compressa							
10	23	SLU STR.	-1.15	-1.03	-1.02	-1.14	Base interamente
compressa							
11	23	SLU STR.	-1.20	-1.06	-1.05	-1.19	Base interamente
compressa							
12	23	SLU STR.	-0.76	-0.69	-0.68	-0.76	Base interamente
compressa							
13	23	SLU STR.	-0.93	-0.82	-0.81	-0.92	Base interamente
compressa							
14	23	SLU STR.	-0.98	-0.85	-0.84	-0.97	Base interamente
compressa							
15	23	SLE Rare	-0.72	-0.66	-0.66	-0.71	Base interamente
compressa							
16	23	SLE Rare	-0.73	-0.68	-0.67	-0.72	Base interamente
compressa							
17	23	SLE Rare	-0.92	-0.82	-0.81	-0.92	Base interamente
compressa							
18	23	SLE Rare	-0.94	-0.83	-0.82	-0.93	Base interamente
compressa							
19	23	SLE Rare	-0.75	-0.69	-0.68	-0.74	Base interamente
compressa							
20	23	SLE Rare	-0.86	-0.77	-0.76	-0.85	Base interamente
compressa							
21	23	SLE Rare	-0.90	-0.79	-0.78	-0.89	Base interamente
compressa							
22	23	SLE Freq.	-0.72	-0.66	-0.66	-0.71	Base interamente
compressa							
23	23	SLE Freq.	-0.86	-0.77	-0.76	-0.85	Base interamente
compressa							
24	23	SLE Freq.	-0.72	-0.67	-0.66	-0.71	Base interamente
compressa							
25	23	SLE Freq.	-0.84	-0.75	-0.75	-0.83	Base interamente
compressa							
26	23	SLE Freq.	-0.85	-0.76	-0.75	-0.84	Base interamente
compressa							
27	23	SLE Quasi P.	-0.72	-0.66	-0.66	-0.71	Base interamente

compressa							
28	23	SLE Quasi P.	-0.84	-0.75	-0.75	-0.83	Base interamente
compressa							
29	23	SLU A1 sism.	-1.16	-0.94	-0.76	-0.98	Base interamente
compressa							
30	23	SLU A1 sism.	-1.34	-1.10	-0.90	-1.14	Base interamente
compressa							
31	23	SLU A1 sism.	-0.82	-0.73	-0.56	-0.64	Base interamente
compressa							
32	23	SLU A1 sism.	-0.99	-0.89	-0.71	-0.81	Base interamente
compressa							
33	23	SLU A1 sism.	-0.69	-0.62	-0.79	-0.86	Base interamente
compressa							
34	23	SLU A1 sism.	-0.87	-0.78	-0.93	-1.02	Base interamente
compressa							
35	23	SLU A1 sism.	-0.35	-0.41	-0.59	-0.52	Base interamente
compressa							
36	23	SLU A1 sism.	-0.52	-0.57	-0.74	-0.69	Base interamente
compressa							
37	23	SLU A1 sism.	-1.12	-0.92	-0.73	-0.94	Base interamente
compressa							
38	23	SLU A1 sism.	-1.30	-1.07	-0.88	-1.10	Base interamente
compressa							
39	23	SLU A1 sism.	-0.86	-0.76	-0.58	-0.68	Base interamente
compressa							
40	23	SLU A1 sism.	-1.03	-0.91	-0.73	-0.85	Base interamente
compressa							
41	23	SLU A1 sism.	-0.65	-0.60	-0.76	-0.82	Base interamente
compressa							
42	23	SLU A1 sism.	-0.82	-0.75	-0.91	-0.98	Base interamente
compressa							
43	23	SLU A1 sism.	-0.39	-0.44	-0.62	-0.56	Base interamente
compressa							
44	23	SLU A1 sism.	-0.56	-0.59	-0.76	-0.73	Base interamente
compressa							
45	23	SLU A1 sism.	-1.11	-0.91	-0.73	-0.92	Base interamente
compressa							
46	23	SLU A1 sism.	-1.28	-1.06	-0.87	-1.09	Base interamente
compressa							
47	23	SLU A1 sism.	-0.76	-0.70	-0.53	-0.59	Base interamente
compressa							
48	23	SLU A1 sism.	-0.93	-0.85	-0.68	-0.76	Base interamente
compressa							
49	23	SLU A1 sism.	-0.75	-0.66	-0.82	-0.91	Base interamente
compressa							
50	23	SLU A1 sism.	-0.92	-0.81	-0.96	-1.08	Base interamente
compressa							
51	23	SLU A1 sism.	-0.40	-0.45	-0.62	-0.58	Base interamente
compressa							
52	23	SLU A1 sism.	-0.57	-0.60	-0.77	-0.74	Base interamente
compressa							
53	23	SLU A1 sism.	-1.07	-0.88	-0.70	-0.89	Base interamente
compressa							
54	23	SLU A1 sism.	-1.24	-1.04	-0.85	-1.05	Base interamente
compressa							
55	23	SLU A1 sism.	-0.80	-0.73	-0.55	-0.63	Base interamente
compressa							
56	23	SLU A1 sism.	-0.97	-0.88	-0.70	-0.79	Base interamente
compressa							
57	23	SLU A1 sism.	-0.71	-0.63	-0.79	-0.87	Base interamente
compressa							
58	23	SLU A1 sism.	-0.88	-0.78	-0.94	-1.04	Base interamente
compressa							
59	23	SLU A1 sism.	-0.44	-0.47	-0.65	-0.61	Base interamente
compressa							
60	23	SLU A1 sism.	-0.62	-0.63	-0.79	-0.78	Base interamente

compressa							
61	23	SLU A1 sism.	-1.40	-1.08	-0.99	-1.32	Base interamente
compressa							
62	23	SLU A1 sism.	-1.58	-1.23	-1.14	-1.49	Base interamente
compressa							
63	23	SLU A1 sism.	-0.25	-0.38	-0.34	-0.21	Base interamente
compressa							
64	23	SLU A1 sism.	-0.42	-0.53	-0.49	-0.38	Base interamente
compressa							
65	23	SLU A1 sism.	-1.26	-0.98	-1.00	-1.29	Base interamente
compressa							
66	23	SLU A1 sism.	-1.44	-1.13	-1.15	-1.45	Base interamente
compressa							
67	23	SLU A1 sism.	-0.11	-0.28	-0.35	-0.18	Base interamente
compressa							
68	23	SLU A1 sism.	-0.28	-0.43	-0.50	-0.34	Base interamente
compressa							
69	23	SLU A1 sism.	-1.39	-1.07	-0.99	-1.31	Base interamente
compressa							
70	23	SLU A1 sism.	-1.56	-1.22	-1.13	-1.47	Base interamente
compressa							
71	23	SLU A1 sism.	-0.23	-0.37	-0.33	-0.20	Base interamente
compressa							
72	23	SLU A1 sism.	-0.40	-0.52	-0.48	-0.36	Base interamente
compressa							
73	23	SLU A1 sism.	-1.28	-0.99	-1.01	-1.30	Base interamente
compressa							
74	23	SLU A1 sism.	-1.45	-1.14	-1.16	-1.47	Base interamente
compressa							
75	23	SLU A1 sism.	-0.12	-0.29	-0.36	-0.19	Base interamente
compressa							
76	23	SLU A1 sism.	-0.29	-0.44	-0.51	-0.36	Base interamente
compressa							
77	23	SLU A1 sism.	-1.27	-0.99	-0.91	-1.19	Base interamente
compressa							
78	23	SLU A1 sism.	-1.44	-1.14	-1.06	-1.36	Base interamente
compressa							
79	23	SLU A1 sism.	-0.38	-0.47	-0.42	-0.34	Base interamente
compressa							
80	23	SLU A1 sism.	-0.56	-0.62	-0.57	-0.51	Base interamente
compressa							
81	23	SLU A1 sism.	-1.13	-0.89	-0.92	-1.16	Base interamente
compressa							
82	23	SLU A1 sism.	-1.30	-1.04	-1.07	-1.32	Base interamente
compressa							
83	23	SLU A1 sism.	-0.24	-0.37	-0.43	-0.30	Base interamente
compressa							
84	23	SLU A1 sism.	-0.41	-0.52	-0.58	-0.47	Base interamente
compressa							
85	23	SLU A1 sism.	-1.25	-0.98	-0.91	-1.18	Base interamente
compressa							
86	23	SLU A1 sism.	-1.42	-1.13	-1.05	-1.34	Base interamente
compressa							
87	23	SLU A1 sism.	-0.37	-0.46	-0.41	-0.32	Base interamente
compressa							
88	23	SLU A1 sism.	-0.54	-0.61	-0.56	-0.49	Base interamente
compressa							
89	23	SLU A1 sism.	-1.14	-0.90	-0.93	-1.17	Base interamente
compressa							
90	23	SLU A1 sism.	-1.32	-1.05	-1.08	-1.34	Base interamente
compressa							
91	23	SLU A1 sism.	-0.26	-0.38	-0.44	-0.32	Base interamente
compressa							
92	23	SLU A1 sism.	-0.43	-0.53	-0.59	-0.49	Base interamente
compressa							
221	23	SLU A1 sism.	-0.80	-0.65	-0.60	-0.74	Base interamente

compressa							
222	23	SLU A1 sism.	-1.37	-1.16	-1.08	-1.29	Base interamente
compressa							
223	23	SLU A1 sism.	-0.45	-0.44	-0.40	-0.41	Base interamente
compressa							
224	23	SLU A1 sism.	-1.03	-0.95	-0.89	-0.96	Base interamente
compressa							
225	23	SLU A1 sism.	-0.66	-0.56	-0.61	-0.71	Base interamente
compressa							
226	23	SLU A1 sism.	-1.23	-1.07	-1.09	-1.26	Base interamente
compressa							
227	23	SLU A1 sism.	-0.31	-0.35	-0.41	-0.37	Base interamente
compressa							
228	23	SLU A1 sism.	-0.88	-0.86	-0.90	-0.92	Base interamente
compressa							
229	23	SLU A1 sism.	-0.76	-0.63	-0.57	-0.70	Base interamente
compressa							
230	23	SLU A1 sism.	-1.33	-1.14	-1.06	-1.26	Base interamente
compressa							
231	23	SLU A1 sism.	-0.49	-0.47	-0.42	-0.45	Base interamente
compressa							
232	23	SLU A1 sism.	-1.07	-0.98	-0.91	-1.00	Base interamente
compressa							
233	23	SLU A1 sism.	-0.62	-0.53	-0.58	-0.67	Base interamente
compressa							
234	23	SLU A1 sism.	-1.19	-1.04	-1.07	-1.22	Base interamente
compressa							
235	23	SLU A1 sism.	-0.35	-0.37	-0.43	-0.41	Base interamente
compressa							
236	23	SLU A1 sism.	-0.92	-0.88	-0.92	-0.96	Base interamente
compressa							
237	23	SLU A1 sism.	-0.78	-0.64	-0.59	-0.73	Base interamente
compressa							
238	23	SLU A1 sism.	-1.36	-1.15	-1.07	-1.28	Base interamente
compressa							
239	23	SLU A1 sism.	-0.43	-0.43	-0.39	-0.39	Base interamente
compressa							
240	23	SLU A1 sism.	-1.01	-0.94	-0.88	-0.94	Base interamente
compressa							
241	23	SLU A1 sism.	-0.67	-0.57	-0.61	-0.72	Base interamente
compressa							
242	23	SLU A1 sism.	-1.25	-1.08	-1.10	-1.27	Base interamente
compressa							
243	23	SLU A1 sism.	-0.33	-0.36	-0.42	-0.39	Base interamente
compressa							
244	23	SLU A1 sism.	-0.90	-0.87	-0.91	-0.94	Base interamente
compressa							
245	23	SLU A1 sism.	-0.74	-0.62	-0.56	-0.69	Base interamente
compressa							
246	23	SLU A1 sism.	-1.31	-1.13	-1.05	-1.24	Base interamente
compressa							
247	23	SLU A1 sism.	-0.48	-0.46	-0.42	-0.43	Base interamente
compressa							
248	23	SLU A1 sism.	-1.05	-0.97	-0.90	-0.98	Base interamente
compressa							
249	23	SLU A1 sism.	-0.63	-0.54	-0.59	-0.68	Base interamente
compressa							
250	23	SLU A1 sism.	-1.21	-1.05	-1.08	-1.23	Base interamente
compressa							
251	23	SLU A1 sism.	-0.37	-0.38	-0.44	-0.43	Base interamente
compressa							
252	23	SLU A1 sism.	-0.94	-0.89	-0.93	-0.98	Base interamente
compressa							
1	25	SLU STR.	-0.87	-0.94	-0.94	-0.87	Base interamente
compressa							
2	25	SLU STR.	-0.89	-0.96	-0.96	-0.89	Base interamente

compressa							
3	25	SLU STR.	-1.09	-1.24	-1.24	-1.10	Base interamente
compressa							
4	25	SLU STR.	-1.11	-1.27	-1.27	-1.11	Base interamente
compressa							
5	25	SLU STR.	-0.66	-0.72	-0.71	-0.66	Base interamente
compressa							
6	25	SLU STR.	-0.68	-0.74	-0.74	-0.68	Base interamente
compressa							
7	25	SLU STR.	-0.88	-1.02	-1.02	-0.89	Base interamente
compressa							
8	25	SLU STR.	-0.90	-1.04	-1.05	-0.91	Base interamente
compressa							
9	25	SLU STR.	-0.90	-0.99	-0.99	-0.90	Base interamente
compressa							
10	25	SLU STR.	-1.03	-1.15	-1.15	-1.03	Base interamente
compressa							
11	25	SLU STR.	-1.06	-1.20	-1.20	-1.06	Base interamente
compressa							
12	25	SLU STR.	-0.70	-0.77	-0.77	-0.69	Base interamente
compressa							
13	25	SLU STR.	-0.82	-0.93	-0.93	-0.82	Base interamente
compressa							
14	25	SLU STR.	-0.85	-0.98	-0.98	-0.85	Base interamente
compressa							
15	25	SLE Rare	-0.67	-0.72	-0.72	-0.67	Base interamente
compressa							
16	25	SLE Rare	-0.68	-0.74	-0.73	-0.68	Base interamente
compressa							
17	25	SLE Rare	-0.81	-0.92	-0.92	-0.82	Base interamente
compressa							
18	25	SLE Rare	-0.83	-0.94	-0.94	-0.83	Base interamente
compressa							
19	25	SLE Rare	-0.69	-0.75	-0.75	-0.69	Base interamente
compressa							
20	25	SLE Rare	-0.77	-0.86	-0.86	-0.77	Base interamente
compressa							
21	25	SLE Rare	-0.79	-0.89	-0.90	-0.79	Base interamente
compressa							
22	25	SLE Freq.	-0.67	-0.72	-0.72	-0.67	Base interamente
compressa							
23	25	SLE Freq.	-0.77	-0.86	-0.86	-0.77	Base interamente
compressa							
24	25	SLE Freq.	-0.67	-0.73	-0.72	-0.67	Base interamente
compressa							
25	25	SLE Freq.	-0.76	-0.84	-0.84	-0.76	Base interamente
compressa							
26	25	SLE Freq.	-0.76	-0.85	-0.85	-0.76	Base interamente
compressa							
27	25	SLE Quasi P.	-0.67	-0.72	-0.72	-0.67	Base interamente
compressa							
28	25	SLE Quasi P.	-0.76	-0.84	-0.84	-0.76	Base interamente
compressa							
29	25	SLU A1 sism.	-0.99	-0.98	-0.75	-0.76	Base interamente
compressa							
30	25	SLU A1 sism.	-1.13	-1.14	-0.92	-0.91	Base interamente
compressa							
31	25	SLU A1 sism.	-1.20	-1.33	-1.10	-0.97	Base interamente
compressa							
32	25	SLU A1 sism.	-1.34	-1.49	-1.27	-1.11	Base interamente
compressa							
33	25	SLU A1 sism.	-0.17	-0.19	-0.42	-0.40	Base interamente
compressa							
34	25	SLU A1 sism.	-0.31	-0.35	-0.58	-0.55	Base interamente
compressa							
35	25	SLU A1 sism.	-0.38	-0.54	-0.77	-0.61	Base interamente

compressa							
36	25	SLU A1 sism.	-0.52	-0.70	-0.93	-0.75	Base interamente
compressa							
37	25	SLU A1 sism.	-1.01	-1.02	-0.79	-0.79	Base interamente
compressa							
38	25	SLU A1 sism.	-1.15	-1.18	-0.96	-0.93	Base interamente
compressa							
39	25	SLU A1 sism.	-1.18	-1.30	-1.06	-0.94	Base interamente
compressa							
40	25	SLU A1 sism.	-1.32	-1.46	-1.23	-1.09	Base interamente
compressa							
41	25	SLU A1 sism.	-0.19	-0.22	-0.46	-0.43	Base interamente
compressa							
42	25	SLU A1 sism.	-0.33	-0.38	-0.62	-0.57	Base interamente
compressa							
43	25	SLU A1 sism.	-0.36	-0.50	-0.73	-0.58	Base interamente
compressa							
44	25	SLU A1 sism.	-0.50	-0.66	-0.89	-0.73	Base interamente
compressa							
45	25	SLU A1 sism.	-1.02	-1.04	-0.82	-0.79	Base interamente
compressa							
46	25	SLU A1 sism.	-1.16	-1.20	-0.98	-0.94	Base interamente
compressa							
47	25	SLU A1 sism.	-1.23	-1.40	-1.17	-1.00	Base interamente
compressa							
48	25	SLU A1 sism.	-1.37	-1.56	-1.33	-1.15	Base interamente
compressa							
49	25	SLU A1 sism.	-0.14	-0.12	-0.35	-0.37	Base interamente
compressa							
50	25	SLU A1 sism.	-0.28	-0.28	-0.52	-0.51	Base interamente
compressa							
51	25	SLU A1 sism.	-0.35	-0.48	-0.70	-0.57	Base interamente
compressa							
52	25	SLU A1 sism.	-0.49	-0.64	-0.86	-0.72	Base interamente
compressa							
53	25	SLU A1 sism.	-1.04	-1.08	-0.86	-0.82	Base interamente
compressa							
54	25	SLU A1 sism.	-1.18	-1.24	-1.02	-0.97	Base interamente
compressa							
55	25	SLU A1 sism.	-1.21	-1.36	-1.13	-0.97	Base interamente
compressa							
56	25	SLU A1 sism.	-1.35	-1.52	-1.29	-1.12	Base interamente
compressa							
57	25	SLU A1 sism.	-0.17	-0.16	-0.39	-0.39	Base interamente
compressa							
58	25	SLU A1 sism.	-0.31	-0.32	-0.56	-0.54	Base interamente
compressa							
59	25	SLU A1 sism.	-0.33	-0.44	-0.66	-0.55	Base interamente
compressa							
60	25	SLU A1 sism.	-0.47	-0.60	-0.82	-0.69	Base interamente
compressa							
61	25	SLU A1 sism.	-0.46	-0.29	-0.23	-0.39	Base interamente
compressa							
62	25	SLU A1 sism.	-0.60	-0.45	-0.39	-0.54	Base interamente
compressa							
63	25	SLU A1 sism.	-1.16	-1.47	-1.39	-1.08	Base interamente
compressa							
64	25	SLU A1 sism.	-1.30	-1.63	-1.56	-1.23	Base interamente
compressa							
65	25	SLU A1 sism.	-0.21	-0.05	-0.13	-0.28	Base interamente
compressa							
66	25	SLU A1 sism.	-0.35	-0.21	-0.29	-0.43	Base interamente
compressa							
67	25	SLU A1 sism.	-0.91	-1.23	-1.29	-0.97	Base interamente
compressa							
68	25	SLU A1 sism.	-1.06	-1.39	-1.46	-1.12	Base interamente

compressa							
69	25	SLU A1 sism.	-0.47	-0.31	-0.25	-0.40	Base interamente
compressa							
70	25	SLU A1 sism.	-0.61	-0.47	-0.41	-0.55	Base interamente
compressa							
71	25	SLU A1 sism.	-1.17	-1.49	-1.41	-1.09	Base interamente
compressa							
72	25	SLU A1 sism.	-1.31	-1.65	-1.58	-1.24	Base interamente
compressa							
73	25	SLU A1 sism.	-0.20	-0.03	-0.11	-0.27	Base interamente
compressa							
74	25	SLU A1 sism.	-0.34	-0.19	-0.27	-0.42	Base interamente
compressa							
75	25	SLU A1 sism.	-0.91	-1.21	-1.27	-0.96	Base interamente
compressa							
76	25	SLU A1 sism.	-1.05	-1.37	-1.44	-1.11	Base interamente
compressa							
77	25	SLU A1 sism.	-0.54	-0.42	-0.36	-0.48	Base interamente
compressa							
78	25	SLU A1 sism.	-0.68	-0.58	-0.53	-0.63	Base interamente
compressa							
79	25	SLU A1 sism.	-1.08	-1.34	-1.26	-0.99	Base interamente
compressa							
80	25	SLU A1 sism.	-1.22	-1.50	-1.42	-1.14	Base interamente
compressa							
81	25	SLU A1 sism.	-0.29	-0.18	-0.26	-0.37	Base interamente
compressa							
82	25	SLU A1 sism.	-0.43	-0.34	-0.43	-0.52	Base interamente
compressa							
83	25	SLU A1 sism.	-0.83	-1.10	-1.16	-0.89	Base interamente
compressa							
84	25	SLU A1 sism.	-0.98	-1.26	-1.32	-1.03	Base interamente
compressa							
85	25	SLU A1 sism.	-0.54	-0.43	-0.38	-0.49	Base interamente
compressa							
86	25	SLU A1 sism.	-0.69	-0.59	-0.55	-0.64	Base interamente
compressa							
87	25	SLU A1 sism.	-1.09	-1.36	-1.28	-1.00	Base interamente
compressa							
88	25	SLU A1 sism.	-1.23	-1.52	-1.44	-1.15	Base interamente
compressa							
89	25	SLU A1 sism.	-0.28	-0.16	-0.24	-0.36	Base interamente
compressa							
90	25	SLU A1 sism.	-0.42	-0.32	-0.41	-0.51	Base interamente
compressa							
91	25	SLU A1 sism.	-0.83	-1.09	-1.14	-0.88	Base interamente
compressa							
92	25	SLU A1 sism.	-0.97	-1.25	-1.30	-1.02	Base interamente
compressa							
221	25	SLU A1 sism.	-0.54	-0.52	-0.44	-0.46	Base interamente
compressa							
222	25	SLU A1 sism.	-1.01	-1.05	-0.99	-0.95	Base interamente
compressa							
223	25	SLU A1 sism.	-0.75	-0.87	-0.79	-0.67	Base interamente
compressa							
224	25	SLU A1 sism.	-1.22	-1.40	-1.34	-1.16	Base interamente
compressa							
225	25	SLU A1 sism.	-0.29	-0.28	-0.34	-0.35	Base interamente
compressa							
226	25	SLU A1 sism.	-0.76	-0.81	-0.89	-0.85	Base interamente
compressa							
227	25	SLU A1 sism.	-0.50	-0.63	-0.69	-0.56	Base interamente
compressa							
228	25	SLU A1 sism.	-0.97	-1.16	-1.24	-1.05	Base interamente
compressa							
229	25	SLU A1 sism.	-0.56	-0.56	-0.48	-0.49	Base interamente

compressa							
230	25	SLU A1 sism.	-1.03	-1.09	-1.03	-0.98	Base interamente
compressa							
231	25	SLU A1 sism.	-0.73	-0.83	-0.75	-0.64	Base interamente
compressa							
232	25	SLU A1 sism.	-1.20	-1.36	-1.30	-1.14	Base interamente
compressa							
233	25	SLU A1 sism.	-0.32	-0.32	-0.38	-0.38	Base interamente
compressa							
234	25	SLU A1 sism.	-0.79	-0.85	-0.93	-0.87	Base interamente
compressa							
235	25	SLU A1 sism.	-0.48	-0.59	-0.65	-0.53	Base interamente
compressa							
236	25	SLU A1 sism.	-0.95	-1.13	-1.20	-1.03	Base interamente
compressa							
237	25	SLU A1 sism.	-0.55	-0.54	-0.46	-0.47	Base interamente
compressa							
238	25	SLU A1 sism.	-1.02	-1.07	-1.01	-0.96	Base interamente
compressa							
239	25	SLU A1 sism.	-0.76	-0.89	-0.81	-0.68	Base interamente
compressa							
240	25	SLU A1 sism.	-1.23	-1.42	-1.36	-1.17	Base interamente
compressa							
241	25	SLU A1 sism.	-0.28	-0.26	-0.32	-0.34	Base interamente
compressa							
242	25	SLU A1 sism.	-0.75	-0.79	-0.87	-0.84	Base interamente
compressa							
243	25	SLU A1 sism.	-0.50	-0.61	-0.67	-0.55	Base interamente
compressa							
244	25	SLU A1 sism.	-0.96	-1.14	-1.22	-1.04	Base interamente
compressa							
245	25	SLU A1 sism.	-0.57	-0.57	-0.50	-0.50	Base interamente
compressa							
246	25	SLU A1 sism.	-1.04	-1.10	-1.06	-0.99	Base interamente
compressa							
247	25	SLU A1 sism.	-0.73	-0.85	-0.77	-0.65	Base interamente
compressa							
248	25	SLU A1 sism.	-1.20	-1.38	-1.32	-1.15	Base interamente
compressa							
249	25	SLU A1 sism.	-0.31	-0.30	-0.36	-0.37	Base interamente
compressa							
250	25	SLU A1 sism.	-0.78	-0.83	-0.91	-0.86	Base interamente
compressa							
251	25	SLU A1 sism.	-0.47	-0.58	-0.63	-0.52	Base interamente
compressa							
252	25	SLU A1 sism.	-0.94	-1.11	-1.18	-1.02	Base interamente
compressa							
1	29	SLU STR.	-0.94	-0.87	-0.87	-0.94	Base interamente
compressa							
2	29	SLU STR.	-0.96	-0.89	-0.89	-0.96	Base interamente
compressa							
3	29	SLU STR.	-1.24	-1.09	-1.10	-1.24	Base interamente
compressa							
4	29	SLU STR.	-1.27	-1.11	-1.11	-1.27	Base interamente
compressa							
5	29	SLU STR.	-0.72	-0.66	-0.66	-0.71	Base interamente
compressa							
6	29	SLU STR.	-0.74	-0.68	-0.68	-0.74	Base interamente
compressa							
7	29	SLU STR.	-1.02	-0.89	-0.89	-1.02	Base interamente
compressa							
8	29	SLU STR.	-1.04	-0.90	-0.90	-1.05	Base interamente
compressa							
9	29	SLU STR.	-0.99	-0.90	-0.90	-0.99	Base interamente
compressa							
10	29	SLU STR.	-1.15	-1.03	-1.03	-1.15	Base interamente

compressa							
11	29	SLU STR.	-1.20	-1.06	-1.06	-1.20	Base interamente
compressa							
12	29	SLU STR.	-0.77	-0.70	-0.69	-0.76	Base interamente
compressa							
13	29	SLU STR.	-0.93	-0.82	-0.82	-0.93	Base interamente
compressa							
14	29	SLU STR.	-0.98	-0.85	-0.85	-0.98	Base interamente
compressa							
15	29	SLE Rare	-0.72	-0.67	-0.67	-0.72	Base interamente
compressa							
16	29	SLE Rare	-0.74	-0.68	-0.68	-0.73	Base interamente
compressa							
17	29	SLE Rare	-0.92	-0.82	-0.82	-0.92	Base interamente
compressa							
18	29	SLE Rare	-0.94	-0.83	-0.83	-0.94	Base interamente
compressa							
19	29	SLE Rare	-0.75	-0.69	-0.69	-0.75	Base interamente
compressa							
20	29	SLE Rare	-0.86	-0.77	-0.77	-0.86	Base interamente
compressa							
21	29	SLE Rare	-0.89	-0.79	-0.79	-0.90	Base interamente
compressa							
22	29	SLE Freq.	-0.72	-0.67	-0.67	-0.72	Base interamente
compressa							
23	29	SLE Freq.	-0.86	-0.77	-0.77	-0.86	Base interamente
compressa							
24	29	SLE Freq.	-0.73	-0.67	-0.67	-0.72	Base interamente
compressa							
25	29	SLE Freq.	-0.84	-0.76	-0.76	-0.84	Base interamente
compressa							
26	29	SLE Freq.	-0.85	-0.76	-0.76	-0.85	Base interamente
compressa							
27	29	SLE Quasi P.	-0.72	-0.67	-0.67	-0.72	Base interamente
compressa							
28	29	SLE Quasi P.	-0.84	-0.76	-0.76	-0.84	Base interamente
compressa							
29	29	SLU A1 sism.	-1.40	-1.23	-1.00	-1.17	Base interamente
compressa							
30	29	SLU A1 sism.	-1.56	-1.37	-1.15	-1.33	Base interamente
compressa							
31	29	SLU A1 sism.	-1.05	-1.02	-0.79	-0.82	Base interamente
compressa							
32	29	SLU A1 sism.	-1.20	-1.16	-0.94	-0.98	Base interamente
compressa							
33	29	SLU A1 sism.	-0.48	-0.35	-0.57	-0.70	Base interamente
compressa							
34	29	SLU A1 sism.	-0.64	-0.49	-0.72	-0.86	Base interamente
compressa							
35	29	SLU A1 sism.	-0.12	-0.14	-0.37	-0.35	Base interamente
compressa							
36	29	SLU A1 sism.	-0.28	-0.28	-0.51	-0.52	Base interamente
compressa							
37	29	SLU A1 sism.	-1.36	-1.21	-0.97	-1.13	Base interamente
compressa							
38	29	SLU A1 sism.	-1.52	-1.35	-1.12	-1.29	Base interamente
compressa							
39	29	SLU A1 sism.	-1.08	-1.04	-0.82	-0.86	Base interamente
compressa							
40	29	SLU A1 sism.	-1.24	-1.18	-0.97	-1.02	Base interamente
compressa							
41	29	SLU A1 sism.	-0.44	-0.33	-0.55	-0.66	Base interamente
compressa							
42	29	SLU A1 sism.	-0.60	-0.47	-0.70	-0.82	Base interamente
compressa							
43	29	SLU A1 sism.	-0.16	-0.17	-0.39	-0.39	Base interamente

compressa							
44	29	SLU A1 sism.	-0.32	-0.31	-0.54	-0.56	Base interamente
compressa							
45	29	SLU A1 sism.	-1.34	-1.20	-0.97	-1.10	Base interamente
compressa							
46	29	SLU A1 sism.	-1.50	-1.34	-1.11	-1.27	Base interamente
compressa							
47	29	SLU A1 sism.	-0.98	-0.99	-0.76	-0.75	Base interamente
compressa							
48	29	SLU A1 sism.	-1.14	-1.13	-0.91	-0.92	Base interamente
compressa							
49	29	SLU A1 sism.	-0.54	-0.38	-0.61	-0.77	Base interamente
compressa							
50	29	SLU A1 sism.	-0.70	-0.52	-0.76	-0.93	Base interamente
compressa							
51	29	SLU A1 sism.	-0.19	-0.17	-0.40	-0.42	Base interamente
compressa							
52	29	SLU A1 sism.	-0.35	-0.31	-0.55	-0.58	Base interamente
compressa							
53	29	SLU A1 sism.	-1.30	-1.18	-0.94	-1.06	Base interamente
compressa							
54	29	SLU A1 sism.	-1.46	-1.32	-1.09	-1.23	Base interamente
compressa							
55	29	SLU A1 sism.	-1.02	-1.02	-0.78	-0.79	Base interamente
compressa							
56	29	SLU A1 sism.	-1.18	-1.16	-0.93	-0.96	Base interamente
compressa							
57	29	SLU A1 sism.	-0.50	-0.36	-0.58	-0.73	Base interamente
compressa							
58	29	SLU A1 sism.	-0.66	-0.50	-0.73	-0.89	Base interamente
compressa							
59	29	SLU A1 sism.	-0.22	-0.19	-0.43	-0.46	Base interamente
compressa							
60	29	SLU A1 sism.	-0.38	-0.33	-0.57	-0.62	Base interamente
compressa							
61	29	SLU A1 sism.	-1.49	-1.17	-1.09	-1.41	Base interamente
compressa							
62	29	SLU A1 sism.	-1.65	-1.31	-1.24	-1.58	Base interamente
compressa							
63	29	SLU A1 sism.	-0.31	-0.46	-0.40	-0.25	Base interamente
compressa							
64	29	SLU A1 sism.	-0.47	-0.61	-0.55	-0.41	Base interamente
compressa							
65	29	SLU A1 sism.	-1.21	-0.91	-0.96	-1.27	Base interamente
compressa							
66	29	SLU A1 sism.	-1.37	-1.05	-1.11	-1.44	Base interamente
compressa							
67	29	SLU A1 sism.	-0.03	-0.20	-0.27	-0.10	Base interamente
compressa							
68	29	SLU A1 sism.	-0.19	-0.34	-0.42	-0.27	Base interamente
compressa							
69	29	SLU A1 sism.	-1.47	-1.16	-1.08	-1.39	Base interamente
compressa							
70	29	SLU A1 sism.	-1.63	-1.30	-1.23	-1.56	Base interamente
compressa							
71	29	SLU A1 sism.	-0.29	-0.46	-0.39	-0.22	Base interamente
compressa							
72	29	SLU A1 sism.	-0.45	-0.60	-0.54	-0.39	Base interamente
compressa							
73	29	SLU A1 sism.	-1.23	-0.92	-0.97	-1.29	Base interamente
compressa							
74	29	SLU A1 sism.	-1.39	-1.06	-1.12	-1.46	Base interamente
compressa							
75	29	SLU A1 sism.	-0.05	-0.21	-0.28	-0.13	Base interamente
compressa							
76	29	SLU A1 sism.	-0.21	-0.35	-0.43	-0.29	Base interamente

compressa							
77	29	SLU A1 sism.	-1.37	-1.09	-1.00	-1.28	Base interamente
compressa							
78	29	SLU A1 sism.	-1.52	-1.23	-1.15	-1.44	Base interamente
compressa							
79	29	SLU A1 sism.	-0.43	-0.54	-0.49	-0.38	Base interamente
compressa							
80	29	SLU A1 sism.	-0.59	-0.68	-0.64	-0.55	Base interamente
compressa							
81	29	SLU A1 sism.	-1.09	-0.83	-0.88	-1.14	Base interamente
compressa							
82	29	SLU A1 sism.	-1.25	-0.97	-1.02	-1.30	Base interamente
compressa							
83	29	SLU A1 sism.	-0.16	-0.28	-0.36	-0.24	Base interamente
compressa							
84	29	SLU A1 sism.	-0.32	-0.42	-0.51	-0.41	Base interamente
compressa							
85	29	SLU A1 sism.	-1.35	-1.08	-0.99	-1.26	Base interamente
compressa							
86	29	SLU A1 sism.	-1.51	-1.22	-1.14	-1.42	Base interamente
compressa							
87	29	SLU A1 sism.	-0.42	-0.54	-0.48	-0.36	Base interamente
compressa							
88	29	SLU A1 sism.	-0.57	-0.68	-0.63	-0.53	Base interamente
compressa							
89	29	SLU A1 sism.	-1.11	-0.84	-0.89	-1.16	Base interamente
compressa							
90	29	SLU A1 sism.	-1.27	-0.98	-1.03	-1.32	Base interamente
compressa							
91	29	SLU A1 sism.	-0.18	-0.29	-0.37	-0.26	Base interamente
compressa							
92	29	SLU A1 sism.	-0.34	-0.43	-0.52	-0.43	Base interamente
compressa							
221	29	SLU A1 sism.	-0.89	-0.76	-0.68	-0.81	Base interamente
compressa							
222	29	SLU A1 sism.	-1.42	-1.23	-1.17	-1.36	Base interamente
compressa							
223	29	SLU A1 sism.	-0.54	-0.55	-0.47	-0.46	Base interamente
compressa							
224	29	SLU A1 sism.	-1.07	-1.02	-0.96	-1.01	Base interamente
compressa							
225	29	SLU A1 sism.	-0.61	-0.50	-0.55	-0.67	Base interamente
compressa							
226	29	SLU A1 sism.	-1.15	-0.97	-1.04	-1.22	Base interamente
compressa							
227	29	SLU A1 sism.	-0.26	-0.28	-0.34	-0.32	Base interamente
compressa							
228	29	SLU A1 sism.	-0.79	-0.75	-0.84	-0.87	Base interamente
compressa							
229	29	SLU A1 sism.	-0.85	-0.74	-0.65	-0.77	Base interamente
compressa							
230	29	SLU A1 sism.	-1.38	-1.21	-1.14	-1.32	Base interamente
compressa							
231	29	SLU A1 sism.	-0.57	-0.57	-0.50	-0.50	Base interamente
compressa							
232	29	SLU A1 sism.	-1.11	-1.04	-0.99	-1.05	Base interamente
compressa							
233	29	SLU A1 sism.	-0.58	-0.47	-0.52	-0.63	Base interamente
compressa							
234	29	SLU A1 sism.	-1.11	-0.94	-1.02	-1.18	Base interamente
compressa							
235	29	SLU A1 sism.	-0.30	-0.31	-0.37	-0.36	Base interamente
compressa							
236	29	SLU A1 sism.	-0.83	-0.78	-0.86	-0.91	Base interamente
compressa							
237	29	SLU A1 sism.	-0.87	-0.75	-0.67	-0.79	Base interamente

compressa							
238	29	SLU A1 sism.	-1.40	-1.22	-1.16	-1.34	Base interamente
compressa							
239	29	SLU A1 sism.	-0.52	-0.54	-0.46	-0.44	Base interamente
compressa							
240	29	SLU A1 sism.	-1.05	-1.01	-0.95	-0.99	Base interamente
compressa							
241	29	SLU A1 sism.	-0.63	-0.50	-0.56	-0.69	Base interamente
compressa							
242	29	SLU A1 sism.	-1.16	-0.97	-1.05	-1.24	Base interamente
compressa							
243	29	SLU A1 sism.	-0.28	-0.29	-0.35	-0.34	Base interamente
compressa							
244	29	SLU A1 sism.	-0.81	-0.76	-0.85	-0.89	Base interamente
compressa							
245	29	SLU A1 sism.	-0.84	-0.73	-0.64	-0.75	Base interamente
compressa							
246	29	SLU A1 sism.	-1.37	-1.20	-1.13	-1.30	Base interamente
compressa							
247	29	SLU A1 sism.	-0.56	-0.56	-0.49	-0.48	Base interamente
compressa							
248	29	SLU A1 sism.	-1.09	-1.03	-0.98	-1.03	Base interamente
compressa							
249	29	SLU A1 sism.	-0.60	-0.48	-0.53	-0.65	Base interamente
compressa							
250	29	SLU A1 sism.	-1.13	-0.95	-1.03	-1.20	Base interamente
compressa							
251	29	SLU A1 sism.	-0.32	-0.32	-0.38	-0.38	Base interamente
compressa							
252	29	SLU A1 sism.	-0.85	-0.79	-0.87	-0.93	Base interamente
compressa							
1	3	SLU STR.	-0.75	-0.75	-0.76	-0.76	Base interamente
compressa							
2	3	SLU STR.	-0.76	-0.76	-0.77	-0.77	Base interamente
compressa							
3	3	SLU STR.	-0.91	-0.91	-0.92	-0.92	Base interamente
compressa							
4	3	SLU STR.	-0.92	-0.92	-0.93	-0.93	Base interamente
compressa							
5	3	SLU STR.	-0.57	-0.57	-0.58	-0.58	Base interamente
compressa							
6	3	SLU STR.	-0.58	-0.58	-0.59	-0.59	Base interamente
compressa							
7	3	SLU STR.	-0.73	-0.73	-0.74	-0.74	Base interamente
compressa							
8	3	SLU STR.	-0.74	-0.74	-0.75	-0.75	Base interamente
compressa							
9	3	SLU STR.	-0.77	-0.77	-0.78	-0.78	Base interamente
compressa							
10	3	SLU STR.	-0.86	-0.86	-0.87	-0.87	Base interamente
compressa							
11	3	SLU STR.	-0.88	-0.88	-0.90	-0.90	Base interamente
compressa							
12	3	SLU STR.	-0.59	-0.59	-0.60	-0.60	Base interamente
compressa							
13	3	SLU STR.	-0.68	-0.68	-0.69	-0.69	Base interamente
compressa							
14	3	SLU STR.	-0.70	-0.70	-0.71	-0.71	Base interamente
compressa							
15	3	SLE Rare	-0.57	-0.57	-0.58	-0.58	Base interamente
compressa							
16	3	SLE Rare	-0.58	-0.58	-0.59	-0.59	Base interamente
compressa							
17	3	SLE Rare	-0.68	-0.68	-0.69	-0.69	Base interamente
compressa							
18	3	SLE Rare	-0.69	-0.69	-0.70	-0.70	Base interamente

compressa							
19	3	SLE Rare	-0.59	-0.59	-0.60	-0.60	Base interamente
compressa							
20	3	SLE Rare	-0.65	-0.65	-0.66	-0.66	Base interamente
compressa							
21	3	SLE Rare	-0.66	-0.66	-0.67	-0.67	Base interamente
compressa							
22	3	SLE Freq.	-0.57	-0.57	-0.58	-0.58	Base interamente
compressa							
23	3	SLE Freq.	-0.65	-0.65	-0.66	-0.66	Base interamente
compressa							
24	3	SLE Freq.	-0.58	-0.58	-0.59	-0.59	Base interamente
compressa							
25	3	SLE Freq.	-0.64	-0.64	-0.65	-0.65	Base interamente
compressa							
26	3	SLE Freq.	-0.64	-0.64	-0.65	-0.65	Base interamente
compressa							
27	3	SLE Quasi P.	-0.57	-0.57	-0.58	-0.58	Base interamente
compressa							
28	3	SLE Quasi P.	-0.64	-0.64	-0.65	-0.65	Base interamente
compressa							
29	3	SLU A1 sism.	-0.57	-0.56	-0.13	-0.15	Base interamente
compressa							
30	3	SLU A1 sism.	-0.68	-0.67	-0.24	-0.25	Base interamente
compressa							
31	3	SLU A1 sism.	-0.50	-0.63	-0.20	-0.08	Base interamente
compressa							
32	3	SLU A1 sism.	-0.61	-0.73	-0.30	-0.18	Base interamente
compressa							
33	3	SLU A1 sism.	-0.67	-0.54	-0.99	-1.11	Base interamente
compressa							
34	3	SLU A1 sism.	-0.77	-0.65	-1.09	-1.21	Base interamente
compressa							
35	3	SLU A1 sism.	-0.60	-0.61	-1.06	-1.04	Base interamente
compressa							
36	3	SLU A1 sism.	-0.71	-0.72	-1.16	-1.15	Base interamente
compressa							
37	3	SLU A1 sism.	-0.59	-0.54	-0.11	-0.17	Base interamente
compressa							
38	3	SLU A1 sism.	-0.70	-0.64	-0.21	-0.27	Base interamente
compressa							
39	3	SLU A1 sism.	-0.48	-0.65	-0.23	-0.06	Base interamente
compressa							
40	3	SLU A1 sism.	-0.59	-0.76	-0.33	-0.16	Base interamente
compressa							
41	3	SLU A1 sism.	-0.69	-0.52	-0.97	-1.13	Base interamente
compressa							
42	3	SLU A1 sism.	-0.80	-0.63	-1.07	-1.24	Base interamente
compressa							
43	3	SLU A1 sism.	-0.58	-0.63	-1.08	-1.02	Base interamente
compressa							
44	3	SLU A1 sism.	-0.68	-0.74	-1.18	-1.12	Base interamente
compressa							
45	3	SLU A1 sism.	-0.63	-0.50	-0.08	-0.20	Base interamente
compressa							
46	3	SLU A1 sism.	-0.73	-0.61	-0.18	-0.30	Base interamente
compressa							
47	3	SLU A1 sism.	-0.56	-0.57	-0.15	-0.13	Base interamente
compressa							
48	3	SLU A1 sism.	-0.67	-0.68	-0.25	-0.24	Base interamente
compressa							
49	3	SLU A1 sism.	-0.61	-0.60	-1.04	-1.06	Base interamente
compressa							
50	3	SLU A1 sism.	-0.72	-0.70	-1.15	-1.16	Base interamente
compressa							
51	3	SLU A1 sism.	-0.54	-0.67	-1.11	-0.99	Base interamente

compressa							
52	3	SLU A1 sism.	-0.65	-0.77	-1.21	-1.09	Base interamente
compressa							
53	3	SLU A1 sism.	-0.65	-0.48	-0.06	-0.23	Base interamente
compressa							
54	3	SLU A1 sism.	-0.76	-0.59	-0.16	-0.33	Base interamente
compressa							
55	3	SLU A1 sism.	-0.54	-0.59	-0.17	-0.11	Base interamente
compressa							
56	3	SLU A1 sism.	-0.64	-0.70	-0.27	-0.21	Base interamente
compressa							
57	3	SLU A1 sism.	-0.63	-0.57	-1.02	-1.08	Base interamente
compressa							
58	3	SLU A1 sism.	-0.74	-0.68	-1.12	-1.18	Base interamente
compressa							
59	3	SLU A1 sism.	-0.52	-0.69	-1.13	-0.97	Base interamente
compressa							
60	3	SLU A1 sism.	-0.63	-0.80	-1.24	-1.07	Base interamente
compressa							
61	3	SLU A1 sism.	-0.68	-0.47	-0.35	-0.56	Base interamente
compressa							
62	3	SLU A1 sism.	-0.79	-0.58	-0.46	-0.67	Base interamente
compressa							
63	3	SLU A1 sism.	-0.46	-0.70	-0.58	-0.34	Base interamente
compressa							
64	3	SLU A1 sism.	-0.57	-0.81	-0.68	-0.44	Base interamente
compressa							
65	3	SLU A1 sism.	-0.71	-0.47	-0.61	-0.85	Base interamente
compressa							
66	3	SLU A1 sism.	-0.82	-0.58	-0.71	-0.95	Base interamente
compressa							
67	3	SLU A1 sism.	-0.49	-0.69	-0.84	-0.63	Base interamente
compressa							
68	3	SLU A1 sism.	-0.59	-0.80	-0.94	-0.73	Base interamente
compressa							
69	3	SLU A1 sism.	-0.70	-0.46	-0.34	-0.58	Base interamente
compressa							
70	3	SLU A1 sism.	-0.81	-0.57	-0.44	-0.68	Base interamente
compressa							
71	3	SLU A1 sism.	-0.47	-0.68	-0.56	-0.36	Base interamente
compressa							
72	3	SLU A1 sism.	-0.58	-0.79	-0.67	-0.46	Base interamente
compressa							
73	3	SLU A1 sism.	-0.70	-0.49	-0.63	-0.84	Base interamente
compressa							
74	3	SLU A1 sism.	-0.80	-0.59	-0.73	-0.94	Base interamente
compressa							
75	3	SLU A1 sism.	-0.47	-0.71	-0.85	-0.61	Base interamente
compressa							
76	3	SLU A1 sism.	-0.58	-0.82	-0.96	-0.71	Base interamente
compressa							
77	3	SLU A1 sism.	-0.76	-0.40	-0.28	-0.64	Base interamente
compressa							
78	3	SLU A1 sism.	-0.87	-0.51	-0.38	-0.74	Base interamente
compressa							
79	3	SLU A1 sism.	-0.38	-0.78	-0.66	-0.26	Base interamente
compressa							
80	3	SLU A1 sism.	-0.49	-0.88	-0.76	-0.37	Base interamente
compressa							
81	3	SLU A1 sism.	-0.79	-0.39	-0.54	-0.93	Base interamente
compressa							
82	3	SLU A1 sism.	-0.90	-0.50	-0.64	-1.03	Base interamente
compressa							
83	3	SLU A1 sism.	-0.41	-0.77	-0.91	-0.55	Base interamente
compressa							
84	3	SLU A1 sism.	-0.52	-0.88	-1.02	-0.65	Base interamente

compressa							
85	3	SLU A1 sism.	-0.78	-0.38	-0.26	-0.66	Base interamente
compressa							
86	3	SLU A1 sism.	-0.88	-0.49	-0.36	-0.76	Base interamente
compressa							
87	3	SLU A1 sism.	-0.40	-0.76	-0.64	-0.28	Base interamente
compressa							
88	3	SLU A1 sism.	-0.51	-0.87	-0.74	-0.38	Base interamente
compressa							
89	3	SLU A1 sism.	-0.77	-0.41	-0.55	-0.91	Base interamente
compressa							
90	3	SLU A1 sism.	-0.88	-0.52	-0.65	-1.01	Base interamente
compressa							
91	3	SLU A1 sism.	-0.39	-0.79	-0.93	-0.54	Base interamente
compressa							
92	3	SLU A1 sism.	-0.50	-0.89	-1.03	-0.64	Base interamente
compressa							
221	3	SLU A1 sism.	-0.48	-0.43	-0.32	-0.37	Base interamente
compressa							
222	3	SLU A1 sism.	-0.84	-0.79	-0.65	-0.71	Base interamente
compressa							
223	3	SLU A1 sism.	-0.41	-0.50	-0.38	-0.30	Base interamente
compressa							
224	3	SLU A1 sism.	-0.77	-0.85	-0.72	-0.64	Base interamente
compressa							
225	3	SLU A1 sism.	-0.51	-0.42	-0.57	-0.66	Base interamente
compressa							
226	3	SLU A1 sism.	-0.87	-0.78	-0.91	-0.99	Base interamente
compressa							
227	3	SLU A1 sism.	-0.44	-0.49	-0.64	-0.59	Base interamente
compressa							
228	3	SLU A1 sism.	-0.80	-0.85	-0.98	-0.93	Base interamente
compressa							
229	3	SLU A1 sism.	-0.50	-0.41	-0.29	-0.39	Base interamente
compressa							
230	3	SLU A1 sism.	-0.86	-0.76	-0.63	-0.73	Base interamente
compressa							
231	3	SLU A1 sism.	-0.39	-0.52	-0.41	-0.28	Base interamente
compressa							
232	3	SLU A1 sism.	-0.75	-0.88	-0.75	-0.62	Base interamente
compressa							
233	3	SLU A1 sism.	-0.53	-0.40	-0.55	-0.68	Base interamente
compressa							
234	3	SLU A1 sism.	-0.89	-0.76	-0.89	-1.02	Base interamente
compressa							
235	3	SLU A1 sism.	-0.42	-0.51	-0.66	-0.57	Base interamente
compressa							
236	3	SLU A1 sism.	-0.77	-0.87	-1.00	-0.90	Base interamente
compressa							
237	3	SLU A1 sism.	-0.50	-0.41	-0.30	-0.38	Base interamente
compressa							
238	3	SLU A1 sism.	-0.85	-0.77	-0.64	-0.72	Base interamente
compressa							
239	3	SLU A1 sism.	-0.43	-0.48	-0.37	-0.32	Base interamente
compressa							
240	3	SLU A1 sism.	-0.79	-0.84	-0.71	-0.65	Base interamente
compressa							
241	3	SLU A1 sism.	-0.49	-0.44	-0.59	-0.64	Base interamente
compressa							
242	3	SLU A1 sism.	-0.85	-0.80	-0.93	-0.98	Base interamente
compressa							
243	3	SLU A1 sism.	-0.42	-0.51	-0.66	-0.57	Base interamente
compressa							
244	3	SLU A1 sism.	-0.78	-0.87	-1.00	-0.91	Base interamente
compressa							
245	3	SLU A1 sism.	-0.52	-0.39	-0.28	-0.41	Base interamente

compressa							
246	3	SLU A1 sism.	-0.88	-0.75	-0.62	-0.75	Base interamente
compressa							
247	3	SLU A1 sism.	-0.41	-0.50	-0.39	-0.29	Base interamente
compressa							
248	3	SLU A1 sism.	-0.76	-0.86	-0.73	-0.63	Base interamente
compressa							
249	3	SLU A1 sism.	-0.51	-0.42	-0.57	-0.66	Base interamente
compressa							
250	3	SLU A1 sism.	-0.87	-0.77	-0.90	-1.00	Base interamente
compressa							
251	3	SLU A1 sism.	-0.40	-0.53	-0.68	-0.55	Base interamente
compressa							
252	3	SLU A1 sism.	-0.76	-0.89	-1.02	-0.89	Base interamente
compressa							
1	5	SLU STR.	-0.83	-0.77	-0.78	-0.84	Base interamente
compressa							
2	5	SLU STR.	-0.85	-0.78	-0.80	-0.86	Base interamente
compressa							
3	5	SLU STR.	-1.08	-0.96	-0.97	-1.09	Base interamente
compressa							
4	5	SLU STR.	-1.10	-0.98	-0.99	-1.11	Base interamente
compressa							
5	5	SLU STR.	-0.63	-0.59	-0.60	-0.64	Base interamente
compressa							
6	5	SLU STR.	-0.65	-0.60	-0.61	-0.66	Base interamente
compressa							
7	5	SLU STR.	-0.89	-0.78	-0.79	-0.89	Base interamente
compressa							
8	5	SLU STR.	-0.91	-0.79	-0.80	-0.92	Base interamente
compressa							
9	5	SLU STR.	-0.87	-0.80	-0.81	-0.88	Base interamente
compressa							
10	5	SLU STR.	-1.00	-0.90	-0.92	-1.02	Base interamente
compressa							
11	5	SLU STR.	-1.05	-0.93	-0.94	-1.06	Base interamente
compressa							
12	5	SLU STR.	-0.67	-0.61	-0.62	-0.68	Base interamente
compressa							
13	5	SLU STR.	-0.81	-0.72	-0.73	-0.82	Base interamente
compressa							
14	5	SLU STR.	-0.85	-0.75	-0.76	-0.86	Base interamente
compressa							
15	5	SLE Rare	-0.63	-0.59	-0.60	-0.64	Base interamente
compressa							
16	5	SLE Rare	-0.65	-0.60	-0.61	-0.66	Base interamente
compressa							
17	5	SLE Rare	-0.80	-0.72	-0.73	-0.81	Base interamente
compressa							
18	5	SLE Rare	-0.82	-0.73	-0.74	-0.83	Base interamente
compressa							
19	5	SLE Rare	-0.66	-0.61	-0.62	-0.67	Base interamente
compressa							
20	5	SLE Rare	-0.75	-0.68	-0.69	-0.76	Base interamente
compressa							
21	5	SLE Rare	-0.78	-0.70	-0.71	-0.79	Base interamente
compressa							
22	5	SLE Freq.	-0.63	-0.59	-0.60	-0.64	Base interamente
compressa							
23	5	SLE Freq.	-0.75	-0.68	-0.69	-0.76	Base interamente
compressa							
24	5	SLE Freq.	-0.64	-0.59	-0.60	-0.65	Base interamente
compressa							
25	5	SLE Freq.	-0.74	-0.67	-0.68	-0.74	Base interamente
compressa							
26	5	SLE Freq.	-0.74	-0.67	-0.68	-0.75	Base interamente

compressa							
27	5	SLE Quasi P.	-0.63	-0.59	-0.60	-0.64	Base interamente
compressa							
28	5	SLE Quasi P.	-0.74	-0.67	-0.68	-0.74	Base interamente
compressa							
29	5	SLU A1 sism.	-0.63	-0.57	-0.24	-0.31	Base interamente
compressa							
30	5	SLU A1 sism.	-0.76	-0.68	-0.36	-0.44	Base interamente
compressa							
31	5	SLU A1 sism.	-0.42	-0.45	-0.09	-0.06	Base interamente
compressa							
32	5	SLU A1 sism.	-0.55	-0.56	-0.21	-0.19	Base interamente
compressa							
33	5	SLU A1 sism.	-0.92	-0.77	-1.14	-1.29	Base interamente
compressa							
34	5	SLU A1 sism.	-1.05	-0.88	-1.26	-1.43	Base interamente
compressa							
35	5	SLU A1 sism.	-0.71	-0.66	-0.99	-1.05	Base interamente
compressa							
36	5	SLU A1 sism.	-0.84	-0.76	-1.11	-1.18	Base interamente
compressa							
37	5	SLU A1 sism.	-0.69	-0.61	-0.27	-0.35	Base interamente
compressa							
38	5	SLU A1 sism.	-0.82	-0.72	-0.39	-0.49	Base interamente
compressa							
39	5	SLU A1 sism.	-0.36	-0.41	-0.07	-0.01	Base interamente
compressa							
40	5	SLU A1 sism.	-0.49	-0.52	-0.18	-0.15	Base interamente
compressa							
41	5	SLU A1 sism.	-0.98	-0.81	-1.17	-1.34	Base interamente
compressa							
42	5	SLU A1 sism.	-1.11	-0.92	-1.28	-1.47	Base interamente
compressa							
43	5	SLU A1 sism.	-0.65	-0.62	-0.97	-1.00	Base interamente
compressa							
44	5	SLU A1 sism.	-0.78	-0.73	-1.08	-1.13	Base interamente
compressa							
45	5	SLU A1 sism.	-0.73	-0.64	-0.29	-0.38	Base interamente
compressa							
46	5	SLU A1 sism.	-0.86	-0.75	-0.41	-0.52	Base interamente
compressa							
47	5	SLU A1 sism.	-0.52	-0.52	-0.14	-0.13	Base interamente
compressa							
48	5	SLU A1 sism.	-0.64	-0.63	-0.26	-0.27	Base interamente
compressa							
49	5	SLU A1 sism.	-0.83	-0.70	-1.09	-1.22	Base interamente
compressa							
50	5	SLU A1 sism.	-0.95	-0.81	-1.21	-1.35	Base interamente
compressa							
51	5	SLU A1 sism.	-0.61	-0.58	-0.94	-0.97	Base interamente
compressa							
52	5	SLU A1 sism.	-0.74	-0.69	-1.06	-1.11	Base interamente
compressa							
53	5	SLU A1 sism.	-0.79	-0.68	-0.32	-0.43	Base interamente
compressa							
54	5	SLU A1 sism.	-0.92	-0.79	-0.43	-0.56	Base interamente
compressa							
55	5	SLU A1 sism.	-0.46	-0.49	-0.11	-0.09	Base interamente
compressa							
56	5	SLU A1 sism.	-0.59	-0.59	-0.23	-0.22	Base interamente
compressa							
57	5	SLU A1 sism.	-0.88	-0.74	-1.12	-1.27	Base interamente
compressa							
58	5	SLU A1 sism.	-1.01	-0.85	-1.24	-1.40	Base interamente
compressa							
59	5	SLU A1 sism.	-0.55	-0.54	-0.92	-0.93	Base interamente

compressa								
60	5	SLU A1 sism.	-0.68	-0.65	-1.03	-1.06	Base interamente	
compressa								
61	5	SLU A1 sism.	-0.98	-0.78	-0.73	-0.94	Base interamente	
compressa								
62	5	SLU A1 sism.	-1.11	-0.88	-0.85	-1.08	Base interamente	
compressa								
63	5	SLU A1 sism.	-0.27	-0.39	-0.23	-0.12	Base interamente	
compressa								
64	5	SLU A1 sism.	-0.40	-0.50	-0.35	-0.25	Base interamente	
compressa								
65	5	SLU A1 sism.	-1.07	-0.84	-1.00	-1.24	Base interamente	
compressa								
66	5	SLU A1 sism.	-1.20	-0.95	-1.12	-1.37	Base interamente	
compressa								
67	5	SLU A1 sism.	-0.36	-0.45	-0.50	-0.41	Base interamente	
compressa								
68	5	SLU A1 sism.	-0.49	-0.56	-0.62	-0.55	Base interamente	
compressa								
69	5	SLU A1 sism.	-1.01	-0.80	-0.75	-0.96	Base interamente	
compressa								
70	5	SLU A1 sism.	-1.14	-0.91	-0.86	-1.10	Base interamente	
compressa								
71	5	SLU A1 sism.	-0.30	-0.41	-0.25	-0.14	Base interamente	
compressa								
72	5	SLU A1 sism.	-0.43	-0.52	-0.36	-0.27	Base interamente	
compressa								
73	5	SLU A1 sism.	-1.04	-0.81	-0.99	-1.22	Base interamente	
compressa								
74	5	SLU A1 sism.	-1.17	-0.92	-1.10	-1.35	Base interamente	
compressa								
75	5	SLU A1 sism.	-0.33	-0.43	-0.49	-0.39	Base interamente	
compressa								
76	5	SLU A1 sism.	-0.46	-0.54	-0.60	-0.52	Base interamente	
compressa								
77	5	SLU A1 sism.	-1.18	-0.91	-0.83	-1.10	Base interamente	
compressa								
78	5	SLU A1 sism.	-1.31	-1.02	-0.94	-1.23	Base interamente	
compressa								
79	5	SLU A1 sism.	-0.08	-0.26	-0.14	0.00	Parzializzata	
80	5	SLU A1 sism.	-0.21	-0.37	-0.26	-0.10	Base interamente	
compressa								
81	5	SLU A1 sism.	-1.26	-0.97	-1.10	-1.39	Base interamente	
compressa								
82	5	SLU A1 sism.	-1.39	-1.08	-1.21	-1.53	Base interamente	
compressa								
83	5	SLU A1 sism.	-0.16	-0.32	-0.41	-0.26	Base interamente	
compressa								
84	5	SLU A1 sism.	-0.29	-0.43	-0.53	-0.39	Base interamente	
compressa								
85	5	SLU A1 sism.	-1.21	-0.93	-0.84	-1.12	Base interamente	
compressa								
86	5	SLU A1 sism.	-1.34	-1.04	-0.95	-1.25	Base interamente	
compressa								
87	5	SLU A1 sism.	-0.11	-0.28	-0.16	0.00	Parzializzata	
88	5	SLU A1 sism.	-0.24	-0.39	-0.27	-0.12	Base interamente	
compressa								
89	5	SLU A1 sism.	-1.24	-0.95	-1.08	-1.37	Base interamente	
compressa								
90	5	SLU A1 sism.	-1.36	-1.05	-1.20	-1.50	Base interamente	
compressa								
91	5	SLU A1 sism.	-0.14	-0.30	-0.40	-0.24	Base interamente	
compressa								
92	5	SLU A1 sism.	-0.26	-0.41	-0.51	-0.37	Base interamente	
compressa								
221	5	SLU A1 sism.	-0.58	-0.51	-0.43	-0.50	Base interamente	

compressa							
222	5	SLU A1 sism.	-1.01	-0.88	-0.81	-0.94	Base interamente
compressa							
223	5	SLU A1 sism.	-0.37	-0.40	-0.28	-0.25	Base interamente
compressa							
224	5	SLU A1 sism.	-0.80	-0.76	-0.66	-0.70	Base interamente
compressa							
225	5	SLU A1 sism.	-0.67	-0.57	-0.70	-0.79	Base interamente
compressa							
226	5	SLU A1 sism.	-1.10	-0.94	-1.08	-1.24	Base interamente
compressa							
227	5	SLU A1 sism.	-0.46	-0.46	-0.55	-0.55	Base interamente
compressa							
228	5	SLU A1 sism.	-0.89	-0.82	-0.93	-0.99	Base interamente
compressa							
229	5	SLU A1 sism.	-0.64	-0.55	-0.45	-0.54	Base interamente
compressa							
230	5	SLU A1 sism.	-1.07	-0.92	-0.83	-0.99	Base interamente
compressa							
231	5	SLU A1 sism.	-0.31	-0.36	-0.25	-0.20	Base interamente
compressa							
232	5	SLU A1 sism.	-0.74	-0.72	-0.63	-0.65	Base interamente
compressa							
233	5	SLU A1 sism.	-0.73	-0.61	-0.72	-0.84	Base interamente
compressa							
234	5	SLU A1 sism.	-1.16	-0.98	-1.10	-1.29	Base interamente
compressa							
235	5	SLU A1 sism.	-0.40	-0.42	-0.52	-0.50	Base interamente
compressa							
236	5	SLU A1 sism.	-0.83	-0.78	-0.90	-0.94	Base interamente
compressa							
237	5	SLU A1 sism.	-0.61	-0.53	-0.44	-0.52	Base interamente
compressa							
238	5	SLU A1 sism.	-1.04	-0.90	-0.82	-0.97	Base interamente
compressa							
239	5	SLU A1 sism.	-0.40	-0.42	-0.29	-0.27	Base interamente
compressa							
240	5	SLU A1 sism.	-0.83	-0.78	-0.67	-0.72	Base interamente
compressa							
241	5	SLU A1 sism.	-0.64	-0.55	-0.68	-0.77	Base interamente
compressa							
242	5	SLU A1 sism.	-1.07	-0.92	-1.06	-1.22	Base interamente
compressa							
243	5	SLU A1 sism.	-0.43	-0.44	-0.53	-0.52	Base interamente
compressa							
244	5	SLU A1 sism.	-0.86	-0.80	-0.91	-0.97	Base interamente
compressa							
245	5	SLU A1 sism.	-0.67	-0.57	-0.47	-0.57	Base interamente
compressa							
246	5	SLU A1 sism.	-1.10	-0.94	-0.85	-1.01	Base interamente
compressa							
247	5	SLU A1 sism.	-0.34	-0.38	-0.26	-0.23	Base interamente
compressa							
248	5	SLU A1 sism.	-0.77	-0.74	-0.64	-0.67	Base interamente
compressa							
249	5	SLU A1 sism.	-0.70	-0.59	-0.71	-0.82	Base interamente
compressa							
250	5	SLU A1 sism.	-1.13	-0.96	-1.09	-1.26	Base interamente
compressa							
251	5	SLU A1 sism.	-0.37	-0.40	-0.50	-0.48	Base interamente
compressa							
252	5	SLU A1 sism.	-0.80	-0.76	-0.88	-0.92	Base interamente
compressa							
1	53	SLU STR.	-0.85	-0.85	-0.84	-0.84	Base interamente
compressa							
2	53	SLU STR.	-0.86	-0.86	-0.86	-0.86	Base interamente

compressa							
3	53	SLU STR.	-1.04	-1.04	-1.03	-1.03	Base interamente
compressa							
4	53	SLU STR.	-1.05	-1.05	-1.05	-1.05	Base interamente
compressa							
5	53	SLU STR.	-0.64	-0.64	-0.64	-0.64	Base interamente
compressa							
6	53	SLU STR.	-0.66	-0.66	-0.65	-0.65	Base interamente
compressa							
7	53	SLU STR.	-0.83	-0.83	-0.83	-0.83	Base interamente
compressa							
8	53	SLU STR.	-0.85	-0.85	-0.84	-0.84	Base interamente
compressa							
9	53	SLU STR.	-0.87	-0.87	-0.87	-0.87	Base interamente
compressa							
10	53	SLU STR.	-0.98	-0.98	-0.98	-0.98	Base interamente
compressa							
11	53	SLU STR.	-1.00	-1.00	-1.00	-1.00	Base interamente
compressa							
12	53	SLU STR.	-0.67	-0.67	-0.67	-0.67	Base interamente
compressa							
13	53	SLU STR.	-0.78	-0.78	-0.77	-0.77	Base interamente
compressa							
14	53	SLU STR.	-0.80	-0.80	-0.80	-0.80	Base interamente
compressa							
15	53	SLE Rare	-0.65	-0.65	-0.65	-0.65	Base interamente
compressa							
16	53	SLE Rare	-0.66	-0.66	-0.65	-0.65	Base interamente
compressa							
17	53	SLE Rare	-0.77	-0.77	-0.77	-0.77	Base interamente
compressa							
18	53	SLE Rare	-0.78	-0.78	-0.78	-0.78	Base interamente
compressa							
19	53	SLE Rare	-0.66	-0.66	-0.66	-0.66	Base interamente
compressa							
20	53	SLE Rare	-0.74	-0.74	-0.73	-0.73	Base interamente
compressa							
21	53	SLE Rare	-0.75	-0.75	-0.75	-0.75	Base interamente
compressa							
22	53	SLE Freq.	-0.65	-0.65	-0.65	-0.65	Base interamente
compressa							
23	53	SLE Freq.	-0.74	-0.74	-0.73	-0.73	Base interamente
compressa							
24	53	SLE Freq.	-0.65	-0.65	-0.65	-0.65	Base interamente
compressa							
25	53	SLE Freq.	-0.72	-0.72	-0.72	-0.72	Base interamente
compressa							
26	53	SLE Freq.	-0.73	-0.73	-0.72	-0.72	Base interamente
compressa							
27	53	SLE Quasi P.	-0.65	-0.65	-0.65	-0.65	Base interamente
compressa							
28	53	SLE Quasi P.	-0.72	-0.72	-0.72	-0.72	Base interamente
compressa							
29	53	SLU A1 sism.	-1.20	-1.05	-0.74	-0.89	Base interamente
compressa							
30	53	SLU A1 sism.	-1.34	-1.18	-0.88	-1.03	Base interamente
compressa							
31	53	SLU A1 sism.	-1.08	-1.16	-0.85	-0.78	Base interamente
compressa							
32	53	SLU A1 sism.	-1.22	-1.30	-0.99	-0.92	Base interamente
compressa							
33	53	SLU A1 sism.	-0.23	-0.15	-0.45	-0.53	Base interamente
compressa							
34	53	SLU A1 sism.	-0.36	-0.29	-0.59	-0.67	Base interamente
compressa							
35	53	SLU A1 sism.	-0.11	-0.27	-0.57	-0.41	Base interamente

compressa							
36	53	SLU A1 sism.	-0.25	-0.40	-0.71	-0.55	Base interamente
compressa							
37	53	SLU A1 sism.	-1.18	-1.06	-0.75	-0.87	Base interamente
compressa							
38	53	SLU A1 sism.	-1.32	-1.20	-0.90	-1.02	Base interamente
compressa							
39	53	SLU A1 sism.	-1.10	-1.14	-0.84	-0.79	Base interamente
compressa							
40	53	SLU A1 sism.	-1.24	-1.28	-0.98	-0.94	Base interamente
compressa							
41	53	SLU A1 sism.	-0.21	-0.17	-0.47	-0.51	Base interamente
compressa							
42	53	SLU A1 sism.	-0.34	-0.30	-0.61	-0.65	Base interamente
compressa							
43	53	SLU A1 sism.	-0.13	-0.25	-0.55	-0.43	Base interamente
compressa							
44	53	SLU A1 sism.	-0.26	-0.38	-0.69	-0.57	Base interamente
compressa							
45	53	SLU A1 sism.	-1.16	-1.09	-0.78	-0.85	Base interamente
compressa							
46	53	SLU A1 sism.	-1.30	-1.22	-0.92	-0.99	Base interamente
compressa							
47	53	SLU A1 sism.	-1.05	-1.20	-0.89	-0.74	Base interamente
compressa							
48	53	SLU A1 sism.	-1.18	-1.34	-1.03	-0.88	Base interamente
compressa							
49	53	SLU A1 sism.	-0.27	-0.11	-0.41	-0.57	Base interamente
compressa							
50	53	SLU A1 sism.	-0.40	-0.25	-0.55	-0.71	Base interamente
compressa							
51	53	SLU A1 sism.	-0.15	-0.23	-0.53	-0.45	Base interamente
compressa							
52	53	SLU A1 sism.	-0.28	-0.36	-0.67	-0.59	Base interamente
compressa							
53	53	SLU A1 sism.	-1.14	-1.10	-0.79	-0.83	Base interamente
compressa							
54	53	SLU A1 sism.	-1.28	-1.24	-0.94	-0.98	Base interamente
compressa							
55	53	SLU A1 sism.	-1.06	-1.18	-0.87	-0.75	Base interamente
compressa							
56	53	SLU A1 sism.	-1.20	-1.32	-1.02	-0.90	Base interamente
compressa							
57	53	SLU A1 sism.	-0.25	-0.13	-0.43	-0.55	Base interamente
compressa							
58	53	SLU A1 sism.	-0.38	-0.26	-0.57	-0.69	Base interamente
compressa							
59	53	SLU A1 sism.	-0.17	-0.21	-0.51	-0.47	Base interamente
compressa							
60	53	SLU A1 sism.	-0.30	-0.34	-0.65	-0.61	Base interamente
compressa							
61	53	SLU A1 sism.	-1.00	-0.60	-0.50	-0.90	Base interamente
compressa							
62	53	SLU A1 sism.	-1.13	-0.73	-0.64	-1.04	Base interamente
compressa							
63	53	SLU A1 sism.	-0.61	-0.98	-0.89	-0.51	Base interamente
compressa							
64	53	SLU A1 sism.	-0.74	-1.12	-1.03	-0.65	Base interamente
compressa							
65	53	SLU A1 sism.	-0.71	-0.33	-0.41	-0.79	Base interamente
compressa							
66	53	SLU A1 sism.	-0.84	-0.46	-0.55	-0.93	Base interamente
compressa							
67	53	SLU A1 sism.	-0.31	-0.72	-0.80	-0.40	Base interamente
compressa							
68	53	SLU A1 sism.	-0.45	-0.85	-0.94	-0.54	Base interamente

compressa							
69	53	SLU A1 sism.	-0.99	-0.61	-0.51	-0.89	Base interamente
compressa							
70	53	SLU A1 sism.	-1.12	-0.74	-0.65	-1.03	Base interamente
compressa							
71	53	SLU A1 sism.	-0.60	-1.00	-0.90	-0.50	Base interamente
compressa							
72	53	SLU A1 sism.	-0.73	-1.13	-1.04	-0.64	Base interamente
compressa							
73	53	SLU A1 sism.	-0.72	-0.32	-0.40	-0.80	Base interamente
compressa							
74	53	SLU A1 sism.	-0.85	-0.45	-0.54	-0.94	Base interamente
compressa							
75	53	SLU A1 sism.	-0.33	-0.70	-0.79	-0.41	Base interamente
compressa							
76	53	SLU A1 sism.	-0.46	-0.84	-0.93	-0.55	Base interamente
compressa							
77	53	SLU A1 sism.	-0.94	-0.66	-0.56	-0.84	Base interamente
compressa							
78	53	SLU A1 sism.	-1.07	-0.79	-0.70	-0.98	Base interamente
compressa							
79	53	SLU A1 sism.	-0.67	-0.92	-0.83	-0.57	Base interamente
compressa							
80	53	SLU A1 sism.	-0.80	-1.06	-0.97	-0.71	Base interamente
compressa							
81	53	SLU A1 sism.	-0.64	-0.39	-0.47	-0.73	Base interamente
compressa							
82	53	SLU A1 sism.	-0.78	-0.52	-0.62	-0.87	Base interamente
compressa							
83	53	SLU A1 sism.	-0.38	-0.66	-0.74	-0.46	Base interamente
compressa							
84	53	SLU A1 sism.	-0.51	-0.79	-0.88	-0.60	Base interamente
compressa							
85	53	SLU A1 sism.	-0.93	-0.67	-0.57	-0.83	Base interamente
compressa							
86	53	SLU A1 sism.	-1.06	-0.80	-0.71	-0.97	Base interamente
compressa							
87	53	SLU A1 sism.	-0.66	-0.94	-0.84	-0.56	Base interamente
compressa							
88	53	SLU A1 sism.	-0.79	-1.07	-0.98	-0.70	Base interamente
compressa							
89	53	SLU A1 sism.	-0.66	-0.38	-0.46	-0.74	Base interamente
compressa							
90	53	SLU A1 sism.	-0.79	-0.51	-0.60	-0.88	Base interamente
compressa							
91	53	SLU A1 sism.	-0.39	-0.64	-0.73	-0.47	Base interamente
compressa							
92	53	SLU A1 sism.	-0.52	-0.78	-0.87	-0.61	Base interamente
compressa							
221	53	SLU A1 sism.	-0.70	-0.57	-0.47	-0.60	Base interamente
compressa							
222	53	SLU A1 sism.	-1.15	-1.02	-0.94	-1.07	Base interamente
compressa							
223	53	SLU A1 sism.	-0.59	-0.69	-0.59	-0.48	Base interamente
compressa							
224	53	SLU A1 sism.	-1.04	-1.14	-1.06	-0.95	Base interamente
compressa							
225	53	SLU A1 sism.	-0.41	-0.31	-0.38	-0.49	Base interamente
compressa							
226	53	SLU A1 sism.	-0.86	-0.76	-0.86	-0.96	Base interamente
compressa							
227	53	SLU A1 sism.	-0.29	-0.42	-0.50	-0.37	Base interamente
compressa							
228	53	SLU A1 sism.	-0.74	-0.87	-0.97	-0.84	Base interamente
compressa							
229	53	SLU A1 sism.	-0.69	-0.59	-0.49	-0.58	Base interamente

compressa							
230	53	SLU A1 sism.	-1.14	-1.04	-0.96	-1.05	Base interamente
compressa							
231	53	SLU A1 sism.	-0.60	-0.67	-0.57	-0.50	Base interamente
compressa							
232	53	SLU A1 sism.	-1.05	-1.12	-1.04	-0.97	Base interamente
compressa							
233	53	SLU A1 sism.	-0.39	-0.32	-0.40	-0.47	Base interamente
compressa							
234	53	SLU A1 sism.	-0.84	-0.77	-0.87	-0.94	Base interamente
compressa							
235	53	SLU A1 sism.	-0.31	-0.40	-0.48	-0.39	Base interamente
compressa							
236	53	SLU A1 sism.	-0.76	-0.85	-0.95	-0.86	Base interamente
compressa							
237	53	SLU A1 sism.	-0.69	-0.59	-0.48	-0.59	Base interamente
compressa							
238	53	SLU A1 sism.	-1.14	-1.04	-0.95	-1.06	Base interamente
compressa							
239	53	SLU A1 sism.	-0.57	-0.70	-0.60	-0.47	Base interamente
compressa							
240	53	SLU A1 sism.	-1.02	-1.15	-1.07	-0.94	Base interamente
compressa							
241	53	SLU A1 sism.	-0.42	-0.29	-0.37	-0.50	Base interamente
compressa							
242	53	SLU A1 sism.	-0.87	-0.74	-0.84	-0.97	Base interamente
compressa							
243	53	SLU A1 sism.	-0.31	-0.41	-0.49	-0.38	Base interamente
compressa							
244	53	SLU A1 sism.	-0.76	-0.86	-0.96	-0.86	Base interamente
compressa							
245	53	SLU A1 sism.	-0.67	-0.60	-0.50	-0.57	Base interamente
compressa							
246	53	SLU A1 sism.	-1.12	-1.05	-0.97	-1.04	Base interamente
compressa							
247	53	SLU A1 sism.	-0.59	-0.68	-0.58	-0.49	Base interamente
compressa							
248	53	SLU A1 sism.	-1.04	-1.13	-1.05	-0.96	Base interamente
compressa							
249	53	SLU A1 sism.	-0.40	-0.31	-0.39	-0.48	Base interamente
compressa							
250	53	SLU A1 sism.	-0.86	-0.76	-0.86	-0.95	Base interamente
compressa							
251	53	SLU A1 sism.	-0.32	-0.39	-0.47	-0.40	Base interamente
compressa							
252	53	SLU A1 sism.	-0.77	-0.84	-0.94	-0.87	Base interamente
compressa							
1	7	SLU STR.	-0.91	-0.97	-0.92	-0.87	Base interamente
compressa							
2	7	SLU STR.	-0.93	-1.00	-0.95	-0.89	Base interamente
compressa							
3	7	SLU STR.	-1.17	-1.32	-1.25	-1.11	Base interamente
compressa							
4	7	SLU STR.	-1.19	-1.34	-1.28	-1.13	Base interamente
compressa							
5	7	SLU STR.	-0.69	-0.74	-0.71	-0.66	Base interamente
compressa							
6	7	SLU STR.	-0.71	-0.77	-0.73	-0.68	Base interamente
compressa							
7	7	SLU STR.	-0.96	-1.09	-1.03	-0.90	Base interamente
compressa							
8	7	SLU STR.	-0.97	-1.12	-1.06	-0.92	Base interamente
compressa							
9	7	SLU STR.	-0.95	-1.03	-0.98	-0.90	Base interamente
compressa							
10	7	SLU STR.	-1.10	-1.21	-1.15	-1.04	Base interamente

compressa							
11	7	SLU STR.	-1.13	-1.27	-1.21	-1.07	Base interamente
compressa							
12	7	SLU STR.	-0.73	-0.80	-0.76	-0.69	Base interamente
compressa							
13	7	SLU STR.	-0.88	-0.98	-0.93	-0.83	Base interamente
compressa							
14	7	SLU STR.	-0.91	-1.04	-0.99	-0.86	Base interamente
compressa							
15	7	SLE Rare	-0.70	-0.74	-0.71	-0.67	Base interamente
compressa							
16	7	SLE Rare	-0.71	-0.76	-0.73	-0.68	Base interamente
compressa							
17	7	SLE Rare	-0.87	-0.97	-0.93	-0.83	Base interamente
compressa							
18	7	SLE Rare	-0.89	-0.99	-0.94	-0.84	Base interamente
compressa							
19	7	SLE Rare	-0.72	-0.78	-0.75	-0.69	Base interamente
compressa							
20	7	SLE Rare	-0.82	-0.90	-0.86	-0.78	Base interamente
compressa							
21	7	SLE Rare	-0.85	-0.94	-0.90	-0.80	Base interamente
compressa							
22	7	SLE Freq.	-0.70	-0.74	-0.71	-0.67	Base interamente
compressa							
23	7	SLE Freq.	-0.82	-0.90	-0.86	-0.78	Base interamente
compressa							
24	7	SLE Freq.	-0.70	-0.75	-0.72	-0.67	Base interamente
compressa							
25	7	SLE Freq.	-0.80	-0.88	-0.84	-0.76	Base interamente
compressa							
26	7	SLE Freq.	-0.81	-0.89	-0.85	-0.77	Base interamente
compressa							
27	7	SLE Quasi P.	-0.70	-0.74	-0.71	-0.67	Base interamente
compressa							
28	7	SLE Quasi P.	-0.80	-0.88	-0.84	-0.76	Base interamente
compressa							
29	7	SLU A1 sism.	-0.65	-0.64	-0.48	-0.49	Base interamente
compressa							
30	7	SLU A1 sism.	-0.82	-0.83	-0.65	-0.65	Base interamente
compressa							
31	7	SLU A1 sism.	-0.80	-0.90	-0.73	-0.64	Base interamente
compressa							
32	7	SLU A1 sism.	-0.98	-1.08	-0.90	-0.80	Base interamente
compressa							
33	7	SLU A1 sism.	-0.63	-0.68	-0.78	-0.73	Base interamente
compressa							
34	7	SLU A1 sism.	-0.81	-0.87	-0.95	-0.89	Base interamente
compressa							
35	7	SLU A1 sism.	-0.78	-0.93	-1.03	-0.88	Base interamente
compressa							
36	7	SLU A1 sism.	-0.96	-1.12	-1.20	-1.04	Base interamente
compressa							
37	7	SLU A1 sism.	-0.62	-0.61	-0.45	-0.47	Base interamente
compressa							
38	7	SLU A1 sism.	-0.80	-0.79	-0.62	-0.63	Base interamente
compressa							
39	7	SLU A1 sism.	-0.82	-0.93	-0.76	-0.66	Base interamente
compressa							
40	7	SLU A1 sism.	-1.00	-1.12	-0.93	-0.82	Base interamente
compressa							
41	7	SLU A1 sism.	-0.61	-0.65	-0.74	-0.71	Base interamente
compressa							
42	7	SLU A1 sism.	-0.78	-0.83	-0.91	-0.87	Base interamente
compressa							
43	7	SLU A1 sism.	-0.81	-0.97	-1.06	-0.90	Base interamente

compressa							
44	7	SLU A1 sism.	-0.98	-1.16	-1.23	-1.06	Base interamente
compressa							
45	7	SLU A1 sism.	-0.61	-0.58	-0.43	-0.45	Base interamente
compressa							
46	7	SLU A1 sism.	-0.79	-0.77	-0.60	-0.61	Base interamente
compressa							
47	7	SLU A1 sism.	-0.76	-0.84	-0.68	-0.60	Base interamente
compressa							
48	7	SLU A1 sism.	-0.94	-1.03	-0.85	-0.76	Base interamente
compressa							
49	7	SLU A1 sism.	-0.67	-0.73	-0.83	-0.76	Base interamente
compressa							
50	7	SLU A1 sism.	-0.84	-0.92	-1.00	-0.92	Base interamente
compressa							
51	7	SLU A1 sism.	-0.82	-0.99	-1.08	-0.91	Base interamente
compressa							
52	7	SLU A1 sism.	-0.99	-1.18	-1.25	-1.07	Base interamente
compressa							
53	7	SLU A1 sism.	-0.59	-0.55	-0.39	-0.43	Base interamente
compressa							
54	7	SLU A1 sism.	-0.77	-0.74	-0.56	-0.59	Base interamente
compressa							
55	7	SLU A1 sism.	-0.79	-0.87	-0.71	-0.62	Base interamente
compressa							
56	7	SLU A1 sism.	-0.96	-1.06	-0.88	-0.78	Base interamente
compressa							
57	7	SLU A1 sism.	-0.64	-0.70	-0.80	-0.74	Base interamente
compressa							
58	7	SLU A1 sism.	-0.82	-0.89	-0.97	-0.90	Base interamente
compressa							
59	7	SLU A1 sism.	-0.84	-1.02	-1.11	-0.93	Base interamente
compressa							
60	7	SLU A1 sism.	-1.02	-1.21	-1.28	-1.09	Base interamente
compressa							
61	7	SLU A1 sism.	-0.46	-0.35	-0.29	-0.40	Base interamente
compressa							
62	7	SLU A1 sism.	-0.64	-0.54	-0.46	-0.56	Base interamente
compressa							
63	7	SLU A1 sism.	-0.97	-1.21	-1.13	-0.89	Base interamente
compressa							
64	7	SLU A1 sism.	-1.15	-1.40	-1.30	-1.05	Base interamente
compressa							
65	7	SLU A1 sism.	-0.46	-0.37	-0.38	-0.47	Base interamente
compressa							
66	7	SLU A1 sism.	-0.63	-0.55	-0.55	-0.63	Base interamente
compressa							
67	7	SLU A1 sism.	-0.97	-1.22	-1.22	-0.97	Base interamente
compressa							
68	7	SLU A1 sism.	-1.14	-1.41	-1.39	-1.13	Base interamente
compressa							
69	7	SLU A1 sism.	-0.45	-0.34	-0.27	-0.39	Base interamente
compressa							
70	7	SLU A1 sism.	-0.63	-0.52	-0.44	-0.55	Base interamente
compressa							
71	7	SLU A1 sism.	-0.96	-1.19	-1.11	-0.88	Base interamente
compressa							
72	7	SLU A1 sism.	-1.14	-1.38	-1.28	-1.04	Base interamente
compressa							
73	7	SLU A1 sism.	-0.47	-0.38	-0.39	-0.48	Base interamente
compressa							
74	7	SLU A1 sism.	-0.64	-0.57	-0.56	-0.64	Base interamente
compressa							
75	7	SLU A1 sism.	-0.98	-1.24	-1.23	-0.98	Base interamente
compressa							
76	7	SLU A1 sism.	-1.15	-1.42	-1.40	-1.14	Base interamente

compressa							
77	7	SLU A1 sism.	-0.39	-0.24	-0.18	-0.33	Base interamente
compressa							
78	7	SLU A1 sism.	-0.56	-0.43	-0.35	-0.49	Base interamente
compressa							
79	7	SLU A1 sism.	-1.05	-1.32	-1.24	-0.96	Base interamente
compressa							
80	7	SLU A1 sism.	-1.22	-1.51	-1.41	-1.12	Base interamente
compressa							
81	7	SLU A1 sism.	-0.38	-0.25	-0.27	-0.40	Base interamente
compressa							
82	7	SLU A1 sism.	-0.56	-0.44	-0.44	-0.56	Base interamente
compressa							
83	7	SLU A1 sism.	-1.04	-1.33	-1.33	-1.03	Base interamente
compressa							
84	7	SLU A1 sism.	-1.22	-1.52	-1.50	-1.19	Base interamente
compressa							
85	7	SLU A1 sism.	-0.38	-0.23	-0.17	-0.32	Base interamente
compressa							
86	7	SLU A1 sism.	-0.55	-0.41	-0.34	-0.48	Base interamente
compressa							
87	7	SLU A1 sism.	-1.04	-1.30	-1.22	-0.95	Base interamente
compressa							
88	7	SLU A1 sism.	-1.21	-1.49	-1.39	-1.11	Base interamente
compressa							
89	7	SLU A1 sism.	-0.39	-0.27	-0.29	-0.41	Base interamente
compressa							
90	7	SLU A1 sism.	-0.57	-0.46	-0.46	-0.57	Base interamente
compressa							
91	7	SLU A1 sism.	-1.05	-1.35	-1.34	-1.04	Base interamente
compressa							
92	7	SLU A1 sism.	-1.23	-1.54	-1.51	-1.20	Base interamente
compressa							
221	7	SLU A1 sism.	-0.44	-0.44	-0.38	-0.39	Base interamente
compressa							
222	7	SLU A1 sism.	-1.02	-1.06	-0.95	-0.92	Base interamente
compressa							
223	7	SLU A1 sism.	-0.59	-0.69	-0.64	-0.53	Base interamente
compressa							
224	7	SLU A1 sism.	-1.17	-1.31	-1.20	-1.07	Base interamente
compressa							
225	7	SLU A1 sism.	-0.43	-0.45	-0.47	-0.46	Base interamente
compressa							
226	7	SLU A1 sism.	-1.02	-1.07	-1.04	-0.99	Base interamente
compressa							
227	7	SLU A1 sism.	-0.58	-0.70	-0.73	-0.61	Base interamente
compressa							
228	7	SLU A1 sism.	-1.17	-1.33	-1.29	-1.14	Base interamente
compressa							
229	7	SLU A1 sism.	-0.41	-0.40	-0.35	-0.36	Base interamente
compressa							
230	7	SLU A1 sism.	-1.00	-1.02	-0.92	-0.90	Base interamente
compressa							
231	7	SLU A1 sism.	-0.61	-0.73	-0.67	-0.55	Base interamente
compressa							
232	7	SLU A1 sism.	-1.20	-1.35	-1.24	-1.09	Base interamente
compressa							
233	7	SLU A1 sism.	-0.41	-0.41	-0.44	-0.44	Base interamente
compressa							
234	7	SLU A1 sism.	-0.99	-1.04	-1.01	-0.97	Base interamente
compressa							
235	7	SLU A1 sism.	-0.61	-0.74	-0.76	-0.63	Base interamente
compressa							
236	7	SLU A1 sism.	-1.19	-1.36	-1.33	-1.16	Base interamente
compressa							
237	7	SLU A1 sism.	-0.43	-0.42	-0.37	-0.38	Base interamente

compressa							
238	7	SLU A1 sism.	-1.01	-1.04	-0.94	-0.91	Base interamente
compressa							
239	7	SLU A1 sism.	-0.58	-0.67	-0.62	-0.52	Base interamente
compressa							
240	7	SLU A1 sism.	-1.16	-1.30	-1.19	-1.06	Base interamente
compressa							
241	7	SLU A1 sism.	-0.44	-0.46	-0.49	-0.47	Base interamente
compressa							
242	7	SLU A1 sism.	-1.03	-1.09	-1.06	-1.00	Base interamente
compressa							
243	7	SLU A1 sism.	-0.60	-0.72	-0.74	-0.62	Base interamente
compressa							
244	7	SLU A1 sism.	-1.18	-1.34	-1.31	-1.15	Base interamente
compressa							
245	7	SLU A1 sism.	-0.40	-0.38	-0.34	-0.36	Base interamente
compressa							
246	7	SLU A1 sism.	-0.99	-1.01	-0.90	-0.89	Base interamente
compressa							
247	7	SLU A1 sism.	-0.60	-0.71	-0.65	-0.54	Base interamente
compressa							
248	7	SLU A1 sism.	-1.19	-1.33	-1.22	-1.08	Base interamente
compressa							
249	7	SLU A1 sism.	-0.42	-0.43	-0.46	-0.45	Base interamente
compressa							
250	7	SLU A1 sism.	-1.01	-1.05	-1.03	-0.98	Base interamente
compressa							
251	7	SLU A1 sism.	-0.62	-0.75	-0.77	-0.64	Base interamente
compressa							
252	7	SLU A1 sism.	-1.20	-1.38	-1.34	-1.17	Base interamente
compressa							
1	9	SLU STR.	-0.89	-0.89	-0.85	-0.85	Base interamente
compressa							
2	9	SLU STR.	-0.90	-0.90	-0.86	-0.86	Base interamente
compressa							
3	9	SLU STR.	-1.10	-1.10	-1.05	-1.05	Base interamente
compressa							
4	9	SLU STR.	-1.11	-1.11	-1.06	-1.06	Base interamente
compressa							
5	9	SLU STR.	-0.67	-0.67	-0.65	-0.65	Base interamente
compressa							
6	9	SLU STR.	-0.69	-0.69	-0.66	-0.66	Base interamente
compressa							
7	9	SLU STR.	-0.88	-0.88	-0.84	-0.84	Base interamente
compressa							
8	9	SLU STR.	-0.90	-0.90	-0.86	-0.86	Base interamente
compressa							
9	9	SLU STR.	-0.91	-0.91	-0.87	-0.87	Base interamente
compressa							
10	9	SLU STR.	-1.04	-1.04	-0.99	-0.99	Base interamente
compressa							
11	9	SLU STR.	-1.06	-1.06	-1.01	-1.01	Base interamente
compressa							
12	9	SLU STR.	-0.70	-0.70	-0.67	-0.67	Base interamente
compressa							
13	9	SLU STR.	-0.82	-0.82	-0.78	-0.78	Base interamente
compressa							
14	9	SLU STR.	-0.85	-0.85	-0.81	-0.81	Base interamente
compressa							
15	9	SLE Rare	-0.68	-0.68	-0.65	-0.65	Base interamente
compressa							
16	9	SLE Rare	-0.69	-0.69	-0.66	-0.66	Base interamente
compressa							
17	9	SLE Rare	-0.82	-0.82	-0.78	-0.78	Base interamente
compressa							
18	9	SLE Rare	-0.83	-0.83	-0.79	-0.79	Base interamente

compressa							
19	9	SLE Rare	-0.69	-0.69	-0.67	-0.67	Base interamente
compressa							
20	9	SLE Rare	-0.78	-0.78	-0.74	-0.74	Base interamente
compressa							
21	9	SLE Rare	-0.79	-0.79	-0.76	-0.76	Base interamente
compressa							
22	9	SLE Freq.	-0.68	-0.68	-0.65	-0.65	Base interamente
compressa							
23	9	SLE Freq.	-0.78	-0.78	-0.74	-0.74	Base interamente
compressa							
24	9	SLE Freq.	-0.68	-0.68	-0.65	-0.65	Base interamente
compressa							
25	9	SLE Freq.	-0.76	-0.76	-0.73	-0.73	Base interamente
compressa							
26	9	SLE Freq.	-0.77	-0.77	-0.73	-0.73	Base interamente
compressa							
27	9	SLE Quasi P.	-0.68	-0.68	-0.65	-0.65	Base interamente
compressa							
28	9	SLE Quasi P.	-0.76	-0.76	-0.73	-0.73	Base interamente
compressa							
29	9	SLU A1 sism.	-0.75	-0.70	-0.47	-0.52	Base interamente
compressa							
30	9	SLU A1 sism.	-0.92	-0.87	-0.62	-0.68	Base interamente
compressa							
31	9	SLU A1 sism.	-0.66	-0.79	-0.56	-0.43	Base interamente
compressa							
32	9	SLU A1 sism.	-0.83	-0.96	-0.71	-0.58	Base interamente
compressa							
33	9	SLU A1 sism.	-0.70	-0.57	-0.75	-0.88	Base interamente
compressa							
34	9	SLU A1 sism.	-0.87	-0.74	-0.90	-1.03	Base interamente
compressa							
35	9	SLU A1 sism.	-0.60	-0.66	-0.84	-0.78	Base interamente
compressa							
36	9	SLU A1 sism.	-0.78	-0.83	-0.99	-0.94	Base interamente
compressa							
37	9	SLU A1 sism.	-0.77	-0.68	-0.45	-0.54	Base interamente
compressa							
38	9	SLU A1 sism.	-0.94	-0.85	-0.61	-0.69	Base interamente
compressa							
39	9	SLU A1 sism.	-0.64	-0.80	-0.57	-0.41	Base interamente
compressa							
40	9	SLU A1 sism.	-0.81	-0.98	-0.73	-0.57	Base interamente
compressa							
41	9	SLU A1 sism.	-0.71	-0.55	-0.73	-0.89	Base interamente
compressa							
42	9	SLU A1 sism.	-0.88	-0.72	-0.89	-1.05	Base interamente
compressa							
43	9	SLU A1 sism.	-0.59	-0.67	-0.85	-0.77	Base interamente
compressa							
44	9	SLU A1 sism.	-0.76	-0.85	-1.01	-0.92	Base interamente
compressa							
45	9	SLU A1 sism.	-0.79	-0.66	-0.43	-0.56	Base interamente
compressa							
46	9	SLU A1 sism.	-0.96	-0.83	-0.58	-0.71	Base interamente
compressa							
47	9	SLU A1 sism.	-0.70	-0.75	-0.52	-0.47	Base interamente
compressa							
48	9	SLU A1 sism.	-0.87	-0.92	-0.68	-0.62	Base interamente
compressa							
49	9	SLU A1 sism.	-0.66	-0.60	-0.78	-0.84	Base interamente
compressa							
50	9	SLU A1 sism.	-0.83	-0.78	-0.94	-0.99	Base interamente
compressa							
51	9	SLU A1 sism.	-0.57	-0.70	-0.88	-0.75	Base interamente

compressa							
52	9	SLU A1 sism.	-0.74	-0.87	-1.03	-0.90	Base interamente
compressa							
53	9	SLU A1 sism.	-0.80	-0.64	-0.41	-0.57	Base interamente
compressa							
54	9	SLU A1 sism.	-0.98	-0.81	-0.57	-0.73	Base interamente
compressa							
55	9	SLU A1 sism.	-0.68	-0.77	-0.54	-0.45	Base interamente
compressa							
56	9	SLU A1 sism.	-0.85	-0.94	-0.69	-0.61	Base interamente
compressa							
57	9	SLU A1 sism.	-0.67	-0.59	-0.77	-0.85	Base interamente
compressa							
58	9	SLU A1 sism.	-0.85	-0.76	-0.92	-1.01	Base interamente
compressa							
59	9	SLU A1 sism.	-0.55	-0.71	-0.89	-0.73	Base interamente
compressa							
60	9	SLU A1 sism.	-0.72	-0.88	-1.05	-0.89	Base interamente
compressa							
61	9	SLU A1 sism.	-0.84	-0.54	-0.46	-0.75	Base interamente
compressa							
62	9	SLU A1 sism.	-1.01	-0.72	-0.61	-0.91	Base interamente
compressa							
63	9	SLU A1 sism.	-0.53	-0.85	-0.76	-0.45	Base interamente
compressa							
64	9	SLU A1 sism.	-0.70	-1.02	-0.92	-0.60	Base interamente
compressa							
65	9	SLU A1 sism.	-0.82	-0.51	-0.54	-0.86	Base interamente
compressa							
66	9	SLU A1 sism.	-0.99	-0.68	-0.70	-1.01	Base interamente
compressa							
67	9	SLU A1 sism.	-0.52	-0.81	-0.85	-0.55	Base interamente
compressa							
68	9	SLU A1 sism.	-0.69	-0.98	-1.00	-0.71	Base interamente
compressa							
69	9	SLU A1 sism.	-0.85	-0.53	-0.45	-0.76	Base interamente
compressa							
70	9	SLU A1 sism.	-1.02	-0.70	-0.60	-0.92	Base interamente
compressa							
71	9	SLU A1 sism.	-0.54	-0.84	-0.75	-0.46	Base interamente
compressa							
72	9	SLU A1 sism.	-0.72	-1.01	-0.91	-0.61	Base interamente
compressa							
73	9	SLU A1 sism.	-0.81	-0.52	-0.55	-0.85	Base interamente
compressa							
74	9	SLU A1 sism.	-0.98	-0.69	-0.71	-1.00	Base interamente
compressa							
75	9	SLU A1 sism.	-0.50	-0.82	-0.86	-0.54	Base interamente
compressa							
76	9	SLU A1 sism.	-0.68	-0.99	-1.01	-0.70	Base interamente
compressa							
77	9	SLU A1 sism.	-0.89	-0.49	-0.40	-0.80	Base interamente
compressa							
78	9	SLU A1 sism.	-1.06	-0.66	-0.56	-0.96	Base interamente
compressa							
79	9	SLU A1 sism.	-0.48	-0.90	-0.82	-0.39	Base interamente
compressa							
80	9	SLU A1 sism.	-0.65	-1.08	-0.97	-0.55	Base interamente
compressa							
81	9	SLU A1 sism.	-0.88	-0.45	-0.49	-0.91	Base interamente
compressa							
82	9	SLU A1 sism.	-1.05	-0.62	-0.64	-1.07	Base interamente
compressa							
83	9	SLU A1 sism.	-0.46	-0.86	-0.90	-0.50	Base interamente
compressa							
84	9	SLU A1 sism.	-0.63	-1.04	-1.06	-0.65	Base interamente

compressa							
85	9	SLU A1 sism.	-0.90	-0.48	-0.39	-0.82	Base interamente
compressa							
86	9	SLU A1 sism.	-1.08	-0.65	-0.55	-0.97	Base interamente
compressa							
87	9	SLU A1 sism.	-0.49	-0.89	-0.81	-0.40	Base interamente
compressa							
88	9	SLU A1 sism.	-0.66	-1.06	-0.96	-0.56	Base interamente
compressa							
89	9	SLU A1 sism.	-0.86	-0.46	-0.50	-0.90	Base interamente
compressa							
90	9	SLU A1 sism.	-1.04	-0.63	-0.65	-1.06	Base interamente
compressa							
91	9	SLU A1 sism.	-0.45	-0.88	-0.91	-0.49	Base interamente
compressa							
92	9	SLU A1 sism.	-0.62	-1.05	-1.07	-0.64	Base interamente
compressa							
221	9	SLU A1 sism.	-0.53	-0.45	-0.38	-0.46	Base interamente
compressa							
222	9	SLU A1 sism.	-1.10	-1.02	-0.90	-0.98	Base interamente
compressa							
223	9	SLU A1 sism.	-0.44	-0.54	-0.47	-0.37	Base interamente
compressa							
224	9	SLU A1 sism.	-1.01	-1.11	-0.99	-0.89	Base interamente
compressa							
225	9	SLU A1 sism.	-0.51	-0.41	-0.47	-0.57	Base interamente
compressa							
226	9	SLU A1 sism.	-1.09	-0.98	-0.99	-1.09	Base interamente
compressa							
227	9	SLU A1 sism.	-0.42	-0.50	-0.56	-0.48	Base interamente
compressa							
228	9	SLU A1 sism.	-1.00	-1.08	-1.08	-1.00	Base interamente
compressa							
229	9	SLU A1 sism.	-0.55	-0.43	-0.37	-0.48	Base interamente
compressa							
230	9	SLU A1 sism.	-1.12	-1.01	-0.89	-1.00	Base interamente
compressa							
231	9	SLU A1 sism.	-0.42	-0.56	-0.49	-0.35	Base interamente
compressa							
232	9	SLU A1 sism.	-1.00	-1.13	-1.01	-0.87	Base interamente
compressa							
233	9	SLU A1 sism.	-0.53	-0.40	-0.45	-0.59	Base interamente
compressa							
234	9	SLU A1 sism.	-1.10	-0.97	-0.97	-1.10	Base interamente
compressa							
235	9	SLU A1 sism.	-0.41	-0.52	-0.57	-0.46	Base interamente
compressa							
236	9	SLU A1 sism.	-0.98	-1.09	-1.09	-0.98	Base interamente
compressa							
237	9	SLU A1 sism.	-0.54	-0.44	-0.37	-0.47	Base interamente
compressa							
238	9	SLU A1 sism.	-1.11	-1.01	-0.89	-0.99	Base interamente
compressa							
239	9	SLU A1 sism.	-0.45	-0.53	-0.46	-0.38	Base interamente
compressa							
240	9	SLU A1 sism.	-1.02	-1.10	-0.98	-0.90	Base interamente
compressa							
241	9	SLU A1 sism.	-0.50	-0.42	-0.48	-0.56	Base interamente
compressa							
242	9	SLU A1 sism.	-1.08	-1.00	-1.00	-1.08	Base interamente
compressa							
243	9	SLU A1 sism.	-0.41	-0.51	-0.57	-0.47	Base interamente
compressa							
244	9	SLU A1 sism.	-0.98	-1.09	-1.09	-0.99	Base interamente
compressa							
245	9	SLU A1 sism.	-0.56	-0.42	-0.35	-0.49	Base interamente

compressa							
246	9	SLU A1 sism.	-1.13	-1.00	-0.87	-1.01	Base interamente
compressa							
247	9	SLU A1 sism.	-0.43	-0.55	-0.48	-0.37	Base interamente
compressa							
248	9	SLU A1 sism.	-1.01	-1.12	-1.00	-0.89	Base interamente
compressa							
249	9	SLU A1 sism.	-0.52	-0.41	-0.46	-0.57	Base interamente
compressa							
250	9	SLU A1 sism.	-1.09	-0.98	-0.98	-1.09	Base interamente
compressa							
251	9	SLU A1 sism.	-0.40	-0.53	-0.59	-0.45	Base interamente
compressa							
252	9	SLU A1 sism.	-0.97	-1.10	-1.10	-0.97	Base interamente
compressa							

Pressione massima = -1.65 daN/cm² (Cmb. n. 62 Plinto n. 29)

VERIFICHE DEL PLINTO

Nota: Le verifiche SLU per le cmb. di tipo sism. sono ottenute con sollecitazioni amplificate per $\gamma_{RD} = 1.10$ (7.2.5 NTC)

Verifica della base di fondazione.

Copri ferro = 4.0 cm

Sezioni maggiormente sollecitate: tangenti alla sagoma del pilastro.

Direzione X.

Tipo sezione: rettangolare (B = 450.0 H = 100.0)

Sezioni verifiche: Sez.1-1 (x = 50.0), Sez.2-2 (x = -50.0)

Armatura inferiore = 46.24 cm² (23 Ø 16)

Armatura superiore = 24.13 cm² (12 Ø 16)

Sez. 1-1 (x = 50.0)

Risultato Med/Mu più gravoso nel plinto n. 29 in Cmb. 62 (SLU A1 sism.)

Med = 8419701.0 daN cm, Mu = 16378310.0 daN cm, Med/Mu = 0.514 < 1 Ok

Sez. 2-2 (x = -50.0)

Risultato Med/Mu più gravoso nel plinto n. 29 in Cmb. 62 (SLU A1 sism.)

Med = 8049745.0 daN cm, Mu = 16378310.0 daN cm, Med/Mu = 0.491 < 1 Ok

Direzione Y.

Tipo sezione: rettangolare (B = 450.0 H = 100.0)

Sezioni verifiche: Sez.3-3 (y = 40.0), Sez.4-4 (y = -40.0)

Armatura inferiore = 46.24 cm² (23 Ø 16)

Armatura superiore = 24.13 cm² (12 Ø 16)

Sez. 3-3 (y = 40.0)

Risultato Med/Mu più gravoso nel plinto n. 29 in Cmb. 62 (SLU A1 sism.)

Med = 10144990.0 daN cm, Mu = 16378310.0 daN cm, Med/Mu = 0.619 < 1 Ok

Sez. 4-4 (y = -40.0)

Risultato Med/Mu più gravoso nel plinto n. 25 in Cmb. 72 (SLU A1 sism.)

Med = 10127200.0 daN cm, Mu = 16378310.0 daN cm, Med/Mu = 0.618 < 1 Ok

Punzonamento:

Verifica a punzonamento non necessaria, in quanto il perimetro critico risulta maggiore delle dimensioni della base del plinto.

2. RELAZIONE DI CALCOLO ELEMENTI PRECOMPRESSI

TRAVI PRECOMPRESSE PRIMO SOLAIO T ROVESCIA – VERIFICA STATICA

EISEKO - TRAVI RTL-T-I versione 19.00.00

Eiseko Computers

Viale del Lavoro 17 - 37036 - S.Martino B.A. (Verona)

Tel: 045 8031894 - Fax: 045 8044652 - E-mail : info@eiseko.com - Web: www.eiseko.com

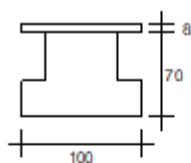
-

RELAZIONE IN ESERCIZIO

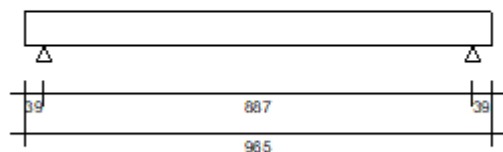
PROGETTO: trave spina T rovescia primo solaio.txt

Nome Trave: TI ROVESCIO

Data : 01/04/2021 Ora : 10:18:13



SCHEMA STATICO



La trave in oggetto è precompressa con il sistema a trefoli aderenti. Il calcolo è stato eseguito secondo

NTC 17 - Gennaio - 2018 e secondo L'Eurocodice 2 UNI EN 1992-1-1 : 2005 per quanto consentito da NTC 17/1/18

N.B.: Nel calcolo il segno - indica trazione. I Newton sono ricavati col rapporto 10 anzichè 9.81 anche nei valori riferiti

agli Acciai lenti.

Si considera un ambiente NORMALE

XC1: Interno edifici con bassa umidità

1) SCHEMA STATICO :

	Altezza Trave	H = 70.00	cm
	Larghezza Anima	An = 60.00	cm
Trave su due appoggi :	Luce di calcolo	LC = 8.87	m
	Sbalzo sinistro	Ss = 0.39	m
	Sbalzo destro	Sd = 0.39	m
	Lunghezza totale	L = 9.65	m

Il calcolo viene distinto in due fasi :

1a Fase : Reagisce la sola Trave precompressa.

2a Fase : Reagisce la Trave precompressa + il getto collaborante.

2) ANALISI DEI CARICHI :

1a Fase

Peso proprio Trave:	G1 = 13.50	kN/m
Carichi permanenti pienamente definiti:	G1 = 46.19	kN/m

2a Fase

Carichi permanenti pienamente definiti:	G1 = 0.00	kN/m
Carichi permanenti non pienamente definiti:	G2 = 9.16	kN/m
Carichi accidentali dominanti:	Qk1 = 22.89	kN/m

Coeff. Stato limite ultimo Pesi propri e permanenti gamma-G1 = 1.30

Coeff. Stato limite ultimo Permanenti non definiti gamma-G2 = 1.50

Coeff. Stato limite ultimo carichi accidentali gamma-Qk1-Qk2 = 1.50

CATEGORIA SOVRAC. ACCIDENTALI DOMINANTI

C: Ambienti suscettibili di affollamento

Coeff.	comb.frequente	Coeff. Psi11	comb.frequente	0.70
Coeff.	quasi perm.	Coeff. Psi12	quasi perm	0.60

3) TAGLI E REAZIONI AGLI APPOGGI :

Taglio sinistro comb.Rara	VraraS =406.87	kN
Taglio appoggio sinistro comb. ultima	VEdS =557.36	kN
Taglio appoggio destro comb.Rara	VraraD =406.87	kN
Taglio appoggio destro comb. ultima	VEdD =557.36	kN
Reazione appoggio sinistro comb.Rara	RraraS =442.65	kN
Reazione appoggio sinistro comb. ultima	REdS =606.37	kN
Reazione appoggio destro comb.Rara	RraraD =442.65	kN
Reazione appoggio destro comb. ultima	REdD =606.37	kN

4) MATERIALI :

Calcestruzzo:

Classe cemento	=	N	
Coeff. s (3.1.2 (6) EC2)	s =	0.25	
Resistenza caratt. cubica CLS Trave allo sbanco	Rckj =35.00	N/mm ²	
Resistenza caratt. cubica CLS Trave a 28gg	Rck =50.00	N/mm ²	
Coefficiente di sicurezza	gamma-c =1.4		
Resistenza caratt. cilindrica	fck = Rck x 0.83=	41.50	N/mm ²
Resistenza media a compressione	fcm = fck + 8=	49.50	N/mm ²
Resistenza di calcolo cilindrica	fcd = 0.85 x fck / gammaC=	25.20	N/mm ²
Resistenza media Traz. assiale	fctm = 0,30 x fck^(2/3)=	3.60	N/mm ²
Ecm Trave	Ecm =34.88	kN / mm ²	

Calcestruzzo getto in opera:**Trapezi Getto**

N°	Altezza (cm)	Base Inferiore (cm)	Base Superiore (cm)
1	8	100	100

Resistenza caratt. cubica CLS Getto a 28 gg	$R_{ck} = 25.00$	N/mm ²
Resistenza caratt. cilindrica ($f_{ck} = R_{ck} \times 0.83$)	$f_{ck} = 20.75$	N/mm ²
Coefficiente di sicurezza	$\gamma_c = 1.5$	
Resistenza di calcolo cilindrica $f_{cd} = f_{ck} / 1.5 \times 0.85$	$f_{cd} = 11.76$	N/mm ²
Ecm Getto	$E_{cmg} = 29.10$	kN / mm ²

Armatura di precompressione

Trefoli stabilizzati a basso rilassamento	$f_{pk} = 1860$	N/mm ²
Ep Trefoli stabilizzati	$E_p = 195.00$	kN / mm ²
Coefficiente di sicurezza	$\gamma_a = 1.15$	
	$f_{p1k} = 1670$	N/mm ²
	$f_{sd} = f_{p1k} / 1.15 = 1452$	N/mm ²
Tesatura iniziale trefoli	$\sigma_{api} = 1400$	N/mm ²

Armatura lenta

Acciaio B450C	$f_{yk} = 450.00$	N/mm ²
	$f_{yd} = f_{yk} / 1.15 = 391.30$	N/mm ²

5) CARATTERISTICHE GEOMETRICHE :**Sezione geometrica solo Trave**

Altezza Trave	$H_o = 70.00$	cm
Area Sezione	$A_o = 5400.00$	cm ²
Perimetro	$U = 340.00$	cm
Dimensione Nominale $2 \times A_o / U$	$= 31.76$	cm

Distanza baricentro da estradosso Trave	$Y'o = 39.44$	cm
Momento inerzia	$J_o = 2178318.67$	cm ⁴

Sezione con calcestruzzo e trefoli omogeneizzati

Coefficiente di omog. Ecs / Ecm	= 5.59	
Altezza Trave	$H1 = 70.00$	cm
Area omogeneizzata	$A1 = 5601.72$	cm ²
Distanza baricentro da estradosso Trave	$Y'1 = 39.87$	cm
Momento inerzia	$J1 = 2296466.02$	cm ⁴
Modulo di resistenza superiore	$W_{s1} = 57600.87$	cm ³
Modulo di resistenza inferiore	$W_{i1} = 76215.05$	cm ³

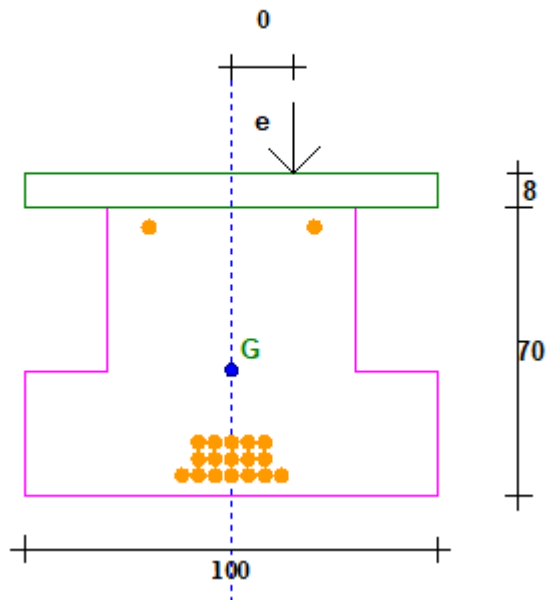
Sezione con calcestruzzo trefoli e getti

E Getto / E Trave	= 0.83	
Altezza Trave	$H1 = 70.00$	cm
Altezza Getto	$H_g = 8.00$	cm
Area ideale trave + getto in opera	$A2 = 6269.21$	cm ²
Distanza baricentro da estradosso Trave	$Y'2 = 35.20$	cm
Momento inerzia Trave + getto	$J2 = 3447827.70$	cm ⁴
Modulo di resistenza estradosso getto	$W_g = 95658.63$	cm ³
Modulo di resistenza estradosso Trave	$W_{s2} = 97955.77$	cm ³
Modulo di resistenza intradosso Trave	$W_{i2} = 99069.25$	cm ³

6) ARMATURA DI PRECOMPRESSIONE E ARMATURA LENTA :

Trefoli

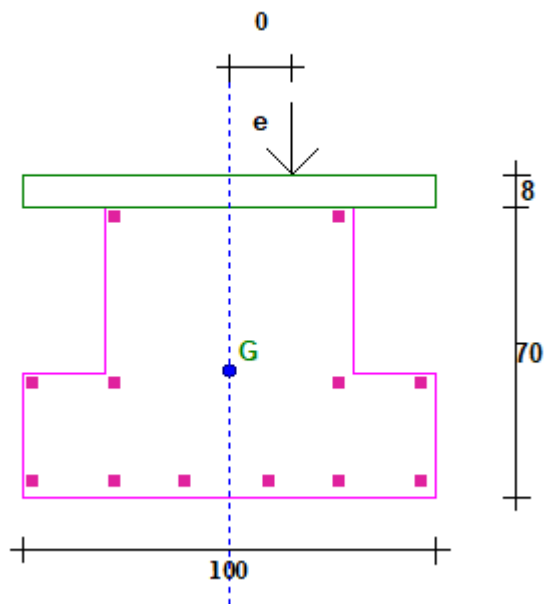
SEZIONE CON TREFOLI



N°	Y (cm)	X (cm)	Area (cm²)	Neut SX.(m)	Neut DX.(m)
1	5	38	0.93	0	0
2	5	42	0.93	0	0
3	5	46	0.93	0	0
4	5	50	0.93	0	0
5	5	54	0.93	0	0
6	5	58	0.93	0	0
7	5	62	0.93	0	0
8	9	42	0.93	0	0
9	9	46	0.93	0	0
10	9	50	0.93	0	0
11	9	54	0.93	0	0
12	9	58	0.93	0	0
13	13	42	0.93	0	0
14	13	46	0.93	0	0
15	13	50	0.93	0	0
16	13	54	0.93	0	0
17	13	58	0.93	0	0
18	65	30	0.93	0	0
19	65	70	0.93	0	0

Ferri

SEZIONE CON FERRI



N°	Y (cm)	X (cm)	Area (cm²)	Diam.(mm)	Neut SX (m)	L ferro (m)	Neut DX (m)	Lung SX (m)	Lung DX (m)
1	3	3	2.01	16	0	0	0	0	0
2	3	23	2.01	16	0	0	0	0	0
3	3	40	2.01	16	0	0	0	0	0
4	3	60	2.01	16	0	0	0	0	0
5	3	77	2.01	16	0	0	0	0	0
6	3	97	2.01	16	0	0	0	0	0
7	27	3	2.01	16	0	0	0	0	0
8	27	23	2.01	16	0	0	0	0	0
9	27	77	2.01	16	0	0	0	0	0
10	27	97	2.01	16	0	0	0	0	0
11	67	23	2.01	16	0	0	0	0	0

7) ANALISI DELLE CADUTE DI TENSIONE :

Le cadute sono calcolate nella sezione di max sollecitazione a m 4.83 dall' estremo sx della Trave

Sollecitazioni iniziali di precompressione :

Area totale trefoli = 17.67 cm²

Distanza Baric. trefoli da lembo Inf. Trave = 14.47 cm

Tesatura iniziale	=	1400.00	N/mm ²
Perdita al martinetto 1.500 % tesatura iniziale	=	21.00	N/mm ²
Perdite per ritiro con maturazione vapore (6 giorni)	=	7.36	N/mm ²
Perdite per Rilassamento con maturazione a vapore	=	13.30	N/mm ²
Precompressione iniziale nei Trefoli	Sigma-0 =	1358.34	N/mm ²
Sforzo di precompressione iniziale	No =	2400.19	kN
Momento di precompressione iniziale	Mo =	37579.46	kNcm

Le perdite dipendenti dal tempo sono calcolate con la formula:

$$\frac{ecs \times Ep + 0.8 \times Dsigmapr + Ep/Ecm \times Fi(t,to) \times Sigmacqp}{(1 + Ep/Ecm \times Ap/Ac \times (1 + Ac/Jc \times Zcp^2) \times (1 + 0.8 \times Fi(t,to)))}$$

$$Dspcsr = \quad (5.46 \text{ EC2})$$

$$(1 + Ep/Ecm \times Ap/Ac \times (1 + Ac/Jc \times Zcp^2) \times (1 + 0.8 \times Fi(t,to)))$$

ecs x Ep = deformazione per ritiro x Ep	=	78.00	N/mm ²
Ep = Modulo elasticità acciaio armonico	=	195.00	kN / mm ²
Dsigmapr =variazione tensione per rilassamento nel Bar. Trefoli Inf. =		60.62	N/mm ²
Rilassamento Trefoli dopo mille ore	=	2.50	%
Ep / Ecm = rapporto moduli acciaio/ CLS	=	5.59	
Fi(t,to) = Coeff. di Viscosità a tempo infinito	=	2.12	
% vapore aria durante la maturazione	=	60.00	%
Scqp = Tensione nel Bar. Trefoli (precom.+azioni quasi permanenti) =		0.97	N/mm ²
Ap - Ac - Jc vedere nelle caratteristiche geometriche e sopra			
Zcp = Distanza tra Bar. Trefoli e bar. Trave	=	15.66	cm
Perdite dipendenti dal tempo nell' acciaio	Dspcsr =	107.29	N/mm ²
Sigma di precompressione finale nei trefoli	Sigma0 - Dspcsr =	1251.05	N/mm ²

8) VERIFICA ALLO STATO LIMITE DI ESERCIZIO :

Distanza di massima sollecitazione dall' estremo sinistro della Trave: $X = 4.44\text{m}$

Sforzo di precompressione finale	$N_f = 2210.61$	kN
Momento di precompressione finale	$M_f = 346.11$	kNm

Combinazione di carichi quasi permanente.

Coefficiente per combinazione quasi permanente	$\psi_{21} = 0.60$	
Momento del Peso Proprio e Sovracc. Permanenti	$M_{pp} = 677.11$	kNm
Momento Sovraccarichi accidentali	$M_{aqp} = 135.07$	kNm
Tensione sup. ammessa $< 0.45 \times f_{ck}$ Getto in Opera	$= 9.34$	N/mm ²
Tensione Sup. ammessa $< 0.45 \times f_{ck}$ Trave	$= 18.68$	N/mm ²
Tensione inferiore ammessa $> f_{ctm} / 1.2$	$= -3.00$	N/mm ²
Tensione superiore nel getto in Opera	$= 2.35$	N/mm ²
Tensione superiore nel CLS Trave	$= 10.43$	N/mm ²
Tensione inferiore nel CLS Trave	$= -1.49$	N/mm ²

Combinazione di carichi Frequente.

Coefficiente per combinazione frequente	$\psi_{11} = 0.70$	
Momento Sovraccarichi accidentali	$M_{af} = 157.58$	kNm
Tensione inferiore per considerare sez. reagente $> f_{ctm} / 1.2$	$= -3.00$	N/mm ²
Tensione inferiore nel CLS Trave	$= -1.71$	N/mm ²

Combinazione di carichi Rara.

Momento Sovraccarichi accidentali	$M_{ar} = 225.11$	kNm
Tensione sup. ammessa nel getto $< 0.60 \times f_{ck}$ Getto in Opera	$= 12.45$	N/mm ²
Tensione Sup. ammessa $< 0.60 \times f_{ck}$ Trave	$= 24.90$	N/mm ²
Tensione superiore nel getto in Opera	$= 3.30$	N/mm ²
Tensione superiore nel CLS Trave	$= 11.35$	N/mm ²

9) VERIFICA ALLO STATO LIMITE ULTIMO

Il momento resistente è calcolato con il diagramma dell' acciaio formato da una bilatera con il punto di snervamento = $0.9 \times f_{pk} / 1.15$ e l' estremo in $f_{pk} / 1.15$.

Il diagramma del CLS con ascissa max fcd

L'ordinata max =	Ecu =3.5	o/oo
Momento di calcolo con comb. ultima	MEd =1235.94	kNm
Momento Resistente	MRd =1657.64	kNm
deve essere MRd >= MEd		
Deformazione del CalcestruzzoGetto	Dc = 3.50	o/oo
Deformazione totale acciaio	Da = 6.42	o/oo
Altezza zona compressa ($0.8 \times Y$) da lembo sup.Getto in operaYr =20.08		cm
La Trave va in collasso per rottura del CLS superiore		

10) VERIFICHE A TAGLIO NELLA SEZIONE

Sezione sull'appoggio sinistro

La sezione si considera non precompressa.

Taglio all' appoggio comb.Rara	Vrara =406.87	kN
TAGLIO di calcolo all'appoggio comb. ultima	VEd =557.36	kN
Larghezza Trave resistente a Taglio	Bw = 60.00	cm
Altezza Utile = H trave - 3cm + Hgetto	d = 75.00	cm
Angolo puntone compresso calcolato	tzeta reale =6.3	°
Angolo puntone compresso usato per il calcolo	tzeta =45.0	°
Cot Tzeta >= 1 e <= 2.5	Cot = 1.00	
Angolo asse staffe rispetto asse trave	alfa =90	°

Progetto staffe a Taglio secondo Capitoli 6.2.2 e 6.2.3 EC2

Area staffe = $VEd \cdot s / (z \cdot f_{ywd} \cdot Cot(Tzeta))$	(6.8 EC2) Asw =21.10	cm ² /m
Acciaio inferiore VEd / ($f_{yk} / 1.15$)	Asl =14.24	cm ²

Momento Traslato	MEd =188.11	kNm
Acciaio inferiore ancorato necessario	Asa =7.97	cm²
Momento Resistente con Asa	MRd =205.79	kNm
MRd >= MEd VERIFICATO		
$\rho_l = A_{sa} / (b_w * d) \leq 0.02$	(6.2.2 EC2) $\rho_l = 0.002$	≤ 0.02 VERIFICATO
$r =$		
Verifica Taglio Trazione		
$z = 0.9 * d$	$z = 67.50$	cm
$f_{ywd} = f_{yk} / 1.15$	$f_{ywd} = 391.30$	N/mm²
Taglio $V_{Rd,s} = A_{sw} * z * f_{ywd} * \cot(\alpha) / s$	(6.8 EC2) $V_{Rds} = 557.36$	kN >= VEd - VERIFICATO
Area staffe max ammessa VERIFICATO	(6.12 EC2) $A_{sw,max} = 96.66$	cm²/m >= A_{sw} -
Verifica Taglio Compressione		
$V_{rd,max} = (A_{facw} * b_w * z * \rho_{l1} * f_{cd} / (\cot(\alpha) + \tan(\alpha)))$	(6.9 EC2) $V_{rd,max} = 2553.18$	kN >= VEd - VERIFICATO
dove $A_{facw} =$	$\alpha - \alpha_w = 1.00$	
dove $\rho_{l1} = 0.6 * (1 - f_{ck}/250)$	(6.6N EC2) $\rho_{l1} = 0.50$	
Verifica Puntone $K_a * b_w * d * \rho_{l1} * f_{cd}$	(6.5 EC2) $= 2836.87$	kN >= VEd - VERIFICATO
dove $K_a = 0.5 - 0.1552 * (\cot(\alpha) - 1) / (2.5 - 1)$	0.500	
$\rho_{l1} = 0.6 * (1 - f_{ck}/250)$	(6.6N EC2) $\rho_{l1} = 0.50$	
Verifica Staffe emergenti		
TAGLIO di seconda fase comb. ultima	$V_{Ed2} = 213.21$	kN
$V_{Edi} = \beta * V_{Ed2} / (z * b_i)$	(6.24 EC2) $V_{Edi} = 0.32$	N/mm²
dove $\beta =$ Rapporto tra contributo getto e trave	$= 0.614$	
dove $b_i =$ larghezza superficie tra trave e getto	$b_i = 60.00$	cm
$V_{Rdi} = c * f_{ctd}$ (SENZA STAFFE)	(6.25 EC2) $V_{Rdi} = 0.42$	N/mm²
Dove f_{ctd} CLS getto in opera	$f_{ctd} = 1.06$	N/mm²
Superficie Trave-Getto Scabra $c = 0.40$		

essendo $V_{Rd} > V_{Ed}$ senza tener conto di staffe sporgenti

Non c'è bisogno di staffe sporgenti

11) VERIFICHE A FLESSIONE E TAGLIO NELLE SEZIONI INIZIALI PRECOMPRESSE

Sezione 1 a metri .41 dal punto d' appoggio.

Momento dovuto al solo PP	$M_{pp} = 23.41$	kNm
SIGMA allo sbanco nei trefoli	$= 1358.34$	N/mm ²
Allo sbanco e con il solo peso della Trave. Calcolo a rottura per sollecitazione minima.		
Distanza da bordo inf. ultima dello Sforzo N	$D_{su} = 5.66$	cm
Distanza Sforzo N + M_{pp}/N	$D_{si} = 15.40$	cm > D_{su}
Sigma al lembo sup. Trave allo sbanco	$= -1.83$	N / mm ²
Cadute di tensione Finali nei trefoli	$= 214.64$	N / mm ²
Sigma di precompressione finale nei trefoli	$= 1185.36$	N/mm ²
Sforzo di precompressione finale	$N_{sd} = 2094.53$	kN

A tempo infinito e con i soli carichi permanenti :

M per peso proprio e carichi permanenti	$M_{pp} = 119.41$	kNm
Momento di Decompressione	$M_{de} = 646.28$	kNm

> 0

Momento di calcolo della Trave	$M_{Ed} = 217.95$	kN x m ²
Momento Resistente	$M_{Rd} = 1656.59$	kN x m ²

Deve essere $M_{Rd} \geq M_{Ed}$

VERIFICA A TAGLIO

TAGLIO nella sezione in Comb. rara	$V_{sdo} = 369.25$	kN
Larghezza minima sezione Trave	$b_w = 60.00$	cm
TAGLIO di calcolo comb. ultima	$V_{Ed} = 505.83$	kN

TAGLIO PORTATO DA TRAVE SENZA BISOGNO STAFFE	$V_{rdc} = 973.35$	kN $\geq V_{Ed}$
--	--------------------	------------------

FORMULA UTILIZZATA : $l \times B_w / S \times \sqrt{f_{ctd}^2 + 1 \times \sigma_{bar} \times f_{ctd}}$

Dove I = Momento inerzia Trave + getto $J_i = 3447827.70$ cm^4

B_w = larghezza nel baricentro trave sopra riportata

S = Momento statico parte trave sup. baricentro rispetto baricentro $= 64236.02$ cm^3

Sigma nel baricentro trave + getto 3.28 N/mm^2

$F_{ctd} = F_{ctm} \times 0,7 / \gamma_{mac}$ $F_{ctd} = 1.80$ N/mm^2

Essendo $V_{rdc} > \text{Taglio ultimo pongo staffatura minima}$ Area staffe/m $= 9.00$ cm^2/m

Verifica Staffe emergenti

TAGLIO di seconda fase comb. ultima $V_{Ed2} = 193.50$ kN

$V_{Edi} = \beta \times V_{Ed2} / (z \times b_i)$ (6.2.5 (6.24) EC2) $= 0.43$ N/mm^2

dove β (6.2.5 EC2) $= 1.000$

dove b_i tra trave e getto $= 60.00$ cm

$V_{Rdi} = C_i \times f_{ctd} + \mu \times \sigma_N$ (6.2.5 EC2) $= 0.71$ $\text{N/mm}^2 > V_{Edi}$ - VERIFICATO

σ_N = Tensione sull'interfaccia $= 0.41$ $\text{N/mm}^2 > V_{Edi}$ - VERIFICATO

$V_{rdi} > V_{Edi}$ Non sono necessarie staffe emergenti

Superficie di contatto Trave-Getto $=$

$c = 0.40$ $\mu = 0.7$ (6.2.5(2)EC2)

12) DEFORMABILITA' DELLA TRAVE

Le Frecce sono calcolate nella sezione a m 4.83 dall' estremo sx della Trave

Altezza Trave $= 70.00$ cm

Frecce provocate dalla storia di carico della Trave :

+ Freccia verso il basso

- Freccia verso l' alto

Luce di calcolo Frecce $= 8.87$ m

Calcestruzzo inizio precompressione $R_{ck}' = 35.00$ N/mm^2

E iniziale Teorica $E' = 32.810$ kN/mm^2

Momento inerzia Trave $J_i = 2305679$ cm^4

Freccia per precompressione iniziale	$f1 = -0.488$	cm
Freccia per peso proprio trave	$f2 = 0.144$	cm
Freccia allo sbanco Totale	$f1+f2 = -0.344$	cm

FRECCIA ISTANTANEA IN ESERCIZIO

Si considerano agenti tutti i carichi

Calcestruzzo allo stadio finale	$R_{ck} = 50.00$	N/mm ²
E Teorica	$= 34.880$	kN/mm ²
Momento inerzia Trave in mezzeria	$J_t = 2296741$	cm ⁴
Momento inerzia Trave + getto in mezzeria	$J_g = 3448155$	cm ⁴
Freccia per precompressione	$f3 = -0.461$	cm
Freccia dovuta a tutti i carichi permanenti	$f4 = 0.600$	cm
Freccia Finale carichi permanenti pien. definiti = $f3+f4$	$f_p = 0.140$	cm
Freccia totale istantanea per tutti i carichi	$f_t = 0.354$	cm

FRECCIA IN ESERCIZIO A LUNGO TERMINE

Si considera la combinazione di carico quasi permanente

$F_i(t,t_0)$ = Coeff. di Viscosità a tempo inf.	2.125	
e quindi Coefficiente di omog. E acciaio / E efficace		
E efficace = $(E \text{ Teorica} / (1 + F_i(t,t_0))) \cdot (7.4.3 (7.20) EC2)$	11.163	kN/mm ²
e quindi Coefficiente di omog. E acciaio / E efficace	18.812	
Momento inerzia Trave in mezzeria	$J_f = 2592085$	cm ⁴
Momento inerzia Trave + getto in mezzeria	$J_{fg} = 3805380$	cm ⁴
Freccia per precompressione finale	$f1 = -1.164$	cm
Freccia a lungo termine per carichi comb. quasi perm.	$f_d = 2.096$	cm
Freccia tot. a lungo termine in comb quasi permanente $f_{dt} = f1+f_d$	$f_{dt} = 0.932$	cm
Luce di calcolo Frecce / 250	$L_c/250 = 3.548$	cm
Freccia tot. a lungo termine VERIFICATO	$f_{dt} = 0.932$	cm \leq Luce/250 -

13) RIENTRO TREFOLI IN TESTATA TRAVE

Il rientro è calcolato con la formula EN 13369:2004 (E)

Posto fbpt = $3.2 \times 0.7 \times f_{ctmj} / \text{GammaC (8.15 EC2)}$	=	4.54	N/mm ²
Lpt2= $1.2 \times L_{pt} = 1.2 \times 0.19 \times \text{Dia} \times \text{Sigmai/fbpt (8.18 EC2)}$	=	762.46	mm
Rientro medio $0.4 \times L_{pt2} \times \text{Sigmai} / E_p = D_{Lo}$	=	2.16	mm
Rientro max = $D_{Lo} \times 1.3$ (4.2.3.2.4 EN 13369)	=	2.80	mm

14) ARMATURA ZOCCOLO E SOSPENSIONE

Sporgenza zoccolo	SP =20.00	cm
Altezza zoccolo	HA =30.00	cm
Carico distribuito ultimo sullo zoccolo	P = 54.06	kN/m
Asse appoggio $a=2 \cdot SP / 3$ da filo anima	a = 13.33	cm
Momento flettente ultimo $M=P \cdot a$ a filo anima	M = 720.81	kNcm
Acciaio estradosso zoccolo $M / [0.9(HA-3)f_{yd}]$	= 0.76	cm ² / m
Acciaio a sospensione su due lati $2P/f_{yd}$	= 2.76	cm ² / m
Staffe correnti: min. $0.15b_w = 9 >$ sospensione $2.76 =$	9.00	cm ² / m

TRAVI PRECOMPRESSE PRIMO SOLAIO T ROVESCIA – VERIFICA SISMA VERTICALE

EISEKO - TRAVI RTL-T-I versione 19.00.00

Eiseko Computers

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RELAZIONE SISMICA

PROGETTO: trave spina T rovescia primo solaio.txt

Nome Trave: TI ROVESCIO

Data : 01/04/2021 Ora : 10:18:13

La trave in oggetto è verificata allo stato limite di Danno ed allo stato limite Vita secondo NTC 17 - Gennaio - 2018

e secondo l'Eurocodice 2 UNI EN 1992-1-1 nella versione 2005 e solo per quanto consentito da NTC 17/1/18

NB: Nel calcolo il segno - indica trazione. I Newton sono ricavati col rapporto 10 anzichè 9.81 anche nei valori riferiti

agli Acciai.

Località dove è posta la trave MODENA (MO)

Latitudine	=	44.6343	°
Longitudine	=	10.8138	°
Classe d'uso	=	III	
VITA Nominale della Trave	VN =	50	anni
Coefficiente d'uso	Cu =	1.5	
1.5 = Edifici importanti in relazione alle conseguenze di un collasso			
PERIODO di Riferimento VN x Cu	VR =	75	anni

Dati Ricavati da NTC 17.01.2018

° STATO LIMITE DI DANNO

Fo = fattore che quantifica l'amplificazione spettrale max. = 2.480

T*c = periodo d'inizio tratto a velocità spettrale costante	= 0.280	s
ag = accelerazione max al sito	ag = 0.072	m/s ²
Coeff. Stato Limite di Danno SLD	Pvr = 0.63	

° **STATO LIMITE SALVAGUARDIA VITA**

Fo = fattore che quantifica l'amplificazione spettrale max. = 2.430

T*c = periodo d'inizio tratto a velocità spettrale costante	= 0.290	s
ag = accelerazione max al sito	ag = 0.190	m/s ²
Coeff. Stato Limite Vita SLV	Pvr = 0.10	

° **ALTRI COEFFICIENTI UTILIZZATI**

Fattore di Struttura Car. Verticali	= 1.50
Fattore di Struttura Car. Orizzontali	= 2.00
Categoria Topografica	= T1
Categoria SOTTOSUOLO	= C

° **Massa sismica per scarico sismico verticale e orizzontale**

Massa Sismica: (Pp + G1 + G2 + Qk1 x psi21) / 981	8.418	Kg-massa/m
Primo periodo di Vibrazione per car. verticali :	T1 = 0.1326	s

° **STATO LIMITE DI DANNO**

Spettro di risposta carichi verticali:	Sve(T1)=0.07	m/s ²
Carico sismico verticale:	E = 5.38	kN/m
Comb. di calcolo E+G1+G2+Psi21*Qk1	QE = 87.96	kN/m

° **STATO LIMITE SALVAGUARDIA VITA**

Spettro di risposta carichi verticali:	Sve(T1)=0.18	m/s ²
Carico sismico verticale:	E = 14.96	kN/m
Comb. di calcolo E+G1+G2+Psi21*Qk1	QE = 97.55	kN/m

° **Massa Sismica per carico sismico verticale negativo**

Massa Sismica: $(P_p + G_1) / 981$ = 6.085 Kg-massa/m

Periodo Vibrazione per car. verticali negativi: 0.1127 s

° **STATO LIMITE DI DANNO**

Spettro di risposta carichi verticali neg.: = 0.07 m/s^2

Carico sismico verticale negativo: $E = 3.89$ kN/m

Comb. di calcolo -E+G1 $QE = 55.80$ kN/m

° **STATO LIMITE SALVAGUARDIA VITA**

Spettro di risposta carichi verticali neg.: 0.18 m/s^2

Carico sismico verticale negativo: $E = 10.82$ kN/m

Comb. di calcolo -E+G1 $QE = 48.87$ kN/m

1) MATERIALI :

Resistenza caratt. cilindrica CLS a 28gg $f_{ck} = 41.50$ N/mm²

Tensione Sup. max sismica $< 0.70 \times f_{ck}$ Trave = 29.05 N/mm²

Tensione inferiore sismica ammessa $> f_{ctm} \times 1.3$ = -4.67 N/mm²

Calcestruzzo getto in opera:

Tensione Sup. max sismica $< 0.70 \times f_{ck}$ CLS getto = 14.53 N/mm²

2) VERIFICA ALLO STATO LIMITE DI DANNO :

Sforzo di precompressione finale $N_f = 2210.61$ kN

Momento di precompressione finale $M_f = 346.13$ kNm

Combinazione di carichi quasi permanente.

Coeff. quasi perm. Coeff. Ψ_{i2} quasi perm 0.60

Momento per combinazione quasi permanente $M_{qp} = 812.18$ kNm

Momento Sismico verticale $MS_{vd} = 52.87$ kNm

Tensione superiore nel getto in Opera = 2.91 N/mm²

Tensione superiore nel CLS Trave	=	10.97	N/mm ²
Tensione inferiore nel CLS Trave	=	-2.02	N/mm ²
Verifica allo sforzo sismico verticale negativo.			
Momento soli carichi permanenti	Mpp =	587.03	kNm
Momento Negativo per sisma	MSnegd =	-38.22	kNm
Tensione superiore nel CLS Trave	=	8.52	N/mm ²
Tensione inferiore nel CLS Trave	=	0.40	N/mm ²

3) VERIFICA ALLO STATO LIMITE VITA :

Distanza di massima sollecitazione dall' estremo sinistro della Trave : X =4.44m

Combinazione di carichi quasi permanente.	=		
Momento per combinazione quasi permanente	Mqp =	812.18	kNm
Momento Sismico verticale	MaSvv =	147.17	kNm

Il momento resistente è calcolato con il diagramma dell' acciaio formato da una bilatera con il punto di snervamento = $0.9 \times f_{pk} / 1.15$ e l' estremo in $f_{pk} / 1.15$.

Il diagramma del CLS con ascissa max fcd

L'ordinata max =	Ecu =	3.5	o/oo
Momento simico SLV	Mslv =	959.35	kNm
Momento Resistente	MRd =	1712.15	kNm

deve essere $MRd \geq Mslv$

Verifica allo sforzo sismico verticale negativo.

Momento soli carichi permanenti	Mpp =	587.03	kNm
Momento Negativo per sisma	MSnegV =	-106.37	kNm
Tensione superiore nel CLS Trave	=	9.21	N/mm ²
Tensione inferiore nel CLS Trave	=	-0.29	N/mm ²

4) VERIFICHE A TAGLIO NELLA SEZIONE

Sezione sull'appoggio sinistro

La sezione si considera non precompressa.

Verifica allo stato limite di danno

Taglio Totale comb. sismica (2.5.5 NTC 17.01.2018) $V_{Ed-Danno} = 390.10$ kN

Taglio di calcolo all'appoggio comb. ultima $V_{Ed} = 557.36$ kN

$V_{Ed} > V_{Ed-Danno}$ - Stato limite danno Verificato

Verifica allo stato limite Vita

Taglio Totale comb. sismica (2.5.5 NTC 17.01.2018) $V_{Ed-Vita} = 432.63$ kN

Taglio di calcolo all'appoggio comb. ultima $V_{Ed} = 557.36$ kN

$V_{Ed} > V_{Ed-Vita}$ - Stato limite Vita Verificato

5) VERIFICHE SEZIONI INIZIALI PRECOMPRESSE

Sezione 1 a metri .41 dal punto d' appoggio.

STATO LIMITE DI DANNO

Sforzo di precompressione finale $N_f = 2094.53$ kN

Momento per combinazione quasi permanente $M_{qp} = 143.23$ kNm

Momento Sismico verticale $M_{Svd} = 9.32$ kNm

Tensione superiore nel getto in Opera $= 0.51$ N/mm²

Tensione superiore nel CLS Trave $= 0.34$ N/mm²

Tensione inferiore nel CLS Trave $= 6.19$ N/mm²

Taglio Totale Carichi e Sisma $V_{Id} = 354.04$ kN

Sigma principale di Trazione $= -0.39$ N/mm²

Area staffe-verifica sismica $A_{ssi}/m = 9.00$ cm²/m

Area staffe-verifica esercizio $A_{sw}/m = 9.00$ cm²/m

Verifica allo sforzo sismico verticale negativo.

Momento soli carichi permanenti $M_{pp} = 103.52$ kNm

Momento Negativo per sisma	MSnegd =-6.74	kNm
Tensione superiore nel CLS Trave	= -0.09	N/mm ²
Tensione inferiore nel CLS Trave	= 6.62	N/mm ²

STATO LIMITE DI SALVAGUARDIA VITA

Momento comb. quasi permanente + Mom. Sismico verticale

Momento sismo SLV	Mslv =169.18	kNm
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Momento di Rottura	Mr = 1710.78	kNm
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deve essere $Mr \geq Mslv$

Taglio Totale Carichi e Sisma	Tev =392.63	kN
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TAGLIO PORTATO DA TRAVE SENZA BISOGNO STAFFE	Vrdc =973.35	kN $\geq VEd$
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Momento soli carichi permanenti definiti	Mpp =103.52	kNm
--	-------------	-----

Momento Negativo per sisma	MSnegd =-18.76	kNm
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Calcolo a rottura per sollecitazione minima.

Distanza da bordo inf. ultima dello Sforzo N	Dsu =3.27	cm
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Distanza da bordo inf. dello Sforzo N	Dss =19.28	cm
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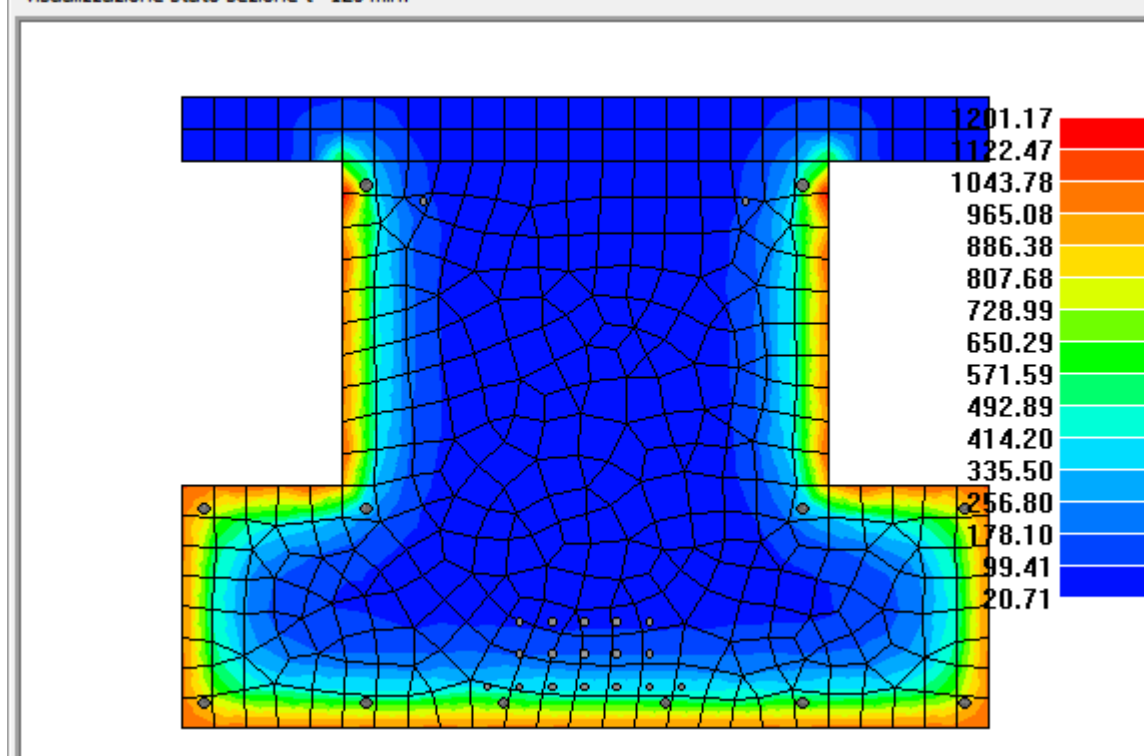
Deve essere $Dss \geq Dsu$

TRAVI PRECOMPRESSE PRIMO SOLAIO T ROVESCIA – VERIFICA DI RESISTENZA AL FUOCO

VERIFICA DI RESISTENZA AL FUOCO DELLA SEZIONE A T=120 minuti

UNI EN 1992-1-2:2005 MODELLO AVANZATO

Visualizzazione stato sezione t=120 min.



Stato	Verifica N/M	Azione N	Azione Mxx	Azione Myy	Azione Nu	Azione Muxx	Azione Muyy	Defor. C	Defor. S	x/d
Verificata	1.72	kNm	kNm	kNm	kNm	kNm	kNm	%	%	
		0.0	807.64	0.0	-1.41e-06	1387.52	0.0	-0.35	1.16	0.23

Stato	Verifica V	Azione V	Azione Vu	Area St.	fyw	Temp.	Ks(T)	CotTeta	Azione VRdmax	Azione Vrd,s
		kN	kN	cm2/m	N/mm2	C			kN	kN
Verificata	4.38	365.63	0.0	21.10	450.00	20.00	1.00	2.50	3304.22	1602.40

Figura	Materiale	Nota	Da X	Da Y	A X	A Y	Esposizione	alfa c	exp n	e res
			cm	cm	cm	cm		W/m2C		
1	Cl	Rck=50 [N/mm2]	20.00	70.00	20.00	30.00	Esposto incendio	25.00	1.00	0.56
			20.00	30.00	0.0	30.00	Esposto incendio	25.00	1.00	0.56
			0.0	30.00	0.0	0.0	Esposto incendio	25.00	1.00	0.56
			0.0	0.0	100.00	0.0	Esposto incendio	25.00	1.00	0.56
			100.00	0.0	100.00	30.00	Esposto incendio	25.00	1.00	0.56
			100.00	30.00	80.00	30.00	Esposto incendio	25.00	1.00	0.56
			80.00	30.00	80.00	70.00	Esposto incendio	25.00	1.00	0.56
			80.00	70.00	20.00	70.00	Non esposto			
2	Cl	Rck=25 [N/mm2]	20.00	70.00	80.00	70.00	Non esposto			
			80.00	70.00	100.00	70.00	Non esposto			
			100.00	70.00	100.00	78.00	Non esposto			
			100.00	78.00	0.0	78.00	Esposto aria	9.00	1.00	0.56
			0.0	78.00	0.0	70.00	Non esposto			
			0.0	70.00	20.00	70.00	Non esposto			

Ferro	pos. X	pos. Y	Temp.	Epsilon	Sigma	area	f _{yk}	Tipo	f _{ptk}	e f _{ptk}	e decomp.
	cm	cm	C	%	N/mm ²	cm ²	N/mm ²	N/mm ²			
1	23.00	67.00	514.10	-0.13	-142.79	2.01	450.00	Classe N lam.	0.0	0.0	0.0
2	77.00	67.00	515.06	-0.13	-142.50	2.01	450.00	Classe N lam.	0.0	0.0	0.0
3	3.00	27.00	827.37	0.68	36.45	2.01	450.00	Classe N lam.	0.0	0.0	0.0
4	23.00	27.00	352.52	0.68	377.90	2.01	450.00	Classe N lam.	0.0	0.0	0.0
5	77.00	27.00	347.98	0.68	379.10	2.01	450.00	Classe N lam.	0.0	0.0	0.0
6	97.00	27.00	829.17	0.68	36.14	2.01	450.00	Classe N lam.	0.0	0.0	0.0
7	3.00	3.00	825.32	1.16	41.26	2.01	450.00	Classe N lam.	0.0	0.0	0.0
8	23.00	3.00	606.44	1.16	189.42	2.01	450.00	Classe N lam.	0.0	0.0	0.0
9	40.00	3.00	636.99	1.16	158.49	2.01	450.00	Classe N lam.	0.0	0.0	0.0
10	60.00	3.00	592.45	1.16	205.98	2.01	450.00	Classe N lam.	0.0	0.0	0.0
11	77.00	3.00	623.93	1.16	171.70	2.01	450.00	Classe N lam.	0.0	0.0	0.0
12	97.00	3.00	825.93	1.16	41.13	2.01	450.00	Classe N lam.	0.0	0.0	0.0
13	38.00	5.00	402.52	1.12	746.01	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
14	42.00	5.00	398.10	1.12	764.02	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
15	46.00	5.00	401.09	1.12	751.63	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
16	50.00	5.00	401.01	1.12	751.91	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
17	54.00	5.00	399.83	1.12	756.63	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
18	58.00	5.00	397.71	1.12	765.72	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
19	62.00	5.00	395.70	1.12	774.31	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
20	42.00	9.00	177.69	1.04	1466.38	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
21	46.00	9.00	183.90	1.04	1453.94	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
22	50.00	9.00	185.16	1.04	1451.43	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
23	54.00	9.00	184.96	1.04	1451.82	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
24	58.00	9.00	184.02	1.04	1453.70	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
25	42.00	13.00	89.88	0.96	1615.28	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
26	46.00	13.00	89.09	0.96	1615.86	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
27	50.00	13.00	89.37	0.96	1615.64	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
28	54.00	13.00	90.60	0.96	1614.75	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
29	58.00	13.00	90.81	0.96	1614.59	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
30	30.00	65.00	128.35	-0.09	781.59	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
31	70.00	65.00	129.30	-0.09	780.83	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03

TRAVI PRECOMPRESSE PRIMO SOLAIO L DI BORDO – VERIFICA STATICA

EISEKO - TRAVI RTL-T-I versione 19.00.00

Eiseko Computers

Viale del Lavoro 17 - 37036 - S.Martino B.A. (Verona)

Tel: 045 8031894 - Fax: 045 8044652 - E-mail : info@eiseko.com - Web: www.eiseko.com

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RELAZIONE IN ESERCIZIO

PROGETTO: TRAVE A L BORDO PRIMO SOLAIO.txt

Nome Trave: ELLE

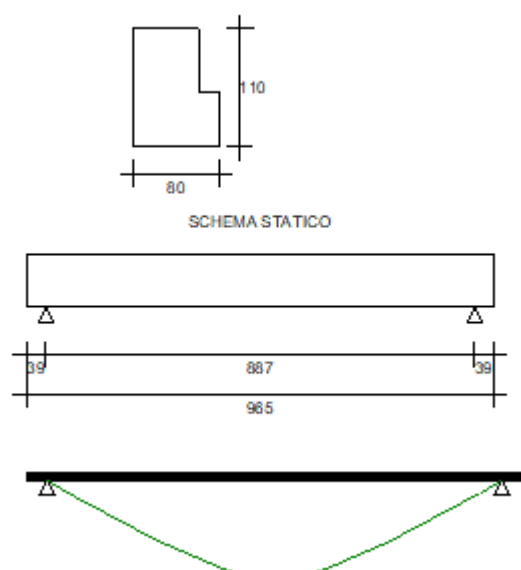
Data : 01/04/2021 Ora : 11:53:48

La trave in oggetto è precompressa con il sistema a trefoli aderenti. Il calcolo è stato eseguito secondo

NTC 17 - Gennaio - 2018 e secondo L'Eurocodice 2 UNI EN 1992-1-1 : 2005 per quanto consentito da NTC 17/1/18

N.B.: Nel calcolo il segno - indica trazione. I Newton sono ricavati col rapporto 10 anzichè 9.81 anche nei valori riferiti

agli Acciai lenti.



Si considera un ambiente NORMALE

XC1: Interno edifici con bassa umidità

1) SCHEMA STATICO :

	Altezza Trave	$H = 110.00$	cm
	Larghezza Anima	$A_n = 60.00$	cm
Trave su due appoggi :	Luce di calcolo	$LC = 8.87$	m
	Sbalzo sinistro	$S_s = 0.39$	m
	Sbalzo destro	$S_d = 0.39$	m
	Lunghezza totale	$L = 9.65$	m

2) ANALISI DEI CARICHI :

Peso proprio Trave:	$G1 = 19.00$	kN/m
Carichi permanenti pienamente definiti:	$G1 = 22.50$	kN/m
Carichi permanenti non pienamente definiti:	$G2 = 4.94$	kN/m
Altri carichi accidentali:	$Qk2 = 12.35$	kN/m

Totale:	58.79	kN/m
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Carichi Concentrati:

Carico concentrato N°	1
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Distanza da estremo sinistro :	=	4.83	m
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Carico permanente pienamente definito	G1 =	330.00	kN
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Carico concentrato accidentale dominante	Qk1 =	200.00	kN
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Percentuale da considerare a torsione dei carichi permanenti 71.6%

Percentuale da considerare a torsione dei carichi accidentali 28.6%

Coeff. Stato limite ultimo Pesi propri e permanenti	gamma-G1 =	1.30
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Coeff. Stato limite ultimo Permanenti non definiti	gamma-G2 =	1.50
--	------------	------

Coeff. Stato limite ultimo carichi accidentali	gamma-Qk1-Qk2 =	1.50
--	-----------------	------

CATEGORIA SOVRAC. ACCIDENTALI DOMINANTI

C: Ambienti suscettibili di affollamento

Coeff. comb. frequente	Coeff. Psi11 comb. frequente	0.70
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Coeff. quasi perm.	Coeff. Psi12 quasi perm	0.00
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CATEGORIA ALTRI SOVRAC. ACCIDENTALI

Altro

Coeff. comb. RARA	Coeff. Psi02 comb. rara	0.70
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Coeff. comb. frequente	Coeff. Psi12 comb. frequente	0.70
------------------------	------------------------------	------

Coeff. quasi perm.	Coeff. Psi22 quasi perm	0.60
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3) TAGLI E REAZIONI AGLI APPOGGI :

Taglio sinistro comb. Rara	VraraS =	509.30	kN
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Taglio appoggio sinistro comb. ultima	VEdS =	694.14	kN
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Taglio appoggio destro comb. Rara	VraraD =	509.30	kN
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Taglio appoggio destro comb. ultima	VEdD =	694.14	kN
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Reazione appoggio sinistro comb.Rara	$R_{raraS} = 530.79$	kN
Reazione appoggio sinistro comb. ultima	$R_{EdS} = 723.13$	kN
Reazione appoggio destro comb.Rara	$R_{raraD} = 530.79$	kN
Reazione appoggio destro comb. ultima	$R_{EdD} = 723.13$	kN

4) MATERIALI :

Calcestruzzo:

Classe cemento	=	N	
Coeff. s (3.1.2 (6) EC2)	$s =$	0.25	
Resistenza caratt. cubica CLS Trave allo sbanco	$R_{ckj} =$	35.00	N/mm ²
Resistenza caratt. cubica CLS Trave a 28gg	$R_{ck} =$	50.00	N/mm ²
Coefficiente di sicurezza	$\gamma_c =$	1.4	
Resistenza caratt. cilindrica	$f_{ck} = R_{ck} \times 0.83 =$	41.50	N/mm ²
Resistenza media a compressione	$f_{cm} = f_{ck} + 8 =$	49.50	N/mm ²
Resistenza di calcolo cilindrica	$f_{cd} = 0.85 \times f_{ck} / \gamma_c =$	25.20	N/mm ²
Resistenza media Traz. assiale	$f_{ctm} = 0,30 \times f_{ck}^{(2/3)} =$	3.60	N/mm ²
Ecm Trave	$E_{cm} =$	34.88	kN / mm ²

Armatura di precompressione

Trefoli stabilizzati a basso rilassamento	$f_{pk} =$	1860	N/mm ²
E_p Trefoli stabilizzati	$E_p =$	195.00	kN / mm ²
Coefficiente di sicurezza	$\gamma_a =$	1.15	
	$f_{p1k} =$	1670	N/mm ²
	$f_{sd} = f_{p1k} / 1.15 =$	1452	N/mm ²
Tesatura iniziale trefoli	$\sigma_{api} =$	1400	N/mm ²

Armatura lenta

Acciaio B450C	$f_{yk} =$	450.00	N/mm ²
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$$f_{yd} = f_{yk} / 1.15 = 391.30 \quad \text{N/mm}^2$$

5) CARATTERISTICHE GEOMETRICHE :

Sezione geometrica solo Trave

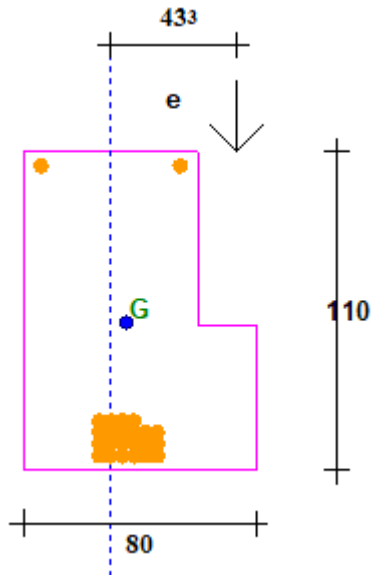
Altezza Trave	$H_o = 110.00$	cm
Area Sezione	$A_o = 7600.00$	cm ²
Perimetro	$U = 380.00$	cm
Dimensione Nominale $2 \times A_o / U$	$= 40.00$	cm
Distanza baricentro da estradosso Trave	$Y'o = 58.95$	cm
Distanza baricentro da lato sinistro Trave	$X'o = 35.32$	cm
Spessore efficace a torsione $= A_c / \text{perimetro}$	$Sp_k = 20.00$	cm
Area compresa linea media spessore a torsione	$A_k = 4200.00$	cm ²
Perimetro Area A_k	$U_k = 300.00$	cm
Momento inerzia	$J_o = 7644936.79$	cm ⁴

Sezione con calcestruzzo e trefoli omogeneizzati

Coefficiente di omog. E_{cs} / E_{cm}	$= 5.59$	
Altezza Trave	$H_1 = 110.00$	cm
Area omogeneizzata	$A_1 = 7782.86$	cm ²
Distanza baricentro da estradosso Trave	$Y'1 = 59.44$	cm
Momento inerzia	$J_1 = 7957488.30$	cm ⁴
Modulo di resistenza superiore	$W_{s1} = 133884.43$	cm ³
Modulo di resistenza inferiore	$W_{i1} = 157373.02$	cm ³

6) ARMATURA DI PRECOMPRESSIONE E ARMATURA LENTA :

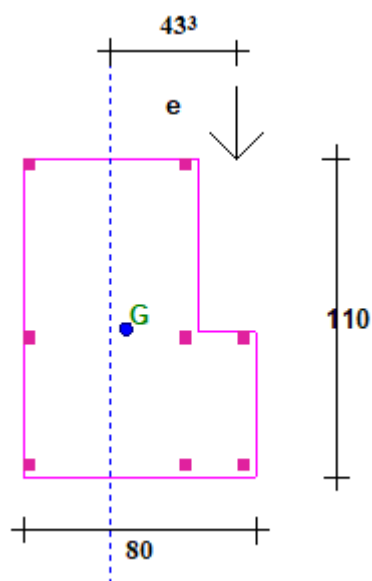
Trefoli



N°	Y (cm)	X (cm)	Area (cm ²)	Neut SX.(m)	Neut DX.(m)
1	5	26	0.93	0	0
2	5	30	0.93	0	0
3	5	34	0.93	0	0
4	5	38	0.93	0	0
5	5	42	0.93	0	0
6	5	46	0.93	0	0
7	9	26	0.93	0	0
8	9	30	0.93	0	0
9	9	34	0.93	0	0
10	9	38	0.93	0	0
11	9	42	0.93	0	0
12	9	46	0.93	0	0
13	13	26	0.93	0	0
14	13	30	0.93	0	0
15	13	34	0.93	0	0
16	13	38	0.93	0	0
17	13	42	0.93	0	0
18	13	46	0.93	0	0
19	17	26	0.93	0	0
20	17	30	0.93	0	0
21	17	34	0.93	0	0
22	17	38	0.93	0	0

23	105	6	0.93	0	0
24	105	54	0.93	0	0

Ferri



						SPEZZONI		SPEZZONI	SPEZZONI
N°	Y (cm)	X (cm)	Area (cm²)	Diam.(mm)	Neut SX (m)	L ferro (m)	Neut DX (m)	Lung SX (m)	Lung DX (m)
1	3	3	2.01	16	0	0	0	0	0
2	3	57	2.01	16	0	0	0	0	0
3	3	77	2.01	16	0	0	0	0	0
4	47	3	2.01	16	0	0	0	0	0
5	47	57	2.01	16	0	0	0	0	0
6	47	77	2.01	16	0	0	0	0	0
7	107	3	2.01	16	0	0	0	0	0

7) ANALISI DELLE CADUTE DI TENSIONE :

Le cadute sono calcolate nella sezione di max sollecitazione a m 4.83 dall' estremo sx della Trave

Sollecitazioni iniziali di precompressione :

Area totale trefoli	=	22.32	cm ²
Distanza Baric. trefoli da lembo Inf. Trave	=	18.33	cm
Tesatura iniziale	=	1400.00	N/mm ²
Perdita al martinetto 1.500 % tesatura iniziale	=	21.00	N/mm ²
Perdite per ritiro con maturazione vapore (6 giorni)	=	6.93	N/mm ²
Perdite per Rilassamento con maturazione a vapore	=	13.30	N/mm ²
Precompressione iniziale nei Trefoli	Sigma-0 =	1358.77	N/mm ²
Sforzo di precompressione iniziale	No =	3032.78	kN
Momento di precompressione iniziale	Mo =	97749.52	kNcm

Le perdite dipendenti dal tempo sono calcolate con la formula:

$$\frac{ecs \times Ep + 0.8 \times Dsigmapr + Ep/Ecm \times Fi(t,to) \times Sigmacqp}{(1 + Ep/Ecm \times Ap/Ac \times (1 + Ac/Jc \times Zcp^2) \times (1 + 0.8 \times Fi(t,to)))}$$

$$Dspcsr = \quad (5.46 \text{ EC2})$$

$$(1 + Ep/Ecm \times Ap/Ac \times (1 + Ac/Jc \times Zcp^2) \times (1 + 0.8 \times Fi(t,to)))$$

ecs x Ep = deformazione per ritiro x Ep	=	78.00	N/mm ²
Ep = Modulo elasticità acciaio armonico	=	195.00	kN / mm ²
Dsigmapr =variazione tensione per rilassamento nel Bar. Trefoli Inf. =		60.70	N/mm ²
Rilassamento Trefoli dopo mille ore	=	2.50	%
Ep / Ecm = rapporto moduli acciaio/ CLS	=	5.59	
Fi(t,to) = Coeff. di Viscosità a tempo infinito	=	2.08	
% vapore aria durante la maturazione	=	60.00	%
Scqp = Tensione nel Bar. Trefoli (precom.+azioni quasi permanenti) =		1.12	N/mm ²
Ap - Ac - Jc vedere nelle caratteristiche geometriche e sopra			

Zcp = Distanza tra Bar. Trefoli e bar. Trave	=	32.23	cm
Perdite dipendenti dal tempo nell' acciaio	Dspcsr =	108.09	N/mm ²
Sigma di precompressione finale nei trefoli	Sigma0 - Dspcsr =	1250.68	N/mm ²

8) VERIFICA ALLO STATO LIMITE DI ESERCIZIO :

Distanza di massima sollecitazione dall' estremo sinistro della Trave: X =4.44m

Sforzo di precompressione finale	Nf =	2791.51	kN
Momento di precompressione finale	Mf =	899.73	kNm

Combinazione di carichi quasi permanente.

Coefficiente per combinazione quasi permanente	psi-21 =	0.60	
Coefficiente per combinazione quasi permanente	psi-21 =	0.60	
Momento del Peso Proprio e Sovracc. Permanenti	Mpp =	1188.46	kNm
Momento Sovraccarichi accidentali	Maqp =	338.96	kNm
Tensione Sup. ammessa < 0.45 x fck Trave	=	18.68	N/mm ²
Tensione inferiore ammessa > fctm /1.2	=	-3.00	N/mm ²
Tensione superiore nel CLS Trave	=	8.28	N/mm ²
Tensione inferiore nel CLS Trave	=	-0.40	N/mm ²

Combinazione di carichi Frequente.

Coefficiente per combinazione frequente	psi-11 =	0.70	
Coefficiente per combinazione frequente	psi-11 =	0.70	
Momento Sovraccarichi accidentali	Maf =	383.31	kNm
Tensione inferiore per considerare sez. reagente > fctm / 1.2	=	-3.00	N/mm ²
Tensione inferiore nel CLS Trave	=	-0.68	N/mm ²

Combinazione di carichi Rara.

Coefficiente per combinazione rara	psi-02 =	0.70	
Momento Sovraccarichi accidentali	Mar =	528.50	kNm

Tensione Sup. ammessa $< 0,60 \times f_{ck}$ Trave	=	24.90	N/mm ²
Tensione superiore nel CLS Trave	=	9.69	N/mm ²

9) VERIFICA ALLO STATO LIMITE ULTIMO

Il momento resistente è calcolato con il diagramma dell' acciaio formato da una bilatera con il punto di snervamento $= 0.9 \times f_{pk} / 1.15$ e l' estremo in $f_{pk} / 1.15$.

Il diagramma del CLS con ascissa max fcd

L'ordinata max =	Ecu =3.5	o/oo
Momento di calcolo con comb. ultima	MEd =2347.47	kNm
Momento Resistente	MRd =2939.50	kNm
deve essere MRd \geq MEd		
Deformazione del Calcestruzzo	Dc = 3.50	o/oo
Deformazione totale acciaio	Da = 6.41	o/oo
Altezza zona compressa ($0.8 \times Y$) da lembo sup.Trave	Yr =21.54	cm
La Trave va in collasso per rottura del CLS superiore		

10) VERIFICHE A TAGLIO ED EVENTUALE TORSIONE NELLA SEZIONE

Sezione sull'appoggio sinistro

La sezione si considera non precompressa.

Taglio all' appoggio comb.Rara	Vrara =509.30	kN
TAGLIO di calcolo all'appoggio comb. ultima	VEd =694.14	kN
Eccentricità dei carichi	Ec = 43.33	cm
Percentuale a torsione dei carichi permanenti	Pp = 71.6%	
Percentuale a torsione dei carichi accidentali	Pa = 28.6%	
Momento Torcente all'appoggio comb.Rara	Tsdo =102.01	kNm

dove $T_{sdo} = V_{rara} \text{ Perman. } \cdot E_c \cdot P_p + V_{rara} \text{ Accid. } \cdot E_c \cdot P_a$

Momento Torcente comb. ultima $T_{Ed} = 136.58$ kNm

dove $T_{Ed} = V_{Ed} \text{ Perman. } \cdot E_c \cdot P_p + V_{Ed} \text{ Accid. } \cdot E_c \cdot P_a$

Larghezza Trave resistente a Taglio $B_w = 60.00$ cm

Altezza Utile = H trave - 3cm $d = 107.00$ cm

Angolo puntone compresso calcolato $\text{tzeta reale} = 6.7$ °

Angolo puntone compresso usato per il calcolo $\text{tzeta} = 45.0$ °

Cot Tzeta ≥ 1 e ≤ 2.5 $\text{Cot} = 1.00$

Angolo asse staffe rispetto asse trave $\alpha = 90$ °

Dati Geometrici desunti da 6.3.2 EC2

Spessore nominale di torsione $t = 20.00$ cm

Area nominale di torsione $A_k = 4200.00$ cm²

Perimetro nominale di torsione $U_k = 300.00$ cm

Progetto staffe a Taglio secondo Capitoli 6.2.2 e 6.2.3 EC2

Area staffe = $V_{Ed} \cdot s / (z \cdot f_{ywd} \cdot \text{Cot}(\text{Tzeta}))$ (6.8 EC2) $A_{sw} = 18.42$ cm²/m

Acciaio inferiore $V_{Ed} / (f_{yk} / 1.15)$ $A_{sl} = 17.74$ cm²

Momento Traslato $M_{Ed} = 334.23$ kNm

Acciaio inferiore ancorato necessario $A_{sa} = 8.87$ cm²

Momento Resistente con A_{sa} $M_{Rd} = 367.42$ kNm

$M_{Rd} \geq M_{Ed}$ VERIFICATO

$\rho_l = A_{sa} / (b_w \cdot d) \leq 0.02$ (6.2.2 EC2) $\rho_l = 0.001$ ≤ 0.02 VERIFICATO

$r =$

Verifica Taglio Trazione

$z = 0.9 \cdot d$ $z = 96.30$ cm

$f_{ywd} = f_{yk} / 1.15$ $f_{ywd} = 391.30$ N/mm²

Taglio $V_{Rd,s} = A_{sw} \cdot z \cdot f_{ywd} \cdot \text{Cot}(\text{tzeta}) / s$ (6.8 EC2) $V_{Rds} = 694.14$ kN $\geq V_{Ed}$ - VERIFICATO

Area staffe max ammessa (6.12 EC2) $A_{sw,max} = 96.66$ cm²/m $\geq A_{sw}$ - VERIFICATO

Verifica Taglio Compressione

$$V_{rd,max} = (A_{facw} \cdot b_w \cdot z \cdot n_1 \cdot f_{cd} / (\cot(\alpha) + \tan(\alpha))) \quad (6.9 \text{ EC2}) \quad V_{rd,max} = 3642.54 \quad \text{kN} \geq V_{Ed} - \text{VERIFICATO}$$

$$\text{dove } A_{facw} = \quad \alpha - \cot(\alpha) = 1.00$$

$$\text{dove } n_1 = 0.6 \cdot (1 - f_{ck}/250) \quad (6.6 \text{N EC2}) \quad n_1 = 0.50$$

$$\text{Verifica Puntone } K_a \cdot b_w \cdot d \cdot n_1 \cdot f_{cd} \quad (6.5 \text{ EC2}) = 4047.26 \quad \text{kN} \geq V_{Ed} - \text{VERIFICATO}$$

$$\text{dove } K_a = 0.5 - 0.1552 \cdot (\cot(\alpha) - 1) / (2.5 - 1) \quad 0.500$$

$$n_1 = 0.6 \cdot (1 - f_{ck}/250) \quad (6.6 \text{N EC2}) \quad n_1 = 0.50$$

Progetto staffe Torsione secondo 6.27 EC2

$$V_{Ed-t} = T_{Ed} \cdot z_i / (2 \cdot A_k) \quad (6.27 \text{ EC2}) \quad V_{Ed-t} = 146.34 \quad \text{kN}$$

$$\text{Dove } z_i = \text{altezza parete torsionale resistente} \quad z_i = 90.00 \quad \text{cm}$$

$$\text{Area staffe Torsione} = V_{Ed-t} \cdot s / (z \cdot f_{ywd} \cdot \cot(\alpha)) \quad A_{st} = 7.77 \quad \text{cm}^2/\text{m}$$

$$\text{Area staffe Taglio + Torsione} \quad A_{sw} + A_{st} = 26.19 \quad \text{cm}^2/\text{m}$$

$$\text{Area staffe max ammessa} \quad (6.12 \text{ EC2}) \quad A_{sw,max} = 96.66 \quad \text{cm}^2/\text{m} \geq A_{sw} - \text{VERIFICATO}$$

Progetto Ferri longitudinali secondo 6.28 EC2

$$A_{sl} = T_{Ed} \cdot U_k / (2 \cdot A_k \cdot x \cdot f_{yd}) \cdot \cot(\alpha) \quad (6.28 \text{ EC2}) \quad A_{sl} = 12.47 \quad \text{cm}^2$$

$$\text{verifica } (T_{Ed}/T_{Rd,max} + V_{Ed}/V_{Rd,max}) < 1 \quad (6.29 \text{ EC2}) = 0.32 \quad < 1 \text{ VERIFICATO}$$

$$\text{dove } T_{Rd,max} = N_i \cdot A_{facw} \cdot f_{cd} \cdot A_k \cdot t \quad (6.30 \text{ EC2}) \quad = 1059.10 \quad \text{kNm}$$

$$\text{dove } N_i = 0.6 \cdot (1 - f_{ck}/250) \quad (6.22 \text{ EC2}) \quad = 0.50$$

11) VERIFICHE A FLESSIONE TAGLIO e TORSIONE SEZ. INIZIALI PRECOMPRESSE

Sezione 1 a metri .41 dal punto d' appoggio.

$$\text{Momento dovuto al solo PP} \quad M_{pp} = 32.95 \quad \text{kNm}$$

$$\text{SIGMA allo sbanco nei trefoli} \quad = 1358.77 \quad \text{N/mm}^2$$

Allo sbanco e con il solo peso della Trave. Calcolo a rottura per sollecitazione minima.

Distanza da bordo inf. ultima dello Sforzo N	Dsu =9.32	cm
Distanza Sforzo N + Mpp/N	Dsi = 19.37	cm > Dsu
Sigma al lembo sup. Trave allo sbanco	= -3.16	N / mm ²
Cadute di tensione Finali nei trefoli	= 225.54	N / mm ²
Sigma di precompressione finale nei trefoli	= 1174.46	N/mm ²
Sforzo di precompressione finale	Nsd =2621.40	kN
A tempo infinito e con i soli carichi permanenti :		
M per peso proprio e carichi permanenti	Mpp =148.19	kNm
Momento di Decompressione	Mde =1226.78	kNm

> 0

Momento di calcolo della Trave	MEd =278.35	kN x m ²
Momento Resistente	MRd =2941.20	kN x m ²

Deve essere MRd >= MEd

VERIFICA A TAGLIO e TORSIONE

TAGLIO nella sezione in Comb. rara	Vsdo =486.72	kN
Larghezza minima sezione Trave	bw = 60.00	cm
TAGLIO di calcolo comb. ultima	VEd =663.67	kN
Momento Torcente comb. rara	Tsdo =98.45	kNm
Momento Torcente comb. ultima	TEd =131.83	kNm
VEd-t = Forza verticale di Torsione =TEd x zi /(2 x Ak) VEd-t =141.24		kNm

TAGLIO PER CARICHI E TORSIONE PORTATO DA TRAVE	Vrdc = 1352.66	kN >= VEd+VEd-t
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FORMULA UTILIZZATA : $I \times Bw / S \times \text{SQR}(fctd^2 + 1 \times \text{sigma bar.} \times fctd)$

Dove I = Momento inerzia sola trave	Ji = 7957488.30	cm ⁴
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Bw = larghezza nel baricentro trave sopra riportata

S = Momento statico parte trave sup. baricentro rispetto baricentro =107576.52 cm³

Sigma nel baricentro trave	3.37	N/mm ²
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$F_{ctd} = F_{ctm} \times 0,7 / \gamma_{mac}$	$F_{ctd} = 1.80$	N/mm ²
$V_{rdc} > V_{Ed} + V_{Ed-t}$: pongo staffatura minima	Area staffe/m = 9.00	cm ² /m

12) DEFORMABILITA' DELLA TRAVE

Le Frecce sono calcolate nella sezione a m 4.83 dall' estremo sx della Trave

Altezza Trave = 110.00 cm

Frecce provocate dalla storia di carico della Trave :

+ Freccia verso il basso

- Freccia verso l' alto

Luce di calcolo Frecce	= 8.87	m
Calcestruzzo inizio precompressione	$R_{ck}' = 35.00$	N/mm ²
E iniziale Teorica	$E' = 32.810$	kN/mm ²
Momento inerzia Trave	$J_i = 7981779$	cm ⁴
Freccia per precompressione iniziale	$f_1 = -0.367$	cm
Freccia per peso proprio trave	$f_2 = 0.058$	cm
Freccia allo sbanco Totale	$f_1 + f_2 = -0.308$	cm

FRECCIA ISTANTANEA IN ESERCIZIO

Si considerano agenti tutti i carichi

Calcestruzzo allo stadio finale	$R_{ck} = 50.00$	N/mm ²
E Teorica	= 34.880	kN/mm ²
Momento inerzia Trave in mezzeria	$J_t = 7958049$	cm ⁴
Freccia per precompressione	$f_3 = -0.346$	cm
Freccia dovuta a tutti i carichi permanenti	$f_4 = 0.293$	cm
Freccia Finale carichi permanenti pien. definiti = $f_3 + f_4$	$f_p = -0.053$	cm
Freccia totale istantanea per tutti i carichi	$f_t = 0.091$	cm

FRECCIA IN ESERCIZIO A LUNGO TERMINE

Si considera la combinazione di carico quasi permanente

$F_i(t, t_0)$ = Coeff. di Viscosità a tempo inf.	2.075	
e quindi Coefficiente di omog. E acciaio / E efficace		
E efficace = $(E \text{ Teorica} / (1 + F_i(t, t_0))) \cdot (7.4.3 (7.20) \text{ EC2})$	11.343	kN/mm ²
e quindi Coefficiente di omog. E acciaio / E efficace	18.514	
Momento inerzia Trave in mezzeria	$J_f = 8728841$	cm ⁴
Freccia per precompressione finale	$f_1 = -0.877$	cm
Freccia a lungo termine per carichi comb. quasi perm. $f_d =$	1.098	cm
Freccia tot. a lungo termine in comb quasi permanente $f_{dt} = f_1 + f_d f_{dt} =$	0.221	cm
Luce di calcolo Frecce / 250	$L_c/250 = 3.548$	cm
Freccia tot. a lungo termine VERIFICATO	$f_{dt} = 0.221$	cm \leq Luce/250 -

13) RIENTRO TREFOLI IN TESTATA TRAVE

Il rientro è calcolato con la formula EN 13369:2004 (E)

Posto $f_{bpt} = 3.2 \times 0.7 \times f_{ctmj} / \text{GammaC} (8.15 \text{ EC2})$	=	4.54	N/mm ²
$L_{pt2} = 1.2 \times L_{pt} = 1.2 \times 0.19 \times D_{ia} \times \text{Sigma}_i / f_{bpt} (8.18 \text{ EC2}) =$		762.46	mm
Rientro medio $0.4 \times L_{pt2} \times \text{Sigma}_i / E_p = D_{Lo}$	=	2.16	mm
Rientro max = $D_{Lo} \times 1.3 (4.2.3.2.4 \text{ EN 13369})$	=	2.80	mm

14) ARMATURA ZOCCOLO E SOSPENSIONE

Sporgenza zoccolo	$SP = 20.00$	cm
Altezza zoccolo	$HA = 50.00$	cm
Carico distribuito ultimo sullo zoccolo	$P = 49.63$	kN/m
Asse appoggio $a = 2 \cdot SP / 3$ da filo anima	$a = 13.33$	cm
Momento flettente ultimo $M = P \cdot a$ a filo anima	$M = 661.70$	kNcm

Acciaio estradosso zoccolo M / $[0.9(HA-3)f_{yd}]$	=	0.40	cm ² / m
Acciaio a sospensione su due lati 2P/f _{yd}	=	2.54	cm ² / m
Staffe correnti: min. 0.15bw = 9 > sospensione 2.54 =		9.00	cm ² / m

TRAVI PRECOMPRESSE PRIMO SOLAIO L DI BORDO – VERIFICA SISMA VERTICALE

EISEKO - TRAVI RTL-T-I versione 19.00.00

Eiseko Computers

Viale del Lavoro 17 - 37036 - S.Martino B.A. (Verona)

Tel: 045 8031894 - Fax: 045 8044652 - E-mail : info@eiseko.com - Web: www.eiseko.com

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RELAZIONE SISMICA

PROGETTO: TRAVE A L BORDO PRIMO SOLAIO.txt

Nome Trave: ELLE

Data : 01/04/2021 Ora : 11:53:48

La trave in oggetto è verificata allo stato limite di Danno ed allo stato limite Vita secondo NTC 17 - Gennaio - 2018

e secondo l'Eurocodice 2 UNI EN 1992-1-1 nella versione 2005 e solo per quanto consentito da NTC 17/1/18

NB: Nel calcolo il segno - indica trazione. I Newton sono ricavati col rapporto 10 anzichè 9.81 anche nei valori riferiti

agli Acciai.

Località dove è posta la trave MODENA (MO)

Latitudine = 44.6470 °

Longitudine = 10.9250 °

Classe d'uso = III

VITA Nominale della Trave VN = 50 anni

Coefficiente d'uso Cu = 1.5

1.5 = Edifici importanti in relazione alle conseguenze di un collasso

PERIODO di Riferimento VN x Cu VR = 75 anni

Dati Ricavati da NTC 17.01.2018

° **STATO LIMITE DI DANNO**

Fo = fattore che quantifica l'amplificazione spettrale max. = 2.480

T*c = periodo d'inizio tratto a velocità spettrale costante = 0.280 s

ag = accelerazione max al sito ag = 0.072 m/s²

Coeff. Stato Limite di Danno SLD Pvr = 0.63

° **STATO LIMITE SALVAGUARDIA VITA**

Fo = fattore che quantifica l'amplificazione spettrale max. = 2.430

T*c = periodo d'inizio tratto a velocità spettrale costante = 0.290 s

ag = accelerazione max al sito ag = 0.190 m/s²

Coeff. Stato Limite Vita SLV Pvr = 0.10

° **ALTRI COEFFICIENTI UTILIZZATI**

Fattore di Struttura Car. Verticali = 1.50

Fattore di Struttura Car. Orizzontali = 2.00

Categoria Topografica = T1

Categoria SOTTOSUOLO = C

° **Massa sismica per scarico sismico verticale e orizzontale**

Massa Sismica: (Pp + G1 + G2 + Qk1 x psi21 + Qk2 x psi22) / 9815.489 Kg-massa/m

NB: con Carichi concentrati il periodo è calcolato col metodo Rayleigh

Primo periodo di Vibrazione per car. verticali : T1 = 0.1012 s

° **STATO LIMITE DI DANNO**

Spettro di risposta carichi verticali: Sve(T1)=0.07 m/s²

Carico sismico verticale:	$E = 3.51$	kN/m
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Comb. di calcolo $E+G1+G2+\Psi_{21} \cdot Q_{k1}+\Psi_{22} \cdot Q_{k2}$	$Q_E = 57.36$	kN/m
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Carico conc.sismico verticale N° 1=	29.30	
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° STATO LIMITE SALVAGUARDIA VITA

Spettro di risposta carichi verticali:	$S_{ve}(T1)=0.18$	m/s ²
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Carico sismico verticale:	$E = 9.76$	kN/m
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Comb. di calcolo $E+G1+G2+\Psi_{21} \cdot Q_{k1}+\Psi_{22} \cdot Q_{k2}$	$Q_E = 63.61$	kN/m
--	---------------	------

Carico sismico conc. verticale N° 1=	81.54	kN
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° **Massa Sismica per carico sismico verticale negativo**

Massa Sismica: $(P_p + G1) / 981$	$= 4.230$	Kg-massa/m
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Periodo Vibrazione per car. verticali negativi:	0.0874	s
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° STATO LIMITE DI DANNO

Spettro di risposta carichi verticali neg.:	$= 0.07$	m/s ²
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Carico sismico verticale negativo:	$E = 2.70$	kN/m
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Comb. di calcolo $-E+G1$	$Q_E = 38.80$	kN/m
--------------------------	---------------	------

Carico concentrato verticale negativo N° 1=	21.48	
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° STATO LIMITE SALVAGUARDIA VITA

Spettro di risposta carichi verticali neg.:	0.18	m/s ²
---	------	------------------

Carico sismico verticale negativo:	$E = 7.52$	kN/m
------------------------------------	------------	------

Comb. di calcolo $-E+G1$	$Q_E = 33.98$	kN/m
--------------------------	---------------	------

Carico sismico conc. vert. negativo N° 1=	59.80	kN
---	-------	----

1) MATERIALI :

Resistenza caratt. cilindrica CLS a 28gg	$f_{ck} = 41.50$	N/mm ²
--	------------------	-------------------

Tensione Sup. max sismica $< 0.70 \times f_{ck}$ Trave	$= 29.05$	N/mm ²
--	-----------	-------------------

Tensione inferiore sismica ammessa $> f_{ctm} \times 1.3$ = -4.67 N/mm²

2) VERIFICA ALLO STATO LIMITE DI DANNO :

Sforzo di precompressione finale $N_f = 2791.51$ kN
Momento di precompressione finale $M_f = 899.74$ kNm

Combinazione di carichi quasi permanente.

Coeff. quasi perm. Coeff. Psi12 quasi perm 0.60

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Coeff. quasi perm. Coeff. Psi22 quasi perm 0.60

Momento per combinazione quasi permanente $M_{qp} = 1527.42$ kNm
Momento Sismico verticale $M_{Svd} = 99.44$ kNm
Tensione superiore nel CLS Trave = 9.02 N/mm²
Tensione inferiore nel CLS Trave = -1.03 N/mm²

Verifica allo sforzo sismico verticale negativo.

Momento soli carichi permanenti $M_{pp} = 1139.88$ kNm
Momento Negativo per sisma $M_{Snegd} = -74.21$ kNm
Tensione superiore nel CLS Trave = 4.83 N/mm²
Tensione inferiore nel CLS Trave = 2.53 N/mm²

3) VERIFICA ALLO STATO LIMITE VITA :

Distanza di massima sollecitazione dall' estremo sinistro della Trave : $X = 4.44$ m

Combinazione di carichi quasi permanente. =

Momento per combinazione quasi permanente $M_{qp} = 1527.42$ kNm
Momento Sismico verticale $M_{aSvv} = 276.77$ kNm

Il momento resistente è calcolato con il diagramma dell' acciaio formato da una bilatera con il punto di

snervamento = $0.9 \times f_{pk} / 1.15$ e l' estremo in $f_{pk} / 1.15$.

Il diagramma del CLS con ascissa max fcd

L'ordinata max =	Ecu =3.5	o/oo
Momento simico SLV	Mslv =1804.19	kNm
Momento Resistente	MRd =3022.38	kNm
deve essere $MRd \geq Mslv$		
Verifica allo sforzo sismico verticale negativo.		
Momento soli carichi permanenti	Mpp =1139.88	kNm
Momento Negativo per sisma	MSnegV =-206.55	kNm
Tensione superiore nel CLS Trave	= 3.84	N/mm ²
Tensione inferiore nel CLS Trave	= 3.37	N/mm ²

4)VERIFICHE A TAGLIO ED EVENTUALE TORSIONE NELLA SEZIONE

Sezione sull'appoggio sinistro

La sezione si considera non precompressa.

Verifica allo stato limite di danno

Taglio Totale comb. sismica (2.5.5 NTC 17.01.2018)VEd-Danno =494.02	kN
Taglio di calcolo all'appoggio comb. ultima VEd =694.14	kN
VEd > VEd-Danno - Stato limite danno Verificato	
Mom. Torcente comb. sismica (2.5.5 NTC 17.01.2018)TEd-Danno =100.11	kN
Momento Torcente comb. ultima TEd =139.64	kNm
TEd > TEd-Danno - Stato limite danno Verificato	

Verifica allo stato limite Vita

Taglio Totale comb. sismica (2.5.5 NTC 17.01.2018)VEd-Vita =547.87	kN
Taglio di calcolo all'appoggio comb. ultima VEd =694.14	kN

VEd > VEd-Vita - Stato limite Vita Verificato

Mom. Torcente comb. sismica (2.5.5 NTC 17.01.2018) TEd-Vita =106.79 kN

Momento Torcente comb. ultima TEd =139.64 kNm

TEd > TEd-Vita - Stato limite Vita Verificato

5) VERIFICHE SEZIONI INIZIALI PRECOMPRESSE

Sezione 1 a metri .41 dal punto d' appoggio.

STATO LIMITE DI DANNO

Sforzo di precompressione finale	Nf = 2621.40	kN
Momento per combinazione quasi permanente	Mqp =185.64	kNm
Momento Sismico verticale	MSvd =12.09	kNm
Tensione superiore nel CLS Trave	= -1.47	N/mm ²
Tensione inferiore nel CLS Trave	= 7.48	N/mm ²
Taglio Totale Carichi e Sisma	Vld = 470.50	kN
Momento Torcente Sismico	Ts = 79.29	kNm
Sigma principale di Trazione	= -0.79	N/mm ²
Area staffe-verifica sismica	Assi/m =9.00	cm ² /m
Area staffe-verifica esercizio	Asw/m =9.00	cm ² /m

Verifica allo sforzo sismico verticale negativo.

Momento soli carichi permanenti	Mpp =139.62	kNm
Momento Negativo per sisma	MSnegd =-9.09	kNm
Tensione superiore nel CLS Trave	= -1.97	N/mm ²
Tensione inferiore nel CLS Trave	= 7.91	N/mm ²

STATO LIMITE DI SALVAGUARDIA VITA

Momento comb. quasi permanente + Mom. Sismico verticale

Momento simico SLV Mslv =219.28 kNm

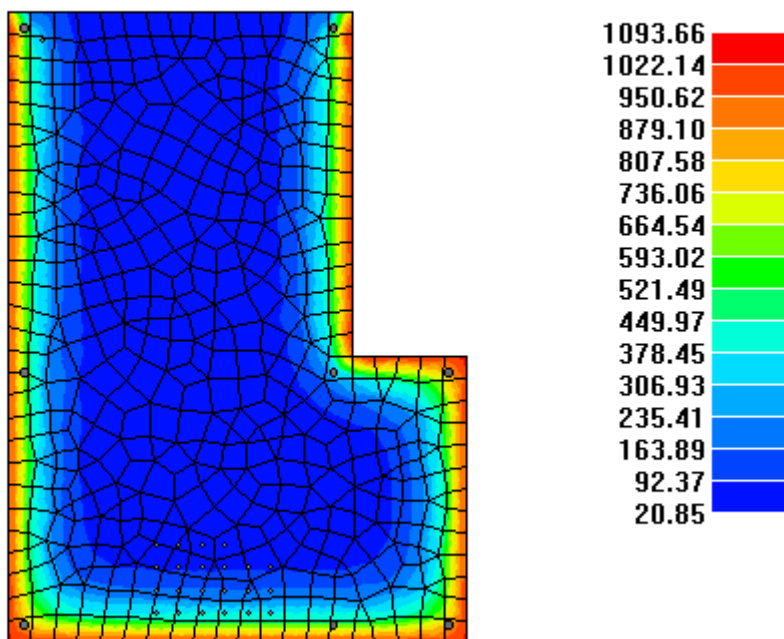
Momento di Rottura	$M_r = 3013.20$	kNm
deve essere $M_r \geq M_{slv}$		
Taglio Totale Carichi e Sisma	$T_{ev} = 521.79$	kN
Taglio indotto dalla Torsione (6.27 EC2)	$V_{Ed-t} = 135.86$	kN $\geq V_{Ed}$
TAGLIO PORTATO DA TRAVE SENZA BISOGNO STAFFE	$V_{rdc} = 1352.66$	kN $\geq V_{Ed} + V_{Ed-t}$
Momento soli carichi permanenti definiti	$M_{pp} = 139.62$	kNm
Momento Negativo per sisma	$M_{Snegd} = -25.30$	kNm
Calcolo a rottura per sollecitazione minima.		
Distanza da bordo inf. ultima dello Sforzo N	$D_{su} = 5.47$	cm
Distanza da bordo inf. dello Sforzo N	$D_{ss} = 23.02$	cm
Deve essere $D_{ss} \geq D_{su}$		

TRAVI PRECOMPRESSE PRIMO SOLAIO L DI BORDO – VERIFICA RESISTENZA AL FUOCO

VERIFICA DI RESISTENZA AL FUOCO DELLA SEZIONE A T=120 minuti

UNI EN 1992-1-2:2005 MODELLO AVANZATO

Visualizzazione stato sezione t=120 min.



Stato	Verifica N/M	Azione N	Azione Mxx	Azione Myy	Azione Nu	Azione Muxx	Azione Muyy	Defor. C	Defor. S	x/d
		kNm	kNm	kNm	kNm	kNm	kNm	%	%	
Verificata	1.60	0.0	1523.19	0.0	1.16e-05	2439.97	0.0	-0.35	0.86	0.29

Stato	Verifica V	Azione V	Azione Vu	Area St.	fyw	Temp.	Ks(T)	CotTeta	Azione VRdmax	Azione Vrd,s
		kN	kN	cm2/m	N/mm2	C			kN	kN
Verificata	6.12	463.39	0.0	26.19	450.00	20.00	1.00	2.50	4149.40	2837.10

Figura	Materiale	Nota	Da X	Da Y	A X	A Y	Esposizione	alfa c	exp n	e res
			cm	cm	cm	cm		W/m2C		
1	Cl	Rck=50 [N/mm2]	0.0	110.00	0.0	0.0	Esposto incendio	25.00	1.00	0.56
			0.0	0.0	80.00	0.0	Esposto incendio	25.00	1.00	0.56
			80.00	0.0	80.00	50.00	Esposto incendio	25.00	1.00	0.56
			80.00	50.00	60.00	50.00	Esposto incendio	25.00	1.00	0.56
			60.00	50.00	60.00	110.00	Esposto incendio	25.00	1.00	0.56
			60.00	110.00	0.0	110.00	Esposto aria	9.00	1.00	0.56

Ferro	pos. X	pos. Y	Temp.	Epsilon	Sigma	area	fyk	Tipo	fptk	e fptk	e decomp.
	cm	cm	C	%	N/mm2	cm2	N/mm2	N/mm2			
1	3.00	107.00	511.95	-0.10	-118.30	2.01	450.00	Classe N lam.	0.0	0.0	0.0
2	57.00	107.00	516.56	-0.31	-215.47	2.01	450.00	Classe N lam.	0.0	0.0	0.0
3	3.00	47.00	570.43	0.45	180.84	2.01	450.00	Classe N lam.	0.0	0.0	0.0
4	57.00	47.00	338.10	0.25	295.06	2.01	450.00	Classe N lam.	0.0	0.0	0.0
5	77.00	47.00	826.87	0.17	24.98	2.01	450.00	Classe N lam.	0.0	0.0	0.0
6	3.00	3.00	831.47	0.86	37.72	2.01	450.00	Classe N lam.	0.0	0.0	0.0
7	57.00	3.00	593.22	0.66	175.02	2.01	450.00	Classe N lam.	0.0	0.0	0.0
8	77.00	3.00	827.50	0.58	35.08	2.01	450.00	Classe N lam.	0.0	0.0	0.0

Ferro	pos. X	pos. Y	Temp.	Epsilon	Sigma	area	fyk	Tipo	fptk	e fptk	e decomp.
9	26.00	5.00	396.31	0.76	728.52	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
10	30.00	5.00	398.37	0.74	717.65	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
11	34.00	5.00	399.14	0.72	711.96	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
12	38.00	5.00	398.86	0.71	710.53	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
13	42.00	5.00	399.23	0.69	706.40	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
14	46.00	5.00	398.15	0.68	708.04	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
15	26.00	9.00	181.21	0.72	1388.15	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
16	30.00	9.00	183.28	0.70	1379.56	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
17	34.00	9.00	183.79	0.69	1373.93	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
18	38.00	9.00	183.33	0.67	1370.10	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
19	42.00	9.00	181.57	0.66	1368.67	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
20	46.00	9.00	181.73	0.64	1363.36	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
21	26.00	13.00	88.89	0.68	1552.80	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
22	30.00	13.00	89.82	0.67	1546.92	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
23	34.00	13.00	88.83	0.65	1543.74	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
24	38.00	13.00	89.46	0.64	1537.98	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
25	42.00	13.00	91.44	0.62	1529.85	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
26	46.00	13.00	88.39	0.60	1529.75	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
27	26.00	17.00	50.88	0.64	1607.39	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
28	30.00	17.00	49.08	0.63	1608.45	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
29	34.00	17.00	49.78	0.61	1604.43	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
30	38.00	17.00	49.76	0.60	1601.78	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
31	6.00	105.00	294.96	-0.10	666.73	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
32	54.00	105.00	290.41	-0.28	379.28	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03

TEGOLI PRIMO SOLAIO H 40 – VERIFICA STATICA

EISEKO - Travi H Costante versione 19.00.03

Eiseko Computers sas

viale del Lavoro 17 - 37036 - S.M Buon Albergo

Tel: ++390458031894 - Fax: ++390458044652

Committente

RELAZIONE IN ESERCIZIO

PROGETTO: VERIFICA TEGOLO H 40 SOLAIO ALA.txt

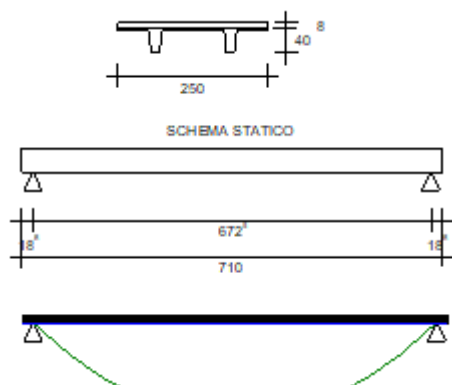
Nome Trave: TEGOLO PRIMO SOLAIO

Data : 01/04/2021 Ora : 12:14:53

La trave in oggetto è precompressa con il sistema a trefoli aderenti. Il calcolo è stato eseguito secondo NTC 17 - Gennaio - 2018

e secondo L'Eurocodice 2 UNI EN 1992-1-1 : 2005 per quanto consentito da NTC 17/1/18

N.B.: Nel calcolo il segno - indica trazione. I Newton sono ricavati col rapporto 10 anzichè 9.81 anche nei valori riferiti agli Acciai lenti.



Si considera un ambiente NORMALE

XC1: Interno edifici con bassa umidità

1) SCHEMA STATICO :

Trave su due appoggi :	Luce di calcolo	LC = 6.73	m
	Sbalzo sinistro	Ss = 0.19	m

Sbalzo destro	$S_d = 0.19$	m
Lunghezza totale	$L = 7.10$	m

Il calcolo viene distinto in due fasi :

1a Fase : Reagisce la sola Trave precompressa.

2a Fase : Reagisce la Trave precompressa + il getto collaborante.

2) ANALISI DEI CARICHI :

1a Fase

Peso proprio Trave:	$G_1 = 6.24$	kN/m
Carichi permanenti pienamente definiti:	$G_1 = 9.75$	kN/m

2a Fase

Carichi permanenti pienamente definiti:	$G_1 = 0.00$	kN/m
Carichi permanenti non pienamente definiti:	$G_2 = 3.00$	kN/m
Carichi accidentali dominanti:	$Q_{k1} = 7.50$	kN/m

Coeff. Stato limite ultimo Pesi propri e permanenti $\gamma_{G1} = 1.30$

Coeff. Stato limite ultimo Permanenti non definiti $\gamma_{G2} = 1.50$

Coeff. Stato limite ultimo carichi accidentali $\gamma_{Q_{k1}-Q_{k2}} = 1.50$

CATEGORIA SOVRAC. ACCIDENTALI DOMINANTI

C: Ambienti suscettibili di affollamento

Coeff. comb.frequente	Coeff. Ψ_{i11} comb.frequente	0.70
Coeff. quasi perm.	Coeff. Ψ_{i12} quasi perm	0.60

3) TAGLI E REAZIONI AGLI APPOGGI :

Taglio appoggio sinistro comb.Rara	$V_{raraS} = 89.07$	kN
Taglio appoggio sinistro comb. ultima	$V_{EdS} = 122.85$	kN
Taglio appoggio destro comb.Rara	$V_{raraD} = 89.07$	kN
Taglio appoggio destro comb. ultima	$V_{EdD} = 122.85$	kN

Reazione appoggio sinistro comb.Rara	$R_{raraS} = 94.04$	kN
Reazione appoggio sinistro comb. ultima	$R_{EdS} = 129.70$	kN
Reazione appoggio destro comb.Rara	$R_{raraD} = 94.10$	kN
Reazione appoggio destro comb. ultima	$R_{EdD} = 129.79$	kN

4) MATERIALI :

Calcestruzzo:

Classe cemento	=	N	
Coeff. s (3.1.2 (6) EC2)	$s =$	0.25	
Resistenza caratt. cubica CLS Trave allo sbanco	$R_{ckj} =$	35.00	N/mm ²
Resistenza caratt. cubica CLS Trave a 28gg	$R_{ck} =$	50.00	N/mm ²
Coefficiente di sicurezza	$\gamma_c =$	1.4	
Resistenza caratt. cilindrica	$f_{ck} = R_{ck} \times 0.83 =$	41.50	N/mm ²
Resistenza media a compressione	$f_{cm} = f_{ck} + 8 =$	49.50	N/mm ²
Resistenza di calcolo cilindrica	$f_{cd} = 0.85 \times f_{ck} / \gamma_c =$	25.20	N/mm ²
Resistenza media Traz. assiale	$f_{ctm} = 0.30 \times f_{ck}^{(2/3)} =$	3.60	N/mm ²
Ecm Trave	$E_{cm} =$	35.54	kN / mm ²

Calcestruzzo getto in opera:

Trapezi Getto

N°	Altezza (cm)	Base Inferiore (cm)	Base Superiore (cm)
1	8	250	250

Resistenza caratt. cubica CLS Getto a 28 gg	$R_{ck} =$	37.00	N/mm ²
Resistenza caratt. cilindrica ($f_{ck} = R_{ck} \times 0.83$)	$f_{ck} =$	30.71	N/mm ²
Coefficiente di sicurezza	$\gamma_c =$	1.5	
Resistenza di calcolo cilindrica ($f_{cd} = f_{ck} / 1.5 \times 0.85$)	$f_{cd} =$	17.40	N/mm ²
Ecm Getto	$E_{cmg} =$	30.20	kN / mm ²

Armatura di precompressione

Trefoli stabilizzati a basso rilassamento	$f_{pk} = 1860$	N/mm ²
Ep Trefoli stabilizzati	$E_p = 195.00$	kN / mm ²
Coefficiente di sicurezza	$\gamma_a = 1.15$	
	$f_{pk} = 1670$	N/mm ²
	$f_{sd} = f_{pk} / 1.15 = 1452$	N/mm ²
Tesatura iniziale trefoli pretesi	$\sigma_{api} = 1400$	N/mm ²
Armatura lenta		
Acciaio B450C	$f_{yk} = 450.00$	N/mm ²
	$f_{yd} = f_{yk} / 1.15 = 391.30$	N/mm ²

5) CARATTERISTICHE GEOMETRICHE :

Sezione geometrica solo Trave

Altezza Trave	$H_o = 40.00$	cm
Area Sezione	$A_o = 2495.75$	cm ²
Perimetro	$U = 635.03$	cm
Dimensione Nominale $2 \times A_o / U$	$= 7.86$	cm
Distanza baricentro da estradosso Trave	$Y'o = 11.96$	cm
Momento inerzia	$J_o = 355072.26$	cm ⁴
Modulo di resistenza superiore	$W'o = 29677.65$	cm ³
Modulo di resistenza inferiore	$W_o = 12665.00$	cm ³

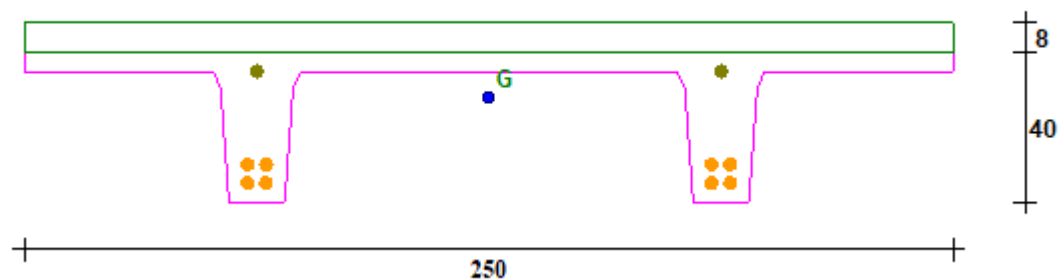
Sezione con calcestruzzo e trefoli omogeneizzati

Coefficiente di omog. E_{cs} / E_{cm}	$= 5.49$	
Altezza Trave	$H_o = 40.00$	cm
Area omogeneizzata	$A_1 = 2572.00$	cm ²
Distanza baricentro da estradosso Trave	$Y'1 = 12.23$	cm
Momento inerzia	$J_1 = 377546.51$	cm ⁴

Modulo di resistenza superiore	$W_{s1} = 30872.29$	cm^3
Modulo di resistenza inferiore	$W_{i1} = 13595.14$	cm^3
Sezione con calcestruzzo trefoli e getti		
E Getto / E Trave	= 0.85	
Altezza Trave	$H1 = 40.00$	cm
Altezza Getto	$H_g = 8.00$	cm
Area ideale + getto	$A2 = 4501.94$	cm^2
Distanza baricentro da estradosso Trave	$Y'2 = 5.77$	cm
Momento inerzia Trave + getto	$J2 = 656145.64$	cm^4
Modulo di resistenza estradosso getto	$W_g = 56067.42$	cm^3
Modulo di resistenza estradosso Trave	$W_{s2} = 113675.38$	cm^3
Modulo di resistenza intradosso Trave	$W_{i2} = 19169.91$	cm^3

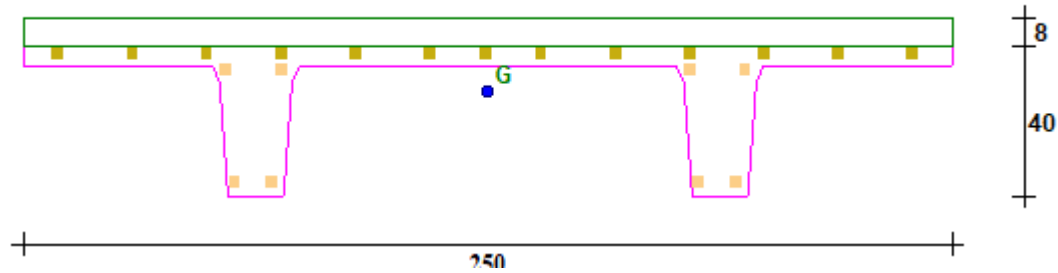
6) ARMATURA DI PRECOMPRESSIONE E ARMATURA LENTA :

Trefoli



N°	Y (cm)	X (cm)	Area (cm ²)	Neut SX.(m)	Neut DX.(m)
1	5.00	60.00	0.93	0	0
2	5.00	65.00	0.93	0	0
3	5.00	185.00	0.93	0	0
4	5.00	190.00	0.93	0	0
5	10.00	60.00	0.93	0	0
6	10.00	65.00	0.93	0	0
7	10.00	185.00	0.93	0	0
8	10.00	190.00	0.93	0	0
9	35.00	62.50	0.52	0	0
10	35.00	187.50	0.52	0	0

Ferri



N°	Y (cm)	X (cm)	Area (cm²)	Diam.(mm)	Neut SX (m)	L ferro (m)	Neut DX (m)	Lung SX (m)	Lung DX (m)
1	3.00	57.50	0.5	8	0	0	0	0	0
2	3.00	67.50	0.5	8	0	0	0	0	0
3	3.00	182.50	0.5	8	0	0	0	0	0
4	3.00	192.50	0.5	8	0	0	0	0	0
5	33.00	55.00	0.5	8	0	0	0	0	0
6	33.00	70.00	0.5	8	0	0	0	0	0
7	33.00	180.00	0.5	8	0	0	0	0	0
8	33.00	195.00	0.5	8	0	0	0	0	0
9	37.50	10.00	0.28	6	0	0	0	0	0
10	37.50	30.00	0.28	6	0	0	0	0	0
11	37.50	50.00	0.28	6	0	0	0	0	0
12	37.50	70.00	0.28	6	0	0	0	0	0
13	37.50	90.00	0.28	6	0	0	0	0	0
14	37.50	110.00	0.28	6	0	0	0	0	0
15	37.50	125.00	0.28	6	0	0	0	0	0
16	37.50	140.00	0.28	6	0	0	0	0	0
17	37.50	160.00	0.28	6	0	0	0	0	0
18	37.50	180.00	0.28	6	0	0	0	0	0
19	37.50	200.00	0.28	6	0	0	0	0	0
20	37.50	220.00	0.28	6	0	0	0	0	0
21	37.50	240.00	0.28	6	0	0	0	0	0

7) ANALISI DELLE CADUTE DI TENSIONE :

Le cadute sono calcolate nella sezione di max sollecitazione a m 3.55 dall' estremo sx della Trave

Sollecitazioni iniziali di precompressione :

Area totale trefoli	=	8.48	cm ²
Distanza Baric. trefoli da lembo Inf. Trave	=	10.87	cm
Tesatura iniziale	=	1400.00	N/mm ²
Perdita al martinetto 1.500 % tesatura iniziale	=	21.00	N/mm ²
Perdite per ritiro con maturazione vapore (6 giorni)	=	19.76	N/mm ²
Perdite per Rilassamento con maturazione a vapore	=	13.30	N/mm ²
Precompressione iniziale nei Trefoli	Sigmal =	1345.94	N/mm ²
Sforzo di precompressione iniziale	No =	1141.35	kN
Momento di precompressione iniziale	Mo =	19286.71	kNcm

Le perdite dipendenti dal tempo sono calcolate con la formula:

$$\frac{ecs \times Ep + 0.8 \times Dsigmapr + Ep/Ecm \times Fi(t,to) \times Sigmacqp}{(1 + Ep/Ecm \times Ap/Ac \times (1 + Ac/Jc \times Zcp^2) \times (1 + 0.8 \times Fi(t,to)))}$$

$$Dspcsr = \quad (5.46 \text{ EC2})$$

$$(1 + Ep/Ecm \times Ap/Ac \times (1 + Ac/Jc \times Zcp^2) \times (1 + 0.8 \times Fi(t,to)))$$

ecs x Ep = deformazione per ritiro x Ep	=	97.50	N/mm ²
Ep = Modulo elasticità acciaio armonico	=	195.00	kN / mm ²
Dsigmapr =variazione tensione per rilassamento nel Bar. Trefoli Inf. =	58.31	N/mm ²	
Rilassamento Trefoli dopo mille ore	=	2.50	%
Ep / Ecm = rapporto moduli acciaio/ CLS	=	5.49	
Fi(t,to) = Coeff. di Viscosità a tempo infinito	=	2.52	
% vapore aria durante la maturazione	=	60.00	%
Scqp = Tensione nel Bar. Trefoli (precom.+azioni quasi permanenti) =	8.43	N/mm ²	
Ap - Ac - Jc vedere nelle caratteristiche geometriche e sopra			
Zcp = Distanza tra Bar. Trefoli e bar. Trave	=	16.90	cm
Perdite dipendenti dal tempo nell' acciaio	Dspcsr =	196.04	N/mm ²

Sigma di precompressione finale nei trefoli	Sigma0 - Dspcsr =1149.89	N/mm ²
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8) VERIFICA ALLO STATO LIMITE DI ESERCIZIO :

Distanza di massima sollecitazione dall' estremo sinistro della Trave : X =3.36m

Sforzo di precompressione finale	Nf = 975.11	kN
Momento di precompressione finale	Mf = 164.78	kNm

Combinazione di carichi quasi permanente.

Coefficiente per combinazione quasi permanente	psi-21 =0.60	
Momento del Peso Proprio e Sovracc. Permanenti	Mpp =107.35	kNm
Momento Sovraccarichi accidentali	Maqp =25.44	kNm
Momento Tot. Combinazione quasi permanente	Mpp + Maqp =132.79	kNm
Tensione sup. ammessa < 0.45 x fck Getto in Opera =	13.82	N/mm ²
Tensione Sup. ammessa < 0.45 x fck Trave =	18.68	N/mm ²
Tensione inferiore ammessa > fctm /1.2 =	-3.00	N/mm ²
Tensione superiore nel getto in Opera =	0.76	N/mm ²
Tensione superiore nel CLS Trave =	1.75	N/mm ²
Tensione inferiore nel CLS Trave =	7.05	N/mm ²

Combinazione di carichi Frequente.

Coefficiente per combinazione frequente	psi-11 =0.70	
Momento Sovraccarichi accidentali	Maf = 29.68	kNm
Momento Tot. Combinazione frequente	Mpp + Maf =137.03	kNm
Tensione inferiore per considerare sez. reagente > fctm / 1.2 =-3.00		N/mm ²
Tensione inferiore nel CLS Trave =	6.83	N/mm ²

Combinazione di carichi Rara.

Momento Sovraccarichi accidentali	Mar =42.40	kNm
Momento Tot. Combinazione rara	Mpp + Mar =149.75	kNm
Tensione sup. ammessa nel getto < 0.60 x fck Getto in Opera =18.43		N/mm ²

Tensione Sup. ammessa $< 0.60 \times f_{ck}$ Trave	=	24.90	N/mm ²
Tensione superiore nel getto in Opera	=	1.06	N/mm ²
Tensione superiore nel CLS Trave	=	1.90	N/mm ²

9) VERIFICA ALLO STATO LIMITE ULTIMO

Il momento resistente è calcolato con il diagramma dell' acciaio formato da una bilatera con il punto di snervamento $= f_{yk} / 1.15$ e l' estremo in $f_{yk} / 1.15$.

L'ordinata max (def. ultima acciaio $= 0.9 \times E_{uk}$)	$E_{uk} = 35$	o/oo
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Il diagramma del CLS ha sigma di precompressione max = fcd

L'ordinata max (deformazione ultima CLS)=	$E_{cu} = 3.5$	o/oo
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Momento di calcolo con comb. ultima	$M_{Ed} = 206.55$	kNm
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Momento Resistente	$M_{Rd} = 493.27$	kNm
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deve essere $M_{Rd} \geq M_{Ed}$

Deformazione del CalcestruzzoGetto	$D_c = 2.54$	o/oo
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Deformazione totale acciaio	$D_a = 5.90$	o/oo
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Altezza zona compressa ($0.8 \times Y$) da lembo sup. Getto in opera	$Y_r = 2.90$	cm
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La Trave va in collasso per rottura dell'acciaio inferiore

La Trave va in collasso per rottura del CLS superiore

10) VERIFICHE A TAGLIO SEZIONE NON PRECOMPRESSA

Sezione sull'appoggio sinistro

Taglio all' appoggio comb. Rara	$V_{rara} = 89.07$	kN
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Taglio di calcolo all'appoggio comb. ultima	$V_{Ed} = 122.85$	kN
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Larghezza resistente a Taglio	$b_w = 250.00$	cm
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Altezza Utile = H trave + H getto - 3cm	$d = 45.00$	cm
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Angolo puntone compresso calcolato	$\alpha_{reale} = 0.6$	°
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Angolo puntone compresso usato per il calcolo	$\alpha = 45.0$	°
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Cotg Tzeta ≥ 1 e ≤ 2.5	Cotg = 1.00	
Angolo asse staffe rispetto asse trave	alfa = 90	°
$V_{rdc} = C_{rdc} \cdot k \cdot (100 \cdot \rho_1 \cdot f_{ck})^{1/3} \cdot b_w \cdot d - (6.2.2(6.4)EC2) =$	253.16	kN $\geq V_{Ed}$ - VERIFICATO
$C_{rdc} = 0,18 / \Gamma_{mac}$	0.129	
$k = 1 + \sqrt{200 / d} \leq 2$	1.67	
$100 \cdot \rho_1 = 100 \cdot A_{sl} / (b_w \cdot d)$	0.028	%
Area staffe minima necessaria	$A_{sw} = 37.50$	cm ² /m
Acciaio inferiore $V_{Ed} / (f_{yk} / 1.15)$	$A_{sl} = 3.14$	cm ²
Momento Traslato	$M_{Ed} = 24.88$	kNm
Acciaio inferiore ancorato necessario	$A_{sa} = 2.07$	cm ²
Verifica Puntone $0.5 \cdot b_w \cdot d \cdot N_i \cdot f_{cd} (6.2.2(6.6N)EC2) =$	7092.17	kN $\geq V_{Ed}$ - VERIFICATO
$N_i = 0.6 \cdot (1 - f_{ck}/250)$	$n = 0.50$	
$f_{cd} = 0.85 \cdot f_{ck} / \gamma_{mac}$	$f_{cd} = 25.20$	N/mm ²

Progetto Staffe emergenti

TAGLIO di seconda fase comb. ultima	$V_{Ed2} = 52.96$	kN
$V_{Edi} = \beta \cdot V_{Ed2} / (z \cdot b_i) \quad (6.24 EC2)$	$V_{Edi} = 0.06$	N/mm ²
$\beta =$ Rapporto tra contributo getto e trave	$= 1.206$	cm
$b_i =$ larghezza superficie tra trave e getto	$b_i = 250.00$	cm
$V_{Rdi} = c \cdot f_{ctd} \text{ (SENZA STAFFE) } (6.25 EC2)$	$V_{Rdi} = 0.55$	N/mm ²
f_{ctd} CLS getto in opera	$f_{ctd} = 1.37$	N/mm ²

Superficie Trave-Getto Scabra $c = 0.40$

essendo $V_{Rdi} > V_{Edi}$ senza tener conto di staffe sporgenti

Non c'è bisogno di staffe sporgenti

11) VERIFICHE A FLESSIONE E TAGLIO NELLE SEZIONI INIZIALI PRECOMPRESSE

Sezione 1 a metri .6125 dal punto d' appoggio sinistro.

Momento dovuto al solo PP	$M_{pp} = 11.68$	kNm
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SIGMA allo sbanco nei trefoli pretesi	=	1345.94	N/mm ²
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Allo sbanco e con il solo peso della Trave. Calcolo a rottura per sollecitazione minima.

Distanza da bordo inf. ultima dello Sforzo N	Dul = 8.88	cm
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Distanza da bordo inf. dello Sforzo N	Dese = 11.85	cm
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deve essere Dese >= Dul

Sigma al lembo sup. Trave allo sbanco	=	-1.43	N / mm ²
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Cadute di tensione Finali nei trefoli	=	250.26	N / mm ²
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Sigma di precompressione finale nei trefoli		1095.68	N/mm ²
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Sforzo di precompressione finale	Nsd = 929.13	kN
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A tempo infinito e con tutti i carichi permanenti :

M per peso proprio e carichi permanenti	Mpp = 35.55	kNm
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Momento di Decompressione	Mde = 242.82	kNm > 0 VERIFICATO
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Momento di calcolo della Trave	MEd = 68.39	kNm
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Momento Resistente	MRd = 493.94	kNm
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Deve essere MRd >= MEd

VERIFICA A TAGLIO

TAGLIO nella sezione in Comb. rara	Vsdo = 72.85	kN
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Larghezza nel baricentro Trave	bw = 45.63	cm
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TAGLIO di calcolo comb. ultima	VEd = 100.47	kN
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TAGLIO PORTATO DA TRAVE SENZA BISOGNO STAFFE	Vrd = 346.74	kN >= VEd
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FORMULA UTILIZZATA : $0.7 \times bw \times d \times \sqrt{f_{ctd}^2 + 1 \times \sigma_{bar.} \times f_{ctd}}$

Larghezza nel baricentro trave + getto	45.63	cm
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Altezza trave + getto - 3	45.00	cm
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Sigma nel baricentro trave + getto	1.44	N/mm ²
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$f_{ctd} = f_{ctm} \times 0.7 / \gamma_c$	$f_{ctd} = 1.80$	N/mm ²
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Vrdc > Taglio ultimo pongo minimo staffe	Area staffe/m = 37.50	cm ² /m
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12) DEFORMABILITA' DELLA TRAVE

Le Frecce sono calcolate nella sezione a m 3.55 dall' estremo sx della Trave

Altezza Trave = 40.00 cm

Frecce provocate dalla storia di carico della Trave: + freccia verso il basso, - freccia verso l'alto

Luce di calcolo Frecce	$L_c = 6.73$	m
Calcestruzzo allo sbanco	$R_{ck} = 35.00$	N/mm ²
E iniziale Teorica	$E' = 32.580$	kN/mm ²
Momento inerzia Trave	$J_i = 379846$	cm ⁴
Freccia per precompressione	$f_1 = -0.880$	cm
Freccia per peso proprio trave	$f_2 = 0.134$	cm
Freccia allo sbanco Totale f_1+f_2	$f_{sba} = -0.745$	cm

FRECCIA ISTANTANEA IN ESERCIZIO - Si considerano agenti tutti i carichi

Calcestruzzo allo stadio finale	$R_{ck} = 50.00$	N/mm ²
E Teorica	$E = 35.540$	kN/mm ²
Momento inerzia Trave in mezzeria	$J_t = 375910$	cm ⁴
Momento inerzia Trave + getto in mezzeria	$J_g = 652022$	cm ⁴
Freccia per precompressione	$f_3 = -0.815$	cm
Freccia p.proprio+permanenti pienamente definiti	$f_4 = 0.319$	cm
Freccia totale perm. pien. definiti f_3+f_4	$f_p = -0.496$	cm
Freccia permanenti non pienamente definiti	$f_5 = 0.034$	cm
Freccia accidentali $Q_{k1}+\psi_{i02}Q_{k2}$	$f_6 = 0.086$	cm
Freccia totale istantanea per tutti i carichi $f_p+f_5+f_6$	$f_t = -0.375$	cm

FRECCIA IN ESERCIZIO A LUNGO TERMINE - Si considera la combinazione quasi permanente

Coeff. di Viscosità a tempo infinito	$F_i(t,t_0) = 2.521$	
Coefficiente di omog. E acciaio / E efficace	20.807	
Dove E efficace = E Teorica / [1 + $F_i(t,t_0)$] (7.20 EC2)	10.093	kN/mm ²
Momento inerzia Trave in mezzeria	$J_f = 443840$	cm ⁴

Momento inerzia Trave + getto in mezzeria	$J_{fg} = 757066$	cm ⁴	
Freccia per precompressione	$f_3 = -2.077$	cm	
Freccia p.proprio+permanenti pienamente definiti	$f_4 = 0.950$	cm	
Freccia totale a lungo term. perm. pien. definiti f_3+f_4	$f_{dt} = -1.127$	cm	
Freccia permanenti non pienamente definiti	$f_5 = 0.105$	cm	
Freccia accidentali quasi perm. $\psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2}$	$f_6 = 0.157$	cm	
Limite deformazione	$L_c/250 = 2.690$	cm	
Freccia totale quasi permanente lungo termine VERIFICATO	$f_{dt} + f_5 + f_6 f_{qper} = -0.866$		cm $\leq L_c/250$ -
Limite deformazione carichi successivi al getto	$L_c/500 = 1.345$	cm	
Freccia quasi perm. lungo termine dopo il getto VERIFICATO	$f_{qper} - f_p f_{dg} = -0.370$		cm $\leq L_c/500$ -

13) RIENTRO TREFOLI IN TESTATA TRAVE

Il rientro è calcolato con la formula EN 13369:2004 (E)

Posto $fb_{pt} = 3.2 \times 0.7 \times f_{ctmj} / \gamma_c$ (8.15 EC2)=	4.54	N/mm ²
$L_{pt2} = 1.2 \times L_{pt} = 1.2 \times 0.19 \times d_{ia} \times \sigma_{mai} / fb_{pt}$ (8.18 EC2)=	762.46	mm
Rientro medio $0.4 \times L_{pt2} \times \sigma_{mai} / E_p = D_{Lo}$	= 2.16	mm
Rientro max = $D_{Lo} \times 1.3$ (4.2.3.2.4 EN 13369)	= 2.80	mm

TEGOLI PRIMO SOLAIO H 40 – VERIFICA SISMA VERTICALE

EISEKO - Travi H Costante versione 19.00.03

Eiseko Computers sas

viale del Lavoro 17 - 37036 - S.M Buon Albergo

Tel: ++390458031894 - Fax: ++390458044652

Committente

RELAZIONE SISMICA

PROGETTO: VERIFICA TEGOLO H 40 SOLAIO ALA.txt

Nome Trave: TEGOLO PRIMO SOLAIO

Data : 01/04/2021 Ora : 12:14:53

La trave in oggetto è verificata allo stato limite di Danno ed allo stato limite Vita secondo NTC 17 - Gennaio - 2018

e secondo l'Eurocodice 2 UNI EN 1992-1-1 nella versione 2005 e solo per quanto consentito da NTC 17/1/18

NB: Nel calcolo il segno - indica trazione. I Newton sono ricavati col rapporto 10 anzichè 9.81 anche nei valori riferiti agli Acciai.

Località dove è posta la trave MODENA (MO)

Latitudine = 44.6343 °

Longitudine = 10.8138 °

Classe d'uso = III

VITA Nominale della Trave VN = 50 anni

Coefficiente d'uso Cu = 1.5

1.5 = Edifici importanti in relazione alle conseguenze di un collasso

PERIODO di Riferimento VN x Cu VR = 75 anni

Dati Ricavati da NTC 17.01.2018

° STATO LIMITE DI DANNO

Fo = fattore che quantifica l'amplificazione spettrale max. = 2.480

T*c = periodo d'inizio tratto a velocità spettrale costante = 0.280 s

ag = accelerazione max al sito ag = 0.072 m/s²

Coeff. Stato Limite di Danno SLD $P_{vr} = 0.63$

° **STATO LIMITE SALVAGUARDIA VITA**

Fo = fattore che quantifica l'amplificazione spettrale max. = 2.430

T*c = periodo d'inizio tratto a velocità spettrale costante = 0.290 s

ag = accelerazione max al sito $ag = 0.190$ m/s²

Coeff. Stato Limite Vita SLV $P_{vr} = 0.10$

° **ALTRI COEFFICIENTI UTILIZZATI**

Fattore di Struttura Car. Verticali = 1.50

Fattore di Struttura Car. Orizzontali = 2.00

Categoria Topografica = T1

Categoria SOTTOSUOLO = C

° **Massa sismica per scarico sismico verticale e orizzontale**

Massa Sismica: $(P_p + G_1 + G_2 + Q_{k1} \times \psi_{21}) / 981$ 2.394 Kg-massa/m

Primo periodo di Vibrazione per car. verticali : $T_1 = 0.092$ s

° **STATO LIMITE DI DANNO**

Spettro di risposta carichi verticali: $S_{ve}(T_1)=0.07$ m/s²

Carico sismico verticale: $E = 1.53$ kN/m

Comb. di calcolo $E+G_1+G_2+\psi_{21} \times Q_{k1}$ $Q_E = 25.02$ kN/m

° **STATO LIMITE SALVAGUARDIA VITA**

Spettro di risposta carichi verticali: $S_{ve}(T_1)=0.18$ m/s²

Carico sismico verticale: $E = 4.26$ kN/m

Comb. di calcolo $E+G_1+G_2+\psi_{21} \times Q_{k1}$ $Q_E = 27.75$ kN/m

° **Massa Sismica per carico sismico verticale negativo**

Massa Sismica: $(P_p + G_1) / 981$ = 1.630 Kg-massa/m

Periodo Vibrazione per car. verticali negativi:	0.076	s
° STATO LIMITE DI DANNO		
Spettro di risposta carichi verticali neg.:	= 0.07	m/s ²
Carico sismico verticale negativo:	E = 1.04	kN/m
Comb. di calcolo -E+G1	QE = 14.95	kN/m
° STATO LIMITE SALVAGUARDIA VITA		
Spettro di risposta carichi verticali neg.:	0.18	m/s ²
Carico sismico verticale negativo:	E = 2.90	kN/m
Comb. di calcolo -E+G1	QE = 13.09	kN/m

° **Tensioni Limite CLS**

Resistenza caratt. cilindrica CLS a 28gg	fck = 41.50	N/mm ²
Tensione Sup. max sismica < 0.70 x fck Trave	= 29.05	N/mm ²
Tensione inferiore sismica ammessa > fctm x 1.3	= -4.67	N/mm ²
Calcestruzzo getto in opera:		
Tensione Sup. max sismica < 0.70 x fck CLS getto	= 21.50	N/mm ²

VERIFICA ALLO STATO LIMITE DI DANNO :

Distanza di massima sollecitazione dall' estremo sinistro della Trave : X =3.36m

Sforzo di precompressione finale	Nf = 975.11	kN
Momento di precompressione finale	Mf = 164.78	kNm
Combinazione di carichi quasi permanente.	=	
Coefficiente per combinazione quasi permanente	psi-2 =0.60	
Momento per combinazione quasi permanente	Mqp =132.79	kNm
Momento Sismico verticale	MSvd =8.64	kNm
Tensione superiore nel getto in Opera	= 0.91	N/mm ²
Tensione superiore nel CLS Trave	= 1.83	N/mm ²

Tensione inferiore nel CLS Trave	=	6.60	N/mm ²
Verifica allo sforzo sismico verticale negativo.			
Momento soli carichi permanenti	Mpp =	90.39	kNm
Momento Negativo per sisma	MSnegd =	-5.88	kNm
Tensione superiore nel CLS Trave	=	1.43	N/mm ²
Tensione inferiore nel CLS Trave	=	8.96	N/mm ²

VERIFICA ALLO STATO LIMITE VITA :

Distanza di massima sollecitazione dall' estremo sinistro della Trave : X =3.36m

Combinazione di carichi quasi permanente.	=		
Momento per combinazione quasi permanente	Mqp =	132.79	kNm
Momento Sismico verticale	MaSvv =	24.06	kNm

Il momento resistente è calcolato con il diagramma dell' acciaio formato da una bilatera con il punto di snervamento = $0.9 \times f_{pk} / 1.15$ e l' estremo in $f_{pk} / 1.15$.

Il diagramma del CLS con ascissa max fcd

L'ordinata max =	Ecu =	3.5	o/oo
Momento simico SLV	Mslv =	156.85	kNm
Momento Resistente	MRd =	496.53	kNm

deve essere $MRd \geq Mslv$

Verifica allo sforzo sismico verticale negativo.

Momento soli carichi permanenti	Mpp =	90.39	kNm
Momento Negativo per sisma	MSnegV =	-16.38	kNm
Tensione superiore nel CLS Trave	=	1.53	N/mm ²
Tensione inferiore nel CLS Trave	=	8.41	N/mm ²

VERIFICA A TAGLIO SEZIONE NON PRECOMPRESSA

Sezione su appoggio sinistro

Verifica allo stato limite di danno

Taglio Totale comb. sismica (2.5.5 NTC 17.01.2018) $V_{Ed-Danno}=84.12$ kN

Taglio di calcolo all'appoggio comb. ultima $V_{Ed}=122.85$ kN

$V_{Ed} > V_{Ed-Danno}$ - Stato limite danno Verificato

Verifica allo stato limite Vita

Taglio Totale comb. sismica (2.5.5 NTC 17.01.2018) $V_{Ed-Vita}=93.29$ kN

Taglio di calcolo all'appoggio comb. ultima $V_{Ed}=122.85$ kN

$V_{Ed} > V_{Ed-Vita}$ - Stato limite Vita Verificato

VERIFICHE STATO LIMITE DI DANNO e VITA SEZ. INIZ. PRECOMPRESSE

STATO LIMITE DI DANNO

Sezione 1 a metri .6125 dal punto d' appoggio.

Sforzo di precompressione finale $N_f = 929.13$ kN

Momento per combinazione quasi permanente $M_{qp} = 43.97$ kNm

Momento Sismico verticale $M_{Svd} = 2.86$ kNm

Tensione superiore nel getto in Opera $= 0.30$ N/mm²

Tensione superiore nel CLS Trave $= -0.35$ N/mm²

Tensione inferiore nel CLS Trave $= 12.08$ N/mm²

Taglio Totale Carichi e Sisma $V_{es} = 68.80$ kN

Sigma principale di Trazione $= -0.21$ N/mm²

Area staffe necessaria $A_{sws}/m = 37.50$ cm²/m

Area staffe Taglio/ m introdotta reagente $A_{sw}/m = 37.50$ cm²/m

Verifica allo sforzo sismico verticale negativo.

Momento soli carichi permanenti definiti $M_{pp} = 29.93$ kNm

Momento Negativo per sisma $M_{Snegd} = -1.95$ kNm

Tensione superiore nel CLS Trave	=	-0.49	N/mm ²
Tensione inferiore nel CLS Trave	=	12.86	N/mm ²

STATO LIMITE DI SALVAGUARDIA VITA

Momento comb. quasi permanente + Mom. Sismico verticale

Momento sismico SLV	Mslv =	51.94	kNm
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Momento di Rottura	Mr =	496.49	kNm
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deve essere $Mr \geq Mslv$

Taglio Totale Carichi e Sisma	VEd =	76.30	kN
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TAGLIO PORTATO DA TRAVE SENZA BISOGNO STAFFE	Vrdc =	263.15	kN \geq VEd
--	--------	--------	---------------

Momento soli carichi permanenti definiti	Mpp =	29.93	kNm
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Momento Negativo per sisma	MSnegd =	-5.42	kNm
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Calcolo a rottura per sollecitazione minima.

Distanza da bordo inf. ultima dello Sforzo N	Dsu =	5.12	cm
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Distanza da bordo inf. dello Sforzo N	Dss =	13.96	cm
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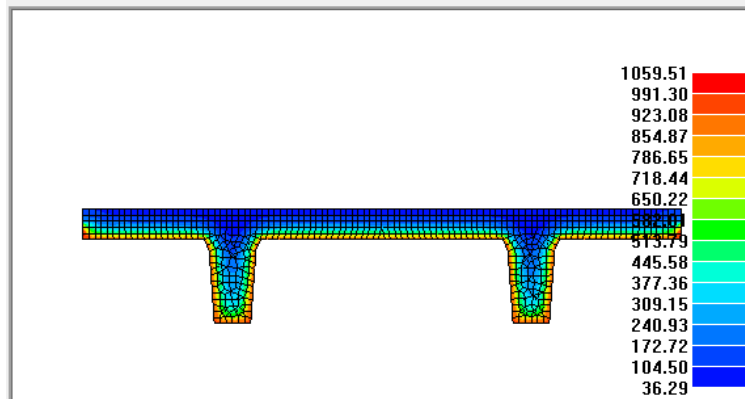
Deve essere $Dss \geq Dsu$

TEGOLI PRIMO SOLAIO H 40 – VERIFICA RESISTENZA AL FUOCO

VERIFICA DI RESISTENZA AL FUOCO DELLA SEZIONE A T=90 minuti

UNI EN 1992-1-2:2005 MODELLO AVANZATO

- Visualizzazione stato sezione t=90 min. -



Stato	Verifica N/M	Azione N	Azione Mxx	Azione Myy	Azione Nu	Azione Muxx	Azione Muyy	Defor. C	Defor. S	x/d
		kNm	kNm	kNm	kNm	kNm	kNm	%	%	
Verificata	1.71	0.0	132.79	0.0	1.45e-03	227.47	0.0	-0.21	5.00	0.04

Stato	Verifica V	Azione V	Azione Vu	Area St.	f _{yw}	Temp.	Ks(T)	CotTeta	Azione VRdmax	Azione Vrd,s
		kN	kN	cm ² /m	N/mm ²	C			kN	kN
Verificata	21.70	78.73	0.0	37.50	450.00	20.00	1.00	2.50	2171.41	1708.59

Figura	Materiale	Nota	Da X	Da Y	A X	A Y	Esposizione	alfa c	exp n	e res
			cm	cm	cm	cm		W/m ² C		
1	Cls	Rck=50 [N/mm ²]	0.0	40.00	0.0	35.00	Esposto incendio	25.00	1.00	0.56
			0.0	35.00	50.75	35.00	Esposto incendio	25.00	1.00	0.56
			50.75	35.00	52.75	30.50	Esposto incendio	25.00	1.00	0.56
			52.75	30.50	55.00	0.0	Esposto incendio	25.00	1.00	0.56
			55.00	0.0	70.00	0.0	Esposto incendio	25.00	1.00	0.56
			70.00	0.0	72.25	30.50	Esposto incendio	25.00	1.00	0.56
			72.25	30.50	74.25	35.00	Esposto incendio	25.00	1.00	0.56
			74.25	35.00	175.75	35.00	Esposto incendio	25.00	1.00	0.56
			175.75	35.00	177.75	30.50	Esposto incendio	25.00	1.00	0.56
			177.75	30.50	180.00	0.0	Esposto incendio	25.00	1.00	0.56
			180.00	0.0	195.00	0.0	Esposto incendio	25.00	1.00	0.56
			195.00	0.0	197.25	30.50	Esposto incendio	25.00	1.00	0.56
			197.25	30.50	199.25	35.00	Esposto incendio	25.00	1.00	0.56
			199.25	35.00	250.00	35.00	Esposto incendio	25.00	1.00	0.56
			250.00	35.00	250.00	40.00	Esposto incendio	25.00	1.00	0.56
			250.00	40.00	0.0	40.00	Non esposto			
2	Cls	Rck=37 [N/mm ²]	250.00	40.00	250.00	48.00	Non esposto			
			250.00	48.00	0.0	48.00	Esposto aria	9.00	1.00	0.56
			0.0	48.00	0.0	40.00	Non esposto			
			0.0	40.00	250.00	40.00	Non esposto			

Ferro	pos. X	pos. Y	Temp.	Epsilon	Sigma	area	f _{yk}	Tipo	f _{ptk}	e f _{ptk}	e decomp.
	cm	cm	C	%	N/mm ²	cm ²	N/mm ²	N/mm ²			
1	10.00	37.50	555.37	1.01	247.27	0.28	450.00	Classe N lam.	0.0	0.0	0.0
2	240.00	37.50	555.37	1.01	247.43	0.28	450.00	Classe N lam.	0.0	0.0	0.0
3	30.00	37.50	544.20	1.01	261.84	0.28	450.00	Classe N lam.	0.0	0.0	0.0
4	220.00	37.50	544.20	1.01	261.97	0.28	450.00	Classe N lam.	0.0	0.0	0.0
5	50.00	37.50	448.89	1.01	363.48	0.28	450.00	Classe N lam.	0.0	0.0	0.0
6	200.00	37.50	450.23	1.01	362.47	0.28	450.00	Classe N lam.	0.0	0.0	0.0
7	70.00	37.50	228.83	1.01	431.01	0.28	450.00	Classe N lam.	0.0	0.0	0.0
8	180.00	37.50	226.97	1.01	431.34	0.28	450.00	Classe N lam.	0.0	0.0	0.0
9	90.00	37.50	544.31	1.01	261.73	0.28	450.00	Classe N lam.	0.0	0.0	0.0
10	160.00	37.50	544.31	1.01	261.78	0.28	450.00	Classe N lam.	0.0	0.0	0.0
11	110.00	37.50	544.43	1.01	261.59	0.28	450.00	Classe N lam.	0.0	0.0	0.0
12	140.00	37.50	544.44	1.01	261.60	0.28	450.00	Classe N lam.	0.0	0.0	0.0

Ferro	pos. X	pos. Y	Temp.	Epsilon	Sigma	area	fyk	Tipo	fptk	e fptk	e decomp.
13	125.00	37.50	541.75	1.01	265.10	0.28	450.00	Classe N lam.	0.0	0.0	0.0
14	57.50	3.00	747.46	5.00	77.87	0.50	450.00	Classe N lam.	0.0	0.0	0.0
15	192.50	3.00	754.80	5.00	73.91	0.50	450.00	Classe N lam.	0.0	0.0	0.0
16	67.50	3.00	758.78	5.00	71.76	0.50	450.00	Classe N lam.	0.0	0.0	0.0
17	182.50	3.00	749.58	5.00	76.73	0.50	450.00	Classe N lam.	0.0	0.0	0.0
18	180.00	33.00	428.35	1.53	413.33	0.50	450.00	Classe N lam.	0.0	0.0	0.0
19	70.00	33.00	432.90	1.53	408.91	0.50	450.00	Classe N lam.	0.0	0.0	0.0
20	195.00	33.00	430.41	1.53	411.36	0.50	450.00	Classe N lam.	0.0	0.0	0.0
21	55.00	33.00	427.88	1.53	413.73	0.50	450.00	Classe N lam.	0.0	0.0	0.0
22	60.00	5.00	533.03	4.77	301.93	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
23	65.00	5.00	533.43	4.77	301.13	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
24	185.00	5.00	531.73	4.77	304.54	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
25	190.00	5.00	534.44	4.77	299.11	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
26	60.00	10.00	371.35	4.19	894.73	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
27	65.00	10.00	367.52	4.19	911.39	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
28	185.00	10.00	367.40	4.19	911.93	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
29	190.00	10.00	377.64	4.19	867.36	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
30	62.50	35.00	114.78	1.30	1620.83	0.52	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
31	187.50	35.00	118.13	1.30	1614.20	0.52	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03

TRAVI PRECOMPRESSE COPERTURA T ROVESCIA – VERIFICA STATICA

EISEKO - TRAVI RTL-T-I versione 19.00.00

Eiseko Computers

Viale del Lavoro 17 - 37036 - S.Martino B.A. (Verona)

Tel: 045 8031894 - Fax: 045 8044652 - E-mail : info@eiseko.com - Web: www.eiseko.com

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RELAZIONE IN ESERCIZIO

PROGETTO: TRAVE A T COPERTURA.txt

Nome Trave: TI ROVESCIO

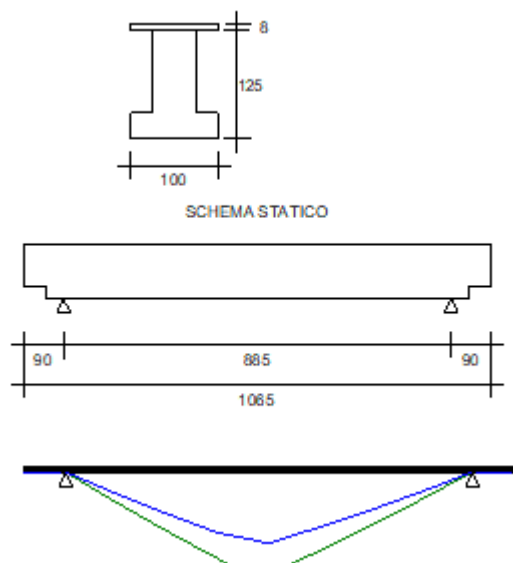
Data : 01/04/2021 Ora : 15:30:59

La trave in oggetto è precompressa con il sistema a trefoli aderenti. Il calcolo è stato eseguito secondo

NTC 17 - Gennaio - 2018 e secondo L'Eurocodice 2 UNI EN 1992-1-1 : 2005 per quanto consentito da NTC 17/1/18

N.B.: Nel calcolo il segno - indica trazione. I Newton sono ricavati col rapporto 10 anzichè 9.81 anche nei valori riferiti

agli Acciai lenti.



Si considera un ambiente NORMALE

XC1: Interno edifici con bassa umidità

1) SCHEMA STATICO :

	Altezza Trave	$H = 125.00$	cm
	Larghezza Anima	$A_n = 50.00$	cm
Trave su due appoggi :	Luce di calcolo	$LC = 8.85$	m
	Sbalzo sinistro	$S_s = 0.90$	m
	Sbalzo destro	$S_d = 0.90$	m
	Lunghezza totale	$L = 10.65$	m

Il calcolo viene distinto in due fasi :

1a Fase : Reagisce la sola Trave precompressa.

2a Fase : Reagisce la Trave precompressa + il getto collaborante.

2) ANALISI DEI CARICHI :

1a Fase

Peso proprio Trave:	$G1 = 19.38$	kN/m
Carichi permanenti pienamente definiti:	$G1 = 0.00$	kN/m

2a Fase

Carichi permanenti pienamente definiti:	$G1 = 0.00$	kN/m
Carichi permanenti non pienamente definiti:	$G2 = 0.00$	kN/m

Carichi Concentrati:

Carico concentrato N° 1

Distanza da estremo sinistro : = 5.08 m

Carico perm. portato da sola trave pienamente definito $G1 = 550.00$ kN

Carico concentrato accidentale dominante $Qk1 = 280.00$ kN

Coeff. Stato limite ultimo Pesi propri e permanenti $\gamma-G1 = 1.30$

Coeff. Stato limite ultimo Permanenti non definiti $\gamma-G2 = 1.50$

Coeff. Stato limite ultimo carichi accidentali $\gamma-Qk1-Qk2 = 1.50$

CATEGORIA SOVRAC. ACCIDENTALI DOMINANTI

C: Ambienti suscettibili di affollamento

Coeff. comb.frequente Coeff. Ψ_{i1} comb.frequente 0.70

Coeff. quasi perm. Coeff. Ψ_{i2} quasi perm 0.00

3) TAGLI E REAZIONI AGLI APPOGGI :

Taglio sinistro comb.Rara	$V_{raraS} = 524.18$	kN
Taglio appoggio sinistro comb. ultima	$V_{EdS} = 711.02$	kN
Taglio appoggio destro comb.Rara	$V_{raraD} = 477.28$	kN
Taglio appoggio destro comb. ultima	$V_{EdD} = 646.88$	kN
Reazione appoggio sinistro comb.Rara	$R_{raraS} = 541.62$	kN
Reazione appoggio sinistro comb. ultima	$R_{EdS} = 733.69$	kN
Reazione appoggio destro comb.Rara	$R_{raraD} = 494.72$	kN

Reazione appoggio destro comb. ultima REdD =669.55 kN

4) MATERIALI :

Calcestruzzo:

Classe cemento = N

Coeff. s (3.1.2 (6) EC2) s = 0.25

Resistenza caratt. cubica CLS Trave allo sbanco $R_{ck} = 35.00$ N/mm²

Resistenza caratt. cubica CLS Trave a 28gg Rck =50.00 N/mm²

Coefficiente di sicurezza $\gamma_c = 1.4$

Resistenza caratt. cilindrica	$f_{ck} = R_{ck} \times 0.83 =$	41.50	N/mm ²
-------------------------------	---------------------------------	-------	-------------------

Resistenza media a compressione	$f_{cm} = f_{ck} + 8 = 49.50$	N/mm ²
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Resistenza di calcolo cilindrica $f_{cd} = 0.85 \times f_{ck} / \gamma_c = 25.20$ N/mm²

Resistenza media Traz. assiale $f_{ctm} = 0,30 \times f_{ck}^{(2/3)} = 3.60$ N/mm²

Ecm Trave	Ecm =34.88	kN / mm ²
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Calcestruzzo getto in opera:

Trapezi Getto

N°	Altezza (cm)	Base Inferiore (cm)	Base Superiore (cm)
1	8	100	100

Resistenza caratt. cubica CLS Getto a 28 gg $R_{ck} = 25.00$ N/mm²

Resistenza caratt. cilindrica ($f_{ck} = R_{ck} \times 0.83$) $f_{ck} = 20.75$ N/mm²

Coefficiente di sicurezza $\gamma_c = 1.5$

Resistenza di calcolo cilindrica $f_{cd} = f_{ck} / 1.5 \times 0.85 f_{cd} = 11.76$ N/mm²

Ecm Getto

Ecmg =29.10

kN / mm²

Armatura di precompressione

Trefoli stabilizzati a basso rilassamento fpk =1860 N/mm²

Ep Trefoli stabilizzati	$E_p = 195.00$	kN / mm ²
Coefficiente di sicurezza	$\gamma_a = 1.15$	
	$f_{pk} = 1670$	N/mm ²
	$f_{sd} = f_{pk} / 1.15 = 1452$	N/mm ²
Tesatura iniziale trefoli	$\sigma_{api} = 1400$	N/mm ²
Armatura lenta		
Acciaio B450C	$f_{yk} = 450.00$	N/mm ²
	$f_{yd} = f_{yk} / 1.15 = 391.30$	N/mm ²

5) CARATTERISTICHE GEOMETRICHE :

Sezione geometrica solo Trave

Altezza Trave	$H_o = 125.00$	cm
Area Sezione	$A_o = 7750.00$	cm ²
Perimetro	$U = 450.00$	cm
Dimensione Nominale $2 \times A_o / U$	$= 34.44$	cm
Distanza baricentro da estradosso Trave	$Y'o = 71.69$	cm
Momento inerzia	$J_o = 10979815.53$	cm ⁴

Sezione con calcestruzzo e trefoli omogeneizzati

Coefficiente di omog. E_{cs} / E_{cm}	$= 5.59$	
Altezza Trave	$H_1 = 125.00$	cm
Area omogeneizzata	$A_1 = 7951.58$	cm ²
Distanza baricentro da estradosso Trave	$Y'1 = 72.39$	cm
Momento inerzia	$J_1 = 11449972.20$	cm ⁴
Modulo di resistenza superiore	$W_{s1} = 158173.26$	cm ³

Modulo di resistenza inferiore $W_{i1} = 217633.74 \text{ cm}^3$

Sezione con calcestruzzo trefoli e getti

E Getto / E Trave = 0.83

Altezza Trave $H1 = 125.00 \text{ cm}$

Altezza Getto $Hg = 8.00 \text{ cm}$

Area ideale trave + getto in opera $A2 = 8619.08 \text{ cm}^2$

Distanza baricentro da estradosso Trave $Y'2 = 66.47 \text{ cm}$

Momento inerzia Trave + getto $J2 = 15046818.73 \text{ cm}^4$

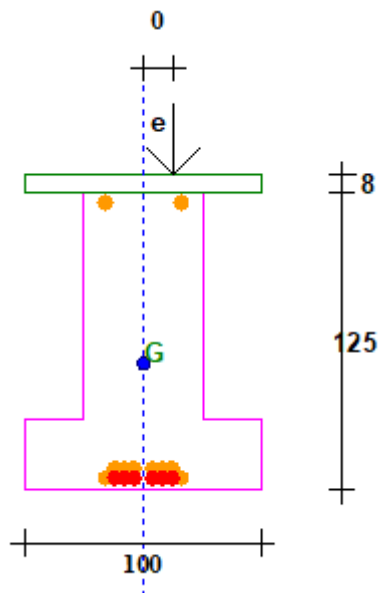
Modulo di resistenza estradosso getto $Wg = 242150.89 \text{ cm}^3$

Modulo di resistenza estradosso Trave $Ws2 = 226359.86 \text{ cm}^3$

Modulo di resistenza intradosso Trave $W_{i2} = 257091.92 \text{ cm}^3$

6) ARMATURA DI PRECOMPRESSIONE E ARMATURA LENTA :

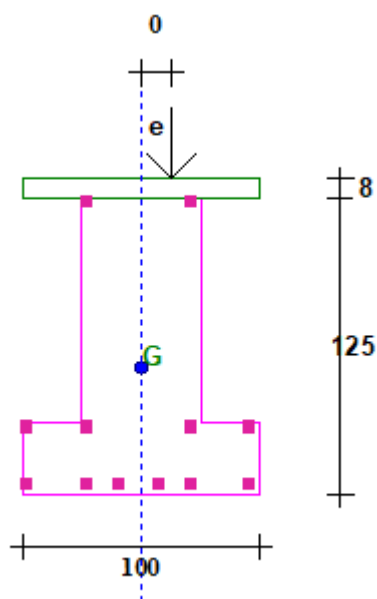
Trefoli



N°	Y (cm)	X (cm)	Area (cm²)	Neut SX.(m)	Neut DX.(m)
1	5	34	0.93	0	0
2	5	38	1.39	0	0
3	5	42	1.39	0	0

4	5	46	1.39	0	0
5	5	54	1.39	0	0
6	5	58	1.39	0	0
7	5	62	1.39	0	0
8	5	66	0.93	0	0
9	9	38	0.93	0	0
10	9	42	0.93	0	0
11	9	46	0.93	0	0
12	9	54	0.93	0	0
13	9	58	0.93	0	0
14	9	62	0.93	0	0
15	121	34	0.93	0	0
16	121	66	0.93	0	0

Ferri



N°	Y (cm)	X (cm)	Area (cm²)	Diam.(mm)	Neut SX (m)	SPEZZONI L ferro (m)	Neut DX (m)	SPEZZONI Lung SX (m)	SPEZZONI Lung DX (m)
1	3	3	2.01	16	0	0	0	0	0
2	3	28	2.01	16	0	0	0	0	0
3	3	41.66	2.01	16	0	0	0	0	0
4	3	58.33	2.01	16	0	0	0	0	0

5	3	72	2.01	16	0	0	0	0	0
6	3	97	2.01	16	0	0	0	0	0
7	27	3	2.01	16	0	0	0	0	0
8	27	28	2.01	16	0	0	0	0	0
9	27	72	2.01	16	0	0	0	0	0
10	27	97	2.01	16	0	0	0	0	0
11	122	28	2.01	16	0	0	0	0	0

7) ANALISI DELLE CADUTE DI TENSIONE :

Le cadute sono calcolate nella sezione di max sollecitazione a m 5.10 dall' estremo sx della Trave

Sollecitazioni iniziali di precompressione :

Area totale trefoli	=	17.64	cm ²
Distanza Baric. trefoli da lembo Inf. Trave	=	18.50	cm
Tesatura iniziale	=	1400.00	N/mm ²
Perdita al martinetto 1.500 % tesatura iniziale	=	21.00	N/mm ²
Perdite per ritiro con maturazione vapore (6 giorni)	=	7.19	N/mm ²
Perdite per Rilassamento con maturazione a vapore	=	13.30	N/mm ²
Precompressione iniziale nei Trefoli	Sigma-0 =	1358.51	N/mm ²
Sforzo di precompressione iniziale	No =	2396.41	kN
Momento di precompressione iniziale	Mo =	81749.17	kNcm

Le perdite dipendenti dal tempo sono calcolate con la formula:

$$\frac{ecs \times Ep + 0.8 \times Dsigmapr + Ep/Ecm \times Fi(t,to) \times Sigmacqp}{(1 + Ep/Ecm \times Ap/Ac \times (1 + Ac/Jc \times Zcp^2) \times (1 + 0.8 \times Fi(t,to)))}$$

$$Dspcsr = \quad (5.46 \text{ EC2})$$

$$(1 + Ep/Ecm \times Ap/Ac \times (1 + Ac/Jc \times Zcp^2) \times (1 + 0.8 \times Fi(t,to)))$$

$$ecs \times Ep = \text{deformazione per ritiro} \times Ep = 78.00 \quad \text{N/mm}^2$$

$$Ep = \text{Modulo elasticità acciaio armonico} = 195.00 \quad \text{kN / mm}^2$$

$$Dsigmapr = \text{variazione tensione per rilassamento nel Bar. Trefoli Inf.} = 60.65 \quad \text{N/mm}^2$$

Rilassamento Trefoli dopo mille ore	=	2.50	%
E_p / E_{cm} = rapporto moduli acciaio/ CLS	=	5.59	
$F_i(t, t_0)$ = Coeff. di Viscosità a tempo infinito	=	2.11	
% vapore aria durante la maturazione	=	60.00	%
Scqp = Tensione nel Bar. Trefoli (precom.+azioni quasi permanenti)	=	-0.27	N/mm ²
Ap - Ac - Jc vedere nelle caratteristiche geometriche e sopra			
Zcp = Distanza tra Bar. Trefoli e bar. Trave	=	34.11	cm
Perdite dipendenti dal tempo nell' acciaio	Dspcsr =	95.03	N/mm ²
Sigma di precompressione finale nei trefoli	Sigma0 - Dspcsr =	1263.48	N/mm ²

8) VERIFICA ALLO STATO LIMITE DI ESERCIZIO :

Distanza di massima sollecitazione dall' estremo sinistro della Trave: X =4.20m

Sforzo di precompressione finale	Nf =	2228.77	kN
Momento di precompressione finale	Mf =	760.31	kNm

Combinazione di carichi quasi permanente.

Coefficiente per combinazione quasi permanente	psi-21 =	0.60	
Momento del Peso Proprio e Sovracc. Permanenti	Mpp =	1387.85	kNm
Momento Sovraccarichi accidentali	Maqp =	368.53	kNm
Tensione sup. ammessa < 0.45 x fck Getto in Opera	=	9.34	N/mm ²
Tensione Sup. ammessa < 0.45 x fck Trave	=	18.68	N/mm ²
Tensione inferiore ammessa > fctm /1.2	=	-3.00	N/mm ²
Tensione superiore nel getto in Opera	=	1.52	N/mm ²
Tensione superiore nel CLS Trave	=	8.40	N/mm ²
Tensione inferiore nel CLS Trave	=	-1.51	N/mm ²

Combinazione di carichi Frequente.

Coefficiente per combinazione frequente	psi-11 =	0.70	
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Momento Sovraccarichi accidentali	$M_{af} = 429.95$	kNm
Tensione inferiore per considerare sez. reagente $> f_{ctm} / 1.2$	$= -3.00$	N/mm ²
Tensione inferiore nel CLS Trave	$= -1.75$	N/mm ²

Combinazione di carichi Rara.

Momento Sovraccarichi accidentali	$M_{ar} = 614.22$	kNm
Tensione sup. ammessa nel getto $< 0,60 \times f_{ck}$ Getto in Opera	$= 12.45$	N/mm ²
Tensione Sup. ammessa $< 0,60 \times f_{ck}$ Trave	$= 24.90$	N/mm ²
Tensione superiore nel getto in Opera	$= 2.54$	N/mm ²
Tensione superiore nel CLS Trave	$= 9.48$	N/mm ²

9) VERIFICA ALLO STATO LIMITE ULTIMO

Il momento resistente è calcolato con il diagramma dell' acciaio formato da una bilatera con il punto di snervamento $= 0.9 \times f_{pk} / 1.15$ e l' estremo in $f_{pk} / 1.15$.

Il diagramma del CLS con ascissa max f_{cd}

L'ordinata max =	$E_{cu} = 3.5$	o/oo
Momento di calcolo con comb. ultima	$M_{Ed} = 2725.54$	kNm
Momento Resistente	$M_{Rd} = 3294.91$	kNm
deve essere $M_{Rd} \geq M_{Ed}$		
Deformazione del CalcestruzzoGetto	$D_c = 3.50$	o/oo
Deformazione totale acciaio	$D_a = 6.48$	o/oo
Altezza zona compressa $(0.8 \times Y)$ da lembo sup. Getto in opera	$Y_r = 22.90$	cm
La Trave va in collasso per rottura del CLS superiore		

10) VERIFICHE A FLESSIONE E TAGLIO NELLE SEZIONI INIZIALI PRECOMPRESSE

Sezione 4 a metri 0 dal punto d' appoggio.

Momento dovuto al solo PP	Mpp =85.01	kNm
SIGMA allo sbanco nei trefoli	= 1358.51	N/mm ²
Allo sbanco e con il solo peso della Trave. Calcolo a rottura per sollecitazione minima.		
Distanza da bordo inf. ultima dello Sforzo N	Dsu =5.66	cm
Distanza Sforzo N + Mpp/N	Dsi = 21.88	cm > Dsu
Sigma al lembo sup. Trave allo sbanco	= -1.62	N / mm ²
Cadute di tensione Finali nei trefoli	= 214.17	N / mm ²
Sigma di precompressione finale nei trefoli	= 1185.83	N/mm ²
Sforzo di precompressione finale	Nsd =2091.81	kN
A tempo infinito e con i soli carichi permanenti :		
M per peso proprio e carichi permanenti	Mpp =-7.85	kNm
Momento di Decompressione	Mde =1528.59	kNm
		> 0

VERIFICA A TAGLIO

TAGLIO nella sezione in Comb. rara	Vsdo =524.18	kN
Larghezza minima sezione Trave	bw = 50.00	cm
TAGLIO di calcolo comb. ultima	VEd =711.02	kN
Acciaio inf. = VEd / (fyk /1.15)- Area Tref. inferiori	Asl =2.39	cm ²
Trefoli inferiori cosiderati	At = 15.78	cm ²
TAGLIO PORTATO DA TRAVE SENZA BISOGNO STAFFE	Vrdc = 1275.25	kN >= VEd
FORMULA UTILIZZATA : $I \times Bw / S \times \text{SQR}(fctd^2 + 1 \times \text{sigma bar.} \times fctd)$		
Dove I = Momento inerzia Trave + getto	Ji = 15046818.73	cm ⁴
Bw = larghezza nel baricentro trave sopra riportata		
S = Momento statico parte trave sup. baricentro rispetto baricentro	=159316.30	cm ³
Sigma nel baricentro trave + getto	2.26	N/mm ²
Fctd = Fctm x 0,7 / Gammac	Fctd =1.80	N/mm ²
Essendo Vrdc > Taglio ultimo pongo staffatura minima	Area staffe/m =7.50	cm ² /m

Verifica Staffe emergenti

TAGLIO di seconda fase comb. ultima	$V_{Ed2} = 221.86$	kN
$V_{Edi} = \beta \times V_{Ed2} / (z \times b_i)$ (6.2.5 (6.24) EC2)	= 0.34	N/mm ²
dove β (6.2.5 EC2)	= 1.000	
dove b_i tra trave e getto	= 50.00	cm
$V_{Rdi} = C_i \times f_{ctd}$ (6.2.5 EC2)	= 0.42	N/mm ² > V_{Edi} - VERIFICATO
$V_{Rdi} > V_{Edi}$ Non sono necessarie staffe emergenti		
Superficie di contatto Trave-Getto	=	
$c = 0.40$ $\mu = 0.7$ (6.2.5(2)EC2)		

11) DEFORMABILITA' DELLA TRAVE

Le Frecce sono calcolate nella sezione a m 5.33 dall' estremo sx della Trave

Altezza Trave = 125.00 cm

Frecce provocate dalla storia di carico della Trave :

+ Freccia verso il basso

- Freccia verso l' alto

Luce di calcolo Frecce	= 8.85	m
Calcestruzzo inizio precompressione	$R_{ck}' = 35.00$	N/mm ²
E iniziale Teorica	$E' = 32.810$	kN/mm ²
Momento inerzia Trave	$J_i = 11486618$	cm ⁴
Freccia per precompressione iniziale	$f_1 = -0.212$	cm
Freccia per peso proprio trave	$f_2 = 0.041$	cm
Freccia allo sbanco Totale	$f_1 + f_2 = -0.171$	cm

FRECCIA ISTANTANEA IN ESERCIZIO

Si considerano agenti tutti i carichi

Calcestruzzo allo stadio finale	$R_{ck} = 50.00$	N/mm ²
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E Teorica	=	34.880	kN/mm ²
Momento inerzia Trave in mezzeria	Jt =	11451046	cm ⁴
Momento inerzia Trave + getto in mezzeria	Jg =	15048118	cm ⁴
Freccia per precompressione	f3 =	-0.200	cm
Freccia dovuta a tutti i carichi permanenti	f4 =	0.236	cm
Freccia totale per sbalzo sinistro	fs =	-0.0010	cm
Freccia totale per sbalzo destro	fd =	-0.0010	cm
Freccia Finale carichi permanenti pien. definiti =f3+f4+fs+fdfp=0.034			cm
Freccia totale istantanea per tutti i carichi	ft =	0.113	cm

FRECCIA IN ESERCIZIO A LUNGO TERMINE

Si considera la combinazione di carico quasi permanente

Fi(t,to) = Coeff. di Viscosità a tempo inf. 2.107

e quindi Coefficiente di omog. E acciaio / E efficace

E efficace = (E Teorica / (1 + Fi(t,to)))-(7.4.3 (7.20) EC2) 11.227 kN/mm²

e quindi Coefficiente di omog. E acciaio / E efficace 18.704

Momento inerzia Trave in mezzeria Jf = 12617321 cm⁴

Momento inerzia Trave + getto in mezzeria Jfg = 16386521 cm⁴

Freccia per precompressione finale f1 = -0.515 cm

Freccia a lungo termine per carichi comb. quasi perm. fd = 0.798 cm

Freccia tot. a lungo termine quasi perm.per sbalzo sinistrofsd =-0.003 cm

Freccia tot. a lungo termine quasi perm. per sbalzo destrofdd =-0.003 cm

Freccia tot. a lungo termine in comb quasi permanente fdt = f1+fd+fsd+fddfdt =0.277 cm

Luce di calcolo Frecce / 250 Lc/250 =3.540 cm

Freccia tot. a lungo termine fdt= 0.277 cm<= Luce/250 -
VERIFICATO

12) RIENTRO TREFOLI IN TESTATA TRAVE

Il rientro è calcolato con la formula EN 13369:2004 (E)

Posto fbpt = $3.2 \times 0.7 \times f_{ctmj} / \text{GammaC}$ (8.15 EC2)	=	4.54	N/mm ²
Lpt2= $1.2 \times Lpt = 1.2 \times 0.19 \times \text{Dia} \times \text{Sigmai} / \text{fbpt}$ (8.18 EC2)=		762.46	mm
Rientro medio $0.4 \times Lpt2 \times \text{Sigmai} / E_p = DLo$	=	2.16	mm
Rientro max = $DLo \times 1.3$ (4.2.3.2.4 EN 13369)	=	2.80	mm

13) ARMATURA ZOCCOLO E SOSPENSIONE

Sporgenza zoccolo	SP =25.00	cm
Altezza zoccolo	HA =30.00	cm
Carico distribuito ultimo sullo zoccolo	P = 0.00	kN/m
Asse appoggio $a=2 \cdot SP / 3$ da filo anima	a = 16.67	cm
Momento flettente ultimo $M=P \cdot a$ a filo anima	M = 0.00	kNcm
Acciaio estradosso zoccolo $M / [0.9(HA-3)f_{yd}]$	= 0.00	cm ² / m
Acciaio a sospensione su due lati $2P/f_{yd}$	= 0.00	cm ² / m
Staffe correnti: min. $0.15b_w = 0 >$ sospensione 0	= 0.00	cm ² / m

TRAVI PRECOMPRESSE COPERTURA T ROVESCIA – SISMA VERTICALE

EISEKO - TRAVI RTL-T-I versione 19.00.00

Eiseko Computers

Viale del Lavoro 17 - 37036 - S.Martino B.A. (Verona)

Tel: 045 8031894 - Fax: 045 8044652 - E-mail : info@eiseko.com - Web: www.eiseko.com

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RELAZIONE SISMICA

PROGETTO: TRAVE A T COPERTURA.txt

Nome Trave: TI ROVESCIO

Data : 01/04/2021 Ora : 15:30:59

La trave in oggetto è verificata allo stato limite di Danno ed allo stato limite Vita secondo NTC 17 - Gennaio - 2018

e secondo l'Eurocodice 2 UNI EN 1992-1-1 nella versione 2005 e solo per quanto consentito da NTC 17/1/18

NB: Nel calcolo il segno - indica trazione. I Newton sono ricavati col rapporto 10 anzichè 9.81 anche nei valori riferiti

agli Acciai.

Località dove è posta la trave MODENA (MO)

Latitudine = 44.6470 °

Longitudine = 10.9250 °

Classe d'uso = III

VITA Nominale della Trave VN = 50 anni

Coefficiente d'uso Cu = 1.5

1.5 = Edifici importanti in relazione alle conseguenze di un collasso

PERIODO di Riferimento VN x Cu VR = 75 anni

Dati Ricavati da NTC 17.01.2018

° **STATO LIMITE DI DANNO**

Fo = fattore che quantifica l'amplificazione spettrale max. = 2.480

T*c = periodo d'inizio tratto a velocità spettrale costante = 0.280 s

ag = accelerazione max al sito ag = 0.072 m/s²

Coeff. Stato Limite di Danno SLD Pvr = 0.63

° **STATO LIMITE SALVAGUARDIA VITA**

Fo = fattore che quantifica l'amplificazione spettrale max. = 2.430

T*c = periodo d'inizio tratto a velocità spettrale costante = 0.290 s

ag = accelerazione max al sito ag = 0.190 m/s²

Coeff. Stato Limite Vita SLV Pvr = 0.10

° **ALTRI COEFFICIENTI UTILIZZATI**

Fattore di Struttura Car. Verticali = 1.50

Fattore di Struttura Car. Orizzontali = 2.00

Categoria Topografica = T1

Categoria SOTTOSUOLO = C

° **Massa sismica per scarico sismico verticale e orizzontale**

Massa Sismica: $(P_p + G_1 + G_2 + Q_{k1} \times \psi_{i21}) / 981$ 1.975 Kg-massa/m

NB: Con sbalzi > 70diam. il periodo è calcolato col metodo Rayleigh

Primo periodo di Vibrazione per car. verticali : T1 = 0.0254 s

° **STATO LIMITE DI DANNO**

Spettro di risposta carichi verticali: Sve(T1)=0.07 m/s²

Carico sismico verticale: E = 1.33 kN/m

Comb. di calcolo $E+G1+G2+\Psi_{21} \cdot Q_{k1}$	$Q_E = 20.70$	kN/m
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Carico conc.sismico verticale N° 1=	49.25
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° STATO LIMITE SALVAGUARDIA VITA

Spettro di risposta carichi verticali:	$S_{ve}(T1)=0.19$	m/s^2
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Carico sismico verticale:	$E = 3.59$	kN/m
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Comb. di calcolo $E+G1+G2+\Psi_{21} \cdot Q_{k1}$	$Q_E = 22.97$	kN/m
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Carico sismico conc. verticale N° 1=	133.19	kN
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° **Massa Sismica per carico sismico verticale negativo**

Massa Sismica: $(P_p + G1) / 981$	= 1.975	Kg-massa/m
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Periodo Vibrazione per car. verticali negativi:	0.0254	s
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° STATO LIMITE DI DANNO

Spettro di risposta carichi verticali neg.:	= 0.07	m/s^2
---	--------	---------

Carico sismico verticale negativo:	$E = 1.33$	kN/m
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Comb. di calcolo $-E+G1$	$Q_E = 18.05$	kN/m
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Carico concentrato verticale negativo N° 1=	37.73
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° STATO LIMITE SALVAGUARDIA VITA

Spettro di risposta carichi verticali neg.:	0.19	m/s^2
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Carico sismico verticale negativo:	$E = 3.59$	kN/m
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Comb. di calcolo $-E+G1$	$Q_E = 15.78$	kN/m
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Carico sismico conc. vert. negativo N° 1=	102.03	kN
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1) MATERIALI :

Resistenza caratt. cilindrica CLS a 28gg	$f_{ck} = 41.50$	N/mm^2
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Tensione Sup. max sismica $< 0.70 \times f_{ck}$ Trave	= 29.05	N/mm^2
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Tensione inferiore sismica ammessa $> f_{ctm} \times 1.3$	= -4.67	N/mm^2
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Calcestruzzo getto in opera:

Tensione Sup. max sismica $< 0.70 \times f_{ck}$ CLS getto = 14.53 N/mm²

2) VERIFICA ALLO STATO LIMITE DI DANNO :

Sforzo di precompressione finale	$N_f = 2228.77$	kN
Momento di precompressione finale	$M_f = 760.34$	kNm

Combinazione di carichi quasi permanente.

Coeff. quasi perm.	Coeff. Psi12 quasi perm	0.60
Momento per combinazione quasi permanente	$M_{qp} = 1756.39$	kNm
Momento Sismico verticale	$M_{Svd} = 120.49$	kNm
Tensione superiore nel getto in Opera	= 2.02	N/mm ²
Tensione superiore nel CLS Trave	= 8.93	N/mm ²
Tensione inferiore nel CLS Trave	= -1.98	N/mm ²
Verifica allo sforzo sismico verticale negativo.		
Momento soli carichi permanenti	$M_{pp} = 1387.85$	kNm
Momento Negativo per sisma	$M_{Snegd} = -95.21$	kNm
Tensione superiore nel CLS Trave	= 7.19	N/mm ²
Tensione inferiore nel CLS Trave	= -0.45	N/mm ²

3) VERIFICA ALLO STATO LIMITE VITA :

Distanza di massima sollecitazione dall' estremo sinistro della Trave : $X = 4.20m$

Combinazione di carichi quasi permanente.	=	
Momento per combinazione quasi permanente	$M_{qp} = 1756.39$	kNm
Momento Sismico verticale	$M_{aSvv} = 325.81$	kNm

Il momento resistente è calcolato con il diagramma dell' acciaio formato da una bilatera con il punto di

snervamento = $0.9 \times f_{pk} / 1.15$ e l' estremo in $f_{pk} / 1.15$.

Il diagramma del CLS con ascissa max fcd

L'ordinata max =	Ecu =3.5	o/oo
Momento simico SLV	Mslv =2082.20	kNm
Momento Resistente	MRd =3341.72	kNm
deve essere $MRd \geq Mslv$		
Verifica allo sforzo sismico verticale negativo.		
Momento soli carichi permanenti	Mpp =1387.85	kNm
Momento Negativo per sisma	MSnegV =-257.45	kNm
Tensione superiore nel CLS Trave	= 7.91	N/mm ²
Tensione inferiore nel CLS Trave	= -1.08	N/mm ²

4) VERIFICHE SEZIONI INIZIALI PRECOMPRESSE

Sezione 0 a metri 0 dal punto d' appoggio.

STATO LIMITE DI DANNO

Sforzo di precompressione finale	Nf = 2091.81	kN
Momento per combinazione quasi permanente	Mqp =-7.85	kNm
Momento Sismico verticale	MSvd =-0.54	kNm
Tensione superiore nel getto in Opera	= 0.00	N/mm ²
Tensione superiore nel CLS Trave	= -1.93	N/mm ²
Tensione inferiore nel CLS Trave	= 5.95	N/mm ²
Taglio Totale Carichi e Sisma	Vld = 496.92	kN
Sigma principale di Trazione	= -0.59	N/mm ²
Area staffe-verifica sismica	Assi/m =7.50	cm ² /m
Area staffe-verifica esercizio	Asw/m =7.50	cm ² /m

Verifica allo sforzo sismico verticale negativo.

Momento soli carichi permanenti	Mpp = -7.85	kNm
Momento Negativo per sisma	MSnegd = 0.54	kNm
Tensione superiore nel CLS Trave	= -1.93	N/mm ²
Tensione inferiore nel CLS Trave	= 5.95	N/mm ²

STATO LIMITE DI SALVAGUARDIA VITA

Momento comb. quasi permanente + Mom. Sismico verticale

Momento sismo SLV	Mslv = -9.30	kNm
Momento di Rottura	Mr = -514.63	kNm

deve essere $Mr \geq Mslv$

Taglio Totale Carichi e Sisma	Tev = 551.28	kN
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TAGLIO PORTATO DA TRAVE SENZA BISOGNO STAFFE $V_{rdc} = 1275.25$ kN $\geq V_{Ed}$

Momento soli carichi permanenti definiti	Mpp = -7.85	kNm
Momento Negativo per sisma	MSnegd = 1.46	kNm

Calcolo a rottura per sollecitazione minima.

Distanza da bordo inf. ultima dello Sforzo N	Dsu = 3.23	cm
Distanza da bordo inf. dello Sforzo N	Dss = 18.19	cm

Deve essere $Dss \geq Dsu$

4) VERIFICHE SEZIONI INIZIALI PRECOMPRESSE

Sezione 1 a metri 1.1062 dal punto d' appoggio.

STATO LIMITE DI DANNO

Sforzo di precompressione finale	Nf = 2131.01	kN
Momento per combinazione quasi permanente	Mqp = 494.70	kNm
Momento Sismico verticale	MSvd = 33.94	kNm
Tensione superiore nel getto in Opera	= 0.55	N/mm ²
Tensione superiore nel CLS Trave	= 1.17	N/mm ²

Tensione inferiore nel CLS Trave	= 3.68	N/mm ²
Taglio Totale Carichi e Sisma	Vld = 474.01	kN
Sigma principale di Trazione	= -0.52	N/mm ²
Area staffe-verifica sismica	Assi/m =7.50	cm ² /m
Area staffe-verifica esercizio	Asw/m =7.50	cm ² /m
Verifica allo sforzo sismico verticale negativo.		
Momento soli carichi permanenti	Mpp =396.53	kNm
Momento Negativo per sisma	MSnegd =-27.20	kNm
Tensione superiore nel CLS Trave	= 0.71	N/mm ²
Tensione inferiore nel CLS Trave	= 4.09	N/mm ²

STATO LIMITE DI SALVAGUARDIA VITA

Momento comb. quasi permanente + Mom. Sismico verticale

Momento simico SLV	Mslv =586.47	kNm
Momento di Rottura	Mr = 3336.06	kNm

deve essere $Mr \geq Mslv$

Taglio Totale Carichi e Sisma	Tev =525.87	kN
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TAGLIO PORTATO DA TRAVE SENZA BISOGNO STAFFEVrdc =1314.16 kN \geq VEd

Momento soli carichi permanenti definiti	Mpp =396.53	kNm
Momento Negativo per sisma	MSnegd =-73.56	kNm

Calcolo a rottura per sollecitazione minima.

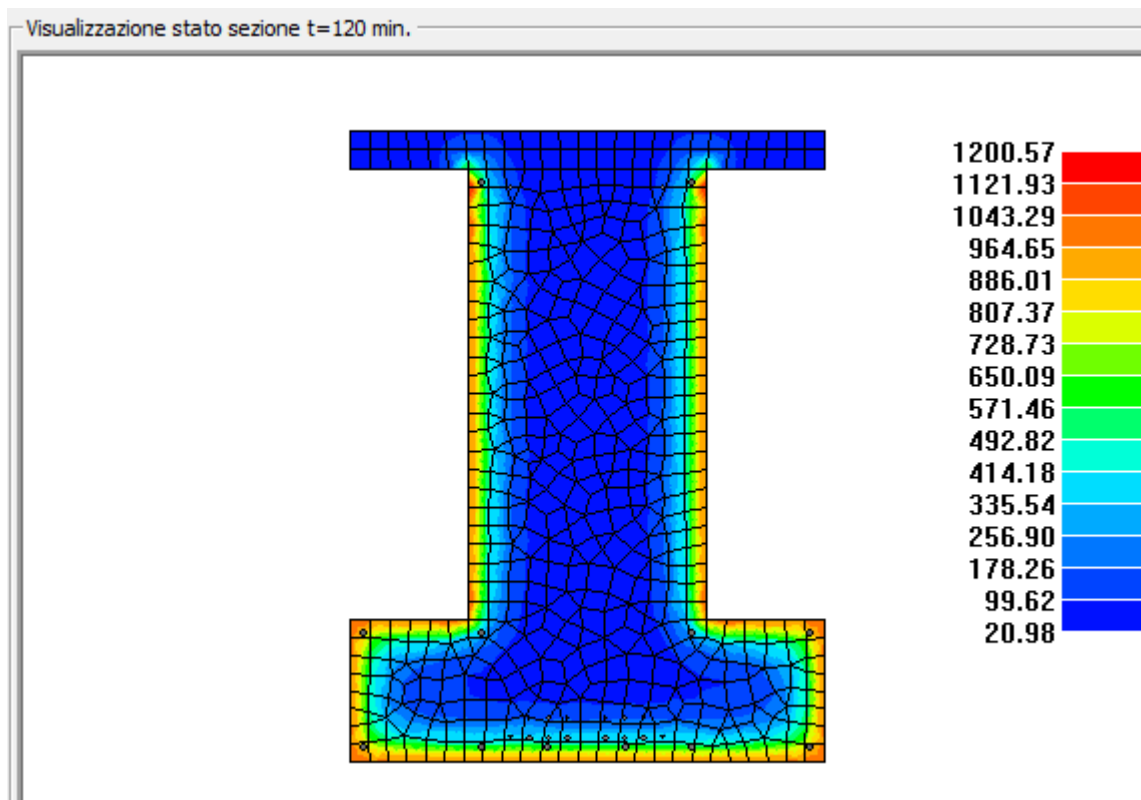
Distanza da bordo inf. ultima dello Sforzo N	Dsu =3.32	cm
Distanza da bordo inf. dello Sforzo N	Dss =33.65	cm

Deve essere $Dss \geq Dsu$

TRAVI PRECOMPRESSE COPERTURA T ROVESCIA – VERIFICA DI RESISTENZA FUOCO

3. VERIFICA DI RESISTENZA AL FUOCO DELLA SEZIONE A T=120 minuti

UNI EN 1992-1-2:2005 MODELLO AVANZATO



Stato	Verifica N/M	Azione N	Azione Mxx	Azione Myy	Azione Nu	Azione Muxx	Azione Muyy	Deform. C	Deform. S	x/d
Verificata	1.36	0.0	1756.39	0.0	-5.66e-05	2396.67	0.0	-0.35	2.31	0.13

Stato	Verifica V	Azione V	Azione Vu	Area St.	f _{yw}	Temp.	Ks(T)	CotTeta	Azione VRdmax	Azione Vrd,s
Verificata	2.12	464.82	0.0	7.50	450.00	20.00	1.00	2.50	4600.48	987.19

Figura	Materiale	Nota	Da X	Da Y	A X	A Y	Esposizione	alfa c	exp n	e res
1	Cl	Rck=50 [N/mm ²]	25.00	125.00	25.00	30.00	Esposto incendio	25.00	1.00	0.56
			25.00	30.00	0.0	30.00	Esposto incendio	25.00	1.00	0.56
			0.0	30.00	0.0	0.0	Esposto incendio	25.00	1.00	0.56
			0.0	0.0	100.00	0.0	Esposto incendio	25.00	1.00	0.56
			100.00	0.0	100.00	30.00	Esposto incendio	25.00	1.00	0.56
			100.00	30.00	75.00	30.00	Esposto incendio	25.00	1.00	0.56
			75.00	30.00	75.00	125.00	Esposto incendio	25.00	1.00	0.56
			75.00	125.00	25.00	125.00	Non esposto			
2	Cl	Rck=25 [N/mm ²]	25.00	125.00	75.00	125.00	Non esposto			
			75.00	125.00	100.00	125.00	Non esposto			
			100.00	125.00	100.00	133.00	Non esposto			
			100.00	133.00	0.0	133.00	Esposto aria	9.00	1.00	0.56
			0.0	133.00	0.0	125.00	Non esposto			
			0.0	125.00	25.00	125.00	Non esposto			

Ferro	pos. X	pos. Y	Temp.	Epsilon	Sigma	area	f _{yk}	Tipo	f _{ptk}	e f _{ptk}	e decomp.
	cm	cm	C	%	N/mm ²	cm ²	N/mm ²	N/mm ²			
1	28.00	122.00	513.85	-0.12	-137.11	2.01	450.00	Classe N lam.	0.0	0.0	0.0
2	72.00	122.00	528.95	-0.12	-127.97	2.01	450.00	Classe N lam.	0.0	0.0	0.0
3	3.00	27.00	828.78	1.82	42.92	2.01	450.00	Classe N lam.	0.0	0.0	0.0
4	28.00	27.00	330.49	1.82	448.97	2.01	450.00	Classe N lam.	0.0	0.0	0.0
5	72.00	27.00	307.30	1.82	449.06	2.01	450.00	Classe N lam.	0.0	0.0	0.0
6	97.00	27.00	827.49	1.82	43.20	2.01	450.00	Classe N lam.	0.0	0.0	0.0
7	3.00	3.00	827.61	2.31	43.29	2.01	450.00	Classe N lam.	0.0	0.0	0.0
8	28.00	3.00	615.91	2.31	194.31	2.01	450.00	Classe N lam.	0.0	0.0	0.0
9	41.66	3.00	613.92	2.31	196.47	2.01	450.00	Classe N lam.	0.0	0.0	0.0
10	58.33	3.00	602.36	2.31	208.95	2.01	450.00	Classe N lam.	0.0	0.0	0.0
11	72.00	3.00	594.39	2.31	219.33	2.01	450.00	Classe N lam.	0.0	0.0	0.0
12	97.00	3.00	828.20	2.31	43.15	2.01	450.00	Classe N lam.	0.0	0.0	0.0
13	34.00	5.00	390.21	2.27	812.65	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
14	38.00	5.00	389.02	2.27	817.82	1.39	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
15	42.00	5.00	395.62	2.27	789.10	1.39	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
16	46.00	5.00	397.07	2.27	782.81	1.39	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
17	54.00	5.00	396.07	2.27	787.15	1.39	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
18	58.00	5.00	397.56	2.27	780.68	1.39	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
19	62.00	5.00	400.08	2.27	769.73	1.39	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
20	66.00	5.00	398.48	2.27	776.66	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
21	38.00	9.00	188.95	2.19	1478.57	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
22	42.00	9.00	180.31	2.19	1495.94	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
23	46.00	9.00	181.57	2.19	1493.40	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
24	54.00	9.00	180.38	2.19	1495.79	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
25	58.00	9.00	181.10	2.19	1494.35	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
26	62.00	9.00	182.23	2.19	1492.07	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
27	34.00	121.00	149.41	-0.10	748.69	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03
28	66.00	121.00	153.28	-0.10	745.69	0.93	1674.00	Classe B fili e tref.	1860.00	0.05	5.00e-03

4. RELAZIONE DI CALCOLO TRAVI AD L GRADONI

Quadro normativo di riferimento adottato

Le norme ed i documenti assunti quale riferimento per la progettazione strutturale vengono indicati di seguito. Nel capitolo "normativa di riferimento" è comunque presente l'elenco completo delle normative disponibili.

Progetto-verifica degli elementi	
Progetto cemento armato	D.M. 17-01-2018
Progetto acciaio	D.M. 17-01-2018
Progetto legno	D.M. 17-01-2018
Progetto muratura	D.M. 17-01-2018
Azione sismica	
Norma applicata per l' azione sismica	D.M. 17-01-2018

Azioni di progetto sulla costruzione

Nei capitoli "modellazione delle azioni" e "schematizzazione dei casi di carico" sono indicate le azioni sulla costruzioni.

Nel prosieguo si indicano tipo di analisi strutturale condotta (statico,dinamico, lineare o non lineare) e il metodo adottato per la risoluzione del problema strutturale nonché le metodologie seguite per la verifica o per il progetto-verifica delle sezioni. Si riportano le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti; le configurazioni studiate per la struttura in esame *sono risultate effettivamente esaustive per la progettazione-verifica*.

La verifica della sicurezza degli elementi strutturali avviene con i metodi della scienza delle costruzioni. L'analisi strutturale è condotta con il metodo degli spostamenti per la valutazione dello stato tensodeformativo indotto da carichi statici. L'analisi strutturale è condotta con il metodo dell'analisi modale e dello spettro di risposta in termini di accelerazione per la valutazione dello stato tensodeformativo indotto da carichi dinamici (tra cui quelli di tipo sismico).

L'analisi strutturale viene effettuata con il metodo degli elementi finiti. Il metodo sopraindicato si basa sulla schematizzazione della struttura in elementi connessi solo in corrispondenza di un numero prefissato di punti denominati nodi. I nodi sono definiti dalle tre coordinate cartesiane in un sistema di riferimento globale. Le incognite del problema (nell'ambito del metodo degli spostamenti) sono le componenti di spostamento dei nodi riferite al sistema di riferimento globale (traslazioni secondo X, Y, Z, rotazioni attorno X, Y, Z). La soluzione del problema si ottiene con un sistema di equazioni algebriche lineari i cui termini noti sono costituiti dai carichi agenti sulla struttura opportunamente concentrati ai nodi:

$K * u = F$ dove
 K = matrice di rigidezza
 u = vettore spostamenti nodali
 F = vettore forze nodali

Dagli spostamenti ottenuti con la risoluzione del sistema vengono quindi dedotte le sollecitazioni e/o le tensioni di ogni elemento, riferite generalmente ad una terna locale all'elemento stesso.

Il sistema di riferimento utilizzato è costituito da una terna cartesiana destrorsa XYZ. Si assume l'asse Z verticale ed orientato verso l'alto. Gli elementi utilizzati per la modellazione dello schema statico della struttura sono i seguenti:

Elemento tipo TRUSS	(biella-D2)
Elemento tipo BEAM	(trave-D2)
Elemento tipo MEMBRANE	(membrana-D3)
Elemento tipo PLATE	(piastra-guscio-D3)
Elemento tipo BOUNDARY	(molla)
Elemento tipo STIFFNESS	(matrice di rigidezza)
Elemento tipo BRICK	(elemento solido)
Elemento tipo SOLAIO	(macro elemento composto da più membrane)

Modello numerico

In questa parte viene descritto il modello numerico utilizzato (o i modelli numerici utilizzati) per l'analisi della struttura. La presentazione delle informazioni deve essere, coerentemente con le prescrizioni del paragrafo 10.2 e relativi sottoparagrafi delle NTC-18, tale da garantirne la leggibilità, la corretta interpretazione e la riproducibilità

Tipo di analisi strutturale	
Carichi verticali	SI

Di seguito si indicano l'origine e le caratteristiche dei codici di calcolo utilizzati riportando titolo, produttore e distributore, versione, estremi della licenza d'uso:

Informazioni sul codice di calcolo				
Titolo:	PRO_SAP	PROfessional	Structural	Analysis
	Program			

Versione:	PROFESSIONAL (build 2020-12-191)
Produttore-Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l., Ferrara
Codice Licenza:	Licenza dsi3996

Un attento esame preliminare della documentazione a corredo del software **ha consentito di valutarne l'affidabilità e soprattutto l'idoneità al caso specifico**. La documentazione, fornita dal produttore e distributore del software, contiene una esauriente descrizione delle basi teoriche e degli algoritmi impiegati, l'individuazione dei campi d'impiego, nonché casi prova interamente risolti e commentati, corredati dei file di input necessari a riprodurre l'elaborazione:

Affidabilità dei codici utilizzati

2S.I. ha verificato l'affidabilità e la robustezza del codice di calcolo attraverso un numero significativo di casi prova in cui i risultati dell'analisi numerica sono stati confrontati con soluzioni teoriche.

E' possibile reperire la documentazione contenente alcuni dei più significativi casi trattati al seguente link:
<https://www.2si.it/it/prodotti/affidabilita/>

Modellazione della geometria e proprietà meccaniche:

nodi	43
elementi D2 (per aste, travi, pilastri...)	38
elementi D3 (per pareti, platee, gusci...)	0

Dimensione del modello strutturale [cm]:

X min =	0.00
Xmax =	583.50
Ymin =	0.00
Ymax =	400.00
Zmin =	0.00
Zmax =	0.00

Strutture verticali:

Elementi di tipo asta	NO
Pilastri	NO

Strutture non verticali:

Elementi di tipo asta	NO
Travi	SI

Orizzontamenti:

Solai con la proprietà piano rigido	NO
Solai senza la proprietà piano rigido	NO

Tipo di vincoli:

Nodi vincolati rigidamente	SI
Nodi vincolati elasticamente	NO

Modellazione delle azioni

Si veda il capitolo **“Schematizzazione dei casi di carico”** per le informazioni necessarie alla comprensione ed alla ricostruzione delle azioni applicate al modello numerico, coerentemente con quanto indicato nella parte **“2.6. Azioni di progetto sulla costruzione”**.

Combinazioni e/o percorsi di carico

Si veda il capitolo **“Definizione delle combinazioni”** in cui sono indicate le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti.

Combinazioni dei casi di carico

APPROCCIO PROGETTUALE	Approccio 2
SLU	SI
Combinazione caratteristica (rara)	SI
Combinazione frequente	SI
Combinazione quasi permanente (SLE)	SI
SLA (accidentale quale incendio)	SI

Informazioni generali sull'elaborazione e giudizio motivato di accettabilità dei risultati.

Il programma prevede una serie di controlli automatici (check) che consentono l'individuazione di errori di modellazione. Al termine dell'analisi un controllo automatico identifica la presenza di spostamenti o rotazioni anormali. Si può pertanto asserire che l'elaborazione sia corretta e completa. I risultati delle elaborazioni sono stati sottoposti a controlli che ne comprovano l'attendibilità. Tale valutazione ha compreso il confronto con i risultati di semplici calcoli, eseguiti con metodi tradizionali e adottati, anche in fase di primo proporzionamento della struttura. Inoltre, sulla base di considerazioni riguardanti gli stati tensionali e deformativi determinati, si è valutata la validità delle scelte operate in sede di schematizzazione e di modellazione della struttura e delle azioni. Si allega al termine della presente relazione elenco sintetico dei controlli svolti (verifiche di equilibrio tra reazioni vincolari e carichi applicati, comparazioni tra i risultati delle analisi e quelli di valutazioni semplificate, etc.) .

Verifiche agli stati limite ultimi

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLU vengono indicate, con riferimento alla normativa adottata, le modalità ed i criteri seguiti per valutare la sicurezza della struttura nei confronti delle possibili situazioni di crisi ed i risultati delle valutazioni svolte. In via generale, oltre alle verifiche di resistenza e di spostamento, devono essere prese in considerazione verifiche nei confronti dei fenomeni di instabilità, locale e globale, di fatica, di duttilità, di degrado.

Verifiche agli stati limite di esercizio

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLE vengono indicate, con riferimento alla normativa adottata, le modalità seguite per valutare l'affidabilità della struttura nei confronti delle possibili situazioni di perdita di funzionalità (per eccessive deformazioni, fessurazioni, vibrazioni, etc.) ed i risultati delle valutazioni svolte.

RELAZIONE SUI MATERIALI

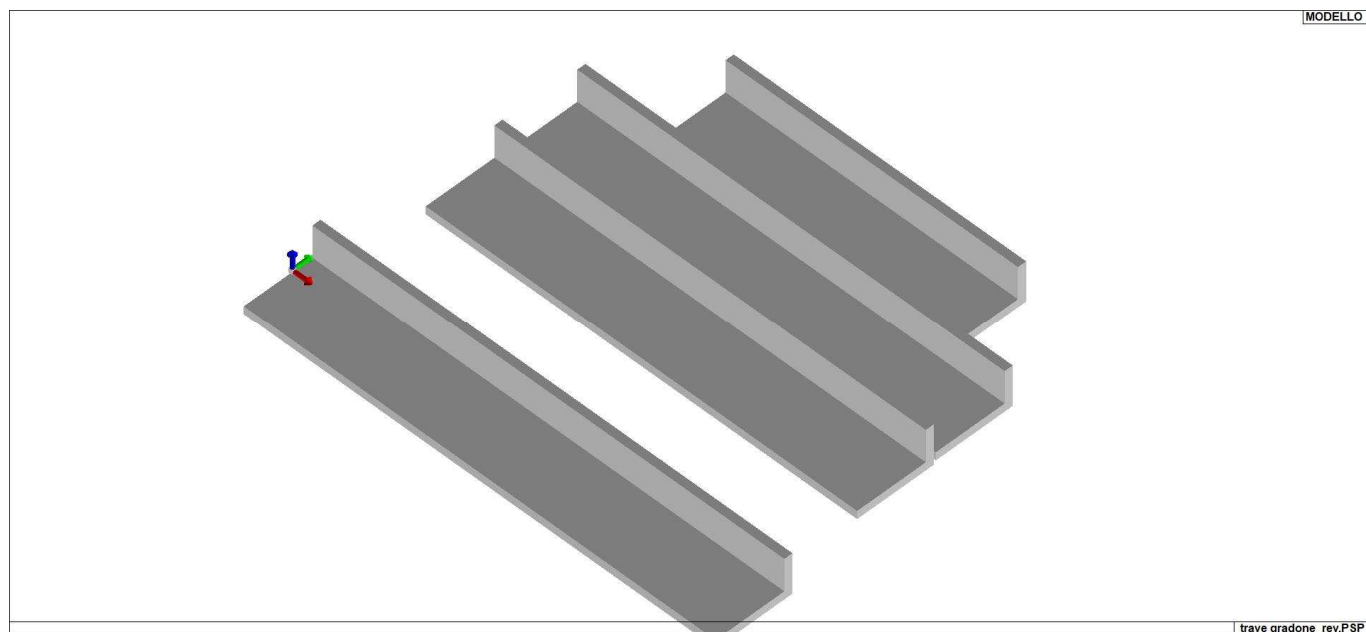
Il capitolo Materiali riporta informazioni esaustive relative all'elenco dei materiali impiegati e loro modalità di posa in opera e ai valori di calcolo.

NORMATIVA DI RIFERIMENTO

1. D.Min. Infrastrutture Min. Interni e Prot. Civile 17 Gennaio 2018 e allegate "Norme tecniche per le costruzioni".
2. Circolare 21/01/19, n. 7 C.S.LL.PP. "Istruzioni per l'applicazione dell'aggiornamento delle Norme Tecniche delle Costruzioni di cui al decreto ministeriale 17 gennaio 2018"
3. D.Min. Infrastrutture e trasporti 14 Settembre 2005 e allegate "Norme tecniche per le costruzioni".
4. D.M. LL.PP. 9 Gennaio 1996 "Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche".
5. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>".
6. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche per le costruzioni in zone sismiche".
7. Circolare 4/07/96, n.156AA.GG./STC. istruzioni per l'applicazione delle "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>" di cui al D.M. 16/01/96.
8. Circolare 10/04/97, n.65AA.GG. istruzioni per l'applicazione delle "Norme tecniche per le costruzioni in zone sismiche" di cui al D.M. 16/01/96.
9. D.M. LL.PP. 20 Novembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
10. Circolare 4 Gennaio 1989 n. 30787 "Istruzioni in merito alle norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
11. D.M. LL.PP. 11 Marzo 1988 "Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione e il collaudo delle opere di sostegno delle terre e delle opere di fondazione".
12. D.M. LL.PP. 3 Dicembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo delle costruzioni prefabbricate".
13. UNI 9502 - Procedimento analitico per valutare la resistenza al fuoco degli elementi costruttivi di conglomerato cementizio armato, normale e precompresso - edizione maggio 2001
14. Ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 marzo 2003 "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica" e successive modificazioni e integrazioni.
15. UNI EN 1990:2006 13/04/2006 Eurocodice 0 - Criteri generali di progettazione strutturale.
16. UNI EN 1991-1-1:2004 01/08/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-1: Azioni in generale - Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici.
17. UNI EN 1991-2:2005 01/03/2005 Eurocodice 1 - Azioni sulle strutture - Parte 2: Carichi da traffico sui

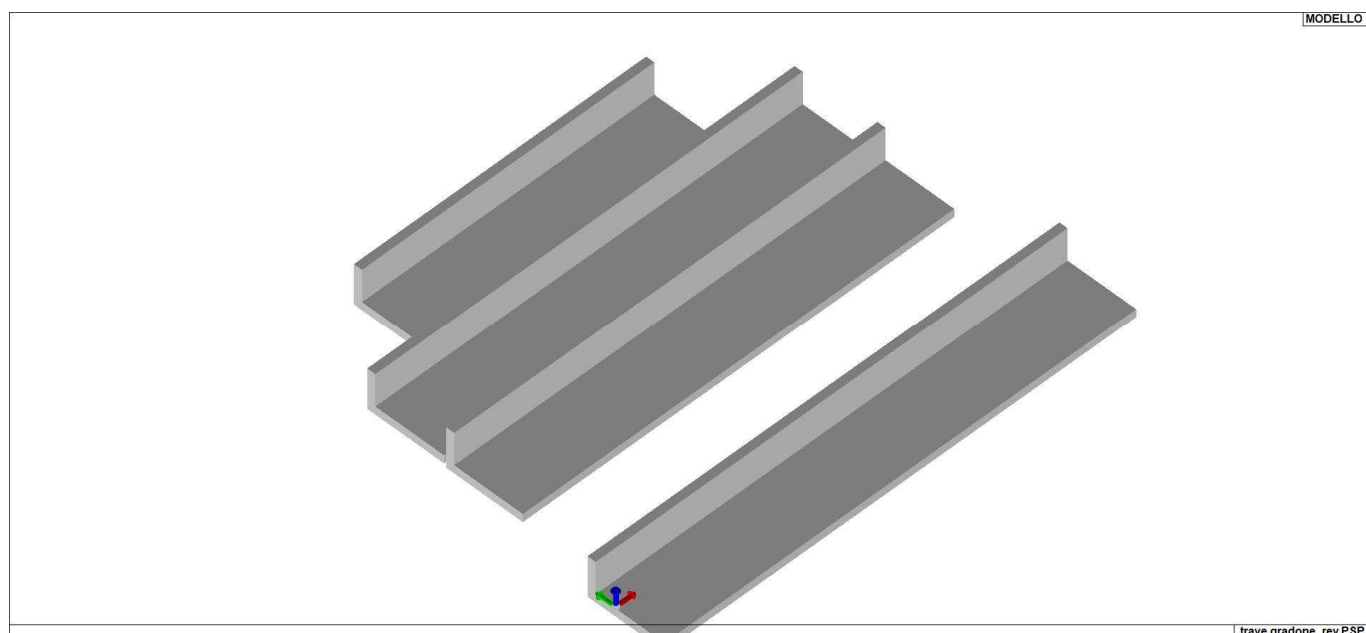
-
- ponti.
18. UNI EN 1991-1-3:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-3: Azioni in generale - Carichi da neve.
 19. UNI EN 1991-1-4:2005 01/07/2005 Eurocodice 1 - Azioni sulle strutture - Parte 1-4: Azioni in generale - Azioni del vento.
 20. UNI EN 1991-1-5:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-5: Azioni in generale - Azioni termiche.
 21. UNI EN 1992-1-1:2005 24/11/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
 22. UNI EN 1992-1-2:2005 01/04/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio.
 23. UNI EN 1993-1-1:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-1: Regole generali e regole per gli edifici.
 24. UNI EN 1993-1-8:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-8: Progettazione dei collegamenti.
 25. UNI EN 1994-1-1:2005 01/03/2005 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
 26. UNI EN 1994-2:2006 12/01/2006 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 2: Regole generali e regole per i ponti.
 27. UNI EN 1995-1-1:2005 01/02/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 1-1: Regole generali – Regole comuni e regole per gli edifici.
 28. UNI EN 1995-2:2005 01/01/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 2: Ponti.
 29. UNI EN 1996-1-1:2006 26/01/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 1-1: Regole generali per strutture di muratura armata e non armata.
 30. UNI EN 1996-3:2006 09/03/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 3: Metodi di calcolo semplificato per strutture di muratura non armata.
 31. UNI EN 1997-1:2005 01/02/2005 Eurocodice 7 - Progettazione geotecnica - Parte 1: Regole generali.
 32. UNI EN 1998-1:2005 01/03/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 1: Regole generali, azioni sismiche e regole per gli edifici.
 33. UNI EN 1998-3:2005 01/08/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 3: Valutazione e adeguamento degli edifici.
 34. UNI EN 1998-5:2005 01/01/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici.

NOTA il capitolo "normativa di riferimento": riporta l'elenco delle normative implementate nel software. Le norme utilizzate per la struttura oggetto della presente relazione sono indicate nel precedente capitolo "RELAZIONE DI CALCOLO STRUTTURALE" "ANALISI E VERIFICHE SVOLTE CON L'AUSILIO DI CODICI DI CALCOLO". Laddove nei capitoli successivi vengano richiamate norme antecedenti al DM 17.01.18 è dovuto a o a progettazione simulata di edificio esistente.



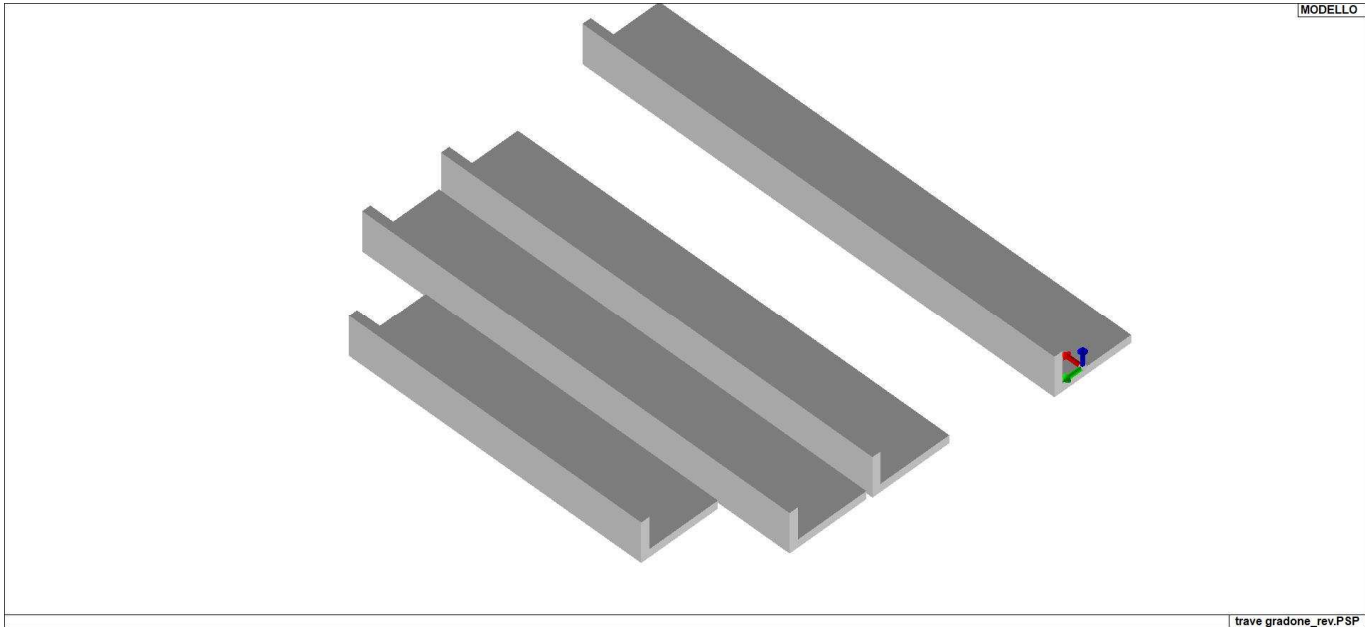
trave gradone_rev.PSP

01_INT_VISTA_SOLIDA_001

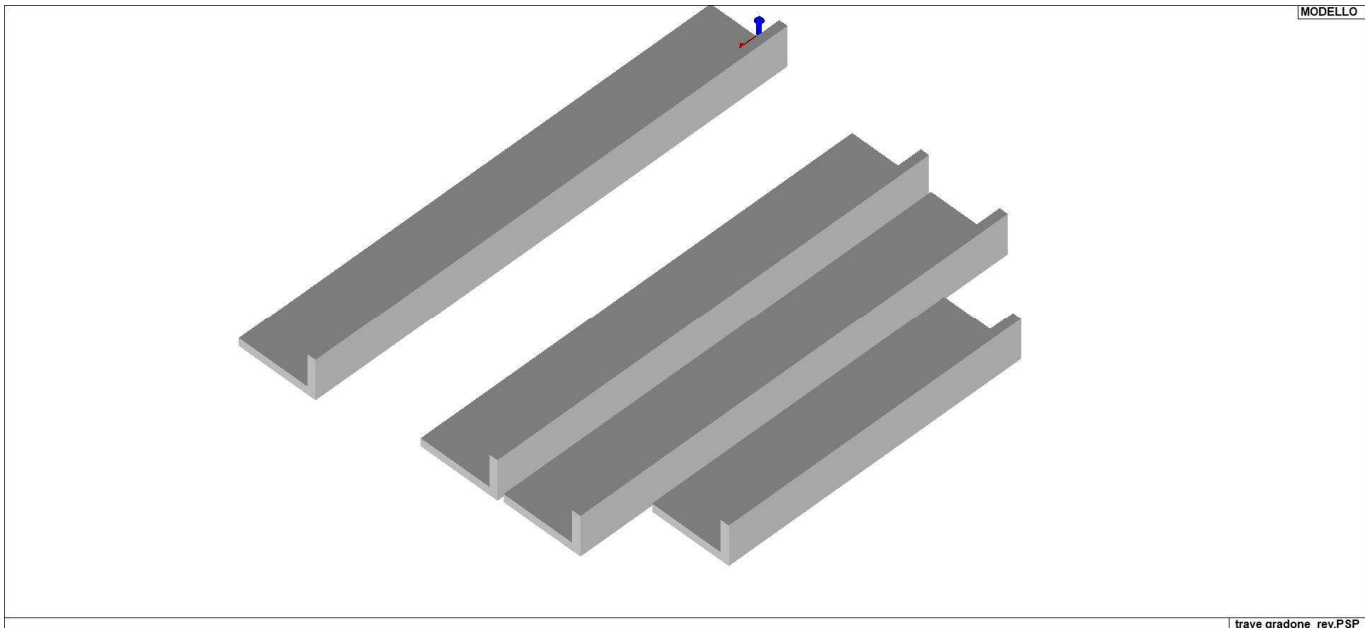


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01_INT_VISTA_SOLIDA_002



01_INT_VISTA_SOLIDA_003



01_INT_VISTA_SOLIDA_004

CARATTERISTICHE MATERIALI UTILIZZATI

LEGENDA TABELLA DATI MATERIALI

Il programma consente l'uso di materiali diversi. Sono previsti i seguenti tipi di materiale:

1	materiale tipo cemento armato
2	materiale tipo acciaio
3	materiale tipo muratura
4	materiale tipo legno
5	materiale tipo generico

I materiali utilizzati nella modellazione sono individuati da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni materiale vengono riportati in tabella i seguenti dati:

Young	modulo di elasticità normale E
Poisson	coefficiente di contrazione trasversale ν
G	modulo di elasticità tangenziale
Gamma	peso specifico
Alfa	coefficiente di dilatazione termica
Fattore di confidenza FC m	Fattore di confidenza specifico per materiale; (è riportato solo se diverso da quello globale della struttura)
Fattore di confidenza FC a	Fattore di confidenza specifico per l'armatura (è riportato solo se diverso da quello globale della struttura)
Elasto-plastico	Materiale elastico perfettamente plastico per aste non lineari
Massima compressione	Massima tensione di compressione per aste non lineari
Massima trazione	Massima tensione di trazione per aste non lineari
Fattore attrito	Coefficiente di attrito per aste non lineari
Rapporto HRDb	Rapporto di hardening a flessione
Rapporto HRDv	Rapporto di hardening a taglio

I dati soprariportati vengono utilizzati per la modellazione dello schema statico e per la determinazione dei carichi inerziali e termici. In relazione al tipo di materiale vengono riportati inoltre:

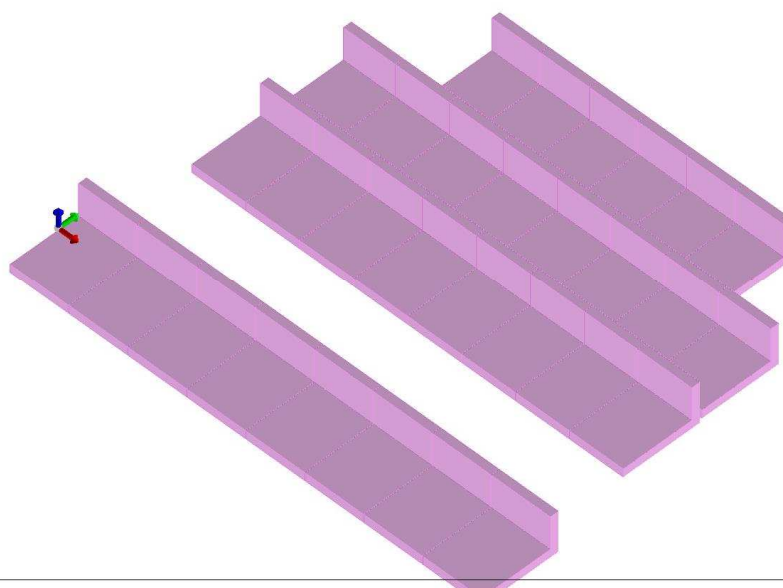
1	c.a.	Resistenza Rc Resistenza fctm Coefficiente ksb	resistenza a compressione cubica resistenza media a trazione semplice Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
2	acciaio	Tensione ft Tensione fy Resistenza fd Resistenza fd (>40) Tensione ammissibile Tensione ammissibile(>40)	Valore della tensione di rottura Valore della tensione di snervamento Resistenza di calcolo per SL CNR-UNI 10011 Resistenza di calcolo per SL CNR-UNI 10011 per spessori > 40mm Tensione ammissibile CNR-UNI 10011 Tensione ammissibile CNR-UNI 10011 per spessori > 40mm
3	muratura	Muratura consolidata Incremento resistenza Incremento rigidezza Resistenza f	Muratura per la quale si prevedono interventi di rinforzo" Incremento conseguito in termini di resistenza Incremento conseguito in termini di rigidezza Valore della resistenza a compressione

	Resistenza fv0	Valore della resistenza a taglio in assenza di tensioni normali
	Resistenza fh	Valore della resistenza a compressione orizzontale
	Resistenza fb	Valore della resistenza a compressione dei blocchi
	Resistenza fbh	Valore della resistenza a compressione dei blocchi in direzione orizzontale
	Resistenza fv0h	Valore della resistenza a taglio in assenza di tensioni normali per le travi
	Resistenza ft	Valore della resistenza a trazione per fessurazione diagonale
	Resistenza fvlm	Valore della massima resistenza a taglio
	Resistenza fbt	Valore della resistenza a trazione dei blocchi
	Coefficiente mu	Coefficiente d'attrito utilizzato per la resistenza a taglio (tipicamente 0.4)
	Coefficiente fi	Coefficiente d'ingranamento utilizzato per la resistenza a taglio
	Coefficiente ksb	Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
4	legno	
	E0,05	Modulo di elasticità corrispondente ad un frattile del 5%
	Resistenza fc0	Valore della resistenza a compressione parallela
	Resistenza ft0	Valore della resistenza a trazione parallela
	Resistenza fm	Valore della resistenza a flessione
	Resistenza fv	Valore della resistenza a taglio
	Resist. ft0k	Resistenza caratteristica (tensione amm. per REGLES) per trazione
	Resist. fmk	Resistenza caratteristica (tensione amm. per REGLES) per flessione
	Resist. fvk	Resistenza caratteristica (tensione amm. per REGLES) per taglio
	Modulo E0,05	Modulo elastico parallelo caratteristico
	Lamellare	lamellare o massiccio

Nel tabulato si riportano sia i valori caratteristici che medi utilizzando gli uni e/o gli altri in relazione alle richieste di normativa ed alla tipologia di verifica. (Cap.7 NTC18 per materiali nuovi, Cap.8 NTC18 e relativa circolare 21/01/2019 per materiali esistenti, Linee Guida Reluis per incamiciatura CAM, CNR-DT 200 per interventi con FRP)

Vengono inoltre riportate le tabelle contenenti il riassunto delle informazioni assegnate nei criteri di progetto in uso.

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
		daN/cm2	daN/cm2	daN/cm2		daN/cm2	daN/cm3		
7	Calcestruzzo Classe C40/50			3.550e+05	0.20	1.479e+05	2.50e-03	1.00e-05	
	Resistenza Rc	500.0							
	Resistenza fctm		36.0						
	Rapporto Rfessurata								1.00
	Coefficiente ksb								0.85
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05



trave gradone_rev.PSP

11_MOD_MATERIALI_D2

Travi c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
Generalità						
Progetta a filo	NO					
Af inf: da $q \cdot L \cdot L /$	0.0					
Armatura						
Minima tesa	0.0					
Minima compressa	0.0					
Massima tesa	0.78					
Da sezione	SI					
Usa armatura teorica	NO					
Stati limite ultimi						
Tensione f_y [daN/cm ²]	4500.00					
Tensione f_y staffe [daN/cm ²]	4500.00					
Tipo acciaio	tipo C					
Coefficiente gamma s	1.15					
Coefficiente gamma c	1.50					
Verifiche con N costante	SI					
Fattore di ridistribuzione	0.0					
Modello per il confinamento						
Relazione tensio-deformativa	Mander					
Incrudimento acciaio	5.000e-03					
Fattore lambda	1.00					
epsilon max,s	4.000e-02					
epsilon cu2	4.500e-03					
epsilon c2	0.0					
epsilon cy	0.0					
Tensioni ammissibili						
Tensione amm. cls [daN/cm ²]	97.50					
Tensione amm. acciaio [daN/cm ²]	2600.00					
Rapporto omogeneizzazione N	15.00					
Massimo rapporto area compressa/tesa	1.00					
Staffe						
Diametro staffe	0.0					
Passo minimo [cm]	4.00					
Passo massimo [cm]	20.00					
Passo raffittito [cm]	10.00					
Lunghezza zona raffittita [cm]	50.00					
Ctg(Teta) Max	2.50					
Percentuale sagomati	0.0					
Luce di taglio per GR [cm]	1.00					
Adotta scorrimento medio	NO					
Torsione non essenziale inclusa	SI					

MODELLAZIONE DELLE SEZIONI

LEGENDA TABELLA DATI SEZIONI

Il programma consente l'uso di sezioni diverse. Sono previsti i seguenti tipi di sezione:

1. sezione di tipo generico
2. profilati semplici
3. profilati accoppiati e speciali

Le sezioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni sezione vengono riportati in tabella i seguenti dati:

Area	area della sezione
A V2	area della sezione/fattore di taglio (per il taglio in direzione 2)
A V3	area della sezione/fattore di taglio (per il taglio in direzione 3)
Jt	fattore torsionale di rigidezza
J2-2	momento d'inerzia della sezione riferito all'asse 2
J3-3	momento d'inerzia della sezione riferito all'asse 3
W2-2	modulo di resistenza della sezione riferito all'asse 2
W3-3	modulo di resistenza della sezione riferito all'asse 3
Wp2-2	modulo di resistenza plastico della sezione riferito all'asse 2
Wp3-3	modulo di resistenza plastico della sezione riferito all'asse 3

I dati sopra riportati vengono utilizzati per la determinazione dei carichi inerziali e per la definizione delle rigidezze degli elementi strutturali; qualora il valore di Area V2 (e/o Area V3) sia nullo la deformabilità per taglio V2 (e/o V3) è trascurata. La valutazione delle caratteristiche inerziali delle sezioni è condotta nel riferimento 2-3 dell'elemento.

rettangolare	a T	a T rovescia	a T di colmo	a L	a L specchiata
a L specchiata rovescia	a L rovescia	a L di colmo	a doppio T	a quattro specchiata	a quattro
a U	a C	a croce	circolare	rettangolare cava	circolare cava

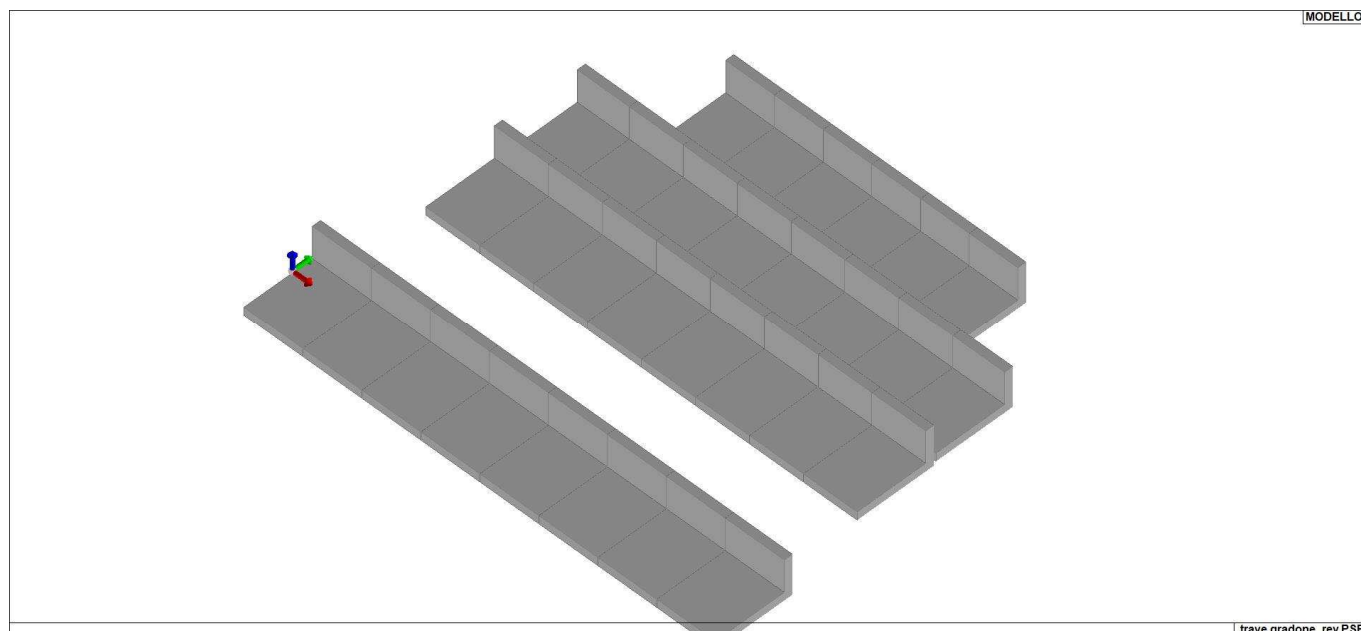
Per quanto concerne i profilati semplici ed accoppiati l'asse 2 del riferimento coincide con l'asse x riportato nei più diffusi profilati.

Per quanto concerne le sezioni di tipo generico (tipo 1.):

i valori dimensionali con prefisso B sono riferiti all'asse 2

i valori dimensionali con prefisso H sono riferiti all'asse 3

Id	Tipo	Area	A V2	A V3	Jt	J 2-2	J 3-3	W 2-2	W 3-3	Wp 2-2	Wp 3-3
		cm2	cm2	cm2	cm4	cm4	cm4	cm3	cm3	cm3	cm3
1	L regolare: bi=95 ht=50 bs=10 hi=10	1350.00	0.0	0.0	4.413e+04	1.226e+06	2.372e+05	2.041e+04	6309.11	3.556e+04	1.195e+04



13_MOD_SEZIONI

trave gradone_rev.PSP

MODELLAZIONE STRUTTURA: NODI

LEGENDA TABELLA DATI NODI

Il programma utilizza per la modellazione nodi strutturali.

Ogni nodo è individuato dalle coordinate cartesiane nel sistema di riferimento globale (X Y Z).

Ad ogni nodo è eventualmente associato un codice di vincolamento rigido, un codice di fondazione speciale, ed un set di sei molle (tre per le traslazioni, tre per le rotazioni). Le tabelle sottoriportate riflettono le succitate possibilità. In particolare per ogni nodo viene indicato in tabella:

Nodo	numero del nodo.
X	valore della coordinata X
Y	valore della coordinata Y
Z	valore della coordinata Z

Per i nodi ai quali sia associato un codice di vincolamento rigido, un codice di fondazione speciale o un set di molle viene indicato in tabella:

Nodo	numero del nodo.
X	valore della coordinata X
Y	valore della coordinata Y
Z	valore della coordinata Z
Note	eventuale codice di vincolo (es. v=110010 sei valori relativi ai sei gradi di libertà previsti per il nodo TxTyTzRxRyRz, il valore 1 indica che lo spostamento o rotazione relativo è impedito, il valore 0 indica che lo spostamento o rotazione relativo è libero).
Note	(FS = 1, 2,...) eventuale codice del tipo di fondazione speciale (1, 2,... fanno riferimento alle tipologie: plinto, palo, plinto su pali,...) che è collegato al nodo. (ISO = "id SIGLA") indice e sigla identificativa dell' eventuale isolatore sismico assegnato al

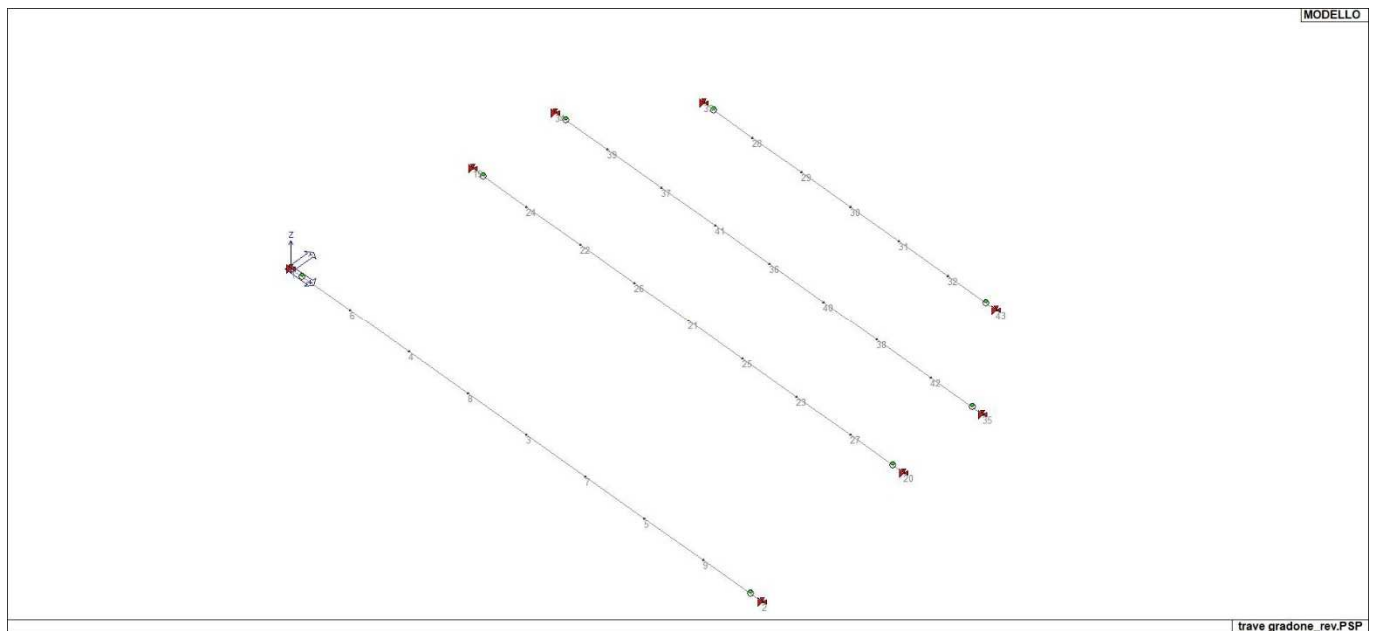
nodo	
Rig. TX	valore della rigidezza dei vincoli elastici eventualmente applicati al nodo, nello specifico TX (idem per TY, TZ, RX, RY, RZ).

Per strutture sismicamente isolate viene inoltre inserita la tabella delle caratteristiche per gli isolatori utilizzati; le caratteristiche sono indicate in conformità al cap. 7.10 del D.M. 17/01/18

TABELLA DATI NODI

Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
	cm	cm	cm		cm	cm	cm		cm	cm	cm
3	291.8	0.0	0.0	4	145.9	0.0	0.0	5	437.6	0.0	0.0
6	72.9	0.0	0.0	7	364.7	0.0	0.0	8	218.8	0.0	0.0
9	510.6	0.0	0.0	21	291.8	200.0	0.0	22	158.4	200.0	0.0
23	425.1	200.0	0.0	24	91.7	200.0	0.0	25	358.4	200.0	0.0
26	225.1	200.0	0.0	27	491.8	200.0	0.0	28	171.3	400.0	0.0
29	231.5	400.0	0.0	30	291.8	400.0	0.0	31	352.0	400.0	0.0
32	412.3	400.0	0.0	36	291.8	300.0	0.0	37	158.4	300.0	0.0
38	425.1	300.0	0.0	39	91.7	300.0	0.0	40	358.4	300.0	0.0
41	225.1	300.0	0.0	42	491.8	300.0	0.0				

Nodo	X	Y	Z	Note	Rig. TX	Rig. TY	Rig. TZ	Rig. RX	Rig. RY	Rig. RZ
	cm	cm	cm		daN/cm	daN/cm	daN/cm	daN cm/rad	daN cm/rad	daN cm/rad
1	0.0	0.0	0.0	v=111111						
2	583.5	0.0	0.0	v=111111						
19	25.0	200.0	0.0	v=111111						
20	558.5	200.0	0.0	v=111111						
33	111.0	400.0	0.0	v=111111						
34	27.5	300.0	0.0	v=111111						
35	556.0	300.0	0.0	v=111111						
43	472.5	400.0	0.0	v=111111						



14_MOD_NUMERAZIONE_NODI

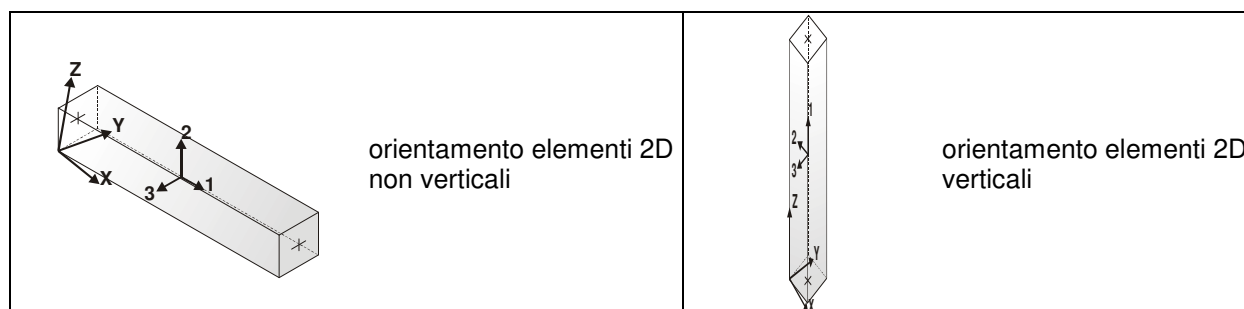
MODELLAZIONE STRUTTURA: ELEMENTI TRAVE

TABELLA DATI TRAVI

Il programma utilizza per la modellazione elementi a due nodi denominati in generale travi.

Ogni elemento trave è individuato dal nodo iniziale e dal nodo finale.

Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione.

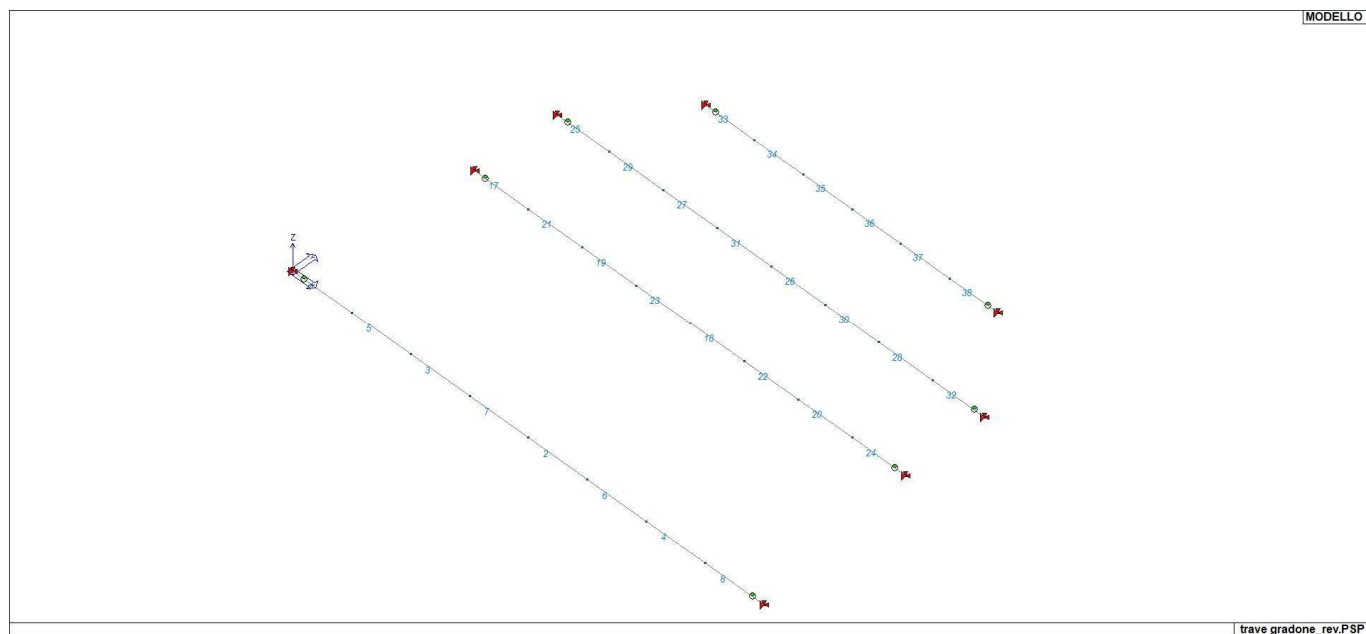


In particolare per ogni elemento viene indicato in tabella:

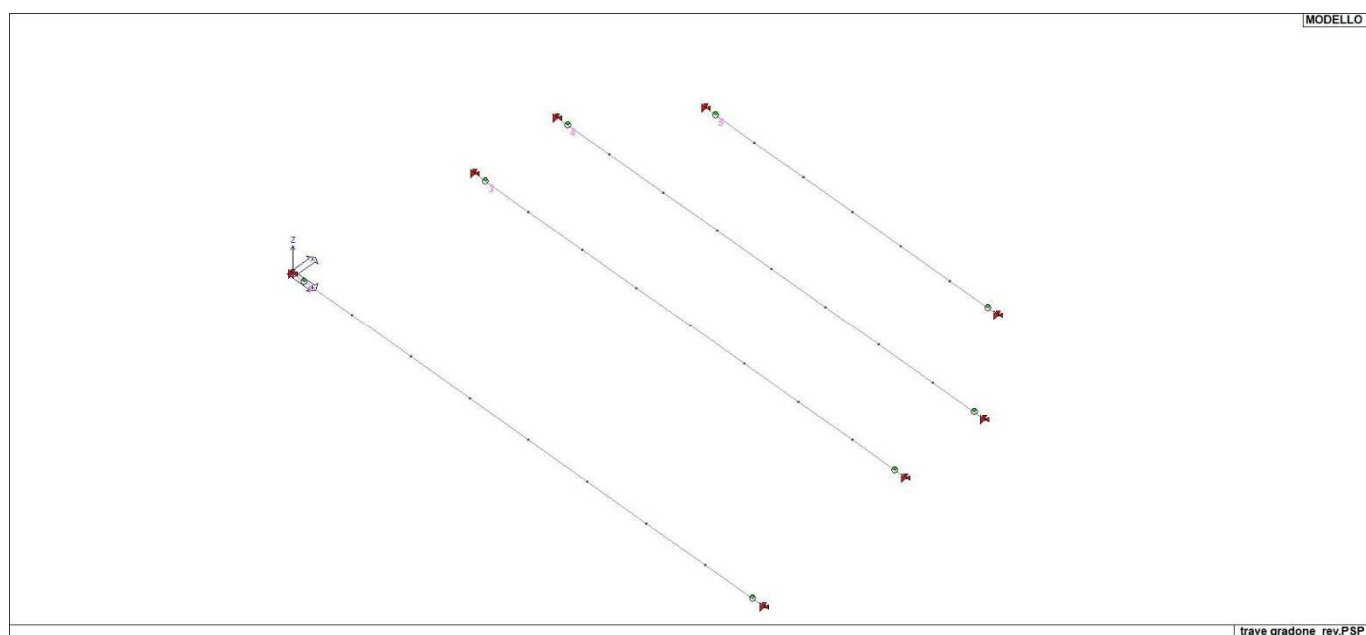
Elem.	numero dell'elemento
Note	codice di comportamento: trave, trave di fondazione, pilastro, asta, asta tesa, asta compressa,
Nodo I (J)	numero del nodo iniziale (finale)
Mat.	codice del materiale assegnato all'elemento
Sez.	codice della sezione assegnata all'elemento
Rotaz.	valore della rotazione dell'elemento, attorno al proprio asse, nel caso in cui l'orientamento di default non sia adottabile; l'orientamento di default prevede per gli elementi non verticali l'asse 2 contenuto nel piano verticale e l'asse 3 orizzontale, per gli elementi verticali l'asse 2 diretto secondo X negativo e l'asse 3 diretto secondo Y negativo
Svincolo I (J)	codici di svincolo per le azioni interne; i primi sei codici si riferiscono al nodo iniziale, i restanti sei al nodo finale (il valore 1 indica che la relativa azione interna non è attiva)
Wink V	costante di sottofondo (coefficiente di Winkler) per la modellazione della trave su suolo elastico
Wink O	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico orizzontale

Elem. VWink O	Note	Nodo I	Nodo J	Mat.	Sez.	Crit.	Rotaz. gradi	Svincolo I	Svincolo J	Wink daN/cm3daN/
cm3										
1	Trave	1	6	7	1	1		000001		
2	Trave	3	7	7	1	1				
3	Trave	4	8	7	1	1				
4	Trave	5	9	7	1	1				
5	Trave	6	4	7	1	1				
6	Trave	7	5	7	1	1				
7	Trave	8	3	7	1	1				
8	Trave	9	2	7	1	1			000001	
17	Trave	19	24	7	1	1		000001		
18	Trave	21	25	7	1	1				
19	Trave	22	26	7	1	1				
20	Trave	23	27	7	1	1				
21	Trave	24	22	7	1	1				
22	Trave	25	23	7	1	1				
23	Trave	26	21	7	1	1				
24	Trave	27	20	7	1	1			000001	
25	Trave	34	39	7	1	1		000001		
26	Trave	36	40	7	1	1				

27	Trave	37	41	7	1	1		
28	Trave	38	42	7	1	1		
29	Trave	39	37	7	1	1		
30	Trave	40	38	7	1	1		
31	Trave	41	36	7	1	1		
32	Trave	42	35	7	1	1		
33	Trave	33	28	7	1	1	000001	000001
34	Trave	28	29	7	1	1		
35	Trave	29	30	7	1	1		
36	Trave	30	31	7	1	1		
37	Trave	31	32	7	1	1		
38	Trave	32	43	7	1	1		000001



15_MOD_NUMERAZIONE_D2



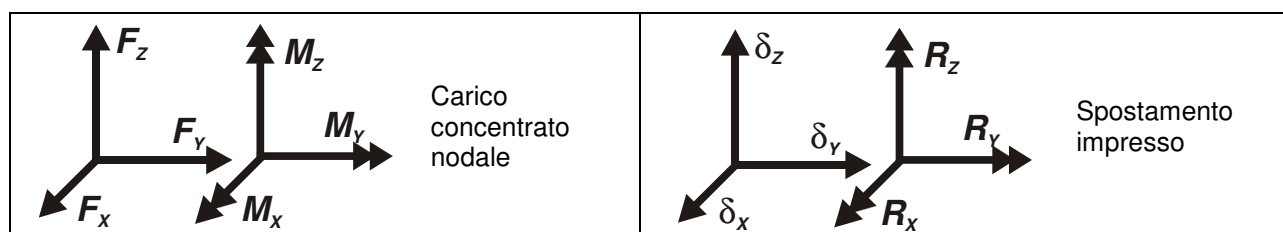
15_MOD_NUMERAZIONE_D2_TRAVATE

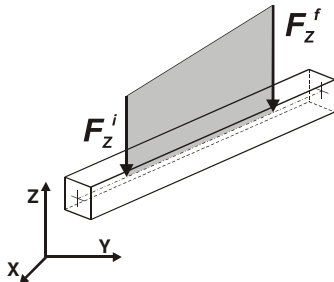
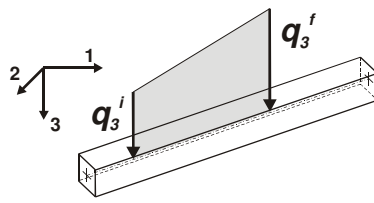
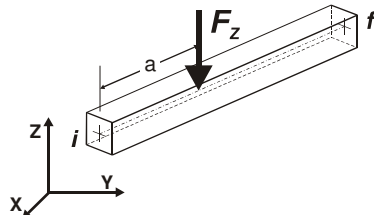
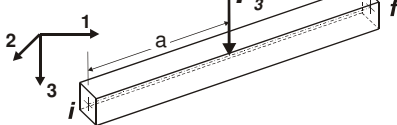
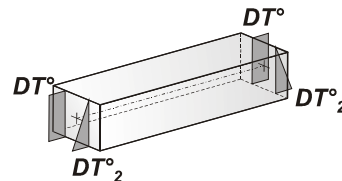
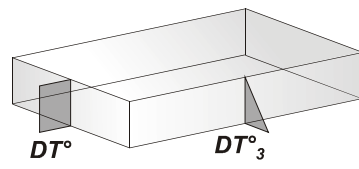
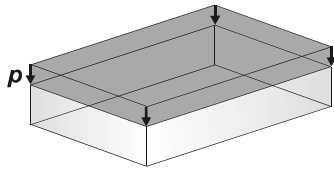
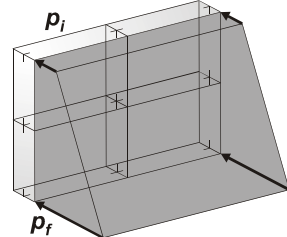
MODELLAZIONE DELLE AZIONI

LEGENDA TABELLA DATI AZIONI

Il programma consente l'uso di diverse tipologie di carico (azioni). Le azioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni azione applicata alla struttura viene di riportato il codice, il tipo e la sigla identificativa. Le tabelle successive dettagliano i valori caratteristici di ogni azione in relazione al tipo. Le tabelle riportano infatti i seguenti dati in relazione al tipo:

1	carico concentrato nodale 6 dati (forza F_x , F_y , F_z , momento M_x , M_y , M_z)
2	spostamento nodale impresso 6 dati (spostamento T_x , T_y , T_z , rotazione R_x , R_y , R_z)
3	carico distribuito globale su elemento tipo trave 7 dati (f_x , f_y , f_z , m_x , m_y , m_z , ascissa di inizio carico) 7 dati (f_x , f_y , f_z , m_x , m_y , m_z , ascissa di fine carico)
4	carico distribuito locale su elemento tipo trave 7 dati (f_1 , f_2 , f_3 , m_1 , m_2 , m_3 , ascissa di inizio carico) 7 dati (f_1 , f_2 , f_3 , m_1 , m_2 , m_3 , ascissa di fine carico)
5	carico concentrato globale su elemento tipo trave 7 dati (F_x , F_y , F_z , M_x , M_y , M_z , ascissa di carico)
6	carico concentrato locale su elemento tipo trave 7 dati (F_1 , F_2 , F_3 , M_1 , M_2 , M_3 , ascissa di carico)
7	variazione termica applicata ad elemento tipo trave 7 dati (variazioni termiche: uniforme, media e differenza in altezza e larghezza al nodo iniziale e finale)
8	carico di pressione uniforme su elemento tipo piastra 1 dato (pressione)
9	carico di pressione variabile su elemento tipo piastra 4 dati (pressione, quota, pressione, quota)
10	variazione termica applicata ad elemento tipo piastra 2 dati (variazioni termiche: media e differenza nello spessore)
11	carico variabile generale su elementi tipo trave e piastra 1 dato descrizione della tipologia 4 dati per segmento (posizione, valore, posizione, valore) la tipologia precisa l'ascissa di definizione, la direzione del carico, la modalità di carico e la larghezza d'influenza per gli elementi tipo trave
12	gruppo di carichi con impronta su piastra 9 dati (numero di ripetizioni in direzione X e Y, valore di ciascun carico, posizione centrale del primo, dimensioni dell'impronta, interasse tra i carichi)



 <p>Carico distribuito globale</p>	 <p>Carico distribuito locale</p>
 <p>Carico concentrato globale</p>	 <p>Carico concentrato locale</p>
 <p>Carico termico 2D</p>	 <p>Carico termico 3D</p>
 <p>Carico pressione uniforme</p>	 <p>Carico pressione variabile</p>

Tipo carico distribuito globale su trave

Id	Tipo	Pos.	fx	fy	fz	mx	my	mz
1	permanente-DG:Fzi=-0.50 Fzf=-0.50	m	daN/ m	daN/ m	daN/ m	daN	daN	daN
		0.0	0.0	0.0	-50.00	0.0	0.0	0.0
2	accidentale-DG:Fzi=-5.00 Fzf=-5.00	0.0	0.0	0.0	-50.00	0.0	0.0	0.0
		0.0	0.0	0.0	-500.00	0.0	0.0	0.0
		0.0	0.0	0.0	-500.00	0.0	0.0	0.0

SCHEMATIZZAZIONE DEI CASI DI CARICO

LEGENDA TABELLA CASI DI CARICO

Il programma consente l'applicazione di diverse tipologie di casi di carico.

Sono previsti i seguenti 11 tipi di casi di carico:

	Sigla	Tipo	Descrizione
1	Ggk	A	caso di carico comprensivo del peso proprio struttura
2	Gk	NA	caso di carico con azioni permanenti
3	Qk	NA	caso di carico con azioni variabili
4	Gsk	A	caso di carico comprensivo dei carichi permanenti sui solai e sulle coperture
5	Qsk	A	caso di carico comprensivo dei carichi variabili sui solai
6	Qnk	A	caso di carico comprensivo dei carichi di neve sulle coperture
7	Qtk	SA	caso di carico comprensivo di una variazione termica agente sulla struttura
8	Qvk	NA	caso di carico comprensivo di azioni da vento sulla struttura
9	Esk	SA	caso di carico sismico con analisi statica equivalente
10	Edk	SA	caso di carico sismico con analisi dinamica
11	Etk	NA	caso di carico comprensivo di azioni derivanti dall' incremento di spinta delle terre in condizione sismica
12	Pk	NA	caso di carico comprensivo di azioni derivanti da coazioni, cedimenti e precompressioni

Sono di tipo automatico A (ossia non prevedono introduzione dati da parte dell'utente) i seguenti casi di carico: 1-Ggk; 4-Gsk; 5-Qsk; 6-Qnk.

Sono di tipo semi-automatico SA (ossia prevedono una minima introduzione dati da parte dell'utente) i seguenti casi di carico:

7-Qtk, in quanto richiede solo il valore della variazione termica;

9-Esk e 10-Edk, in quanto richiedono il valore dell'angolo di ingresso del sisma e l'individuazione dei casi di carico partecipanti alla definizione delle masse.

Sono di tipo non automatico NA ossia prevedono la diretta applicazione di carichi generici agli elementi strutturali (si veda il precedente punto Modellazione delle Azioni) i restanti casi di carico.

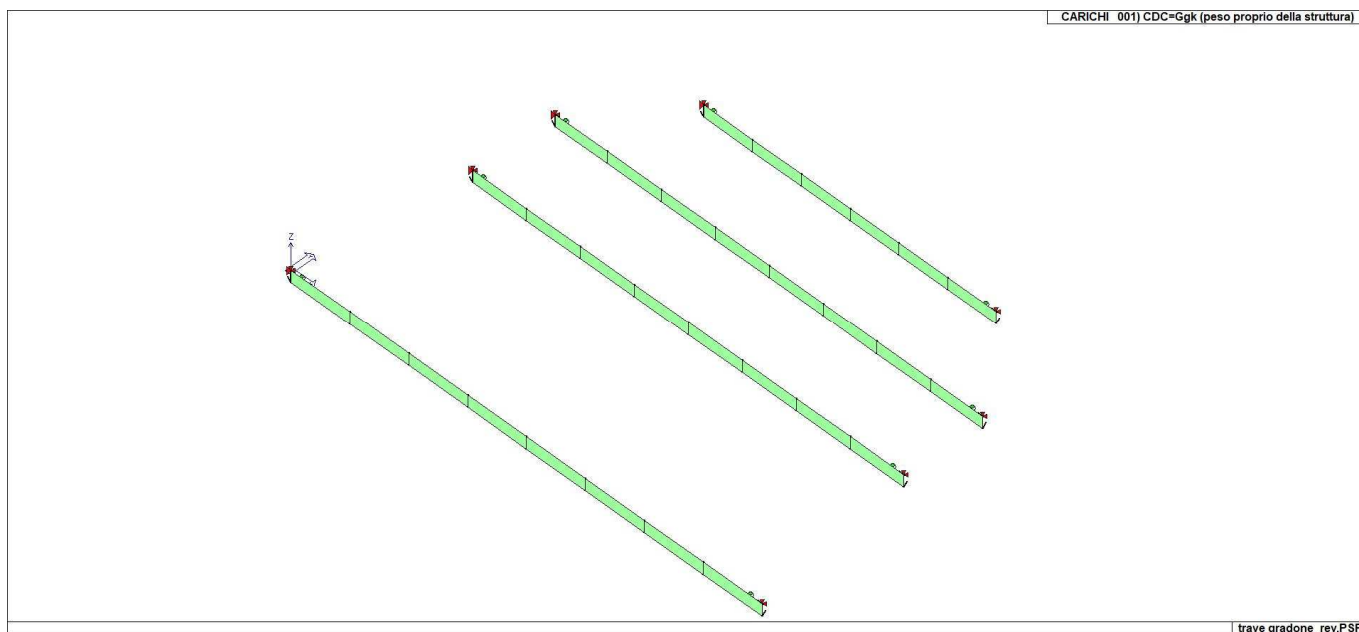
Nella tabella successiva vengono riportati i casi di carico agenti sulla struttura, con l'indicazione dei dati relativi al caso di carico stesso:

Numero Tipo e Sigla identificativa, Valore di riferimento del caso di carico (se previsto).

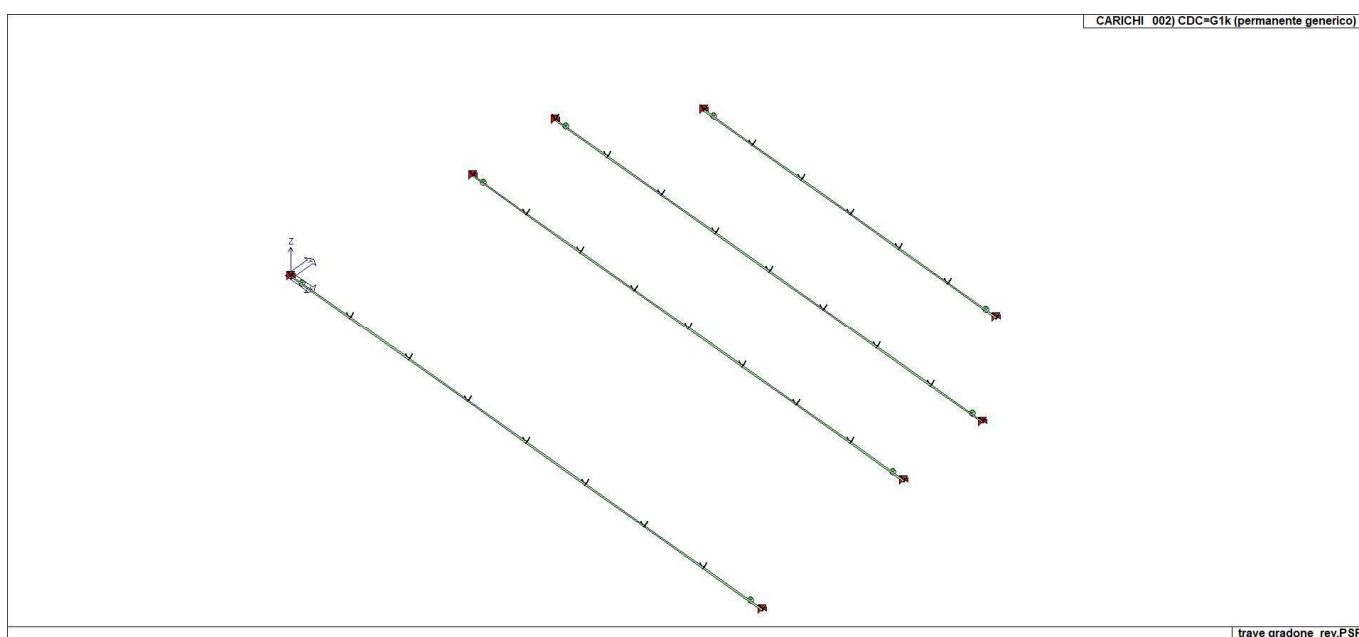
In successione, per i casi di carico non automatici, viene riportato l'elenco di nodi ed elementi direttamente caricati con la sigla identificativa del carico.

Per i casi di carico di tipo sismico (9-Esk e 10-Edk), viene riportata la tabella di definizione delle masse: per ogni caso di carico partecipante alla definizione delle masse viene indicata la relativa aliquota (partecipazione) considerata. Si precisa che per i caso di carico 5-Qsk e 6-Qnk la partecipazione è prevista localmente per ogni elemento solaio o copertura presente nel modello (si confronti il valore Sksol nel capitolo relativo agli elementi solaio) e pertanto la loro partecipazione è di norma pari a uno.

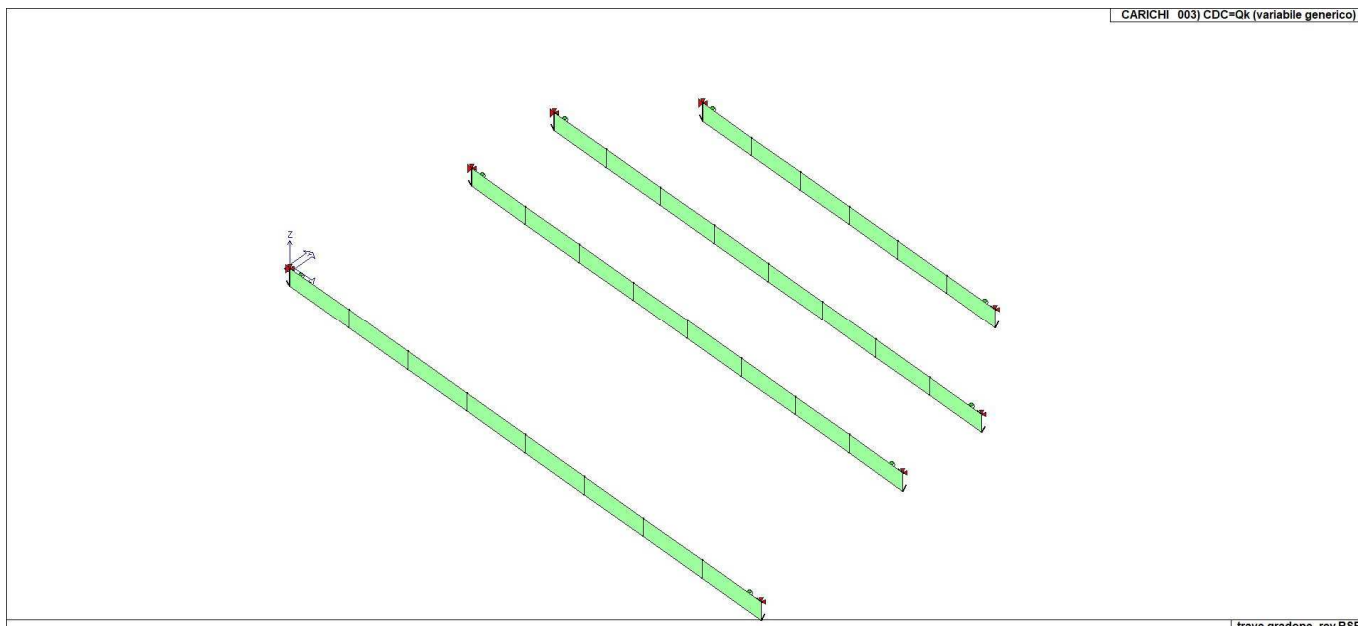
CDC	Tipo	Sigla Id	Note
1	Ggk	CDC=Ggk (peso proprio della struttura)	
2	Gk	CDC=G1k (permanente generico)	Azioni applicate: D2 :da 1 a 8 Azione : permanente-DG:Fzi=-0.50 Fzf=-0.50 D2 :da 17 a 38 Azione : permanente-DG:Fzi=-0.50 Fzf=-0.50
3	Qk	CDC=Qk (variabile generico)	Azioni applicate: D2 :da 1 a 8 Azione : accidentale-DG:Fzi=-5.00 Fzf=-5.00 D2 :da 17 a 38 Azione : accidentale-DG:Fzi=-5.00 Fzf=-5.00



22_CDC_001_CDC=G_{gk} (peso proprio della struttura)



22_CDC_002_CDC=G_{1k} (permanente generico)



22_CDC_003_CDC=Qk (variabile generico)

DEFINIZIONE DELLE COMBINAZIONI

LEGENDA TABELLA COMBINAZIONI DI CARICO

Il programma combina i diversi tipi di casi di carico (CDC) secondo le regole previste dalla normativa vigente. Le combinazioni previste sono destinate al controllo di sicurezza della struttura ed alla verifica degli spostamenti e delle sollecitazioni.

La prima tabella delle combinazioni riportata di seguito comprende le seguenti informazioni: Numero, Tipo, Sigla identificativa. Una seconda tabella riporta il peso nella combinazione assunto per ogni caso di carico.

Ai fini delle verifiche degli stati limite si definiscono le seguenti combinazioni delle azioni:

Combinazione fondamentale SLU

$$\gamma G1 \cdot G1 + \gamma G2 \cdot G2 + \gamma P \cdot P + \gamma Q1 \cdot Qk1 + \gamma Q2 \cdot \psi02 \cdot Qk2 + \gamma Q3 \cdot \psi03 \cdot Qk3 + \dots$$

Combinazione caratteristica (rara) SLE

$$G1 + G2 + P + Qk1 + \psi02 \cdot Qk2 + \psi03 \cdot Qk3 + \dots$$

Combinazione frequente SLE

$$G1 + G2 + P + \psi11 \cdot Qk1 + \psi22 \cdot Qk2 + \psi23 \cdot Qk3 + \dots$$

Combinazione quasi permanente SLE

$$G1 + G2 + P + \psi21 \cdot Qk1 + \psi22 \cdot Qk2 + \psi23 \cdot Qk3 + \dots$$

Combinazione sismica, impiegata per gli stati limite ultimi e di esercizio connessi all'azione sismica E

$$E + G1 + G2 + P + \psi21 \cdot Qk1 + \psi22 \cdot Qk2 + \dots$$

Combinazione eccezionale, impiegata per gli stati limite connessi alle azioni eccezionali

$$G1 + G2 + Ad + P + \psi21 \cdot Qk1 + \psi22 \cdot Qk2 + \dots$$

Dove:

NTC 2018 Tabella 2.5.1

Destinazione d'uso/azione	$\psi0$	$\psi1$	$\psi2$
Categoria A residenziali	0,70	0,50	0,30
Categoria B uffici	0,70	0,50	0,30
Categoria C ambienti suscettibili di affollamento	0,70	0,70	0,60
Categoria D ambienti ad uso commerciale	0,70	0,70	0,60
Categoria E biblioteche, archivi, magazzini,...	1,00	0,90	0,80
Categoria F Rimesse e parcheggi (autoveicoli <= 30kN)	0,70	0,70	0,60

<i>Categoria G Rimesse e parcheggi (autoveicoli > 30kN)</i>	<i>0,70</i>	<i>0,50</i>	<i>0,30</i>
<i>Categoria H Coperture</i>	<i>0,00</i>	<i>0,00</i>	<i>0,00</i>
<i>Vento</i>	<i>0,60</i>	<i>0,20</i>	<i>0,00</i>
<i>Neve a quota <= 1000 m</i>	<i>0,50</i>	<i>0,20</i>	<i>0,00</i>
<i>Neve a quota > 1000 m</i>	<i>0,70</i>	<i>0,50</i>	<i>0,20</i>
<i>Variazioni Termiche</i>	<i>0,60</i>	<i>0,50</i>	<i>0,00</i>

Nelle verifiche possono essere adottati in alternativa due diversi approcci progettuali:

- per l'approccio 1 si considerano due diverse combinazioni di gruppi di coefficienti di sicurezza parziali per le azioni, per i materiali e per la resistenza globale (combinazione 1 con coefficienti A1 e combinazione 2 con coefficienti A2),

- per l'approccio 2 si definisce un'unica combinazione per le azioni, per la resistenza dei materiali e per la resistenza globale (con coefficienti A1).

NTC 2018 Tabella 2.6.I

		Coefficiente γ_f	EQU	A1	A2
<i>Carichi permanenti</i>	<i>Favorevoli</i>	γ_{G1}	0,9	1,0	1,0
	<i>Sfavorevoli</i>		1,1	1,3	1,0
<i>Carichi permanenti non strutturali</i> <i>(Non compiutamente definiti)</i>	<i>Favorevoli</i>	γ_{G2}	0,8	0,8	0,8
	<i>Sfavorevoli</i>		1,5	1,5	1,3
<i>Carichi variabili</i>	<i>Favorevoli</i>	γ_{Qi}	0,0	0,0	0,0
	<i>Sfavorevoli</i>		1,5	1,5	1,3

Cmb	Tipo	Sigla Id
1	SLU	Comb. SLU A1 1
2	SLU	Comb. SLU A1 2
3	SLU	Comb. SLU A1 3
4	SLU	Comb. SLU A1 4
5	SLE(r)	Comb. SLE(rara) 5
6	SLE(r)	Comb. SLE(rara) 6
7	SLE(f)	Comb. SLE(freq.) 7
8	SLE(f)	Comb. SLE(freq.) 8
9	SLE(p)	Comb. SLE(perm.) 9
10	SLE(p)	Comb. SLE(perm.) 10
11	SLU(acc.)	Comb. SLU (Accid.) 11
12	SLU(acc.)	Comb. SLU (Accid.) 12

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...
1	1.30	1.30	0.0
2	1.30	1.30	1.50
3	1.00	1.00	0.0
4	1.00	1.00	1.50
5	1.00	1.00	0.0
6	1.00	1.00	1.00
7	1.00	1.00	0.0
8	1.00	1.00	0.70
9	1.00	1.00	0.0
10	1.00	1.00	0.60
11	1.00	1.00	0.0
12	1.00	1.00	0.60

VERIFICHE ELEMENTI TRAVE E/O PILASTRO IN C.A.

LEGENDA TABELLA VERIFICHE ELEMENTI TRAVE E/O PILASTRO IN C.A.

In tabella vengono riportati per ogni elemento il numero identificativo ed il codice di verifica con le sigle **Ok** o **NV**.

Nel caso in cui si sia proceduto alla progettazione con il metodo degli stati limite (**S.L.**) vengono riportati: il rapporto x/d , le verifiche per sollecitazioni proporzionali e la verifica per compressione media con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

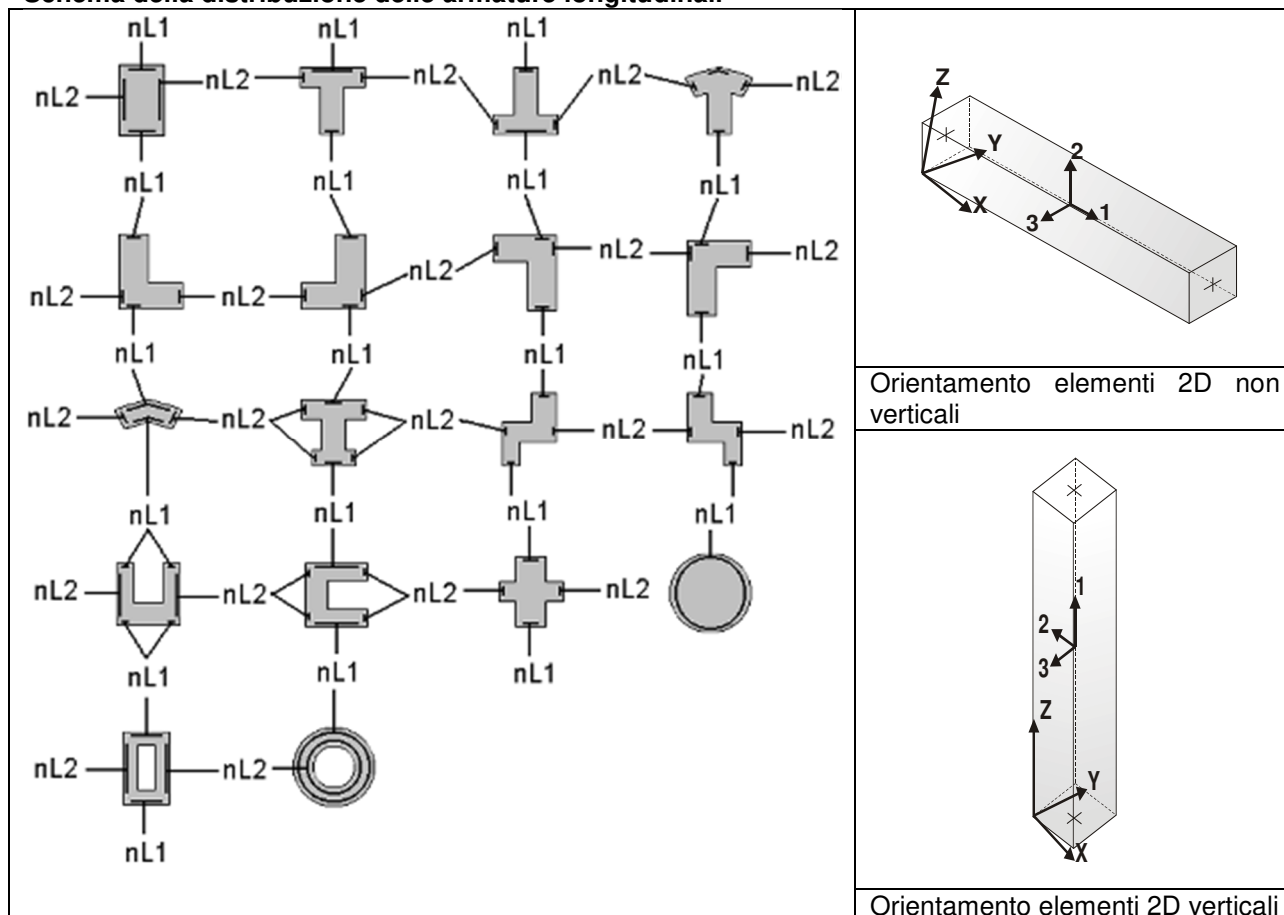
Nel caso in cui si sia proceduto alla progettazione con le tensioni ammissibili (**T.A.**) vengono riportate le massime tensioni nell'elemento (massima compressione nel calcestruzzo, massima compressione media nel calcestruzzo, massima tensione nell'acciaio, massima tensione tangenziale) con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

Nel caso in cui la struttura abbia comportamento dissipativo e sia prevista la progettazione con il criterio della gerarchia delle resistenze (**G.R.**) vengono riportate le verifiche di sovrarresistenza e del nodo.

Per gli elementi tipo pilastro sono riportati numero e diametro dei ferri di vertice, numero e diametro di ferri disposti lungo i lati L1 (paralleli alla base della sezione) e lungo i lati L2 (paralleli all'altezza della sezione).

Per gli elementi tipo trave sono riportati infine le quantità di armatura inferiore e superiore.

Schema della distribuzione delle armature longitudinali



PROGETTAZIONE DELLE FONDAZIONI

Il D.M.17/01/2018 - par: 7.2.5 prevede:

“Sia per CD“A” sia per CD“B” il dimensionamento delle strutture di fondazione e la verifica di sicurezza del complesso fondazione-terreno devono essere eseguiti assumendo come azione in fondazione, trasmessa dagli elementi soprastanti, una tra le seguenti:

- quella derivante dall'analisi strutturale eseguita ipotizzando comportamento strutturale non dissipativo;
- [...];
- quella trasferita dagli elementi soprastanti nell'ipotesi di comportamento strutturale dissipativo, amplificata di un coefficiente pari a 1,30 in CD“A” e 1,10 in CD“B”;

Nel contesto visualizzazione risultati e nella stampa della relazione sulle fondazioni PRO_SAP mostra le sollecitazioni che derivano dall'analisi non incrementate sia in termini di pressioni sul terreno che in termini di sollecitazioni.

La progettazione degli elementi strutturali con proprietà fondazione è effettuata da PRO_SAP (per travi e platee) o da PRO_CAD Plinti (per plinti e pali di fondazione) incrementando le sollecitazioni delle combinazioni con sisma di un coefficiente pari 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.

Per i bicchieri dei plinti di fondazione prefabbricati l'incremento delle sollecitazioni ha un fattore pari a 1.2 in CDB e 1.35 in CDA.

N.B.: nel caso di comportamento strutturale non dissipativo la progettazione viene effettuata senza nessun incremento.

Le verifiche geotecniche vengono effettuate dal modulo geotecnico incrementando automaticamente le sollecitazioni del fattore 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.

N.B.: nel caso di comportamento strutturale non dissipativo le verifiche geotecniche vengono effettuate senza nessun incremento.

Simbologia adottata nelle tabelle di verifica

Per le verifiche agli S.L. dei pilastri è presente una tabella con i simboli di seguito descritti:

M_P X Y	Numero della pilastrata (P) e posizione in pianta (X,Y)
Pilas.	numero identificativo dell'elemento D2
Note	Codici identificativi delle sezione (s) e materiale (m) pilastro
Stato	Codici relativi all'esito delle verifiche effettuate appresso descritte
Quota	Quota sezione di verifica
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
r. snell.	Rapporto di snellezza λ su λ^* : valore superiore a 1 per elementi snelli nel caso in cui viene effettuata la verifica con il metodo diretto dello stato di equilibrio
Armat. long.	Numero e diametro (d) dei ferri di armatura longitudinale distinti in ferri di vertice + ferri di lato nelle posizioni nL1 e nL2, come da schemi in figura precedente
V N/M	Verifica a pressoflessione con rapporto E_d/R_d : valore minore o uguale a 1 per verifica positiva
V N sis	Verifica a compressione solo calcestruzzo con rapporto N_{sd}/N_{rd} ed N_{rd} calcolato come al punto 7.4.4.2.1: valore minore o uguale a 1 per verifica positiva
Staffe	Dati tratto di staffatura oggetto di verifica, nello specifico: numero delle braccia, diametro, passo, lunghezza L tratto
V V/T cls	Verifica a taglio/torsione con rapporto V_{ed}/V_{rd} : valore minore o uguale a 1 per verifica positiva
Rif. cmb.	Riferimento combinazioni da cui si generano le verifiche più gravose per il pilastro

Per le verifiche alla G.R. dei pilastri è presente una tabella con i simboli di seguito descritti:

Pilas.	numero identificativo dell'elemento D2 pilastro
sovr. Xi (Xf)	Verifica sovrarresistenza come da formula 7.4.4 in direzione X, alla base (i) ed alla sommità (f): rapporto tra i momenti resistenti dei pilastri e delle travi. La verifica è positiva se maggiore del γ_{Rd} adottato
sovr. Yi (Yf)	Verifica sovrarresistenza come da formula 7.4.4 in direzione Y, alla base (i) ed alla sommità (f): rapporto tra i momenti resistenti dei pilastri e delle travi. La verifica è positiva se maggiore

	del γ_{Rd} adottato
M 2-2 i (f)	Valore del momento resistente 2-2 alla base (i) ed alla sommità (f) con massimo momento in presenza dello sforzo normale di calcolo
M 3-3 i (f)	Valore del momento resistente 3-3 alla base (i) ed alla sommità (f) con massimo momento in presenza dello sforzo normale di calcolo
Luce per V	Luce di calcolo per la definizione del taglio (generato dai momenti resistenti)
V M2-2 (M3-3)	Valore del taglio generato dai momenti resistenti 2-2 (3-3)

**Per le verifiche dei dettagli costruttivi per la duttilità è presente una tabella con i simboli di seguito descritti:
(Non presente nel caso di comportamento strutturale non dissipativo)**

Pilas	Numero identificativo D2 pilastro
ni	Sforzo assiale adimensionalizzato di progetto relativo alla combinazione sismica SLV
alfaomega	Prodotto tra il coefficiente di efficacia del confinamento e il rapporto meccanico dell'armatura trasversale di confinamento all'interno del nodo
V.7.4.29 2-2 (3-3)	Rapporto tra la domanda di staffe minima nel nodo e il rapporto meccanico dell'armatura trasversale di confinamento inserito all'interno del nodo in direzione 2 (3)
V. 7.4.29 Stato	Codici relativi all'esito della verifica 7.4.29
d _{mu} _fi 2-2 (3-3)	Domanda in duttilità di curvatura in direzione 2 (3)
c _{mu} _fi 2-2 (3-3)	Capacità in duttilità di curvatura in direzione 2 (3)
V. dutt. 2-2 (3-3)	Rapporto tra la domanda in duttilità di curvatura e la capacità in duttilità di curvatura in direzione 2 (3)

Per le verifiche nodi trave-pilastro di elementi nuovi è presente una tabella con i simboli di seguito descritti:

Nodo	Numero identificativo del nodo trave-pilastro
Stato	Esito delle verifiche
Pilastro	Numero identificativo D2 pilastro
Diam st	Diametro staffe nodo
Passo	Passo staffe nodo
n. br. 2 (3)	Numero braccia staffe per il taglio in direzione 2 (3)
Bj2 (3)	Larghezza effettiva del nodo per il taglio in direzione 2 (3)
Hjc2 (3)	Distanza tra le giaciture più esterne delle armature del pilastro per il taglio in direzione 2 (3)
V. 7.4.8	Rapporto tra il taglio V_{jbd} e il taglio resistente come da formula 7.4.8
V. Ash	Rapporto tra il passo staffe calcolato secondo il capitolo 7.4.4.3.1. e il passo staffe effettivamente inserita nel nodo. Nel caso di valore indica passo staffe utilizzato deriva dalle formule presenti nel paragrafo 7.4.4.3.1. Nel caso di valore minore di 1 il passo staffe utilizzato deriva del pilastro superiore o inferiore al nodo
7.4.10	Check passo staffe valutato in funzione della formula 7.4.10: <ul style="list-style-type: none"> • SI il passo staffe è calcolato utilizzando la formula 7.4.10; • NO il passo staffe è calcolato utilizzando le formule 7.4.11 e/o 7.4.12; • NR calcolo passo staffe non richiesto;
Rif. comb.	Riferimento combinazioni da cui si generano le verifiche più gravose per il nodo

Per le verifiche nodi trave-pilastro di elementi esistenti è presente una tabella con i simboli di seguito descritti:

Pilastro I	Numero identificativo D2 del pilastro inferiore.
Pilastro S	Numero identificativo D2 del pilastro superiore.
Nodo	Numero identificativo del nodo trave-pilastro.
SL cod	Stato limite di riferimento e relativo esito delle verifiche.
ver. (+)	Fattore di sicurezza nei riguardi della verifica di resistenza a compressione (verificato se < 1.00).
V +	Azione di Taglio presente al di sopra del nodo nella verifica di resistenza a compressione.
V + af s	Sollecitazione di trazione presente nell' armatura longitudinale superiore della trave nella verifica di resistenza a compressione.

N +	Azione Assiale presente al di sopra del nodo nella verifica di resistenza a compressione.
ver. (-)	Fattore di sicurezza nei riguardi della verifica di resistenza a trazione (verificato se < 1.00).
V -	Azione di Taglio presente al di sopra del nodo nella verifica di resistenza a trazione.
V - af s	Sollecitazione di trazione presente nell' armatura longitudinale superiore della trave nella verifica di resistenza a trazione.
N -	Azione Assiale presente al di sopra del nodo nella verifica di resistenza a trazione.
AreaV2	Area resistente del nodo in direzione 2 ($A_{j2}=b_{j2}*h_{jc2}$).
AreaV3	Area resistente del nodo in direzione 3 ($A_{j3}=b_{j3}*h_{jc3}$).
Rif. comb.	Combinazione (direzione) di riferimento nella verifica di trazione.

Per le verifiche agli S.L. delle travi è presente una tabella con i simboli di seguito descritti:

M_T Z P P	Numero della travata (T), quota media (Z), n° pilastrata iniziale (P) e finale (P) (nodo in assenza di pilastrata)
Trave	numero identificativo dell'elemento D2
Note	Codici identificativi sezione (s) e materiale (m) trave; sono inoltre presenti le sigle relative all'esito delle verifiche effettuate appresso descritte
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
Af inf.	Area di armatura longitudinale posta all'intradosso
Af sup	Area di armatura longitudinale posta all'estradosso
Af long.	Area complessiva armatura longitudinale
x/d	rapporto tra posizione dell'asse neutro e altezza utile
V N/M	Verifica a pressoflessione rapporto E_d/R_d : valore minore o uguale a 1 per verifica positiva
Staffe	Dati tratto di staffatura oggetto di verifica, nello specifico: numero delle braccia, diametro, passo, lunghezza L tratto
V V/T cls	Verifica a taglio/torsione con rapporto V_{ed}/V_{rd} : valore minore o uguale a 1 per verifica positiva
Rif. cmb.	Riferimento combinazioni da cui si generano le verifiche più gravose per la trave

Per le verifiche alla G.R. delle travi è presente una tabella con i simboli di seguito descritti:

Trave	numero identificativo dell'elemento D2 trave
M negativo i (f)	Valore del momento resistente negativo all' estremità iniziale i (finale f) della trave
M positivo i (f)	Valore del momento resistente positivo all' estremità iniziale i (finale f) della trave
Luce per V	Luce di calcolo per la definizione del taglio (generato dai momenti resistenti)
V M-i M+f	Taglio generato dai momenti resistenti negativo i e positivo f
V M+i M-f	Taglio generato dai momenti resistenti positivo i e negativo f
VEd, min	Valore di taglio minimo per verifica condizioni p.to 7.4.4.1.1 armatura diagonale (solo per CD "A")
VEd, max	Valore di taglio massimo per verifica condizioni p.to 7.4.4.1.1 armatura diagonale (solo per CD "A")
Vr1	Valore di taglio come da formula 7.4.1 per armatura diagonale (solo per CD "A")
As	Area singolo ordine armature diagonali come da formula 7.4.2 (solo per CD "A")

Per le verifiche a taglio ciclico di travi e pilastri esistenti è presente una tabella con i simboli di seguito descritti:

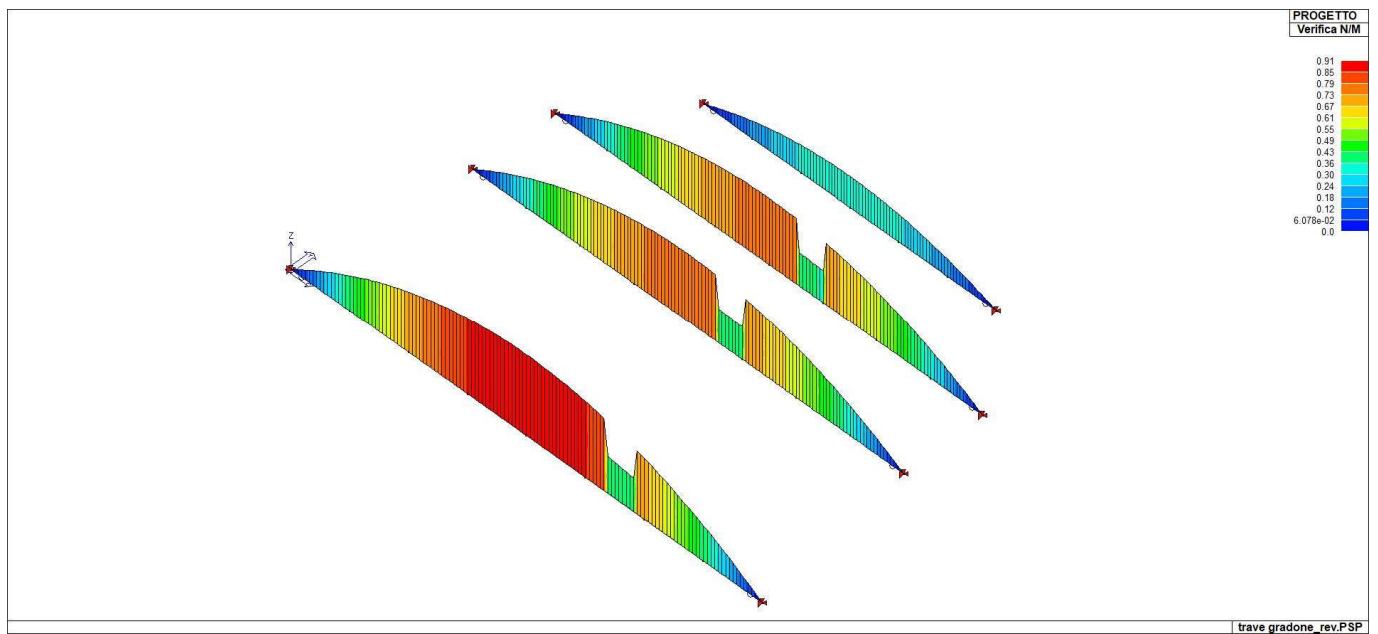
Trave/Pilastro	Numero identificativo dell'elemento D2 trave/pilastro
V. SLV	Codice relativo all'esito delle verifiche
Nodo	Numero identificativo del nodo di verifica
Ver. VC	Fattore di sicurezza nei confronti della verifica a taglio ciclico (verificato se < 1.00)
Direz.	Direzione di verifica
N fr	Valore di sforzo normale calcolato con fattore di comportamento fragile
V fr	Valore di taglio calcolato con fattore di comportamento fragile
M fr	Valore di momento calcolato con fattore di comportamento fragile
N dutt	Valore di sforzo normale calcolato con fattore di comportamento duttile
LV	Lunghezza di taglio
Mud,pl	Parte plastica della domanda di duttilità
V cic	Resistenza a taglio in condizioni cicliche (C8.7.2.8)
Cmb	Riferimento combinazioni da cui si generano le verifiche più gravose

Per le verifiche alle T.A. di pilastri e travi è presente una tabella con i simboli di seguito descritti:

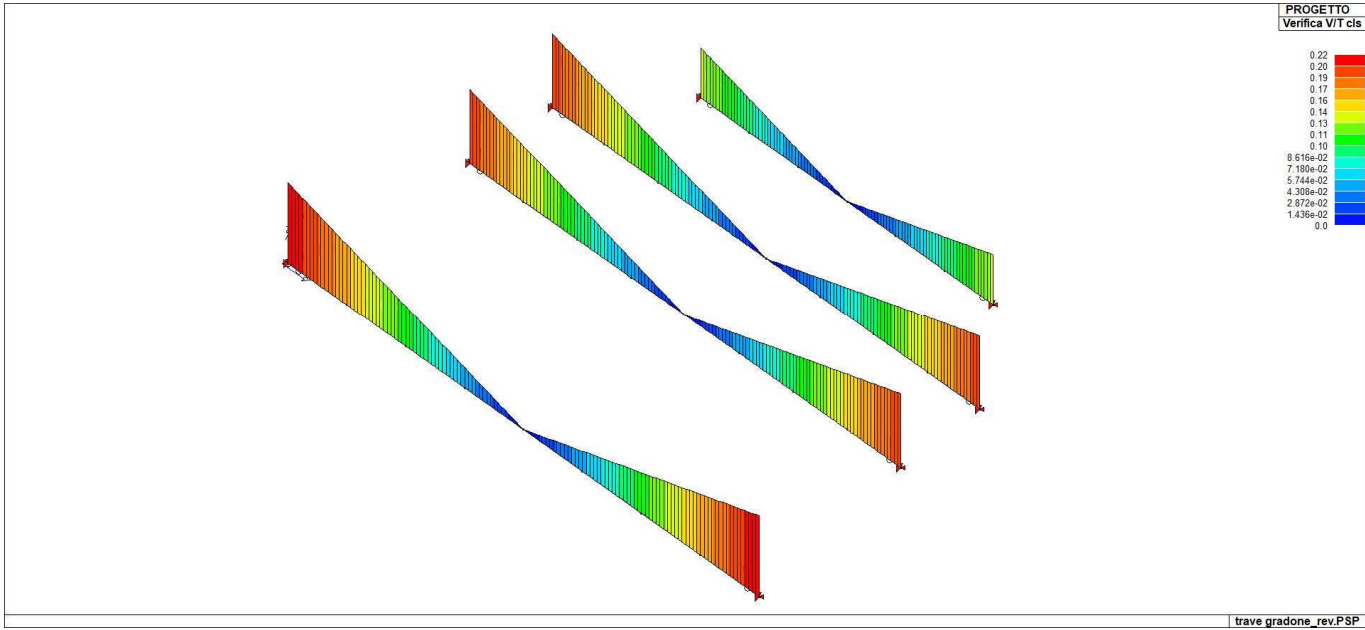
M P X Y	Numero della pilastrata (P) e posizione in pianta (X,Y)
M_T Z P P	Numero della travata, quota media pilastrata iniziale e finale (nodo in assenza di pilastrata)
Pilas. Trave	o numero identificativo dell'elemento D2
Note	Viene riportato il codice relativo alla sezione(s) e relativo al materiale(m); nella terza riga viene riportato il valore delle snellezze in direzione 2-2 e 3-3
Stato	Codici di verifica relativi alle tensioni normali e alle tensioni tangenziali
Quota	Ascissa del punto di verifica
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
Armat. long.	Numero e diametro dei ferri di armatura longitudinale: ferri di vertice + ferri di lato (come da fig. precedente)
Af inf.	Area di armatura longitudinale posta all'intradosso della trave
Af sup	Area di armatura longitudinale posta all'estradosso della trave
Sc max	Massima tensione di compressione del calcestruzzo
Sc med	Massima tensione media di compressione del calcestruzzo
Sf max	Tensione massima nell'acciaio
staffe	Vengono riportati i dati del tratto di staffatura in cui cade la sezione di verifica; in particolare: numero dei bracci, diametro, passo, lunghezza tratto
Tau max	Tensione massima tangenziale nel cls
Rif. comb	Combinazioni in cui si generano i seguenti valori di tensione: Sc max, Sc med, Sf max, Tau max
AfV	area dell'armatura atta ad assorbire le azioni di taglio
AfT	area dell'armatura atta ad assorbire le azioni di torsione
Scorr. P	Scorrimento dei piegati
Af long.	Area del ferro longitudinale aggiuntivo per assorbire la torsione

Trave	Note	Pos. cm	%Af	Af inf.	Af. sup	Af long.	M_T= 1 x/d	Z=0.0 V N/M	N=1 V V/T cls	N=2 V V/T acc	Staffe L=cm	Rif. cmb
1	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.0	0.22	0.09	2d8/10 L=50	0,2,2
s=1,m=7		72.9	0.25	3.4	2.3	3.4	0.10	0.40	0.16	0.13	2d8/20 L=23	2,2,2
5	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.40	0.16	0.13	2d8/20 L=73	2,2,2
s=1,m=7		72.9	0.25	3.4	2.3	3.4	0.10	0.68	0.11	0.09	2d8/20 L=73	2,2,2
3	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.68	0.11	0.09	2d8/20 L=73	2,2,2
s=1,m=7		72.9	0.25	3.4	2.3	3.4	0.10	0.85	0.05	0.04	2d8/20 L=73	2,2,2
7	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.85	0.05	0.04	2d8/20 L=73	2,2,2
s=1,m=7		72.9	0.25	3.4	2.3	3.4	0.10	0.91	0.0	0.0	2d8/20 L=73	2,2,2
2	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.91	0.0	0.0	2d8/20 L=73	2,2,2
s=1,m=7		72.9	0.25	3.4	2.3	3.4	0.10	0.85	0.05	0.04	2d8/20 L=73	2,2,2
6	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.85	0.05	0.04	2d8/20 L=73	2,2,2
s=1,m=7		72.9	0.25	3.4	2.3	3.4	0.10	0.68	0.11	0.09	2d8/20 L=73	2,2,2
4	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.68	0.11	0.09	2d8/20 L=73	2,2,2
s=1,m=7		72.9	0.25	3.4	2.3	3.4	0.10	0.40	0.16	0.13	2d8/20 L=73	2,2,2
8	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.40	0.16	0.13	2d8/20 L=23	2,2,2
s=1,m=7		72.9	0.25	3.4	2.3	3.4	0.03	0.0	0.22	0.09	2d8/10 L=50	0,2,2
Trave	Note	Pos.	%Af	Af inf.	Af. sup	Af long.	M_T= 3 x/d	Z=0.0 V N/M	N=19 V V/T cls	N=20 V V/T acc	Staffe	Rif. cmb
17	ok,ok	0.0	0.25	3.4	2.3	3.4	0.03	0.0	0.20	0.08	2d8/10 L=50	0,2,2
s=1,m=7		66.7	0.25	3.4	2.3	3.4	0.10	0.33	0.15	0.12	2d8/20 L=17	2,2,2
21	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.33	0.15	0.12	2d8/20 L=67	2,2,2
s=1,m=7		66.7	0.25	3.4	2.3	3.4	0.10	0.57	0.10	0.08	2d8/20 L=67	2,2,2
19	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.57	0.10	0.08	2d8/20 L=67	2,2,2
s=1,m=7		66.7	0.25	3.4	2.3	3.4	0.10	0.71	0.05	0.04	2d8/20 L=67	2,2,2
23	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.71	0.05	0.04	2d8/20 L=67	2,2,2
s=1,m=7		66.7	0.25	3.4	2.3	3.4	0.10	0.76	0.0	0.0	2d8/20 L=67	2,2,2
18	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.76	0.0	0.0	2d8/20 L=67	2,2,2
s=1,m=7		66.7	0.50	6.8	2.3	3.4	0.20	0.37	0.05	0.04	2d8/20 L=67	2,2,2
22	ok,ok	0.0	0.50	6.8	2.3	3.4	0.20	0.37	0.05	0.04	2d8/20 L=67	2,2,2
s=1,m=7		66.7	0.25	3.4	2.3	3.4	0.10	0.57	0.10	0.08	2d8/20 L=67	2,2,2
20	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.57	0.10	0.08	2d8/20 L=67	2,2,2
s=1,m=7		66.7	0.25	3.4	2.3	3.4	0.10	0.33	0.15	0.12	2d8/20 L=67	2,2,2
24	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.33	0.15	0.12	2d8/20 L=17	2,2,2
s=1,m=7		66.7	0.25	3.4	2.3	3.4	0.10	0.0	0.20	0.08	2d8/10 L=50	0,2,2

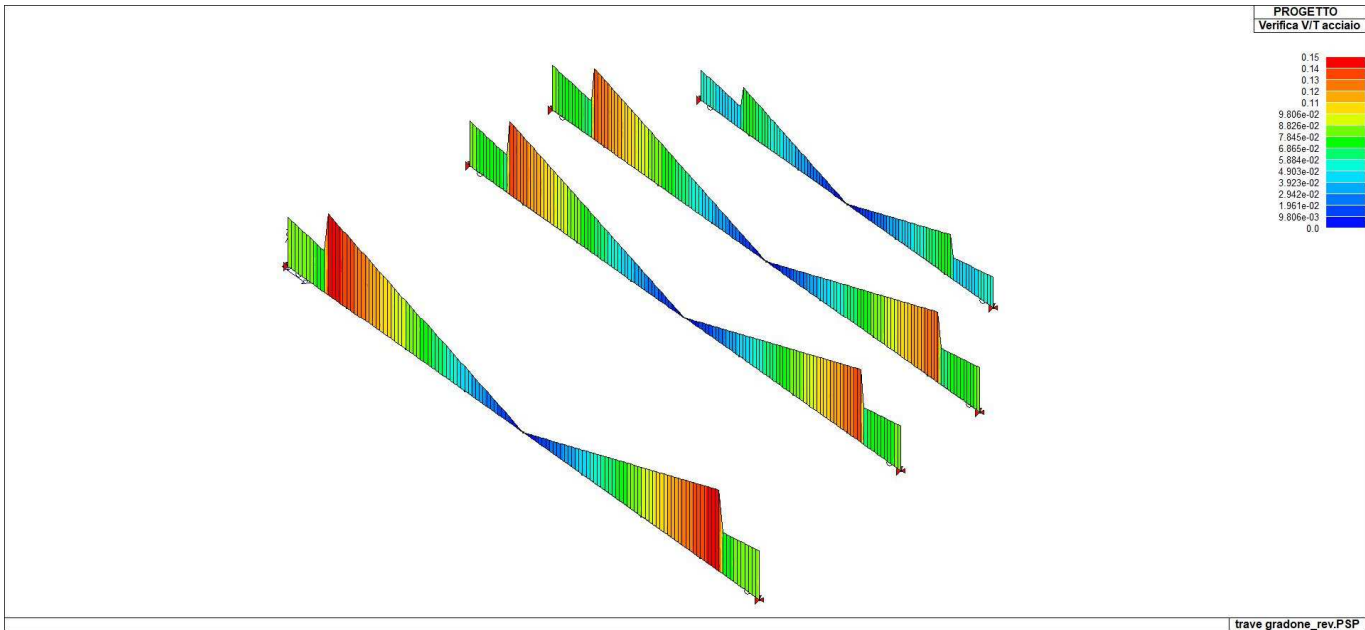
		M_T= 4							Z=0.0	N=34	N=35		
Trave	Note	Pos.	%Af	Af inf.	Af. sup	Af long.	x/d	V N/M	V V/T cls	V V/T acc		Staffe	Rif. cmb
25	ok,ok	0.0	0.25	3.4	2.3	3.4	0.03	0.0	0.20	0.08		2d8/10 L=50	0,2,2
	s=1,m=7	64.2	0.25	3.4	2.3	3.4	0.10	0.32	0.15	0.12		2d8/20 L=14	2,2,2
29	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.32	0.15	0.12		2d8/20 L=67	2,2,2
	s=1,m=7	66.7	0.25	3.4	2.3	3.4	0.10	0.56	0.10	0.08		2d8/20 L=67	2,2,2
27	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.56	0.10	0.08		2d8/20 L=67	2,2,2
	s=1,m=7	66.7	0.25	3.4	2.3	3.4	0.10	0.70	0.05	0.04		2d8/20 L=67	2,2,2
31	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.70	0.05	0.04		2d8/20 L=67	2,2,2
	s=1,m=7	66.7	0.25	3.4	2.3	3.4	0.10	0.75	0.0	0.0		2d8/20 L=67	2,2,2
26	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.75	0.0	0.0		2d8/20 L=57	2,2,2
	s=1,m=7	66.7	0.50	6.8	2.3	3.4	0.20	0.36	0.05	0.04		2d8/20 L=57	2,2,2
30	ok,ok	0.0	0.50	6.8	2.3	3.4	0.20	0.36	0.05	0.04		2d8/20 L=67	2,2,2
	s=1,m=7	66.7	0.25	3.4	2.3	3.4	0.10	0.56	0.10	0.08		2d8/20 L=67	2,2,2
28	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.56	0.10	0.08		2d8/20 L=67	2,2,2
	s=1,m=7	66.7	0.25	3.4	2.3	3.4	0.10	0.32	0.15	0.12		2d8/20 L=67	2,2,2
32	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.32	0.15	0.12		2d8/20 L=14	2,2,2
	s=1,m=7	64.2	0.25	3.4	2.3	3.4	0.03	0.0	0.20	0.08		2d8/10 L=50	0,2,2
		M_T= 5							Z=0.0	N=33	N=43		
Trave	Note	Pos.	%Af	Af inf.	Af. sup	Af long.	x/d	V N/M	V V/T cls	V V/T acc		Staffe	Rif. cmb
33	ok,ok	0.0	0.25	3.4	2.3	3.4	0.03	0.0	0.13	0.06		2d8/10 L=50	0,2,2
	s=1,m=7	60.3	0.25	3.4	2.3	3.4	0.10	0.19	0.09	0.07		2d8/20 L=10	2,2,2
34	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.19	0.09	0.07		2d8/20 L=60	2,2,2
	s=1,m=7	60.3	0.25	3.4	2.3	3.4	0.10	0.31	0.04	0.04		2d8/20 L=60	2,2,2
35	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.31	0.04	0.04		2d8/20 L=60	2,2,2
	s=1,m=7	60.3	0.25	3.4	2.3	3.4	0.10	0.35	0.0	0.0		2d8/20 L=60	2,2,4
36	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.35	0.0	0.0		2d8/20 L=60	2,4,4
	s=1,m=7	60.3	0.25	3.4	2.3	3.4	0.10	0.31	0.04	0.04		2d8/20 L=60	2,2,2
37	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.31	0.04	0.04		2d8/20 L=60	2,2,2
	s=1,m=7	60.3	0.25	3.4	2.3	3.4	0.10	0.19	0.09	0.07		2d8/20 L=60	2,2,2
38	ok,ok	0.0	0.25	3.4	2.3	3.4	0.10	0.19	0.09	0.07		2d8/20 L=10	2,2,2
	s=1,m=7	60.3	0.25	3.4	2.3	3.4	0.03	0.0	0.13	0.06		2d8/10 L=50	0,2,2
Trave			%Af	Af inf.	Af. sup	Af long.	x/d	V N/M	V V/T cls	V V/T acc			
			0.50	6.79	2.26	3.39	0.20	0.91	0.22	0.13			



71_PRO_CA_TRV_VER_NM



71_PRO_CA_TRV_VER_VRCD



71_PRO_CA_TRV_VER_VRSD

STATI LIMITE D' ESERCIZIO

LEGENDA TABELLA STATI LIMITE D' ESERCIZIO

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.

In particolare vengono riportati, in relazione al tipo di elemento strutturale, i risultati relativi alle tre categorie di combinazione considerate:

- Combinazioni rare
- Combinazioni frequenti
- Combinazioni quasi permanenti.

I valori di interesse sono i seguenti:

rRfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni rare [normalizzato a 1]
rRfyk	rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni rare [normalizzato a 1]
rPfck	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni quasi permanenti [normalizzato a 1]
wR	apertura caratteristica delle fessure in combinazioni rare [mm]
wF	apertura caratteristica delle fessure in combinazioni frequenti [mm]
wP	apertura caratteristica delle fessure in combinazioni quasi permanenti [mm]
dR	massima deformazione in combinazioni rare
dF	massima deformazione in combinazioni frequenti
dP	massima deformazione in combinazioni quasi permanenti

Per ognuno dei nove valori soprariportati viene indicata (Rif.cmb) la combinazione in cui si è verificato.

In relazione al tipo di elemento strutturale i valori sono selezionati nel modo seguente:

pilastri	rRfck	rRfyk	rPfck	per sezioni significative
travi	rRfck wR dR	rRfyk wF dF	rPfck wP dP	per sezioni significative per sezioni significative massimi in campata
setti e gusci	rRfck wR	rRfyk wF	rPfck wP	massimi nei nodi dell'elemento massimi nei nodi dell'elemento

Si precisa che i valori di massima deformazione per travi sono riferiti al piano verticale (piano locale 1-2 con momenti flettenti 3-3).

Trave cmbdR	Pos. dF cm	rRfck dP	rRfyk Rif. cmb	rPfck	Rif. cmb	wR	wF	wP	Rif.			
						mm	mm	mm		mm	mm	mm
1	0.0	0.0	0.0	0.0	0,0,0	0.0	0.0	0.0	0,0,0	-3.55	-2.95	-
2.756,8,10	72.9	0.15	0.32	0.16	6,6,10	0.0	0.0	0.0	0,0,0			
2	0.0	0.35	0.74	0.36	6,6,10	0.0	0.0	0.0	0,0,0	-3.55	-2.95	-
2.756,8,10	72.9	0.33	0.69	0.34	6,6,10	0.0	0.0	0.0	0,0,0			
3	0.0	0.26	0.55	0.27	6,6,10	0.0	0.0	0.0	0,0,0	-3.55	-2.95	-
2.756,8,10	72.9	0.33	0.69	0.34	6,6,10	0.0	0.0	0.0	0,0,0			
4	0.0	0.26	0.55	0.27	6,6,10	0.0	0.0	0.0	0,0,0	-3.55	-2.95	-
2.756,8,10	72.9	0.15	0.32	0.16	6,6,10	0.0	0.0	0.0	0,0,0			
5	0.0	0.15	0.32	0.16	6,6,10	0.0	0.0	0.0	0,0,0	-3.55	-2.95	-
2.756,8,10	72.9	0.26	0.55	0.27	6,6,10	0.0	0.0	0.0	0,0,0			
6	0.0	0.33	0.69	0.34	6,6,10	0.0	0.0	0.0	0,0,0	-3.55	-2.95	-
2.756,8,10	72.9	0.26	0.55	0.27	6,6,10	0.0	0.0	0.0	0,0,0			
7	0.0	0.33	0.69	0.34	6,6,10	0.0	0.0	0.0	0,0,0	-3.55	-2.95	-
2.756,8,10	72.9	0.35	0.74	0.36	6,6,10	0.0	0.0	0.0	0,0,0			

8	0.0	0.15	0.32	0.16	6,6,10	0.0	0.0	0.0	0,0,0	-3.55	-2.95	-
2.756,8,10	72.9	0.0	0.0	0.0	0,0,0	0.0	0.0	0.0	0,0,0			
17	0.0	0.0	0.0	0.0	0,0,0	0.0	0.0	0.0	0,0,0	-2.49	-2.07	-
1.936,8,10	66.7	0.13	0.27	0.13	6,6,10	0.0	0.0	0.0	0,0,0			
18	0.0	0.30	0.62	0.30	6,6,10	0.0	0.0	0.0	0,0,0	-2.49	-2.07	-
1.936,8,10	66.7	0.23	0.30	0.23	6,6,10	0.0	0.0	0.0	0,0,0			
19	0.0	0.22	0.46	0.23	6,6,10	0.0	0.0	0.0	0,0,0	-2.49	-2.07	-
1.936,8,10	66.7	0.28	0.58	0.29	6,6,10	0.0	0.0	0.0	0,0,0			
20	0.0	0.22	0.46	0.23	6,6,10	0.0	0.0	0.0	0,0,0	-2.49	-2.07	-
1.936,8,10	66.7	0.13	0.27	0.13	6,6,10	0.0	0.0	0.0	0,0,0			
21	0.0	0.13	0.27	0.13	6,6,10	0.0	0.0	0.0	0,0,0	-2.49	-2.07	-
1.936,8,10	66.7	0.22	0.46	0.23	6,6,10	0.0	0.0	0.0	0,0,0			
22	0.0	0.23	0.30	0.23	6,6,10	0.0	0.0	0.0	0,0,0	-2.49	-2.07	-
1.936,8,10	66.7	0.22	0.46	0.23	6,6,10	0.0	0.0	0.0	0,0,0			
23	0.0	0.28	0.58	0.29	6,6,10	0.0	0.0	0.0	0,0,0	-2.49	-2.07	-
1.936,8,10	66.7	0.30	0.62	0.30	6,6,10	0.0	0.0	0.0	0,0,0			
24	0.0	0.13	0.27	0.13	6,6,10	0.0	0.0	0.0	0,0,0	-2.49	-2.07	-
1.936,8,10	66.7	0.0	0.0	0.0	0,0,0	0.0	0.0	0.0	0,0,0			
25	0.0	0.0	0.0	0.0	0,0,0	0.0	0.0	0.0	0,0,0	-2.39	-1.99	-
1.856,8,10	64.2	0.12	0.26	0.13	6,6,10	0.0	0.0	0.0	0,0,0			
26	0.0	0.29	0.61	0.30	6,6,10	0.0	0.0	0.0	0,0,0	-2.39	-1.99	-
1.856,8,10	66.7	0.22	0.29	0.23	6,6,10	0.0	0.0	0.0	0,0,0			
27	0.0	0.22	0.45	0.22	6,6,10	0.0	0.0	0.0	0,0,0	-2.39	-1.99	-
1.856,8,10	66.7	0.27	0.57	0.28	6,6,10	0.0	0.0	0.0	0,0,0			
28	0.0	0.22	0.45	0.22	6,6,10	0.0	0.0	0.0	0,0,0	-2.39	-1.99	-
1.856,8,10	66.7	0.12	0.26	0.13	6,6,10	0.0	0.0	0.0	0,0,0			
29	0.0	0.12	0.26	0.13	6,6,10	0.0	0.0	0.0	0,0,0	-2.39	-1.99	-
1.856,8,10	66.7	0.22	0.45	0.22	6,6,10	0.0	0.0	0.0	0,0,0			
30	0.0	0.22	0.29	0.23	6,6,10	0.0	0.0	0.0	0,0,0	-2.39	-1.99	-
1.856,8,10	66.7	0.22	0.45	0.22	6,6,10	0.0	0.0	0.0	0,0,0			
31	0.0	0.27	0.57	0.28	6,6,10	0.0	0.0	0.0	0,0,0	-2.39	-1.99	-
1.856,8,10	66.7	0.29	0.61	0.30	6,6,10	0.0	0.0	0.0	0,0,0			
32	0.0	0.12	0.26	0.13	6,6,10	0.0	0.0	0.0	0,0,0	-2.39	-1.99	-
1.856,8,10	64.2	0.0	0.0	0.0	0,0,0	0.0	0.0	0.0	0,0,0			
33	0.0	0.0	0.0	0.0	0,0,0	0.0	0.0	0.0	0,0,0	-0.52	-0.44	-
0.416,8,10	60.3	0.08	0.16	0.08	6,6,10	0.0	0.0	0.0	0,0,0			
34	0.0	0.08	0.16	0.08	6,6,10	0.0	0.0	0.0	0,0,0	-0.52	-0.44	-
0.416,8,10	60.3	0.12	0.25	0.12	6,6,10	0.0	0.0	0.0	0,0,0			
35	0.0	0.12	0.25	0.12	6,6,10	0.0	0.0	0.0	0,0,0	-0.52	-0.44	-
0.416,8,10	60.3	0.14	0.28	0.14	6,6,10	0.0	0.0	0.0	0,0,0			
36	0.0	0.14	0.28	0.14	6,6,10	0.0	0.0	0.0	0,0,0	-0.52	-0.44	-
0.416,8,10	60.3	0.12	0.25	0.12	6,6,10	0.0	0.0	0.0	0,0,0			
37	0.0	0.12	0.25	0.12	6,6,10	0.0	0.0	0.0	0,0,0	-0.52	-0.44	-
0.416,8,10	60.3	0.08	0.16	0.08	6,6,10	0.0	0.0	0.0	0,0,0			
38	0.0	0.08	0.16	0.08	6,6,10	0.0	0.0	0.0	0,0,0	-0.52	-0.44	-
0.416,8,10	60.3	0.0	0.0	0.0	0,0,0	0.0	0.0	0.0	0,0,0			
Trave	rRfck	rRfyk	rPfck		wR	wF	wP			dR	dF	dP
										-3.55	-2.95	-2.75
										-0.52	-0.44	-0.41

5. RELAZIONE DI CALCOLO COLLEGAMENTI ELEMENTI PREFABBRICATI

COLLEGAMENTO PILASTRI - FONDAZIONE

COLLEGAMENTO PILASTRO FONDAZIONE - GIUNTO DI TIPO B

Caratteristiche geometriche

Lunghezza di ancoraggio delle barre $l_b =$	900	mm
diametro della barra =	30	mm
n° ferri per guaina =	1	
Lunghezza di ancoraggio guaina corrugata =	900	mm
diametro della guaina corrugata =	85	mm
base 1 pilastro	800	mm
base 2 pilastro	1000	mm

Materiali

Acciaio B450C - armatura pilastro

$f_{yk} =$	450	MPa
$\gamma_f =$	1.15	
$f_{yd} =$	391	MPa

Calcestruzzo fondazioni

$R_{ck} =$	37	MPa
$f_{ck} =$	28	MPa
$\gamma_c =$	1.5	
$\alpha_{cc} =$	0.85	
$f_{cd} =$	16	MPa
$F_{ctk} =$	1.94	MPa
$f_{ctd} =$	1.293333	MPa
$f_{bd} =$	2.91	MPa

Malta a ritiro controllato

$f_{bdm} =$	32	MPa	Aderenza alle barre dopo 28 gg
$\gamma_m =$	1.5		
$f_{bdm\ d} =$	21	MPa	

Verifica ancoraggio barra ad aderenza migliorata alla malta

perimetro barra =	94.2	mm
lunghezza barra =	900	mm
Resistenza ancoraggio barre - malta $= R_u =$	1780	kN
Resistenza a snervamento barra $= R_f =$	276	kN

$\gamma_{rd} = R_u / R_f =$	6.4	> 1.2 (giunto di tipo B)	Verificato
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Verifica ancoraggio guaina - calcestruzzo fondazioni

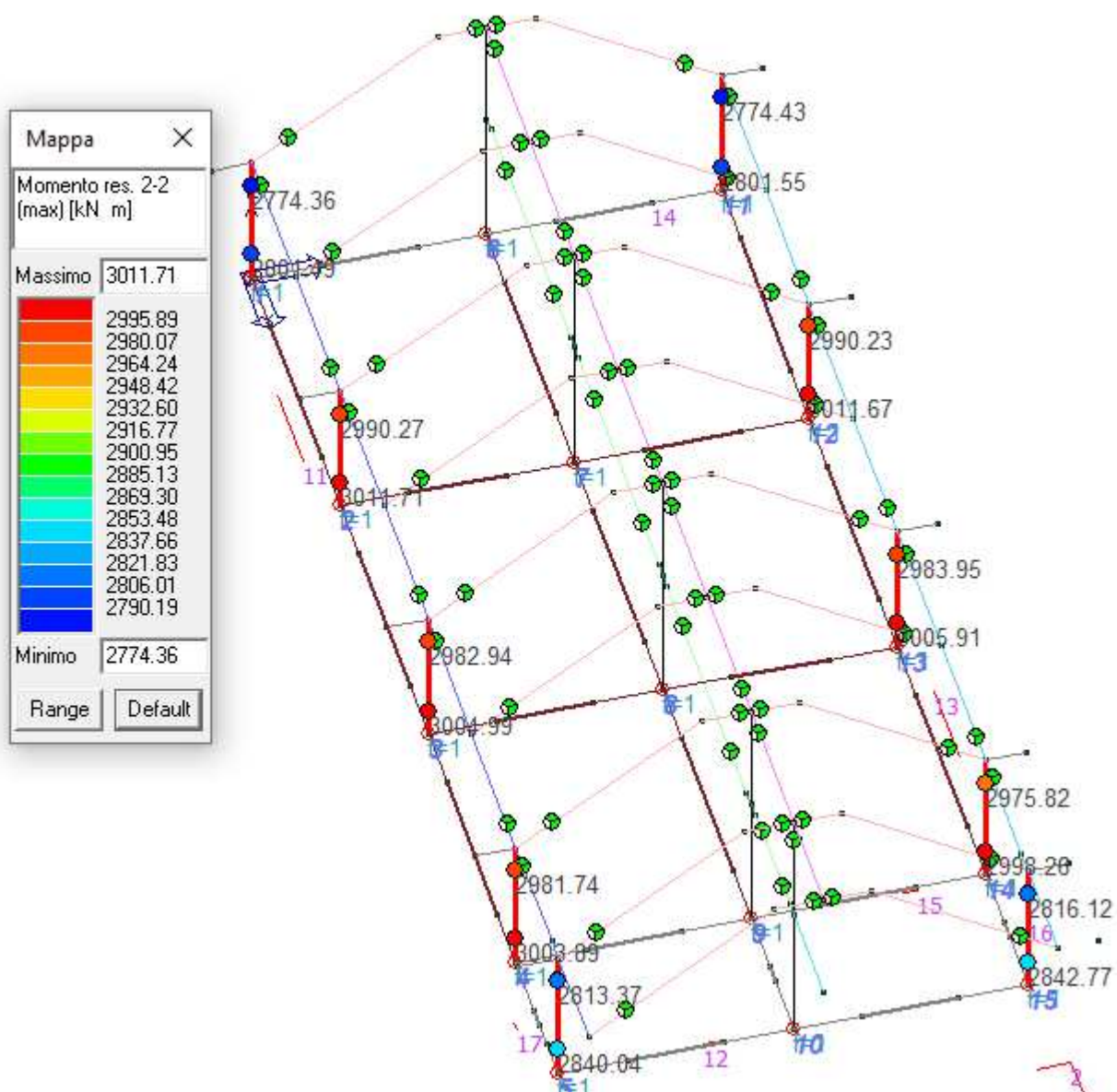
perimetro guaina =	266.9	mm
lunghezza guaina =	900	mm
Resistenza ancoraggio guaina cls = R_u =	699	kN
Resistenza a snervamento barra = R_f =	276	kN

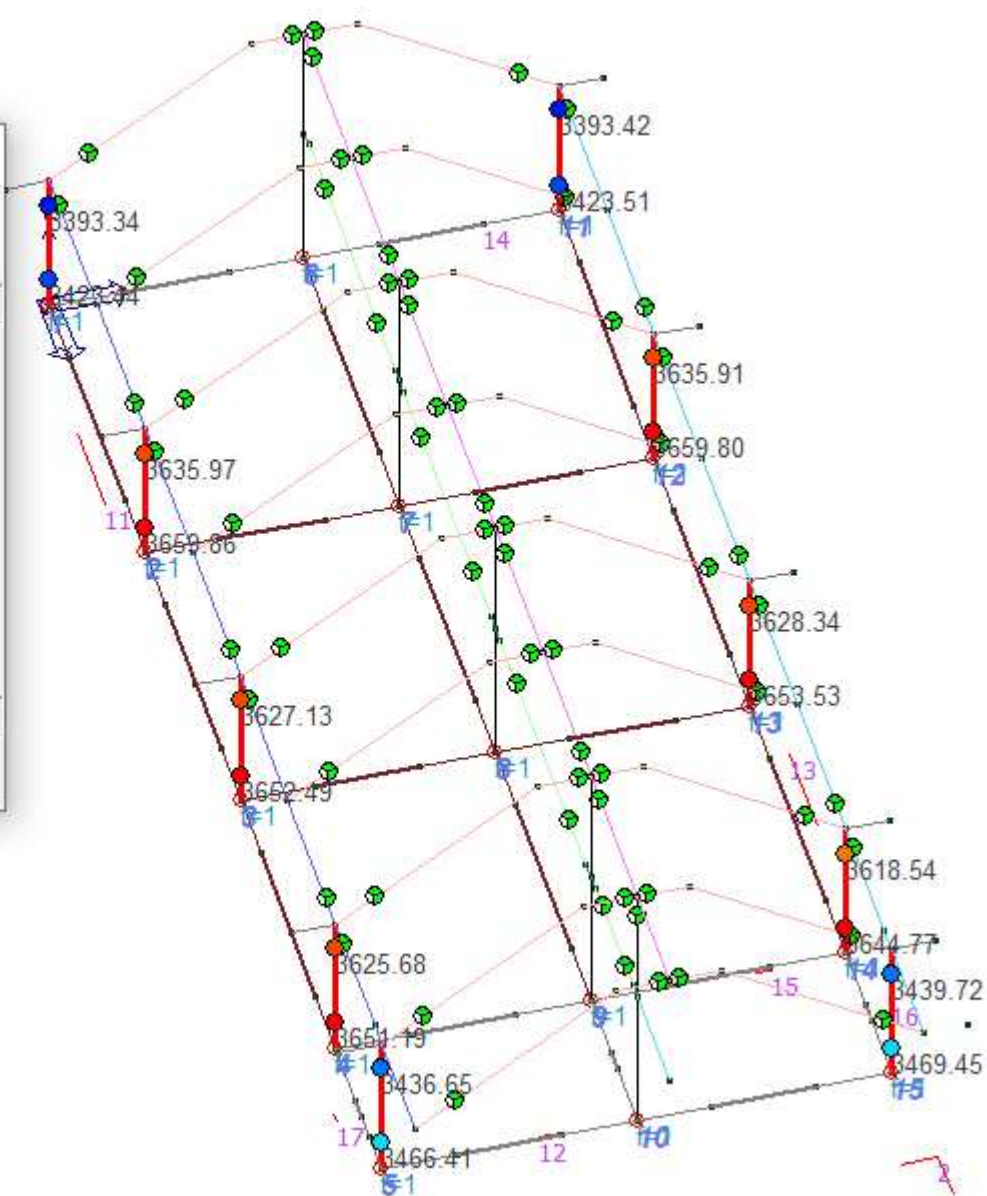
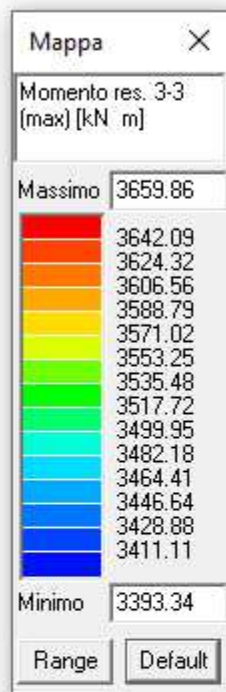
$$\gamma_{rd} = R_u / R_f = 2.5 > 1.2 \text{ (giunto di tipo B)} \quad \text{Verificato}$$

Verifica resistenza a scorrimento

Area armatura a flessione pilastro =	16965	mmq
Resistenza a taglio della barra metallica =	1744	kN
Area calcestruzzo compresso =	0	mmq
Resistenza a taglio calcestruzzo compresso =	0	kN
$V_{Rd \text{ tot}}$ =	1744	kN
Ved da analisi elastica =	300	

$$\gamma_{rd} = V_{Rd \text{ tot}} / V_{ed} = 5.813333 > 1.2 \text{ (giunto di tipo B)} \quad \text{Verificato}$$





COLLEGAMENTO PILASTRO TRAVE - GIUNTO DI TIPO A

capannone monopiano

Il collegamento va dimensionato con i criteri di gerarchia delle resistenze, ovvero il collegamento deve essere in grado di sviluppare la cerniera plastica alla base dei pilastri. Il rispetto di tale prescrizione si ottiene dividendo il momento resistente amplificato di γ_{rd} per l'altezza di calcolo del pilastro.

caratteristiche spinotto:

Φ mm
 f_{yk} 6400 daN/cm²
 f_{yd} 5565 daN/cm²
 f_{tb} 8000 daN/cm²
 A_{netta} = 5.61 cm²

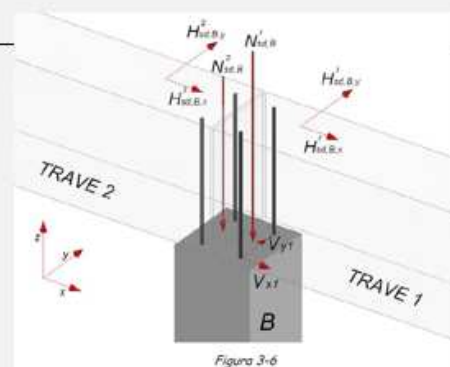
caratteristiche appoggio

R_{ck} = 50 MPa
 f_{ck} = 40 MPa
 γ_c = 1.5
 α_{cc} = 0.85
 f_{cd} = 23 MPa
 F_{ctk} = 2.46 MPa

VERIFICA LATO ACCIAIO

Verifica per la direzione lungo l'asse della trave:

M_{resC} = 3659.86 kNm momento resistente alla
 h_c = 5 m sezione di base della colonna
 γ_{rd} = 1.1 CDB altezza colonna
 V_{ed} = 805.17 kN
 Carico verticale portato da ciascuna trave:
 N_{sd1} = 278 kN
 N_{sd2} = 278 kN
 Taglio resistente per ciascuna trave per dimensionamento spinotto:
 n° spinotti = 4
 V_{edI} = 100.6 kN



V_{edI} = 100.6 kN < V_{Rd} = 197.4 kN (4.2.18)

VERIFICATO

Verifica per la direzione ortogonale all'asse della trave:

MresC = 3011.71 kNm momento resistente alla sezione di base della colonna
hc = 5 m altezza colonna
h_{trave} = 1.1 m
yrd = 1.1 CDB
Ved = 135.77 kN

Carico verticale portato da ciascuna trave:

N_{sd1} = 278 kN
N_{sd2} = 278 kN

Taglio resistente per ciascuna trave:

Ved₁ = 67.9 kN

Taglio su ciascun spinotto :

Ved_{1 spinotto} = 16.975 kN

Med = 74.7 kNm Momento ribaltante
dist. Bulloni = 0.6 m distanza tra i bulloni
Ned = 62 kN Azione trazione sugli spinotti = Ned
n° fissaggi per lato = 2
Ares = 561 mm² area resistente spinotto
Nrd = 448.8 kN Azione resistente trazione spinotto

verifica combinata trazione - taglio: 0.14 < 1 VERIFICATO

VERIFICA LATO CALCESTRUZZO

Ved₁ = 100.6 kN
Ved_{1 spinotto} = 16.975 kN
V risultante = 102.02 kN angolo di inclinazione della risultante = 9.58 °= rad = 0.167203

distanza tra la barra e l'asse della staffatura lungo la direzione della trave

d = 10 cm copriferro = 3 cm
du = 7 cm

distanza tra la barra e l'asse della staffatura lungo la direzione ortogonale della trave

d = 10 cm copriferro = 3 cm
du = 7 cm

lato verifica sezione calcestruzzo

$L = 70.23$ cm

Infissione della barra nel pilastro (≈ 0.5 infissione effettiva)

$l = 30$ cm

$A_{cls} = 2106.9$ cmq Area Calcestruzzo di verifica

resistenza a trazione del calcestruzzo nella sezione di verifica

V risultante = 102.02 kN < $R_{cls} = 518.3$ kN **VERIFICATO**

Area staffe cerchiate

passo staffe 5 cm

n° staffe 4 cm

diametro staffe 8 mm

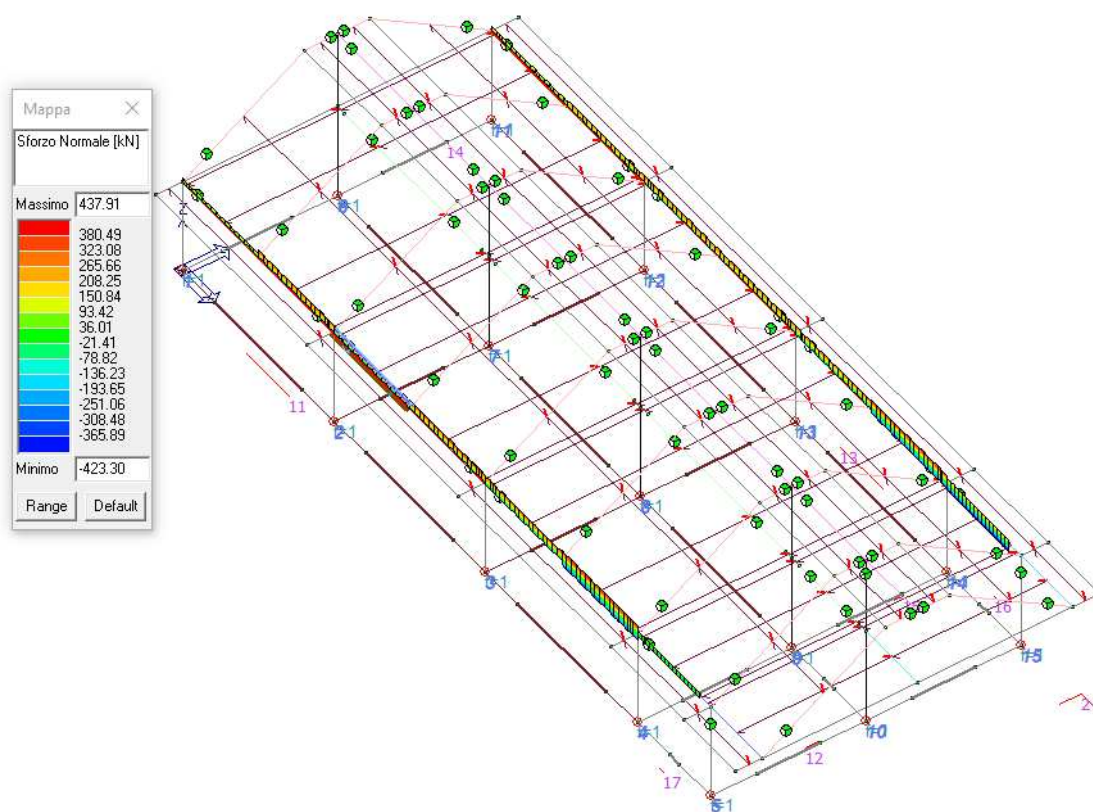
Area 1 braccio staffa = 0.505 cmq

n° braccia 4

V risultante = 102.02 kN < Resistenza acciaio in esercizio staffe = 291 kN **VERIFICATO**

essendo la resistenza del calcestruzzo a trazione per il cuneo attivato dallo spinotto, maggiore al taglio sollecitante, tale azione è equilibrata dall'acciaio della staffatura che reagisce in fase elastica

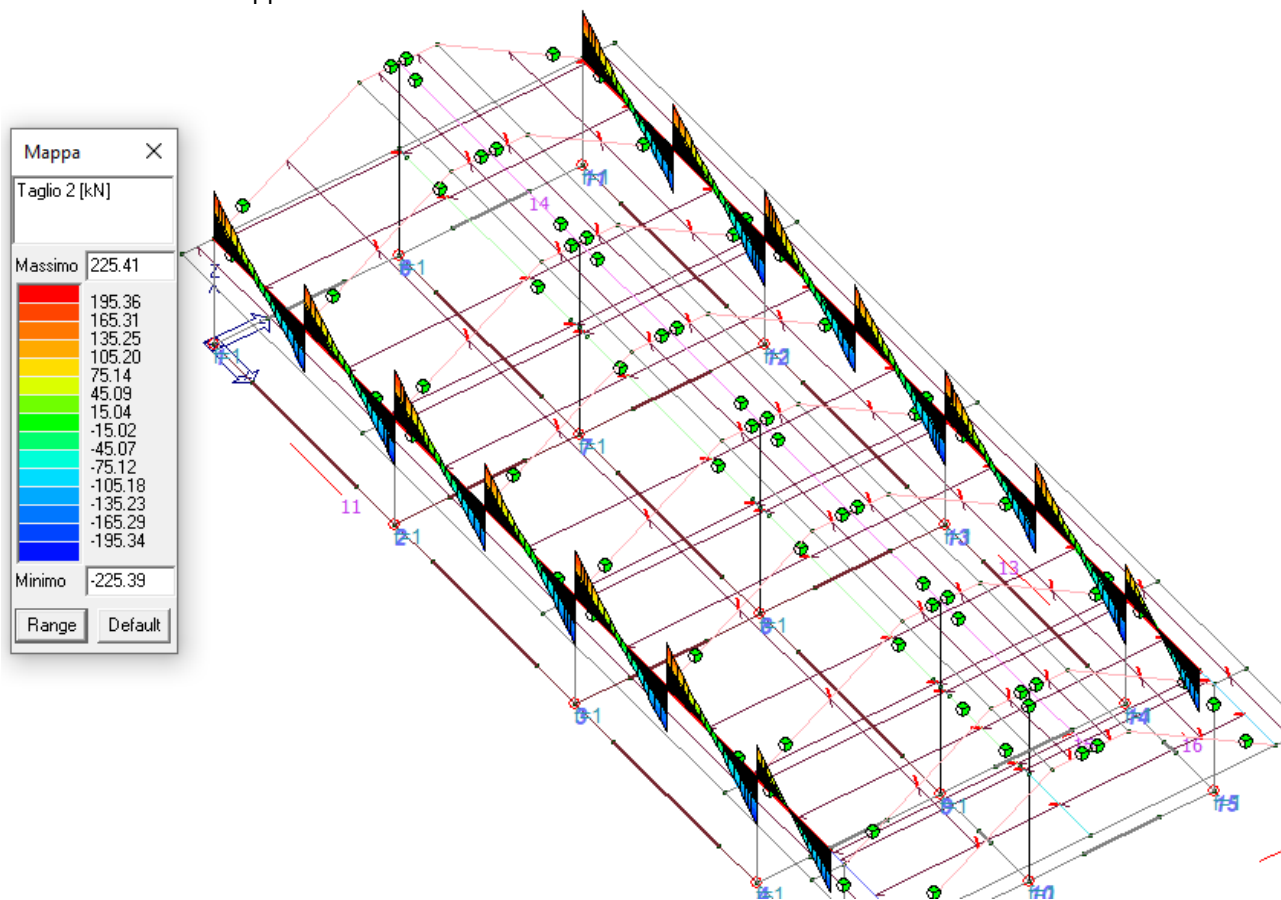
Verifica azioni puntuali



$V_{ed} = 440$ kN < Azione resistente 4 M33 = 197 kN * 4 = 788 kN → **VERIFICATO**

CALCOLO MENSOLE PER FISSAGGIO TRAVI PRINCIPALI - PILASTRI 80x100

Sollecitazioni di involucro SLU:



Larghezza mensola = 0.8 m, azione distribuita equivalente = $226 / 0.8 = 285 \text{ kN}$

Verifica di mensola tozza in c.a. con armatura superiore

Dati generali:

Normativa di riferimento: NTC 2018

Calcestruzzo classe: C40/50

Acciaio in barre: B450C

Dimensioni:

Sbalzo: $l = 40.0 \text{ cm}$

Altezza: $h = 40.0 \text{ cm}$

Dist. applicazione del carico: $a = 30.0 \text{ cm}$

Armatura:

Armatura superiore: $1\phi 16 / 5 \text{ Af} = 40.21 \text{ cm}^2/\text{m}$

Staffe: $1\phi 10 / 5$

Copriferro: $cf = 3.0 \text{ cm}$

Carichi:

Carichi permanenti compiutamente definiti G1:

- P.P. mensola in CLS = 400.0 daN/m

Carichi variabili Qi:

- carico variabile = 285.0 daN/m

Azioni di calcolo per porzione di mensola di 100 cm:

$$P = G1 \gamma_{g1} + Q_i \gamma_{qi} = 805.00 \text{ daN/m} \quad (\gamma_{g1} = 1.30; \gamma_{qi} = 1.00)$$

Dimensioni di calcolo:

Larghezza mensola: $b = 100 \text{ cm}$

Altezza utile: $d = h - c_f = 37.0 \text{ cm}$

Altezza traliccio: $z = 0,9 d = 33.3 \text{ cm}$

Braccio traliccio: $L = a + 0,2 d = 37.4 \text{ cm}$

Angolo biella cls: $\cotg(\alpha) = L / z = 1.123123 \Rightarrow \alpha = 41.68$

Coef. c: 1,5 (presenza di staffe)

Verifiche:

Resistenza dell'armatura tesa: $Prs = A_f f_{yd} \tg(\alpha) = 140102.90 \text{ daN/m} > P \quad \text{Ok}$

Resistenza della biella compressa: $Prc = 0,2 c d b f_{cd} \sen(\alpha) = 173583.90 \text{ daN/m} > P \quad \text{Ok}$

Gerarchia delle resistenze: $Prc > Prs \quad \text{Ok}$

CALCOLO MENSOLE BALLATOIO

Verifica di mensola tozza in c.a. con armatura superiore**Dati generali:**

Normativa di riferimento: NTC 2018

Calcestruzzo classe: C40/50

Acciaio in barre: B450C

Dimensioni:

Sbalzo: $l = 93.0 \text{ cm}$

Altezza: $h = 60.0 \text{ cm}$

Dist. applicazione del carico: $a = 0.0 \text{ cm}$

Armatura:

Armatura superiore: $1\phi 16 / 10 \quad A_f = 20.11 \text{ cm}^2/\text{m}$

Staffe: $1\phi 8 / 10$

Copriferro: $c_f = 3.0 \text{ cm}$

Carichi:

Carichi permanenti compiutamente definiti $G1$:

- P.P. mensola in CLS = 1395.0 daN/m

Essendo i carichi $G2$ e Q_k preponderanti, il contributo $G1$ si considererà applicato in (a).

Carichi permanenti non compiutamente definiti $G2$:

- Impermeabilizzazione = 50.0 daN/m^2

- carico generico = 7576.0 daN/m

Carichi variabili Q_i :

- carico variabile = 5335.0 daN/m

Azioni di calcolo per porzione di mensola di 100 cm:

$$P = G1 \gamma_{g1} + G2 \gamma_{g2} + Q_i \gamma_{qi} = 21180.00 \text{ daN/m} \quad (\gamma_{g1} = 1.30; \gamma_{g2} = 1.50; \gamma_{qi} = 1.50)$$

Dimensioni di calcolo:

Larghezza mensola: $b = 100 \text{ cm}$

Altezza utile: $d = h - c_f = 57.0 \text{ cm}$

Altezza traliccio: $z = 0,9 d = 51.3 \text{ cm}$

Braccio traliccio: $L = a + 0,2 d = 11.4 \text{ cm}$

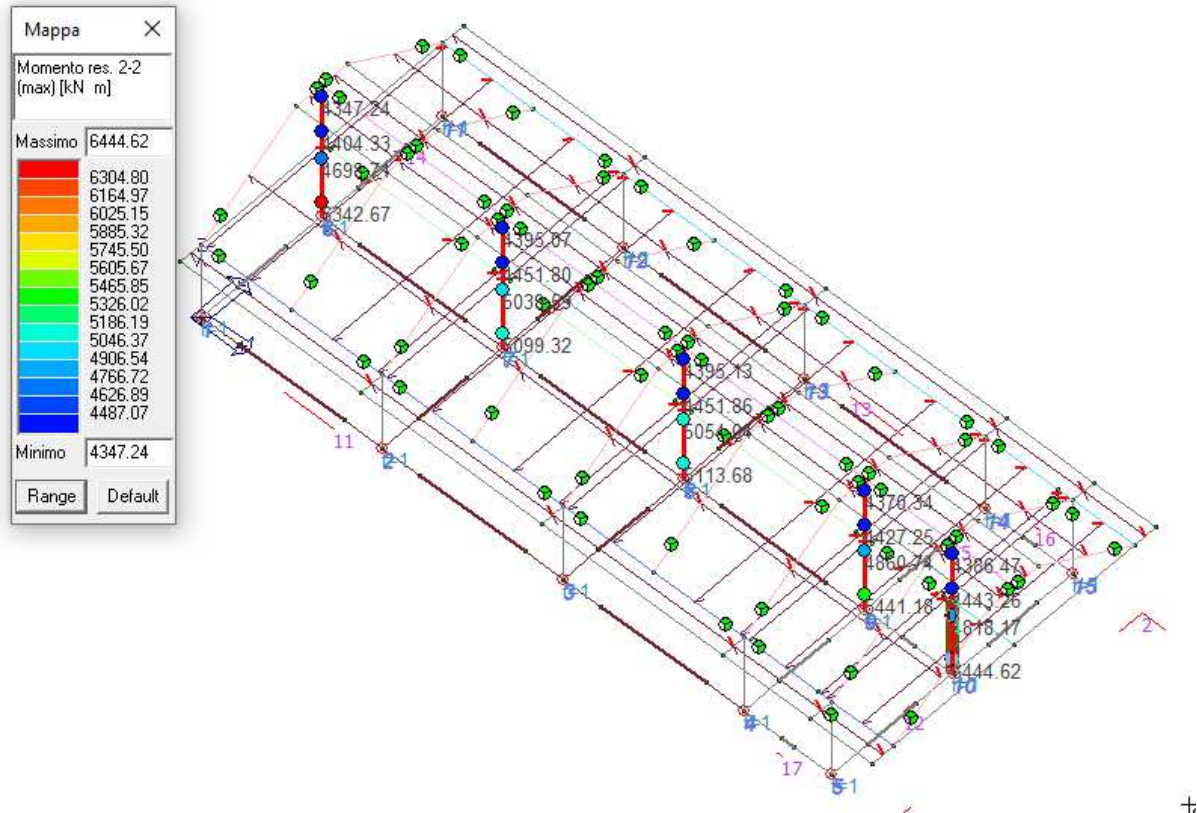
Angolo biella cls: $\cotg(\alpha) = L / z = 0.222222 \Rightarrow \alpha = 77.47$

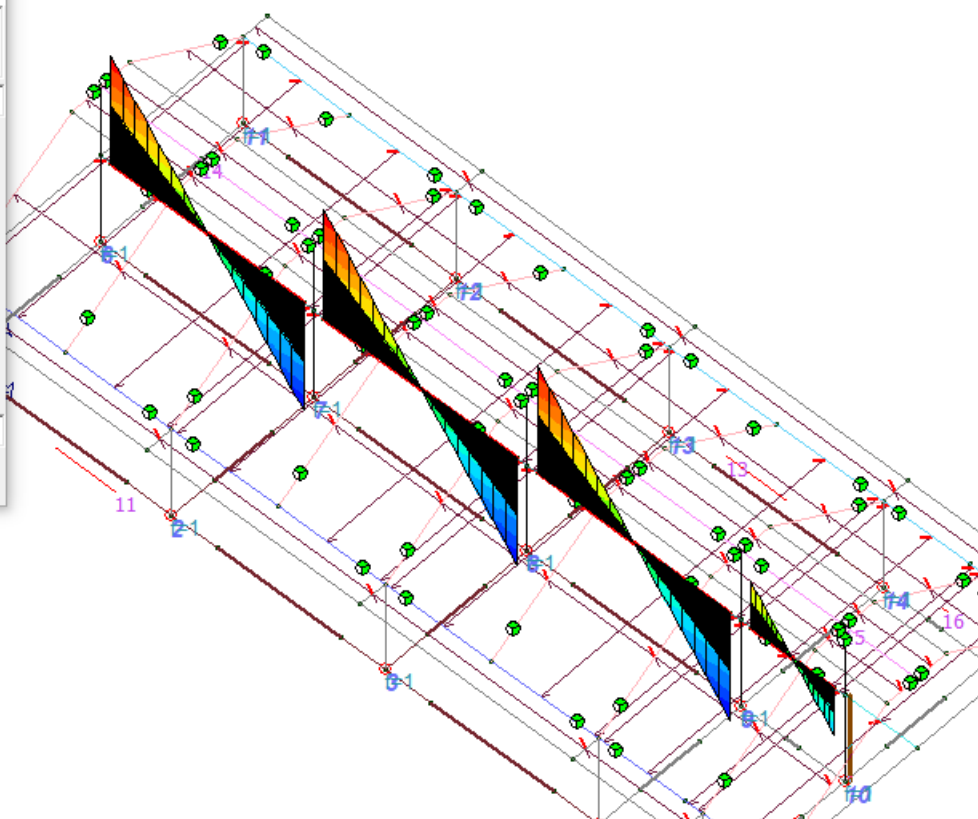
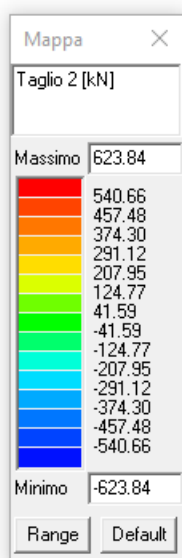
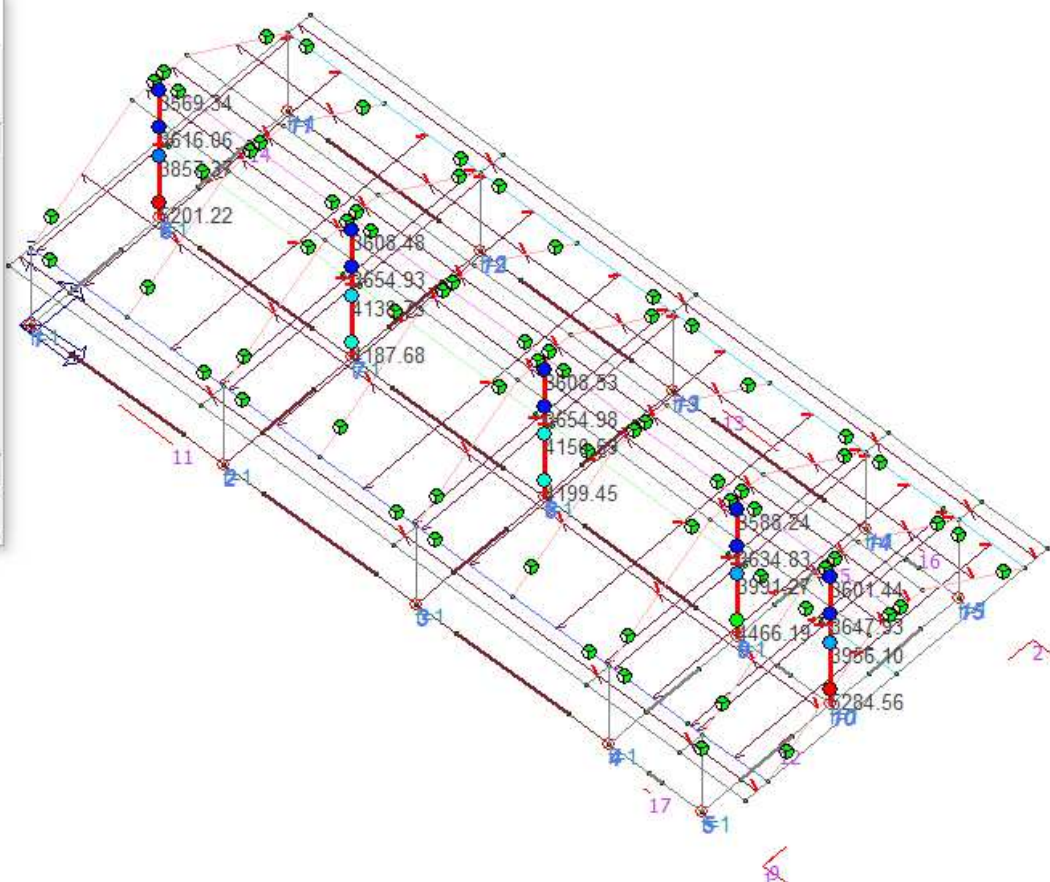
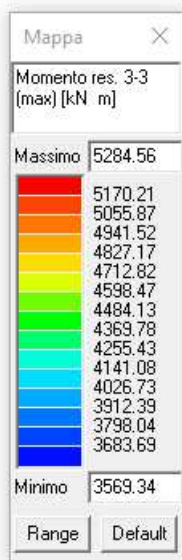
Coef. c: 1,5 (presenza di staffe)

Verifiche:

Resistenza dell'armatura tesa: $Prs = Af f_{yd} \tan(\alpha) = 354043.80 \text{ daN/m} > P \quad \text{Ok}$
 Resistenza della biella compressa: $Prc = 0,2 c d b f_{cd} \sin(\alpha) = 392559.00 \text{ daN/m} > P \quad \text{Ok}$
 Gerarchia delle resistenze: $Prc > Prs \quad \text{Ok}$

COLLEGAMENTO TRAVI PRINCIPALI PRIMO SOLAIO – PILASTRI BIPIANO





COLLEGAMENTO PILASTRO TRAVE - GIUNTO DI TIPO A

capannone monopiano

Il collegamento va dimensionato con i criteri di gerarchia delle resistenze, ovvero il collegamento deve essere in grado di sviluppare la cerniera plastica alla base dei pilastri. Il rispetto di tale prescrizione si ottiene dividendo il momento resistente amplificato di γ_{rd} per l'altezza di calcolo del pilastro.

caratteristiche spinotto:

Φ mm
 f_{yk} 6400 daN/cm²
 f_{yd} 5565 daN/cm²
 f_{tb} 8000 daN/cm²
 A_{netta} = 5.61 cm²

caratteristiche appoggio

R_{ck} = 50 MPa
 f_{ck} = 40 MPa
 γ_c = 1.5
 α_{cc} = 0.85
 f_{cd} = 23 MPa
 F_{ctk} = 2.46 MPa

VERIFICA LATO ACCIAIO

Verifica per la direzione lungo l'asse della trave:

M_{resC} = 5285 kNm momento resistente alla
 h_c = 5 m sezione di base della colonna
 altezza colonna

γ_{rd} = 1.1 CDB

V_{ed} = 1162.7 kN

Carico verticale portato da ciascuna trave:

N_{sd1} = 625 kN

N_{sd2} = 625 kN

Taglio resistente per ciascuna trave per dimensionamento spinotto:

n° spinotti = 4

V_{edI} = 145.3 kN

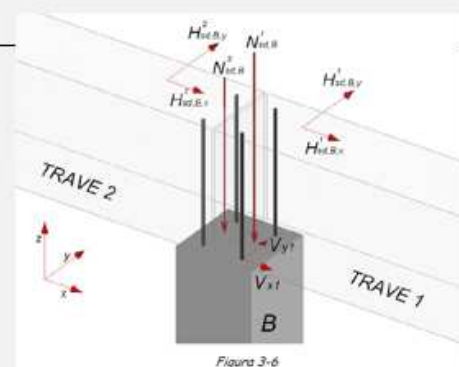


Figura 3-6

V_{edI} = 145.3 kN < V_{Rd} = 197.4 kN (4.2.18)

VERIFICATO

Verifica per la direzione ortogonale all'asse della trave:

MresC = 6444 kNm momento resistente alla sezione di base della colonna
hc = 5 m altezza colonna
h_{trave} = 0.7 m
yrd = 1.1 CDB
Ved = 310.89 kN

Carico verticale portato da ciascuna trave:

N sd1 = 625 kN
N sd2 = 625 kN

Taglio resistente per ciascuna trave:

Ved_⊥ = 155.4 kN

Taglio su ciascun spinotto :

Ved_{⊥ spinotto} = 38.85 kN

Med = 108.8 kNm Momento ribaltante
dist. Bulloni = 0.8 m distanza tra i bulloni
Ned = 68 kN Azione trazione sugli spinotti = Ned
n° fissaggi per lato = 2
Ares = 561 mm² area resistente spinotto
Nrd = 448.8 kN Azione resistente trazione spinotto

verifica combinata trazione - taglio: 0.64 < 1 VERIFICATO

VERIFICA LATO CALCESTRUZZO

Ved_⊥ = 145.3 kN
Ved_{⊥ spinotto} = 38.85 kN
V risultante = 150.4 kN angolo di inclinazione della risultante = 14.97 °= rad = 0.261276

distanza tra la barra e l'asse della staffatura lungo la direzione della trave

d = 10 cm copriferro = 3 cm
du = 7 cm

distanza tra la barra e l'asse della staffatura lungo la direzione ortogonale della trave

d = 10 cm copriferro = 3 cm
du = 7 cm

lato verifica sezione calcestruzzo

$L = 49.06 \text{ cm}$

Infissione della barra nel pilastro (≈ 0.5 infissione effettiva)

$l = 30 \text{ cm}$

$A_{cls} = 1471.8 \text{ cm}^2$ Area Calcestruzzo di verifica

resistenza a trazione del calcestruzzo nella sezione di verifica

$V_{\text{risultante}} = 150.4 \text{ kN} < R_{cls} = 362.06 \text{ kN}$ **VERIFICATO**

Area staffe cerchiate

passo staffe 5 cm

n° staffe 4 cm

diametro staffe 8 mm

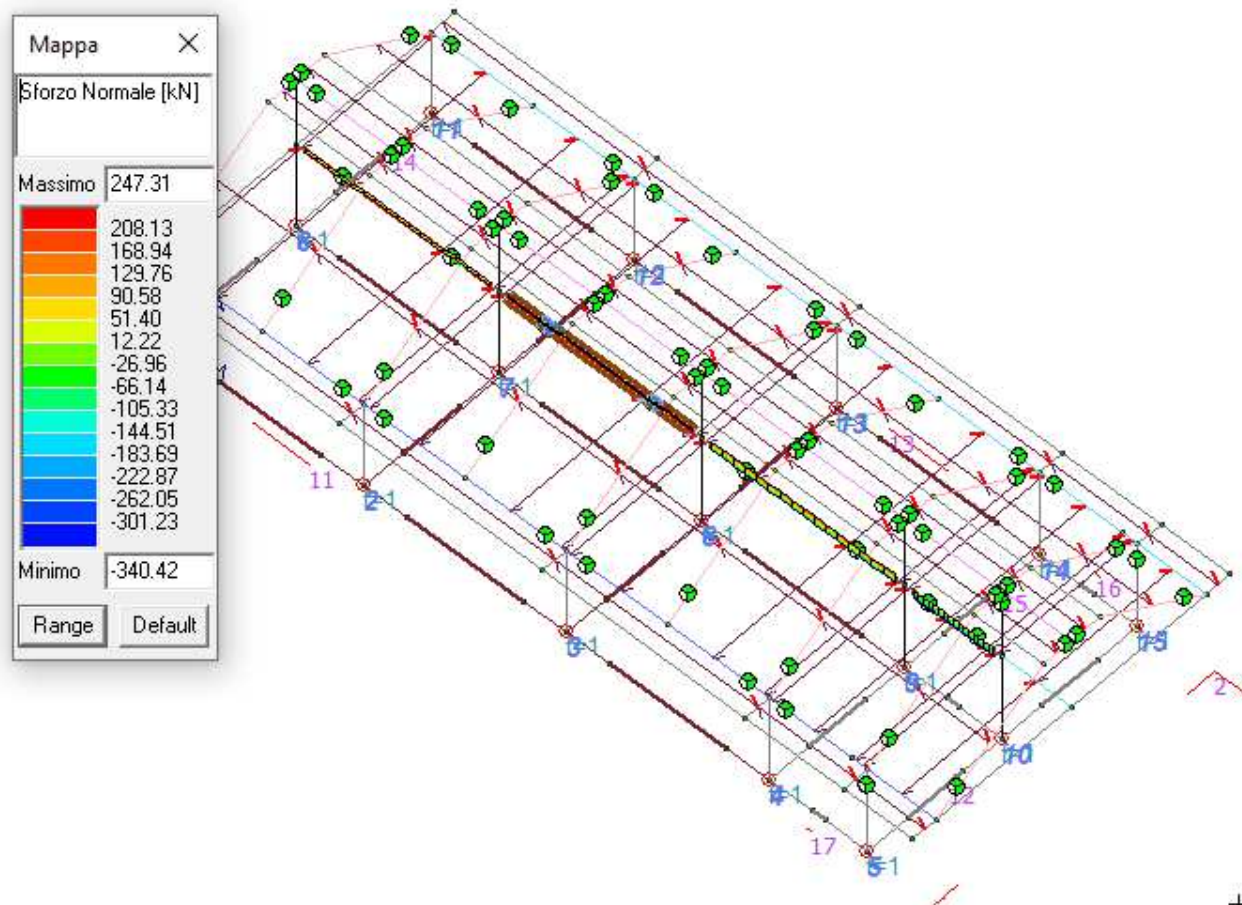
Area 1 braccio staffa = 0.505 cm^2

n° braccia 4

$V_{\text{risultante}} = 150.4 \text{ kN} < \text{Resistenza acciaio in esercizio staffe} = 291 \text{ kN}$ **VERIFICATO**

essendo la resistenza del calcestruzzo a trazione per il cuneo attivato dallo spinotto, maggiore al taglio sollecitante, tale azione è equilibrata dall'acciaio della staffatura che reagisce in fase elastica

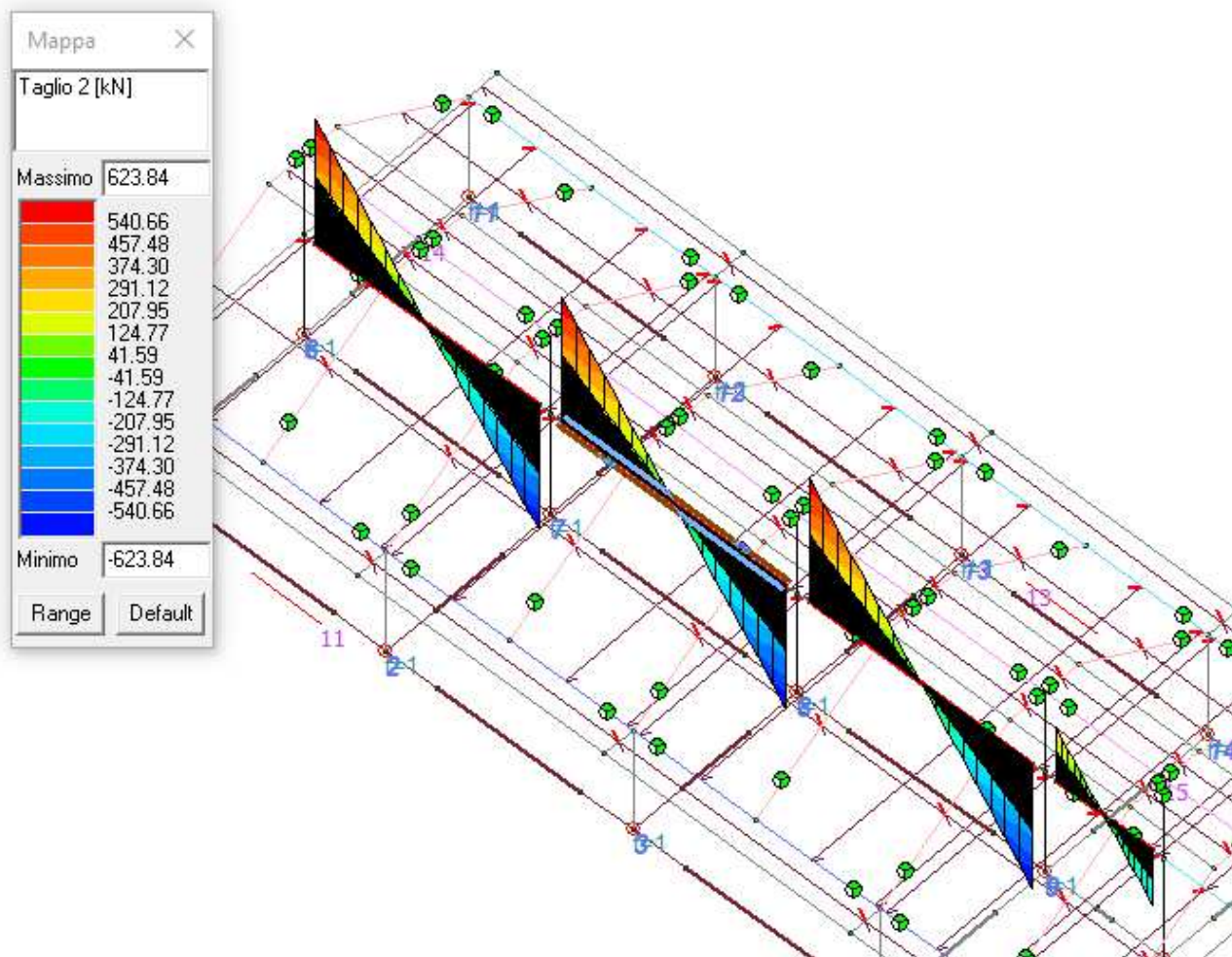
Verifica collegamento per azioni puntuali



$V_{ed} = 345 \text{ kN} < V_{Rd} = 197 \text{ kN} \cdot 4 = 788 \text{ kN} \rightarrow \text{Verificato}$

CALCOLO MENSOLE PILASTRI 100x120

Sollecitazioni di involucro SLU:



Verifica di mensola tozza in c.a. con armatura superiore

Dati generali:

Normativa di riferimento: NTC 2018

Calcestruzzo classe: C40/50

Acciaio in barre: B450C

Dimensioni:

Sbalzo: $l = 40.0$ cm

Altezza: $h = 40.0$ cm

Dist. applicazione del carico: $a = 30.0$ cm

Armatura:

Armatura superiore: $1\phi 16 / 5$ $A_f = 40.21$ cm²/m

Staffe: $1\phi 8 / 5$

Copriferro: $c_f = 3.0$ cm

Carichi:

Carichi permanenti compiutamente definiti G1:

- P.P. mensola in CLS = 400.0 daN/m

Essendo i carichi G2 e Qk preponderanti, il contributo G1 si considererà applicato in (a).

Carichi variabili Q_i:

- carico variabile = 625.0 daN/m

Azioni di calcolo per porzione di mensola di 100 cm:

$$P = G_1 \gamma_{g1} + Q_i \gamma_{qi} = 1145.00 \text{ daN/m} \quad (\gamma_{g1} = 1.30; \gamma_{qi} = 1.00)$$

Dimensioni di calcolo:

Larghezza mensola: $b = 100 \text{ cm}$

Altezza utile: $d = h - c_f = 37.0 \text{ cm}$

Altezza traliccio: $z = 0,9 d = 33.3 \text{ cm}$

Braccio traliccio: $L = a + 0,2 d = 37.4 \text{ cm}$

Angolo biella cls: $\cotg(\alpha) = L / z = 1.123123 \Rightarrow \alpha = 41.68$

Coef. c: 1,5 (presenza di staffe)

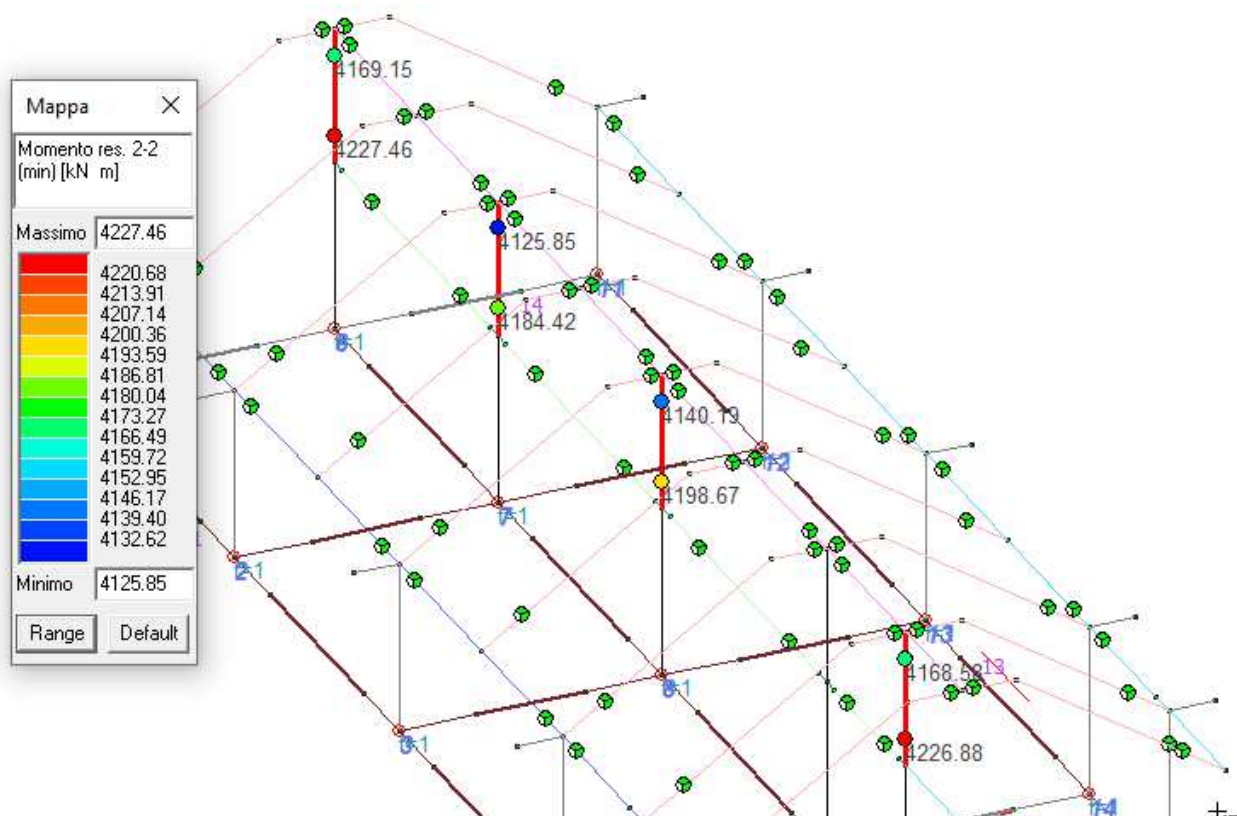
Verifiche:

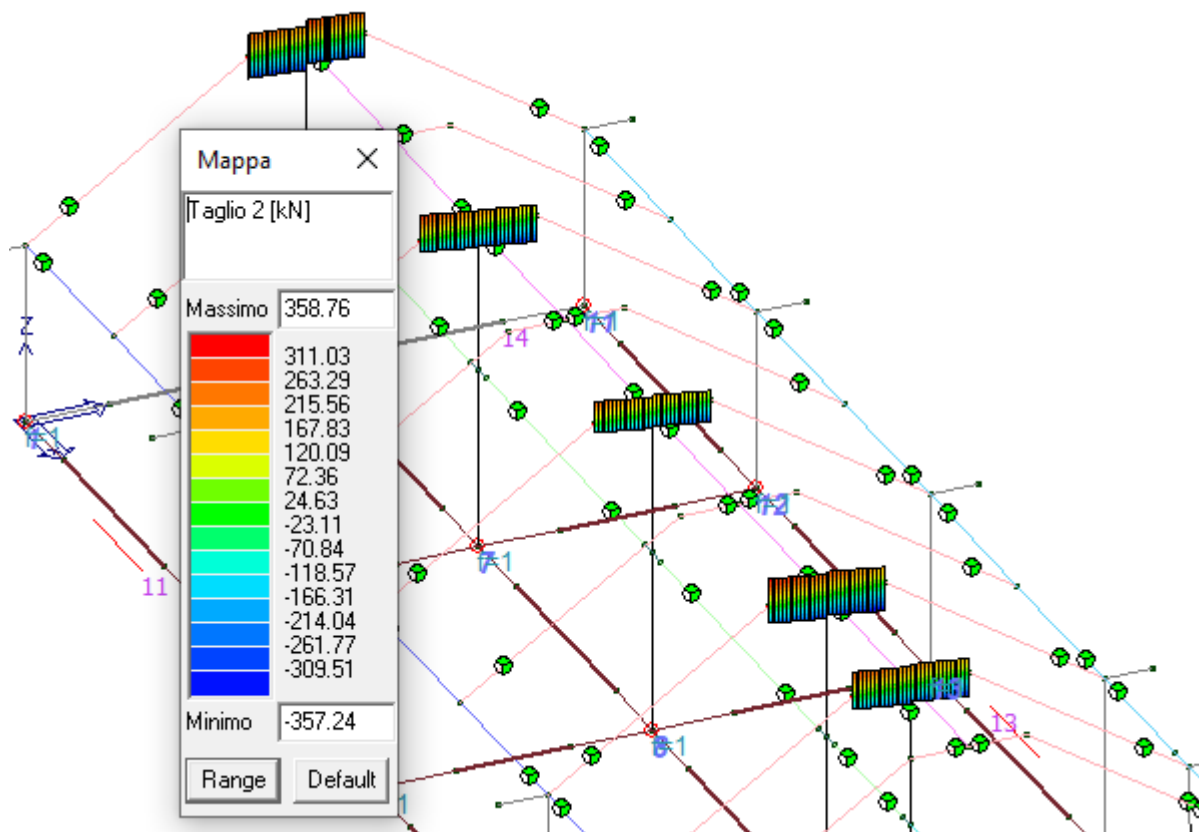
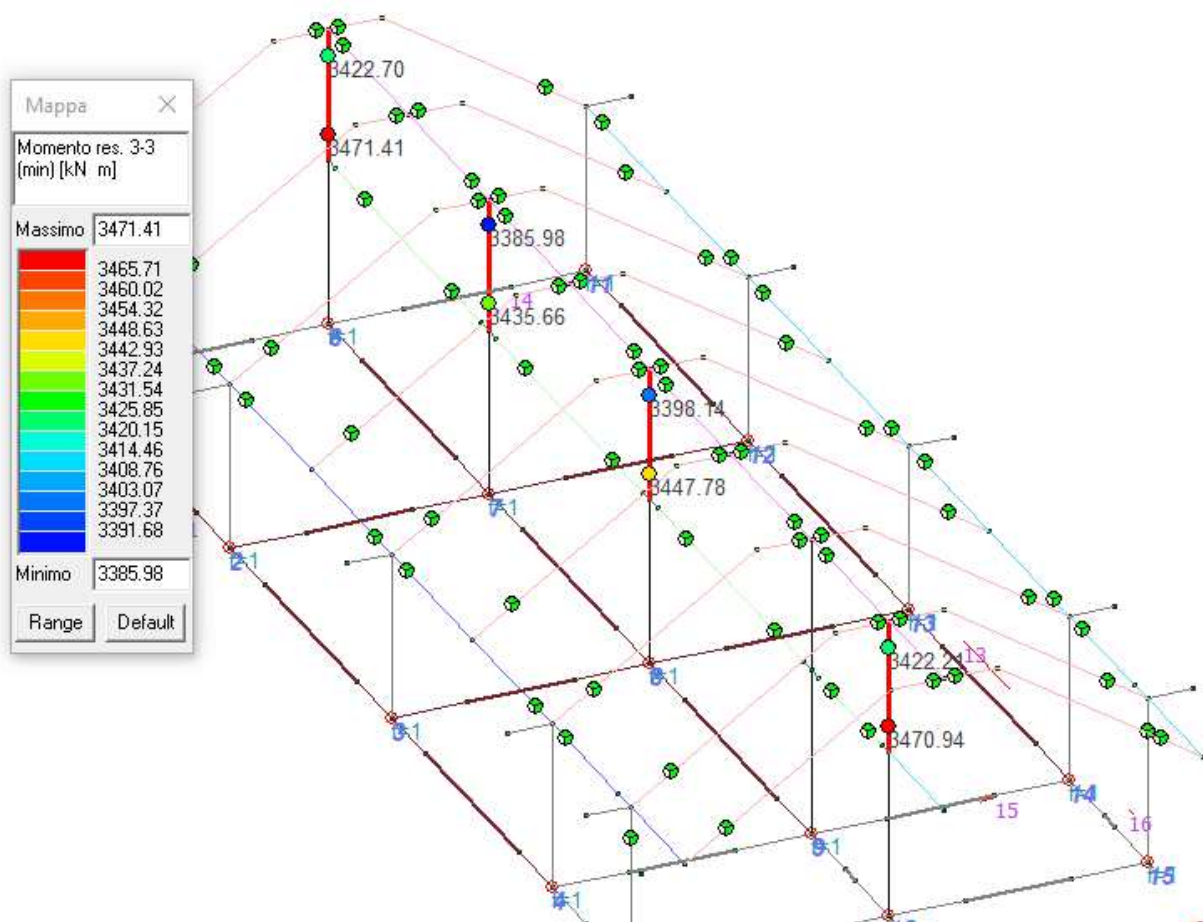
Resistenza dell'armatura tesa: $Prs = A_f f_{yd} \tg(\alpha) = 140102.90 \text{ daN/m} > P \quad \text{Ok}$

Resistenza della biella compressa: $Prc = 0,2 c d b f_{cd} \sen(\alpha) = 173583.90 \text{ daN/m} > P \quad \text{Ok}$

Gerarchia delle resistenze: $Prc > Prs \quad \text{Ok}$

COLLEGAMENTO TRAVI A GINOCCHIO TRIBUNE – PILASTRI





COLLEGAMENTO PILASTRO TRAVE - GIUNTO DI TIPO A

capannone monopiano

Il collegamento va dimensionato con i criteri di gerarchia delle resistenze, ovvero il collegamento deve essere in grado di sviluppare la cerniera plastica alla base dei pilastri. Il rispetto di tale prescrizione si ottiene dividendo il momento resistente amplificato di γ_{rd} per l'altezza di calcolo del pilastro.

caratteristiche spinotto:

Φ mm
 f_{yk} 9000 daN/cm²
 f_{yd} 7826 daN/cm²
 f_{tb} 10000 daN/cm²
 A_{netta} 5.61 cm²

caratteristiche appoggio

R_{ck} = 50 MPa
 f_{ck} = 40 MPa
 γ_c = 1.5
 α_{cc} = 0.85
 f_{cd} = 23 MPa
 F_{ctk} = 2.46 MPa

VERIFICA LATO ACCIAIO

Verifica per la direzione lungo l'asse della trave:

M_{resC} = 4228 kNm momento resistente alla
 sezione di base della colonna
 h_c = 4.3 m altezza colonna

γ_{rd} = 1.1 CDB

V_{ed} = 1081.58 kN

Carico verticale portato da ciascuna trave:

N_{sd1} = 358 kN

N_{sd2} = 358 kN

Taglio resistente per ciascuna trave per dimensionamento spinotto:

n° spinotti = 2

V_{ed1} = 270.4 kN

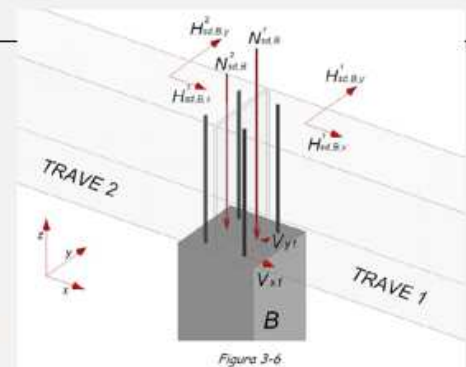


Figura 3-6

V_{ed1} = 270.4 kN < V_{Rd} = 277.6 kN (4.2.18)

VERIFICATO

Verifica per la direzione ortogonale all'asse della trave:

MresC = 3480 kNm momento resistente alla sezione di base della colonna
hc = 4.3 m altezza colonna
h_{trave} = 0.6 m
yrd = 1.1 CDB
Ved = 390.61 kN

Carico verticale portato da ciascuna trave:

N sd1 = 358 kN
N sd2 = 358 kN

Taglio resistente per ciascuna trave:

Ved₁ = 195.3 kN

Taglio su ciascun spinotto :

Ved_{1 spinotto} = 97.65 kN

Med = 117.2 kNm Momento ribaltante
dist. Bulloni = 0.4 m distanza tra i bulloni
Ned = 293 kN Azione trazione sugli spinotti = Ned
n° fissaggi per lato = 1
Ares = 561 mm² area resistente spinotto
Nrd = 561 kN Azione resistente trazione spinotto

verifica combinata trazione - taglio: 0.77 < 1 VERIFICATO

VERIFICA LATO CALCESTRUZZO

Ved₁ = 270.4 kN
Ved_{1 spinotto} = 97.65 kN
V risultante = 287.49 kN angolo di inclinazione della risultante = 19.87 °= rad = 0.346797

distanza tra la barra e l'asse della staffatura lungo la direzione della trave

d = 10 cm copriferro = 3 cm
du = 7 cm

distanza tra la barra e l'asse della staffatura lungo la direzione ortogonale della trave

d = 10 cm copriferro = 3 cm
du = 7 cm

lato verifica sezione calcestruzzo

$L = 40.05$ cm

Infissione della barra nel pilastro (=0.5 infissione effettiva)

$l = 30$ cm

$A_{cls} = 1201.5$ cmq Area Calcestruzzo di verifica

resistenza a trazione del calcestruzzo nella sezione di verifica

V risultante = 287.49 kN < $R_{cls} = 295.57$ kN **VERIFICATO**

Area staffe cerchiate

passo staffe 5 cm

n° staffe 4 cm

diametro staffe 8 mm

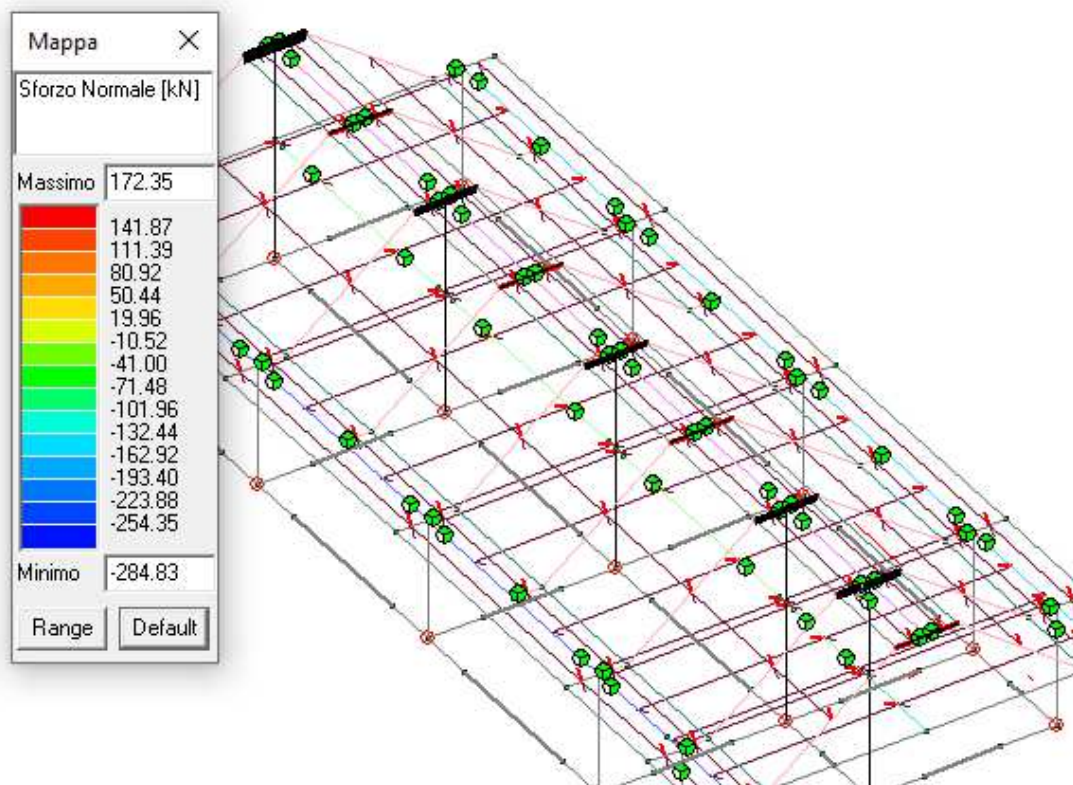
Area 1 braccio staffa = 0.505 cmq

n° braccia 4

V risultante = 287.49 kN < Resistenza acciaio in esercizio staffe = 291 kN **VERIFICATO**

essendo la resistenza del calcestruzzo a trazione per il cuneo attivato dallo spinotto, maggiore al taglio sollecitante, tale azione è equilibrata dall'acciaio della staffatura che reagisce in fase elastica

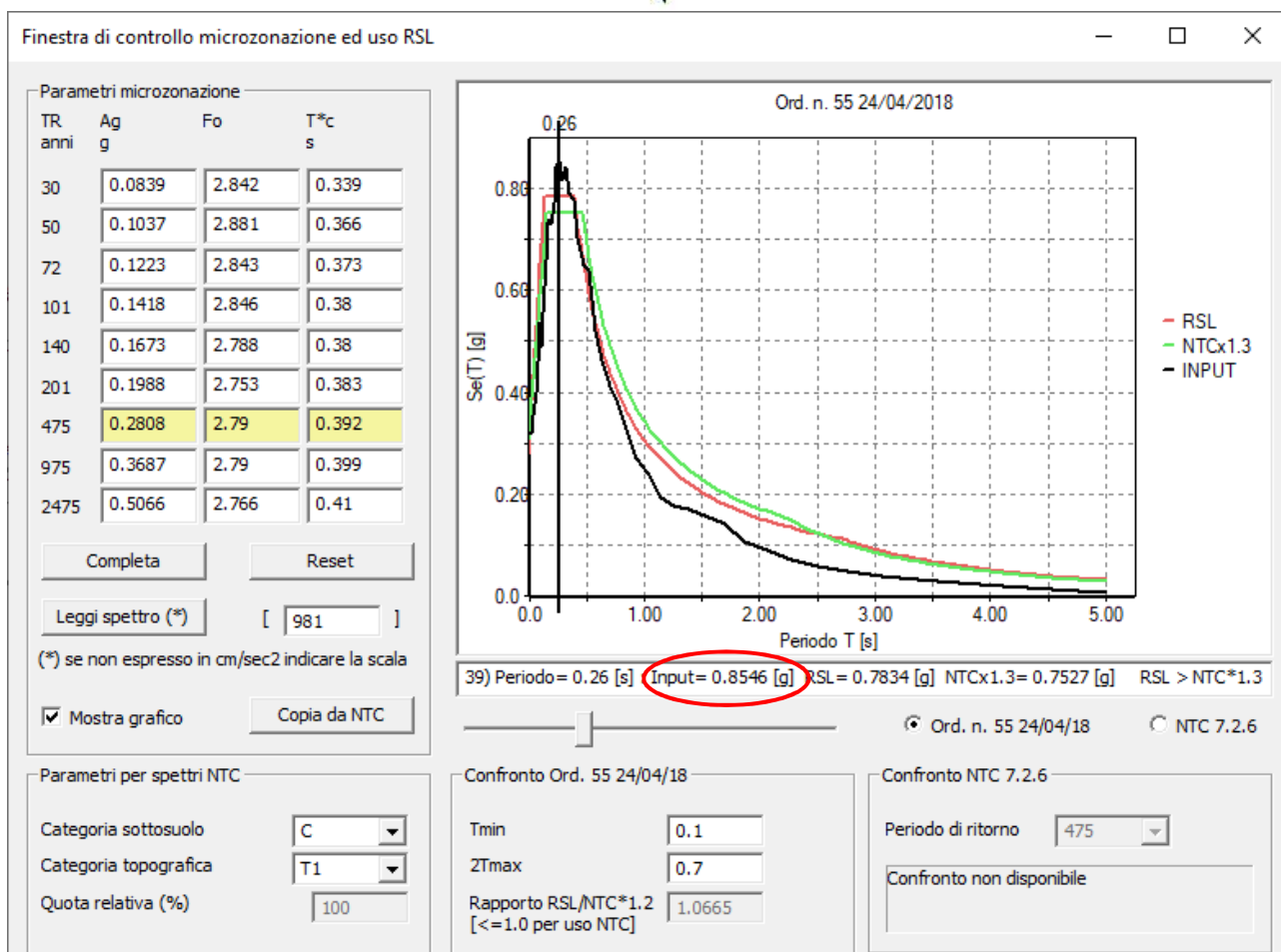
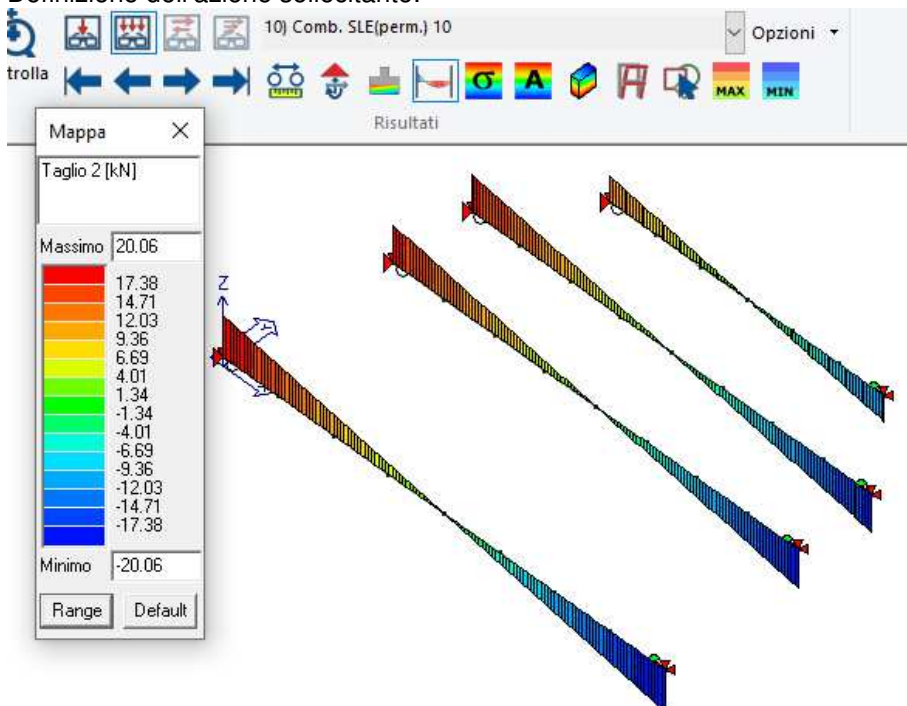
COLLEGAMENTO TRAVI A GINOCCHIO TRIBUNE – TRAVI PRINCIPALI



Dalla verifica precedente si determina per ciascuna barra $V_{rd} = 277$ kN
 $V_{eD} = 214$ kN < $V_{rd} = 277$ kN * 2 = 554 kN → Verificato

COLLEGAMENTO GRADONI A L – TRAVI A GINOCCHIO

Definizione dell'azione sollecitante:



$$V_{ed} = V \cdot S(t) = 20.06 \text{ kN} \cdot 0.8546 = 17.14 \text{ kN}$$

Tenendo conto che il collegamento viene fatto con due pioli per ogni estremità della trave ad L, l'azione di taglio sul singolo piolo risulta essere pari a:

$$V_{ed} = V/2 = 8.57 \text{ kN}$$

Definizione dell'azione resistente:
 Profilo tipo "GD"

2 PROFILI INCAVI

PROFILI INCAVI CON PIOLI – TIPO GD

PROFILO
TIPO

GD

40X25X2.5

Capacità portante:

$$N_{r,d} = V_{r,d} = 10.7 \text{ kN}$$

Descrizione:

Profilo medio-pesante per carichi mediamente elevati

Caratteristiche:

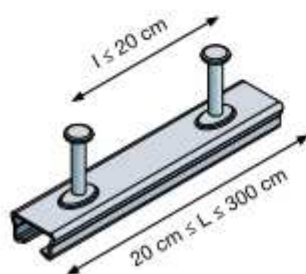
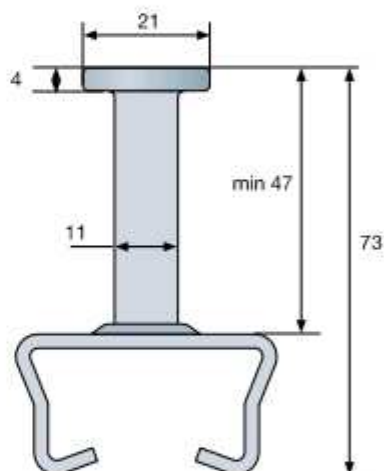
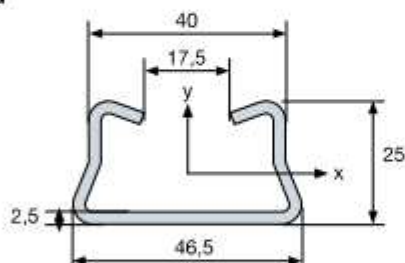
Peso (senza pioli) = 2.07 kg/mt.

Area sezione = 264 mm²

Momento d'inerzia (Jx) = 21054 mm⁴

Momento d'inerzia (Jy) = 68242 mm⁴

Modulo Plastico (Wpl) = 2158 mm³

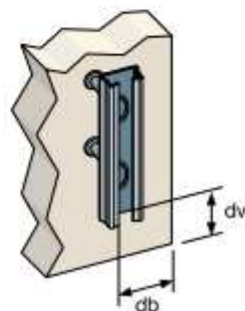


Dimensioni disponibili:

$L_{min} = 20 \text{ cm}$
 $L_{max} = 300 \text{ cm}$
 $l \leq 20 \text{ cm}$

**Distanze minime
dai bordi (cm)**

dv	db
8	10



$$V_{ed} = 8.57 \text{ kN} < V_{RD} = 10.7 \text{ kN} \rightarrow \text{VERIFICATO}$$