geosciences

MDPI

Supplementary Materials: 3D Engineering Geological Modeling to Investigate a Liquefaction Site: An Example in Alluvial Holocene Sediments in the Po Plain, Italy

Claudia Meisina [1,*], Roberta Bonì [2,*], Massimiliano Bordoni [1], Carlo Giovanni Lai [3], Francesca Bozzoni [4] and Renato Maria Cosentini [5], Doriano Castaldini [6], Daniela Fontana [6], Stefano Lugli [6], Alessandro Ghinoi [6], Luca Martelli [7] and Paolo Severi [7]

Table S1. Summary of the information about the samples, extracted from boreholes in Cavezzo. LC stands for lithological class. FC stands for fine content.

Boreholes	Samples Code	Depth	% Gravel	% Sand	% Silt	% Clay	W_l	W_p	I_p	% FC	LC
158	2	4.60–4.80	0	33.68	54.04	12.28	-	-	-	18	L_{as}
158	3	7.70–7.90	0	88	5	7	-	-	-	8	S
349	1	3.10–3.70	0	40.41	52.82	6.77	-	-	-	11	L_{as}
349	2	5–5.50	0	41.59	50.22	8.19	-	-	-	12	L_{as}
352	1	3–3.45	0	37.56	53.31	9.13	-	-	-	16	L_{as}
352	2	5.80–6.15	0	11.62	73.44	14.94	-	-	-	24	L_{as}
358	1	4.20–4.80	0.2	21.41	66.11	12.28	-	-	-	19	L_{as}
358	2	7.20–7.80	0.05	0.48	99.47	-	-	-	-	-	L_a
027_PM_S1	1	1.80–1.90	0	31.59	68.41	-	-	-	-	-	L_{as}
027_PM_S1	2	2.20–2.30	0	82.45	17.55	-	-	-	-	-	S_l
184130P404	SPT2	4.60–5.05	0	49.8	43.7	6.5	-	-	-	13	S_l
184130P404	1	7.60–8.10	0	1.7	80.2	18.1	38.8	20.3	18.4	32	L_{as}
184130P404	SPT3	10.70–11.15	0	82.8	17.2	-	-	-	-	-	S_l
184130P404	SPT4	14.5–14.95	0	86.9	13.1	-	-	-	-	-	S_l
184130P404	2	18.5–19	0	2.9	67.2	29.9	-	-	-	43	L_{as}
16-138-S1	gen-17	1.30–1.40	0	2.3	67.7	30	38.3	19.2	19.1	38	L_a
16-138-S1	feb-17	2.15–2.20	0.15	0.25	59.6	40	41.2	18.1	23	56	L_a
16-138-S1	mar-17	3–3.45	0.1	58.5	41.4	-	25.3	16.6	8.7	-	S_l

16-138-S1	Z1.1 (3)	3–3.45	0	50	39.7	10.3	-	-	-	16	S_l
16-138-S1	Z1.2 (N)	4.2	0	50	43.5	6.5	-	-	-	12	S_l
16-138-S1	Z1.3 (4)	5–5.45	0.55	71.45	23.56	4.44	-	-	-	8	S_l
16-138-S1	apr-17	5–5.45	0.05	75.6	24.35	-	-	-	-	-	S_l
16-138-S1	mag-17	7–7.45	0.05	80.2	19.75	-	-	-	-	-	S_l
16-138-S1	Z1.4 (5)	7–7.45	0.05	84.95	12.78	2.22	-	-	-	4	S_l
16-138-S1	Z1.5 (N)	8	0	85.2	13.5	1.3	-	-	-	3	S_l
16-138-S1	Z1.6 (6)	8.50–8.95	0	80	17.6	2.4	-	-	-	5	S_l
16-138-S1	giu-17	8.50–8.95	0	77.7	22.3	-	-	-	-	-	S_l
16-138-S1	Z1.7 (N)	9.9	0	72	25.5	2.5	-	-	-	5	S_l
16-138-S1	lug-17	11.35–11.40	0.15	2.25	49.4	48.2	57.9	16.6	41.3	69	L_a
16-138-S1	ago-17	14.70–15.15	0.3	5.8	41.7	52.2	66.1	21.2	44.8	74	A
16-138-S1	set-17	18–18.45	0.15	0.8	52.05	47	-	-	-	64	L_a
16-138-S2	ott-17	1.70–1.80	0.45	3.25	63.2	33.1	-	-	-	46	L_a
16-138-S2	nov-17	2.60–2.70	0	70.95	29.05	-	-	-	-	-	S_l
16-138-S2	Z2-1(11)	2.60–2.70	0	72	23.08	4.92	-	-	-	8	S_l
16-138-S2	Z2-2(12)	4–4.5	0	79.5	17.2	3.3	-	-	-	5	S_l
16-138-S2	dic-17	4–4.45	0	76.25	23.75	-	-	-	-	-	S_l
16-138-S2	Z2-3(13)	5.50–5.95	0	82	15.66	2.34	-	-	-	4	S_l
16-138-S2	13-2017	5.50–5.95	0.05	79.75	20.2	-	-	-	-	-	S_l
16-138-S2	Z2-4(14)	7–7.45	0	81	15.48	3.52	-	-	-	7	S_l
16-138-S2	14-2017	7–7.45	0	81.5	18.5	-	-	-	-	-	S_l
16-138-S2	Z2-5(N)	8–8.10	0	88	9.81	2.19	-	-	-	4	S_l
16-138-S2	15-2017	9.40–9.50	2.5	1.25	20.25	76	-	-	-	91	A

16-138-S2	16-2017	14.50–14.95	0	1	61.7	37.3	38.6	18.7	19.8	47	A
16-138-S2	17-2017	18–18.45	0	1.7	58.22	40.08	43.8	19.3	24.5	40	L_a
Uccivello sand boil	Zv2 (48)	Ground surface	0	84	15.13	0.87	-	-	-	2	S_l
Uccivello sand boil	Zv3 (49)	Ground surface	0	81	17.33	1.67	-	-	-	3	S_l
Uccivello sand boil	Zv4 (50)	Ground surface	0	72	25.11	2.89	-	-	-	4	S_l
Uccivello sand boil	Zv7 (51)	Ground surface	0	88	10.69	1.31	-	-	-	2	S_l
Uccivello sand boil	47-2012	Ground surface	0.05	83.35	16.6	-	-	-	-	-	S_l
Uccivello sand boil	48-2012	Ground surface	0	88.7	11.3	-	-	-	-	-	S_l
Uccivello sand boil	49-2012	Ground surface	0	84.05	15.95	-	-	-	-	-	S_l
Uccivello sand boil	50-2012	Ground surface	0	74.35	25.65	-	-	-	-	-	S_l
Uccivello sand boil	51-2012	Ground surface	0	89.25	10.75	-	-	-	-	-	S_l
16-138-S3	S1GP2	4.50–5.50	0	26.43	67.57	6	-	-	-	14	L_{as}
16-138-S3	S1OST1	4–4.50	0.32	13.96	67.72	18	33	25	8	23	L_{as}
16-138-S3	S1GP3	5.50–6.50	0.27	54.7	35.03	10	52	23	29	15	S_l
16-138-S3	S1OST2	6.50–7	1.2	63.79	32.01	3	-	-	-	6	S_l
16-138-S3	S1GP4	7.00–8.00	0.17	75.62	22.21	2	-	-	-	5	S_l
16-138-S3	S1OST3	9–9.50	0.05	0.56	44.89	54.5	84	30	54	74	A
16-138-S3	S1OST4	12–12.50	0.01	0.27	31.72	68	89	30	59	84	A
16-138-S3	S1OST5	15–15.50	0.54	0.43	46.53	52.5	80	25	55	62	A
16-138-S3	S1OST6	18–18.50	0.02	0.74	72.24	27	50	19	31	62	L_a