

Committente : Jumbo trans s.r.l.

Localita' : Noceto - Lottizz. "Cà Pastori"

Impresa esecutrice : Soil System s.n.c.

Data : 01-02-2005

progr.: CPT-4.0/S

PROVA CPT n. : 1

Parametri penetrometrici

Rp = resistenza alla punta [kg/cm2]
 Rl = resistenza lat. locale [kg/cm2]
 FR = Rl/Rp x 100 [-]
 Rt = resistenza totale [kgf]

Quota p.c.: m
 Falda a m dal p.c.

z = prof. max. tratto esplorato dalla base penetr.

Parametri geotecnici stimati

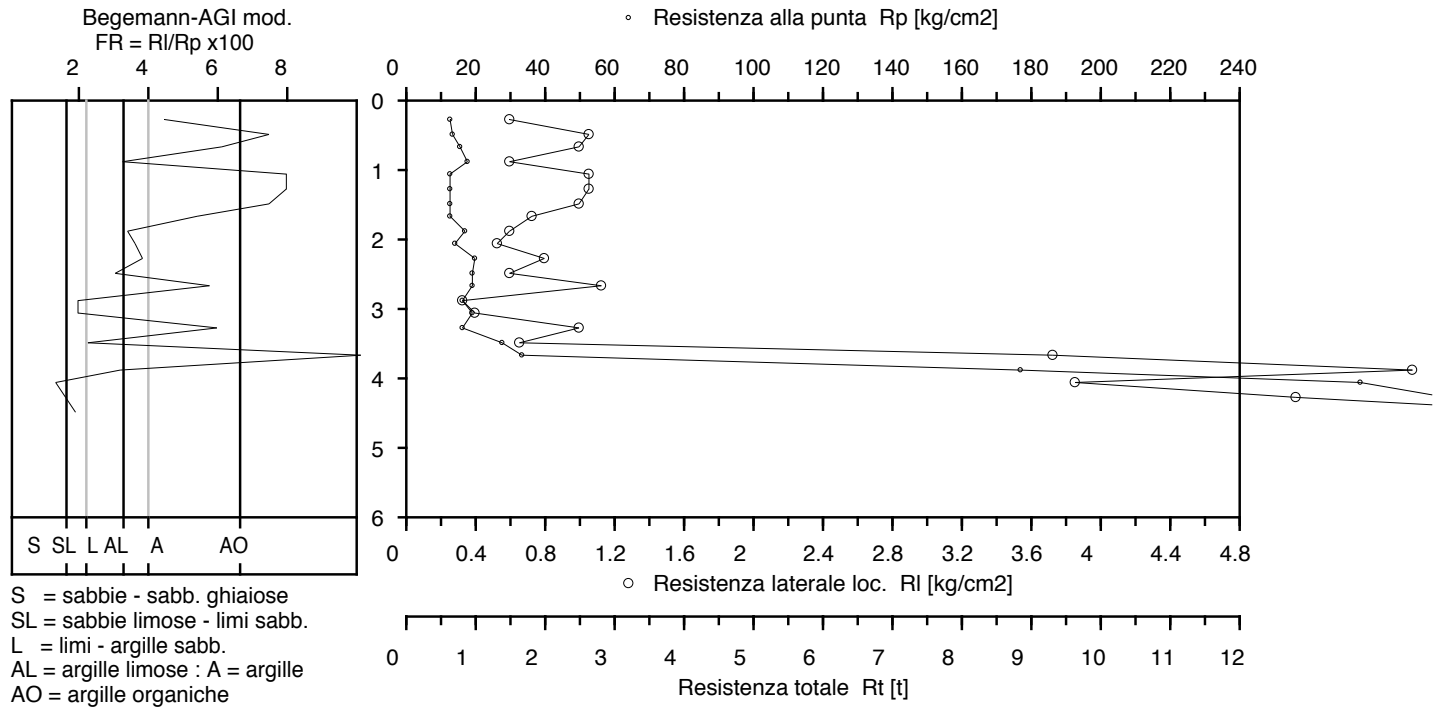
g = Peso di volume [t/m3]
 P'v = Press. vert. efficace[kg/cm2]
 u = Press. neutra [kg/cm2]
 E = Modulo di deform.[kg/cm2]
 OCR = Grado di sovracons.[-]
 Cu = Coesione non drenata[kg/cm2]
 Fi = Angolo di attrito[gradi]
 Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.5	-	-				-	-	-	-	-	
0.4	13.1	0.6	4.6	-	1.79	0.07	0.00	49	> 50	0.73	0.0	-	ARGILLA
0.6	14.1	1.1	7.5	-	1.79	0.11	0.00	39	> 50	0.78	0.0	-	ARG. ORG.
0.8	16.3	1.0	6.2	-	1.80	0.14	0.00	51	> 50	0.90	0.0	-	ARGILLA
1.0	18.3	0.6	3.3	-	1.81	0.18	0.00	55	-	0.00	27.5	-	LIMO-ARG.S
1.2	13.3	1.1	8.0	-	1.79	0.22	0.00	36	28.5	0.72	0.0	-	ARG. ORG.
1.4	13.3	1.1	8.0	-	1.79	0.25	0.00	36	21.6	0.72	0.0	-	ARG. ORG.
1.6	13.3	1.0	7.5	-	1.79	0.29	0.00	36	17.1	0.72	0.0	-	ARG. ORG.
1.8	13.4	0.7	5.5	-	1.79	0.32	0.00	49	14.1	0.73	0.0	-	ARGILLA
2.0	17.4	0.6	3.5	-	1.80	0.36	0.00	51	18.6	0.95	0.0	-	ARG.LIM.
2.2	14.4	0.5	3.7	-	1.79	0.39	0.00	50	11.3	0.78	0.0	-	ARG.LIM.
2.4	20.4	0.8	3.9	-	1.81	0.43	0.00	51	17.8	1.11	0.0	-	ARG.LIM.
2.6	19.4	0.6	3.1	-	1.81	0.47	0.00	58	-	0.00	27.8	-	LIMO-ARG.S
2.8	19.5	1.1	5.8	-	1.81	0.50	0.00	50	12.6	1.06	0.0	-	ARGILLA
3.0	16.5	0.3	2.0	-	1.80	0.54	0.00	50	-	0.00	28.6	-	LIMO SABB.
3.2	19.5	0.4	2.0	-	1.81	0.58	0.00	59	-	0.00	28.8	-	LIMO SABB.
3.4	16.5	1.0	6.1	-	1.80	0.61	0.00	51	6.9	0.88	0.0	-	ARGILLA
3.6	28.5	0.7	2.3	-	1.84	0.65	0.00	86	-	0.00	29.4	-	LIMO-ARG.S
3.8	33.6	3.7	11.1	-	1.86	0.69	0.00	81	19.0	1.83	0.0	-	ARG. ORG.
4.0	177.7	5.8	3.3	-	2.30	0.73	0.00	533	-	0.00	43.4	-	LIMO-ARG.S
4.2	275.6	3.9	1.4	-	2.23	0.78	0.00	827	-	0.00	46.2	1545	SABBIA
4.4	300.6	5.1	1.7	-	2.30	0.82	0.00	902	-	0.00	46.3	-	SABBIA LIM.
4.6	336.6	6.7	2.0	-	2.30	0.87	0.00	1010	-	0.00	46.6	-	LIMO SABB.
4.8	501.8	-	-	-	2.23	0.91	0.00	1505	-	-	-	-	-

PROVA PENETROMETRICA STATICA n. 1

Committente : Jumbo trans s.r.l.
Localita' : Noceto - Lottizz. "Cà Pastori"
Data : 01-02-2005

progr.: CPT-4.0/S

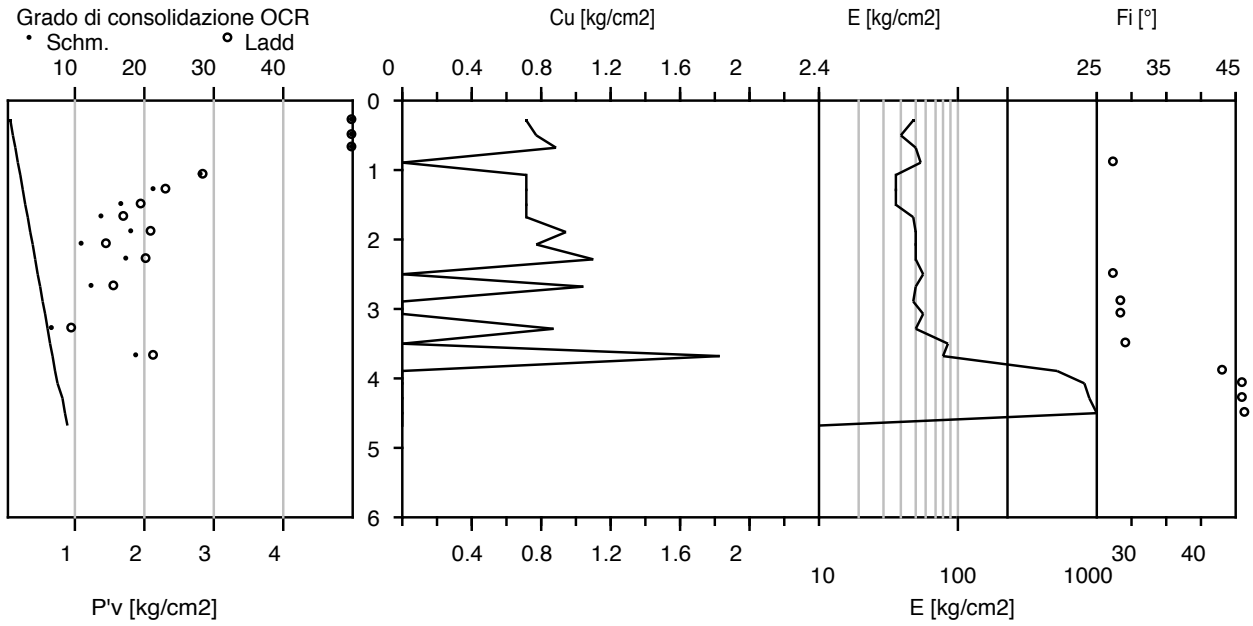


PROVA PENETROMETRICA STATICA n. 1

Committente : Jumbo trans s.r.l.
Localita' : Noceto - Lottizz. "Cà Pastori"
Data : 01-02-2005

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 3

Parametri penetrometrici

Rp = resistenza alla punta [kg/cm2]
 Rl = resistenza lat. locale [kg/cm2]
 FR = Rl/Rp x 100 [-]
 Rt = resistenza totale [kgf]

Quota p.c.: m
 Falda a m dal p.c.

z = prof. max. tratto esplorato dalla base penetr.

Parametri geotecnici stimati

g = Peso di volume [t/m3]
 P'v = Press. vert. efficace[kg/cm2]
 u = Press. neutra [kg/cm2]
 E = Modulo di deform.[kg/cm2]
 OCR = Grado di sovracons.[-]
 Cu = Coesione non drenata[kg/cm2]
 Fi = Angolo di attrito[gradi]
 Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.1	-	-				-	-	-	-	-	
0.4	2.1	0.5	21.9	-	1.75	0.07	0.00	6	8.2	0.11	0.0	-	ARG. ORG.
0.6	13.1	0.6	4.6	-	1.79	0.11	0.00	49	> 50	0.72	0.0	-	ARGILLA
0.8	12.3	0.4	3.3	-	1.78	0.14	0.00	37	-	0.00	26.9	-	LIMO-ARG.S
1.0	9.3	1.1	12.2	-	1.77	0.18	0.00	25	21.1	0.50	0.0	-	ARG. ORG.
1.2	11.3	1.1	10.1	-	1.78	0.21	0.00	31	21.6	0.61	0.0	-	ARG. ORG.
1.4	13.3	1.1	8.5	-	1.79	0.25	0.00	36	21.9	0.72	0.0	-	ARG. ORG.
1.6	15.3	1.4	9.2	-	1.79	0.29	0.00	42	22.1	0.83	0.0	-	ARG. ORG.
1.8	20.4	1.5	7.2	-	1.81	0.32	0.00	51	30.1	1.11	0.0	-	ARG. ORG.
2.0	24.4	1.5	6.0	-	1.83	0.36	0.00	60	34.3	1.34	0.0	-	ARGILLA
2.2	22.4	1.6	7.1	-	1.82	0.39	0.00	56	24.6	1.22	0.0	-	ARG. ORG.
2.4	19.4	1.4	7.2	-	1.81	0.43	0.00	53	16.3	1.05	0.0	-	ARG. ORG.
2.6	23.4	1.4	6.0	-	1.82	0.47	0.00	58	19.7	1.27	0.0	-	ARGILLA
2.8	20.5	1.1	5.2	-	1.81	0.50	0.00	51	13.7	1.11	0.0	-	ARGILLA
3.0	15.5	1.0	6.4	-	1.80	0.54	0.00	51	7.6	0.83	0.0	-	ARGILLA
3.2	16.5	0.9	5.2	-	1.80	0.58	0.00	51	7.6	0.89	0.0	-	ARGILLA
3.4	20.5	0.8	3.9	-	1.81	0.61	0.00	51	9.8	1.11	0.0	-	ARG.LIM.
3.6	15.5	0.9	5.6	-	1.80	0.65	0.00	51	5.7	0.83	0.0	-	ARGILLA
3.8	16.6	0.8	4.8	-	1.80	0.68	0.00	51	5.8	0.89	0.0	-	ARGILLA
4.0	22.6	1.1	5.0	-	1.82	0.72	0.00	56	8.8	1.22	0.0	-	ARGILLA
4.2	18.6	0.9	5.0	-	1.81	0.76	0.00	51	5.9	0.99	0.0	-	ARGILLA
4.4	20.6	0.8	3.9	-	1.81	0.79	0.00	52	6.5	1.10	0.0	-	ARG.LIM.
4.6	19.6	1.0	5.1	-	1.81	0.83	0.00	50	5.6	1.05	0.0	-	ARGILLA
4.8	21.8	0.8	3.7	-	1.82	0.86	0.00	54	6.1	1.16	0.0	-	ARG.LIM.
5.0	22.8	1.1	4.7	-	1.82	0.90	0.00	57	6.2	1.22	0.0	-	ARGILLA
5.2	24.8	1.1	4.3	-	1.83	0.94	0.00	61	6.6	1.32	0.0	-	ARGILLA
5.4	27.8	1.3	4.6	-	1.84	0.97	0.00	68	7.5	1.49	0.0	-	ARGILLA
5.6	28.8	1.3	4.4	-	1.84	1.01	0.00	70	7.5	1.54	0.0	-	ARGILLA
5.8	29.9	1.1	3.8	-	1.85	1.05	0.00	73	7.5	1.60	0.0	-	ARG.LIM.
6.0	31.9	1.4	4.4	-	1.85	1.09	0.00	77	7.9	1.71	0.0	-	ARGILLA
6.2	36.9	1.5	4.0	-	1.87	1.12	0.00	88	9.5	1.99	0.0	-	ARG.LIM.
6.4	36.9	1.5	4.2	-	1.87	1.16	0.00	88	9.0	1.99	0.0	-	ARGILLA
6.6	33.9	4.0	11.8	-	1.86	1.20	0.00	81	7.4	1.82	0.0	-	ARG. ORG.
6.8	68.0	2.3	3.3	-	1.98	1.24	0.00	144	23.2	3.71	0.0	-	ARG.LIM.
7.0	140.0	1.6	1.1	-	2.17	1.28	0.00	420	-	0.00	41.3	1021	SABBIA
7.2	197.0	1.1	0.5	-	2.23	1.33	0.00	591	-	0.00	42.5	1258	SABBIA
7.4	289.0	4.9	1.7	-	2.30	1.37	0.00	867	-	0.00	44.0	-	SABBIA LIM.
7.6	423.0	-4.1	-1.0	-	2.23	1.42	0.00	1269	-	0.00	45.4	2007	SABBIA
7.8	584.2	6.7	1.1	-	2.23	1.46	0.00	1753	-	0.00	46.7	2444	SABBIA
8.0	602.2	-	-	-	2.23	1.51	0.00	1807	-	-	-	-	-

PROVA PENETROMETRICA STATICA n. 3

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S

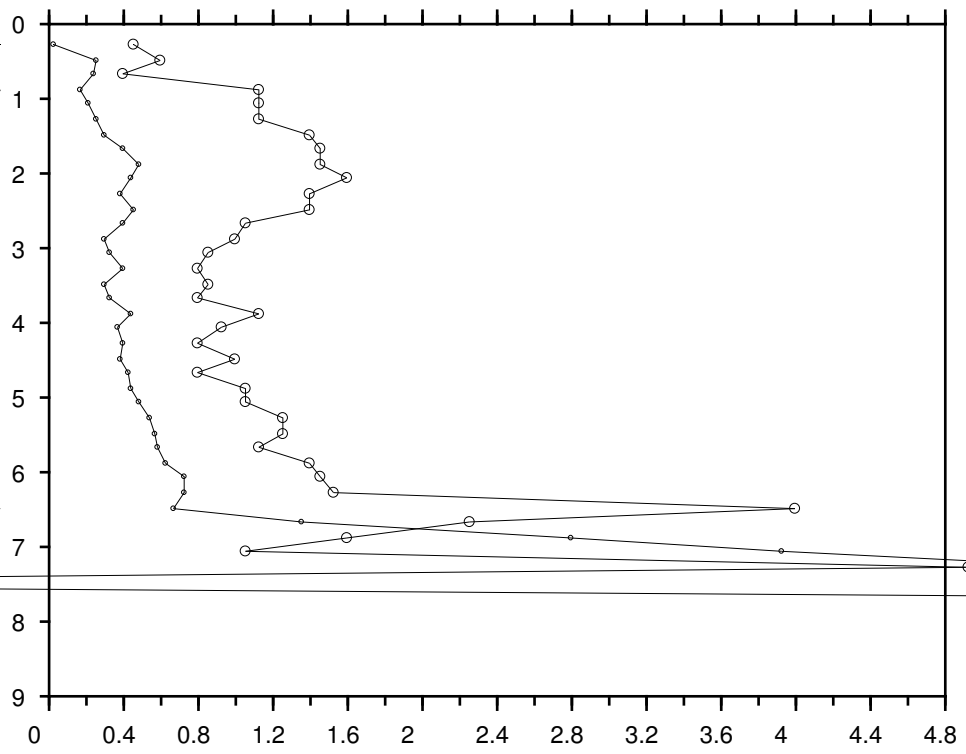
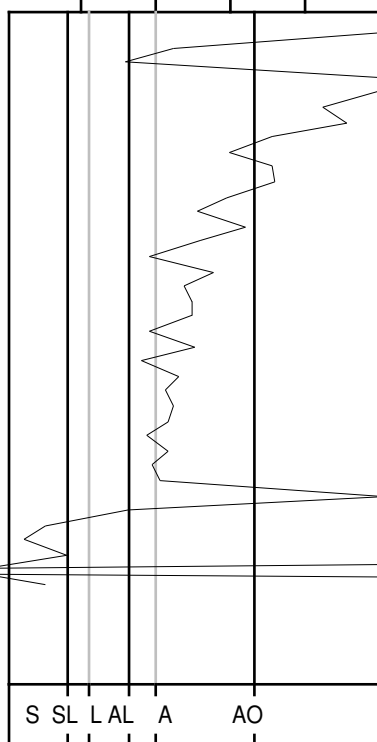
Begemann-AGI mod.

FR = RI/Rp x100

◦ Resistenza alla punta Rp [kg/cm2]

2 4 6 8

0 20 40 60 80 100 120 140 160 180 200 220 240



◦ Resistenza laterale loc. RI [kg/cm2]

0 0.4 0.8 1.2 1.6 2 2.4 2.8 3.2 3.6 4 4.4 4.8

S = sabbie - sabb. ghiaiose
SL = sabbie limose - limi sabb.
L = limi - argille sabb.
AL = argille limose : A = argille
AO = argille organiche

0 1 2 3 4 5 6 7 8 9 10 11 12

Resistenza totale Rt [t]

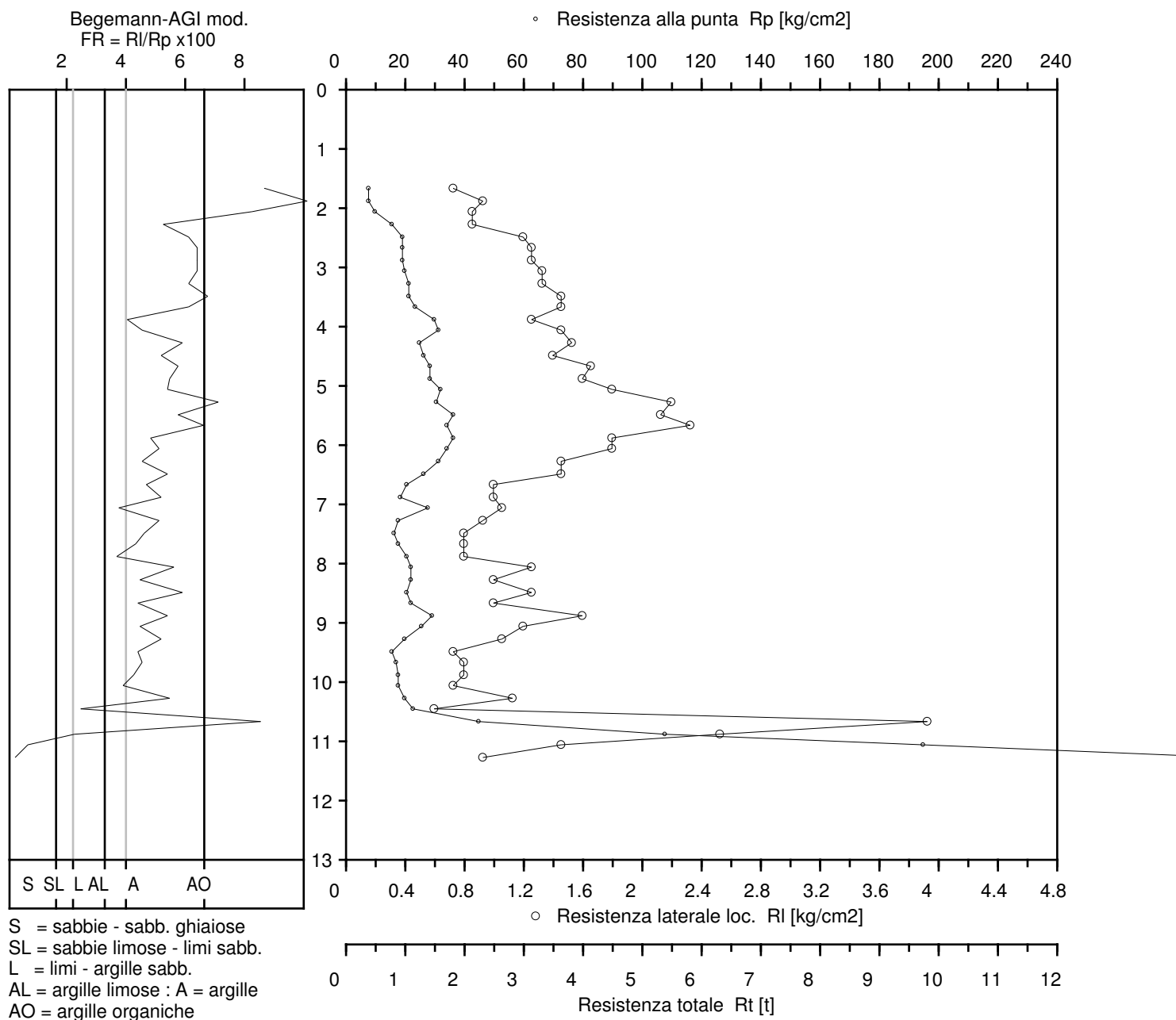
PROVA PENETROMETRICA STATICA n. 7

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S



PROVA PENETROMETRICA STATICA n. 7

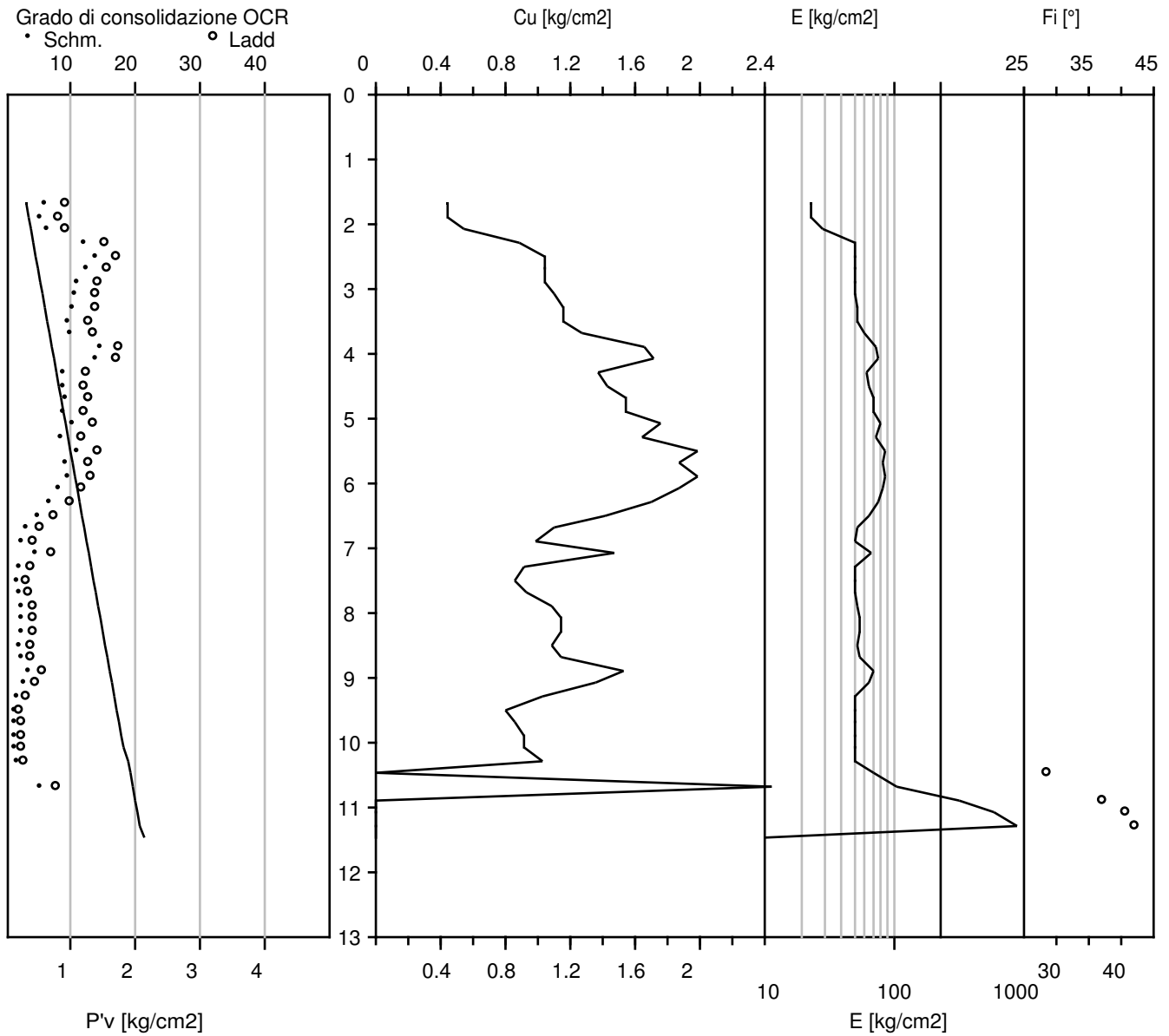
Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



PROVA PENETROMETRICA STATICA - ELABORAZIONE NUMERICA DEI RISULTATI

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 8

Parametri penetrometrici	Parametri geotecnici stimati
Rp = resistenza alla punta [kg/cm2]	g = Peso di volume [t/m3]
Rl = resistenza lat. locale [kg/cm2]	P'v = Press. vert. efficace[kg/cm2]
FR = Rl/Rp x 100 [-]	u = Press. neutra [kg/cm2]
Rt = resistenza totale [kgf]	E = Modulo di deform.[kg/cm2]
	OCR = Grado di sovracons.[-]
Quota p.c.: m	Cu = Coesione non drenata[kg/cm2]
Falda a m dal p.c.	Fi = Angolo di attrito[gradi]
z = prof. max. tratto esplorato dalla base penetr.	Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
1.6	-	0.9	-	-				-	-	-	-	-	
1.8	10.4	0.9	9.0	-	1.78	0.32	0.00	29	9.1	0.56	0.0	-	ARG. ORG.
2.0	13.4	0.9	7.0	-	1.79	0.36	0.00	37	11.7	0.72	0.0	-	ARG. ORG.
2.2	19.4	1.0	5.2	-	1.81	0.40	0.00	51	18.9	1.06	0.0	-	ARGILLA
2.4	18.4	1.0	5.4	-	1.81	0.43	0.00	51	14.8	1.00	0.0	-	ARGILLA
2.6	21.4	1.4	6.5	-	1.82	0.47	0.00	53	16.7	1.16	0.0	-	ARGILLA
2.8	27.5	1.6	5.8	-	1.84	0.50	0.00	67	22.9	1.50	0.0	-	ARGILLA
3.0	31.5	1.9	6.1	-	1.85	0.54	0.00	76	25.7	1.72	0.0	-	ARGILLA
3.2	28.5	2.3	7.9	-	1.84	0.58	0.00	70	19.1	1.55	0.0	-	ARG. ORG.
3.4	28.5	2.0	7.0	-	1.84	0.62	0.00	70	17.1	1.55	0.0	-	ARG. ORG.
3.6	26.5	1.7	6.3	-	1.84	0.65	0.00	65	13.6	1.44	0.0	-	ARGILLA
3.8	26.6	1.4	5.3	-	1.84	0.69	0.00	65	12.5	1.44	0.0	-	ARGILLA
4.0	28.6	1.6	5.6	-	1.84	0.73	0.00	70	13.0	1.55	0.0	-	ARGILLA
4.2	23.6	1.6	6.8	-	1.83	0.76	0.00	59	8.6	1.27	0.0	-	ARG. ORG.
4.4	22.6	1.3	5.6	-	1.82	0.80	0.00	56	7.4	1.21	0.0	-	ARGILLA
4.6	25.6	1.5	5.7	-	1.83	0.84	0.00	63	8.5	1.38	0.0	-	ARGILLA
4.8	29.8	1.5	5.1	-	1.85	0.87	0.00	72	10.1	1.61	0.0	-	ARGILLA
5.0	30.8	0.9	3.0	-	1.85	0.91	0.00	92	-	0.00	29.0	-	LIMO-ARG.S
5.2	40.8	1.5	3.8	-	1.89	0.95	0.00	95	15.1	2.21	0.0	-	ARG.LIM.
5.4	31.8	1.7	5.5	-	1.85	0.98	0.00	77	9.2	1.71	0.0	-	ARGILLA
5.6	31.8	1.6	5.0	-	1.85	1.02	0.00	77	8.7	1.71	0.0	-	ARGILLA
5.8	24.9	1.4	5.6	-	1.83	1.06	0.00	61	5.5	1.33	0.0	-	ARGILLA
6.0	24.9	1.3	5.1	-	1.83	1.09	0.00	61	5.2	1.32	0.0	-	ARGILLA
6.2	23.9	1.1	4.5	-	1.83	1.13	0.00	59	4.7	1.27	0.0	-	ARGILLA
6.4	23.9	1.0	4.2	-	1.83	1.17	0.00	59	4.4	1.26	0.0	-	ARGILLA
6.6	28.9	1.3	4.6	-	1.84	1.20	0.00	70	5.7	1.54	0.0	-	ARGILLA
6.8	22.0	1.1	5.1	-	1.82	1.24	0.00	55	3.6	1.16	0.0	-	ARGILLA
7.0	21.0	0.5	2.5	-	1.82	1.28	0.00	63	-	0.00	28.4	-	LIMO-ARG.S
7.2	150.0	1.2	0.8	-	2.21	1.32	0.00	450	-	0.00	41.4	1065	SABBIA
7.4	47.0	1.4	3.0	-	1.91	1.36	0.00	141	-	0.00	30.6	-	LIMO-ARG.S
7.6	31.0	1.7	5.4	-	1.85	1.40	0.00	75	5.0	1.65	0.0	-	ARGILLA
7.8	23.2	1.9	8.1	-	1.82	1.43	0.00	57	3.1	1.21	0.0	-	ARG. ORG.
8.0	25.2	0.9	3.4	-	1.83	1.47	0.00	62	3.4	1.32	0.0	-	ARG.LIM.
8.2	25.2	1.3	5.0	-	1.83	1.51	0.00	62	3.3	1.31	0.0	-	ARGILLA
8.4	31.2	2.5	7.9	-	1.85	1.54	0.00	75	4.3	1.65	0.0	-	ARG. ORG.
8.6	196.2	3.9	2.0	-	2.30	1.59	0.00	589	-	0.00	41.8	-	LIMO SABB.
8.8	238.3	4.6	1.9	-	2.30	1.64	0.00	715	-	0.00	42.4	-	LIMO SABB.
9.0	315.3	5.6	1.8	-	2.30	1.68	0.00	946	-	0.00	43.5	-	SABBIA LIM.
9.2	423.3	5.5	1.3	-	2.23	1.73	0.00	1270	-	0.00	44.6	2008	SABBIA
9.4	620.3	1.1	0.2	-	2.23	1.77	0.00	1861	-	0.00	46.1	2536	SABBIA

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 3

Parametri penetrometrici

Rp = resistenza alla punta [kg/cm2]
 Rl = resistenza lat. locale [kg/cm2]
 FR = Rl/Rp x 100 [-]
 Rt = resistenza totale [kgf]

Quota p.c.: m
 Falda a m dal p.c.

z = prof. max. tratto esplorato dalla base penetr.

Parametri geotecnici stimati

g = Peso di volume [t/m3]
 P'v = Press. vert. efficace[kg/cm2]
 u = Press. neutra [kg/cm2]
 E = Modulo di deform.[kg/cm2]
 OCR = Grado di sovracons.[-]
 Cu = Coesione non drenata[kg/cm2]
 Fi = Angolo di attrito[gradi]
 Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.1	-	-				-	-	-	-	-	
0.4	2.1	0.5	21.9	-	1.75	0.07	0.00	6	8.2	0.11	0.0	-	ARG. ORG.
0.6	13.1	0.6	4.6	-	1.79	0.11	0.00	49	> 50	0.72	0.0	-	ARGILLA
0.8	12.3	0.4	3.3	-	1.78	0.14	0.00	37	-	0.00	26.9	-	LIMO-ARG.S
1.0	9.3	1.1	12.2	-	1.77	0.18	0.00	25	21.1	0.50	0.0	-	ARG. ORG.
1.2	11.3	1.1	10.1	-	1.78	0.21	0.00	31	21.6	0.61	0.0	-	ARG. ORG.
1.4	13.3	1.1	8.5	-	1.79	0.25	0.00	36	21.9	0.72	0.0	-	ARG. ORG.
1.6	15.3	1.4	9.2	-	1.79	0.29	0.00	42	22.1	0.83	0.0	-	ARG. ORG.
1.8	20.4	1.5	7.2	-	1.81	0.32	0.00	51	30.1	1.11	0.0	-	ARG. ORG.
2.0	24.4	1.5	6.0	-	1.83	0.36	0.00	60	34.3	1.34	0.0	-	ARGILLA
2.2	22.4	1.6	7.1	-	1.82	0.39	0.00	56	24.6	1.22	0.0	-	ARG. ORG.
2.4	19.4	1.4	7.2	-	1.81	0.43	0.00	53	16.3	1.05	0.0	-	ARG. ORG.
2.6	23.4	1.4	6.0	-	1.82	0.47	0.00	58	19.7	1.27	0.0	-	ARGILLA
2.8	20.5	1.1	5.2	-	1.81	0.50	0.00	51	13.7	1.11	0.0	-	ARGILLA
3.0	15.5	1.0	6.4	-	1.80	0.54	0.00	51	7.6	0.83	0.0	-	ARGILLA
3.2	16.5	0.9	5.2	-	1.80	0.58	0.00	51	7.6	0.89	0.0	-	ARGILLA
3.4	20.5	0.8	3.9	-	1.81	0.61	0.00	51	9.8	1.11	0.0	-	ARG.LIM.
3.6	15.5	0.9	5.6	-	1.80	0.65	0.00	51	5.7	0.83	0.0	-	ARGILLA
3.8	16.6	0.8	4.8	-	1.80	0.68	0.00	51	5.8	0.89	0.0	-	ARGILLA
4.0	22.6	1.1	5.0	-	1.82	0.72	0.00	56	8.8	1.22	0.0	-	ARGILLA
4.2	18.6	0.9	5.0	-	1.81	0.76	0.00	51	5.9	0.99	0.0	-	ARGILLA
4.4	20.6	0.8	3.9	-	1.81	0.79	0.00	52	6.5	1.10	0.0	-	ARG.LIM.
4.6	19.6	1.0	5.1	-	1.81	0.83	0.00	50	5.6	1.05	0.0	-	ARGILLA
4.8	21.8	0.8	3.7	-	1.82	0.86	0.00	54	6.1	1.16	0.0	-	ARG.LIM.
5.0	22.8	1.1	4.7	-	1.82	0.90	0.00	57	6.2	1.22	0.0	-	ARGILLA
5.2	24.8	1.1	4.3	-	1.83	0.94	0.00	61	6.6	1.32	0.0	-	ARGILLA
5.4	27.8	1.3	4.6	-	1.84	0.97	0.00	68	7.5	1.49	0.0	-	ARGILLA
5.6	28.8	1.3	4.4	-	1.84	1.01	0.00	70	7.5	1.54	0.0	-	ARGILLA
5.8	29.9	1.1	3.8	-	1.85	1.05	0.00	73	7.5	1.60	0.0	-	ARG.LIM.
6.0	31.9	1.4	4.4	-	1.85	1.09	0.00	77	7.9	1.71	0.0	-	ARGILLA
6.2	36.9	1.5	4.0	-	1.87	1.12	0.00	88	9.5	1.99	0.0	-	ARG.LIM.
6.4	36.9	1.5	4.2	-	1.87	1.16	0.00	88	9.0	1.99	0.0	-	ARGILLA
6.6	33.9	4.0	11.8	-	1.86	1.20	0.00	81	7.4	1.82	0.0	-	ARG. ORG.
6.8	68.0	2.3	3.3	-	1.98	1.24	0.00	144	23.2	3.71	0.0	-	ARG.LIM.
7.0	140.0	1.6	1.1	-	2.17	1.28	0.00	420	-	0.00	41.3	1021	SABBIA
7.2	197.0	1.1	0.5	-	2.23	1.33	0.00	591	-	0.00	42.5	1258	SABBIA
7.4	289.0	4.9	1.7	-	2.30	1.37	0.00	867	-	0.00	44.0	-	SABBIA LIM.
7.6	423.0	-4.1	-1.0	-	2.23	1.42	0.00	1269	-	0.00	45.4	2007	SABBIA
7.8	584.2	6.7	1.1	-	2.23	1.46	0.00	1753	-	0.00	46.7	2444	SABBIA
8.0	602.2	-	-	-	2.23	1.51	0.00	1807	-	-	-	-	-

PROVA PENETROMETRICA STATICA n. 3

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S

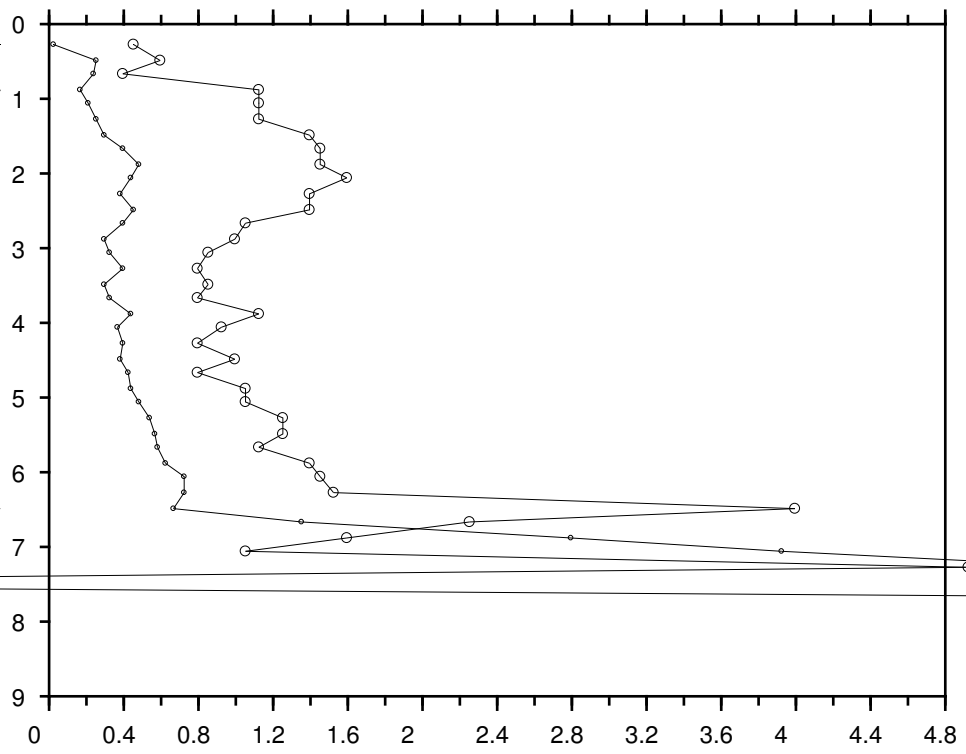
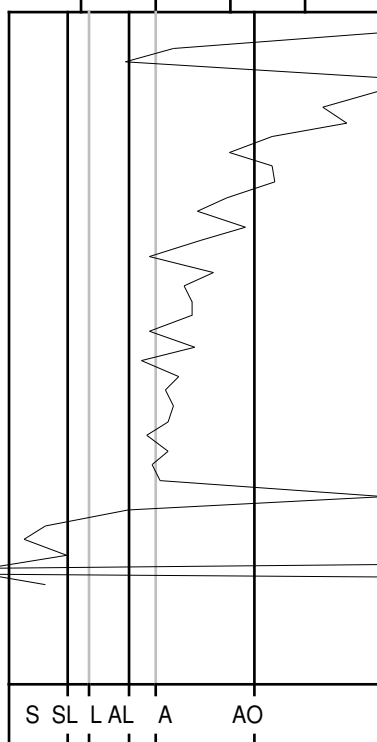
Begemann-AGI mod.

FR = RI/Rp x100

◦ Resistenza alla punta Rp [kg/cm2]

2 4 6 8

0 20 40 60 80 100 120 140 160 180 200 220 240



◦ Resistenza laterale loc. RI [kg/cm2]

0 0.4 0.8 1.2 1.6 2 2.4 2.8 3.2 3.6 4 4.4 4.8

S = sabbie - sabb. ghiaiose
SL = sabbie limose - limi sabb.
L = limi - argille sabb.
AL = argille limose : A = argille
AO = argille organiche

0 1 2 3 4 5 6 7 8 9 10 11 12

Resistenza totale Rt [t]

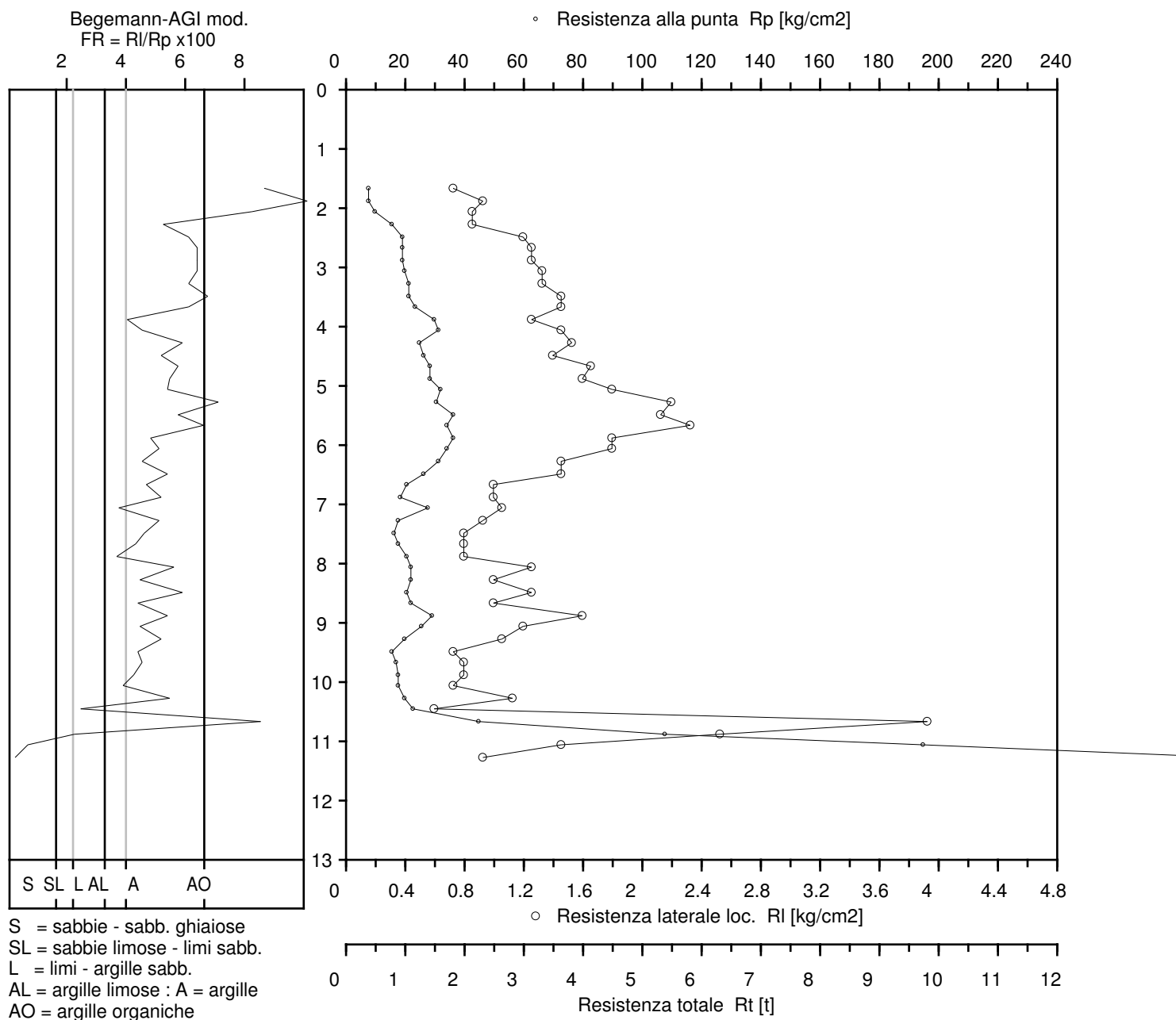
PROVA PENETROMETRICA STATICA n. 7

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S



PROVA PENETROMETRICA STATICA n. 7

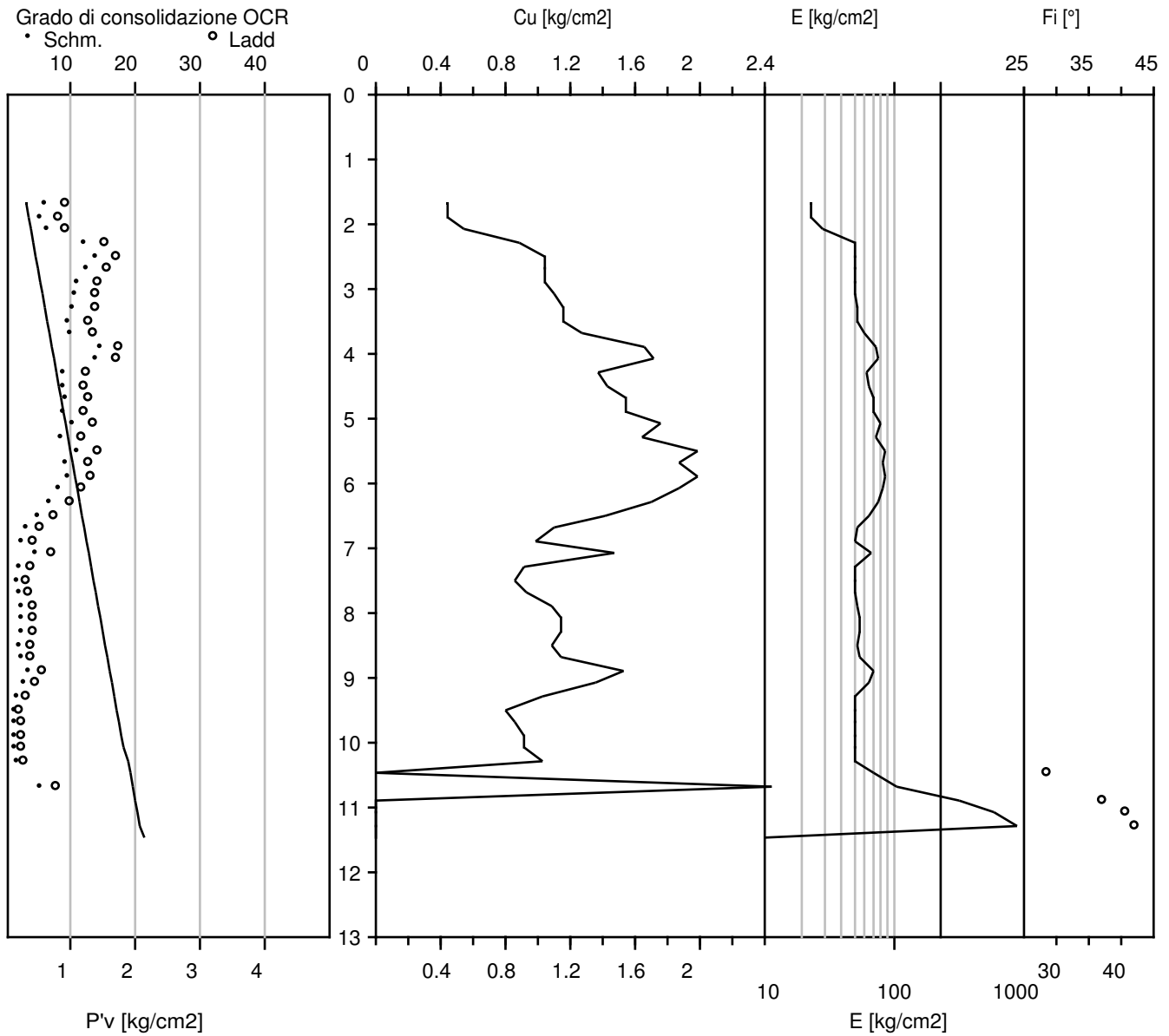
Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



PROVA PENETROMETRICA STATICA - ELABORAZIONE NUMERICA DEI RISULTATI

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 8

Parametri penetrometrici	Parametri geotecnici stimati
Rp = resistenza alla punta [kg/cm2]	g = Peso di volume [t/m3]
Rl = resistenza lat. locale [kg/cm2]	P'v = Press. vert. efficace[kg/cm2]
FR = Rl/Rp x 100 [-]	u = Press. neutra [kg/cm2]
Rt = resistenza totale [kgf]	E = Modulo di deform.[kg/cm2]
	OCR = Grado di sovracons.[-]
Quota p.c.: m	Cu = Coesione non drenata[kg/cm2]
Falda a m dal p.c.	Fi = Angolo di attrito[gradi]
z = prof. max. tratto esplorato dalla base penetr.	Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
1.6	-	0.9	-	-				-	-	-	-	-	
1.8	10.4	0.9	9.0	-	1.78	0.32	0.00	29	9.1	0.56	0.0	-	ARG. ORG.
2.0	13.4	0.9	7.0	-	1.79	0.36	0.00	37	11.7	0.72	0.0	-	ARG. ORG.
2.2	19.4	1.0	5.2	-	1.81	0.40	0.00	51	18.9	1.06	0.0	-	ARGILLA
2.4	18.4	1.0	5.4	-	1.81	0.43	0.00	51	14.8	1.00	0.0	-	ARGILLA
2.6	21.4	1.4	6.5	-	1.82	0.47	0.00	53	16.7	1.16	0.0	-	ARGILLA
2.8	27.5	1.6	5.8	-	1.84	0.50	0.00	67	22.9	1.50	0.0	-	ARGILLA
3.0	31.5	1.9	6.1	-	1.85	0.54	0.00	76	25.7	1.72	0.0	-	ARGILLA
3.2	28.5	2.3	7.9	-	1.84	0.58	0.00	70	19.1	1.55	0.0	-	ARG. ORG.
3.4	28.5	2.0	7.0	-	1.84	0.62	0.00	70	17.1	1.55	0.0	-	ARG. ORG.
3.6	26.5	1.7	6.3	-	1.84	0.65	0.00	65	13.6	1.44	0.0	-	ARGILLA
3.8	26.6	1.4	5.3	-	1.84	0.69	0.00	65	12.5	1.44	0.0	-	ARGILLA
4.0	28.6	1.6	5.6	-	1.84	0.73	0.00	70	13.0	1.55	0.0	-	ARGILLA
4.2	23.6	1.6	6.8	-	1.83	0.76	0.00	59	8.6	1.27	0.0	-	ARG. ORG.
4.4	22.6	1.3	5.6	-	1.82	0.80	0.00	56	7.4	1.21	0.0	-	ARGILLA
4.6	25.6	1.5	5.7	-	1.83	0.84	0.00	63	8.5	1.38	0.0	-	ARGILLA
4.8	29.8	1.5	5.1	-	1.85	0.87	0.00	72	10.1	1.61	0.0	-	ARGILLA
5.0	30.8	0.9	3.0	-	1.85	0.91	0.00	92	-	0.00	29.0	-	LIMO-ARG.S
5.2	40.8	1.5	3.8	-	1.89	0.95	0.00	95	15.1	2.21	0.0	-	ARG.LIM.
5.4	31.8	1.7	5.5	-	1.85	0.98	0.00	77	9.2	1.71	0.0	-	ARGILLA
5.6	31.8	1.6	5.0	-	1.85	1.02	0.00	77	8.7	1.71	0.0	-	ARGILLA
5.8	24.9	1.4	5.6	-	1.83	1.06	0.00	61	5.5	1.33	0.0	-	ARGILLA
6.0	24.9	1.3	5.1	-	1.83	1.09	0.00	61	5.2	1.32	0.0	-	ARGILLA
6.2	23.9	1.1	4.5	-	1.83	1.13	0.00	59	4.7	1.27	0.0	-	ARGILLA
6.4	23.9	1.0	4.2	-	1.83	1.17	0.00	59	4.4	1.26	0.0	-	ARGILLA
6.6	28.9	1.3	4.6	-	1.84	1.20	0.00	70	5.7	1.54	0.0	-	ARGILLA
6.8	22.0	1.1	5.1	-	1.82	1.24	0.00	55	3.6	1.16	0.0	-	ARGILLA
7.0	21.0	0.5	2.5	-	1.82	1.28	0.00	63	-	0.00	28.4	-	LIMO-ARG.S
7.2	150.0	1.2	0.8	-	2.21	1.32	0.00	450	-	0.00	41.4	1065	SABBIA
7.4	47.0	1.4	3.0	-	1.91	1.36	0.00	141	-	0.00	30.6	-	LIMO-ARG.S
7.6	31.0	1.7	5.4	-	1.85	1.40	0.00	75	5.0	1.65	0.0	-	ARGILLA
7.8	23.2	1.9	8.1	-	1.82	1.43	0.00	57	3.1	1.21	0.0	-	ARG. ORG.
8.0	25.2	0.9	3.4	-	1.83	1.47	0.00	62	3.4	1.32	0.0	-	ARG.LIM.
8.2	25.2	1.3	5.0	-	1.83	1.51	0.00	62	3.3	1.31	0.0	-	ARGILLA
8.4	31.2	2.5	7.9	-	1.85	1.54	0.00	75	4.3	1.65	0.0	-	ARG. ORG.
8.6	196.2	3.9	2.0	-	2.30	1.59	0.00	589	-	0.00	41.8	-	LIMO SABB.
8.8	238.3	4.6	1.9	-	2.30	1.64	0.00	715	-	0.00	42.4	-	LIMO SABB.
9.0	315.3	5.6	1.8	-	2.30	1.68	0.00	946	-	0.00	43.5	-	SABBIA LIM.
9.2	423.3	5.5	1.3	-	2.23	1.73	0.00	1270	-	0.00	44.6	2008	SABBIA
9.4	620.3	1.1	0.2	-	2.23	1.77	0.00	1861	-	0.00	46.1	2536	SABBIA

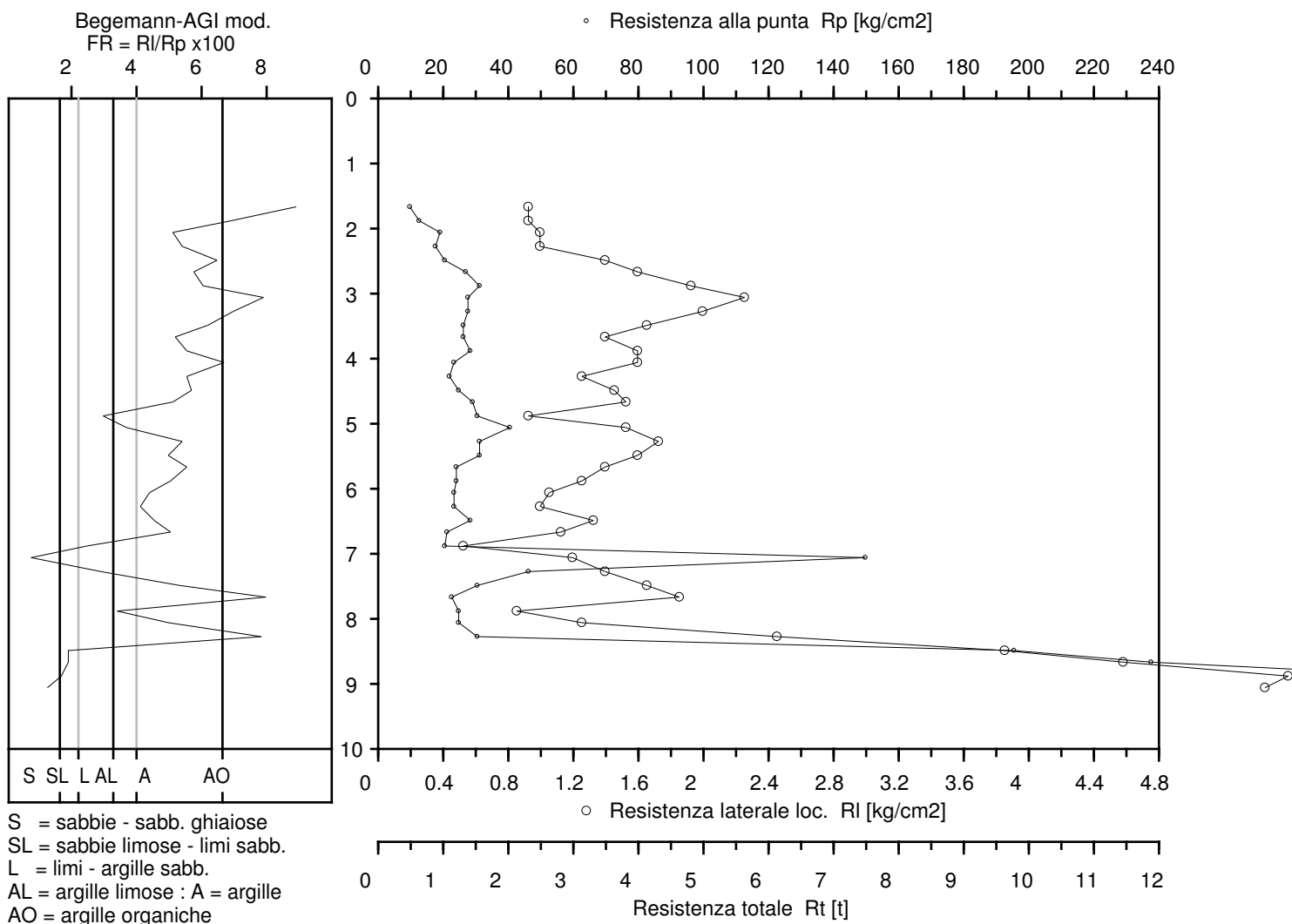
PROVA PENETROMETRICA STATICA n. 8

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S



PROVA PENETROMETRICA STATICA n. 8

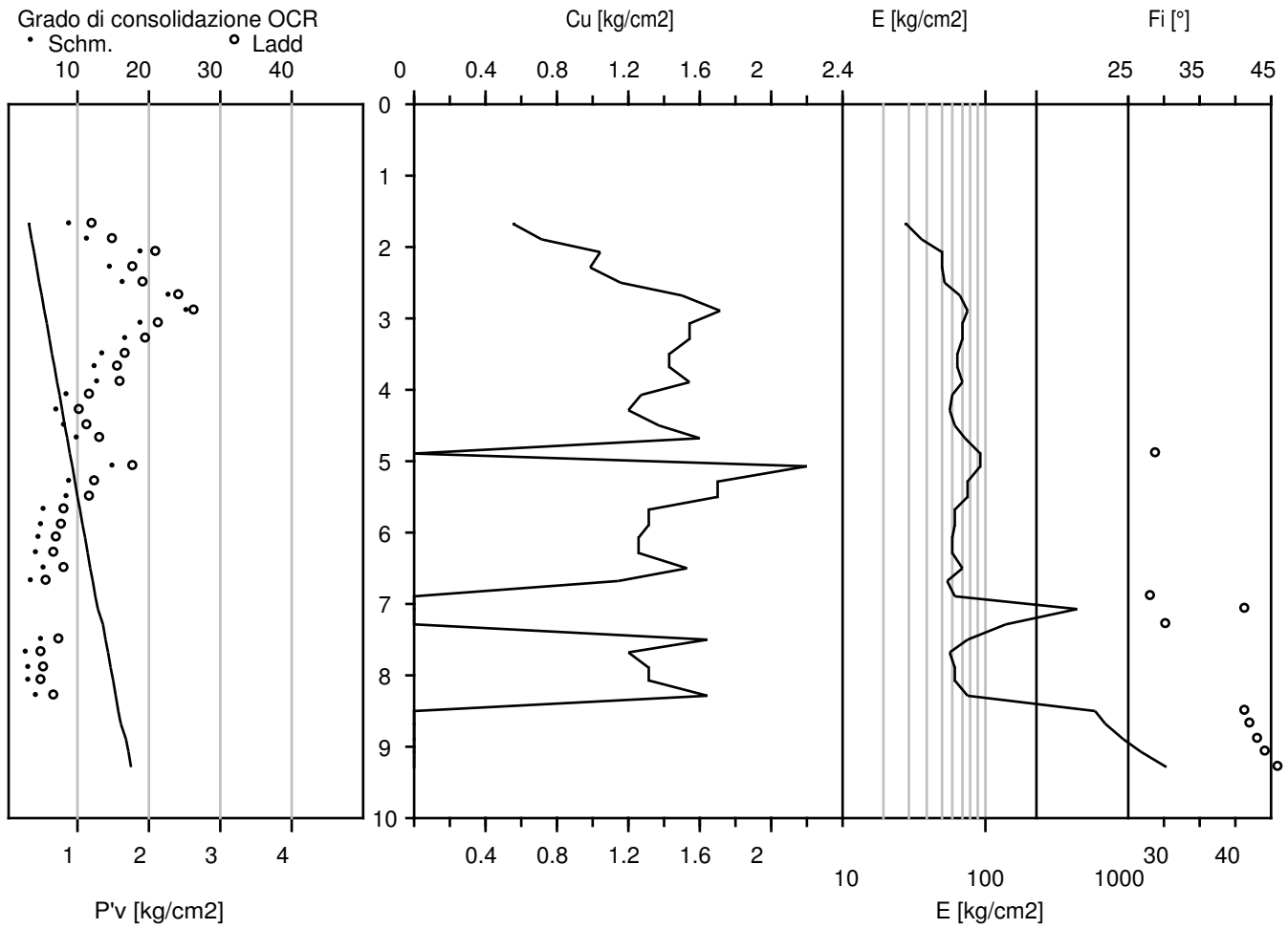
Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



PROVA PENETROMETRICA STATICA - ELABORAZIONE NUMERICA DEI RISULTATI

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 9

Parametri penetrometrici	Parametri geotecnici stimati
Rp = resistenza alla punta [kg/cm2]	g = Peso di volume [t/m3]
Rl = resistenza lat. locale [kg/cm2]	P'v = Press. vert. efficace[kg/cm2]
FR = Rl/Rp x 100 [-]	u = Press. neutra [kg/cm2]
Rt = resistenza totale [kgf]	E = Modulo di deform.[kg/cm2]
	OCR = Grado di sovracons.[-]
Quota p.c.: m	Cu = Coesione non drenata[kg/cm2]
Falda a m dal p.c.	Fi = Angolo di attrito[gradi]
z = prof. max. tratto esplorato dalla base penetr.	Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.1	-	-				-	-	-	-	-	
0.4	2.1	0.5	21.9	-	1.75	0.07	0.00	6	8.2	0.11	0.0	-	ARG. ORG.
0.6	6.1	1.1	17.4	-	1.76	0.11	0.00	17	25.4	0.33	0.0	-	ARG. ORG.
0.8	21.3	0.6	2.8	-	1.82	0.14	0.00	64	-	0.00	28.3	-	LIMO-ARG.S
1.0	19.3	0.7	3.8	-	1.81	0.18	0.00	51	> 50	1.06	0.0	-	ARG.LIM.
1.2	11.3	1.0	8.9	-	1.78	0.21	0.00	31	21.4	0.61	0.0	-	ARG. ORG.
1.4	15.3	0.5	3.5	-	1.79	0.25	0.00	51	28.0	0.83	0.0	-	ARG.LIM.
1.6	13.3	0.9	7.0	-	1.79	0.29	0.00	36	17.2	0.72	0.0	-	ARG. ORG.
1.8	14.4	0.9	6.5	-	1.79	0.32	0.00	50	16.1	0.78	0.0	-	ARGILLA
2.0	14.4	1.0	6.9	-	1.79	0.36	0.00	40	13.4	0.78	0.0	-	ARG. ORG.
2.2	16.4	1.1	6.9	-	1.80	0.39	0.00	45	14.2	0.89	0.0	-	ARG. ORG.
2.4	18.4	1.1	6.2	-	1.81	0.43	0.00	51	14.9	1.00	0.0	-	ARGILLA
2.6	19.4	1.4	7.2	-	1.81	0.47	0.00	53	14.2	1.05	0.0	-	ARG. ORG.
2.8	22.5	1.5	6.5	-	1.82	0.50	0.00	56	16.2	1.22	0.0	-	ARGILLA
3.0	28.5	1.6	5.6	-	1.84	0.54	0.00	70	21.7	1.55	0.0	-	ARGILLA
3.2	29.5	2.1	7.0	-	1.85	0.58	0.00	72	20.5	1.61	0.0	-	ARG. ORG.
3.4	30.5	2.1	6.8	-	1.85	0.61	0.00	74	19.4	1.66	0.0	-	ARG. ORG.
3.6	31.5	1.8	5.7	-	1.85	0.65	0.00	76	18.6	1.71	0.0	-	ARGILLA
3.8	30.6	1.9	6.1	-	1.85	0.69	0.00	74	16.0	1.66	0.0	-	ARGILLA
4.0	32.6	1.6	4.9	-	1.86	0.72	0.00	79	16.3	1.77	0.0	-	ARGILLA
4.2	27.6	1.5	5.3	-	1.84	0.76	0.00	68	11.2	1.49	0.0	-	ARGILLA
4.4	27.6	1.4	5.1	-	1.84	0.80	0.00	68	10.4	1.49	0.0	-	ARGILLA
4.6	27.6	1.5	5.5	-	1.84	0.83	0.00	68	9.6	1.49	0.0	-	ARGILLA
4.8	30.8	1.9	6.1	-	1.85	0.87	0.00	75	10.7	1.66	0.0	-	ARGILLA
5.0	32.8	1.9	5.7	-	1.86	0.91	0.00	79	11.1	1.77	0.0	-	ARGILLA
5.2	36.8	1.8	4.9	-	1.87	0.95	0.00	87	12.6	1.99	0.0	-	ARGILLA
5.4	34.8	1.7	5.0	-	1.87	0.98	0.00	83	10.7	1.88	0.0	-	ARGILLA
5.6	33.8	1.4	4.1	-	1.86	1.02	0.00	81	9.6	1.82	0.0	-	ARGILLA
5.8	30.9	1.7	5.4	-	1.85	1.06	0.00	75	7.8	1.66	0.0	-	ARGILLA
6.0	27.9	1.3	4.8	-	1.84	1.09	0.00	68	6.2	1.49	0.0	-	ARGILLA
6.2	28.9	1.2	4.2	-	1.84	1.13	0.00	70	6.3	1.54	0.0	-	ARGILLA
6.4	26.9	1.0	3.7	-	1.84	1.17	0.00	66	5.3	1.43	0.0	-	ARG.LIM.
6.6	27.9	1.1	4.1	-	1.84	1.21	0.00	68	5.4	1.48	0.0	-	ARGILLA
6.8	25.0	1.4	5.6	-	1.83	1.24	0.00	62	4.3	1.32	0.0	-	ARGILLA
7.0	24.0	1.5	6.1	-	1.83	1.28	0.00	59	3.9	1.26	0.0	-	ARGILLA
7.2	28.0	1.6	5.7	-	1.84	1.32	0.00	68	4.7	1.48	0.0	-	ARGILLA
7.4	30.0	1.8	6.0	-	1.85	1.35	0.00	73	5.0	1.59	0.0	-	ARGILLA
7.6	31.0	1.5	4.9	-	1.85	1.39	0.00	75	5.1	1.65	0.0	-	ARGILLA
7.8	25.2	1.7	6.6	-	1.83	1.43	0.00	62	3.5	1.32	0.0	-	ARGILLA
8.0	26.2	1.7	6.6	-	1.83	1.46	0.00	64	3.6	1.37	0.0	-	ARGILLA
8.2	26.2	1.8	6.9	-	1.83	1.50	0.00	64	3.5	1.37	0.0	-	ARG. ORG.
8.4	26.2	1.7	6.4	-	1.83	1.54	0.00	64	3.4	1.37	0.0	-	ARGILLA
8.6	26.2	1.7	6.4	-	1.83	1.57	0.00	64	3.3	1.37	0.0	-	ARGILLA
8.8	27.3	1.6	5.9	-	1.84	1.61	0.00	67	3.3	1.43	0.0	-	ARGILLA
9.0	27.3	1.9	7.1	-	1.84	1.65	0.00	67	3.2	1.43	0.0	-	ARG. ORG.
9.2	31.3	2.1	6.6	-	1.85	1.68	0.00	76	3.8	1.65	0.0	-	ARGILLA
9.4	34.3	2.1	6.0	-	1.86	1.72	0.00	82	4.3	1.81	0.0	-	ARGILLA
9.6	46.3	2.2	4.8	-	1.91	1.76	0.00	106	6.6	2.47	0.0	-	ARGILLA
9.8	55.4	3.7	6.6	-	1.94	1.80	0.00	123	8.5	2.98	0.0	-	ARGILLA

z [m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO	(AGI)
10.0	105.4	2.3	2.1	-	2.12	1.84	0.00	316	-	0.00	37.2	-	LIMO	SABB.
10.2	164.4	3.0	1.8	-	2.30	1.89	0.00	493	-	0.00	40.4	-	SABBIA	LIM.
10.4	216.4	2.8	1.3	-	2.23	1.93	0.00	649	-	0.00	41.4	1333	SABBIA	
10.6	301.4	5.4	1.8	-	2.30	1.98	0.00	904	-	0.00	42.6	-	SABBIA	LIM.
10.8	427.6	4.9	1.1	-	2.23	2.02	0.00	1283	-	0.00	44.0	2020	SABBIA	
11.0	629.6	-	-	-	2.23	2.07	0.00	1889	-	-	-	-	-	-

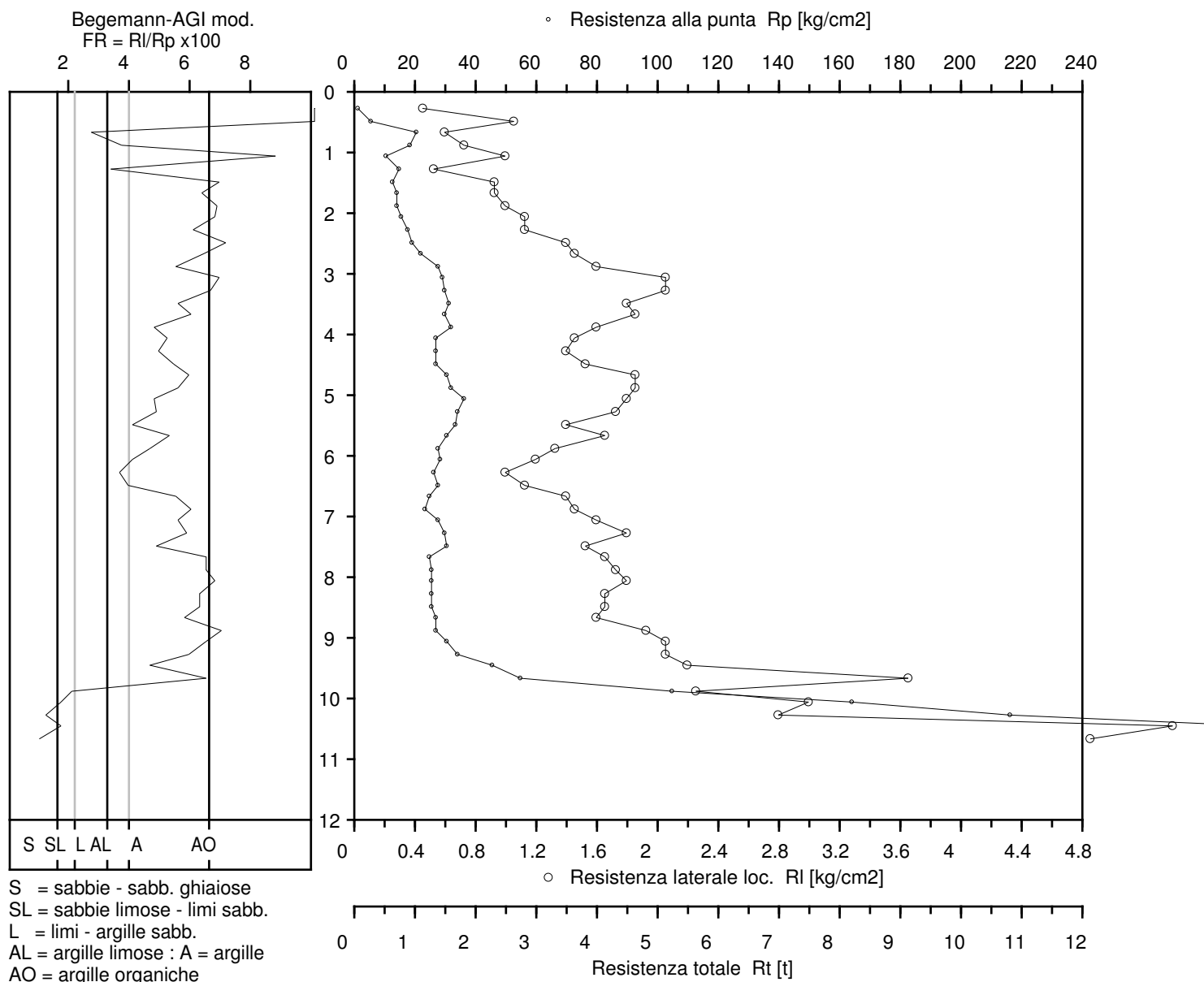
PROVA PENETROMETRICA STATICA n. 9

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S



PROVA PENETROMETRICA STATICA n. 9

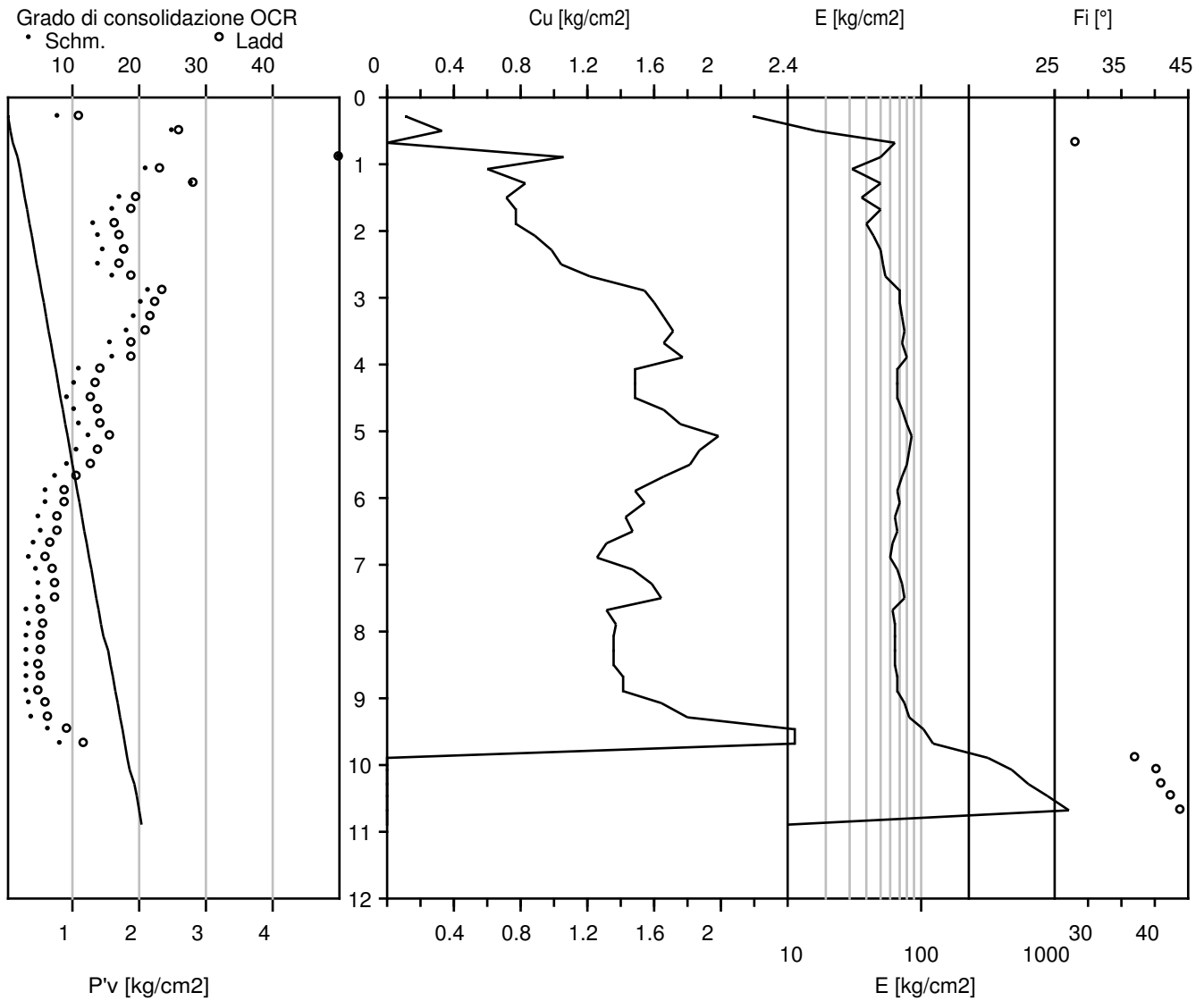
Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



PROVA PENETROMETRICA STATICA - ELABORAZIONE NUMERICA DEI RISULTATI

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 11

Parametri penetrometrici	Parametri geotecnici stimati
Rp = resistenza alla punta [kg/cm2]	g = Peso di volume [t/m3]
Rl = resistenza lat. locale [kg/cm2]	P'v = Press. vert. efficace[kg/cm2]
FR = Rl/Rp x 100 [-]	u = Press. neutra [kg/cm2]
Rt = resistenza totale [kgf]	E = Modulo di deform.[kg/cm2]
	OCR = Grado di sovracons.[-]
Quota p.c.: m	Cu = Coesione non drenata[kg/cm2]
Falda a m dal p.c.	Fi = Angolo di attrito[gradi]
z = prof. max. tratto esplorato dalla base penetr.	Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.1	-	-				-	-	-	-	-	
0.4	2.1	0.7	34.4	-	1.75	0.07	0.00	6	8.2	0.11	0.0	-	ARG. ORG.
0.6	11.1	0.9	8.4	-	1.78	0.11	0.00	31	> 50	0.61	0.0	-	ARG. ORG.
0.8	14.3	1.3	9.4	-	1.79	0.14	0.00	39	> 50	0.78	0.0	-	ARG. ORG.
1.0	12.3	1.3	10.9	-	1.78	0.18	0.00	34	34.9	0.67	0.0	-	ARG. ORG.
1.2	14.3	1.4	9.8	-	1.79	0.21	0.00	39	32.9	0.78	0.0	-	ARG. ORG.
1.4	28.3	1.5	5.2	-	1.84	0.25	0.00	69	> 50	1.56	0.0	-	ARGILLA
1.6	27.3	1.3	4.9	-	1.84	0.29	0.00	67	> 50	1.50	0.0	-	ARGILLA
1.8	22.4	1.2	5.4	-	1.82	0.32	0.00	56	35.2	1.23	0.0	-	ARGILLA
2.0	23.4	1.0	4.3	-	1.82	0.36	0.00	58	31.4	1.28	0.0	-	ARGILLA
2.2	35.4	1.3	3.6	-	1.87	0.40	0.00	84	> 50	1.94	0.0	-	ARG.LIM.
2.4	31.4	1.7	5.5	-	1.85	0.43	0.00	76	38.1	1.72	0.0	-	ARGILLA
2.6	34.4	1.9	5.6	-	1.86	0.47	0.00	82	38.8	1.88	0.0	-	ARGILLA
2.8	29.5	1.9	6.3	-	1.85	0.51	0.00	72	25.6	1.61	0.0	-	ARGILLA
3.0	29.5	2.0	6.8	-	1.85	0.55	0.00	72	22.5	1.61	0.0	-	ARG. ORG.
3.2	30.5	1.6	5.2	-	1.85	0.58	0.00	74	21.3	1.66	0.0	-	ARGILLA
3.4	24.5	1.9	7.6	-	1.83	0.62	0.00	61	13.0	1.33	0.0	-	ARG. ORG.
3.6	33.5	1.9	5.6	-	1.86	0.66	0.00	80	20.3	1.83	0.0	-	ARGILLA
3.8	16.6	1.4	8.4	-	1.80	0.69	0.00	46	5.7	0.89	0.0	-	ARG. ORG.
4.0	14.7	1.0	6.8	-	1.79	0.73	0.00	40	4.3	0.77	0.0	-	ARG. ORG.
4.2	16.6	1.0	6.0	-	1.80	0.76	0.00	51	4.9	0.88	0.0	-	ARGILLA
4.4	18.6	1.1	6.1	-	1.81	0.80	0.00	51	5.4	0.99	0.0	-	ARGILLA
4.6	15.7	1.0	6.4	-	1.80	0.84	0.00	51	3.9	0.82	0.0	-	ARGILLA
4.8	16.8	1.1	6.4	-	1.80	0.87	0.00	51	4.0	0.88	0.0	-	ARGILLA
5.0	15.8	0.9	5.5	-	1.80	0.91	0.00	51	3.5	0.83	0.0	-	ARGILLA
5.2	16.8	0.8	4.8	-	1.80	0.94	0.00	51	3.6	0.88	0.0	-	ARGILLA
5.4	16.8	0.7	4.0	-	1.80	0.98	0.00	51	3.4	0.88	0.0	-	ARG.LIM.
5.6	17.8	0.9	4.9	-	1.80	1.02	0.00	51	3.5	0.93	0.0	-	ARGILLA
5.8	20.9	1.0	4.8	-	1.82	1.05	0.00	52	4.2	1.10	0.0	-	ARGILLA
6.0	21.9	1.1	4.9	-	1.82	1.09	0.00	55	4.3	1.16	0.0	-	ARGILLA
6.2	23.9	1.1	4.5	-	1.83	1.13	0.00	59	4.7	1.27	0.0	-	ARGILLA
6.4	20.9	0.9	4.5	-	1.82	1.16	0.00	52	3.6	1.10	0.0	-	ARGILLA
6.6	24.9	1.1	4.3	-	1.83	1.20	0.00	61	4.5	1.32	0.0	-	ARGILLA
6.8	25.0	1.3	5.1	-	1.83	1.24	0.00	62	4.4	1.32	0.0	-	ARGILLA
7.0	25.0	1.3	5.1	-	1.83	1.27	0.00	62	4.2	1.32	0.0	-	ARGILLA
7.2	24.0	1.3	5.3	-	1.83	1.31	0.00	59	3.8	1.26	0.0	-	ARGILLA
7.4	28.0	1.5	5.2	-	1.84	1.35	0.00	68	4.6	1.48	0.0	-	ARGILLA
7.6	34.0	1.5	4.5	-	1.86	1.38	0.00	82	5.9	1.81	0.0	-	ARGILLA
7.8	35.2	1.9	5.3	-	1.87	1.42	0.00	84	6.0	1.88	0.0	-	ARGILLA
8.0	34.2	1.6	4.7	-	1.86	1.46	0.00	82	5.5	1.82	0.0	-	ARGILLA
8.2	32.2	2.1	6.4	-	1.86	1.49	0.00	78	4.8	1.70	0.0	-	ARGILLA
8.4	29.2	1.3	4.3	-	1.85	1.53	0.00	71	4.0	1.54	0.0	-	ARGILLA
8.6	36.2	1.7	4.6	-	1.87	1.57	0.00	86	5.3	1.92	0.0	-	ARGILLA
8.8	29.3	1.4	4.8	-	1.85	1.61	0.00	71	3.7	1.54	0.0	-	ARGILLA
9.0	21.3	1.1	5.3	-	1.82	1.64	0.00	53	2.3	1.09	0.0	-	ARGILLA
9.2	18.3	1.1	5.8	-	1.81	1.68	0.00	51	1.8	0.92	0.0	-	ARGILLA
9.4	17.3	0.9	5.4	-	1.80	1.71	0.00	51	1.7	0.87	0.0	-	ARGILLA
9.6	18.3	1.0	5.5	-	1.81	1.75	0.00	51	1.7	0.92	0.0	-	ARGILLA
9.8	19.4	1.2	6.2	-	1.81	1.79	0.00	51	1.8	0.98	0.0	-	ARGILLA

z [m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO	(AGI)
10.0	23.4	1.1	4.8	-	1.82	1.82	0.00	58	2.3	1.20	0.0	-	ARGILLA	
10.2	23.4	1.1	4.8	-	1.82	1.86	0.00	58	2.2	1.20	0.0	-	ARGILLA	
10.4	17.4	0.9	5.0	-	1.80	1.90	0.00	51	1.5	0.86	0.0	-	ARGILLA	
10.6	19.4	1.5	7.5	-	1.81	1.93	0.00	53	1.7	0.97	0.0	-	ARG. ORG.	
10.8	16.6	1.8	10.9	-	1.80	1.97	0.00	46	1.3	0.81	0.0	-	ARG. ORG.	
11.0	55.6	55.1	99.1	-	1.94	2.01	0.00	123	7.1	2.98	0.0	-	ARG. ORG.	
11.2	87.6	1.5	1.8	-	2.06	2.05	0.00	263	-	0.00	35.7	-	SABBIA LIM.	
11.4	58.6	1.7	2.8	-	1.95	2.09	0.00	176	-	0.00	31.8	-	LIMO-ARG.S	
11.6	170.6	-1.5	-0.9	-	2.23	2.13	0.00	512	-	0.00	39.9	1152	SABBIA	
11.8	178.7	3.7	2.1	-	2.30	2.18	0.00	536	-	0.00	40.0	-	LIMO SABB.	
12.0	215.7	4.9	2.3	-	2.30	2.22	0.00	647	-	0.00	40.8	-	LIMO-ARG.S	
12.2	323.7	3.4	1.1	-	2.23	2.27	0.00	971	-	0.00	42.4	1704	SABBIA	
12.4	415.7	11.9	2.9	-	2.30	2.31	0.00	1247	-	0.00	43.3	-	LIMO-ARG.S	
12.6	523.7	-	-	-	2.23	2.36	0.00	1571	-	-	-	-	-	-

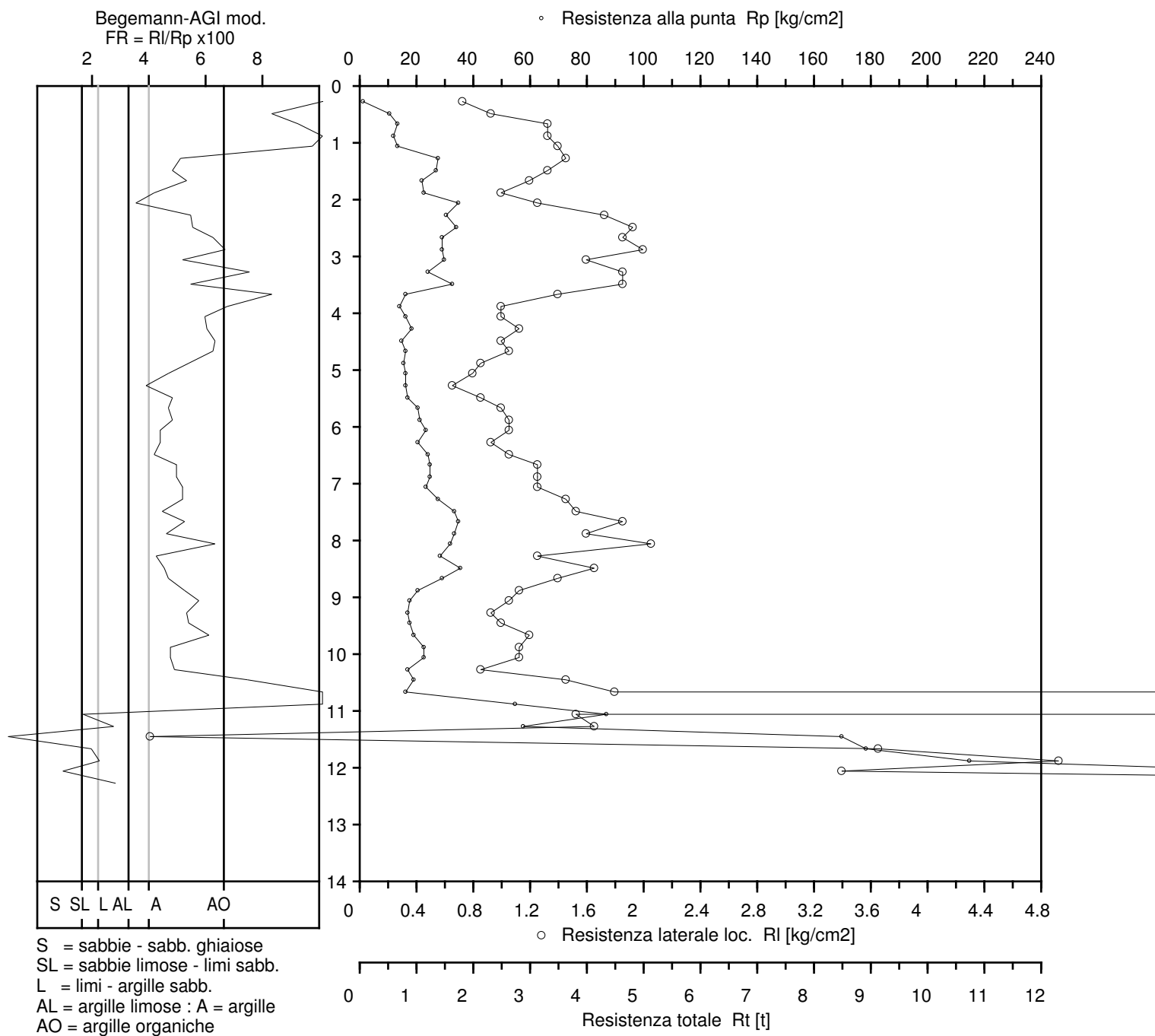
PROVA PENETROMETRICA STATICA n. 11

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S



PROVA PENETROMETRICA STATICA n. 3

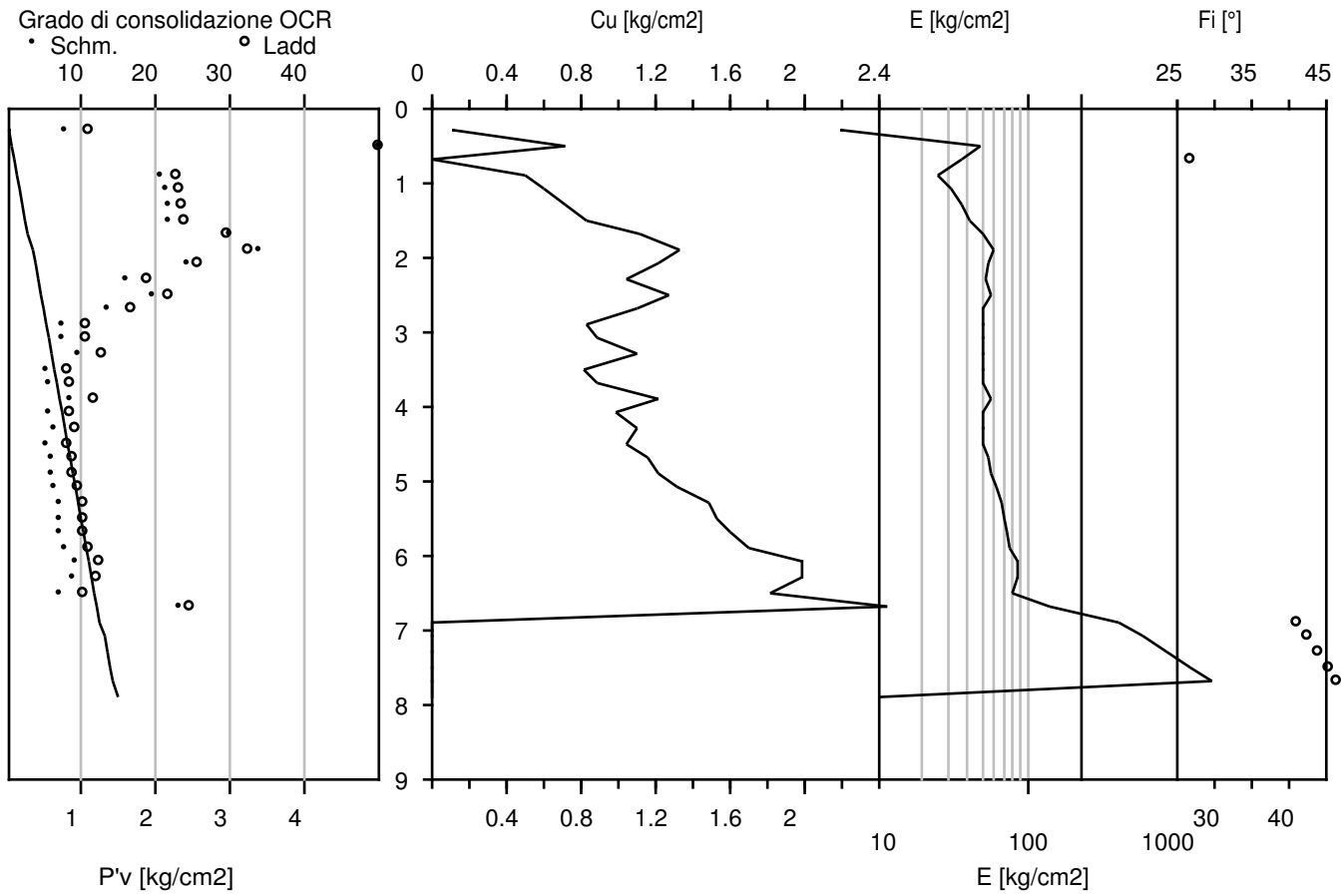
Committente : ASCAA S.p.A.

Localita' : Casteltuelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



PROVA PENETROMETRICA STATICA n. 11

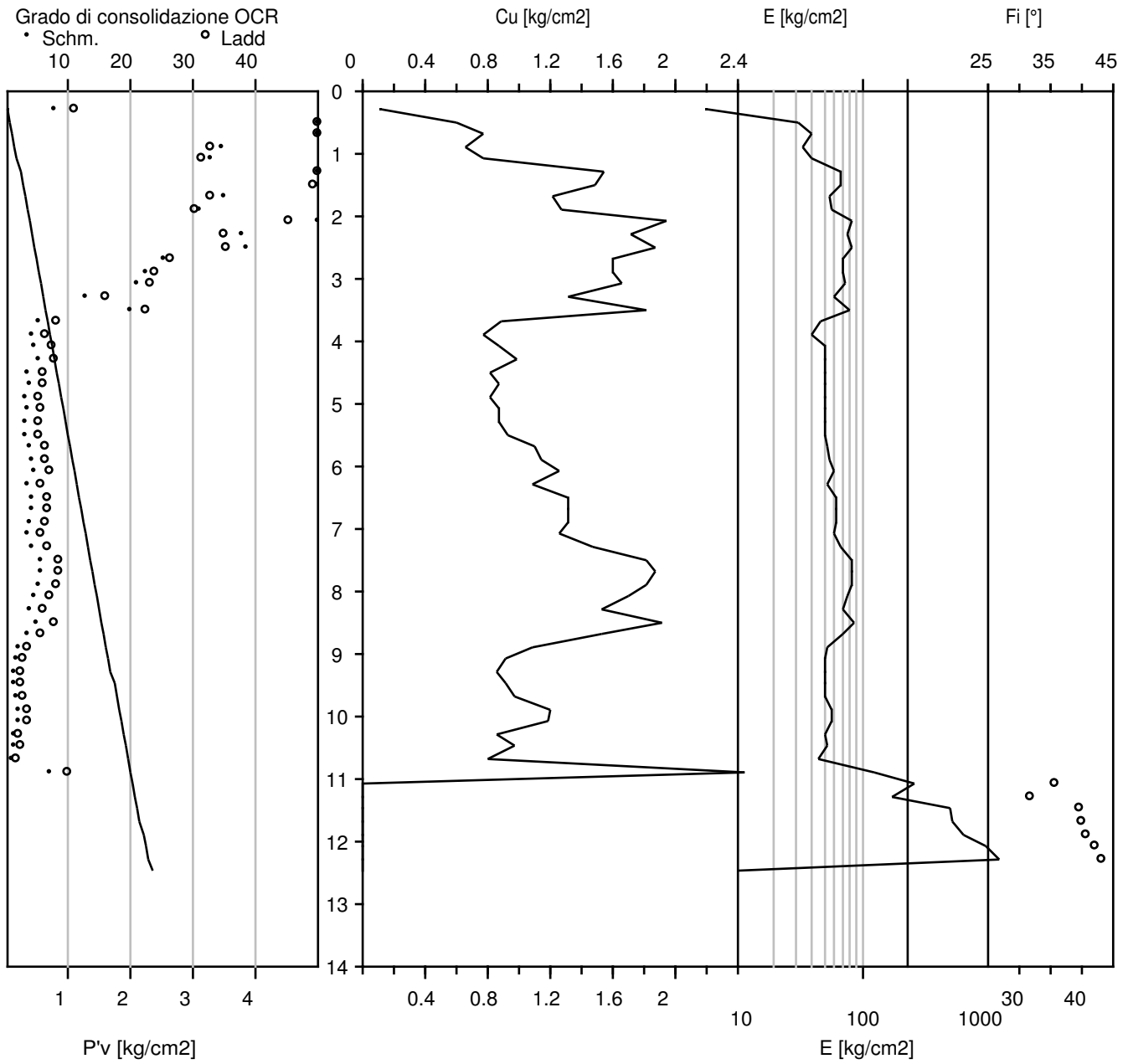
Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



PROVA PENETROMETRICA STATICA - ELABORAZIONE NUMERICA DEI RISULTATI

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 12

Parametri penetrometrici	Parametri geotecnici stimati
Rp = resistenza alla punta [kg/cm2]	g = Peso di volume [t/m3]
Rl = resistenza lat. locale [kg/cm2]	P'v = Press. vert. efficace[kg/cm2]
FR = Rl/Rp x 100 [-]	u = Press. neutra [kg/cm2]
Rt = resistenza totale [kgf]	E = Modulo di deform.[kg/cm2]
	OCR = Grado di sovracons.[-]
Quota p.c.: m	Cu = Coesione non drenata[kg/cm2]
Falda a m dal p.c.	Fi = Angolo di attrito[gradi]
z = prof. max. tratto esplorato dalla base penetr.	Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.1	-	-				-	-	-	-	-	
0.4	2.1	0.3	12.5	-	1.75	0.07	0.00	6	8.2	0.11	0.0	-	ARG. ORG.
0.6	3.1	0.7	23.4	-	1.75	0.11	0.00	9	7.9	0.17	0.0	-	ARG. ORG.
0.8	11.3	0.8	7.1	-	1.78	0.14	0.00	31	45.6	0.62	0.0	-	ARG. ORG.
1.0	16.3	1.5	9.0	-	1.80	0.18	0.00	45	> 50	0.89	0.0	-	ARG. ORG.
1.2	22.3	1.5	6.9	-	1.82	0.21	0.00	55	> 50	1.22	0.0	-	ARG. ORG.
1.4	27.3	1.4	5.1	-	1.84	0.25	0.00	67	> 50	1.50	0.0	-	ARGILLA
1.6	36.3	3.4	9.4	-	1.87	0.29	0.00	86	> 50	2.00	0.0	-	ARG. ORG.
1.8	40.4	3.1	7.6	-	1.89	0.33	0.00	95	> 50	2.23	0.0	-	ARG. ORG.
2.0	49.4	3.6	7.3	-	1.92	0.36	0.00	112	> 50	2.72	0.0	-	ARG. ORG.
2.2	48.4	3.1	6.5	-	1.91	0.40	0.00	110	> 50	2.67	0.0	-	ARGILLA
2.4	44.4	4.0	9.0	-	1.90	0.44	0.00	103	> 50	2.44	0.0	-	ARG. ORG.
2.6	37.4	2.7	7.3	-	1.87	0.48	0.00	89	44.2	2.05	0.0	-	ARG. ORG.
2.8	35.5	2.1	5.8	-	1.87	0.52	0.00	85	35.0	1.94	0.0	-	ARGILLA
3.0	34.5	2.3	6.6	-	1.86	0.55	0.00	83	29.3	1.89	0.0	-	ARGILLA
3.2	35.5	2.3	6.4	-	1.87	0.59	0.00	85	27.4	1.94	0.0	-	ARGILLA
3.4	34.5	2.1	6.0	-	1.86	0.63	0.00	83	23.3	1.88	0.0	-	ARGILLA
3.6	31.5	2.1	6.8	-	1.85	0.66	0.00	76	17.9	1.71	0.0	-	ARG. ORG.
3.8	33.6	2.0	5.9	-	1.86	0.70	0.00	81	18.2	1.83	0.0	-	ARGILLA
4.0	35.6	2.1	5.8	-	1.87	0.74	0.00	85	18.4	1.94	0.0	-	ARGILLA
4.2	38.6	2.5	6.4	-	1.88	0.78	0.00	91	19.4	2.10	0.0	-	ARGILLA
4.4	38.6	2.5	6.6	-	1.88	0.81	0.00	91	17.9	2.10	0.0	-	ARGILLA
4.6	33.6	1.6	4.8	-	1.86	0.85	0.00	81	13.0	1.82	0.0	-	ARGILLA
4.8	30.8	2.1	6.9	-	1.85	0.89	0.00	75	10.4	1.66	0.0	-	ARG. ORG.
5.0	31.8	2.5	7.8	-	1.85	0.93	0.00	77	10.2	1.71	0.0	-	ARG. ORG.
5.2	32.8	2.9	8.9	-	1.86	0.96	0.00	79	10.1	1.77	0.0	-	ARG. ORG.
5.4	39.8	2.0	5.0	-	1.88	1.00	0.00	93	13.1	2.15	0.0	-	ARGILLA
5.6	25.8	1.1	4.1	-	1.83	1.04	0.00	63	6.0	1.37	0.0	-	ARGILLA
5.8	29.9	1.3	4.5	-	1.85	1.07	0.00	73	7.2	1.60	0.0	-	ARGILLA
6.0	36.9	1.5	4.2	-	1.87	1.11	0.00	88	9.7	1.99	0.0	-	ARGILLA
6.2	43.9	1.9	4.3	-	1.90	1.15	0.00	102	12.2	2.38	0.0	-	ARGILLA
6.4	42.9	2.3	5.3	-	1.89	1.19	0.00	100	11.1	2.32	0.0	-	ARGILLA
6.6	41.9	1.9	4.6	-	1.89	1.22	0.00	98	10.1	2.26	0.0	-	ARGILLA
6.8	43.0	1.9	4.3	-	1.89	1.26	0.00	100	10.1	2.32	0.0	-	ARGILLA
7.0	47.0	2.0	4.3	-	1.91	1.30	0.00	108	11.1	2.54	0.0	-	ARGILLA
7.2	42.0	1.4	3.3	-	1.89	1.34	0.00	98	8.8	2.26	0.0	-	ARG.LIM.
7.4	39.0	1.5	3.9	-	1.88	1.38	0.00	92	7.4	2.09	0.0	-	ARG.LIM.
7.6	26.0	0.8	3.1	-	1.83	1.41	0.00	78	-	0.00	28.4	-	LIMO-ARG.S
7.8	27.2	1.2	4.4	-	1.84	1.45	0.00	67	3.9	1.43	0.0	-	ARGILLA
8.0	22.2	0.9	4.2	-	1.82	1.49	0.00	55	2.8	1.15	0.0	-	ARGILLA
8.2	20.2	0.9	4.6	-	1.81	1.52	0.00	51	2.4	1.04	0.0	-	ARGILLA
8.4	16.2	0.7	4.5	-	1.80	1.56	0.00	51	1.7	0.81	0.0	-	ARGILLA
8.6	15.2	0.7	4.8	-	1.79	1.59	0.00	51	1.5	0.75	0.0	-	ARGILLA
8.8	16.3	0.7	4.1	-	1.80	1.63	0.00	51	1.6	0.81	0.0	-	ARGILLA
9.0	15.3	0.5	3.5	-	1.80	1.67	0.00	51	1.5	0.76	0.0	-	ARG.LIM.
9.2	14.3	0.5	3.7	-	1.79	1.70	0.00	50	1.3	0.70	0.0	-	ARG.LIM.
9.4	14.3	0.6	4.2	-	1.79	1.74	0.00	50	1.3	0.70	0.0	-	ARGILLA
9.6	16.3	0.7	4.1	-	1.80	1.77	0.00	51	1.5	0.81	0.0	-	ARGILLA
9.8	16.4	0.7	4.5	-	1.80	1.81	0.00	51	1.5	0.81	0.0	-	ARGILLA

z [m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
10.0	17.4	0.7	4.2	-	1.80	1.85	0.00	51	1.5	0.87	0.0	-	ARGILLA
10.2	16.4	0.7	4.5	-	1.80	1.88	0.00	51	1.4	0.81	0.0	-	ARGILLA
10.4	17.4	1.5	8.4	-	1.80	1.92	0.00	48	1.5	0.86	0.0	-	ARG. ORG.
10.6	33.4	1.6	4.8	-	1.86	1.96	0.00	80	3.4	1.75	0.0	-	ARGILLA
10.8	26.6	1.2	4.5	-	1.84	1.99	0.00	65	2.4	1.36	0.0	-	ARGILLA
11.0	39.6	1.9	4.9	-	1.88	2.03	0.00	93	4.1	2.09	0.0	-	ARGILLA
11.2	45.6	3.1	6.9	-	1.90	2.07	0.00	105	5.0	2.42	0.0	-	ARG. ORG.
11.4	152.6	2.1	1.4	-	2.22	2.11	0.00	458	-	0.00	39.2	1076	SABBIA
11.6	206.6	3.0	1.5	-	2.23	2.16	0.00	620	-	0.00	40.8	1295	SABBIA
11.8	121.7	3.9	3.2	-	2.18	2.20	0.00	365	-	0.00	37.4	-	LIMO-ARG.S
12.0	159.7	1.7	1.0	-	2.23	2.24	0.00	479	-	0.00	39.1	1107	SABBIA
12.2	208.7	2.6	1.2	-	2.23	2.29	0.00	626	-	0.00	40.6	1303	SABBIA
12.4	40.7	2.1	5.1	-	1.89	2.33	0.00	95	3.5	2.13	0.0	-	ARGILLA
12.6	40.7	1.5	3.8	-	1.89	2.36	0.00	95	3.4	2.13	0.0	-	ARG.LIM.
12.8	51.8	1.6	3.1	-	1.93	2.40	0.00	155	-	0.00	30.9	-	LIMO-ARG.S
13.0	61.8	2.1	3.3	-	1.96	2.44	0.00	134	6.2	3.30	0.0	-	ARG.LIM.
13.2	55.8	1.5	2.7	-	1.94	2.48	0.00	167	-	0.00	31.6	-	LIMO-ARG.S
13.4	38.8	0.8	2.1	-	1.88	2.52	0.00	116	-	0.00	29.9	-	LIMO SABB.
13.6	62.8	3.0	4.8	-	1.97	2.56	0.00	136	5.9	3.35	0.0	-	ARGILLA
13.8	170.9	2.3	1.4	-	2.23	2.60	0.00	513	-	0.00	38.5	1154	SABBIA
14.0	153.9	2.9	1.9	-	2.29	2.65	0.00	462	-	0.00	37.7	-	SABBIA LIM.
14.2	141.9	2.7	1.9	-	2.25	2.69	0.00	426	-	0.00	37.1	-	LIMO SABB.
14.4	157.9	3.9	2.5	-	2.30	2.74	0.00	474	-	0.00	37.7	-	LIMO-ARG.S
14.6	117.0	2.7	2.3	-	2.16	2.78	0.00	351	-	0.00	35.6	-	LIMO-ARG.S
14.8	134.1	3.5	2.6	-	2.22	2.83	0.00	402	-	0.00	36.4	-	LIMO-ARG.S
15.0	122.1	2.5	2.0	-	2.18	2.87	0.00	366	-	0.00	35.7	-	LIMO SABB.
15.2	197.1	2.1	1.1	-	2.23	2.92	0.00	591	-	0.00	38.7	1258	SABBIA
15.4	271.1	1.7	0.6	-	2.23	2.96	0.00	813	-	0.00	40.6	1529	SABBIA
15.6	390.1	11.3	2.9	-	2.30	3.01	0.00	1170	-	0.00	42.0	-	LIMO-ARG.S
15.8	534.2	-	-	-	2.23	3.05	0.00	1603	-	-	-	-	-

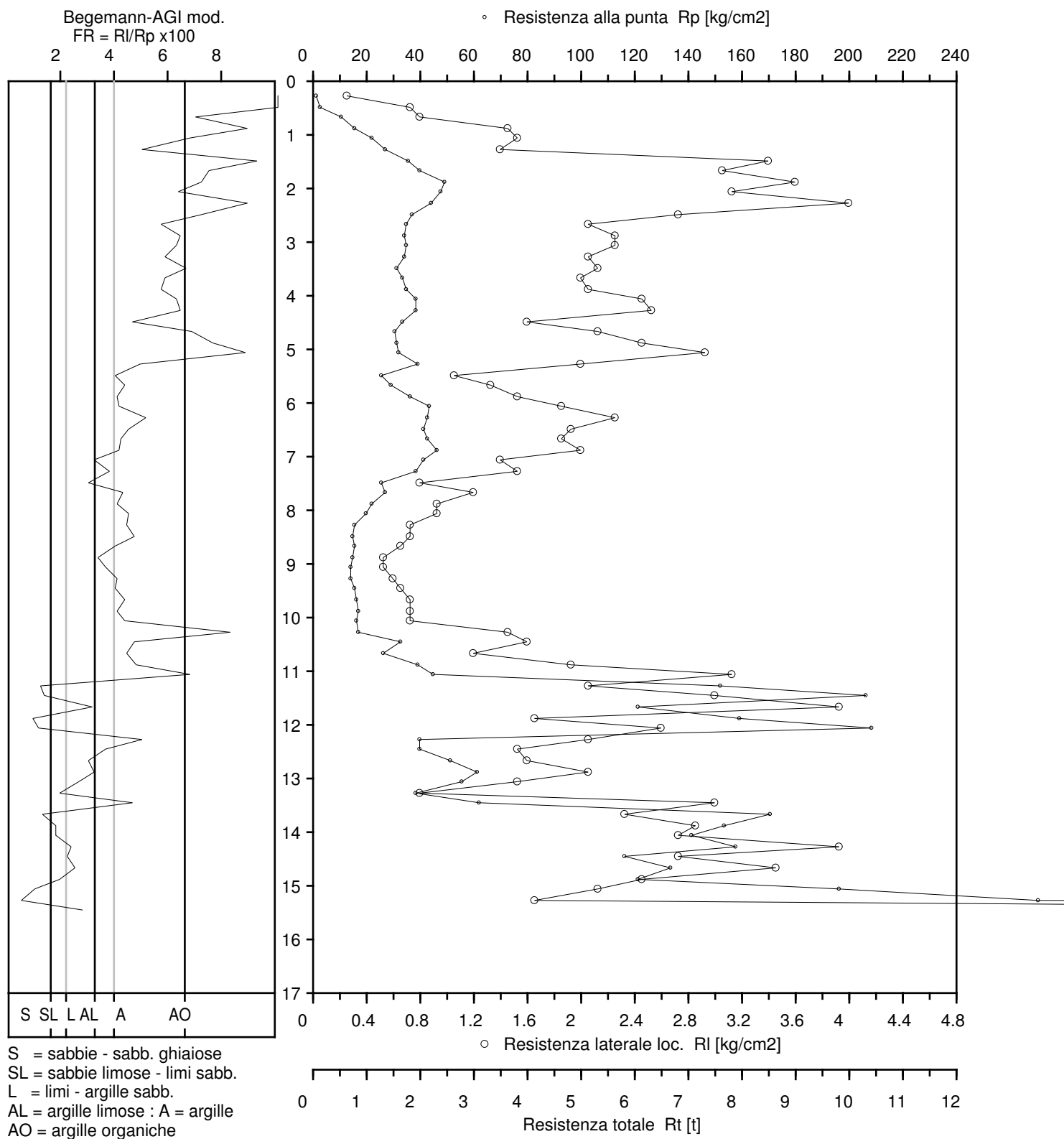
PROVA PENETROMETRICA STATICA n. 12

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S



PROVA PENETROMETRICA STATICA n. 12

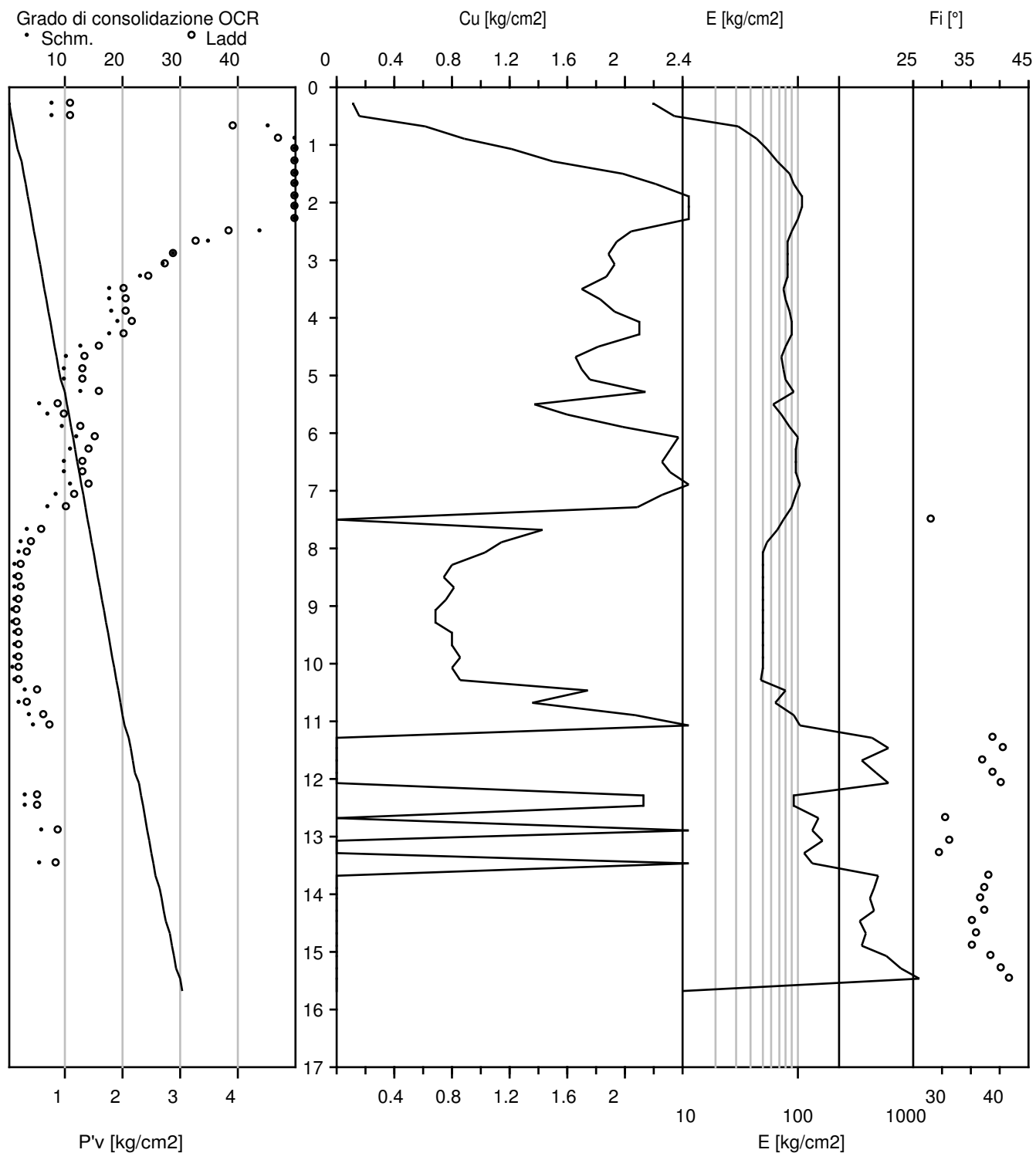
Committente : ASCAA S.p.A.

progr.: CPT-4.0/S

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

Litologia : Begemann ('65) - AGI ('77), modif.



PROVA PENETROMETRICA STATICA - ELABORAZIONE NUMERICA DEI RISULTATI

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 13

Parametri penetrometrici	Parametri geotecnici stimati
Rp = resistenza alla punta [kg/cm2]	g = Peso di volume [t/m3]
Rl = resistenza lat. locale [kg/cm2]	P'v = Press. vert. efficace[kg/cm2]
FR = Rl/Rp x 100 [-]	u = Press. neutra [kg/cm2]
Rt = resistenza totale [kgf]	E = Modulo di deform.[kg/cm2]
	OCR = Grado di sovracons.[-]
Quota p.c.: m	Cu = Coesione non drenata[kg/cm2]
Falda a m dal p.c.	Fi = Angolo di attrito[gradi]
z = prof. max. tratto esplorato dalla base penetr.	Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.1	-	-				-	-	-	-	-	
0.4	2.1	0.5	21.9	-	1.75	0.07	0.00	6	8.2	0.11	0.0	-	ARG. ORG.
0.6	6.1	0.6	9.8	-	1.76	0.11	0.00	17	25.4	0.33	0.0	-	ARG. ORG.
0.8	6.3	0.5	8.5	-	1.76	0.14	0.00	17	15.8	0.34	0.0	-	ARG. ORG.
1.0	8.3	0.9	10.5	-	1.77	0.18	0.00	23	17.4	0.45	0.0	-	ARG. ORG.
1.2	12.3	1.0	8.2	-	1.78	0.21	0.00	34	25.3	0.67	0.0	-	ARG. ORG.
1.4	15.3	1.6	10.5	-	1.79	0.25	0.00	42	28.4	0.83	0.0	-	ARG. ORG.
1.6	39.3	2.7	7.0	-	1.88	0.29	0.00	92	> 50	2.17	0.0	-	ARG. ORG.
1.8	33.4	4.3	12.8	-	1.86	0.32	0.00	80	> 50	1.84	0.0	-	ARG. ORG.
2.0	60.4	4.9	8.1	-	1.96	0.36	0.00	132	> 50	3.33	0.0	-	ARG. ORG.
2.2	39.4	3.9	10.0	-	1.88	0.40	0.00	93	> 50	2.17	0.0	-	ARG. ORG.
2.4	36.4	2.9	7.9	-	1.87	0.44	0.00	86	49.5	2.00	0.0	-	ARG. ORG.
2.6	31.4	2.7	8.5	-	1.85	0.47	0.00	76	32.5	1.72	0.0	-	ARG. ORG.
2.8	38.5	2.6	6.7	-	1.88	0.51	0.00	91	41.1	2.11	0.0	-	ARG. ORG.
3.0	38.5	3.0	7.8	-	1.88	0.55	0.00	91	36.1	2.11	0.0	-	ARG. ORG.
3.2	36.5	2.6	7.1	-	1.87	0.59	0.00	87	29.0	2.00	0.0	-	ARG. ORG.
3.4	44.5	3.1	7.0	-	1.90	0.63	0.00	103	37.2	2.44	0.0	-	ARG. ORG.
3.6	38.5	2.3	5.9	-	1.88	0.66	0.00	91	25.7	2.10	0.0	-	ARGILLA
3.8	18.6	1.5	8.2	-	1.81	0.70	0.00	51	6.7	1.00	0.0	-	ARG. ORG.
4.0	22.6	1.1	5.0	-	1.82	0.74	0.00	56	8.5	1.22	0.0	-	ARGILLA
4.2	31.6	1.7	5.5	-	1.85	0.77	0.00	76	13.8	1.72	0.0	-	ARGILLA
4.4	33.6	1.8	5.3	-	1.86	0.81	0.00	81	14.2	1.82	0.0	-	ARGILLA
4.6	29.6	2.6	8.8	-	1.85	0.85	0.00	72	10.6	1.60	0.0	-	ARG. ORG.
4.8	23.8	1.9	7.8	-	1.83	0.88	0.00	59	6.8	1.27	0.0	-	ARG. ORG.
5.0	30.8	1.5	5.0	-	1.85	0.92	0.00	75	9.8	1.66	0.0	-	ARGILLA
5.2	36.8	1.8	4.9	-	1.87	0.96	0.00	87	12.4	1.99	0.0	-	ARGILLA
5.4	39.8	1.9	4.9	-	1.88	1.00	0.00	93	13.2	2.15	0.0	-	ARGILLA
5.6	38.8	2.3	5.8	-	1.88	1.03	0.00	91	11.9	2.10	0.0	-	ARGILLA
5.8	39.9	1.9	4.8	-	1.88	1.07	0.00	94	11.7	2.16	0.0	-	ARGILLA
6.0	40.9	2.1	5.2	-	1.89	1.11	0.00	96	11.5	2.21	0.0	-	ARGILLA
6.2	38.9	2.1	5.5	-	1.88	1.15	0.00	92	10.0	2.10	0.0	-	ARGILLA
6.4	36.9	2.0	5.4	-	1.87	1.18	0.00	88	8.7	1.98	0.0	-	ARGILLA
6.6	36.9	1.7	4.7	-	1.87	1.22	0.00	88	8.3	1.98	0.0	-	ARGILLA
6.8	42.0	1.9	4.6	-	1.89	1.26	0.00	98	9.7	2.27	0.0	-	ARGILLA
7.0	38.0	2.6	6.8	-	1.88	1.30	0.00	90	7.9	2.04	0.0	-	ARG. ORG.
7.2	43.0	2.2	5.1	-	1.89	1.33	0.00	100	9.2	2.32	0.0	-	ARGILLA
7.4	42.0	1.9	4.6	-	1.89	1.37	0.00	98	8.4	2.26	0.0	-	ARGILLA
7.6	42.0	2.8	6.7	-	1.89	1.41	0.00	98	8.1	2.26	0.0	-	ARGILLA
7.8	47.2	1.3	2.8	-	1.91	1.45	0.00	142	-	0.00	30.7	-	LIMO-ARG.S
8.0	91.2	3.5	3.9	-	2.07	1.49	0.00	177	28.2	4.98	0.0	-	ARG.LIM.
8.2	83.2	4.1	5.0	-	2.04	1.53	0.00	166	22.8	4.54	0.0	-	ARGILLA
8.4	46.2	3.1	6.8	-	1.91	1.57	0.00	106	7.9	2.48	0.0	-	ARG. ORG.
8.6	48.2	2.7	5.7	-	1.91	1.61	0.00	110	8.1	2.59	0.0	-	ARGILLA
8.8	49.3	2.7	5.5	-	1.92	1.64	0.00	112	8.1	2.65	0.0	-	ARGILLA
9.0	43.3	1.9	4.5	-	1.90	1.68	0.00	100	6.3	2.31	0.0	-	ARGILLA
9.2	67.3	3.4	5.1	-	1.98	1.72	0.00	143	12.7	3.64	0.0	-	ARGILLA
9.4	59.3	2.7	4.6	-	1.95	1.76	0.00	130	9.9	3.20	0.0	-	ARGILLA
9.6	55.3	2.8	5.1	-	1.94	1.80	0.00	123	8.5	2.97	0.0	-	ARGILLA
9.8	53.4	2.3	4.4	-	1.93	1.84	0.00	120	7.7	2.87	0.0	-	ARGILLA

z [m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
10.0	49.4	2.4	4.9	-	1.92	1.88	0.00	112	6.6	2.64	0.0	-	ARGILLA
10.2	52.4	2.6	5.0	-	1.93	1.92	0.00	118	7.0	2.81	0.0	-	ARGILLA
10.4	38.4	2.5	6.4	-	1.88	1.95	0.00	91	4.2	2.03	0.0	-	ARGILLA
10.6	48.4	2.4	5.0	-	1.91	1.99	0.00	110	5.8	2.58	0.0	-	ARGILLA
10.8	38.6	1.7	4.3	-	1.88	2.03	0.00	91	4.0	2.03	0.0	-	ARGILLA
11.0	42.6	2.1	5.0	-	1.89	2.07	0.00	99	4.5	2.25	0.0	-	ARGILLA
11.2	39.6	1.9	4.9	-	1.88	2.10	0.00	93	3.9	2.08	0.0	-	ARGILLA
11.4	37.6	1.9	5.1	-	1.88	2.14	0.00	89	3.5	1.97	0.0	-	ARGILLA
11.6	35.6	1.9	5.2	-	1.87	2.18	0.00	85	3.2	1.85	0.0	-	ARGILLA
11.8	37.7	1.7	4.6	-	1.88	2.22	0.00	89	3.4	1.97	0.0	-	ARGILLA
12.0	31.7	2.2	6.9	-	1.85	2.25	0.00	76	2.6	1.64	0.0	-	ARG. ORG.
12.2	35.7	1.9	5.2	-	1.87	2.29	0.00	85	3.0	1.86	0.0	-	ARGILLA
12.4	30.7	1.9	6.3	-	1.85	2.33	0.00	74	2.3	1.58	0.0	-	ARGILLA
12.6	36.7	1.3	3.5	-	1.87	2.37	0.00	87	2.9	1.91	0.0	-	ARG.LIM.
12.8	28.8	1.4	4.9	-	1.84	2.40	0.00	70	2.1	1.47	0.0	-	ARGILLA
13.0	28.8	1.2	4.2	-	1.84	2.44	0.00	70	2.0	1.47	0.0	-	ARGILLA
13.2	30.8	1.4	4.5	-	1.85	2.48	0.00	75	2.2	1.57	0.0	-	ARGILLA
13.4	35.8	1.6	4.5	-	1.87	2.51	0.00	85	2.6	1.85	0.0	-	ARGILLA
13.6	37.8	1.9	4.9	-	1.88	2.55	0.00	89	2.8	1.96	0.0	-	ARGILLA
13.8	35.0	1.9	5.3	-	1.87	2.59	0.00	83	2.4	1.80	0.0	-	ARGILLA
14.0	39.0	2.1	5.3	-	1.88	2.63	0.00	92	2.8	2.02	0.0	-	ARGILLA
14.2	40.0	2.2	5.5	-	1.88	2.66	0.00	94	2.8	2.07	0.0	-	ARGILLA
14.4	41.0	2.3	5.7	-	1.89	2.70	0.00	96	2.8	2.12	0.0	-	ARGILLA
14.6	41.0	2.5	6.2	-	1.89	2.74	0.00	96	2.8	2.12	0.0	-	ARGILLA
14.8	58.1	1.8	3.1	-	1.95	2.78	0.00	174	-	0.00	31.4	-	LIMO-ARG.S
15.0	88.1	3.2	3.6	-	2.06	2.82	0.00	173	8.7	4.74	0.0	-	ARG.LIM.
15.2	139.1	3.1	2.2	-	2.24	2.86	0.00	417	-	0.00	36.5	-	LIMO-ARG.S
15.4	222.1	1.6	0.7	-	2.23	2.91	0.00	666	-	0.00	39.5	1354	SABBIA
15.6	379.1	7.5	2.0	-	2.30	2.96	0.00	1137	-	0.00	41.9	-	LIMO SABB.
15.8	590.2	-	-	-	2.23	3.00	0.00	1771	-	-	-	-	-

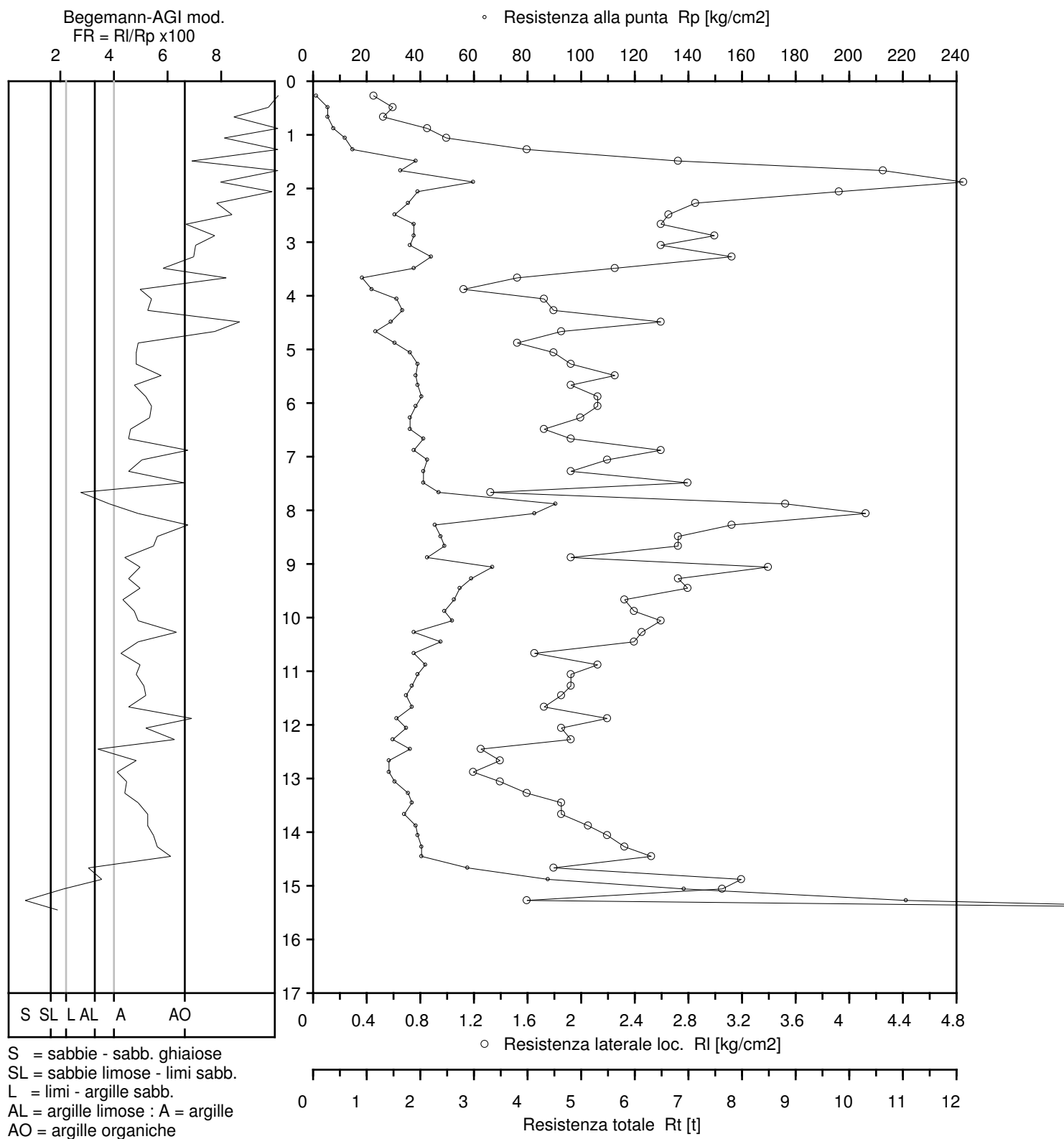
PROVA PENETROMETRICA STATICA n. 13

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S



PROVA PENETROMETRICA STATICA n. 13

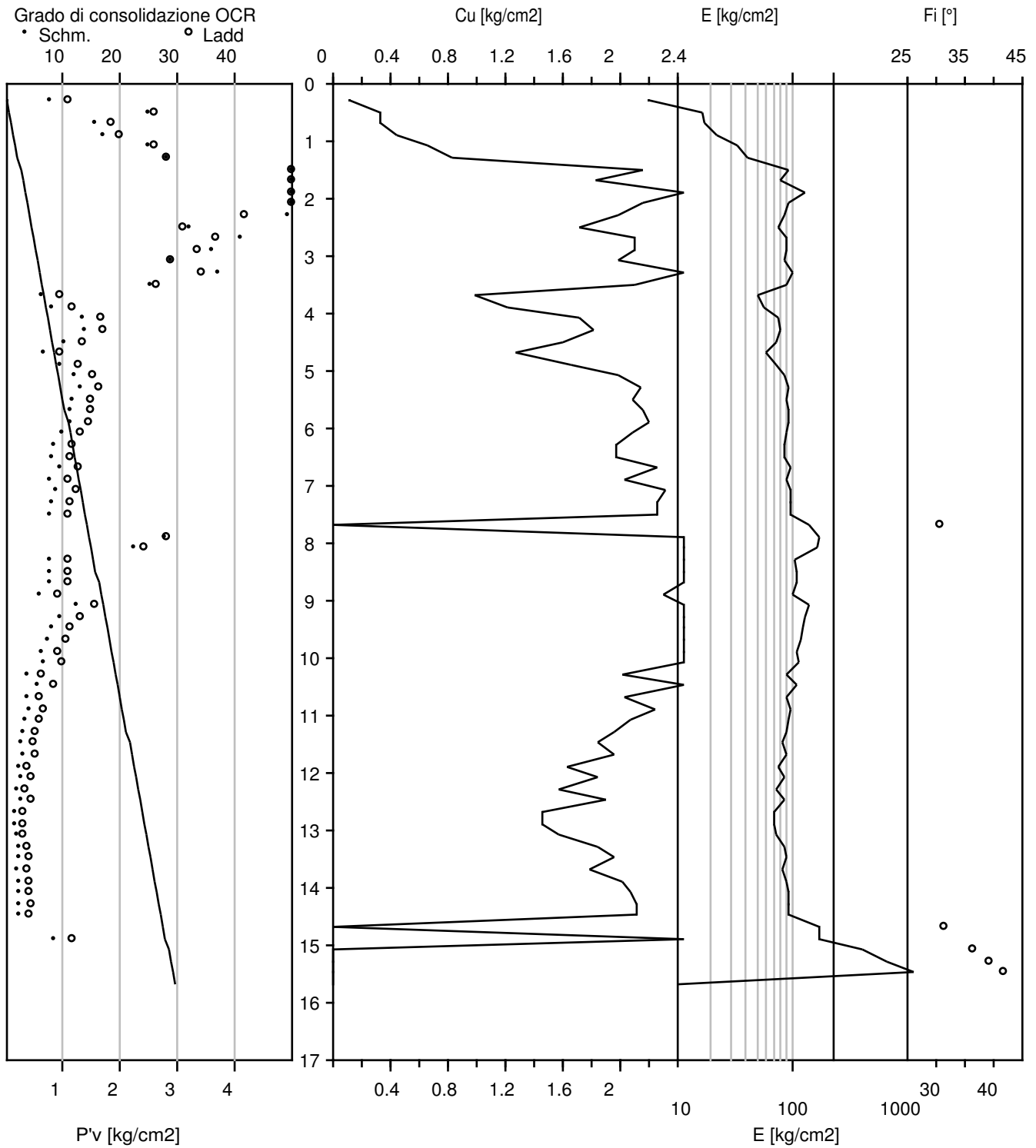
Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



PROVA PENETROMETRICA STATICA - ELABORAZIONE NUMERICA DEI RISULTATI

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 4

Parametri penetrometrici	Parametri geotecnici stimati
Rp = resistenza alla punta [kg/cm2]	g = Peso di volume [t/m3]
Rl = resistenza lat. locale [kg/cm2]	P'v = Press. vert. efficace[kg/cm2]
FR = Rl/Rp x 100 [-]	u = Press. neutra [kg/cm2]
Rt = resistenza totale [kgf]	E = Modulo di deform.[kg/cm2]
	OCR = Grado di sovracons.[-]
Quota p.c.: m	Cu = Coesione non drenata[kg/cm2]
Falda a m dal p.c.	Fi = Angolo di attrito[gradi]
z = prof. max. tratto esplorato dalla base penetr.	Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.1	-	-				-	-	-	-	-	
0.4	2.1	0.6	28.2	-	1.75	0.07	0.00	6	8.2	0.11	0.0	-	ARG. ORG.
0.6	10.1	1.0	9.9	-	1.78	0.11	0.00	28	> 50	0.56	0.0	-	ARG. ORG.
0.8	8.3	1.3	15.3	-	1.77	0.14	0.00	23	25.7	0.45	0.0	-	ARG. ORG.
1.0	6.3	1.1	17.0	-	1.76	0.18	0.00	17	10.7	0.34	0.0	-	ARG. ORG.
1.2	7.3	0.9	12.9	-	1.77	0.21	0.00	20	10.1	0.39	0.0	-	ARG. ORG.
1.4	12.3	1.0	8.2	-	1.78	0.25	0.00	34	19.2	0.67	0.0	-	ARG. ORG.
1.6	22.3	1.3	6.0	-	1.82	0.28	0.00	55	44.2	1.22	0.0	-	ARGILLA
1.8	25.4	1.8	7.1	-	1.83	0.32	0.00	63	45.1	1.39	0.0	-	ARG. ORG.
2.0	24.4	1.8	7.4	-	1.83	0.36	0.00	60	34.3	1.34	0.0	-	ARG. ORG.
2.2	26.4	1.5	5.8	-	1.84	0.39	0.00	65	33.2	1.44	0.0	-	ARGILLA
2.4	25.4	1.7	6.8	-	1.83	0.43	0.00	63	26.3	1.39	0.0	-	ARG. ORG.
2.6	24.4	1.7	7.1	-	1.83	0.47	0.00	60	21.1	1.33	0.0	-	ARG. ORG.
2.8	23.5	1.6	6.8	-	1.82	0.50	0.00	58	17.3	1.28	0.0	-	ARG. ORG.
3.0	21.5	1.5	6.8	-	1.82	0.54	0.00	54	13.2	1.17	0.0	-	ARG. ORG.
3.2	23.5	1.3	5.7	-	1.82	0.58	0.00	58	13.7	1.27	0.0	-	ARGILLA
3.4	24.5	1.5	6.0	-	1.83	0.61	0.00	61	13.2	1.33	0.0	-	ARGILLA
3.6	23.5	1.6	6.8	-	1.82	0.65	0.00	58	11.2	1.27	0.0	-	ARG. ORG.
3.8	19.6	1.4	7.1	-	1.81	0.69	0.00	54	7.5	1.05	0.0	-	ARG. ORG.
4.0	18.6	0.7	3.9	-	1.81	0.72	0.00	51	6.4	1.00	0.0	-	ARG.LIM.
4.2	31.6	1.2	3.8	-	1.85	0.76	0.00	76	14.2	1.72	0.0	-	ARG.LIM.
4.4	27.6	1.5	5.3	-	1.84	0.80	0.00	68	10.4	1.49	0.0	-	ARGILLA
4.6	28.6	1.5	5.4	-	1.84	0.83	0.00	70	10.2	1.55	0.0	-	ARGILLA
4.8	26.8	0.3	1.0	-	1.77	0.87	0.00	80	-	0.00	33.8	372	SABBIA
5.0	32.8	1.7	5.1	-	1.86	0.91	0.00	79	11.2	1.77	0.0	-	ARGILLA
5.2	35.8	1.5	4.1	-	1.87	0.94	0.00	85	12.1	1.94	0.0	-	ARGILLA
5.4	36.8	1.5	4.0	-	1.87	0.98	0.00	87	11.9	1.99	0.0	-	ARG.LIM.
5.6	34.8	1.2	3.5	-	1.87	1.02	0.00	83	10.1	1.88	0.0	-	ARG.LIM.
5.8	25.9	1.1	4.1	-	1.83	1.05	0.00	64	5.9	1.38	0.0	-	ARGILLA
6.0	17.9	1.0	5.6	-	1.80	1.09	0.00	51	3.2	0.93	0.0	-	ARGILLA
6.2	21.9	0.6	2.7	-	1.82	1.13	0.00	66	-	0.00	28.3	-	LIMO-ARG.S
6.4	13.9	0.6	4.3	-	1.79	1.16	0.00	50	2.1	0.71	0.0	-	ARGILLA
6.6	25.9	1.1	4.1	-	1.83	1.20	0.00	64	4.8	1.37	0.0	-	ARGILLA
6.8	21.0	5.4	25.7	-	1.82	1.24	0.00	53	3.4	1.10	0.0	-	ARG. ORG.
7.0	66.0	1.7	2.6	-	1.98	1.28	0.00	198	-	0.00	32.9	-	LIMO-ARG.S
7.2	138.0	3.5	2.5	-	2.24	1.32	0.00	414	-	0.00	40.2	-	LIMO-ARG.S
7.4	321.0	5.1	1.6	-	2.23	1.36	0.00	963	-	0.00	44.4	1696	SABBIA
7.6	437.0	7.9	1.8	-	2.30	1.41	0.00	1311	-	0.00	45.6	-	SABBIA LIM.
7.8	683.2	6.7	1.0	-	2.23	1.46	0.00	2050	-	0.00	47.4	2690	SABBIA

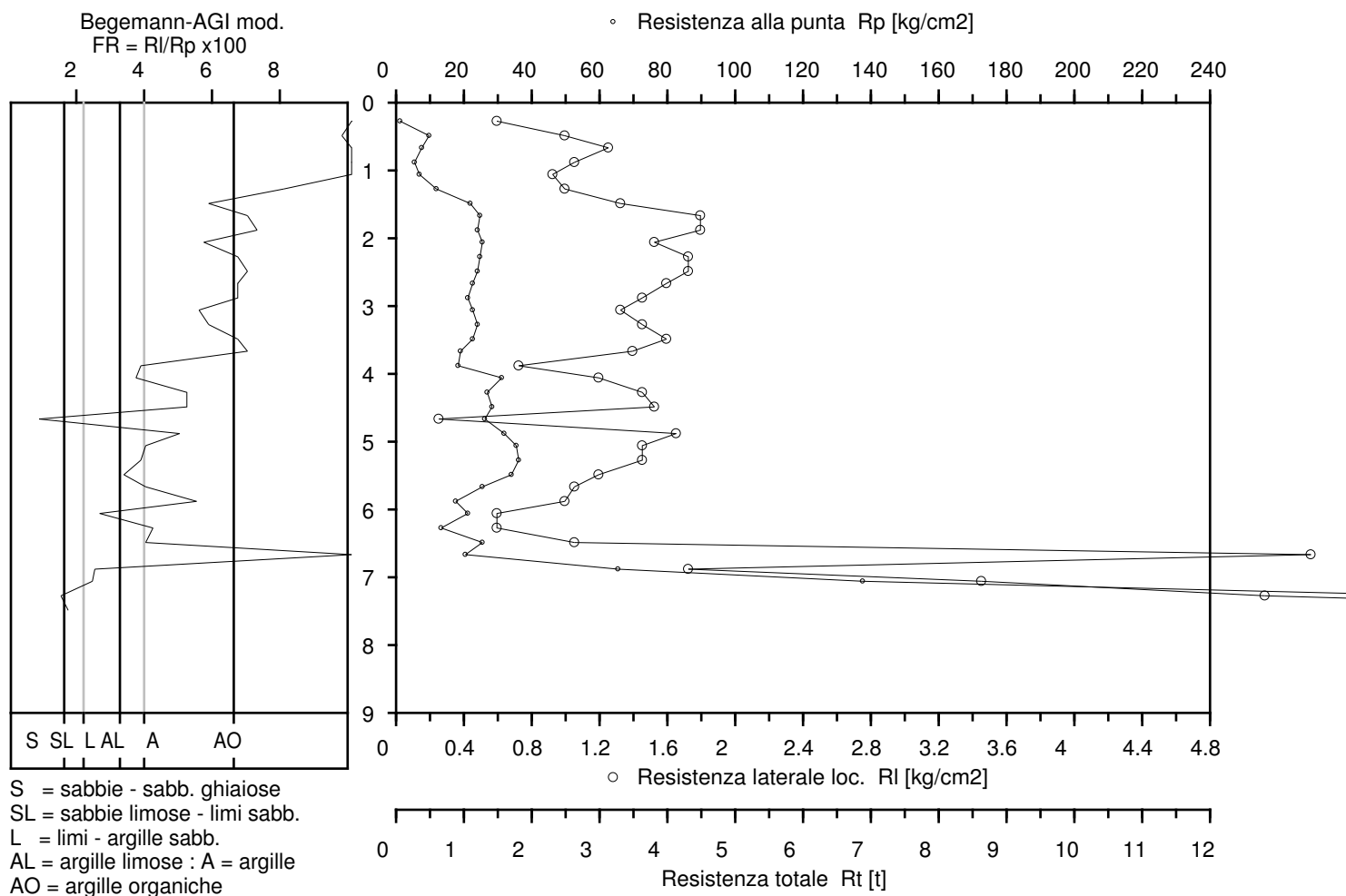
PROVA PENETROMETRICA STATICA n. 4

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S



PROVA PENETROMETRICA STATICA n. 4

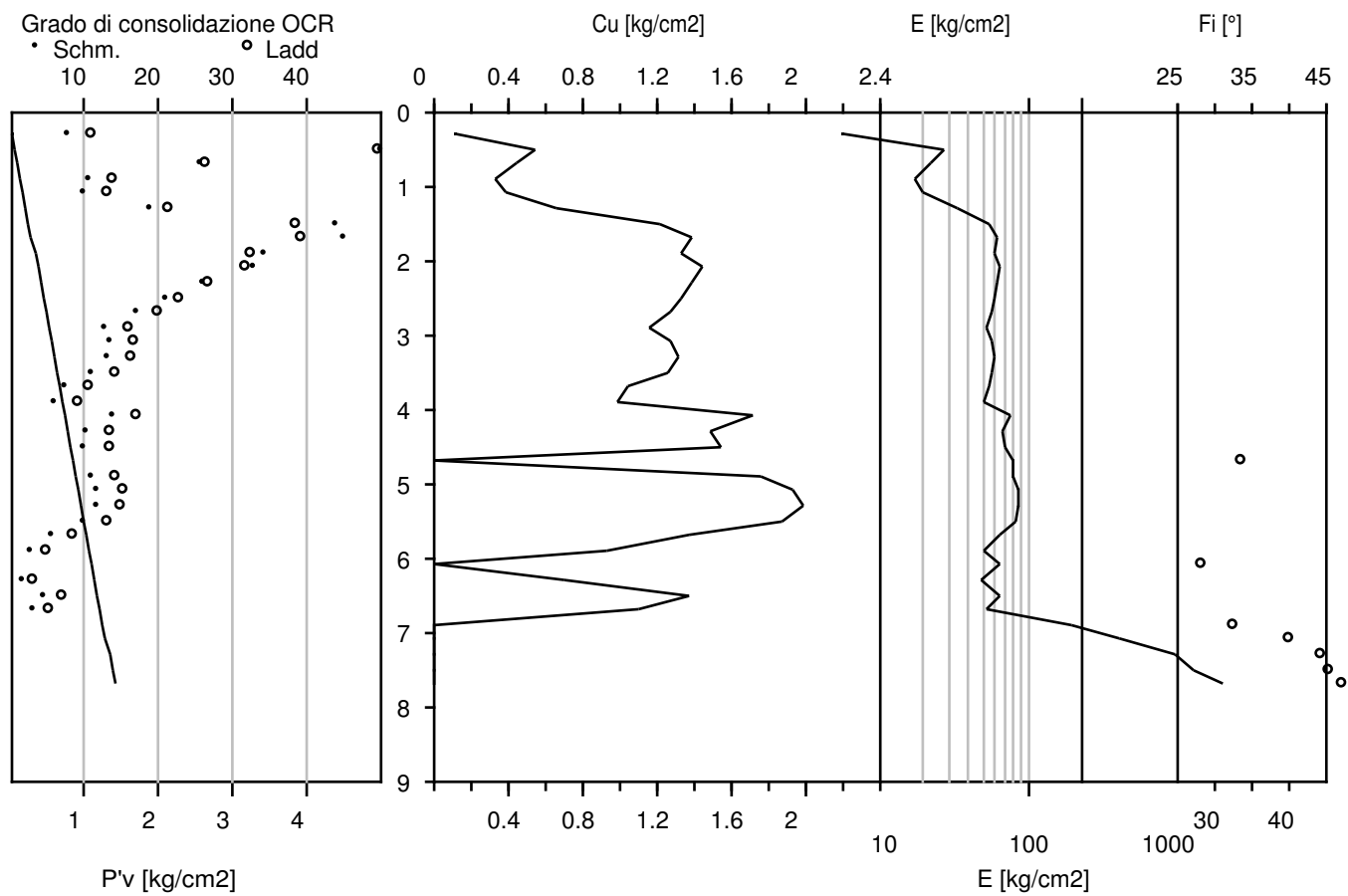
Committente : ASCAA S.p.A.

progr.: CPT-4.0/S

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

Litologia : Begemann ('65) - AGI ('77), modif.



PROVA PENETROMETRICA STATICA - ELABORAZIONE NUMERICA DEI RISULTATI

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 5

Parametri penetrometrici	Parametri geotecnici stimati
Rp = resistenza alla punta [kg/cm2]	g = Peso di volume [t/m3]
Rl = resistenza lat. locale [kg/cm2]	P'v = Press. vert. efficace[kg/cm2]
FR = Rl/Rp x 100 [-]	u = Press. neutra [kg/cm2]
Rt = resistenza totale [kgf]	E = Modulo di deform.[kg/cm2]
	OCR = Grado di sovracons.[-]
Quota p.c.: m	Cu = Coesione non drenata[kg/cm2]
Falda a m dal p.c.	Fi = Angolo di attrito[gradi]
z = prof. max. tratto esplorato dalla base penetr.	Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.1	-	-				-	-	-	-	-	
0.4	2.1	0.2	9.4	-	1.75	0.07	0.00	6	8.2	0.11	0.0	-	ARG. ORG.
0.6	3.1	0.5	17.0	-	1.75	0.11	0.00	9	7.9	0.17	0.0	-	ARG. ORG.
0.8	6.3	0.8	12.8	-	1.76	0.14	0.00	17	15.8	0.34	0.0	-	ARG. ORG.
1.0	9.3	1.1	12.2	-	1.77	0.18	0.00	25	21.3	0.50	0.0	-	ARG. ORG.
1.2	15.3	1.1	7.4	-	1.79	0.21	0.00	42	37.7	0.84	0.0	-	ARG. ORG.
1.4	18.3	1.3	6.9	-	1.81	0.25	0.00	50	39.3	1.00	0.0	-	ARG. ORG.
1.6	20.3	1.1	5.6	-	1.81	0.28	0.00	51	37.1	1.11	0.0	-	ARGILLA
1.8	19.4	1.0	5.2	-	1.81	0.32	0.00	51	27.5	1.06	0.0	-	ARGILLA
2.0	21.4	1.5	7.2	-	1.82	0.36	0.00	53	27.1	1.17	0.0	-	ARG. ORG.
2.2	19.4	1.2	6.2	-	1.81	0.39	0.00	51	19.1	1.06	0.0	-	ARGILLA
2.4	17.4	1.0	5.8	-	1.80	0.43	0.00	51	13.5	0.94	0.0	-	ARGILLA
2.6	17.4	0.9	5.4	-	1.80	0.47	0.00	51	11.8	0.94	0.0	-	ARGILLA
2.8	17.5	1.0	5.7	-	1.80	0.50	0.00	51	10.5	0.95	0.0	-	ARGILLA
3.0	14.5	0.7	4.6	-	1.79	0.54	0.00	50	6.9	0.78	0.0	-	ARGILLA
3.2	15.5	0.7	4.3	-	1.80	0.57	0.00	51	6.9	0.83	0.0	-	ARGILLA
3.4	14.5	0.6	4.1	-	1.79	0.61	0.00	50	5.6	0.77	0.0	-	ARGILLA
3.6	12.5	0.6	4.8	-	1.79	0.65	0.00	48	4.1	0.66	0.0	-	ARGILLA
3.8	16.6	0.7	4.0	-	1.80	0.68	0.00	51	5.8	0.89	0.0	-	ARGILLA
4.0	17.6	0.9	4.9	-	1.80	0.72	0.00	51	5.9	0.94	0.0	-	ARGILLA
4.2	19.6	0.9	4.7	-	1.81	0.75	0.00	50	6.5	1.05	0.0	-	ARGILLA
4.4	20.6	1.0	4.8	-	1.81	0.79	0.00	52	6.5	1.10	0.0	-	ARGILLA
4.6	20.6	1.0	4.8	-	1.81	0.83	0.00	52	6.1	1.10	0.0	-	ARGILLA
4.8	23.8	1.2	5.0	-	1.83	0.86	0.00	59	7.1	1.27	0.0	-	ARGILLA
5.0	27.8	1.5	5.3	-	1.84	0.90	0.00	68	8.6	1.49	0.0	-	ARGILLA
5.2	28.8	1.5	5.1	-	1.84	0.94	0.00	70	8.5	1.55	0.0	-	ARGILLA
5.4	27.8	1.3	4.6	-	1.84	0.97	0.00	68	7.5	1.49	0.0	-	ARGILLA
5.6	24.8	1.3	5.1	-	1.83	1.01	0.00	61	5.9	1.32	0.0	-	ARGILLA
5.8	21.9	1.1	4.9	-	1.82	1.05	0.00	55	4.6	1.16	0.0	-	ARGILLA
6.0	24.9	1.1	4.3	-	1.83	1.08	0.00	61	5.3	1.32	0.0	-	ARGILLA
6.2	21.9	0.9	4.3	-	1.82	1.12	0.00	55	4.1	1.16	0.0	-	ARGILLA
6.4	14.9	0.7	4.9	-	1.79	1.15	0.00	51	2.3	0.76	0.0	-	ARGILLA
6.6	14.9	0.9	6.3	-	1.79	1.19	0.00	51	2.2	0.76	0.0	-	ARGILLA
6.8	25.0	0.9	3.5	-	1.83	1.23	0.00	62	4.4	1.32	0.0	-	ARG. LIM.
7.0	26.0	1.1	4.1	-	1.83	1.26	0.00	64	4.5	1.38	0.0	-	ARGILLA
7.2	20.0	0.9	4.7	-	1.81	1.30	0.00	50	2.9	1.04	0.0	-	ARGILLA
7.4	13.0	0.8	6.1	-	1.79	1.34	0.00	48	1.6	0.65	0.0	-	ARGILLA
7.6	50.0	3.4	6.8	-	1.92	1.37	0.00	113	11.3	2.70	0.0	-	ARG. ORG.
7.8	108.2	1.3	1.2	-	2.06	1.42	0.00	325	-	0.00	39.6	872	SABBIA
8.0	201.2	2.7	1.4	-	2.23	1.46	0.00	604	-	0.00	42.2	1274	SABBIA
8.2	317.2	1.6	0.5	-	2.23	1.50	0.00	952	-	0.00	44.0	1683	SABBIA
8.4	433.2	4.7	1.1	-	2.23	1.55	0.00	1300	-	0.00	45.2	2036	SABBIA
8.6	515.2	6.0	1.2	-	2.23	1.59	0.00	1546	-	0.00	45.8	2264	SABBIA
8.8	612.3	-	-	-	2.23	1.64	0.00	1837	-	-	-	-	-

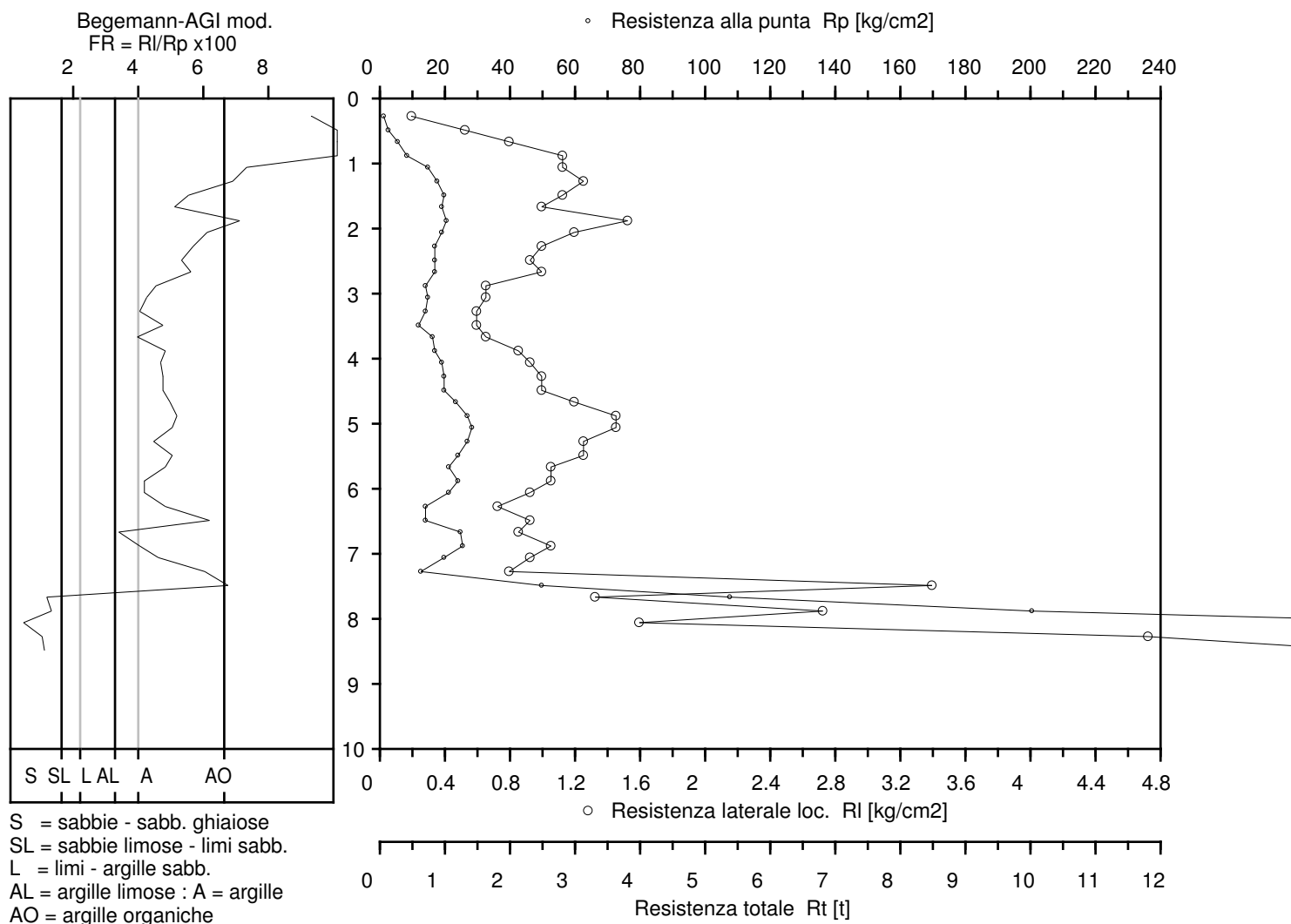
PROVA PENETROMETRICA STATICA n. 5

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S



PROVA PENETROMETRICA STATICA n. 5

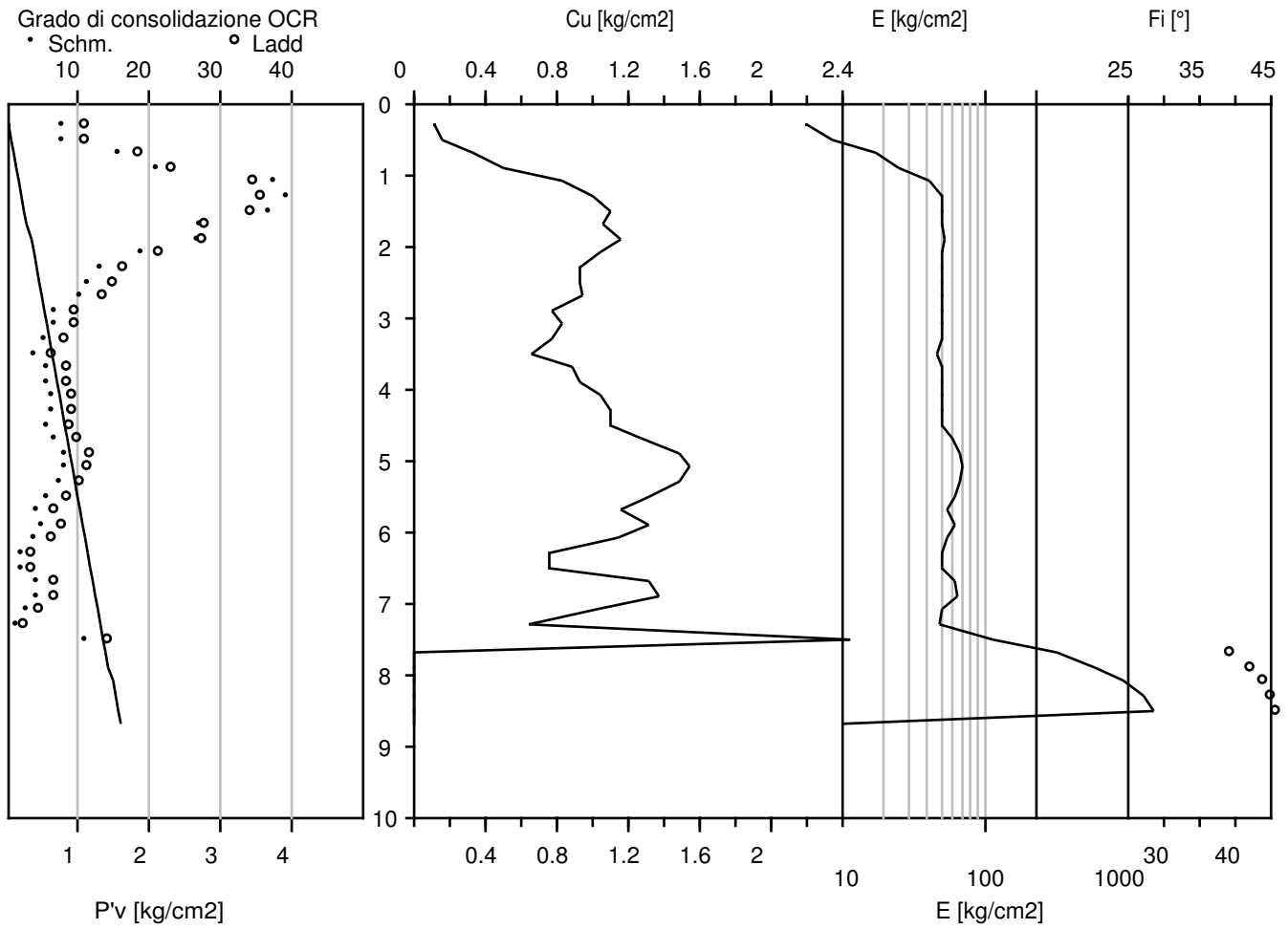
Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Data : 16.11.2004

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



PROVA PENETROMETRICA STATICA - ELABORAZIONE NUMERICA DEI RISULTATI

Committente : ASCAA S.p.A.

Localita' : Castelguelfo (PR) - Nuova condotta fognaria

Impresa esecutrice : Soil System s.n.c.

Data : 16.11.2004

progr.: CPT-4.0/S

PROVA CPT n. : 7

Parametri penetrometrici	Parametri geotecnici stimati
Rp = resistenza alla punta [kg/cm2]	g = Peso di volume [t/m3]
Rl = resistenza lat. locale [kg/cm2]	P'v = Press. vert. efficace[kg/cm2]
FR = Rl/Rp x 100 [-]	u = Press. neutra [kg/cm2]
Rt = resistenza totale [kgf]	E = Modulo di deform.[kg/cm2]
	OCR = Grado di sovracons.[-]
Quota p.c.: m	Cu = Coesione non drenata[kg/cm2]
Falda a m dal p.c.	Fi = Angolo di attrito[gradi]
z = prof. max. tratto esplorato dalla base penetr.	Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
1.6	-	0.9	-	-				-	-	-	-	-	
1.8	8.4	0.7	8.7	-	1.77	0.32	0.00	23	6.4	0.45	0.0	-	ARG. ORG.
2.0	8.4	0.9	11.1	-	1.77	0.36	0.00	23	5.4	0.45	0.0	-	ARG. ORG.
2.2	10.4	0.9	8.3	-	1.78	0.39	0.00	29	6.6	0.56	0.0	-	ARG. ORG.
2.4	16.4	0.9	5.3	-	1.80	0.43	0.00	51	12.2	0.89	0.0	-	ARGILLA
2.6	19.4	1.2	6.2	-	1.81	0.47	0.00	51	14.2	1.05	0.0	-	ARGILLA
2.8	19.5	1.3	6.5	-	1.81	0.50	0.00	50	12.6	1.06	0.0	-	ARGILLA
3.0	19.5	1.3	6.5	-	1.81	0.54	0.00	50	11.2	1.05	0.0	-	ARGILLA
3.2	20.5	1.3	6.5	-	1.81	0.58	0.00	51	10.9	1.11	0.0	-	ARGILLA
3.4	21.5	1.3	6.2	-	1.82	0.61	0.00	54	10.6	1.16	0.0	-	ARGILLA
3.6	21.5	1.5	6.8	-	1.82	0.65	0.00	54	9.7	1.16	0.0	-	ARG. ORG.
3.8	23.6	1.5	6.2	-	1.83	0.68	0.00	59	10.3	1.28	0.0	-	ARGILLA
4.0	30.6	1.3	4.1	-	1.85	0.72	0.00	74	14.7	1.66	0.0	-	ARGILLA
4.2	31.6	1.5	4.6	-	1.85	0.76	0.00	76	14.3	1.72	0.0	-	ARGILLA
4.4	25.6	1.5	6.0	-	1.83	0.80	0.00	63	9.2	1.38	0.0	-	ARGILLA
4.6	26.6	1.4	5.3	-	1.84	0.83	0.00	65	9.1	1.43	0.0	-	ARGILLA
4.8	28.8	1.7	5.8	-	1.84	0.87	0.00	70	9.6	1.55	0.0	-	ARGILLA
5.0	28.8	1.6	5.6	-	1.84	0.91	0.00	70	9.0	1.55	0.0	-	ARGILLA
5.2	32.8	1.8	5.5	-	1.86	0.94	0.00	79	10.4	1.77	0.0	-	ARGILLA
5.4	30.8	2.2	7.1	-	1.85	0.98	0.00	75	8.8	1.66	0.0	-	ARG. ORG.
5.6	36.8	2.1	5.8	-	1.87	1.02	0.00	87	11.1	1.99	0.0	-	ARGILLA
5.8	34.9	2.3	6.7	-	1.87	1.05	0.00	83	9.6	1.88	0.0	-	ARG. ORG.
6.0	36.9	1.8	4.9	-	1.87	1.09	0.00	88	9.9	1.99	0.0	-	ARGILLA
6.2	34.9	1.8	5.2	-	1.87	1.13	0.00	83	8.6	1.88	0.0	-	ARGILLA
6.4	31.9	1.5	4.6	-	1.85	1.17	0.00	77	7.0	1.71	0.0	-	ARGILLA
6.6	26.9	1.5	5.5	-	1.84	1.20	0.00	66	5.1	1.43	0.0	-	ARGILLA
6.8	21.0	1.0	4.8	-	1.82	1.24	0.00	53	3.3	1.10	0.0	-	ARGILLA
7.0	19.0	1.0	5.3	-	1.81	1.28	0.00	51	2.8	0.99	0.0	-	ARGILLA
7.2	28.0	1.1	3.8	-	1.84	1.31	0.00	68	4.7	1.48	0.0	-	ARG.LIM.
7.4	18.0	0.9	5.2	-	1.80	1.35	0.00	51	2.4	0.93	0.0	-	ARGILLA
7.6	17.0	0.8	4.7	-	1.80	1.38	0.00	51	2.1	0.87	0.0	-	ARGILLA
7.8	18.2	0.8	4.4	-	1.81	1.42	0.00	51	2.3	0.93	0.0	-	ARGILLA
8.0	21.2	0.8	3.8	-	1.82	1.46	0.00	53	2.7	1.10	0.0	-	ARG.LIM.
8.2	22.2	1.3	5.7	-	1.82	1.49	0.00	55	2.8	1.15	0.0	-	ARGILLA
8.4	22.2	1.0	4.5	-	1.82	1.53	0.00	55	2.7	1.15	0.0	-	ARGILLA
8.6	21.2	1.3	6.0	-	1.82	1.57	0.00	53	2.4	1.09	0.0	-	ARGILLA
8.8	22.3	1.0	4.5	-	1.82	1.60	0.00	55	2.5	1.15	0.0	-	ARGILLA
9.0	29.3	1.6	5.5	-	1.85	1.64	0.00	71	3.6	1.54	0.0	-	ARGILLA
9.2	26.3	1.2	4.6	-	1.83	1.68	0.00	65	3.0	1.37	0.0	-	ARGILLA
9.4	20.3	1.1	5.3	-	1.81	1.71	0.00	51	2.0	1.03	0.0	-	ARGILLA
9.6	16.3	0.7	4.5	-	1.80	1.75	0.00	51	1.5	0.81	0.0	-	ARGILLA
9.8	17.4	0.8	4.6	-	1.80	1.78	0.00	51	1.6	0.87	0.0	-	ARGILLA
10.0	18.4	0.8	4.3	-	1.81	1.82	0.00	51	1.7	0.92	0.0	-	ARGILLA
10.2	18.4	0.7	4.0	-	1.81	1.86	0.00	51	1.6	0.92	0.0	-	ARG.LIM.
10.4	20.4	1.1	5.5	-	1.81	1.89	0.00	51	1.8	1.03	0.0	-	ARGILLA
10.6	23.4	0.6	2.6	-	1.82	1.93	0.00	70	-	0.00	28.6	-	LIMO-ARG.S
10.8	45.6	3.9	8.6	-	1.90	1.97	0.00	105	5.4	2.42	0.0	-	ARG. ORG.
11.0	108.6	2.5	2.3	-	2.13	2.01	0.00	326	-	0.00	37.2	-	LIMO-ARG.S
11.2	195.6	1.5	0.7	-	2.23	2.05	0.00	587	-	0.00	40.7	1252	SABBIA

z [m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
11.4	299.6	0.9	0.3	-	2.23	2.10	0.00	899	-	0.00	42.3	1625	SABBIA
11.6	489.6	-	-	-	2.23	2.14	0.00	1469	-	-	-	-	-

Committente : Sig.ri Lena

Localita' : Borghetto

Impresa esecutrice : Soil System s.n.c.

Data : 08-07-2005

progr.: CPT-4.0/S

PROVA CPT n. : 1

Parametri penetrometrici

Parametri geotecnici stimati

Rp = resistenza alla punta [kg/cm2]
 Rl = resistenza lat. locale [kg/cm2]
 FR = Rl/Rp x 100 [-]
 Rt = resistenza totale [kgf]

g = Peso di volume [t/m3]
 P'v = Press. vert. efficace[kg/cm2]
 u = Press. neutra [kg/cm2]
 E = Modulo di deform.[kg/cm2]
 OCR = Grado di sovracons.[-]
 Cu = Coesione non drenata[kg/cm2]
 Fi = Angolo di attrito[gradi]
 Gmax = Modulo di taglio din.[kg/cm2]

Quota p.c.: m

Falda a m dal p.c.

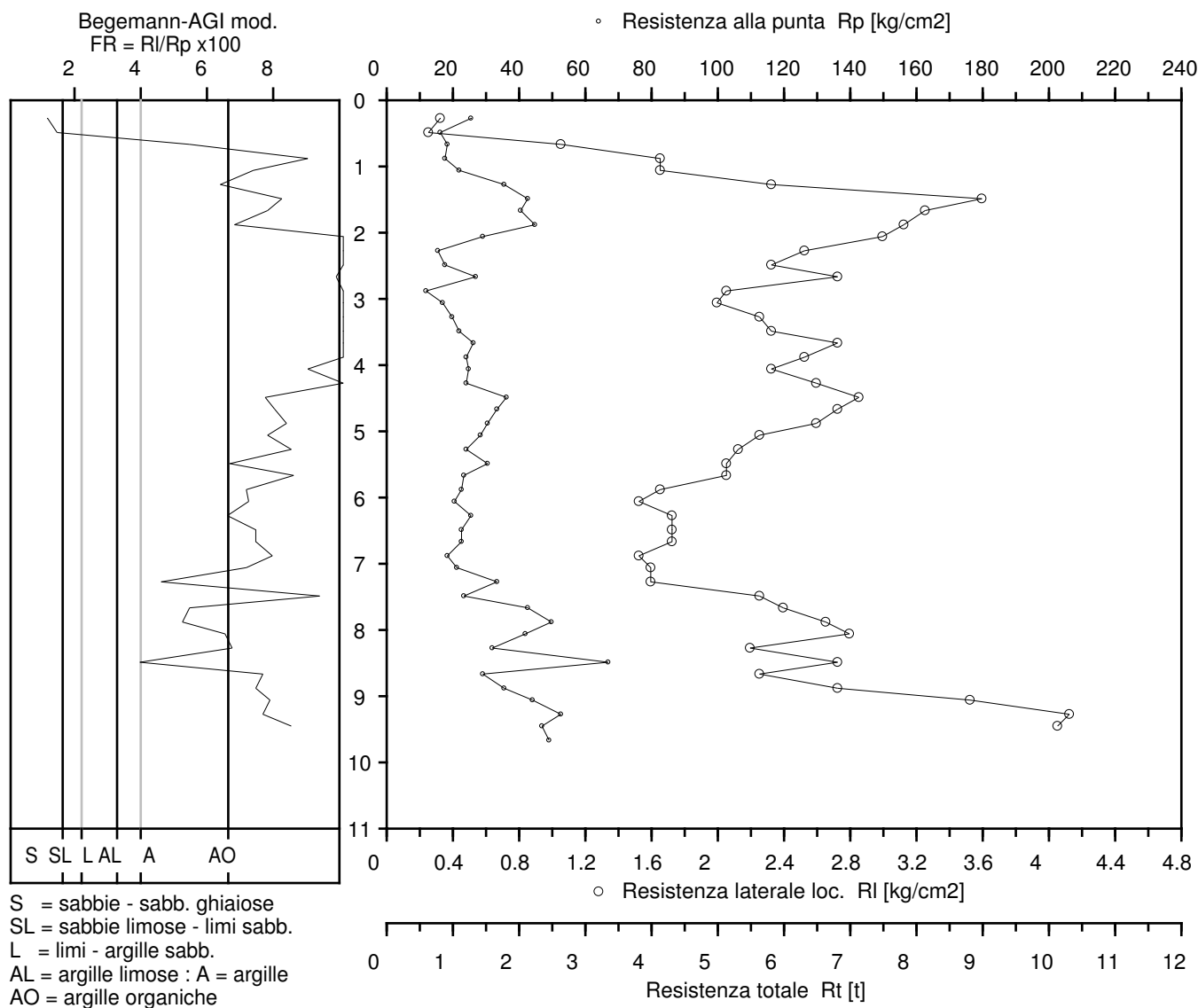
z = prof. max. tratto esplorato dalla base penetr.

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.2	-	-				-	-	-	-	-	
0.4	26.1	0.3	1.3	-	1.76	0.07	0.00	78	-	0.00	46.3	366	SABBIA
0.6	17.1	0.3	1.6	-	1.73	0.11	0.00	51	-	0.00	42.9	283	SABBIA
0.8	19.3	1.1	5.5	-	1.81	0.14	0.00	51	> 50	1.06	0.0	-	ARGILLA
1.0	18.3	1.7	9.1	-	1.81	0.18	0.00	50	> 50	1.00	0.0	-	ARG. ORG.
1.2	22.3	1.7	7.5	-	1.82	0.21	0.00	55	> 50	1.22	0.0	-	ARG. ORG.
1.4	36.3	2.3	6.4	-	1.87	0.25	0.00	86	> 50	2.00	0.0	-	ARGILLA
1.6	43.3	3.6	8.3	-	1.90	0.29	0.00	100	> 50	2.39	0.0	-	ARG. ORG.
1.8	41.4	3.3	7.9	-	1.89	0.33	0.00	97	> 50	2.28	0.0	-	ARG. ORG.
2.0	45.4	3.1	6.9	-	1.90	0.37	0.00	105	> 50	2.50	0.0	-	ARG. ORG.
2.2	29.4	3.0	10.2	-	1.85	0.40	0.00	71	38.9	1.61	0.0	-	ARG. ORG.
2.4	16.4	2.5	15.5	-	1.80	0.44	0.00	45	11.8	0.89	0.0	-	ARG. ORG.
2.6	18.4	2.3	12.7	-	1.81	0.47	0.00	51	12.5	1.00	0.0	-	ARG. ORG.
2.8	27.5	2.7	9.9	-	1.84	0.51	0.00	67	22.3	1.50	0.0	-	ARG. ORG.
3.0	12.5	2.1	16.5	-	1.79	0.55	0.00	34	5.3	0.67	0.0	-	ARG. ORG.
3.2	17.5	2.0	11.4	-	1.80	0.58	0.00	48	8.2	0.94	0.0	-	ARG. ORG.
3.4	20.5	2.3	11.0	-	1.81	0.62	0.00	51	9.6	1.11	0.0	-	ARG. ORG.
3.6	22.5	2.3	10.4	-	1.82	0.66	0.00	56	10.2	1.21	0.0	-	ARG. ORG.
3.8	26.6	2.7	10.3	-	1.84	0.69	0.00	65	12.4	1.44	0.0	-	ARG. ORG.
4.0	24.6	2.5	10.3	-	1.83	0.73	0.00	61	9.9	1.33	0.0	-	ARG. ORG.
4.2	25.6	2.3	9.1	-	1.83	0.77	0.00	63	9.8	1.38	0.0	-	ARG. ORG.
4.4	24.6	2.6	10.5	-	1.83	0.80	0.00	61	8.5	1.32	0.0	-	ARG. ORG.
4.6	36.6	2.9	7.8	-	1.87	0.84	0.00	87	15.4	1.99	0.0	-	ARG. ORG.
4.8	33.8	2.7	8.1	-	1.86	0.88	0.00	81	12.4	1.83	0.0	-	ARG. ORG.
5.0	30.8	2.6	8.4	-	1.85	0.91	0.00	75	9.9	1.66	0.0	-	ARG. ORG.
5.2	28.8	2.3	7.9	-	1.84	0.95	0.00	70	8.3	1.55	0.0	-	ARG. ORG.
5.4	24.8	2.1	8.6	-	1.83	0.99	0.00	61	6.1	1.32	0.0	-	ARG. ORG.
5.6	30.8	2.1	6.7	-	1.85	1.02	0.00	75	8.2	1.65	0.0	-	ARG. ORG.
5.8	23.9	2.1	8.6	-	1.83	1.06	0.00	59	5.1	1.27	0.0	-	ARG. ORG.
6.0	22.9	1.7	7.3	-	1.82	1.10	0.00	57	4.6	1.21	0.0	-	ARG. ORG.
6.2	20.9	1.5	7.3	-	1.82	1.13	0.00	52	3.8	1.10	0.0	-	ARG. ORG.
6.4	25.9	1.7	6.7	-	1.83	1.17	0.00	64	5.0	1.37	0.0	-	ARG. ORG.
6.6	22.9	1.7	7.6	-	1.82	1.21	0.00	57	4.0	1.21	0.0	-	ARG. ORG.
6.8	23.0	1.7	7.5	-	1.82	1.24	0.00	57	3.8	1.21	0.0	-	ARG. ORG.
7.0	19.0	1.5	8.1	-	1.81	1.28	0.00	52	2.8	0.99	0.0	-	ARG. ORG.
7.2	22.0	1.6	7.3	-	1.82	1.32	0.00	55	3.3	1.15	0.0	-	ARG. ORG.
7.4	34.0	1.6	4.7	-	1.86	1.35	0.00	82	6.1	1.82	0.0	-	ARGILLA
7.6	24.0	2.3	9.4	-	1.83	1.39	0.00	59	3.4	1.26	0.0	-	ARG. ORG.
7.8	43.2	2.4	5.6	-	1.90	1.43	0.00	100	8.3	2.32	0.0	-	ARGILLA
8.0	50.2	2.7	5.3	-	1.92	1.47	0.00	114	10.1	2.71	0.0	-	ARGILLA
8.2	42.2	2.8	6.6	-	1.89	1.50	0.00	98	7.3	2.26	0.0	-	ARGILLA
8.4	32.2	2.2	6.8	-	1.86	1.54	0.00	78	4.6	1.70	0.0	-	ARG. ORG.
8.6	67.2	2.7	4.1	-	1.98	1.58	0.00	143	14.7	3.64	0.0	-	ARGILLA
8.8	29.3	2.3	7.7	-	1.85	1.62	0.00	71	3.7	1.54	0.0	-	ARG. ORG.
9.0	36.3	2.7	7.5	-	1.87	1.66	0.00	86	4.9	1.92	0.0	-	ARG. ORG.
9.2	44.3	3.5	8.0	-	1.90	1.69	0.00	102	6.5	2.37	0.0	-	ARG. ORG.
9.4	53.3	4.1	7.8	-	1.93	1.73	0.00	119	8.5	2.86	0.0	-	ARG. ORG.
9.6	47.3	4.1	8.6	-	1.91	1.77	0.00	108	6.7	2.53	0.0	-	ARG. ORG.
9.8	49.4	-	-	-	1.85	1.81	0.00	148	-	-	-	-	-

PROVA PENETROMETRICA STATICA n. 1

Committente : Sig.ri Lena
Localita' : Borghetto
Data : 08-07-2005

progr.: CPT-4.0/S

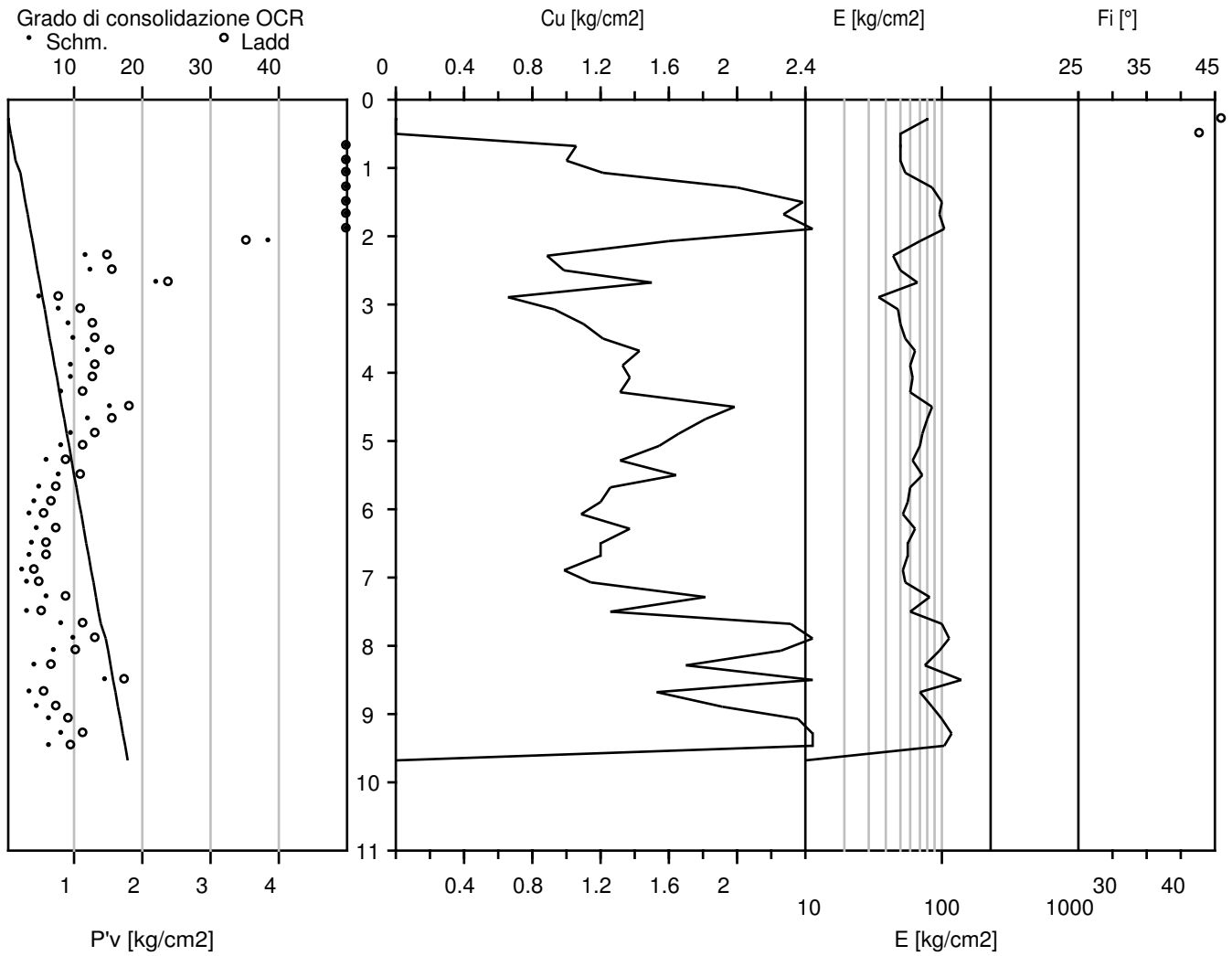


PROVA PENETROMETRICA STATICA n. 1

Committente : Sig.ri Lena
Localita' : Borghetto
Data : 08-07-2005

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



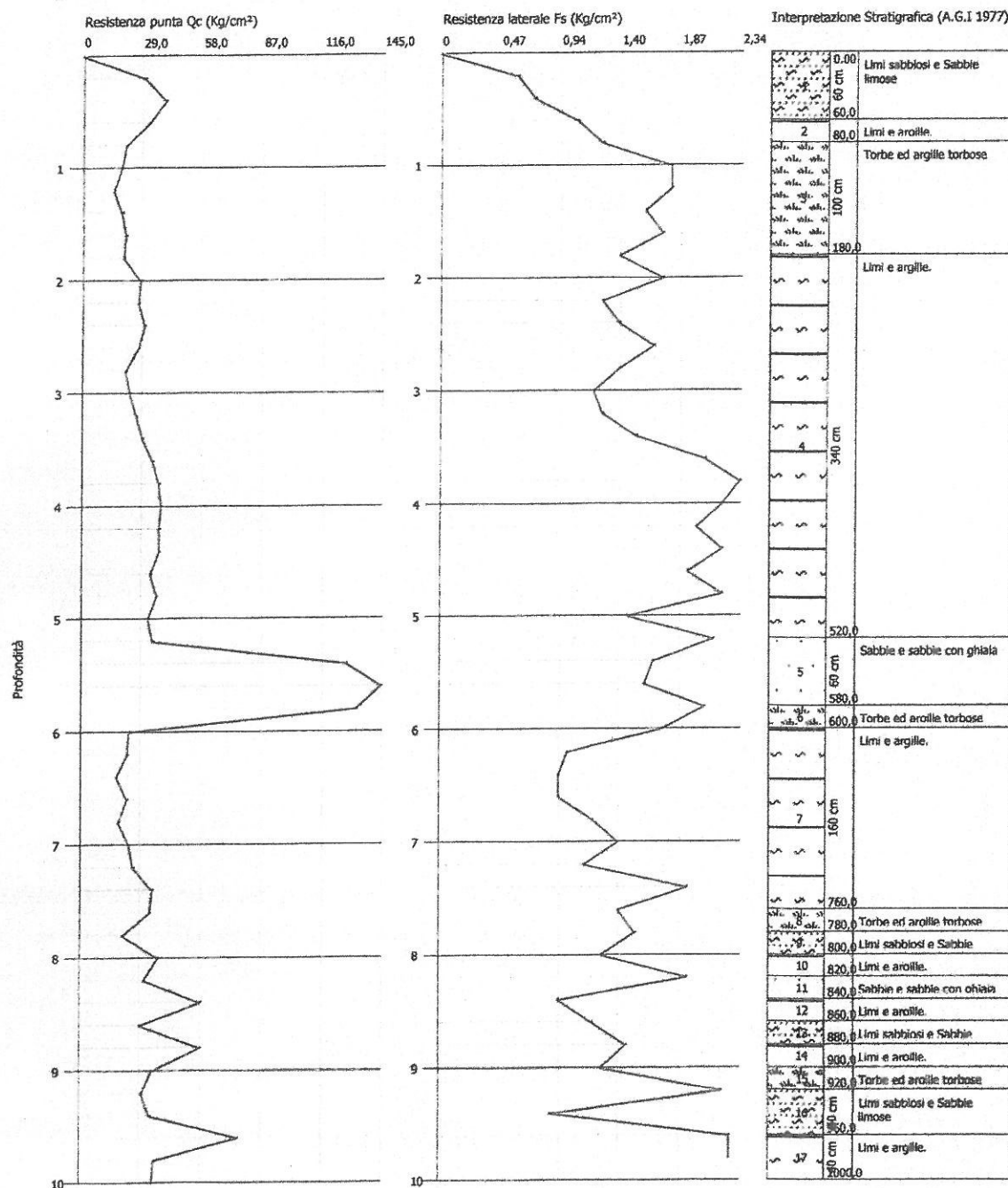


GEOSTRU SOFTWARE
WWW.GEOSTRU.COM
GEOSTRU@GEOSTRU.COM

Probe CPT - Cone Penetration Nr.1
Strumento utilizzato... PAGANI 100 kN
Diagramma Resistenze qc fs

Committente :
Cantiere :
Località : Borghetto di Noceto

Scala 1:51



Costante di trasformazione Ct=10 Area punta 10 cm² Superficie manicotto 150 cm²

Via Martiri della Libertà n. 17 - 43054 Mezzano Inferiore - PR

C. F.: BRS MCC 61L021845N - P. IVA 02104290347

tel / fax 0521-818287 mail: meuccioberselli@gmail.com

TAVOLA 2 - CARTA LITOLOGICA



BASE TOPOGRAFICA: Stralcio di Carta Topografica Regionale Tavola 199-NE "PARMA SUD-OVEST"

Scala 1:25.000

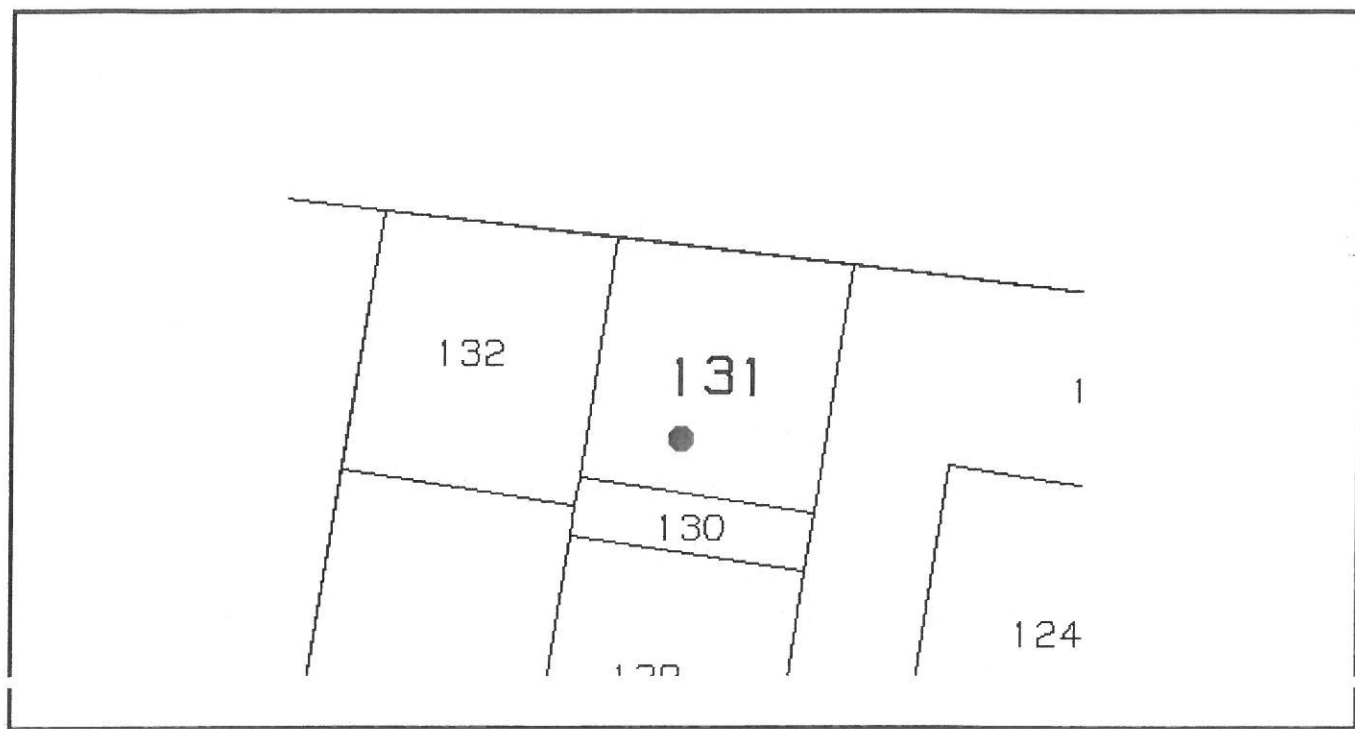
LEGENDA:



Ubicazione area in studio

Via Martiri della Libertà n. 17 – 43054 Mezzano Inferiore – PR
C. F.: BRS MCC 61L02I845N – P. IVA 02104290347
tel / fax 0521-818287 mail: meuccioberselli@gmail.com

TAVOLA 3 - UBICAZIONE DELLE PROVE



BASE TOPOGRAFICA: STRALCIO CARTA CATASTALE

LEGENDA:



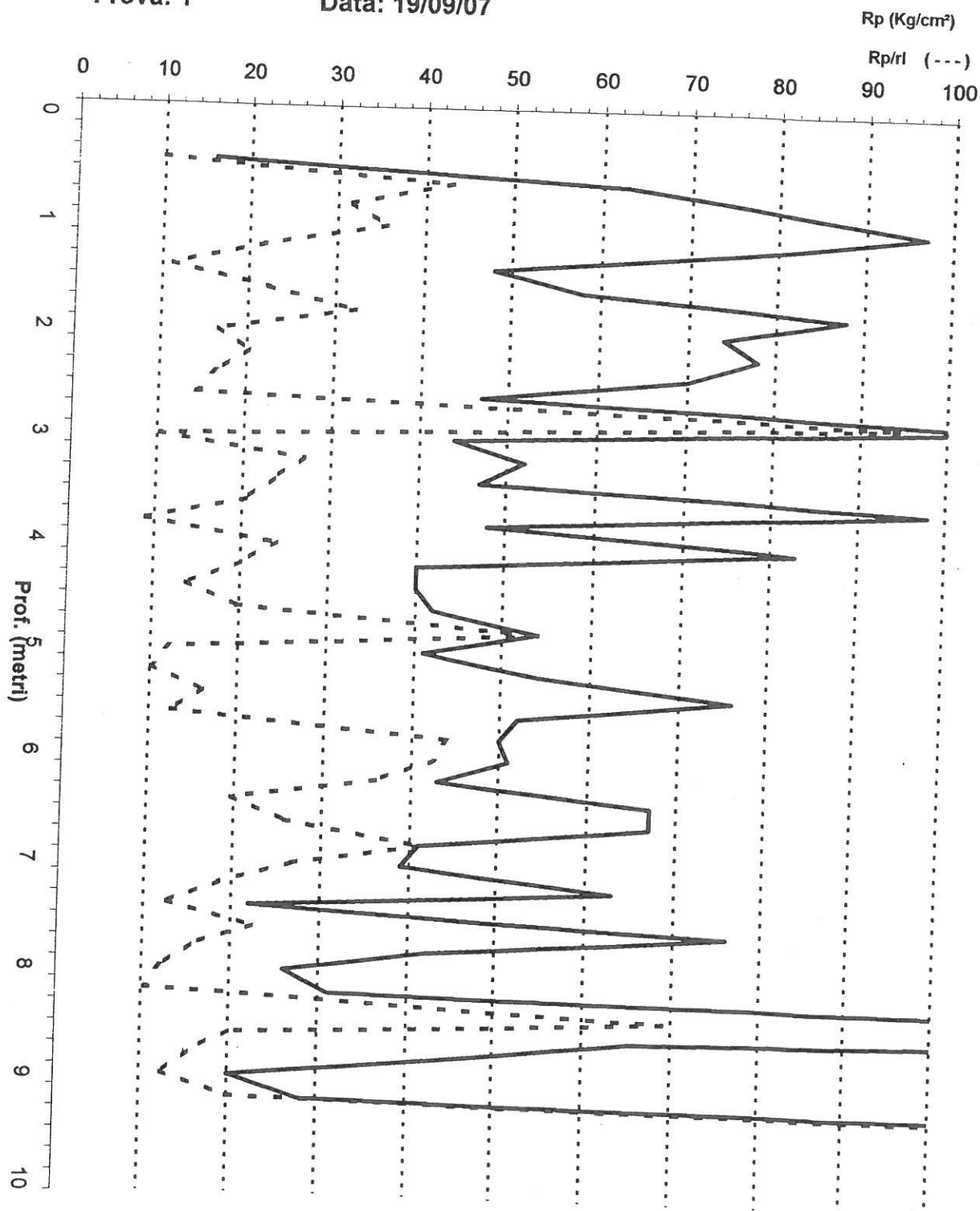
Ubicazione delle prove

11

CPT S.n.c. Salsomaggiore T.
PENETROMETRO STATICO 50KN

Committente: Dott. Marco Baldi
Cantiere: Noceto - stazione
Prova: 1

Data: 19/09/07



CPT s.n.c. SALSOMAGGIORE

Penetrometro Statico Pagani TG 30/50

COMMITTENTE:

dott. Marco Baldi

CANTIERE:

Noceto

PROVA: 1

DATA:

19/09/2007

FALDA:

assente

prof m	Rp Kg/cmq	rp+rl Kg/cmq	rt Kg	rl Kg/cmq	Rp/RI	rl/rp*100
0						
0,2						
0,4	16	40		1,60	10	10,0
0,6	63	85		1,47	43	2,3
0,8	80	118		2,53	32	3,2
1	97	138		2,73	35	2,8
1,2	77	130		3,53	22	4,6
1,4	48	112		4,27	11	8,9
1,6	58	97		2,60	22	4,5
1,8	88	129		2,73	32	3,1
2	74	140	3300	4,40	17	5,9
2,2	78	136		3,87	20	5,0
2,4	70	133		4,20	17	6,0
2,6	47	96		3,27	14	7,0
2,8	107	124		1,13	94	1,1
3	44	108	3500	4,27	10	9,7
3,2	52	81		1,93	27	3,7
3,4	47	77		2,00	24	4,3
3,6	98	170	2130	4,80	20	4,9
3,8	48	128		5,33	9	11,1
4	83	135		3,47	24	4,2
4,2	40	70		2,00	20	5,0
4,4	40	83		2,87	14	7,2
4,6	42	74	1560	2,13	20	5,1
4,8	54	69		1,00	54	1,9
5	41	91		3,33	12	8,1
5,2	54	134		5,33	10	9,9
5,4	76	147	1920	4,73	16	6,2
5,6	52	114		4,13	13	7,9
5,8	50	67		1,13	44	2,3
6	51	69		1,20	43	2,4
6,2	43	61	1380	1,20	36	2,8
6,4	67	118		3,40	20	5,1
6,6	67	106		2,60	26	3,9
6,8	41	56		1,00	41	2,4
7	39	61		1,47	27	3,8
7,2	63	114		3,40	19	5,4
7,4	22	48		1,73	13	7,9
7,6	76	127		3,40	22	4,5
7,8	42	83	1820	2,73	15	6,5
8	26	58		2,13	12	8,2
8,2	31	76		3,00	10	9,7
8,4	230	280		3,33	69	1,4
8,6	65	114		3,27	20	5,0
8,8	43	85	1480	2,80	15	6,5
9	20	44		1,60	13	8,0
9,2	28	49		1,40	20	5,0
9,4	330	350		1,33	248	0,4

034025P7CPT7

Committente : Manghi s.p.a.

Localita' : Noceto (PR)

Impresa esecutrice : dott. Livelli

Data : 13.04.2004

progr.: CPT-4.0/S

PROVA CPT n. : 5

Parametri penetrometrici

Parametri geotecnici stimati

Rp = resistenza alla punta [kg/cm2]

Rl = resistenza lat. locale [kg/cm2]

FR = Rl/Rp x 100 [-]

Rt = resistenza totale [kgf]

g = Peso di volume [t/m3]

P'v = Press. vert. efficace[kg/cm2]

u = Press. neutra [kg/cm2]

E = Modulo di deform.[kg/cm2]

OCR = Grado di sovracons.[-]

Cu = Coesione non drenata[kg/cm2]

Fi = Angolo di attrito[gradi]

Gmax = Modulo di taglio din.[kg/cm2]

Quota p.c.: m 0

Falda a m dal p.c.

z = prof. max. tratto esplorato dalla base penetr.

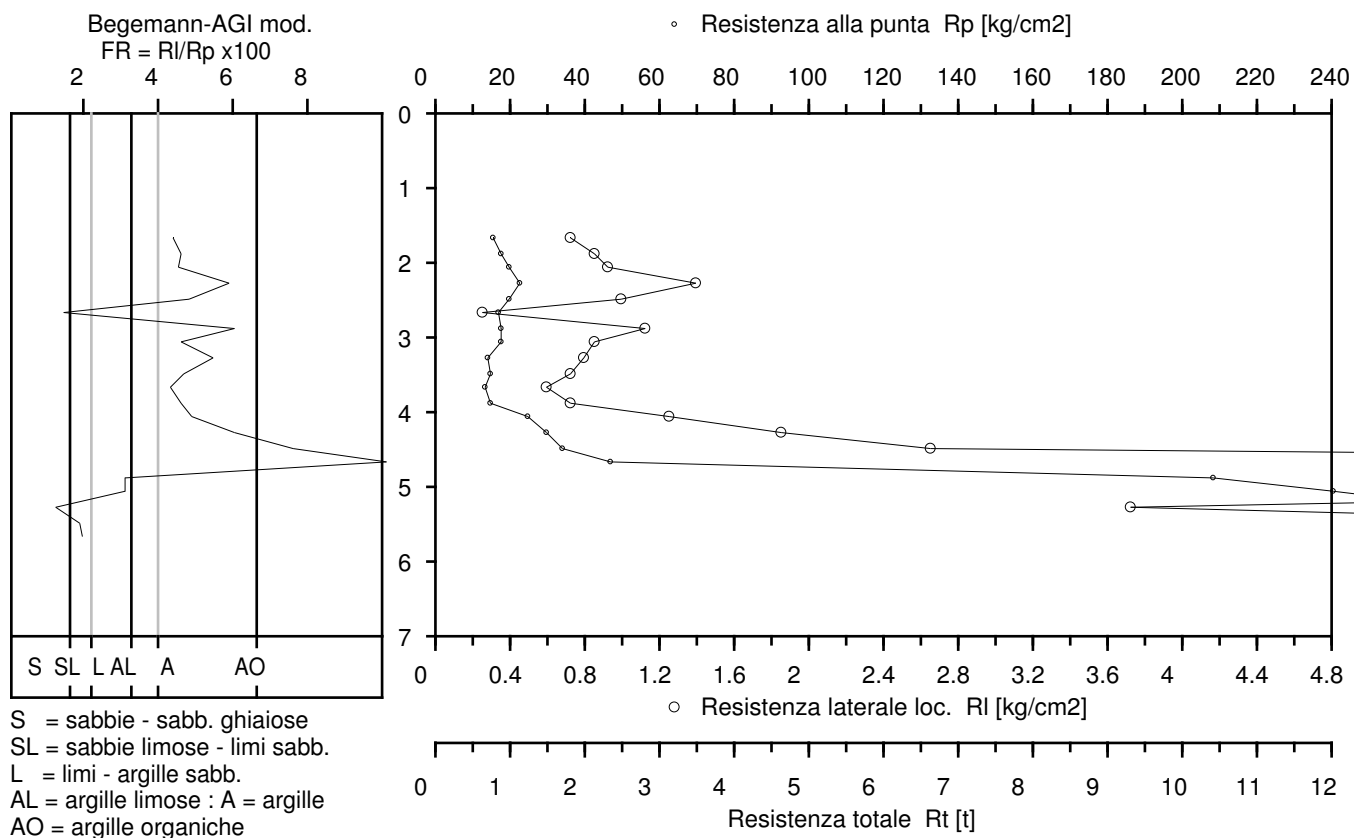
z [m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
-------	----	----	----	----	---	-----	---	---	-----	----	----	------	---------------

1.6	-	0.7	-	-				-	-	-	-	-	
1.8	16.4	0.7	4.5	-	1.80	0.32	0.00	51	20.0	0.89	0.0	-	ARGILLA
2.0	18.4	0.9	4.7	-	1.81	0.36	0.00	51	20.4	1.00	0.0	-	ARGILLA
2.2	20.4	0.9	4.6	-	1.81	0.40	0.00	51	20.6	1.11	0.0	-	ARGILLA
2.4	23.4	1.4	6.0	-	1.82	0.43	0.00	58	22.5	1.28	0.0	-	ARGILLA
2.6	20.4	1.0	4.9	-	1.81	0.47	0.00	51	15.3	1.11	0.0	-	ARGILLA
2.8	17.5	0.3	1.5	-	1.73	0.50	0.00	53	-	0.00	34.5	287	SABBIA
3.0	18.5	1.1	6.1	-	1.81	0.54	0.00	51	10.2	1.00	0.0	-	ARGILLA
3.2	18.5	0.9	4.7	-	1.81	0.58	0.00	51	9.1	1.00	0.0	-	ARGILLA
3.4	14.5	0.8	5.5	-	1.79	0.61	0.00	50	5.6	0.77	0.0	-	ARGILLA
3.6	15.5	0.7	4.7	-	1.80	0.65	0.00	51	5.7	0.83	0.0	-	ARGILLA
3.8	13.7	0.6	4.4	-	1.79	0.68	0.00	49	4.3	0.72	0.0	-	ARGILLA
4.0	15.7	0.7	4.7	-	1.80	0.72	0.00	51	4.9	0.83	0.0	-	ARGILLA
4.2	25.6	1.3	4.9	-	1.83	0.76	0.00	63	10.0	1.38	0.0	-	ARGILLA
4.4	30.6	1.9	6.1	-	1.85	0.79	0.00	74	12.5	1.66	0.0	-	ARGILLA
4.6	34.6	2.7	7.7	-	1.86	0.83	0.00	83	14.3	1.88	0.0	-	ARG. ORG.
4.8	47.8	10.9	22.9	-	1.91	0.87	0.00	109	23.2	2.61	0.0	-	ARG. ORG.
5.0	208.8	6.6	3.2	-	2.30	0.91	0.00	626	-	0.00	44.3	-	LIMO-ARG.S
5.2	240.8	7.7	3.2	-	2.30	0.96	0.00	722	-	0.00	44.7	-	LIMO-ARG.S
5.4	276.8	3.7	1.3	-	2.23	1.01	0.00	830	-	0.00	45.1	1549	SABBIA
5.6	357.8	7.1	2.0	-	2.30	1.05	0.00	1073	-	0.00	46.0	-	LIMO SABB.
5.8	329.9	6.7	2.0	-	2.30	1.10	0.00	990	-	0.00	45.5	-	LIMO SABB.
6.0	501.9	-	-	-	2.23	1.14	0.00	1506	-	-	-	-	-

PROVA PENETROMETRICA STATICA n. 5

Committente : Manghi s.p.a.
Localita' : Noceto (PR)
Data : 13.04.2004

progr.: CPT-4.0/S

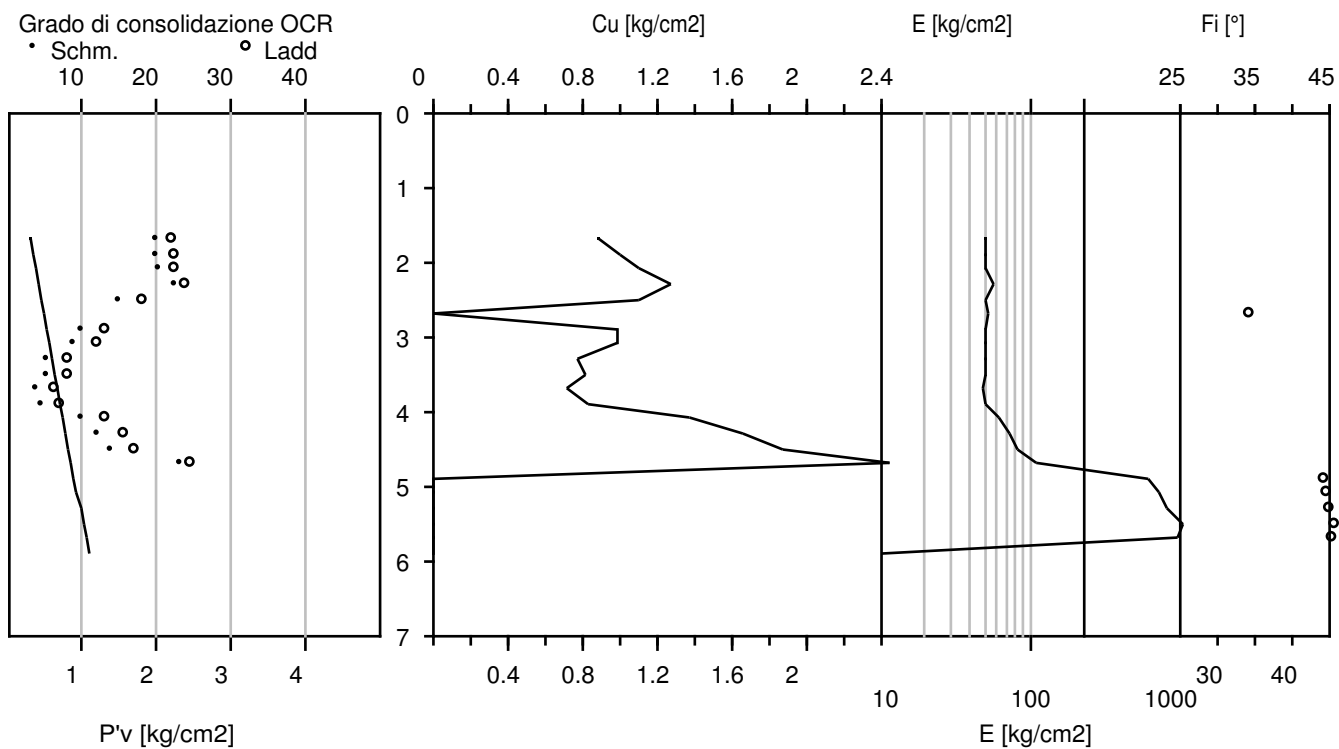


PROVA PENETROMETRICA STATICA n. 5

Committente : Manghi s.p.a.
Localita' : Noceto (PR)
Data : 13.04.2004

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



Committente : Comune di Noceto

Localita' : Ospedaletto Piano Particolareggiato P.I.0.1

Impresa esecutrice :

Data : 21/07/2000

progr.: CPT-4.0/S FB1998

PROVA CPT n. : 1

Parametri penetrometrici

Parametri geotecnici stimati

Rp = resistenza alla punta [kg/cm2]
 Rl = resistenza lat. locale [kg/cm2]
 FR = Rl/Rp x 100 [-]
 Rt = resistenza totale [kgf]

g = Peso di volume [t/m3]
 P'v = Press. vert. efficace[kg/cm2]
 u = Press. neutra [kg/cm2]
 E = Modulo di deform.[kg/cm2]
 OCR = Grado di sovracons.[-]
 Cu = Coesione non drenata[kg/cm2]
 Fi = Angolo di attrito[gradi]
 Gmax = Modulo di taglio din.[kg/cm2]

Quota p.c.: m 0

Falda a m dal p.c.

z = prof. max. del tratto esplorato dalla base penetr.

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.1	-	-	-	-	-	-	-	-	-	-	-
0.4	25.1	0.5	2.1	-	1.83	0.07	0.00	75	-	0.00	29.4	-	LIMO SABB.
0.6	26.1	0.8	3.1	-	1.83	0.11	0.00	78	-	0.00	28.5	-	LIMO-ARG.S
0.8	34.1	2.4	7.0	-	1.86	0.15	0.00	82	> 50	1.89	0.0	-	ARG. ARG.
1.0	26.1	2.6	9.9	-	1.83	0.18	0.00	64	> 50	1.44	0.0	-	ARG. ARG.
1.2	30.3	3.1	10.1	-	1.85	0.22	0.00	73	> 50	1.67	0.0	-	ARG. ARG.
1.4	32.3	3.0	9.3	-	1.86	0.26	0.00	78	> 50	1.78	0.0	-	ARG. ARG.
1.6	34.3	2.9	8.6	-	1.86	0.29	0.00	82	> 50	1.89	0.0	-	ARG. ARG.
1.8	28.3	2.1	7.5	-	1.84	0.33	0.00	69	> 50	1.55	0.0	-	ARG. ARG.
2.0	29.3	1.8	6.2	-	1.85	0.37	0.00	71	45.5	1.60	0.0	-	ARGILLA
2.2	28.4	1.1	3.8	-	1.84	0.41	0.00	69	36.1	1.55	0.0	-	ARG.LIM.
2.4	24.4	1.8	7.4	-	1.83	0.44	0.00	60	23.4	1.33	0.0	-	ARG. ARG.
2.6	22.4	1.8	8.0	-	1.82	0.48	0.00	56	17.5	1.22	0.0	-	ARG. ARG.
2.8	27.4	1.3	4.6	-	1.84	0.51	0.00	67	21.9	1.49	0.0	-	ARGILLA
3.0	23.4	0.9	4.0	-	1.82	0.55	0.00	58	14.7	1.27	0.0	-	ARG.LIM.
3.2	27.5	1.1	4.1	-	1.84	0.59	0.00	67	17.4	1.50	0.0	-	ARGILLA
3.4	23.5	1.0	4.3	-	1.82	0.62	0.00	58	11.9	1.27	0.0	-	ARGILLA
3.6	28.5	1.1	3.7	-	1.84	0.66	0.00	70	15.1	1.55	0.0	-	ARG.LIM.
3.8	26.5	1.0	3.8	-	1.84	0.70	0.00	65	12.1	1.43	0.0	-	ARG.LIM.
4.0	31.5	1.7	5.5	-	1.85	0.74	0.00	76	14.9	1.71	0.0	-	ARGILLA
4.2	32.6	1.7	5.3	-	1.86	0.77	0.00	79	14.6	1.77	0.0	-	ARGILLA
4.4	33.6	1.7	5.2	-	1.86	0.81	0.00	81	14.2	1.82	0.0	-	ARGILLA
4.6	39.6	1.5	3.9	-	1.88	0.85	0.00	93	17.4	2.16	0.0	-	ARG.LIM.
4.8	33.6	1.5	4.6	-	1.86	0.88	0.00	81	12.2	1.82	0.0	-	ARGILLA
5.0	26.6	1.1	4.0	-	1.84	0.92	0.00	65	7.7	1.43	0.0	-	ARGILLA
5.2	27.8	1.2	4.3	-	1.84	0.96	0.00	68	7.7	1.49	0.0	-	ARGILLA
5.4	24.8	1.6	6.5	-	1.83	0.99	0.00	61	6.0	1.32	0.0	-	ARGILLA
5.6	24.8	0.9	3.8	-	1.83	1.03	0.00	61	5.7	1.32	0.0	-	ARG.LIM.
5.8	29.8	1.2	4.0	-	1.85	1.07	0.00	72	7.2	1.60	0.0	-	ARGILLA
6.0	24.8	0.9	3.8	-	1.83	1.10	0.00	61	5.1	1.32	0.0	-	ARG.LIM.
6.2	23.9	0.9	3.9	-	1.83	1.14	0.00	59	4.6	1.26	0.0	-	ARG.LIM.
6.4	33.9	0.9	2.6	-	1.86	1.18	0.00	102	-	0.00	29.7	-	LIMO-ARG.S
6.6	23.9	1.0	4.2	-	1.83	1.21	0.00	59	4.2	1.26	0.0	-	ARGILLA
6.8	19.9	1.3	6.4	-	1.81	1.25	0.00	50	3.0	1.04	0.0	-	ARGILLA
7.0	19.9	1.0	5.0	-	1.81	1.29	0.00	50	2.9	1.03	0.0	-	ARGILLA
7.2	17.0	1.0	5.9	-	1.80	1.32	0.00	51	2.3	0.87	0.0	-	ARGILLA
7.4	19.0	0.7	3.5	-	1.81	1.36	0.00	51	2.5	0.98	0.0	-	ARG.LIM.
7.6	20.0	0.9	4.7	-	1.81	1.40	0.00	50	2.6	1.04	0.0	-	ARGILLA
7.8	19.0	0.9	4.6	-	1.81	1.43	0.00	51	2.4	0.98	0.0	-	ARGILLA
8.0	18.0	0.7	4.1	-	1.80	1.47	0.00	51	2.1	0.92	0.0	-	ARGILLA
8.2	17.2	0.5	2.7	-	1.80	1.50	0.00	52	-	0.00	27.8	-	LIMO-ARG.S
8.4	15.2	0.5	3.5	-	1.79	1.54	0.00	51	1.6	0.76	0.0	-	ARG.LIM.
8.6	16.2	0.6	3.7	-	1.80	1.58	0.00	51	1.7	0.81	0.0	-	ARG.LIM.
8.8	18.2	0.5	2.9	-	1.81	1.61	0.00	55	-	0.00	27.7	-	LIMO-ARG.S
9.0	20.2	1.0	5.0	-	1.81	1.65	0.00	51	2.1	1.03	0.0	-	ARGILLA
9.2	22.3	0.7	3.3	-	1.82	1.68	0.00	67	-	0.00	27.8	-	LIMO-ARG.S

9.4	28.3	1.4	4.9	-	1.84	1.72	0.00	69	3.2	1.48	0.0	-	ARGILLA
9.6	26.3	1.2	4.6	-	1.83	1.76	0.00	65	2.8	1.36	0.0	-	ARGILLA
9.8	22.3	1.3	5.7	-	1.82	1.79	0.00	55	2.2	1.14	0.0	-	ARGILLA
10.0	31.3	3.3	10.6	-	1.85	1.83	0.00	76	3.4	1.64	0.0	-	ARG. ORG.
10.2	181.4	1.7	0.9	-	2.23	1.88	0.00	544	-	0.00	40.8	1196	SABBIA
10.4	245.4	4.3	1.7	-	2.30	1.92	0.00	736	-	0.00	41.9	-	SABBIA LIM.
10.6	285.4	-	-	-	2.23	1.97	0.00	856	-	-	-	-	-

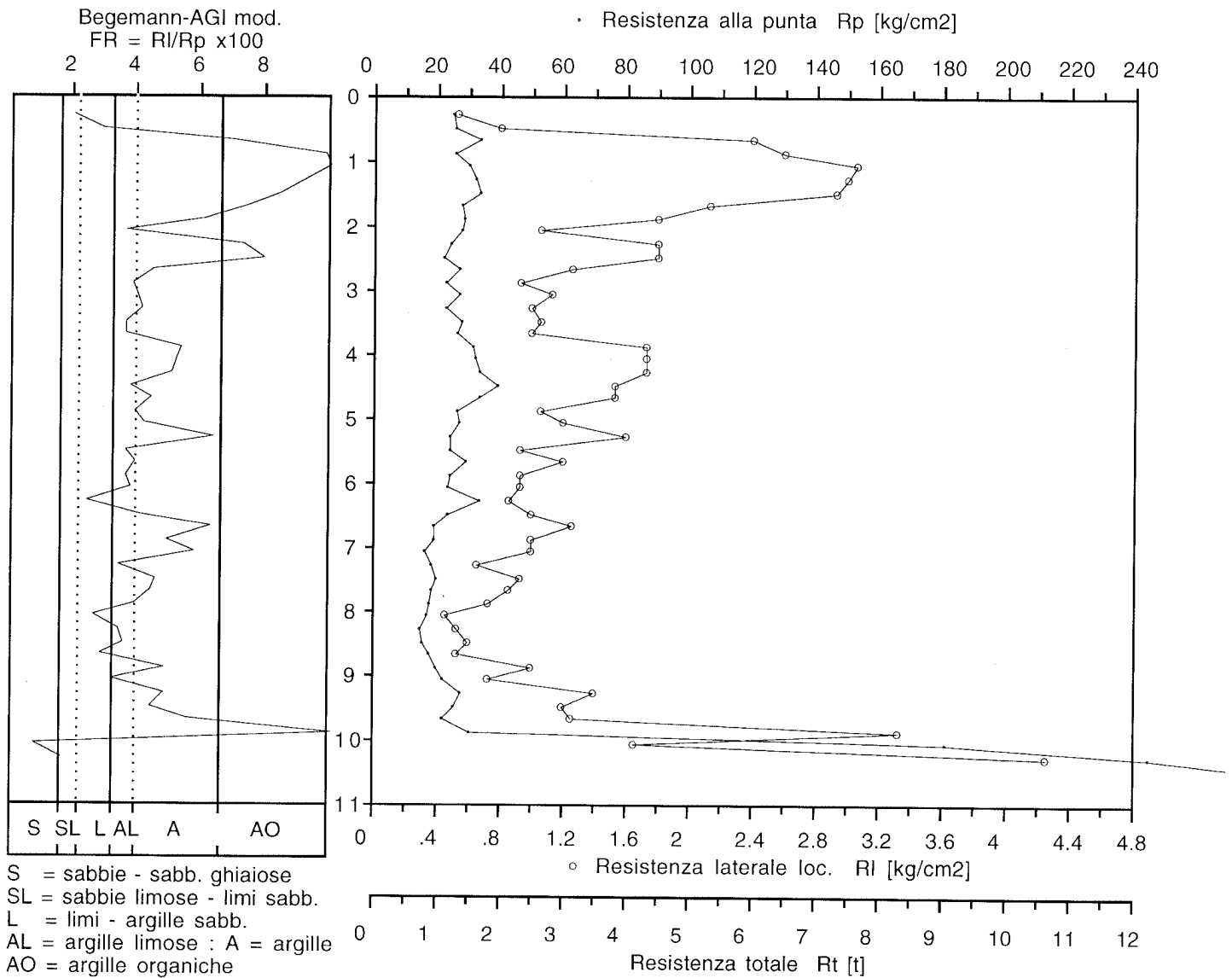
PROVA PENETROMETRICA STATICA n. 1

Committente : Comune di Noceto

Localita' : Ospedaletto Piano Particolareggiato P.I.0.1

Data : 21/07/2000

progr.: CPT-4.0/S FB1998



PROVA PENETROMETRICA STATICA n. 1

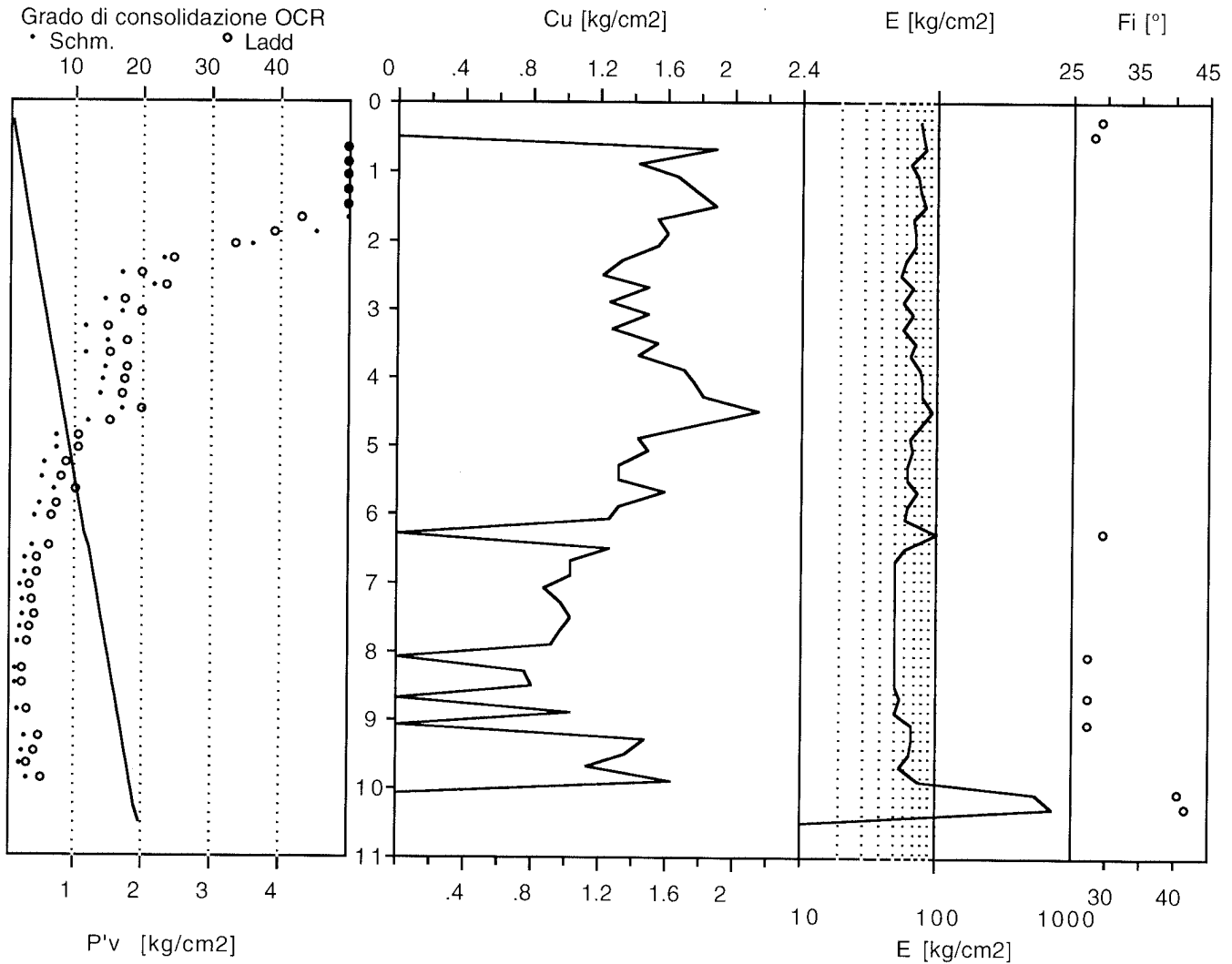
Committente : Comune di Noceto

Localita' : Ospedaletto Piano Particolareggiato P.I.0.1

Data : 21/07/2000

Litologia : Begemann ('65) - AGI ('77), modif.

progr.: CPT-4.0/S FB1998



PROVA PENETROMETRICA STATICA - ELABORAZIONE NUMERICA DEI RISULTATI

Committente : Comune di Noceto

Localita' : Ospedaletto Piano Particolareggiato P.I.0.1

Impresa esecutrice :

Data : 21/07/2000

progr.: CPT-4.0/S FB1998

PROVA CPT n. : 2

Parametri penetrometrici

Parametri geotecnici stimati

Rp = resistenza alla punta [kg/cm2]

Rl = resistenza lat. locale [kg/cm2]

FR = Rl/Rp x 100 [-]

Rt = resistenza totale [kgf]

Quota p.c.: m 0

Falda a m dal p.c.

z = prof. max. del tratto esplorato dalla base penetr.

g = Peso di volume [t/m3]

P'v = Press. vert. efficace[kg/cm2]

u = Press. neutra [kg/cm2]

E = Modulo di deform.[kg/cm2]

OCR = Grado di sovracons.[-]

Cu = Coesione non drenata[kg/cm2]

Fi = Angolo di attrito[gradi]

Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.1	-	-	-	-	-	-	-	-	-	-	-
0.4	27.1	0.8	2.9	-	1.84	0.07	0.00	81	-	0.00	28.8	-	LIMO-ARG.S
0.6	24.1	0.6	2.5	-	1.83	0.11	0.00	72	-	0.00	28.9	-	LIMO-ARG.S
0.8	33.1	2.2	6.6	-	1.86	0.15	0.00	80	> 50	1.83	0.0	-	ARGILLA
1.0	40.1	2.5	6.3	-	1.88	0.18	0.00	94	> 50	2.22	0.0	-	ARGILLA
1.2	47.3	2.5	5.2	-	1.91	0.22	0.00	108	> 50	2.61	0.0	-	ARGILLA
1.4	50.3	3.3	6.6	-	1.92	0.26	0.00	114	> 50	2.78	0.0	-	ARGILLA
1.6	40.3	3.5	8.6	-	1.88	0.30	0.00	94	> 50	2.22	0.0	-	ARG. ORG.
1.8	26.3	2.5	9.6	-	1.83	0.34	0.00	65	44.3	1.44	0.0	-	ARG. ORG.
2.0	25.3	2.3	9.2	-	1.83	0.37	0.00	62	34.1	1.38	0.0	-	ARG. ORG.
2.2	22.4	2.3	10.1	-	1.82	0.41	0.00	56	23.1	1.22	0.0	-	ARG. ORG.
2.4	25.4	1.5	5.8	-	1.83	0.44	0.00	63	24.8	1.39	0.0	-	ARGILLA
2.6	26.4	1.3	5.1	-	1.83	0.48	0.00	65	23.1	1.44	0.0	-	ARGILLA
2.8	24.4	1.1	4.6	-	1.83	0.52	0.00	60	17.6	1.33	0.0	-	ARGILLA
3.0	29.4	1.4	4.8	-	1.85	0.55	0.00	71	21.7	1.60	0.0	-	ARGILLA
3.2	33.5	1.7	5.0	-	1.86	0.59	0.00	80	24.5	1.83	0.0	-	ARGILLA
3.4	31.5	1.9	5.9	-	1.85	0.63	0.00	76	19.7	1.72	0.0	-	ARGILLA
3.6	33.5	1.6	4.8	-	1.86	0.67	0.00	80	19.8	1.83	0.0	-	ARGILLA
3.8	37.5	2.1	5.5	-	1.87	0.70	0.00	89	22.0	2.05	0.0	-	ARGILLA
4.0	28.5	1.4	4.9	-	1.84	0.74	0.00	70	12.4	1.54	0.0	-	ARGILLA
4.2	26.6	1.3	5.0	-	1.84	0.78	0.00	65	10.2	1.44	0.0	-	ARGILLA
4.4	27.6	1.5	5.3	-	1.84	0.81	0.00	68	10.0	1.49	0.0	-	ARGILLA
4.6	28.6	1.5	5.1	-	1.84	0.85	0.00	70	9.9	1.54	0.0	-	ARGILLA
4.8	23.6	1.3	5.4	-	1.83	0.89	0.00	59	6.7	1.26	0.0	-	ARGILLA
5.0	26.6	1.3	5.0	-	1.84	0.92	0.00	65	7.6	1.43	0.0	-	ARGILLA
5.2	26.8	1.1	4.2	-	1.84	0.96	0.00	66	7.2	1.43	0.0	-	ARGILLA
5.4	28.8	1.2	4.2	-	1.84	1.00	0.00	70	7.6	1.54	0.0	-	ARGILLA
5.6	26.8	1.3	4.7	-	1.84	1.03	0.00	66	6.4	1.43	0.0	-	ARGILLA
5.8	24.8	1.1	4.3	-	1.83	1.07	0.00	61	5.4	1.32	0.0	-	ARGILLA
6.0	22.8	1.1	5.0	-	1.82	1.11	0.00	57	4.5	1.20	0.0	-	ARGILLA
6.2	22.9	1.3	5.5	-	1.82	1.14	0.00	57	4.3	1.21	0.0	-	ARGILLA
6.4	16.9	1.1	6.3	-	1.80	1.18	0.00	51	2.6	0.87	0.0	-	ARGILLA
6.6	20.9	1.0	4.8	-	1.82	1.22	0.00	52	3.4	1.09	0.0	-	ARGILLA
6.8	16.9	1.3	7.5	-	1.80	1.25	0.00	46	2.4	0.87	0.0	-	ARG. ORG.
7.0	18.9	0.8	4.2	-	1.81	1.29	0.00	51	2.7	0.98	0.0	-	ARGILLA
7.2	27.0	0.9	3.5	-	1.84	1.33	0.00	66	4.4	1.43	0.0	-	ARG.LIM.
7.4	18.0	0.7	3.7	-	1.80	1.36	0.00	51	2.4	0.93	0.0	-	ARG.LIM.
7.6	18.0	0.5	2.6	-	1.80	1.40	0.00	54	-	0.00	28.1	-	LIMO-ARG.S
7.8	23.0	0.8	3.5	-	1.82	1.43	0.00	57	3.1	1.20	0.0	-	ARG.LIM.
8.0	16.0	0.9	5.4	-	1.80	1.47	0.00	51	1.8	0.81	0.0	-	ARGILLA
8.2	17.2	0.7	4.3	-	1.80	1.51	0.00	51	1.9	0.87	0.0	-	ARGILLA
8.4	18.2	0.9	4.8	-	1.81	1.54	0.00	51	2.0	0.92	0.0	-	ARGILLA
8.6	17.2	0.8	4.7	-	1.80	1.58	0.00	51	1.8	0.87	0.0	-	ARGILLA
8.8	20.2	0.8	4.0	-	1.81	1.61	0.00	51	2.2	1.03	0.0	-	ARG.LIM.
9.0	22.2	1.1	5.1	-	1.82	1.65	0.00	55	2.4	1.14	0.0	-	ARGILLA
9.2	27.3	1.3	4.6	-	1.84	1.69	0.00	67	3.1	1.42	0.0	-	ARGILLA

9.4	29.3	1.5	5.0	-	1.85	1.72	0.00	71	3.4	1.53	0.0	-	ARGILLA
9.6	26.3	1.4	5.3	-	1.83	1.76	0.00	65	2.8	1.36	0.0	-	ARGILLA
9.8	26.3	1.2	4.6	-	1.83	1.80	0.00	65	2.7	1.36	0.0	-	ARGILLA
10.0	37.3	2.8	7.5	-	1.87	1.84	0.00	88	4.4	1.97	0.0	-	ARG. ORG.
10.2	328.4	1.7	0.5	-	2.23	1.88	0.00	985	-	0.00	43.2	1719	SABBIA

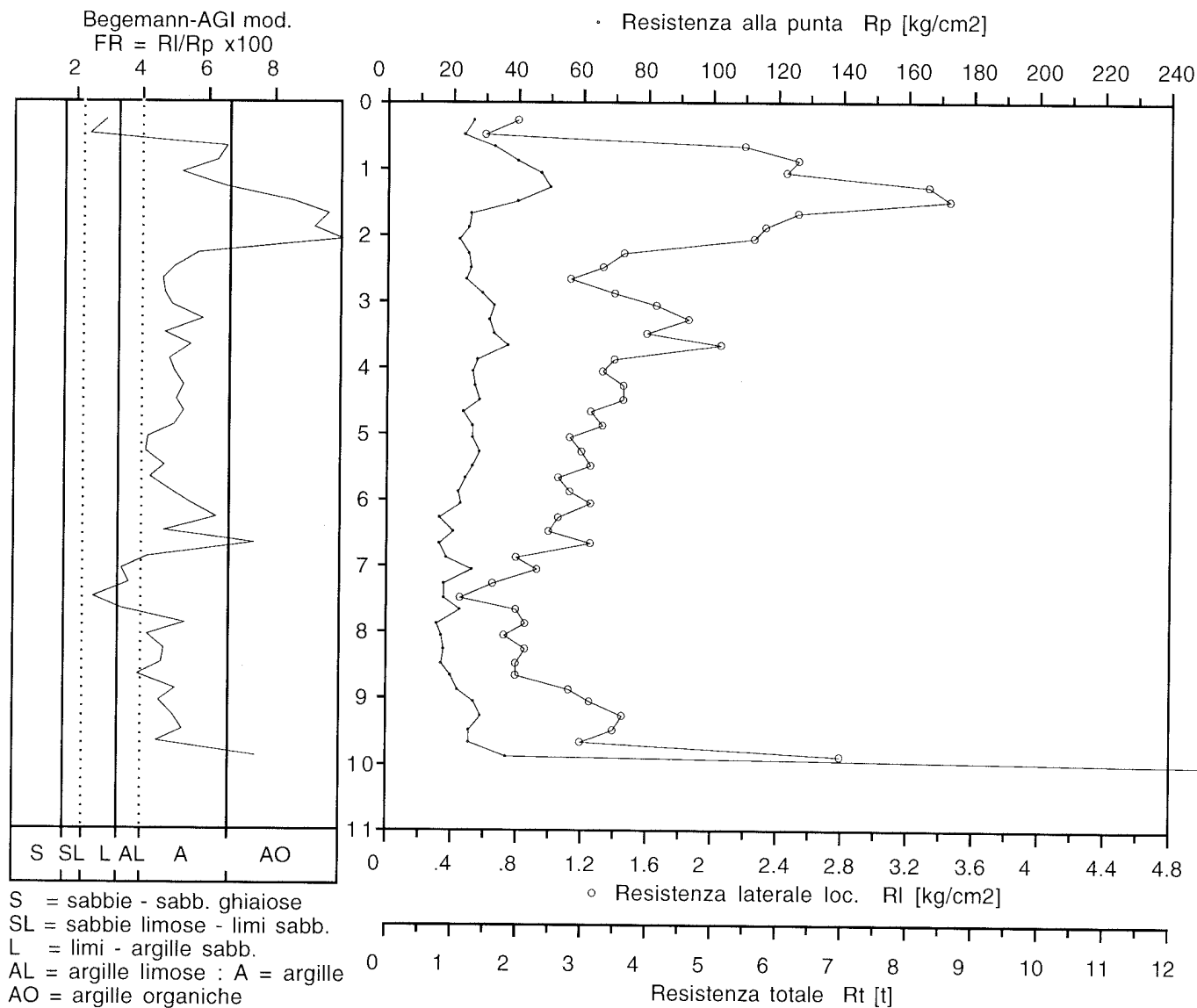
PROVA PENETROMETRICA STATICA n. 2

Committente : Comune di Noceto

Localita' : Ospedaletto Piano Particolareggiato P.I.0.1

Data : 21/07/2000

progr.: CPT-4.0/S FB1998



PROVA PENETROMETRICA STATICA n. 2

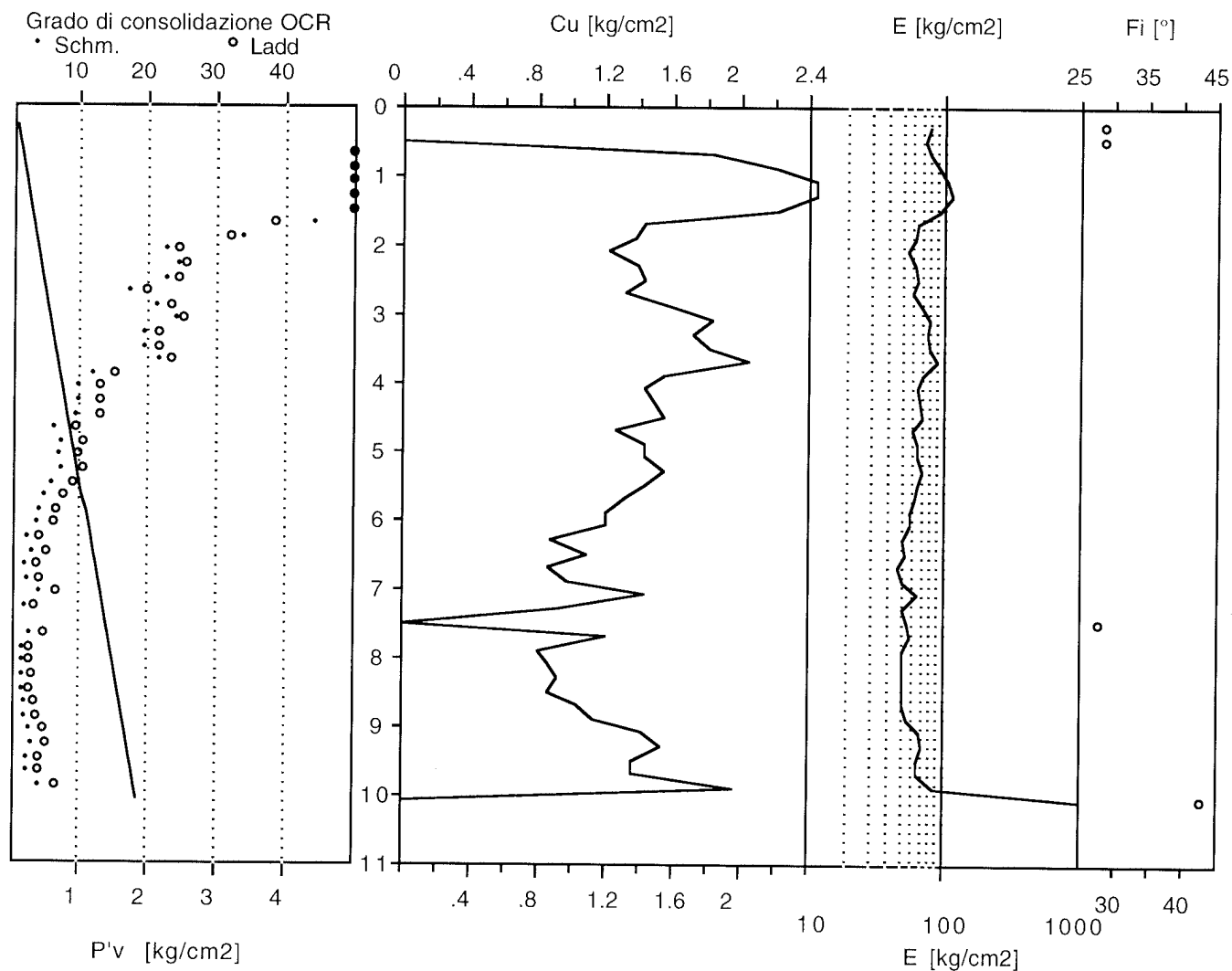
Committente : Comune di Noceto

Localita' : Ospedaletto Piano Particolareggiato P.I.0.1

Data : 21/07/2000

Litologia : Begemann ('65) - AGI ('77), modif.

progr.: CPT-4.0/S FB1998



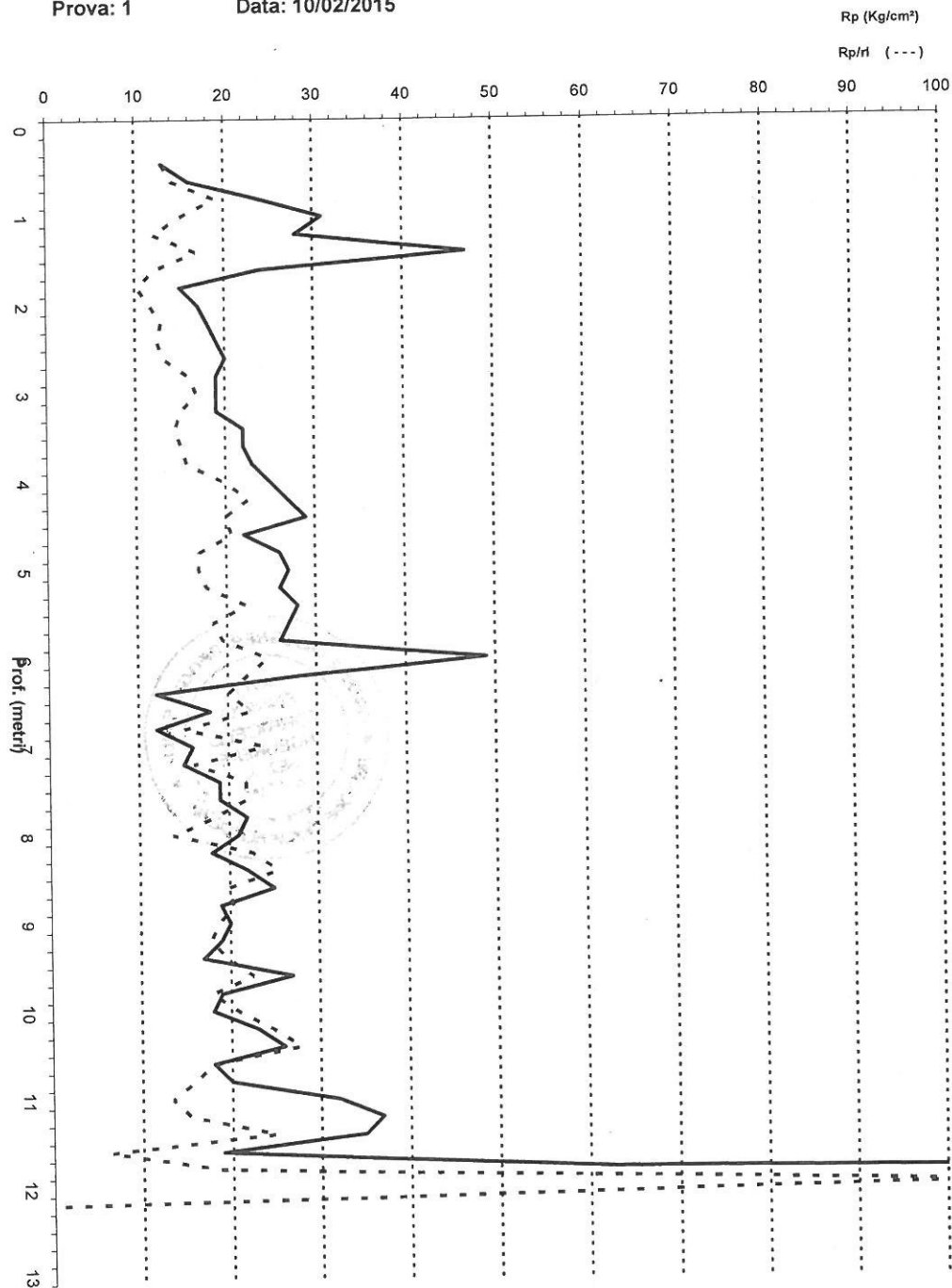
CPT S.n.c. Fidenza
PENETROMETRO STATICO 50KN

Committente: Sig.ri Adami

Cantiere: Noceto

Prova: 1

Data: 10/02/2015



CPT s.n.c. FIDENZA

Penetrometro Statico Pagani TG 30/50

Dott. Gianluca Cantarelli**Geologo**

Via Monte Grappa, 4 - 43039 Salsomaggiore T.

Tel. 0524-571012

Studio: Via Malpeli 2, Fidenza

Tel. 0524 - 533356

COMMITTENTE: sig.ri Adami

CANTIERE: Noceto via Fanti d'Italia

PROVA: 1

DATA: 10/02/2015

FALDA: assente m

prof m	Rp Kg/cmq	rp+rl Kg/cmq	rt Kg	rl Kg/cmq	Rp/RI	rl/rp*100	Cu Kg/cmq	Es Kg/cmq	♦
0									
0.2									
0.4	13	19		0.40	13	3.1	0.72	45.50	
0.6	16	31		1.00	14	6.3	0.89	56.00	
0.8	24	41		1.13	19	4.7	1.33	84.00	
1	31	50		1.27	15	4.1	1.72	108.50	
1.2	28	59		2.07	12	7.4	1.56	98.00	
1.4	47	82		2.33	17	5.0	1.57	235.00	
1.6	24	66	1630	2.80	12	11.7	1.33	84.00	
1.8	15	45		2.00	10	13.3	0.83	52.50	
2	17	39		1.47	12	8.6	0.94	59.50	
2.2	18	40		1.47	13	8.1	1.00	63.00	
2.4	19	40		1.40	12	7.4	1.06	66.50	
2.6	20	43		1.53	13	7.7	1.11	70.00	
2.8	19	42		1.53	16	8.1	1.06	66.50	
3	19	37		1.20	17	6.3	1.06	66.50	
3.2	19	36		1.13	15	6.0	1.06	66.50	
3.4	22	41		1.27	14	#RIF!	1.22	77.00	
3.6	22	45		1.53	15	7.0	1.22	77.00	
3.8	23	45		1.47	16	6.7	1.28	80.50	
4	25	47		1.47	20	6.4	1.39	87.50	
4.2	27	46		1.27	23	5.1	1.50	94.50	
4.4	29	47		1.20	20	4.4	1.61	101.50	
4.6	22	44		1.47	21	5.1	1.22	77.00	
4.8	26	42	2300	1.07	17	4.8	1.44	91.00	
5	27	50		1.53	17	5.9	1.50	94.50	
5.2	26	50		1.60	18	5.9	1.44	91.00	
5.4	28	50		1.47	22	5.6	1.56	98.00	
5.6	27	46	2800	1.27	18	4.5	1.50	94.50	
5.8	26	48		1.47	20	5.4	1.44	91.00	
6	49	69		1.33	25	5.1	1.63	245.00	
6.2	28	58		2.00	22	4.1	1.56	98.00	
6.4	12	31		1.27	20	4.5	0.67	42.00	
6.6	18	27		0.60	23	5.0	1.00	63.00	
6.8	12	24		0.80	15	4.4	0.67	42.00	
7	16	28		0.80	24	6.7	0.89	56.00	
7.2	15	25		0.67	16	4.2	0.83	52.50	
7.4	19	33		0.93	22	6.2	1.06	66.50	
7.6	19	32	3000	0.87	22	4.6	1.06	66.50	
7.8	22	35		0.87	18	3.9	1.22	77.00	
8	21	39		1.20	14	5.7	1.17	73.50	
8.2	18	41		1.53	23	8.5	1.00	63.00	
8.4	22	34		0.80	25	3.6	1.22	77.00	
8.6	25	38	3700	0.87	20	3.5	1.39	87.50	
8.8	19	38		1.27	20	6.7	1.06	66.50	
9	20	34		0.93	19	4.7	1.11	70.00	
9.2	19	35		1.07	18	5.6	1.06	66.50	
9.4	17	33		1.07	20	6.3	0.94	59.50	
9.6	27	40	3300	0.87	23	3.2	1.50	94.50	
9.8	19	37		1.20	18	6.3	1.06	66.50	
10	18	34		1.07	21	5.9	1.00	63.00	
10.2	23	36		0.87	25	3.8	1.28	80.50	
10.4	26	40		0.93	28	3.6	1.44	91.00	
10.6	18	32		0.93	18	5.2	1.00	63.00	
10.8	20	35		1.00	16	5.0	1.11	70.00	
11	32	51		1.27	13	4.0	1.78	112.00	
11.2	37	73		2.40	15	6.5	1.23	185.00	
11.4	35	71		2.40	25	6.9	1.17	175.00	
11.6	19	40	4000	1.40	6	7.4	1.06	66.50	
11.8	63	108		3.00	19	4.8	2.10	315.00	
12	350	400		3.33	105	1.0		2100.00	44.18

PROVA PENETROMETRICA STATICA **LETTURE DI CAMPAGNA / VALORI DI RESISTENZA**

CPT 2

2.01PG05-083

- committente : Dr. Geol. Trauzzi Massimiliano
 - lavoro : Costruzione capannone
 - località : Lottizz. Camboara, Noceto (PR)
 - note :

- data : 02/12/2013
 - quota inizio : Piano Campagna
 - prof. falda : Falda non rilevata
 - pagina : 1

Prof. m	Letture di campagna		qc kg/cm ²	fs	qc/fs	Prof. m	Letture di campagna		qc kg/cm ²	fs	qc/fs
	punta	laterale					punta	laterale			
0,20	----	----	--	0,40	----	1,60	12,0	30,0	12,0	1,13	11,0
0,40	8,0	14,0	8,0	1,13	7,0	1,80	13,0	30,0	13,0	1,13	11,0
0,60	12,0	29,0	12,0	1,27	9,0	2,00	18,0	35,0	18,0	0,93	19,0
0,80	16,0	35,0	16,0	1,53	10,0	2,20	22,0	36,0	22,0	0,93	24,0
1,00	15,0	38,0	15,0	1,47	10,0	2,40	13,0	27,0	13,0	1,73	7,0
1,20	16,0	38,0	16,0	1,53	10,0	2,60	87,0	113,0	87,0	2,00	44,0
1,40	12,0	35,0	12,0	1,20	10,0	2,80	320,0	350,0	320,0	-----	----

- PENETROMETRO STATICO tipo PAGANI da 10/20t
 - COSTANTE DI TRASFORMAZIONE $C_t = 10$ - Velocità Avanzamento punta 2 cm/s
 - punta meccanica tipo Begemann $\phi = 35.7$ mm (area punta 10 cm² - apertura 60°)
 - manicotto laterale (superficie 150 cm²)

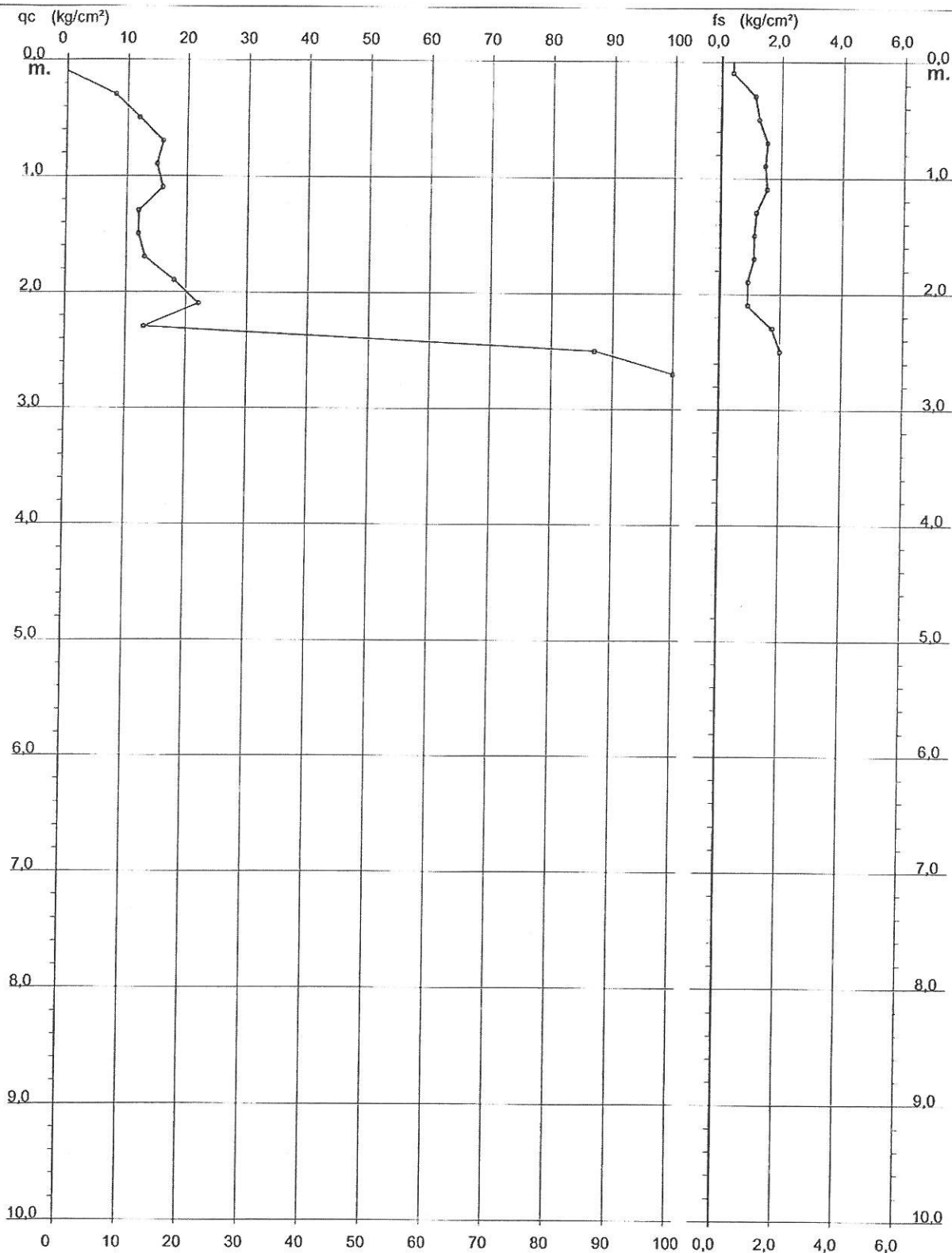
**PROVA PENETROMETRICA STATICA
DIAGRAMMA DI RESISTENZA**

CPT 2

2.01PG05-083

- committente : Dr. Geol. Trauzzi Massimiliano
- lavoro : Costruzione capannone
- località : Lottizz. Camboara, Noceto (PR)

- data : 02/12/2013
- quota inizio : Piano Campagna
- prof. falda : Falda non rilevata
- scala vert.: 1 : 50



PROVA PENETROMETRICA DINAMICA
TABELLE VALORI DI RESISTENZA

DIN 1

- committente : Dr. Geol. Trauzzi Massimiliano
- lavoro : Costruzione capannone
- località : Lottizz. Camboara, Noceto (PR)
- note :

- data : 02/12/2013
- quota inizio : piano campagna
- prof. falda : Falda non rilevata
- pagina : 1

Prof.(m)	N(colpi p)	Rpd(kg/cm ²)	N(colpi r)	asta	Prof.(m)	N(colpi p)	Rpd(kg/cm ²)	N(colpi r)	asta
0,00 - 0,20	1	7,4	----	1	3,80 - 4,00	3	17,0	----	5
0,20 - 0,40	1	7,4	----	1	4,00 - 4,20	24	135,9	----	5
0,40 - 0,60	2	14,9	----	1	4,20 - 4,40	39	220,9	----	5
0,60 - 0,80	3	22,3	----	1	4,40 - 4,60	21	118,9	----	5
0,80 - 1,00	2	13,8	----	2	4,60 - 4,80	18	101,9	----	5
1,00 - 1,20	3	20,7	----	2	4,80 - 5,00	17	90,8	----	6
1,20 - 1,40	3	20,7	----	2	5,00 - 5,20	19	101,5	----	6
1,40 - 1,60	2	13,8	----	2	5,20 - 5,40	29	154,9	----	6
1,60 - 1,80	3	20,7	----	2	5,40 - 5,60	25	133,6	----	6
1,80 - 2,00	4	25,7	----	3	5,60 - 5,80	27	144,3	----	6
2,00 - 2,20	3	19,3	----	3	5,80 - 6,00	32	161,8	----	7
2,20 - 2,40	3	19,3	----	3	6,00 - 6,20	45	227,6	----	7
2,40 - 2,60	2	12,9	----	3	6,20 - 6,40	46	232,6	----	7
2,60 - 2,80	2	12,9	----	3	6,40 - 6,60	24	121,4	----	7
2,80 - 3,00	2	12,0	----	4	6,60 - 6,80	13	65,7	----	7
3,00 - 3,20	2	12,0	----	4	6,80 - 7,00	34	163,2	----	8
3,20 - 3,40	2	12,0	----	4	7,00 - 7,20	34	163,2	----	8
3,40 - 3,60	12	72,3	----	4	7,20 - 7,40	26	124,8	----	8
3,60 - 3,80	9	54,2	----	4	7,40 - 7,60	21	100,8	----	8

- PENETROMETRO DINAMICO tipo : DPSH (S. Heavy)

- M (massa battente)= 63,50 kg - H (altezza caduta)= 0,75 m

- Numero Colpi Punta N = N(20) [δ = 20 cm]

- A (area punta)= 20,00 cm² - D(diam. punta)= 50,50 mm

- Uso rivestimento / fanghi iniezione : NO

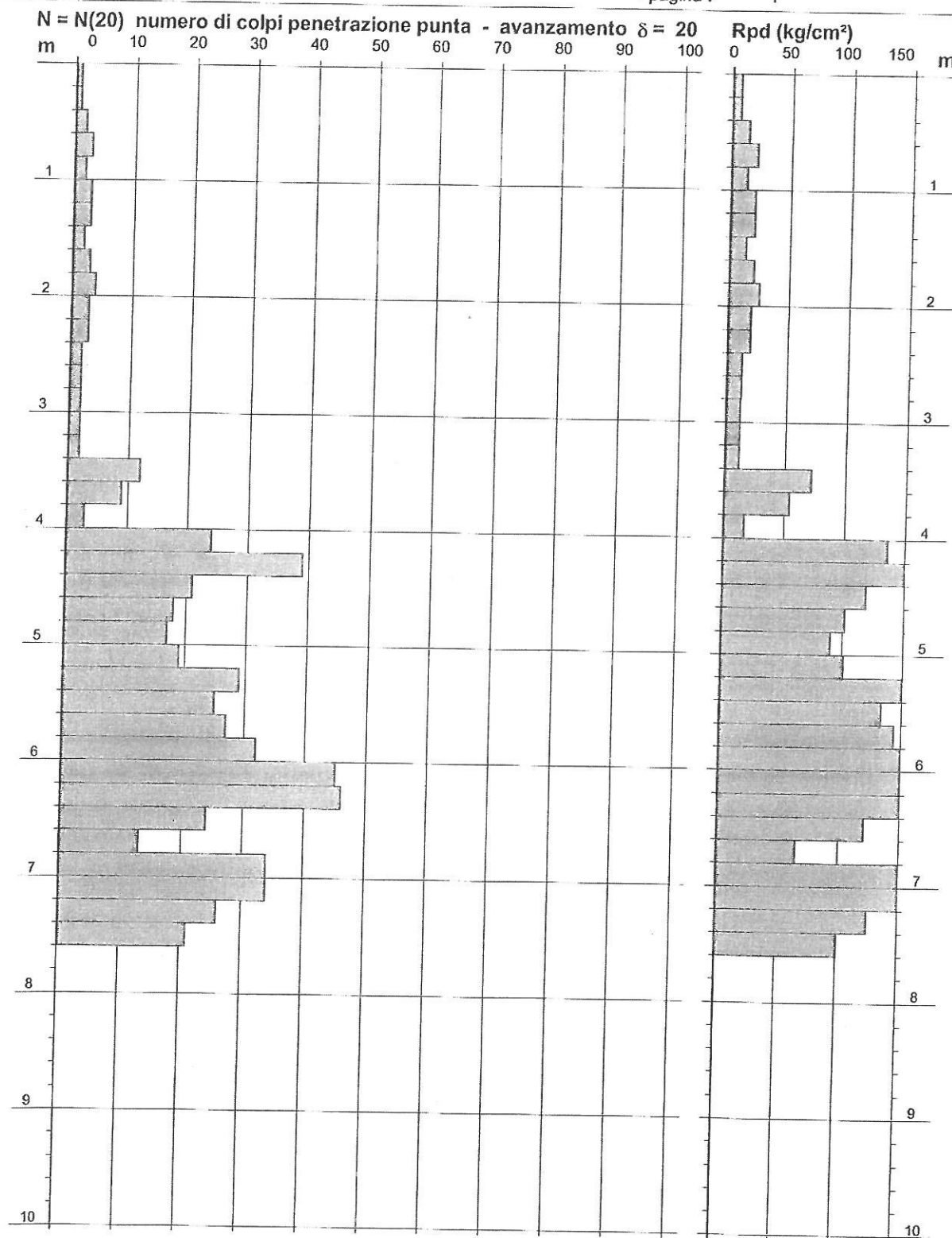
PROVA PENETROMETRICA DINAMICA
DIAGRAMMA NUMERO COLPI PUNTA - Rpd

DIN 1

Scala 1: 50

- committente : Dr. Geol. Trauzzi Massimiliano
- lavoro : Costruzione capannone
- località : Lottizz. Camboara, Noceto (PR)
- note :

- data : 02/12/2013
- quota inizio : piano campagna
- prof. falda : Falda non rilevata
- pagina : 1



Committente : EdilNoceto
Localita' : Noceto (PR)
Impresa esecutrice : Soil System s.n.c.
Data : 04/08/2005

progr.: CPT-4.0/S

PROVA CPT n. : 4

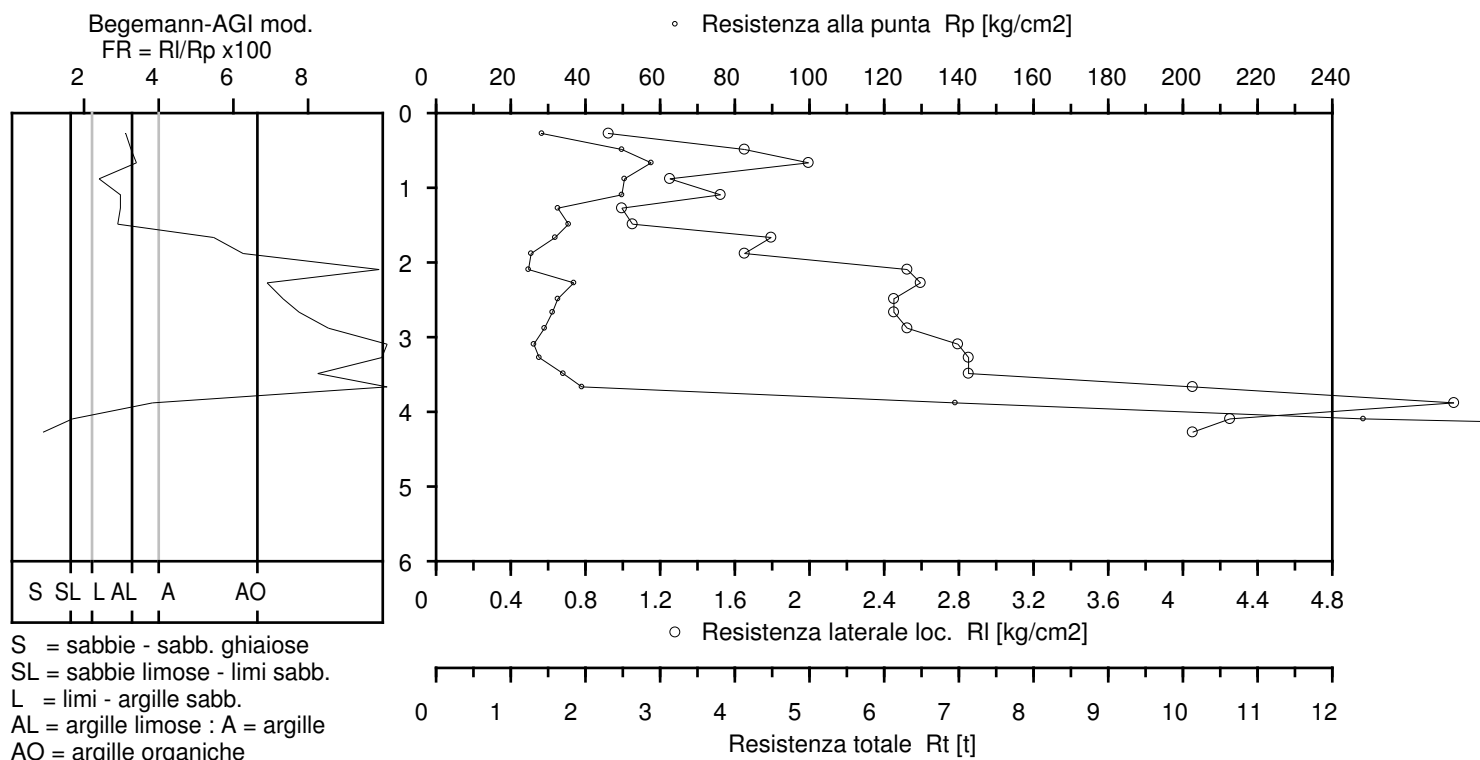
Parametri penetrometrici	Parametri geotecnici stimati
Rp = resistenza alla punta [kg/cm2]	g = Peso di volume [t/m3]
Rl = resistenza lat. locale [kg/cm2]	P'v = Press. vert. efficace[kg/cm2]
FR = Rl/Rp x 100 [-]	u = Press. neutra [kg/cm2]
Rt = resistenza totale [kgf]	E = Modulo di deform.[kg/cm2]
	OCR = Grado di sovracons.[-]
Quota p.c.: m	Cu = Coesione non drenata[kg/cm2]
Falda a m dal p.c.	Fi = Angolo di attrito[gradi]
z = prof. max. tratto esplorato dalla base penetr.	Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	1.1	-	-				-	-	-	-	-	
0.4	29.1	0.9	3.2	-	1.84	0.07	0.00	87	-	0.00	28.7	-	LIMO-ARG.S
0.6	50.1	1.7	3.3	-	1.92	0.11	0.00	114	> 50	2.78	0.0	-	ARG.LIM.
0.8	58.3	2.0	3.4	-	1.95	0.15	0.00	128	> 50	3.23	0.0	-	ARG.LIM.
1.0	51.3	1.3	2.5	-	1.92	0.19	0.00	154	-	0.00	31.6	-	LIMO-ARG.S
1.2	50.3	1.5	3.1	-	1.92	0.23	0.00	151	-	0.00	31.0	-	LIMO-ARG.S
1.4	33.3	1.0	3.0	-	1.86	0.27	0.00	100	-	0.00	29.3	-	LIMO-ARG.S
1.6	36.3	1.1	2.9	-	1.87	0.30	0.00	109	-	0.00	29.7	-	LIMO-ARG.S
1.8	32.4	1.8	5.6	-	1.86	0.34	0.00	78	> 50	1.78	0.0	-	ARGILLA
2.0	26.4	1.7	6.3	-	1.84	0.38	0.00	65	35.9	1.45	0.0	-	ARGILLA
2.2	25.4	2.5	10.0	-	1.83	0.41	0.00	63	28.3	1.39	0.0	-	ARG. ORG.
2.4	37.4	2.6	7.0	-	1.87	0.45	0.00	89	49.1	2.05	0.0	-	ARG. ORG.
2.6	33.4	2.5	7.4	-	1.86	0.49	0.00	80	34.4	1.83	0.0	-	ARG. ORG.
2.8	31.5	2.5	7.8	-	1.85	0.53	0.00	76	27.1	1.72	0.0	-	ARG. ORG.
3.0	29.5	2.5	8.6	-	1.85	0.56	0.00	72	21.4	1.61	0.0	-	ARG. ORG.
3.2	26.5	2.8	10.6	-	1.84	0.60	0.00	65	15.8	1.44	0.0	-	ARG. ORG.
3.4	28.5	2.9	10.1	-	1.84	0.64	0.00	70	16.2	1.55	0.0	-	ARG. ORG.
3.6	34.5	2.9	8.3	-	1.86	0.67	0.00	83	20.5	1.88	0.0	-	ARG. ORG.
3.8	39.6	4.1	10.3	-	1.88	0.71	0.00	93	23.8	2.16	0.0	-	ARG. ORG.
4.0	139.7	5.5	3.9	-	2.24	0.76	0.00	216	> 50	7.72	0.0	-	ARG.LIM.
4.2	248.7	4.3	1.7	-	2.30	0.80	0.00	746	-	0.00	45.6	-	SABBIA LIM.
4.4	419.6	4.1	1.0	-	2.23	0.85	0.00	1259	-	0.00	47.7	1997	SABBIA
4.6	507.6	-	-	-	2.23	0.89	0.00	1523	-	-	-	-	-

PROVA PENETROMETRICA STATICA n. 4

Committente : EdilNoceto
Localita' : Noceto (PR)
Data : 04/08/2005

progr.: CPT-4.0/S

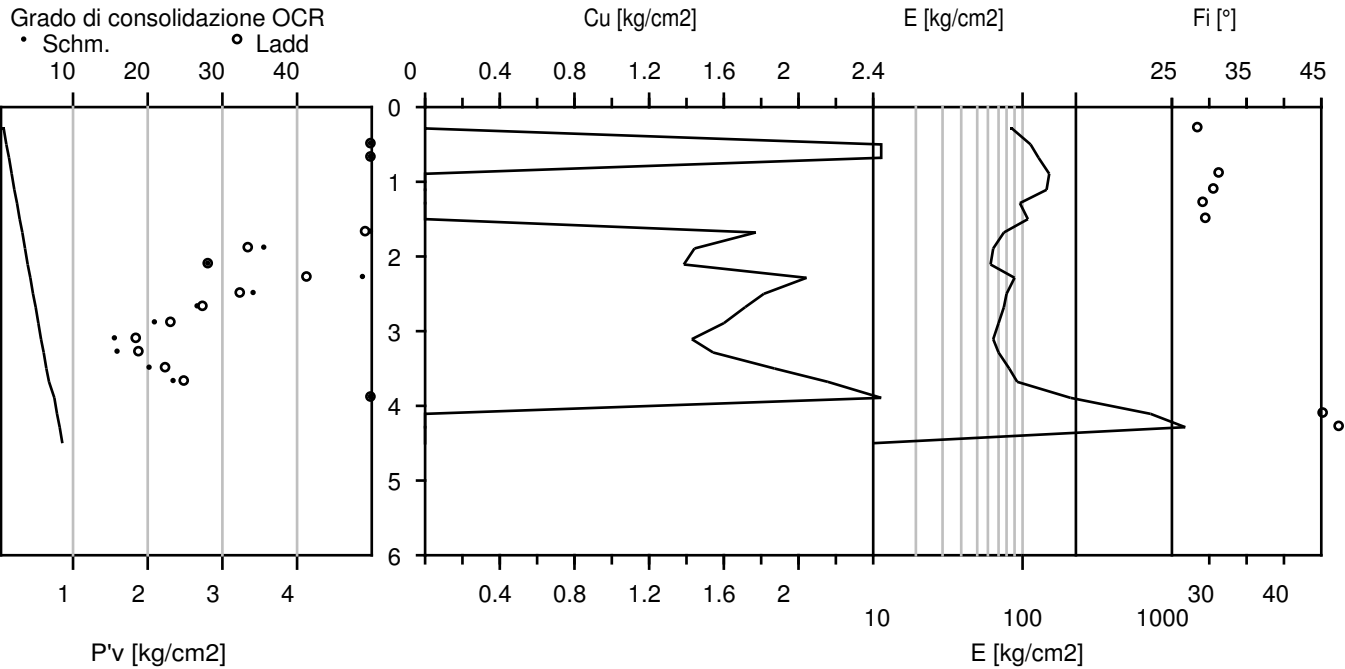


PROVA PENETROMETRICA STATICA n. 4

Committente : EdilNoceto
Localita' : Noceto (PR)
Data : 04/08/2005

progr.: CPT-4.0/S

Litologia : Begemann ('65) - AGI ('77), modif.



Committente : Sig.e RIZZARDI

Localita' : Noceto (PR) - Comparto CENTOLANCE

Impresa esecutrice : Soil System s.n.c.

Data : 20-05-2005

progr.: CPT-4.0/S

PROVA CPT n. : 1

Parametri penetrometrici

Rp = resistenza alla punta [kg/cm2]
 Rl = resistenza lat. locale [kg/cm2]
 FR = Rl/Rp x 100 [-]
 Rt = resistenza totale [kgf]

Quota p.c.: m 0
 Falda a m dal p.c.

z = prof. max. tratto esplorato dalla base penetr.

Parametri geotecnici stimati

g = Peso di volume [t/m3]
 P'v = Press. vert. efficace[kg/cm2]
 u = Press. neutra [kg/cm2]
 E = Modulo di deform.[kg/cm2]
 OCR = Grado di sovracons.[-]
 Cu = Coesione non drenata[kg/cm2]
 Fi = Angolo di attrito[gradi]
 Gmax = Modulo di taglio din.[kg/cm2]

z[m]	Rp	Rl	FR	Rt	g	P'v	u	E	OCR	Cu	Fi	Gmax	TERRENO (AGI)
0.2	-	0.3	-	-				-	-	-	-	-	
0.4	7.1	1.1	15.9	-	1.77	0.07	0.00	20	> 50	0.39	0.0	-	ARG. ORG.
0.6	13.1	0.5	4.1	-	1.79	0.11	0.00	49	> 50	0.72	0.0	-	ARGILLA
0.8	14.3	1.0	7.0	-	1.79	0.14	0.00	39	> 50	0.78	0.0	-	ARG. ORG.
1.0	14.3	1.3	8.9	-	1.79	0.18	0.00	39	45.9	0.78	0.0	-	ARG. ORG.
1.2	11.3	1.3	11.2	-	1.78	0.21	0.00	31	21.4	0.61	0.0	-	ARG. ORG.
1.4	9.3	1.1	12.2	-	1.77	0.25	0.00	25	11.6	0.50	0.0	-	ARG. ORG.
1.6	13.3	1.3	9.6	-	1.79	0.29	0.00	36	17.2	0.72	0.0	-	ARG. ORG.
1.8	14.4	1.4	9.7	-	1.79	0.32	0.00	40	16.1	0.78	0.0	-	ARG. ORG.
2.0	15.4	1.4	9.1	-	1.80	0.36	0.00	42	15.1	0.84	0.0	-	ARG. ORG.
2.2	12.4	1.2	9.7	-	1.78	0.39	0.00	34	8.8	0.67	0.0	-	ARG. ORG.
2.4	12.4	1.3	10.2	-	1.78	0.43	0.00	34	7.7	0.66	0.0	-	ARG. ORG.
2.6	16.4	1.5	8.9	-	1.80	0.46	0.00	45	10.7	0.88	0.0	-	ARG. ORG.
2.8	27.5	1.9	6.8	-	1.84	0.50	0.00	67	23.2	1.50	0.0	-	ARG. ORG.
3.0	28.5	2.0	7.0	-	1.84	0.54	0.00	70	21.7	1.55	0.0	-	ARG. ORG.
3.2	31.5	2.1	6.6	-	1.85	0.58	0.00	76	23.1	1.72	0.0	-	ARGILLA
3.4	33.5	2.3	6.8	-	1.86	0.61	0.00	80	23.0	1.83	0.0	-	ARG. ORG.
3.6	31.5	2.3	7.2	-	1.85	0.65	0.00	76	18.6	1.72	0.0	-	ARG. ORG.
3.8	33.6	2.1	6.3	-	1.86	0.69	0.00	81	18.9	1.83	0.0	-	ARGILLA
4.0	36.6	2.5	6.7	-	1.87	0.72	0.00	87	20.0	2.00	0.0	-	ARG. ORG.
4.2	38.6	2.6	6.7	-	1.88	0.76	0.00	91	20.1	2.10	0.0	-	ARG. ORG.
4.4	34.6	2.7	7.9	-	1.86	0.80	0.00	83	15.2	1.88	0.0	-	ARG. ORG.
4.6	27.6	2.1	7.7	-	1.84	0.84	0.00	68	9.6	1.49	0.0	-	ARG. ORG.
4.8	32.8	2.0	6.1	-	1.86	0.87	0.00	79	11.9	1.77	0.0	-	ARGILLA
5.0	31.8	2.2	6.9	-	1.85	0.91	0.00	77	10.5	1.71	0.0	-	ARG. ORG.
5.2	32.8	2.3	6.9	-	1.86	0.95	0.00	79	10.3	1.77	0.0	-	ARG. ORG.
5.4	32.8	2.3	7.1	-	1.86	0.98	0.00	79	9.7	1.77	0.0	-	ARG. ORG.
5.6	34.8	2.3	6.7	-	1.87	1.02	0.00	83	10.1	1.88	0.0	-	ARG. ORG.
5.8	33.9	2.4	7.1	-	1.86	1.06	0.00	81	9.1	1.83	0.0	-	ARG. ORG.
6.0	32.9	1.9	5.7	-	1.86	1.10	0.00	79	8.2	1.77	0.0	-	ARGILLA
6.2	28.9	2.0	6.9	-	1.84	1.13	0.00	70	6.3	1.54	0.0	-	ARG. ORG.
6.4	31.9	2.3	7.1	-	1.85	1.17	0.00	77	7.0	1.71	0.0	-	ARG. ORG.
6.6	36.9	2.5	6.9	-	1.87	1.21	0.00	88	8.4	1.98	0.0	-	ARG. ORG.
6.8	36.0	2.5	6.8	-	1.87	1.25	0.00	86	7.7	1.93	0.0	-	ARG. ORG.
7.0	37.0	2.6	7.0	-	1.87	1.28	0.00	88	7.7	1.99	0.0	-	ARG. ORG.
7.2	33.0	2.5	7.5	-	1.86	1.32	0.00	79	6.1	1.76	0.0	-	ARG. ORG.
7.4	29.0	2.5	8.5	-	1.84	1.36	0.00	71	4.7	1.54	0.0	-	ARG. ORG.
7.6	24.0	1.8	7.5	-	1.83	1.39	0.00	59	3.4	1.26	0.0	-	ARG. ORG.
7.8	27.2	2.3	8.3	-	1.84	1.43	0.00	67	4.0	1.43	0.0	-	ARG. ORG.
8.0	36.2	2.1	5.7	-	1.87	1.47	0.00	86	5.9	1.93	0.0	-	ARGILLA
8.2	36.2	1.3	3.7	-	1.87	1.50	0.00	86	5.7	1.93	0.0	-	ARG.LIM.
8.4	34.2	1.4	4.1	-	1.86	1.54	0.00	82	5.0	1.81	0.0	-	ARGILLA
8.6	36.2	1.8	5.0	-	1.87	1.58	0.00	86	5.3	1.92	0.0	-	ARGILLA
8.8	38.3	1.5	3.8	-	1.88	1.62	0.00	90	5.6	2.04	0.0	-	ARG.LIM.
9.0	59.3	1.9	3.3	-	1.95	1.66	0.00	178	-	0.00	31.5	-	LIMO-ARG.S
9.2	65.3	1.6	2.5	-	1.98	1.70	0.00	196	-	0.00	32.9	-	LIMO-ARG.S
9.4	104.3	1.9	1.8	-	2.12	1.74	0.00	313	-	0.00	37.5	-	SABBIA LIM.
9.6	136.3	3.0	2.2	-	2.23	1.78	0.00	409	-	0.00	39.6	-	LIMO-ARG.S
9.8	170.4	-	-	-	2.23	1.83	0.00	511	-	-	-	-	-

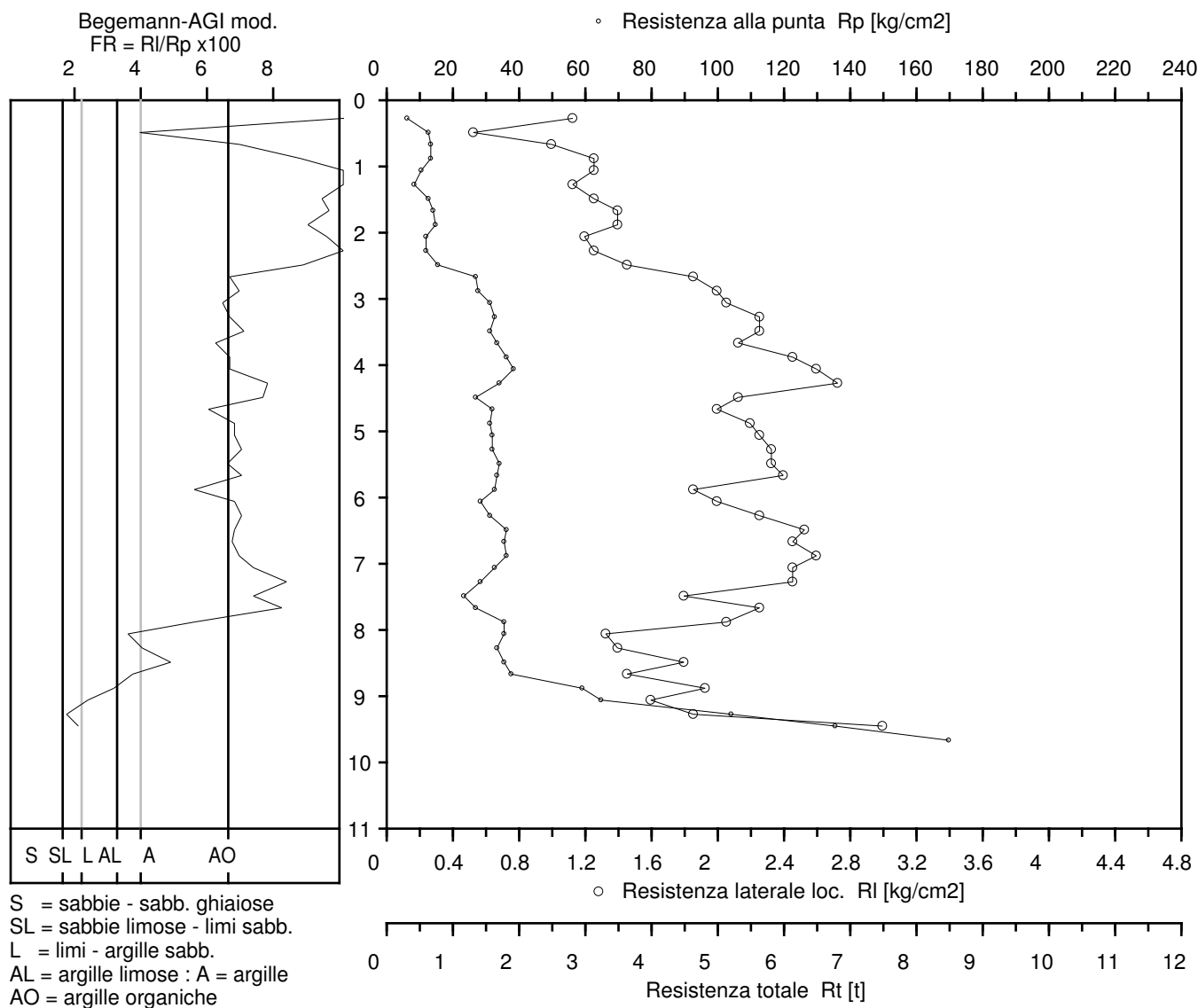
PROVA PENETROMETRICA STATICA n. 1

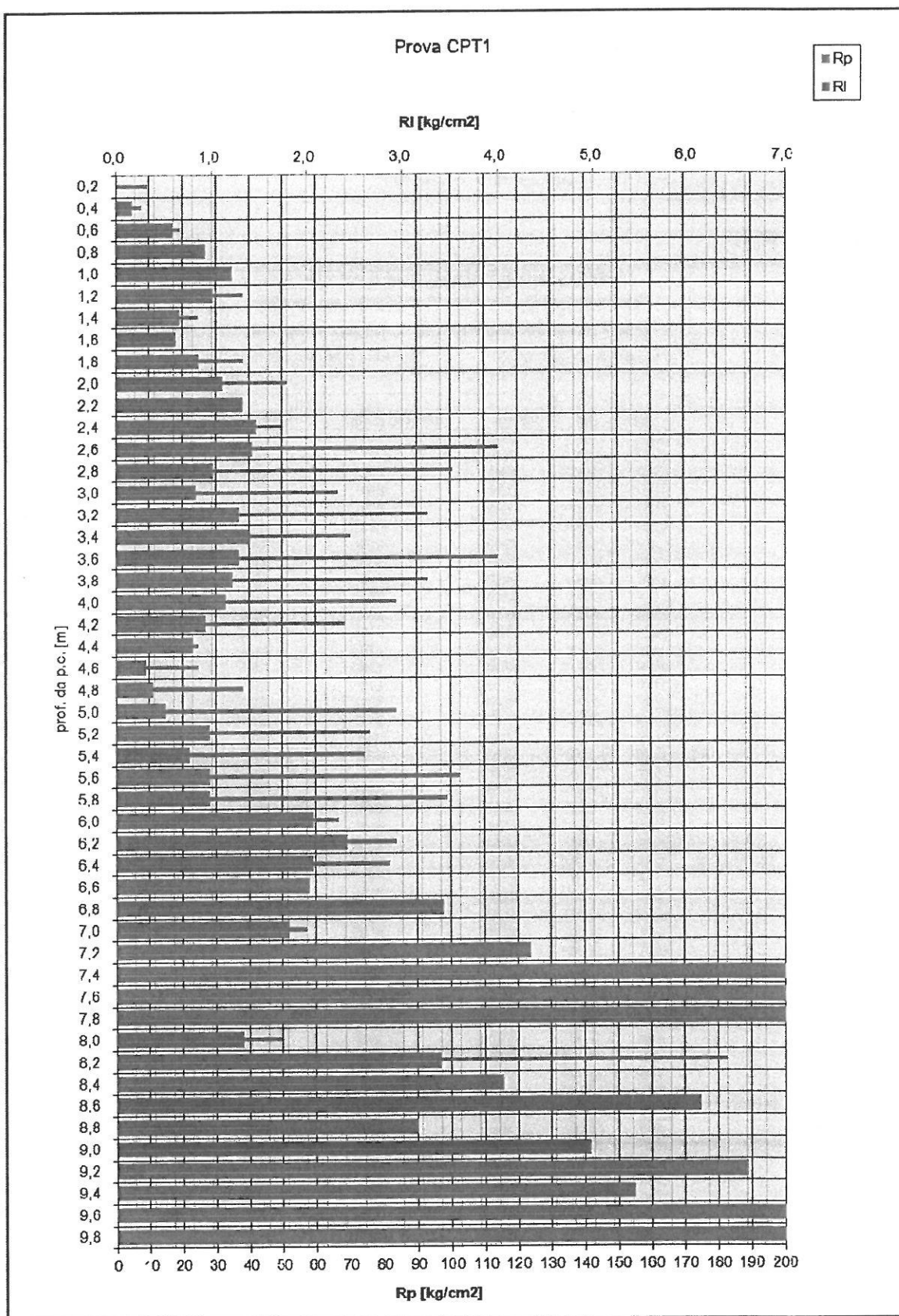
Committente : Sig.e RIZZARDI

Localita' : Noceto (PR) - Comparto CENTOLANCE

Data : 20-05-2005

progr.: CPT-4.0/S





Geol. Giovanni Michiara

Via Langhirano 9 Parma

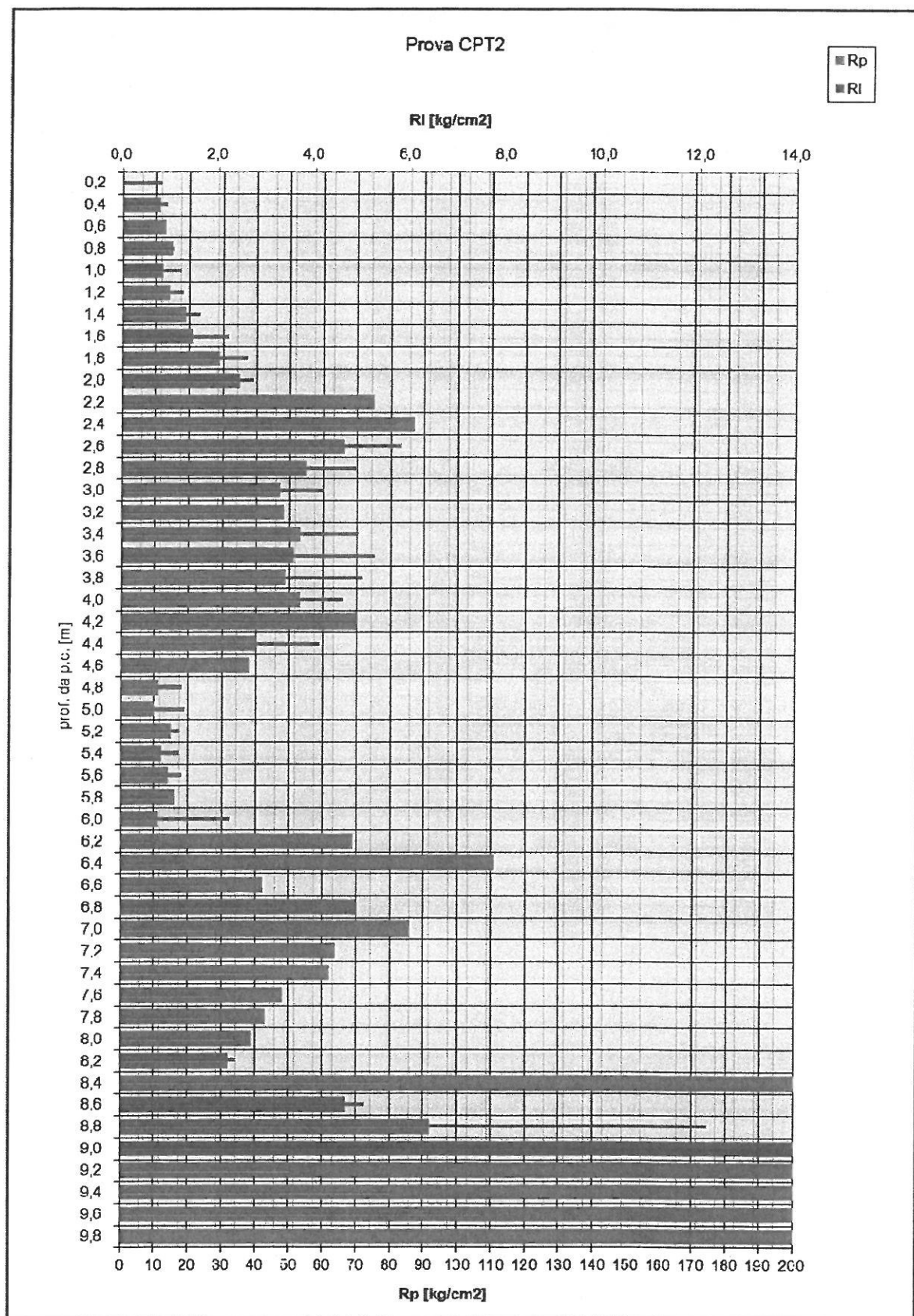
Tel 0521302142

e-mail: michiara@geofaber.it

CPT1							
PROF. (m da p.c.)	Classi granulom.	γ (t/mc)	Cu (kg/cmq)	Φ (°)	Med (kg/cmq)	Es (kg/cmq)	Vs m/sec
0,20							
0,40	ARGILLA	2,00	0,20	COESIVO	25,00		129,32
0,60	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	0,68	COESIVO	62,90		162,90
0,80	LIMO E LIMO SABBIOSO	1,80	1,07	COESIVO	97,20		181,43
1,00	LIMO E LIMO SABBIOSO	1,80	1,39	COESIVO	126,00		193,84
1,20	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	1,15	COESIVO	104,40		184,69
1,40	ARGILLA	2,00	0,75	COESIVO	70,30		166,98
1,60	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	0,71	COESIVO	66,60		164,97
1,80	ARGILLA	2,00	0,99	COESIVO	90,00		178,05
2,00	ARGILLA	2,00	1,26	COESIVO	115,20		189,37
2,20	LIMO E LIMO SABBIOSO	1,80	1,50	COESIVO	136,80		198,12
2,40	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	1,66	COESIVO	151,20		203,59
2,60	ARGILLA	2,00	1,62	COESIVO	147,60		202,25
2,80	TORBA	2,00	1,14	COESIVO	104,40		184,69
3,00	ARGILLA	2,00	0,94	COESIVO	86,40		176,31
3,20	ARGILLA	2,00	1,45	COESIVO	133,20		196,71
3,40	ARGILLA	2,00	1,57	COESIVO	144,00		200,89
3,60	TORBA	2,00	1,45	COESIVO	133,20		196,71
3,80	ARGILLA	2,00	1,37	COESIVO	126,00		193,84
4,00	ARGILLA	2,00	1,29	COESIVO	118,80		190,88
4,20	ARGILLA	2,00	1,05	COESIVO	97,20		181,43
4,43	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	0,89	COESIVO	82,80		174,53
4,60	ARGILLA	2,00	0,32	COESIVO	33,30		143,19
4,80	TORBA	2,00	0,40	COESIVO	40,70		148,80
5,00	TORBA	2,00	0,56	COESIVO	55,50		158,55
5,20	ARGILLA	2,00	1,08	COESIVO	100,80		183,07
5,40	TORBA	2,00	0,84	COESIVO	79,20		172,71
5,60	TORBA	2,00	1,08	COESIVO	100,80		183,07
5,80	TORBA	2,00	1,07	COESIVO	100,80		183,07
6,00	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	2,31	COESIVO	212,40		224,50
6,20	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	2,71	COESIVO	248,40		235,52
6,40	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	2,31	COESIVO	212,40		224,50
6,60	SABBIE LIMOSE	1,70	GRANULARE	30,34		133,40	223,35
6,80	LIMO E LIMO SABBIOSO	1,80	3,87	COESIVO	352,80		264,10
7,00	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	2,03	COESIVO	187,20		216,28
7,20	SABBIE	1,60	GRANULARE	35,89		285,20	286,86
7,40	SABBIE	1,60	GRANULARE	37,85		524,40	364,07
7,60	SABBIE	1,60	GRANULARE	38,36		621,00	391,60
7,80	SABBIE	1,60	GRANULARE	38,60		676,20	406,73
8,00	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	1,46	COESIVO	136,80		198,12
8,20	ARGILLA	2,00	3,81	COESIVO	349,20		263,17
8,40	SABBIE LIMOSE	1,70	GRANULARE	32,64		266,80	280,08
8,60	SABBIE LIMOSE	1,70	GRANULARE	36,63		402,50	326,79
8,80	SABBIE LIMOSE	1,70	GRANULARE	31,53		207,00	256,62
9,00	SABBIE LIMOSE	1,70	GRANULARE	35,86		326,60	301,55
9,20	SABBIE LIMOSE	1,70	GRANULARE	36,77		434,70	336,97
9,40	SABBIE LIMOSE	1,70	GRANULARE	36,08		356,50	311,72
9,60	SABBIE	1,60	GRANULARE	38,93		830,30	447,13
9,80	SABBIE	1,60	GRANULARE	38,38		708,40	415,38

Prova CPT2

PROVA PENETROMETRICA STATICA N° 2				
Penetrometro statico tipo Pagani 10 ton - Punta mecc. Begemann				
Cantiere: costruzione abitazione in Loc. La Rampa di Noceto (PR)				
Data esecuzione: 28/03/2013			Operatore: Dott. Marco Barbieri	
prof.	Rp	Rl+Rp	FR (100 Rl/Rp)	Rl (kg/cm2)
0,20	0,00	0,00		0,80
0,40	11,00	23,00	8,48	0,93
0,60	13,00	27,00	4,10	0,53
0,80	15,00	23,00	7,11	1,07
1,00	12,00	28,00	10,00	1,20
1,20	14,00	32,00	9,05	1,27
1,40	19,00	38,00	8,42	1,60
1,60	21,00	45,00	10,48	2,20
1,80	29,00	62,00	8,97	2,60
2,00	35,00	74,00	7,81	2,73
2,20	75,00	116,00	2,84	2,13
2,40	87,00	119,00	6,51	5,67
2,60	66,00	151,00	8,79	5,80
2,80	55,00	142,00	8,85	4,87
3,00	47,00	120,00	8,94	4,20
3,20	48,00	111,00	5,83	2,80
3,40	53,00	95,00	9,31	4,93
3,60	51,00	125,00	10,33	5,27
3,80	49,00	128,00	10,20	5,00
4,00	53,00	128,00	8,68	4,60
4,20	70,00	139,00	6,95	4,87
4,40	40,00	113,00	10,33	4,13
4,60	38,00	100,00	1,75	0,67
4,80	11,00	21,00	11,52	1,27
5,00	10,00	29,00	13,33	1,33
5,20	15,00	35,00	8,00	1,20
5,40	12,00	30,00	10,00	1,20
5,60	14,00	32,00	9,05	1,27
5,80	16,00	35,00	6,25	1,00
6,00	11,00	26,00	20,61	2,27
6,20	69,00	103,00	0,97	0,67
6,40	111,00	121,00	1,14	1,27
6,60	42,00	61,00	4,44	1,87
6,80	70,00	98,00	4,67	3,27
7,00	86,00	135,00	2,25	1,93
7,20	64,00	93,00	2,60	1,67
7,40	62,00	87,00	4,84	3,00
7,60	48,00	93,00	4,31	2,07
7,80	43,00	74,00	4,34	1,87
8,00	39,00	67,00	6,15	2,40
8,20	32,00	68,00	7,50	2,40
8,40	268,00	304,00	2,09	5,60
8,60	67,00	151,00	7,56	5,07
8,80	92,00	168,00	13,26	12,20
9,00	281,00	464,00	3,23	9,07
9,20	316,00	452,00	1,12	3,53
9,40	294,00	347,00	1,93	5,67
9,60	341,00	426,00	2,21	7,53
9,80	338,00	451,00		



Geol. Giovanni Michiara

Via Langhirano 9 Parma

Tel 0521302142

e-mail: michiara@geofaber.it

GPT2							
PROF. (m da p.c.)	Classi granulom.	γ (t/mc)	Cu (kg/cm ³)	Φ (°)	Med (kg/cm ³)	Es (kg/cm ³)	Vs m/sec
0,20							
0,40	ARGILLA	2,00	0,44	COESIVO	40,70		148,80
0,60	ARGILLA	2,00	0,52	COESIVO	48,10		153,88
0,80	ARGILLA	2,00	0,59	COESIVO	55,50		158,55
1,00	TORBA	2,00	0,47	COESIVO	44,40		151,40
1,20	ARGILLA	2,00	0,55	COESIVO	51,80		156,26
1,40	ARGILLA	2,00	0,75	COESIVO	70,30		166,98
1,60	TORBA	2,00	0,83	COESIVO	75,60		170,85
1,80	ARGILLA	2,00	1,15	COESIVO	104,40		184,69
2,00	ARGILLA	2,00	1,38	COESIVO	126,00		193,84
2,20	LIMO E LIMO SABBIOSO	1,80	2,98	COESIVO	270,00		241,80
2,40	ARGILLA	2,00	3,46	COESIVO	313,20		253,74
2,60	ARGILLA	2,00	2,62	COESIVO	237,60		232,29
2,80	ARGILLA	2,00	2,18	COESIVO	198,00		219,86
3,00	ARGILLA	2,00	1,86	COESIVO	169,20		210,09
3,20	ARGILLA	2,00	1,89	COESIVO	172,80		211,35
3,40	ARGILLA	2,00	2,09	COESIVO	190,80		217,48
3,60	TORBA	2,00	2,01	COESIVO	183,60		215,06
3,80	TORBA	2,00	1,93	COESIVO	176,40		212,60
4,00	ARGILLA	2,00	2,09	COESIVO	190,80		217,48
4,20	ARGILLA	2,00	2,77	COESIVO	252,00		236,58
4,43	TORBA	2,00	1,56	COESIVO	144,00		200,89
4,60	SABBIE LIMOSE	1,70	GRANULARE	29,37		87,40	198,12
4,80	TORBA	2,00	0,40	COESIVO	40,70		148,80
5,00	TORBA	2,00	0,36	COESIVO	37,00		146,07
5,20	ARGILLA	2,00	0,56	COESIVO	55,50		158,55
5,40	TORBA	2,00	0,44	COESIVO	44,40		151,40
5,60	ARGILLA	2,00	0,52	COESIVO	51,80		156,26
5,80	ARGILLA	2,00	0,59	COESIVO	59,20		160,76
6,00	TORBA	2,00	0,39	COESIVO	40,70		148,80
6,20	SABBIE	1,60	GRANULARE	31,29		158,70	235,52
6,40	SABBIE	1,60	GRANULARE	35,71		255,30	275,74
6,60	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	1,63	COESIVO	151,20		203,59
6,80	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	2,75	COESIVO	252,00		236,58
7,00	SABBIE LIMOSE	1,70	GRANULARE	31,81		197,80	252,77
7,20	LIMO E LIMO SABBIOSO	1,80	2,51	COESIVO	230,40		230,10
7,40	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	2,42	COESIVO	223,20		227,89
7,60	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	1,86	COESIVO	172,80		211,35
7,80	ARGILLA LIMOSA LIMO ARGILLOSO	1,90	1,66	COESIVO	154,80		204,92
8,00	ARGILLA	2,00	1,50	COESIVO	140,40		199,51
8,20	ARGILLA	2,00	1,21	COESIVO	115,20		189,37
8,40	SABBIE	1,60	GRANULARE	38,17		616,40	390,32
8,60	ARGILLA	2,00	2,61	COESIVO	241,20		233,38
8,80	TORBA	2,00	3,61	COESIVO	331,20		258,51
9,00	SABBIE LIMOSE	1,70	GRANULARE	38,11		646,30	398,58
9,20	SABBIE	1,60	GRANULARE	38,57		726,80	420,27
9,40	SABBIE	1,60	GRANULARE	38,29		676,20	406,73
9,60	SABBIE	1,60	GRANULARE	38,75		784,30	435,32
9,80	SABBIE	1,60	GRANULARE	38,68		777,40	433,53

PROVA PENETROMETRICA DINAMICA

TABELLE VALORI DI RESISTENZA

DIN 1

- committente :
- lavoro :
- località :
- note :

Sigg. Pelosi - Pelà
Nuovo edificio monoresidenziale
La Rampa - Comune di Noceto

- data :
- quota inizio :
- prof. falda :
- pagina :

12/05/2011
0,00
-
1

Prof.(m)	N(colpi p)	Rpd(kg/cm²)	N(colpi r)	asta	Prof.(m)	N(colpi p)	Rpd(kg/cm²)	N(colpi r)	asta
0,00 - 0,10	11	43,0	—	1	3,20 - 3,30	3	10,2	—	4
0,10 - 0,20	6	23,5	—	1	3,30 - 3,40	3	10,2	—	4
0,20 - 0,30	7	27,4	—	1	3,40 - 3,50	4	13,5	—	4
0,30 - 0,40	11	43,0	—	1	3,50 - 3,60	3	10,2	—	4
0,40 - 0,50	9	35,2	—	1	3,60 - 3,70	9	30,5	—	4
0,50 - 0,60	8	31,3	—	1	3,70 - 3,80	8	27,1	—	4
0,60 - 0,70	6	23,5	—	1	3,80 - 3,90	10	32,4	—	5
0,70 - 0,80	5	19,6	—	1	3,90 - 4,00	17	55,0	—	5
0,80 - 0,90	5	18,6	—	2	4,00 - 4,10	12	38,8	—	5
0,90 - 1,00	6	22,3	—	2	4,10 - 4,20	9	29,1	—	5
1,00 - 1,10	6	22,3	—	2	4,20 - 4,30	11	35,6	—	5
1,10 - 1,20	6	22,3	—	2	4,30 - 4,40	12	38,8	—	5
1,20 - 1,30	6	22,3	—	2	4,40 - 4,50	16	51,8	—	5
1,30 - 1,40	4	14,9	—	2	4,50 - 4,60	10	32,4	—	5
1,40 - 1,50	4	14,9	—	2	4,60 - 4,70	15	48,6	—	5
1,50 - 1,60	3	11,2	—	2	4,70 - 4,80	9	29,1	—	5
1,60 - 1,70	3	11,2	—	2	4,80 - 4,90	7	21,7	—	6
1,70 - 1,80	3	11,2	—	2	4,90 - 5,00	13	40,3	—	6
1,80 - 1,90	2	7,1	—	3	5,00 - 5,10	15	46,6	—	6
1,90 - 2,00	3	10,6	—	3	5,10 - 5,20	16	49,7	—	6
2,00 - 2,10	2	7,1	—	3	5,20 - 5,30	9	27,9	—	6
2,10 - 2,20	2	7,1	—	3	5,30 - 5,40	8	24,8	—	6
2,20 - 2,30	2	7,1	—	3	5,40 - 5,50	10	31,0	—	6
2,30 - 2,40	2	7,1	—	3	5,50 - 5,60	10	31,0	—	6
2,40 - 2,50	2	7,1	—	3	5,60 - 5,70	6	18,6	—	6
2,50 - 2,60	2	7,1	—	3	5,70 - 5,80	11	34,1	—	6
2,60 - 2,70	2	7,1	—	3	5,80 - 5,90	5	14,9	—	7
2,70 - 2,80	2	7,1	—	3	5,90 - 6,00	10	29,8	—	7
2,80 - 2,90	2	6,8	—	4	6,00 - 6,10	17	50,7	—	7
2,90 - 3,00	2	6,8	—	4	6,10 - 6,20	17	50,7	—	7
3,00 - 3,10	2	6,8	—	4	6,20 - 6,30	50	149,0	—	7
3,10 - 3,20	3	10,2	—	4					

- PENETROMETRO DINAMICO tipo : DM-30 (60°)

- M (massa battente)= 30,00 kg - H (altezza caduta)= 0,20 m - A (area punta)= 10,00 cm² - D(diam. punta)= 35,70 mm

- Numero Colpi Punta N = N(10) [δ = 10 cm] - Uso rivestimento / fanghi iniezione : NO

PROVA PENETROMETRICA DINAMICA
TABELLE VALORI DI RESISTENZA

DIN 2

- committente : Sigg. Pelosi - Pelà

- lavoro : Nuovo edificio monoresidenziale

- località : La Rampa - Comune di Noceto

- note :

- data : 12/05/2011

- quota inizio : 0,00

- prof. falda : 5,40 m da quota inizio

- pagina : 1

Prof.(m)	N(colpi p)	Rpd(kg/cm²)	N(colpi r)	asta	Prof.(m)	N(colpi p)	Rpd(kg/cm²)	N(colpi r)	asta
0 - 0,10	8	31,3	—	1	2,90 - 3,00	29	98,1	—	4
0 - 0,20	9	35,2	—	1	3,00 - 3,10	24	81,2	—	4
0 - 0,30	19	74,3	—	1	3,10 - 3,20	11	37,2	—	4
0 - 0,40	17	66,5	—	1	3,20 - 3,30	10	33,8	—	4
0 - 0,50	13	50,9	—	1	3,30 - 3,40	11	37,2	—	4
0 - 0,60	8	31,3	—	1	3,40 - 3,50	10	33,8	—	4
0 - 0,70	6	23,5	—	1	3,50 - 3,60	9	30,5	—	4
0 - 0,80	5	19,6	—	1	3,60 - 3,70	7	23,7	—	4
0 - 0,90	4	14,9	—	2	3,70 - 3,80	7	23,7	—	4
0 - 1,00	4	14,9	—	2	3,80 - 3,90	7	22,7	—	5
0 - 1,10	4	14,9	—	2	3,90 - 4,00	10	32,4	—	5
0 - 1,20	4	14,9	—	2	4,00 - 4,10	6	19,4	—	5
0 - 1,30	3	11,2	—	2	4,10 - 4,20	6	19,4	—	5
0 - 1,40	3	11,2	—	2	4,20 - 4,30	6	19,4	—	5
0 - 1,50	2	7,4	—	2	4,30 - 4,40	11	35,6	—	5
0 - 1,60	3	11,2	—	2	4,40 - 4,50	6	19,4	—	5
0 - 1,70	2	7,4	—	2	4,50 - 4,60	8	25,9	—	5
0 - 1,80	3	11,2	—	2	4,60 - 4,70	7	22,7	—	5
0 - 1,90	2	7,1	—	3	4,70 - 4,80	7	22,7	—	5
0 - 2,00	2	7,1	—	3	4,80 - 4,90	9	27,9	—	6
0 - 2,10	2	7,1	—	3	4,90 - 5,00	10	31,0	—	6
0 - 2,20	3	10,6	—	3	5,00 - 5,10	5	15,5	—	6
0 - 2,30	2	7,1	—	3	5,10 - 5,20	6	18,6	—	6
0 - 2,40	2	7,1	—	3	5,20 - 5,30	7	21,7	—	6
0 - 2,50	4	14,2	—	3	5,30 - 5,40	6	18,6	—	6
0 - 2,60	4	14,2	—	3	5,40 - 5,50	5	15,5	—	6
0 - 2,70	8	28,3	—	3	5,50 - 5,60	9	27,9	—	6
0 - 2,80	23	81,5	—	3	5,60 - 5,70	50	155,2	—	6
0 - 2,90	32	108,3	—	4					

PROVA PENETROMETRICA DINAMICA

DIAGRAMMA NUMERO COLPI PUNTA - Rpd

DIN 1

Scala 1: 50

- committente : Sigg. Pelosi - Pelà

- lavoro : Nuovo edificio monoresidenziale

- località : La Rampa - Comune di Noceto

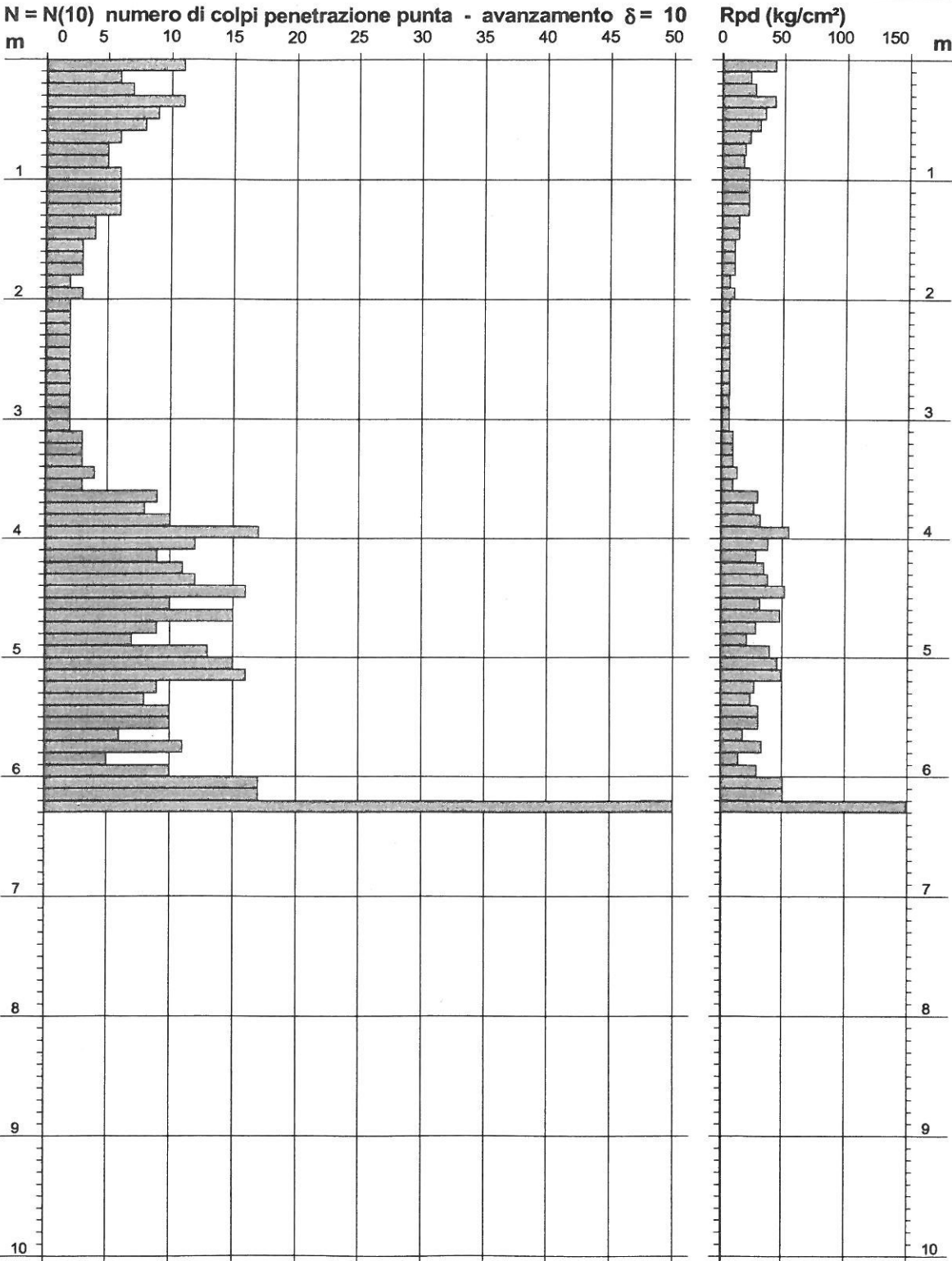
- note :

- data : 12/05/2011

- quota inizio : 0,00

- prof. falda :

- pagina : 1



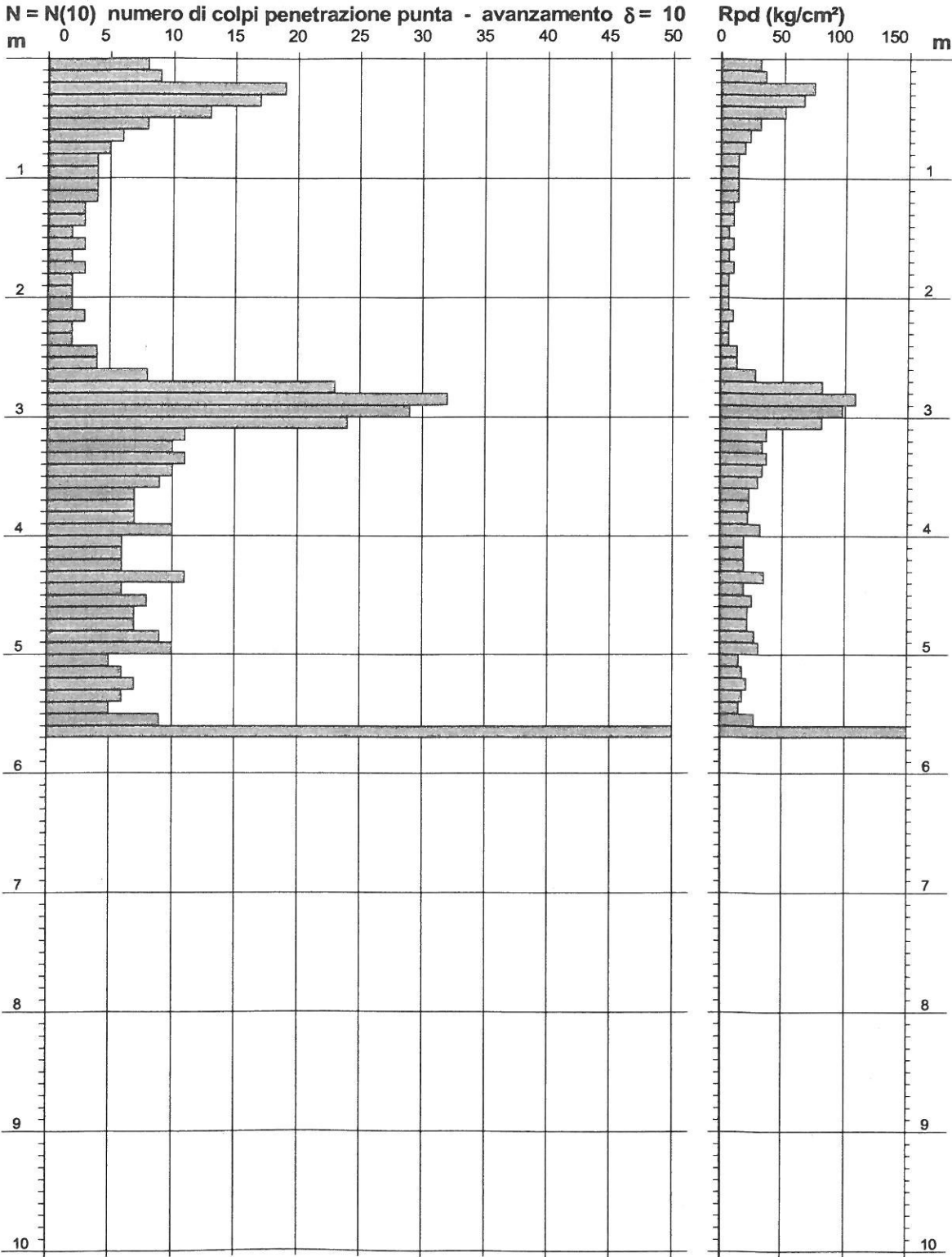
PROVA PENETROMETRICA DINAMICA
DIAGRAMMA NUMERO COLPI PUNTA - Rpd

DIN 2

Scala 1: 50

- committente : Sigg. Pelosi - Pelà
- lavoro : Nuovo edificio monoresidenziale
- località : La Rampa - Comune di Noceto
- note :

- data : 12/05/2011
- quota inizio : 0,00
- prof. falda : 5,40 m da quota inizio
- pagina : 1





PROVA PENETROMETRICA STATICA
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

CPT 8

2010496-082

- committente : SIGG. POLONELLI - CATELLANI
- lavoro : PROGETTO COMPARTO DIRETTO N° 15
- località : CELLA DI NOCETO (PR)
- note :

- data : 21/02/2002
- quota inizio : Piano Campagna
- prof. falda : Falda non rilevata
- pagina : 1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm²	Kg/cm²	Kg/cm²	Kg/cm²	-	m	Kg/cm²	Kg/cm²	Kg/cm²	Kg/cm²	-
0,20	—	—	—	—	—	5,20	24,0	38,0	24,0	1,13	21,0
0,40	—	—	—	1,40	—	5,40	21,0	38,0	21,0	0,93	22,0
0,60	15,0	36,0	15,0	1,40	11,0	5,60	18,0	32,0	18,0	0,87	21,0
0,80	17,0	38,0	17,0	1,67	10,0	5,80	19,0	32,0	19,0	0,80	24,0
1,00	15,0	40,0	15,0	1,07	14,0	6,00	20,0	32,0	20,0	1,00	20,0
1,20	15,0	31,0	15,0	1,47	10,0	6,20	20,0	35,0	20,0	0,87	23,0
1,40	15,0	37,0	15,0	1,47	10,0	6,40	21,0	34,0	21,0	0,80	26,0
1,60	15,0	37,0	15,0	1,07	14,0	6,60	19,0	31,0	19,0	0,87	22,0
1,80	16,0	32,0	16,0	1,13	14,0	6,80	22,0	35,0	22,0	0,93	24,0
2,00	18,0	35,0	18,0	1,53	12,0	7,00	24,0	38,0	24,0	1,07	22,0
2,20	20,0	43,0	20,0	1,60	12,0	7,20	22,0	38,0	22,0	0,93	24,0
2,40	23,0	47,0	23,0	1,60	14,0	7,40	22,0	36,0	22,0	1,33	16,0
2,60	22,0	46,0	22,0	1,47	15,0	7,60	58,0	78,0	58,0	0,27	217,0
2,80	19,0	41,0	19,0	1,20	16,0	7,80	108,0	112,0	108,0	1,87	58,0
3,00	22,0	40,0	22,0	1,07	21,0	8,00	105,0	133,0	105,0	2,33	45,0
3,20	34,0	50,0	34,0	1,47	23,0	8,20	165,0	200,0	165,0	1,67	99,0
3,40	36,0	58,0	36,0	1,60	22,0	8,40	205,0	230,0	205,0	1,33	154,0
3,60	36,0	60,0	36,0	1,87	19,0	8,60	195,0	215,0	195,0	0,80	244,0
3,80	38,0	66,0	38,0	1,73	22,0	8,80	86,0	98,0	86,0	0,67	129,0
4,00	32,0	58,0	32,0	1,40	23,0	9,00	115,0	125,0	115,0	1,67	69,0
4,20	30,0	51,0	30,0	1,47	20,0	9,20	160,0	185,0	160,0	1,93	83,0
4,40	24,0	46,0	24,0	1,00	24,0	9,40	56,0	85,0	56,0	1,87	30,0
4,60	17,0	32,0	17,0	0,80	21,0	9,60	55,0	83,0	55,0	1,87	29,0
4,80	21,0	33,0	21,0	0,87	24,0	9,80	57,0	85,0	57,0	2,07	28,0
5,00	24,0	37,0	24,0	0,93	26,0	10,00	59,0	90,0	59,0	—	—

- PENETROMETRO STATICO tipo GOUDA da 20 t - (con anello allargatore) -
- COSTANTE DI TRASFORMAZIONE Ct = 10 - Velocità Avanzamento punta 2 cm/s
- punta meccanica tipo Begemann ø = 35,7 mm (area punta 10 cm² - apertura 60°)
- manicotto laterale (superficie 150 cm²)

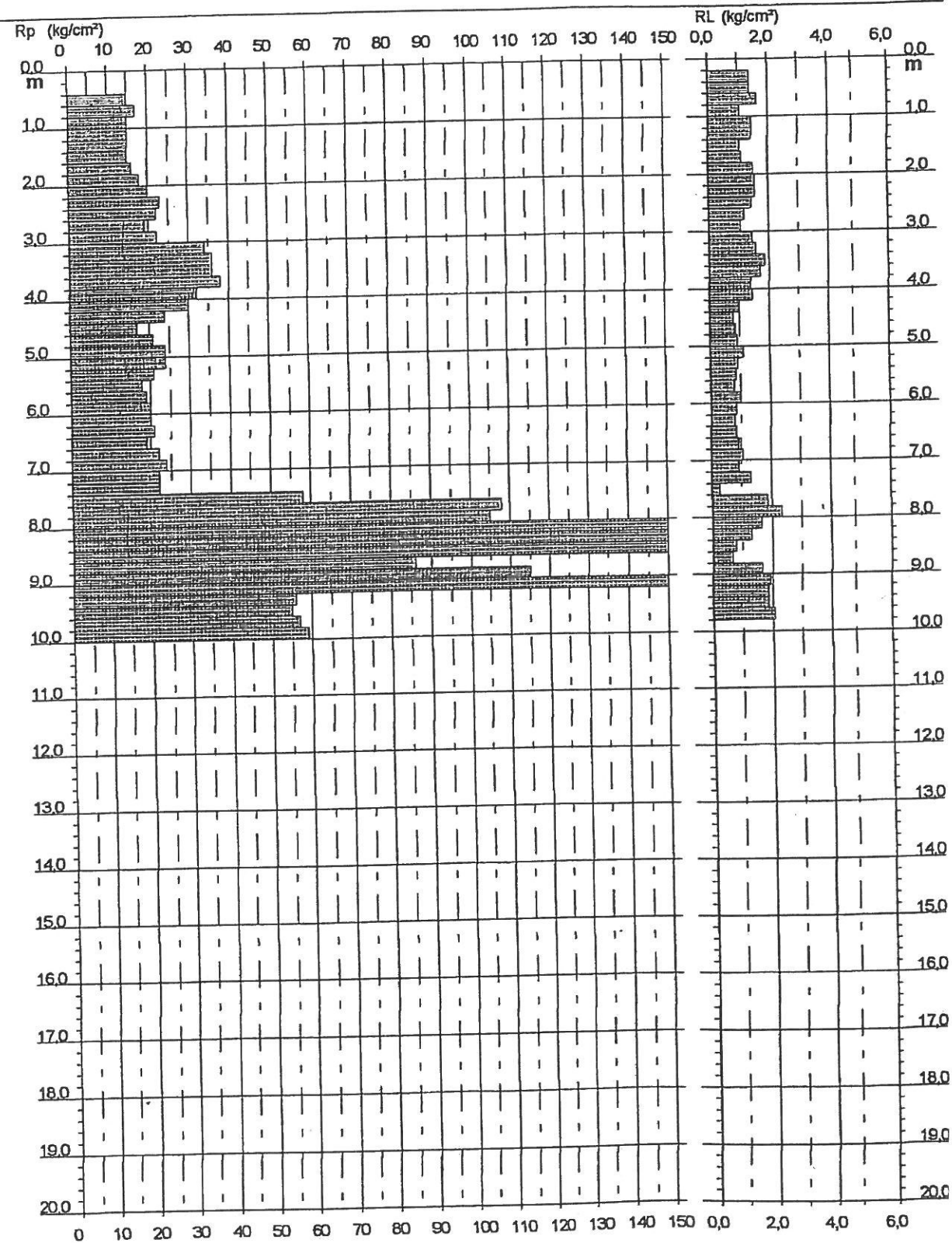
PROVA PENETROMETRICA STATICA
DIAGRAMMA DI RESISTENZA

CPT 8

2.010496-082

- committente : SIGG. POLONELLI - CATELLANI
- lavoro : PROGETTO COMPARTO DIRETTO N° 15
- località : CELLA DI NOCETO (PR)

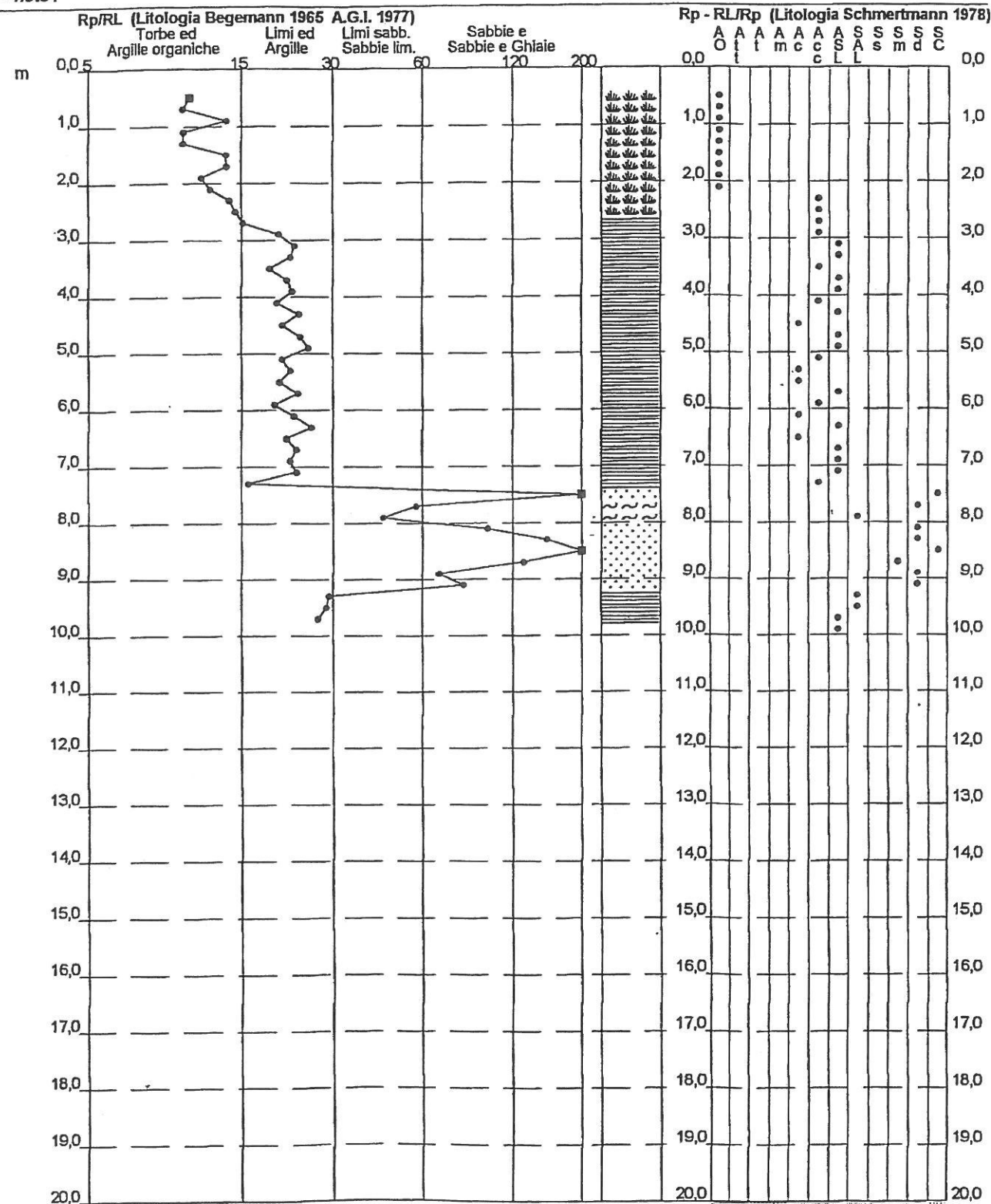
- data : 21/02/2002
- quota inizio : Piano Campagna
- prof. falda : Falda non rilevata
- scala vert. : 1 : 100



CPT 8

2.010496-082

- data : 21/02/2002
- quota inizio : Piano Campagna
- prof. falda : Falda non rilevata
- scala vert.: 1 : 100



Provincia di Parma
Comune di Noceto
Loc. Cella

REALIZZAZIONE DI EDIFICIO
RESIDENZIALE MONOFAMILIARE

RELAZIONE GEOLOGICA E SISMICA

LEGENDA

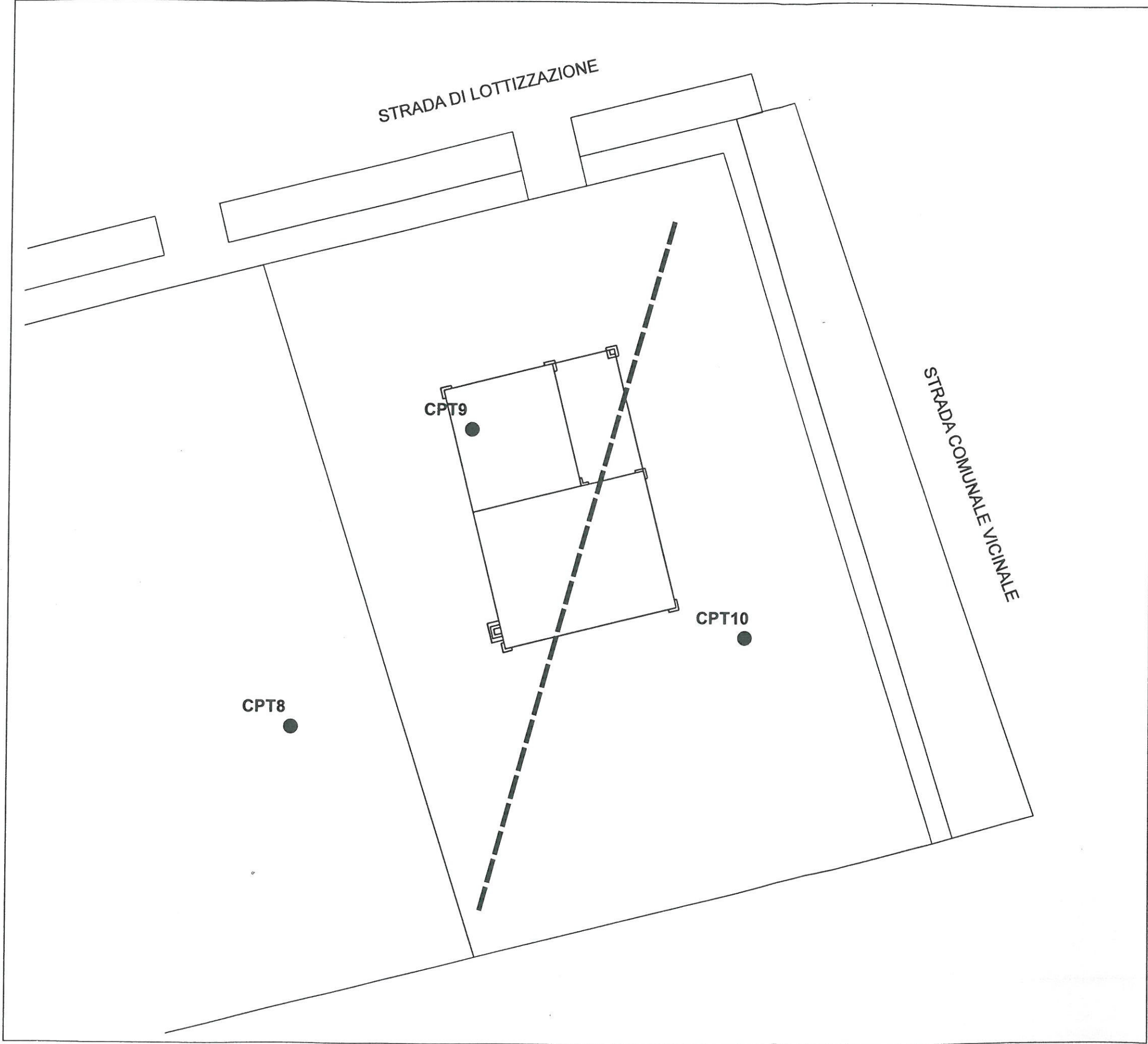
- Prova penetrometrica statica
- — — Linea sismica MASW

TAV. 5
UBICAZIONE PROVE
GEOGNOSTICHE

PLANIMETRIA SCALA 1:200

Dott. Geol. Fabio Fecci
Via Battisti, 14 - NOCETO (PR)

agosto 2011



034025P16S16

AUTOCAMIONALE DELLA CISA S.P.A.

VIABILITA' DI ADDUZIONE AL CASELLO AUTOSTRADALE DI PARMA OVEST

VARIANTE ALLA SP 357R IN PROSSIMITA' DELL'ABITATO DI NOCETO

INDAGINI GEOGNOSTICHE

Località: PONTE SUL T. RECCHIO (NOCETO)

SONDAGGIO S03 - 1

Data inizio: 06/ 07/ 2012

Profondità: 15 m da p.c.

Falda: 9.20 m da p.c.

Perforazione verticale a distruzione di nucleo

[illegible]

AUTOCAMIONALE DELLA CISA S.P.A.

VIABILITA' DI ADDUZIONE AL CASELLO AUTOSTRADALE DI PARMA OVEST

VARIANTE ALLA SP 357R IN PROSSIMITA' DELL'ABITATO DI NOCETO

INDAGINI GEOGNOSTICHE	
-----------------------	--

Località: PONTE SUL T. RECCHIO (NOCETO)

SONDAGGIO S03 - 2

Data inizio: 06/07/2012

Profondità: 15 m da p.c.

Falda: 9.20 m da p.c.

Perforazione verticale a distruzione di nucleo
--

[illegible]

034025P17SPT17

AUTOCAMIONALE DELLA CISA S.P.A.

VIABILITA' DI ADDUZIONE AL CASELLO AUTOSTRADALE DI PARMA OVEST

VARIANTE ALLA SP 357R IN PROSSIMITA' DELL'ABITATO DI NOCETO

INDAGINI GEOGNOSTICHE

Località: STRADA PONTE TARO (NOCETO)

SONDAGGIO S01 - 1

Data inizio: 13/ 06/ 2012

Profondità: 18 m da p.c.

Falda: 9.50 m da p.c.

Perforazione verticale a distruzione di nucleo

Stratigrafia speditiva

[illegible]

AUTOCAMIONALE DELLA CISA S.P.A.

VIABILITA' DI ADDUZIONE AL CASELLO AUTOSTRADALE DI PARMA OVEST

VARIANTE ALLA SP 357R IN PROSSIMITA' DELL'ABITATO DI NOCETO

INDAGINI GEOGNOSTICHE	
-----------------------	--

Località: STRADA PONTE TARO (NOCETO)

SONDAGGIO S02 - 1

Data inizio: 14/ 06/ 2012

Profondità: 18 m da p.c.

Falda: 9.30 m da p.c.

Perforazione verticale a distruzione di nucleo
--

Stratigrafia speditiva

[illegible]

AUTOCAMIONALE DELLA CISA S.P.A.

VIABILITA' DI ADDUZIONE AL CASELLO AUTOSTRADALE DI PARMA OVEST
--

VARIANTE ALLA SP 357R IN PROSSIMITA' DELL'ABITATO DI NOCETO

INDAGINI GEOGNOSTICHE	
-----------------------	--

Località: STRADA PONTE TARO (NOCETO)

SONDAGGIO S02 - 2

Data inizio: 14/ 06/ 2012

Profondità: 18 m da p.c.

Falda: 9.30 m da p.c.

Perforazione verticale a distruzione di nucleo
--

Stratigrafia speditiva

[illegible]



Via Morandi 3, - Quattro Castella (RE)
Tel. 0522/887268 - Fax. 0522/ 249540

Indagini geognostiche presso l'Azienda F.lli Parmigiani in località Noceto

2. DESCRIZIONE GENERALE DEL PROGRAMMA D'INDAGINE

Dal 19 al 20 Marzo 2015 si è svolta una campagna di indagini geognostiche finalizzate ad esaminare le caratteristiche litostratigrafiche e geotecniche substrato sottostante l'Azienda F.lli Parmigiani.

Le indagini eseguite sono state le seguenti:

- n.° 1 sondaggi a carotaggio continuo (S);
- n.° 3 SPT Standard Penetration Test;

L'ubicazione delle indagini, concordate con la Committenza è riportata in figura 2.

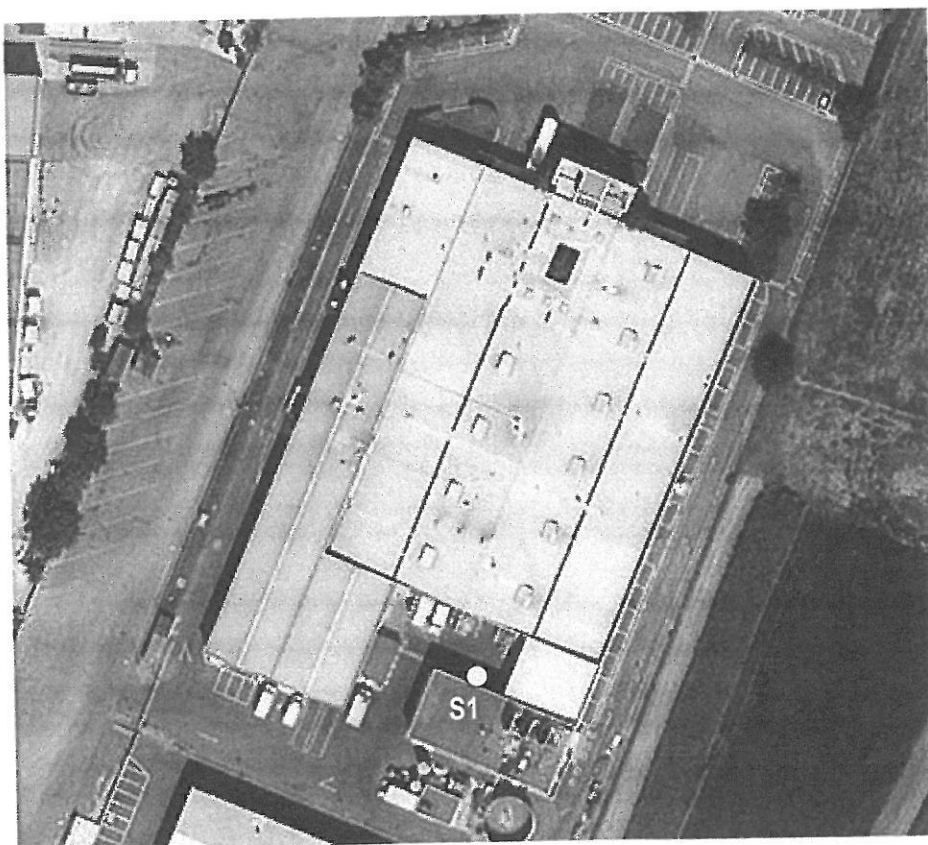


Figura 2: Ubicazione punto di indagine.

3. INDAGINI ESEGUITE

3.1 Sondaggi a carotaggio continuo (S)

Dall'19 al 20 Marzo 2015 è stato realizzato n.°1 sondaggio a carotaggio continuo, mediante sonda Atlas Copco Mustang A35e montata su autocarro PC90 con le seguenti caratteristiche:

- | | |
|--------------------------|----------------|
| - velocità di rotazione: | 0-350 giri/min |
| - coppia massima: | 1000 Kg m |

Riferimento: Committente: A.I.erre P&L S.r.l. engineering	Sondaggio: S1
Località: Via Gandiolo, Noceto (PR)	Quota: p.c.
Impresa esecutrice: Subsoil S.r.l.	Data: 19-20/03/2015
Coordinate:	Redattore: Geol. Aldo Davolio
Perforazione: Rotary (diametro 101/127 mm)	

A r S	metri batt.	LITOLOGIA	prof. m	DESCRIZIONE	Campioni	Standard Penetration Test				
						m	S.P.T.	N	Pt	RP VT
				Terreno di riporto ciottoloso, in matrice sabbiosa (piazze aziendale).						
1			1,2							2.8
			1,5	Argilla limosa, di colore marrone (paleosuolo).						1.6
2				Limo sabbioso, di colore nocciola.						1.2
										0.8
3										0.6
										0.6
3			3,5							0.8
				Ghiaie e ciottoli, eterometrici ed arrotondati, in matrice fine talora più abbondante.	3,8	19-50/9cm		Rif	C	0.8
4										
5										
6					6,2	22-20-19		39	C	
7										
8										
9										
10										
11					11,4	31-47-48		95	C	
12										
13										
14										
				Livello di sabbia tra 14,0 e 14,7 metri di prof. da p.c.						
15										
16										
17										
18										
19										
20			20,0							



034025P19S19

**CASTIONE DE' BARATTI
PARMA
TEL. 0521-842240**

COMM.: Comune di Noceto DATA DAL: 7/7/86 AL: 10/7/86
LOCALITÀ: Costamezzana SOND. N.: 1
METODO DI PERFORAZIONE: _____ Ø _____ QUOTA INIZIO: _____

VARIANZA STRAT.	METRI	STRATIG.	CAMP.	PROF. CAMP.	DESCRIZIONE TERRENO	S.P.T.		POCKET PEN.	VANE TEST	
						H	N		MAX	RES
1		x o			Argilla limosa gialla e bruna con piccoli trovanti -Compattezza buona			2,0		
2		x o								
3		x o							3,0	1,5
4		x o								
5		x o			----- Impasto di argilla con ciottoli e sabbia-Compattezza buona			2,7	1,3	
6		x o			----- Argilla con qualche piccolo trovante			1,0	0,5	
7		x o			----- Argilla grigia a buona consistenza			3,0		
8								2,5	1,0	
9								2,7		
10								3,0	1,5	
11								3,5		

CASTIONE DE' BARATTI
PARMA
TEL. 0521-842240

COMM.: Comune di Noceto DATA DAL: 7/7/86 AL: 10/7/86
LOCALITÀ: Costamezzana SOND. N.: 3
METODO DI PERFORAZIONE: Ø QUOTA INIZIO:

[illegible]

**CASTIONE DE' BARATTI
PARMA
TEL. 0521-842240**

COMM.: Comune di Noceto DATA DAL: 7/7/86 AL: 10/7/86
LOCALITÀ: Costamezzana SOND. N.: 4
METODO DI PERFORAZIONE: rotazione Ø 100 mm QUOTA INIZIO: _____

[illegible]

SO.RI.GE.CASTIONE DE' BARATTI
PARMA
TEL. 0521-842240COMM.: Comune di Noceto DATA DAL: 7/7/86 AL: 10/7/86
LOCALITÀ: Costamezzana SOND. N.: 5
METODO DI PERFORAZIONE: rotazione Ø 100mm QUOTA INIZIO: _____

VARIAZ. STRAT.	METRI	STRATIG.	CAMP.	PROF. CAMP.	DESCRIZIONE TERRENO	S.P.T.		POCKET PEN.	VANE TEST	
						H	N		MAX	RES
1					Terrazzo di ghiaia e sabbia ad					
2					elementi alterati con cemento					
3					argilloso- compatto			4,0		
4										
5					Infiltrazione di acqua					
6					Argilla grigia e gialla da mediamente			2,0	1,0	
7					compatta a compatta			4,0		
8								3,5		
9								3,0		
10								3,5	1,7	
11										

**CASTIONE DE' BARATTI
PARMA
TEL. 0521-842240**

COMM.: Comune di Noceto DATA DAL: 7/7/86 AL: 10/7/86
LOCALITÀ: Costamezzana SOND. N.: 6
METODO DI PERFORAZIONE: rotazione Ø 100 mm QUOTA INIZIO: _____

[illegible]