

MAPPO GEOGNOSTICA s.r.l.



**PROVE PENETROMETRICHE CPTU
LOC. LAGO DI PORTA - MONTIGNOSO**

Marzo 2010

PROVE PENETROMETRICHE STATICHE CPTE/CPTU

CARATTERISTICHE STRUMENTALI

Lo strumento utilizzato è un penetrometro statico prodotto dalla PAGANI GEOTHECNICAL EQUIPMENT, modello TG63/100 da 100 kN di spinta, con punta digitale, sistema di acquisizione TGAS06 e trasduttore di profondità.

La prova statica CPTE consiste nell'infissione nel terreno, a velocità costante, di una punta conica, di dimensioni e caratteristiche standard, a mezzo di batterie di aste cave all'interno delle quali viene fatto passare il cavo di segnale. La punta digitale ha al suo interno una serie di sensori che permettono di misurare oltre alla resistenza di punta (Q_c) e l'attrito laterale (F_s) anche la deviazione dalla verticale (Tilt). Sempre con la stessa punta è possibile anche eseguire una prova CPTU, che oltre ai parametri precedenti misura anche la pressione neutra (pressione dinamica dell'acqua nei pori): in questo caso le operazioni vengono eseguite con particolare attenzione alle modalità di saturazione del foro e del filtro poroso secondo gli standards ASTM e le indicazioni della Ditta Pagani (no grasso nella punta).

Le tensioni meccaniche registrate in fase di avanzamento vengono trasformate in tensioni elettriche che poi tramite il cavo di segnale vengono trasferite al sistema di acquisizione TGAS06. Il trasduttore di profondità, collegato anch'esso al TGAS06 e il cui movimento è reso solidale al sistema di spinta, fornisce la profondità reale della punta e la velocità di avanzamento. Grazie al software di acquisizione TGSW03 i risultati della prova vengono registrati e visualizzati in tempo reale sul monitor di un P.C., permettendo così di controllare la corretta esecuzione della prova stessa.

La punta digitale utilizzata per l'esecuzione della prova ha le seguenti dimensioni standard:

- area di base *10 cmq*;
- angolo di apertura *60°*;
- superficie laterale del manicotto *150 cmq*;

Sulle aste cave, di diametro esterno *36 mm*, quando necessario, viene installato un anello allargatore, posto a distanza non inferiore di *m 1,00* sopra la punta, per diminuire l'attrito del terreno lungo la batteria di aste.

La prova viene effettuata con velocità d'infissione della punta di *2 cm/s* ($\pm 0,5$ *cm/s*) indipendentemente dalla natura e dalle caratteristiche del terreno.

La prova viene sospesa qualora la resistenza totale, o alla punta, è tale da non consentire il raggiungimento della profondità di progetto o qualora la punta subisca un deviazione superiore a 20°.

Nel primo diagramma allegato sono riportate le misure effettuate in continuo (ogni centimetro) durante l'avanzamento della punta e registrate dal software TGSW03. Generalmente le scale adottate consentono di visualizzare l'intero range di misure eseguite, talora a discapito del dettaglio, che viene meglio evidenziato nei diagrammi di elaborazione (vedi di seguito). Le misure, riportate con cadenza di una ogni 5 cm - al fine di snellire il documento - nei tabulati che precedono il diagramma di campagna, sono relative a:

- Qc: resistenza alla punta, a rottura (MPa)
- Fs: resistenza di attrito laterale locale (KPa)
- Rf: rapporto Fs/Qc (%)
- U2: pressione dinamica nei pori (KPa)
- Speed: velocità di avanzamento (cm/sec)
- Tilt: angolo di deviazione dalla verticale (°)

Il valore del rapporto Fs/Qc indicato con Rf rappresenta l'inverso del rapporto di Begemann (R_p/R_f), che come sappiamo dipende dalla granulometria dei terreni attraversati e permette pertanto la ricostruzione stratigrafica.

Per l'eventuale calcolo della resistenza alla punta in sito q_t , si consideri che il rapporto tra area del cono e perno del cono sul quale U non agisce (Cone area ratio) vale $a = 0.58$, per cui $q_t = q_c + U(1-a) = q_c + 0.42 U$

Nello specifico, per l'esecuzione di tutte e tre le CPTU previste dalla sommità dell'argine si sono verificati problemi, sia per la saturazione del foro, difficoltosa o impossibile per la presenza di materiale granulare e di livelli permeabili nell'argine, sia per la presumibile presenza di "digitazioni" del jet grouting che ha determinato in P1 la deviazione dalla verticale (prova interrotta a m 5.4 dalla sommità dell'argine, in P2 (prova interrotta a m 4.5 dalla s.a.) e P3 (prova interrotta a m 6.2 dalla s.a.) il raggiungimento del rifiuto strumentale.

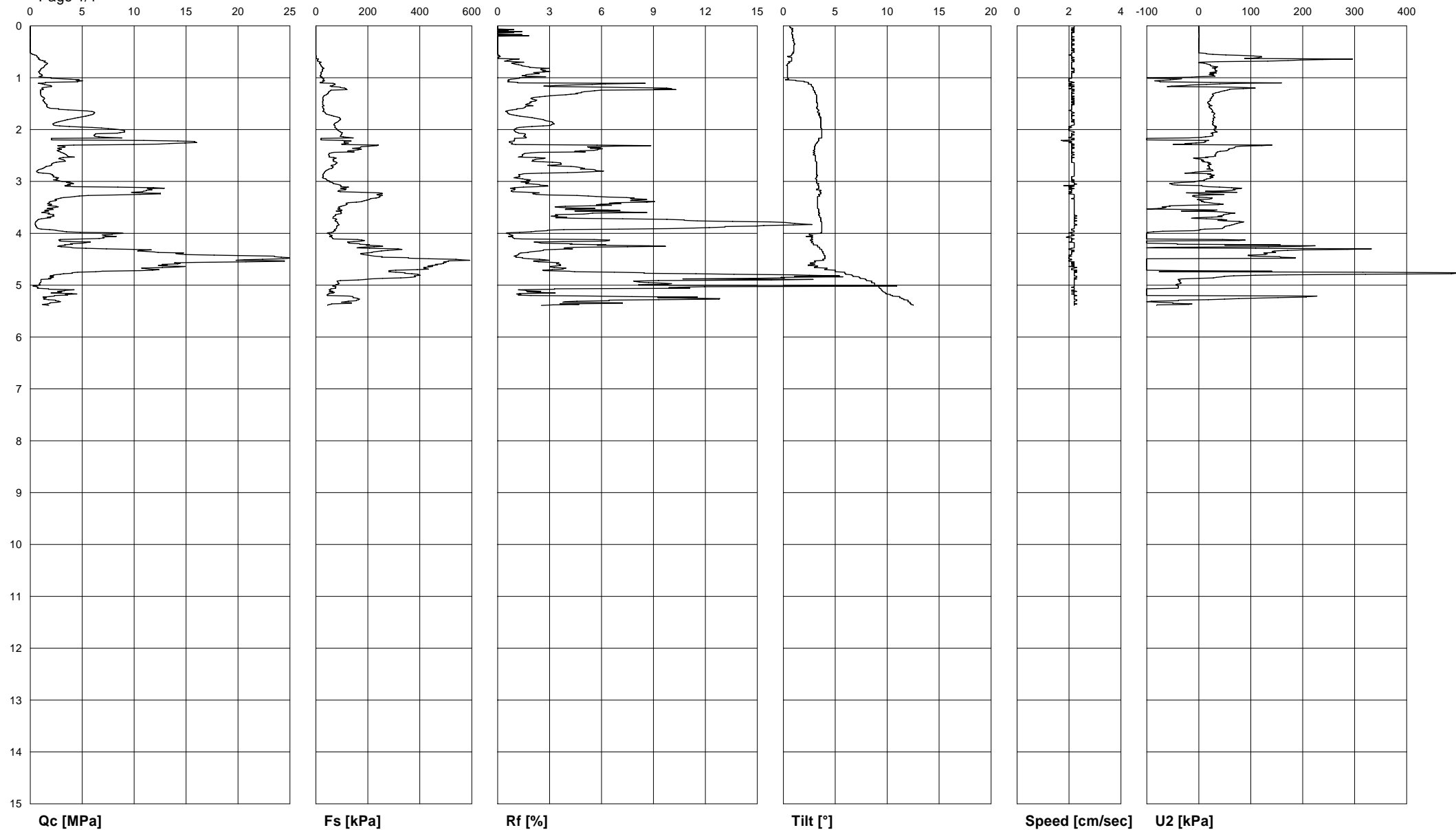
Le prove sono state pertanto ripetute dalla base dell'argine (P1 bis, P2 bis, P3 bis), posto a quota -3.0 m circa dalla sommità dello stesso. Le profondità raggiunte sono di 13 m per P1 bis, P2 bis, mentre la P3 bis è stata interrotta nuovamente a 3.4 m per eccessiva ed improvvisa deviazione dalla verticale.

Il livello di falda risulta a – 1.0 m dalla base dell'argine.

Nel corso della prova P1bis sono state eseguite due prove di dissipazione alla profondità di 5.5 m e di 10.0 m.

MAPPO GEOGNOSTICA srl		Commissioner: Mappo Geognostica srl	
Site: Montignoso - MS		Test Location: P1	
Locality:		Date: 2/18/2010	
		Abs. quota [cm]: 0	
		Prehole [cm]: 0	
		Hydrostatic Line [cm]: 0	

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MAPPO GEOGNOSTICA srl		Commissioner: Mappo Geognostica srl
Site: Montignoso - MS	Test Location: P1	Abs. quota [cm]: 0
Locality:	Date: 2/18/2010	Prehole [cm]: 0
		Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
5	0.015	0.00	0.00	0.9	2.2	0.00
10	0.010	0.00	0.00	0.9	2.2	0.19
15	0.010	0.00	0.00	0.8	2.1	0.57
20	0.005	0.00	0.00	0.9	2.1	0.38
25	0.015	0.00	0.00	1.0	2.1	0.19
30	0.010	0.00	0.00	1.0	2.1	0.00
35	0.005	0.00	0.00	1.1	2.2	0.00
40	0.010	0.00	0.00	1.0	2.1	-0.19
45	0.010	0.00	0.00	1.0	2.2	-0.19
50	0.010	0.00	0.00	1.0	2.2	-0.38
55	0.252	0.05	0.02	0.8	2.1	27.12
60	0.661	0.50	0.08	0.5	2.1	121.28
65	0.933	7.50	0.80	0.8	2.2	237.59
70	1.352	20.42	1.51	0.6	2.1	2.29
75	1.504	18.24	1.21	0.4	2.1	21.77
80	1.287	23.97	1.86	0.4	2.1	34.19
85	0.979	24.83	2.54	0.4	2.2	31.70
90	0.878	18.28	2.08	0.4	2.2	21.58
95	1.135	18.60	1.64	0.4	2.1	26.55
100	2.003	25.24	1.26	0.4	2.1	-98.17
105	4.425	26.38	0.60	1.2	2.0	-68.37
110	1.468	17.10	1.16	2.4	2.1	159.09
115	1.938	64.58	3.33	2.7	2.0	-24.64
120	1.130	110.25	9.76	2.9	2.1	108.29
125	1.004	56.22	5.60	3.0	2.2	49.27
130	1.014	45.71	4.51	3.1	2.2	30.37
135	1.050	32.02	3.05	3.2	2.1	27.50
140	1.372	26.33	1.92	3.2	2.1	23.87
145	1.261	27.29	2.16	3.2	2.2	20.82
150	1.494	26.24	1.76	3.3	2.2	19.67
155	1.584	25.97	1.64	3.3	2.1	19.48
160	2.735	30.38	1.11	3.3	2.1	24.26
165	5.944	27.20	0.46	3.3	2.1	26.74
170	6.075	40.43	0.67	3.4	2.1	30.18
175	5.127	75.64	1.48	3.5	2.1	28.65
180	3.815	95.28	2.50	3.6	2.1	28.07
185	2.705	84.41	3.12	3.6	2.1	26.17
190	2.205	69.00	3.13	3.6	2.2	26.17
195	4.854	73.09	1.51	3.6	2.0	30.56
200	8.492	80.87	0.95	3.7	2.0	29.60
205	9.062	94.51	1.04	3.7	2.2	35.14
210	6.161	98.06	1.59	3.7	2.2	27.12
215	7.417	122.71	1.65	3.7	2.0	4.58
220	2.044	19.92	0.97	3.4	2.2	-100.00
225	16.010	109.20	0.68	3.3	2.0	9.55
230	4.198	240.87	5.74	3.1	2.2	140.57
235	2.866	169.87	5.93	3.0	2.1	68.56
240	2.604	144.99	5.57	2.9	2.1	55.77
245	3.133	59.90	1.91	2.9	2.1	33.23
250	3.552	50.85	1.43	3.1	2.1	31.32
255	2.851	78.05	2.74	3.1	2.1	-10.12
260	3.345	68.95	2.06	3.1	2.1	4.97
265	2.139	78.41	3.67	3.2	2.2	17.95
270	1.882	59.26	3.15	3.2	2.2	17.19
275	1.206	60.54	5.02	3.2	2.2	21.39
280	0.616	37.66	6.11	3.2	2.2	22.15
285	1.917	28.93	1.51	3.2	2.2	22.92
290	2.255	27.93	1.24	3.2	2.2	26.36
295	2.649	38.25	1.44	3.1	2.1	15.09
300	3.053	54.49	1.78	3.2	2.2	-7.64
305	3.759	76.73	2.04	3.4	2.3	-52.14
310	4.193	96.24	2.30	3.4	2.0	17.57
315	11.520	116.25	1.01	3.2	2.0	66.27
320	10.808	94.33	0.87	3.5	2.0	32.47
325	10.581	235.00	2.22	3.4	2.2	48.51

MAPPO GEOGNOSTICA srl		Commissioner: Mappo Geognostica srl
Site: Montignoso - MS	Test Location: P1	Abs. quota [cm]: 0
Locality:	Date: 2/18/2010	Prehole [cm]: 0
		Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
330	3.910	246.51	6.30	3.3	2.2	-5.35
335	2.382	205.08	8.61	3.3	2.2	-2.86
340	1.806	155.55	8.61	3.3	2.2	11.08
345	2.049	116.93	5.71	3.3	2.2	37.05
350	2.427	86.55	3.57	3.3	2.2	-63.03
355	1.579	100.33	6.35	3.4	2.2	34.57
360	1.115	96.10	8.62	3.4	2.2	52.52
365	2.245	75.14	3.35	3.4	2.2	47.56
370	1.968	65.99	3.35	3.6	2.2	-4.58
375	0.686	74.00	10.79	3.6	2.2	36.67
380	0.494	83.46	16.89	3.7	2.2	77.16
385	0.545	83.78	15.37	3.7	2.2	59.21
390	0.701	79.41	11.33	3.7	2.2	46.03
395	2.644	75.09	2.84	3.7	2.2	-8.59
400	8.931	43.25	0.48	3.6	2.1	-100.00
405	7.241	60.63	0.84	2.8	2.1	-100.00
410	6.630	64.45	0.97	2.7	2.1	-100.00
415	2.841	176.60	6.22	2.8	2.1	-100.00
420	3.880	166.37	4.29	2.9	2.2	-43.54
425	2.654	257.15	9.69	3.3	2.2	194.04
430	7.326	316.73	4.32	3.5	2.0	332.12
435	11.121	238.41	2.14	3.8	2.2	140.95
440	14.285	173.15	1.21	3.9	2.1	131.59
445	23.518	255.70	1.09	4.0	2.0	155.27
450	22.368	539.09	2.41	3.8	2.1	-100.00
455	20.763	492.34	2.37	3.1	2.2	-100.00
460	12.700	460.14	3.62	3.0	2.2	-100.00
465	14.219	433.53	3.05	3.0	2.2	-100.00
470	12.392	390.41	3.15	4.0	2.1	-100.00
475	4.571	307.86	6.74	5.9	2.3	315.70
480	2.306	393.51	17.06	6.6	2.2	168.45
485	2.230	365.08	16.37	7.3	2.3	33.61
490	1.034	163.23	15.79	8.0	2.2	-39.15
495	0.979	85.37	8.72	8.5	2.2	-34.76
500	0.944	76.91	8.15	8.8	2.2	-43.93
505	0.767	75.86	9.89	9.2	2.2	-39.92
510	3.366	55.40	1.65	9.5	2.1	-100.00
515	2.003	66.54	3.32	9.8	2.2	-100.00
520	2.341	44.84	1.92	10.5	2.3	-100.00
525	1.429	157.59	11.03	11.4	2.2	108.10
530	2.432	156.32	6.43	12.0	2.3	-39.15
535	1.892	136.31	7.20	12.2	2.2	-50.04
540	1.781	44.98	2.53	12.6	2.0	-71.24

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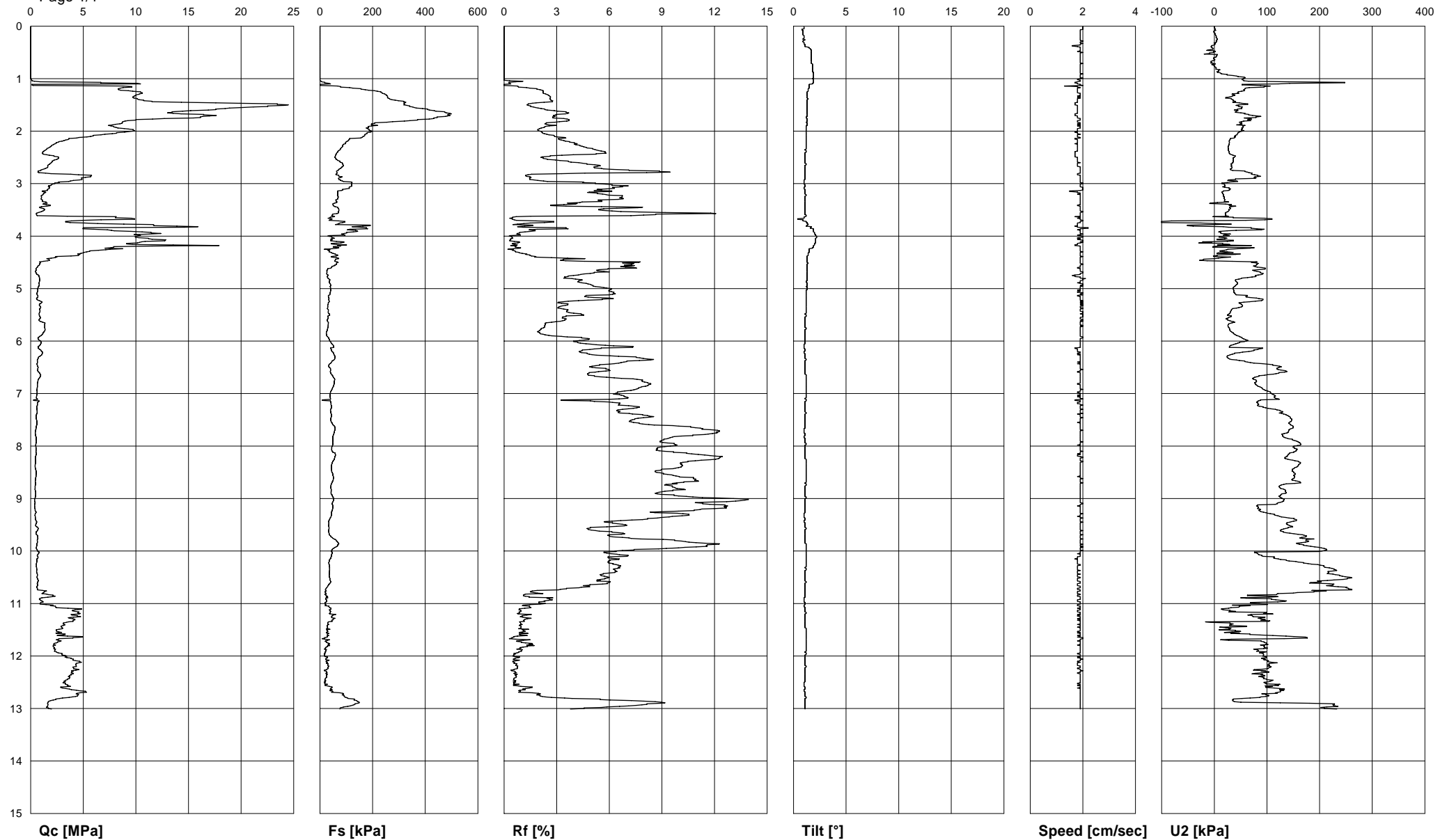
Commissioner: Consorzio Bonifica Versilia - Massaciuccoli

Site: Lago di Porta
Locality: Montignoso - MS

Test Location: P1 bis
Date: 2/3/2010

Abs. quota [cm]: 0
Prehole [cm]: 0
Hydrostatic Line [cm]: 0

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Site: Lago di Porta Locality: Montignoso - MS		Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
5	0.000	0.00	0.00	1.0	2.0	1.34
10	0.000	0.00	0.00	0.9	1.9	-0.95
15	0.000	0.00	0.00	0.9	1.9	1.53
20	0.000	0.00	0.00	1.0	1.9	3.63
25	0.000	0.00	0.00	0.9	1.9	5.92
30	0.000	0.00	0.00	0.9	1.9	3.82
35	0.000	0.00	0.00	1.1	1.9	-0.19
40	0.000	0.00	0.00	1.4	1.9	-5.73
45	0.000	0.00	0.00	1.7	1.9	-9.74
50	0.000	0.00	0.00	1.7	2.0	-0.76
55	0.000	0.00	0.00	1.7	1.9	5.16
60	0.000	0.00	0.00	1.7	1.9	-0.95
65	0.000	0.00	0.00	1.7	1.9	-0.19
70	0.000	0.00	0.00	1.7	1.9	-7.07
75	0.000	0.00	0.00	1.8	1.9	-0.76
80	0.000	0.00	0.00	1.8	1.9	3.63
85	0.000	0.00	0.00	1.8	1.9	8.21
90	0.000	0.00	0.00	1.9	1.9	12.80
95	0.000	0.00	0.00	1.9	1.9	42.59
100	0.000	0.00	0.00	1.8	1.9	55.00
105	0.353	3.77	1.07	1.9	1.9	65.13
110	10.440	39.75	0.38	1.8	1.8	121.28
115	9.622	78.64	0.82	1.5	1.8	94.54
120	8.336	155.77	1.87	1.4	1.8	57.68
125	10.435	231.23	2.22	1.3	1.8	45.45
130	10.243	248.87	2.43	1.3	1.9	33.61
135	9.703	257.38	2.65	1.3	1.9	29.79
140	10.309	273.07	2.65	1.3	1.8	34.95
145	14.320	326.51	2.28	1.3	1.8	34.95
150	24.477	318.69	1.30	1.3	1.7	46.41
155	20.138	357.98	1.78	1.3	1.8	52.33
160	16.883	416.20	2.47	1.3	1.8	37.82
165	13.018	480.06	3.69	1.3	1.8	50.61
170	17.635	494.38	2.80	1.3	1.7	72.38
175	15.470	432.80	2.80	1.2	1.8	56.91
180	9.234	341.61	3.70	1.3	1.8	69.33
185	8.684	208.49	2.40	1.3	1.9	52.33
190	7.649	196.80	2.57	1.2	1.8	53.86
195	8.891	180.33	2.03	1.2	1.8	53.48
200	9.738	197.84	2.03	1.2	1.8	53.67
205	7.760	178.11	2.30	1.2	1.8	44.12
210	5.697	164.37	2.89	1.2	1.8	37.82
215	3.633	112.61	3.10	1.2	1.7	30.37
220	2.720	101.24	3.72	1.2	1.8	28.46
225	2.225	89.28	4.01	1.2	1.8	27.88
230	1.872	85.10	4.55	1.2	1.8	25.78
235	1.473	76.32	5.18	1.1	1.8	26.55
240	1.176	67.68	5.76	1.2	1.7	28.07
245	1.519	59.90	3.94	1.1	1.7	33.04
250	2.674	56.03	2.10	1.1	1.8	37.05
255	2.261	66.04	2.92	1.1	1.8	36.29
260	1.948	82.96	4.26	1.1	1.9	34.19
265	1.630	88.96	5.46	1.1	1.8	33.04
270	1.554	80.14	5.16	1.1	1.9	33.80
275	0.964	68.68	7.12	1.1	1.9	34.95
280	1.408	64.86	4.61	1.1	1.9	71.62
285	5.782	71.18	1.23	1.1	1.9	82.31
290	4.859	70.50	1.45	1.1	1.9	76.78
295	3.774	84.91	2.25	1.0	1.9	42.78
300	2.301	119.66	5.20	1.0	2.0	14.32
305	1.822	120.43	6.61	1.1	1.9	20.44
310	1.690	98.19	5.81	1.0	2.0	30.37
315	1.100	67.54	6.14	1.1	1.5	16.62
320	1.201	67.36	5.61	1.1	1.8	16.42
325	1.029	69.18	6.72	1.1	1.9	18.72

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli	
Site: Lago di Porta Locality: Montignoso - MS		Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
330	1.009	65.54	6.50	1.1	1.9	19.67
335	1.468	65.22	4.44	1.1	1.9	27.12
340	1.473	50.26	3.41	1.1	1.9	32.47
345	0.848	66.95	7.90	1.1	1.9	28.84
350	1.332	71.72	5.38	1.1	1.9	27.50
355	0.762	69.90	9.17	1.1	1.9	21.58
360	0.580	46.16	7.96	1.2	1.9	21.20
365	8.058	39.11	0.49	1.0	1.9	35.91
370	4.995	34.29	0.69	0.9	2.0	59.78
375	5.121	75.82	1.48	1.3	1.8	-25.59
380	11.716	191.16	1.63	1.3	1.8	-51.18
385	4.995	176.47	3.53	1.6	2.2	69.90
390	7.947	140.67	1.77	1.9	1.9	24.45
395	12.372	92.69	0.75	2.0	1.9	12.41
400	10.167	28.97	0.28	2.2	2.0	27.69
405	11.217	44.12	0.39	2.1	1.9	19.67
410	10.879	62.54	0.57	2.1	2.0	24.64
415	9.133	43.53	0.48	2.0	1.8	15.85
420	7.902	50.67	0.64	1.9	1.9	-2.67
425	7.528	16.28	0.22	1.5	1.9	25.59
430	5.333	34.88	0.65	1.5	2.0	24.26
435	4.682	57.72	1.23	1.4	1.9	39.92
440	2.498	43.57	1.74	1.3	1.9	30.94
445	1.751	59.17	3.38	1.3	1.9	-20.63
450	0.898	69.00	7.68	1.3	1.9	70.66
455	0.833	57.08	6.85	1.3	1.9	79.83
460	0.580	43.03	7.42	1.3	1.8	90.15
465	0.525	27.70	5.28	1.3	1.9	72.77
470	0.510	26.20	5.14	1.3	2.0	87.85
475	0.777	30.70	3.95	1.3	1.6	78.11
480	0.853	28.97	3.40	1.3	1.9	51.76
485	0.843	35.93	4.26	1.3	1.9	40.11
490	0.802	37.57	4.68	1.3	1.9	44.31
495	0.797	40.39	5.07	1.3	2.0	39.53
500	0.661	40.52	6.13	1.3	1.9	36.10
505	0.666	39.80	5.98	1.2	1.9	36.86
510	0.595	37.70	6.34	1.2	1.9	39.72
515	0.696	31.97	4.59	1.2	1.9	59.78
520	0.605	33.84	5.59	1.2	1.9	92.25
525	1.039	34.93	3.36	1.2	2.0	66.84
530	0.853	31.06	3.64	1.2	2.0	50.80
535	0.949	29.70	3.13	1.2	1.9	51.18
540	0.873	31.79	3.64	1.2	1.9	32.28
545	0.868	31.66	3.65	1.2	2.0	30.56
550	0.817	37.02	4.53	1.2	2.0	25.02
555	0.939	31.38	3.34	1.1	1.9	27.50
560	0.802	27.83	3.47	1.1	2.0	25.40
565	1.347	32.29	2.40	1.1	1.9	33.61
570	1.337	30.88	2.31	1.1	2.0	25.78
575	1.342	29.93	2.23	1.2	1.9	28.07
580	1.357	27.56	2.03	1.1	1.9	29.79
585	1.186	24.15	2.04	1.1	1.9	35.71
590	0.954	25.92	2.72	1.1	1.9	44.50
595	0.701	33.52	4.78	1.1	1.9	54.05
600	0.954	37.75	3.96	1.1	1.9	60.54
605	0.969	45.25	4.67	1.1	1.9	41.06
610	0.717	52.67	7.35	1.0	1.9	28.65
615	0.828	42.43	5.12	1.1	1.8	84.80
620	1.070	45.80	4.28	1.0	1.8	65.70
625	1.080	52.44	4.86	1.1	1.9	34.19
630	0.757	56.99	7.53	1.1	1.9	24.45
635	0.651	55.44	8.52	1.2	1.9	31.70
640	0.646	44.07	6.82	1.1	1.8	63.03
645	0.626	34.07	5.44	1.1	1.9	110.96
650	0.711	35.66	5.02	1.1	1.9	122.99

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli	
Site: Lago di Porta Locality: Montignoso - MS		Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
655	0.671	40.16	5.99	1.1	1.9	126.24
660	0.838	40.57	4.84	1.1	1.9	122.61
665	0.954	45.89	4.81	1.2	1.9	95.49
670	0.843	52.89	6.27	1.2	1.9	74.48
675	0.706	55.71	7.89	1.2	1.9	78.88
680	0.656	53.85	8.21	1.2	1.9	76.59
685	0.631	51.62	8.18	1.2	1.9	81.55
690	0.621	47.57	7.66	1.2	1.9	90.72
695	0.605	41.66	6.89	1.2	1.9	101.22
700	0.616	39.07	6.34	1.2	1.9	108.29
705	0.565	38.57	6.83	1.2	1.9	116.12
710	0.611	40.02	6.55	1.1	2.0	121.66
715	0.782	40.25	5.15	1.1	1.9	82.31
720	0.646	42.25	6.54	1.1	1.9	84.03
725	0.570	43.98	7.72	1.1	1.9	92.63
730	0.600	40.52	6.75	1.1	2.0	116.12
735	0.621	40.48	6.52	1.1	1.9	130.06
740	0.550	43.43	7.90	1.1	1.9	136.17
745	0.515	42.93	8.34	1.1	1.9	144.00
750	0.565	41.25	7.30	1.1	1.9	147.06
755	0.600	44.25	7.38	1.1	1.8	142.09
760	0.585	50.08	8.56	1.1	1.9	145.34
765	0.520	56.72	10.91	1.1	1.9	149.92
770	0.464	56.44	12.16	1.0	2.0	142.09
775	0.444	53.80	12.12	1.0	1.9	138.08
780	0.469	50.44	10.75	1.1	1.9	129.87
785	0.525	49.30	9.39	1.1	1.9	138.08
790	0.545	48.85	8.96	1.1	1.9	153.93
795	0.505	48.98	9.70	1.2	1.9	163.67
800	0.494	46.80	9.47	1.1	1.9	151.26
805	0.515	44.80	8.70	1.1	1.9	154.89
810	0.510	46.75	9.17	1.1	2.0	154.51
815	0.540	57.76	10.70	1.1	1.8	141.71
820	0.459	57.12	12.44	1.1	1.9	138.46
825	0.454	54.71	12.05	1.2	1.9	139.61
830	0.464	48.67	10.49	1.2	2.0	159.66
835	0.444	44.71	10.07	1.2	1.9	160.62
840	0.429	43.30	10.09	1.2	1.9	156.61
845	0.489	43.94	8.99	1.2	1.9	148.20
850	0.525	45.66	8.70	1.2	1.9	150.31
855	0.515	49.30	9.57	1.2	1.9	151.64
860	0.474	51.17	10.80	1.2	1.9	152.02
865	0.459	49.85	10.86	1.2	1.9	148.20
870	0.459	45.21	9.85	1.1	2.0	164.25
875	0.444	41.62	9.37	1.2	1.9	126.05
880	0.424	41.39	9.76	1.1	1.9	125.10
885	0.444	42.75	9.63	1.1	1.9	135.03
890	0.489	42.12	8.61	1.1	1.9	135.22
895	0.469	46.71	9.96	1.1	1.9	122.99
900	0.394	51.48	13.07	1.1	1.9	128.72
905	0.383	50.58	13.21	1.1	1.9	131.97
910	0.409	46.30	11.32	1.1	2.0	119.56
915	0.389	48.80	12.54	1.1	1.9	82.12
920	0.424	47.80	11.27	1.1	1.9	85.75
925	0.494	44.39	8.99	1.1	1.9	88.43
930	0.419	44.16	10.54	1.0	1.9	114.02
935	0.444	41.80	9.41	1.0	1.9	127.39
940	0.464	36.61	7.89	1.1	1.9	156.04
945	0.580	33.25	5.73	1.0	2.0	143.62
950	0.484	33.52	6.93	1.1	1.9	139.42
955	0.701	34.47	4.92	1.1	1.9	139.99
960	0.671	33.29	4.96	1.1	1.9	125.67
965	0.520	34.07	6.55	1.1	1.9	136.36
970	0.626	36.98	5.91	1.1	1.9	170.55
975	0.666	47.35	7.11	1.1	1.9	162.34

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli	
Site: Lago di Porta Locality: Montignoso - MS		Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
980	0.626	60.85	9.72	1.1	1.9	173.99
985	0.621	71.04	11.44	1.1	1.9	155.65
990	0.580	66.81	11.52	1.2	1.9	175.90
995	0.550	50.85	9.25	1.2	1.9	208.75
1000	0.681	43.07	6.32	1.2	1.9	204.35
1005	0.757	46.07	6.09	1.2	1.8	82.89
1010	0.631	44.25	7.01	1.2	1.9	92.25
1015	0.590	38.75	6.57	1.2	1.7	121.47
1020	0.585	34.88	5.96	1.2	1.8	154.51
1025	0.550	34.11	6.20	1.2	1.8	184.87
1030	0.550	35.93	6.53	1.2	1.8	208.56
1035	0.585	36.48	6.24	1.2	1.8	227.65
1040	0.570	36.02	6.32	1.1	1.8	217.53
1045	0.641	35.07	5.47	1.1	1.8	229.76
1050	0.605	36.25	5.99	1.1	1.9	258.21
1055	0.717	37.93	5.29	1.1	1.8	227.46
1060	0.671	40.16	5.99	1.2	1.9	183.35
1065	0.661	32.34	4.89	1.1	1.8	225.55
1070	0.600	25.61	4.27	1.1	1.9	250.38
1075	1.130	21.38	1.89	1.1	1.9	185.26
1080	1.186	22.51	1.90	1.1	1.8	150.11
1085	2.129	23.47	1.10	1.1	1.8	62.83
1090	0.933	22.74	2.44	1.0	1.9	60.73
1095	1.055	24.06	2.28	1.0	1.8	136.75
1100	0.883	20.79	2.35	1.1	1.9	84.99
1105	2.356	34.20	1.45	1.0	1.9	47.75
1110	4.829	41.84	0.87	1.1	1.9	13.75
1115	4.208	40.98	0.97	1.1	1.8	40.30
1120	4.607	36.98	0.80	1.1	1.9	111.15
1125	4.748	43.71	0.92	1.1	1.9	73.91
1130	4.203	49.39	1.18	1.1	1.9	96.45
1135	3.593	31.84	0.89	1.1	1.9	-16.62
1140	3.219	33.02	1.03	1.1	1.8	29.60
1145	2.932	28.11	0.96	1.1	1.8	10.12
1150	2.442	25.24	1.03	1.2	1.9	8.98
1155	2.942	25.29	0.86	1.2	1.9	19.10
1160	3.073	28.65	0.93	1.2	1.9	86.90
1165	4.021	18.19	0.45	1.2	2.0	176.66
1170	2.624	28.61	1.09	1.2	1.9	27.50
1175	2.427	29.61	1.22	1.2	1.9	98.93
1180	2.144	36.79	1.72	1.2	1.9	95.68
1185	2.261	21.60	0.96	1.2	1.9	101.41
1190	2.296	22.19	0.97	1.2	1.9	83.27
1195	2.977	16.69	0.56	1.2	1.8	92.82
1200	3.461	17.15	0.50	1.1	1.9	91.86
1205	3.845	23.88	0.62	1.1	1.9	89.95
1210	4.662	22.97	0.49	1.1	1.8	102.18
1215	4.309	31.34	0.73	1.1	1.8	103.71
1220	4.349	32.84	0.76	1.2	1.9	107.52
1225	4.410	26.29	0.60	1.1	1.9	92.06
1230	3.916	24.88	0.64	1.1	1.9	103.51
1235	3.810	28.38	0.74	1.1	1.9	91.67
1240	3.729	25.38	0.68	1.1	1.9	91.67
1245	3.482	18.97	0.54	1.1	1.9	99.69
1250	3.128	20.65	0.66	1.0	1.9	94.35
1255	3.507	18.47	0.53	1.0	1.9	115.55
1260	2.866	45.75	1.60	1.1	1.9	97.78
1265	4.349	38.89	0.89	1.0	1.9	132.16
1270	4.682	75.18	1.61	1.1	1.9	115.74
1275	4.466	91.28	2.04	1.1	1.9	103.13
1280	3.033	104.65	3.45	1.2	1.9	67.99
1285	1.922	139.49	7.26	1.1	1.9	35.33
1290	1.605	142.95	8.91	1.1	1.9	180.67
1295	1.620	114.93	7.09	1.1	1.9	229.56
1300	1.680	76.59	4.56	1.1	1.9	209.13

MAPPO GEOGNOSTICA srl

Commissioner: Consorzio Bonifica Versilia - Massaciuccoli

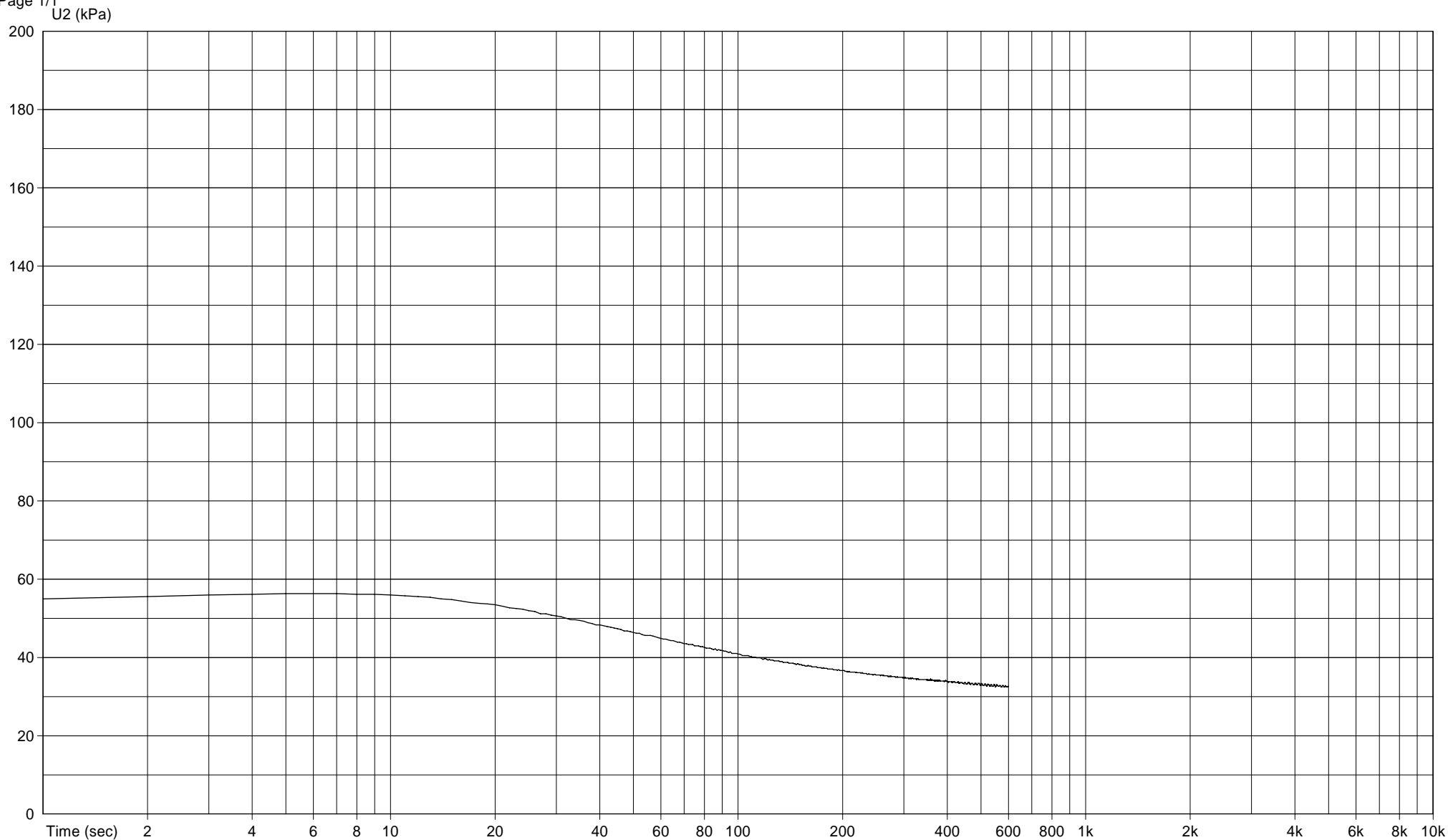
Site: Lago di Porta
Locality: Montignoso - MS

Test Location: P1 bis
Date: 2/3/2010

Abs. quota [cm]: 0
Prehole [cm]: 0
Hydrostatic Line [cm]: 0

Dissip. Test N° 1 ; Depth: 05.51 m ; Time : 600 [sec] - 00.10.00 [h.m.s]

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MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli	
Site: Lago di Porta	Test Location: P1 bis	Abs. quota [cm]: 0	
Locality: Montignoso - MS	Date: 2/3/2010	Prehole [cm]: 0	
Dissip. Test N° 1 ; Depth: 05.51 m ; Time : 600 [sec] - 00.10.00 [h.m.s]		Hydrostatic Line [cm]: 0	

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Time [sec]	Time [h.m.s]	U2 [kPa]	Time [sec]	Time [h.m.s]	U2 [kPa]
1	00.00.01	55.00	66	00.01.06	44.12
2	00.00.02	55.58	67	00.01.07	43.93
3	00.00.03	55.96	68	00.01.08	43.93
4	00.00.04	56.15	69	00.01.09	43.74
5	00.00.05	56.34	70	00.01.10	43.54
6	00.00.06	56.34	71	00.01.11	43.54
7	00.00.07	56.34	72	00.01.12	43.35
8	00.00.08	56.15	73	00.01.13	43.35
9	00.00.09	56.15	74	00.01.14	43.35
10	00.00.10	55.96	75	00.01.15	42.97
11	00.00.11	55.77	76	00.01.16	42.97
12	00.00.12	55.58	77	00.01.17	42.97
13	00.00.13	55.39	78	00.01.18	42.78
14	00.00.14	55.00	79	00.01.19	42.78
15	00.00.15	54.81	80	00.01.20	42.59
16	00.00.16	54.43	81	00.01.21	42.40
17	00.00.17	54.05	82	00.01.22	42.40
18	00.00.18	53.86	83	00.01.23	42.40
19	00.00.19	53.67	84	00.01.24	42.21
20	00.00.20	53.48	85	00.01.25	42.02
21	00.00.21	53.09	86	00.01.26	42.21
22	00.00.22	52.71	87	00.01.27	41.83
23	00.00.23	52.52	88	00.01.28	42.02
24	00.00.24	52.33	89	00.01.29	41.83
25	00.00.25	51.95	90	00.01.30	41.83
26	00.00.26	51.76	91	00.01.31	41.63
27	00.00.27	51.18	92	00.01.32	41.63
28	00.00.28	51.18	93	00.01.33	41.44
29	00.00.29	50.80	94	00.01.34	41.25
30	00.00.30	50.61	95	00.01.35	41.44
31	00.00.31	50.42	96	00.01.36	41.06
32	00.00.32	50.04	97	00.01.37	41.06
33	00.00.33	49.66	98	00.01.38	41.06
34	00.00.34	49.66	99	00.01.39	41.06
35	00.00.35	49.47	100	00.01.40	40.87
36	00.00.36	49.27	101	00.01.41	40.87
37	00.00.37	48.89	102	00.01.42	40.68
38	00.00.38	48.70	103	00.01.43	40.49
39	00.00.39	48.32	104	00.01.44	40.49
40	00.00.40	48.32	105	00.01.45	40.49
41	00.00.41	48.13	106	00.01.46	40.49
42	00.00.42	47.94	107	00.01.47	40.49
43	00.00.43	47.75	108	00.01.48	40.30
44	00.00.44	47.56	109	00.01.49	40.30
45	00.00.45	47.36	110	00.01.50	40.11
46	00.00.46	47.17	111	00.01.51	40.11
47	00.00.47	46.79	112	00.01.52	40.11
48	00.00.48	46.79	113	00.01.53	39.92
49	00.00.49	46.60	114	00.01.54	39.92
50	00.00.50	46.41	115	00.01.55	39.92
51	00.00.51	46.22	116	00.01.56	39.92
52	00.00.52	46.22	117	00.01.57	39.72
53	00.00.53	45.84	118	00.01.58	39.53
54	00.00.54	45.65	119	00.01.59	39.72
55	00.00.55	45.65	120	00.02.00	39.72
56	00.00.56	45.65	121	00.02.01	39.53
57	00.00.57	45.45	122	00.02.02	39.34
58	00.00.58	45.26	123	00.02.03	39.53
59	00.00.59	45.07	124	00.02.04	39.34
60	00.01.00	44.88	125	00.02.05	39.34
61	00.01.01	44.69	126	00.02.06	39.34
62	00.01.02	44.69	127	00.02.07	39.15
63	00.01.03	44.50	128	00.02.08	39.15
64	00.01.04	44.31	129	00.02.09	39.15
65	00.01.05	44.31	130	00.02.10	39.15

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta Locality: Montignoso - MS	Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0
Dissip. Test N° 1 ; Depth: 05.51 m ; Time : 600 [sec] - 00.10.00 [h.m.s]		

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Time [sec]	Time [h.m.s]	U2 [kPa]	Time [sec]	Time [h.m.s]	U2 [kPa]
131	00.02.11	39.15	196	00.03.16	36.67
132	00.02.12	38.96	197	00.03.17	36.67
133	00.02.13	38.96	198	00.03.18	36.67
134	00.02.14	38.96	199	00.03.19	36.67
135	00.02.15	38.77	200	00.03.20	36.67
136	00.02.16	38.77	201	00.03.21	36.67
137	00.02.17	38.77	202	00.03.22	36.67
138	00.02.18	38.77	203	00.03.23	36.48
139	00.02.19	38.77	204	00.03.24	36.48
140	00.02.20	38.58	205	00.03.25	36.48
141	00.02.21	38.58	206	00.03.26	36.29
142	00.02.22	38.58	207	00.03.27	36.48
143	00.02.23	38.58	208	00.03.28	36.29
144	00.02.24	38.58	209	00.03.29	36.48
145	00.02.25	38.39	210	00.03.30	36.29
146	00.02.26	38.39	211	00.03.31	36.29
147	00.02.27	38.20	212	00.03.32	36.29
148	00.02.28	38.39	213	00.03.33	36.29
149	00.02.29	38.39	214	00.03.34	36.29
150	00.02.30	38.20	215	00.03.35	36.29
151	00.02.31	38.20	216	00.03.36	36.29
152	00.02.32	38.20	217	00.03.37	36.29
153	00.02.33	38.01	218	00.03.38	36.10
154	00.02.34	38.01	219	00.03.39	36.29
155	00.02.35	38.01	220	00.03.40	36.10
156	00.02.36	37.82	221	00.03.41	36.10
157	00.02.37	37.82	222	00.03.42	36.10
158	00.02.38	37.82	223	00.03.43	36.10
159	00.02.39	38.01	224	00.03.44	36.10
160	00.02.40	37.82	225	00.03.45	36.10
161	00.02.41	37.82	226	00.03.46	35.91
162	00.02.42	37.82	227	00.03.47	36.10
163	00.02.43	37.62	228	00.03.48	36.10
164	00.02.44	37.62	229	00.03.49	35.91
165	00.02.45	37.62	230	00.03.50	35.91
166	00.02.46	37.62	231	00.03.51	35.91
167	00.02.47	37.62	232	00.03.52	35.91
168	00.02.48	37.62	233	00.03.53	35.91
169	00.02.49	37.43	234	00.03.54	35.91
170	00.02.50	37.43	235	00.03.55	35.71
171	00.02.51	37.43	236	00.03.56	35.71
172	00.02.52	37.43	237	00.03.57	35.71
173	00.02.53	37.43	238	00.03.58	35.91
174	00.02.54	37.24	239	00.03.59	35.71
175	00.02.55	37.24	240	00.04.00	35.71
176	00.02.56	37.43	241	00.04.01	35.71
177	00.02.57	37.24	242	00.04.02	35.71
178	00.02.58	37.24	243	00.04.03	35.71
179	00.02.59	37.24	244	00.04.04	35.52
180	00.03.00	37.24	245	00.04.05	35.52
181	00.03.01	37.05	246	00.04.06	35.71
182	00.03.02	37.05	247	00.04.07	35.71
183	00.03.03	37.05	248	00.04.08	35.71
184	00.03.04	37.05	249	00.04.09	35.52
185	00.03.05	37.05	250	00.04.10	35.52
186	00.03.06	37.05	251	00.04.11	35.52
187	00.03.07	37.05	252	00.04.12	35.52
188	00.03.08	36.86	253	00.04.13	35.52
189	00.03.09	36.86	254	00.04.14	35.52
190	00.03.10	36.86	255	00.04.15	35.52
191	00.03.11	36.86	256	00.04.16	35.52
192	00.03.12	36.86	257	00.04.17	35.33
193	00.03.13	36.67	258	00.04.18	35.52
194	00.03.14	36.86	259	00.04.19	35.52
195	00.03.15	36.86	260	00.04.20	35.52

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta Locality: Montignoso - MS	Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0
Dissip. Test N° 1 ; Depth: 05.51 m ; Time : 600 [sec] - 00.10.00 [h.m.s]		

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Time [sec]	Time [h.m.s]	U2 [kPa]	Time [sec]	Time [h.m.s]	U2 [kPa]
261	00.04.21	35.33	326	00.05.26	34.38
262	00.04.22	35.52	327	00.05.27	34.38
263	00.04.23	35.33	328	00.05.28	34.57
264	00.04.24	35.33	329	00.05.29	34.57
265	00.04.25	35.33	330	00.05.30	34.57
266	00.04.26	35.33	331	00.05.31	34.38
267	00.04.27	35.33	332	00.05.32	34.38
268	00.04.28	35.33	333	00.05.33	34.38
269	00.04.29	35.33	334	00.05.34	34.38
270	00.04.30	35.14	335	00.05.35	34.38
271	00.04.31	35.14	336	00.05.36	34.38
272	00.04.32	35.33	337	00.05.37	34.38
273	00.04.33	35.14	338	00.05.38	34.38
274	00.04.34	35.14	339	00.05.39	34.38
275	00.04.35	35.33	340	00.05.40	34.38
276	00.04.36	35.14	341	00.05.41	34.38
277	00.04.37	35.14	342	00.05.42	34.38
278	00.04.38	35.14	343	00.05.43	34.38
279	00.04.39	35.14	344	00.05.44	34.38
280	00.04.40	35.14	345	00.05.45	34.38
281	00.04.41	35.14	346	00.05.46	34.38
282	00.04.42	35.14	347	00.05.47	34.38
283	00.04.43	35.14	348	00.05.48	34.38
284	00.04.44	34.95	349	00.05.49	34.19
285	00.04.45	34.95	350	00.05.50	34.38
286	00.04.46	34.95	351	00.05.51	34.19
287	00.04.47	35.14	352	00.05.52	34.38
288	00.04.48	34.95	353	00.05.53	34.19
289	00.04.49	34.95	354	00.05.54	34.19
290	00.04.50	34.95	355	00.05.55	34.19
291	00.04.51	34.95	356	00.05.56	34.38
292	00.04.52	34.95	357	00.05.57	34.19
293	00.04.53	34.95	358	00.05.58	34.57
294	00.04.54	34.95	359	00.05.59	34.19
295	00.04.55	34.95	360	00.06.00	34.19
296	00.04.56	34.95	361	00.06.01	34.38
297	00.04.57	34.95	362	00.06.02	34.19
298	00.04.58	34.76	363	00.06.03	34.19
299	00.04.59	34.95	364	00.06.04	34.19
300	00.05.00	34.76	365	00.06.05	34.19
301	00.05.01	34.95	366	00.06.06	34.19
302	00.05.02	34.76	367	00.06.07	34.00
303	00.05.03	34.95	368	00.06.08	34.19
304	00.05.04	34.76	369	00.06.09	34.00
305	00.05.05	34.76	370	00.06.10	34.19
306	00.05.06	34.76	371	00.06.11	34.00
307	00.05.07	34.76	372	00.06.12	34.19
308	00.05.08	34.76	373	00.06.13	34.19
309	00.05.09	34.76	374	00.06.14	34.00
310	00.05.10	34.57	375	00.06.15	34.00
311	00.05.11	34.57	376	00.06.16	34.19
312	00.05.12	34.76	377	00.06.17	34.00
313	00.05.13	34.76	378	00.06.18	34.19
314	00.05.14	34.57	379	00.06.19	34.19
315	00.05.15	34.57	380	00.06.20	34.00
316	00.05.16	34.76	381	00.06.21	34.19
317	00.05.17	34.76	382	00.06.22	34.00
318	00.05.18	34.76	383	00.06.23	34.00
319	00.05.19	34.57	384	00.06.24	34.00
320	00.05.20	34.57	385	00.06.25	34.00
321	00.05.21	34.57	386	00.06.26	34.00
322	00.05.22	34.57	387	00.06.27	34.00
323	00.05.23	34.57	388	00.06.28	34.00
324	00.05.24	34.57	389	00.06.29	34.00
325	00.05.25	34.57	390	00.06.30	34.00

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta Locality: Montignoso - MS	Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0
Dissip. Test N° 1 ; Depth: 05.51 m ; Time : 600 [sec] - 00.10.00 [h.m.s]		

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Time [sec]	Time [h.m.s]	U2 [kPa]	Time [sec]	Time [h.m.s]	U2 [kPa]
391	00.06.31	34.00	456	00.07.36	33.23
392	00.06.32	33.80	457	00.07.37	33.23
393	00.06.33	34.00	458	00.07.38	33.61
394	00.06.34	34.00	459	00.07.39	33.61
395	00.06.35	34.00	460	00.07.40	33.61
396	00.06.36	34.19	461	00.07.41	33.61
397	00.06.37	34.00	462	00.07.42	33.42
398	00.06.38	34.00	463	00.07.43	33.61
399	00.06.39	34.00	464	00.07.44	33.23
400	00.06.40	33.80	465	00.07.45	33.23
401	00.06.41	33.80	466	00.07.46	33.23
402	00.06.42	33.80	467	00.07.47	33.04
403	00.06.43	33.61	468	00.07.48	33.23
404	00.06.44	33.80	469	00.07.49	33.42
405	00.06.45	33.80	470	00.07.50	33.42
406	00.06.46	33.80	471	00.07.51	33.42
407	00.06.47	33.80	472	00.07.52	33.42
408	00.06.48	33.80	473	00.07.53	33.42
409	00.06.49	33.80	474	00.07.54	33.23
410	00.06.50	33.80	475	00.07.55	33.04
411	00.06.51	33.80	476	00.07.56	33.04
412	00.06.52	33.61	477	00.07.57	33.04
413	00.06.53	33.80	478	00.07.58	33.04
414	00.06.54	33.61	479	00.07.59	33.04
415	00.06.55	33.61	480	00.08.00	33.42
416	00.06.56	33.80	481	00.08.01	33.42
417	00.06.57	33.80	482	00.08.02	33.23
418	00.06.58	33.80	483	00.08.03	33.42
419	00.06.59	33.80	484	00.08.04	33.42
420	00.07.00	33.80	485	00.08.05	33.04
421	00.07.01	33.61	486	00.08.06	33.04
422	00.07.02	33.61	487	00.08.07	33.04
423	00.07.03	33.61	488	00.08.08	33.04
424	00.07.04	33.61	489	00.08.09	33.04
425	00.07.05	33.61	490	00.08.10	33.42
426	00.07.06	33.61	491	00.08.11	33.42
427	00.07.07	33.61	492	00.08.12	33.42
428	00.07.08	33.61	493	00.08.13	33.42
429	00.07.09	33.80	494	00.08.14	33.42
430	00.07.10	33.80	495	00.08.15	33.42
431	00.07.11	33.61	496	00.08.16	33.04
432	00.07.12	33.42	497	00.08.17	32.85
433	00.07.13	33.61	498	00.08.18	32.85
434	00.07.14	33.42	499	00.08.19	32.85
435	00.07.15	33.42	500	00.08.20	32.85
436	00.07.16	33.61	501	00.08.21	33.42
437	00.07.17	33.61	502	00.08.22	33.23
438	00.07.18	33.61	503	00.08.23	33.23
439	00.07.19	33.61	504	00.08.24	33.23
440	00.07.20	33.61	505	00.08.25	33.23
441	00.07.21	33.61	506	00.08.26	32.85
442	00.07.22	33.42	507	00.08.27	32.85
443	00.07.23	33.42	508	00.08.28	32.85
444	00.07.24	33.42	509	00.08.29	32.85
445	00.07.25	33.42	510	00.08.30	32.85
446	00.07.26	33.42	511	00.08.31	32.85
447	00.07.27	33.23	512	00.08.32	33.23
448	00.07.28	33.61	513	00.08.33	33.23
449	00.07.29	33.61	514	00.08.34	33.23
450	00.07.30	33.61	515	00.08.35	33.23
451	00.07.31	33.61	516	00.08.36	33.23
452	00.07.32	33.42	517	00.08.37	32.85
453	00.07.33	33.23	518	00.08.38	32.85
454	00.07.34	33.23	519	00.08.39	32.85
455	00.07.35	33.23	520	00.08.40	32.66

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta Locality: Montignoso - MS	Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0
Dissip. Test N° 1 ; Depth: 05.51 m ; Time : 600 [sec] - 00.10.00 [h.m.s]		

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Time [sec]	Time [h.m.s]	U2 [kPa]	Time [sec]	Time [h.m.s]	U2 [kPa]
521	00.08.41	32.66	586	00.09.46	32.66
522	00.08.42	33.04	587	00.09.47	32.85
523	00.08.43	33.04	588	00.09.48	32.66
524	00.08.44	33.23	589	00.09.49	32.66
525	00.08.45	33.04	590	00.09.50	32.66
526	00.08.46	33.04	591	00.09.51	32.66
527	00.08.47	33.04	592	00.09.52	32.47
528	00.08.48	32.85	593	00.09.53	32.47
529	00.08.49	32.85	594	00.09.54	32.47
530	00.08.50	32.66	595	00.09.55	32.47
531	00.08.51	32.66	596	00.09.56	32.47
532	00.08.52	32.66	597	00.09.57	32.66
533	00.08.53	33.04	598	00.09.58	32.66
534	00.08.54	33.04	599	00.09.59	32.66
535	00.08.55	33.04	600	00.10.00	32.66
536	00.08.56	33.04			
537	00.08.57	33.04			
538	00.08.58	32.66			
539	00.08.59	32.66			
540	00.09.00	32.66			
541	00.09.01	32.66			
542	00.09.02	32.66			
543	00.09.03	32.66			
544	00.09.04	33.04			
545	00.09.05	33.04			
546	00.09.06	32.85			
547	00.09.07	33.04			
548	00.09.08	33.04			
549	00.09.09	32.66			
550	00.09.10	32.47			
551	00.09.11	32.66			
552	00.09.12	32.66			
553	00.09.13	32.66			
554	00.09.14	33.04			
555	00.09.15	33.04			
556	00.09.16	33.04			
557	00.09.17	32.85			
558	00.09.18	32.85			
559	00.09.19	32.85			
560	00.09.20	32.66			
561	00.09.21	32.66			
562	00.09.22	32.66			
563	00.09.23	32.66			
564	00.09.24	32.66			
565	00.09.25	32.85			
566	00.09.26	32.85			
567	00.09.27	32.85			
568	00.09.28	32.85			
569	00.09.29	32.85			
570	00.09.30	32.47			
571	00.09.31	32.47			
572	00.09.32	32.47			
573	00.09.33	32.47			
574	00.09.34	32.47			
575	00.09.35	32.66			
576	00.09.36	32.85			
577	00.09.37	32.85			
578	00.09.38	32.85			
579	00.09.39	32.85			
580	00.09.40	32.85			
581	00.09.41	32.47			
582	00.09.42	32.47			
583	00.09.43	32.47			
584	00.09.44	32.47			
585	00.09.45	32.47			

MAPPO GEOGNOSTICA srl

Commissioner: Consorzio Bonifica Versilia - Massaciuccoli

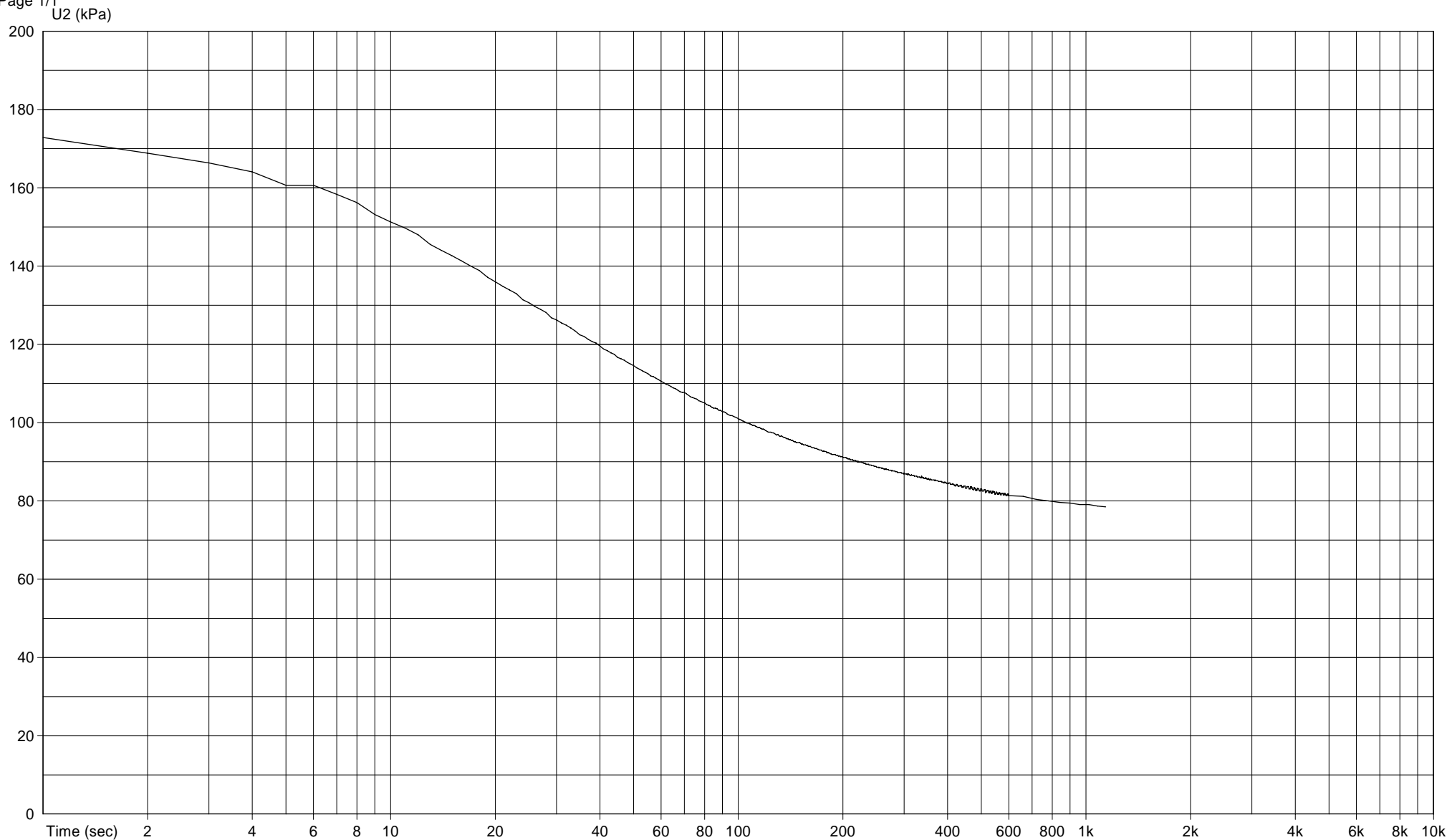
Site: Lago di Porta
Locality: Montignoso - MS

Test Location: P1 bis
Date: 2/3/2010

Abs. quota [cm]: 0
Prehole [cm]: 0
Hydrostatic Line [cm]: 0

Dissip. Test N° 2 ; Depth: 10.01 m ; Time : 1,140 [sec] - 00.19.00 [h.m.s]

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MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli	
Site: Lago di Porta Locality: Montignoso - MS		Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0
Dissip. Test N° 2 ; Depth: 10.01 m ; Time : 1,140 [sec] - 00.19.00 [h.m.s]			

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Time [sec]	Time [h.m.s]	U2 [kPa]	Time [sec]	Time [h.m.s]	U2 [kPa]
1	00.00.01	172.84	66	00.01.06	108.67
2	00.00.02	168.83	67	00.01.07	108.29
3	00.00.03	166.35	68	00.01.08	107.91
4	00.00.04	164.06	69	00.01.09	107.72
5	00.00.05	160.62	70	00.01.10	107.72
6	00.00.06	160.62	71	00.01.11	107.33
7	00.00.07	158.33	72	00.01.12	106.95
8	00.00.08	156.23	73	00.01.13	106.57
9	00.00.09	153.17	74	00.01.14	106.38
10	00.00.10	151.26	75	00.01.15	106.19
11	00.00.11	149.73	76	00.01.16	106.00
12	00.00.12	148.01	77	00.01.17	105.61
13	00.00.13	145.53	78	00.01.18	105.42
14	00.00.14	144.00	79	00.01.19	105.23
15	00.00.15	142.67	80	00.01.20	105.04
16	00.00.16	141.33	81	00.01.21	104.66
17	00.00.17	139.99	82	00.01.22	104.47
18	00.00.18	138.85	83	00.01.23	104.28
19	00.00.19	137.13	84	00.01.24	103.90
20	00.00.20	135.98	85	00.01.25	103.71
21	00.00.21	134.84	86	00.01.26	103.71
22	00.00.22	133.88	87	00.01.27	103.51
23	00.00.23	132.93	88	00.01.28	103.13
24	00.00.24	131.40	89	00.01.29	103.13
25	00.00.25	130.63	90	00.01.30	102.75
26	00.00.26	129.68	91	00.01.31	102.75
27	00.00.27	128.92	92	00.01.32	102.56
28	00.00.28	128.15	93	00.01.33	102.18
29	00.00.29	126.81	94	00.01.34	101.99
30	00.00.30	126.24	95	00.01.35	101.80
31	00.00.31	125.48	96	00.01.36	101.80
32	00.00.32	124.90	97	00.01.37	101.60
33	00.00.33	124.14	98	00.01.38	101.41
34	00.00.34	123.38	99	00.01.39	101.22
35	00.00.35	122.42	100	00.01.40	101.03
36	00.00.36	122.04	101	00.01.41	100.84
37	00.00.37	121.28	102	00.01.42	100.65
38	00.00.38	120.70	103	00.01.43	100.46
39	00.00.39	120.32	104	00.01.44	100.27
40	00.00.40	119.56	105	00.01.45	100.08
41	00.00.41	118.79	106	00.01.46	99.89
42	00.00.42	118.41	107	00.01.47	99.89
43	00.00.43	117.84	108	00.01.48	99.69
44	00.00.44	117.46	109	00.01.49	99.50
45	00.00.45	116.69	110	00.01.50	99.31
46	00.00.46	116.31	111	00.01.51	99.31
47	00.00.47	115.93	112	00.01.52	99.12
48	00.00.48	115.36	113	00.01.53	98.93
49	00.00.49	114.97	114	00.01.54	98.74
50	00.00.50	114.59	115	00.01.55	98.74
51	00.00.51	114.02	116	00.01.56	98.55
52	00.00.52	113.64	117	00.01.57	98.36
53	00.00.53	113.25	118	00.01.58	98.36
54	00.00.54	112.87	119	00.01.59	98.17
55	00.00.55	112.49	120	00.02.00	97.98
56	00.00.56	111.92	121	00.02.01	97.78
57	00.00.57	111.73	122	00.02.02	97.59
58	00.00.58	111.34	123	00.02.03	97.59
59	00.00.59	110.96	124	00.02.04	97.59
60	00.01.00	110.58	125	00.02.05	97.40
61	00.01.01	110.20	126	00.02.06	97.40
62	00.01.02	109.82	127	00.02.07	97.21
63	00.01.03	109.63	128	00.02.08	97.02
64	00.01.04	109.24	129	00.02.09	96.83
65	00.01.05	108.86	130	00.02.10	97.02

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta Locality: Montignoso - MS	Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0
Dissip. Test N° 2 ; Depth: 10.01 m ; Time : 1,140 [sec] - 00.19.00 [h.m.s]		

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Time [sec]	Time [h.m.s]	U2 [kPa]	Time [sec]	Time [h.m.s]	U2 [kPa]
131	00.02.11	96.64	196	00.03.16	91.48
132	00.02.12	96.45	197	00.03.17	91.29
133	00.02.13	96.64	198	00.03.18	91.29
134	00.02.14	96.45	199	00.03.19	91.29
135	00.02.15	96.26	200	00.03.20	91.10
136	00.02.16	96.26	201	00.03.21	91.10
137	00.02.17	96.07	202	00.03.22	91.10
138	00.02.18	95.87	203	00.03.23	91.10
139	00.02.19	95.87	204	00.03.24	91.10
140	00.02.20	95.68	205	00.03.25	90.91
141	00.02.21	95.68	206	00.03.26	90.91
142	00.02.22	95.49	207	00.03.27	90.72
143	00.02.23	95.49	208	00.03.28	90.72
144	00.02.24	95.30	209	00.03.29	90.72
145	00.02.25	95.11	210	00.03.30	90.53
146	00.02.26	95.11	211	00.03.31	90.53
147	00.02.27	94.92	212	00.03.32	90.53
148	00.02.28	94.92	213	00.03.33	90.53
149	00.02.29	94.92	214	00.03.34	90.34
150	00.02.30	94.92	215	00.03.35	90.34
151	00.02.31	94.73	216	00.03.36	90.34
152	00.02.32	94.54	217	00.03.37	90.34
153	00.02.33	94.54	218	00.03.38	90.15
154	00.02.34	94.35	219	00.03.39	90.15
155	00.02.35	94.35	220	00.03.40	89.95
156	00.02.36	94.35	221	00.03.41	90.15
157	00.02.37	94.16	222	00.03.42	89.95
158	00.02.38	94.16	223	00.03.43	89.95
159	00.02.39	93.96	224	00.03.44	89.95
160	00.02.40	93.96	225	00.03.45	89.95
161	00.02.41	93.96	226	00.03.46	89.95
162	00.02.42	93.77	227	00.03.47	89.76
163	00.02.43	93.58	228	00.03.48	89.76
164	00.02.44	93.58	229	00.03.49	89.76
165	00.02.45	93.58	230	00.03.50	89.57
166	00.02.46	93.39	231	00.03.51	89.57
167	00.02.47	93.39	232	00.03.52	89.57
168	00.02.48	93.39	233	00.03.53	89.38
169	00.02.49	93.20	234	00.03.54	89.38
170	00.02.50	93.20	235	00.03.55	89.38
171	00.02.51	93.01	236	00.03.56	89.38
172	00.02.52	93.01	237	00.03.57	89.38
173	00.02.53	93.01	238	00.03.58	89.19
174	00.02.54	92.82	239	00.03.59	89.19
175	00.02.55	92.63	240	00.04.00	89.19
176	00.02.56	92.82	241	00.04.01	89.19
177	00.02.57	92.63	242	00.04.02	89.00
178	00.02.58	92.63	243	00.04.03	89.00
179	00.02.59	92.63	244	00.04.04	89.00
180	00.03.00	92.25	245	00.04.05	89.00
181	00.03.01	92.44	246	00.04.06	88.81
182	00.03.02	92.25	247	00.04.07	88.81
183	00.03.03	92.25	248	00.04.08	88.81
184	00.03.04	92.06	249	00.04.09	88.81
185	00.03.05	92.06	250	00.04.10	88.62
186	00.03.06	91.86	251	00.04.11	88.62
187	00.03.07	91.86	252	00.04.12	88.62
188	00.03.08	91.86	253	00.04.13	88.62
189	00.03.09	91.86	254	00.04.14	88.43
190	00.03.10	91.86	255	00.04.15	88.62
191	00.03.11	91.67	256	00.04.16	88.43
192	00.03.12	91.67	257	00.04.17	88.43
193	00.03.13	91.67	258	00.04.18	88.43
194	00.03.14	91.48	259	00.04.19	88.24
195	00.03.15	91.48	260	00.04.20	88.43

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta Locality: Montignoso - MS	Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0
Dissip. Test N° 2 ; Depth: 10.01 m ; Time : 1,140 [sec] - 00.19.00 [h.m.s]		

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Time [sec]	Time [h.m.s]	U2 [kPa]	Time [sec]	Time [h.m.s]	U2 [kPa]
261	00.04.21	88.24	326	00.05.26	86.33
262	00.04.22	88.24	327	00.05.27	86.13
263	00.04.23	88.04	328	00.05.28	86.13
264	00.04.24	88.24	329	00.05.29	86.13
265	00.04.25	88.04	330	00.05.30	86.13
266	00.04.26	88.24	331	00.05.31	86.13
267	00.04.27	88.04	332	00.05.32	86.13
268	00.04.28	88.04	333	00.05.33	86.13
269	00.04.29	88.04	334	00.05.34	85.94
270	00.04.30	88.04	335	00.05.35	85.94
271	00.04.31	87.85	336	00.05.36	85.94
272	00.04.32	87.85	337	00.05.37	86.33
273	00.04.33	87.85	338	00.05.38	85.94
274	00.04.34	87.85	339	00.05.39	85.94
275	00.04.35	87.85	340	00.05.40	85.94
276	00.04.36	87.66	341	00.05.41	85.94
277	00.04.37	87.85	342	00.05.42	85.75
278	00.04.38	87.66	343	00.05.43	85.75
279	00.04.39	87.66	344	00.05.44	85.75
280	00.04.40	87.66	345	00.05.45	85.75
281	00.04.41	87.66	346	00.05.46	85.94
282	00.04.42	87.66	347	00.05.47	85.75
283	00.04.43	87.47	348	00.05.48	85.75
284	00.04.44	87.47	349	00.05.49	85.56
285	00.04.45	87.47	350	00.05.50	85.56
286	00.04.46	87.47	351	00.05.51	85.56
287	00.04.47	87.28	352	00.05.52	85.75
288	00.04.48	87.28	353	00.05.53	85.56
289	00.04.49	87.28	354	00.05.54	85.56
290	00.04.50	87.28	355	00.05.55	85.37
291	00.04.51	87.28	356	00.05.56	85.56
292	00.04.52	87.28	357	00.05.57	85.56
293	00.04.53	87.28	358	00.05.58	85.56
294	00.04.54	87.28	359	00.05.59	85.37
295	00.04.55	87.09	360	00.06.00	85.37
296	00.04.56	87.09	361	00.06.01	85.37
297	00.04.57	87.09	362	00.06.02	85.37
298	00.04.58	87.09	363	00.06.03	85.37
299	00.04.59	86.90	364	00.06.04	85.37
300	00.05.00	87.09	365	00.06.05	85.37
301	00.05.01	86.90	366	00.06.06	85.37
302	00.05.02	86.90	367	00.06.07	85.18
303	00.05.03	86.90	368	00.06.08	85.18
304	00.05.04	86.90	369	00.06.09	85.37
305	00.05.05	86.90	370	00.06.10	85.18
306	00.05.06	86.71	371	00.06.11	85.18
307	00.05.07	86.90	372	00.06.12	85.18
308	00.05.08	86.90	373	00.06.13	85.18
309	00.05.09	86.90	374	00.06.14	85.18
310	00.05.10	86.71	375	00.06.15	85.18
311	00.05.11	86.71	376	00.06.16	84.99
312	00.05.12	86.52	377	00.06.17	84.99
313	00.05.13	86.52	378	00.06.18	84.99
314	00.05.14	86.52	379	00.06.19	84.99
315	00.05.15	86.71	380	00.06.20	84.99
316	00.05.16	86.52	381	00.06.21	84.99
317	00.05.17	86.52	382	00.06.22	84.99
318	00.05.18	86.52	383	00.06.23	84.99
319	00.05.19	86.52	384	00.06.24	84.99
320	00.05.20	86.52	385	00.06.25	84.80
321	00.05.21	86.33	386	00.06.26	84.80
322	00.05.22	86.33	387	00.06.27	84.80
323	00.05.23	86.33	388	00.06.28	84.80
324	00.05.24	86.33	389	00.06.29	84.61
325	00.05.25	86.33	390	00.06.30	84.61

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta Locality: Montignoso - MS	Test Location: P1 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0
Dissip. Test N° 2 ; Depth: 10.01 m ; Time : 1,140 [sec] - 00.19.00 [h.m.s]		

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Time [sec]	Time [h.m.s]	U2 [kPa]	Time [sec]	Time [h.m.s]	U2 [kPa]
391	00.06.31	84.61	456	00.07.36	83.65
392	00.06.32	84.80	457	00.07.37	83.65
393	00.06.33	84.61	458	00.07.38	83.65
394	00.06.34	84.61	459	00.07.39	83.65
395	00.06.35	84.80	460	00.07.40	83.65
396	00.06.36	84.61	461	00.07.41	83.08
397	00.06.37	84.61	462	00.07.42	83.08
398	00.06.38	84.42	463	00.07.43	83.27
399	00.06.39	84.42	464	00.07.44	83.08
400	00.06.40	84.42	465	00.07.45	83.08
401	00.06.41	84.42	466	00.07.46	83.65
402	00.06.42	84.61	467	00.07.47	83.46
403	00.06.43	84.42	468	00.07.48	83.65
404	00.06.44	84.61	469	00.07.49	83.46
405	00.06.45	84.61	470	00.07.50	83.46
406	00.06.46	84.61	471	00.07.51	83.08
407	00.06.47	84.42	472	00.07.52	83.08
408	00.06.48	84.22	473	00.07.53	82.89
409	00.06.49	84.22	474	00.07.54	82.89
410	00.06.50	84.22	475	00.07.55	82.89
411	00.06.51	84.22	476	00.07.56	82.89
412	00.06.52	84.22	477	00.07.57	83.46
413	00.06.53	84.42	478	00.07.58	83.27
414	00.06.54	84.42	479	00.07.59	83.27
415	00.06.55	84.22	480	00.08.00	83.27
416	00.06.56	84.22	481	00.08.01	83.27
417	00.06.57	84.22	482	00.08.02	82.70
418	00.06.58	84.03	483	00.08.03	82.89
419	00.06.59	84.03	484	00.08.04	82.70
420	00.07.00	83.84	485	00.08.05	82.70
421	00.07.01	84.03	486	00.08.06	82.70
422	00.07.02	83.84	487	00.08.07	83.27
423	00.07.03	84.22	488	00.08.08	83.27
424	00.07.04	84.03	489	00.08.09	83.08
425	00.07.05	84.22	490	00.08.10	83.08
426	00.07.06	84.22	491	00.08.11	83.08
427	00.07.07	84.03	492	00.08.12	83.08
428	00.07.08	84.03	493	00.08.13	82.70
429	00.07.09	83.65	494	00.08.14	82.51
430	00.07.10	83.84	495	00.08.15	82.70
431	00.07.11	83.84	496	00.08.16	82.70
432	00.07.12	83.84	497	00.08.17	82.51
433	00.07.13	83.84	498	00.08.18	83.08
434	00.07.14	83.84	499	00.08.19	83.08
435	00.07.15	84.03	500	00.08.20	83.08
436	00.07.16	83.84	501	00.08.21	83.08
437	00.07.17	84.03	502	00.08.22	82.89
438	00.07.18	84.03	503	00.08.23	82.51
439	00.07.19	83.65	504	00.08.24	82.51
440	00.07.20	83.46	505	00.08.25	82.51
441	00.07.21	83.65	506	00.08.26	82.51
442	00.07.22	83.46	507	00.08.27	82.51
443	00.07.23	83.46	508	00.08.28	82.51
444	00.07.24	83.46	509	00.08.29	82.89
445	00.07.25	83.84	510	00.08.30	82.89
446	00.07.26	83.84	511	00.08.31	82.89
447	00.07.27	83.84	512	00.08.32	82.89
448	00.07.28	83.84	513	00.08.33	82.89
449	00.07.29	83.84	514	00.08.34	82.12
450	00.07.30	83.27	515	00.08.35	82.31
451	00.07.31	83.27	516	00.08.36	82.31
452	00.07.32	83.27	517	00.08.37	82.31
453	00.07.33	83.27	518	00.08.38	82.31
454	00.07.34	83.27	519	00.08.39	82.70
455	00.07.35	83.65	520	00.08.40	82.51

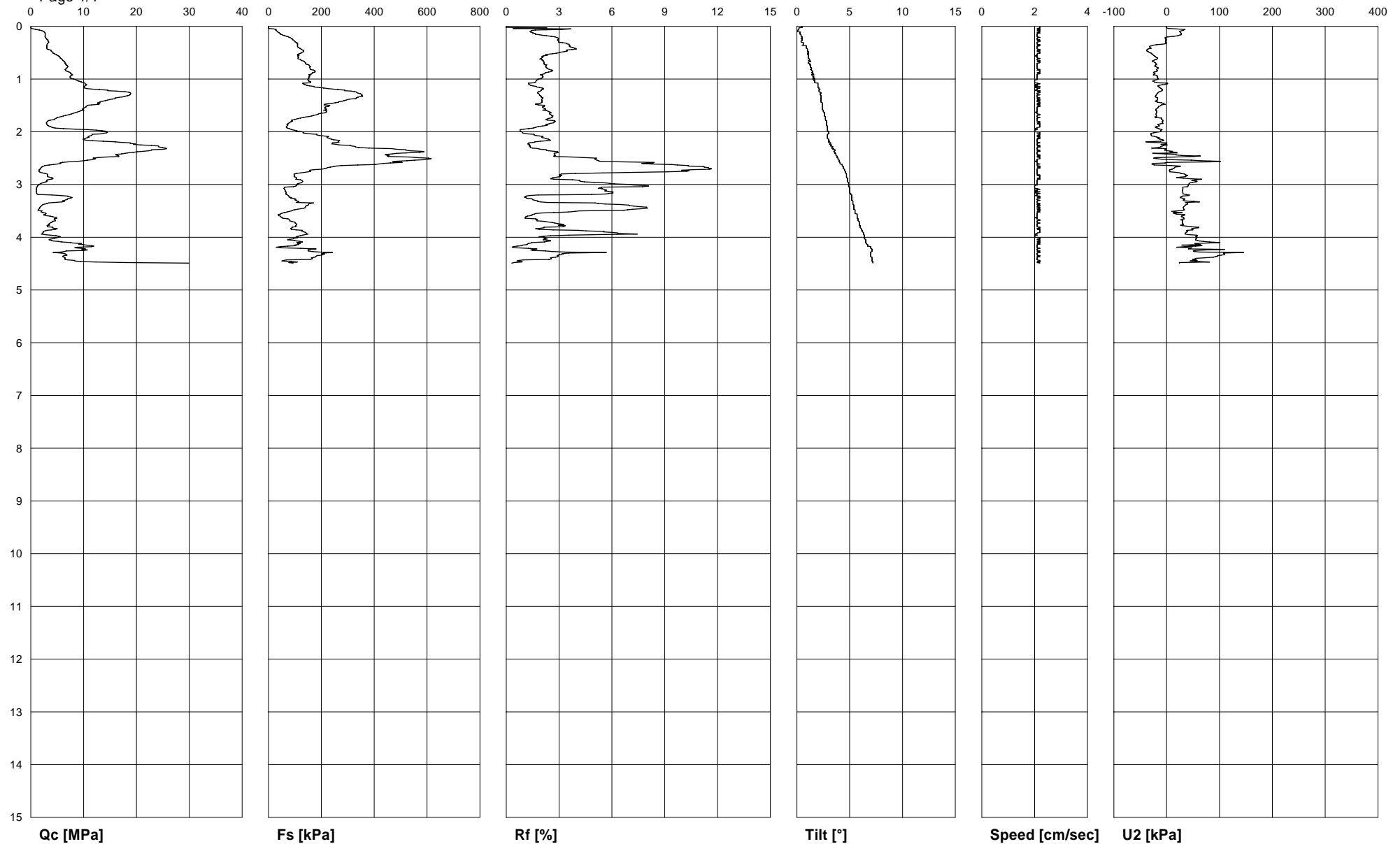
MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta	Test Location: P1 bis	Abs. quota [cm]: 0
Locality: Montignoso - MS	Date: 2/3/2010	Prehole [cm]: 0
Dissip. Test N° 2 ; Depth: 10.01 m ; Time : 1,140 [sec] - 00.19.00 [h.m.s]		Hydrostatic Line [cm]: 0

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Time [sec]	Time [h.m.s]	U2 [kPa]	Time [sec]	Time [h.m.s]	U2 [kPa]
521	00.08.41	82.70	586	00.09.46	81.74
522	00.08.42	82.70	587	00.09.47	81.74
523	00.08.43	82.70	588	00.09.48	81.55
524	00.08.44	82.70	589	00.09.49	81.55
525	00.08.45	82.12	590	00.09.50	81.36
526	00.08.46	82.12	591	00.09.51	81.36
527	00.08.47	82.31	592	00.09.52	81.36
528	00.08.48	82.12	593	00.09.53	81.36
529	00.08.49	82.12	594	00.09.54	81.74
530	00.08.50	82.51	595	00.09.55	81.74
531	00.08.51	82.51	596	00.09.56	81.74
532	00.08.52	82.51	597	00.09.57	81.55
533	00.08.53	82.51	598	00.09.58	81.74
534	00.08.54	82.51	599	00.09.59	81.36
535	00.08.55	81.93	600	00.10.00	81.36
536	00.08.56	82.12	660	00.11.00	81.17
537	00.08.57	81.93	720	00.12.00	80.40
538	00.08.58	82.12	780	00.13.00	80.02
539	00.08.59	82.12	840	00.14.00	79.64
540	00.09.00	82.51	900	00.15.00	79.45
541	00.09.01	82.31	960	00.16.00	79.07
542	00.09.02	82.31	1,020	00.17.00	79.07
543	00.09.03	82.31	1,080	00.18.00	78.69
544	00.09.04	82.31	1,140	00.19.00	78.50
545	00.09.05	82.31			
546	00.09.06	81.93			
547	00.09.07	81.74			
548	00.09.08	81.93			
549	00.09.09	81.93			
550	00.09.10	81.74			
551	00.09.11	82.12			
552	00.09.12	82.31			
553	00.09.13	82.12			
554	00.09.14	82.12			
555	00.09.15	82.12			
556	00.09.16	81.93			
557	00.09.17	81.74			
558	00.09.18	81.93			
559	00.09.19	81.93			
560	00.09.20	81.74			
561	00.09.21	81.74			
562	00.09.22	82.12			
563	00.09.23	82.12			
564	00.09.24	82.12			
565	00.09.25	82.12			
566	00.09.26	81.93			
567	00.09.27	81.74			
568	00.09.28	81.74			
569	00.09.29	81.55			
570	00.09.30	81.55			
571	00.09.31	81.74			
572	00.09.32	81.93			
573	00.09.33	81.93			
574	00.09.34	81.93			
575	00.09.35	81.93			
576	00.09.36	81.93			
577	00.09.37	81.93			
578	00.09.38	81.55			
579	00.09.39	81.55			
580	00.09.40	81.55			
581	00.09.41	81.55			
582	00.09.42	81.55			
583	00.09.43	81.93			
584	00.09.44	81.74			
585	00.09.45	81.93			

MAPPO GEOGNOSTICA srl		Commissioner: Mappo Geognostica srl	
Site: Montignoso - MS		Test Location: P2	
Locality:		Date: 2/18/2010	
		Abs. quota [cm]: 0	
		Prehole [cm]: 0	
		Hydrostatic Line [cm]: 0	

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Qc [MPa]

Fs [kPa]

Rf [%]

Tilt [°]

Speed [cm/sec]

U2 [kPa]

MAPPO GEOGNOSTICA srl		Commissioner: Mappo Geognostica srl
Site: Montignoso - MS	Test Location: P2	Abs. quota [cm]: 0
Locality:	Date: 2/18/2010	Prehole [cm]: 0
		Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
5	0.505	18.51	3.67	0.2	2.2	18.14
10	2.498	33.79	1.35	0.0	2.2	23.87
15	2.735	45.03	1.65	0.3	2.1	27.69
20	2.725	75.41	2.77	0.5	2.1	2.48
25	3.118	91.14	2.92	0.5	2.1	-1.15
30	3.416	101.65	2.98	0.4	2.1	-2.10
35	3.073	109.02	3.55	0.6	2.2	-19.29
40	3.012	112.52	3.74	0.9	2.1	-31.70
45	3.789	129.17	3.41	1.0	2.2	-38.01
50	4.173	125.30	3.00	1.1	2.2	-31.51
55	4.970	115.48	2.32	1.1	2.1	-24.83
60	5.545	111.29	2.01	1.1	2.1	-17.57
65	6.100	124.66	2.04	1.1	2.2	-25.59
70	6.479	139.86	2.16	1.1	2.1	-21.20
75	6.958	154.73	2.22	1.3	2.1	-22.54
80	6.696	157.18	2.35	1.4	2.1	-16.23
85	6.782	175.92	2.59	1.5	2.2	-17.95
90	7.488	161.55	2.16	1.5	2.2	-21.96
95	7.493	153.32	2.05	1.6	2.1	-17.00
100	8.114	149.04	1.84	1.5	2.1	-16.04
105	9.521	160.09	1.68	1.7	2.0	-23.49
110	10.531	135.81	1.29	2.0	2.1	-2.48
115	10.076	173.15	1.72	2.0	2.0	-14.71
120	12.983	262.15	2.02	2.2	2.1	-8.02
125	18.589	334.79	1.80	2.2	2.2	-15.66
130	18.785	354.03	1.88	2.2	2.2	-19.67
135	16.697	338.38	2.03	2.3	2.1	-19.10
140	14.486	293.36	2.03	2.3	2.1	-18.14
145	12.690	252.24	1.99	2.4	2.2	-9.36
150	10.657	231.82	2.18	2.4	2.2	-11.65
155	10.112	214.72	2.12	2.4	2.1	-17.76
160	9.501	217.77	2.29	2.5	2.1	-20.05
165	8.023	196.75	2.45	2.6	2.1	-19.67
170	6.181	164.05	2.65	2.6	2.1	-19.29
175	4.682	112.34	2.40	2.7	2.1	-9.55
180	3.219	89.60	2.78	2.8	2.1	-7.45
185	3.027	73.41	2.43	2.8	2.1	-12.22
190	3.673	67.72	1.84	2.9	2.2	-19.67
195	8.426	84.78	1.01	2.9	2.0	-12.41
200	14.492	126.48	0.87	3.0	2.0	-11.46
205	11.605	183.15	1.58	2.9	2.2	-29.79
210	11.025	222.77	2.02	2.9	2.2	-18.53
215	10.016	245.42	2.45	3.0	2.1	-7.64
220	16.792	266.38	1.59	3.0	2.1	-34.95
225	20.829	268.07	1.29	3.3	2.1	0.95
230	24.881	341.16	1.37	3.3	2.1	-15.47
235	22.852	520.13	2.28	3.6	2.2	-3.82
240	18.321	520.67	2.84	3.6	2.1	19.86
245	16.394	456.95	2.79	3.7	2.2	28.07
250	11.812	605.04	5.12	3.9	2.2	-24.64
255	10.011	524.40	5.24	4.0	2.1	64.94
260	5.661	435.71	7.70	4.1	2.1	-25.40
265	2.467	254.92	10.33	4.3	2.2	26.17
270	1.822	212.35	11.65	4.4	2.1	11.84
275	1.559	159.73	10.25	4.6	2.1	6.68
280	3.093	96.83	3.13	4.7	2.1	33.80
285	3.159	96.69	3.06	4.7	2.2	36.10
290	3.855	103.52	2.69	4.8	2.2	66.08
295	2.896	128.44	4.44	4.8	2.1	55.39
300	1.579	111.88	7.09	4.9	2.1	41.44
305	1.120	60.49	5.40	5.0	2.0	30.56
310	1.100	62.04	5.64	5.0	2.1	30.18
315	1.105	66.90	6.05	5.0	2.0	30.56
320	4.001	72.50	1.81	5.2	2.1	42.97
325	7.806	88.14	1.13	5.2	2.2	25.78

MAPPO GEOGNOSTICA srl		Commissioner: Mappo Geognostica srl	
Site: Montignoso - MS	Test Location: P2 Date: 2/18/2010	Abs. quota [cm]: 0	
Locality:		Prehole [cm]: 0	
		Hydrostatic Line [cm]: 0	

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
330	6.408	104.02	1.62	5.2	2.2	31.70
335	3.386	170.92	5.05	5.3	2.1	39.92
340	2.079	145.45	7.00	5.4	2.1	34.76
345	1.675	134.12	8.01	5.4	2.2	31.89
350	2.114	87.82	4.15	5.5	2.2	18.91
355	2.891	48.62	1.68	5.5	2.1	14.13
360	3.673	44.03	1.20	5.7	2.1	27.69
365	4.471	73.73	1.65	5.8	2.1	33.04
370	4.092	88.28	2.16	5.9	2.1	30.18
375	3.391	106.06	3.13	5.9	2.1	31.51
380	3.128	100.56	3.21	6.0	2.1	47.36
385	4.612	86.46	1.87	6.1	2.1	49.08
390	2.422	133.99	5.53	6.2	2.2	38.96
395	2.634	139.04	5.28	6.3	2.0	40.30
400	5.147	110.79	2.15	6.4	2.0	57.87
405	3.472	72.91	2.10	6.5	2.2	54.81
410	7.498	107.84	1.44	6.5	2.2	100.84
415	10.510	98.10	0.93	6.7	2.1	28.84
420	8.361	46.53	0.56	7.0	2.1	47.75
425	10.001	152.00	1.52	7.1	2.1	53.48
430	5.858	208.21	3.55	7.0	2.1	107.52
435	6.332	183.74	2.90	7.0	2.2	96.45
440	6.499	166.14	2.56	7.1	2.1	55.58
445	8.381	50.85	0.61	7.1	2.2	44.31
450	45.659	187.84	0.41	7.1	2.2	48.51

MAPPO GEOGNOSTICA srl

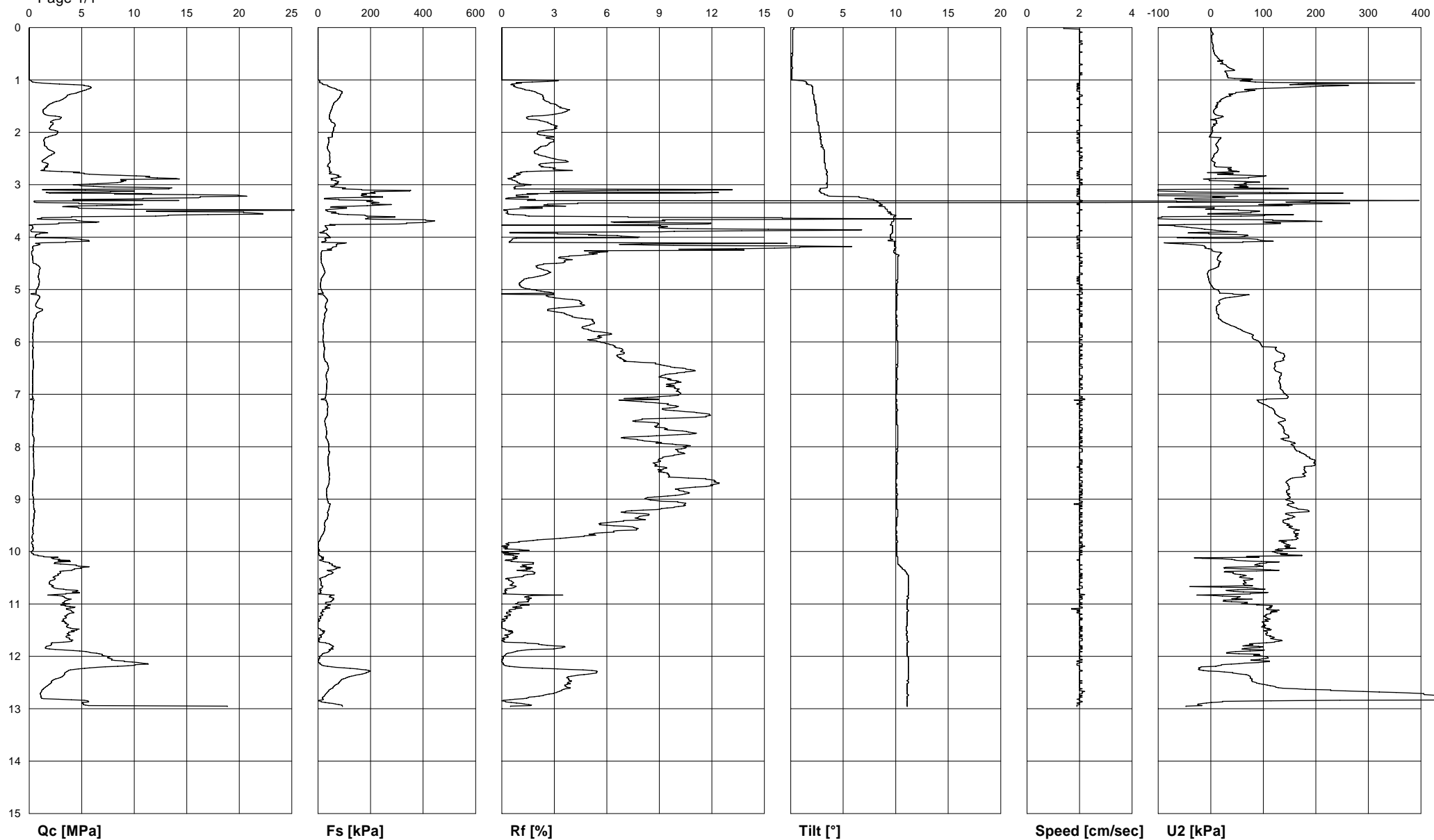
Commissioner: Consorzio Bonifica Versilia - Massaciuccoli

Site: Lago di Porta
Locality: Montignoso - MS

Test Location: P2 bis
Date: 2/3/2010

Abs. quota [cm]: 0
Prehole [cm]: 0
Hydrostatic Line [cm]: 0

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MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta Locality: Montignoso - MS	Test Location: P2 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
5	0.000	0.00	0.00	0.2	2.0	0.19
10	0.000	0.00	0.00	0.2	2.0	2.86
15	0.000	0.00	0.00	0.2	2.0	1.53
20	0.000	0.00	0.00	0.2	2.0	1.53
25	0.000	0.00	0.00	0.2	2.0	2.10
30	0.000	0.00	0.00	0.2	2.1	3.25
35	0.000	0.00	0.00	0.2	2.0	4.77
40	0.000	0.00	0.00	0.2	2.0	4.39
45	0.000	0.00	0.00	0.2	2.0	5.35
50	0.000	0.00	0.00	0.1	2.0	6.88
55	0.000	0.00	0.00	0.1	2.0	11.27
60	0.000	0.00	0.00	0.1	2.0	15.28
65	0.000	0.00	0.00	0.1	2.0	21.58
70	0.000	0.00	0.00	0.1	2.1	25.02
75	0.000	0.00	0.00	0.1	2.0	31.89
80	0.000	0.00	0.00	0.1	2.0	42.59
85	0.000	0.00	0.00	0.1	2.0	27.69
90	0.000	0.00	0.00	0.1	2.1	30.37
95	0.000	0.00	0.00	0.1	2.0	32.28
100	0.000	0.00	0.00	0.1	2.0	59.59
105	0.636	5.28	0.83	1.5	2.0	118.03
110	5.217	36.98	0.71	2.0	2.0	261.84
115	5.909	53.49	0.91	2.1	2.0	139.99
120	5.258	82.23	1.56	2.1	1.9	84.03
125	4.476	90.37	2.02	2.1	2.0	47.17
130	3.653	85.19	2.33	2.2	2.1	35.52
135	3.340	80.00	2.40	2.2	1.9	24.45
140	2.846	70.81	2.49	2.3	2.0	17.00
145	2.089	58.40	2.80	2.3	2.0	13.37
150	1.716	55.40	3.23	2.4	2.0	10.31
155	1.463	53.12	3.63	2.4	2.0	8.02
160	1.307	48.26	3.69	2.4	2.0	5.16
165	1.458	44.89	3.08	2.5	2.0	7.64
170	2.836	43.12	1.52	2.5	2.0	23.68
175	2.886	43.12	1.49	2.5	2.0	7.83
180	2.038	50.35	2.47	2.6	2.0	11.27
185	2.271	63.90	2.81	2.6	2.0	4.97
190	2.023	61.13	3.02	2.7	2.0	2.86
195	2.084	59.85	2.87	2.7	2.0	2.48
200	2.730	55.76	2.04	2.7	1.9	1.72
205	2.498	54.21	2.17	2.8	2.0	-1.15
210	1.524	38.57	2.53	2.8	1.9	19.29
215	1.383	41.34	2.99	2.9	2.0	14.90
220	1.473	40.61	2.76	2.9	1.9	12.03
225	1.443	37.43	2.59	3.0	2.0	10.70
230	1.711	35.93	2.10	3.1	2.1	13.75
235	2.099	39.61	1.89	3.2	2.0	13.37
240	2.402	45.34	1.89	3.2	2.0	8.79
245	1.912	43.94	2.30	3.2	2.1	5.73
250	1.549	45.30	2.92	3.2	2.0	2.67
255	1.211	45.03	3.72	3.2	2.0	3.06
260	1.801	39.48	2.19	3.3	2.0	6.88
265	1.554	36.39	2.34	3.3	2.0	8.79
270	1.463	42.89	2.93	3.3	2.1	32.66
275	3.098	44.21	1.43	3.5	1.9	54.05
280	5.722	60.22	1.05	3.4	2.0	12.80
285	11.096	87.64	0.79	3.5	2.0	84.99
290	8.724	50.58	0.58	3.5	2.1	-2.86
295	8.709	76.55	0.88	3.5	2.0	93.01
300	4.188	70.13	1.67	3.5	2.1	45.45
305	11.479	78.82	0.69	3.5	2.0	44.31
310	1.266	166.51	13.15	2.8	1.9	-100.00
315	1.615	199.89	12.38	2.9	2.0	112.30
320	19.906	165.51	0.83	3.5	1.9	-100.00
325	16.106	66.31	0.41	6.7	2.0	27.50

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli	
Site: Lago di Porta Locality: Montignoso - MS		Test Location: P2 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
330	14.249	207.85	1.46	8.0	2.1	396.49
335	4.728	205.03	4.34	8.5	2.0	264.32
340	6.443	187.34	2.91	8.4	2.0	147.44
345	4.703	108.34	2.30	9.0	2.0	6.30
350	11.187	36.48	0.33	9.2	2.0	92.63
355	22.227	77.68	0.35	9.6	2.0	-5.35
360	12.034	186.52	1.55	9.9	2.0	57.49
365	0.772	180.65	23.40	9.9	2.0	-100.00
370	5.162	433.85	8.40	9.8	2.0	211.61
375	2.619	308.64	11.78	9.6	2.0	101.03
380	0.313	29.61	9.46	9.7	2.0	-55.00
385	0.237	36.07	15.22	9.7	2.0	-11.65
390	0.257	23.38	9.10	9.7	2.0	49.08
395	0.661	35.70	5.40	9.5	2.0	49.47
400	0.580	45.57	7.86	9.5	1.9	55.00
405	4.950	28.70	0.58	9.7	1.9	89.57
410	3.492	14.55	0.42	9.9	2.0	61.12
415	0.888	71.68	8.07	9.9	2.0	-26.93
420	0.328	55.81	17.02	10.0	2.0	-9.55
425	0.368	50.85	13.82	9.9	2.0	2.10
430	0.247	12.28	4.97	9.9	2.0	21.01
435	0.283	12.78	4.52	10.3	2.0	16.23
440	0.343	11.19	3.26	10.2	2.0	12.99
445	0.363	12.96	3.57	10.2	2.0	14.32
450	0.434	13.55	3.12	10.2	2.1	15.09
455	0.908	17.69	1.95	10.2	2.1	15.47
460	1.044	22.92	2.20	10.2	2.0	7.07
465	0.964	25.42	2.64	10.2	2.0	-4.20
470	0.908	23.51	2.59	10.2	2.1	-6.30
475	0.873	17.97	2.06	10.2	2.0	-5.35
480	0.928	11.69	1.26	10.2	1.9	-3.63
485	0.969	10.60	1.09	10.2	2.0	-2.86
490	0.933	9.60	1.03	10.1	2.0	-0.19
495	0.853	9.37	1.10	10.1	2.0	3.25
500	0.696	11.87	1.71	10.1	2.1	10.50
505	0.636	17.19	2.70	10.1	2.1	16.81
510	0.661	19.60	2.97	10.2	1.9	72.96
515	1.004	29.38	2.93	10.1	2.0	36.29
520	0.863	36.43	4.22	10.1	2.0	17.76
525	0.701	31.97	4.56	10.1	2.0	16.23
530	0.616	29.11	4.73	10.1	2.0	13.18
535	0.863	28.15	3.26	10.1	2.0	10.31
540	1.246	32.66	2.62	10.0	2.0	10.12
545	0.747	26.83	3.59	10.0	2.0	11.46
550	0.661	25.79	3.90	10.1	2.0	15.28
555	0.535	24.42	4.56	10.0	2.0	14.71
560	0.429	22.38	5.22	10.1	2.0	21.20
565	0.373	19.69	5.28	10.1	2.0	30.37
570	0.399	18.97	4.75	10.2	2.0	42.97
575	0.409	19.15	4.68	10.1	2.0	52.90
580	0.389	20.51	5.27	10.1	2.0	63.22
585	0.343	21.51	6.27	10.1	2.0	77.35
590	0.348	19.01	5.46	10.1	2.1	78.50
595	0.358	18.56	5.18	10.1	2.0	81.55
600	0.363	20.38	5.61	10.2	2.0	92.25
605	0.353	21.79	6.17	10.2	2.1	95.49
610	0.394	25.65	6.51	10.2	2.0	124.71
615	0.353	24.38	6.91	10.2	2.0	123.95
620	0.333	23.20	6.97	10.2	2.0	131.59
625	0.333	21.97	6.60	10.2	2.1	140.18
630	0.343	23.33	6.80	10.2	2.0	138.85
635	0.373	25.92	6.95	10.2	2.0	138.85
640	0.399	35.07	8.79	10.2	2.0	122.04
645	0.409	37.89	9.26	10.2	2.0	122.42
650	0.383	39.61	10.34	10.1	2.1	120.51

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta Locality: Montignoso - MS	Test Location: P2 bis Date: 2/3/2010	Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
655	0.338	37.34	11.05	10.1	2.0	123.38
660	0.328	32.84	10.01	10.1	2.0	134.45
665	0.338	30.70	9.08	10.1	2.1	132.73
670	0.343	32.75	9.55	10.2	2.0	132.35
675	0.343	34.66	10.10	10.1	2.0	129.68
680	0.348	33.25	9.55	10.1	2.1	132.73
685	0.353	33.20	9.41	10.1	2.0	132.93
690	0.318	32.20	10.13	10.1	2.1	133.31
695	0.318	32.16	10.11	10.1	2.0	137.70
700	0.303	30.88	10.19	10.1	2.0	142.48
705	0.318	28.29	8.90	10.0	2.1	147.06
710	0.141	12.60	8.94	10.1	2.2	105.61
715	0.404	33.29	8.24	10.0	2.0	91.67
720	0.383	36.20	9.45	10.1	2.1	103.51
725	0.378	37.34	9.88	10.1	2.0	112.68
730	0.383	35.88	9.37	10.2	2.1	120.32
735	0.333	37.02	11.12	10.1	2.0	121.85
740	0.293	34.93	11.92	10.1	2.0	126.05
745	0.288	29.84	10.36	10.1	2.0	135.22
750	0.343	26.20	7.64	10.1	2.1	141.71
755	0.298	26.56	8.91	10.1	2.0	129.30
760	0.318	28.24	8.88	10.2	2.0	134.64
765	0.343	31.97	9.32	10.2	2.1	137.89
770	0.313	32.29	10.32	10.2	2.1	139.23
775	0.303	33.43	11.03	10.2	2.0	141.52
780	0.368	30.79	8.37	10.2	2.0	148.78
785	0.439	32.16	7.33	10.2	2.0	133.69
790	0.454	38.43	8.46	10.2	2.1	150.69
795	0.419	40.84	9.75	10.2	2.0	153.74
800	0.394	40.84	10.37	10.2	2.0	158.71
805	0.399	39.61	9.93	10.1	2.1	160.81
810	0.444	44.66	10.06	10.1	2.1	169.40
815	0.409	41.25	10.09	10.1	2.0	178.95
820	0.414	38.07	9.20	10.1	2.0	188.12
825	0.419	37.48	8.95	10.1	2.1	197.67
830	0.429	37.93	8.84	10.1	2.1	197.86
835	0.434	38.43	8.85	10.1	2.0	199.01
840	0.434	40.84	9.41	10.1	2.0	178.76
845	0.459	41.52	9.05	10.1	2.0	178.76
850	0.454	42.89	9.45	10.1	2.1	178.38
855	0.454	43.30	9.54	10.1	2.0	178.57
860	0.404	43.07	10.66	10.1	2.0	155.27
865	0.348	42.30	12.16	10.0	2.1	145.91
870	0.338	41.93	12.41	10.0	2.0	145.72
875	0.318	37.70	11.86	10.1	2.0	148.40
880	0.333	33.70	10.12	10.1	2.0	148.78
885	0.313	32.52	10.39	10.1	2.0	144.00
890	0.308	32.25	10.47	10.2	2.1	150.31
895	0.373	33.93	9.10	10.1	2.0	149.54
900	0.429	35.38	8.25	10.1	2.0	146.29
905	0.389	39.11	10.05	10.1	2.1	155.65
910	0.439	45.94	10.46	10.1	1.8	147.44
915	0.434	42.80	9.86	10.1	2.0	155.46
920	0.469	41.71	8.89	10.2	2.0	176.47
925	0.535	36.43	6.81	10.2	2.0	168.26
930	0.459	38.61	8.41	10.2	2.1	148.20
935	0.469	36.57	7.80	10.1	2.0	155.46
940	0.399	30.88	7.74	10.1	2.0	137.70
945	0.414	24.97	6.03	10.1	2.1	139.04
950	0.414	24.83	6.00	10.1	2.1	144.77
955	0.338	25.74	7.62	10.0	2.0	152.41
960	0.368	24.24	6.59	10.0	2.0	161.00
965	0.399	21.19	5.31	10.1	2.1	158.71
970	0.303	14.28	4.71	10.1	2.1	162.53
975	0.293	9.78	3.34	10.1	2.0	166.16

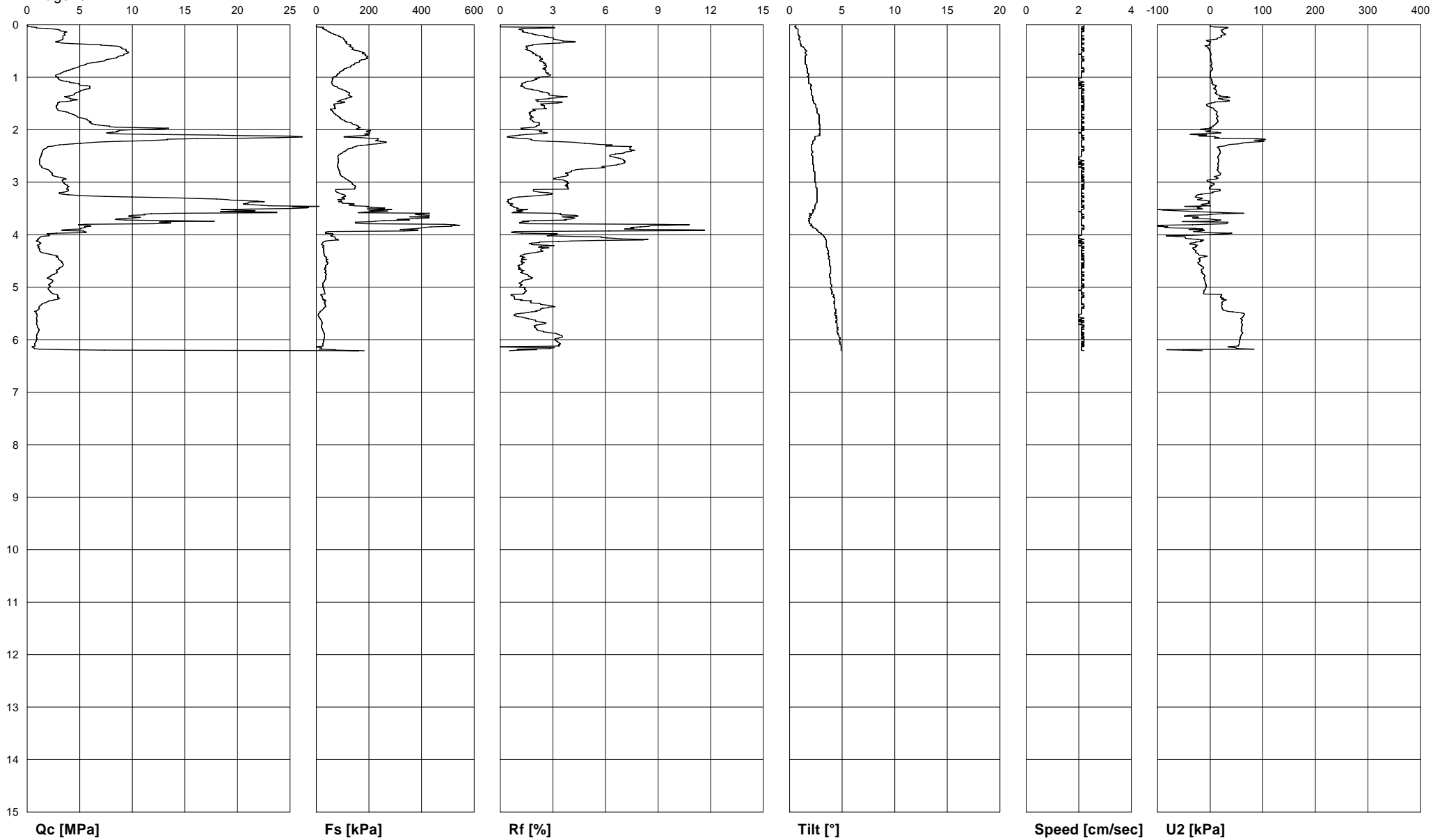
MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta	Test Location: P2 bis	Abs. quota [cm]: 0
Locality: Montignoso - MS	Date: 2/3/2010	Prehole [cm]: 0
		Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
980	0.399	5.64	1.41	10.2	2.0	129.87
985	0.232	0.55	0.24	10.1	2.1	142.28
990	0.333	0.00	0.00	10.1	2.2	140.95
995	0.414	0.73	0.18	10.1	2.0	128.92
1000	0.232	1.46	0.63	10.1	2.0	117.07
1005	0.429	1.82	0.42	10.1	2.0	132.73
1010	1.367	12.05	0.88	10.2	2.0	68.18
1015	2.911	19.88	0.68	10.2	2.0	40.11
1020	2.962	26.88	0.91	10.2	2.0	130.06
1025	3.845	53.49	1.39	10.3	2.0	84.99
1030	5.192	84.05	1.62	10.5	2.0	28.27
1035	4.122	58.90	1.43	10.8	2.0	113.06
1040	3.002	56.85	1.89	11.0	2.0	42.78
1045	2.795	36.66	1.31	11.2	2.1	63.60
1050	2.301	13.87	0.60	11.2	2.1	58.82
1055	2.175	8.37	0.38	11.2	2.0	62.07
1060	1.912	12.78	0.67	11.2	2.0	67.23
1065	2.261	12.92	0.57	11.2	2.0	79.45
1070	2.452	13.74	0.56	11.2	2.1	83.27
1075	4.627	7.00	0.15	11.2	2.0	34.76
1080	3.497	3.23	0.09	11.2	2.0	75.06
1085	3.174	48.26	1.52	11.1	2.0	22.15
1090	3.648	59.72	1.64	11.2	2.1	40.11
1095	3.355	49.39	1.47	11.1	2.0	23.49
1100	3.860	29.61	0.77	11.1	2.0	58.25
1105	3.890	32.47	0.83	11.1	2.0	112.68
1110	3.532	27.02	0.77	11.1	1.7	106.19
1115	4.087	22.19	0.54	11.1	2.0	126.43
1120	3.673	16.42	0.45	11.1	2.1	106.57
1125	3.517	11.10	0.32	11.1	2.0	104.66
1130	3.249	0.32	0.01	11.1	2.1	103.51
1135	3.376	0.00	0.00	11.1	2.0	98.17
1140	3.688	0.00	0.00	11.1	2.0	101.41
1145	3.694	0.00	0.00	11.0	2.0	103.51
1150	4.536	10.05	0.22	11.0	2.0	113.06
1155	3.769	23.29	0.62	11.1	2.0	107.52
1160	3.890	6.64	0.17	11.0	2.1	106.57
1165	3.799	3.96	0.10	11.1	2.0	118.41
1170	4.032	0.00	0.00	11.1	2.1	135.79
1175	2.084	30.70	1.47	11.1	2.0	92.06
1180	1.847	55.71	3.02	11.1	2.1	61.31
1185	1.569	49.48	3.15	11.1	2.1	64.36
1190	4.804	42.21	0.88	11.1	2.0	74.68
1195	6.655	17.28	0.26	11.1	2.0	53.67
1200	7.478	6.23	0.08	11.1	2.1	102.75
1205	7.876	3.46	0.04	11.2	2.0	97.40
1210	9.052	0.00	0.00	11.2	1.9	111.54
1215	11.323	7.82	0.07	11.2	1.9	39.15
1220	7.251	52.17	0.72	11.2	2.0	-17.95
1225	4.274	163.19	3.82	11.2	2.0	-23.49
1230	3.532	191.93	5.43	11.2	2.0	25.78
1235	3.345	157.18	4.70	11.2	2.0	67.04
1240	2.997	111.98	3.74	11.2	2.0	75.44
1245	2.271	87.51	3.85	11.2	2.0	77.54
1250	2.144	80.73	3.77	11.2	2.0	86.33
1255	1.816	65.22	3.59	11.1	2.0	107.72
1260	1.478	57.62	3.90	11.1	2.0	128.53
1265	1.216	41.66	3.43	11.1	2.0	228.23
1270	1.075	32.11	2.99	11.1	2.1	379.49
1275	1.100	25.88	2.35	11.2	2.1	439.46
1280	1.186	16.87	1.42	11.1	2.0	485.10
1285	5.545	0.27	0.00	11.1	2.0	114.97
1290	5.132	57.72	1.12	11.1	2.0	-16.04
1295	18.866	92.65	0.49	11.1	1.9	-47.17

MAPPO GEOGNOSTICA srl		Commissioner: Mappo Geognostica srl	
Site: Montignoso - MS		Test Location: P3	
Locality:		Date: 2/18/2010	
		Abs. quota [cm]: 0	
		Prehole [cm]: 0	
		Hydrostatic Line [cm]: 0	

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MAPPO GEOGNOSTICA srl		Commissioner: Mappo Geognostica srl
Site: Montignoso - MS	Test Location: P3	Abs. quota [cm]: 0
Locality:	Date: 2/18/2010	Prehole [cm]: 0
		Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
5	0.878	27.11	3.09	0.6	2.2	33.23
10	3.103	39.07	1.26	0.8	2.2	20.82
15	3.557	55.71	1.57	0.8	2.1	24.64
20	3.603	79.37	2.20	0.9	2.1	20.24
25	3.381	102.38	3.03	0.9	2.1	14.71
30	3.138	108.25	3.45	1.0	2.1	-7.45
35	3.371	112.93	3.35	1.0	2.2	-0.76
40	8.013	131.21	1.64	1.1	2.1	-9.93
45	9.002	138.90	1.54	1.4	2.2	-3.82
50	9.456	165.23	1.75	1.6	2.2	-0.57
55	9.426	175.19	1.86	1.5	2.1	1.15
60	8.684	196.80	2.27	1.5	2.1	0.57
65	7.972	188.25	2.36	1.5	2.2	0.19
70	6.983	164.55	2.36	1.5	2.1	1.72
75	5.661	146.00	2.58	1.5	2.1	3.44
80	4.965	130.17	2.62	1.6	2.1	1.91
85	4.097	104.38	2.55	1.7	2.2	3.82
90	3.406	88.28	2.59	1.7	2.2	0.19
95	2.826	80.55	2.85	1.8	2.1	-0.19
100	2.962	63.58	2.15	1.8	2.1	-0.95
105	3.098	60.63	1.96	1.8	2.0	3.06
110	4.047	58.22	1.44	1.8	2.1	4.20
115	5.021	63.26	1.26	2.1	2.0	9.55
120	5.974	81.41	1.36	2.0	2.1	9.74
125	5.162	107.93	2.09	2.1	2.2	11.46
130	4.602	124.03	2.70	2.1	2.2	9.36
135	4.183	125.26	2.99	2.1	2.1	18.53
140	4.117	113.84	2.77	2.2	2.1	15.66
145	4.173	87.78	2.10	2.3	2.2	36.48
150	2.911	79.68	2.74	2.4	2.2	-1.91
155	2.780	69.68	2.51	2.5	2.2	-5.54
160	2.811	74.04	2.63	2.6	2.2	6.11
165	3.487	61.63	1.77	2.6	2.1	12.61
170	4.264	70.86	1.66	2.7	2.1	11.27
175	4.738	82.87	1.75	2.8	2.1	14.32
180	5.692	97.97	1.72	2.8	2.1	13.75
185	6.085	114.48	1.88	2.8	2.2	14.90
190	6.494	143.58	2.21	2.9	2.1	9.36
195	8.386	162.73	1.94	2.9	2.2	0.76
200	9.970	184.25	1.85	2.8	2.2	-13.56
205	8.088	201.62	2.49	2.9	2.1	14.13
210	18.160	200.35	1.10	2.9	2.1	-6.88
215	23.846	168.55	0.71	2.4	2.2	16.23
220	12.423	230.82	1.86	2.3	2.1	84.03
225	5.692	256.38	4.50	2.2	2.1	62.45
230	2.725	170.46	6.26	2.1	2.1	30.94
235	1.842	136.63	7.42	2.1	2.2	15.66
240	1.483	110.79	7.47	2.1	2.2	19.10
245	1.393	97.24	6.98	2.1	2.1	19.10
250	1.317	82.14	6.24	2.2	2.1	15.47
255	1.211	82.82	6.84	2.2	2.0	15.09
260	1.186	83.87	7.07	2.2	2.1	16.04
265	1.186	81.87	6.90	2.2	2.0	14.71
270	1.393	80.96	5.81	2.3	2.1	14.90
275	1.816	84.55	4.66	2.3	2.2	14.90
280	2.225	90.19	4.05	2.4	2.2	15.66
285	2.382	91.46	3.84	2.4	2.1	19.29
290	2.947	101.70	3.45	2.4	2.1	9.74
295	3.456	117.07	3.39	2.4	2.2	-0.76
300	3.472	133.22	3.84	2.4	2.2	2.48
305	3.744	142.68	3.81	2.5	2.2	6.68
310	3.855	148.13	3.84	2.5	2.2	-1.53
315	3.916	73.82	1.89	2.6	2.1	18.72
320	3.083	82.64	2.68	2.6	2.1	4.97
325	4.799	108.34	2.26	2.6	2.1	-25.97

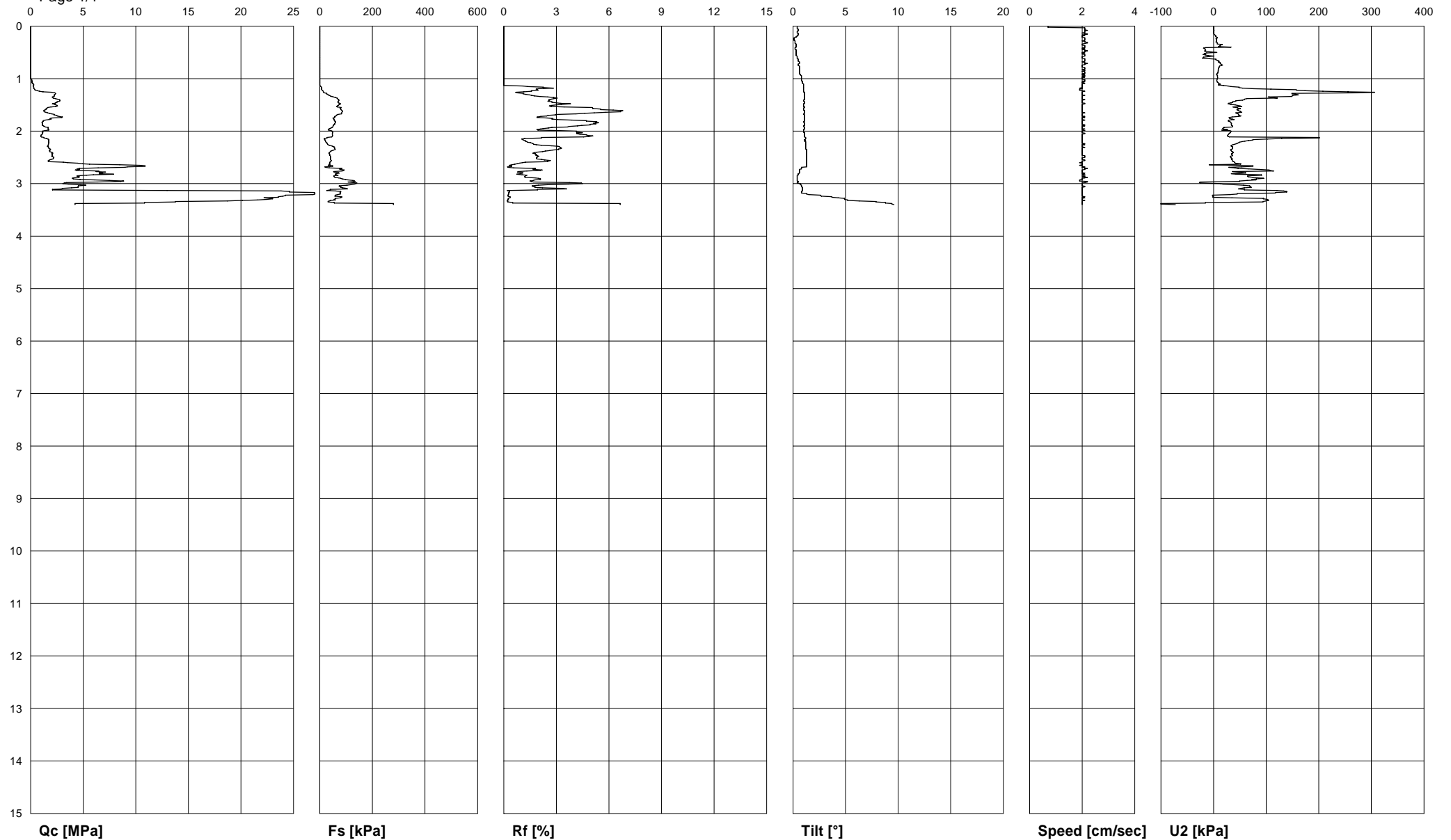
MAPPO GEOGNOSTICA srl		Commissioner: Mappo Geognostica srl
Site: Montignoso - MS	Test Location: P3	Abs. quota [cm]: 0
Locality:	Date: 2/18/2010	Prehole [cm]: 0
		Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
330	14.567	99.79	0.69	2.6	2.1	-16.81
335	20.451	93.28	0.46	2.6	2.2	-8.40
340	20.985	101.47	0.48	2.5	2.1	-2.10
345	22.979	146.13	0.64	2.4	2.2	0.19
350	25.153	256.79	1.02	2.4	2.2	-22.54
355	21.571	272.12	1.26	2.3	2.1	-43.54
360	11.802	407.24	3.45	1.9	2.1	24.83
365	9.678	428.25	4.42	1.9	2.2	-48.89
370	8.477	345.39	4.07	1.8	2.1	-0.38
375	13.270	213.85	1.61	1.9	2.1	-53.09
380	5.535	485.56	8.77	2.1	2.1	-7.45
385	5.465	436.53	7.99	2.2	2.2	-80.79
390	3.971	319.14	8.04	2.6	2.2	-40.49
395	5.641	35.11	0.62	2.8	2.1	-15.85
400	2.044	63.86	3.12	3.1	2.1	-9.36
405	1.236	71.09	5.75	3.3	2.0	-47.94
410	1.039	84.05	8.09	3.5	2.1	-12.41
415	1.171	26.06	2.23	3.5	2.0	-28.07
420	0.974	26.33	2.70	3.5	2.1	-24.06
425	1.039	28.74	2.77	3.6	2.2	-33.23
430	1.155	27.06	2.34	3.7	2.2	-27.12
435	1.574	27.74	1.76	3.7	2.1	-25.97
440	2.780	31.70	1.14	3.7	2.1	-11.84
445	2.967	37.29	1.26	3.7	2.2	-19.67
450	3.229	38.07	1.18	3.8	2.2	-20.44
455	3.401	43.21	1.27	3.8	2.2	-21.96
460	3.366	34.57	1.03	3.9	2.2	-16.62
465	3.058	31.75	1.04	3.9	2.1	-13.56
470	2.856	35.11	1.23	3.9	2.1	-15.85
475	2.604	37.07	1.42	3.8	2.1	-13.37
480	2.139	36.25	1.69	3.8	2.1	-10.70
485	2.225	35.11	1.58	3.9	2.2	-11.27
490	2.372	28.74	1.21	3.9	2.1	-9.74
495	2.044	25.33	1.24	4.0	2.2	-7.64
500	2.129	23.29	1.09	3.9	2.2	-7.83
505	2.044	28.56	1.40	4.0	2.1	-9.74
510	2.276	31.66	1.39	4.1	2.1	-12.22
515	2.871	17.42	0.61	4.2	2.2	22.15
520	2.972	23.60	0.79	4.3	2.1	21.58
525	2.402	27.11	1.13	4.3	2.1	28.65
530	1.670	29.29	1.75	4.3	2.1	21.77
535	1.246	34.57	2.77	4.3	2.2	21.96
540	1.171	28.38	2.42	4.3	2.2	22.73
545	0.908	18.37	2.02	4.4	2.1	30.56
550	0.873	10.10	1.16	4.4	2.1	63.60
555	0.964	8.60	0.89	4.5	2.0	63.03
560	0.883	14.14	1.60	4.5	2.1	58.25
565	0.944	18.97	2.01	4.4	2.0	59.97
570	0.893	22.42	2.51	4.5	2.1	60.73
575	0.969	19.15	1.98	4.5	2.2	59.97
580	1.115	23.01	2.06	4.6	2.2	60.16
585	1.085	26.70	2.46	4.5	2.1	60.16
590	0.933	31.20	3.34	4.6	2.1	59.59
595	0.888	31.34	3.53	4.7	2.2	57.30
600	0.903	27.97	3.10	4.8	2.2	56.34
605	0.812	26.61	3.28	4.8	2.2	55.19
610	0.717	24.20	3.38	4.9	2.2	54.43
615	0.616	18.97	3.08	4.9	2.1	47.75
620	7.326	74.36	1.02	4.9	2.1	-50.99

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli	
Site: Lago di Porta Locality: Montignoso - MS		Test Location: P3 bis Date: 2/3/2010	
		Abs. quota [cm]: 0 Prehole [cm]: 0 Hydrostatic Line [cm]: 0	

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MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli
Site: Lago di Porta	Test Location: P3 bis	Abs. quota [cm]: 0
Locality: Montignoso - MS	Date: 2/3/2010	Prehole [cm]: 0
		Hydrostatic Line [cm]: 0

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
5	0.000	0.00	0.00	0.4	2.1	0.19
10	0.000	0.00	0.00	0.4	2.1	0.00
15	0.000	0.00	0.00	0.5	2.2	0.57
20	0.000	0.00	0.00	0.3	2.0	4.01
25	0.000	0.00	0.00	0.1	2.1	5.35
30	0.000	0.00	0.00	0.2	2.1	4.58
35	0.000	0.00	0.00	0.3	2.0	16.42
40	0.000	0.00	0.00	0.3	2.1	33.04
45	0.000	0.00	0.00	0.3	2.1	-15.47
50	0.000	0.00	0.00	0.3	2.0	6.11
55	0.000	0.00	0.00	0.3	2.1	-14.71
60	0.000	0.00	0.00	0.4	2.0	-18.91
65	0.000	0.00	0.00	0.5	2.1	6.88
70	0.000	0.00	0.00	0.6	2.1	11.84
75	0.000	0.00	0.00	0.5	2.0	14.90
80	0.000	0.00	0.00	0.6	2.1	9.17
85	0.000	0.00	0.00	0.6	2.1	8.98
90	0.000	0.00	0.00	0.6	2.1	7.45
95	0.000	0.00	0.00	0.8	2.1	7.45
100	0.000	0.00	0.00	0.8	2.0	6.88
105	0.106	0.00	0.00	0.9	2.0	6.30
110	0.267	0.00	0.00	1.0	2.0	12.41
115	0.272	3.73	1.37	1.0	2.0	33.23
120	0.383	7.05	1.84	1.0	1.9	108.86
125	1.186	13.55	1.14	1.0	2.0	255.54
130	2.321	29.06	1.25	1.1	2.0	157.18
135	2.064	51.67	2.50	1.1	2.0	104.28
140	2.755	70.68	2.57	1.1	2.1	58.44
145	2.513	69.04	2.75	1.1	2.0	36.48
150	2.392	72.45	3.03	1.0	2.0	40.87
155	1.620	81.82	5.05	1.1	2.0	45.07
160	1.322	82.46	6.24	1.0	2.0	45.26
165	1.615	83.28	5.16	1.1	2.1	42.21
170	2.498	62.99	2.52	1.1	2.0	49.08
175	2.028	50.03	2.47	1.1	2.0	29.98
180	1.211	57.03	4.71	1.1	2.0	27.88
185	1.120	57.31	5.12	1.1	2.0	33.61
190	1.216	50.98	4.19	1.0	2.1	35.71
195	1.675	37.57	2.24	1.1	2.0	17.38
200	1.130	46.80	4.14	1.0	2.0	33.04
205	1.135	47.39	4.18	1.1	2.1	29.22
210	0.969	46.98	4.85	1.1	2.0	27.88
215	1.645	16.83	1.02	1.2	2.0	102.75
220	1.711	22.51	1.32	1.2	2.0	54.24
225	1.700	28.97	1.70	1.2	2.0	40.30
230	1.705	54.12	3.17	1.2	2.0	36.48
235	1.892	59.17	3.13	1.3	2.0	32.28
240	1.978	37.39	1.89	1.3	2.0	37.24
245	2.028	38.16	1.88	1.3	2.0	34.38
250	2.210	41.98	1.90	1.3	2.1	32.47
255	1.806	42.16	2.33	1.3	2.1	35.14
260	3.522	37.80	1.07	1.3	1.9	40.11
265	10.379	32.43	0.31	1.3	1.9	43.35
270	6.418	36.57	0.57	0.8	2.1	39.92
275	4.390	91.01	2.07	0.6	2.0	106.95
280	6.822	73.77	1.08	0.6	2.1	61.12
285	4.430	54.26	1.22	0.4	2.1	64.74
290	3.981	79.05	1.99	0.4	2.0	95.30
295	8.845	131.81	1.49	0.4	1.9	49.66
300	3.068	137.35	4.48	0.7	2.0	12.80
305	4.531	73.59	1.62	0.8	2.1	68.75
310	2.942	105.47	3.58	0.9	2.0	46.98
315	24.629	79.46	0.32	0.8	2.0	138.85
320	27.040	77.86	0.29	1.3	2.0	44.69
325	23.574	83.91	0.36	3.7	2.1	-1.53

MAPPO GEOGNOSTICA srl		Commissioner: Consorzio Bonifica Versilia - Massaciuccoli	
Site: Lago di Porta	Test Location: P3 bis	Abs. quota [cm]: 0	
Locality: Montignoso - MS	Date: 2/3/2010	Prehole [cm]: 0	
		Hydrostatic Line [cm]: 0	

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Depth [cm]	Qc [MPa]	Fs [kPa]	Rf [%]	Tilt [°]	Speed [cm/sec]	U2 [kPa]
330	22.454	54.71	0.24	4.9	2.0	102.56
335	13.775	31.29	0.23	7.9	2.0	93.96
340	4.213	279.76	6.64	9.6	2.0	-72.77

PLANIMETRIA CON UBICAZIONE DELLE PROVE PENETROMETRICHE



ALCUNE IMMAGINI SCATTATE DURANTE L'ESECUZIONE DELLE PROVE



ESECUZIONE PROVA N° 2



ESECUZIONE PROVA N° 2



ESECUZIONE PROVA N° 3

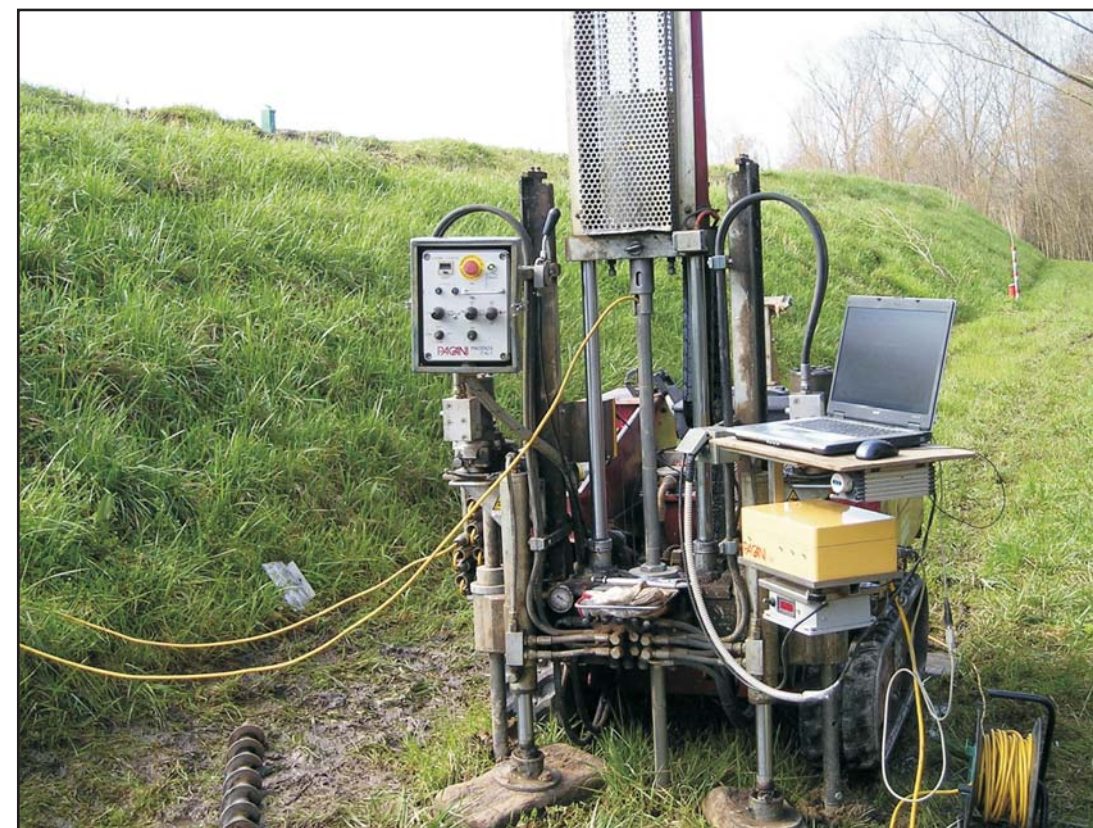


ESECUZIONE PROVA N° 3

ALCUNE IMMAGINI SCATTATE DURANTE L'ESECUZIONE DELLE PROVE



ESECUZIONE PROVA N° 1 bis



ESECUZIONE PROVA N° 1 bis



ESECUZIONE PROVA N° 2 bis



ESECUZIONE PROVA N° 21 bis

ALCUNE IMMAGINI SCATTATE DURANTE L'ESECUZIONE DELLE PROVE



ESECUZIONE PROVA N° 3 bis



ESECUZIONE PROVA N° 3 bis