

**Dr. Geol. STEFANO CASTAGNETTI**

GEOLOGIA TECNICA E AMBIENTALE

STUDIO A CARATTERE DI PROTEZIONE CIVILE

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**PSCRE**  
PIANO STRUTTURALE COMUNALE  
DI REGGIO EMILIA



## ANALISI DEL RISCHIO SISMICO

### Secondo livello di approfondimento

Atto di indirizzo e coordinamento tecnico ai sensi dell'art. 16, c.1, della L.R. 20/2000 per "Indirizzi per gli studi di microzonazione sismica in Emilia-Romagna per la pianificazione territoriale e urbanistica", approvato con Delibera dell'Assemblea Legislativa della Regione Emilia-Romagna n° 112 del 2 maggio 2007

## SECONDO STRALCIO

## All. 1 - Prove penetrometriche statiche

il tecnico incaricato:

*Dott. Geol. Stefano Castagnetti*

con la collaborazione di Dott. Geol. Marco Baldi



Aprile 2010

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

**CPT 1**

2.01PG05-049

- committente :	DOTT. GEOL. S. CASTAGNETTI	- data :	29/03/2010
- lavoro :	P.S.C. REGGIO EMILIA	- quota inizio :	Piano Campagna
- località :	REGGIO EMILIA - PARCO OTTAVI	- prof. falda :	5.20 m da quota inizio
- note :	Prova non conclusa causa rifiuto qc $\pm$ : 700 kg/cm <sup>2</sup>	- pagina :	1

Prof. m	Letture di campagna		qc kg/cm <sup>2</sup>	fs	qc/fs	Prof. m	Letture di campagna		qc kg/cm <sup>2</sup>	fs	qc/fs
	punta	laterale					punta	laterale			
0.20	----	----	--	0.60	----	<b>5.00</b>	68.0	130.0	68.0	2.93	23.0
0.40	10.0	19.0	10.0	0.47	21.0	5.20	402.0	446.0	402.0	2.20	183.0
0.60	9.0	16.0	9.0	0.53	17.0	5.40	461.0	494.0	461.0	6.87	67.0
0.80	11.0	19.0	11.0	0.40	27.0	5.60	474.0	577.0	474.0	3.60	132.0
<b>1.00</b>	14.0	20.0	14.0	0.60	23.0	5.80	427.0	481.0	427.0	6.07	70.0
1.20	13.0	22.0	13.0	0.67	19.0	<b>6.00</b>	421.0	512.0	421.0	4.80	88.0
1.40	16.0	26.0	16.0	0.87	18.0	6.20	466.0	538.0	466.0	6.33	74.0
1.60	11.0	24.0	11.0	0.93	12.0	6.40	432.0	527.0	432.0	6.07	71.0
1.80	16.0	30.0	16.0	1.00	16.0	6.60	515.0	606.0	515.0	7.13	72.0
<b>2.00</b>	22.0	37.0	22.0	1.53	14.0	6.80	311.0	418.0	311.0	4.73	66.0
2.20	38.0	61.0	38.0	2.13	18.0	<b>7.00</b>	291.0	362.0	291.0	4.13	70.0
2.40	34.0	66.0	34.0	2.47	14.0	7.20	244.0	306.0	244.0	3.00	81.0
2.60	40.0	77.0	40.0	2.40	17.0	7.40	375.0	420.0	375.0	3.67	102.0
2.80	41.0	77.0	41.0	2.73	15.0	7.60	472.0	527.0	472.0	6.87	69.0
<b>3.00</b>	35.0	76.0	35.0	2.13	16.0	7.80	376.0	479.0	376.0	2.27	166.0
3.20	25.0	57.0	25.0	0.87	29.0	<b>8.00</b>	398.0	432.0	398.0	4.33	92.0
3.40	58.0	71.0	58.0	1.87	31.0	8.20	236.0	301.0	236.0	5.20	45.0
3.60	28.0	56.0	28.0	1.20	23.0	8.40	241.0	319.0	241.0	4.07	59.0
3.80	19.0	37.0	19.0	0.87	22.0	8.60	214.0	275.0	214.0	4.20	51.0
<b>4.00</b>	18.0	31.0	18.0	0.87	21.0	8.80	26.0	89.0	26.0	1.80	14.0
4.20	25.0	38.0	25.0	1.20	21.0	<b>9.00</b>	25.0	52.0	25.0	2.53	10.0
4.40	26.0	44.0	26.0	1.47	18.0	9.20	423.0	461.0	423.0	3.13	135.0
4.60	21.0	43.0	21.0	1.13	19.0	9.40	572.0	619.0	572.0	4.60	124.0
4.80	16.0	33.0	16.0	4.13	4.0	9.60	581.0	650.0	581.0	-----	----

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

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

**CPT 2**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : REGGIO EMILIA - PARCO OTTAVI  
- note : Prova non conclusa causa rifiuto qc ± : 600 kg/cm<sup>2</sup>

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 4.60 m da quota inizio  
- pagina : 1

Prof. m	Letture di campagna		qc	fs	qc/fs	Prof. m	Letture di campagna		qc	fs	qc/fs
	punta	laterale	kg/cm <sup>2</sup>				punta	laterale	kg/cm <sup>2</sup>		
0.20	----	----	--	0.40	----	5.40	21.0	29.0	21.0	0.87	24.0
0.40	4.0	10.0	4.0	0.53	7.0	5.60	12.0	25.0	12.0	2.27	5.0
0.60	3.0	11.0	3.0	0.53	6.0	5.80	29.0	63.0	29.0	1.27	23.0
0.80	6.0	14.0	6.0	0.87	7.0	<b>6.00</b>	64.0	83.0	64.0	1.00	64.0
<b>1.00</b>	12.0	25.0	12.0	0.67	18.0	6.20	17.0	32.0	17.0	0.53	32.0
1.20	23.0	33.0	23.0	0.80	29.0	6.40	28.0	36.0	28.0	0.87	32.0
1.40	18.0	30.0	18.0	0.93	19.0	6.60	35.0	48.0	35.0	1.73	20.0
1.60	16.0	30.0	16.0	0.73	22.0	6.80	32.0	58.0	32.0	1.13	28.0
1.80	21.0	32.0	21.0	0.87	24.0	<b>7.00</b>	60.0	77.0	60.0	1.33	45.0
<b>2.00</b>	16.0	29.0	16.0	0.87	18.0	7.20	142.0	162.0	142.0	1.60	89.0
2.20	17.0	30.0	17.0	0.80	21.0	7.40	155.0	179.0	155.0	2.73	57.0
2.40	16.0	28.0	16.0	0.53	30.0	7.60	104.0	145.0	104.0	1.13	92.0
2.60	21.0	29.0	21.0	0.87	24.0	7.80	9.0	26.0	9.0	3.60	3.0
2.80	21.0	34.0	21.0	1.20	17.0	<b>8.00</b>	271.0	325.0	271.0	0.80	339.0
<b>3.00</b>	17.0	35.0	17.0	1.07	16.0	8.20	267.0	279.0	267.0	1.67	160.0
3.20	14.0	30.0	14.0	1.47	10.0	8.40	266.0	291.0	266.0	1.73	153.0
3.40	138.0	160.0	138.0	0.33	414.0	8.60	25.0	51.0	25.0	1.53	16.0
3.60	143.0	148.0	143.0	0.47	306.0	8.80	20.0	43.0	20.0	0.87	23.0
3.80	63.0	70.0	63.0	1.33	47.0	<b>9.00</b>	155.0	168.0	155.0	1.13	137.0
<b>4.00</b>	14.0	34.0	14.0	0.47	30.0	9.20	309.0	326.0	309.0	2.93	105.0
4.20	62.0	69.0	62.0	2.07	30.0	9.40	198.0	242.0	198.0	4.80	41.0
4.40	35.0	66.0	35.0	1.40	25.0	9.60	115.0	187.0	115.0	6.13	19.0
4.60	15.0	36.0	15.0	0.47	32.0	9.80	476.0	568.0	476.0	6.53	73.0
4.80	19.0	26.0	19.0	1.00	19.0	<b>10.00</b>	571.0	669.0	571.0	12.60	45.0
<b>5.00</b>	12.0	27.0	12.0	0.80	15.0	10.20	527.0	716.0	527.0	6.73	78.0
5.20	11.0	23.0	11.0	0.53	21.0	10.40	581.0	682.0	581.0	-----	----

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

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

**CPT 3**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : REGGIO EMILIA - PARCO OTTAVI  
- note :

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 2.00 m da quota inizio  
- pagina : 1

Prof. m	Letture di campagna punta	laterale	qc kg/cm <sup>2</sup>	fs	qc/fs	Prof. m	Letture di campagna punta	laterale	qc kg/cm <sup>2</sup>	fs	qc/fs
0.20	---	---	--	0.13	----	10.20	44.0	71.0	44.0	2.00	22.0
0.40	9.0	11.0	9.0	0.60	15.0	10.40	38.0	68.0	38.0	1.93	20.0
0.60	10.0	19.0	10.0	0.87	12.0	10.60	37.0	66.0	37.0	1.67	22.0
0.80	12.0	25.0	12.0	0.93	13.0	10.80	31.0	56.0	31.0	1.27	24.0
<b>1.00</b>	16.0	30.0	16.0	1.20	13.0	<b>11.00</b>	30.0	49.0	30.0	1.33	22.0
1.20	17.0	35.0	17.0	1.33	13.0	11.20	35.0	55.0	35.0	1.53	23.0
1.40	16.0	36.0	16.0	1.07	15.0	11.40	36.0	59.0	36.0	1.73	21.0
1.60	16.0	32.0	16.0	0.87	18.0	11.60	32.0	58.0	32.0	1.00	32.0
1.80	14.0	27.0	14.0	0.60	23.0	11.80	35.0	50.0	35.0	0.87	40.0
<b>2.00</b>	10.0	19.0	10.0	0.13	75.0	<b>12.00</b>	24.0	37.0	24.0	0.87	28.0
2.20	43.0	45.0	43.0	1.60	27.0	12.20	24.0	37.0	24.0	1.07	22.0
2.40	12.0	36.0	12.0	0.73	16.0	12.40	22.0	38.0	22.0	1.20	18.0
2.60	14.0	25.0	14.0	0.47	30.0	12.60	18.0	36.0	18.0	0.80	22.0
2.80	19.0	26.0	19.0	0.67	28.0	12.80	18.0	30.0	18.0	0.93	19.0
<b>3.00</b>	19.0	29.0	19.0	0.80	24.0	<b>13.00</b>	16.0	30.0	16.0	0.80	20.0
3.20	22.0	34.0	22.0	0.80	27.0	13.20	17.0	29.0	17.0	0.80	21.0
3.40	18.0	30.0	18.0	0.87	21.0	13.40	17.0	29.0	17.0	0.73	23.0
3.60	17.0	30.0	17.0	0.73	23.0	13.60	17.0	28.0	17.0	0.73	23.0
3.80	14.0	25.0	14.0	0.27	52.0	13.80	15.0	26.0	15.0	0.67	22.0
<b>4.00</b>	18.0	22.0	18.0	0.53	34.0	<b>14.00</b>	15.0	25.0	15.0	0.87	17.0
4.20	11.0	19.0	11.0	0.53	21.0	14.20	19.0	32.0	19.0	1.33	14.0
4.40	10.0	18.0	10.0	0.47	21.0	14.40	23.0	43.0	23.0	1.20	19.0
4.60	8.0	15.0	8.0	0.40	20.0	14.60	23.0	41.0	23.0	1.13	20.0
4.80	5.0	11.0	5.0	0.33	15.0	14.80	20.0	37.0	20.0	1.13	18.0
<b>5.00</b>	5.0	10.0	5.0	0.47	11.0	<b>15.00</b>	18.0	35.0	18.0	1.00	18.0
5.20	11.0	18.0	11.0	0.60	18.0	15.20	20.0	35.0	20.0	1.07	19.0
5.40	12.0	21.0	12.0	0.60	20.0	15.40	17.0	33.0	17.0	1.47	12.0
5.60	8.0	17.0	8.0	2.40	3.0	15.60	17.0	39.0	17.0	1.27	13.0
5.80	145.0	181.0	145.0	2.13	68.0	15.80	19.0	38.0	19.0	1.13	17.0
<b>6.00</b>	201.0	233.0	201.0	3.27	62.0	<b>16.00</b>	19.0	36.0	19.0	3.60	5.0
6.20	277.0	326.0	277.0	1.80	154.0	16.20	134.0	188.0	134.0	1.13	118.0
6.40	266.0	293.0	266.0	0.47	570.0	16.40	89.0	106.0	89.0	1.80	49.0
6.60	217.0	224.0	217.0	1.87	116.0	16.60	64.0	91.0	64.0	1.53	42.0
6.80	166.0	194.0	166.0	3.80	44.0	16.80	20.0	43.0	20.0	1.13	18.0
<b>7.00</b>	252.0	309.0	252.0	1.47	172.0	<b>17.00</b>	57.0	74.0	57.0	1.80	32.0
7.20	325.0	347.0	325.0	4.20	77.0	17.20	18.0	45.0	18.0	0.73	25.0
7.40	266.0	329.0	266.0	3.47	77.0	17.40	18.0	29.0	18.0	0.93	19.0
7.60	332.0	384.0	332.0	0.40	830.0	17.60	14.0	28.0	14.0	0.80	17.0
7.80	340.0	346.0	340.0	0.80	425.0	17.80	16.0	28.0	16.0	0.93	17.0
<b>8.00</b>	42.0	54.0	42.0	2.20	19.0	<b>18.00</b>	19.0	33.0	19.0	1.00	19.0
8.20	25.0	58.0	25.0	0.87	29.0	18.20	21.0	36.0	21.0	1.07	20.0
8.40	16.0	29.0	16.0	0.53	30.0	18.40	19.0	35.0	19.0	1.20	16.0
8.60	15.0	23.0	15.0	0.73	20.0	18.60	17.0	35.0	17.0	1.13	15.0
8.80	16.0	27.0	16.0	0.67	24.0	18.80	19.0	36.0	19.0	1.13	17.0
<b>9.00</b>	14.0	24.0	14.0	0.73	19.0	<b>19.00</b>	18.0	35.0	18.0	1.93	9.0
9.20	17.0	28.0	17.0	1.07	16.0	19.20	19.0	48.0	19.0	1.07	18.0
9.40	19.0	35.0	19.0	1.33	14.0	19.40	17.0	33.0	17.0	0.93	18.0
9.60	22.0	42.0	22.0	1.53	14.0	19.60	19.0	33.0	19.0	1.20	16.0
9.80	23.0	46.0	23.0	1.67	14.0	19.80	18.0	36.0	18.0	1.27	14.0
<b>10.00</b>	26.0	51.0	26.0	1.80	14.0	<b>20.00</b>	18.0	37.0	18.0	1.07	17.0

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

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

**CPT 3**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : REGGIO EMILIA - PARCO OTTAVI  
- note :

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 2.00 m da quota inizio  
- pagina : 2

Prof. m	Letture di campagna		qc kg/cm <sup>2</sup>	fs	qc/fs	Prof. m	Letture di campagna		qc kg/cm <sup>2</sup>	fs	qc/fs
	punta	laterale					punta	laterale			
20.20	23.0	39.0	23.0	1.27	18.0	25.20	24.0	50.0	24.0	1.93	12.0
20.40	26.0	45.0	26.0	1.67	16.0	25.40	33.0	62.0	33.0	2.07	16.0
20.60	24.0	49.0	24.0	1.60	15.0	25.60	40.0	71.0	40.0	2.53	16.0
20.80	23.0	47.0	23.0	1.60	14.0	25.80	37.0	75.0	37.0	1.87	20.0
<b>21.00</b>	24.0	48.0	24.0	1.33	18.0	<b>26.00</b>	39.0	67.0	39.0	1.87	21.0
21.20	27.0	47.0	27.0	1.67	16.0	26.20	65.0	93.0	65.0	2.80	23.0
21.40	26.0	51.0	26.0	1.60	16.0	26.40	52.0	94.0	52.0	2.53	21.0
21.60	23.0	47.0	23.0	1.40	16.0	26.60	31.0	69.0	31.0	1.80	17.0
21.80	21.0	42.0	21.0	1.33	16.0	26.80	37.0	64.0	37.0	2.00	18.0
<b>22.00</b>	24.0	44.0	24.0	1.33	18.0	<b>27.00</b>	42.0	72.0	42.0	2.93	14.0
22.20	23.0	43.0	23.0	1.53	15.0	27.20	48.0	92.0	48.0	2.47	19.0
22.40	23.0	46.0	23.0	0.93	25.0	27.40	38.0	75.0	38.0	2.47	15.0
22.60	29.0	43.0	29.0	1.07	27.0	27.60	40.0	77.0	40.0	2.60	15.0
22.80	36.0	52.0	36.0	1.20	30.0	27.80	44.0	83.0	44.0	2.33	19.0
<b>23.00</b>	42.0	60.0	42.0	1.93	22.0	<b>28.00</b>	38.0	73.0	38.0	1.67	23.0
23.20	27.0	56.0	27.0	1.67	16.0	28.20	34.0	59.0	34.0	2.13	16.0
23.40	26.0	51.0	26.0	1.67	16.0	28.40	37.0	69.0	37.0	2.07	18.0
23.60	22.0	47.0	22.0	1.53	14.0	28.60	36.0	67.0	36.0	2.27	16.0
23.80	27.0	50.0	27.0	1.67	16.0	28.80	54.0	88.0	54.0	1.93	28.0
<b>24.00</b>	27.0	52.0	27.0	1.67	16.0	<b>29.00</b>	40.0	69.0	40.0	2.00	20.0
24.20	31.0	56.0	31.0	1.80	17.0	29.20	39.0	69.0	39.0	2.33	17.0
24.40	27.0	54.0	27.0	1.60	17.0	29.40	59.0	94.0	59.0	2.00	30.0
24.60	22.0	46.0	22.0	1.73	13.0	29.60	46.0	76.0	46.0	2.47	19.0
24.80	20.0	46.0	20.0	1.80	11.0	29.80	59.0	96.0	59.0	-----	----

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

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

**CPT 4**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : RONCOCESI  
- note : Prova non conclusa causa rifiuto qc ± : 700 kg/cm<sup>2</sup>

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 1.40 m da quota inizio  
- pagina : 1

Prof. m	Letture di campagna punta	laterale	qc kg/cm <sup>2</sup>	fs	qc/fs	Prof. m	Letture di campagna punta	laterale	qc kg/cm <sup>2</sup>	fs	qc/fs
0.20	----	----	--	0.73	----	10.20	12.0	24.0	12.0	0.93	13.0
0.40	14.0	25.0	14.0	0.67	21.0	10.40	14.0	28.0	14.0	0.60	23.0
0.60	11.0	21.0	11.0	0.67	16.0	10.60	11.0	20.0	11.0	0.53	21.0
0.80	10.0	20.0	10.0	0.60	17.0	10.80	13.0	21.0	13.0	0.67	19.0
<b>1.00</b>	10.0	19.0	10.0	0.60	17.0	<b>11.00</b>	12.0	22.0	12.0	0.67	18.0
1.20	8.0	17.0	8.0	0.60	13.0	11.20	9.0	19.0	9.0	0.53	17.0
1.40	10.0	19.0	10.0	0.40	25.0	11.40	8.0	16.0	8.0	0.67	12.0
1.60	13.0	19.0	13.0	0.67	19.0	11.60	11.0	21.0	11.0	0.67	16.0
1.80	14.0	24.0	14.0	0.67	21.0	11.80	14.0	24.0	14.0	1.00	14.0
<b>2.00</b>	14.0	24.0	14.0	0.93	15.0	<b>12.00</b>	13.0	28.0	13.0	1.07	12.0
2.20	15.0	29.0	15.0	0.93	16.0	12.20	14.0	30.0	14.0	1.00	14.0
2.40	12.0	26.0	12.0	0.33	36.0	12.40	18.0	33.0	18.0	1.20	15.0
2.60	11.0	16.0	11.0	0.20	55.0	12.60	19.0	37.0	19.0	1.20	16.0
2.80	17.0	20.0	17.0	0.47	36.0	12.80	18.0	36.0	18.0	1.00	18.0
<b>3.00</b>	11.0	18.0	11.0	0.47	24.0	<b>13.00</b>	17.0	32.0	17.0	0.93	18.0
3.20	14.0	21.0	14.0	0.67	21.0	13.20	10.0	24.0	10.0	0.47	21.0
3.40	17.0	27.0	17.0	0.67	25.0	13.40	10.0	17.0	10.0	0.87	12.0
3.60	13.0	23.0	13.0	0.67	19.0	13.60	13.0	26.0	13.0	0.60	22.0
3.80	11.0	21.0	11.0	0.67	16.0	13.80	12.0	21.0	12.0	0.53	22.0
<b>4.00</b>	12.0	22.0	12.0	0.60	20.0	<b>14.00</b>	8.0	16.0	8.0	0.53	15.0
4.20	14.0	23.0	14.0	0.67	21.0	14.20	6.0	14.0	6.0	0.40	15.0
4.40	10.0	20.0	10.0	0.80	12.0	14.40	8.0	14.0	8.0	0.47	17.0
4.60	13.0	25.0	13.0	0.73	18.0	14.60	6.0	13.0	6.0	0.33	18.0
4.80	17.0	28.0	17.0	1.00	17.0	14.80	7.0	12.0	7.0	0.40	17.0
<b>5.00</b>	19.0	34.0	19.0	1.07	18.0	<b>15.00</b>	16.0	22.0	16.0	1.07	15.0
5.20	20.0	36.0	20.0	1.47	14.0	15.20	16.0	32.0	16.0	0.47	34.0
5.40	22.0	44.0	22.0	1.60	14.0	15.40	8.0	15.0	8.0	0.40	20.0
5.60	27.0	51.0	27.0	1.53	18.0	15.60	10.0	16.0	10.0	0.40	25.0
5.80	30.0	53.0	30.0	1.80	17.0	15.80	11.0	17.0	11.0	0.60	18.0
<b>6.00</b>	26.0	53.0	26.0	1.67	16.0	<b>16.00</b>	11.0	20.0	11.0	0.67	16.0
6.20	24.0	49.0	24.0	1.40	17.0	16.20	11.0	21.0	11.0	0.60	18.0
6.40	29.0	50.0	29.0	0.93	31.0	16.40	11.0	20.0	11.0	0.53	21.0
6.60	42.0	56.0	42.0	1.60	26.0	16.60	9.0	17.0	9.0	0.53	17.0
6.80	24.0	48.0	24.0	1.20	20.0	16.80	10.0	18.0	10.0	0.53	19.0
<b>7.00</b>	25.0	43.0	25.0	1.27	20.0	<b>17.00</b>	11.0	19.0	11.0	0.47	24.0
7.20	14.0	33.0	14.0	0.53	26.0	17.20	11.0	18.0	11.0	0.53	21.0
7.40	26.0	34.0	26.0	1.00	26.0	17.40	10.0	18.0	10.0	0.53	19.0
7.60	21.0	36.0	21.0	0.87	24.0	17.60	10.0	18.0	10.0	0.47	21.0
7.80	22.0	35.0	22.0	1.20	18.0	17.80	10.0	17.0	10.0	0.53	19.0
<b>8.00</b>	21.0	39.0	21.0	1.07	20.0	<b>18.00</b>	17.0	25.0	17.0	0.80	21.0
8.20	17.0	33.0	17.0	0.67	25.0	18.20	14.0	26.0	14.0	1.00	14.0
8.40	14.0	24.0	14.0	0.60	23.0	18.40	13.0	28.0	13.0	0.80	16.0
8.60	13.0	22.0	13.0	0.47	28.0	18.60	13.0	25.0	13.0	1.73	7.0
8.80	8.0	15.0	8.0	0.60	13.0	18.80	17.0	43.0	17.0	0.60	28.0
<b>9.00</b>	8.0	17.0	8.0	0.47	17.0	<b>19.00</b>	14.0	23.0	14.0	1.20	12.0
9.20	8.0	15.0	8.0	0.47	17.0	19.20	18.0	36.0	18.0	2.20	8.0
9.40	5.0	12.0	5.0	0.47	11.0	19.40	26.0	59.0	26.0	5.00	5.0
9.60	11.0	18.0	11.0	0.53	21.0	19.60	290.0	365.0	290.0	6.20	47.0
9.80	16.0	24.0	16.0	0.87	18.0	19.80	378.0	471.0	378.0	8.47	45.0
<b>10.00</b>	11.0	24.0	11.0	0.80	14.0	<b>20.00</b>	713.0	840.0	713.0	-----	----

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

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

**CPT 5**

2.01PG05-049

- committente :	DOTT. GEOL. S. CASTAGNETTI	- data :	29/03/2010
- lavoro :	P.S.C. REGGIO EMILIA	- quota inizio :	Piano Campagna
- località :	CONSORZIO PARMAREGGIO	- prof. falda :	1.40 m da quota inizio
- note :	Prova non conclusa causa rifiuto qc $\pm$ : 600 kg/cm <sup>2</sup>	- pagina :	1

Prof. m	Letture di campagna		qc	fs	qc/fs	Prof. m	Letture di campagna		qc	fs	qc/fs
	punta	laterale	kg/cm <sup>2</sup>				punta	laterale	kg/cm <sup>2</sup>		
0.20	----	----	--	0.73	----	6.60	22.0	27.0	22.0	0.60	37.0
0.40	11.0	22.0	11.0	0.60	18.0	6.80	13.0	22.0	13.0	0.60	22.0
0.60	26.0	35.0	26.0	1.27	21.0	<b>7.00</b>	9.0	18.0	9.0	0.47	19.0
0.80	14.0	33.0	14.0	1.40	10.0	7.20	6.0	13.0	6.0	0.20	30.0
<b>1.00</b>	13.0	34.0	13.0	0.67	19.0	7.40	5.0	8.0	5.0	0.27	19.0
1.20	12.0	22.0	12.0	0.67	18.0	7.60	4.0	8.0	4.0	0.93	4.0
1.40	10.0	20.0	10.0	0.33	30.0	7.80	102.0	116.0	102.0	2.27	45.0
1.60	6.0	11.0	6.0	0.13	45.0	<b>8.00</b>	165.0	199.0	165.0	2.47	67.0
1.80	12.0	14.0	12.0	0.33	36.0	8.20	197.0	234.0	197.0	2.27	87.0
<b>2.00</b>	9.0	14.0	9.0	0.40	22.0	8.40	252.0	286.0	252.0	1.00	252.0
2.20	12.0	18.0	12.0	0.53	22.0	8.60	133.0	148.0	133.0	0.73	181.0
2.40	9.0	17.0	9.0	0.53	17.0	8.80	149.0	160.0	149.0	1.93	77.0
2.60	11.0	19.0	11.0	0.60	18.0	<b>9.00</b>	259.0	288.0	259.0	2.53	102.0
2.80	9.0	18.0	9.0	0.60	15.0	9.20	374.0	412.0	374.0	3.67	102.0
<b>3.00</b>	10.0	19.0	10.0	0.67	15.0	9.40	342.0	397.0	342.0	3.80	90.0
3.20	12.0	22.0	12.0	0.73	16.0	9.60	270.0	327.0	270.0	3.73	72.0
3.40	14.0	25.0	14.0	0.80	17.0	9.80	264.0	320.0	264.0	2.60	102.0
3.60	18.0	30.0	18.0	1.00	18.0	<b>10.00</b>	280.0	319.0	280.0	2.40	117.0
3.80	22.0	37.0	22.0	1.20	18.0	10.20	409.0	445.0	409.0	1.53	267.0
<b>4.00</b>	30.0	48.0	30.0	1.60	19.0	10.40	240.0	263.0	240.0	2.07	116.0
4.20	27.0	51.0	27.0	1.53	18.0	10.60	242.0	273.0	242.0	4.47	54.0
4.40	20.0	43.0	20.0	1.20	17.0	10.80	351.0	418.0	351.0	1.13	310.0
4.60	27.0	45.0	27.0	1.33	20.0	<b>11.00</b>	173.0	190.0	173.0	3.67	47.0
4.80	21.0	41.0	21.0	1.27	17.0	11.20	22.0	77.0	22.0	0.73	30.0
<b>5.00</b>	15.0	34.0	15.0	0.80	19.0	11.40	18.0	29.0	18.0	0.67	27.0
5.20	13.0	25.0	13.0	0.73	18.0	11.60	17.0	27.0	17.0	0.93	18.0
5.40	11.0	22.0	11.0	0.53	21.0	11.80	28.0	42.0	28.0	3.33	8.0
5.60	15.0	23.0	15.0	0.40	37.0	<b>12.00</b>	258.0	308.0	258.0	7.20	36.0
5.80	21.0	27.0	21.0	0.80	26.0	12.20	384.0	492.0	384.0	7.93	48.0
<b>6.00</b>	12.0	24.0	12.0	0.80	15.0	12.40	492.0	611.0	492.0	5.53	89.0
6.20	12.0	24.0	12.0	0.47	26.0	12.60	594.0	677.0	594.0	2.87	207.0
6.40	14.0	21.0	14.0	0.33	42.0	12.80	581.0	624.0	581.0	-----	----

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

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

**CPT 6**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : PARROCCHIA  
- note :

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 3.00 m da quota inizio  
- pagina : 1

Prof. m	Letture di campagna punta	laterale	qc kg/cm <sup>2</sup>	fs	qc/fs	Prof. m	Letture di campagna punta	laterale	qc kg/cm <sup>2</sup>	fs	qc/fs
0.20	----	----	--	0.67	----	10.20	526.0	590.0	526.0	2.93	179.0
0.40	65.0	75.0	65.0	0.87	75.0	10.40	301.0	345.0	301.0	6.27	48.0
0.60	15.0	28.0	15.0	1.80	8.0	10.60	195.0	289.0	195.0	2.40	81.0
0.80	9.0	36.0	9.0	0.73	12.0	10.80	121.0	157.0	121.0	2.40	50.0
<b>1.00</b>	14.0	25.0	14.0	0.60	23.0	<b>11.00</b>	211.0	247.0	211.0	3.60	59.0
1.20	13.0	22.0	13.0	0.73	18.0	11.20	303.0	357.0	303.0	1.07	284.0
1.40	12.0	23.0	12.0	0.73	16.0	11.40	412.0	428.0	412.0	3.80	108.0
1.60	14.0	25.0	14.0	0.80	17.0	11.60	355.0	412.0	355.0	4.27	83.0
1.80	14.0	26.0	14.0	0.67	21.0	11.80	276.0	340.0	276.0	3.67	75.0
<b>2.00</b>	11.0	21.0	11.0	0.93	12.0	<b>12.00</b>	256.0	311.0	256.0	2.13	120.0
2.20	22.0	36.0	22.0	0.47	47.0	12.20	340.0	372.0	340.0	2.13	159.0
2.40	13.0	20.0	13.0	0.47	28.0	12.40	370.0	402.0	370.0	3.40	109.0
2.60	13.0	20.0	13.0	0.47	28.0	12.60	399.0	450.0	399.0	0.80	499.0
2.80	8.0	15.0	8.0	0.20	40.0	12.80	330.0	342.0	330.0	5.20	63.0
<b>3.00</b>	17.0	20.0	17.0	0.40	42.0	<b>13.00</b>	333.0	411.0	333.0	3.80	88.0
3.20	9.0	15.0	9.0	0.33	27.0	13.20	445.0	502.0	445.0	2.40	185.0
3.40	11.0	16.0	11.0	0.47	24.0	13.40	469.0	505.0	469.0	2.27	207.0
3.60	16.0	23.0	16.0	0.53	30.0	13.60	310.0	344.0	310.0	4.33	72.0
3.80	22.0	30.0	22.0	0.87	25.0	13.80	401.0	466.0	401.0	2.73	147.0
<b>4.00</b>	24.0	37.0	24.0	1.40	17.0	<b>14.00</b>	374.0	415.0	374.0	3.47	108.0
4.20	24.0	45.0	24.0	1.40	17.0	14.20	174.0	226.0	174.0	4.60	38.0
4.40	22.0	43.0	22.0	1.20	18.0	14.40	22.0	91.0	22.0	1.47	15.0
4.60	24.0	42.0	24.0	1.53	16.0	14.60	22.0	44.0	22.0	1.27	17.0
4.80	31.0	54.0	31.0	1.73	18.0	14.80	19.0	38.0	19.0	0.53	36.0
<b>5.00</b>	38.0	64.0	38.0	1.80	21.0	<b>15.00</b>	17.0	25.0	17.0	0.87	20.0
5.20	24.0	51.0	24.0	1.47	16.0	15.20	13.0	26.0	13.0	0.53	24.0
5.40	19.0	41.0	19.0	0.53	36.0	15.40	14.0	22.0	14.0	1.20	12.0
5.60	31.0	39.0	31.0	0.93	33.0	15.60	17.0	35.0	17.0	1.53	11.0
5.80	24.0	38.0	24.0	0.73	33.0	15.80	18.0	41.0	18.0	1.53	12.0
<b>6.00</b>	14.0	25.0	14.0	0.67	21.0	<b>16.00</b>	21.0	44.0	21.0	1.53	14.0
6.20	13.0	23.0	13.0	0.73	18.0	16.20	18.0	41.0	18.0	1.27	14.0
6.40	16.0	27.0	16.0	0.73	22.0	16.40	19.0	38.0	19.0	1.60	12.0
6.60	10.0	21.0	10.0	0.53	19.0	16.60	20.0	44.0	20.0	1.47	14.0
6.80	14.0	22.0	14.0	0.47	30.0	16.80	21.0	43.0	21.0	1.27	17.0
<b>7.00</b>	19.0	26.0	19.0	0.80	24.0	<b>17.00</b>	19.0	38.0	19.0	1.20	16.0
7.20	22.0	34.0	22.0	0.60	37.0	17.20	21.0	39.0	21.0	1.60	13.0
7.40	18.0	27.0	18.0	0.40	45.0	17.40	30.0	54.0	30.0	1.20	25.0
7.60	13.0	19.0	13.0	0.60	22.0	17.60	34.0	52.0	34.0	1.67	20.0
7.80	12.0	21.0	12.0	0.67	18.0	17.80	20.0	45.0	20.0	1.07	19.0
<b>8.00</b>	17.0	27.0	17.0	0.73	23.0	<b>18.00</b>	18.0	34.0	18.0	1.00	18.0
8.20	12.0	23.0	12.0	0.40	30.0	18.20	17.0	32.0	17.0	0.40	42.0
8.40	16.0	22.0	16.0	0.53	30.0	18.40	27.0	33.0	27.0	0.93	29.0
8.60	21.0	29.0	21.0	0.60	35.0	18.60	19.0	33.0	19.0	1.07	18.0
8.80	24.0	33.0	24.0	1.40	17.0	18.80	20.0	36.0	20.0	1.20	17.0
<b>9.00</b>	147.0	168.0	147.0	2.40	61.0	<b>19.00</b>	20.0	38.0	20.0	1.20	17.0
9.20	168.0	204.0	168.0	1.80	93.0	19.20	19.0	37.0	19.0	1.00	19.0
9.40	243.0	270.0	243.0	3.20	76.0	19.40	16.0	31.0	16.0	0.67	24.0
9.60	205.0	253.0	205.0	3.60	57.0	19.60	16.0	26.0	16.0	0.67	24.0
9.80	344.0	398.0	344.0	2.33	147.0	19.80	17.0	27.0	17.0	0.80	21.0
<b>10.00</b>	387.0	422.0	387.0	4.27	91.0	<b>20.00</b>	16.0	28.0	16.0	0.87	18.0

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



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

**CPT 6**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : PARROCCHIA  
- note :

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 3.00 m da quota inizio  
- pagina : 2

Prof. m	Letture di campagna		qc	fs	qc/fs	Prof. m	Letture di campagna		qc	fs	qc/fs
	punta	laterale	kg/cm <sup>2</sup>				punta	laterale	kg/cm <sup>2</sup>		
20.20	17.0	30.0	17.0	1.00	17.0	25.20	336.0	407.0	336.0	2.53	133.0
20.40	15.0	30.0	15.0	0.87	17.0	25.40	97.0	135.0	97.0	1.60	61.0
20.60	15.0	28.0	15.0	1.20	12.0	25.60	103.0	127.0	103.0	1.80	57.0
20.80	18.0	36.0	18.0	1.13	16.0	25.80	21.0	48.0	21.0	1.73	12.0
<b>21.00</b>	26.0	43.0	26.0	1.53	17.0	<b>26.00</b>	21.0	47.0	21.0	1.53	14.0
21.20	25.0	48.0	25.0	1.53	16.0	26.20	25.0	48.0	25.0	1.67	15.0
21.40	23.0	46.0	23.0	1.13	20.0	26.40	31.0	56.0	31.0	2.07	15.0
21.60	19.0	36.0	19.0	0.87	22.0	26.60	31.0	62.0	31.0	2.20	14.0
21.80	21.0	34.0	21.0	1.07	20.0	26.80	31.0	64.0	31.0	2.27	14.0
<b>22.00</b>	19.0	35.0	19.0	1.00	19.0	<b>27.00</b>	32.0	66.0	32.0	2.33	14.0
22.20	18.0	33.0	18.0	1.00	18.0	27.20	36.0	71.0	36.0	2.33	15.0
22.40	22.0	37.0	22.0	1.33	16.0	27.40	32.0	67.0	32.0	2.07	15.0
22.60	23.0	43.0	23.0	1.87	12.0	27.60	23.0	54.0	23.0	1.80	13.0
22.80	22.0	50.0	22.0	1.13	19.0	27.80	23.0	50.0	23.0	1.73	13.0
<b>23.00</b>	17.0	34.0	17.0	1.60	11.0	<b>28.00</b>	25.0	51.0	25.0	1.87	13.0
23.20	26.0	50.0	26.0	0.87	30.0	28.20	23.0	51.0	23.0	2.13	11.0
23.40	20.0	33.0	20.0	1.00	20.0	28.40	31.0	63.0	31.0	2.33	13.0
23.60	23.0	38.0	23.0	1.40	16.0	28.60	27.0	62.0	27.0	2.07	13.0
23.80	23.0	44.0	23.0	1.53	15.0	28.80	31.0	62.0	31.0	2.27	14.0
<b>24.00</b>	31.0	54.0	31.0	1.73	18.0	<b>29.00</b>	34.0	68.0	34.0	2.33	15.0
24.20	32.0	58.0	32.0	1.53	21.0	29.20	28.0	63.0	28.0	2.13	13.0
24.40	31.0	54.0	31.0	1.40	22.0	29.40	27.0	59.0	27.0	1.53	18.0
24.60	29.0	50.0	29.0	1.47	20.0	29.60	22.0	45.0	22.0	1.60	14.0
24.80	27.0	49.0	27.0	2.47	11.0	29.80	21.0	45.0	21.0	-----	----

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

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

CPT 7

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : ACQUE CHIARE  
- note :

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.60 m da quota inizio  
- pagina : 1

Prof. m	Letture di campagna		qc	fs	qc/fs	Prof. m	Letture di campagna		qc	fs	qc/fs
	punta	laterale	kg/cm <sup>2</sup>				punta	laterale	kg/cm <sup>2</sup>		
0.20	----	----	--	1.27	----	10.20	22.0	41.0	22.0	1.00	22.0
0.40	11.0	30.0	11.0	1.00	11.0	10.40	20.0	35.0	20.0	1.07	19.0
0.60	15.0	30.0	15.0	0.87	17.0	10.60	19.0	35.0	19.0	1.00	19.0
0.80	15.0	28.0	15.0	1.20	12.0	10.80	19.0	34.0	19.0	0.87	22.0
<b>1.00</b>	18.0	36.0	18.0	1.00	18.0	<b>11.00</b>	12.0	25.0	12.0	0.67	18.0
1.20	13.0	28.0	13.0	0.80	16.0	11.20	11.0	21.0	11.0	0.53	21.0
1.40	13.0	25.0	13.0	0.87	15.0	11.40	12.0	20.0	12.0	0.67	18.0
1.60	15.0	28.0	15.0	0.87	17.0	11.60	13.0	23.0	13.0	0.60	22.0
1.80	14.0	27.0	14.0	0.87	16.0	11.80	16.0	25.0	16.0	0.87	18.0
<b>2.00</b>	18.0	31.0	18.0	0.87	21.0	<b>12.00</b>	16.0	29.0	16.0	0.93	17.0
2.20	12.0	25.0	12.0	1.53	8.0	12.20	15.0	29.0	15.0	0.73	20.0
2.40	19.0	42.0	19.0	0.40	47.0	12.40	15.0	26.0	15.0	0.73	20.0
2.60	15.0	21.0	15.0	0.47	32.0	12.60	12.0	23.0	12.0	0.67	18.0
2.80	13.0	20.0	13.0	0.47	28.0	12.80	12.0	22.0	12.0	0.67	18.0
<b>3.00</b>	13.0	20.0	13.0	0.47	28.0	<b>13.00</b>	11.0	21.0	11.0	0.53	21.0
3.20	14.0	21.0	14.0	0.53	26.0	13.20	12.0	20.0	12.0	0.60	20.0
3.40	16.0	24.0	16.0	0.60	27.0	13.40	9.0	18.0	9.0	0.60	15.0
3.60	12.0	21.0	12.0	0.60	20.0	13.60	11.0	20.0	11.0	0.60	18.0
3.80	11.0	20.0	11.0	0.47	24.0	13.80	13.0	22.0	13.0	0.73	18.0
<b>4.00</b>	12.0	19.0	12.0	0.60	20.0	<b>14.00</b>	12.0	23.0	12.0	0.73	16.0
4.20	8.0	17.0	8.0	0.47	17.0	14.20	12.0	23.0	12.0	0.87	14.0
4.40	8.0	15.0	8.0	0.47	17.0	14.40	12.0	25.0	12.0	0.80	15.0
4.60	9.0	16.0	9.0	0.53	17.0	14.60	10.0	22.0	10.0	0.67	15.0
4.80	7.0	15.0	7.0	0.40	17.0	14.80	10.0	20.0	10.0	0.67	15.0
<b>5.00</b>	5.0	11.0	5.0	0.40	12.0	<b>15.00</b>	10.0	20.0	10.0	0.73	14.0
5.20	6.0	12.0	6.0	0.33	18.0	15.20	12.0	23.0	12.0	0.73	16.0
5.40	7.0	12.0	7.0	0.47	15.0	15.40	14.0	25.0	14.0	0.93	15.0
5.60	5.0	12.0	5.0	0.40	12.0	15.60	16.0	30.0	16.0	0.93	17.0
5.80	5.0	11.0	5.0	0.27	19.0	15.80	16.0	30.0	16.0	1.00	16.0
<b>6.00</b>	10.0	14.0	10.0	0.13	75.0	<b>16.00</b>	15.0	30.0	15.0	0.87	17.0
6.20	17.0	19.0	17.0	0.40	42.0	16.20	13.0	26.0	13.0	0.87	15.0
6.40	6.0	12.0	6.0	0.33	18.0	16.40	13.0	26.0	13.0	0.80	16.0
6.60	7.0	12.0	7.0	0.40	17.0	16.60	15.0	27.0	15.0	0.87	17.0
6.80	10.0	16.0	10.0	0.60	17.0	16.80	13.0	26.0	13.0	0.67	19.0
<b>7.00</b>	11.0	20.0	11.0	0.60	18.0	<b>17.00</b>	22.0	32.0	22.0	0.60	37.0
7.20	8.0	17.0	8.0	0.47	17.0	17.20	27.0	36.0	27.0	1.60	17.0
7.40	9.0	16.0	9.0	0.67	13.0	17.40	17.0	41.0	17.0	2.07	8.0
7.60	11.0	21.0	11.0	0.60	18.0	17.60	44.0	75.0	44.0	0.87	51.0
7.80	15.0	24.0	15.0	0.93	16.0	17.80	20.0	33.0	20.0	1.93	10.0
<b>8.00</b>	23.0	37.0	23.0	1.07	22.0	<b>18.00</b>	12.0	41.0	12.0	0.73	16.0
8.20	32.0	48.0	32.0	1.47	22.0	18.20	12.0	23.0	12.0	0.60	20.0
8.40	29.0	51.0	29.0	1.33	22.0	18.40	9.0	18.0	9.0	0.40	22.0
8.60	28.0	48.0	28.0	1.20	23.0	18.60	17.0	23.0	17.0	0.73	23.0
8.80	27.0	45.0	27.0	1.27	21.0	18.80	10.0	21.0	10.0	0.53	19.0
<b>9.00</b>	31.0	50.0	31.0	1.33	23.0	<b>19.00</b>	13.0	21.0	13.0	0.60	22.0
9.20	26.0	46.0	26.0	1.13	23.0	19.20	11.0	20.0	11.0	0.53	21.0
9.40	32.0	49.0	32.0	1.27	25.0	19.40	11.0	19.0	11.0	0.67	16.0
9.60	35.0	54.0	35.0	1.20	29.0	19.60	11.0	21.0	11.0	0.67	16.0
9.80	33.0	51.0	33.0	1.67	20.0	19.80	16.0	26.0	16.0	0.73	22.0
<b>10.00</b>	26.0	51.0	26.0	1.27	21.0	<b>20.00</b>	13.0	24.0	13.0	0.67	19.0

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

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

**CPT 7**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : ACQUE CHIARE  
- note :

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.60 m da quota inizio  
- pagina : 2

Prof. m	Letture di campagna		qc	fs	qc/fs	Prof. m	Letture di campagna		qc	fs	qc/fs
	punta	laterale	kg/cm <sup>2</sup>				punta	laterale	kg/cm <sup>2</sup>		
20.20	19.0	29.0	19.0	0.60	32.0	25.20	9.0	17.0	9.0	0.40	22.0
20.40	17.0	26.0	17.0	0.60	28.0	25.40	9.0	15.0	9.0	0.60	15.0
20.60	17.0	26.0	17.0	0.87	20.0	25.60	14.0	23.0	14.0	0.80	17.0
20.80	14.0	27.0	14.0	0.67	21.0	25.80	48.0	60.0	48.0	2.53	19.0
<b>21.00</b>	13.0	23.0	13.0	0.73	18.0	<b>26.00</b>	32.0	70.0	32.0	1.20	27.0
21.20	14.0	25.0	14.0	0.73	19.0	26.20	20.0	38.0	20.0	1.27	16.0
21.40	13.0	24.0	13.0	0.73	18.0	26.40	18.0	37.0	18.0	0.73	25.0
21.60	15.0	26.0	15.0	0.67	22.0	26.60	21.0	32.0	21.0	0.60	35.0
21.80	15.0	25.0	15.0	0.87	17.0	26.80	33.0	42.0	33.0	0.67	49.0
<b>22.00</b>	50.0	63.0	50.0	0.73	68.0	<b>27.00</b>	31.0	41.0	31.0	0.93	33.0
22.20	84.0	95.0	84.0	1.60	52.0	27.20	34.0	48.0	34.0	1.20	28.0
22.40	42.0	66.0	42.0	1.47	29.0	27.40	37.0	55.0	37.0	1.33	28.0
22.60	24.0	46.0	24.0	0.53	45.0	27.60	39.0	59.0	39.0	1.33	29.0
22.80	25.0	33.0	25.0	0.67	37.0	27.80	14.0	34.0	14.0	1.07	13.0
<b>23.00</b>	25.0	35.0	25.0	0.33	75.0	<b>28.00</b>	23.0	39.0	23.0	1.07	22.0
23.20	106.0	111.0	106.0	1.40	76.0	28.20	27.0	43.0	27.0	0.80	34.0
23.40	27.0	48.0	27.0	3.20	8.0	28.40	34.0	46.0	34.0	0.93	36.0
23.60	35.0	83.0	35.0	1.40	25.0	28.60	33.0	47.0	33.0	1.53	22.0
23.80	46.0	67.0	46.0	1.73	27.0	28.80	18.0	41.0	18.0	1.07	17.0
<b>24.00</b>	25.0	51.0	25.0	0.93	27.0	<b>29.00</b>	19.0	35.0	19.0	1.00	19.0
24.20	17.0	31.0	17.0	0.80	21.0	29.20	14.0	29.0	14.0	0.80	17.0
24.40	12.0	24.0	12.0	0.67	18.0	29.40	12.0	24.0	12.0	0.80	15.0
24.60	25.0	35.0	25.0	0.60	42.0	29.60	18.0	30.0	18.0	1.00	18.0
24.80	26.0	35.0	26.0	1.53	17.0	29.80	22.0	37.0	22.0	-----	----

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

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

CPT 8

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO  
- note : Prova non conclusa causa rifiuto

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.35 m da quota inizio  
- pagina : 1

Prof. m	Letture di campagna		qc	fs	qc/fs	Prof. m	Letture di campagna		qc	fs	qc/fs
	punta	laterale	kg/cm <sup>2</sup>				punta	laterale	kg/cm <sup>2</sup>		
0.20	----	----	--	0.87	----	10.20	9.0	58.0	9.0	0.53	17.0
0.40	8.0	21.0	8.0	0.53	15.0	10.40	7.0	15.0	7.0	0.40	17.0
0.60	7.0	15.0	7.0	0.40	17.0	10.60	9.0	15.0	9.0	0.47	19.0
0.80	9.0	15.0	9.0	0.47	19.0	10.80	8.0	15.0	8.0	0.47	17.0
<b>1.00</b>	10.0	17.0	10.0	0.53	19.0	<b>11.00</b>	9.0	16.0	9.0	0.60	15.0
1.20	11.0	19.0	11.0	0.53	21.0	11.20	13.0	22.0	13.0	0.80	16.0
1.40	23.0	31.0	23.0	0.67	34.0	11.40	11.0	23.0	11.0	1.07	10.0
1.60	26.0	36.0	26.0	1.33	19.0	11.60	14.0	30.0	14.0	0.73	19.0
1.80	19.0	39.0	19.0	0.80	24.0	11.80	12.0	23.0	12.0	0.60	20.0
<b>2.00</b>	38.0	50.0	38.0	1.33	28.0	<b>12.00</b>	13.0	22.0	13.0	0.67	19.0
2.20	37.0	57.0	37.0	1.20	31.0	12.20	9.0	19.0	9.0	0.53	17.0
2.40	32.0	50.0	32.0	0.87	37.0	12.40	8.0	16.0	8.0	0.60	13.0
2.60	26.0	39.0	26.0	0.80	32.0	12.60	12.0	21.0	12.0	0.33	36.0
2.80	19.0	31.0	19.0	0.73	26.0	12.80	66.0	71.0	66.0	1.13	58.0
<b>3.00</b>	21.0	32.0	21.0	1.07	20.0	<b>13.00</b>	11.0	28.0	11.0	0.80	14.0
3.20	20.0	36.0	20.0	1.07	19.0	13.20	17.0	29.0	17.0	1.07	16.0
3.40	20.0	36.0	20.0	1.20	17.0	13.40	33.0	49.0	33.0	1.00	33.0
3.60	11.0	29.0	11.0	0.73	15.0	13.60	42.0	57.0	42.0	2.13	20.0
3.80	11.0	22.0	11.0	0.67	16.0	13.80	34.0	66.0	34.0	1.67	20.0
<b>4.00</b>	12.0	22.0	12.0	0.60	20.0	<b>14.00</b>	32.0	57.0	32.0	1.93	17.0
4.20	16.0	25.0	16.0	0.87	18.0	14.20	29.0	58.0	29.0	1.80	16.0
4.40	21.0	34.0	21.0	0.80	26.0	14.40	24.0	51.0	24.0	1.73	14.0
4.60	25.0	37.0	25.0	1.27	20.0	14.60	28.0	54.0	28.0	1.53	18.0
4.80	31.0	50.0	31.0	1.60	19.0	14.80	36.0	59.0	36.0	2.20	16.0
<b>5.00</b>	34.0	58.0	34.0	1.80	19.0	<b>15.00</b>	32.0	65.0	32.0	1.73	18.0
5.20	26.0	53.0	26.0	1.67	16.0	15.20	43.0	69.0	43.0	2.07	21.0
5.40	29.0	54.0	29.0	1.33	22.0	15.40	45.0	76.0	45.0	2.33	19.0
5.60	20.0	40.0	20.0	1.40	14.0	15.60	30.0	65.0	30.0	2.47	12.0
5.80	22.0	43.0	22.0	0.93	24.0	15.80	39.0	76.0	39.0	1.93	20.0
<b>6.00</b>	29.0	43.0	29.0	1.60	18.0	<b>16.00</b>	51.0	80.0	51.0	2.53	20.0
6.20	39.0	63.0	39.0	1.53	25.0	16.20	52.0	90.0	52.0	1.87	28.0
6.40	27.0	50.0	27.0	1.33	20.0	16.40	33.0	61.0	33.0	1.87	18.0
6.60	18.0	38.0	18.0	1.00	18.0	16.60	11.0	39.0	11.0	1.20	9.0
6.80	20.0	35.0	20.0	0.80	25.0	16.80	11.0	29.0	11.0	1.27	9.0
<b>7.00</b>	30.0	42.0	30.0	1.33	22.0	<b>17.00</b>	28.0	47.0	28.0	1.73	16.0
7.20	21.0	41.0	21.0	1.40	15.0	17.20	30.0	56.0	30.0	1.73	17.0
7.40	14.0	35.0	14.0	1.13	12.0	17.40	32.0	58.0	32.0	1.80	18.0
7.60	8.0	25.0	8.0	0.93	9.0	17.60	27.0	54.0	27.0	1.33	20.0
7.80	7.0	21.0	7.0	0.73	10.0	17.80	39.0	59.0	39.0	1.67	23.0
<b>8.00</b>	7.0	18.0	7.0	0.73	10.0	<b>18.00</b>	42.0	67.0	42.0	1.80	23.0
8.20	32.0	43.0	32.0	4.27	7.0	18.20	43.0	70.0	43.0	2.40	18.0
8.40	41.0	105.0	41.0	1.60	26.0	18.40	45.0	81.0	45.0	2.53	18.0
8.60	148.0	172.0	148.0	3.13	47.0	18.60	39.0	77.0	39.0	2.73	14.0
8.80	197.0	244.0	197.0	3.73	53.0	18.80	35.0	76.0	35.0	2.13	16.0
<b>9.00</b>	310.0	366.0	310.0	3.07	101.0	<b>19.00</b>	30.0	62.0	30.0	2.07	15.0
9.20	215.0	261.0	215.0	3.60	60.0	19.20	30.0	61.0	30.0	1.73	17.0
9.40	176.0	230.0	176.0	1.60	110.0	19.40	30.0	56.0	30.0	1.40	21.0
9.60	194.0	218.0	194.0	0.73	265.0	19.60	34.0	55.0	34.0	1.80	19.0
9.80	209.0	220.0	209.0	1.07	196.0	19.80	31.0	58.0	31.0	1.60	19.0
<b>10.00</b>	117.0	133.0	117.0	3.27	36.0	<b>20.00</b>	29.0	53.0	29.0	1.87	16.0

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

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

**CPT 8**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO  
- note : Prova non conclusa causa rifiuto

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.35 m da quota inizio  
- pagina : 2

Prof. m	Letture di campagna		qc	fs	qc/fs	Prof. m	Letture di campagna		qc	fs	qc/fs
	punta	laterale	kg/cm <sup>2</sup>				punta	laterale	kg/cm <sup>2</sup>		
20.20	33.0	61.0	33.0	1.47	22.0	22.80	128.0	136.0	128.0	3.27	39.0
20.40	40.0	62.0	40.0	1.47	27.0	<b>23.00</b>	71.0	120.0	71.0	2.93	24.0
20.60	32.0	54.0	32.0	1.33	24.0	23.20	94.0	138.0	94.0	0.27	352.0
20.80	21.0	41.0	21.0	1.13	19.0	23.40	138.0	142.0	138.0	1.20	115.0
<b>21.00</b>	46.0	63.0	46.0	2.73	17.0	23.60	110.0	128.0	110.0	3.20	34.0
21.20	34.0	75.0	34.0	1.27	27.0	23.80	19.0	67.0	19.0	1.33	14.0
21.40	40.0	59.0	40.0	1.87	21.0	<b>24.00</b>	20.0	40.0	20.0	0.87	23.0
21.60	36.0	64.0	36.0	1.73	21.0	24.20	166.0	179.0	166.0	1.07	156.0
21.80	36.0	62.0	36.0	1.00	36.0	24.40	328.0	344.0	328.0	1.20	273.0
<b>22.00</b>	107.0	122.0	107.0	3.27	33.0	24.60	299.0	317.0	299.0	3.27	92.0
22.20	57.0	106.0	57.0	1.67	34.0	24.80	340.0	389.0	340.0	2.80	121.0
22.40	97.0	122.0	97.0	3.00	32.0	<b>25.00</b>	382.0	424.0	382.0	-----	----
22.60	70.0	115.0	70.0	0.53	131.0						

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

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

CPT 9

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO  
- note :

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.50 m da quota inizio  
- pagina : 1

Prof. m	Letture di campagna		qc	fs	qc/fs	Prof. m	Letture di campagna		qc	fs	qc/fs
	punta	laterale	kg/cm <sup>2</sup>				punta	laterale	kg/cm <sup>2</sup>		
0.20	----	----	--	1.07	----	10.20	18.0	36.0	18.0	0.87	21.0
0.40	14.0	30.0	14.0	1.60	9.0	10.40	14.0	27.0	14.0	0.73	19.0
0.60	8.0	32.0	8.0	0.47	17.0	10.60	12.0	23.0	12.0	0.73	16.0
0.80	8.0	15.0	8.0	0.40	20.0	10.80	13.0	24.0	13.0	0.73	18.0
<b>1.00</b>	8.0	14.0	8.0	0.33	24.0	<b>11.00</b>	15.0	26.0	15.0	0.67	22.0
1.20	11.0	16.0	11.0	0.47	24.0	11.20	48.0	58.0	48.0	1.33	36.0
1.40	11.0	18.0	11.0	0.47	24.0	11.40	45.0	65.0	45.0	0.67	67.0
1.60	10.0	17.0	10.0	0.47	21.0	11.60	16.0	26.0	16.0	0.47	34.0
1.80	7.0	14.0	7.0	0.40	17.0	11.80	9.0	16.0	9.0	0.47	19.0
<b>2.00</b>	9.0	15.0	9.0	0.40	22.0	<b>12.00</b>	10.0	17.0	10.0	0.47	21.0
2.20	16.0	22.0	16.0	0.60	27.0	12.20	8.0	15.0	8.0	0.47	17.0
2.40	19.0	28.0	19.0	0.67	28.0	12.40	8.0	15.0	8.0	0.33	24.0
2.60	20.0	30.0	20.0	1.13	18.0	12.60	10.0	15.0	10.0	0.53	19.0
2.80	19.0	36.0	19.0	1.20	16.0	12.80	8.0	16.0	8.0	0.47	17.0
<b>3.00</b>	18.0	36.0	18.0	1.27	14.0	<b>13.00</b>	12.0	19.0	12.0	0.53	22.0
3.20	16.0	35.0	16.0	1.27	13.0	13.20	10.0	18.0	10.0	0.53	19.0
3.40	25.0	44.0	25.0	1.27	20.0	13.40	9.0	17.0	9.0	0.53	17.0
3.60	22.0	41.0	22.0	1.07	21.0	13.60	11.0	19.0	11.0	0.53	21.0
3.80	28.0	44.0	28.0	1.53	18.0	13.80	11.0	19.0	11.0	0.60	18.0
<b>4.00</b>	29.0	52.0	29.0	1.67	17.0	<b>14.00</b>	10.0	19.0	10.0	0.53	19.0
4.20	30.0	55.0	30.0	1.47	20.0	14.20	11.0	19.0	11.0	0.53	21.0
4.40	32.0	54.0	32.0	1.53	21.0	14.40	11.0	19.0	11.0	0.67	16.0
4.60	20.0	43.0	20.0	1.27	16.0	14.60	8.0	18.0	8.0	1.27	6.0
4.80	17.0	36.0	17.0	1.07	16.0	14.80	16.0	35.0	16.0	2.20	7.0
<b>5.00</b>	19.0	35.0	19.0	0.87	22.0	<b>15.00</b>	51.0	84.0	51.0	0.80	64.0
5.20	27.0	40.0	27.0	1.00	27.0	15.20	116.0	128.0	116.0	1.27	92.0
5.40	28.0	43.0	28.0	1.33	21.0	15.40	21.0	40.0	21.0	1.20	17.0
5.60	28.0	48.0	28.0	1.47	19.0	15.60	16.0	34.0	16.0	0.87	18.0
5.80	29.0	51.0	29.0	1.67	17.0	15.80	11.0	24.0	11.0	0.53	21.0
<b>6.00</b>	32.0	57.0	32.0	1.93	17.0	<b>16.00</b>	10.0	18.0	10.0	0.33	30.0
6.20	32.0	61.0	32.0	1.73	18.0	16.20	14.0	19.0	14.0	1.07	13.0
6.40	29.0	55.0	29.0	1.53	19.0	16.40	96.0	112.0	96.0	1.00	96.0
6.60	31.0	54.0	31.0	1.40	22.0	16.60	109.0	124.0	109.0	1.07	102.0
6.80	30.0	51.0	30.0	1.53	20.0	16.80	22.0	38.0	22.0	0.20	110.0
<b>7.00</b>	25.0	48.0	25.0	1.40	18.0	<b>17.00</b>	49.0	52.0	49.0	1.27	39.0
7.20	28.0	49.0	28.0	1.47	19.0	17.20	17.0	36.0	17.0	0.73	23.0
7.40	26.0	48.0	26.0	1.47	18.0	17.40	11.0	22.0	11.0	0.53	21.0
7.60	26.0	48.0	26.0	1.33	19.0	17.60	74.0	82.0	74.0	1.67	44.0
7.80	28.0	48.0	28.0	1.53	18.0	17.80	17.0	42.0	17.0	1.33	13.0
<b>8.00</b>	26.0	49.0	26.0	1.40	19.0	<b>18.00</b>	37.0	57.0	37.0	5.47	7.0
8.20	23.0	44.0	23.0	1.20	19.0	18.20	149.0	231.0	149.0	1.47	102.0
8.40	23.0	41.0	23.0	1.07	22.0	18.40	390.0	412.0	390.0	1.27	308.0
8.60	20.0	36.0	20.0	1.07	19.0	18.60	271.0	290.0	271.0	2.80	97.0
8.80	15.0	31.0	15.0	0.67	22.0	18.80	30.0	72.0	30.0	2.07	15.0
<b>9.00</b>	12.0	22.0	12.0	0.80	15.0	<b>19.00</b>	43.0	74.0	43.0	1.13	38.0
9.20	13.0	25.0	13.0	1.27	10.0	19.20	52.0	69.0	52.0	1.67	31.0
9.40	19.0	38.0	19.0	0.87	22.0	19.40	38.0	63.0	38.0	1.47	26.0
9.60	30.0	43.0	30.0	1.13	26.0	19.60	31.0	53.0	31.0	1.27	24.0
9.80	25.0	42.0	25.0	1.47	17.0	19.80	30.0	49.0	30.0	1.60	19.0
<b>10.00</b>	15.0	37.0	15.0	1.20	12.0	<b>20.00</b>	27.0	51.0	27.0	1.40	19.0

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

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

**CPT 9**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO  
- note :

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.50 m da quota inizio  
- pagina : 2

Prof. m	Letture di campagna		qc kg/cm <sup>2</sup>	fs	qc/fs	Prof. m	Letture di campagna		qc kg/cm <sup>2</sup>	fs	qc/fs
	punta	laterale					punta	laterale			
20.20	29.0	50.0	29.0	1.53	19.0	24.80	41.0	61.0	41.0	1.87	22.0
20.40	28.0	51.0	28.0	1.33	21.0	<b>25.00</b>	73.0	101.0	73.0	2.07	35.0
20.60	27.0	47.0	27.0	1.33	20.0	25.20	32.0	63.0	32.0	0.87	37.0
20.80	24.0	44.0	24.0	1.20	20.0	25.40	34.0	47.0	34.0	1.87	18.0
<b>21.00</b>	23.0	41.0	23.0	0.93	25.0	25.60	33.0	61.0	33.0	1.07	31.0
21.20	24.0	38.0	24.0	1.33	18.0	25.80	43.0	59.0	43.0	2.20	20.0
21.40	18.0	38.0	18.0	0.73	25.0	<b>26.00</b>	38.0	71.0	38.0	2.73	14.0
21.60	23.0	34.0	23.0	1.00	23.0	26.20	140.0	181.0	140.0	1.93	72.0
21.80	23.0	38.0	23.0	1.13	20.0	26.40	53.0	82.0	53.0	1.47	36.0
<b>22.00</b>	24.0	41.0	24.0	1.07	22.0	26.60	43.0	65.0	43.0	1.87	23.0
22.20	21.0	37.0	21.0	1.00	21.0	26.80	43.0	71.0	43.0	0.60	72.0
22.40	25.0	40.0	25.0	1.33	19.0	<b>27.00</b>	50.0	59.0	50.0	2.47	20.0
22.60	27.0	47.0	27.0	1.47	18.0	27.20	48.0	85.0	48.0	2.00	24.0
22.80	27.0	49.0	27.0	1.53	18.0	27.40	53.0	83.0	53.0	1.47	36.0
<b>23.00</b>	30.0	53.0	30.0	1.33	22.0	27.60	61.0	83.0	61.0	1.87	33.0
23.20	42.0	62.0	42.0	2.07	20.0	27.80	38.0	66.0	38.0	1.40	27.0
23.40	34.0	65.0	34.0	1.60	21.0	<b>28.00</b>	71.0	92.0	71.0	0.93	76.0
23.60	32.0	56.0	32.0	1.47	22.0	28.20	56.0	70.0	56.0	1.67	34.0
23.80	29.0	51.0	29.0	1.60	18.0	28.40	39.0	64.0	39.0	1.73	22.0
<b>24.00</b>	27.0	51.0	27.0	1.67	16.0	28.60	34.0	60.0	34.0	1.20	28.0
24.20	26.0	51.0	26.0	1.33	19.0	28.80	44.0	62.0	44.0	2.13	21.0
24.40	38.0	58.0	38.0	1.60	24.0	<b>29.00</b>	54.0	86.0	54.0	1.60	34.0
24.60	33.0	57.0	33.0	1.33	25.0	29.20	61.0	85.0	61.0	-----	----

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

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

**CPT 10**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO  
- note :

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.60 m da quota inizio  
- pagina : 1

Prof. m	Letture di campagna		qc kg/cm <sup>2</sup>	fs	qc/fs	Prof. m	Letture di campagna		qc kg/cm <sup>2</sup>	fs	qc/fs
	punta	laterale					punta	laterale			
0.20	----	----	--	0.80	----	10.20	10.0	16.0	10.0	0.60	17.0
0.40	14.0	26.0	14.0	1.13	12.0	10.40	10.0	19.0	10.0	5.73	2.0
0.60	15.0	32.0	15.0	0.73	20.0	10.60	118.0	204.0	118.0	1.20	98.0
0.80	8.0	19.0	8.0	0.80	10.0	10.80	98.0	116.0	98.0	0.80	122.0
<b>1.00</b>	8.0	20.0	8.0	0.67	12.0	<b>11.00</b>	86.0	98.0	86.0	1.27	68.0
1.20	10.0	20.0	10.0	0.87	12.0	11.20	75.0	94.0	75.0	4.07	18.0
1.40	13.0	26.0	13.0	1.07	12.0	11.40	223.0	284.0	223.0	1.53	145.0
1.60	12.0	28.0	12.0	0.87	14.0	11.60	216.0	239.0	216.0	3.47	62.0
1.80	13.0	26.0	13.0	1.00	13.0	11.80	116.0	168.0	116.0	2.87	40.0
<b>2.00</b>	16.0	31.0	16.0	1.13	14.0	<b>12.00</b>	16.0	59.0	16.0	0.73	22.0
2.20	21.0	38.0	21.0	1.00	21.0	12.20	15.0	26.0	15.0	0.33	45.0
2.40	21.0	36.0	21.0	0.67	31.0	12.40	16.0	21.0	16.0	1.40	11.0
2.60	30.0	40.0	30.0	0.33	90.0	12.60	38.0	59.0	38.0	1.00	38.0
2.80	45.0	50.0	45.0	0.87	52.0	12.80	89.0	104.0	89.0	0.53	167.0
<b>3.00</b>	46.0	59.0	46.0	1.93	24.0	<b>13.00</b>	79.0	87.0	79.0	1.00	79.0
3.20	36.0	65.0	36.0	2.07	17.0	13.20	31.0	46.0	31.0	1.00	31.0
3.40	30.0	61.0	30.0	1.87	16.0	13.40	22.0	37.0	22.0	1.13	19.0
3.60	24.0	52.0	24.0	1.40	17.0	13.60	20.0	37.0	20.0	1.00	20.0
3.80	30.0	51.0	30.0	0.47	64.0	13.80	35.0	50.0	35.0	1.00	35.0
<b>4.00</b>	29.0	36.0	29.0	1.60	18.0	<b>14.00</b>	36.0	51.0	36.0	0.60	60.0
4.20	26.0	50.0	26.0	1.60	16.0	14.20	40.0	49.0	40.0	1.13	35.0
4.40	28.0	52.0	28.0	1.40	20.0	14.40	24.0	41.0	24.0	1.67	14.0
4.60	30.0	51.0	30.0	1.47	20.0	14.60	23.0	48.0	23.0	1.87	12.0
4.80	22.0	44.0	22.0	1.47	15.0	14.80	19.0	47.0	19.0	0.93	20.0
<b>5.00</b>	26.0	48.0	26.0	1.20	22.0	<b>15.00</b>	18.0	32.0	18.0	1.27	14.0
5.20	38.0	56.0	38.0	1.87	20.0	15.20	16.0	35.0	16.0	0.73	22.0
5.40	28.0	56.0	28.0	1.20	23.0	15.40	17.0	28.0	17.0	1.80	9.0
5.60	29.0	47.0	29.0	1.33	22.0	15.60	21.0	48.0	21.0	3.20	7.0
5.80	30.0	50.0	30.0	1.20	25.0	15.80	21.0	69.0	21.0	0.93	22.0
<b>6.00</b>	36.0	54.0	36.0	1.73	21.0	<b>16.00</b>	25.0	39.0	25.0	1.13	22.0
6.20	30.0	56.0	30.0	1.60	19.0	16.20	29.0	46.0	29.0	1.80	16.0
6.40	29.0	53.0	29.0	1.60	18.0	16.40	26.0	53.0	26.0	1.73	15.0
6.60	28.0	52.0	28.0	1.60	17.0	16.60	34.0	60.0	34.0	1.53	22.0
6.80	26.0	50.0	26.0	1.53	17.0	16.80	21.0	44.0	21.0	1.20	17.0
<b>7.00</b>	31.0	54.0	31.0	1.20	26.0	<b>17.00</b>	20.0	38.0	20.0	0.27	75.0
7.20	38.0	56.0	38.0	1.20	32.0	17.20	17.0	21.0	17.0	0.87	20.0
7.40	38.0	56.0	38.0	1.67	23.0	17.40	18.0	31.0	18.0	1.40	13.0
7.60	28.0	53.0	28.0	0.73	38.0	17.60	41.0	62.0	41.0	1.67	25.0
7.80	48.0	59.0	48.0	1.47	33.0	17.80	53.0	78.0	53.0	1.20	44.0
<b>8.00</b>	28.0	50.0	28.0	1.40	20.0	<b>18.00</b>	37.0	55.0	37.0	1.60	23.0
8.20	28.0	49.0	28.0	1.40	20.0	18.20	21.0	45.0	21.0	0.80	26.0
8.40	29.0	50.0	29.0	1.60	18.0	18.40	19.0	31.0	19.0	1.27	15.0
8.60	28.0	52.0	28.0	1.33	21.0	18.60	20.0	39.0	20.0	0.93	21.0
8.80	13.0	33.0	13.0	0.80	16.0	18.80	33.0	47.0	33.0	1.40	24.0
<b>9.00</b>	11.0	23.0	11.0	0.60	18.0	<b>19.00</b>	36.0	57.0	36.0	1.40	26.0
9.20	11.0	20.0	11.0	0.47	24.0	19.20	40.0	61.0	40.0	1.93	21.0
9.40	13.0	20.0	13.0	0.60	22.0	19.40	28.0	57.0	28.0	1.20	23.0
9.60	8.0	17.0	8.0	0.47	17.0	19.60	27.0	45.0	27.0	1.80	15.0
9.80	14.0	21.0	14.0	0.40	35.0	19.80	37.0	64.0	37.0	2.07	18.0
<b>10.00</b>	9.0	15.0	9.0	0.40	22.0	<b>20.00</b>	104.0	135.0	104.0	1.67	62.0

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



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

**CPT 10**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO  
- note :

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.60 m da quota inizio  
- pagina : 2

Prof. m	Letture di campagna		qc kg/cm <sup>2</sup>	fs	qc/fs	Prof. m	Letture di campagna		qc kg/cm <sup>2</sup>	fs	qc/fs
	punta	laterale					punta	laterale			
20.20	63.0	88.0	63.0	2.27	28.0	25.20	27.0	52.0	27.0	1.53	18.0
20.40	85.0	119.0	85.0	1.60	53.0	25.40	25.0	48.0	25.0	1.20	21.0
20.60	77.0	101.0	77.0	2.87	27.0	25.60	32.0	50.0	32.0	1.00	32.0
20.80	103.0	146.0	103.0	2.27	45.0	25.80	30.0	45.0	30.0	1.33	22.0
<b>21.00</b>	285.0	319.0	285.0	8.80	32.0	<b>26.00</b>	33.0	53.0	33.0	1.20	27.0
21.20	448.0	580.0	448.0	5.13	87.0	26.20	28.0	46.0	28.0	1.40	20.0
21.40	431.0	508.0	431.0	3.20	135.0	26.40	61.0	82.0	61.0	1.47	42.0
21.60	149.0	197.0	149.0	1.13	131.0	26.60	34.0	56.0	34.0	2.20	15.0
21.80	289.0	306.0	289.0	3.20	90.0	26.80	50.0	83.0	50.0	3.27	15.0
<b>22.00</b>	101.0	149.0	101.0	4.07	25.0	<b>27.00</b>	89.0	138.0	89.0	1.47	61.0
22.20	36.0	97.0	36.0	1.40	26.0	27.20	27.0	49.0	27.0	1.27	21.0
22.40	35.0	56.0	35.0	1.00	35.0	27.40	32.0	51.0	32.0	1.07	30.0
22.60	20.0	35.0	20.0	1.07	19.0	27.60	27.0	43.0	27.0	1.00	27.0
22.80	26.0	42.0	26.0	1.47	18.0	27.80	22.0	37.0	22.0	0.73	30.0
<b>23.00</b>	33.0	55.0	33.0	1.67	20.0	<b>28.00</b>	35.0	46.0	35.0	1.20	29.0
23.20	38.0	63.0	38.0	1.60	24.0	28.20	43.0	61.0	43.0	1.67	26.0
23.40	38.0	62.0	38.0	2.07	18.0	28.40	50.0	75.0	50.0	1.80	28.0
23.60	34.0	65.0	34.0	1.60	21.0	28.60	58.0	85.0	58.0	1.87	31.0
23.80	29.0	53.0	29.0	1.47	20.0	28.80	63.0	91.0	63.0	3.33	19.0
<b>24.00</b>	23.0	45.0	23.0	1.67	14.0	<b>29.00</b>	63.0	113.0	63.0	2.67	24.0
24.20	32.0	57.0	32.0	0.80	40.0	29.20	50.0	90.0	50.0	2.13	23.0
24.40	30.0	42.0	30.0	1.13	26.0	29.40	45.0	77.0	45.0	1.73	26.0
24.60	26.0	43.0	26.0	1.27	21.0	29.60	33.0	59.0	33.0	1.73	19.0
24.80	30.0	49.0	30.0	1.47	20.0	29.80	28.0	54.0	28.0	-----	----

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

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

**CPT 11**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO  
- note :

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : Falda non rilevata  
- pagina : 1

Prof. m	Letture di campagna		qc	fs	qc/fs	Prof. m	Letture di campagna		qc	fs	qc/fs
	punta	laterale	kg/cm <sup>2</sup>				punta	laterale	kg/cm <sup>2</sup>		
0.20	----	----	--	0.53	----	10.20	279.0	289.0	279.0	0.67	418.0
0.40	8.0	16.0	8.0	0.33	24.0	10.40	299.0	309.0	299.0	0.73	408.0
0.60	4.0	9.0	4.0	0.47	9.0	10.60	213.0	224.0	213.0	3.00	71.0
0.80	6.0	13.0	6.0	0.33	18.0	10.80	30.0	75.0	30.0	1.33	22.0
<b>1.00</b>	5.0	10.0	5.0	0.40	12.0	<b>11.00</b>	18.0	38.0	18.0	2.27	8.0
1.20	6.0	12.0	6.0	0.33	18.0	11.20	36.0	70.0	36.0	0.73	49.0
1.40	9.0	14.0	9.0	0.40	22.0	11.40	15.0	26.0	15.0	0.60	25.0
1.60	8.0	14.0	8.0	0.40	20.0	11.60	10.0	19.0	10.0	3.47	3.0
1.80	8.0	14.0	8.0	0.40	20.0	11.80	101.0	153.0	101.0	2.33	43.0
<b>2.00</b>	9.0	15.0	9.0	0.53	17.0	<b>12.00</b>	114.0	149.0	114.0	1.67	68.0
2.20	9.0	17.0	9.0	0.47	19.0	12.20	141.0	166.0	141.0	3.67	38.0
2.40	10.0	17.0	10.0	0.53	19.0	12.40	111.0	166.0	111.0	0.93	119.0
2.60	9.0	17.0	9.0	0.47	19.0	12.60	219.0	233.0	219.0	1.13	193.0
2.80	11.0	18.0	11.0	0.53	21.0	12.80	159.0	176.0	159.0	0.53	298.0
<b>3.00</b>	14.0	22.0	14.0	0.67	21.0	<b>13.00</b>	123.0	131.0	123.0	3.53	35.0
3.20	13.0	23.0	13.0	0.67	19.0	13.20	34.0	87.0	34.0	1.20	28.0
3.40	11.0	21.0	11.0	0.67	16.0	13.40	38.0	56.0	38.0	1.67	23.0
3.60	11.0	21.0	11.0	0.60	18.0	13.60	36.0	61.0	36.0	0.60	60.0
3.80	11.0	20.0	11.0	0.67	16.0	13.80	72.0	81.0	72.0	1.20	60.0
<b>4.00</b>	9.0	19.0	9.0	0.60	15.0	<b>14.00</b>	88.0	106.0	88.0	2.33	38.0
4.20	9.0	18.0	9.0	0.60	15.0	14.20	27.0	62.0	27.0	0.60	45.0
4.40	12.0	21.0	12.0	0.60	20.0	14.40	199.0	208.0	199.0	1.00	199.0
4.60	12.0	21.0	12.0	0.53	22.0	14.60	243.0	258.0	243.0	0.80	304.0
4.80	12.0	20.0	12.0	0.53	22.0	14.80	295.0	307.0	295.0	3.67	80.0
<b>5.00</b>	11.0	19.0	11.0	0.53	21.0	<b>15.00</b>	351.0	406.0	351.0	7.20	49.0
5.20	8.0	16.0	8.0	0.47	17.0	15.20	394.0	502.0	394.0	6.00	66.0
5.40	7.0	14.0	7.0	0.47	15.0	15.40	421.0	511.0	421.0	7.07	60.0
5.60	8.0	15.0	8.0	0.53	15.0	15.60	406.0	512.0	406.0	2.73	149.0
5.80	4.0	12.0	4.0	0.33	12.0	15.80	384.0	425.0	384.0	1.33	288.0
<b>6.00</b>	5.0	10.0	5.0	0.53	9.0	<b>16.00</b>	44.0	64.0	44.0	1.60	27.0
6.20	87.0	95.0	87.0	2.60	33.0	16.20	14.0	38.0	14.0	0.27	52.0
6.40	96.0	135.0	96.0	0.80	120.0	16.40	19.0	23.0	19.0	0.80	24.0
6.60	21.0	33.0	21.0	1.47	14.0	16.60	14.0	26.0	14.0	0.47	30.0
6.80	19.0	41.0	19.0	0.80	24.0	16.80	25.0	32.0	25.0	1.07	23.0
<b>7.00</b>	32.0	44.0	32.0	0.73	44.0	<b>17.00</b>	18.0	34.0	18.0	0.60	30.0
7.20	33.0	44.0	33.0	1.07	31.0	17.20	19.0	28.0	19.0	0.60	32.0
7.40	25.0	41.0	25.0	0.93	27.0	17.40	19.0	28.0	19.0	0.47	41.0
7.60	21.0	35.0	21.0	1.13	19.0	17.60	18.0	25.0	18.0	0.80	22.0
7.80	13.0	30.0	13.0	0.80	16.0	17.80	15.0	27.0	15.0	0.87	17.0
<b>8.00</b>	13.0	25.0	13.0	0.80	16.0	<b>18.00</b>	16.0	29.0	16.0	0.87	18.0
8.20	10.0	22.0	10.0	0.60	17.0	18.20	17.0	30.0	17.0	0.73	23.0
8.40	10.0	19.0	10.0	0.53	19.0	18.40	23.0	34.0	23.0	1.47	16.0
8.60	9.0	17.0	9.0	0.60	15.0	18.60	27.0	49.0	27.0	2.27	12.0
8.80	10.0	19.0	10.0	0.47	21.0	18.80	124.0	158.0	124.0	0.80	155.0
<b>9.00</b>	12.0	19.0	12.0	0.73	16.0	<b>19.00</b>	111.0	123.0	111.0	2.20	50.0
9.20	11.0	22.0	11.0	0.67	16.0	19.20	157.0	190.0	157.0	5.53	28.0
9.40	8.0	18.0	8.0	3.73	2.0	19.40	44.0	127.0	44.0	2.07	21.0
9.60	104.0	160.0	104.0	0.87	120.0	19.60	31.0	62.0	31.0	0.67	46.0
9.80	205.0	218.0	205.0	2.13	96.0	19.80	43.0	53.0	43.0	1.20	36.0
<b>10.00</b>	209.0	241.0	209.0	0.67	313.0	<b>20.00</b>	23.0	41.0	23.0	1.67	14.0

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

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

**CPT 11**

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO  
- note :

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : Falda non rilevata  
- pagina : 2

Prof. m	Letture di campagna		qc	fs	qc/fs	Prof. m	Letture di campagna		qc	fs	qc/fs
	punta	laterale	kg/cm <sup>2</sup>				punta	laterale	kg/cm <sup>2</sup>		
20.20	20.0	45.0	20.0	0.73	27.0	25.20	36.0	76.0	36.0	2.13	17.0
20.40	27.0	38.0	27.0	1.60	17.0	25.40	26.0	58.0	26.0	1.20	22.0
20.60	34.0	58.0	34.0	1.93	18.0	25.60	51.0	69.0	51.0	1.53	33.0
20.80	37.0	66.0	37.0	2.13	17.0	25.80	66.0	89.0	66.0	4.13	16.0
<b>21.00</b>	38.0	70.0	38.0	2.07	18.0	<b>26.00</b>	50.0	112.0	50.0	2.60	19.0
21.20	36.0	67.0	36.0	1.80	20.0	26.20	60.0	99.0	60.0	3.27	18.0
21.40	31.0	58.0	31.0	2.13	15.0	26.40	39.0	88.0	39.0	2.27	17.0
21.60	31.0	63.0	31.0	1.20	26.0	26.60	98.0	132.0	98.0	5.40	18.0
21.80	39.0	57.0	39.0	1.87	21.0	26.80	283.0	364.0	283.0	5.73	49.0
<b>22.00</b>	26.0	54.0	26.0	1.07	24.0	<b>27.00</b>	335.0	421.0	335.0	2.93	114.0
22.20	42.0	58.0	42.0	1.67	25.0	27.20	101.0	145.0	101.0	3.33	30.0
22.40	26.0	51.0	26.0	1.07	24.0	27.40	40.0	90.0	40.0	0.87	46.0
22.60	31.0	47.0	31.0	2.20	14.0	27.60	71.0	84.0	71.0	2.20	32.0
22.80	161.0	194.0	161.0	4.00	40.0	27.80	38.0	71.0	38.0	1.53	25.0
<b>23.00</b>	51.0	111.0	51.0	2.13	24.0	<b>28.00</b>	41.0	64.0	41.0	1.47	28.0
23.20	59.0	91.0	59.0	2.47	24.0	28.20	41.0	63.0	41.0	1.73	24.0
23.40	56.0	93.0	56.0	3.67	15.0	28.40	26.0	52.0	26.0	3.40	8.0
23.60	41.0	96.0	41.0	2.27	18.0	28.60	68.0	119.0	68.0	4.53	15.0
23.80	49.0	83.0	49.0	2.87	17.0	28.80	63.0	131.0	63.0	2.60	24.0
<b>24.00</b>	48.0	91.0	48.0	1.80	27.0	<b>29.00</b>	134.0	173.0	134.0	0.53	251.0
24.20	46.0	73.0	46.0	1.47	31.0	29.20	118.0	126.0	118.0	5.40	22.0
24.40	40.0	62.0	40.0	2.60	15.0	29.40	335.0	416.0	335.0	5.67	59.0
24.60	21.0	60.0	21.0	1.80	12.0	29.60	395.0	480.0	395.0	4.20	94.0
24.80	25.0	52.0	25.0	3.27	8.0	29.80	344.0	407.0	344.0	-----	----
<b>25.00</b>	36.0	85.0	36.0	2.67	13.0						

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

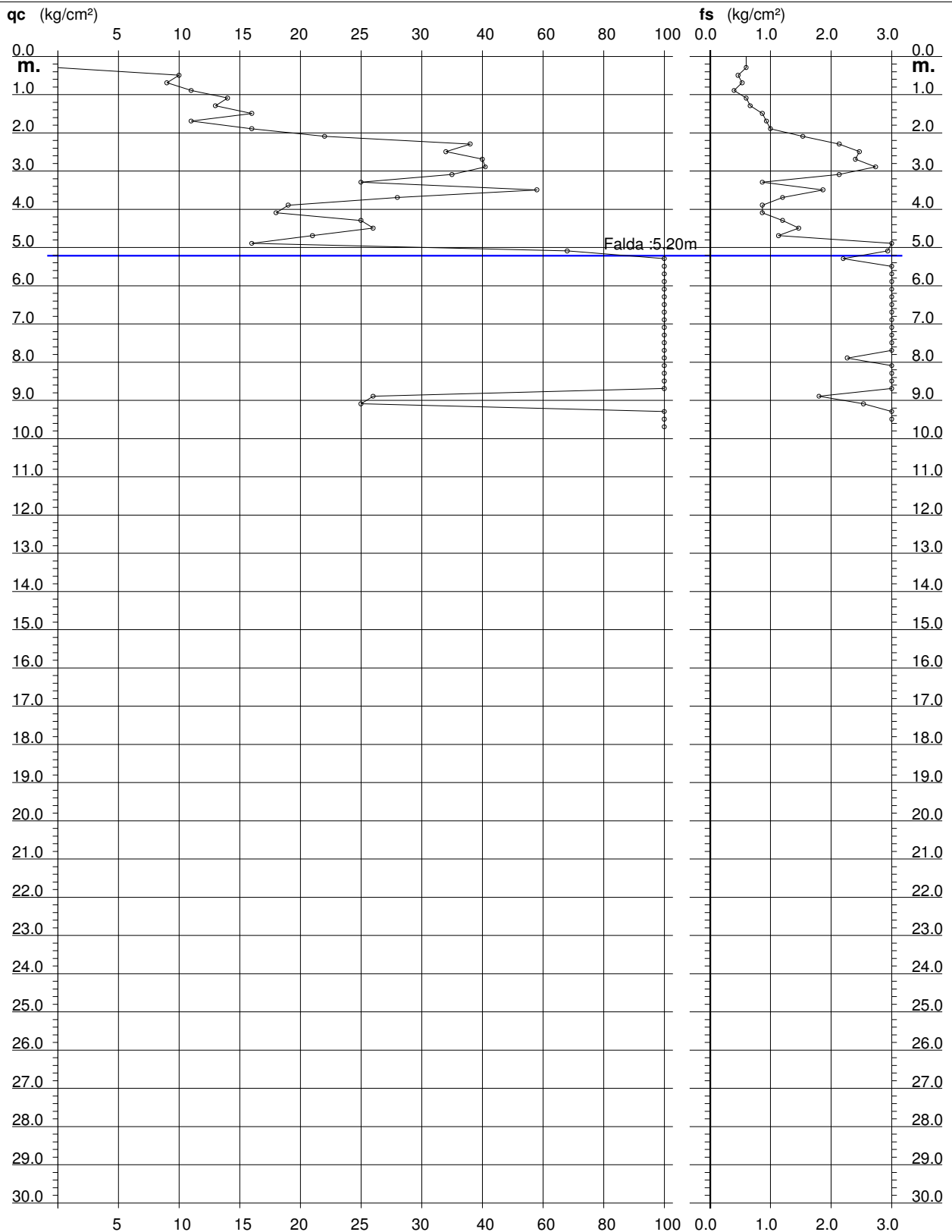
# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

## CPT 1

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : REGGIO EMILIA - PARCO OTTAVI  
- note : Prova non conclusa causa rifiuto qc ± : 700 kg/cm<sup>2</sup>

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 5.20 m da quota inizio  
- scala vert.: 1 : 150



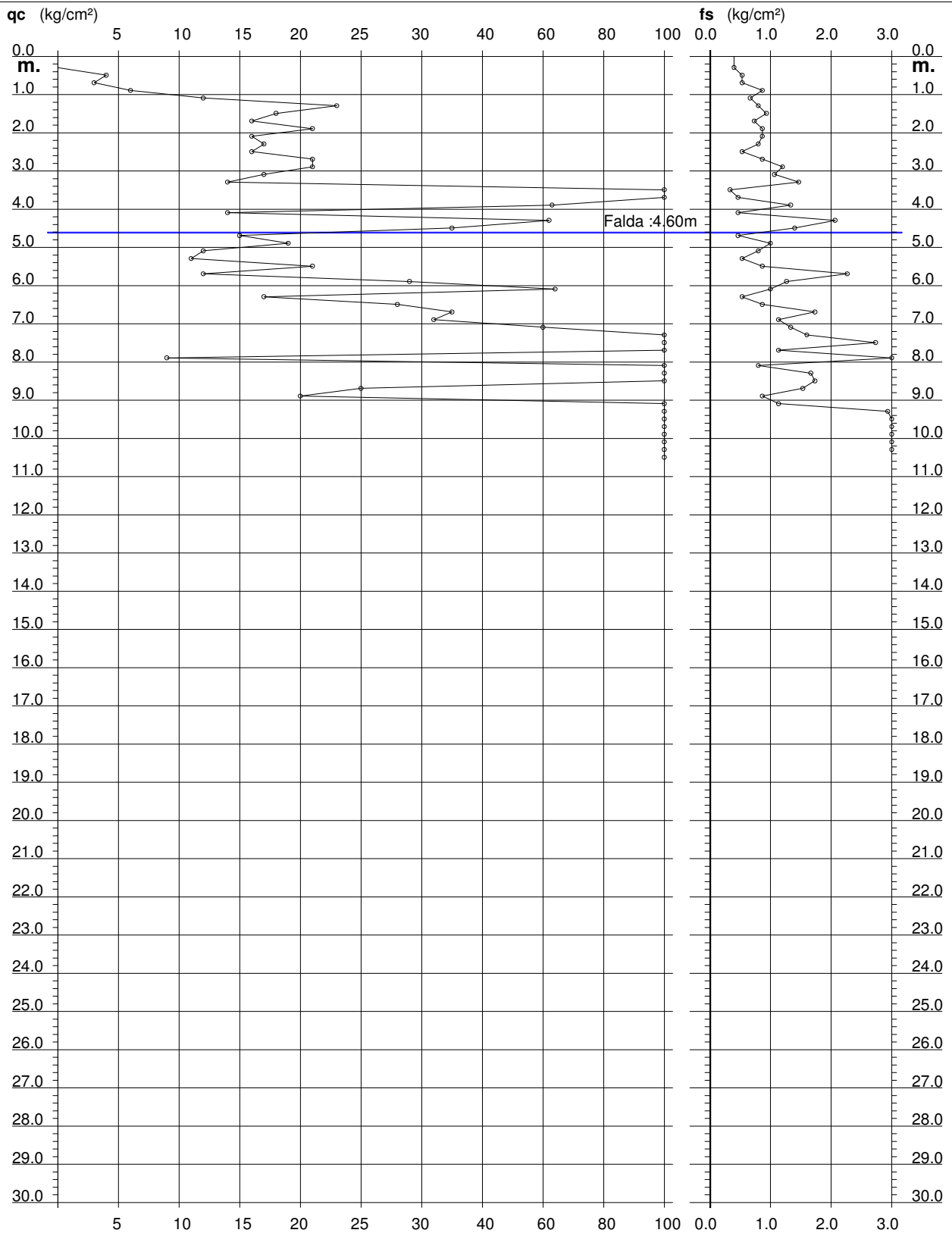
# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

## CPT 2

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : REGGIO EMILIA - PARCO OTTAVI  
- note : Prova non conclusa causa rifiuto qc ± : 600 kg/cm<sup>2</sup>

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 4.60 m da quota inizio  
- scala vert.: 1 : 150



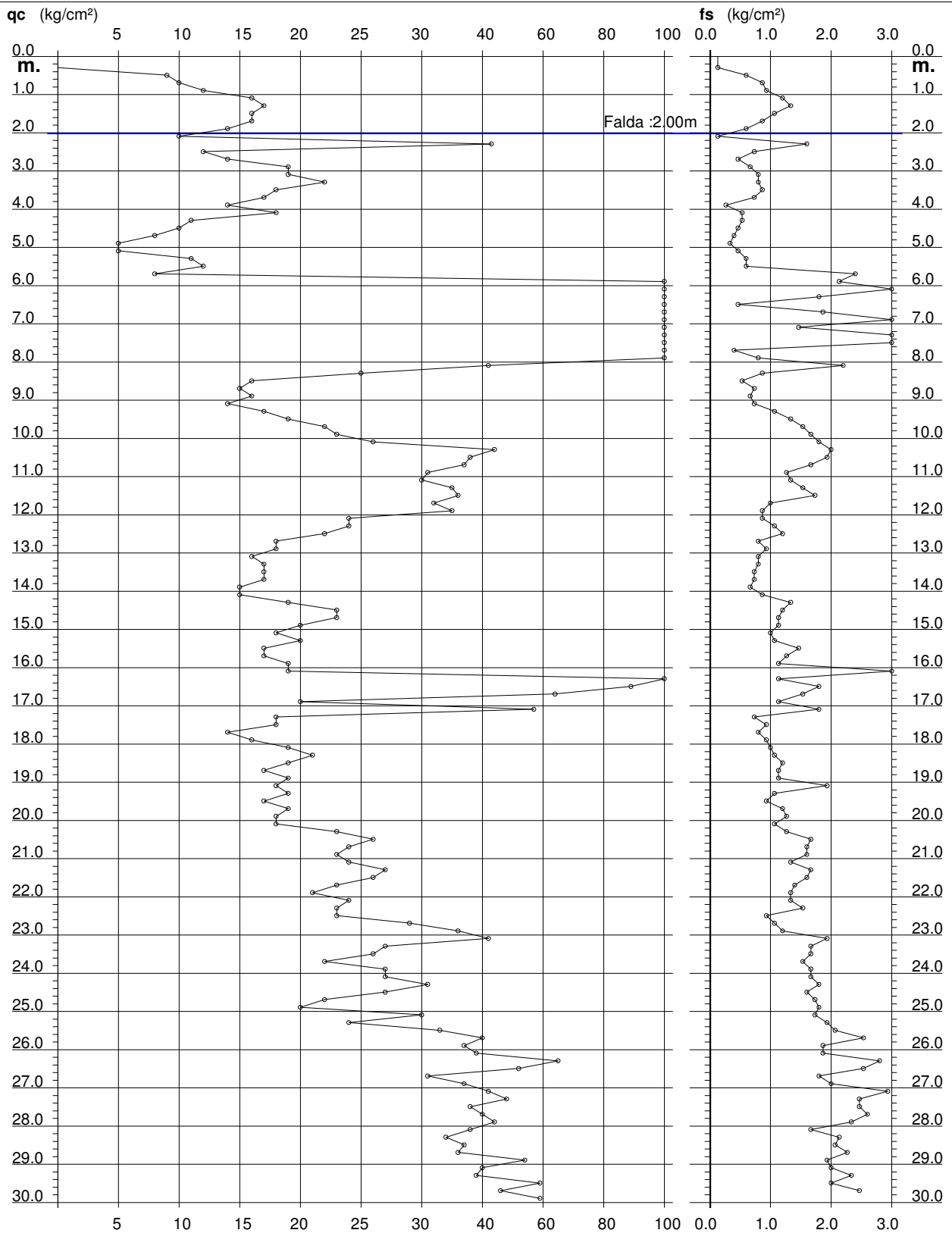
# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

## CPT 3

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : REGGIO EMILIA - PARCO OTTAVI

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 2.00 m da quota inizio  
- scala vert.: 1 : 150



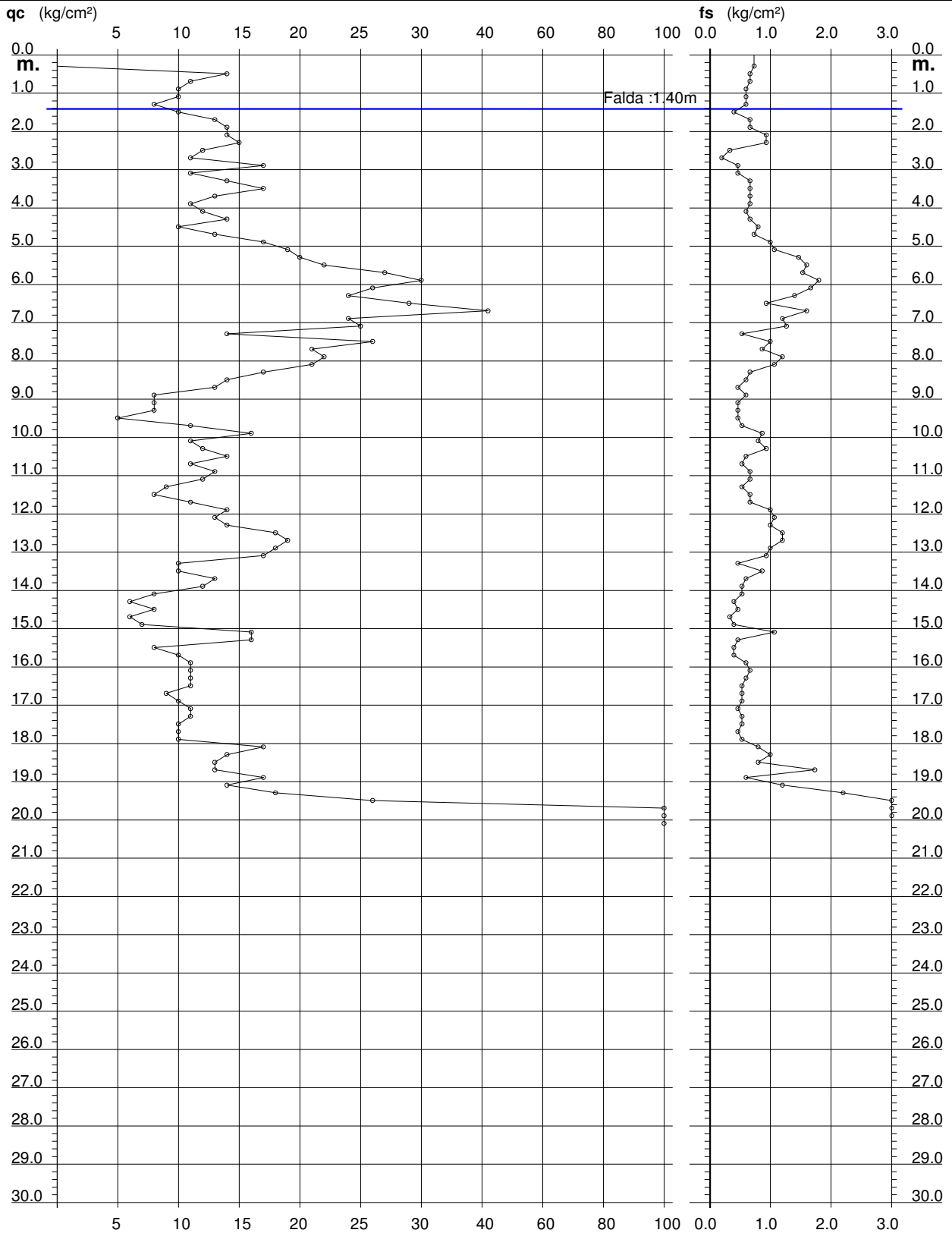
# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

## CPT 4

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : RONCOCESI  
- note : Prova non conclusa causa rifiuto  $q_c \pm : 700 \text{ kg/cm}^2$

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 1.40 m da quota inizio  
- scala vert.: 1 : 150



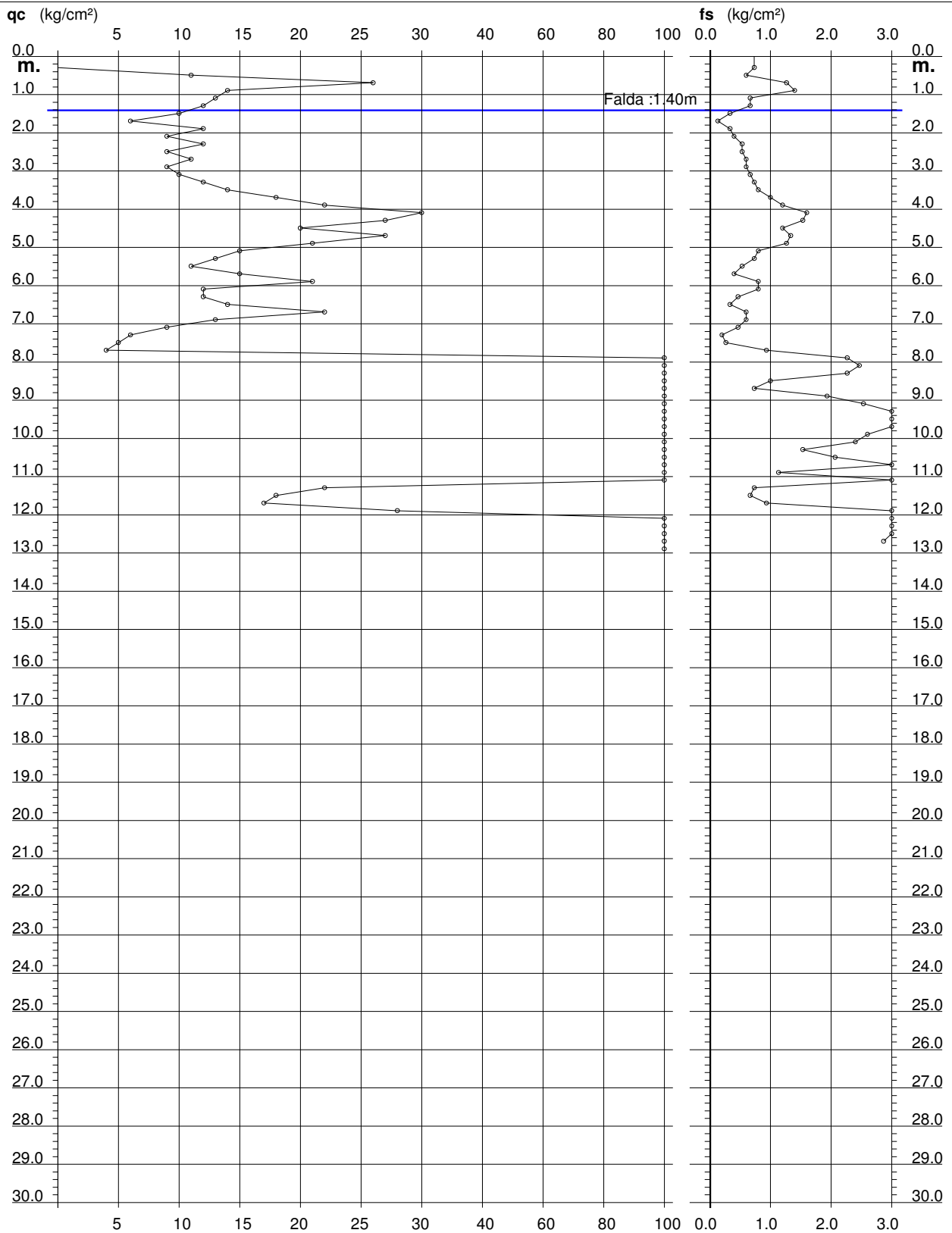
# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

## CPT 5

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : CONSORZIO PARMAREGGIO  
- note : Prova non conclusa causa rifiuto  $q_c \pm : 600 \text{ kg/cm}^2$

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 1.40 m da quota inizio  
- scala vert.: 1 : 150





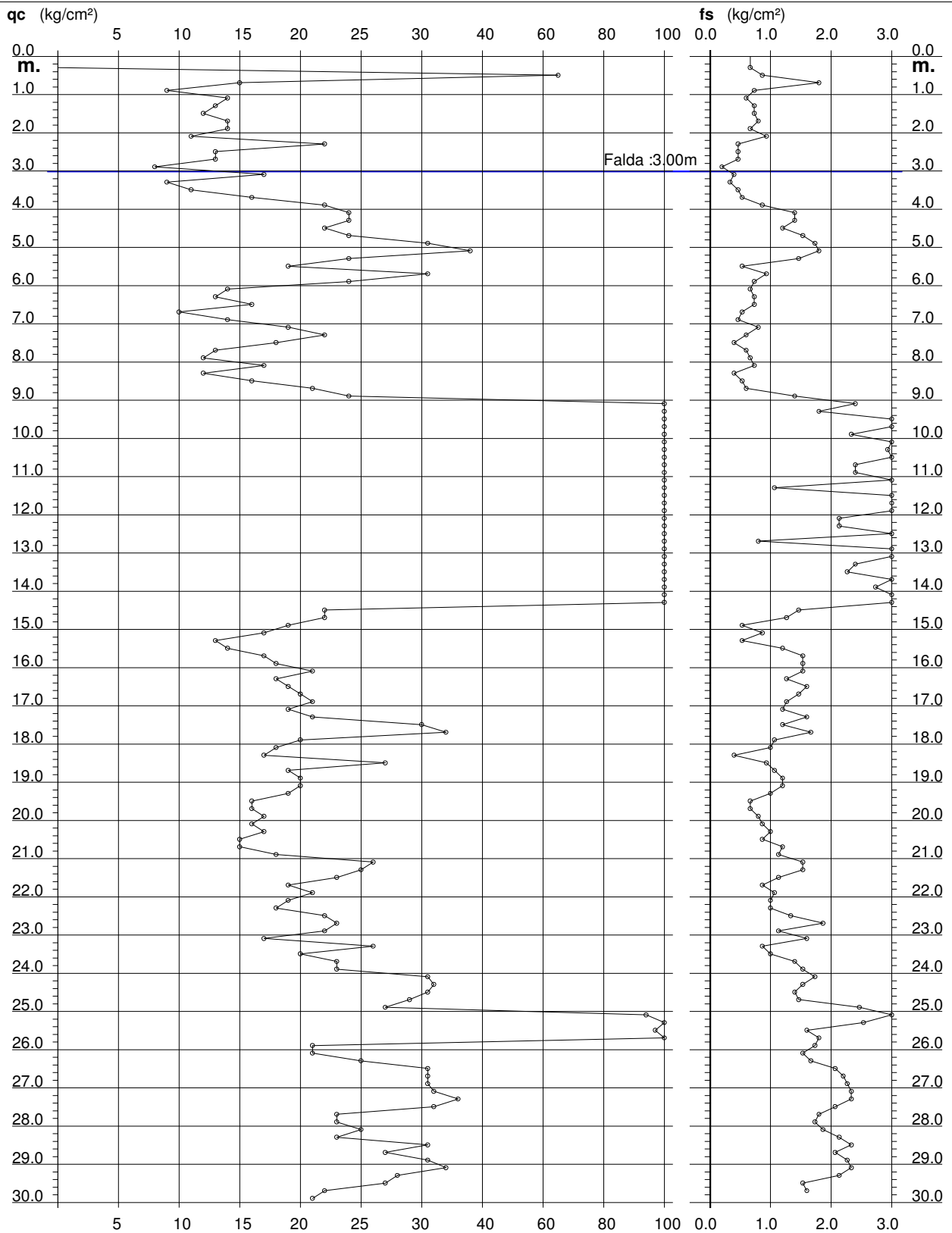
# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

## CPT 6

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : PARROCCHIA

- data : 29/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 3.00 m da quota inizio  
- scala vert.: 1 : 150



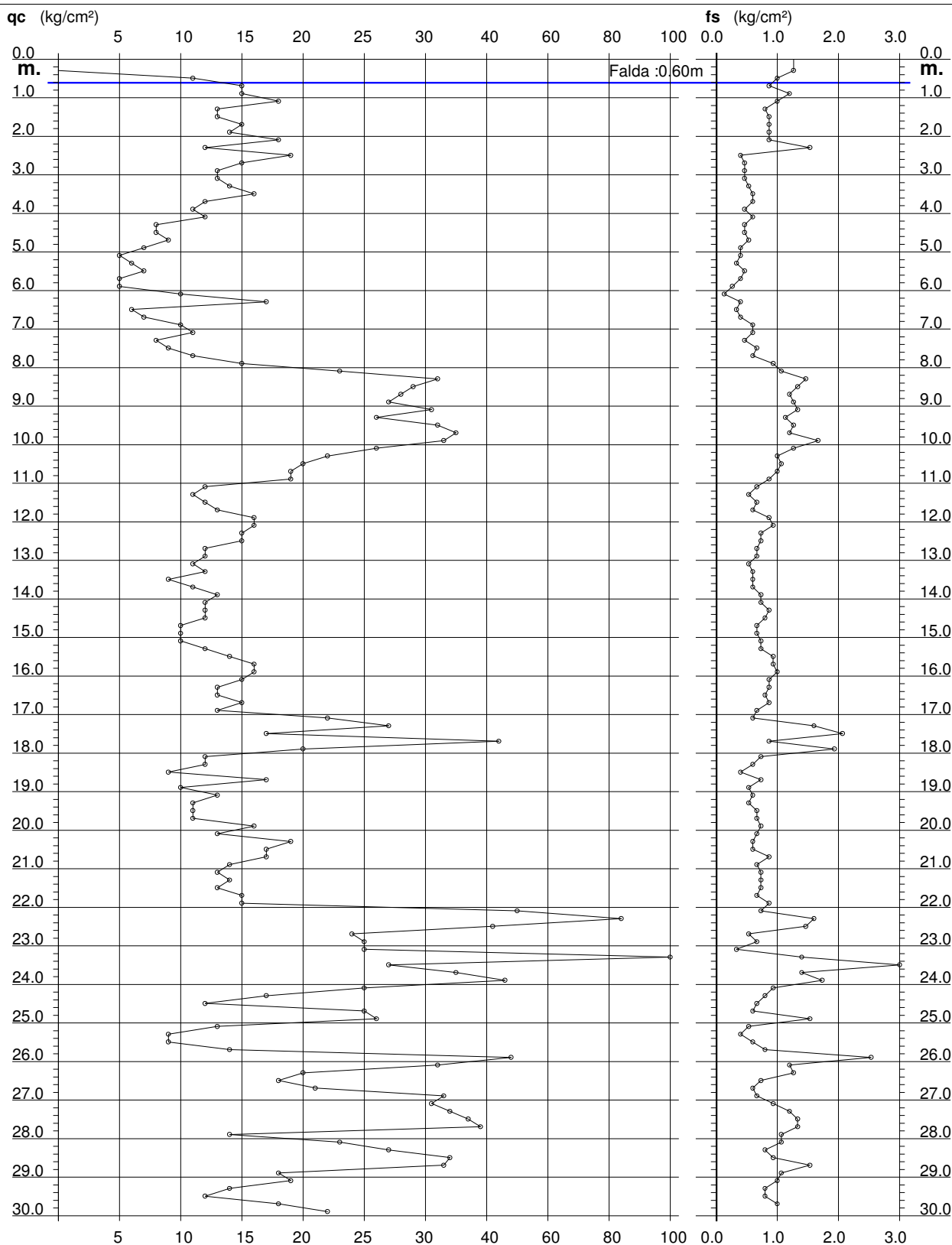
# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

## CPT 7

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : ACQUE CHIARE

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.60 m da quota inizio  
- scala vert.: 1 : 150



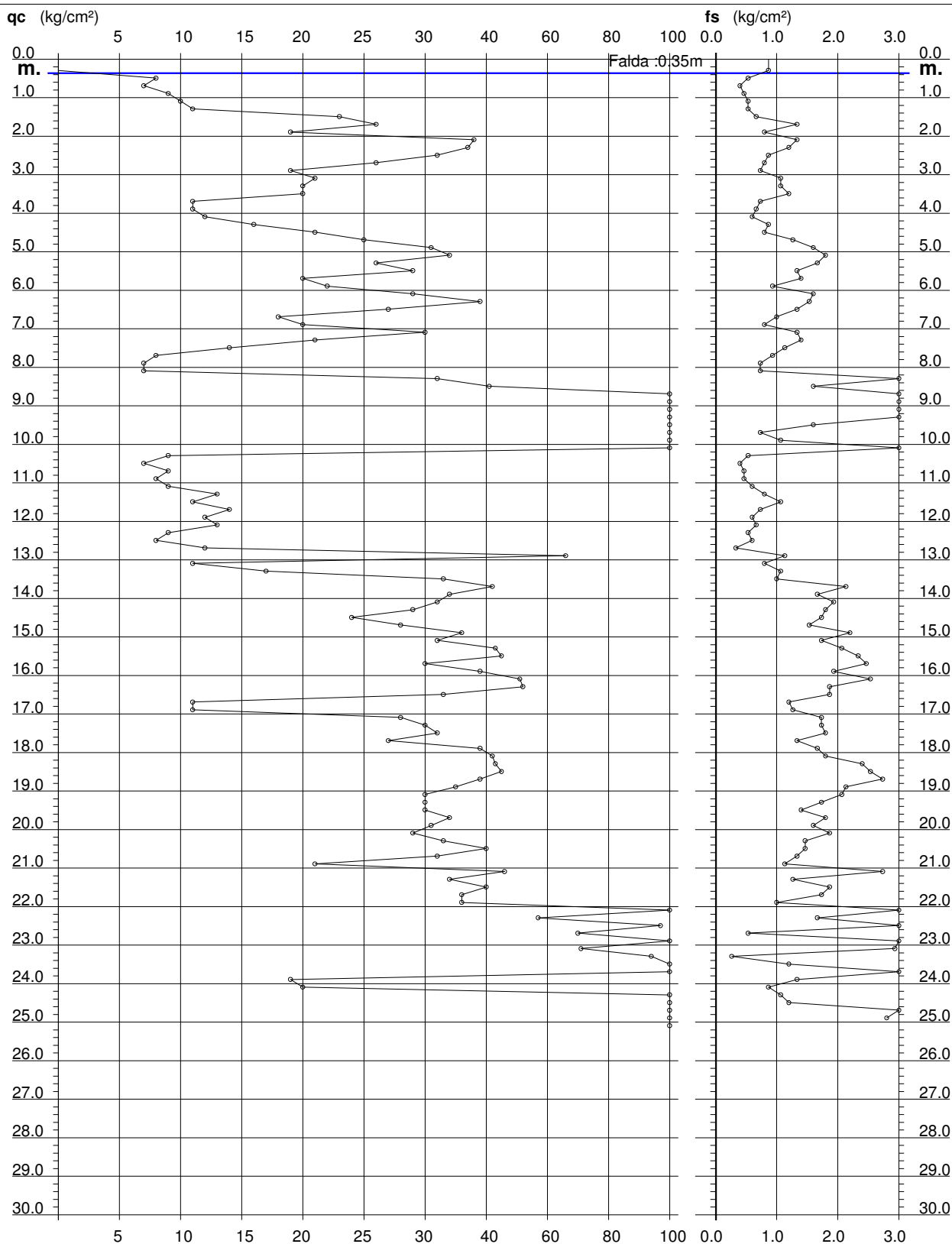
# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

CPT 8

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO  
- note : Prova non conclusa causa rifiuto

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.35 m da quota inizio  
- scala vert.: 1 : 150



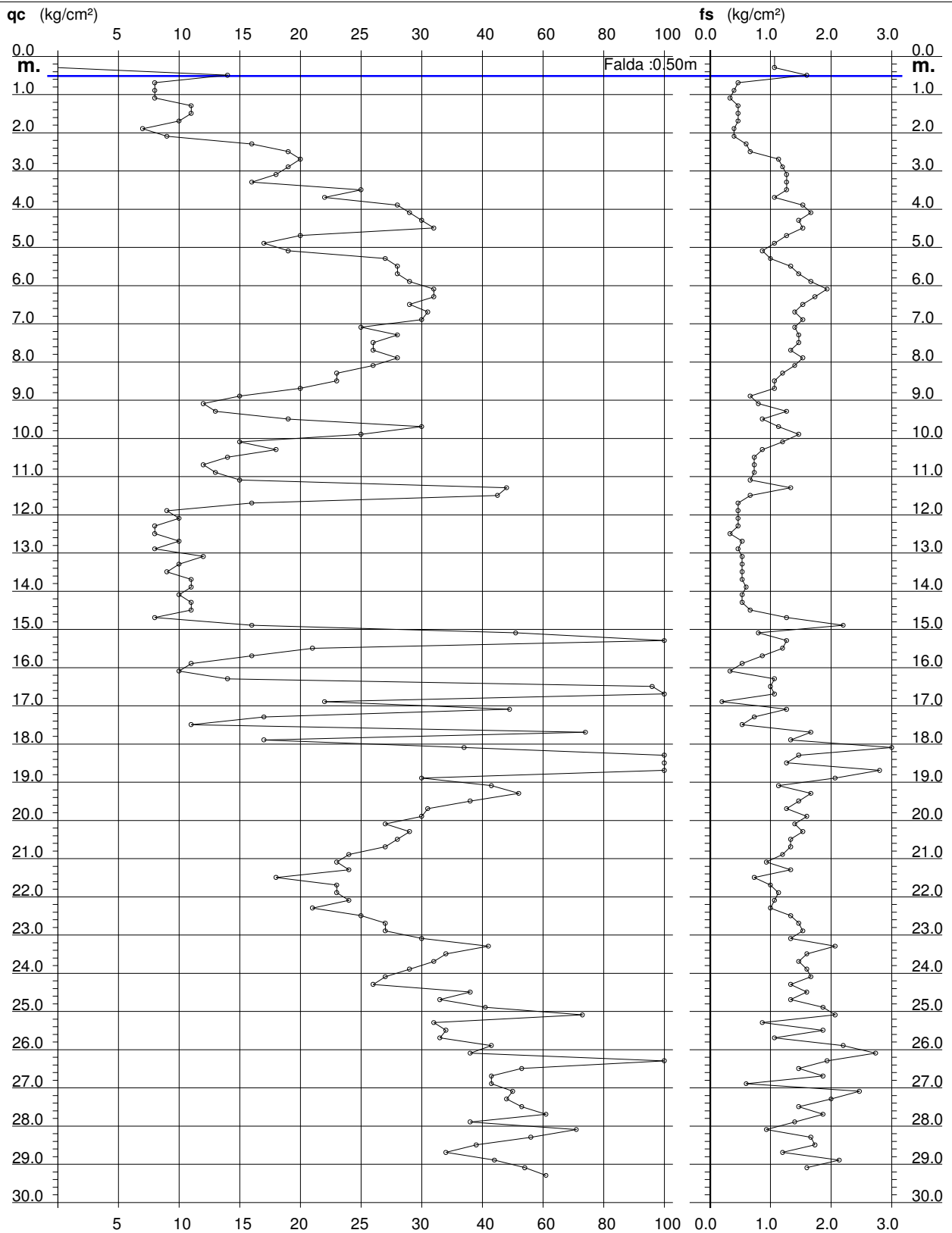
# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

## CPT 9

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.50 m da quota inizio  
- scala vert.: 1 : 150



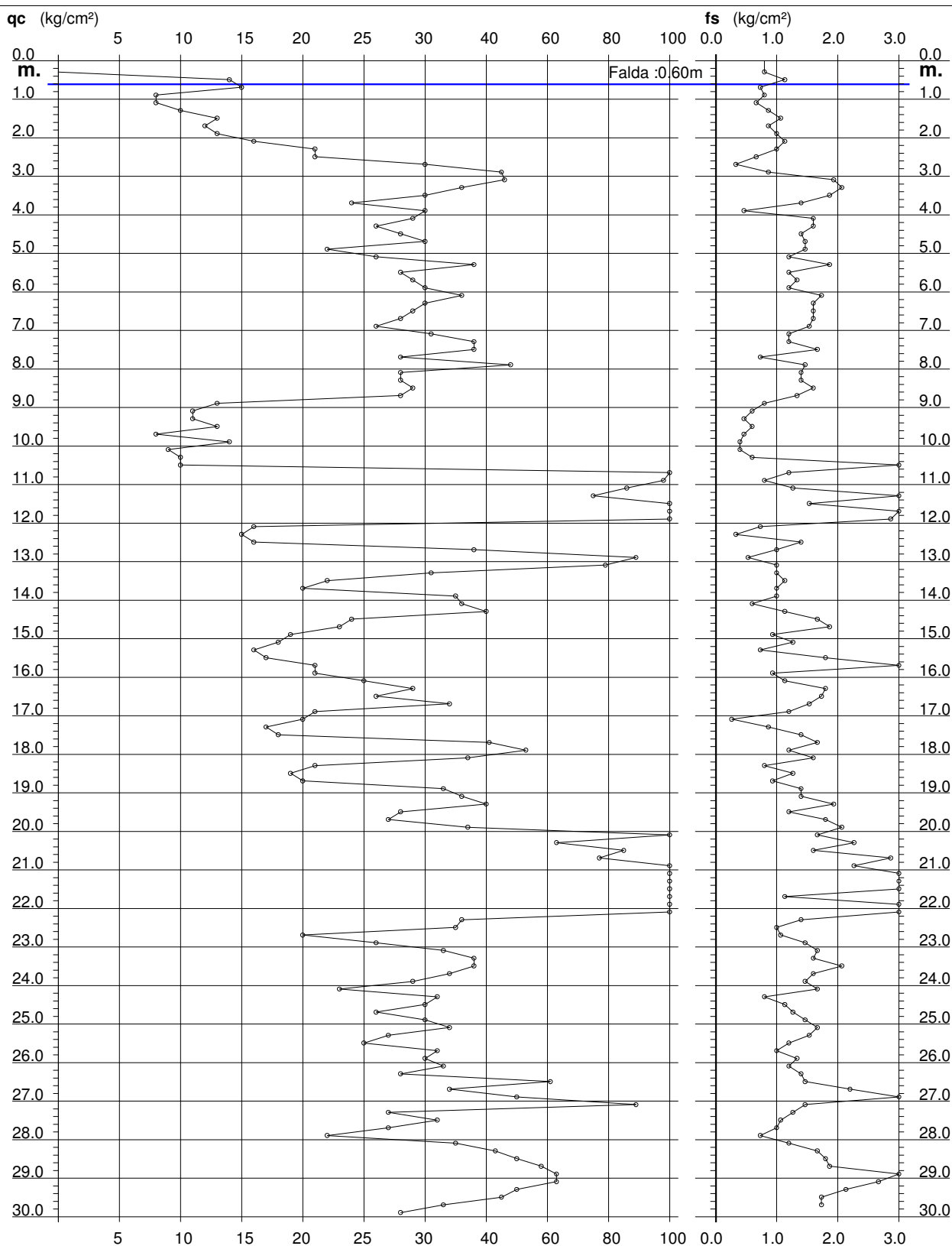
# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

## CPT 10

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : 0.60 m da quota inizio  
- scala vert.: 1 : 150



# PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

## CPT 11

2.01PG05-049

- committente : DOTT. GEOL. S. CASTAGNETTI  
- lavoro : P.S.C. REGGIO EMILIA  
- località : FOGLIANO

- data : 30/03/2010  
- quota inizio : Piano Campagna  
- prof. falda : Falda non rilevata  
- scala vert. : 1 : 150

