



PROTEZIONE CIVILE
 Presidenza del Consiglio dei Ministri
 Dipartimento della Protezione Civile



CONFERENZA DELLE REGIONI E
 DELLE PROVINCE AUTONOME

Attuazione dell'articolo 11 della legge 24 giugno 2009, n.77

MICROZONAZIONE SISMICA

ALLEGATO 13

PROVE CPTU E SCPTU

COMUNE DI PORTOMAGGIORE

LIVELLO 3

Regione Emilia-Romagna

Unione Valli e Delizie

Comuni di Argenta, Ostellato e Portomaggiore



| | | |
|--------------------------------------|---|--------------------------------|
| <p>Regione</p> <p>Emilia-Romagna</p> | <p>Soggetto realizzatore</p> <p>RAGGRUPPAMENTO TEMPORANEO DI PROFESSIONISTI Mandataria</p>  <p>Direzione tecnica Dott. Geol. Carlo Caleffi Dott. Geol. Francesco Cerutti</p> <p>Mandante Dott. Geol. Stefano Castagnetti</p> <p>Collaboratori Dott. Geol. Matteo Baisi Dott. Geol. Marco Baldi</p> | <p>Data</p> <p>Luglio 2017</p> |
|--------------------------------------|---|--------------------------------|



elletipi s.r.l.

Sede operativa ed amm.va: Via Annibale Zucchini, 69 - 44100 FERRARA
Tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 01 PROF. FALDA (m da p.c.): - PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 06/10/16 PROF. PREFORO (m da p.c.): 0.02 LAT. (WGS 84): 44.753140° LONG. (WGS 84): 11.797681°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 48 columns (prof., qc, fs, U, incl. for 4 different tests) and 48 rows of data. Each row contains numerical values for various parameters across four different test profiles.

Lo Sperimentatore:
dott. Luciano Rossi

Il Direttore Settore Prove in Sito:
dott. Massimo Romagnoli



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DATA: 06/10/16 PROF. PROF. (m da p.c.): 0.02 LAT. (WGS 84): 44.753140° LONG. (WGS 84): 11.797681°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 50 columns (prof., qc, fs, U, incl. for 10 different tests) and 100 rows of data. Each row contains numerical values for various parameters across different test profiles.

Lo Sperimentatore:
dott. Luciano Rossi

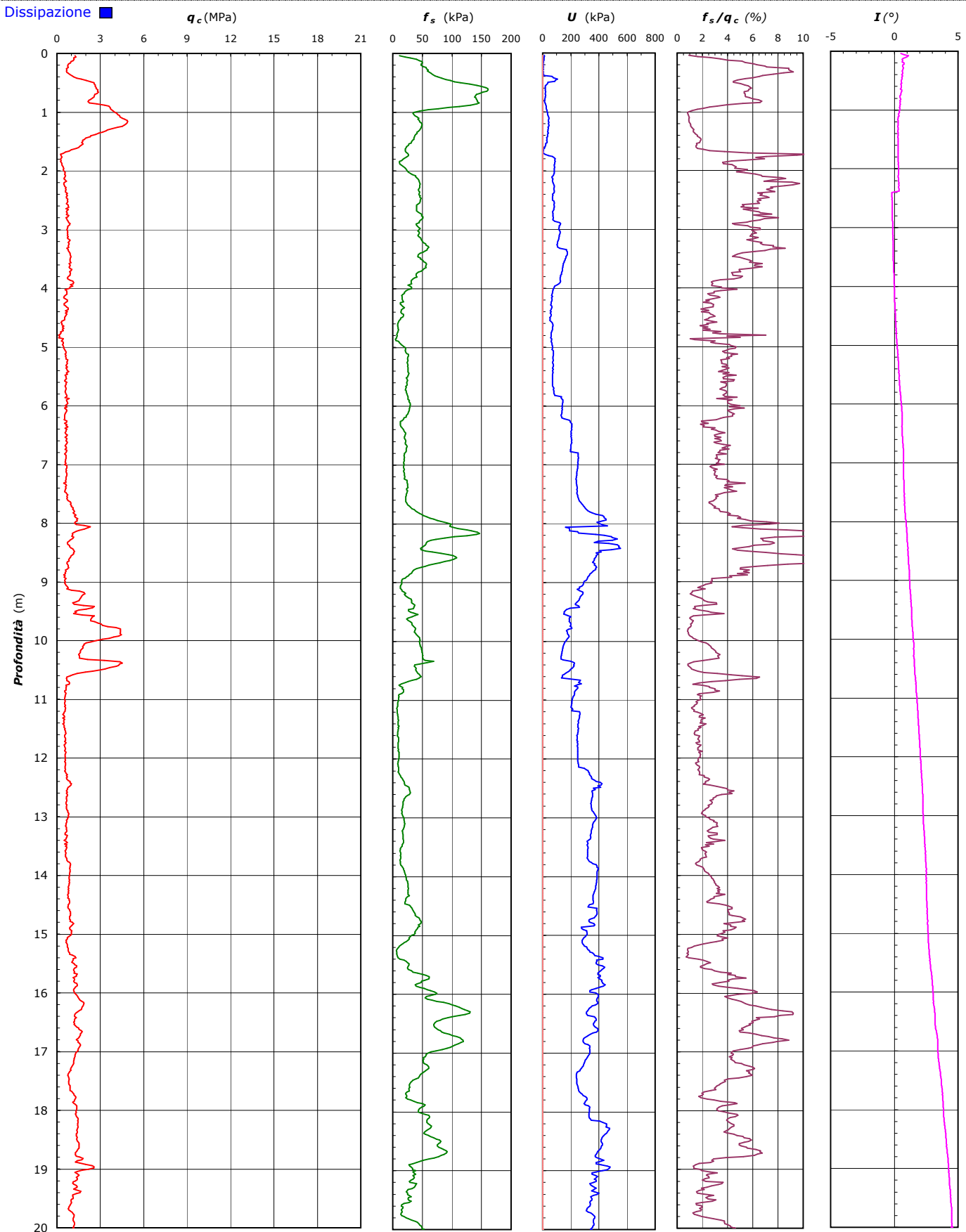
Il Direttore Settore Prove in Sito:
dott. Massimo Romagnoli

COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostitiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 01 PROF. FALDA (m da p.c.): - PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

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COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato



COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma**CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: PO CPTU 01 PROF. FALDA (m da p.c.): - PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]
DATA: 06/10/16 PREFORO (m da p.c.): 0.02 LAT. (WGS 84): 44.753140° LONG. (WGS 84): 11.797681°
COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Via Gambulaga Masi - Gambulaga di Portomaggiore (FE)



NOTE: Utilizzato 1 anello allargatore da inizio prova

Venuta di gas dal foro aperto (non è stato possibile misurare il livello di falda)



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COMMITTENTE: ENGELO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 02 PROF. FALDA (m da p.c.): 1.05 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 06/10/16 PROF. (m da p.c.): 0.02 LAT. (WGS 84): 44.704045° LONG. (WGS 84): 11.817168°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 50 columns (prof. m, qc Mpa, fs kPa, U kPa, incl. gradi) and 50 rows of data points.

Lo Sperimentatore: dott. Luciano Rossi

Il Direttore Settore Prove in Sito: dott. Massimo Romagnoli



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 02 PROF. FALDA (m da p.c.): 1.05 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 06/10/16 PROF. PREFORO (m da p.c.): 0.02 LAT. (WGS 84): 44.704045° LONG. (WGS 84): 11.817168°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 48 columns (prof. m, qc Mpa, fs kPa, U kPa, incl. gradi) and 120 rows of data.

Lo Sperimentatore:
dott. Luciano Rossi

Il Direttore Settore Prove in Sito:
dott. Massimo Romagnoli

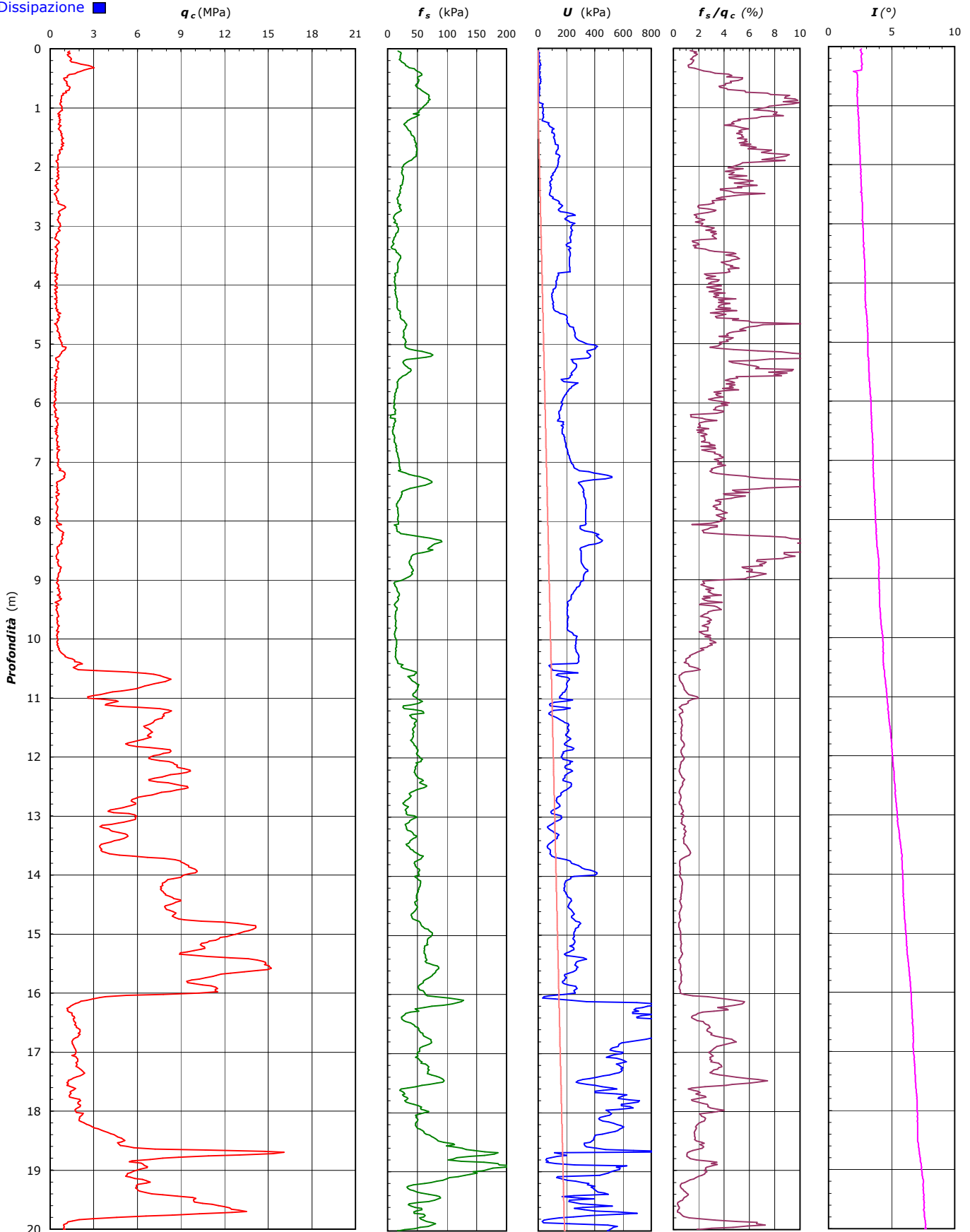
COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostitiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 02 PROF. FALDA (m da p.c.): 1.05 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 06/10/16 PREFORO (m da p.c.): 0.02 LAT. (WGS 84): 44.704045° LONG. (WGS 84): 11.817168°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Dissipazione ■



COMMITTENTE: **ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma****CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: PO CPTU 02 PROF. FALDA (m da p.c.): 1.05 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]
DATA: 06/10/16 PREFORO (m da p.c.): 0.02 LAT. (WGS 84): 44.704045° LONG. (WGS 84): 11.817168°
COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Via Provinciale San Vito - Portomaggiore (FE)



NOTE: Utilizzato 1 anello allargatore da inizio prova



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 03 PROF. FALDA (m da p.c.): 2.80 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 06/10/16 PROF. (m da p.c.): LAT. (WGS 84): 44.683739° LONG. (WGS 84): 11.779188°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

| prof. m | qc kPa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi |
|---------|--------|--------|-------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|
| 0.02 | 0.80 | 9.45 | 28.00 | 0.94 | 2.02 | 1.03 | 36.77 | 262.00 | 0.18 | 4.02 | 0.90 | 44.53 | 57.33 | 0.72 | 6.02 | 0.48 | 27.59 | 172.67 | 1.61 | 8.02 | 6.32 | 50.92 | 133.33 | 1.87 |
| 0.04 | 0.84 | 12.78 | 26.00 | 0.92 | 2.04 | 1.32 | 35.11 | 90.00 | 0.20 | 4.04 | 1.02 | 36.97 | 60.67 | 0.70 | 6.04 | 0.44 | 28.14 | 174.00 | 1.61 | 8.04 | 6.06 | 55.03 | 136.67 | 1.85 |
| 0.06 | 1.55 | 21.55 | 32.67 | 0.81 | 2.06 | 1.25 | 38.33 | 60.67 | 0.19 | 4.06 | 0.92 | 34.53 | 58.67 | 0.71 | 6.06 | 0.47 | 28.70 | 170.67 | 1.64 | 8.06 | 6.03 | 58.47 | 141.33 | 1.85 |
| 0.08 | 3.62 | 30.79 | 52.00 | 1.09 | 2.08 | 1.06 | 40.22 | 46.00 | 0.19 | 4.08 | 0.91 | 30.31 | 50.00 | 0.74 | 6.08 | 0.44 | 28.03 | 167.33 | 1.62 | 8.08 | 6.05 | 62.91 | 146.67 | 1.87 |
| 0.10 | 5.02 | 42.12 | 36.67 | 1.00 | 2.10 | 1.20 | 46.59 | 40.67 | 0.22 | 4.10 | 0.94 | 29.08 | 56.00 | 0.70 | 6.10 | 0.39 | 30.36 | 168.00 | 1.60 | 8.10 | 6.14 | 65.24 | 154.67 | 1.86 |
| 0.12 | 5.08 | 53.45 | 34.00 | 0.85 | 2.12 | 1.15 | 49.93 | 89.33 | 0.22 | 4.12 | 0.79 | 30.86 | 53.33 | 0.71 | 6.12 | 0.32 | 30.48 | 161.33 | 1.65 | 8.12 | 6.50 | 66.46 | 166.67 | 1.86 |
| 0.14 | 5.76 | 63.34 | 35.33 | 0.97 | 2.14 | 1.03 | 49.81 | 155.33 | 0.22 | 4.14 | 0.85 | 33.31 | 52.00 | 0.70 | 6.14 | 0.47 | 29.93 | 174.00 | 1.63 | 8.14 | 7.05 | 64.68 | 156.67 | 1.84 |
| 0.16 | 6.03 | 76.02 | 38.67 | 0.84 | 2.16 | 0.93 | 48.15 | 139.33 | 0.20 | 4.16 | 0.78 | 35.08 | 54.67 | 0.71 | 6.16 | 0.43 | 28.15 | 174.00 | 1.64 | 8.16 | 7.50 | 65.01 | 144.67 | 1.84 |
| 0.18 | 6.05 | 89.13 | 35.33 | 0.82 | 2.18 | 0.85 | 47.82 | 122.00 | 0.22 | 4.18 | 0.74 | 37.09 | 64.67 | 0.71 | 6.18 | 0.34 | 25.59 | 166.00 | 1.67 | 8.18 | 7.62 | 62.56 | 125.33 | 1.86 |
| 0.20 | 6.03 | 105.58 | 41.33 | 0.65 | 2.20 | 0.75 | 48.70 | 111.33 | 0.21 | 4.20 | 0.72 | 36.76 | 80.67 | 0.72 | 6.20 | 0.33 | 24.15 | 168.00 | 1.66 | 8.20 | 7.51 | 59.23 | 116.00 | 1.86 |
| 0.22 | 6.07 | 122.25 | 36.67 | 0.71 | 2.22 | 0.79 | 51.26 | 112.67 | 0.24 | 4.22 | 0.59 | 36.97 | 107.33 | 0.71 | 6.22 | 0.41 | 22.47 | 171.33 | 1.63 | 8.22 | 7.25 | 54.78 | 110.67 | 1.87 |
| 0.24 | 6.12 | 138.92 | 32.00 | 0.77 | 2.24 | 1.08 | 47.82 | 150.67 | 0.24 | 4.24 | 0.80 | 35.20 | 112.00 | 0.74 | 6.24 | 0.58 | 23.70 | 178.67 | 1.63 | 8.24 | 7.04 | 55.22 | 111.33 | 1.88 |
| 0.26 | 5.83 | 138.37 | 28.00 | 0.68 | 2.26 | 0.92 | 45.49 | 173.33 | 0.23 | 4.26 | 0.66 | 36.53 | 115.33 | 0.73 | 6.26 | 0.36 | 24.25 | 180.67 | 1.65 | 8.26 | 6.58 | 57.33 | 110.00 | 1.89 |
| 0.28 | 5.65 | 143.04 | 30.00 | 0.68 | 2.28 | 0.95 | 40.93 | 160.00 | 0.22 | 4.28 | 0.83 | 36.42 | 115.33 | 0.74 | 6.28 | 0.34 | 24.92 | 184.00 | 1.66 | 8.28 | 6.26 | 58.66 | 108.67 | 1.88 |
| 0.30 | 5.34 | 148.16 | 26.67 | 0.63 | 2.30 | 0.90 | 41.38 | 151.33 | 0.26 | 4.30 | 0.63 | 36.42 | 118.00 | 0.73 | 6.30 | 0.58 | 27.48 | 189.33 | 1.66 | 8.30 | 6.07 | 58.43 | 112.00 | 1.89 |
| 0.32 | 5.03 | 150.71 | 26.67 | 0.64 | 2.32 | 0.96 | 40.16 | 144.00 | 0.26 | 4.32 | 0.60 | 35.86 | 115.33 | 0.73 | 6.32 | 0.51 | 24.70 | 184.00 | 1.66 | 8.32 | 6.09 | 59.32 | 127.33 | 1.88 |
| 0.34 | 4.74 | 151.93 | 29.33 | 0.64 | 2.34 | 0.83 | 40.71 | 136.67 | 0.26 | 4.34 | 0.78 | 35.31 | 118.67 | 0.72 | 6.34 | 0.48 | 27.37 | 197.33 | 1.65 | 8.34 | 6.44 | 60.31 | 143.33 | 1.88 |
| 0.36 | 4.37 | 147.60 | 26.67 | 0.62 | 2.36 | 1.09 | 45.05 | 134.67 | 0.27 | 4.36 | 0.75 | 34.08 | 122.00 | 0.72 | 6.36 | 0.58 | 25.71 | 195.33 | 1.68 | 8.36 | 7.21 | 58.09 | 151.33 | 1.88 |
| 0.38 | 4.28 | 142.60 | 29.33 | 0.62 | 2.38 | 0.89 | 50.71 | 130.67 | 0.25 | 4.38 | 0.80 | 32.64 | 122.67 | 0.72 | 6.38 | 0.56 | 23.82 | 197.33 | 1.67 | 8.38 | 7.74 | 55.09 | 141.33 | 1.89 |
| 0.40 | 4.05 | 136.48 | 28.00 | 0.59 | 2.40 | 0.95 | 55.27 | 122.67 | 0.26 | 4.40 | 0.75 | 31.64 | 120.00 | 0.73 | 6.40 | 0.38 | 23.59 | 192.00 | 1.66 | 8.40 | 7.89 | 51.31 | 130.67 | 1.91 |
| 0.42 | 4.05 | 135.82 | 26.67 | 0.56 | 2.42 | 0.89 | 57.38 | 122.67 | 0.25 | 4.42 | 0.79 | 26.31 | 107.33 | 0.76 | 6.42 | 0.42 | 23.92 | 182.67 | 1.67 | 8.42 | 7.66 | 50.08 | 121.33 | 1.91 |
| 0.44 | 3.92 | 130.25 | 28.00 | 0.56 | 2.44 | 1.02 | 57.94 | 123.33 | 0.26 | 4.44 | 0.78 | 24.20 | 123.33 | 0.73 | 6.44 | 0.56 | 25.71 | 185.33 | 1.68 | 8.44 | 7.53 | 50.41 | 121.33 | 1.90 |
| 0.46 | 3.91 | 122.36 | 32.67 | 0.55 | 2.46 | 0.89 | 57.49 | 140.00 | 0.27 | 4.46 | 0.69 | 21.65 | 122.00 | 0.74 | 6.46 | 0.56 | 26.93 | 185.33 | 1.68 | 8.46 | 7.14 | 52.96 | 116.00 | 1.92 |
| 0.48 | 3.86 | 108.13 | 40.67 | 0.56 | 2.48 | 0.85 | 54.05 | 133.33 | 0.29 | 4.48 | 0.67 | 24.98 | 118.67 | 0.74 | 6.48 | 0.39 | 26.37 | 184.00 | 1.70 | 8.48 | 6.60 | 58.07 | 118.00 | 1.90 |
| 0.50 | 3.71 | 102.24 | 38.67 | 0.55 | 2.50 | 0.90 | 53.16 | 117.33 | 0.31 | 4.50 | 0.71 | 22.54 | 111.33 | 0.77 | 6.50 | 0.60 | 28.49 | 196.00 | 1.69 | 8.50 | 6.39 | 61.74 | 117.33 | 1.92 |
| 0.52 | 3.61 | 100.69 | 34.67 | 0.53 | 2.52 | 0.85 | 52.39 | 108.00 | 0.30 | 4.52 | 0.55 | 24.09 | 136.00 | 0.74 | 6.52 | 0.65 | 28.49 | 200.00 | 1.70 | 8.52 | 6.12 | 63.07 | 112.67 | 1.93 |
| 0.54 | 3.53 | 98.80 | 40.00 | 0.56 | 2.54 | 0.79 | 50.06 | 104.67 | 0.31 | 4.54 | 0.42 | 20.20 | 95.33 | 0.76 | 6.54 | 0.66 | 28.71 | 200.00 | 1.72 | 8.54 | 5.43 | 64.39 | 107.33 | 1.91 |
| 0.56 | 3.31 | 99.13 | 36.67 | 0.53 | 2.56 | 0.69 | 47.39 | 105.33 | 0.29 | 4.56 | 0.57 | 19.76 | 105.33 | 0.75 | 6.56 | 0.56 | 28.82 | 189.33 | 1.70 | 8.56 | 4.05 | 69.06 | 84.67 | 1.91 |
| 0.58 | 2.88 | 99.02 | 27.33 | 0.52 | 2.58 | 0.73 | 46.61 | 98.00 | 0.29 | 4.58 | 0.51 | 18.20 | 117.33 | 0.78 | 6.58 | 0.69 | 30.26 | 187.33 | 1.70 | 8.58 | 2.83 | 75.95 | 70.00 | 1.90 |
| 0.60 | 2.73 | 101.91 | 34.67 | 0.52 | 2.60 | 0.73 | 45.72 | 89.33 | 0.30 | 4.60 | 0.51 | 16.31 | 130.67 | 0.76 | 6.60 | 0.59 | 31.15 | 178.00 | 1.70 | 8.60 | 1.88 | 75.06 | 57.33 | 1.92 |
| 0.62 | 2.62 | 99.79 | 26.67 | 0.52 | 2.62 | 0.74 | 43.72 | 90.67 | 0.33 | 4.62 | 0.67 | 16.32 | 142.00 | 0.78 | 6.62 | 0.43 | 31.48 | 162.00 | 1.71 | 8.62 | 1.18 | 74.72 | 47.33 | 1.94 |
| 0.64 | 2.79 | 97.02 | 35.33 | 0.52 | 2.64 | 0.70 | 37.72 | 90.67 | 0.32 | 4.64 | 0.78 | 15.87 | 151.33 | 0.80 | 6.64 | 0.47 | 35.60 | 182.00 | 1.69 | 8.64 | 1.00 | 82.50 | 55.33 | 1.93 |
| 0.66 | 2.94 | 91.12 | 33.33 | 0.51 | 2.66 | 0.64 | 35.06 | 84.00 | 0.36 | 4.66 | 0.50 | 16.31 | 80.67 | 0.77 | 6.66 | 0.39 | 34.93 | 212.00 | 1.68 | 8.66 | 0.62 | 92.38 | 64.67 | 1.91 |
| 0.68 | 3.30 | 88.79 | 42.00 | 0.48 | 2.68 | 0.57 | 32.72 | 88.00 | 0.32 | 4.68 | 0.40 | 21.65 | 74.67 | 0.80 | 6.68 | 0.38 | 32.37 | 210.00 | 1.70 | 8.68 | 0.54 | 91.05 | 182.67 | 1.93 |
| 0.70 | 3.48 | 84.89 | 42.67 | 0.51 | 2.70 | 0.63 | 30.39 | 96.00 | 0.35 | 4.70 | 0.60 | 24.88 | 93.33 | 0.80 | 6.70 | 0.38 | 29.25 | 212.00 | 1.74 | 8.70 | 0.43 | 79.05 | 199.33 | 1.91 |
| 0.72 | 3.65 | 83.78 | 45.33 | 0.47 | 2.72 | 0.69 | 27.62 | 92.67 | 0.36 | 4.72 | 0.50 | 24.09 | 98.00 | 0.78 | 6.72 | 0.40 | 27.15 | 216.67 | 1.69 | 8.72 | 0.47 | 62.82 | 202.00 | 1.94 |
| 0.74 | 3.84 | 83.78 | 47.33 | 0.48 | 2.74 | 0.62 | 29.51 | 98.00 | 0.35 | 4.74 | 0.79 | 24.99 | 108.00 | 0.82 | 6.74 | 0.48 | 23.15 | 221.33 | 1.71 | 8.74 | 0.42 | 51.92 | 209.33 | 1.94 |
| 0.76 | 4.00 | 86.00 | 42.00 | 0.44 | 2.76 | 0.54 | 28.06 | 94.00 | 0.36 | 4.76 | 1.14 | 25.54 | 129.33 | 0.79 | 6.76 | 0.41 | 19.48 | 226.00 | 1.72 | 8.76 | 0.46 | 40.03 | 218.67 | 1.97 |
| 0.78 | 3.96 | 93.99 | 40.00 | 0.45 | 2.78 | 0.64 | 29.07 | 94.00 | 0.37 | 4.78 | 1.37 | 26.32 | 110.67 | 0.81 | 6.78 | 0.41 | 18.26 | 225.33 | 1.73 | 8.78 | 0.40 | 27.14 | 344.67 | 1.96 |
| 0.80 | 3.78 | 104.66 | 42.67 | 0.47 | 2.80 | 0.76 | 32.29 | 94.00 | 0.40 | 4.80 | 1.43 | 25.88 | 90.00 | 0.79 | 6.80 | 0.36 | 16.82 | 222.67 | 1.70 | 8.80 | 0.36 | 15.81 | 388.00 | 1.97 |
| 0.82 | 3.55 | 110.54 | 37.33 | 0.44 | 2.82 | 0.79 | 34.07 | 90.67 | 0.41 | 4.82 | 1.32 | 24.99 | 76.67 | 0.80 | 6.82 | 0.46 | 15.93 | 211.33 | 1.75 | 8.82 | 0.37 | 10.14 | 403.33 | 1.97 |
| 0.84 | 3.41 | 118.43 | 34.00 | 0.42 | 2.84 | 0.73 | 35.62 | 104.67 | 0.40 | 4.84 | 1.30 | 29.88 | 52.67 | 0.82 | 6.84 | 0.51 | 18.26 | 211.33 | 1.74 | 8.84 | 0.38 | 9.70 | 412.67 | 1.99 |
| 0.86 | 3.24 | 120.87 | 35.33 | 0.42 | 2.86 | 0.80 | 37.19 | 140.67 | 0.41 | 4.86 | 1.49 | 29.77 | 42.00 | 0.84 | 6.86 | 0.38 | 19.26 | 203.33 | 1.75 | 8.86 | 0.34 | 9.70 | 409.33 | 1.98 |
| 0.88 | 3.07 | 123.43 | 36.67 | 0.43 | 2.88 | 0.83 | 38.08 | 134.00 | 0.42 | 4.88 | 1.19 | 31.44 | 34.00 | 0.81 | 6.88 | 0.38 | 19.37 | 204.00 | 1.74 | 8.88 | 0.42 | 8.92 | 395.33 | 1.99 |
| 0.90 | 2.89 | 121.09 | 33.33 | 0.41 | 2.90 | 0.75 | 39.07 | 125.33 | 0.43 | 4.90 | 0.96 | 32.44 | 28.00 | 0.81 | 6.90 | 0.45 | 18.82 | 203.33 | 1.75 | 8.90 | 0.32 | 8.74 | 410.00 | 1.98 |
| 0.92 | 2.66 | 119.75 | 33.33 | 0.40 | 2.92 | 0.73 | 41.41 | 118.67 | 0.44 | 4.92 | 0.64 | 36.55 | 19.33 | 0.84 | 6.92 | 0.41 | 17.71 | 198.67 | 1.75 | 8.92 | 0.40 | 7.86 | 400.00 | 2.00 |
| 0.94 | 2.70 | 115.75 | 34.67 | 0.40 | 2.94 | 0.71 | 43.08 | 118.00 | 0.45 | 4.94 | 0.39 | 35.10 | 88.00 | 0.82 | 6.94 | 0.33 | 17.60 | | | | | | | |



elletipi s.r.l.

Sede operativa ed amm.va: Via Annibale Zucchini, 69 - 44100 FERRARA
tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 03 PROF. FALDA (m da p.c.): 2.80 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 06/10/16 PROF. (m da p.c.): LAT. (WGS 84): 44.683739° LONG. (WGS 84): 11.779188°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

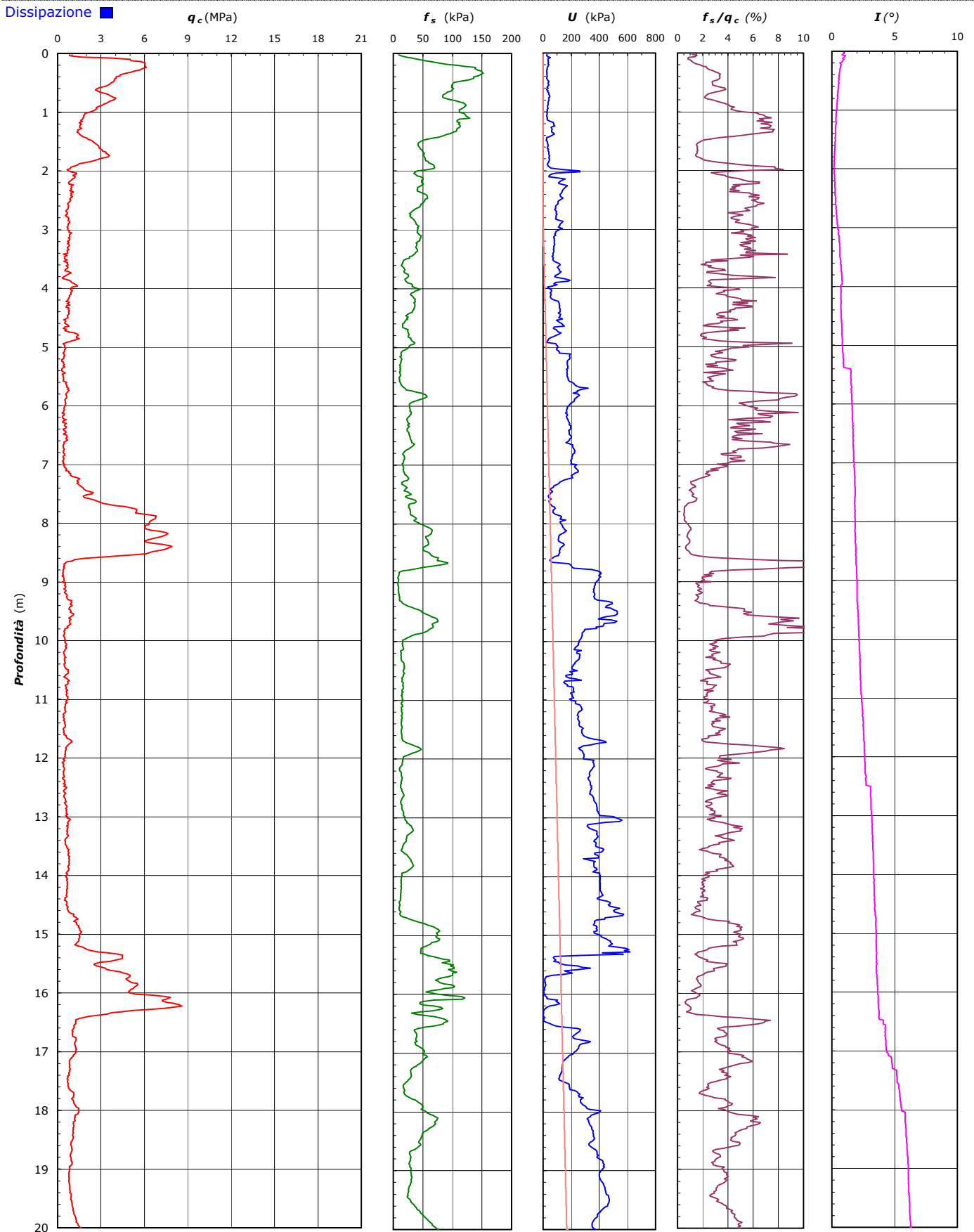
| prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi |
|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|
| 10.02 | 0.50 | 15.65 | 255.33 | 2.16 | 12.02 | 0.37 | 15.84 | 361.33 | 2.62 | 14.02 | 0.56 | 13.96 | 407.33 | 3.35 | 16.02 | 5.44 | 95.98 | 14.00 | 3.66 | 18.02 | 1.45 | 58.17 | 390.00 | 5.56 |
| 10.04 | 0.52 | 15.54 | 250.67 | 2.17 | 12.04 | 0.51 | 16.29 | 355.33 | 2.63 | 14.04 | 0.63 | 13.52 | 407.33 | 3.35 | 16.04 | 6.53 | 115.20 | 23.33 | 3.67 | 18.04 | 1.42 | 62.39 | 358.00 | 5.85 |
| 10.06 | 0.61 | 15.77 | 251.33 | 2.19 | 12.06 | 0.41 | 15.40 | 354.00 | 2.62 | 14.06 | 0.69 | 13.30 | 406.00 | 3.35 | 16.06 | 7.48 | 121.09 | 27.33 | 3.69 | 18.06 | 1.40 | 66.72 | 342.67 | 5.85 |
| 10.08 | 0.58 | 16.11 | 242.67 | 2.20 | 12.08 | 0.31 | 14.95 | 360.67 | 2.63 | 14.08 | 0.61 | 13.52 | 403.33 | 3.36 | 16.08 | 7.78 | 117.42 | 30.00 | 3.69 | 18.08 | 1.25 | 70.39 | 335.33 | 5.84 |
| 10.10 | 0.52 | 16.55 | 229.33 | 2.19 | 12.10 | 0.41 | 14.96 | 362.67 | 2.64 | 14.10 | 0.66 | 13.30 | 405.33 | 3.37 | 16.10 | 7.61 | 68.42 | 102.67 | 3.69 | 18.10 | 1.17 | 75.50 | 318.67 | 5.84 |
| 10.12 | 0.61 | 17.33 | 228.67 | 2.20 | 12.12 | 0.39 | 13.29 | 364.67 | 2.65 | 14.12 | 0.69 | 13.41 | 406.67 | 3.36 | 16.12 | 7.25 | 51.31 | 92.67 | 3.70 | 18.12 | 1.22 | 74.17 | 313.33 | 5.85 |
| 10.14 | 0.56 | 16.78 | 220.67 | 2.19 | 12.14 | 0.36 | 11.50 | 358.67 | 2.65 | 14.14 | 0.65 | 13.52 | 406.67 | 3.35 | 16.14 | 7.25 | 45.98 | 104.00 | 3.70 | 18.14 | 1.16 | 73.50 | 322.67 | 5.85 |
| 10.16 | 0.49 | 12.46 | 273.33 | 2.20 | 12.16 | 0.44 | 10.84 | 353.33 | 2.65 | 14.16 | 0.67 | 13.30 | 406.00 | 3.37 | 16.16 | 7.53 | 45.19 | 118.00 | 3.70 | 18.16 | 1.19 | 70.83 | 324.00 | 5.84 |
| 10.18 | 0.47 | 13.02 | 240.00 | 2.20 | 12.18 | 0.47 | 10.29 | 346.00 | 2.67 | 14.18 | 0.65 | 13.74 | 407.33 | 3.36 | 16.18 | 8.01 | 51.31 | 86.00 | 3.70 | 18.18 | 1.21 | 69.94 | 326.00 | 5.85 |
| 10.20 | 0.41 | 13.80 | 239.33 | 2.23 | 12.20 | 0.46 | 11.40 | 338.67 | 2.65 | 14.20 | 0.65 | 13.41 | 406.67 | 3.37 | 16.20 | 8.38 | 68.08 | 47.33 | 3.70 | 18.20 | 1.09 | 71.49 | 328.67 | 5.85 |
| 10.22 | 0.44 | 12.80 | 261.33 | 2.21 | 12.22 | 0.41 | 13.07 | 333.33 | 2.65 | 14.22 | 0.70 | 12.75 | 406.67 | 3.38 | 16.22 | 8.57 | 80.53 | 28.00 | 3.71 | 18.22 | 1.09 | 70.16 | 332.00 | 5.85 |
| 10.24 | 0.46 | 12.58 | 261.33 | 2.21 | 12.24 | 0.41 | 13.40 | 328.67 | 2.66 | 14.24 | 0.61 | 12.74 | 407.33 | 3.37 | 16.24 | 8.19 | 83.86 | 20.00 | 3.71 | 18.24 | 1.09 | 67.49 | 340.00 | 5.86 |
| 10.26 | 0.47 | 13.47 | 260.00 | 2.21 | 12.26 | 0.39 | 14.07 | 330.00 | 2.66 | 14.26 | 0.61 | 13.19 | 412.67 | 3.36 | 16.26 | 7.42 | 78.19 | 8.67 | 3.71 | 18.26 | 1.11 | 63.71 | 344.67 | 5.86 |
| 10.28 | 0.57 | 12.81 | 258.67 | 2.25 | 12.28 | 0.40 | 13.51 | 333.33 | 2.67 | 14.28 | 0.64 | 12.75 | 416.67 | 3.37 | 16.28 | 6.29 | 65.42 | 2.00 | 3.74 | 18.28 | 1.11 | 60.93 | 346.67 | 5.86 |
| 10.30 | 0.45 | 13.70 | 254.67 | 2.22 | 12.30 | 0.44 | 14.62 | 330.00 | 2.69 | 14.30 | 0.63 | 12.30 | 422.00 | 3.36 | 16.30 | 5.20 | 47.08 | 3.33 | 3.74 | 18.30 | 1.06 | 58.49 | 349.33 | 5.88 |
| 10.32 | 0.48 | 13.47 | 248.00 | 2.23 | 12.32 | 0.48 | 15.07 | 318.67 | 2.71 | 14.32 | 0.63 | 12.63 | 425.33 | 3.36 | 16.32 | 4.41 | 31.19 | 2.67 | 3.75 | 18.32 | 1.10 | 56.04 | 354.00 | 5.90 |
| 10.34 | 0.47 | 14.92 | 236.00 | 2.24 | 12.34 | 0.35 | 14.72 | 320.67 | 2.75 | 14.34 | 0.60 | 12.53 | 409.33 | 3.39 | 16.34 | 3.73 | 40.85 | 2.67 | 3.75 | 18.34 | 1.05 | 52.04 | 354.67 | 5.90 |
| 10.36 | 0.51 | 17.59 | 226.67 | 2.24 | 12.36 | 0.36 | 14.62 | 326.00 | 2.70 | 14.36 | 0.65 | 11.86 | 387.33 | 3.39 | 16.36 | 3.41 | 52.41 | 0.67 | 3.76 | 18.36 | 1.05 | 49.59 | 355.33 | 5.90 |
| 10.38 | 0.54 | 18.59 | 228.00 | 2.22 | 12.38 | 0.49 | 13.96 | 333.33 | 2.70 | 14.38 | 0.49 | 11.86 | 386.67 | 3.42 | 16.38 | 2.75 | 70.52 | 6.67 | 3.77 | 18.38 | 1.08 | 49.59 | 357.33 | 5.91 |
| 10.40 | 0.45 | 18.59 | 214.67 | 2.24 | 12.40 | 0.48 | 13.29 | 336.00 | 2.70 | 14.40 | 0.53 | 12.19 | 420.00 | 3.40 | 16.40 | 2.17 | 76.52 | 6.67 | 3.77 | 18.40 | 1.05 | 48.92 | 359.33 | 5.93 |
| 10.42 | 0.48 | 19.26 | 215.33 | 2.22 | 12.42 | 0.51 | 13.74 | 336.67 | 2.72 | 14.42 | 0.46 | 10.97 | 454.00 | 3.39 | 16.42 | 1.74 | 85.74 | 6.00 | 3.74 | 18.42 | 1.04 | 47.70 | 358.00 | 5.93 |
| 10.44 | 0.46 | 18.26 | 206.00 | 2.24 | 12.44 | 0.41 | 12.29 | 336.00 | 2.72 | 14.44 | 0.60 | 9.75 | 477.33 | 3.40 | 16.44 | 1.48 | 90.19 | 4.00 | 3.77 | 18.44 | 1.06 | 47.04 | 364.67 | 5.93 |
| 10.46 | 0.52 | 19.37 | 206.00 | 2.23 | 12.46 | 0.52 | 12.74 | 344.00 | 2.71 | 14.46 | 0.65 | 10.64 | 476.00 | 3.42 | 16.46 | 1.25 | 91.84 | 6.67 | 3.77 | 18.46 | 1.08 | 46.04 | 364.67 | 5.93 |
| 10.48 | 0.60 | 17.38 | 210.00 | 2.25 | 12.48 | 0.44 | 12.29 | 343.33 | 2.72 | 14.48 | 0.63 | 11.08 | 462.67 | 3.42 | 16.48 | 1.24 | 85.73 | 27.33 | 4.12 | 18.48 | 1.05 | 45.15 | 359.33 | 5.94 |
| 10.50 | 0.76 | 17.04 | 244.00 | 2.24 | 12.50 | 0.61 | 13.41 | 344.67 | 3.08 | 14.50 | 0.59 | 10.97 | 472.00 | 3.41 | 16.50 | 1.23 | 84.62 | 48.67 | 4.09 | 18.50 | 1.03 | 43.47 | 349.33 | 5.94 |
| 10.52 | 0.71 | 17.49 | 191.33 | 2.24 | 12.52 | 0.54 | 14.30 | 342.67 | 3.10 | 14.52 | 0.67 | 10.19 | 498.00 | 3.43 | 16.52 | 1.24 | 79.28 | 67.33 | 4.09 | 18.52 | 0.99 | 43.36 | 337.33 | 5.94 |
| 10.54 | 0.76 | 19.38 | 206.67 | 2.26 | 12.54 | 0.47 | 14.51 | 337.33 | 3.09 | 14.54 | 0.73 | 10.09 | 544.67 | 3.43 | 16.54 | 1.17 | 67.06 | 96.00 | 4.08 | 18.54 | 0.93 | 45.59 | 327.33 | 5.96 |
| 10.56 | 0.70 | 17.82 | 207.33 | 2.25 | 12.56 | 0.41 | 15.96 | 335.33 | 3.09 | 14.56 | 0.66 | 9.64 | 512.00 | 3.42 | 16.56 | 1.13 | 53.61 | 146.67 | 4.27 | 18.56 | 0.93 | 46.47 | 327.33 | 5.96 |
| 10.58 | 0.57 | 16.60 | 164.00 | 2.25 | 12.58 | 0.48 | 16.52 | 331.33 | 3.10 | 14.58 | 0.68 | 11.64 | 502.67 | 3.42 | 16.58 | 1.15 | 42.28 | 242.67 | 4.26 | 18.58 | 0.91 | 44.47 | 332.67 | 5.97 |
| 10.60 | 0.53 | 16.60 | 163.33 | 2.26 | 12.60 | 0.56 | 17.41 | 333.33 | 3.10 | 14.60 | 0.72 | 12.75 | 509.33 | 3.42 | 16.60 | 1.11 | 35.50 | 266.00 | 4.26 | 18.60 | 0.92 | 41.70 | 344.00 | 5.97 |
| 10.62 | 0.43 | 14.71 | 184.67 | 2.28 | 12.62 | 0.48 | 18.41 | 347.33 | 3.08 | 14.62 | 0.78 | 11.42 | 542.00 | 3.45 | 16.62 | 1.07 | 36.05 | 263.33 | 4.24 | 18.62 | 0.96 | 38.92 | 357.33 | 5.98 |
| 10.64 | 0.63 | 15.04 | 229.33 | 2.26 | 12.64 | 0.43 | 16.96 | 356.67 | 3.09 | 14.64 | 0.90 | 11.53 | 572.00 | 3.44 | 16.64 | 1.01 | 37.16 | 254.00 | 4.25 | 18.64 | 0.98 | 36.36 | 370.00 | 5.99 |
| 10.66 | 0.69 | 15.05 | 273.33 | 2.28 | 12.66 | 0.44 | 15.18 | 358.00 | 3.09 | 14.66 | 1.12 | 12.53 | 567.33 | 3.48 | 16.66 | 1.05 | 38.83 | 242.67 | 4.25 | 18.66 | 1.01 | 30.70 | 381.33 | 6.00 |
| 10.68 | 0.80 | 14.50 | 156.00 | 2.28 | 12.68 | 0.49 | 14.63 | 361.33 | 3.09 | 14.68 | 1.10 | 16.31 | 524.00 | 3.46 | 16.68 | 1.03 | 39.83 | 229.33 | 4.24 | 18.68 | 1.00 | 27.92 | 385.33 | 6.00 |
| 10.70 | 0.70 | 16.61 | 146.67 | 2.29 | 12.70 | 0.53 | 13.96 | 361.33 | 3.11 | 14.70 | 1.13 | 22.42 | 440.00 | 3.49 | 16.70 | 1.02 | 39.61 | 218.00 | 4.25 | 18.70 | 0.96 | 27.25 | 384.67 | 6.02 |
| 10.72 | 0.71 | 16.39 | 158.67 | 2.30 | 12.72 | 0.53 | 12.52 | 365.33 | 3.10 | 14.72 | 1.30 | 27.42 | 439.33 | 3.49 | 16.72 | 1.02 | 39.50 | 212.00 | 4.25 | 18.72 | 0.94 | 28.15 | 382.67 | 6.01 |
| 10.74 | 0.69 | 16.17 | 172.67 | 2.32 | 12.74 | 0.58 | 12.85 | 372.67 | 3.12 | 14.74 | 1.40 | 34.20 | 380.67 | 3.49 | 16.74 | 1.07 | 39.05 | 214.67 | 4.24 | 18.74 | 0.89 | 29.15 | 392.00 | 6.02 |
| 10.76 | 0.53 | 16.38 | 172.67 | 2.30 | 12.76 | 0.47 | 12.63 | 376.00 | 3.11 | 14.76 | 1.24 | 38.98 | 364.67 | 3.49 | 16.76 | 1.25 | 38.17 | 228.00 | 4.27 | 18.76 | 0.87 | 29.48 | 384.67 | 6.02 |
| 10.78 | 0.57 | 16.50 | 211.33 | 2.29 | 12.78 | 0.52 | 14.30 | 380.00 | 3.11 | 14.78 | 1.13 | 46.64 | 368.00 | 3.49 | 16.78 | 1.29 | 37.95 | 277.33 | 4.26 | 18.78 | 0.87 | 29.70 | 384.67 | 6.03 |
| 10.80 | 0.58 | 16.50 | 218.00 | 2.30 | 12.80 | 0.56 | 14.30 | 380.00 | 3.14 | 14.80 | 1.32 | 52.75 | 365.33 | 3.49 | 16.80 | 1.29 | 40.17 | 335.33 | 4.27 | 18.80 | 0.89 | 29.15 | 399.33 | 6.04 |
| 10.82 | 0.55 | 14.94 | 214.00 | 2.33 | 12.82 | 0.64 | 14.52 | 384.00 | 3.13 | 14.82 | 1.30 | 57.97 | 358.00 | 3.49 | 16.82 | 1.23 | 36.73 | 326.00 | 4.28 | 18.82 | 0.94 | 28.59 | 420.67 | 6.05 |
| 10.84 | 0.69 | 14.72 | 214.00 | 2.33 | 12.84 | 0.61 | 14.74 | 382.67 | 3.14 | 14.84 | 1.34 | 65.75 | 378.67 | 3.49 | 16.84 | 1.19 | 37.17 | 279.33 | 4.29 | 18.84 | 0.95 | 28.15 | 424.00 | 6.04 |
| 10.86 | 0.58 | 16.39 | 219.33 | 2.30 | 12.86 | 0.56 | 15.41 | 384.67 | 3.13 | 14.86 | 1.46 | 68.97 | 384.67 | 3.49 | 16.86 | 1.19 | 38.73 | 263.33 | 4.29 | 18.86 | 0.93 | 27.37 | 424.00 | 6.06 |
| 10.88 | 0.62 | 14.61 | 195.33 | 2.33 | 12.88 | 0.61 | 15.96 | 385.33 | 3.13 | 14.88 | 1.42 | 72.64 | 378.67 | 3.52 | 16.88 | 1.19 | 41.51 | 254.67 | 4.31 | 18.88 | 0.99 | 26.82 | 430.67 | 6.06 |
| 10.90 | 0.64 | 15.28 | 206.00 | 2.34 | 12.90 | 0.60 | 17.63 | 392.00 | 3.14 | 14.90 | 1.53 | 75.86 | 383.33 | 3.53 | 16.90 | 1.20 | 45.73 | 252.00 | 4.31 | 18.90 | 0.99 | 27.93 | 434.00 | 6.07 |
| 10.92 | 0.60 | 13.83 | 206.67 | 2.34 | 12.92 | 0.61 | 17.74 | 392.00 | 3.15 | 14.92 | 1.54 | 77.97 | 385.33 | 3.53 | 16.9 | | | | | | | | | |

COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 03 PROF. FALDA (m da p.c.): 2.80 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 06/10/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.683739° LONG. (WGS 84): 11.779188°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato



COMMITTENTE: **ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma****CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 03 PROF. FALDA (m da p.c.): 2.80 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 06/10/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.683739° LONG. (WGS 84): 11.779188°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Via del Persico - Portomaggiore (FE)



NOTE: Utilizzato 1 anello allargatore da inizio prova



elletipi s.r.l.

Sede operativa ed amm.va: Via Annibale Zucchini, 69 - 44100 FERRARA
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P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 04 PROF. FALDA (m da p.c.): 1.90 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PROF. PREFORO (m da p.c.): LAT. (WGS 84): 44.693175° LONG. (WGS 84): 11.835056°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

| prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi |
|---------|--------|--------|-------|-------------|---------|--------|--------|-------|-------------|---------|--------|--------|-------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|-------|-------------|
| 0.02 | 1.26 | 13.97 | 36.67 | 0.43 | 2.02 | 0.68 | 28.33 | 40.00 | 0.88 | 4.02 | 6.80 | 34.68 | 44.67 | 1.59 | 6.02 | 1.00 | 14.81 | 166.00 | 2.14 | 8.02 | 1.14 | 20.78 | 30.00 | 2.88 |
| 0.04 | 1.38 | 24.86 | 32.67 | 0.37 | 2.04 | 0.66 | 27.55 | 39.33 | 0.89 | 4.04 | 7.16 | 34.34 | 46.00 | 1.60 | 6.04 | 0.66 | 16.16 | 156.00 | 2.17 | 8.04 | 1.14 | 20.11 | 28.67 | 2.89 |
| 0.06 | 1.27 | 31.75 | 36.67 | 0.59 | 2.06 | 0.65 | 26.11 | 39.33 | 0.89 | 4.06 | 6.28 | 32.78 | 51.33 | 1.60 | 6.06 | 0.67 | 15.50 | 152.00 | 2.18 | 8.06 | 1.20 | 19.88 | 27.33 | 2.90 |
| 0.08 | 1.48 | 45.75 | 36.00 | 0.52 | 2.08 | 0.64 | 25.33 | 36.67 | 0.90 | 4.08 | 7.31 | 30.56 | 46.00 | 1.61 | 6.08 | 0.67 | 15.50 | 130.67 | 2.18 | 8.08 | 1.25 | 20.22 | 27.33 | 2.91 |
| 0.10 | 1.65 | 56.09 | 36.00 | 0.41 | 2.10 | 0.64 | 25.11 | 36.00 | 0.91 | 4.10 | 6.84 | 30.22 | 52.00 | 1.61 | 6.10 | 1.03 | 14.28 | 156.67 | 2.19 | 8.10 | 1.27 | 21.00 | 27.33 | 2.93 |
| 0.12 | 1.94 | 66.53 | 35.33 | 0.34 | 2.12 | 0.61 | 25.11 | 36.67 | 0.93 | 4.12 | 6.53 | 29.77 | 48.00 | 1.62 | 6.12 | 1.03 | 14.83 | 152.00 | 2.21 | 8.12 | 0.92 | 21.66 | 32.00 | 2.94 |
| 0.14 | 2.17 | 79.31 | 39.33 | 0.37 | 2.14 | 0.61 | 24.33 | 36.00 | 0.92 | 4.14 | 6.06 | 26.76 | 44.67 | 1.62 | 6.14 | 1.03 | 15.28 | 144.67 | 2.22 | 8.14 | 0.87 | 20.44 | 31.33 | 2.95 |
| 0.16 | 2.30 | 90.31 | 43.33 | 0.35 | 2.16 | 0.63 | 23.33 | 34.67 | 0.94 | 4.16 | 6.21 | 29.20 | 36.67 | 1.62 | 6.16 | 1.06 | 15.06 | 151.33 | 2.23 | 8.16 | 0.93 | 19.88 | 28.00 | 2.96 |
| 0.18 | 2.47 | 99.59 | 51.33 | 0.29 | 2.18 | 0.61 | 23.10 | 34.67 | 0.95 | 4.18 | 6.15 | 30.98 | 40.00 | 1.62 | 6.18 | 1.07 | 14.51 | 133.33 | 2.24 | 8.18 | 0.97 | 19.88 | 29.33 | 2.97 |
| 0.20 | 2.42 | 118.03 | 50.00 | 0.34 | 2.20 | 0.65 | 22.66 | 34.67 | 0.95 | 4.20 | 6.18 | 33.98 | 40.00 | 1.62 | 6.20 | 1.06 | 14.62 | 136.00 | 2.25 | 8.20 | 1.64 | 27.12 | 24.00 | 2.99 |
| 0.22 | 2.32 | 134.81 | 51.33 | 0.28 | 2.22 | 0.60 | 23.21 | 34.67 | 0.96 | 4.22 | 6.07 | 37.09 | 40.67 | 1.63 | 6.22 | 1.06 | 14.84 | 141.33 | 2.26 | 8.22 | 2.22 | 31.78 | 32.00 | 3.00 |
| 0.24 | 2.29 | 151.92 | 50.00 | 0.27 | 2.24 | 0.58 | 22.87 | 34.67 | 0.98 | 4.24 | 5.66 | 38.31 | 44.67 | 1.64 | 6.24 | 1.07 | 14.84 | 171.33 | 2.26 | 8.24 | 2.20 | 33.12 | 42.00 | 3.00 |
| 0.26 | 2.79 | 151.26 | 49.33 | 0.30 | 2.26 | 0.59 | 22.09 | 32.67 | 0.98 | 4.26 | 6.00 | 35.53 | 40.00 | 1.64 | 6.26 | 1.07 | 14.40 | 182.00 | 2.27 | 8.26 | 1.98 | 30.56 | 44.00 | 3.01 |
| 0.28 | 5.50 | 150.92 | 46.00 | 0.26 | 2.28 | 0.60 | 21.87 | 32.00 | 1.00 | 4.28 | 6.00 | 33.31 | 40.00 | 1.65 | 6.28 | 1.06 | 14.51 | 167.33 | 2.28 | 8.28 | 1.87 | 26.79 | 46.67 | 3.02 |
| 0.30 | 14.77 | 137.03 | 36.00 | 0.21 | 2.30 | 0.65 | 22.53 | 27.33 | 0.99 | 4.30 | 6.07 | 31.42 | 40.00 | 1.65 | 6.30 | 1.03 | 14.62 | 173.33 | 2.29 | 8.30 | 2.50 | 28.56 | 42.00 | 3.03 |
| 0.32 | 12.09 | 69.61 | 44.67 | 0.50 | 2.32 | 0.64 | 21.31 | 28.00 | 1.01 | 4.32 | 6.24 | 30.86 | 39.33 | 1.65 | 6.32 | 1.05 | 14.51 | 159.33 | 2.29 | 8.32 | 2.88 | 37.01 | 40.67 | 3.04 |
| 0.34 | 7.85 | 78.94 | 47.33 | 0.48 | 2.34 | 0.63 | 21.53 | 28.67 | 1.01 | 4.34 | 6.49 | 29.41 | 39.33 | 1.67 | 6.34 | 1.05 | 15.18 | 152.67 | 2.30 | 8.34 | 3.07 | 38.79 | 46.67 | 3.05 |
| 0.36 | 5.61 | 177.16 | 49.33 | 0.47 | 2.36 | 0.65 | 21.86 | 27.33 | 1.01 | 4.36 | 6.68 | 26.86 | 38.67 | 1.67 | 6.36 | 1.03 | 15.51 | 144.67 | 2.31 | 8.36 | 2.99 | 36.56 | 50.00 | 3.06 |
| 0.38 | 3.48 | 170.94 | 51.33 | 0.48 | 2.38 | 0.67 | 21.97 | 28.00 | 1.02 | 4.38 | 6.71 | 27.85 | 37.33 | 1.67 | 6.38 | 1.02 | 15.85 | 152.00 | 2.33 | 8.38 | 2.76 | 27.12 | 50.00 | 3.06 |
| 0.40 | 1.36 | 164.71 | 53.33 | 0.49 | 2.40 | 0.67 | 22.08 | 28.00 | 1.02 | 4.40 | 6.22 | 30.85 | 42.67 | 1.68 | 6.40 | 1.01 | 16.52 | 168.00 | 2.33 | 8.40 | 2.61 | 23.12 | 49.33 | 3.08 |
| 0.42 | 2.79 | 199.38 | 50.67 | 0.48 | 2.42 | 0.64 | 22.07 | 27.33 | 1.03 | 4.42 | 5.99 | 31.74 | 43.33 | 1.69 | 6.42 | 1.02 | 17.41 | 139.33 | 2.33 | 8.42 | 2.72 | 26.01 | 49.33 | 3.08 |
| 0.44 | 2.52 | 207.03 | 50.67 | 0.50 | 2.44 | 0.68 | 22.52 | 25.33 | 1.03 | 4.44 | 6.01 | 31.74 | 38.67 | 1.68 | 6.44 | 0.63 | 19.74 | 125.33 | 2.35 | 8.44 | 2.88 | 34.12 | 49.33 | 3.09 |
| 0.46 | 2.21 | 213.80 | 51.33 | 0.51 | 2.46 | 0.67 | 22.40 | 27.33 | 1.03 | 4.46 | 5.74 | 32.62 | 38.67 | 1.69 | 6.46 | 0.84 | 19.74 | 108.00 | 2.35 | 8.46 | 2.86 | 42.68 | 49.33 | 3.09 |
| 0.48 | 1.97 | 203.12 | 51.33 | 0.50 | 2.48 | 0.65 | 22.63 | 28.00 | 1.04 | 4.48 | 5.55 | 32.18 | 38.67 | 1.70 | 6.48 | 0.63 | 20.52 | 97.33 | 2.37 | 8.48 | 2.61 | 41.01 | 51.33 | 3.11 |
| 0.50 | 1.88 | 173.33 | 52.00 | 0.50 | 2.50 | 0.67 | 22.85 | 26.00 | 1.04 | 4.50 | 5.42 | 31.51 | 38.67 | 1.71 | 6.50 | 1.01 | 20.19 | 114.00 | 2.37 | 8.50 | 2.28 | 36.34 | 51.33 | 3.11 |
| 0.52 | 1.72 | 148.76 | 53.33 | 0.50 | 2.52 | 0.64 | 23.73 | 28.00 | 1.03 | 4.52 | 5.31 | 31.06 | 37.33 | 1.72 | 6.52 | 1.02 | 20.97 | 118.67 | 2.37 | 8.52 | 2.28 | 33.67 | 50.67 | 3.13 |
| 0.54 | 1.68 | 134.30 | 52.00 | 0.52 | 2.54 | 0.61 | 24.29 | 28.00 | 1.03 | 4.54 | 5.25 | 31.51 | 37.33 | 1.73 | 6.54 | 1.07 | 20.74 | 119.33 | 2.39 | 8.54 | 2.79 | 38.79 | 49.33 | 3.14 |
| 0.56 | 1.64 | 119.85 | 50.67 | 0.53 | 2.56 | 0.59 | 24.51 | 28.67 | 1.05 | 4.56 | 5.20 | 31.17 | 37.33 | 1.73 | 6.56 | 1.13 | 20.97 | 118.00 | 2.40 | 8.56 | 2.91 | 47.56 | 53.33 | 3.15 |
| 0.58 | 1.51 | 115.07 | 53.33 | 0.51 | 2.58 | 0.57 | 25.17 | 28.67 | 1.05 | 4.58 | 5.15 | 30.87 | 37.33 | 1.73 | 6.58 | 1.18 | 21.30 | 176.67 | 2.41 | 8.58 | 2.90 | 46.01 | 68.00 | 3.15 |
| 0.60 | 1.38 | 87.49 | 56.67 | 0.53 | 2.60 | 0.58 | 26.06 | 28.00 | 1.05 | 4.60 | 5.09 | 30.50 | 37.33 | 1.74 | 6.60 | 1.19 | 21.41 | 169.33 | 2.41 | 8.60 | 2.70 | 40.90 | 68.00 | 3.17 |
| 0.62 | 1.33 | 82.49 | 56.67 | 0.52 | 2.62 | 0.56 | 26.28 | 28.67 | 1.06 | 4.62 | 5.03 | 29.38 | 36.67 | 1.74 | 6.62 | 1.24 | 20.97 | 154.00 | 2.41 | 8.62 | 2.49 | 32.45 | 68.00 | 3.18 |
| 0.64 | 1.23 | 77.83 | 57.33 | 0.53 | 2.64 | 0.57 | 26.17 | 28.00 | 1.05 | 4.64 | 4.96 | 29.16 | 36.67 | 1.75 | 6.64 | 1.27 | 20.75 | 180.67 | 2.41 | 8.64 | 2.66 | 29.33 | 66.67 | 3.18 |
| 0.66 | 1.20 | 79.38 | 56.67 | 0.52 | 2.66 | 0.57 | 26.17 | 26.00 | 1.05 | 4.66 | 4.91 | 29.60 | 36.67 | 1.76 | 6.66 | 1.29 | 21.31 | 198.67 | 2.41 | 8.66 | 3.22 | 35.45 | 66.00 | 3.19 |
| 0.68 | 1.21 | 77.71 | 57.33 | 0.53 | 2.68 | 0.61 | 26.06 | 26.00 | 1.05 | 4.68 | 4.98 | 29.94 | 36.00 | 1.76 | 6.68 | 1.26 | 23.08 | 196.00 | 2.42 | 8.68 | 3.54 | 40.78 | 66.00 | 3.20 |
| 0.70 | 1.21 | 76.26 | 58.00 | 0.54 | 2.70 | 0.59 | 25.83 | 27.33 | 1.07 | 4.70 | 5.16 | 30.49 | 35.33 | 1.77 | 6.70 | 1.24 | 23.86 | 181.33 | 2.41 | 8.70 | 3.50 | 42.33 | 66.00 | 3.21 |
| 0.72 | 1.26 | 72.59 | 56.67 | 0.55 | 2.72 | 0.62 | 25.83 | 25.33 | 1.06 | 4.72 | 5.25 | 31.15 | 35.33 | 1.77 | 6.72 | 1.25 | 25.42 | 136.00 | 2.41 | 8.72 | 3.21 | 43.56 | 68.00 | 3.22 |
| 0.74 | 1.27 | 67.26 | 57.33 | 0.55 | 2.74 | 0.63 | 25.72 | 27.33 | 1.05 | 4.74 | 5.28 | 31.82 | 36.00 | 1.78 | 6.74 | 1.25 | 28.19 | 111.33 | 2.41 | 8.74 | 3.08 | 40.67 | 63.33 | 3.20 |
| 0.76 | 1.26 | 65.81 | 57.33 | 0.55 | 2.76 | 0.64 | 26.05 | 26.00 | 1.06 | 4.76 | 5.24 | 32.93 | 35.33 | 1.78 | 6.76 | 1.22 | 31.42 | 66.67 | 2.41 | 8.76 | 2.58 | 28.22 | 62.00 | 3.22 |
| 0.78 | 1.28 | 65.26 | 57.33 | 0.57 | 2.78 | 0.68 | 26.27 | 24.00 | 1.06 | 4.78 | 5.17 | 32.82 | 36.00 | 1.79 | 6.78 | 0.83 | 36.97 | 29.33 | 2.42 | 8.78 | 2.26 | 24.67 | 62.67 | 3.24 |
| 0.80 | 1.27 | 65.36 | 56.67 | 0.56 | 2.80 | 0.69 | 26.38 | 25.33 | 1.07 | 4.80 | 5.14 | 32.26 | 35.33 | 1.80 | 6.80 | 0.78 | 41.09 | 22.00 | 2.42 | 8.80 | 1.93 | 26.78 | 62.67 | 3.24 |
| 0.82 | 1.25 | 67.03 | 56.67 | 0.57 | 2.82 | 0.70 | 29.16 | 25.33 | 1.08 | 4.82 | 5.22 | 32.03 | 35.33 | 1.80 | 6.82 | 0.69 | 45.31 | 35.33 | 2.43 | 8.82 | 1.63 | 29.78 | 62.00 | 3.25 |
| 0.84 | 1.29 | 68.36 | 55.33 | 0.57 | 2.84 | 0.72 | 29.49 | 27.33 | 1.09 | 4.84 | 5.05 | 33.92 | 39.33 | 1.82 | 6.84 | 0.66 | 44.42 | 44.00 | 2.43 | 8.84 | 1.51 | 32.89 | 49.33 | 3.26 |
| 0.86 | 1.32 | 69.14 | 55.33 | 0.59 | 2.86 | 0.78 | 27.38 | 27.33 | 1.08 | 4.86 | 5.28 | 34.25 | 38.67 | 1.82 | 6.86 | 0.99 | 39.87 | 52.67 | 2.44 | 8.86 | 1.51 | 33.89 | 41.33 | 3.27 |
| 0.88 | 1.34 | 70.91 | 55.33 | 0.59 | 2.88 | 0.90 | 28.04 | 26.00 | 1.09 | 4.88 | 5.43 | 35.70 | 37.33 | 1.83 | 6.88 | 1.03 | 35.75 | 75.33 | 2.45 | 8.88 | 1.51 | 34.22 | 82.00 | 3.27 |
| 0.90 | 1.38 | 72.69 | 55.33 | 0.59 | 2.90 | 1.13 | 31.60 | 28.00 | 1.10 | 4.90 | 5.51 | 35.47 | 37.33 | 1.83 | 6.90 | 1.07 | 31.53 | 93.33 | 2.45 | 8.90 | 1.51 | 34.00 | 64.67 | 3.28 |
| 0.92 | 1.40 | 74.24 | 55.33 | 0.60 | 2.92 | 1.40 | 34.93 | 28.00 | 1.12 | 4.92 | 5.90 | 33.92 | 32.67 | 1.84 | 6.92 | 1.13 | 27.20 | 98.00 | 2.47 | 8.92 | 1.45 | 32.22 | 29.33 | 3.29 |
| 0.94 | 1.45 | 73.90 | 54.67 | 0.60 | 2.94 | 1.61 | 37.48 | 58.67 | 1.13 | 4.94 | 5.84 | 33.81 | 32.67 | 1.85 | 6.94 | 1.15 | 23.42 | 103.33 | 2.48 | 8.94 | 1.35 | 29.22 | 16.67 | 3.31 |
| 0.96 | 1.47 | 75.45 | 54.67 | 0.60 | 2.96 | 1.6 | | | | | | | | | | | | | | | | | | |



elletipi s.r.l.

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tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 04 PROF. FALDA (m da p.c.): 1.90 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PROF. (m da p.c.): LAT. (WGS 84): 44.693175° LONG. (WGS 84): 11.835056°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

| prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi |
|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|
| 10.02 | 1.17 | 25.47 | 149.33 | 3.78 | 12.02 | 1.34 | 22.90 | 310.00 | 4.81 | 14.02 | 1.10 | 24.82 | 138.00 | 5.62 | 16.02 | 1.00 | 19.04 | 207.33 | 6.55 | 18.02 | 1.00 | 19.39 | 343.33 | 7.51 |
| 10.04 | 1.17 | 24.46 | 149.33 | 3.78 | 12.04 | 1.38 | 24.35 | 312.67 | 4.82 | 14.04 | 0.97 | 26.27 | 139.33 | 5.64 | 16.04 | 0.97 | 18.27 | 210.00 | 6.56 | 18.04 | 0.99 | 19.62 | 344.67 | 7.51 |
| 10.06 | 1.17 | 24.36 | 151.33 | 3.80 | 12.06 | 1.38 | 26.24 | 264.67 | 4.83 | 14.06 | 0.93 | 26.15 | 148.00 | 5.65 | 16.06 | 0.90 | 16.60 | 233.33 | 6.57 | 18.06 | 1.02 | 20.73 | 348.00 | 7.53 |
| 10.08 | 1.22 | 25.36 | 166.67 | 3.81 | 12.08 | 1.39 | 30.24 | 245.33 | 4.84 | 14.08 | 1.33 | 23.82 | 161.33 | 5.65 | 16.08 | 0.90 | 18.16 | 257.33 | 6.59 | 18.08 | 1.04 | 20.73 | 340.00 | 7.54 |
| 10.10 | 1.26 | 26.25 | 168.00 | 3.81 | 12.10 | 1.39 | 35.35 | 237.33 | 4.86 | 14.10 | 1.54 | 23.93 | 172.67 | 5.66 | 16.10 | 0.88 | 18.39 | 267.33 | 6.60 | 18.10 | 1.04 | 20.73 | 329.33 | 7.54 |
| 10.12 | 1.26 | 26.36 | 166.00 | 3.82 | 12.12 | 1.37 | 40.91 | 238.00 | 4.86 | 14.12 | 1.53 | 25.15 | 152.67 | 5.67 | 16.12 | 0.87 | 17.83 | 276.67 | 6.61 | 18.12 | 1.04 | 20.50 | 370.00 | 7.55 |
| 10.14 | 1.23 | 27.36 | 158.00 | 3.83 | 12.14 | 1.31 | 47.02 | 238.00 | 4.88 | 14.14 | 1.93 | 25.38 | 143.33 | 5.68 | 16.14 | 0.87 | 17.39 | 277.33 | 6.62 | 18.14 | 1.07 | 19.84 | 372.67 | 7.56 |
| 10.16 | 1.20 | 28.58 | 174.00 | 3.83 | 12.16 | 1.27 | 50.80 | 237.33 | 4.88 | 14.16 | 1.48 | 27.93 | 132.00 | 5.70 | 16.16 | 0.86 | 16.50 | 279.33 | 6.62 | 18.16 | 1.10 | 19.84 | 353.33 | 7.56 |
| 10.18 | 1.18 | 28.47 | 175.33 | 3.84 | 12.18 | 1.23 | 52.02 | 237.33 | 4.90 | 14.18 | 1.65 | 25.71 | 148.67 | 5.71 | 16.18 | 0.84 | 16.17 | 280.00 | 6.64 | 18.18 | 1.14 | 21.39 | 360.67 | 7.57 |
| 10.20 | 1.17 | 28.25 | 174.67 | 3.84 | 12.20 | 1.22 | 49.69 | 232.00 | 4.90 | 14.20 | 2.90 | 40.38 | 73.33 | 5.73 | 16.20 | 0.84 | 15.61 | 282.00 | 6.64 | 18.20 | 1.14 | 20.84 | 377.33 | 7.58 |
| 10.22 | 1.17 | 27.92 | 177.67 | 3.85 | 12.22 | 0.87 | 47.02 | 226.00 | 4.91 | 14.22 | 3.24 | 45.38 | 53.33 | 5.73 | 16.22 | 0.84 | 15.17 | 281.33 | 6.66 | 18.22 | 1.14 | 20.84 | 349.33 | 7.60 |
| 10.24 | 1.15 | 27.81 | 177.33 | 3.86 | 12.24 | 0.86 | 42.36 | 224.00 | 4.92 | 14.24 | 2.87 | 43.49 | 41.33 | 5.73 | 16.24 | 0.86 | 15.28 | 283.33 | 6.68 | 18.24 | 1.11 | 22.28 | 367.33 | 7.61 |
| 10.26 | 1.14 | 27.36 | 177.33 | 3.87 | 12.26 | 0.82 | 37.91 | 224.00 | 4.92 | 14.26 | 2.23 | 40.27 | 37.33 | 5.75 | 16.26 | 0.88 | 15.39 | 285.33 | 6.69 | 18.26 | 1.11 | 21.73 | 364.67 | 7.61 |
| 10.28 | 1.12 | 26.14 | 178.00 | 3.87 | 12.28 | 0.85 | 34.02 | 228.67 | 4.93 | 14.28 | 1.82 | 41.38 | 36.67 | 5.75 | 16.28 | 0.92 | 16.28 | 287.33 | 6.70 | 18.28 | 1.10 | 22.28 | 366.67 | 7.62 |
| 10.30 | 1.14 | 25.03 | 182.00 | 3.88 | 12.30 | 0.89 | 31.57 | 232.67 | 4.94 | 14.30 | 1.53 | 47.04 | 50.00 | 5.76 | 16.30 | 0.97 | 17.72 | 288.00 | 6.71 | 18.30 | 1.10 | 22.39 | 368.67 | 7.63 |
| 10.32 | 1.18 | 24.69 | 186.00 | 3.89 | 12.32 | 1.24 | 28.80 | 238.00 | 4.96 | 14.32 | 1.35 | 48.93 | 92.67 | 5.76 | 16.32 | 1.05 | 18.83 | 291.33 | 6.71 | 18.32 | 1.09 | 22.73 | 372.00 | 7.64 |
| 10.34 | 1.21 | 23.58 | 188.67 | 3.90 | 12.34 | 1.27 | 28.69 | 236.67 | 4.97 | 14.34 | 1.18 | 52.04 | 108.00 | 5.78 | 16.34 | 1.07 | 19.61 | 291.33 | 6.72 | 18.34 | 1.10 | 22.50 | 374.00 | 7.65 |
| 10.36 | 1.22 | 23.03 | 191.33 | 3.90 | 12.36 | 1.39 | 28.13 | 192.67 | 4.99 | 14.36 | 1.17 | 56.15 | 119.33 | 5.78 | 16.36 | 1.06 | 20.83 | 288.00 | 6.73 | 18.36 | 1.17 | 23.17 | 380.67 | 7.66 |
| 10.38 | 1.26 | 22.69 | 193.33 | 3.92 | 12.38 | 1.63 | 27.24 | 206.00 | 5.00 | 14.38 | 1.28 | 47.26 | 123.33 | 5.79 | 16.38 | 1.04 | 20.28 | 296.67 | 6.73 | 18.38 | 1.24 | 23.50 | 384.67 | 7.67 |
| 10.40 | 1.28 | 23.14 | 195.33 | 3.94 | 12.40 | 1.67 | 29.02 | 221.33 | 5.00 | 14.40 | 1.41 | 42.82 | 126.00 | 5.80 | 16.40 | 1.04 | 19.39 | 291.33 | 6.75 | 18.40 | 1.25 | 24.39 | 365.33 | 7.69 |
| 10.42 | 1.29 | 23.14 | 196.00 | 3.94 | 12.42 | 1.29 | 36.57 | 208.00 | 5.01 | 14.42 | 1.54 | 39.71 | 123.33 | 5.82 | 16.42 | 1.02 | 18.94 | 292.67 | 6.76 | 18.42 | 1.18 | 25.62 | 358.00 | 7.69 |
| 10.44 | 1.29 | 23.92 | 193.33 | 3.94 | 12.44 | 1.43 | 38.02 | 156.00 | 5.01 | 14.44 | 1.65 | 35.26 | 123.33 | 5.83 | 16.44 | 1.01 | 19.39 | 296.67 | 6.77 | 18.44 | 1.12 | 24.84 | 344.67 | 7.70 |
| 10.46 | 1.28 | 25.36 | 193.33 | 3.95 | 12.46 | 1.21 | 45.36 | 162.67 | 5.03 | 14.46 | 1.60 | 29.15 | 118.67 | 5.84 | 16.46 | 1.00 | 18.72 | 298.67 | 6.78 | 18.46 | 1.11 | 24.17 | 366.00 | 7.70 |
| 10.48 | 1.29 | 27.25 | 194.67 | 3.97 | 12.48 | 1.09 | 49.02 | 162.67 | 5.03 | 14.48 | 1.41 | 23.26 | 114.67 | 5.85 | 16.48 | 1.00 | 18.61 | 302.00 | 6.79 | 18.48 | 1.12 | 23.62 | 369.33 | 7.72 |
| 10.50 | 1.35 | 28.14 | 198.67 | 3.98 | 12.50 | 1.09 | 47.80 | 162.67 | 5.04 | 14.50 | 1.20 | 17.37 | 118.00 | 5.85 | 16.50 | 1.00 | 18.39 | 302.67 | 6.80 | 18.50 | 1.17 | 23.73 | 375.33 | 7.72 |
| 10.52 | 1.40 | 29.47 | 202.67 | 3.99 | 12.52 | 0.75 | 48.13 | 166.00 | 5.05 | 14.52 | 1.05 | 17.37 | 126.00 | 5.86 | 16.52 | 0.97 | 18.28 | 310.67 | 6.81 | 18.52 | 1.21 | 24.84 | 379.33 | 7.74 |
| 10.54 | 1.53 | 31.14 | 210.00 | 4.00 | 12.54 | 0.74 | 44.68 | 170.67 | 5.06 | 14.54 | 0.95 | 21.81 | 125.33 | 5.88 | 16.54 | 0.94 | 17.83 | 309.33 | 6.82 | 18.54 | 1.17 | 25.62 | 379.33 | 7.74 |
| 10.56 | 1.73 | 32.47 | 224.67 | 4.02 | 12.56 | 0.74 | 39.02 | 174.67 | 5.07 | 14.56 | 0.86 | 21.70 | 123.33 | 5.89 | 16.56 | 1.04 | 17.06 | 320.67 | 6.83 | 18.56 | 1.16 | 25.50 | 355.33 | 7.75 |
| 10.58 | 1.64 | 36.14 | 229.33 | 4.04 | 12.58 | 1.12 | 31.24 | 187.33 | 5.08 | 14.58 | 0.81 | 21.81 | 144.00 | 5.90 | 16.58 | 1.18 | 18.17 | 324.67 | 6.84 | 18.58 | 1.12 | 27.39 | 356.67 | 7.76 |
| 10.60 | 1.89 | 40.92 | 244.67 | 4.06 | 12.60 | 1.31 | 25.68 | 202.67 | 5.10 | 14.60 | 0.85 | 20.70 | 149.33 | 5.91 | 16.60 | 1.28 | 18.72 | 317.33 | 6.85 | 18.60 | 1.11 | 31.17 | 357.33 | 7.78 |
| 10.62 | 2.40 | 44.47 | 188.00 | 4.08 | 12.62 | 1.40 | 22.35 | 209.33 | 5.11 | 14.62 | 0.85 | 20.26 | 154.67 | 5.92 | 16.62 | 1.28 | 21.95 | 270.00 | 6.86 | 18.62 | 1.14 | 33.95 | 361.33 | 7.78 |
| 10.64 | 2.43 | 58.92 | 115.33 | 4.06 | 12.64 | 1.39 | 22.02 | 197.33 | 5.12 | 14.64 | 0.86 | 19.48 | 156.67 | 5.93 | 16.64 | 1.24 | 23.72 | 256.00 | 6.87 | 18.64 | 1.17 | 36.50 | 366.67 | 7.79 |
| 10.66 | 1.99 | 79.36 | 233.33 | 4.10 | 12.66 | 1.29 | 28.13 | 211.33 | 5.12 | 14.66 | 0.86 | 19.26 | 161.33 | 5.94 | 16.66 | 1.18 | 23.61 | 226.67 | 6.88 | 18.66 | 1.17 | 38.06 | 366.67 | 7.79 |
| 10.68 | 1.93 | 100.03 | 167.33 | 4.12 | 12.68 | 1.28 | 30.91 | 224.67 | 5.13 | 14.68 | 0.92 | 18.26 | 165.33 | 5.95 | 16.68 | 1.04 | 23.28 | 216.67 | 6.89 | 18.68 | 1.17 | 39.95 | 356.67 | 7.80 |
| 10.70 | 1.88 | 119.69 | 161.33 | 4.13 | 12.70 | 1.26 | 32.46 | 240.00 | 5.14 | 14.70 | 1.05 | 19.37 | 170.00 | 5.96 | 16.70 | 0.97 | 21.72 | 263.33 | 6.90 | 18.70 | 1.16 | 40.50 | 354.67 | 7.81 |
| 10.72 | 1.86 | 134.81 | 213.33 | 4.14 | 12.72 | 1.20 | 34.57 | 267.33 | 5.14 | 14.72 | 1.16 | 19.37 | 162.00 | 5.97 | 16.72 | 0.94 | 20.17 | 268.67 | 6.91 | 18.72 | 1.13 | 39.06 | 357.33 | 7.81 |
| 10.74 | 1.82 | 150.81 | 243.33 | 4.15 | 12.74 | 1.17 | 36.13 | 213.33 | 5.15 | 14.74 | 1.13 | 22.37 | 151.33 | 5.98 | 16.74 | 0.93 | 20.17 | 272.67 | 6.91 | 18.74 | 1.12 | 38.61 | 358.00 | 7.81 |
| 10.76 | 1.77 | 161.69 | 327.33 | 4.16 | 12.76 | 1.14 | 37.35 | 211.33 | 5.15 | 14.76 | 1.08 | 23.03 | 155.33 | 5.99 | 16.76 | 0.92 | 20.17 | 276.67 | 6.92 | 18.76 | 1.13 | 37.95 | 359.33 | 7.82 |
| 10.78 | 1.79 | 162.25 | 236.67 | 4.16 | 12.78 | 1.11 | 34.91 | 210.00 | 5.17 | 14.78 | 1.13 | 23.26 | 148.67 | 6.00 | 16.78 | 0.90 | 18.95 | 280.67 | 6.93 | 18.78 | 1.13 | 38.61 | 364.00 | 7.83 |
| 10.80 | 1.70 | 162.02 | 134.00 | 4.16 | 12.80 | 1.09 | 29.24 | 224.67 | 5.17 | 14.80 | 1.09 | 22.70 | 144.67 | 6.01 | 16.80 | 0.92 | 18.61 | 284.00 | 6.94 | 18.80 | 1.15 | 38.61 | 364.00 | 7.83 |
| 10.82 | 1.49 | 165.13 | 58.67 | 4.16 | 12.82 | 1.08 | 28.02 | 224.00 | 5.17 | 14.82 | 1.08 | 23.14 | 151.33 | 6.02 | 16.82 | 0.93 | 18.17 | 288.00 | 6.95 | 18.82 | 1.13 | 38.05 | 359.33 | 7.85 |
| 10.84 | 1.31 | 163.57 | 44.67 | 4.18 | 12.84 | 1.08 | 27.24 | 222.67 | 5.19 | 14.84 | 1.11 | 23.15 | 161.33 | 6.02 | 16.84 | 0.93 | 17.61 | 291.33 | 6.96 | 18.84 | 1.11 | 37.39 | 358.00 | 7.85 |
| 10.86 | 1.14 | 157.90 | 54.67 | 4.19 | 12.86 | 1.08 | 26.57 | 222.67 | 5.19 | 14.86 | 1.05 | 22.71 | 154.00 | 6.04 | 16.86 | 0.95 | 17.83 | 294.00 | 6.98 | 18.86 | 1.06 | 37.72 | 358.00 | 7.87 |
| 10.88 | 1.02 | 145.45 | 66.67 | 4.21 | 12.88 | 1.08 | 24.36 | 224.00 | 5.20 | 14.88 | 1.03 | 23.92 | 152.67 | 6.05 | 16.88 | 0.98 | 17.72 | 296.67 | 6.98 | 18.88 | 1.05 | 35.83 | 353.33 | 7.87 |
| 10.90 | 0.93 | 127.45 | 80.67 | 4.22 | 12.90 | 1.08 | 22.36 | 222.67 | 5.21 | 14.90 | 1.06 | 25.37 | 161.33 | 6.06 | 16.90 | 1.00 | 17.72 | 300.00 | 6.99 | 18.90 | 1.04 | 33.94 | 348.67 | 7.88 |
| 10.92 | 0.90 | 106.44 | 106.67 | 4.24 | 12.92 | 0.70 | 19.81 | 216.67 | 5.24 | 14.92 | 1.10 | 23.82 | 162.67 | 6 | | | | | | | | | | |

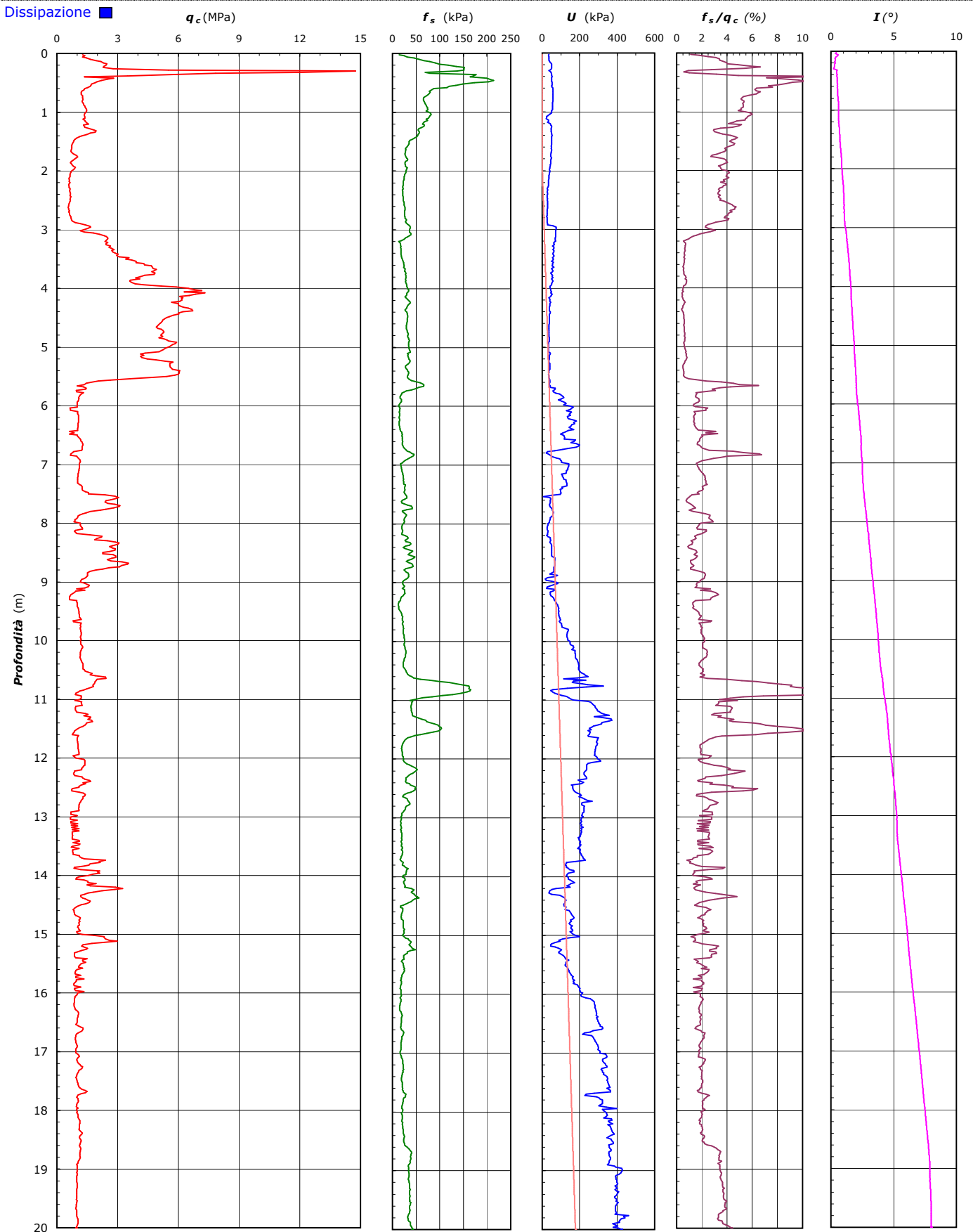
COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 04 PROF. FALDA (m da p.c.): 1.90 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.693175° LONG. (WGS 84): 11.835056°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato



COMMITTENTE: EN GEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma**CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: PO CPTU 04 PROF. FALDA (m da p.c.): 1.90 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]
DATA: 04/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.693175° LONG. (WGS 84): 11.835056°
COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Strada provinciale 57 - Portoverrara (FE)



NOTE: Utilizzato 1 anello allargatore da inizio prova

Venuta di gas dal foro aperto (non è stato possibile misurare il livello di falda)



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P IVA e Codice Fiscale n. 00174600387

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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 05 PROF. FALDA (m da p.c.): 1.85 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 23/12/16 PROF. (m da p.c.): LAT. (WGS 84): 44.702817° LONG. (WGS 84): 11.783049°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 50 columns and 100 rows of geotechnical data including qc, fs, U, and incl. values for various soil profiles.

Il Direttore Tecnico SOA: p.i. Riccardo Mazza

Il Responsabile Prove in Sito: dott. Massimo Romagnoli



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COMMITTENTE: ENGELO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 05 PROF. FALDA (m da p.c.): 1.85 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 23/12/16 PROF. PREFORO (m da p.c.): LAT. (WGS 84): 44.702817° LONG. (WGS 84): 11.783049°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 50 columns (prof. m, qc Mpa, fs kPa, U kPa, incl. gradi) and 100 rows of data.

Il Direttore Tecnico SOA:
p.i. Riccardo Mazza

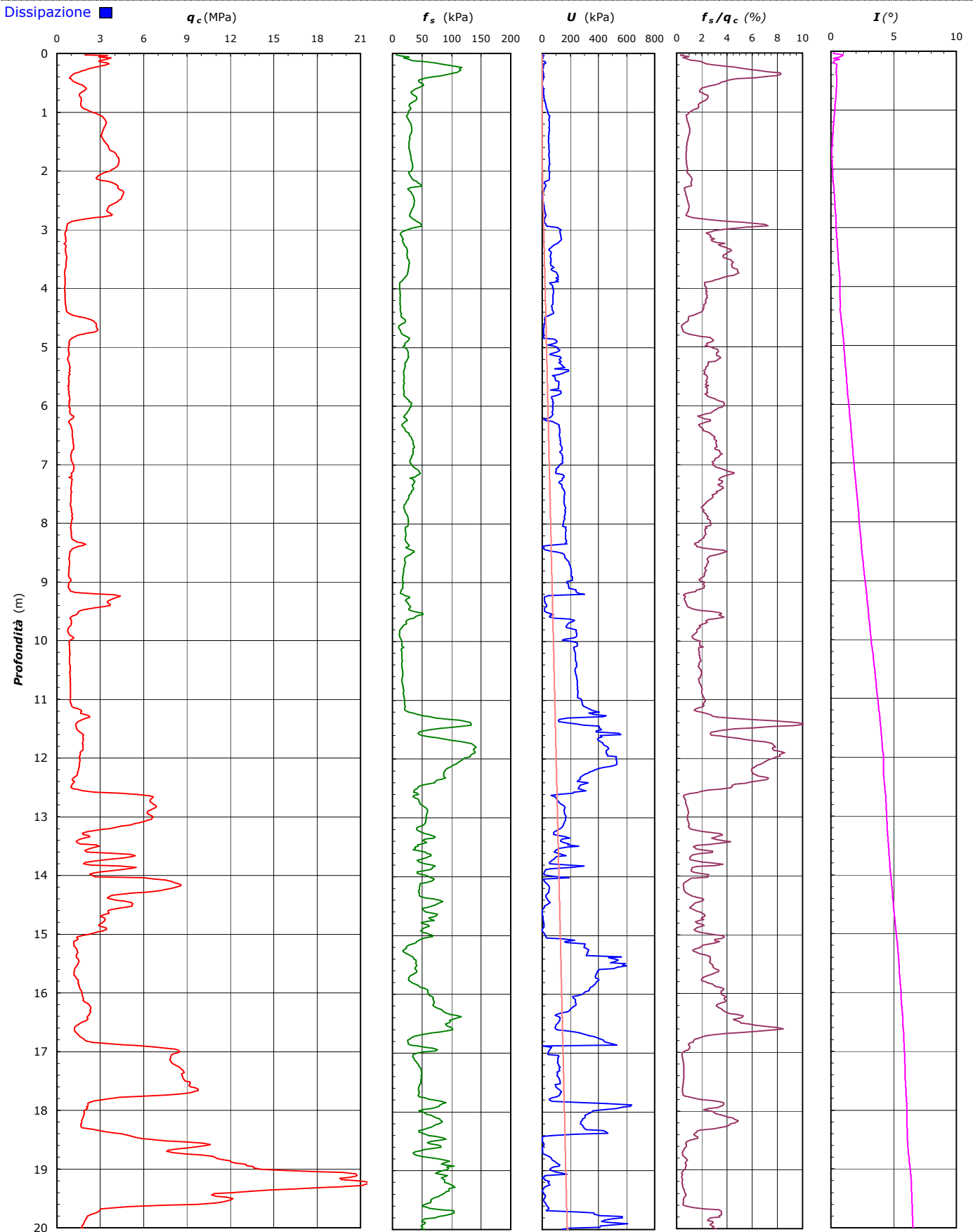
Il Responsabile Prove in Sito:
dott. Massimo Romagnoli

COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 05 PROF. FALDA (m da p.c.): 1.85 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 23/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.702817° LONG. (WGS 84): 11.783049°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato



COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma**CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: PO CPTU 05 PROF. FALDA (m da p.c.): 1.85 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]
DATA: 23/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.702817° LONG. (WGS 84): 11.783049°
COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Portorotta



NOTE: Utilizzato 1 anello allargatore da inizio prova



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COMMITTENTE: ENGELO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 06 PROF. FALDA (m da p.c.): 3.55 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PROF. (m da p.c.): LAT. (WGS 84): 44.710903° LONG. (WGS 84): 11.755749°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 5 columns of data (prof. m, qc Mpa, fs kPa, U kPa, incl. gradi) repeated 10 times for different test points.

Il Direttore Tecnico SOA: p.i. Riccardo Mazza

Il Responsabile Prove in Sito: dott. Massimo Romagnoli



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 06 PROF. FALDA (m da p.c.): 3.55

PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PROF. (m da p.c.):

LAT. (WGS 84): 44.710903° LONG. (WGS 84): 11.755749°

COMMESSA: 15699/16

C. SITO N°:

OPERATORE: L. Zanirato

Table with 48 columns (prof., qc, fs, U, incl. for 4 different stations) and 100 rows of data. Columns are grouped by station: Station 1 (prof. m, qc Mpa, fs kPa, U kPa, incl. gradi), Station 2 (prof. m, qc Mpa, fs kPa, U kPa, incl. gradi), Station 3 (prof. m, qc Mpa, fs kPa, U kPa, incl. gradi), Station 4 (prof. m, qc Mpa, fs kPa, U kPa, incl. gradi).

Il Direttore Tecnico SOA: p.i. Riccardo Mazza

Il Responsabile Prove in Sito: dott. Massimo Romagnoli

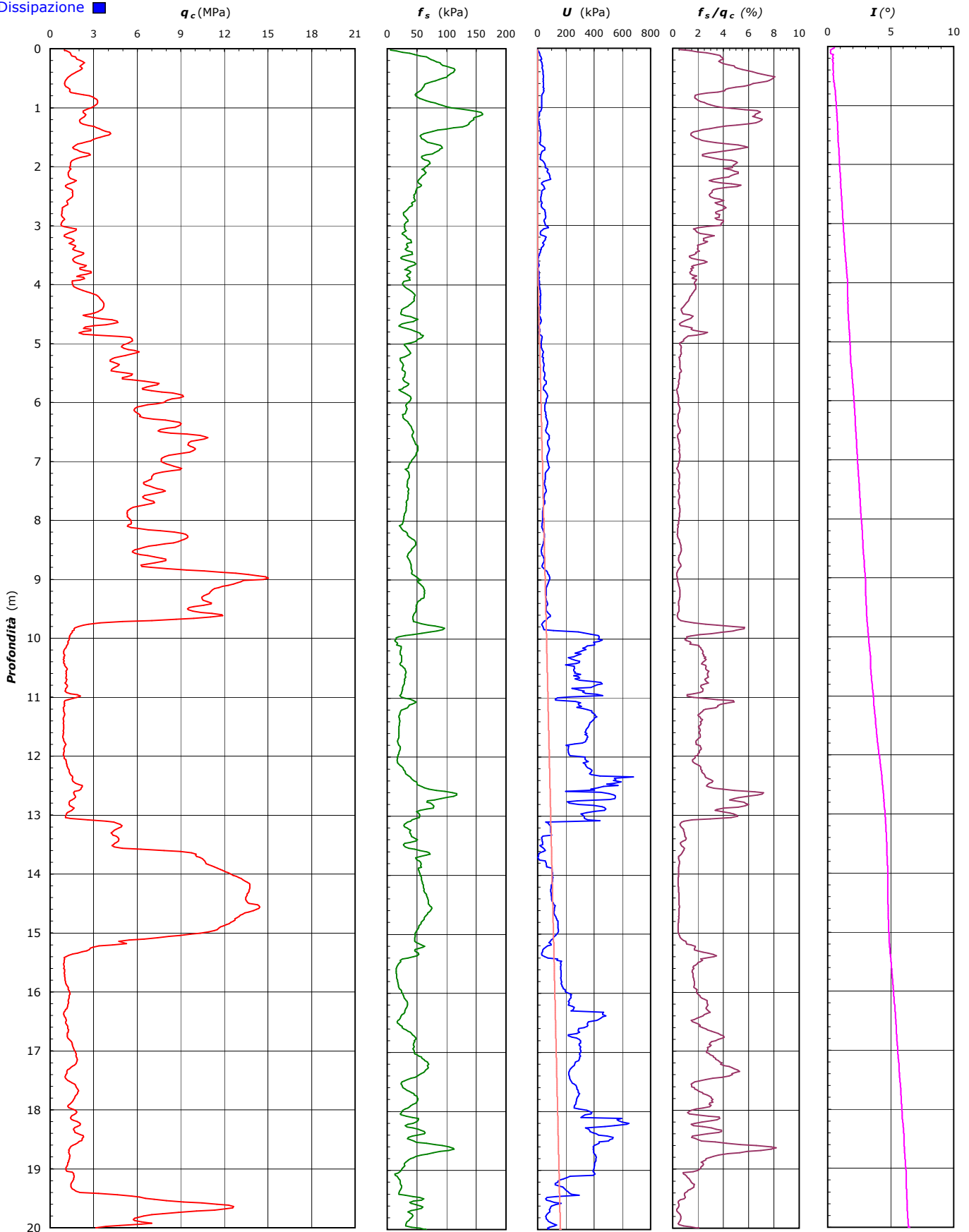
COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 06 PROF. FALDA (m da p.c.): 3.55 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.710903° LONG. (WGS 84): 11.755749°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Dissipazione ■



COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma**CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: PO CPTU 06 PROF. FALDA (m da p.c.): 3.55 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]
DATA: 22/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.710903° LONG. (WGS 84): 11.755749°
COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Quartiere



NOTE: Utilizzato 1 anello allargatore da inizio prova



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 01 PROF. FALDA (m da p.c.): 1.40 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PROF. PROF. (m da p.c.): LAT. (WGS 84): 44.725186° LONG. (WGS 84): 11.814695°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 10 columns: prof. m, qc Mpa, fs kPa, U kPa, incl. gradi, and 5 identical sets of these columns. Each row contains 50 data points.

Il Direttore Tecnico SOA:
p.i. Riccardo Mazza

Il Responsabile Prove in Sito:
dott. Massimo Romagnoli



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 01 PROF. FALDA (m da p.c.): 1.40 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PROF. PREFORO (m da p.c.): LAT. (WGS 84): 44.725186° LONG. (WGS 84): 11.814695°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 48 columns (prof. m, qc Mpa, fs kPa, U kPa, incl. gradi) and 120 rows of data.

Il Direttore Tecnico SOA:
p.i. Riccardo Mazza

Il Responsabile Prove in Sito:
dott. Massimo Romagnoli

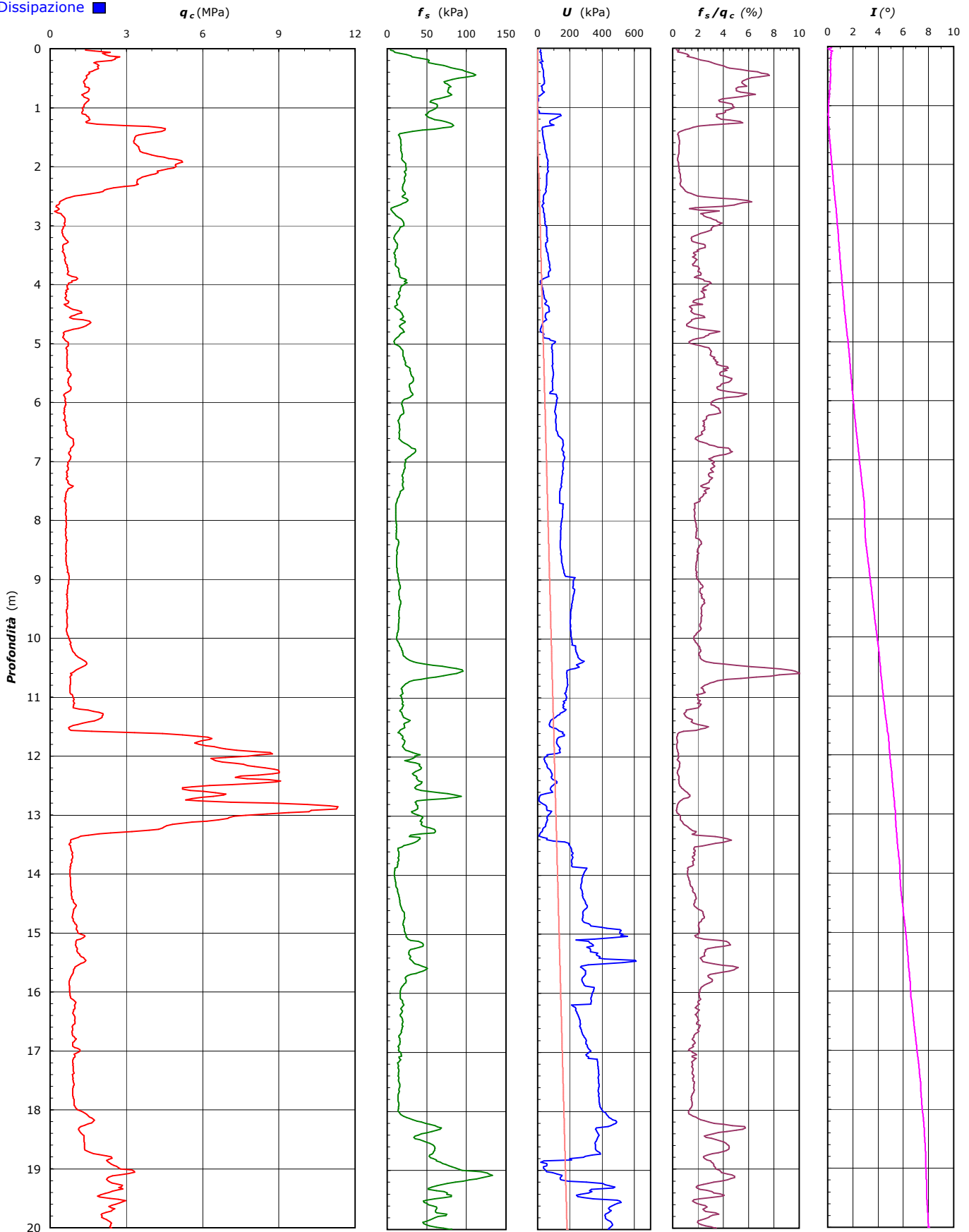
COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 01 PROF. FALDA (m da p.c.): 1.40 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.725186° LONG. (WGS 84): 11.814695°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Dissipazione ■



COMMITTENTE: **ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma****CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 01 PROF. FALDA (m da p.c.): 1.40 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.725186° LONG. (WGS 84): 11.814695°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Via Galavotta - Sandolo (FE)



NOTE: Utilizzato 1 anello allargatore da inizio prova

Venuta di gas dal foro aperto (non è stato possibile misurare il livello di falda)



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 08 PROF. FALDA (m da p.c.): 1.50 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PROF. PROF. (m da p.c.): LAT. (WGS 84): 44.72420° LONG. (WGS 84): 11.828429°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 50 columns and 45 rows of data. Columns include: prof. m, qc Mpa, fs kPa, U kPa, incl. gradi, and 45 additional columns with similar units and values.



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 08 PROF. FALDA (m da p.c.): 1.50 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PROF. PREFORO (m da p.c.): LAT. (WGS 84): 44.724207° LONG. (WGS 84): 11.828429°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

| prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. |
|-------|------|-------|--------|-------|-------|------|--------|----------|-------|-------|------|-------|--------|-------|-------|------|-------|--------|-------|-------|------|--------|--------|-------|
| m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi |
| 10.02 | 1.23 | 78.94 | 156.67 | 4.32 | 12.02 | 1.57 | 123.64 | 284.00 | 5.32 | 14.02 | 0.91 | 16.44 | 202.67 | 6.34 | 16.02 | 1.04 | 19.35 | 337.33 | 7.22 | 18.02 | 1.35 | 80.23 | 130.00 | 8.07 |
| 10.04 | 1.14 | 85.16 | 167.33 | 4.32 | 12.04 | 1.52 | 132.30 | 295.33 | 5.34 | 14.04 | 0.88 | 17.10 | 202.67 | 6.35 | 16.04 | 1.11 | 19.35 | 402.00 | 7.23 | 18.04 | 1.33 | 87.46 | 209.33 | 8.07 |
| 10.06 | 1.12 | 87.83 | 191.33 | 4.33 | 12.06 | 1.49 | 140.19 | 298.67 | 5.34 | 14.06 | 0.91 | 16.55 | 206.00 | 6.37 | 16.06 | 1.21 | 19.57 | 482.00 | 7.24 | 18.06 | 1.33 | 88.68 | 176.67 | 8.09 |
| 10.08 | 1.07 | 90.05 | 250.67 | 4.34 | 12.08 | 1.51 | 151.73 | 264.67 | 5.36 | 14.08 | 0.88 | 17.10 | 207.33 | 6.37 | 16.08 | 1.27 | 22.46 | 479.33 | 7.25 | 18.08 | 1.34 | 75.45 | 170.00 | 8.11 |
| 10.10 | 1.01 | 91.38 | 313.33 | 4.36 | 12.10 | 1.48 | 145.28 | 266.00 | 5.38 | 14.10 | 0.86 | 17.44 | 206.00 | 6.38 | 16.10 | 1.19 | 24.68 | 460.00 | 7.26 | 18.10 | 1.37 | 76.23 | 172.67 | 8.11 |
| 10.12 | 0.97 | 84.82 | 311.33 | 4.36 | 12.12 | 1.41 | 139.06 | 269.33 | 5.39 | 14.12 | 0.85 | 16.22 | 209.33 | 6.40 | 16.12 | 1.12 | 26.24 | 408.67 | 7.27 | 18.12 | 1.38 | 75.78 | 174.67 | 8.11 |
| 10.14 | 0.89 | 71.60 | 294.67 | 4.38 | 12.14 | 1.37 | 133.39 | 272.00 | 5.40 | 14.14 | 0.88 | 15.33 | 213.33 | 6.41 | 16.14 | 1.09 | 28.46 | 334.67 | 7.27 | 18.14 | 1.38 | 72.12 | 174.00 | 8.12 |
| 10.16 | 0.79 | 59.04 | 262.67 | 4.39 | 12.16 | 1.35 | 128.16 | 278.00 | 5.41 | 14.16 | 0.91 | 15.55 | 213.33 | 6.40 | 16.16 | 1.05 | 31.46 | 340.00 | 7.28 | 18.16 | 1.39 | 71.78 | 174.00 | 8.12 |
| 10.18 | 0.77 | 49.93 | 239.33 | 4.41 | 12.18 | 1.37 | 121.94 | 288.00 | 5.43 | 14.18 | 0.87 | 15.66 | 211.33 | 6.44 | 16.18 | 1.08 | 34.24 | 409.33 | 7.30 | 18.18 | 1.42 | 71.67 | 174.67 | 8.13 |
| 10.20 | 0.76 | 46.48 | 238.00 | 4.43 | 12.20 | 1.35 | 113.71 | 300.00 | 5.44 | 14.20 | 0.88 | 15.33 | 211.33 | 6.44 | 16.20 | 1.11 | 34.68 | 409.33 | 7.30 | 18.20 | 1.46 | 72.34 | 173.33 | 8.13 |
| 10.22 | 0.76 | 41.37 | 236.67 | 4.43 | 12.22 | 1.31 | 101.49 | 295.33 | 5.44 | 14.22 | 0.86 | 16.22 | 213.33 | 6.45 | 16.22 | 1.14 | 35.24 | 402.00 | 7.31 | 18.22 | 1.49 | 73.23 | 146.67 | 8.14 |
| 10.24 | 0.72 | 34.70 | 234.00 | 4.45 | 12.24 | 1.26 | 87.49 | 270.00 | 5.44 | 14.24 | 0.86 | 15.77 | 214.00 | 6.46 | 16.24 | 1.19 | 33.68 | 409.33 | 7.32 | 18.24 | 1.50 | 74.11 | 144.67 | 8.14 |
| 10.26 | 0.71 | 27.82 | 231.33 | 4.45 | 12.26 | 1.18 | 83.93 | 176.67 | 5.44 | 14.26 | 0.90 | 15.22 | 217.33 | 6.48 | 16.26 | 1.23 | 32.13 | 398.00 | 7.34 | 18.26 | 1.49 | 74.78 | 144.67 | 8.14 |
| 10.28 | 0.74 | 23.82 | 228.67 | 4.46 | 12.28 | 1.05 | 83.92 | 170.67 | 5.45 | 14.28 | 0.88 | 15.00 | 218.67 | 6.48 | 16.28 | 1.23 | 31.46 | 398.67 | 7.35 | 18.28 | 1.49 | 76.89 | 143.33 | 8.14 |
| 10.30 | 0.70 | 20.93 | 224.67 | 4.47 | 12.30 | 0.96 | 80.14 | 172.67 | 5.45 | 14.30 | 0.88 | 14.88 | 219.33 | 6.50 | 16.30 | 1.31 | 30.68 | 377.33 | 7.36 | 18.30 | 1.49 | 78.11 | 143.33 | 8.14 |
| 10.32 | 0.70 | 19.26 | 226.00 | 4.49 | 12.32 | 0.88 | 75.70 | 174.00 | 5.47 | 14.32 | 0.87 | 14.44 | 221.33 | 6.51 | 16.32 | 1.43 | 33.46 | 376.67 | 7.37 | 18.32 | 1.49 | 79.33 | 143.33 | 8.15 |
| 10.34 | 0.76 | 18.59 | 226.67 | 4.49 | 12.34 | 0.79 | 70.92 | 174.67 | 5.48 | 14.34 | 0.87 | 14.66 | 221.33 | 6.52 | 16.34 | 1.50 | 36.46 | 374.00 | 7.38 | 18.34 | 1.49 | 80.89 | 143.33 | 8.15 |
| 10.36 | 0.76 | 18.48 | 226.00 | 4.51 | 12.36 | 0.76 | 65.36 | 192.00 | 5.49 | 14.36 | 0.88 | 14.22 | 224.67 | 6.53 | 16.36 | 1.50 | 40.90 | 353.33 | 7.38 | 18.36 | 1.49 | 82.56 | 144.67 | 8.15 |
| 10.38 | 0.72 | 18.70 | 221.33 | 4.52 | 12.38 | 0.76 | 56.58 | 192.00 | 5.49 | 14.38 | 0.85 | 14.88 | 222.00 | 6.54 | 16.38 | 1.43 | 46.35 | 354.67 | 7.39 | 18.38 | 1.50 | 83.45 | 144.67 | 8.15 |
| 10.40 | 0.71 | 18.59 | 220.67 | 4.54 | 12.40 | 0.73 | 43.91 | 193.33 | 5.51 | 14.40 | 0.84 | 14.55 | 222.67 | 6.55 | 16.40 | 1.35 | 49.23 | 262.00 | 7.41 | 18.40 | 1.51 | 83.22 | 145.33 | 8.16 |
| 10.42 | 0.77 | 18.82 | 232.67 | 4.54 | 12.42 | 0.71 | 33.24 | 192.67 | 5.52 | 14.42 | 0.84 | 14.44 | 225.33 | 6.57 | 16.42 | 1.29 | 56.12 | 245.33 | 7.41 | 18.42 | 1.52 | 83.00 | 146.67 | 8.16 |
| 10.44 | 0.69 | 19.15 | 276.67 | 4.56 | 12.44 | 0.66 | 27.35 | 192.67 | 5.53 | 14.44 | 0.80 | 14.55 | 226.00 | 6.57 | 16.44 | 1.21 | 62.23 | 252.00 | 7.41 | 18.44 | 1.55 | 83.11 | 146.67 | 8.16 |
| 10.46 | 0.66 | 18.48 | 267.33 | 4.57 | 12.46 | 0.66 | 22.57 | 192.67 | 5.54 | 14.46 | 0.81 | 14.44 | 229.33 | 6.58 | 16.46 | 1.15 | 63.79 | 264.67 | 7.42 | 18.46 | 1.57 | 82.45 | 147.33 | 8.17 |
| 10.48 | 0.70 | 18.48 | 272.67 | 4.58 | 12.48 | 0.66 | 19.24 | 194.67 | 5.54 | 14.48 | 0.85 | 14.89 | 231.33 | 6.59 | 16.48 | 1.19 | 62.34 | 315.33 | 7.43 | 18.48 | 1.60 | 80.78 | 148.00 | 8.17 |
| 10.50 | 0.69 | 17.49 | 265.33 | 4.59 | 12.50 | 0.65 | 17.69 | 193.33 | 5.56 | 14.50 | 0.81 | 14.33 | 232.00 | 6.60 | 16.50 | 1.26 | 58.56 | 333.33 | 7.44 | 18.50 | 1.61 | 78.89 | 147.33 | 8.17 |
| 10.52 | 0.73 | 17.27 | 263.33 | 4.60 | 12.52 | 0.65 | 17.02 | 196.00 | 5.56 | 14.52 | 0.84 | 14.55 | 233.33 | 6.62 | 16.52 | 1.21 | 54.23 | 331.33 | 7.44 | 18.52 | 1.75 | 90.11 | 115.33 | 8.18 |
| 10.54 | 0.73 | 16.82 | 260.00 | 4.61 | 12.54 | 0.69 | 16.35 | 197.33 | 5.58 | 14.54 | 0.81 | 14.33 | 233.33 | 6.62 | 16.54 | 1.17 | 48.01 | 318.67 | 7.45 | 18.54 | 1.74 | 90.11 | 101.33 | 8.19 |
| 10.56 | 0.71 | 16.49 | 261.33 | 4.63 | 12.56 | 0.71 | 15.57 | 199.33 | 5.59 | 14.56 | 0.80 | 14.33 | 234.00 | 6.64 | 16.56 | 1.12 | 41.12 | 313.33 | 7.46 | 18.56 | 1.72 | 90.77 | 92.00 | 8.19 |
| 10.58 | 0.74 | 15.27 | 257.33 | 4.63 | 12.58 | 0.75 | 15.02 | 202.67 | 5.60 | 14.58 | 0.81 | 14.22 | 236.00 | 6.65 | 16.58 | 1.11 | 37.34 | 309.33 | 7.46 | 18.58 | 1.76 | 96.00 | 110.67 | 8.21 |
| 10.60 | 0.74 | 15.82 | 250.67 | 4.65 | 12.60 | 0.77 | 15.47 | 204.00 | 5.60 | 14.60 | 0.81 | 13.89 | 237.33 | 6.66 | 16.60 | 1.05 | 35.45 | 330.00 | 7.47 | 18.60 | 1.76 | 99.77 | 123.33 | 8.21 |
| 10.62 | 0.71 | 16.27 | 247.33 | 4.66 | 12.62 | 0.78 | 15.13 | 225.33 | 5.62 | 14.62 | 0.81 | 13.67 | 239.33 | 6.67 | 16.62 | 1.08 | 33.33 | 329.33 | 7.48 | 18.62 | 1.74 | 95.10 | 111.33 | 8.22 |
| 10.64 | 0.70 | 16.05 | 244.67 | 4.67 | 12.64 | 0.84 | 14.80 | 226.67 | 5.63 | 14.64 | 0.82 | 13.45 | 240.00 | 6.68 | 16.64 | 1.03 | 34.00 | 263.33 | 7.49 | 18.64 | 1.72 | 93.44 | 108.67 | 8.23 |
| 10.66 | 0.71 | 15.60 | 242.67 | 4.68 | 12.66 | 0.88 | 15.81 | 231.33 | 5.64 | 14.66 | 0.81 | 13.33 | 241.33 | 6.69 | 16.66 | 1.04 | 35.78 | 403.33 | 7.50 | 18.66 | 1.72 | 85.54 | 101.33 | 8.23 |
| 10.68 | 0.72 | 15.60 | 242.67 | 4.69 | 12.68 | 0.79 | 16.36 | 254.00 | 5.65 | 14.68 | 0.82 | 13.22 | 243.33 | 6.70 | 16.68 | 0.99 | 37.00 | 402.00 | 7.50 | 18.68 | 1.75 | 89.43 | 101.33 | 8.23 |
| 10.70 | 0.70 | 15.50 | 242.67 | 4.70 | 12.70 | 0.75 | 16.70 | 307.33 | 5.66 | 14.70 | 0.84 | 13.11 | 244.67 | 6.70 | 16.70 | 0.95 | 34.33 | 412.00 | 7.51 | 18.70 | 1.83 | 93.65 | 97.33 | 8.24 |
| 10.72 | 0.71 | 15.83 | 241.33 | 4.72 | 12.72 | 0.78 | 18.03 | 296.67 | 5.67 | 14.72 | 0.82 | 13.22 | 244.00 | 6.72 | 16.72 | 0.91 | 32.22 | 375.33 | 7.52 | 18.72 | 1.90 | 92.54 | 76.67 | 8.25 |
| 10.74 | 0.72 | 15.72 | 240.67 | 4.72 | 12.74 | 0.77 | 18.04 | 296.67 | 5.67 | 14.74 | 0.81 | 13.89 | 244.00 | 6.72 | 16.74 | 0.87 | 29.78 | 372.00 | 7.53 | 18.74 | 1.87 | 98.65 | 73.33 | 8.25 |
| 10.76 | 0.72 | 15.05 | 238.00 | 4.72 | 12.76 | 0.77 | 18.93 | 296.67 | 5.69 | 14.76 | 0.82 | 13.67 | 245.33 | 6.74 | 16.76 | 0.85 | 29.44 | 344.67 | 7.54 | 18.76 | 1.85 | 104.76 | 70.00 | 8.26 |
| 10.78 | 0.73 | 15.05 | 237.33 | 4.74 | 12.78 | 0.74 | 18.93 | 290.67 | 5.69 | 14.78 | 0.81 | 14.00 | 247.33 | 6.75 | 16.78 | 0.81 | 27.77 | 344.00 | 7.54 | 18.78 | 1.80 | 99.20 | 70.00 | 8.26 |
| 10.80 | 0.72 | 15.16 | 235.33 | 4.75 | 12.80 | 0.79 | 19.38 | 281.33 | 5.70 | 14.80 | 0.85 | 14.00 | 248.67 | 6.76 | 16.80 | 0.81 | 26.00 | 346.00 | 7.55 | 18.80 | 1.85 | 98.88 | 68.00 | 8.26 |
| 10.82 | 0.71 | 15.28 | 234.00 | 4.77 | 12.82 | 0.77 | 20.05 | 272.67 | 5.71 | 14.82 | 0.82 | 14.00 | 248.00 | 6.77 | 16.82 | 0.84 | 24.88 | 351.33 | 7.55 | 18.82 | 1.89 | 101.43 | 70.67 | 8.26 |
| 10.84 | 0.73 | 15.50 | 234.00 | 4.78 | 12.84 | 0.77 | 20.05 | 258.67 | 5.72 | 14.84 | 0.84 | 14.56 | 251.33 | 6.77 | 16.84 | 0.79 | 24.66 | 366.67 | 7.56 | 18.84 | 1.94 | 103.87 | 73.33 | 8.27 |
| 10.86 | 0.71 | 15.61 | 235.33 | 4.79 | 12.86 | 0.78 | 20.05 | 250.67 | 5.72 | 14.86 | 0.81 | 14.23 | 250.00 | 6.79 | 16.86 | 0.79 | 22.33 | 418.00 | 7.57 | 18.86 | 1.96 | 103.87 | 86.00 | 8.27 |
| 10.88 | 0.73 | 15.17 | 232.00 | 4.80 | 12.88 | 0.79 | 19.94 | 248.00 | 5.74 | 14.88 | 0.80 | 14.01 | 248.67 | 6.80 | 16.88 | 0.81 | 20.44 | 402.00 | 7.58 | 18.88 | 2.03 | 99.54 | 88.00 | 8.29 |
| 10.90 | 0.70 | 15.28 | 230.00 | 4.81 | 12.90 | 0.84 | 19.27 | 244.67 | 5.74 | 14.90 | 0.76 | 13.90 | 250.00 | 6.81 | 16.90 | 0.80 | 19.77 | 410.00 | 7.59 | 18.90 | 2.04 | 100.98 | 86.67 | 8.29 |
| 10.92 | 0.71 | 15.51 | 232.67 | 4.82 | 12.92 | 0.84 | 19.72 | 241.33</ | | | | | | | | | | | | | | | | |

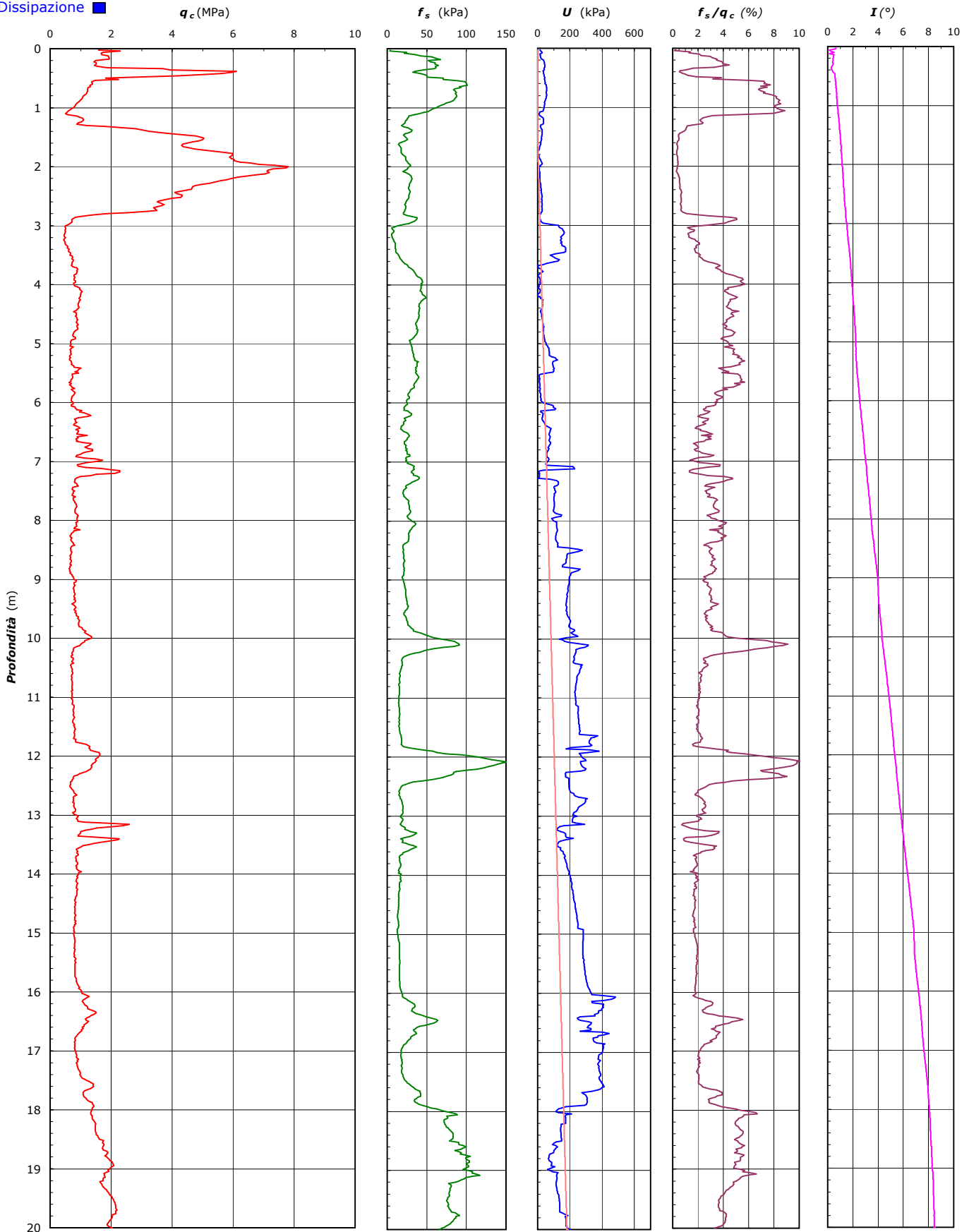
COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 08 PROF. FALDA (m da p.c.): 1.50 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.724207° LONG. (WGS 84): 11.828429°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Dissipazione ■



COMMITTENTE: **ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma****CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 08 PROF. FALDA (m da p.c.): 1.50 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 04/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.724207° LONG. (WGS 84): 11.828429°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Piazza Elide Ferrari - Maiero (FE)



NOTE: Utilizzato 1 anello allargatore da inizio prova

Venuta di gas dal foro aperto (non è stato possibile misurare il livello di falda)



elletipi s.r.l.

Sede operativa ed amm.va: Via Annibale Zucchini, 69 - 44100 FERRARA
tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE0 S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 09 PROF. FALDA (m da p.c.): 2.85 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PROF. PREFORO (m da p.c.): LAT. (WGS 84): 44.738805° LONG. (WGS 84): 11.773232°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

| prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi |
|------------|-----------|-----------|----------|----------------|------------|-----------|-----------|----------|----------------|------------|-----------|-----------|----------|----------------|------------|-----------|-----------|----------|----------------|------------|-----------|-----------|----------|----------------|
| 0.02 | 1.72 | 6.18 | 17.33 | 0.38 | 2.02 | 7.54 | 33.21 | 64.00 | 0.67 | 4.02 | 7.05 | 30.46 | 24.30 | 1.02 | 6.02 | 11.38 | 51.35 | 27.33 | 1.72 | 8.02 | 1.10 | 16.04 | 211.33 | 2.27 |
| 0.04 | 2.11 | 8.74 | 16.67 | 0.45 | 2.04 | 7.31 | 35.54 | 60.00 | 0.68 | 4.04 | 7.20 | 30.90 | 25.33 | 1.02 | 6.04 | 11.56 | 55.36 | 26.67 | 1.73 | 8.04 | 1.10 | 15.93 | 218.00 | 2.27 |
| 0.06 | 3.24 | 20.29 | 15.33 | 0.33 | 2.06 | 7.20 | 37.21 | 58.67 | 0.68 | 4.06 | 7.36 | 34.12 | 25.33 | 1.03 | 6.06 | 12.05 | 57.24 | 28.00 | 1.73 | 8.06 | 1.09 | 15.71 | 217.33 | 2.27 |
| 0.08 | 4.21 | 29.07 | 10.67 | 0.49 | 2.08 | 7.28 | 38.43 | 57.33 | 0.69 | 4.08 | 7.43 | 37.01 | 25.33 | 1.03 | 6.08 | 12.61 | 57.02 | 30.00 | 1.74 | 8.08 | 1.09 | 15.71 | 215.33 | 2.28 |
| 0.10 | 4.58 | 22.40 | 10.67 | 0.36 | 2.10 | 7.39 | 38.64 | 56.67 | 0.69 | 4.10 | 7.67 | 38.23 | 26.00 | 1.04 | 6.10 | 12.80 | 55.13 | 30.00 | 1.75 | 8.10 | 1.07 | 15.93 | 206.67 | 2.28 |
| 0.12 | 5.85 | 29.07 | 7.33 | 0.33 | 2.12 | 7.57 | 39.09 | 56.00 | 0.68 | 4.12 | 7.90 | 38.12 | 27.33 | 1.05 | 6.12 | 12.98 | 53.91 | 30.00 | 1.75 | 8.12 | 1.05 | 16.16 | 182.67 | 2.28 |
| 0.14 | 6.57 | 40.85 | 8.00 | 0.44 | 2.14 | 7.92 | 39.97 | 56.67 | 0.70 | 4.14 | 8.08 | 38.67 | 27.33 | 1.05 | 6.14 | 13.03 | 52.69 | 30.67 | 1.75 | 8.14 | 1.03 | 16.16 | 178.67 | 2.28 |
| 0.16 | 8.26 | 37.19 | 2.00 | 0.37 | 2.16 | 8.19 | 40.30 | 56.67 | 0.71 | 4.16 | 7.68 | 35.90 | 14.00 | 1.05 | 6.16 | 12.55 | 50.91 | 27.33 | 1.76 | 8.16 | 1.03 | 16.38 | 182.67 | 2.29 |
| 0.18 | 8.81 | 54.86 | 5.33 | 0.38 | 2.18 | 8.63 | 40.74 | 58.67 | 0.71 | 4.18 | 7.56 | 38.02 | 14.00 | 1.06 | 6.18 | 12.15 | 51.80 | 26.67 | 1.76 | 8.18 | 1.03 | 16.39 | 172.67 | 2.29 |
| 0.20 | 8.21 | 71.09 | 6.00 | 0.38 | 2.20 | 9.15 | 41.07 | 59.33 | 0.71 | 4.20 | 7.56 | 38.90 | 12.67 | 1.07 | 6.20 | 12.15 | 54.02 | 27.33 | 1.76 | 8.20 | 1.02 | 16.72 | 169.33 | 2.29 |
| 0.22 | 7.63 | 66.09 | 7.33 | 0.40 | 2.22 | 9.46 | 41.07 | 59.33 | 0.71 | 4.22 | 7.49 | 39.68 | 12.00 | 1.07 | 6.22 | 11.98 | 55.46 | 26.67 | 1.78 | 8.22 | 1.01 | 16.72 | 154.00 | 2.30 |
| 0.24 | 6.99 | 88.87 | 7.33 | 0.40 | 2.24 | 9.65 | 40.95 | 59.33 | 0.72 | 4.24 | 7.53 | 40.79 | 12.00 | 1.08 | 6.24 | 11.75 | 55.79 | 26.67 | 1.78 | 8.24 | 1.01 | 16.72 | 150.00 | 2.30 |
| 0.26 | 5.90 | 99.20 | 8.00 | 0.41 | 2.26 | 9.68 | 42.84 | 58.67 | 0.72 | 4.26 | 7.65 | 41.23 | 12.67 | 1.10 | 6.26 | 11.43 | 55.13 | 26.67 | 1.78 | 8.26 | 0.98 | 16.72 | 161.33 | 2.29 |
| 0.28 | 5.18 | 119.54 | 9.33 | 0.41 | 2.28 | 9.68 | 45.95 | 58.67 | 0.73 | 4.28 | 7.81 | 40.79 | 14.00 | 1.10 | 6.28 | 10.95 | 53.46 | 24.00 | 1.78 | 8.28 | 0.98 | 17.17 | 165.33 | 2.30 |
| 0.30 | 4.64 | 137.53 | 10.00 | 0.42 | 2.30 | 9.58 | 48.16 | 57.33 | 0.74 | 4.30 | 7.81 | 38.90 | 12.67 | 1.11 | 6.30 | 10.56 | 50.13 | 24.00 | 1.79 | 8.30 | 0.98 | 17.61 | 158.00 | 2.30 |
| 0.32 | 4.04 | 149.97 | 10.67 | 0.42 | 2.32 | 9.46 | 49.60 | 56.67 | 0.74 | 4.32 | 7.66 | 38.12 | 11.33 | 1.12 | 6.32 | 10.42 | 48.01 | 23.33 | 1.79 | 8.32 | 0.99 | 22.50 | 127.33 | 2.31 |
| 0.34 | 3.52 | 157.86 | 11.33 | 0.41 | 2.34 | 9.42 | 50.26 | 56.67 | 0.74 | 4.34 | 7.54 | 37.57 | 12.67 | 1.13 | 6.34 | 10.56 | 48.01 | 25.33 | 1.80 | 8.34 | 0.99 | 22.73 | 174.67 | 2.32 |
| 0.36 | 2.86 | 157.41 | 14.00 | 0.41 | 2.36 | 9.79 | 50.70 | 60.00 | 0.74 | 4.36 | 7.28 | 37.56 | 11.33 | 1.13 | 6.36 | 10.43 | 48.12 | 24.00 | 1.80 | 8.36 | 0.98 | 22.84 | 154.67 | 2.32 |
| 0.38 | 2.29 | 159.74 | 14.67 | 0.42 | 2.38 | 10.29 | 51.69 | 60.00 | 0.75 | 4.38 | 6.91 | 36.90 | 9.33 | 1.14 | 6.38 | 9.87 | 49.34 | 20.67 | 1.81 | 8.38 | 0.96 | 23.95 | 149.33 | 2.32 |
| 0.40 | 2.09 | 159.29 | 14.00 | 0.41 | 2.40 | 10.56 | 52.02 | 60.00 | 0.76 | 4.40 | 6.46 | 36.22 | 7.33 | 1.14 | 6.40 | 9.27 | 48.12 | 18.00 | 1.81 | 8.40 | 0.94 | 24.51 | 150.67 | 2.34 |
| 0.42 | 1.91 | 149.61 | 13.33 | 0.41 | 2.42 | 10.69 | 52.02 | 60.00 | 0.76 | 4.42 | 6.05 | 35.89 | 5.33 | 1.15 | 6.42 | 9.01 | 48.45 | 18.67 | 1.83 | 8.42 | 0.96 | 23.62 | 154.00 | 2.34 |
| 0.44 | 1.75 | 136.38 | 13.33 | 0.41 | 2.44 | 10.61 | 50.57 | 58.67 | 0.77 | 4.44 | 5.73 | 36.56 | 5.33 | 1.16 | 6.44 | 9.00 | 49.56 | 18.67 | 1.82 | 8.44 | 0.99 | 22.29 | 162.00 | 2.36 |
| 0.46 | 1.61 | 118.82 | 10.67 | 0.41 | 2.46 | 10.08 | 49.67 | 55.33 | 0.77 | 4.46 | 5.59 | 37.34 | 4.67 | 1.16 | 6.46 | 8.91 | 48.34 | 18.00 | 1.84 | 8.46 | 1.05 | 20.62 | 170.67 | 2.36 |
| 0.48 | 1.51 | 102.93 | 7.33 | 0.41 | 2.48 | 9.48 | 48.66 | 53.33 | 0.78 | 4.48 | 5.47 | 36.22 | 4.67 | 1.17 | 6.48 | 8.79 | 46.11 | 18.00 | 1.84 | 8.48 | 1.06 | 19.29 | 159.33 | 2.38 |
| 0.50 | 1.55 | 76.91 | 0.67 | 0.40 | 2.50 | 8.77 | 46.32 | 50.00 | 0.78 | 4.50 | 5.44 | 35.33 | 6.67 | 1.18 | 6.50 | 8.83 | 43.23 | 19.33 | 1.85 | 8.50 | 1.10 | 19.40 | 152.67 | 2.39 |
| 0.52 | 1.56 | 71.35 | 0.40 | 0.40 | 2.52 | 8.12 | 40.87 | 48.67 | 0.78 | 4.52 | 5.44 | 33.67 | 4.00 | 1.19 | 6.52 | 8.78 | 41.00 | 18.67 | 1.85 | 8.52 | 1.15 | 19.63 | 162.00 | 2.39 |
| 0.54 | 1.67 | 71.80 | 1.33 | 0.40 | 2.54 | 7.68 | 35.42 | 47.33 | 0.78 | 4.54 | 5.34 | 31.22 | 4.67 | 1.20 | 6.54 | 8.44 | 36.11 | 16.67 | 1.86 | 8.54 | 1.20 | 21.07 | 177.33 | 2.40 |
| 0.56 | 1.87 | 73.35 | 1.33 | 0.39 | 2.56 | 7.37 | 33.08 | 47.33 | 0.78 | 4.56 | 5.15 | 28.77 | 4.00 | 1.20 | 6.56 | 8.19 | 34.89 | 15.33 | 1.86 | 8.56 | 1.22 | 21.85 | 244.67 | 2.40 |
| 0.58 | 1.96 | 77.01 | 8.00 | 0.40 | 2.58 | 7.26 | 34.19 | 47.33 | 0.80 | 4.58 | 4.88 | 27.22 | 1.33 | 1.20 | 6.58 | 8.00 | 35.11 | 14.67 | 1.87 | 8.58 | 1.21 | 22.85 | 226.00 | 2.41 |
| 0.60 | 1.79 | 77.35 | 18.00 | 0.40 | 2.60 | 7.38 | 34.84 | 48.67 | 0.80 | 4.60 | 4.60 | 25.99 | 0.67 | 1.23 | 6.60 | 7.62 | 34.89 | 12.67 | 1.87 | 8.60 | 1.13 | 24.97 | 266.67 | 2.41 |
| 0.62 | 1.61 | 77.34 | 18.67 | 0.40 | 2.62 | 7.73 | 37.06 | 50.00 | 0.80 | 4.62 | 4.35 | 25.44 | 0.67 | 1.23 | 6.62 | 7.15 | 34.45 | 10.67 | 1.89 | 8.62 | 1.06 | 26.53 | 283.33 | 2.42 |
| 0.64 | 1.60 | 73.90 | 17.33 | 0.40 | 2.64 | 8.15 | 36.28 | 52.00 | 0.81 | 4.64 | 4.19 | 27.55 | 0.67 | 1.25 | 6.64 | 6.66 | 33.89 | 6.67 | 1.88 | 8.64 | 1.04 | 26.97 | 268.67 | 2.43 |
| 0.66 | 1.90 | 71.90 | 6.67 | 0.40 | 2.66 | 8.30 | 33.83 | 50.00 | 0.81 | 4.66 | 4.05 | 28.77 | 0.67 | 1.25 | 6.66 | 6.32 | 33.34 | 6.67 | 1.89 | 8.66 | 1.04 | 25.97 | 263.33 | 2.43 |
| 0.68 | 2.67 | 66.45 | 4.67 | 0.40 | 2.68 | 8.30 | 31.71 | 50.00 | 0.82 | 4.68 | 3.89 | 27.77 | 2.67 | 1.26 | 6.68 | 6.02 | 31.89 | 4.67 | 1.90 | 8.68 | 1.14 | 25.86 | 266.00 | 2.43 |
| 0.70 | 3.66 | 65.23 | 2.00 | 0.40 | 2.70 | 8.41 | 31.04 | 49.33 | 0.82 | 4.70 | 3.64 | 25.77 | 3.33 | 1.26 | 6.70 | 5.79 | 30.89 | 3.33 | 1.91 | 8.70 | 1.35 | 26.75 | 287.33 | 2.45 |
| 0.72 | 3.88 | 60.23 | 0.40 | 0.42 | 2.72 | 8.52 | 31.59 | 50.00 | 0.82 | 4.72 | 3.25 | 23.88 | 5.33 | 1.28 | 6.72 | 5.62 | 30.12 | 2.00 | 1.91 | 8.72 | 1.71 | 27.64 | 279.33 | 2.46 |
| 0.74 | 3.70 | 55.44 | 0.41 | 0.41 | 2.74 | 8.52 | 33.81 | 49.33 | 0.83 | 4.74 | 2.91 | 21.77 | 7.33 | 1.29 | 6.74 | 5.56 | 29.56 | 1.33 | 1.92 | 8.74 | 2.10 | 23.98 | 225.33 | 2.47 |
| 0.76 | 3.78 | 53.55 | 2.00 | 0.41 | 2.76 | 8.37 | 35.69 | 48.67 | 0.84 | 4.76 | 2.73 | 20.33 | 8.00 | 1.29 | 6.76 | 5.56 | 29.45 | 1.33 | 1.93 | 8.76 | 2.18 | 23.09 | 120.00 | 2.47 |
| 0.78 | 4.58 | 52.11 | 6.67 | 0.41 | 2.78 | 8.07 | 37.24 | 47.33 | 0.84 | 4.78 | 2.84 | 19.66 | 9.33 | 1.29 | 6.78 | 5.65 | 28.23 | 1.33 | 1.93 | 8.78 | 2.00 | 22.42 | 88.00 | 2.48 |
| 0.80 | 5.70 | 51.66 | 10.67 | 0.41 | 2.80 | 7.75 | 37.46 | 47.33 | 0.84 | 4.80 | 3.38 | 20.88 | 6.67 | 1.30 | 6.80 | 5.83 | 26.45 | 1.33 | 1.93 | 8.80 | 1.69 | 24.87 | 66.00 | 2.48 |
| 0.82 | 6.44 | 47.43 | 14.00 | 0.42 | 2.82 | 7.54 | 37.24 | 47.33 | 0.84 | 4.82 | 4.22 | 22.88 | 2.67 | 1.30 | 6.82 | 5.98 | 24.79 | 0.67 | 1.93 | 8.82 | 1.41 | 29.87 | 62.00 | 2.49 |
| 0.84 | 6.58 | 45.98 | 15.33 | 0.42 | 2.84 | 7.69 | 36.45 | 48.00 | 0.84 | 4.84 | 5.05 | 27.77 | 1.32 | 1.32 | 6.84 | 6.05 | 24.46 | 0.67 | 1.94 | 8.84 | 1.23 | 33.54 | 108.00 | 2.50 |
| 0.86 | 6.34 | 47.20 | 16.00 | 0.43 | 2.86 | 8.32 | 34.23 | 52.00 | 0.84 | 4.86 | 5.88 | 30.89 | 1.33 | 1.32 | 6.86 | 6.04 | 24.68 | 0.67 | 1.94 | 8.86 | 1.17 | 35.65 | 124.67 | 2.50 |
| 0.88 | 6.35 | 49.64 | 18.00 | 0.43 | 2.88 | 9.01 | 34.23 | 54.67 | 0.85 | 4.88 | 6.78 | 33.66 | 4.00 | 1.34 | 6.88 | 6.01 | 25.02 | 2.67 | 1.95 | 8.88 | 1.14 | 35.88 | 228.00 | 2.51 |
| 0.90 | 6.82 | 50.98 | 22.00 | 0.44 | 2.90 | 9.48 | 37.11 | 55.33 | 0.85 | 4.90 | 7.71 | 35.89 | 7.33 | 1.35 | 6.90 | 5.93 | 26.35 | 2.67 | 1.95 | 8.90 | 1.09 | 33.99 | 208.00 | 2.51 |
| 0.92 | 6.99 | 56.19 | 23.33 | 0.45 | 2.92 | 9.62 | 38.88 | 52.67 | 0.86 | 4.92 | 8.43 | 38.89 | 8.67 | 1.36 | 6.92 | 5.84 | 27.91 | 4.00 | 1.95 | 8.92 | 1.06 | 30.55 | 208.00 | 2.52 |
| 0.94 | 7.17 | 56.74 | 26.00 | 0.45 | 2.94 | 9.69 | 39.10 | 52.67 | 0.86 | 4.94 | 9.07 | 41.22 | 9.33 | 1.37 | 6.94 | 5.70 | 28.80 | 5.33 | 1.96 | 8.94 | 1.03 | 27.66 | 198.67 | 2.53 |
| | | | | | | | | | | | | | | | | | | | | | | | | |



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P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGELO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 09 PROF. FALDA (m da p.c.): 2.85

PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PROF. (m da p.c.):

LAT. (WGS 84): 44.738805° LONG. (WGS 84): 11.773232°

COMMESSA: 15699/16

C. SITO N°:

OPERATORE: L. Zanirato

Table with 40 columns: prof. m, qc Mpa, fs kPa, U kPa, incl. gradi, and 35 more columns. It contains a grid of numerical data representing geotechnical test results across various parameters.

Il Direttore Tecnico SOA:
p.i. Riccardo Mazza

Il Responsabile Prove in Sito:
dott. Massimo Romagnoli

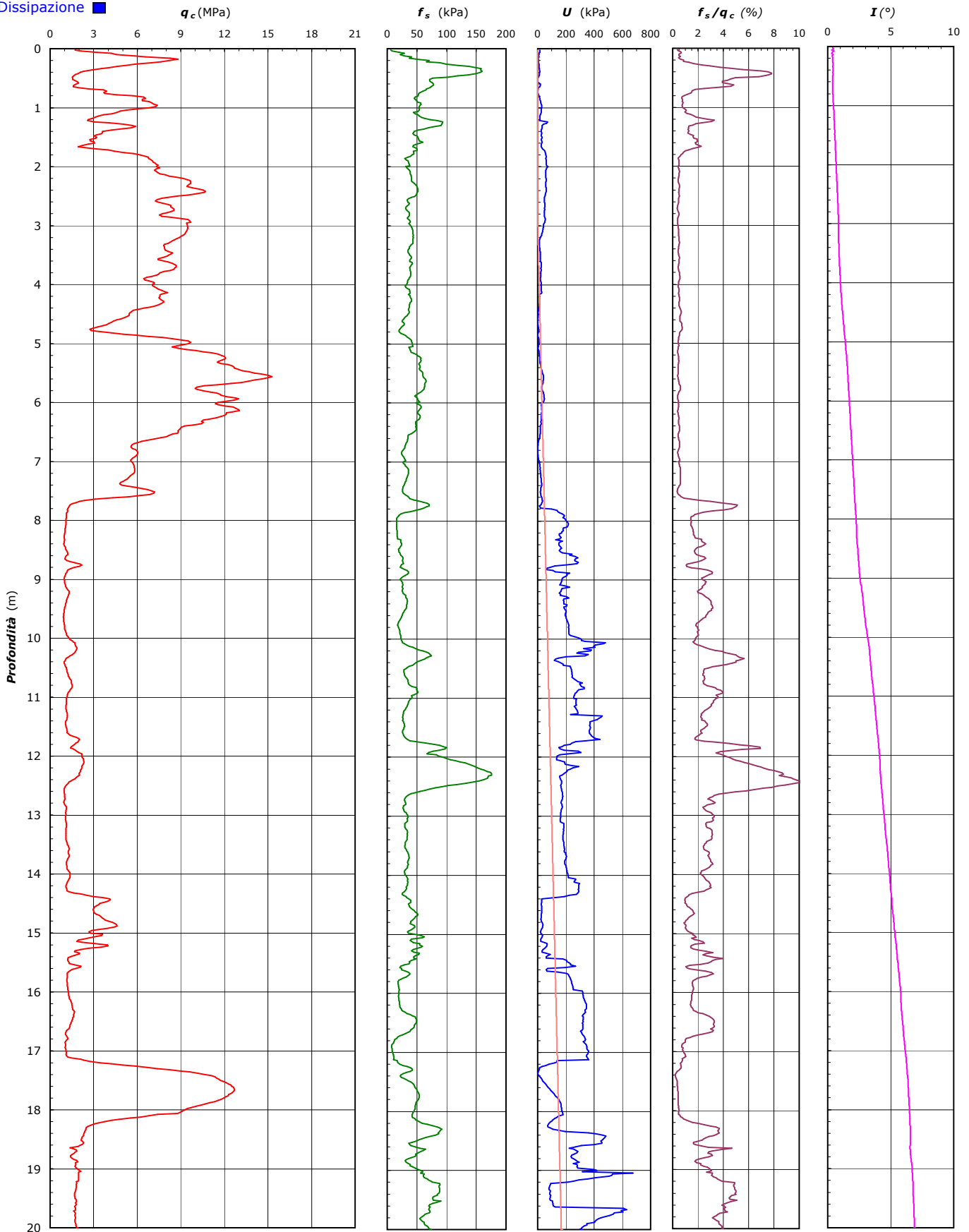
COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 09 PROF. FALDA (m da p.c.): 2.85 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.738805° LONG. (WGS 84): 11.773232°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Dissipazione ■



COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma**CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: PO CPTU 09 PROF. FALDA (m da p.c.): 2.85 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]
DATA: 22/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.738805° LONG. (WGS 84): 11.773232°
COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Runco



NOTE: Utilizzato 1 anello allargatore da inizio prova



elletipi s.r.l.

Sede operativa ed am. via: Via Annibale Zucchini, 69 - 44100 FERRARA
tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 10 PROF. FALDA (m da p.c.): 1.70 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PROF. (m da p.c.): LAT. (WGS 84): 44.744085° LONG. (WGS 84): 11.784387°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 15 columns: prof. m, qc Mpa, fs kPa, U kPa, incl. gradi, and 10 columns of repeated data for each parameter. The table contains 200 rows of data points.

Il Direttore Tecnico SOA:
p.i. Riccardo Mazza

Il Responsabile Prove in Sito:
dott. Massimo Romagnoli



elletipi s.r.l.

Sede operativa ed amm.va: Via Annibale Zucchini, 69 - 44100 FERRARA
tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 10 PROF. FALDA (m da p.c.): 1.70 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PROF. (m da p.c.): LAT. (WGS 84): 44.744085° LONG. (WGS 84): 11.784387°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 50 columns: prof. m, qc Mpa, fs kPa, U kPa, incl. gradi, and 49 identical sets of these columns. Each set contains 50 rows of data.

Il Direttore Tecnico SOA:
p.i. Riccardo Mazza

Il Responsabile Prove in Sito:
dott. Massimo Romagnoli

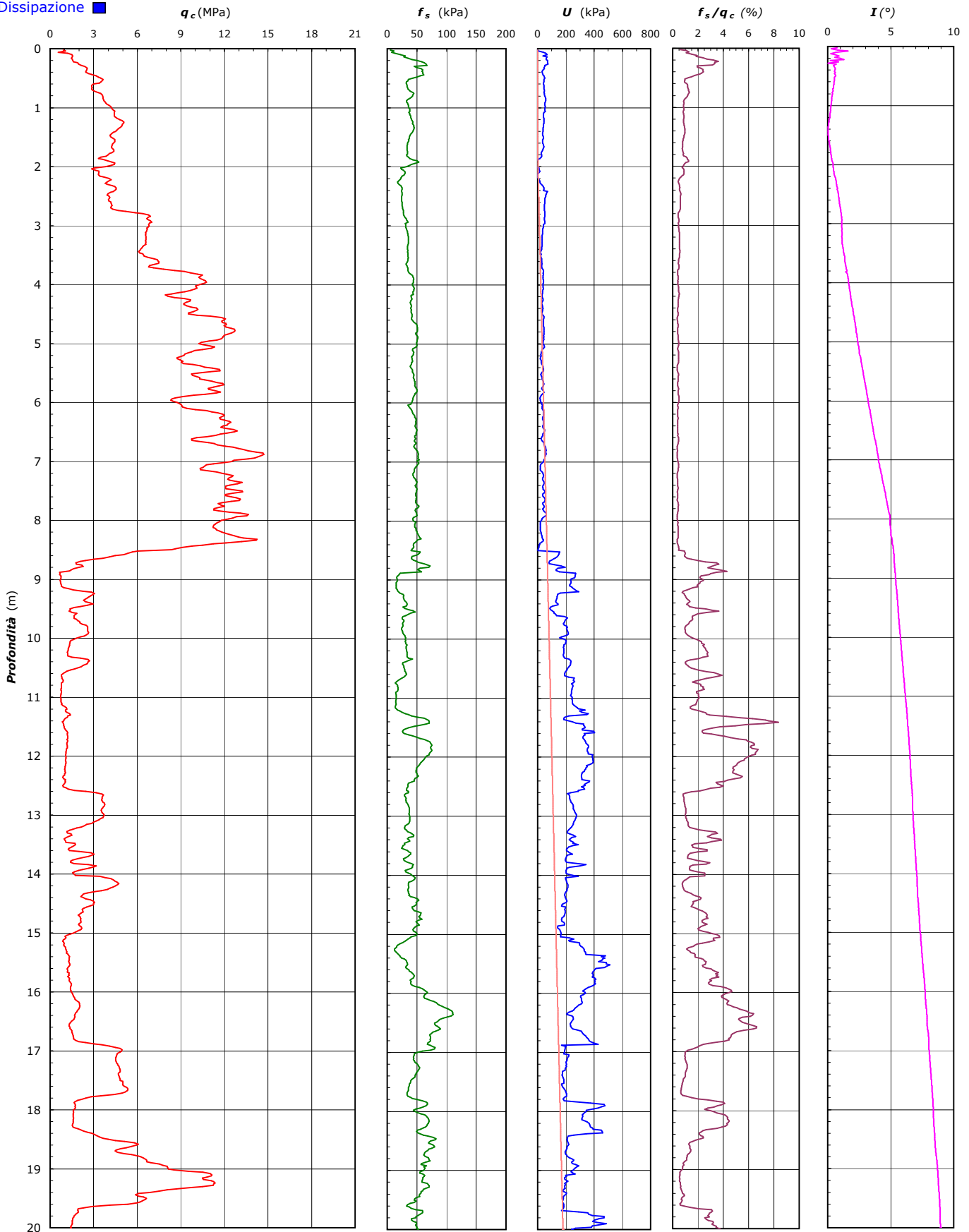
COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 10 PROF. FALDA (m da p.c.): 1.70 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.744085° LONG. (WGS 84): 11.784387°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Dissipazione ■



COMMITTENTE: **ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma****CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 10 PROF. FALDA (m da p.c.): 1.70 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.744085° LONG. (WGS 84): 11.784387°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Portorotta



NOTE: Utilizzato 1 anello allargatore da inizio prova



elletipi s.r.l.

Sede operativa ed amm.va: Via Annibale Zucchini, 69 - 44100 FERRARA
tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 11 PROF. FALDA (m da p.c.): 1.55 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PROF. PREFORO (m da p.c.): LAT. (WGS 84): 44.703112° LONG. (WGS 84): 11.812313°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

| prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi |
|---------|--------|--------|-------|-------------|---------|--------|--------|-------|-------------|---------|--------|--------|-------|-------------|---------|--------|--------|-------|-------------|---------|--------|--------|--------|-------------|
| 0.02 | 0.68 | 9.40 | 20.67 | 0.20 | 2.02 | 0.89 | 27.63 | 4.00 | 1.12 | 4.02 | 0.72 | 22.61 | 8.67 | 1.77 | 6.02 | 4.86 | 25.77 | 22.67 | 2.48 | 8.02 | 1.24 | 46.23 | 56.00 | 3.25 |
| 0.04 | 0.83 | 14.85 | 22.67 | 0.12 | 2.04 | 0.89 | 31.90 | 14.00 | 1.12 | 4.04 | 0.73 | 22.94 | 10.67 | 1.78 | 6.04 | 4.65 | 25.77 | 22.00 | 2.49 | 8.04 | 1.13 | 39.56 | 62.67 | 3.27 |
| 0.06 | 1.09 | 23.96 | 18.00 | 0.21 | 2.06 | 0.80 | 31.35 | 14.00 | 1.12 | 4.06 | 0.72 | 23.39 | 9.33 | 1.78 | 6.06 | 4.33 | 27.11 | 20.00 | 2.48 | 8.06 | 0.99 | 31.56 | 197.33 | 3.27 |
| 0.08 | 1.24 | 32.18 | 18.00 | 0.37 | 2.08 | 0.83 | 28.01 | 14.00 | 1.12 | 4.08 | 0.72 | 23.72 | 11.33 | 1.78 | 6.08 | 4.10 | 27.99 | 22.00 | 2.50 | 8.08 | 0.90 | 18.11 | 196.00 | 3.28 |
| 0.10 | 1.34 | 38.18 | 18.67 | 0.37 | 2.10 | 0.92 | 24.01 | 14.67 | 1.14 | 4.10 | 0.71 | 23.72 | 10.67 | 1.78 | 6.10 | 4.00 | 27.33 | 20.67 | 2.50 | 8.10 | 0.89 | 11.11 | 193.33 | 3.29 |
| 0.12 | 1.45 | 31.90 | 25.33 | 0.36 | 2.12 | 0.88 | 25.23 | 14.00 | 1.14 | 4.12 | 0.72 | 23.39 | 10.67 | 1.78 | 6.12 | 4.11 | 27.99 | 22.67 | 2.50 | 8.12 | 0.87 | 12.56 | 191.33 | 3.30 |
| 0.14 | 1.66 | 41.01 | 25.33 | 0.32 | 2.14 | 0.83 | 23.67 | 14.67 | 1.16 | 4.14 | 0.73 | 23.16 | 12.67 | 1.78 | 6.14 | 4.26 | 30.21 | 23.33 | 2.52 | 8.14 | 0.87 | 16.38 | 169.33 | 3.32 |
| 0.16 | 1.66 | 54.02 | 26.00 | 0.52 | 2.16 | 0.89 | 24.23 | 16.67 | 1.16 | 4.16 | 0.73 | 23.50 | 12.00 | 1.79 | 6.16 | 4.07 | 30.88 | 22.67 | 2.53 | 8.16 | 0.90 | 17.93 | 219.33 | 3.32 |
| 0.18 | 1.66 | 64.14 | 26.00 | 0.36 | 2.18 | 1.00 | 24.90 | 18.67 | 1.17 | 4.18 | 0.74 | 23.72 | 12.67 | 1.79 | 6.18 | 3.68 | 30.55 | 18.67 | 2.54 | 8.18 | 0.87 | 16.38 | 263.33 | 3.33 |
| 0.20 | 1.56 | 73.25 | 27.33 | 0.44 | 2.20 | 1.11 | 29.12 | 18.67 | 1.19 | 4.20 | 0.77 | 24.61 | 14.00 | 1.80 | 6.20 | 3.56 | 27.66 | 22.00 | 2.56 | 8.20 | 0.87 | 13.71 | 274.67 | 3.34 |
| 0.22 | 1.45 | 82.37 | 20.67 | 0.39 | 2.22 | 1.16 | 32.78 | 18.67 | 1.20 | 4.22 | 0.82 | 25.39 | 14.00 | 1.80 | 6.22 | 3.57 | 27.21 | 22.00 | 2.56 | 8.22 | 0.86 | 12.38 | 263.33 | 3.36 |
| 0.24 | 1.36 | 85.82 | 20.67 | 0.45 | 2.24 | 1.23 | 33.00 | 18.67 | 1.20 | 4.24 | 0.85 | 25.61 | 14.67 | 1.79 | 6.24 | 3.64 | 26.43 | 22.67 | 2.55 | 8.24 | 0.86 | 11.94 | 259.33 | 3.36 |
| 0.26 | 1.24 | 73.08 | 18.67 | 0.47 | 2.26 | 1.31 | 34.89 | 18.00 | 1.21 | 4.26 | 0.90 | 24.94 | 14.00 | 1.79 | 6.26 | 3.79 | 26.43 | 22.67 | 2.57 | 8.26 | 0.89 | 11.72 | 262.00 | 3.38 |
| 0.28 | 1.27 | 74.97 | 18.67 | 0.50 | 2.28 | 1.42 | 39.78 | 18.67 | 1.23 | 4.28 | 0.95 | 24.72 | 14.67 | 1.80 | 6.28 | 3.61 | 27.21 | 20.00 | 2.58 | 8.28 | 0.90 | 10.83 | 273.33 | 3.38 |
| 0.30 | 1.32 | 73.09 | 20.00 | 0.48 | 2.30 | 1.38 | 42.00 | 16.00 | 1.24 | 4.30 | 1.02 | 23.72 | 15.33 | 1.79 | 6.30 | 3.35 | 27.99 | 16.00 | 2.59 | 8.30 | 0.86 | 10.50 | 265.33 | 3.38 |
| 0.32 | 1.34 | 74.20 | 20.67 | 0.46 | 2.32 | 1.30 | 40.78 | 14.00 | 1.25 | 4.32 | 1.12 | 23.72 | 16.00 | 1.80 | 6.32 | 3.03 | 26.43 | 10.67 | 2.60 | 8.32 | 0.86 | 10.06 | 294.00 | 3.39 |
| 0.34 | 1.31 | 74.98 | 21.33 | 0.49 | 2.34 | 1.26 | 36.22 | 11.33 | 1.24 | 4.34 | 1.24 | 24.05 | 16.67 | 1.81 | 6.34 | 2.91 | 28.99 | 7.33 | 2.61 | 8.34 | 0.85 | 9.84 | 278.00 | 3.40 |
| 0.36 | 1.30 | 73.10 | 22.00 | 0.46 | 2.36 | 1.36 | 35.99 | 9.33 | 1.25 | 4.36 | 1.32 | 24.05 | 16.67 | 1.80 | 6.36 | 2.92 | 31.32 | 6.67 | 2.63 | 8.36 | 0.85 | 9.95 | 266.00 | 3.41 |
| 0.38 | 1.25 | 73.77 | 24.00 | 0.48 | 2.38 | 1.65 | 40.32 | 11.33 | 1.26 | 4.38 | 1.43 | 24.28 | 16.00 | 1.80 | 6.38 | 2.93 | 30.55 | 5.33 | 2.63 | 8.38 | 0.84 | 10.18 | 214.67 | 3.41 |
| 0.40 | 1.23 | 76.32 | 24.00 | 0.47 | 2.40 | 1.84 | 45.21 | 8.00 | 1.26 | 4.40 | 1.58 | 25.83 | 15.33 | 1.80 | 6.40 | 2.97 | 32.88 | 2.00 | 2.64 | 8.40 | 0.84 | 9.96 | 209.33 | 3.43 |
| 0.42 | 1.21 | 75.88 | 24.00 | 0.47 | 2.42 | 1.73 | 48.10 | 4.00 | 1.28 | 4.42 | 1.70 | 27.16 | 12.67 | 1.82 | 6.42 | 3.07 | 38.77 | 1.33 | 2.66 | 8.42 | 0.85 | 9.96 | 212.00 | 3.43 |
| 0.44 | 1.18 | 76.32 | 24.67 | 0.49 | 2.44 | 1.41 | 45.09 | 1.33 | 1.28 | 4.44 | 1.81 | 28.50 | 14.00 | 1.82 | 6.44 | 3.36 | 45.55 | 0.67 | 2.68 | 8.44 | 0.86 | 10.63 | 218.67 | 3.43 |
| 0.46 | 1.13 | 74.54 | 24.67 | 0.48 | 2.46 | 1.17 | 39.65 | 0.67 | 1.29 | 4.46 | 1.90 | 30.94 | 12.00 | 1.81 | 6.46 | 3.59 | 49.43 | 2.67 | 2.69 | 8.46 | 0.82 | 11.41 | 233.33 | 3.45 |
| 0.48 | 1.12 | 73.21 | 25.33 | 0.47 | 2.48 | 1.00 | 38.98 | 2.67 | 1.29 | 4.48 | 2.09 | 35.72 | 11.33 | 1.82 | 6.48 | 3.69 | 51.55 | 6.00 | 2.69 | 8.48 | 0.80 | 11.86 | 247.33 | 3.45 |
| 0.50 | 1.12 | 71.77 | 25.33 | 0.49 | 2.50 | 0.85 | 41.42 | 2.00 | 1.30 | 4.50 | 2.29 | 37.72 | 12.00 | 1.82 | 6.50 | 3.61 | 47.55 | 7.33 | 2.69 | 8.50 | 0.83 | 12.42 | 248.67 | 3.46 |
| 0.52 | 1.20 | 71.32 | 24.67 | 0.48 | 2.52 | 0.85 | 46.53 | 1.33 | 1.31 | 4.52 | 2.94 | 37.05 | 12.00 | 1.84 | 6.52 | 3.33 | 39.77 | 10.00 | 2.70 | 8.52 | 0.82 | 12.53 | 244.67 | 3.46 |
| 0.54 | 1.15 | 69.98 | 24.00 | 0.50 | 2.54 | 0.88 | 44.64 | 14.67 | 1.31 | 4.54 | 3.03 | 35.27 | 12.00 | 1.85 | 6.54 | 2.75 | 34.55 | 10.67 | 2.71 | 8.54 | 0.83 | 12.87 | 336.00 | 3.48 |
| 0.56 | 1.11 | 68.64 | 23.33 | 0.53 | 2.56 | 0.90 | 40.86 | 19.33 | 1.32 | 4.56 | 3.05 | 29.05 | 12.00 | 1.86 | 6.56 | 2.23 | 29.77 | 13.33 | 2.73 | 8.56 | 0.85 | 12.87 | 332.67 | 3.49 |
| 0.58 | 0.95 | 68.20 | 26.00 | 0.50 | 2.58 | 0.91 | 37.74 | 22.00 | 1.32 | 4.58 | 3.00 | 22.61 | 14.00 | 1.86 | 6.58 | 2.18 | 29.88 | 11.33 | 2.72 | 8.58 | 0.85 | 12.53 | 334.67 | 3.50 |
| 0.60 | 0.79 | 67.76 | 28.67 | 0.46 | 2.60 | 0.96 | 34.30 | 24.00 | 1.32 | 4.60 | 2.91 | 18.16 | 12.67 | 1.87 | 6.60 | 2.16 | 38.43 | 11.33 | 2.73 | 8.60 | 0.86 | 12.54 | 310.67 | 3.52 |
| 0.62 | 0.76 | 53.96 | 26.00 | 0.54 | 2.62 | 1.02 | 31.85 | 27.33 | 1.35 | 4.62 | 2.88 | 17.05 | 12.67 | 1.89 | 6.62 | 2.03 | 48.76 | 11.33 | 2.74 | 8.62 | 0.88 | 12.65 | 300.00 | 3.52 |
| 0.64 | 0.70 | 52.74 | 26.00 | 0.56 | 2.64 | 1.06 | 30.96 | 30.00 | 1.35 | 4.64 | 2.88 | 17.61 | 14.00 | 1.89 | 6.64 | 2.42 | 54.21 | 13.33 | 2.75 | 8.64 | 0.89 | 12.65 | 292.00 | 3.52 |
| 0.66 | 0.65 | 50.85 | 26.00 | 0.57 | 2.66 | 1.05 | 30.73 | 30.67 | 1.36 | 4.66 | 2.88 | 18.49 | 14.67 | 1.90 | 6.66 | 3.14 | 55.54 | 10.67 | 2.76 | 8.66 | 0.89 | 12.55 | 331.33 | 3.54 |
| 0.68 | 0.59 | 48.63 | 26.00 | 0.56 | 2.68 | 1.05 | 33.06 | 31.33 | 1.35 | 4.68 | 2.84 | 19.16 | 15.33 | 1.91 | 6.68 | 3.50 | 45.43 | 10.00 | 2.77 | 8.68 | 0.89 | 11.88 | 350.67 | 3.54 |
| 0.70 | 0.55 | 42.29 | 25.33 | 0.56 | 2.70 | 1.05 | 37.06 | 33.33 | 1.37 | 4.70 | 2.76 | 19.38 | 15.33 | 1.92 | 6.70 | 3.61 | 40.65 | 10.67 | 2.77 | 8.70 | 0.87 | 11.88 | 336.00 | 3.55 |
| 0.72 | 0.60 | 38.29 | 22.67 | 0.58 | 2.72 | 1.02 | 40.28 | 34.67 | 1.37 | 4.72 | 2.70 | 19.49 | 15.33 | 1.93 | 6.72 | 3.74 | 38.10 | 10.00 | 2.79 | 8.72 | 0.86 | 11.88 | 330.00 | 3.56 |
| 0.74 | 0.64 | 34.95 | 21.33 | 0.61 | 2.74 | 1.10 | 40.94 | 36.67 | 1.39 | 4.74 | 2.61 | 19.71 | 15.33 | 1.93 | 6.74 | 3.98 | 37.21 | 9.33 | 2.79 | 8.74 | 0.86 | 11.66 | 322.00 | 3.57 |
| 0.76 | 0.67 | 30.84 | 20.67 | 0.60 | 2.76 | 1.21 | 44.05 | 44.67 | 1.38 | 4.76 | 2.53 | 19.38 | 14.00 | 1.94 | 6.76 | 4.24 | 38.10 | 7.33 | 2.79 | 8.76 | 0.86 | 11.44 | 321.33 | 3.57 |
| 0.78 | 0.75 | 28.62 | 20.00 | 0.60 | 2.78 | 1.28 | 45.82 | 57.33 | 1.38 | 4.78 | 2.51 | 19.38 | 14.67 | 1.95 | 6.78 | 4.49 | 35.98 | 8.00 | 2.80 | 8.78 | 0.86 | 11.67 | 320.00 | 3.59 |
| 0.80 | 0.96 | 25.50 | 17.33 | 0.64 | 2.80 | 1.30 | 46.60 | 57.33 | 1.39 | 4.80 | 2.52 | 19.93 | 16.00 | 1.96 | 6.80 | 4.67 | 36.54 | 9.33 | 2.81 | 8.80 | 0.86 | 11.89 | 327.33 | 3.59 |
| 0.82 | 1.23 | 25.28 | 12.67 | 0.64 | 2.82 | 1.27 | 47.04 | 58.67 | 1.39 | 4.82 | 2.56 | 21.93 | 16.67 | 1.96 | 6.82 | 4.69 | 35.10 | 10.67 | 2.82 | 8.82 | 0.87 | 11.78 | 320.00 | 3.60 |
| 0.84 | 1.70 | 27.06 | 6.00 | 0.65 | 2.84 | 1.18 | 48.15 | 58.67 | 1.41 | 4.84 | 2.54 | 24.26 | 16.00 | 1.99 | 6.84 | 4.71 | 38.32 | 11.33 | 2.82 | 8.84 | 0.89 | 12.01 | 342.00 | 3.61 |
| 0.86 | 2.30 | 33.39 | 2.00 | 0.66 | 2.86 | 1.12 | 50.26 | 58.67 | 1.41 | 4.86 | 2.51 | 24.26 | 15.33 | 2.00 | 6.86 | 4.79 | 36.31 | 13.33 | 2.83 | 8.86 | 0.95 | 12.56 | 335.33 | 3.63 |
| 0.88 | 2.89 | 39.72 | 2.00 | 0.68 | 2.88 | 1.04 | 52.59 | 58.67 | 1.41 | 4.88 | 2.47 | 24.37 | 14.67 | 2.00 | 6.88 | 4.94 | 33.87 | 13.33 | 2.84 | 8.88 | 1.08 | 12.90 | 426.67 | 3.64 |
| 0.90 | 3.11 | 38.83 | 2.00 | 0.66 | 2.90 | 0.99 | 53.36 | 59.33 | 1.41 | 4.90 | 2.30 | 22.48 | 12.00 | 2.02 | 6.90 | 5.06 | 30.98 | 14.67 | 2.86 | 8.90 | 1.27 | 13.34 | 468.67 | 3.66 |
| 0.92 | 2.99 | 37.94 | 2.00 | 0.67 | 2.92 | 0.99 | 54.25 | 59.33 | 1.41 | 4.92 | 2.02 | 19.48 | 11.33 | 2.03 | 6.92 | 5.27 | 31.76 | 13.33 | 2.87 | 8.92 | 1.40 | 15.12 | 504.00 | 3.66 |
| 0.94 | 2.81 | 41.05 | 2.00 | 0.67 | 2.94 | 0.94 | 54.47 | 60.00 | 1.43 | 4.94 | 1.67 | 16.37 | 8.67 | 2.03 | 6.94 | 5.41 | 30.87 | 13.33 | 2.88 | 8.94 | 1.41 | 18.79 | 456.00 | 3.68 |
| 0.96 | 2.68 | 45.94 | 0.67 | 0.67 | 2.96 | 0.92 | 51.14 | 60.67 | 1.44 | 4.96 | 1.39 | 16.92 | 8.67 | 2.04 | 6.96 | 5.73 | | | | | | | | |



elletipi s.r.l.

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tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: PO CPTU 11 PROF. FALDA (m da p.c.): 1.55 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]
DATA: 22/12/16 PROF. PREFORO (m da p.c.): LAT. (WGS 84): 44.703112° LONG. (WGS 84): 11.812313°
COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 5 columns of data (prof., qc, fs, U, incl.) repeated for 20 different test profiles, each with 20 rows of measurements.

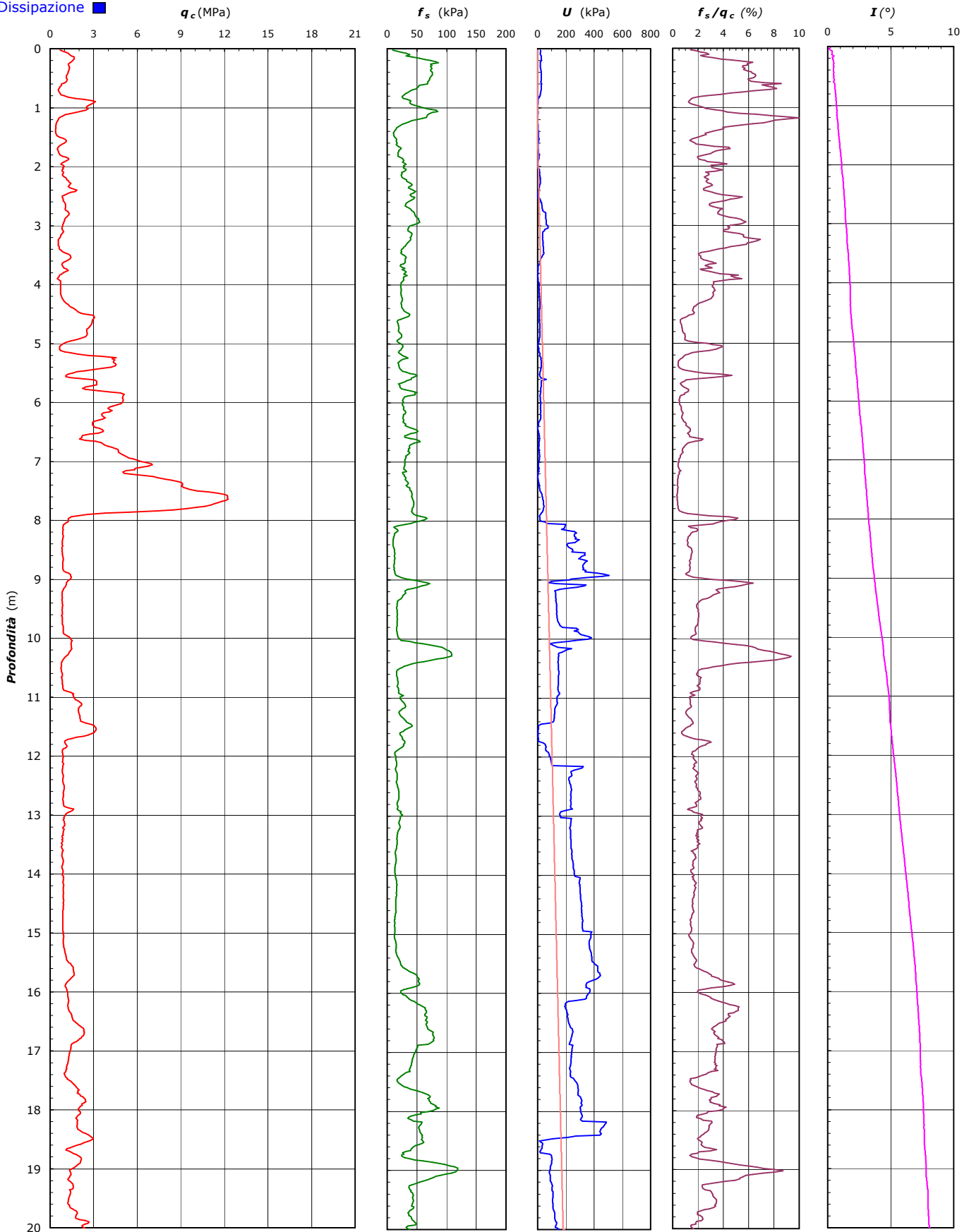
COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 11 PROF. FALDA (m da p.c.): 1.55 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.703112° LONG. (WGS 84): 11.812313°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Dissipazione ■



COMMITTENTE: **ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma****CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: PO CPTU 11 PROF. FALDA (m da p.c.): 1.55 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]
DATA: 22/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.703112° LONG. (WGS 84): 11.812313°
COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Strada Provinciale 68, Portomaggiore.



NOTE: Utilizzato 1 anello allargatore da inizio prova



elletipi s.r.l.

Sede operativa ed amm.va: Via Annibale Zucchini, 69 - 44100 FERRARA
tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 12 PROF. FALDA (m da p.c.): 1.10 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PROF. PREFORO (m da p.c.): LAT. (WGS 84): 44.696388° LONG. (WGS 84): 11.809452°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

Table with 48 columns (prof. m, qc Mpa, fs kPa, U kPa, incl. gradi) and 100 rows of data.

Il Direttore Tecnico SOA: p.i. Riccardo Mazza

Il Responsabile Prove in Sito: dott. Massimo Romagnoli



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 12 PROF. FALDA (m da p.c.): 1.10

PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PREFORO (m da p.c.):

LAT. (WGS 84): 44.696388° LONG. (WGS 84): 11.809452°

COMMESSA: 15699/16

C. SITO N°:

OPERATORE: L. Zanirato

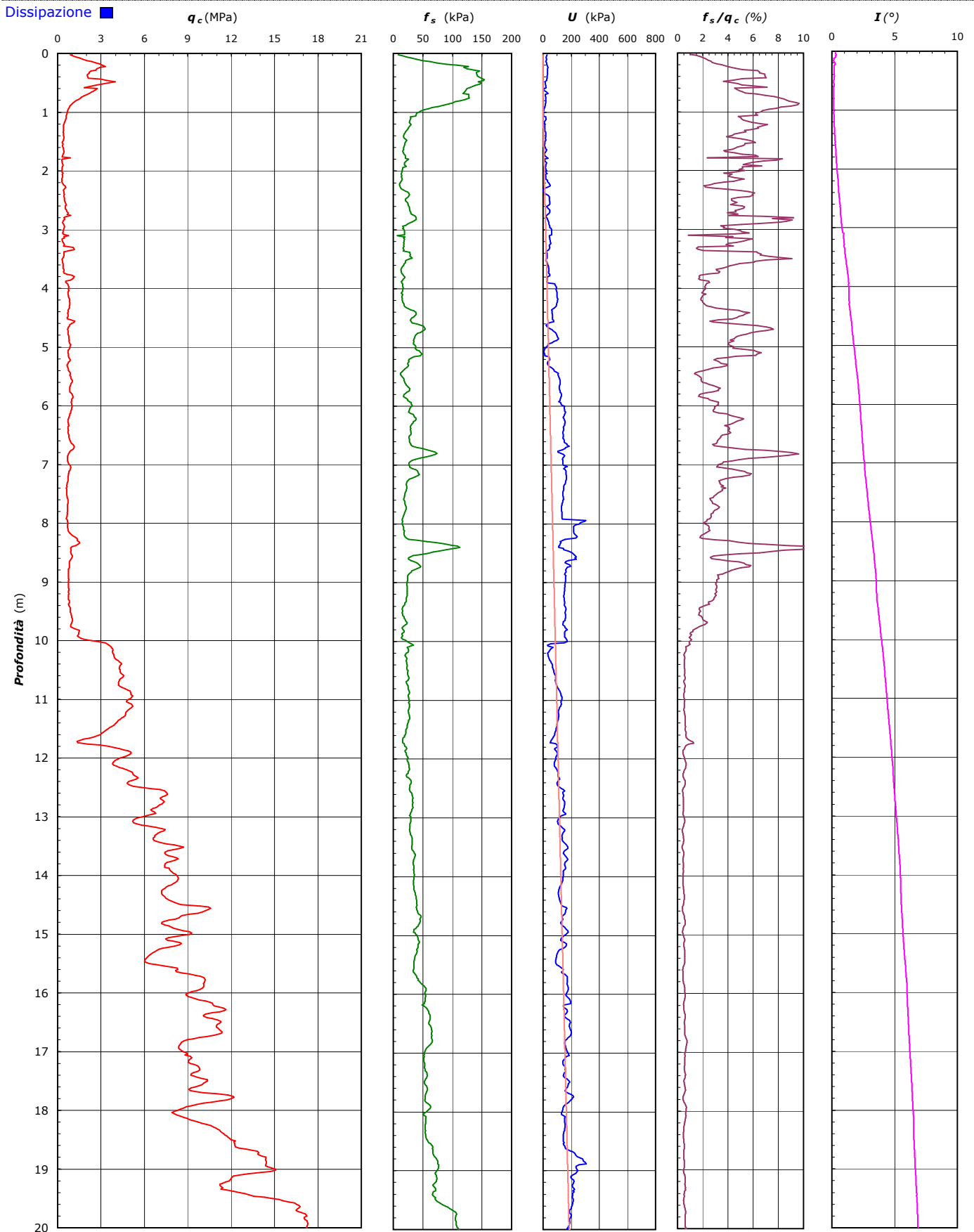
| prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi |
|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|
| 10.02 | 2.97 | 27.24 | 150.67 | 3.97 | 12.02 | 4.14 | 23.85 | 86.67 | 4.81 | 14.02 | 8.30 | 35.13 | 142.00 | 5.47 | 16.02 | 8.86 | 54.76 | 162.67 | 6.00 | 18.02 | 8.03 | 52.47 | 130.00 | 6.48 |
| 10.04 | 3.29 | 30.57 | 53.33 | 3.98 | 12.04 | 3.98 | 24.63 | 82.67 | 4.81 | 14.04 | 8.34 | 34.80 | 141.33 | 5.46 | 16.04 | 8.88 | 54.65 | 170.00 | 6.00 | 18.04 | 7.91 | 50.70 | 132.00 | 6.48 |
| 10.06 | 3.46 | 34.24 | 33.33 | 3.98 | 12.06 | 3.89 | 25.52 | 81.33 | 4.81 | 14.06 | 8.34 | 34.58 | 140.00 | 5.48 | 16.06 | 9.02 | 54.20 | 178.00 | 6.00 | 18.06 | 8.10 | 51.81 | 142.00 | 6.49 |
| 10.08 | 3.55 | 30.01 | 34.67 | 4.00 | 12.08 | 3.82 | 26.19 | 79.33 | 4.82 | 14.08 | 8.29 | 34.58 | 137.33 | 5.47 | 16.08 | 9.25 | 53.86 | 187.33 | 6.00 | 18.08 | 8.22 | 55.27 | 155.33 | 6.50 |
| 10.10 | 3.67 | 32.79 | 70.00 | 4.02 | 12.10 | 3.80 | 26.30 | 79.33 | 4.83 | 14.10 | 8.23 | 34.58 | 133.33 | 5.48 | 16.10 | 9.51 | 53.75 | 192.67 | 6.00 | 18.10 | 8.49 | 54.61 | 154.67 | 6.51 |
| 10.12 | 3.75 | 24.91 | 57.33 | 4.03 | 12.12 | 3.89 | 26.30 | 81.33 | 4.85 | 14.12 | 8.12 | 34.58 | 130.67 | 5.48 | 16.12 | 9.84 | 53.75 | 196.00 | 6.00 | 18.12 | 8.73 | 54.61 | 154.00 | 6.51 |
| 10.14 | 3.81 | 25.57 | 52.00 | 4.04 | 12.14 | 4.07 | 26.74 | 88.00 | 4.85 | 14.14 | 8.01 | 34.58 | 126.67 | 5.48 | 16.14 | 10.22 | 52.64 | 196.67 | 6.00 | 18.14 | 8.95 | 54.61 | 154.00 | 6.51 |
| 10.16 | 3.82 | 25.68 | 44.67 | 4.05 | 12.16 | 4.26 | 27.07 | 92.00 | 4.86 | 14.16 | 7.87 | 34.80 | 122.67 | 5.48 | 16.16 | 10.54 | 52.63 | 194.67 | 6.00 | 18.16 | 9.14 | 54.61 | 154.00 | 6.51 |
| 10.18 | 3.81 | 24.90 | 38.00 | 4.05 | 12.18 | 4.53 | 27.07 | 99.33 | 4.87 | 14.18 | 7.67 | 35.02 | 118.67 | 5.48 | 16.18 | 10.69 | 48.33 | 148.00 | 6.02 | 18.18 | 9.38 | 54.39 | 154.67 | 6.51 |
| 10.20 | 3.80 | 22.24 | 33.33 | 4.07 | 12.20 | 4.77 | 25.85 | 102.67 | 4.88 | 14.20 | 7.48 | 35.24 | 114.67 | 5.49 | 16.20 | 10.73 | 52.00 | 145.33 | 6.02 | 18.20 | 9.69 | 54.39 | 155.33 | 6.51 |
| 10.22 | 3.84 | 20.24 | 34.67 | 4.07 | 12.22 | 4.97 | 24.96 | 106.67 | 4.88 | 14.22 | 7.40 | 35.35 | 112.67 | 5.49 | 16.22 | 10.83 | 55.11 | 148.00 | 6.02 | 18.22 | 9.99 | 53.84 | 156.00 | 6.52 |
| 10.24 | 3.87 | 20.01 | 35.33 | 4.08 | 12.24 | 5.13 | 24.96 | 107.33 | 4.88 | 14.24 | 7.28 | 35.69 | 110.67 | 5.49 | 16.24 | 11.13 | 56.89 | 159.33 | 6.03 | 18.24 | 10.27 | 54.18 | 156.00 | 6.52 |
| 10.26 | 3.88 | 21.24 | 38.00 | 4.09 | 12.26 | 5.20 | 22.96 | 104.67 | 4.89 | 14.26 | 7.19 | 36.35 | 108.00 | 5.50 | 16.26 | 11.48 | 57.89 | 168.00 | 6.04 | 18.26 | 10.60 | 54.29 | 156.67 | 6.52 |
| 10.28 | 3.93 | 22.57 | 40.67 | 4.10 | 12.28 | 5.24 | 21.85 | 104.67 | 4.89 | 14.28 | 7.18 | 36.91 | 108.00 | 5.50 | 16.28 | 11.65 | 59.22 | 174.00 | 6.05 | 18.28 | 10.78 | 54.07 | 154.67 | 6.52 |
| 10.30 | 3.94 | 22.90 | 44.00 | 4.11 | 12.30 | 5.31 | 23.18 | 108.67 | 4.89 | 14.30 | 7.19 | 37.13 | 108.67 | 5.50 | 16.30 | 11.55 | 60.44 | 171.33 | 6.05 | 18.30 | 10.93 | 54.18 | 152.00 | 6.52 |
| 10.32 | 4.04 | 21.79 | 48.00 | 4.12 | 12.32 | 5.48 | 25.85 | 114.67 | 4.90 | 14.32 | 7.23 | 37.69 | 110.67 | 5.51 | 16.32 | 11.23 | 60.22 | 166.00 | 6.05 | 18.32 | 11.08 | 54.40 | 152.00 | 6.52 |
| 10.34 | 4.16 | 22.01 | 53.33 | 4.13 | 12.34 | 5.56 | 28.18 | 117.33 | 4.91 | 14.34 | 7.28 | 38.47 | 110.67 | 5.51 | 16.34 | 10.71 | 61.22 | 155.33 | 6.05 | 18.34 | 11.20 | 54.07 | 148.67 | 6.52 |
| 10.36 | 4.27 | 22.90 | 58.67 | 4.14 | 12.36 | 5.41 | 29.41 | 111.33 | 4.91 | 14.36 | 7.39 | 39.02 | 114.00 | 5.51 | 16.36 | 10.24 | 61.99 | 149.33 | 6.07 | 18.36 | 11.26 | 54.07 | 146.67 | 6.53 |
| 10.38 | 4.37 | 23.12 | 63.33 | 4.15 | 12.38 | 5.13 | 30.29 | 105.33 | 4.92 | 14.38 | 7.45 | 39.13 | 115.33 | 5.51 | 16.38 | 10.08 | 61.99 | 152.00 | 6.07 | 18.38 | 11.40 | 54.40 | 145.33 | 6.53 |
| 10.40 | 4.40 | 23.68 | 66.00 | 4.15 | 12.40 | 4.92 | 30.29 | 100.67 | 4.92 | 14.40 | 7.55 | 39.35 | 117.33 | 5.51 | 16.40 | 10.10 | 62.66 | 159.33 | 6.07 | 18.40 | 11.49 | 54.40 | 144.67 | 6.53 |
| 10.42 | 4.32 | 23.23 | 66.00 | 4.16 | 12.42 | 4.82 | 29.40 | 100.67 | 4.92 | 14.42 | 7.71 | 39.35 | 120.00 | 5.51 | 16.42 | 10.32 | 62.21 | 173.33 | 6.08 | 18.42 | 11.57 | 54.74 | 143.33 | 6.53 |
| 10.44 | 4.31 | 22.56 | 66.67 | 4.17 | 12.44 | 4.83 | 28.51 | 103.33 | 4.93 | 14.44 | 7.87 | 39.35 | 123.33 | 5.52 | 16.44 | 10.71 | 61.76 | 189.33 | 6.08 | 18.44 | 11.69 | 55.52 | 143.33 | 6.53 |
| 10.46 | 4.25 | 23.01 | 69.33 | 4.18 | 12.46 | 4.99 | 27.84 | 110.00 | 4.93 | 14.46 | 8.10 | 39.69 | 127.33 | 5.52 | 16.46 | 11.03 | 61.09 | 193.33 | 6.09 | 18.46 | 11.79 | 56.52 | 143.33 | 6.53 |
| 10.48 | 4.27 | 23.78 | 74.00 | 4.19 | 12.48 | 5.26 | 27.84 | 119.33 | 4.94 | 14.48 | 8.33 | 40.13 | 132.00 | 5.52 | 16.48 | 11.26 | 60.31 | 194.67 | 6.09 | 18.48 | 11.92 | 57.74 | 144.00 | 6.53 |
| 10.50 | 4.32 | 24.78 | 75.33 | 4.19 | 12.50 | 5.72 | 27.51 | 132.00 | 4.95 | 14.50 | 8.57 | 39.80 | 136.00 | 5.53 | 16.50 | 11.29 | 60.42 | 190.00 | 6.09 | 18.50 | 11.97 | 58.52 | 143.33 | 6.54 |
| 10.52 | 4.33 | 24.44 | 78.00 | 4.21 | 12.52 | 6.43 | 27.73 | 144.67 | 4.96 | 14.52 | 9.87 | 39.02 | 162.00 | 5.54 | 16.52 | 11.16 | 61.53 | 187.33 | 6.11 | 18.52 | 12.30 | 59.96 | 150.67 | 6.55 |
| 10.54 | 4.34 | 24.67 | 81.33 | 4.21 | 12.54 | 7.09 | 28.40 | 152.67 | 4.97 | 14.54 | 10.42 | 39.46 | 170.00 | 5.54 | 16.54 | 11.04 | 62.75 | 186.00 | 6.11 | 18.54 | 12.20 | 62.74 | 144.67 | 6.55 |
| 10.56 | 4.39 | 24.66 | 84.67 | 4.22 | 12.56 | 7.42 | 29.84 | 142.00 | 4.97 | 14.56 | 10.57 | 39.69 | 164.00 | 5.55 | 16.56 | 10.99 | 63.63 | 188.67 | 6.11 | 18.56 | 12.23 | 64.85 | 148.00 | 6.55 |
| 10.58 | 4.51 | 24.88 | 88.00 | 4.22 | 12.58 | 7.49 | 30.95 | 141.33 | 4.98 | 14.58 | 10.39 | 40.91 | 160.00 | 5.55 | 16.58 | 11.00 | 64.30 | 192.67 | 6.12 | 18.58 | 12.25 | 65.85 | 152.00 | 6.56 |
| 10.60 | 4.56 | 26.22 | 90.00 | 4.23 | 12.60 | 7.55 | 31.73 | 145.33 | 4.99 | 14.60 | 10.23 | 40.69 | 158.67 | 5.55 | 16.60 | 11.07 | 64.74 | 195.33 | 6.12 | 18.60 | 12.25 | 66.63 | 155.33 | 6.56 |
| 10.62 | 4.50 | 26.77 | 88.00 | 4.24 | 12.62 | 7.58 | 32.28 | 147.33 | 4.99 | 14.62 | 10.02 | 42.13 | 158.00 | 5.56 | 16.62 | 11.15 | 65.29 | 198.67 | 6.13 | 18.62 | 12.28 | 65.85 | 159.33 | 6.56 |
| 10.64 | 4.38 | 26.22 | 88.00 | 4.24 | 12.64 | 7.45 | 32.61 | 144.67 | 5.00 | 14.64 | 9.70 | 43.35 | 152.67 | 5.57 | 16.64 | 11.26 | 65.18 | 200.00 | 6.14 | 18.64 | 12.55 | 66.63 | 173.33 | 6.57 |
| 10.66 | 4.30 | 24.77 | 86.67 | 4.26 | 12.66 | 7.24 | 33.28 | 141.33 | 5.01 | 14.66 | 9.12 | 46.68 | 142.00 | 5.57 | 16.66 | 11.34 | 64.51 | 202.00 | 6.14 | 18.66 | 13.00 | 66.96 | 191.33 | 6.57 |
| 10.68 | 4.26 | 21.88 | 88.00 | 4.26 | 12.68 | 7.08 | 32.73 | 141.33 | 5.01 | 14.68 | 8.63 | 47.35 | 134.67 | 5.59 | 16.68 | 11.36 | 64.62 | 198.67 | 6.14 | 18.68 | 13.48 | 66.74 | 210.00 | 6.58 |
| 10.70 | 4.23 | 21.77 | 90.00 | 4.27 | 12.70 | 7.12 | 32.72 | 146.67 | 5.02 | 14.70 | 8.48 | 46.35 | 136.00 | 5.60 | 16.70 | 11.21 | 65.06 | 195.33 | 6.14 | 18.70 | 13.80 | 67.07 | 224.67 | 6.59 |
| 10.72 | 4.20 | 22.54 | 93.33 | 4.28 | 12.72 | 7.29 | 33.05 | 154.00 | 5.03 | 14.72 | 8.41 | 45.12 | 139.33 | 5.61 | 16.72 | 10.83 | 64.72 | 188.00 | 6.14 | 18.72 | 13.90 | 67.62 | 229.33 | 6.59 |
| 10.74 | 4.22 | 24.32 | 96.00 | 4.29 | 12.74 | 7.37 | 33.28 | 154.00 | 5.03 | 14.74 | 8.15 | 45.57 | 136.00 | 5.61 | 16.74 | 10.33 | 64.72 | 177.33 | 6.15 | 18.74 | 13.84 | 68.40 | 233.33 | 6.59 |
| 10.76 | 4.21 | 25.43 | 100.00 | 4.29 | 12.76 | 7.30 | 33.05 | 152.67 | 5.04 | 14.76 | 7.71 | 45.79 | 130.00 | 5.61 | 16.76 | 9.81 | 65.39 | 168.00 | 6.15 | 18.76 | 13.89 | 70.17 | 242.67 | 6.60 |
| 10.78 | 4.31 | 25.43 | 103.33 | 4.30 | 12.78 | 7.23 | 32.72 | 154.00 | 5.05 | 14.78 | 7.36 | 44.89 | 125.33 | 5.61 | 16.78 | 9.38 | 66.39 | 161.33 | 6.16 | 18.78 | 14.16 | 72.39 | 264.67 | 6.61 |
| 10.80 | 4.44 | 25.09 | 107.33 | 4.31 | 12.80 | 7.07 | 32.38 | 150.67 | 5.06 | 14.80 | 7.21 | 44.23 | 127.33 | 5.62 | 16.80 | 8.97 | 66.27 | 155.33 | 6.16 | 18.80 | 14.39 | 73.06 | 280.00 | 6.61 |
| 10.82 | 4.67 | 25.54 | 112.67 | 4.32 | 12.82 | 6.95 | 33.49 | 150.67 | 5.07 | 14.82 | 7.20 | 42.78 | 134.00 | 5.63 | 16.82 | 8.71 | 65.05 | 152.00 | 6.16 | 18.82 | 14.41 | 74.28 | 283.33 | 6.62 |
| 10.84 | 4.85 | 26.76 | 118.67 | 4.33 | 12.84 | 6.82 | 32.38 | 148.67 | 5.07 | 14.84 | 7.39 | 42.00 | 144.00 | 5.63 | 16.84 | 8.55 | 63.93 | 152.67 | 6.17 | 18.84 | 14.37 | 75.50 | 289.33 | 6.62 |
| 10.86 | 5.00 | 27.75 | 122.67 | 4.33 | 12.86 | 6.60 | 31.38 | 144.00 | 5.08 | 14.86 | 7.69 | 39.78 | 154.67 | 5.64 | 16.86 | 8.52 | 61.93 | 158.00 | 6.18 | 18.86 | 14.39 | 75.61 | 299.33 | 6.62 |
| 10.88 | 5.04 | 27.09 | 125.33 | 4.35 | 12.88 | 6.43 | 30.93 | 142.00 | 5.09 | 14.88 | 7.86 | 37.66 | 161.33 | 5.64 | 16.88 | 8.47 | 59.71 | 160.00 | 6.18 | 18.88 | 14.42 | 75.60 | 306.00 | 6.64 |
| 10.90 | 5.06 | 25.53 | 126.67 | 4.35 | 12.90 | 6.49 | 30.15 | 148.67 | 5.09 | 14.90 | 7.99 | 35.22 | 165.33 | 5.64 | 16.90 | 8.39 | 58.04 | 161.33 | 6.18 | 18.90 | 14.43 | 76.71 | 256.00 | 6.63 |
| 10.92 | 5.08 | 24.97 | 129.33 | | | | | | | | | | | | | | | | | | | | | |

COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 12 PROF. FALDA (m da p.c.): 1.10 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.696388° LONG. (WGS 84): 11.809452°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato



COMMITTENTE: **ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma****CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: PO CPTU 12 PROF. FALDA (m da p.c.): 1.10 PUNTA: Tecnopenta G1-CPL2IN (matr. 121114)[a = 0.66]

DATA: 22/12/16 PREFORO (m da p.c.): LAT. (WGS 84): 44.696388° LONG. (WGS 84): 11.809452°

COMMESSA: 15699/16 C. SITO N°: OPERATORE: L. Zanirato

UBICAZIONE

Località: Via Ugo Bassi, Portomaggiore.



NOTE: Utilizzato 1 anello allargatore da inizio prova



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Sede operativa ed amm.va: Via Annibale Zucchini, 69 - 44100 FERRARA
tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: SCPTU 1 PROF. FALDA (m da p.c.): 2.00 PUNTA: Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]

DATA: 17/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.743642°

COMMESSA: 15699/16 C. SITO N°: LONG. (WGS 84): 11.791230°

Table with 5 columns of data (prof., qc, fs, U, incl.) repeated 10 times, containing numerical values for various parameters.

Il Direttore Tecnico SOA:
p.i. Riccardo Mazza

Il Responsabile Prove in Sito:
dott. Massimo Romagnoli



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Sede operativa ed amm.va: Via Annibale Zucchini, 69 - 44100 FERRARA
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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: SCPTU 1 PROF. FALDA (m da p.c.): 2.00 PUNTA: Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]

DATA: 17/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.743642°

COMMESSA: 15699/16 C. SITO N°: LONG. (WGS 84): 11.791230°

| prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi |
|---------|--------|--------|-------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|
| 10.02 | 8.81 | 38.42 | 14.67 | 2.62 | 12.02 | 11.19 | 62.30 | 110.00 | 3.14 | 14.02 | 11.63 | 65.06 | 139.33 | 3.56 | 16.02 | 13.72 | 58.57 | 117.33 | 3.91 | 18.02 | 10.30 | 65.92 | 129.33 | 4.33 |
| 10.04 | 9.48 | 39.09 | 16.00 | 2.63 | 12.04 | 11.16 | 62.08 | 112.00 | 3.15 | 14.04 | 10.27 | 62.95 | 126.00 | 3.56 | 16.04 | 14.27 | 59.46 | 117.33 | 3.92 | 18.04 | 10.49 | 62.81 | 125.33 | 4.33 |
| 10.06 | 9.69 | 40.98 | 18.00 | 2.62 | 12.06 | 11.00 | 59.63 | 112.67 | 3.15 | 14.06 | 9.27 | 61.84 | 118.00 | 3.56 | 16.06 | 14.60 | 60.35 | 118.67 | 3.91 | 18.06 | 10.17 | 58.81 | 114.00 | 4.33 |
| 10.08 | 9.60 | 41.64 | 16.67 | 2.63 | 12.08 | 10.58 | 56.86 | 110.67 | 3.16 | 14.08 | 8.65 | 61.06 | 114.00 | 3.56 | 16.08 | 14.62 | 61.90 | 118.67 | 3.93 | 18.08 | 9.77 | 56.69 | 110.00 | 4.33 |
| 10.10 | 9.46 | 42.76 | 16.67 | 2.63 | 12.10 | 10.25 | 56.08 | 110.67 | 3.16 | 14.10 | 8.31 | 60.17 | 111.33 | 3.57 | 16.10 | 14.04 | 63.79 | 112.00 | 3.93 | 18.10 | 9.59 | 55.58 | 104.00 | 4.34 |
| 10.12 | 9.34 | 44.09 | 18.00 | 2.64 | 12.12 | 10.01 | 55.52 | 110.00 | 3.16 | 14.12 | 8.13 | 58.73 | 112.00 | 3.57 | 16.12 | 13.25 | 65.79 | 108.00 | 3.92 | 18.12 | 9.49 | 51.14 | 100.67 | 4.35 |
| 10.14 | 9.11 | 45.09 | 16.67 | 2.64 | 12.14 | 9.47 | 54.30 | 107.33 | 3.16 | 14.14 | 8.07 | 57.06 | 111.33 | 3.57 | 16.14 | 12.61 | 65.68 | 105.33 | 3.94 | 18.14 | 9.41 | 50.03 | 100.67 | 4.36 |
| 10.16 | 8.58 | 45.42 | 15.33 | 2.65 | 12.16 | 9.01 | 54.08 | 105.33 | 3.17 | 14.16 | 8.13 | 54.84 | 112.67 | 3.58 | 16.16 | 11.97 | 65.23 | 104.00 | 3.94 | 18.16 | 9.30 | 44.69 | 145.33 | 4.35 |
| 10.18 | 7.95 | 44.31 | 14.00 | 2.65 | 12.18 | 8.87 | 53.41 | 105.33 | 3.17 | 14.18 | 8.34 | 51.17 | 114.00 | 3.58 | 16.18 | 11.69 | 63.79 | 104.67 | 3.94 | 18.18 | 9.41 | 42.69 | 141.33 | 4.34 |
| 10.20 | 7.42 | 43.20 | 12.00 | 2.66 | 12.20 | 8.25 | 53.19 | 107.33 | 3.17 | 14.20 | 8.70 | 49.95 | 118.00 | 3.59 | 16.20 | 11.46 | 63.79 | 105.33 | 3.94 | 18.20 | 9.56 | 42.02 | 140.67 | 4.34 |
| 10.22 | 7.01 | 42.09 | 11.33 | 2.66 | 12.22 | 9.25 | 53.19 | 110.67 | 3.17 | 14.22 | 9.21 | 49.95 | 121.33 | 3.59 | 16.22 | 11.03 | 62.68 | 104.00 | 3.94 | 18.22 | 9.74 | 41.25 | 138.00 | 4.34 |
| 10.24 | 6.76 | 40.98 | 11.33 | 2.67 | 12.24 | 9.88 | 53.08 | 116.00 | 3.18 | 14.24 | 9.20 | 50.28 | 126.67 | 3.59 | 16.24 | 10.28 | 56.57 | 110.00 | 3.95 | 18.24 | 9.90 | 42.36 | 136.67 | 4.35 |
| 10.26 | 6.60 | 39.53 | 10.67 | 2.67 | 12.26 | 10.59 | 54.52 | 122.67 | 3.19 | 14.26 | 10.57 | 51.95 | 132.67 | 3.60 | 16.26 | 9.82 | 55.24 | 103.33 | 3.94 | 18.26 | 10.04 | 42.91 | 136.67 | 4.35 |
| 10.28 | 6.53 | 38.09 | 10.67 | 2.67 | 12.28 | 11.07 | 55.52 | 125.33 | 3.18 | 14.28 | 11.47 | 54.40 | 139.33 | 3.61 | 16.28 | 9.09 | 53.35 | 97.33 | 3.94 | 18.28 | 10.20 | 43.02 | 136.67 | 4.36 |
| 10.30 | 6.51 | 37.09 | 10.67 | 2.70 | 12.30 | 11.06 | 54.30 | 123.33 | 3.19 | 14.30 | 12.55 | 57.06 | 148.00 | 3.62 | 16.30 | 8.45 | 51.68 | 92.67 | 3.95 | 18.30 | 10.38 | 43.47 | 137.33 | 4.35 |
| 10.32 | 6.30 | 33.53 | 37.33 | 2.70 | 12.32 | 10.94 | 53.63 | 122.67 | 3.20 | 14.32 | 13.36 | 58.40 | 152.67 | 3.62 | 16.32 | 8.11 | 51.01 | 92.67 | 3.95 | 18.32 | 10.65 | 44.13 | 138.00 | 4.36 |
| 10.34 | 6.41 | 32.98 | 35.33 | 2.71 | 12.34 | 10.69 | 52.86 | 120.00 | 3.20 | 14.34 | 13.55 | 59.40 | 150.67 | 3.62 | 16.34 | 7.97 | 49.90 | 92.00 | 3.95 | 18.34 | 10.99 | 44.47 | 140.00 | 4.36 |
| 10.36 | 6.53 | 32.98 | 36.67 | 2.71 | 12.36 | 10.00 | 52.08 | 114.67 | 3.21 | 14.36 | 13.28 | 59.62 | 146.67 | 3.63 | 16.36 | 7.74 | 47.13 | 92.00 | 3.97 | 18.36 | 11.32 | 45.36 | 140.67 | 4.36 |
| 10.38 | 6.70 | 32.64 | 38.00 | 2.72 | 12.38 | 8.99 | 50.63 | 105.33 | 3.21 | 14.38 | 12.63 | 60.18 | 138.00 | 3.63 | 16.38 | 7.10 | 46.24 | 86.67 | 3.97 | 18.38 | 11.46 | 46.80 | 140.00 | 4.36 |
| 10.40 | 6.85 | 32.87 | 38.00 | 2.72 | 12.40 | 8.19 | 48.75 | 99.33 | 3.21 | 14.40 | 10.98 | 55.17 | 108.67 | 3.63 | 16.40 | 6.47 | 43.90 | 84.00 | 3.97 | 18.40 | 11.53 | 48.36 | 140.67 | 4.36 |
| 10.42 | 7.02 | 33.20 | 40.00 | 2.72 | 12.42 | 7.70 | 48.52 | 96.67 | 3.23 | 14.42 | 10.34 | 57.17 | 103.33 | 3.63 | 16.42 | 6.13 | 41.24 | 82.67 | 3.97 | 18.42 | 11.59 | 48.69 | 139.33 | 4.37 |
| 10.44 | 7.23 | 33.42 | 40.67 | 2.73 | 12.44 | 7.31 | 47.19 | 93.33 | 3.23 | 14.44 | 9.90 | 58.28 | 98.00 | 3.63 | 16.44 | 5.86 | 39.35 | 80.67 | 3.98 | 18.44 | 11.67 | 49.36 | 140.00 | 4.38 |
| 10.46 | 7.44 | 33.42 | 42.00 | 2.74 | 12.46 | 7.05 | 46.08 | 92.00 | 3.23 | 14.46 | 9.66 | 58.73 | 96.67 | 3.64 | 16.46 | 5.70 | 38.13 | 81.33 | 3.98 | 18.46 | 11.77 | 49.69 | 139.33 | 4.37 |
| 10.48 | 7.65 | 34.20 | 42.67 | 2.74 | 12.48 | 6.87 | 44.74 | 90.00 | 3.23 | 14.48 | 9.69 | 58.84 | 96.00 | 3.64 | 16.48 | 5.65 | 37.13 | 80.67 | 3.99 | 18.48 | 11.87 | 48.69 | 140.00 | 4.38 |
| 10.50 | 7.85 | 35.30 | 44.00 | 2.75 | 12.50 | 6.55 | 38.74 | 70.67 | 3.23 | 14.50 | 9.97 | 57.73 | 96.00 | 3.64 | 16.50 | 5.67 | 37.35 | 81.33 | 3.99 | 18.50 | 12.04 | 50.03 | 141.33 | 4.38 |
| 10.52 | 8.09 | 36.20 | 46.00 | 2.76 | 12.52 | 6.45 | 36.63 | 64.00 | 3.23 | 14.52 | 10.65 | 57.51 | 105.33 | 3.65 | 16.52 | 5.76 | 34.90 | 81.33 | 3.99 | 18.52 | 12.27 | 50.25 | 143.33 | 4.39 |
| 10.54 | 8.34 | 36.76 | 45.33 | 2.76 | 12.54 | 6.54 | 37.40 | 69.33 | 3.24 | 14.54 | 11.25 | 57.73 | 110.00 | 3.65 | 16.54 | 5.97 | 32.13 | 84.00 | 4.00 | 18.54 | 12.42 | 51.03 | 144.67 | 4.39 |
| 10.56 | 8.61 | 37.53 | 47.33 | 2.77 | 12.56 | 6.55 | 37.40 | 67.33 | 3.24 | 14.56 | 11.41 | 56.51 | 110.67 | 3.65 | 16.56 | 6.16 | 31.79 | 84.67 | 4.00 | 18.56 | 12.81 | 50.36 | 143.33 | 4.39 |
| 10.58 | 8.87 | 38.98 | 47.33 | 2.78 | 12.58 | 6.55 | 37.07 | 66.00 | 3.25 | 14.58 | 11.46 | 56.17 | 110.67 | 3.66 | 16.58 | 6.27 | 32.13 | 84.00 | 4.01 | 18.58 | 13.44 | 49.92 | 158.00 | 4.38 |
| 10.60 | 9.04 | 39.87 | 47.33 | 2.79 | 12.60 | 6.50 | 36.74 | 66.00 | 3.26 | 14.60 | 11.64 | 56.51 | 112.67 | 3.67 | 16.60 | 6.44 | 31.91 | 86.00 | 4.02 | 18.60 | 14.07 | 50.58 | 165.33 | 4.39 |
| 10.62 | 9.00 | 37.87 | 49.33 | 2.80 | 12.62 | 6.48 | 36.63 | 64.67 | 3.25 | 14.62 | 12.04 | 57.51 | 117.33 | 3.67 | 16.62 | 6.59 | 32.57 | 86.67 | 4.02 | 18.62 | 14.82 | 52.92 | 174.00 | 4.39 |
| 10.64 | 9.32 | 39.64 | 47.33 | 2.81 | 12.64 | 6.48 | 36.51 | 64.67 | 3.26 | 14.64 | 12.44 | 58.17 | 121.33 | 3.68 | 16.64 | 6.74 | 33.46 | 86.67 | 4.02 | 18.64 | 15.58 | 55.81 | 185.33 | 4.40 |
| 10.66 | 9.58 | 40.98 | 48.00 | 2.81 | 12.66 | 6.48 | 36.51 | 62.67 | 3.27 | 14.66 | 12.42 | 60.06 | 121.33 | 3.67 | 16.66 | 6.98 | 34.68 | 88.67 | 4.02 | 18.66 | 15.75 | 54.92 | 187.33 | 4.39 |
| 10.68 | 9.82 | 42.09 | 49.33 | 2.82 | 12.68 | 6.50 | 36.51 | 62.00 | 3.26 | 14.68 | 12.28 | 60.06 | 118.67 | 3.68 | 16.68 | 7.41 | 36.46 | 92.00 | 4.03 | 18.68 | 15.58 | 52.92 | 186.00 | 4.40 |
| 10.70 | 10.12 | 42.87 | 50.00 | 2.82 | 12.70 | 6.60 | 36.51 | 60.67 | 3.28 | 14.70 | 12.41 | 59.51 | 122.00 | 3.68 | 16.70 | 7.93 | 37.46 | 96.00 | 4.04 | 18.70 | 15.12 | 58.36 | 184.00 | 4.41 |
| 10.72 | 10.47 | 44.09 | 52.67 | 2.83 | 12.72 | 6.75 | 36.85 | 62.00 | 3.28 | 14.72 | 12.60 | 59.95 | 124.67 | 3.68 | 16.72 | 8.57 | 38.90 | 100.00 | 4.04 | 18.72 | 14.65 | 73.36 | 184.00 | 4.41 |
| 10.74 | 10.84 | 45.31 | 54.67 | 2.84 | 12.74 | 6.95 | 37.07 | 63.33 | 3.28 | 14.74 | 12.51 | 61.40 | 124.67 | 3.69 | 16.74 | 8.94 | 41.02 | 102.67 | 4.04 | 18.74 | 14.15 | 81.92 | 175.33 | 4.44 |
| 10.76 | 11.11 | 45.87 | 56.00 | 2.84 | 12.76 | 7.19 | 37.06 | 62.67 | 3.29 | 14.76 | 12.30 | 62.62 | 122.67 | 3.69 | 16.76 | 8.86 | 42.01 | 100.67 | 4.05 | 18.76 | 13.65 | 78.03 | 175.33 | 4.44 |
| 10.78 | 11.17 | 48.20 | 56.67 | 2.85 | 12.78 | 7.57 | 37.51 | 64.67 | 3.29 | 14.78 | 11.95 | 63.17 | 119.33 | 3.70 | 16.78 | 8.38 | 42.24 | 96.67 | 4.06 | 18.78 | 13.45 | 70.92 | 180.67 | 4.44 |
| 10.80 | 11.00 | 48.53 | 56.67 | 2.85 | 12.80 | 7.96 | 38.74 | 66.67 | 3.30 | 14.80 | 11.57 | 63.06 | 118.00 | 3.70 | 16.80 | 7.68 | 41.79 | 90.67 | 4.06 | 18.80 | 13.44 | 71.47 | 181.33 | 4.45 |
| 10.82 | 10.70 | 48.76 | 56.00 | 2.86 | 12.82 | 8.37 | 39.85 | 67.33 | 3.31 | 14.82 | 11.77 | 62.28 | 121.33 | 3.70 | 16.82 | 7.25 | 41.90 | 88.00 | 4.06 | 18.82 | 13.49 | 71.47 | 184.67 | 4.45 |
| 10.84 | 10.14 | 47.76 | 52.00 | 2.87 | 12.84 | 8.95 | 40.51 | 73.33 | 3.31 | 14.84 | 12.82 | 62.40 | 133.33 | 3.71 | 16.84 | 7.02 | 42.24 | 86.67 | 4.07 | 18.84 | 14.12 | 68.03 | 202.67 | 4.45 |
| 10.86 | 9.41 | 46.42 | 48.00 | 2.86 | 12.86 | 9.53 | 42.18 | 75.33 | 3.32 | 14.86 | 14.33 | 63.73 | 147.33 | 3.71 | 16.86 | 6.94 | 42.02 | 86.67 | 4.07 | 18.86 | 14.65 | 62.58 | 216.67 | 4.46 |
| 10.88 | 8.78 | 46.09 | 46.00 | 2.88 | 12.88 | 10.02 | 44.29 | 78.00 | 3.33 | 14.88 | 15.67 | 66.95 | 158.67 | 3.71 | 16.88 | 7.04 | 41.68 | 88.00 | 4.08 | 18.88 | 15.04 | 60.80 | 228.00 | 4.46 |
| 10.90 | 8.26 | 45.76 | 45.33 | 2.88 | 12.90 | 10.63 | 44.63 | 82.00 | 3.32 | 14.90 | 16.33 | 69.73 | 162.67 | 3.72 | 16.90 | 7.33 | 41.79 | 90.00 | 4.08 | 18.90 | 15.25 | 63.36 | 236.67 | 4.46 |
| 10.92 | 7.88 | 45.09 | 45.33 | 2.88 | 12.92 | 11.05 | 44.29 | 85.33 | 3.33 | 14.92 | 16.28 | 70.84 | 144.67 | 3.72 | 16.92 | 7.64 | 40.45 | 86.67 | 4.07 | 18.92 | 14.72 | | | |



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: SCPTU 1 PROF. FALDA (m da p.c.): 2.00 PUNTA: Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]

DATA: 17/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.743642°

COMMESSA: 15699/16 C. SITO N°: LONG. (WGS 84): 11.791230°

| prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. |
|-------|-------|-------|--------|-------|-------|------|--------|--------|-------|-------|------|--------|--------|-------|-------|------|-------|--------|-------|-------|------|--------|--------|-------|
| m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi |
| 20.02 | 11.50 | 51.13 | 167.33 | 4.49 | 22.02 | 1.30 | 122.02 | 640.67 | 4.82 | 24.02 | 6.26 | 75.67 | 3.33 | 5.50 | 26.02 | 1.08 | 29.48 | 442.67 | 6.11 | 28.02 | 1.24 | 54.13 | 598.00 | 6.40 |
| 20.04 | 11.53 | 51.02 | 168.00 | 4.50 | 22.04 | 1.17 | 102.02 | 710.67 | 4.81 | 24.04 | 4.58 | 69.67 | 2.67 | 5.51 | 26.04 | 0.81 | 29.26 | 420.67 | 6.11 | 28.04 | 1.42 | 58.68 | 605.33 | 6.40 |
| 20.06 | 11.32 | 50.58 | 165.33 | 4.50 | 22.06 | 1.11 | 75.35 | 724.00 | 4.82 | 24.06 | 2.87 | 58.01 | 8.00 | 5.52 | 26.06 | 0.61 | 30.26 | 487.33 | 6.12 | 28.06 | 1.42 | 65.80 | 600.00 | 6.41 |
| 20.08 | 11.14 | 50.02 | 163.33 | 4.50 | 22.08 | 1.09 | 48.79 | 715.33 | 4.82 | 24.08 | 1.89 | 58.01 | 10.00 | 5.54 | 26.08 | 0.57 | 29.93 | 553.33 | 6.13 | 28.08 | 1.49 | 68.47 | 583.33 | 6.41 |
| 20.10 | 10.93 | 50.02 | 160.00 | 4.51 | 22.10 | 1.06 | 40.79 | 690.67 | 4.82 | 24.10 | 1.53 | 90.34 | 6.00 | 5.54 | 26.10 | 0.56 | 29.15 | 553.33 | 6.14 | 28.10 | 1.48 | 72.24 | 568.00 | 6.41 |
| 20.12 | 10.56 | 50.58 | 155.33 | 4.51 | 22.12 | 1.12 | 40.02 | 667.33 | 4.83 | 24.12 | 1.15 | 107.45 | 55.33 | 5.56 | 26.12 | 0.56 | 30.37 | 565.33 | 6.15 | 28.12 | 1.44 | 74.91 | 552.00 | 6.42 |
| 20.14 | 10.32 | 52.02 | 152.00 | 4.51 | 22.14 | 1.20 | 44.24 | 686.00 | 4.84 | 24.14 | 0.93 | 113.56 | 100.67 | 5.57 | 26.14 | 0.57 | 30.37 | 581.33 | 6.16 | 28.14 | 1.49 | 79.80 | 542.00 | 6.43 |
| 20.16 | 10.32 | 53.02 | 151.33 | 4.51 | 22.16 | 1.11 | 36.13 | 753.33 | 4.84 | 24.16 | 0.87 | 99.56 | 408.67 | 5.57 | 26.16 | 0.62 | 29.81 | 582.67 | 6.17 | 28.16 | 1.54 | 92.02 | 541.33 | 6.44 |
| 20.18 | 10.49 | 53.13 | 152.67 | 4.51 | 22.18 | 1.03 | 28.79 | 744.00 | 4.85 | 24.18 | 0.87 | 83.56 | 473.33 | 5.58 | 26.18 | 0.62 | 26.81 | 585.33 | 6.18 | 28.18 | 1.60 | 96.68 | 552.00 | 6.44 |
| 20.20 | 10.87 | 53.36 | 156.67 | 4.52 | 22.20 | 1.06 | 24.68 | 746.00 | 4.85 | 24.20 | 0.81 | 79.45 | 470.00 | 5.59 | 26.20 | 0.63 | 24.93 | 594.67 | 6.19 | 28.20 | 1.74 | 102.57 | 563.33 | 6.45 |
| 20.22 | 11.47 | 53.13 | 164.00 | 4.53 | 22.22 | 1.04 | 24.24 | 700.67 | 4.86 | 24.22 | 0.80 | 65.78 | 479.33 | 5.59 | 26.22 | 0.67 | 23.70 | 603.33 | 6.21 | 28.22 | 1.69 | 108.35 | 563.33 | 6.45 |
| 20.24 | 11.92 | 54.91 | 169.33 | 4.54 | 22.24 | 0.93 | 25.35 | 719.33 | 4.86 | 24.24 | 0.89 | 56.56 | 504.67 | 5.61 | 26.24 | 0.76 | 25.92 | 666.00 | 6.21 | 28.24 | 1.68 | 105.13 | 556.00 | 6.45 |
| 20.26 | 11.69 | 55.91 | 163.33 | 4.53 | 22.26 | 0.77 | 24.01 | 712.00 | 4.87 | 24.26 | 0.99 | 54.01 | 508.00 | 5.61 | 26.26 | 0.78 | 26.59 | 661.33 | 6.21 | 28.26 | 1.65 | 101.90 | 530.67 | 6.45 |
| 20.28 | 11.51 | 57.35 | 161.33 | 4.54 | 22.28 | 0.71 | 23.35 | 725.33 | 4.87 | 24.28 | 0.97 | 54.90 | 494.67 | 5.62 | 26.28 | 0.78 | 27.59 | 656.00 | 6.21 | 28.28 | 1.54 | 107.13 | 508.67 | 6.46 |
| 20.30 | 11.41 | 58.02 | 159.33 | 4.55 | 22.30 | 0.65 | 22.90 | 734.00 | 4.87 | 24.30 | 0.92 | 56.67 | 482.67 | 5.62 | 26.30 | 0.79 | 28.47 | 649.33 | 6.22 | 28.30 | 1.39 | 110.02 | 499.33 | 6.46 |
| 20.32 | 10.93 | 54.13 | 144.67 | 4.54 | 22.32 | 0.61 | 22.35 | 724.00 | 4.87 | 24.32 | 0.93 | 58.78 | 472.00 | 5.62 | 26.32 | 0.79 | 29.15 | 646.00 | 6.22 | 28.32 | 1.33 | 108.46 | 487.33 | 6.46 |
| 20.34 | 11.55 | 56.46 | 150.67 | 4.54 | 22.34 | 0.59 | 22.57 | 742.00 | 4.87 | 24.34 | 0.91 | 60.67 | 461.33 | 5.63 | 26.34 | 0.80 | 29.59 | 642.67 | 6.22 | 28.34 | 1.20 | 108.35 | 462.67 | 6.47 |
| 20.36 | 11.93 | 57.57 | 152.00 | 4.54 | 22.36 | 0.58 | 22.57 | 758.67 | 4.88 | 24.36 | 0.91 | 63.45 | 448.67 | 5.63 | 26.36 | 0.82 | 30.70 | 638.67 | 6.22 | 28.36 | 1.12 | 114.13 | 442.67 | 6.46 |
| 20.38 | 12.37 | 58.79 | 154.67 | 4.54 | 22.38 | 0.57 | 21.68 | 756.67 | 4.88 | 24.38 | 0.88 | 68.45 | 431.33 | 5.63 | 26.38 | 0.82 | 31.70 | 633.33 | 6.22 | 28.38 | 0.99 | 109.24 | 432.67 | 6.47 |
| 20.40 | 12.52 | 61.02 | 154.67 | 4.54 | 22.40 | 0.54 | 21.01 | 747.33 | 4.88 | 24.40 | 0.85 | 78.45 | 395.33 | 5.64 | 26.40 | 0.80 | 33.14 | 628.00 | 6.22 | 28.40 | 0.90 | 104.13 | 441.33 | 6.46 |
| 20.42 | 12.21 | 62.02 | 150.67 | 4.55 | 22.42 | 0.54 | 20.90 | 744.00 | 4.89 | 24.42 | 0.84 | 78.23 | 382.67 | 5.64 | 26.42 | 0.79 | 33.81 | 622.67 | 6.21 | 28.42 | 0.90 | 92.68 | 454.00 | 6.47 |
| 20.44 | 11.73 | 61.02 | 145.33 | 4.55 | 22.44 | 0.53 | 21.02 | 738.67 | 4.88 | 24.44 | 0.80 | 79.23 | 369.33 | 5.64 | 26.44 | 0.80 | 34.03 | 615.33 | 6.22 | 28.44 | 0.95 | 85.91 | 462.00 | 6.47 |
| 20.46 | 11.28 | 60.01 | 144.67 | 4.55 | 22.46 | 0.53 | 21.35 | 729.33 | 4.88 | 24.46 | 0.76 | 81.00 | 360.67 | 5.64 | 26.46 | 0.81 | 34.47 | 617.33 | 6.22 | 28.46 | 0.96 | 82.91 | 468.67 | 6.48 |
| 20.48 | 11.04 | 61.01 | 143.33 | 4.55 | 22.48 | 0.53 | 21.57 | 764.67 | 4.90 | 24.48 | 0.71 | 79.89 | 365.33 | 5.65 | 26.48 | 0.82 | 35.58 | 620.00 | 6.22 | 28.48 | 0.99 | 77.68 | 475.33 | 6.49 |
| 20.50 | 11.02 | 61.02 | 144.67 | 4.56 | 22.50 | 0.52 | 21.46 | 731.33 | 4.90 | 24.50 | 0.75 | 76.22 | 370.00 | 5.65 | 26.50 | 0.81 | 35.92 | 620.67 | 6.22 | 28.50 | 1.02 | 70.35 | 480.67 | 6.49 |
| 20.52 | 11.21 | 61.02 | 147.33 | 4.56 | 22.52 | 0.52 | 21.02 | 699.33 | 4.90 | 24.52 | 0.69 | 71.23 | 368.00 | 5.65 | 26.52 | 0.80 | 36.81 | 626.67 | 6.22 | 28.52 | 1.05 | 62.35 | 484.67 | 6.49 |
| 20.54 | 11.72 | 60.91 | 152.67 | 4.57 | 22.54 | 0.52 | 20.79 | 675.33 | 4.90 | 24.54 | 0.69 | 69.56 | 369.33 | 5.66 | 26.54 | 0.79 | 37.58 | 632.00 | 6.22 | 28.54 | 1.10 | 60.35 | 494.00 | 6.50 |
| 20.56 | 12.28 | 62.13 | 158.67 | 4.57 | 22.56 | 0.52 | 20.79 | 653.33 | 4.90 | 24.56 | 0.69 | 65.34 | 376.67 | 5.66 | 26.56 | 0.81 | 37.70 | 636.67 | 6.22 | 28.56 | 1.14 | 62.68 | 502.67 | 6.50 |
| 20.58 | 12.35 | 61.35 | 156.67 | 4.57 | 22.58 | 0.52 | 20.24 | 639.33 | 4.90 | 24.58 | 0.73 | 61.67 | 380.00 | 5.66 | 26.58 | 0.82 | 37.70 | 638.67 | 6.22 | 28.58 | 1.21 | 64.24 | 512.00 | 6.50 |
| 20.60 | 12.02 | 60.68 | 152.67 | 4.56 | 22.60 | 0.52 | 19.79 | 624.67 | 4.90 | 24.60 | 0.76 | 58.45 | 376.67 | 5.67 | 26.60 | 0.85 | 37.58 | 639.33 | 6.22 | 28.60 | 1.31 | 68.46 | 590.67 | 6.48 |
| 20.62 | 11.90 | 59.68 | 152.00 | 4.57 | 22.62 | 0.52 | 19.68 | 608.00 | 4.90 | 24.62 | 0.76 | 58.78 | 376.00 | 5.67 | 26.62 | 0.86 | 37.70 | 638.00 | 6.23 | 28.62 | 1.36 | 71.46 | 610.00 | 6.48 |
| 20.64 | 11.84 | 61.91 | 152.00 | 4.57 | 22.64 | 0.51 | 19.79 | 594.67 | 4.91 | 24.64 | 0.77 | 59.00 | 368.67 | 5.68 | 26.64 | 0.87 | 38.14 | 633.33 | 6.23 | 28.64 | 1.32 | 74.23 | 598.00 | 6.46 |
| 20.66 | 11.82 | 63.79 | 152.67 | 4.57 | 22.66 | 0.51 | 19.79 | 576.00 | 4.91 | 24.66 | 0.75 | 58.78 | 358.00 | 5.68 | 26.66 | 0.87 | 38.70 | 624.00 | 6.23 | 28.66 | 1.36 | 75.01 | 582.67 | 6.46 |
| 20.68 | 12.15 | 65.68 | 158.00 | 4.57 | 22.68 | 0.50 | 19.90 | 558.00 | 4.92 | 24.68 | 0.73 | 60.00 | 344.67 | 5.69 | 26.68 | 0.90 | 39.25 | 612.00 | 6.23 | 28.68 | 1.37 | 77.13 | 562.00 | 6.45 |
| 20.70 | 13.11 | 66.56 | 167.33 | 4.57 | 22.70 | 0.47 | 20.46 | 545.33 | 4.92 | 24.70 | 0.68 | 63.45 | 336.67 | 5.69 | 26.70 | 0.92 | 39.92 | 604.67 | 6.23 | 28.70 | 1.30 | 81.35 | 548.67 | 6.45 |
| 20.72 | 14.20 | 65.79 | 174.00 | 4.59 | 22.72 | 0.45 | 21.13 | 524.00 | 4.92 | 24.72 | 0.64 | 65.00 | 329.33 | 5.69 | 26.72 | 0.91 | 40.58 | 596.67 | 6.23 | 28.72 | 1.21 | 78.01 | 542.67 | 6.45 |
| 20.74 | 14.61 | 65.57 | 174.00 | 4.58 | 22.74 | 0.44 | 21.68 | 512.00 | 4.92 | 24.74 | 0.63 | 65.89 | 329.33 | 5.69 | 26.74 | 0.90 | 41.92 | 591.33 | 6.23 | 28.74 | 1.20 | 78.23 | 541.33 | 6.45 |
| 20.76 | 15.21 | 66.79 | 172.67 | 4.59 | 22.76 | 0.41 | 22.24 | 499.33 | 4.92 | 24.76 | 0.65 | 66.00 | 331.33 | 5.70 | 26.76 | 0.91 | 43.36 | 589.33 | 6.23 | 28.76 | 1.20 | 79.46 | 540.00 | 6.45 |
| 20.78 | 15.62 | 68.13 | 175.33 | 4.59 | 22.78 | 0.40 | 22.79 | 488.00 | 4.92 | 24.78 | 0.67 | 64.56 | 329.33 | 5.71 | 26.78 | 0.91 | 45.47 | 586.00 | 6.23 | 28.78 | 1.20 | 79.79 | 540.00 | 6.45 |
| 20.80 | 16.04 | 70.46 | 178.00 | 4.60 | 22.80 | 0.41 | 23.90 | 477.33 | 4.92 | 24.80 | 0.68 | 65.67 | 333.33 | 5.71 | 26.80 | 0.93 | 47.25 | 585.33 | 6.23 | 28.80 | 1.20 | 79.57 | 543.33 | 6.45 |
| 20.82 | 16.28 | 71.79 | 178.00 | 4.60 | 22.82 | 0.41 | 25.24 | 472.67 | 4.95 | 24.82 | 0.75 | 62.00 | 336.67 | 5.72 | 26.82 | 0.96 | 54.36 | 574.00 | 6.24 | 28.82 | 1.21 | 79.90 | 543.33 | 6.45 |
| 20.84 | 16.26 | 73.68 | 177.33 | 4.60 | 22.84 | 0.44 | 23.35 | 477.33 | 4.95 | 24.84 | 0.85 | 60.23 | 344.00 | 5.72 | 26.84 | 0.94 | 58.47 | 566.67 | 6.25 | 28.84 | 1.22 | 80.12 | 545.33 | 6.45 |
| 20.86 | 16.11 | 75.68 | 174.67 | 4.60 | 22.86 | 0.44 | 21.35 | 473.33 | 4.95 | 24.86 | 0.97 | 60.23 | 351.33 | 5.73 | 26.86 | 0.96 | 61.70 | 556.67 | 6.25 | 28.86 | 1.24 | 80.01 | 546.00 | 6.45 |
| 20.88 | 16.22 | 76.13 | 177.33 | 4.61 | 22.88 | 0.40 | 21.12 | 497.33 | 4.97 | 24.88 | 1.09 | 62.56 | 361.33 | 5.73 | 26.88 | 0.94 | 65.92 | 554.00 | 6.25 | 28.88 | 1.24 | 80.12 | 545.33 | 6.45 |
| 20.90 | 16.17 | 77.35 | 180.00 | 4.61 | 22.90 | 0.43 | 22.23 | 597.33 | 4.98 | 24.90 | 1.11 | 69.56 | 376.00 | 5.74 | 26.90 | 0.94 | 67.58 | 556.67 | 6.25 | 28.90 | 1.26 | 80.23 | 546.67 | 6.45 |

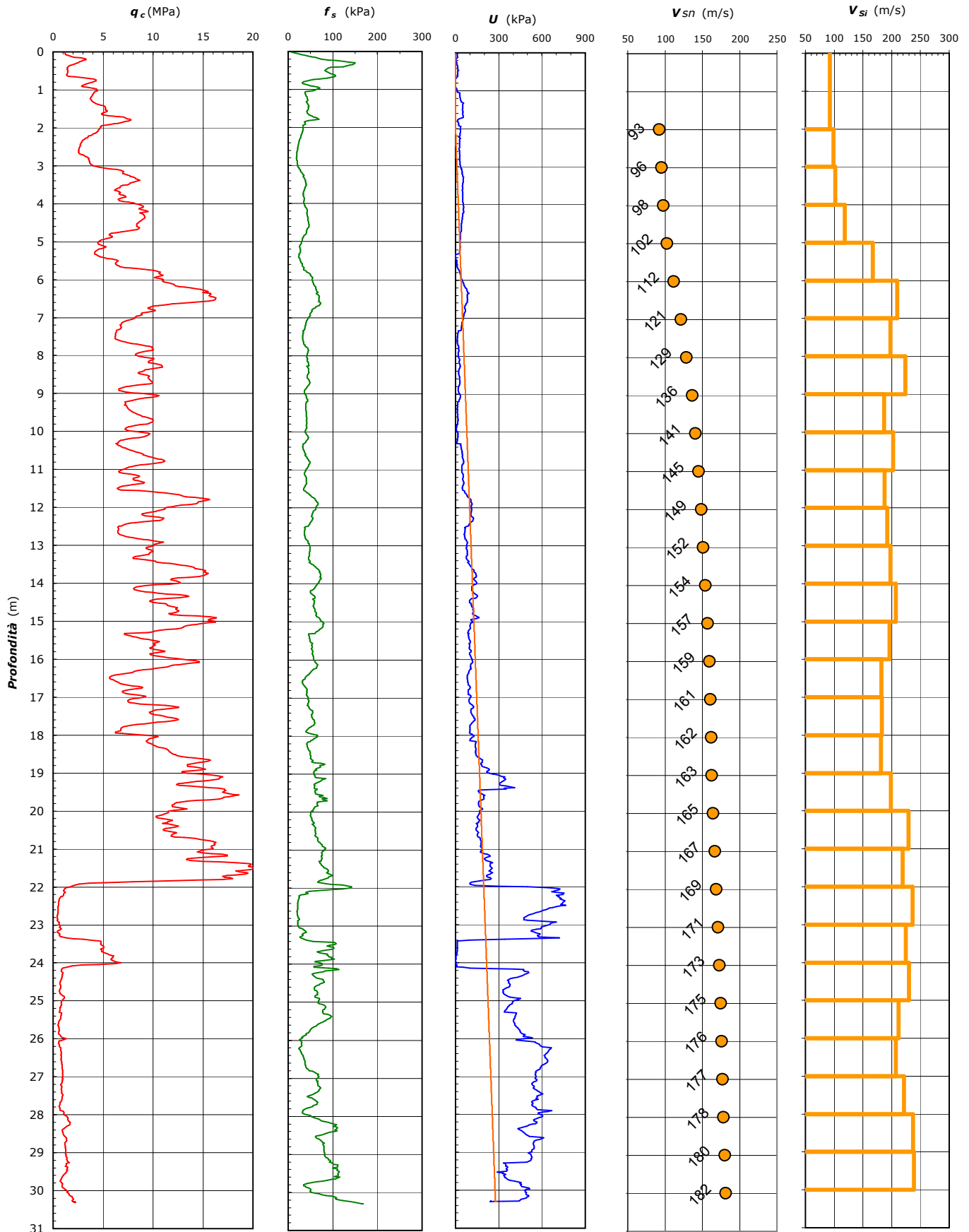
COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: SCPTU 1 PROF. FALDA (m da p.c.): 2.00 PUNTA: Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]

DATA: 17/01/17 PREFORO (m da p.c.):

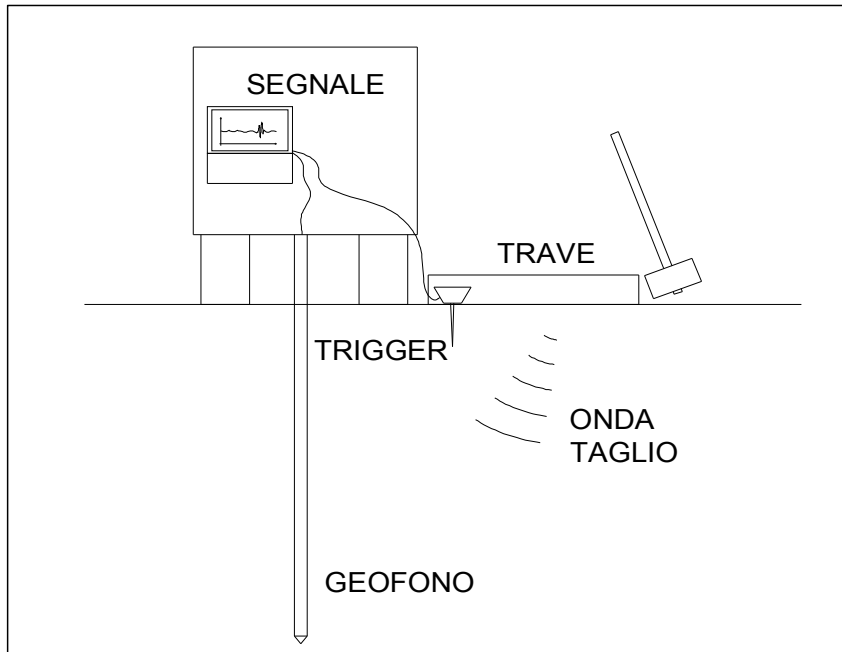
 LAT. (WGS 84): 44.743642°
 LONG. (WGS 84): 11.791230°

COMMESSA: 15699/16 C. SITO N°:



COMMITTENTE: ENGeo S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: SCPTU 1 **PROF. FALDA (m da p.c.):** 2.00 **PUNTA:** Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]
DATA: 17/01/17 **PREFORO (m da p.c.):** **LAT. (WGS 84):** 44.743642°
COMMESSA: 15699/16 **C. SITO N°:** **LONG. (WGS 84):** 11.791230°

Prova Down Hole ASTM D 7400



| Profondità (m) | Ts (ms) | L (m) | Vs (m/s) | Vis (m/s) |
|----------------|---------|-------|----------|-----------|
| 1.0 | T0 | 1.41 | - | - |
| 2.0 | 8.88 | 2.24 | 93 | 93 |
| 3.0 | 18.27 | 3.16 | 96 | 99 |
| 4.0 | 27.70 | 4.12 | 98 | 102 |
| 5.0 | 35.97 | 5.10 | 102 | 118 |
| 6.0 | 41.85 | 6.08 | 112 | 167 |
| 7.0 | 46.57 | 7.07 | 121 | 209 |
| 8.0 | 51.59 | 8.06 | 129 | 198 |
| 9.0 | 56.02 | 9.06 | 136 | 224 |
| 10.0 | 61.33 | 10.05 | 141 | 187 |
| 11.0 | 66.24 | 11.05 | 145 | 203 |
| 12.0 | 71.55 | 12.04 | 149 | 188 |
| 13.0 | 76.72 | 13.04 | 152 | 193 |
| 14.0 | 81.77 | 14.04 | 154 | 198 |
| 15.0 | 86.58 | 15.03 | 157 | 207 |
| 16.0 | 91.67 | 16.03 | 159 | 196 |
| 17.0 | 97.14 | 17.03 | 161 | 182 |
| 18.0 | 102.59 | 18.03 | 162 | 183 |
| 19.0 | 108.09 | 19.03 | 163 | 181 |
| 20.0 | 113.12 | 20.02 | 165 | 199 |
| 21.0 | 117.47 | 21.02 | 167 | 230 |
| 22.0 | 122.03 | 22.02 | 169 | 219 |
| 23.0 | 126.26 | 23.02 | 171 | 236 |
| 24.0 | 130.70 | 24.02 | 173 | 225 |
| 25.0 | 135.05 | 25.02 | 175 | 230 |
| 26.0 | 139.76 | 26.02 | 176 | 212 |
| 27.0 | 144.59 | 27.02 | 177 | 207 |
| 28.0 | 149.10 | 28.02 | 178 | 221 |
| 29.0 | 153.32 | 29.02 | 180 | 237 |
| 30.0 | 157.51 | 30.02 | 182 | 239 |

CATEGORIA SOTTOSUOLO

C
 $V_{s,30} = 182 \text{ m/s}$

- D = Distanza centro trave generatrice ond
 Profondità = Profondità punta da piano campagna
 Ts = Tempo percorrenza onda di taglio
 L = Lunghezza percorso onda di taglio
 Vs = Velocità onde di taglio da piano campagna alla profondità indic = 1.00 m
 Vis = Velocità onde di taglio nello strato di terreno compreso fra le due profondità indicate

COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma**CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: SCPTU 1 PROF. FALDA (m da p.c.): 2.00 PUNTA: Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]
DATA: 17/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.743642°
COMMESSA: 15699/16 C. SITO N°: LONG. (WGS 84): 11.791230°

UBICAZIONE

Località: Gambulaga





elletipi s.r.l.

Sede operativa ed amm.va: Via Annibale Zucchini, 69 - 44100 FERRARA
tel. 0532/56771; fax 0532/56119 e-mail: info@elletipi.it sito: www.elletipi.it
P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geostatiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: SCPTU 2 PROF. FALDA (m da p.c.): 2.50 PUNTA: Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]

DATA: 17/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.688595°

COMMESSA: 15699/16 C. SITO N°: LONG. (WGS 84): 11.790950°

| prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi |
|---------|--------|--------|-------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|
| 0.02 | 2.37 | 7.31 | 14.67 | 0.20 | 2.02 | 5.06 | 24.58 | 104.00 | 1.44 | 4.02 | 0.80 | 32.79 | 148.00 | 2.22 | 6.02 | 1.14 | 51.98 | 93.33 | 3.16 | 8.02 | 1.04 | 21.41 | 172.67 | 3.88 |
| 0.04 | 3.47 | 17.53 | 22.00 | 0.08 | 2.04 | 5.18 | 24.24 | 100.67 | 1.44 | 4.04 | 0.80 | 31.56 | 154.67 | 2.23 | 6.04 | 1.10 | 48.76 | 92.00 | 3.16 | 8.04 | 1.06 | 21.74 | 173.33 | 3.89 |
| 0.06 | 4.77 | 33.41 | 29.33 | 0.10 | 2.06 | 5.28 | 24.58 | 99.33 | 1.43 | 4.06 | 0.84 | 29.12 | 159.33 | 2.25 | 6.06 | 1.08 | 47.54 | 90.00 | 3.18 | 8.06 | 1.04 | 21.85 | 173.33 | 3.89 |
| 0.08 | 4.83 | 44.19 | 22.67 | 0.19 | 2.08 | 5.25 | 26.36 | 96.00 | 1.44 | 4.08 | 0.88 | 27.34 | 161.33 | 2.25 | 6.08 | 0.98 | 46.53 | 85.33 | 3.18 | 8.08 | 1.06 | 21.96 | 170.00 | 3.89 |
| 0.10 | 4.71 | 44.63 | 14.67 | 0.11 | 2.10 | 5.21 | 27.57 | 90.67 | 1.45 | 4.10 | 0.91 | 26.12 | 159.33 | 2.26 | 6.10 | 0.99 | 40.87 | 92.67 | 3.19 | 8.10 | 1.04 | 22.41 | 167.33 | 3.90 |
| 0.12 | 4.04 | 55.20 | 16.00 | 0.31 | 2.12 | 5.18 | 29.14 | 90.00 | 1.46 | 4.12 | 0.92 | 26.68 | 156.00 | 2.27 | 6.12 | 1.04 | 35.43 | 95.33 | 3.20 | 8.12 | 1.03 | 23.18 | 162.00 | 3.90 |
| 0.14 | 3.82 | 74.53 | 12.67 | 0.31 | 2.14 | 5.08 | 30.03 | 88.67 | 1.46 | 4.14 | 0.93 | 26.01 | 151.33 | 2.28 | 6.14 | 1.08 | 31.64 | 97.33 | 3.19 | 8.14 | 1.01 | 23.63 | 162.00 | 3.91 |
| 0.16 | 3.70 | 88.09 | 11.33 | 0.32 | 2.16 | 4.88 | 30.47 | 85.33 | 1.46 | 4.16 | 0.93 | 25.79 | 152.67 | 2.28 | 6.16 | 1.24 | 32.30 | 104.67 | 3.22 | 8.16 | 0.98 | 22.85 | 161.33 | 3.91 |
| 0.18 | 3.26 | 96.64 | 5.33 | 0.31 | 2.18 | 4.76 | 30.47 | 84.00 | 1.47 | 4.18 | 0.91 | 26.12 | 152.67 | 2.30 | 6.18 | 1.20 | 33.08 | 100.67 | 3.21 | 8.18 | 1.01 | 22.41 | 162.00 | 3.92 |
| 0.20 | 3.35 | 110.42 | 4.00 | 0.34 | 2.20 | 4.68 | 30.58 | 82.67 | 1.46 | 4.20 | 0.89 | 26.12 | 154.67 | 2.30 | 6.20 | 1.14 | 34.98 | 98.00 | 3.23 | 8.20 | 1.01 | 21.96 | 162.00 | 3.93 |
| 0.22 | 3.35 | 116.53 | 5.33 | 0.35 | 2.22 | 4.63 | 30.69 | 81.33 | 1.47 | 4.22 | 0.89 | 25.68 | 156.67 | 2.32 | 6.22 | 1.10 | 36.98 | 97.33 | 3.24 | 8.22 | 1.02 | 22.52 | 162.00 | 3.94 |
| 0.24 | 3.00 | 134.42 | 6.00 | 0.36 | 2.24 | 4.50 | 30.58 | 82.00 | 1.48 | 4.24 | 0.91 | 25.01 | 160.00 | 2.33 | 6.24 | 1.11 | 39.20 | 100.67 | 3.25 | 8.24 | 1.02 | 22.52 | 161.33 | 3.95 |
| 0.26 | 2.59 | 144.98 | 9.33 | 0.37 | 2.26 | 4.43 | 30.69 | 81.33 | 1.47 | 4.26 | 0.88 | 24.34 | 156.00 | 2.33 | 6.26 | 1.11 | 38.42 | 100.00 | 3.26 | 8.26 | 0.99 | 21.96 | 161.33 | 3.96 |
| 0.28 | 2.49 | 143.53 | 2.67 | 0.43 | 2.28 | 4.33 | 30.69 | 79.33 | 1.48 | 4.28 | 0.84 | 23.68 | 145.33 | 2.35 | 6.28 | 1.11 | 37.97 | 111.33 | 3.26 | 8.28 | 0.99 | 20.74 | 161.33 | 3.97 |
| 0.30 | 2.60 | 140.53 | 9.33 | 0.39 | 2.30 | 4.26 | 31.14 | 78.67 | 1.48 | 4.30 | 0.84 | 23.67 | 150.67 | 2.35 | 6.30 | 1.14 | 38.42 | 111.33 | 3.27 | 8.30 | 1.02 | 20.07 | 162.00 | 3.98 |
| 0.32 | 2.48 | 133.20 | 9.33 | 0.36 | 2.32 | 4.20 | 31.13 | 78.00 | 1.48 | 4.32 | 0.84 | 22.67 | 152.67 | 2.36 | 6.32 | 1.13 | 38.42 | 110.67 | 3.28 | 8.32 | 0.98 | 19.96 | 159.33 | 3.99 |
| 0.34 | 2.53 | 126.20 | 8.67 | 0.38 | 2.34 | 4.08 | 31.58 | 76.67 | 1.48 | 4.34 | 0.85 | 22.12 | 156.00 | 2.37 | 6.34 | 1.13 | 38.20 | 111.33 | 3.29 | 8.34 | 0.97 | 18.96 | 161.33 | 4.01 |
| 0.36 | 2.44 | 118.86 | 4.00 | 0.37 | 2.36 | 4.03 | 31.58 | 77.33 | 1.48 | 4.36 | 0.85 | 21.90 | 156.67 | 2.38 | 6.36 | 1.11 | 38.31 | 108.00 | 3.29 | 8.36 | 0.98 | 18.52 | 162.00 | 4.02 |
| 0.38 | 2.14 | 95.08 | 8.00 | 0.36 | 2.38 | 3.97 | 31.80 | 76.67 | 1.49 | 4.38 | 0.84 | 22.01 | 158.67 | 2.40 | 6.38 | 1.09 | 38.64 | 105.33 | 3.30 | 8.38 | 0.98 | 18.62 | 166.00 | 4.04 |
| 0.40 | 2.03 | 95.52 | 4.00 | 0.37 | 2.40 | 3.88 | 31.91 | 75.33 | 1.48 | 4.40 | 0.84 | 22.12 | 154.67 | 2.41 | 6.40 | 1.10 | 37.98 | 105.33 | 3.31 | 8.40 | 0.98 | 18.84 | 165.33 | 4.04 |
| 0.42 | 1.92 | 95.97 | | 0.38 | 2.42 | 3.78 | 31.91 | 75.33 | 1.49 | 4.42 | 0.86 | 23.34 | 156.00 | 2.41 | 6.42 | 1.13 | 39.53 | 104.67 | 3.32 | 8.42 | 0.98 | 19.40 | 165.33 | 4.06 |
| 0.44 | 1.85 | 101.97 | 1.33 | 0.36 | 2.44 | 3.73 | 32.13 | 75.33 | 1.49 | 4.44 | 0.99 | 23.56 | 163.33 | 2.41 | 6.44 | 1.13 | 40.20 | 108.67 | 3.33 | 8.44 | 0.98 | 19.51 | 166.00 | 4.08 |
| 0.46 | 1.78 | 104.19 | 2.00 | 0.37 | 2.46 | 3.64 | 32.13 | 74.67 | 1.49 | 4.46 | 1.11 | 24.34 | 158.67 | 2.41 | 6.46 | 1.16 | 38.64 | 110.67 | 3.33 | 8.46 | 1.01 | 18.51 | 194.67 | 4.10 |
| 0.48 | 1.85 | 105.63 | 2.00 | 0.37 | 2.48 | 3.53 | 31.69 | 74.67 | 1.50 | 4.48 | 1.04 | 28.56 | 140.67 | 2.41 | 6.48 | 1.20 | 39.64 | 116.00 | 3.33 | 8.48 | 1.00 | 18.84 | 193.33 | 4.11 |
| 0.50 | 1.81 | 104.75 | 2.67 | 0.37 | 2.50 | 3.44 | 31.47 | 74.00 | 1.49 | 4.50 | 1.03 | 31.00 | 140.00 | 2.42 | 6.50 | 1.30 | 37.98 | 117.33 | 3.34 | 8.50 | 0.98 | 19.51 | 192.00 | 4.13 |
| 0.52 | 1.89 | 92.63 | 2.00 | 0.37 | 2.52 | 3.34 | 31.47 | 73.33 | 1.50 | 4.52 | 0.93 | 35.45 | 136.00 | 2.44 | 6.52 | 1.32 | 39.75 | 112.00 | 3.35 | 8.52 | 0.98 | 19.51 | 191.33 | 4.14 |
| 0.54 | 10.31 | 91.96 | 72.00 | 0.37 | 2.54 | 3.15 | 31.24 | 73.33 | 1.50 | 4.54 | 0.93 | 36.56 | 161.33 | 2.43 | 6.54 | 1.32 | 41.64 | 105.33 | 3.35 | 8.54 | 1.00 | 19.17 | 191.33 | 4.15 |
| 0.56 | 9.00 | 50.30 | 5.33 | 0.55 | 2.56 | 2.98 | 31.13 | 70.67 | 1.50 | 4.56 | 0.96 | 35.34 | 162.00 | 2.45 | 6.56 | 1.28 | 43.31 | 96.00 | 3.35 | 8.56 | 0.98 | 19.29 | 190.00 | 4.17 |
| 0.58 | 11.29 | 183.63 | 16.67 | 0.65 | 2.58 | 2.78 | 31.13 | 69.33 | 1.51 | 4.58 | 0.99 | 36.00 | 156.00 | 2.46 | 6.58 | 1.32 | 45.09 | 101.33 | 3.36 | 8.58 | 1.01 | 18.96 | 191.33 | 4.18 |
| 0.60 | 13.59 | 316.96 | 28.00 | 0.75 | 2.60 | 2.57 | 31.02 | 69.33 | 1.51 | 4.60 | 0.94 | 36.00 | 152.67 | 2.47 | 6.60 | 1.36 | 44.75 | 103.33 | 3.37 | 8.60 | 1.01 | 19.40 | 191.33 | 4.19 |
| 0.62 | 0.00 | 199.51 | 18.00 | 0.82 | 2.62 | 2.40 | 31.02 | 66.00 | 1.51 | 4.62 | 0.96 | 33.00 | 146.67 | 2.48 | 6.62 | 1.37 | 44.53 | 104.00 | 3.37 | 8.62 | 1.01 | 19.51 | 191.33 | 4.21 |
| 0.64 | 0.07 | 200.62 | 22.67 | 0.85 | 2.64 | 2.21 | 31.24 | 64.67 | 1.51 | 4.64 | 0.94 | 31.56 | 146.67 | 2.48 | 6.64 | 1.36 | 45.42 | 102.67 | 3.38 | 8.64 | 1.01 | 19.29 | 191.33 | 4.22 |
| 0.66 | 0.14 | 184.73 | 26.00 | 0.87 | 2.66 | 2.04 | 31.69 | 64.00 | 1.52 | 4.66 | 0.96 | 28.78 | 148.67 | 2.50 | 6.66 | 1.30 | 46.64 | 98.00 | 3.39 | 8.66 | 1.01 | 19.84 | 192.00 | 4.23 |
| 0.68 | 0.01 | 168.29 | 30.00 | 0.89 | 2.68 | 1.85 | 32.58 | 64.00 | 1.52 | 4.68 | 0.96 | 29.23 | 149.33 | 2.51 | 6.68 | 1.30 | 46.20 | 100.00 | 3.39 | 8.68 | 1.00 | 20.18 | 191.33 | 4.24 |
| 0.70 | 0.17 | 93.62 | 30.00 | 0.91 | 2.70 | 1.65 | 33.58 | 62.00 | 1.53 | 4.70 | 0.98 | 29.89 | 152.67 | 2.52 | 6.70 | 1.27 | 43.97 | 99.33 | 3.40 | 8.70 | 1.00 | 20.62 | 191.33 | 4.25 |
| 0.72 | 0.18 | 63.62 | 30.00 | 0.92 | 2.72 | 1.28 | 36.69 | 59.33 | 1.53 | 4.72 | 0.99 | 29.89 | 154.67 | 2.52 | 6.72 | 1.26 | 43.53 | 98.00 | 3.41 | 8.72 | 1.01 | 20.51 | 189.33 | 4.26 |
| 0.74 | 0.14 | 77.85 | 29.33 | 0.93 | 2.74 | 1.15 | 41.53 | 58.67 | 1.54 | 4.74 | 0.99 | 30.34 | 155.33 | 2.53 | 6.74 | 1.22 | 44.20 | 96.00 | 3.41 | 8.74 | 1.01 | 20.40 | 191.33 | 4.28 |
| 0.76 | 0.17 | 2.07 | 29.33 | 0.90 | 2.76 | 1.08 | 42.58 | 58.67 | 1.54 | 4.76 | 0.98 | 31.00 | 156.00 | 2.54 | 6.76 | 1.15 | 45.75 | 96.00 | 3.42 | 8.76 | 1.03 | 20.62 | 192.67 | 4.28 |
| 0.78 | 0.18 | 2.07 | 28.00 | 0.93 | 2.78 | 1.01 | 43.46 | 62.67 | 1.56 | 4.78 | 0.93 | 30.56 | 155.33 | 2.54 | 6.78 | 1.15 | 43.53 | 96.00 | 3.43 | 8.78 | 1.01 | 20.06 | 193.33 | 4.30 |
| 0.80 | 0.72 | 1.51 | 33.33 | 0.95 | 2.80 | 0.98 | 42.91 | 62.00 | 1.55 | 4.80 | 0.94 | 29.89 | 155.33 | 2.56 | 6.80 | 1.14 | 44.20 | 97.33 | 3.44 | 8.80 | 1.01 | 19.95 | 192.67 | 4.32 |
| 0.82 | 10.09 | 155.07 | 37.33 | 1.37 | 2.82 | 0.88 | 36.80 | 60.67 | 1.57 | 4.82 | 0.93 | 29.78 | 156.67 | 2.57 | 6.82 | 1.14 | 45.20 | 99.33 | 3.44 | 8.82 | 1.01 | 19.84 | 194.67 | 4.33 |
| 0.84 | 10.16 | 171.62 | 30.67 | 1.17 | 2.84 | 0.81 | 32.13 | 67.33 | 1.59 | 4.84 | 0.96 | 30.00 | 159.33 | 2.58 | 6.84 | 1.14 | 45.42 | 99.33 | 3.45 | 8.84 | 1.01 | 19.51 | 195.33 | 4.34 |
| 0.86 | 7.57 | 155.07 | 22.00 | 0.97 | 2.86 | 0.76 | 25.80 | 76.67 | 1.59 | 4.86 | 1.00 | 29.45 | 170.00 | 2.58 | 6.86 | 1.14 | 45.64 | 100.00 | 3.45 | 8.86 | 1.00 | 19.51 | 194.67 | 4.36 |
| 0.88 | 2.02 | 171.62 | 2.00 | 0.97 | 2.88 | 0.75 | 19.58 | 81.33 | 1.61 | 4.88 | 1.05 | 28.78 | 174.00 | 2.60 | 6.88 | 1.11 | 46.31 | 98.00 | 3.45 | 8.88 | 1.01 | 19.51 | 194.67 | 4.37 |
| 0.90 | 0.90 | 241.18 | 7.33 | 0.98 | 2.90 | 0.73 | 15.91 | 86.67 | 1.61 | 4.90 | 1.09 | 28.78 | 174.67 | 2.61 | 6.90 | 1.08 | 46.86 | 97.33 | 3.45 | 8.90 | 1.04 | 19.62 | 197.33 | 4.38 |
| 0.92 | 0.58 | 229.29 | 14.00 | 0.98 | 2.92 | 0.74 | 13.24 | 94.00 | 1.61 | 4.92 | 1.08 | 29.89 | 177.33 | 2.61 | 6.92 | 1.02 | 45.86 | 97.33 | 3.46 | 8.92 | 1.00 | 19.40 | 195.33 | 4.39 |
| 0.94 | 0.91 | 178.62 | 33.33 | 0.97 | 2.94 | 0.76 | 12.02 | 97.33 | 1.63 | 4.94 | 1.08 | 30.89 | 175.33 | 2.62 | 6.94 | 1.02 | 43.53 | 100.00 | 3.46 | 8.94 | 1.00 | 19.29 | 196.00 | 4.40 |
| 0.96 | 1.10 | 132.51 | 37.33 | 0.98 | 2.96 | | | | | | | | | | | | | | | | | | | |



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P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: SCPTU 2 PROF. FALDA (m da p.c.): 2.50 PUNTA: Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]

DATA: 17/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.688595°

COMMESSA: 15699/16 C. SITO N°: LONG. (WGS 84): 11.790950°

| prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi | prof. m | qc Mpa | fs kPa | U kPa | incl. gradi |
|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|---------|--------|--------|--------|-------------|
| 10.02 | 1.80 | 105.83 | 384.67 | 5.04 | 12.02 | 1.40 | 30.13 | 137.33 | 6.25 | 14.02 | 1.19 | 23.56 | 280.00 | 7.05 | 16.02 | 1.85 | 69.08 | 300.00 | 7.84 | 18.02 | 1.76 | 83.95 | 198.67 | 8.29 |
| 10.04 | 1.88 | 113.05 | 332.00 | 5.05 | 12.04 | 1.40 | 34.47 | 173.33 | 6.26 | 14.04 | 1.22 | 22.89 | 281.33 | 7.06 | 16.04 | 2.00 | 61.08 | 328.00 | 7.85 | 18.04 | 1.73 | 84.28 | 194.67 | 8.30 |
| 10.06 | 1.87 | 119.50 | 284.67 | 5.05 | 12.06 | 1.54 | 32.35 | 166.67 | 6.27 | 14.06 | 1.18 | 22.44 | 281.33 | 7.06 | 16.06 | 2.16 | 57.86 | 351.33 | 7.86 | 18.06 | 1.66 | 85.06 | 191.33 | 8.30 |
| 10.08 | 1.77 | 122.38 | 252.00 | 5.06 | 12.08 | 1.77 | 33.35 | 182.00 | 6.29 | 14.08 | 1.19 | 22.56 | 282.00 | 7.07 | 16.08 | 2.26 | 57.75 | 364.67 | 7.86 | 18.08 | 1.64 | 83.84 | 188.67 | 8.30 |
| 10.10 | 1.73 | 120.83 | 284.67 | 5.08 | 12.10 | 2.36 | 35.35 | 184.67 | 6.30 | 14.10 | 1.22 | 22.45 | 282.00 | 7.08 | 16.10 | 2.28 | 55.30 | 364.00 | 7.87 | 18.10 | 1.62 | 80.06 | 188.67 | 8.32 |
| 10.12 | 1.70 | 119.61 | 352.00 | 5.09 | 12.12 | 2.98 | 37.80 | 162.67 | 6.32 | 14.12 | 1.22 | 22.23 | 284.00 | 7.09 | 16.12 | 2.32 | 56.19 | 350.67 | 7.87 | 18.12 | 1.61 | 75.06 | 186.00 | 8.31 |
| 10.14 | 1.65 | 115.50 | 386.67 | 5.10 | 12.14 | 3.13 | 38.35 | 134.00 | 6.32 | 14.14 | 1.22 | 21.78 | 282.00 | 7.10 | 16.14 | 2.27 | 65.53 | 338.67 | 7.88 | 18.14 | 1.60 | 70.17 | 186.00 | 8.32 |
| 10.16 | 1.66 | 108.94 | 383.33 | 5.12 | 12.16 | 2.74 | 33.69 | 114.00 | 6.33 | 14.16 | 1.22 | 21.89 | 283.33 | 7.11 | 16.16 | 2.20 | 76.42 | 331.33 | 7.89 | 18.16 | 1.58 | 65.28 | 184.67 | 8.33 |
| 10.18 | 1.70 | 102.61 | 394.67 | 5.13 | 12.18 | 2.36 | 27.69 | 99.33 | 6.34 | 14.18 | 1.19 | 21.89 | 284.67 | 7.12 | 16.18 | 2.14 | 85.53 | 344.67 | 7.89 | 18.18 | 1.56 | 61.84 | 182.00 | 8.33 |
| 10.20 | 1.71 | 99.94 | 414.00 | 5.14 | 12.20 | 2.06 | 29.13 | 96.00 | 6.35 | 14.20 | 1.19 | 21.89 | 286.67 | 7.12 | 16.20 | 2.15 | 91.53 | 344.67 | 7.90 | 18.20 | 1.57 | 60.39 | 182.00 | 8.34 |
| 10.22 | 1.70 | 94.94 | 377.33 | 5.15 | 12.22 | 1.88 | 37.35 | 92.67 | 6.35 | 14.22 | 1.21 | 22.00 | 288.67 | 7.14 | 16.22 | 2.17 | 95.86 | 347.33 | 7.90 | 18.22 | 1.56 | 57.00 | 180.00 | 8.34 |
| 10.24 | 1.71 | 92.38 | 390.67 | 5.17 | 12.24 | 1.78 | 36.35 | 126.00 | 6.38 | 14.24 | 1.21 | 22.00 | 289.33 | 7.14 | 16.24 | 2.24 | 97.86 | 355.33 | 7.91 | 18.24 | 1.45 | 55.06 | 166.00 | 8.35 |
| 10.26 | 1.75 | 93.72 | 412.00 | 5.17 | 12.26 | 1.75 | 36.35 | 127.33 | 6.38 | 14.26 | 1.22 | 22.56 | 288.00 | 7.15 | 16.26 | 2.27 | 94.97 | 358.00 | 7.91 | 18.26 | 1.46 | 55.50 | 163.33 | 8.35 |
| 10.28 | 1.75 | 98.61 | 410.67 | 5.18 | 12.28 | 1.72 | 36.68 | 127.33 | 6.38 | 14.28 | 1.21 | 22.89 | 288.67 | 7.16 | 16.28 | 2.26 | 90.64 | 352.00 | 7.92 | 18.28 | 1.48 | 56.17 | 161.33 | 8.34 |
| 10.30 | 1.78 | 104.72 | 372.67 | 5.18 | 12.30 | 1.69 | 36.68 | 128.67 | 6.38 | 14.30 | 1.23 | 22.89 | 289.33 | 7.17 | 16.30 | 2.20 | 86.75 | 342.67 | 7.92 | 18.30 | 1.46 | 57.28 | 156.67 | 8.35 |
| 10.32 | 1.73 | 135.37 | 222.67 | 5.18 | 12.32 | 1.66 | 37.02 | 128.67 | 6.39 | 14.32 | 1.25 | 23.00 | 300.00 | 7.18 | 16.32 | 2.18 | 84.97 | 340.67 | 7.92 | 18.32 | 1.45 | 58.72 | 154.00 | 8.36 |
| 10.34 | 1.70 | 139.04 | 235.33 | 5.20 | 12.34 | 1.64 | 37.13 | 128.67 | 6.38 | 14.34 | 1.29 | 23.00 | 314.67 | 7.19 | 16.34 | 2.50 | 86.75 | 410.00 | 7.93 | 18.34 | 1.45 | 60.83 | 151.33 | 8.36 |
| 10.36 | 1.61 | 140.48 | 236.67 | 5.21 | 12.36 | 1.59 | 37.02 | 128.67 | 6.38 | 14.36 | 1.33 | 22.56 | 327.33 | 7.22 | 16.36 | 2.67 | 83.86 | 425.33 | 7.93 | 18.36 | 1.43 | 62.83 | 148.67 | 8.36 |
| 10.38 | 1.68 | 140.26 | 239.33 | 5.23 | 12.38 | 1.55 | 36.91 | 128.67 | 6.39 | 14.38 | 1.41 | 22.56 | 340.67 | 7.23 | 16.38 | 2.67 | 81.19 | 407.33 | 7.93 | 18.38 | 1.43 | 64.27 | 148.00 | 8.36 |
| 10.40 | 1.65 | 140.37 | 362.67 | 5.24 | 12.40 | 1.53 | 37.13 | 130.00 | 6.39 | 14.40 | 1.48 | 23.00 | 358.00 | 7.24 | 16.40 | 2.41 | 74.63 | 381.33 | 7.93 | 18.40 | 1.41 | 65.39 | 146.67 | 8.36 |
| 10.42 | 1.68 | 133.37 | 500.67 | 5.23 | 12.42 | 1.53 | 37.79 | 130.67 | 6.39 | 14.42 | 1.54 | 23.67 | 366.00 | 7.26 | 16.42 | 2.23 | 65.85 | 429.33 | 7.94 | 18.42 | 1.38 | 65.39 | 145.33 | 8.37 |
| 10.44 | 1.70 | 122.92 | 540.00 | 5.25 | 12.44 | 1.53 | 38.46 | 132.00 | 6.39 | 14.44 | 1.58 | 25.44 | 366.67 | 7.27 | 16.44 | 2.32 | 57.19 | 537.33 | 7.94 | 18.44 | 1.38 | 65.39 | 144.67 | 8.37 |
| 10.46 | 1.75 | 110.26 | 477.33 | 5.27 | 12.46 | 1.55 | 39.79 | 133.33 | 6.39 | 14.46 | 1.52 | 26.78 | 358.00 | 7.27 | 16.46 | 2.57 | 50.07 | 524.67 | 7.94 | 18.46 | 1.38 | 64.72 | 144.00 | 8.37 |
| 10.48 | 1.76 | 100.37 | 417.33 | 5.29 | 12.48 | 1.60 | 41.46 | 134.67 | 6.39 | 14.48 | 1.50 | 30.55 | 373.33 | 7.28 | 16.48 | 3.00 | 48.07 | 480.00 | 7.95 | 18.48 | 1.36 | 61.61 | 142.00 | 8.38 |
| 10.50 | 1.70 | 100.15 | 414.67 | 5.30 | 12.50 | 1.72 | 42.79 | 162.67 | 6.39 | 14.50 | 1.46 | 33.89 | 368.67 | 7.30 | 16.50 | 3.38 | 56.19 | 468.00 | 7.95 | 18.50 | 1.34 | 60.83 | 140.67 | 8.38 |
| 10.52 | 1.59 | 99.70 | 412.00 | 5.31 | 12.52 | 1.89 | 44.02 | 202.67 | 6.39 | 14.52 | 1.45 | 36.33 | 372.00 | 7.30 | 16.52 | 3.70 | 67.85 | 248.67 | 7.95 | 18.52 | 1.34 | 60.83 | 141.33 | 8.38 |
| 10.54 | 1.49 | 96.92 | 392.00 | 5.32 | 12.54 | 2.11 | 42.79 | 216.67 | 6.40 | 14.54 | 1.45 | 38.10 | 375.33 | 7.32 | 16.54 | 3.63 | 80.07 | 170.67 | 7.95 | 18.54 | 1.32 | 60.50 | 140.67 | 8.38 |
| 10.56 | 1.42 | 97.37 | 372.67 | 5.32 | 12.56 | 2.31 | 41.57 | 198.67 | 6.40 | 14.56 | 1.47 | 38.89 | 380.67 | 7.33 | 16.56 | 3.22 | 79.30 | 115.33 | 7.96 | 18.56 | 1.31 | 60.27 | 140.67 | 8.38 |
| 10.58 | 1.32 | 98.70 | 357.33 | 5.34 | 12.58 | 2.52 | 39.68 | 156.00 | 6.40 | 14.58 | 1.51 | 39.33 | 394.67 | 7.35 | 16.58 | 2.73 | 72.30 | 92.00 | 7.97 | 18.58 | 1.31 | 60.27 | 141.33 | 8.39 |
| 10.60 | 1.29 | 98.48 | 340.00 | 5.36 | 12.60 | 2.76 | 38.35 | 142.00 | 6.41 | 14.60 | 1.56 | 39.44 | 416.00 | 7.35 | 16.60 | 2.47 | 63.85 | 137.33 | 7.97 | 18.60 | 1.32 | 59.83 | 146.67 | 8.39 |
| 10.62 | 1.29 | 92.59 | 346.00 | 5.36 | 12.62 | 3.01 | 39.13 | 136.67 | 6.41 | 14.62 | 1.62 | 38.55 | 432.67 | 7.36 | 16.62 | 2.32 | 61.85 | 318.00 | 7.97 | 18.62 | 1.32 | 58.39 | 148.00 | 8.39 |
| 10.64 | 1.34 | 83.03 | 362.67 | 5.39 | 12.64 | 3.25 | 39.79 | 130.67 | 6.41 | 14.64 | 1.64 | 37.10 | 438.67 | 7.38 | 16.64 | 2.30 | 57.96 | 392.00 | 7.98 | 18.64 | 1.32 | 54.94 | 156.00 | 8.39 |
| 10.66 | 1.34 | 76.37 | 372.00 | 5.39 | 12.66 | 3.60 | 41.02 | 132.00 | 6.41 | 14.66 | 1.62 | 35.21 | 493.33 | 7.39 | 16.66 | 2.25 | 57.96 | 376.00 | 7.97 | 18.66 | 1.33 | 52.50 | 164.00 | 8.41 |
| 10.68 | 1.28 | 68.92 | 368.67 | 5.41 | 12.68 | 4.00 | 41.79 | 136.67 | 6.41 | 14.68 | 1.53 | 35.21 | 462.67 | 7.39 | 16.68 | 2.17 | 60.85 | 364.67 | 7.99 | 18.68 | 1.33 | 48.27 | 170.00 | 8.40 |
| 10.70 | 1.21 | 61.15 | 343.33 | 5.43 | 12.70 | 4.43 | 40.91 | 140.67 | 6.40 | 14.70 | 1.47 | 35.10 | 417.33 | 7.39 | 16.70 | 2.11 | 61.08 | 350.00 | 7.99 | 18.70 | 1.36 | 43.83 | 174.00 | 8.41 |
| 10.72 | 1.16 | 54.92 | 322.67 | 5.45 | 12.72 | 5.74 | 48.12 | 115.33 | 6.41 | 14.72 | 1.40 | 35.44 | 380.00 | 7.39 | 16.72 | 2.04 | 65.19 | 325.33 | 7.99 | 18.72 | 1.39 | 33.49 | 193.33 | 8.44 |
| 10.74 | 1.16 | 49.25 | 302.67 | 5.45 | 12.74 | 5.94 | 52.01 | 101.33 | 6.42 | 14.74 | 1.36 | 37.66 | 358.00 | 7.41 | 16.74 | 2.04 | 70.63 | 317.33 | 8.00 | 18.74 | 1.43 | 29.72 | 200.00 | 8.45 |
| 10.76 | 1.12 | 45.70 | 296.67 | 5.46 | 12.76 | 5.86 | 51.90 | 90.00 | 6.42 | 14.76 | 1.29 | 39.65 | 358.00 | 7.40 | 16.76 | 2.17 | 74.07 | 343.33 | 8.00 | 18.76 | 1.49 | 28.05 | 224.00 | 8.46 |
| 10.78 | 1.12 | 43.03 | 295.33 | 5.47 | 12.78 | 5.65 | 39.46 | 86.67 | 6.44 | 14.78 | 1.29 | 40.10 | 350.67 | 7.42 | 16.78 | 2.52 | 77.19 | 386.67 | 8.01 | 18.78 | 1.45 | 27.04 | 232.00 | 8.46 |
| 10.80 | 1.09 | 39.15 | 290.67 | 5.47 | 12.80 | 5.34 | 33.01 | 86.67 | 6.45 | 14.80 | 1.28 | 40.33 | 407.33 | 7.42 | 16.80 | 3.17 | 77.07 | 451.33 | 8.01 | 18.80 | 1.46 | 27.27 | 231.33 | 8.47 |
| 10.82 | 1.07 | 36.03 | 288.00 | 5.49 | 12.82 | 5.11 | 33.90 | 88.67 | 6.46 | 14.82 | 1.30 | 38.21 | 399.33 | 7.42 | 16.82 | 3.92 | 74.74 | 362.00 | 8.01 | 18.82 | 1.46 | 29.27 | 232.00 | 8.48 |
| 10.84 | 1.06 | 33.03 | 286.67 | 5.50 | 12.84 | 4.87 | 36.35 | 90.00 | 6.47 | 14.84 | 1.34 | 37.55 | 360.67 | 7.44 | 16.84 | 4.07 | 79.63 | 229.33 | 8.01 | 18.84 | 1.51 | 33.49 | 236.00 | 8.48 |
| 10.86 | 1.06 | 30.37 | 287.33 | 5.50 | 12.86 | 4.63 | 38.90 | 90.67 | 6.48 | 14.86 | 1.35 | 36.44 | 343.33 | 7.44 | 16.86 | 3.73 | 69.63 | 156.00 | 8.02 | 18.86 | 1.48 | 39.27 | 234.00 | 8.48 |
| 10.88 | 1.07 | 26.92 | 288.00 | 5.52 | 12.88 | 4.46 | 41.57 | 92.67 | 6.48 | 14.88 | 1.38 | 36.44 | 348.00 | 7.45 | 16.88 | 3.23 | 61.07 | 118.00 | 8.02 | 18.88 | 1.41 | 44.49 | 231.33 | 8.48 |
| 10.90 | 1.07 | 24.81 | 288.00 | 5.53 | 12.90 | 4.45 | 44.68 | 92.67 | 6.49 | 14.90 | 1.41 | 37.77 | 348.00 | 7.46 | 16.90 | 2.84 | 53.85 | 107.33 | 8.03 | 18.90 | 1.38 | 45.16 | 228.67 | 8.48 |
| 10.92 | 1.06 | 24.48 | 283.33 | 5.54 | 12.92 | 4.88 | 47.01 | 100.00 | 6.50 | 14.92 | 1.46 | 3 | | | | | | | | | | | | |



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P IVA e Codice Fiscale n. 00174600387



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COMMITTENTE: ENGELO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma

CANTIERE: Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: SCPTU 2 PROF. FALDA (m da p.c.): 2.50 PUNTA: Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]

DATA: 17/01/17 PREFORO (m da p.c.): LAT. (WGS 84): 44.688595°

COMMESSA: 15699/16 C. SITO N°: LONG. (WGS 84): 11.790950°

| prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. | prof. | qc | fs | U | incl. |
|-------|-------|--------|--------|-------|-------|------|--------|--------|-------|-------|------|-------|--------|-------|-------|------|--------|--------|-------|-------|------|--------|--------|-------|
| m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi | m | Mpa | kPa | kPa | gradi |
| 20.02 | 2.03 | 105.70 | 237.33 | 8.50 | 22.02 | 9.22 | 79.32 | 108.67 | 8.52 | 24.02 | 1.47 | 43.06 | 266.67 | 8.55 | 26.02 | 2.16 | 98.46 | 445.33 | 8.58 | 28.02 | 1.66 | 58.35 | 490.31 | 8.59 |
| 20.04 | 1.95 | 100.70 | 232.00 | 8.50 | 22.04 | 6.40 | 91.76 | 51.33 | 8.52 | 24.04 | 1.51 | 38.72 | 302.00 | 8.55 | 26.04 | 2.11 | 97.78 | 421.33 | 8.57 | 28.04 | 1.72 | 60.90 | 505.77 | 8.57 |
| 20.06 | 1.89 | 101.26 | 228.67 | 8.50 | 22.06 | 4.31 | 105.76 | 36.67 | 8.52 | 24.06 | 1.57 | 35.50 | 366.67 | 8.55 | 26.06 | 2.03 | 103.67 | 407.33 | 8.57 | 28.06 | 1.77 | 63.24 | 517.99 | 8.58 |
| 20.08 | 1.86 | 104.04 | 229.33 | 8.50 | 22.08 | 3.38 | 114.87 | 30.00 | 8.52 | 24.08 | 1.56 | 33.50 | 392.00 | 8.55 | 26.08 | 2.04 | 104.00 | 403.33 | 8.57 | 28.08 | 1.85 | 65.68 | 534.27 | 8.59 |
| 20.10 | 1.87 | 103.37 | 232.00 | 8.50 | 22.10 | 2.79 | 128.21 | 32.67 | 8.52 | 24.10 | 1.54 | 31.95 | 392.00 | 8.55 | 26.10 | 1.99 | 105.00 | 394.00 | 8.57 | 28.10 | 1.87 | 71.13 | 536.71 | 8.59 |
| 20.12 | 1.87 | 105.59 | 232.67 | 8.50 | 22.12 | 2.41 | 135.76 | 98.00 | 8.52 | 24.12 | 1.56 | 31.39 | 391.33 | 8.55 | 26.12 | 1.99 | 105.78 | 391.33 | 8.57 | 28.12 | 1.88 | 76.57 | 542.41 | 8.60 |
| 20.14 | 1.83 | 106.81 | 231.33 | 8.50 | 22.14 | 2.24 | 137.54 | 296.67 | 8.52 | 24.14 | 1.57 | 32.61 | 392.67 | 8.55 | 26.14 | 1.96 | 105.78 | 390.67 | 8.57 | 28.14 | 1.93 | 77.79 | 548.11 | 8.60 |
| 20.16 | 1.85 | 103.37 | 232.00 | 8.50 | 22.16 | 2.10 | 124.98 | 342.00 | 8.52 | 24.16 | 1.56 | 33.50 | 394.67 | 8.55 | 26.16 | 1.93 | 101.55 | 384.00 | 8.57 | 28.16 | 2.00 | 82.24 | 552.17 | 8.60 |
| 20.18 | 1.86 | 96.15 | 233.33 | 8.50 | 22.18 | 1.97 | 112.54 | 420.00 | 8.52 | 24.18 | 1.59 | 33.72 | 405.33 | 8.55 | 26.18 | 1.97 | 98.22 | 390.00 | 8.57 | 28.18 | 2.02 | 91.01 | 549.73 | 8.60 |
| 20.20 | 1.87 | 92.15 | 234.00 | 8.50 | 22.20 | 2.20 | 183.00 | 498.00 | 8.52 | 24.20 | 1.64 | 35.06 | 420.67 | 8.55 | 26.20 | 1.95 | 92.33 | 390.67 | 8.57 | 28.20 | 2.06 | 100.79 | 544.03 | 8.61 |
| 20.22 | 1.86 | 90.04 | 235.33 | 8.50 | 22.22 | 2.08 | 77.65 | 564.67 | 8.52 | 24.22 | 1.72 | 33.05 | 575.33 | 8.55 | 26.22 | 1.97 | 90.22 | 402.00 | 8.57 | 28.22 | 2.06 | 111.01 | 541.59 | 8.60 |
| 20.24 | 1.83 | 88.48 | 232.00 | 8.50 | 22.24 | 2.12 | 62.10 | 601.33 | 8.52 | 24.24 | 1.75 | 34.60 | 568.00 | 8.56 | 26.24 | 2.02 | 88.66 | 414.00 | 8.57 | 28.24 | 2.10 | 118.90 | 544.85 | 8.60 |
| 20.26 | 1.78 | 88.37 | 228.00 | 8.50 | 22.26 | 2.17 | 54.21 | 634.67 | 8.52 | 24.26 | 1.78 | 36.16 | 560.67 | 8.56 | 26.26 | 2.10 | 88.44 | 421.33 | 8.57 | 28.26 | 2.06 | 129.12 | 539.15 | 8.62 |
| 20.28 | 1.74 | 86.37 | 220.67 | 8.50 | 22.28 | 2.40 | 50.32 | 673.33 | 8.52 | 24.28 | 1.68 | 35.94 | 509.33 | 8.56 | 26.28 | 2.13 | 88.88 | 423.33 | 8.57 | 28.28 | 1.94 | 137.90 | 538.33 | 8.62 |
| 20.30 | 1.71 | 86.15 | 215.33 | 8.50 | 22.30 | 2.92 | 44.76 | 620.00 | 8.52 | 24.30 | 1.69 | 39.38 | 505.33 | 8.56 | 26.30 | 2.13 | 87.10 | 410.00 | 8.57 | 28.30 | 2.04 | 135.45 | 544.03 | 8.62 |
| 20.32 | 1.55 | 74.01 | 322.00 | 8.50 | 22.32 | 3.59 | 42.54 | 479.33 | 8.52 | 24.32 | 1.77 | 42.94 | 522.67 | 8.56 | 26.32 | 2.08 | 88.55 | 392.67 | 8.57 | 28.32 | 2.04 | 131.34 | 545.66 | 8.65 |
| 20.34 | 1.53 | 77.34 | 315.33 | 8.50 | 22.34 | 3.93 | 47.43 | 265.33 | 8.52 | 24.34 | 1.81 | 44.72 | 535.33 | 8.55 | 26.34 | 2.07 | 90.22 | 384.67 | 8.57 | 28.34 | 1.99 | 130.56 | 537.52 | 8.65 |
| 20.36 | 1.46 | 77.90 | 307.33 | 8.50 | 22.36 | 3.58 | 62.87 | 96.00 | 8.52 | 24.36 | 1.85 | 45.72 | 543.33 | 8.55 | 26.36 | 2.02 | 84.88 | 356.67 | 8.57 | 28.36 | 1.89 | 123.89 | 524.50 | 8.64 |
| 20.38 | 1.46 | 75.67 | 304.00 | 8.50 | 22.38 | 2.93 | 62.32 | 46.00 | 8.52 | 24.38 | 1.83 | 46.27 | 548.67 | 8.55 | 26.38 | 1.97 | 84.21 | 328.00 | 8.58 | 28.38 | 1.80 | 117.45 | 505.77 | 8.65 |
| 20.40 | 1.51 | 70.68 | 336.00 | 8.50 | 22.40 | 2.40 | 67.54 | 33.33 | 8.52 | 24.40 | 1.87 | 46.38 | 561.33 | 8.56 | 26.40 | 1.92 | 88.99 | 314.67 | 8.58 | 28.40 | 1.68 | 114.22 | 480.54 | 8.65 |
| 20.42 | 1.56 | 62.34 | 346.67 | 8.50 | 22.42 | 2.25 | 79.09 | 90.67 | 8.52 | 24.42 | 1.89 | 45.60 | 566.67 | 8.55 | 26.42 | 1.86 | 93.77 | 301.33 | 8.58 | 28.42 | 1.50 | 110.33 | 459.38 | 8.65 |
| 20.44 | 1.56 | 56.01 | 344.00 | 8.50 | 22.44 | 2.01 | 83.76 | 216.67 | 8.52 | 24.44 | 1.92 | 45.94 | 598.00 | 8.55 | 26.44 | 1.96 | 91.54 | 332.67 | 8.58 | 28.44 | 1.40 | 108.66 | 438.21 | 8.65 |
| 20.46 | 1.49 | 50.34 | 336.67 | 8.50 | 22.46 | 1.84 | 72.09 | 571.33 | 8.52 | 24.46 | 1.95 | 46.05 | 622.67 | 8.55 | 26.46 | 2.01 | 88.99 | 335.33 | 8.58 | 28.46 | 1.34 | 109.77 | 423.56 | 8.66 |
| 20.48 | 1.43 | 42.34 | 332.00 | 8.50 | 22.48 | 1.67 | 60.43 | 926.00 | 8.52 | 24.48 | 1.97 | 48.49 | 626.00 | 8.55 | 26.48 | 2.02 | 87.10 | 332.00 | 8.58 | 28.48 | 1.23 | 109.33 | 417.05 | 8.66 |
| 20.50 | 1.39 | 37.45 | 330.00 | 8.50 | 22.50 | 1.55 | 56.77 | 706.67 | 8.52 | 24.50 | 1.90 | 50.05 | 608.67 | 8.55 | 26.50 | 2.06 | 85.32 | 322.00 | 8.58 | 28.50 | 1.22 | 106.77 | 412.98 | 8.66 |
| 20.52 | 1.38 | 33.23 | 333.33 | 8.50 | 22.52 | 1.55 | 53.54 | 586.67 | 8.52 | 24.52 | 1.86 | 50.94 | 583.33 | 8.55 | 26.52 | 2.10 | 84.21 | 314.67 | 8.58 | 28.52 | 1.18 | 100.54 | 412.98 | 8.67 |
| 20.54 | 1.39 | 28.79 | 339.33 | 8.50 | 22.54 | 1.58 | 46.87 | 584.00 | 8.52 | 24.54 | 1.86 | 52.49 | 558.00 | 8.55 | 26.54 | 2.13 | 87.76 | 315.33 | 8.58 | 28.54 | 1.14 | 95.99 | 408.91 | 8.66 |
| 20.56 | 1.39 | 25.79 | 337.33 | 8.50 | 22.56 | 1.62 | 46.10 | 547.33 | 8.52 | 24.56 | 1.83 | 54.60 | 542.67 | 8.55 | 26.56 | 2.15 | 87.20 | 322.00 | 8.58 | 28.56 | 1.16 | 90.10 | 412.17 | 8.67 |
| 20.58 | 1.35 | 24.12 | 334.67 | 8.50 | 22.58 | 1.54 | 44.32 | 528.67 | 8.52 | 24.58 | 1.82 | 55.94 | 539.33 | 8.55 | 26.58 | 2.24 | 94.54 | 346.67 | 8.58 | 28.58 | 1.09 | 85.76 | 410.54 | 8.69 |
| 20.60 | 1.36 | 23.90 | 337.33 | 8.50 | 22.60 | 1.52 | 41.87 | 530.67 | 8.52 | 24.60 | 1.82 | 57.60 | 534.67 | 8.55 | 26.60 | 2.32 | 95.87 | 368.67 | 8.58 | 28.60 | 1.11 | 78.54 | 411.35 | 8.69 |
| 20.62 | 1.38 | 23.56 | 344.67 | 8.50 | 22.62 | 1.49 | 39.54 | 597.33 | 8.52 | 24.62 | 1.83 | 58.27 | 539.33 | 8.55 | 26.62 | 2.33 | 92.76 | 377.33 | 8.58 | 28.62 | 1.10 | 71.09 | 412.17 | 8.69 |
| 20.64 | 1.50 | 23.56 | 360.67 | 8.50 | 22.64 | 1.47 | 36.54 | 559.33 | 8.53 | 24.64 | 1.85 | 59.05 | 543.33 | 8.55 | 26.64 | 2.37 | 93.54 | 374.00 | 8.58 | 28.64 | 1.07 | 64.64 | 411.35 | 8.71 |
| 20.66 | 1.96 | 23.56 | 421.33 | 8.50 | 22.66 | 1.46 | 35.32 | 480.00 | 8.53 | 24.66 | 1.87 | 59.05 | 549.33 | 8.55 | 26.66 | 2.33 | 97.65 | 372.67 | 8.58 | 28.66 | 1.11 | 60.53 | 414.61 | 8.70 |
| 20.68 | 3.20 | 27.90 | 557.33 | 8.50 | 22.68 | 1.43 | 36.54 | 564.67 | 8.52 | 24.68 | 1.87 | 57.82 | 549.33 | 8.56 | 26.68 | 2.31 | 95.98 | 380.67 | 8.58 | 28.68 | 1.10 | 57.65 | 412.17 | 8.70 |
| 20.70 | 5.01 | 34.01 | 193.33 | 8.50 | 22.70 | 1.42 | 38.43 | 532.67 | 8.53 | 24.70 | 1.88 | 56.05 | 543.33 | 8.55 | 26.70 | 2.27 | 89.42 | 388.67 | 8.58 | 28.70 | 1.03 | 57.09 | 407.28 | 8.72 |
| 20.72 | 6.93 | 49.23 | 35.33 | 8.50 | 22.72 | 1.42 | 41.65 | 493.33 | 8.53 | 24.72 | 1.89 | 55.82 | 530.67 | 8.56 | 26.72 | 2.34 | 90.20 | 422.00 | 8.58 | 28.72 | 1.00 | 57.20 | 404.03 | 8.72 |
| 20.74 | 8.55 | 46.89 | 79.33 | 8.50 | 22.74 | 1.42 | 44.20 | 493.33 | 8.53 | 24.74 | 1.91 | 55.60 | 518.00 | 8.56 | 26.74 | 2.45 | 95.87 | 465.33 | 8.58 | 28.74 | 1.00 | 56.42 | 403.21 | 8.71 |
| 20.76 | 9.61 | 43.12 | 108.67 | 8.50 | 22.76 | 1.58 | 43.20 | 436.67 | 8.53 | 24.76 | 1.86 | 63.38 | 504.00 | 8.56 | 26.76 | 2.53 | 92.87 | 483.33 | 8.58 | 28.76 | 0.91 | 53.43 | 436.59 | 8.68 |
| 20.78 | 10.05 | 44.00 | 103.33 | 8.50 | 22.78 | 1.74 | 42.19 | 380.00 | 8.53 | 24.78 | 1.88 | 65.71 | 501.33 | 8.56 | 26.78 | 2.49 | 93.42 | 483.33 | 8.58 | 28.78 | 0.95 | 53.55 | 443.10 | 8.68 |
| 20.80 | 10.08 | 39.34 | 96.00 | 8.50 | 22.80 | 1.54 | 45.41 | 392.67 | 8.53 | 24.80 | 1.92 | 66.38 | 492.00 | 8.56 | 26.80 | 2.54 | 89.75 | 457.33 | 8.58 | 28.80 | 0.94 | 50.77 | 443.10 | 8.68 |
| 20.82 | 9.71 | 39.56 | 88.00 | 8.50 | 22.82 | 1.51 | 44.86 | 388.67 | 8.53 | 24.82 | 1.94 | 68.38 | 480.00 | 8.56 | 26.82 | 2.33 | 89.42 | 379.33 | 8.58 | 28.82 | 0.91 | 48.00 | 449.61 | 8.68 |
| 20.84 | 9.32 | 39.89 | 89.33 | 8.50 | 22.84 | 1.49 | 45.64 | 382.67 | 8.53 | 24.84 | 1.94 | 71.49 | 465.33 | 8.56 | 26.84 | 2.22 | 85.31 | 299.33 | 8.58 | 28.84 | 0.89 | 44.23 | 458.57 | 8.68 |
| 20.86 | 8.96 | 41.23 | 100.00 | 8.50 | 22.86 | 1.47 | 45.64 | 380.67 | 8.53 | 24.86 | 1.92 | 73.26 | 462.00 | 8.56 | 26.86 | 2.09 | 106.64 | 250.00 | 8.58 | 28.86 | 0.89 | 39.89 | 465.89 | 8.69 |
| 20.88 | 8.75 | 40.78 | 108.67 | 8.50 | 22.88 | 1.49 | 45.52 | 372.67 | 8.53 | 24.88 | 1.92 | 73.37 | 462.67 | 8.56 | 26.88 | 2.03 | 117.42 | 225.33 | 8.58 | 28.88 | 0.98 | 36.45 | 481.35 | 8.68 |
| 20.90 | 8.64 | 41.67 | 124.67 | 8.50 | 22.90 | 1.53 | 45.75 | 369.33 | 8.53 | 24.90 | 1.92 | 73.93 | 447.33 | 8.56 | 26.90 | 1.96 | 126.42 | 216.67 | 8.58 | 28.90 | 1.03 | 32.45 | 503.33 | 8.69 |
| 20.92 | 8 | | | | | | | | | | | | | | | | | | | | | | | |

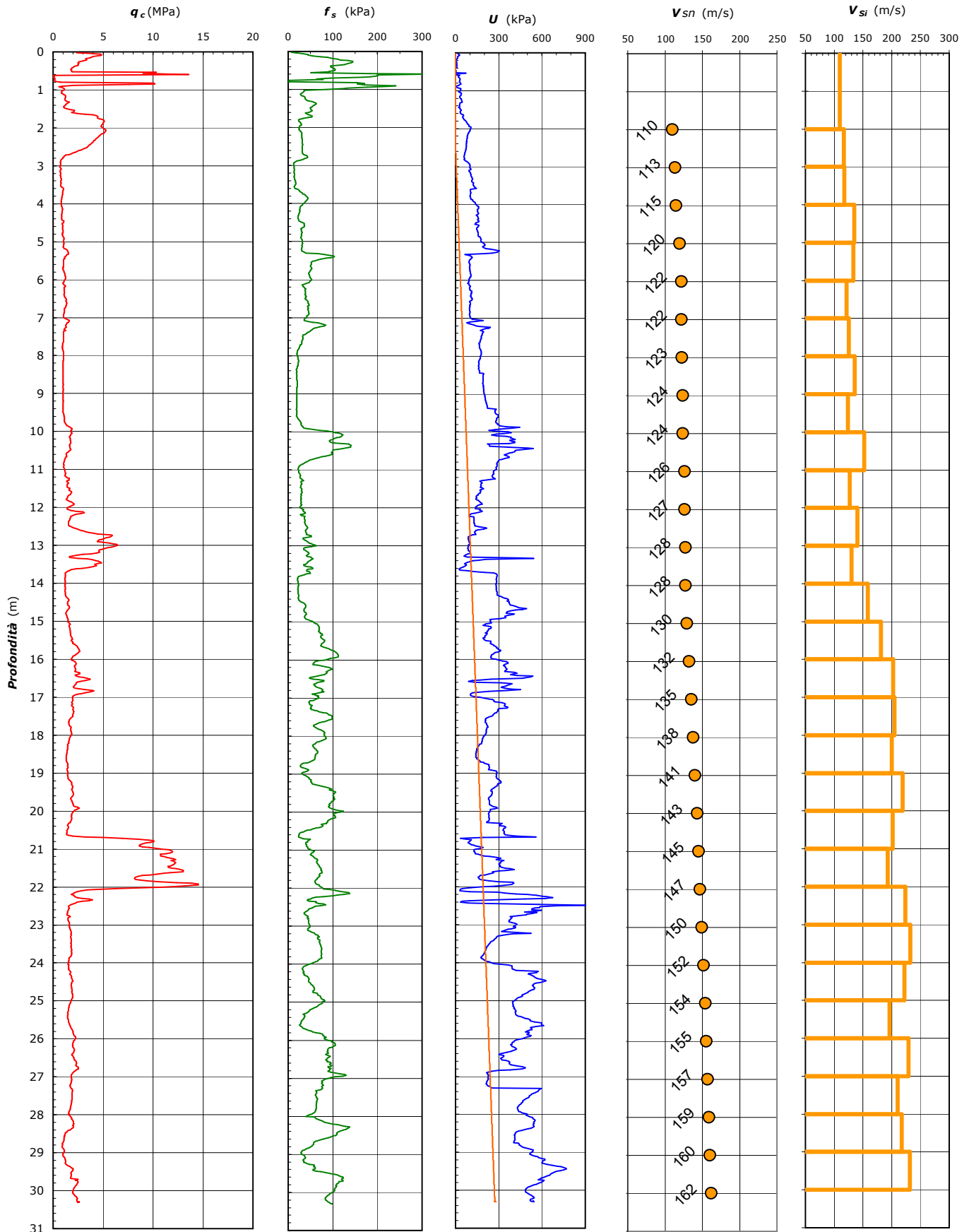
COMMITTENTE: ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.

PROVA N°: SCPTU 2 PROF. FALDA (m da p.c.): 2.50 PUNTA: Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]

DATA: 17/01/17 PREFORO (m da p.c.):

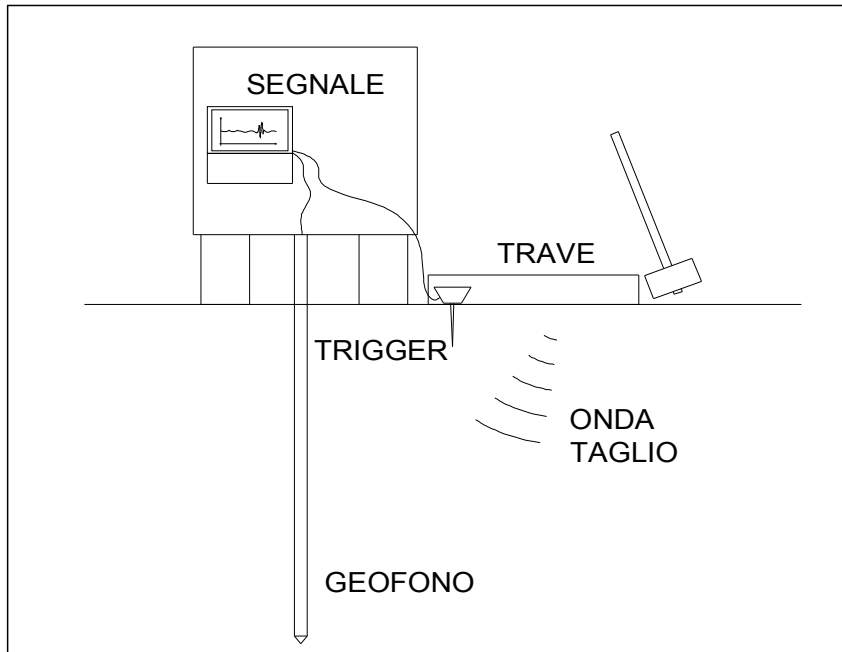
 LAT. (WGS 84): 44.688595°
 LONG. (WGS 84): 11.790950°

COMMESSA: 15699/16 C. SITO N°:



COMMITTENTE: ENGE S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma
CANTIERE: Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: SCPTU 2 **PROF. FALDA (m da p.c.):** 2.50 **PUNTA:** Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]
DATA: 17/01/17 **PREFORO (m da p.c.):** **LAT. (WGS 84):** 44.688595°
COMMESSA: 15699/16 **C. SITO N°:** **LONG. (WGS 84):** 11.790950°

Prova Down Hole ASTM D 7400



| Profondità (m) | Ts (ms) | L (m) | Vs (m/s) | Vis (m/s) |
|----------------|---------|-------|----------|-----------|
| 1.0 | T0 | 1.41 | - | - |
| 2.0 | 7.46 | 2.24 | 110 | 110 |
| 3.0 | 15.42 | 3.16 | 113 | 116 |
| 4.0 | 23.61 | 4.12 | 115 | 117 |
| 5.0 | 30.83 | 5.10 | 120 | 135 |
| 6.0 | 38.21 | 6.08 | 122 | 133 |
| 7.0 | 46.32 | 7.07 | 122 | 122 |
| 8.0 | 54.24 | 8.06 | 123 | 125 |
| 9.0 | 61.56 | 9.06 | 124 | 136 |
| 10.0 | 69.59 | 10.05 | 124 | 124 |
| 11.0 | 76.14 | 11.05 | 126 | 152 |
| 12.0 | 83.96 | 12.04 | 127 | 127 |
| 13.0 | 91.06 | 13.04 | 128 | 140 |
| 14.0 | 98.73 | 14.04 | 128 | 130 |
| 15.0 | 105.02 | 15.03 | 130 | 158 |
| 16.0 | 110.52 | 16.03 | 132 | 181 |
| 17.0 | 115.46 | 17.03 | 135 | 202 |
| 18.0 | 120.34 | 18.03 | 138 | 205 |
| 19.0 | 125.33 | 19.03 | 141 | 200 |
| 20.0 | 129.89 | 20.02 | 143 | 219 |
| 21.0 | 134.84 | 21.02 | 145 | 202 |
| 22.0 | 140.00 | 22.02 | 147 | 193 |
| 23.0 | 144.47 | 23.02 | 150 | 224 |
| 24.0 | 148.78 | 24.02 | 152 | 232 |
| 25.0 | 153.27 | 25.02 | 154 | 222 |
| 26.0 | 158.36 | 26.02 | 155 | 196 |
| 27.0 | 162.72 | 27.02 | 157 | 229 |
| 28.0 | 167.47 | 28.02 | 159 | 210 |
| 29.0 | 172.07 | 29.02 | 160 | 217 |
| 30.0 | 176.38 | 30.02 | 162 | 232 |

CATEGORIA SOTTOSUOLO

D
 $V_{s,30} = 162 \text{ m/s}$

- D = Distanza centro trave generatrice ond
 Profondità = Profondità punta da piano campagna
 Ts = Tempo percorrenza onda di taglio
 L = Lunghezza percorso onda di taglio
 Vs = Velocità onde di taglio da piano campagna alla profondità indic = 1.00 m
 Vis = Velocità onde di taglio nello strato di terreno compreso fra le due profondità indicate

COMMITTENTE: **ENGEO S.r.l. - Via Suor Maria Adorni, 2 - 43121 Parma****CANTIERE:** Indagini geognostiche per la Microzonazione di III livello nei comuni di Argenta, Portomaggiore e Ostellato - Ferrara.
PROVA N°: SCPTU 2 **PROF. FALDA (m da p.c.):** 2.50 **PUNTA:** Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]
DATA: 17/01/17 **PREFORO (m da p.c.):** **LAT. (WGS 84):** 44.688595°
COMMESSA: 15699/16 **C. SITO N°:** **LONG. (WGS 84):** 11.790950°**UBICAZIONE**

Località: Ripapersico

