Autorità di Sistema Portuale
del Mar Adriatico Centro Settentrionale

APPROFONDIMENTO CANALI CANDIANO E BAIONA, ADEGUAMENTO BANCHINE OPERATIVE ESISTENTI, NUOVO TERMINAL IN PENISOLA TRATTATOLI E RIUTILIZZO DEL MATERIALE ESTRATTO IN ATTUAZIONE AL P.R.P. VIGENTE 2007 I FASE

PROGETTO DEFINITIVO

OGGETTO

RELAZIONE GEOLOGICA
(Allegato 5 - DMT)

FILE	CODICE	SCALA
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Rev.	Data	Causale
0	Set. 2015	Emissione
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AUTORITÀ DI SISTEMA PORTUALE DEL
MARE ADRIATICO CENTRO SETTENTRIONALE

IL RESPONSABILE DEL PROCEDIMENTO
IL DIRETTORE TECNICO
(Ing. Fabio Maletti)

MINISTERO INFRASTRUTTURE E DEI TRASPORTI
PROVVEDITORATO INTERREGIONALE PER
LE OPERE PUBBLICHE PER LA LOMBARDIA
E L'EMILIA ROMAGNA

IL RESPONSABILE DELLA REVISIONE
DELLA PROGETTAZIONE
(Ing. Francesco Caldani)

CLASSIS 2000 anni di storia — PORTO DI RAVENNA

AUTORITA' PORTUALE DI RAVENNA

PORTO DI RAVENNA
LAVORI E SERVIZI AFFERENTI LE INDAGINI GEOTECNICHE E GEOLOGICHE DI SUPPORTO ALLA PROGETTAZIONE DEFINITIVA DELLE OPERE IN ATTUAZIONE DEL PRP VIGENTE DEL 2007



PROVE DILATOMERICHE DMT
ALLEGATO 5

INDICE

ALLEGATI : Grafici e tabulati numerici delle prove DMT

1. Premessa

Il presente rapporto raccoglie le risultanze delle prove penetrometriche statiche con dilatometro piatto DMT condotte fra novembre 2014 e gennaio 2015, per lo studio geotecnico dell' HUB portuale di Ravenna

Le indagini sono state condotte su incarico dell'AUTORITA' PORTUALE DI RAVENNA.

Complessivamente sono state eseguite 30 prove DMT delle 27 previste, in quanto alcune sono state ripetute a fianco delle precedenti a causa della collusione del dilatometro con elementi antropici che ne hanno interrotto l'avanzamento.

Il riepilogo puntuale delle attività svolte è sintetizzato sulle tabelle sinottiche seguenti, mentre l'ubicazione delle verticali, frutto di un rilievo topografico dedicato, è illustrata nella planimetria generale allegata alla relazione geologica.

2. Prove DMT

Complessivamente sono state eseguite 30 prove dilatometriche.

Le prove sono state spinte fino a 30 m di profondità come previsto, ad esclusione tre prove che avendo incontrato rifiuto sono state ripetute previo approfondimento del preforo o a fianco della precedente.

In Tab.1 viene indicato il numero della prova e le coordinate topografiche Gauss Boaga.

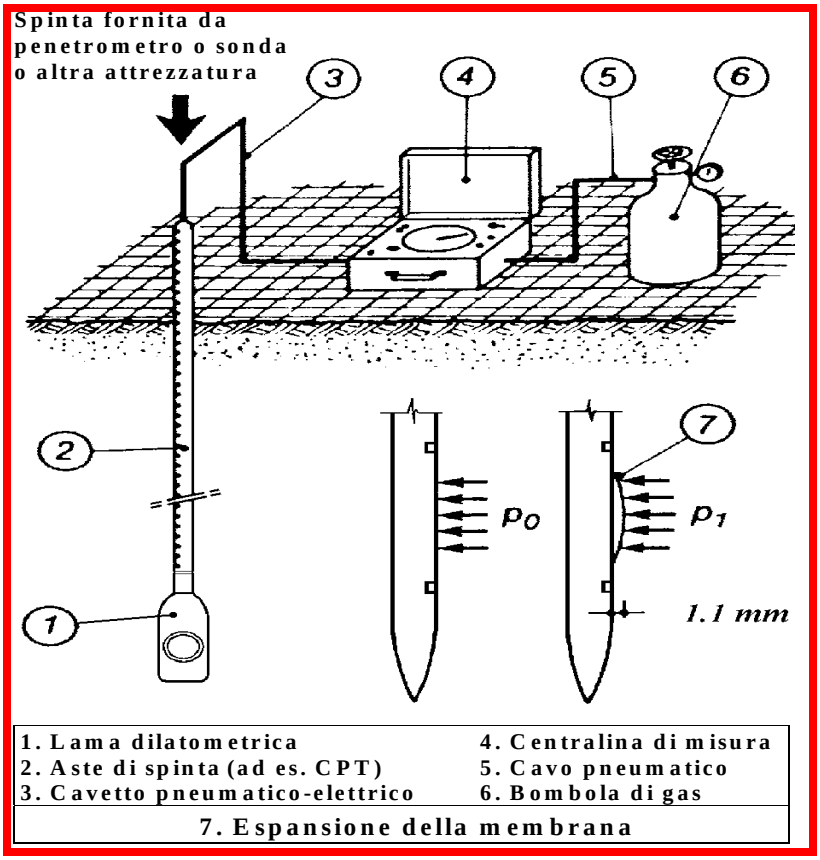
Nome	Coordinata X	Coordinata Y	Quota m slm
DMT1	2300372.62	4924582.26	0,01
DMT2	2300629.97	4925275.16	1,06
DMT3	2300849.19	4925908.35	0,38
DMT4	2300914.70	4926207.89	1,30
DMT5	2301491.09	4927534.06	1,65
DMT6	2301370.10	4928005.13	2,11
DMT7	2301808.37	4928274.28	2,15
DMT8	2302599.99	4929206.48	0,52
DMT9	2302863.57	4929543.62	0,80
DMT10	2303107.34	4929850.94	1,20
DMT11	2302719.80	4929933.65	0,00
DMT12	2302822.87	4930187.66	2,20
DMT13	2303643.11	4930209.65	1,42
DMT14	2304176.29	4930327.38	2,22
DMT15	2304526.71	4930219.94	2,19
DMT16	2304187.60	4930164.24	2,53
DMT17	2303402.08	4929955.36	1,14
DMT18	2303007.59	4929381.54	1,16
DMT19	2302269.90	4928308.87	1,42
DMT20	2301939.78	4927795.74	1,83
DMT21	2301651.13	4927341.75	2,07
DMT22	2301377.06	4926780.44	1,91
DMT23	2301175.38	4926195.56	0,45
DMT24	2300928.39	4925621.85	1,46
DMT25	2300778.85	4925155.99	0,68
DMT26	2300737.35	4924491.29	0,82
DMT27	2300599.72	4924340.36	0,58

3. APPARECCHIATURA DI PROVA

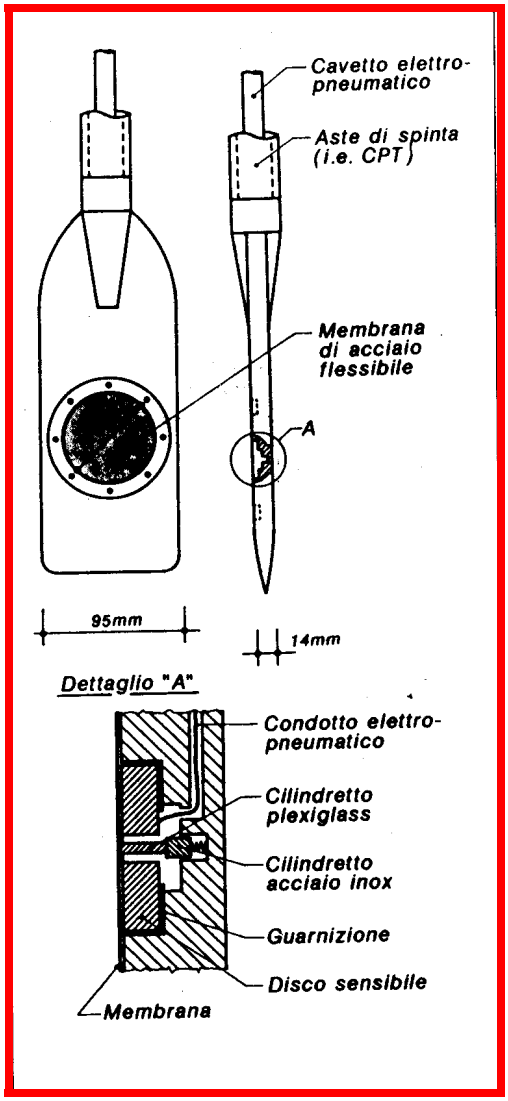
Il dilatometro piatto è una lama di acciaio inox dotata di una membrana di acciaio piatta, circolare, montata su un lato, con la faccia esterna a pari livello con il piano circostante
La lama è collegata ad una centralina di misura in superficie per mezzo di un cavetto pneumatico-elettrico (che trasmette pressione di gas e continuità elettrica) passante all'interno delle aste di spinta. Una bombola di gas, collegata alla centralina di misura per mezzo di un cavo pneumatico, costituisce la sorgente di gas necessaria per espandere la membrana. La centralina di misura è dotata di un regolatore di pressione, di manometro(i), di un segnalatore audio e di valvole di sfiato.

Nel caso di prove in foro di sondaggio la attrezzatura sarà applicata alle aste di perforazione ogniqualvolta si raggiunga la profondità scelta per la prova; per le prove penetrometriche la lama sarà collegata alle aste cave del penetrometro (diam 36 mm est.),ed il cavo sarà passato preventivamente nelle aste del penetrometro.

Di seguito lo schema dell'attrezzatura in generale e lo schema della lama



1. Lama dilatometrica	4. Centralina di misura
2. Aste di spinta (ad es. CPT)	5. Cavo pneumatico
3. Cavetto pneumatico-elettrico	6. Bombola di gas
7. Espansione della membrana	

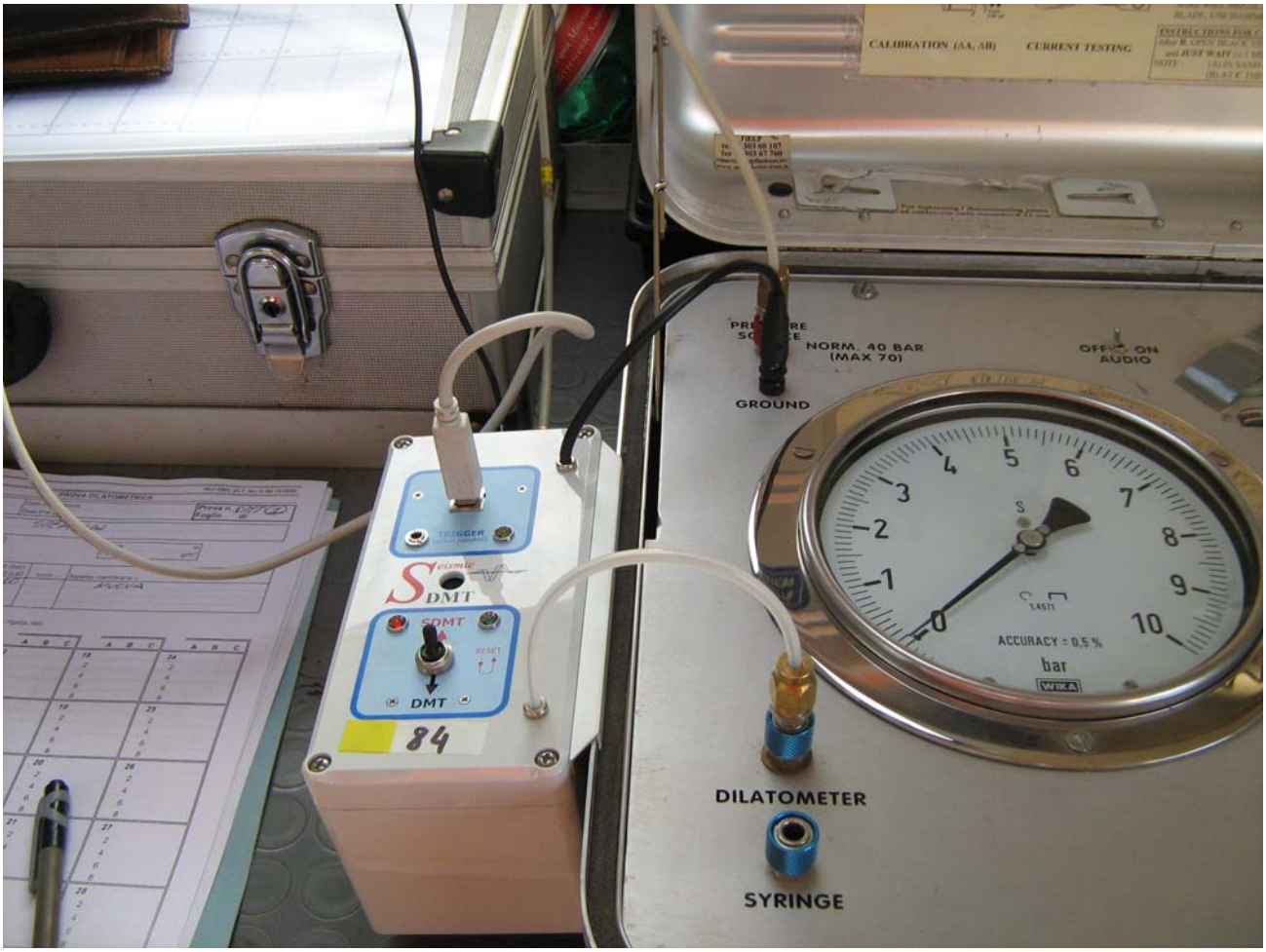

Cavetto elettro-pneumatico
Aste di spinta (i.e. CPT)
Membrana di acciaio flessibile
A
95mm
14mm
Dettaglio "A"
Condotto elettro-pneumatico
Cilindretto plexiglass
Cilindretto acciaio inox
Guarnizione
Disco sensibile
Membrana

4. MODALITA' DI PROVA

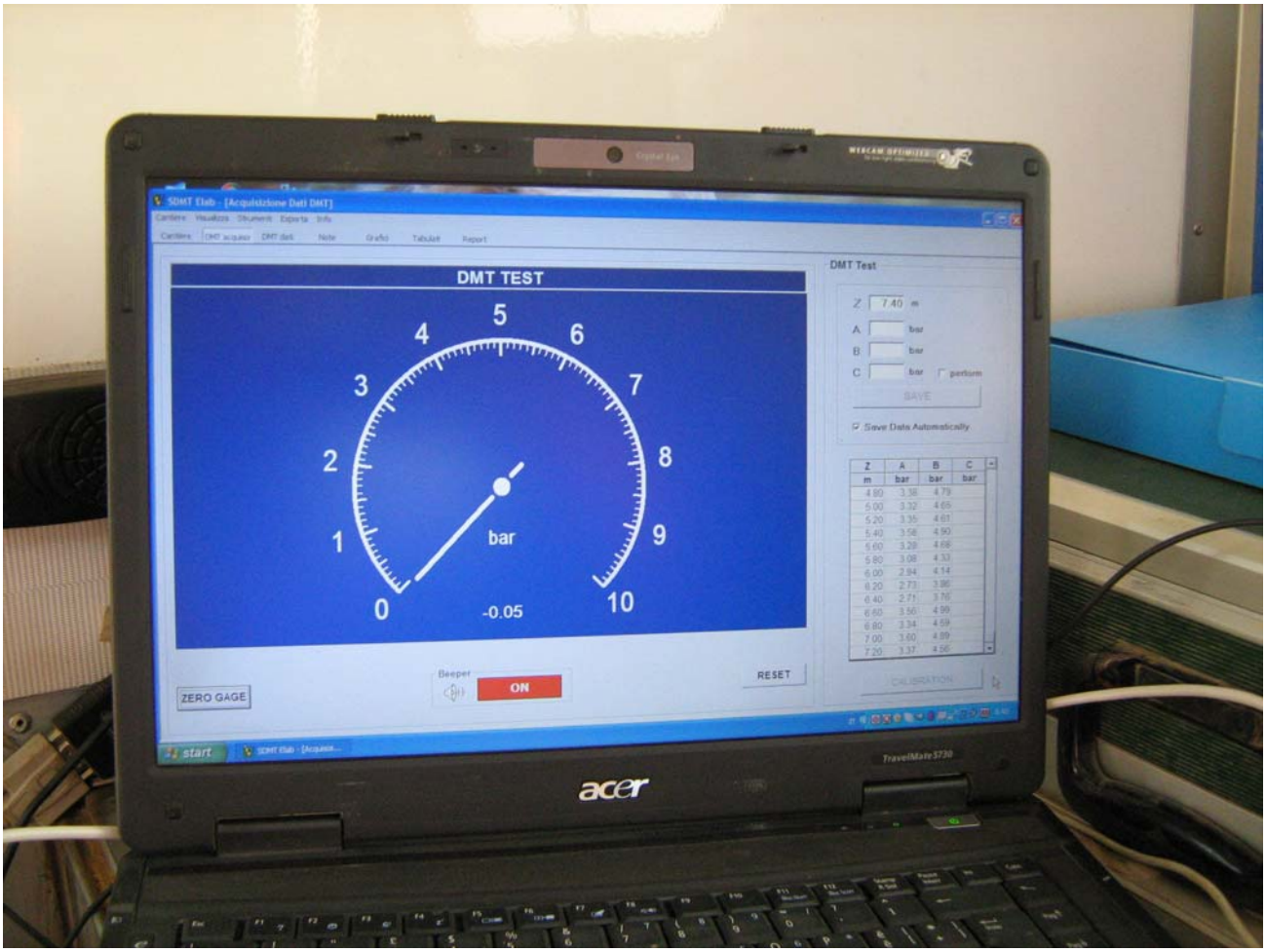
Le prove sono state condotte con un penetrometro statico autocarrato semizavorrato, da 20 tonnellate.

Penetrometro utilizzato per le prove DMT

Prova dilatometrica in banchina



Sistema elettronico integrato alla centralina meccanica per le misure computerizzate in grado di eseguire contestualmente anche le misure sismiche



Software di acquisizione e gestione dei dati DMT

Calibrazione

La procedura di calibrazione consiste nel determinare le pressioni ΔA e ΔB necessarie per portare la membrana nelle posizioni A e B in assenza di terreno. ΔA e ΔB sarebbero nulle se la membrana avesse spessore infinitesimo.
ΔA e ΔB sono quindi utilizzate per correggere le letture A e B.

ΔA e ΔB possono essere misurate con una semplice procedura, utilizzando una siringa per generare vuoto o pressione.
Durante la calibrazione l'alta pressione proveniente dalla bombola deve essere esclusa dal circuito pneumatico, chiudendo la valvola generale sul pannello della centralina di misura.

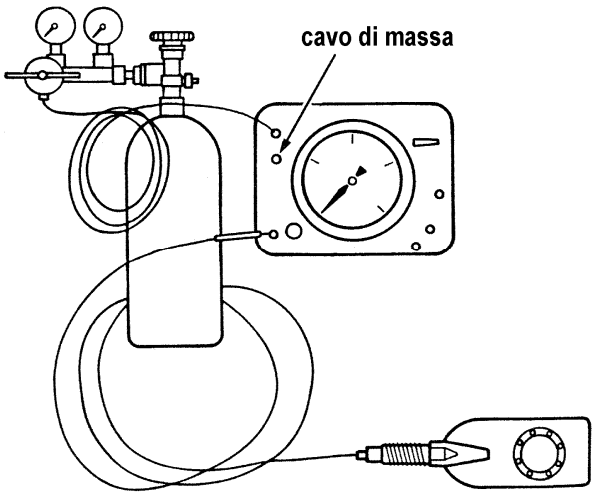
Per determinare ΔA: tirare rapidamente indietro (quasi per intero) il pistone della siringa, per applicare il massimo vuoto possibile (il vuoto provoca una deformazione della membrana verso l'interno simile a quella causata dalla pressione esterna del terreno all'inizio della prova). Tenere fermo il pistone per un tempo sufficiente (almeno 5 secondi) per l'ugualizzazione del vuoto nel sistema. Durante questo intervallo di tempo il segnale acustico deve attivarsi. Quindi rilasciare lentamente il pistone e leggere ΔA al manometro di bassa pressione quando il segnale acustico si interrompe, cioè in posizione A. Annotare questa pressione negativa come valore positivo (ad es. un vuoto di 15 kPa deve essere riportato come ΔA = 15 kPa). La formula di correzione per p0 (Eq. 1 al Paragrafo 9.2) tiene già conto del fatto che un valore di ΔA positivo è una depressione.
Per determinare ΔB: spingere lentamente il pistone all'interno della siringa e leggere ΔB al manometro di bassa pressione quando il segnale acustico si
riattiva (cioè in posizione B).
Ripetere questa procedura diverse volte per una conferma dei valori letti.
Le correzioni della membrana ΔA, ΔB devono essere misurate prima di una verticale di prova, al termine di una verticale di prova, ed ogni qualvolta la lama viene estratta dal terreno. ΔA, ΔB sono generalmente misurate, come controllo, in ufficio, prima di partire per il sito di prova. Tuttavia i valori iniziali di ΔA, ΔB da utilizzare sono quelli misurati subito prima della prova (anche se la differenza è in genere trascurabile).
I valori di calibrazione di una membrana non danneggiata rimangono relativamente costanti nel corso di una verticale DMT. Il confronto dei valori prima/dopo può dare utili indicazioni circa le condizioni della membrana. Ad es. una differenza notevole segnala che può essere opportuno sostituire la membrana. Quindi, la calibrazione è un buon indicatore delle condizioni dell'attrezzatura, e di conseguenza della qualità dei dati ottenuti.

Esecuzione perforazione

La prova viene eseguita secondo quanto descritto negli atti delle conferenze geotecniche del Politecnico di Torino -18° Ciclo- del 20-22 Novembre 2001 , redatto dal Prof. S. Marchetti.

Scegliere per le prove solo lame che rispettino le tolleranze (averne almeno due disponibili). Analogamente, utilizzare solo componenti dell'attrezzatura adeguatamente controllati. Preinfilare il cavetto pneumatico-elettrico (p-e) attraverso un opportuno numero di aste di spinta ed i raccordi. Durante questa operazione tenere i terminali del cavetto protetti dallo sporco per mezzo di appositi tappi.
Avvitare il terminale del cavetto alla lama e stringere con una chiave. Collegare la lama all'asta di spinta inferiore (con interposto il raccordo inferiore). Evitare eccessive torsioni del cavetto mentre si fanno i collegamenti.
Inserire la spina del cavo elettrico di massa nella boccola di massa ("ground") della centralina di misura. Agganciare l'altro estremo (pinza a coccodrillo) al raccordo asolato superiore o ad una delle aste di spinta (non alla struttura metallica della macchina di infissione, che potrebbe non essere in contatto elettrico certo con le aste).

Stabilire i collegamenti (vds schema) ma non aprire ancora la valvola della bombola.



Verificare la continuità elettrica e la funzionalità dell'interruttore premendo sul centro della membrana. Il segnale deve attivarsi. In caso contrario, fare le riparazioni del caso.
Annotare lo zero del manometro ZM (lettura al manometro per pressione zero) aprendo la valvola di sfiato rapido e leggendo la pressione - picchiettando leggermente sul vetro del manometro.

Eseguire la calibrazione come descritto

Con la valvola della bombola di gas chiusa, collegare il regolatore di pressione alla bombola.
Regolare a zero la pressione in uscita dal riduttore svitando completamente la leva di regolazione.
Collegare il cavo pneumatico proveniente dal regolatore della bombola al connettore rapido femmina contrassegnato "pressure source" sulla centralina di misura.
Assicurarsi che: la valvola generale sia chiusa, la valvola di sfiato rapido sia aperta e la valvola micrometrica di regolazione del flusso sia chiusa.
Aprire la valvola della bombola. Avvitare la leva del riduttore finché la pressione in uscita, letta al manometro di bassa pressione del riduttore, sia circa 3 MPa (tale pressione può essere aumentata in seguito, se necessario).
Aprire la valvola generale. (Normalmente questa valvola rimane sempre aperta durante la prova. Durante la prova l'operatore usa solo la valvola micrometrica di regolazione del flusso e le valvole di sfiato).

La prova DMT consiste nella seguente successione di operazioni.

1) L'operatore DMT si assicura che la *valvola micrometrica di regolazione del flusso* sia chiusa e la *valvola di sfiato rapido* aperta, quindi dà il "via" all'operatore del penetrometro (o sonda). Di seguito le operazioni sono descritte per due operatori. L'intera operazione può essere eseguita anche da un solo operatore con spinta penetrometrica, qualora sia dotato di apparecchiature che gli permettano la esecuzione della prova nei tempi indicati
2) L'operatore del penetrometro spinge verticalmente la lama nel terreno fino alla profondità di prova prescelta, a partire dal piano campagna oppure dal fondo di un foro di sondaggio. Durante l'avanzamento il segnale (galvanometro e segnalatore acustico) è di norma *on*, poiché la pressione del terreno fa chiudere la membrana. (Il segnale generalmente inizia a 20-40 cm dalla superficie del terreno).
3) Appena raggiunta la profondità di prova, l'operatore del penetrometro rimuove il carico dalle aste di spinta e dà il "via" all'operatore DMT.
4) L'operatore DMT chiude la *valvola di sfiato rapido* e apre lentamente la *valvola micrometrica di regolazione*

del flusso per incrementare la pressione. In questa fase la centralina di misura emette un segnale audio continuo. Nell'istante in cui il segnale si interrompe (cioè quando la membrana si distacca dal suo piano di supporto ed inizia a muoversi), l'operatore legge al manometro ed annota la prima lettura di pressione *A*.

5) Senza interrompere il flusso, l'operatore DMT continua ad incrementare la pressione (in questa fase il segnale è *off*) finché il segnale si riattiva (quando il movimento della membrana è pari a 1.1 mm). In questo istante l'operatore legge al manometro la seconda lettura di pressione *B*. Dopo avere annotato mentalmente o registrato in altro modo questo valore, l'operatore DMT deve eseguire le quattro operazioni che seguono:

   a) aprire immediatamente la *valvola di sfiato rapido* per depressurizzare la membrana.
   b) chiudere la *valvola micrometrica di regolazione del flusso* per impedire ulteriore alimentazione di pressione al dilatometro. (Queste prime due operazioni evitano ulteriore espansione della membrana, che potrebbe deformarsi in maniera permanente e variare le sue calibrazioni, e devono essere eseguite rapidamente dopo la lettura *B* per evitare possibili danni alla membrana).
   c) Indicare all'operatore del penetrometro di avanzare di un incremento di profondità - generalmente 20 cm. (Durante la penetrazione la *valvola di sfiato rapido* deve rimanere aperta per evitare di spingere la lama con la membrana espansa).
   d) Scrivere la seconda lettura *B*.

   Ripetere la sequenza sopra descritta a ciascuna profondità fino al termine della verticale di prova. Al termine della verticale, dopo l'estrazione della lama, eseguire la calibrazione finale.
   Se si vuole effettuare la lettura C, c'è solo una differenza nella sequenza sopra descritta. Al punto 5.a, dopo la lettura B, aprire la valvola di sfiato lento invece della valvola di sfiato rapido ed attendere (circa 1 minuto) finché la pressione scende avvicinandosi allo zero del manometro. Nell'istante il cui il segnale ritorna effettuare la lettura C.
   Si noti che, nelle sabbie, il valore di C che ci si deve aspettare è un numero basso, in genere < 100-200 kPa, ovvero 10 o 20 m di acqua.

NOTA: Errore frequente nelle letture C

L'errore frequente è il seguente. Dopo la lettura *B*, cioè quando inizia la depressurizzazione lenta, il segnale è *on*. Dopo un certo tempo il segnale cessa (da *on* a *off*). L'errore consiste nel prendere come *C* la pressione corrispondente a questa inversione, cosa non corretta (in questo istante la membrana è nella posizione *B*). L'istante corretto per leggere *C* è un pò più tardi, quando, completata la depressurizzazione, dopo circa 1 minuto, la membrana ritorna nella posizione *A* "chiusa", contattando il suo piano di supporto e riattivando il segnale.

NOTA: Frequenza delle letture C

(a) Siti sabbiosi

Nelle sabbie ($B \geq 2.5\ A$) le letture *C* possono essere effettuate ogni tanto, ad es. ogni 1 o 2 m, e sono utilizzate per valutare u_0 (pressione neutra di equilibrio). E' consigliabile ripetere il ciclo *A*-*B*-*C* diverse volte per assicurarsi che tutti i cicli forniscano letture *C* simili.

(b) Intercalazioni di sabbie e argille

Se l'interesse si limita alla determinazione del profilo di u_0, le letture *C* vengono effettuate negli strati sabbiosi ($B \geq 2.5\ A$), ad es. ogni 1 o 2 m.

Quando l'interesse, oltre u_0, è rivolto alla distinzione di strati drenanti da strati non drenanti, le letture *C* vengono effettuate a ciascuna profondità di prova.

NOTA: Collegamenti elettrici durante la prova
L'operatore del penetrometro non deve mai scollegare il cavo di massa (ad es. per aggiungere un'asta che richiede la rimozione della pinza a coccodrillo) mentre l'operatore DMT sta effettuando le letture, e comunque mai prima del suo segnale di "via".

NOTA: Velocità di espansione
Le pressioni A e B devono essere raggiunte lentamente.
La velocità del flusso di gas per pressurizzare la membrana deve essere tale che la lettura A viene ottenuta (tipicamente in 15 secondi) entro 20 secondi dal raggiungimento della profondità di prova, e la lettura B (espansione da A a B) entro 20 secondi dopo la lettura A. Di conseguenza, la velocità di incremento della pressione è molto lenta in terreni teneri e più veloce in terreni consistenti.
Gli intervalli di tempo sopra indicati si riferiscono, tipicamente, a lunghezze dei cavetti fino a circa 30 m. Per lunghezze maggiori potrebbe essere necessario ridurre la velocità di flusso per consentire l'ugualizzazione della pressione lungo il cavetto.
Nel corso della prova l'operatore può, occasionalmente, verificare l'adeguatezza della velocità di flusso prescelta chiudendo la valvola micrometrica di regolazione del flusso e osservando come reagisce il manometro. Se la pressione al manometro scende più del 2 % quando si chiude la valvola (ASTM 1986), la velocità è troppo alta e deve essere ridotta.

NOTA: Tempi necessari per la prova
Il "ritardo" di tempo tra l'arresto della penetrazione e l'inizio della pressurizzazione è in genere 1-2 secondi. La sequenza di prova completa (letture A, B) richiede in genere circa 1 minuto. Il tempo complessivo necessario per ottenere un profilo "tipico" di 30 m (se non si incontrano ostacoli) è circa 3 ore.
La lettura C aggiunge all'incirca da 45 secondi a 1 minuto al tempo necessario per la sequenza DMT a ciascuna profondità di prova.

NOTA: Incremento di profondità
E' possibile adottare un incremento di profondità minore (in genere 10 cm), anche limitatamente ad un singolo tratto di verticale DMT, qualora sia richiesta la definizione di un profilo del terreno più dettagliato.

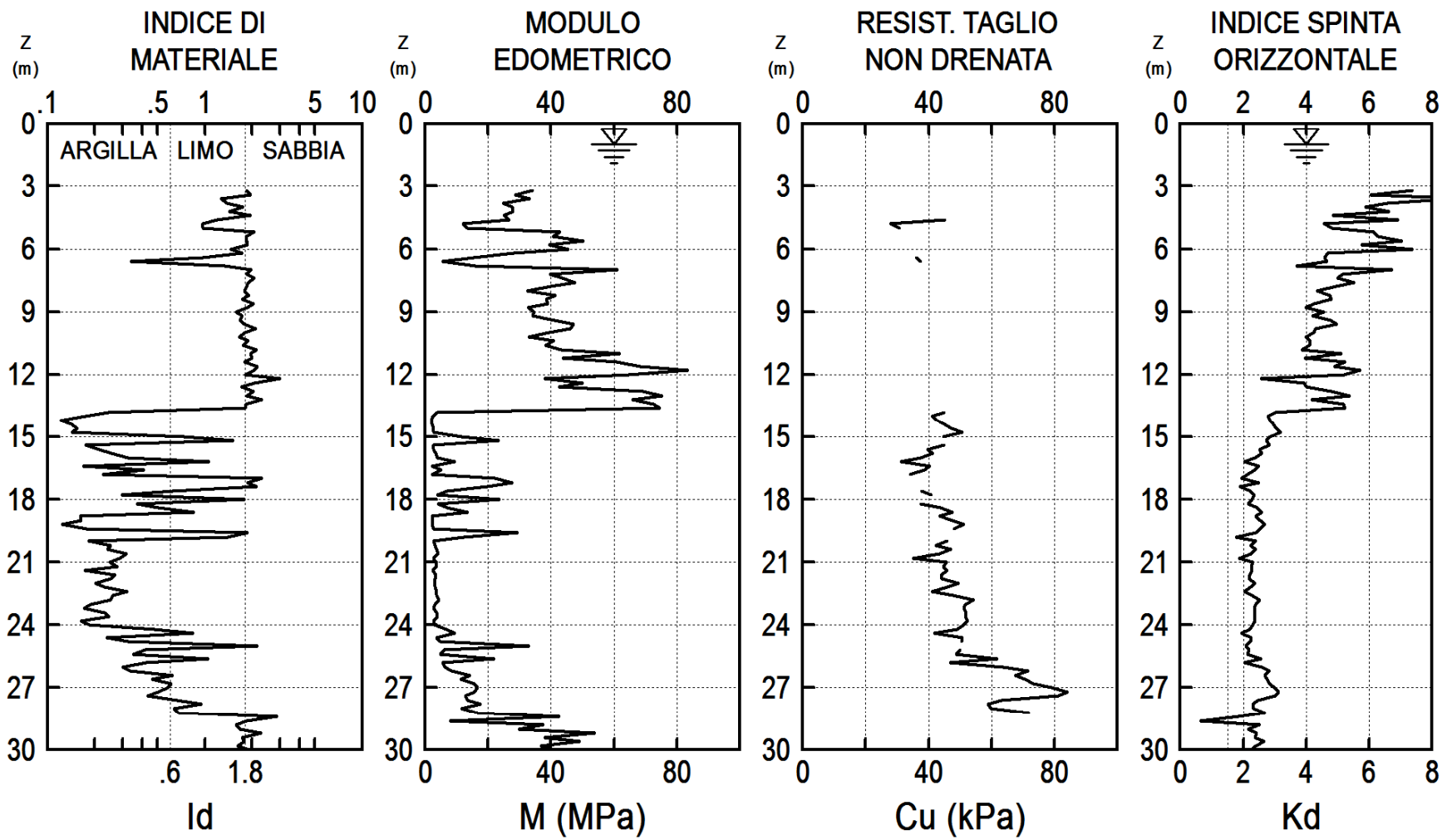
NOTA: Profondità di prova
Le profondità di prova devono essere annotate con riferimento al centro della membrana.

Alla profondità prevista per le prove di dissipazione , si esegue la seguente procedura

- Arrestare la penetrazione alla profondità di dissipazione desiderata arresto della penetrazione e bloccaggio in morsa della aste
- Nel momento in cui la penetrazione viene arrestata, avviare un contasecondi. L'origine dei tempi (t = 0) è l'istante in cui la penetrazione viene arrestata. Quindi, senza alcun ritardo, pressurizzare *lentamente* la membrana per effettuare la lettura *A*. Appena raggiunta *A*, depressurizzare immediatamente la lama. Leggere al contasecondi il tempo trascorso all'istante della lettura *A* ed annotarlo insieme al valore di *A*.
- Continuare ad effettuare altre letture A per ottenere una serie di punti opportunamente intervallati per la curva di dissipazione nel tempo. Normalmente viene adottato un fattore di incremento di tempo pari a 2 tra ciascuna lettura A e la successiva (ad es. 0.5, 1, 2, 4, 8, 15, 30 etc. minuti dopo l'arresto della lama). Per ciascuna lettura *A*, annotare il tempo indicato dal contasecondi (che non deve necessariamente coincidere con i valori sopra indicati).
- Costruire in sito un diagramma *A–log t* preliminare. Tale diagramma presenta in genere una forma "ad S". La dissipazione può essere arrestata quando la curva *A–log t* si è appiattita sufficientemente da permettere di identificare con chiarezza il punto di flesso (il tempo corrispondente al punto di flesso t_{flex} viene usato per l'interpretazione) ovvero quando indicato dalla DL.
- Lettura del valore di B e ripresa della penetrazione

ALLEGATO 1
Grafici delle prove DMT

PROVA DILATOMETRICA (D M T)



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RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 1-14**

11 GEN 2015

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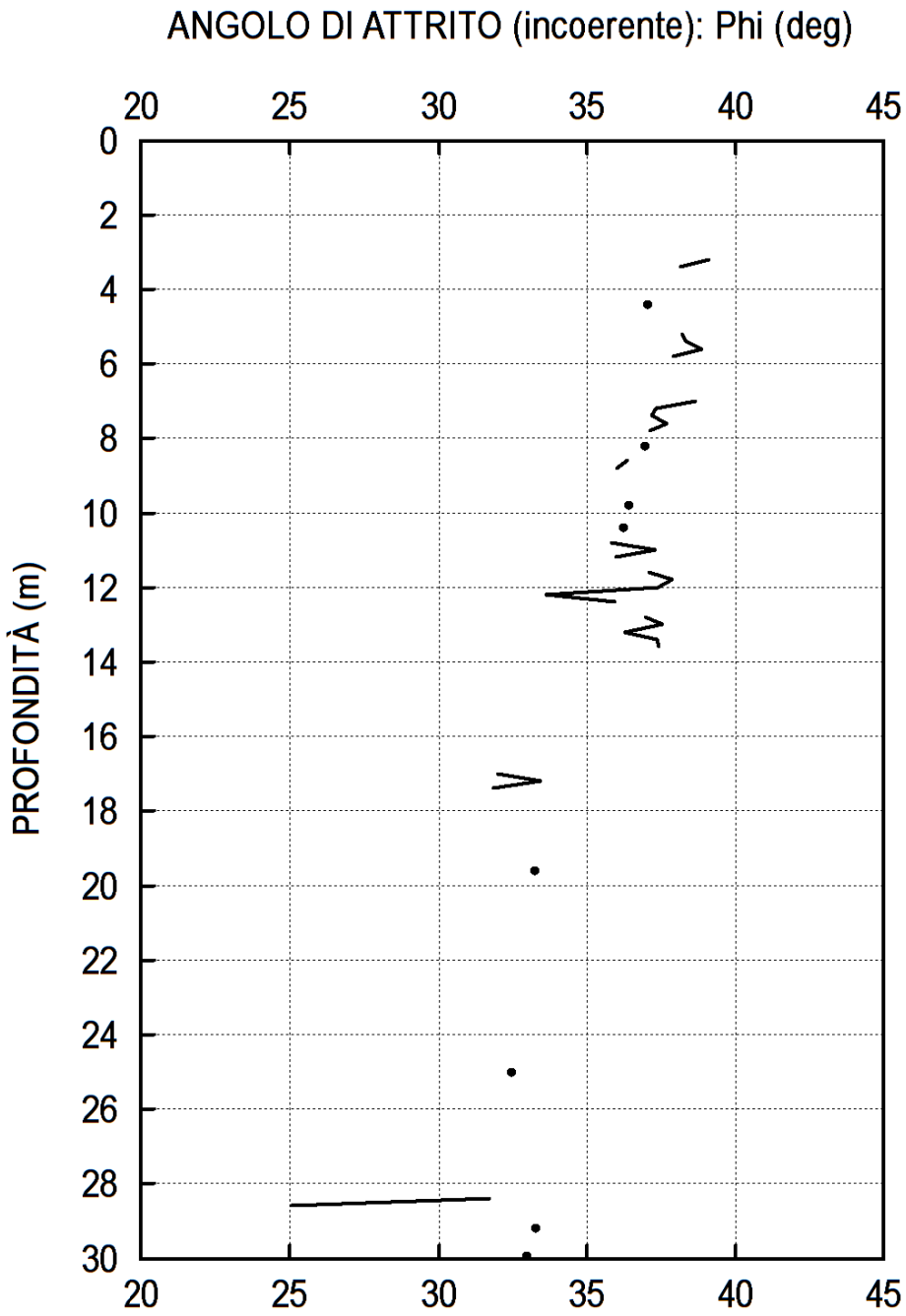
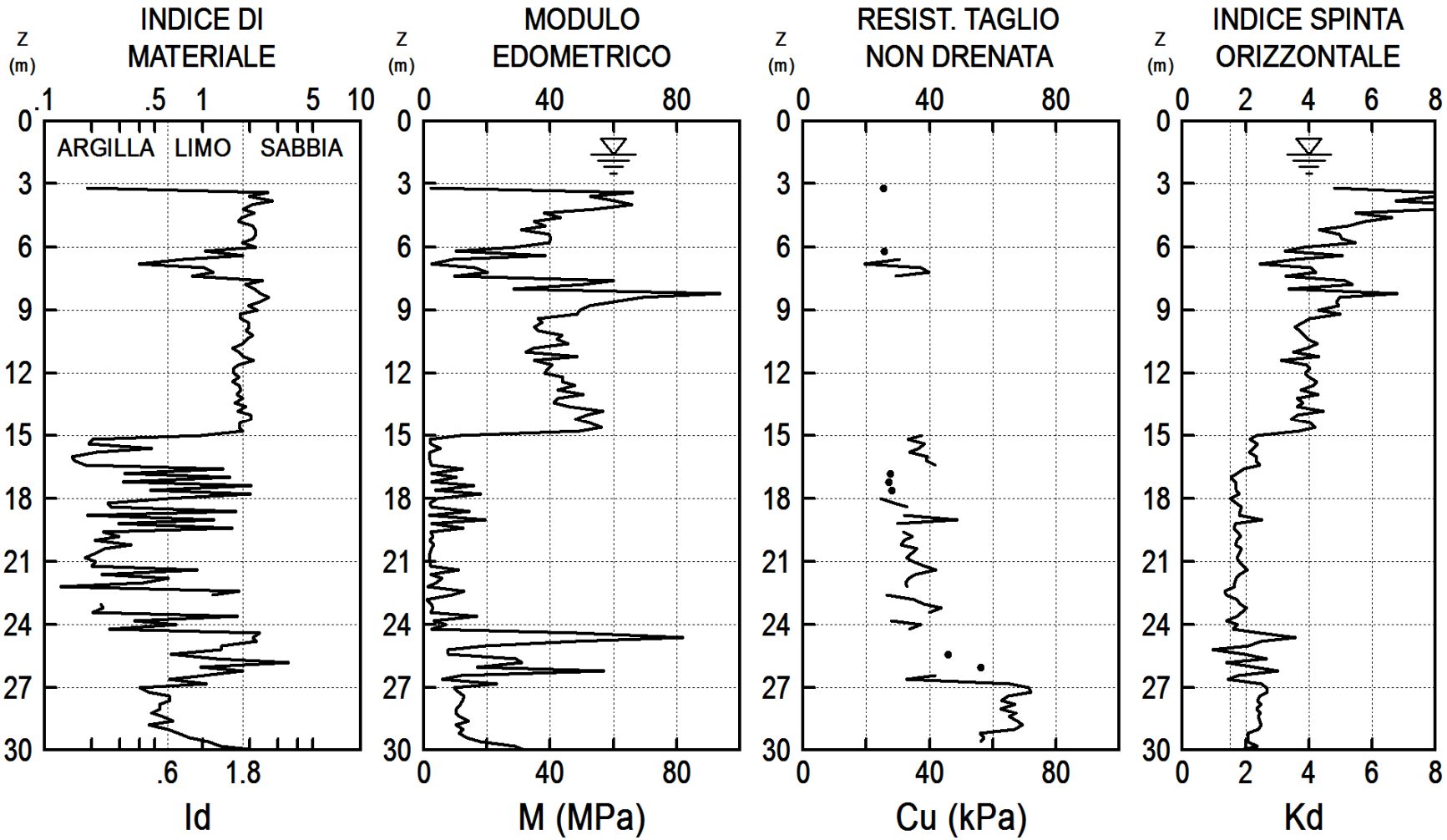
PORT HUB	RAVENNA	**DMT 1-14**
PARAMETRI GEOTECNICI INTERPRETATI		11 GEN 2015

PROVA DILATOMETRICA (D M T)



PROVA DILATOMETRICA (D M T)



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PROVA **DMT 2-14**

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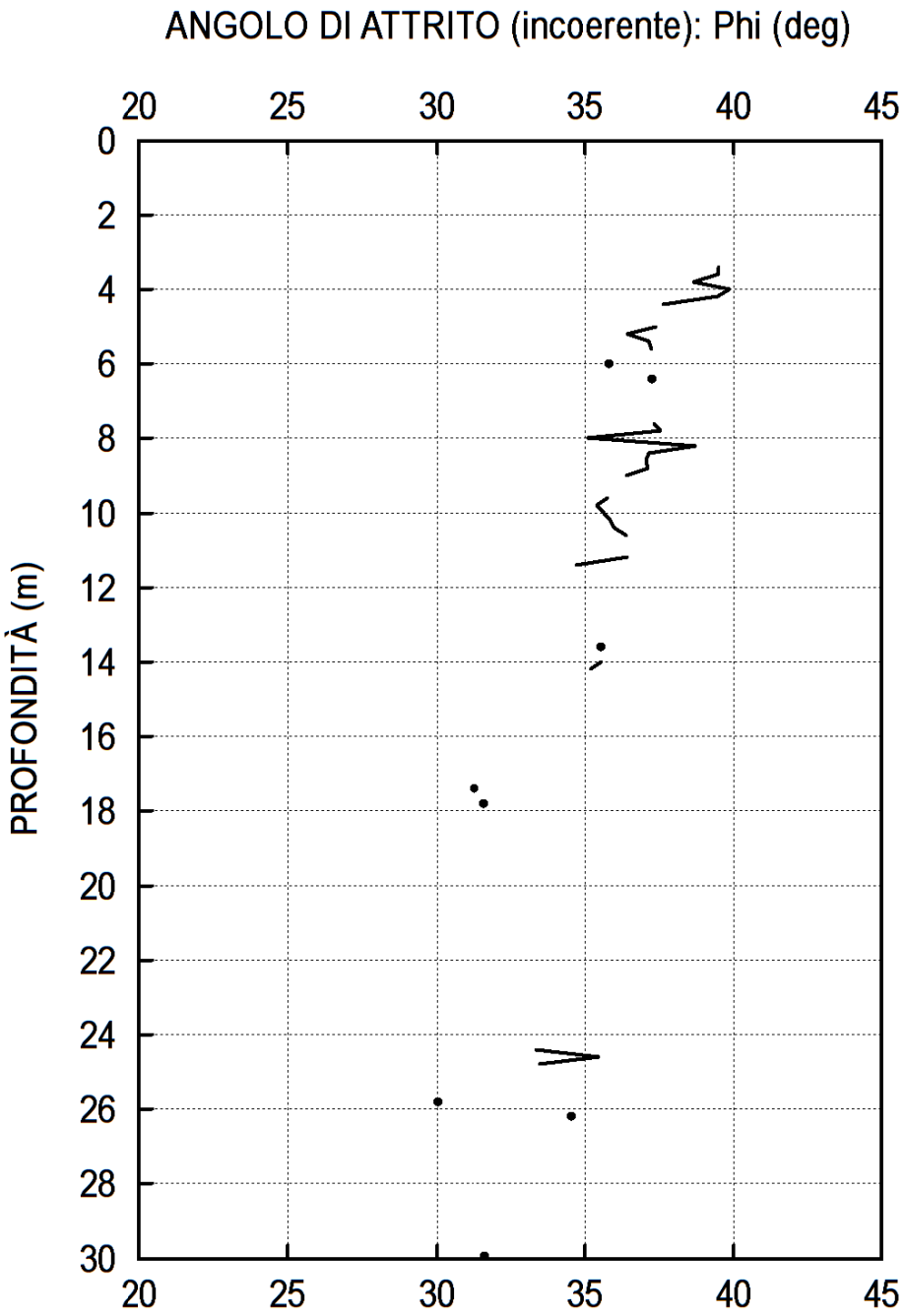
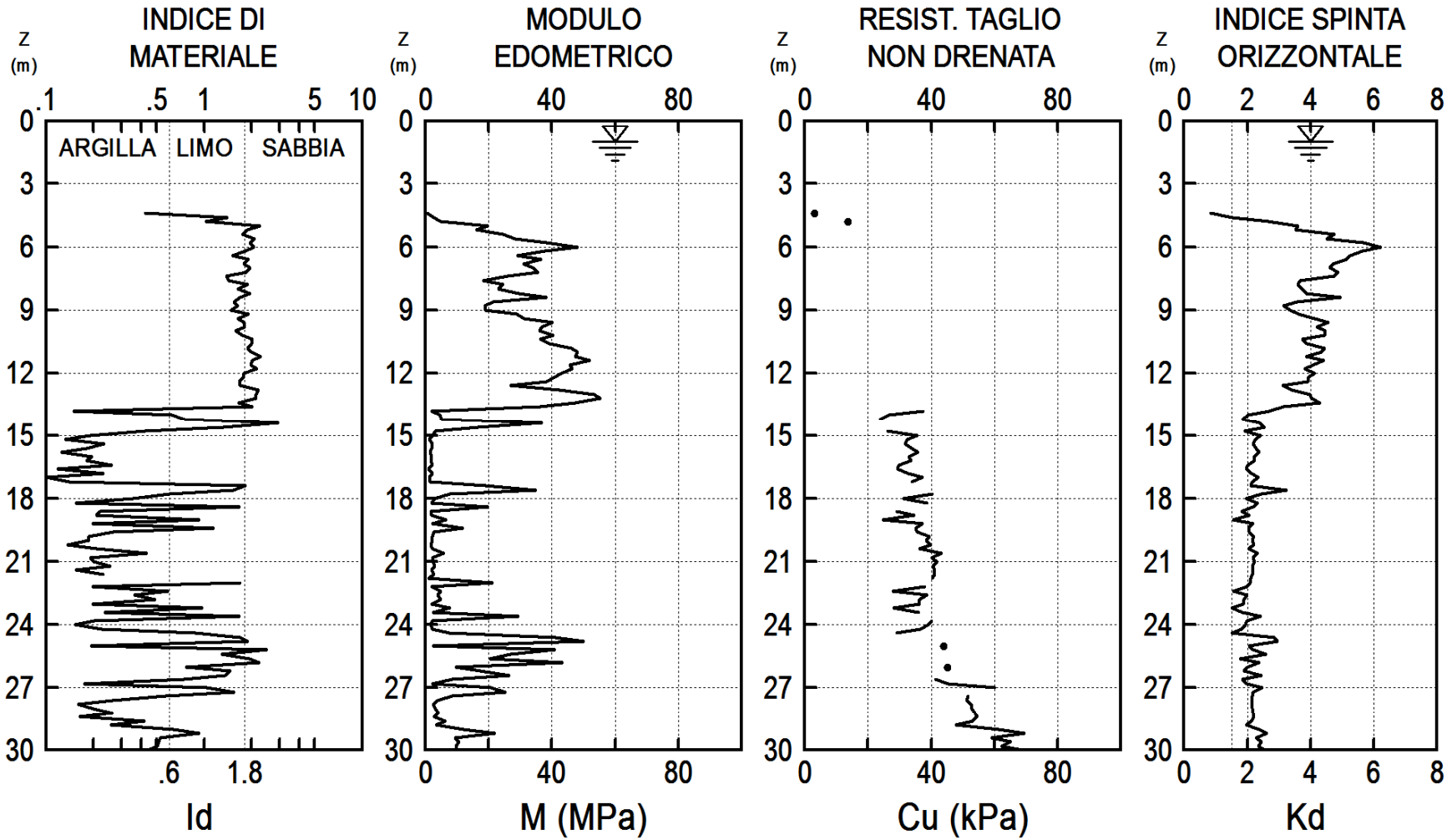
PORT HUB	STAB. YARA	**DMT 2-14**
PARAMETRI GEOTECNICI INTERPRETATI		15 GEN 2015

PROVA DILATOMETRICA (D M T)



PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB

AUT. PORT. RAVENNA

STAB. VERSALIS RAVENNA

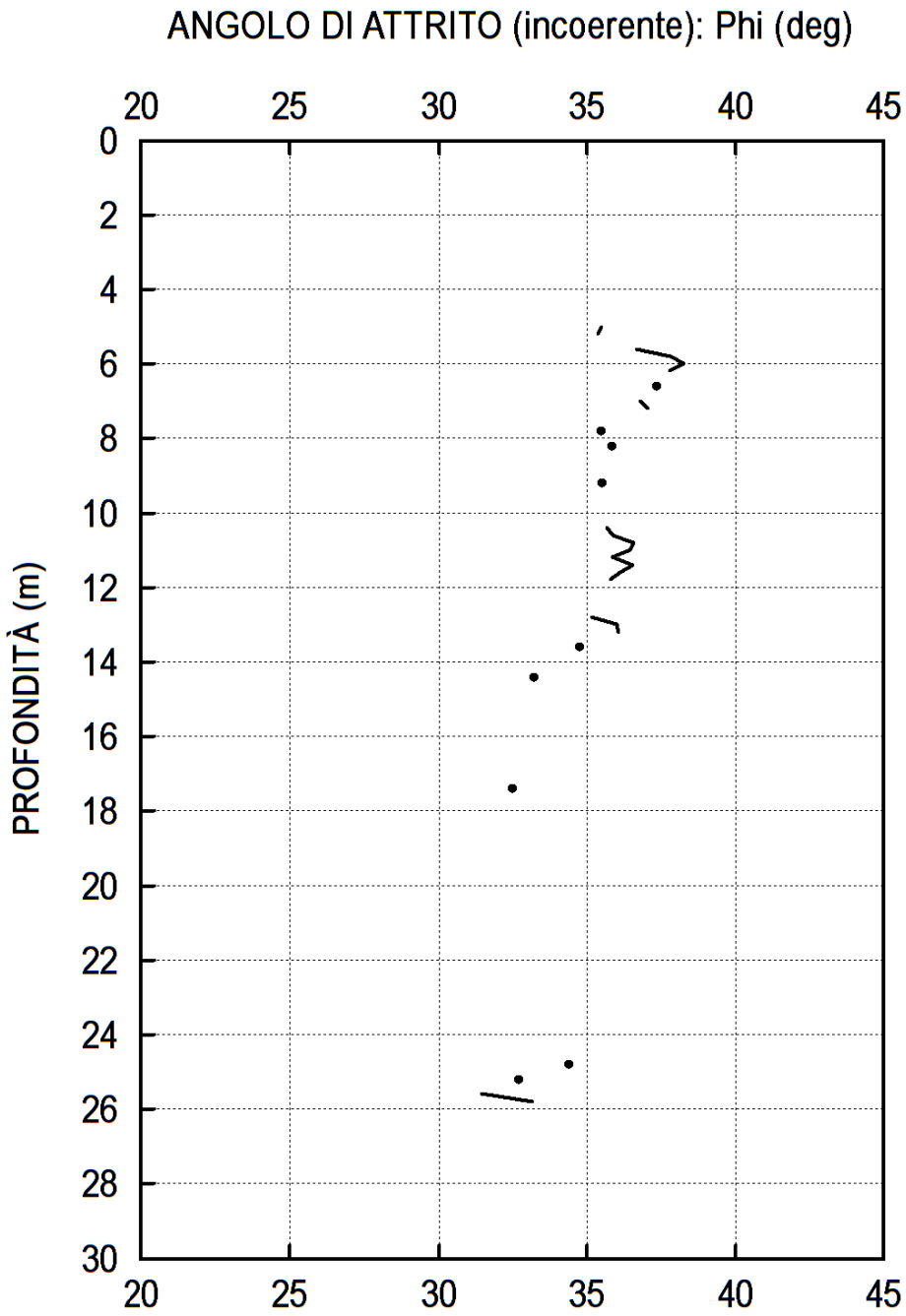
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 3-14**

12 GEN 2015

GEOSTUDI SRL	AUT. PORT. RAVENNA	PROVA
PORT HUB	STAB. VERSALIS RAVENNA	**DMT 3-14**
PARAMETRI GEOTECNICI INTERPRETATI		12 GEN 2015

PROVA DILATOMETRICA (D M T)



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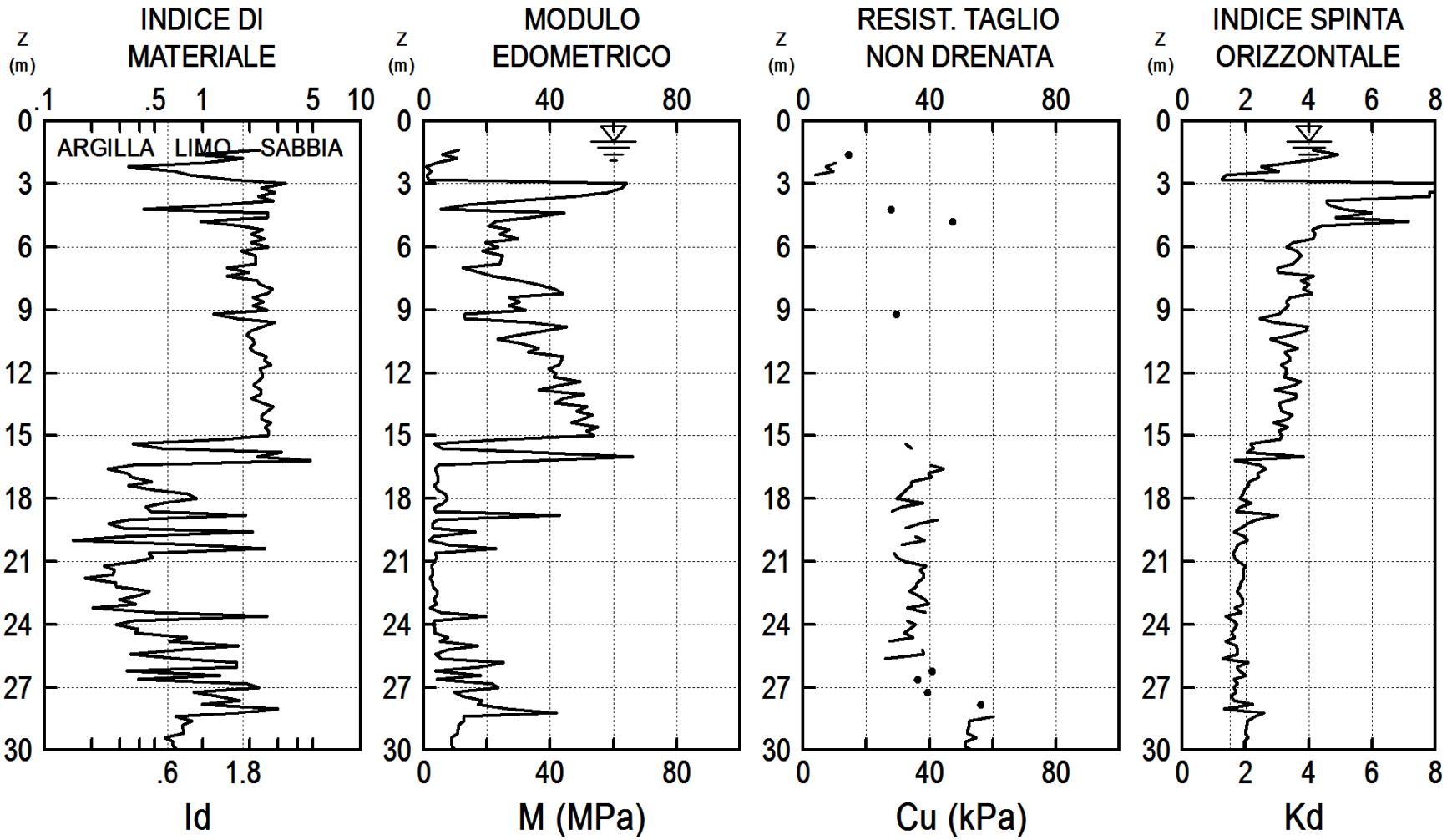


GEOSTUDI SRL

PORT HUB — AUT. PORTUALE RAVENNA

sTABILIMENTO VERSALIS

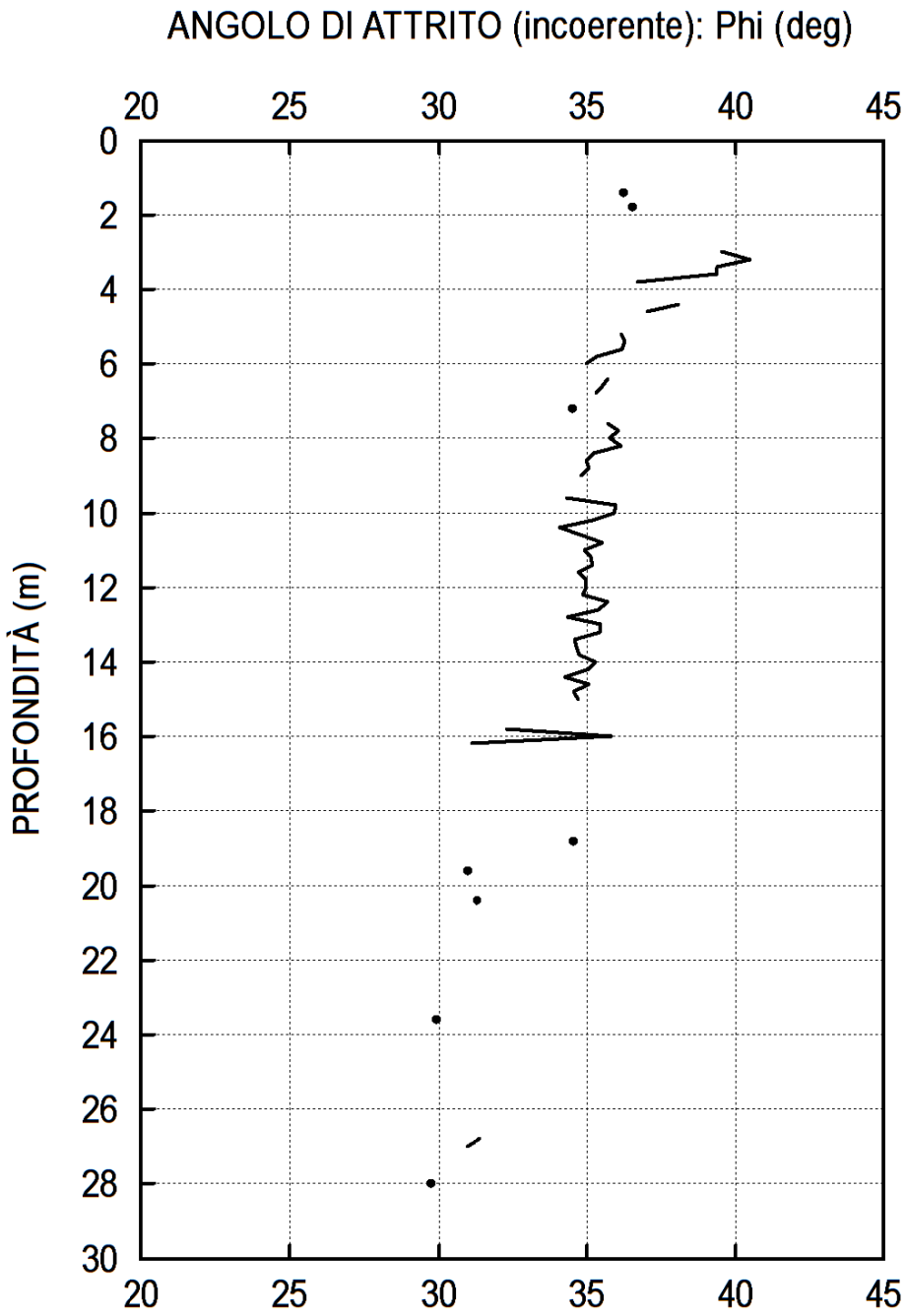
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 4-14**

8 GEN 2015

GEOSTUDI SRL	AUT. PORTUALE RAVENNA	PROVA
PORT HUB	sTABILIMENTO VERSALIS	**DMT 4-14**
PARAMETRI GEOTECNICI INTERPRETATI		8 GEN 2015

PROVA DILATOMETRICA (D M T)



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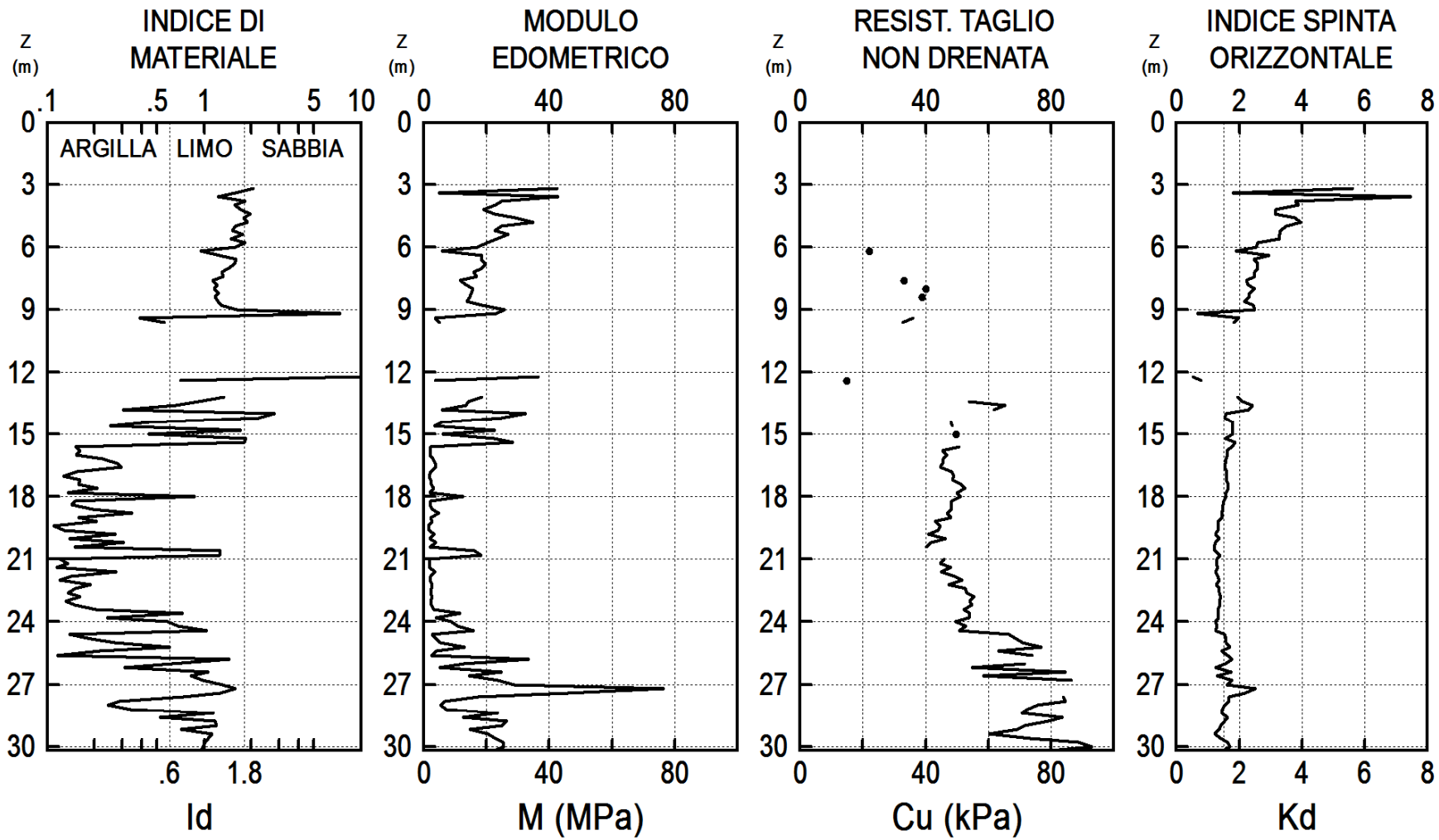


GEOSTUDI SRL

PORT HUB — AUT.PORT.RAVENNA

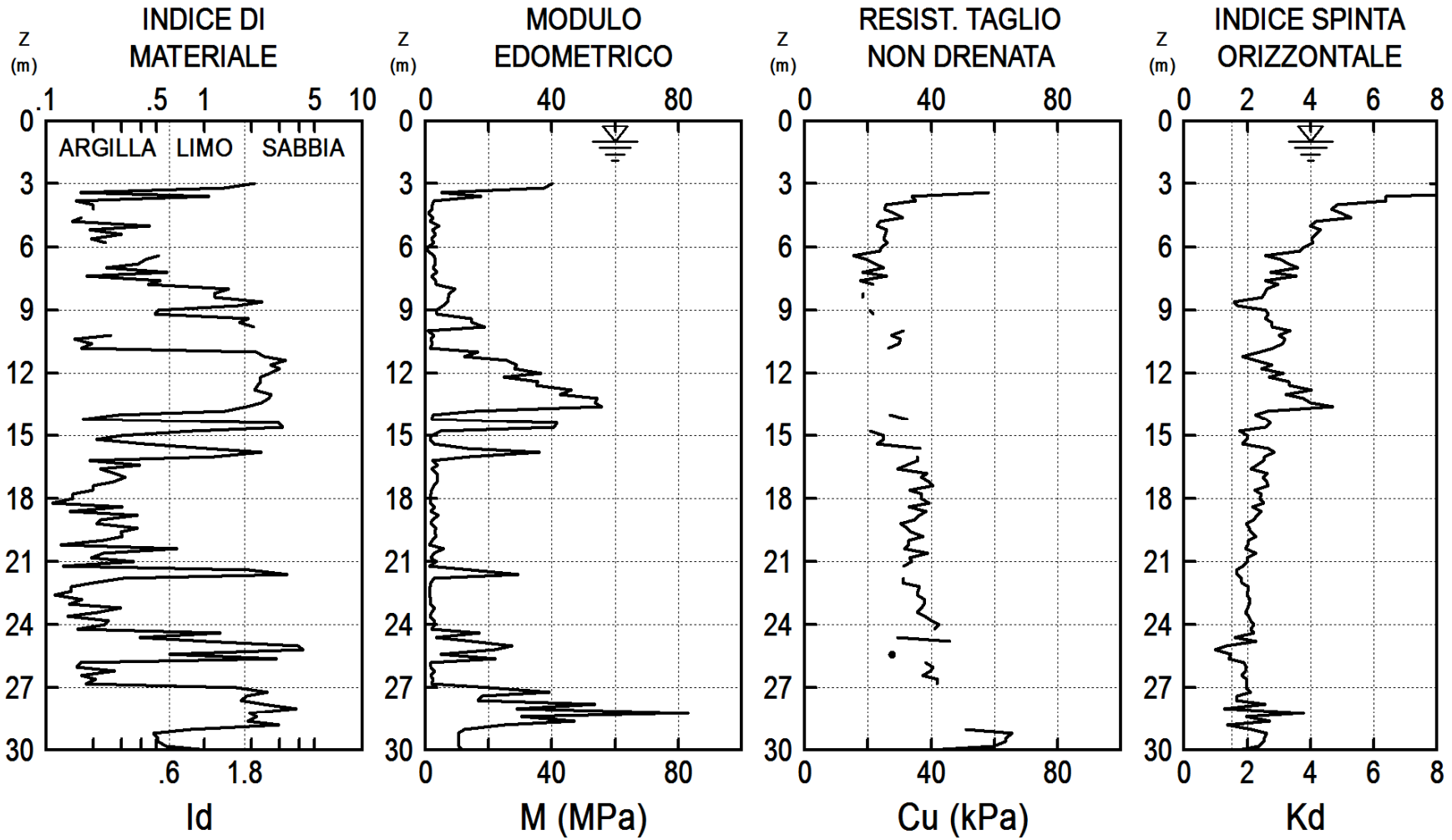
STAB. IFAsrl RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 5-14**

16 DIC 2014

PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — AUT. PORTUALE RAVENNA

RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 6-14**

3 DIC 2014

GEOSTUDI SRL	AUT. PORTUALE RAVENNA	PROVA
PORT HUB	RAVENNA	**DMT 6-14**
PARAMETRI GEOTECNICI INTERPRETATI		3 DIC 2014

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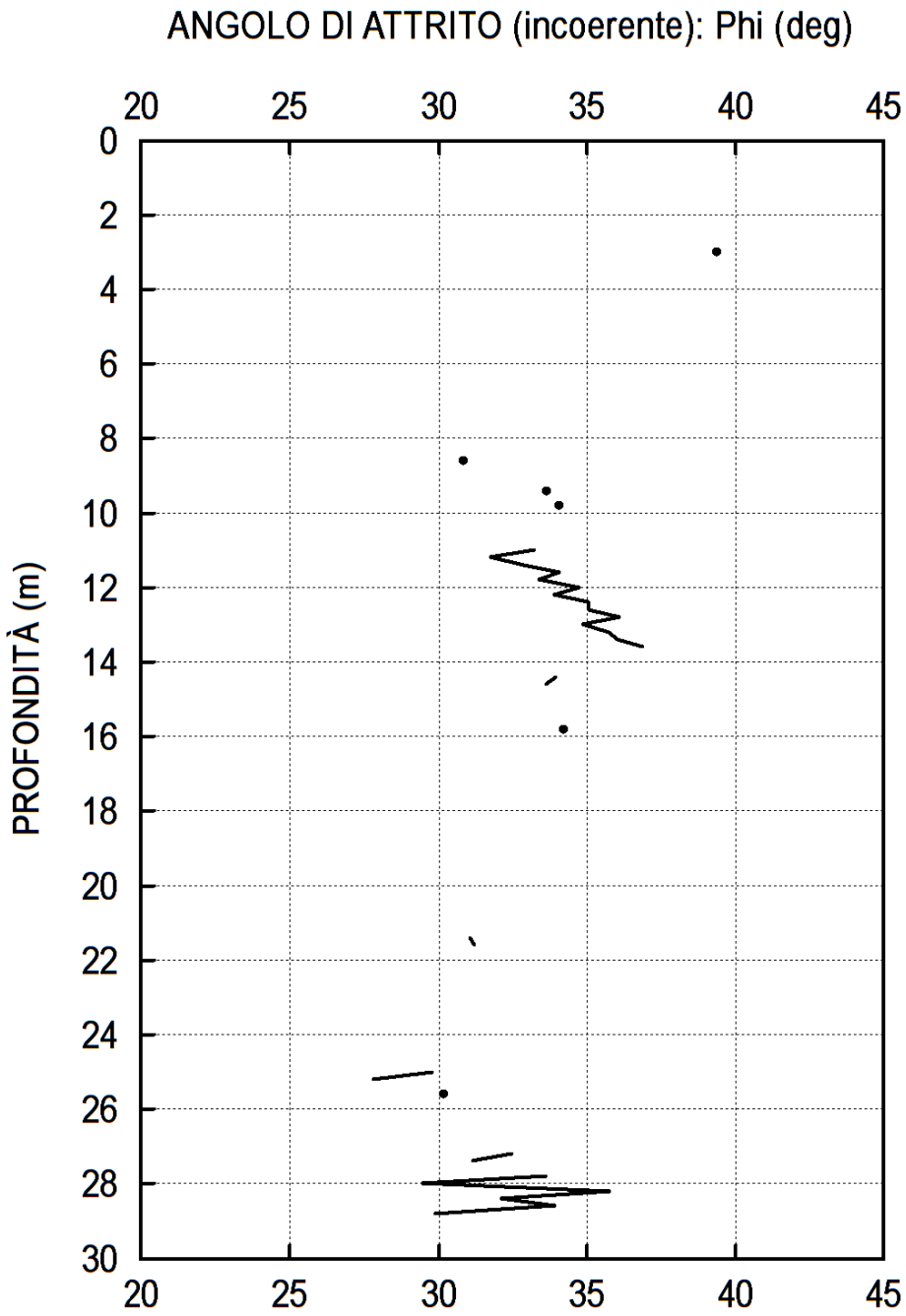

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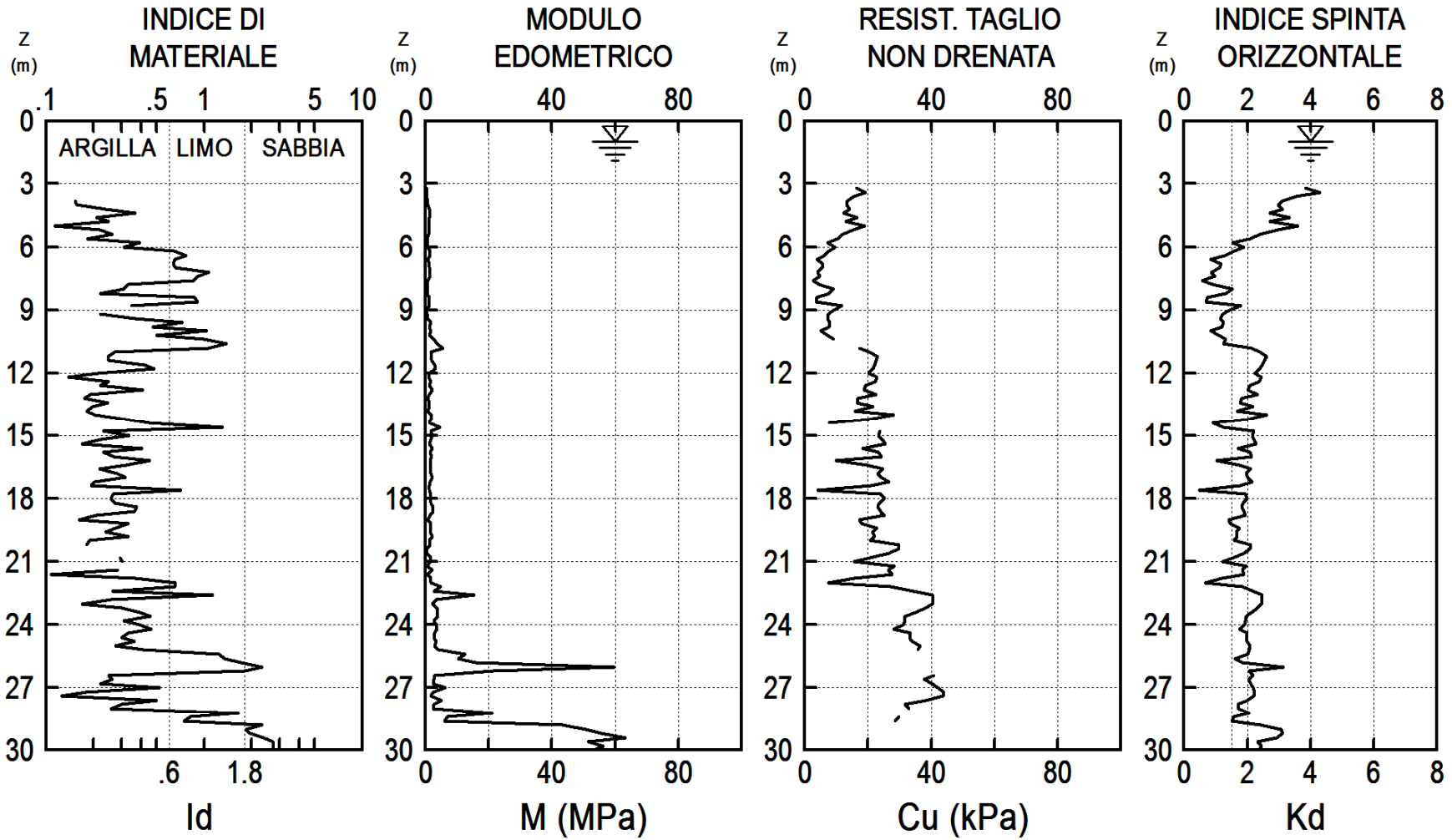


GEOSTUDI SRL

PORT HUB — AUT. PORTUALE RAVENNA

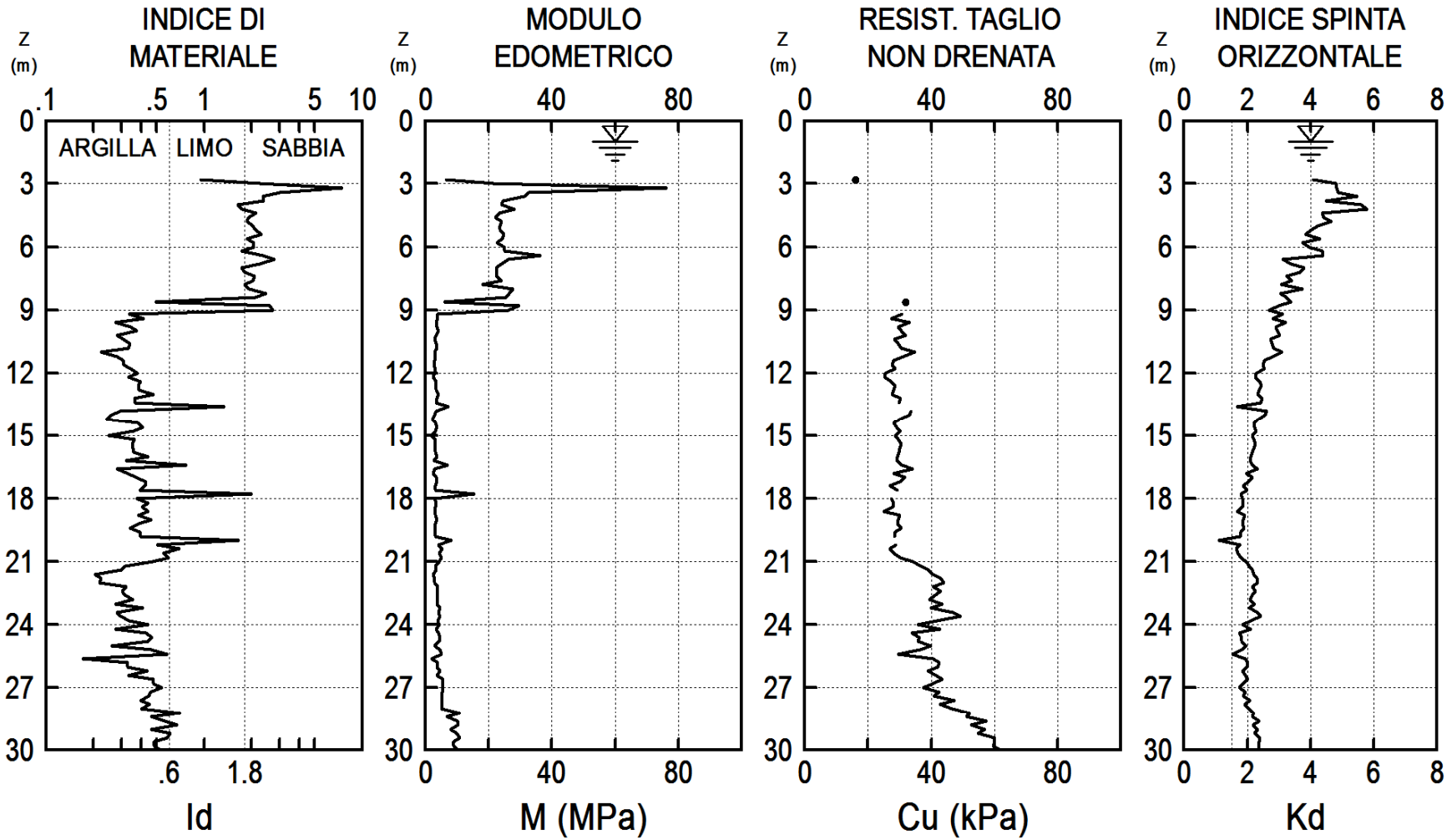
RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 7-14**

2 DIC 2014

PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — AUT. PORTUALE RAVENNA

STABILIMENTO P.I.R.

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 8-14**

8 GEN 2015

GEOSTUDI SRL	AUT. PORTUALE RAVENNA	PROVA
PORT HUB	STABILIMENTO P.I.R.	**DMT 8-14**
PARAMETRI GEOTECNICI INTERPRETATI		8 GEN 2015

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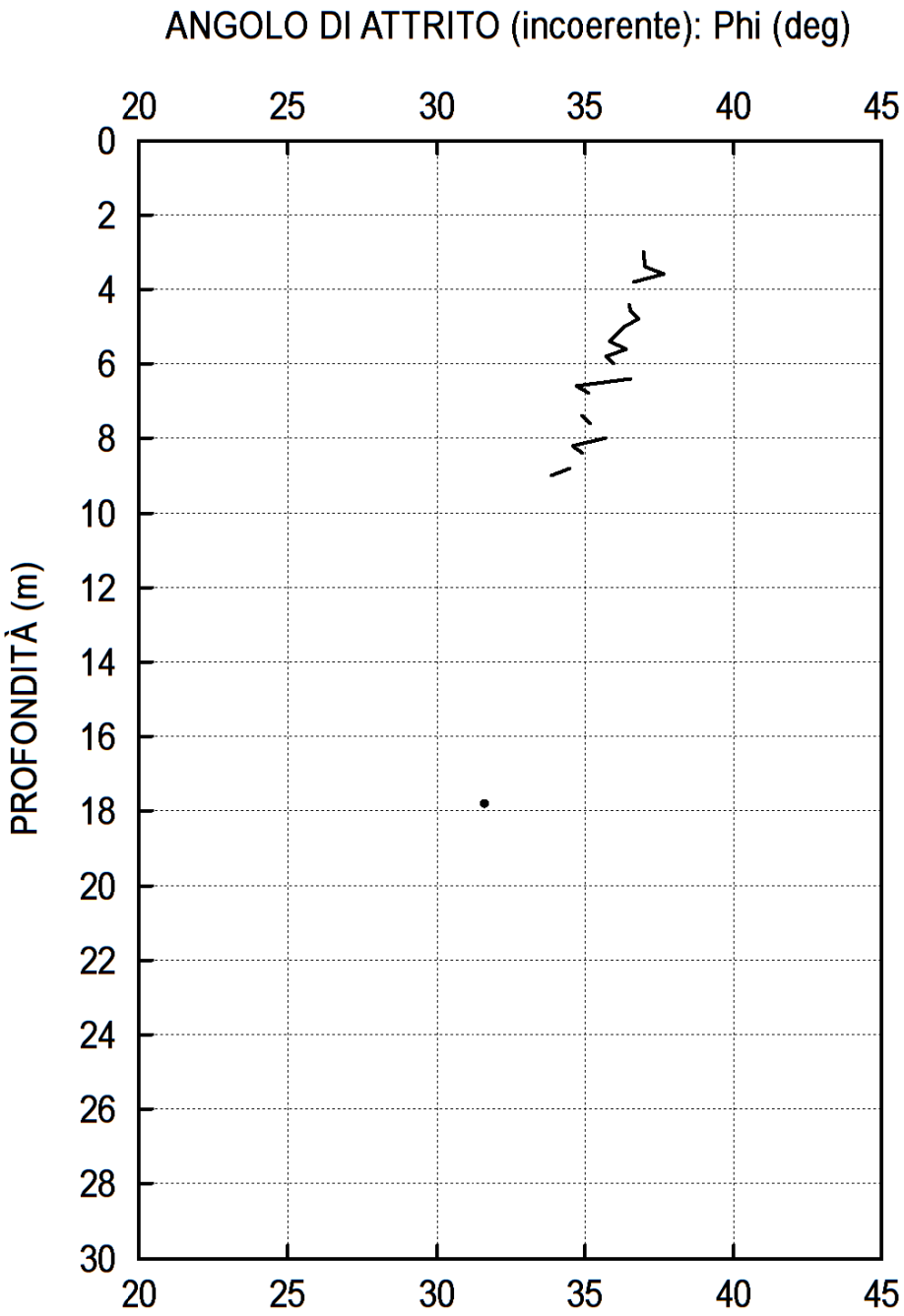

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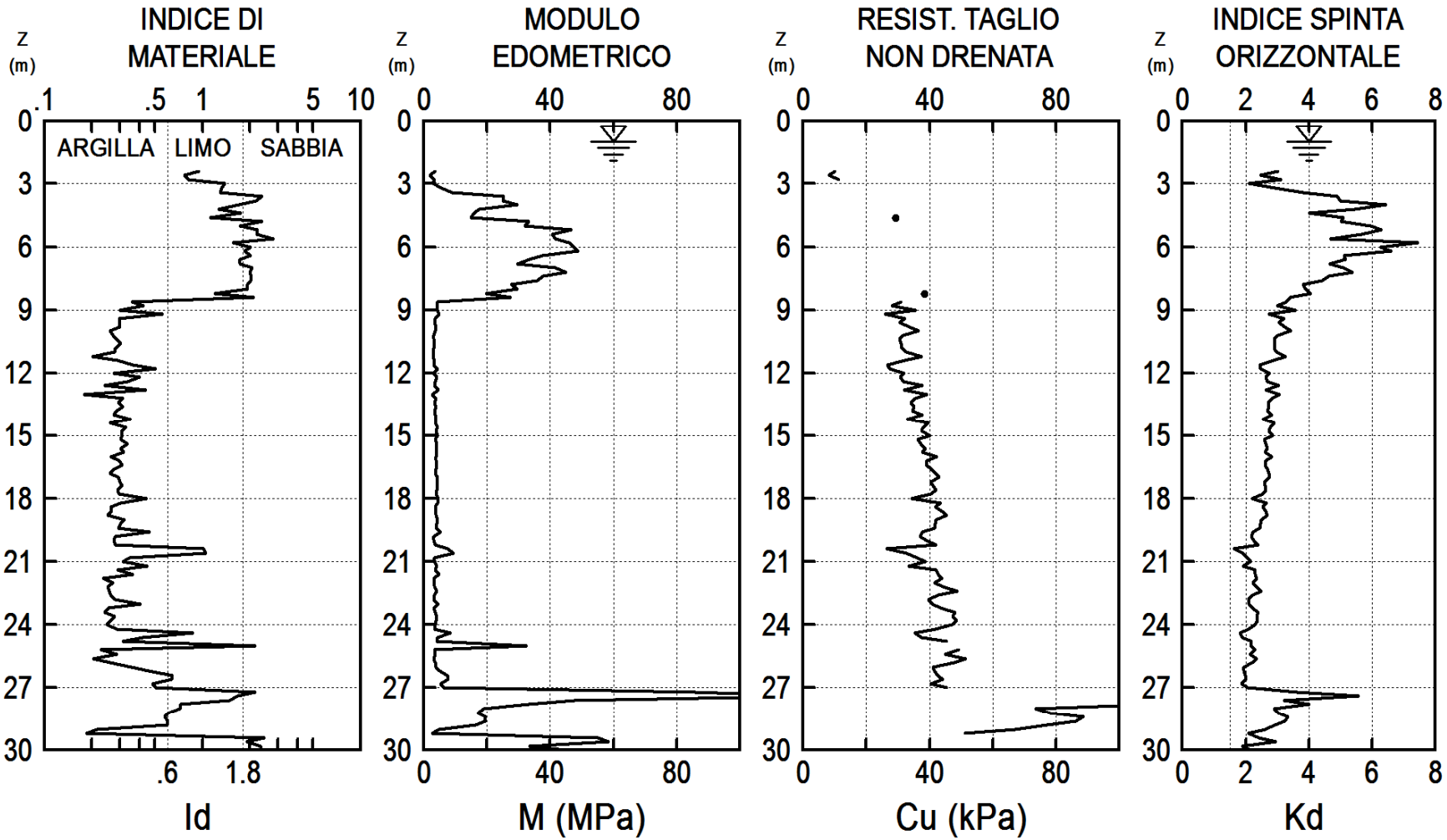


GEOSTUDI SRL

PORT HUB — AUT.PORT. RAVENNA

RAVENNA

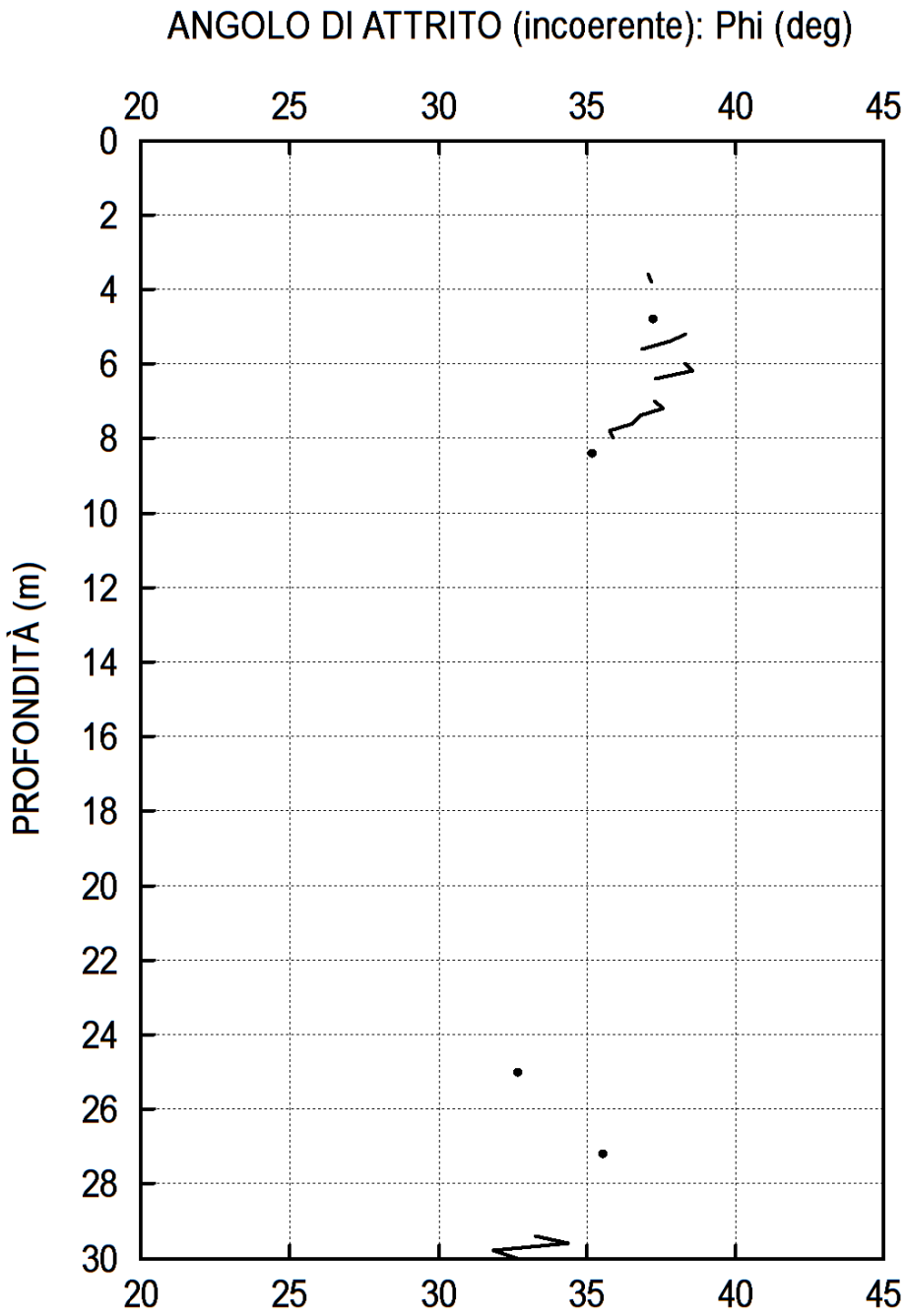
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 9-14**

12 DIC 2014

GEOSTUDI SRL	AUT.PORT. RAVENNA	PROVA
PORT HUB	RAVENNA	**DMT 9-14**
PARAMETRI GEOTECNICI INTERPRETATI		12 DIC 2014

PROVA DILATOMETRICA (D M T)



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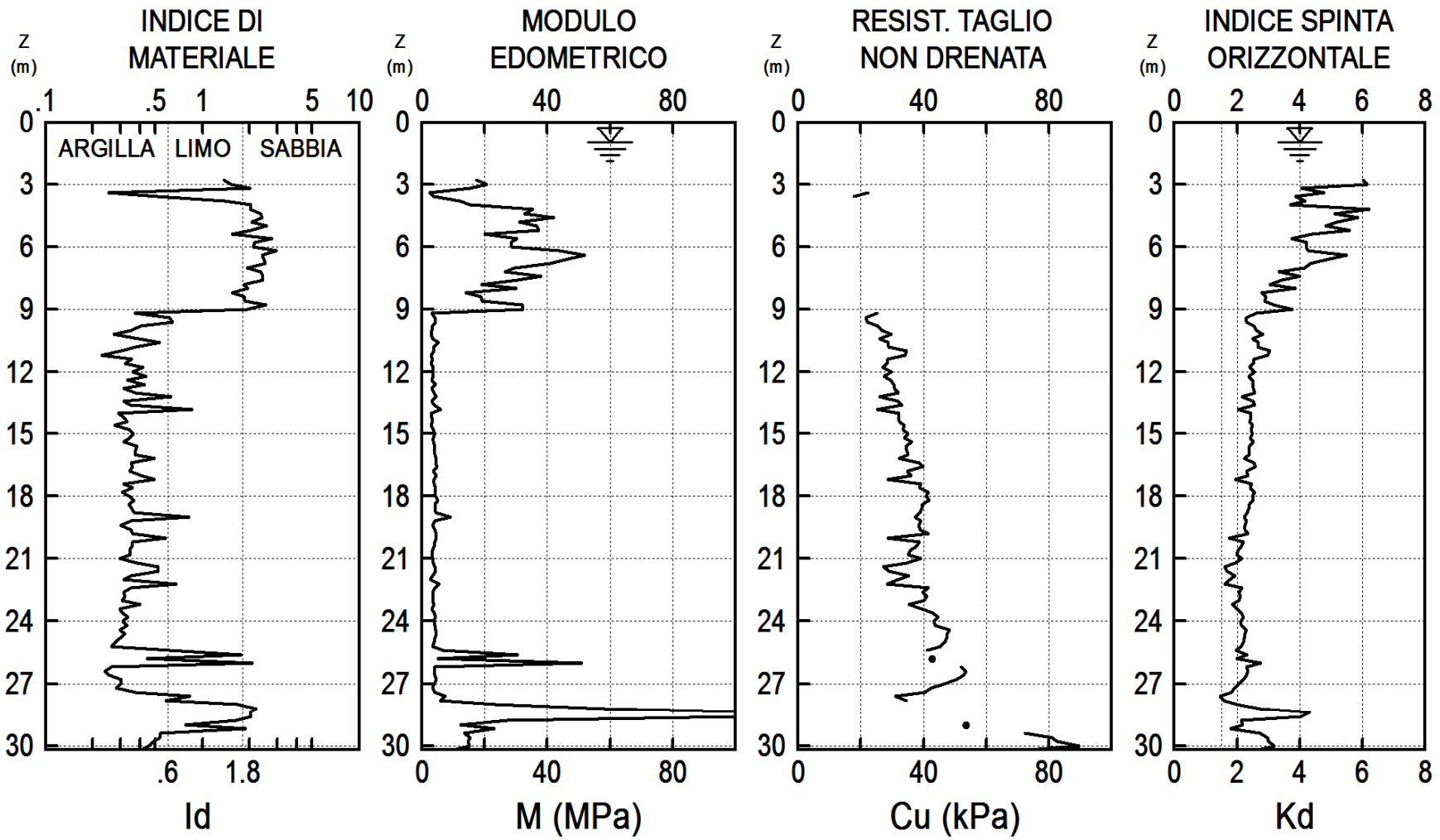


GEOSTUDI SRL

PORT HUB — AUT. PORT. RAVENNA

RAVENNA STAB. P.I.R.

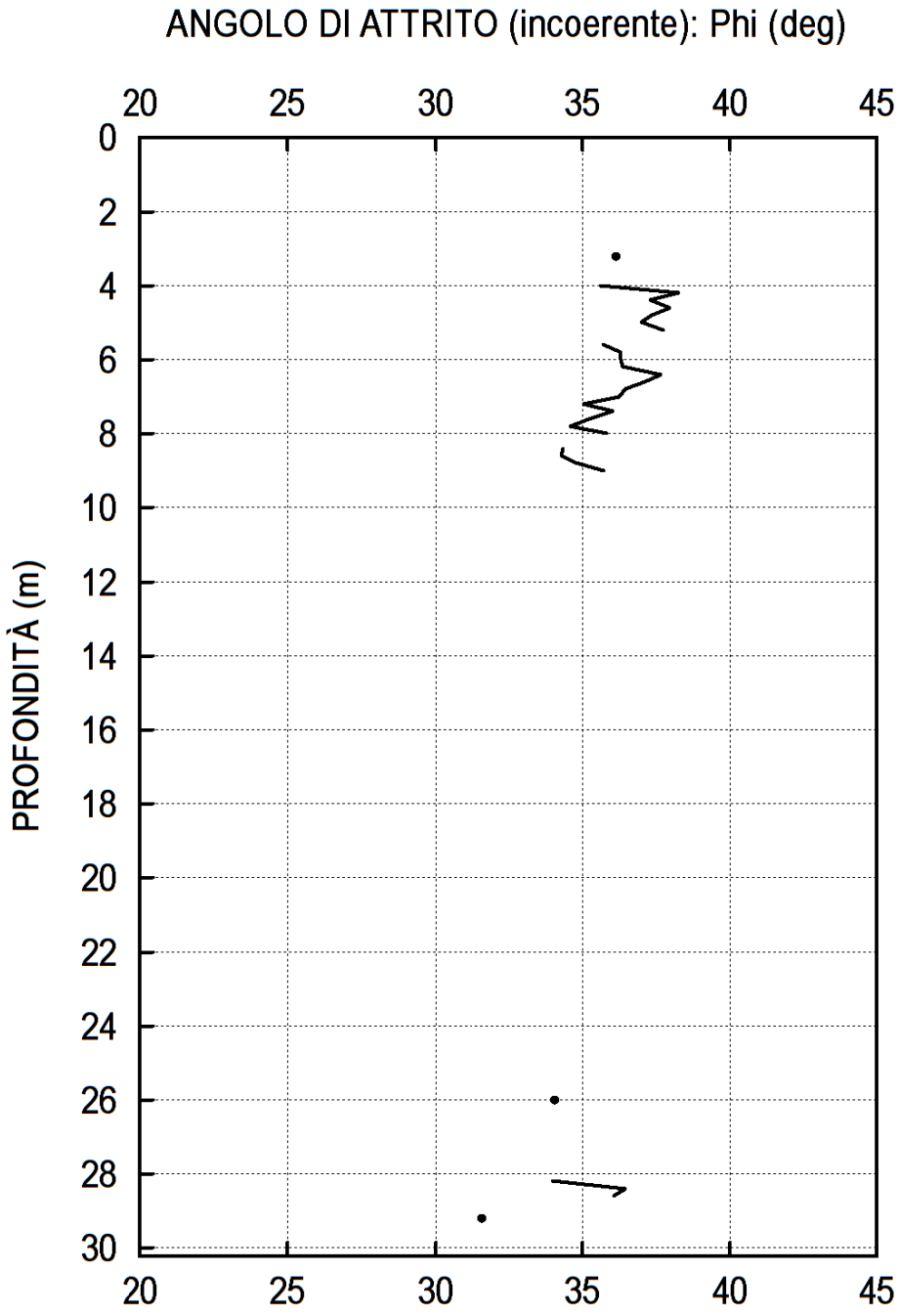
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 10-14**

12 DIC 2014

GEOSTUDI SRL	AUT. PORT. RAVENNA	PROVA
PORT HUB	RAVENNA STAB. P.I.R.	DMT 10-14
PARAMETRI GEOTECNICI INTERPRETATI		12 DIC 2014

PROVA DILATOMETRICA (D M T)



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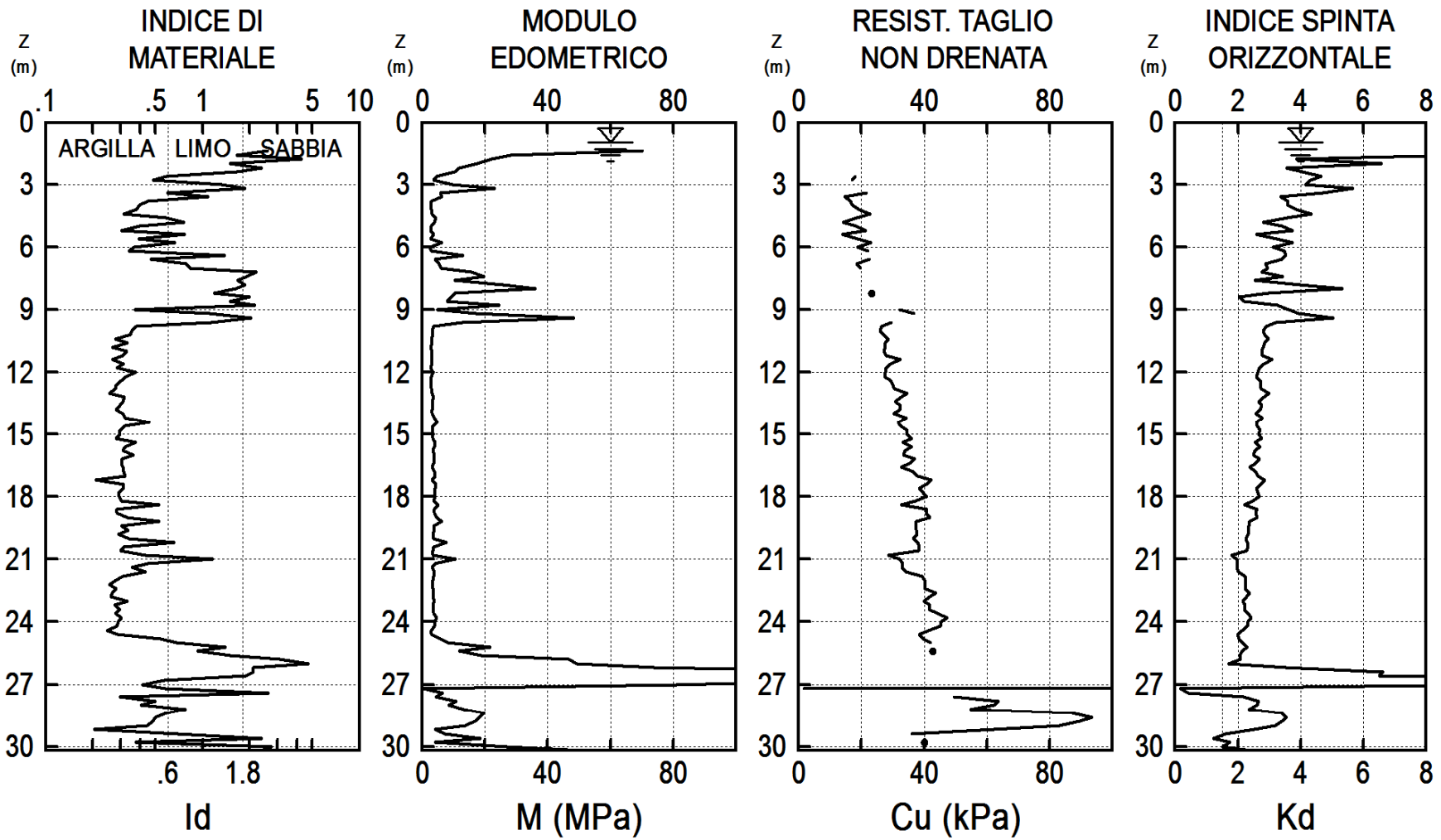


GEOSTUDI SRL

PORT HUB — AUT.PORT.RAVENNA

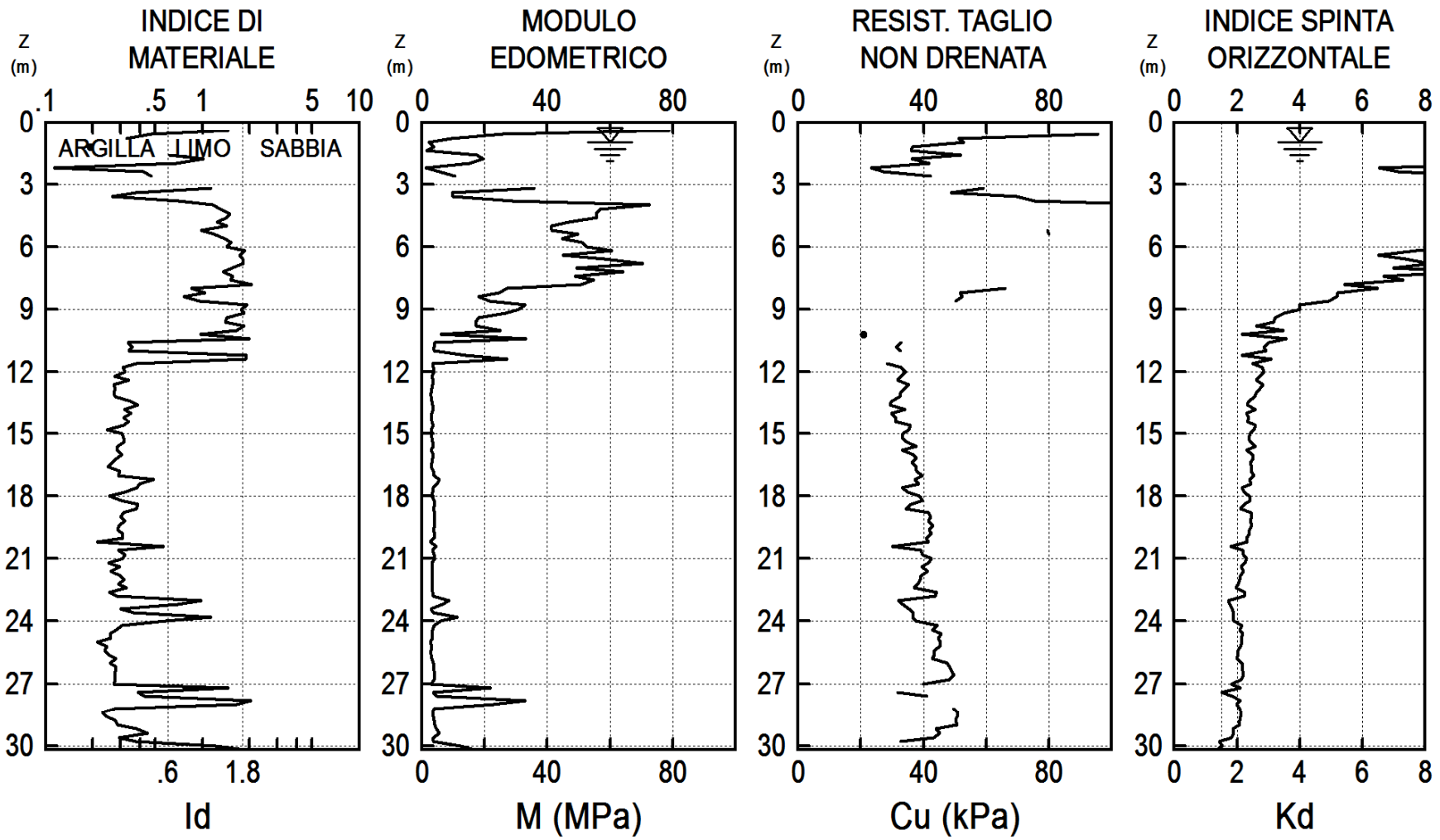
RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 11-14**

12 DIC 2014

PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — AUT. PORTUALE RAVENNA

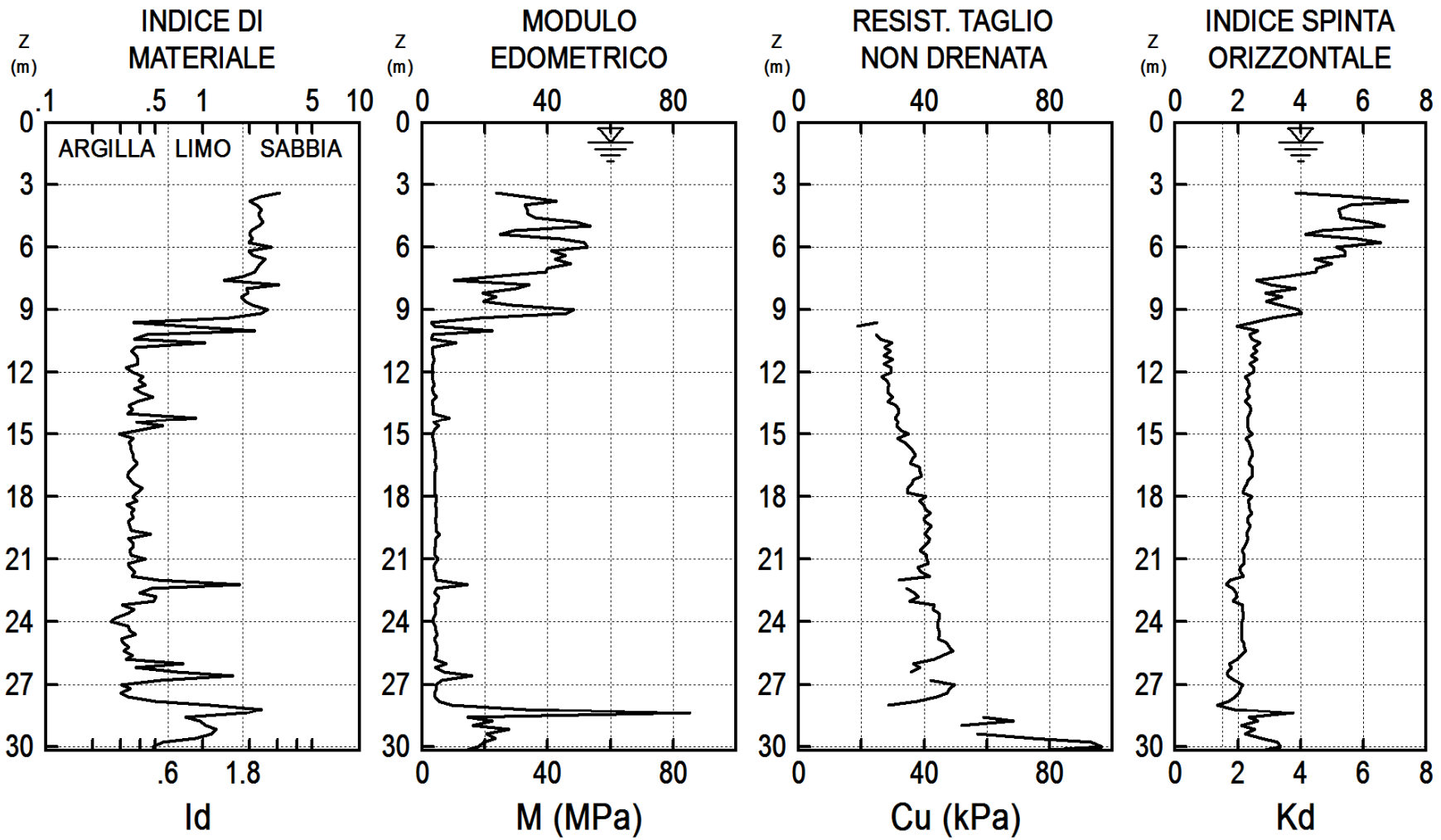
RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 12-14**

5 DIC 2014

PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — AUT.PORT.RAVENNA

RAVENNA PORTO CORSINI

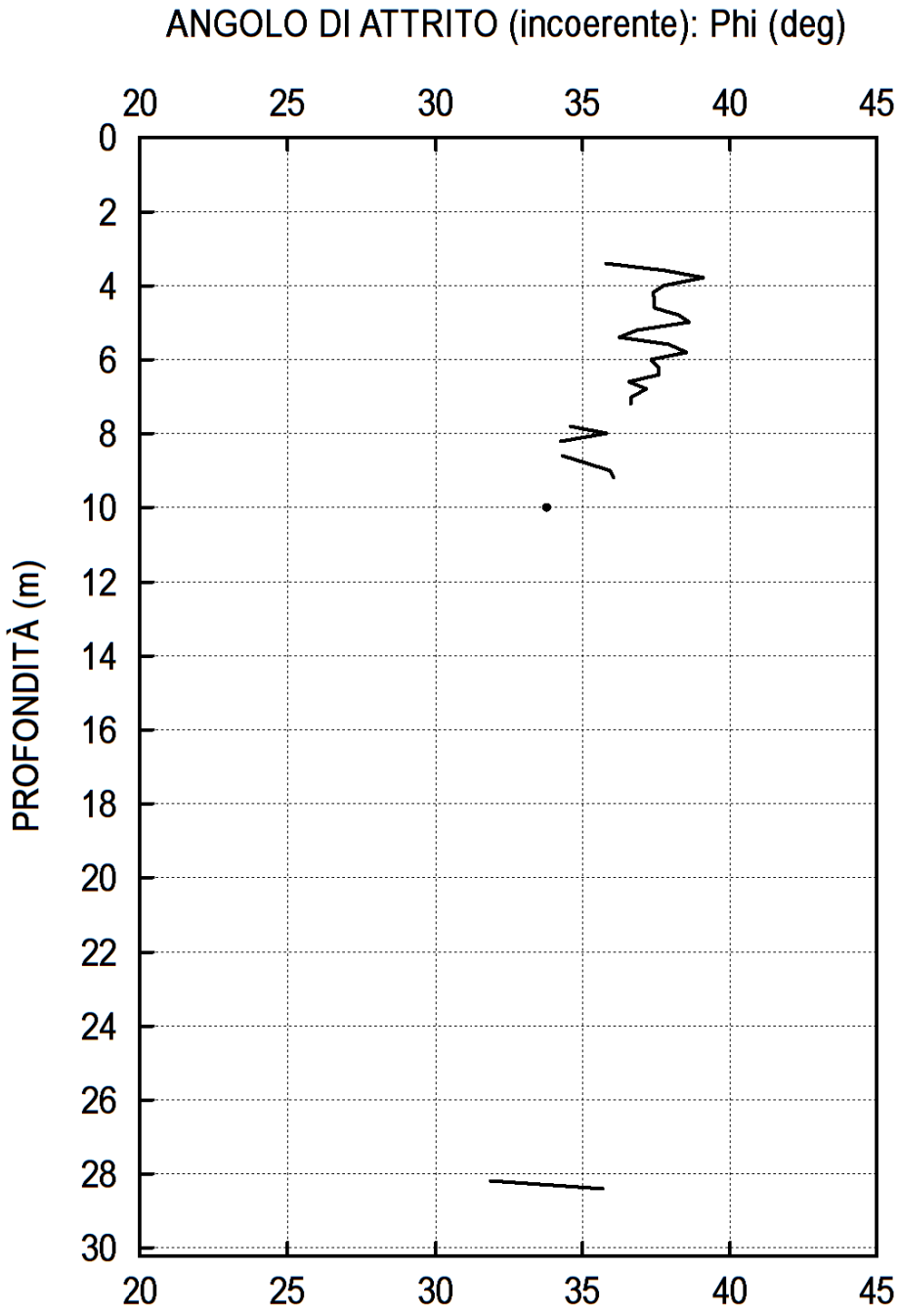
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 13-14**

15 DIC 2014

GEOSTUDI SRL	AUT.PORT.RAVENNA	PROVA
PORT HUB	RAVENNA PORTO CORSINI	DMT 13-14
PARAMETRI GEOTECNICI INTERPRETATI		15 DIC 2014

PROVA DILATOMETRICA (D M T)



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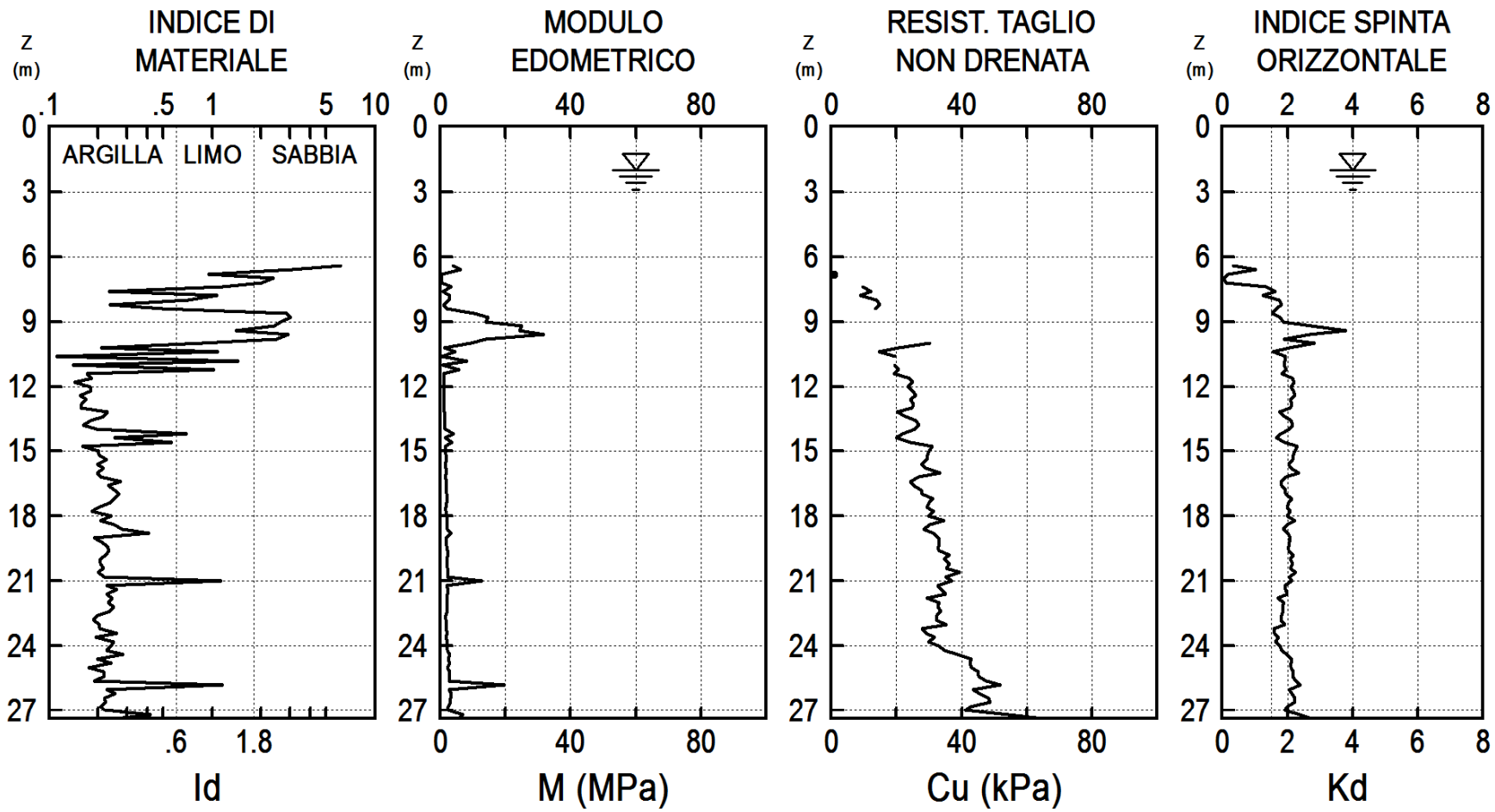


GEOSTUDI SRL

PORT HUB — AUT.PORT.RAVENNA

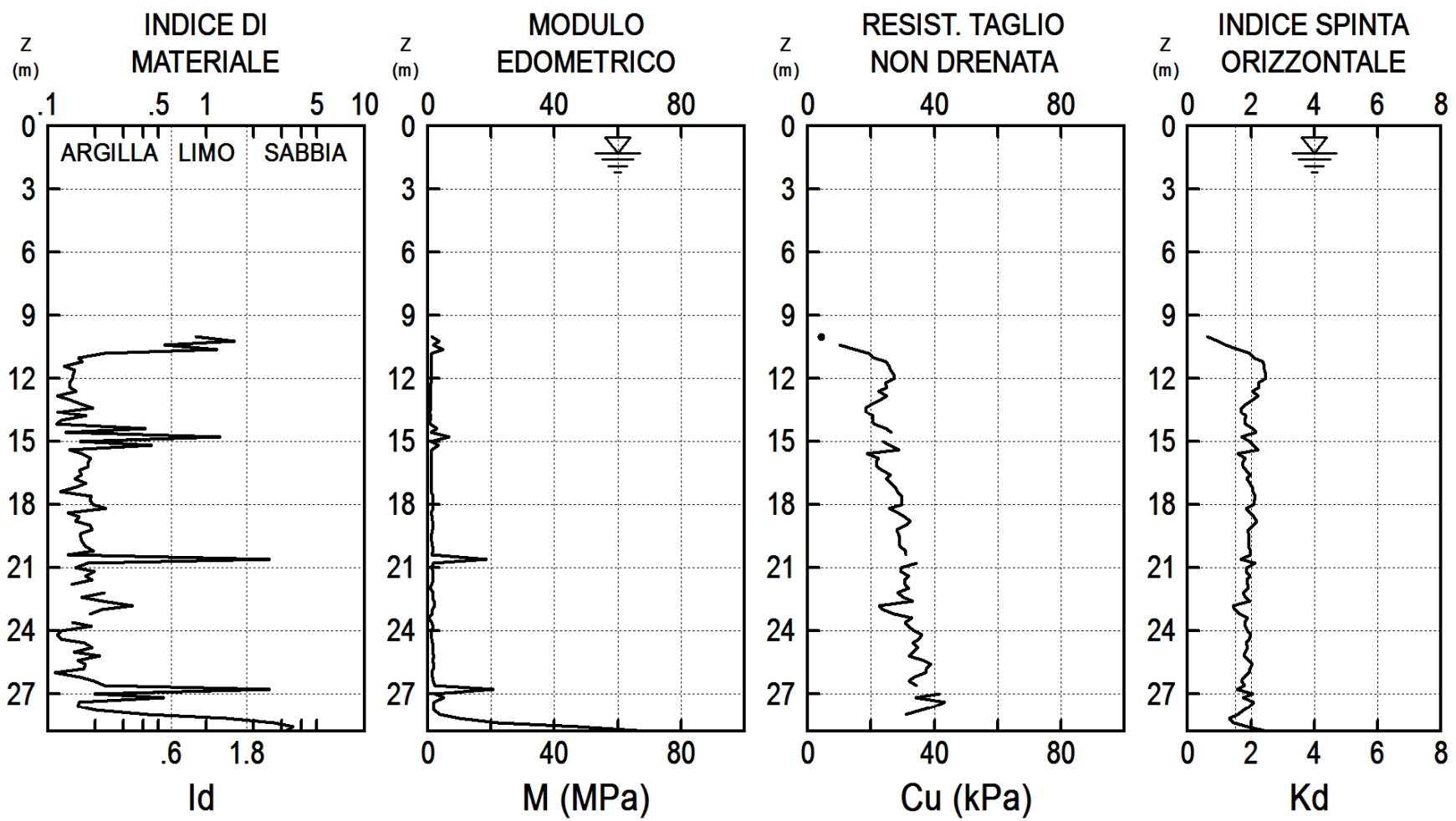
PORTO CORSINI RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 14-14**

16 DIC 2014

PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — AUT.PORT.RAVENNA

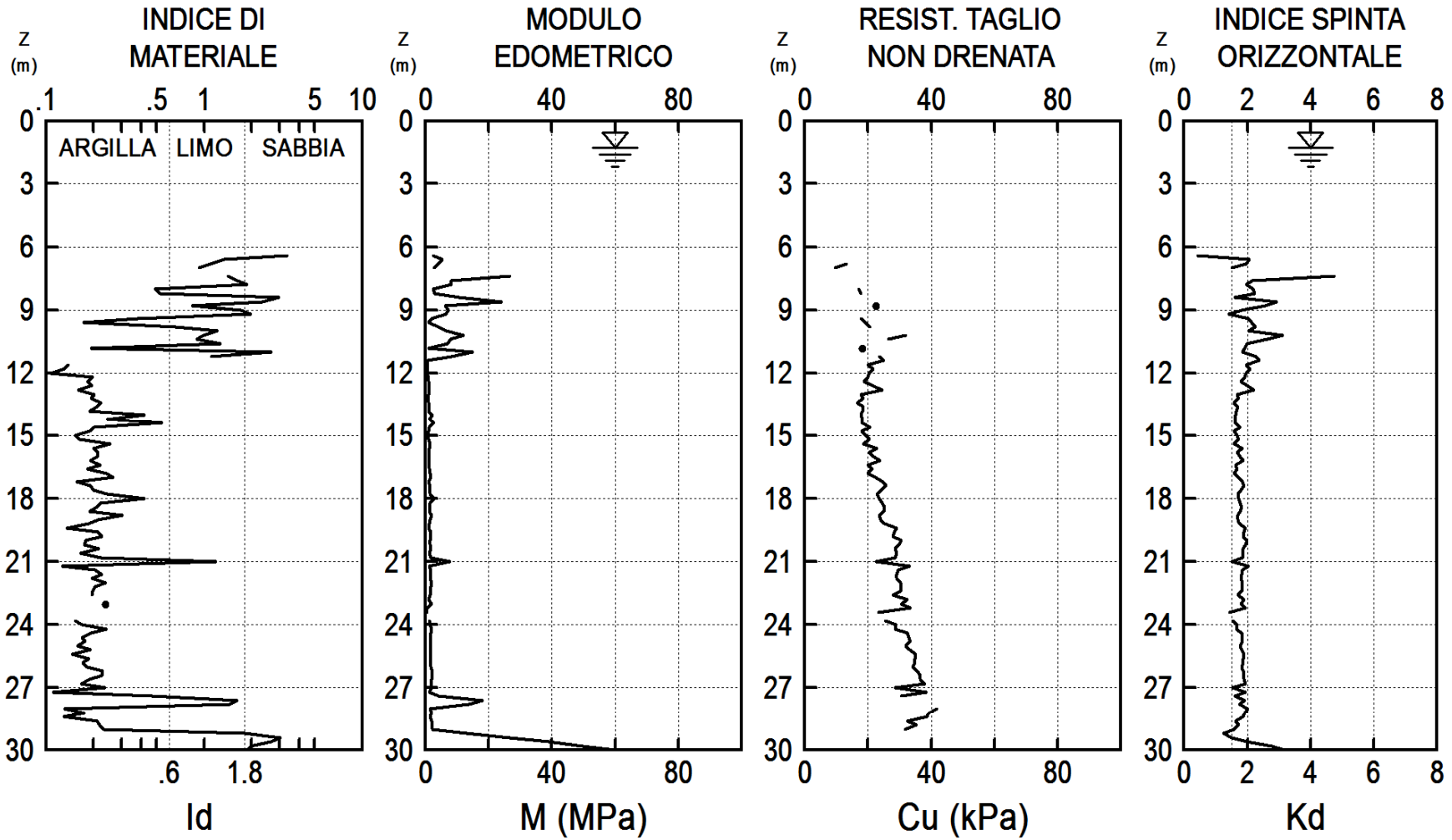
MOLO SUD

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 15-14**

19 DIC 2014

PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

AUT.PORT.RAVENNA

PORT HUB

MOLO SUD RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 16-14**

19 DIC 2014

PROVA DILATOMETRICA (D M T)

GEOSTUDI SRL

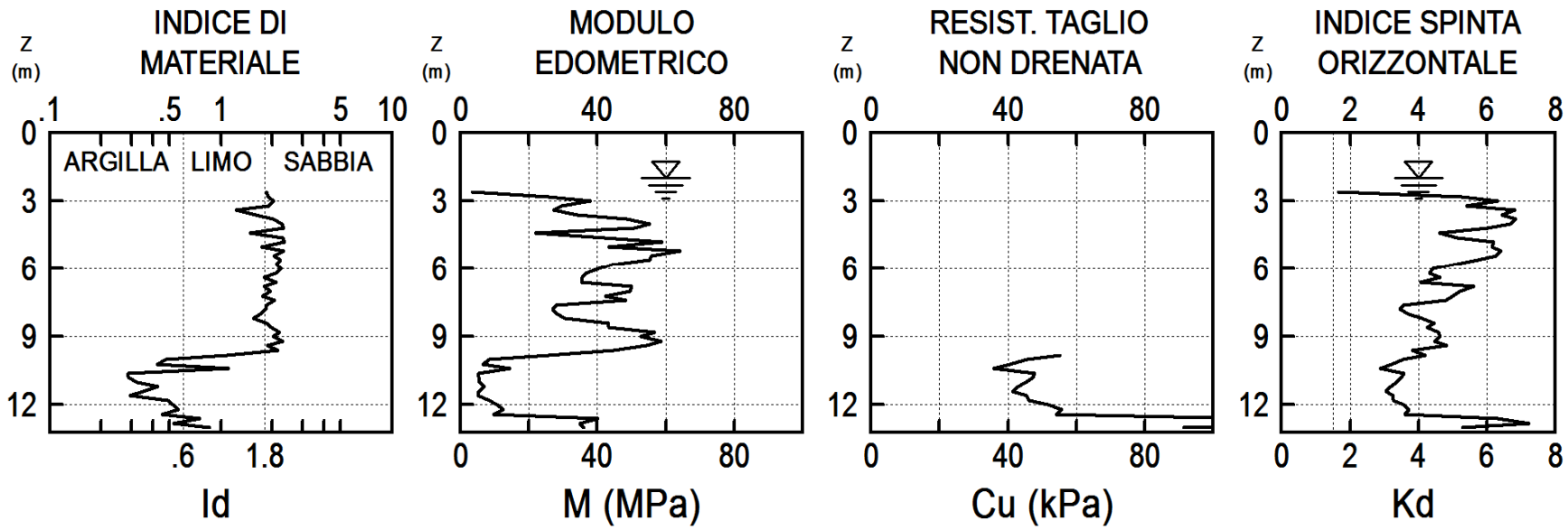
OPERA AUT.PORT.RAVENNA

MARINA DI RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

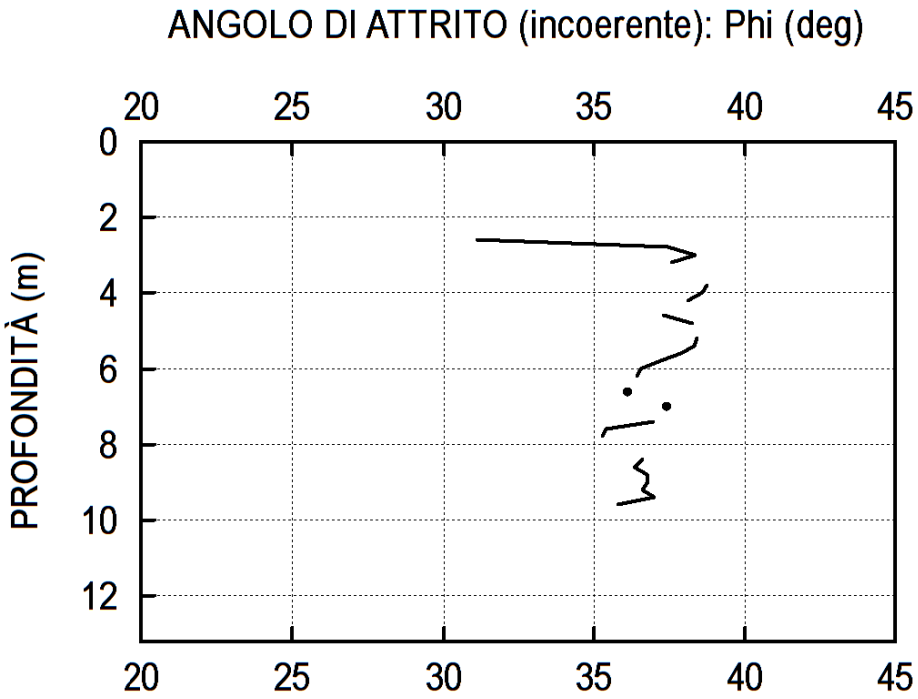
PROVA **DMT 17**

17 GENNAIO 2015

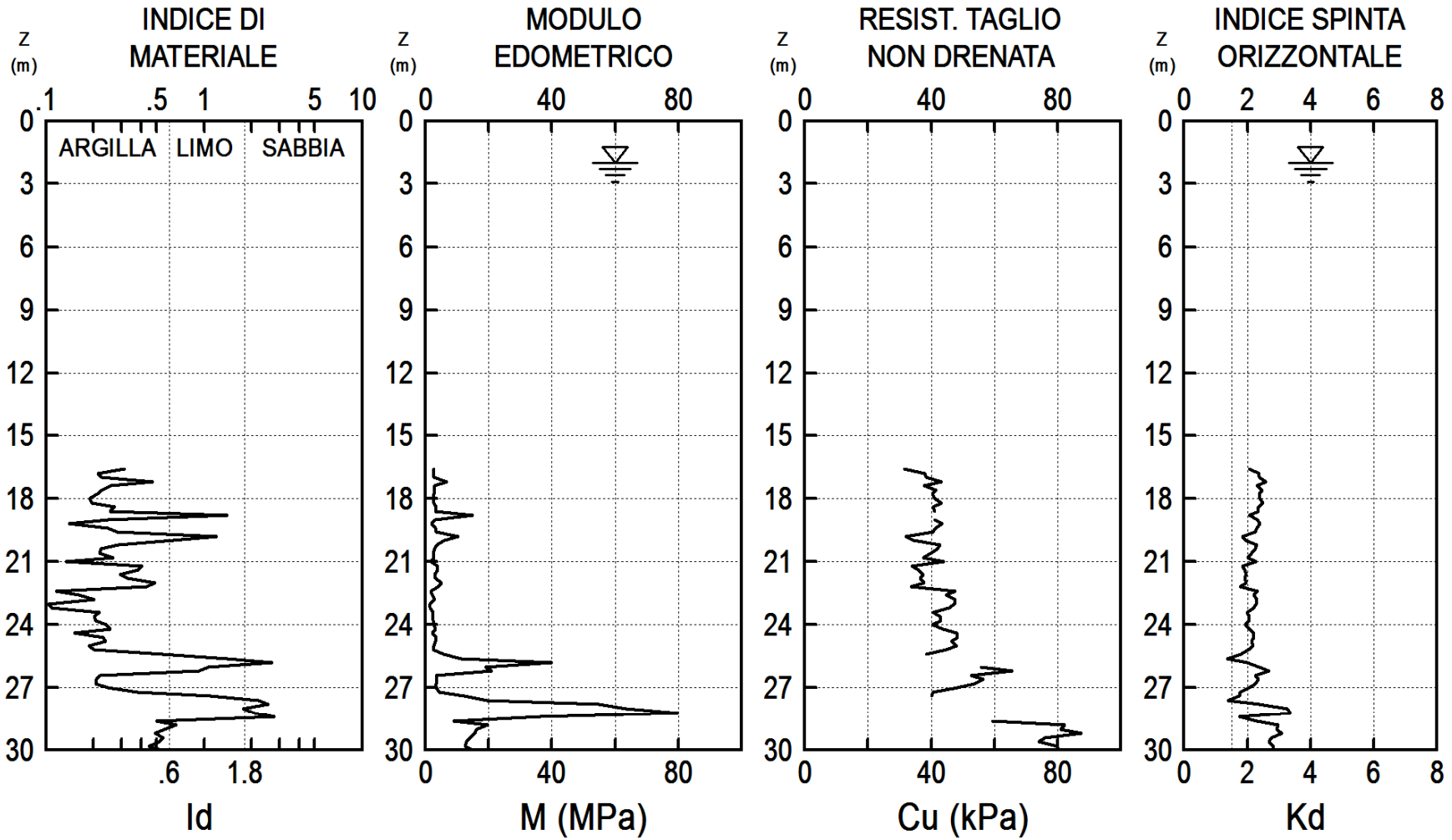


PROVA DILATOMETRICA (D M T)

GEOSTUDI SRL	AUT.PORT.RAVENNA	PROVA
OPERA	MARINA DI RAVENNA	**DMT 17**
PARAMETRI GEOTECNICI INTERPRETATI		17 GENNAIO 2015



PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

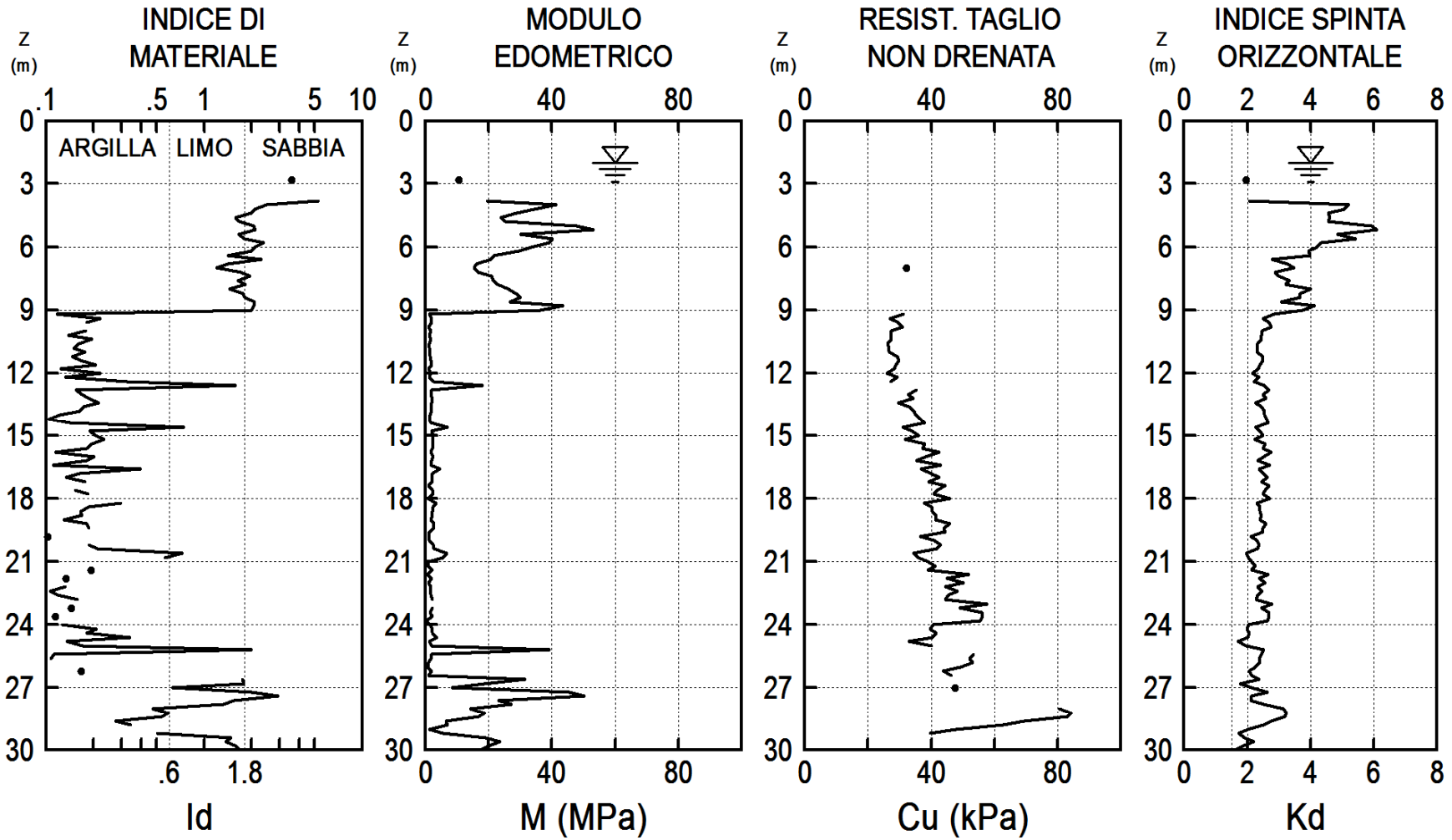
PORT HUB — MARINA DI RAVENNA — AUT.PORT.RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 17BIS**

16 GEN 2015

PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — AUT.PORT.RAVENNA

RAVENNA

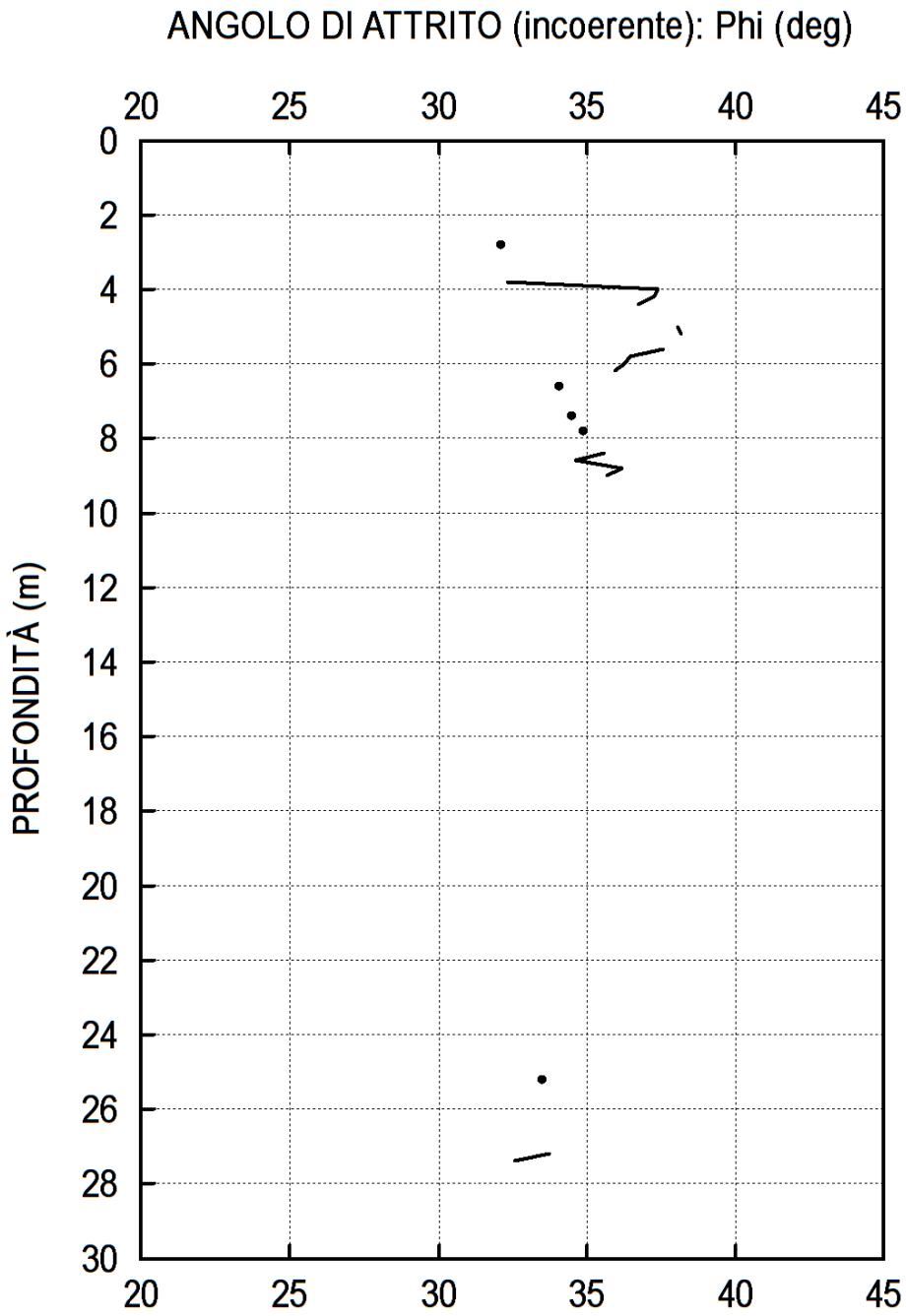
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 18-14**

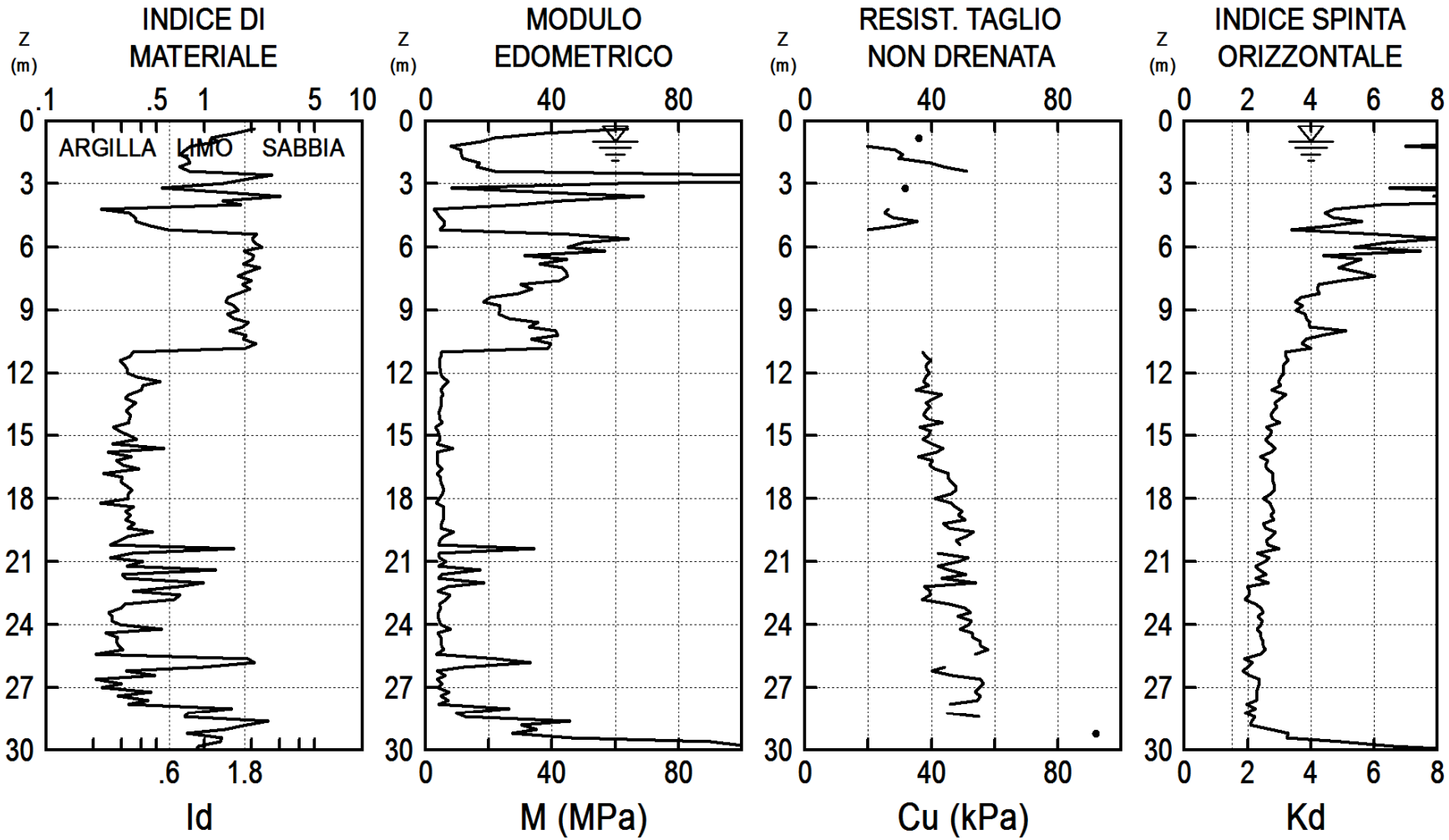
19 DIC 2014

GEOSTUDI SRL	AUT.PORT.RAVENNA	PROVA
PORT HUB	RAVENNA	DMT 18-14
PARAMETRI GEOTECNICI INTERPRETATI		19 DIC 2014

PROVA DILATOMETRICA (D M T)



PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

AUT. PORTUALE RAVENNA

PORT HUB

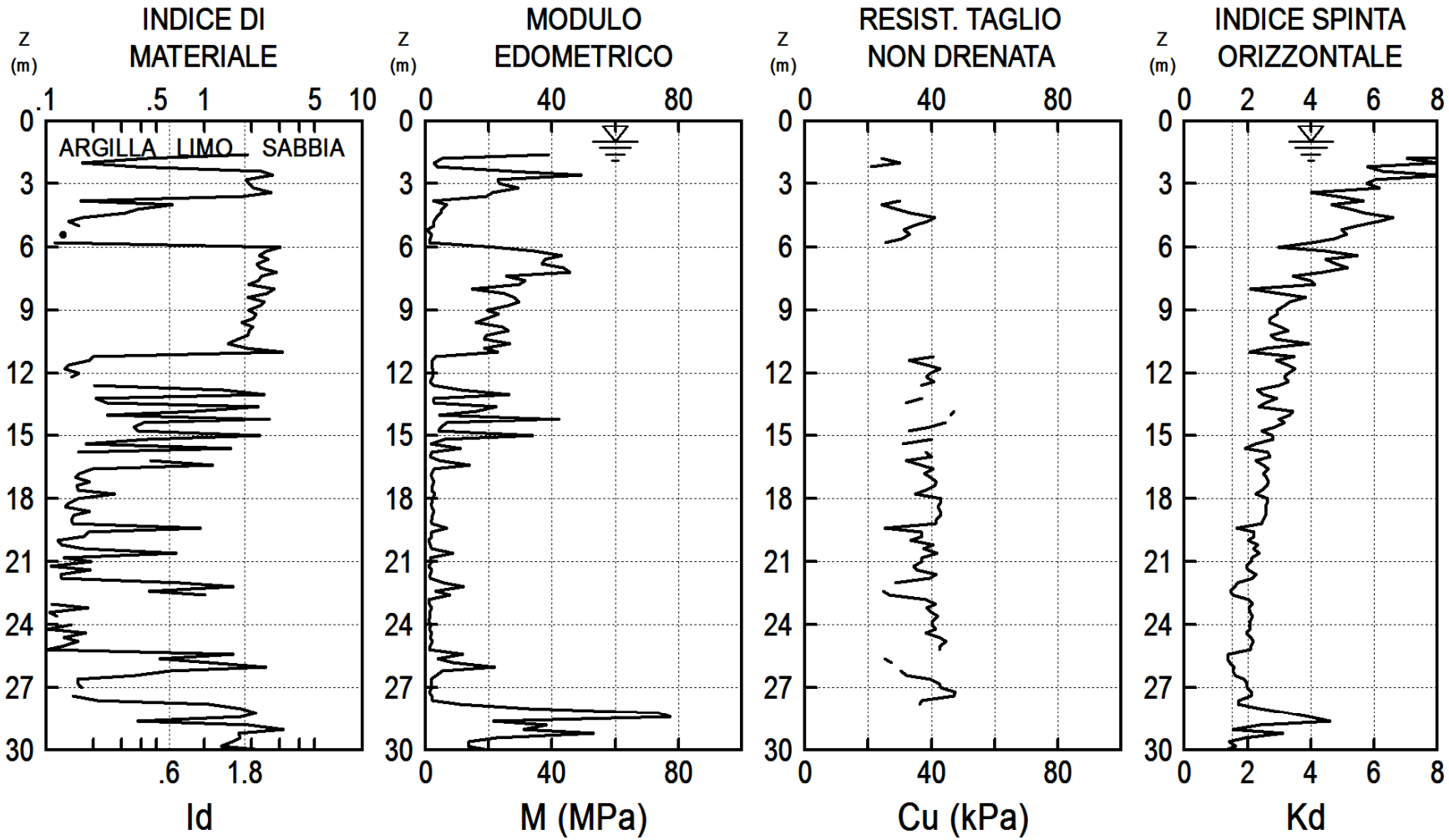
RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT19-14**

5 DIC 2014

PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — AUT. PORTUALE RAVENNA

RAVENNA

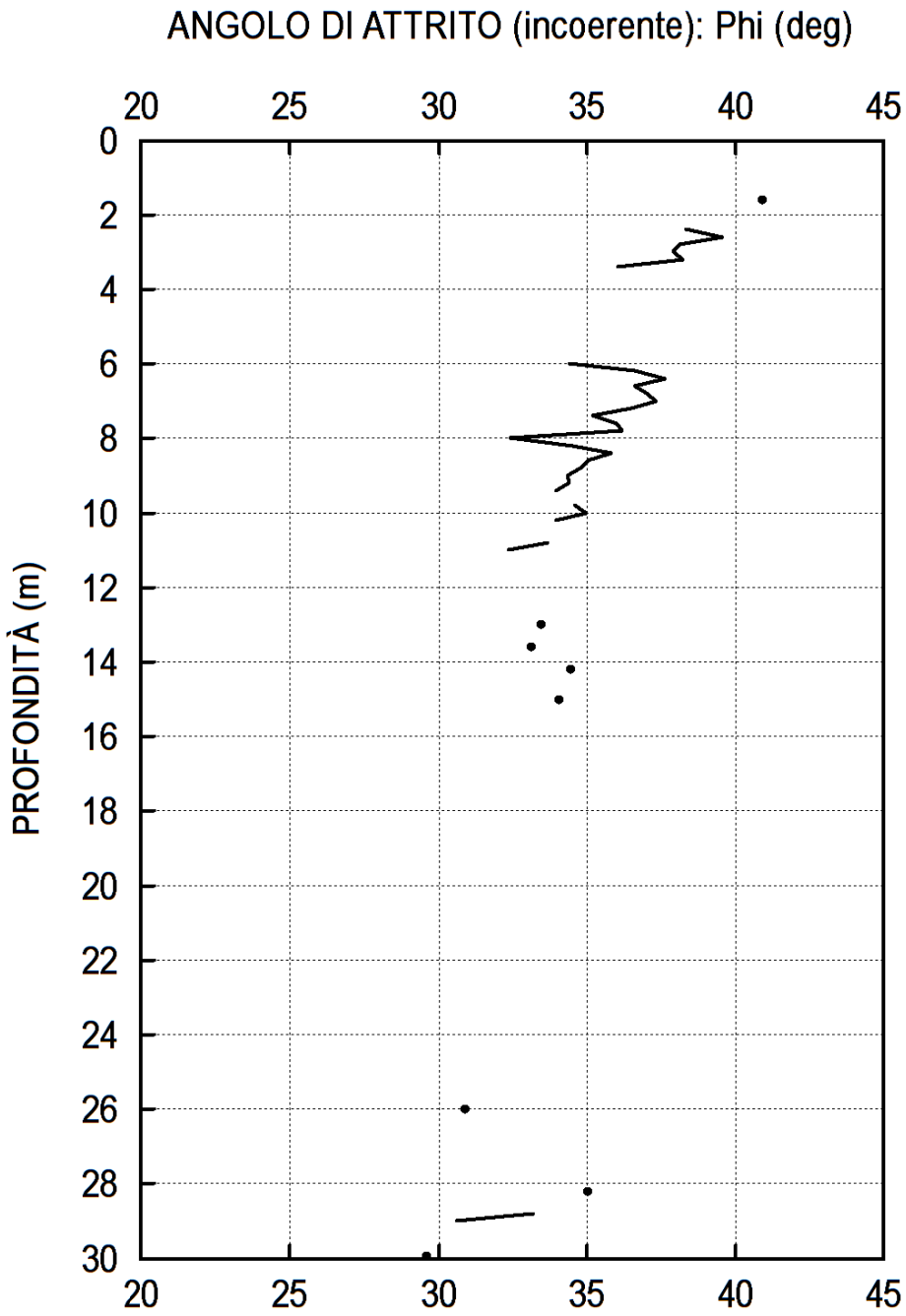
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 20-14**

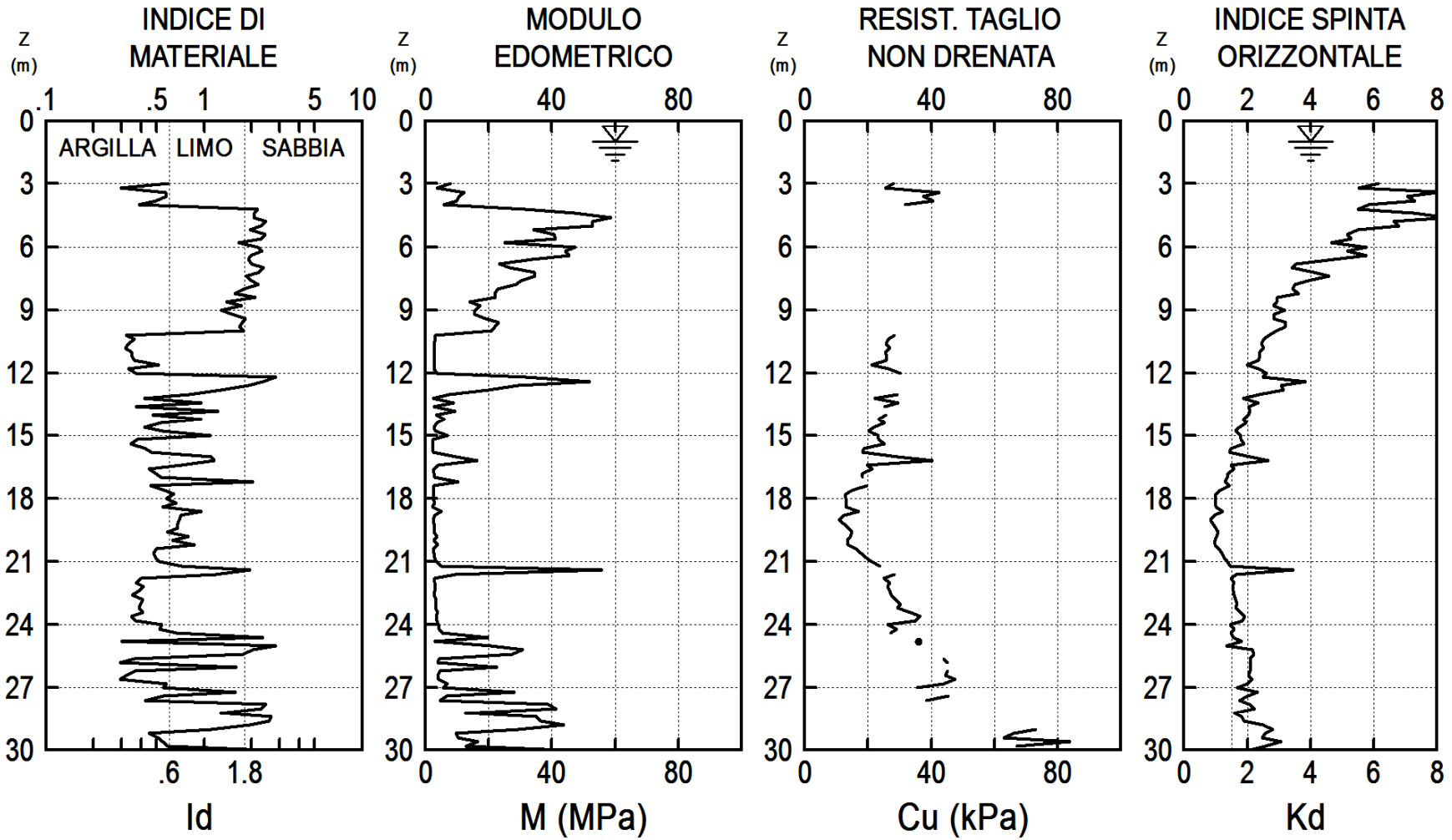
4 DIC 2014

GEOSTUDI SRL	AUT. PORTUALE RAVENNA	PROVA
PORT HUB	RAVENNA	DMT 20-14
PARAMETRI GEOTECNICI INTERPRETATI		4 DIC 2014

PROVA DILATOMETRICA (D M T)



PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — RAVENNA — AUT. PORTUALE RAVENNA

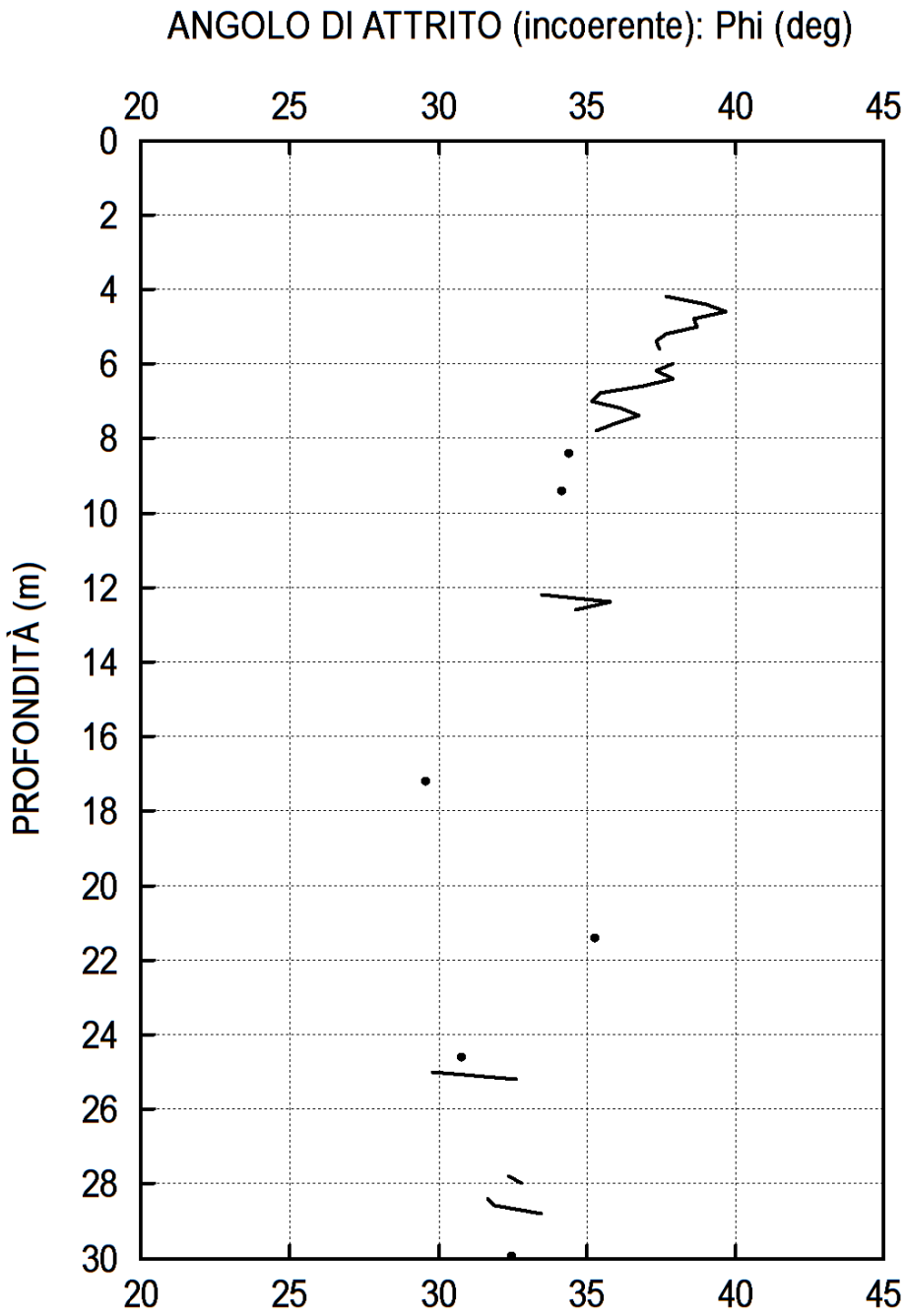
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 21-14**

4 DIC 2014

GEOSTUDI SRL	AUT. PORTUALE RAVENNA	PROVA
PORT HUB	RAVENNA	DMT 21-14
PARAMETRI GEOTECNICI INTERPRETATI		4 DIC 2014

PROVA DILATOMETRICA (D M T)



PROVA DILATOMETRICA (D M T)

GEOSTUDI SRL

PORT HUB

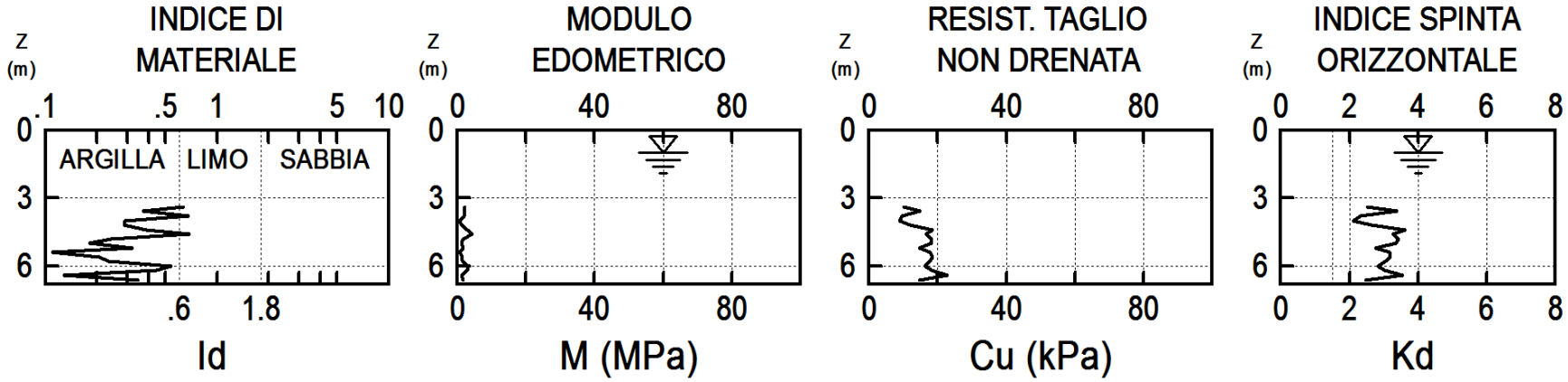
RAVENNA

AUT. PORTUALE RAVENNA

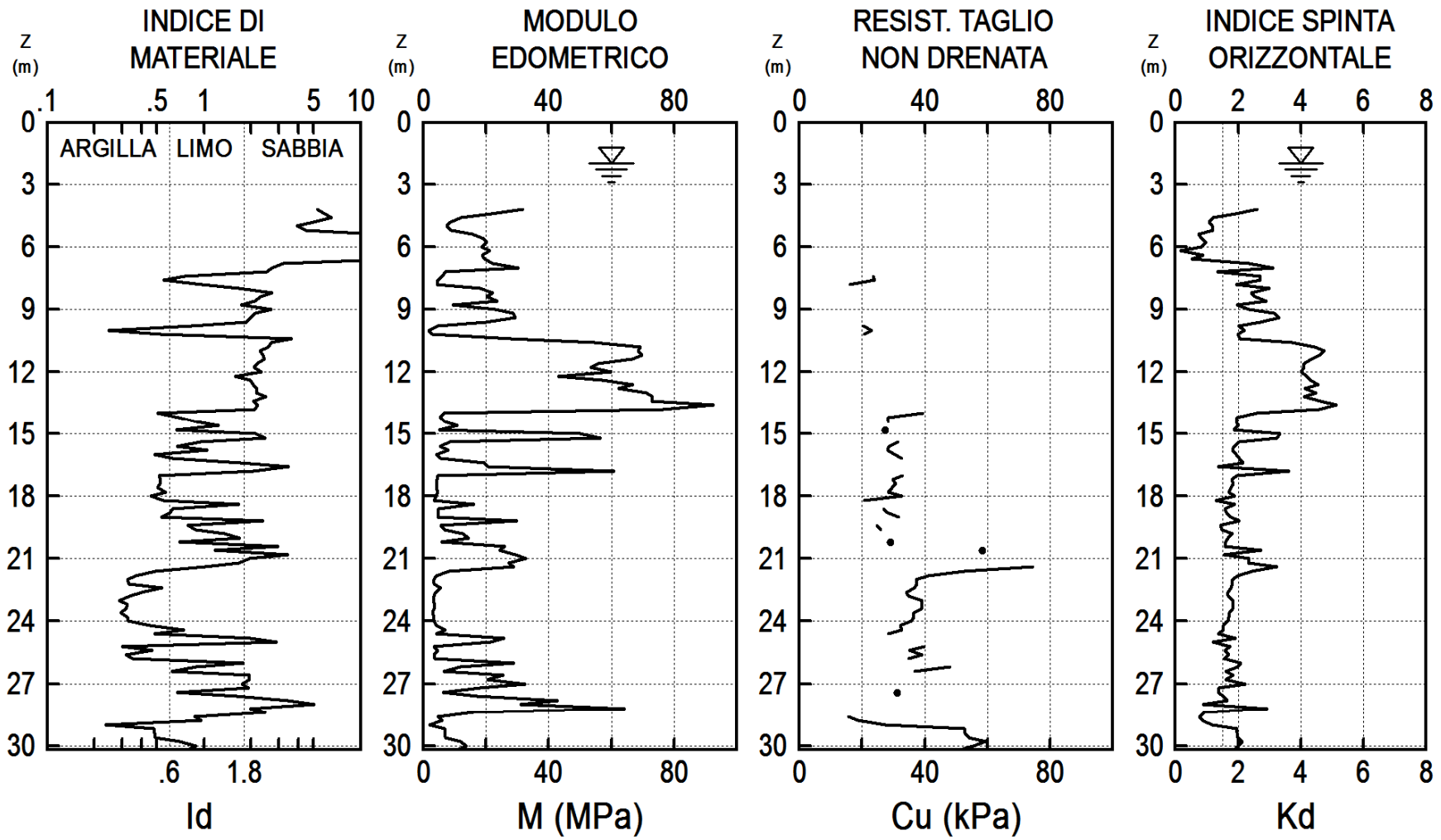
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 22-14**

3 DIC 2014



PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

COMMITTENTE

PORT HUB

LOCALITÀ

PARAMETRI GEOTECNICI INTERPRETATI

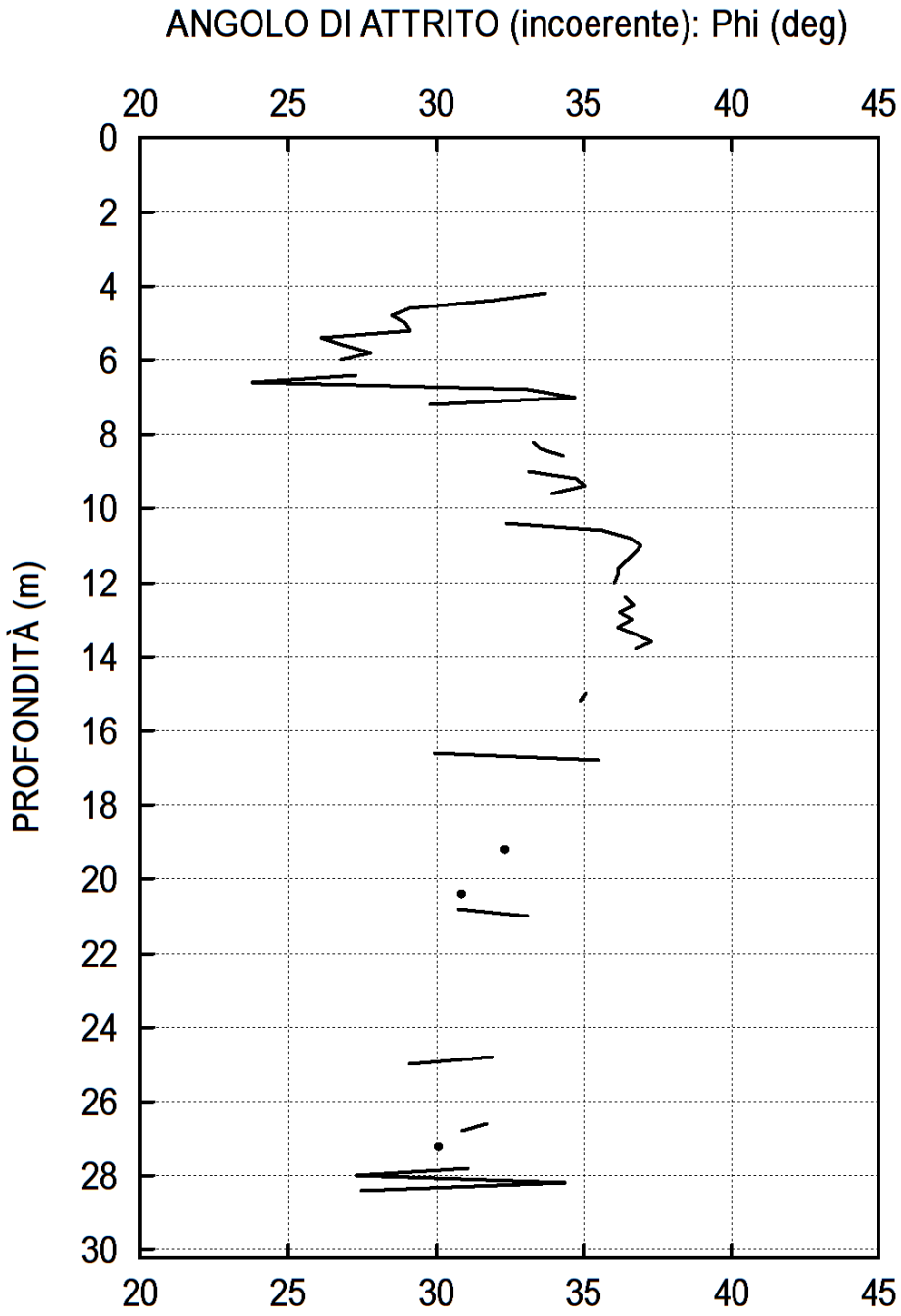
PROVA

DMT 22-14BIS

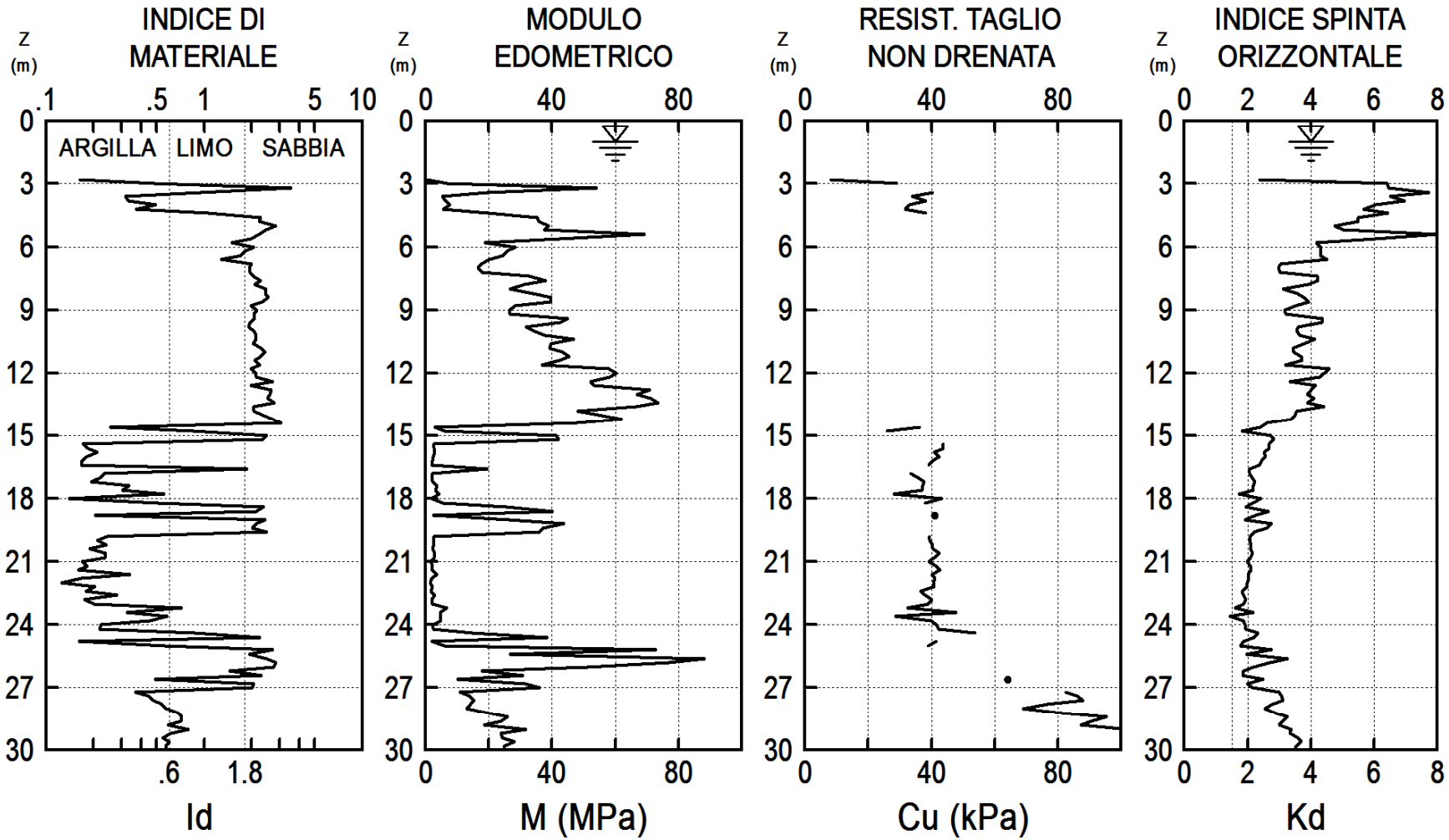
11 DIC 2014

GEOSTUDI SRL	COMMITTENTE	PROVA
PORT HUB	LOCALITÀ	DMT 22-14BIS
PARAMETRI GEOTECNICI INTERPRETATI		11 DIC 2014

PROVA DILATOMETRICA (D M T)



PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — AUT.PORT.RAVENNA

STAB. SETRAMAR

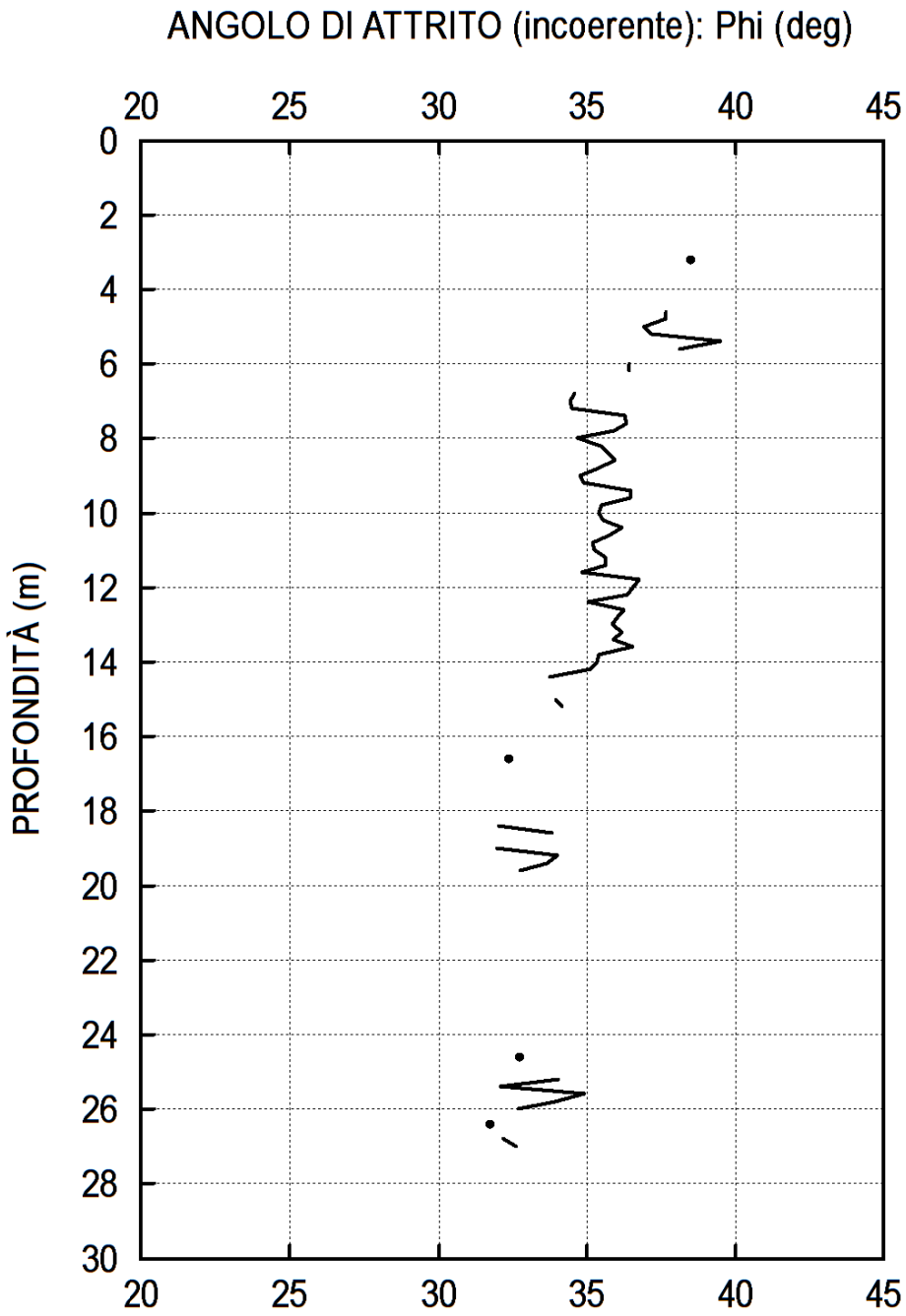
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 23-14**

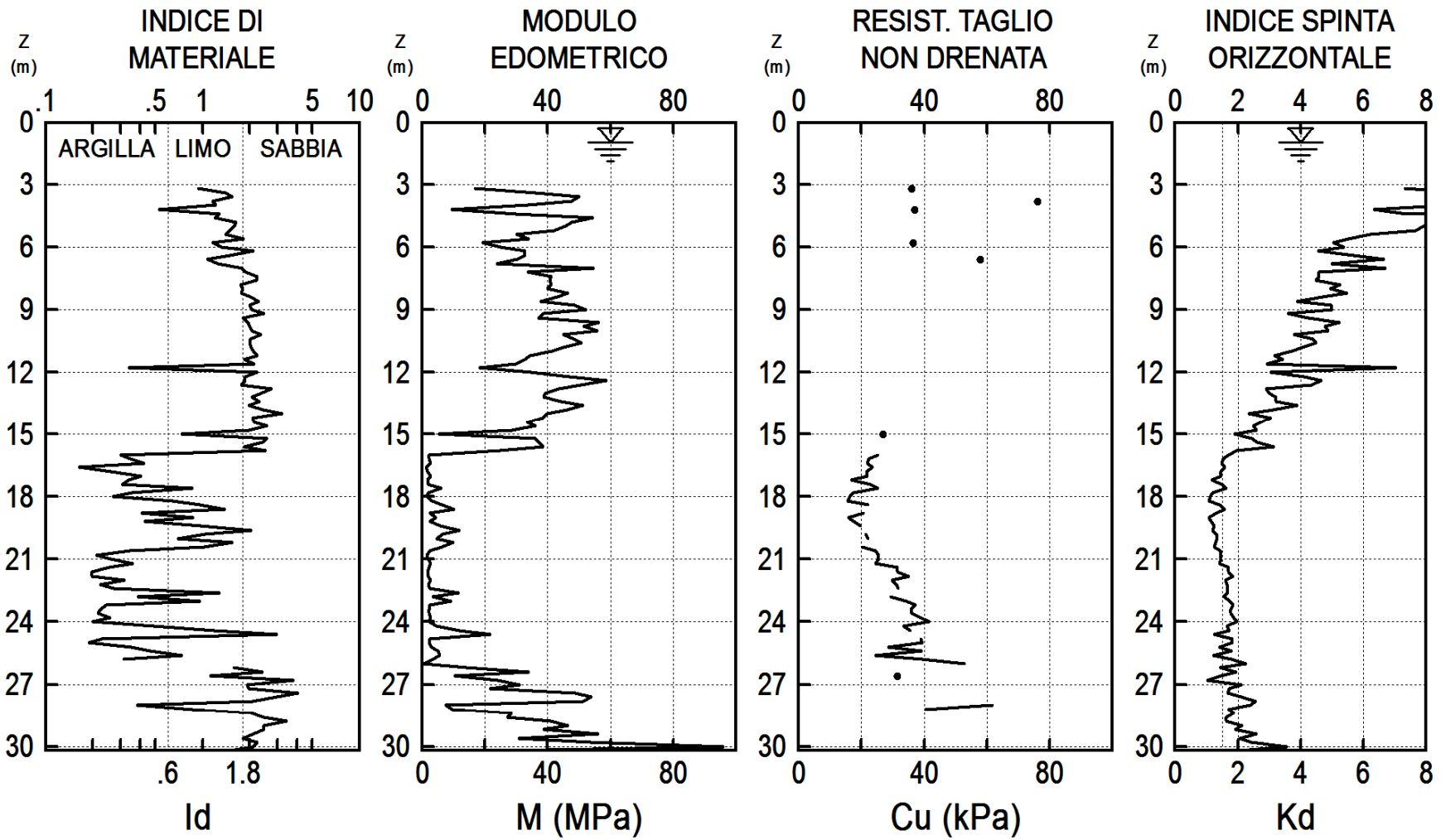
18 DIC 2014

GEOSTUDI SRL	AUT.PORT.RAVENNA	PROVA
PORT HUB	STAB. SETRAMAR	DMT 23-14
PARAMETRI GEOTECNICI INTERPRETATI		18 DIC 2014

PROVA DILATOMETRICA (D M T)



PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — RAVENNA — AUT. PORTUALE RAVENNA

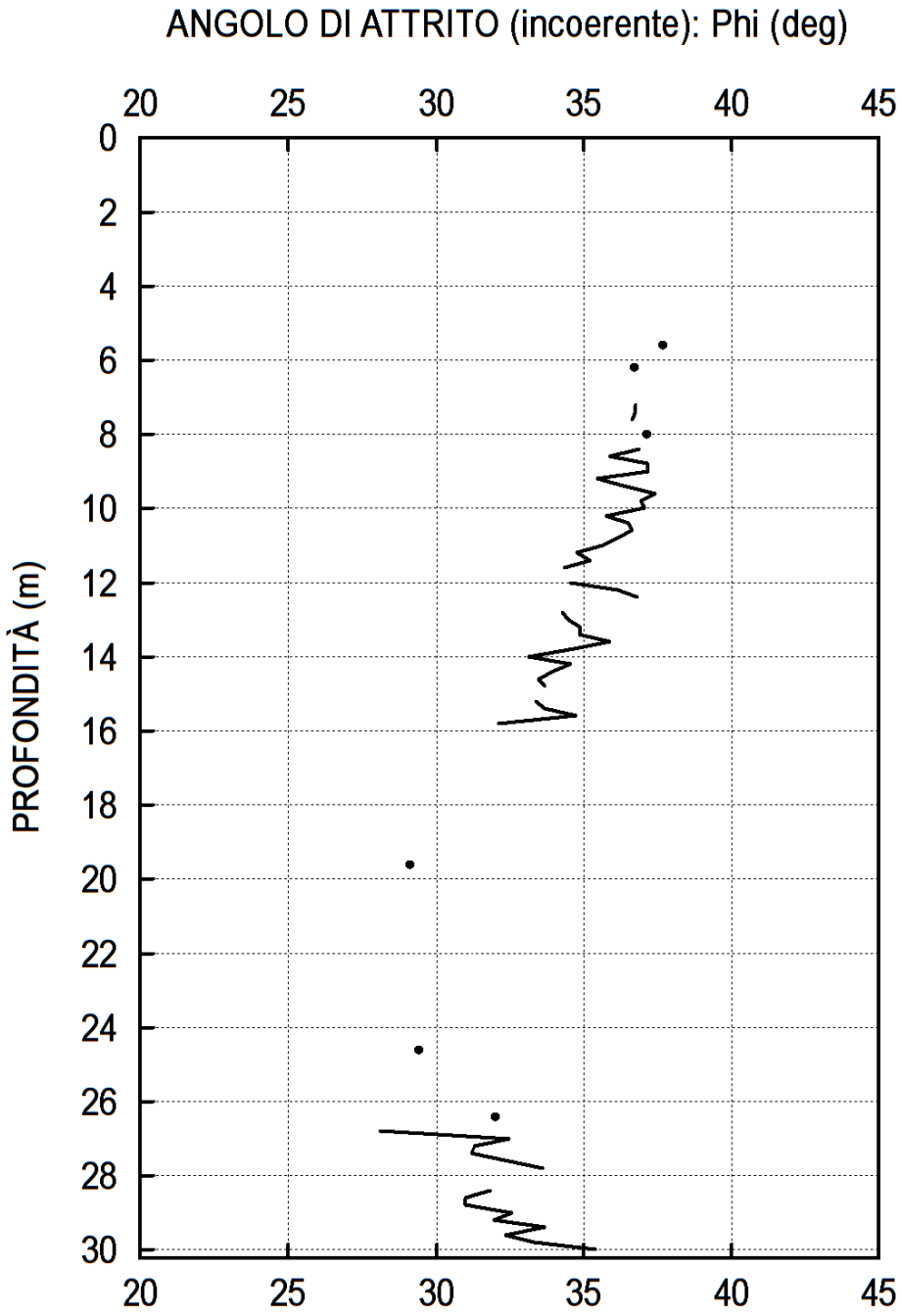
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 24-14**

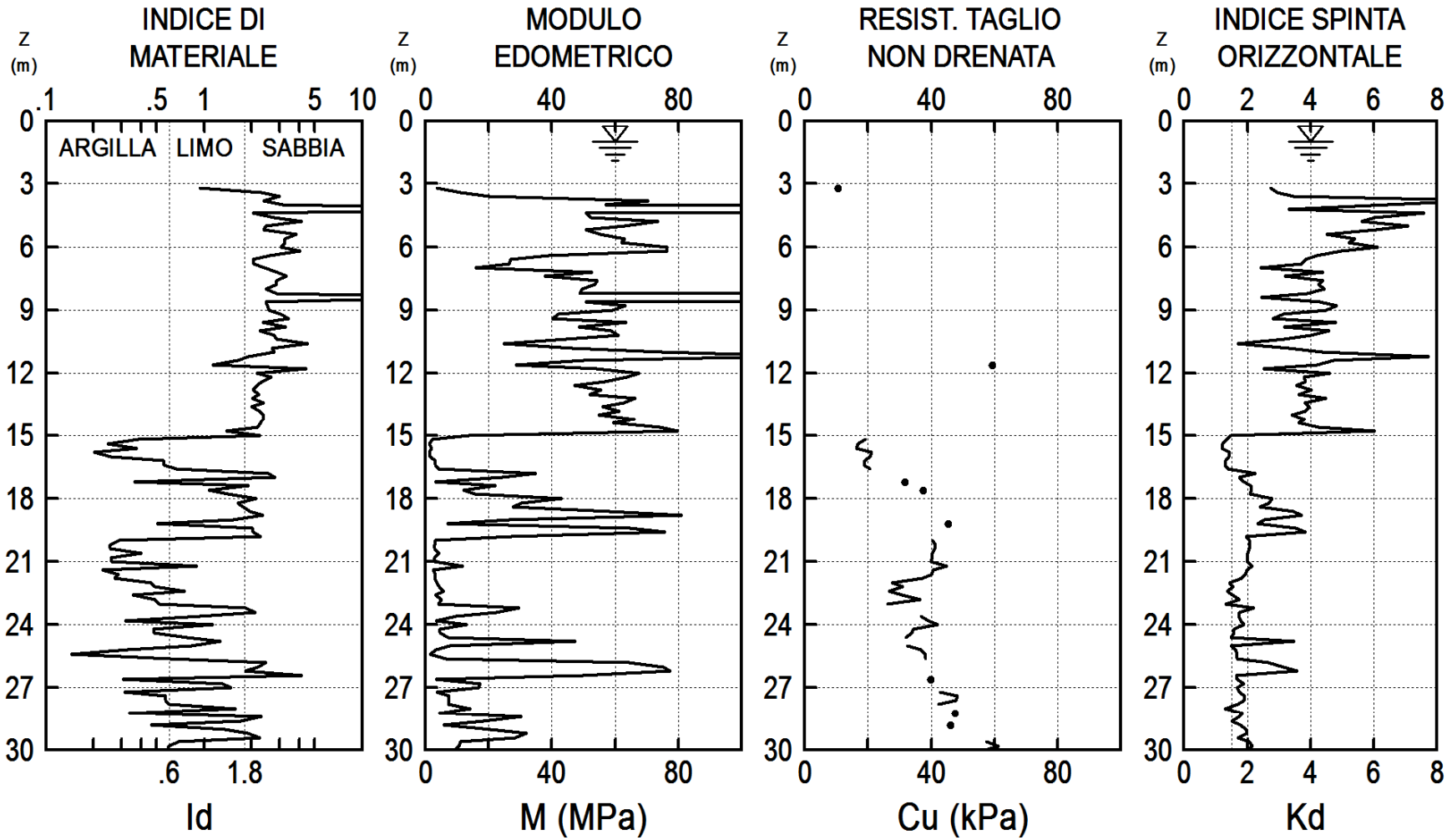
3 DIC 2014

GEOSTUDI SRL	AUT. PORTUALE RAVENNA	PROVA
PORT HUB	RAVENNA	DMT 24-14
PARAMETRI GEOTECNICI INTERPRETATI		3 DIC 2014

PROVA DILATOMETRICA (D M T)



PROVA DILATOMETRICA (D M T)



GEOSTUDI SRL

PORT HUB — AUT. PORTUALE RAVENNA

RAVENNA

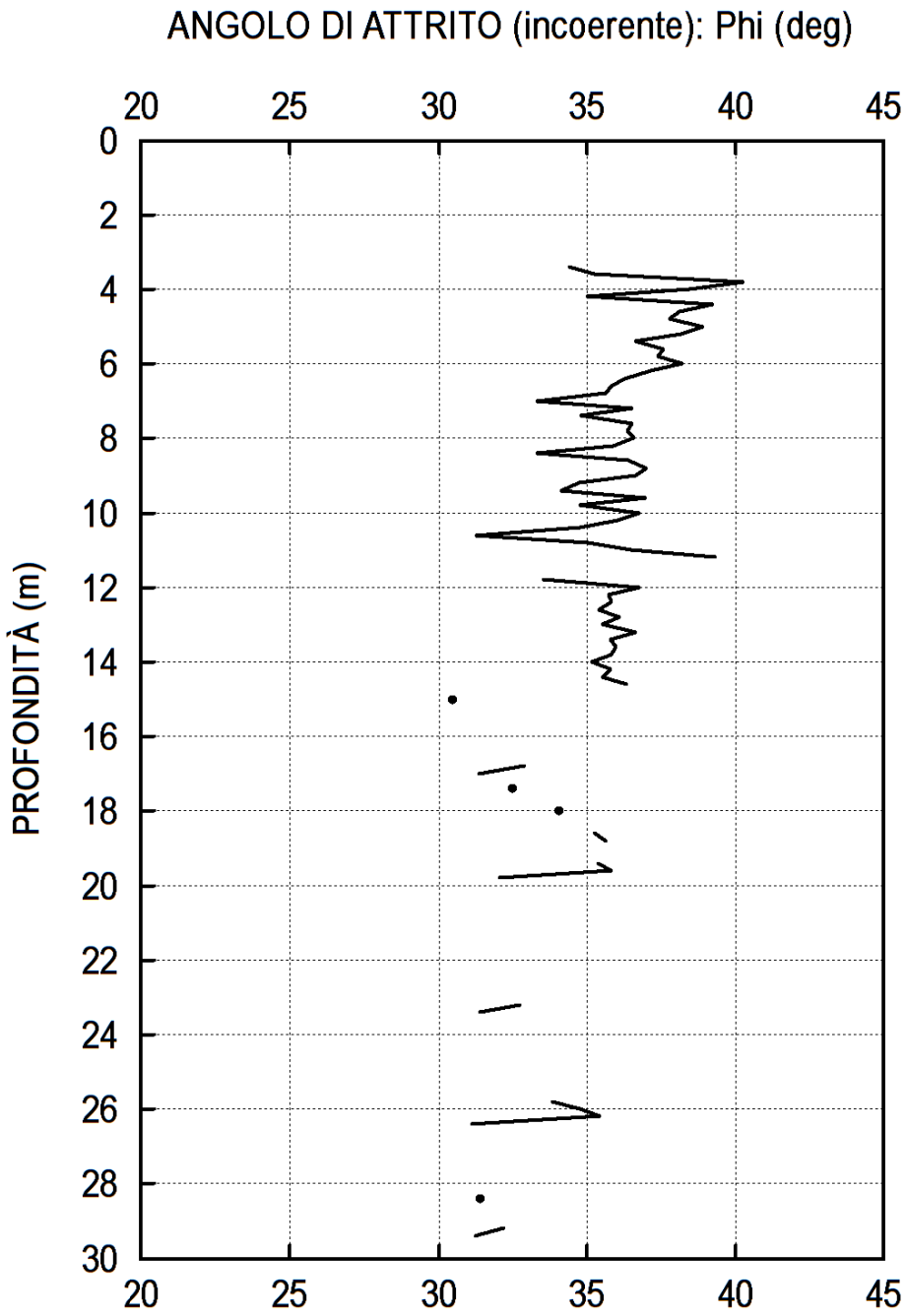
PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 25-14**

28 NOV 2014

GEOSTUDI SRL	AUT. PORTUALE RAVENNA	PROVA
PORT HUB	RAVENNA	DMT 25-14
PARAMETRI GEOTECNICI INTERPRETATI		28 NOV 2014

PROVA DILATOMETRICA (D M T)



PROVA DILATOMETRICA (D M T)

GEOSTUDI SRL

PORT HUB

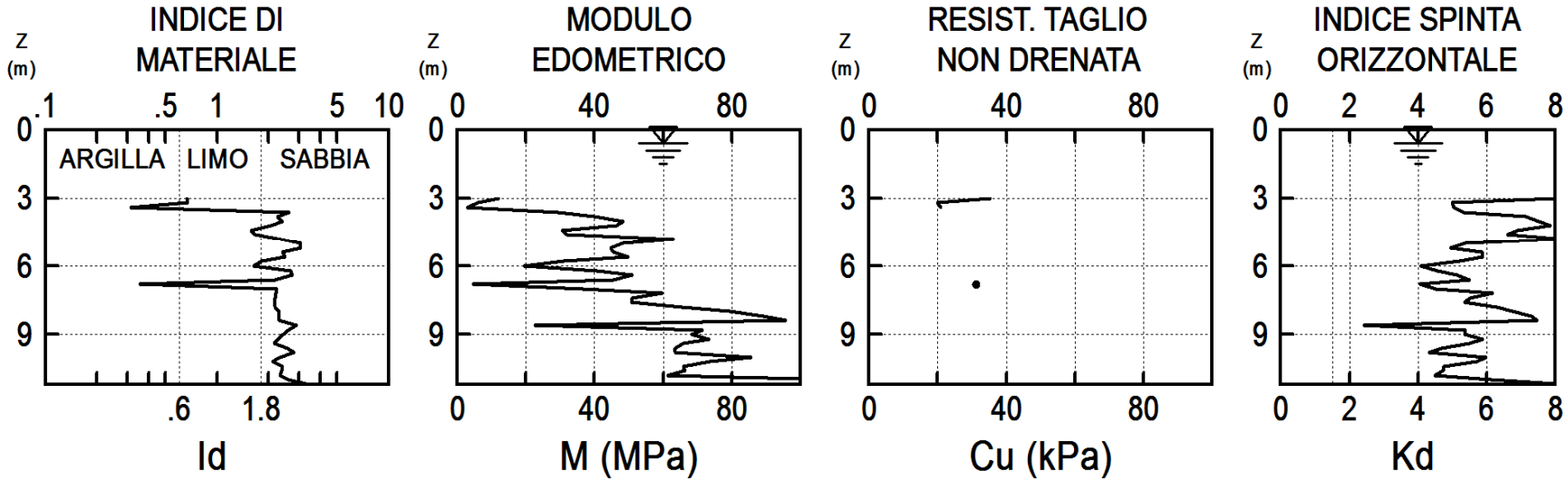
RAVENNA

AUT. PORTUALE RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 26-14**

11 DIC 2014



GEOSTUDI SRL	AUT. PORTUALE RAVENNA	PROVA
PORT HUB	RAVENNA	DMT 26-14
PARAMETRI GEOTECNICI INTERPRETATI		11 DIC 2014

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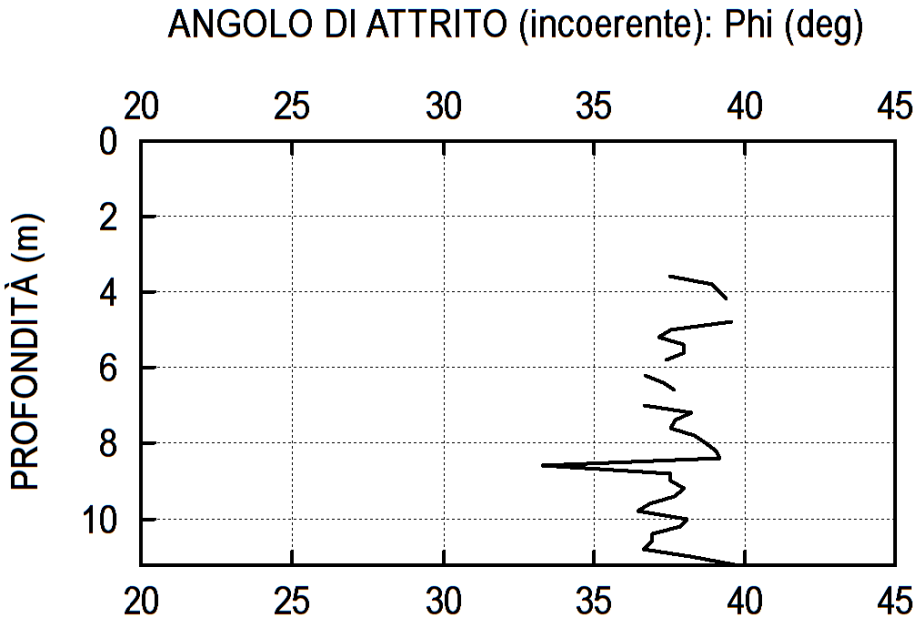

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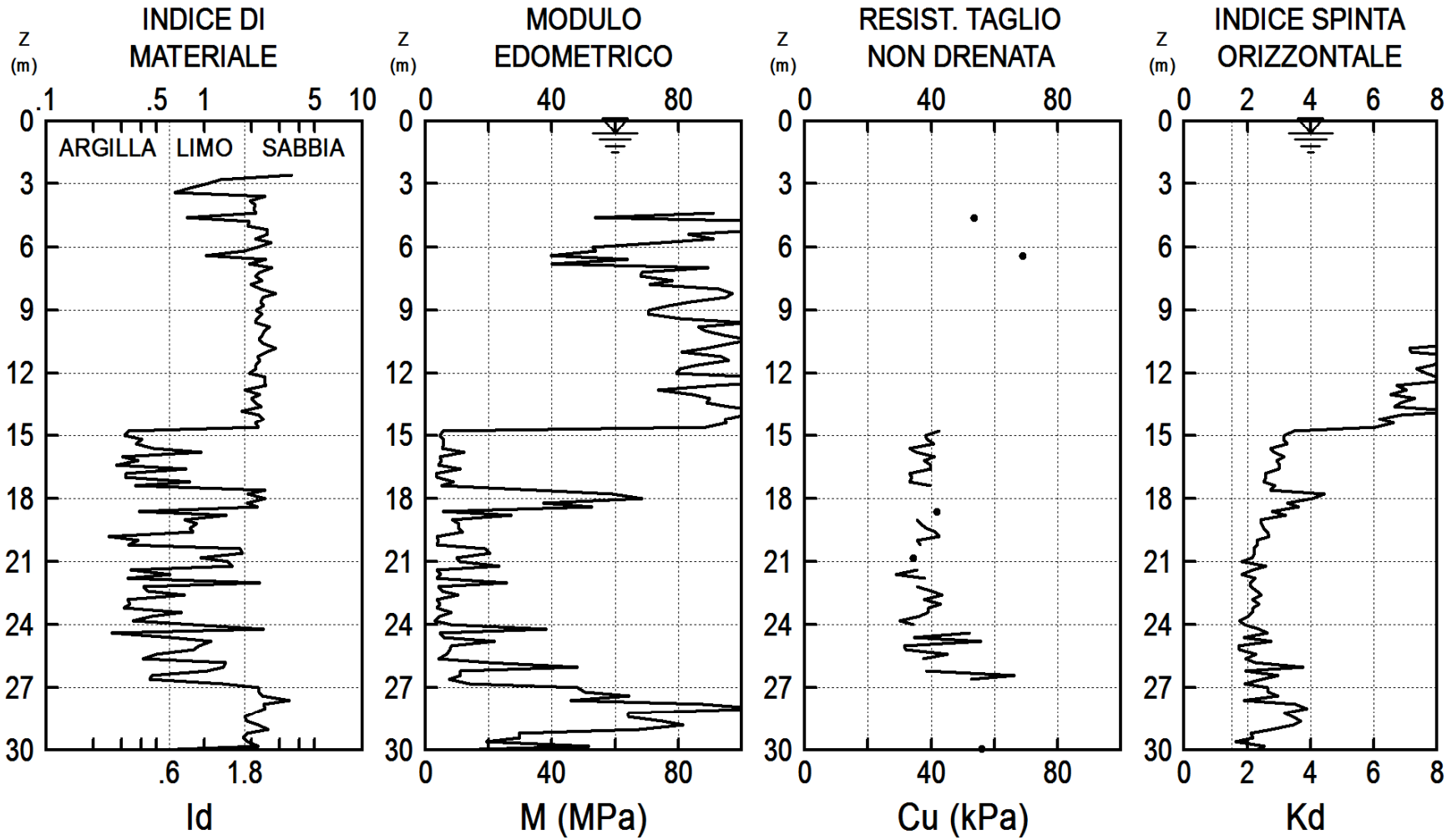

GEOSTUDI SRL

PORT HUB — AUT.PORT.RAVENNA

RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA DMT 26-14BIS

11 DIC 2014

GEOSTUDI SRL	AUT.PORT.RAVENNA	PROVA
PORT HUB	RAVENNA	DMT 26-14BIS
PARAMETRI GEOTECNICI INTERPRETATI		11 DIC 2014

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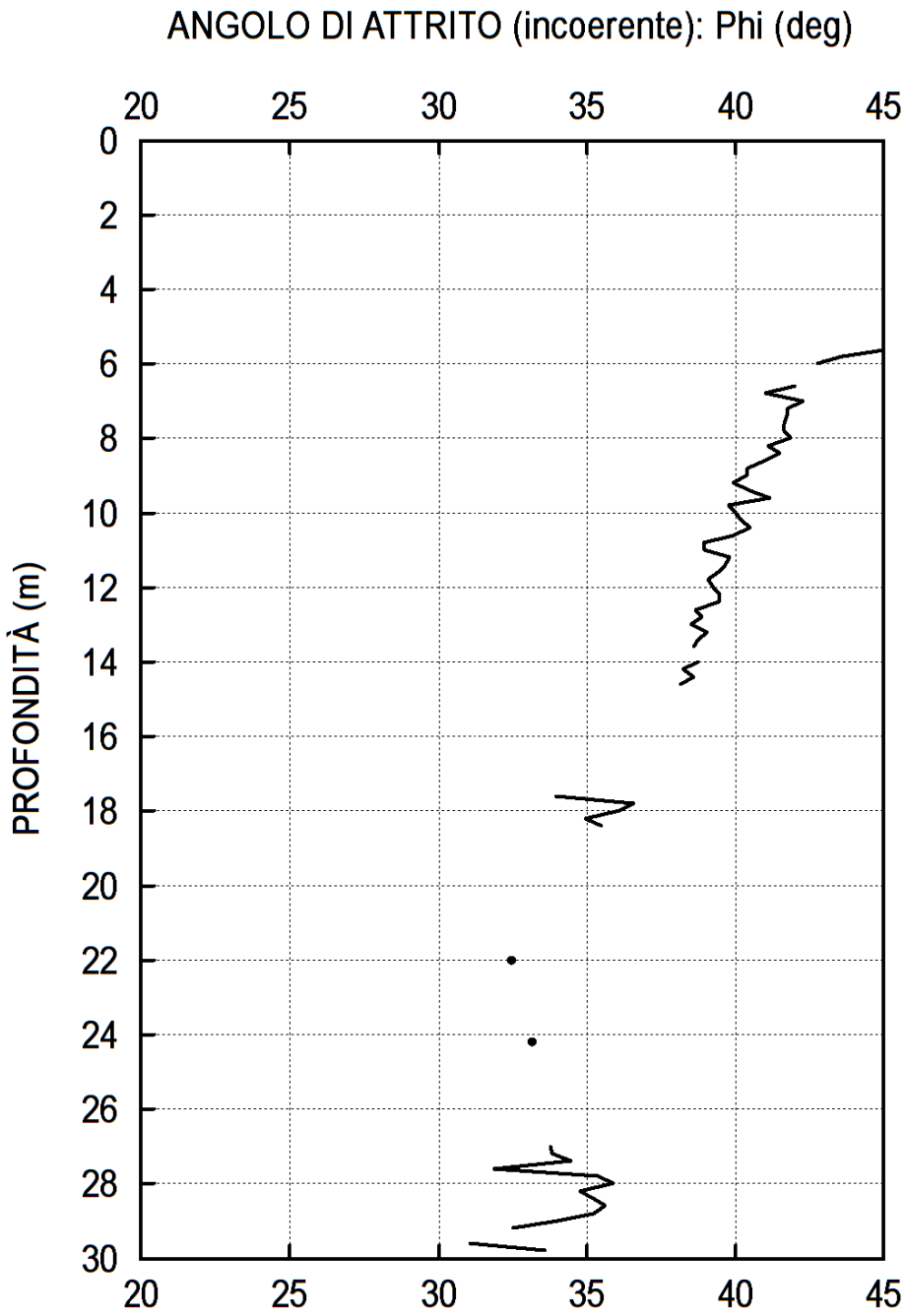

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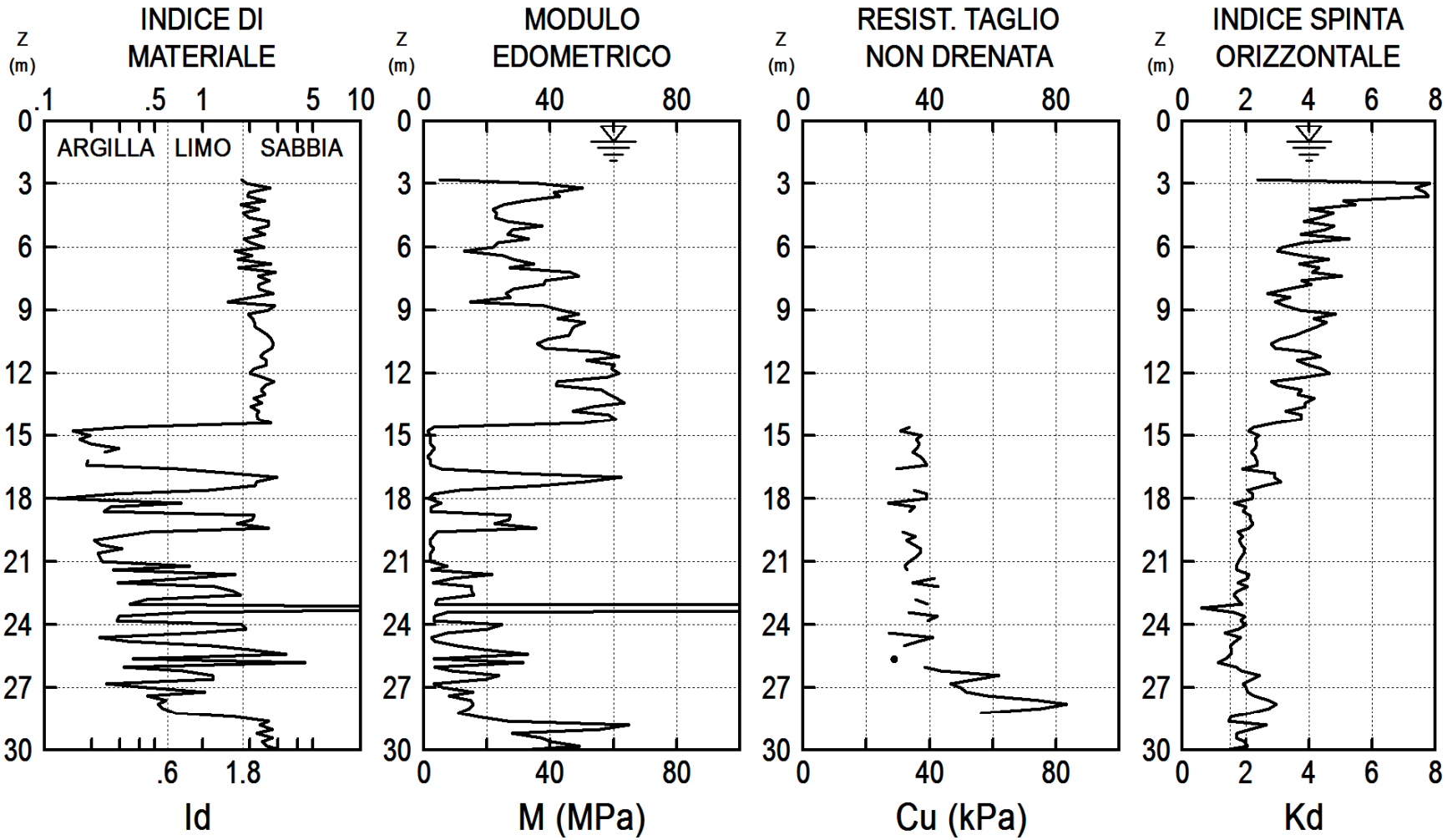

GEOSTUDI SRL

PORT HUB — AUT. PORTUALE RAVENNA

RAVENNA

PARAMETRI GEOTECNICI INTERPRETATI

PROVA **DMT 27-14**

1 DIC 2014

GEOSTUDI SRL	AUT. PORTUALE RAVENNA	PROVA
PORT HUB	RAVENNA	DMT 27-14
PARAMETRI GEOTECNICI INTERPRETATI		1 DIC 2014

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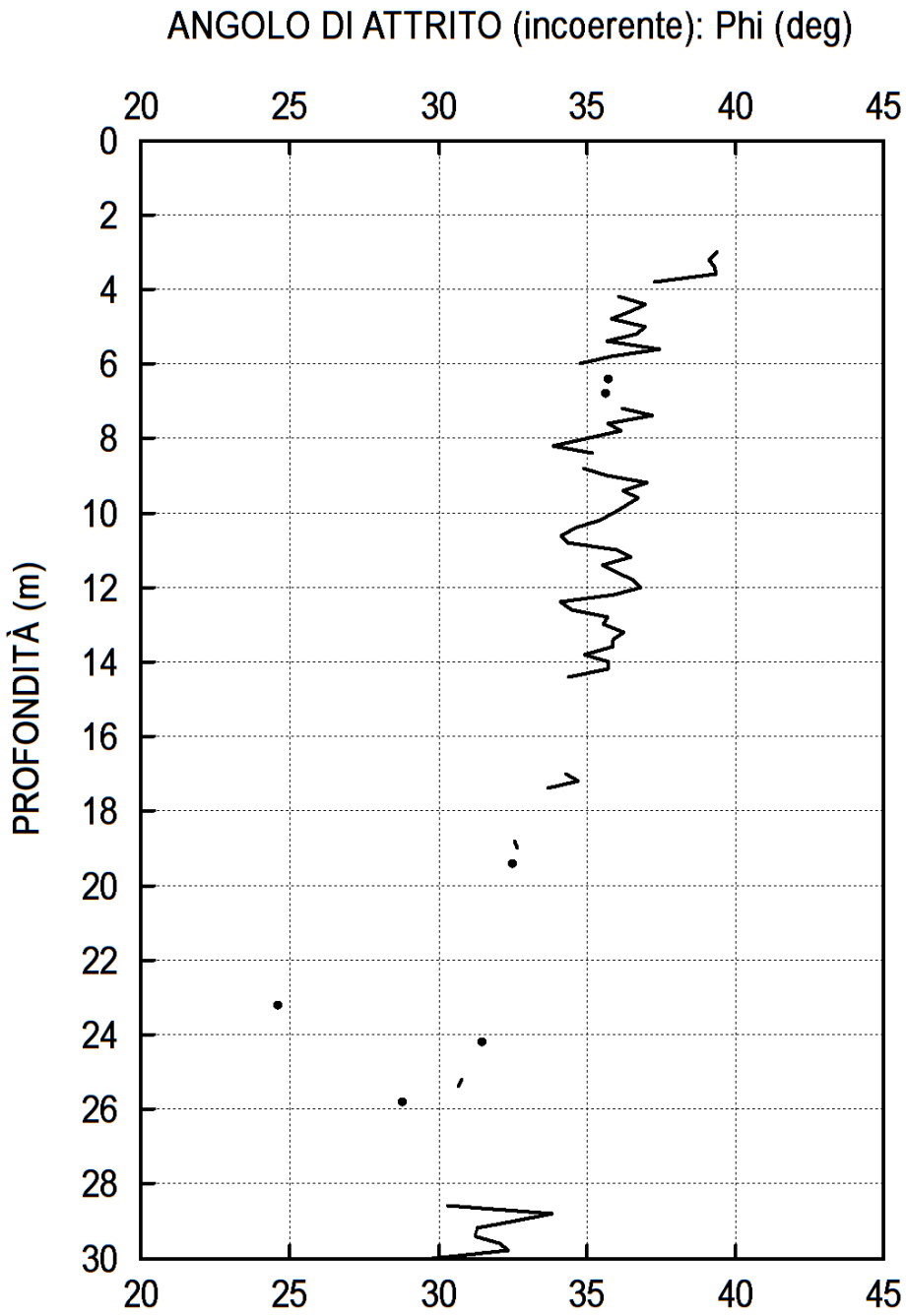
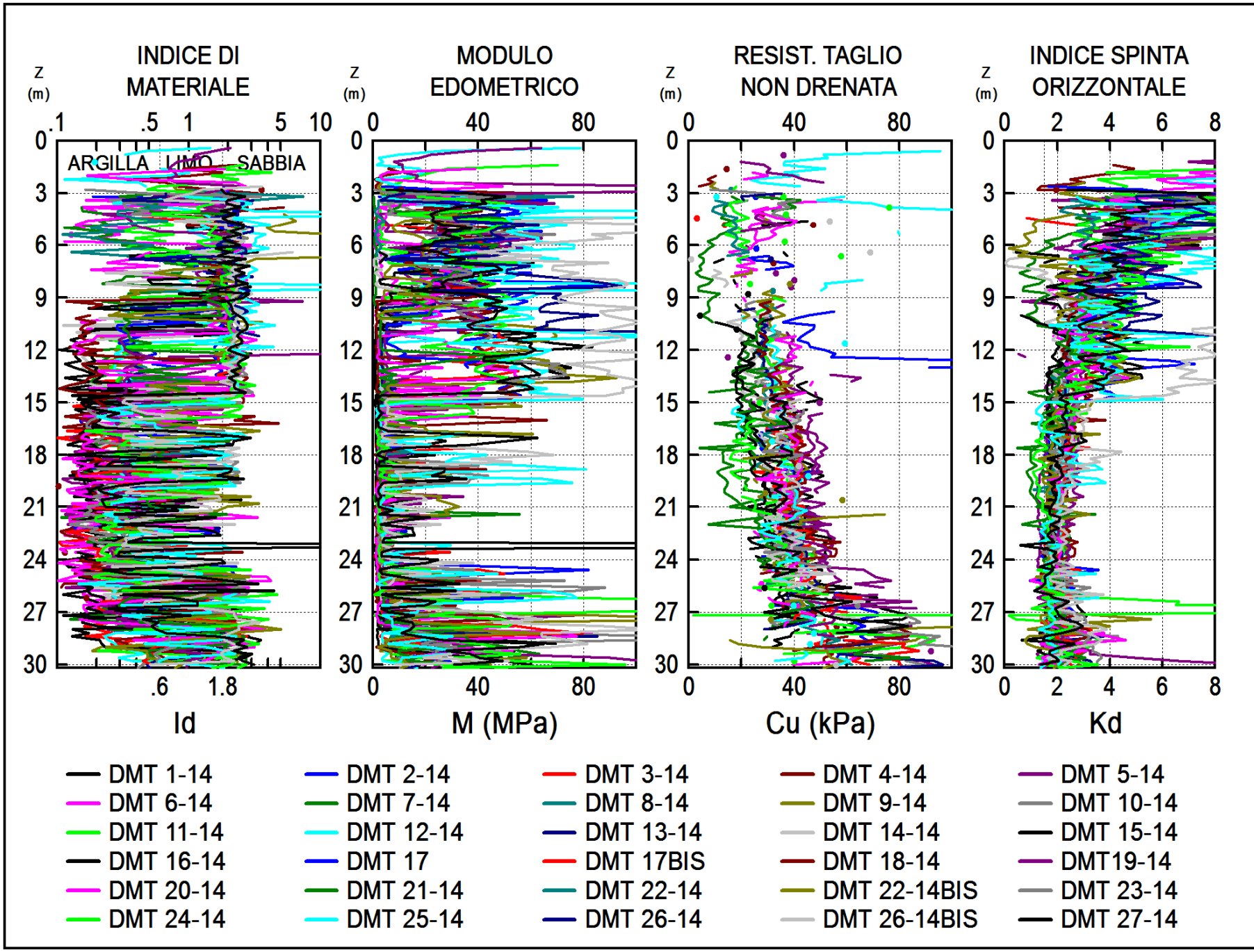


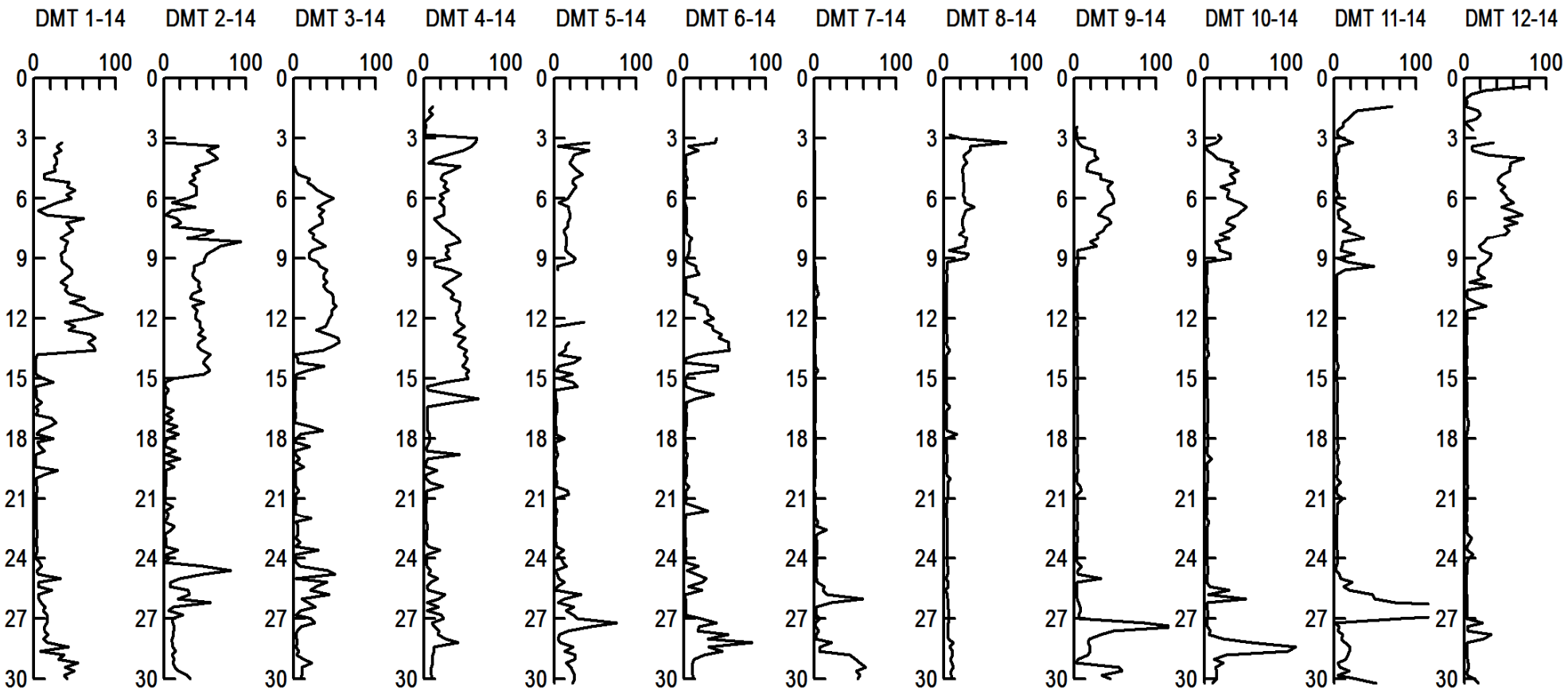


PROVE SOVRAPPOSTE

GEOSTUDI SRL

GEOSTUDI SRL

PROFILO DEL PARAMETRO MODULO EDOMETRICO M (MPa)



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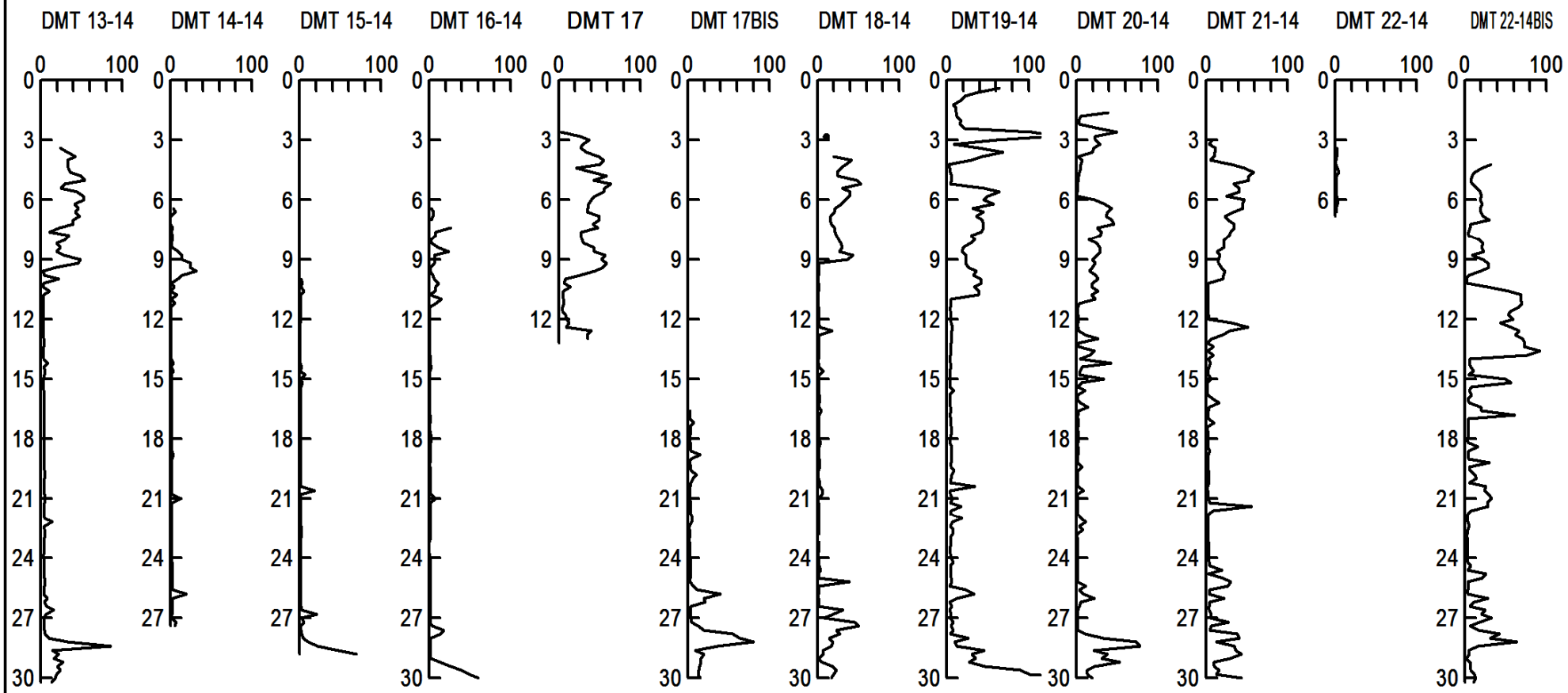
PROFILO DEL PARAMETRO MODULO EDOMETRICO M (MPa)



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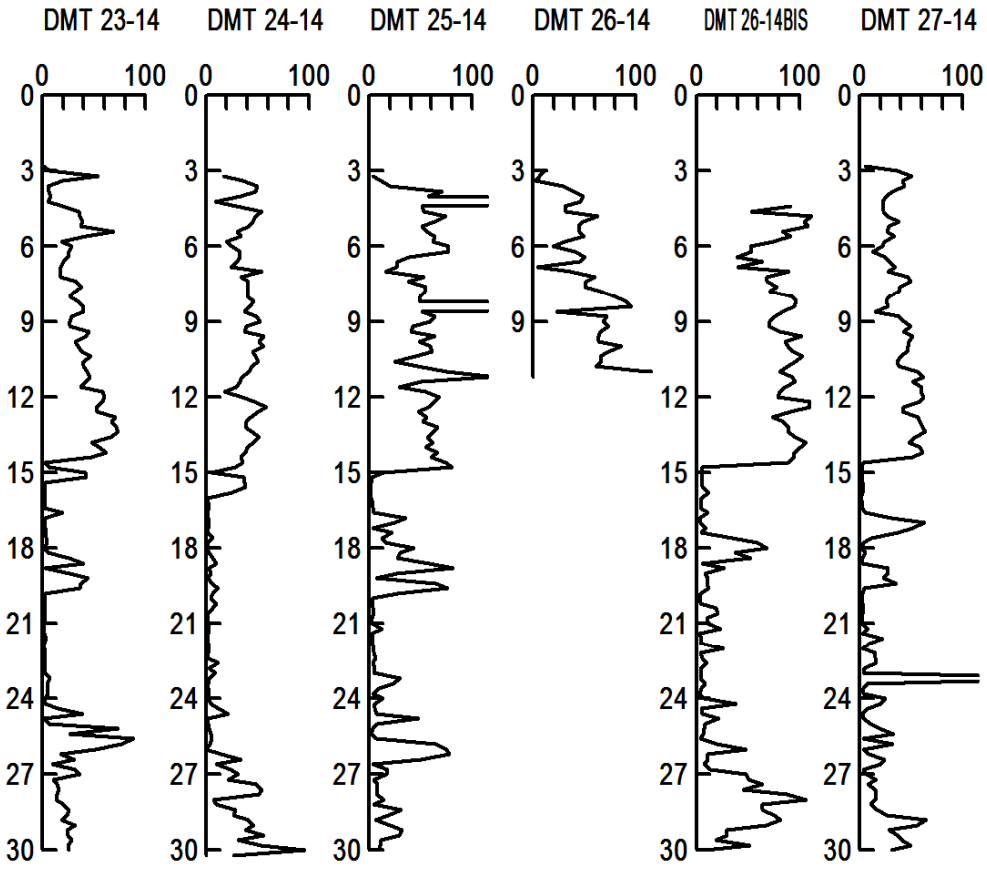
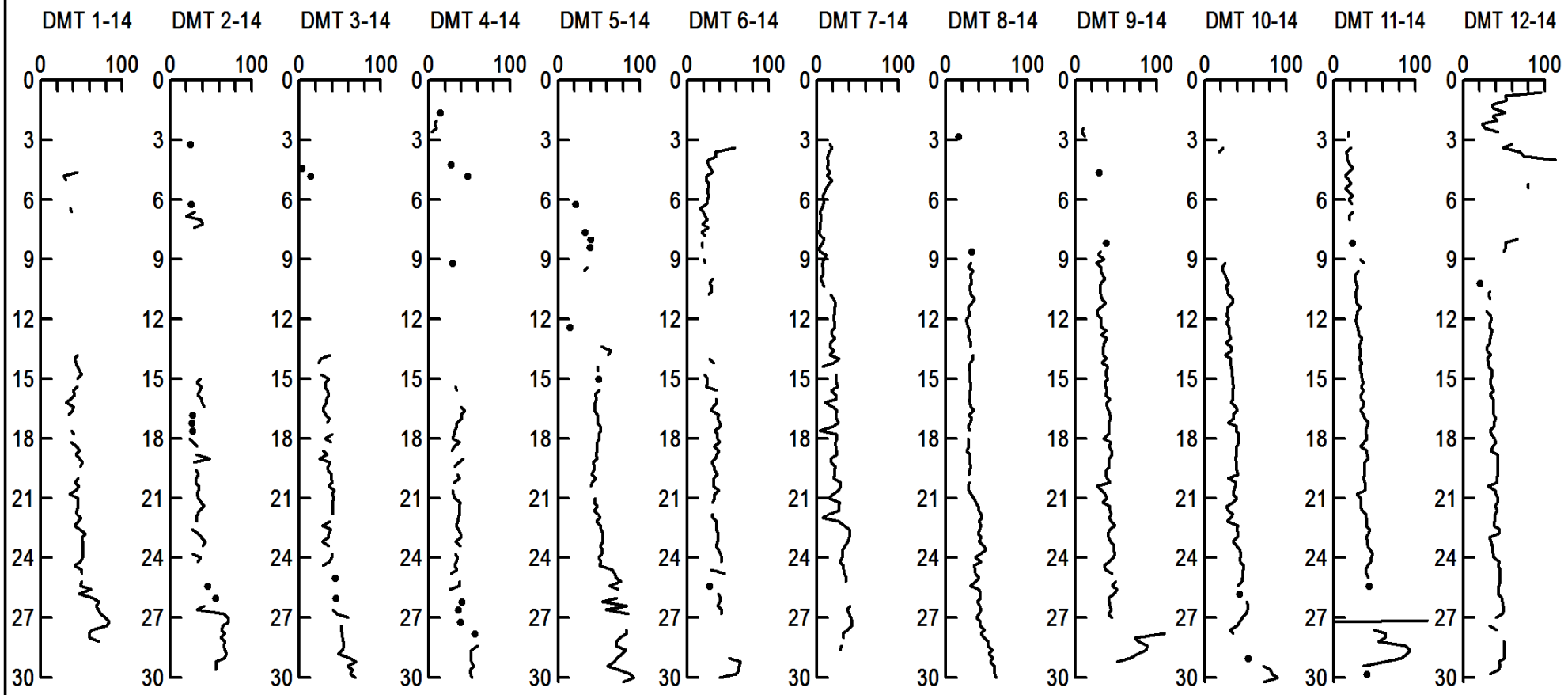
PROFILO DEL PARAMETRO MODULO EDOMETRICO M (MPa)



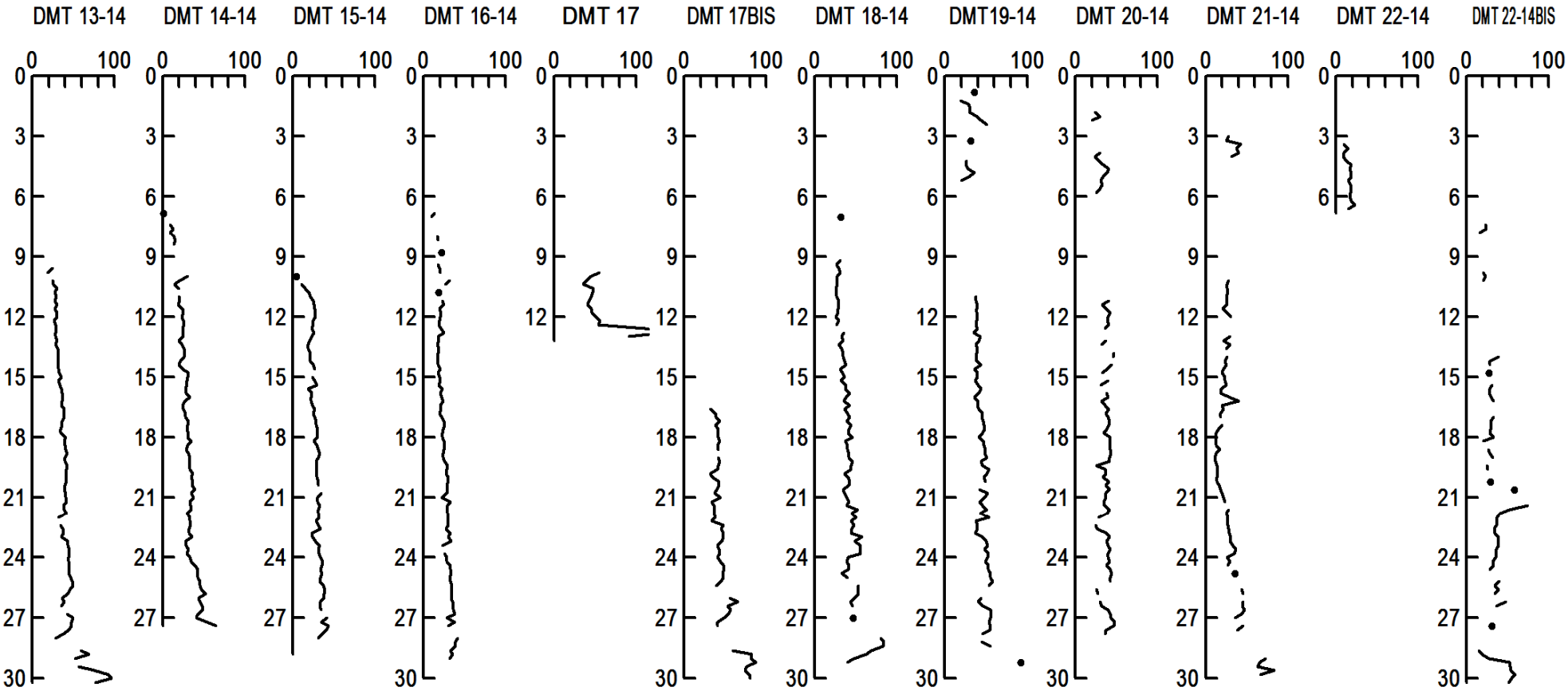
GEOSTUDI SRL

PROFILO DEL PARAMETRO RESIST. TAGLIO NON DRENATA Cu (kPa)



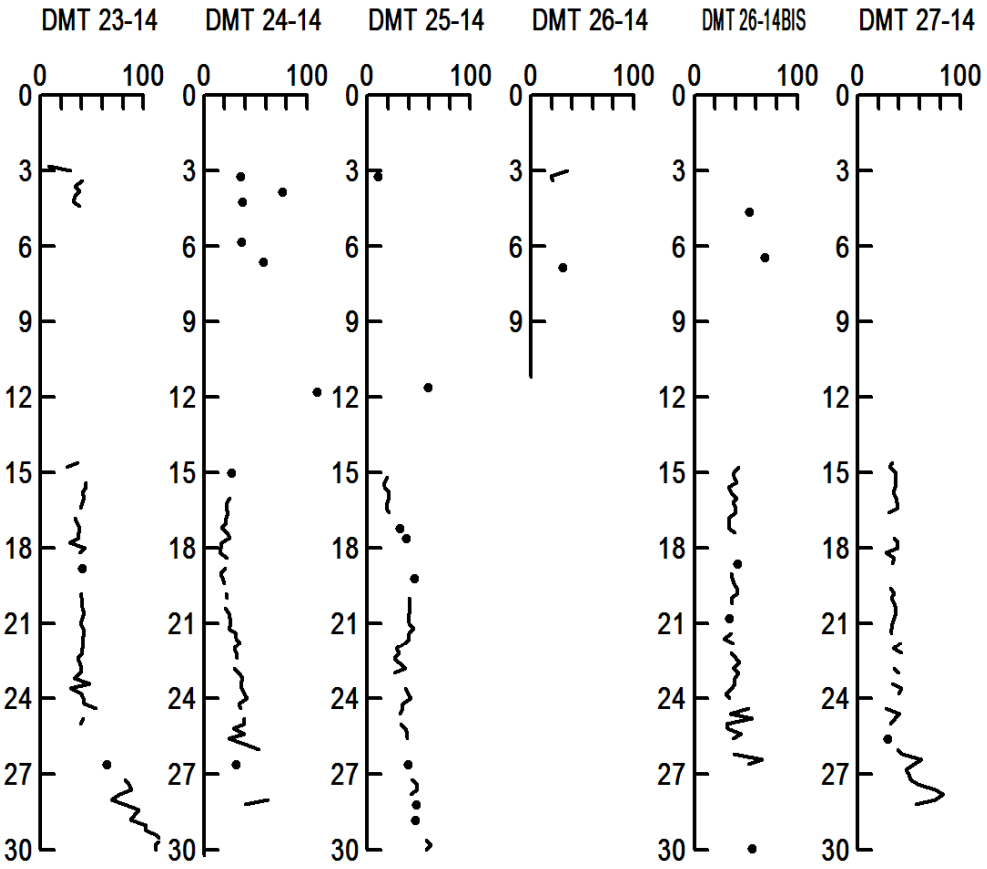
GEOSTUDI SRL

PROFILO DEL PARAMETRO RESIST. TAGLIO NON DRENATA Cu (kPa)



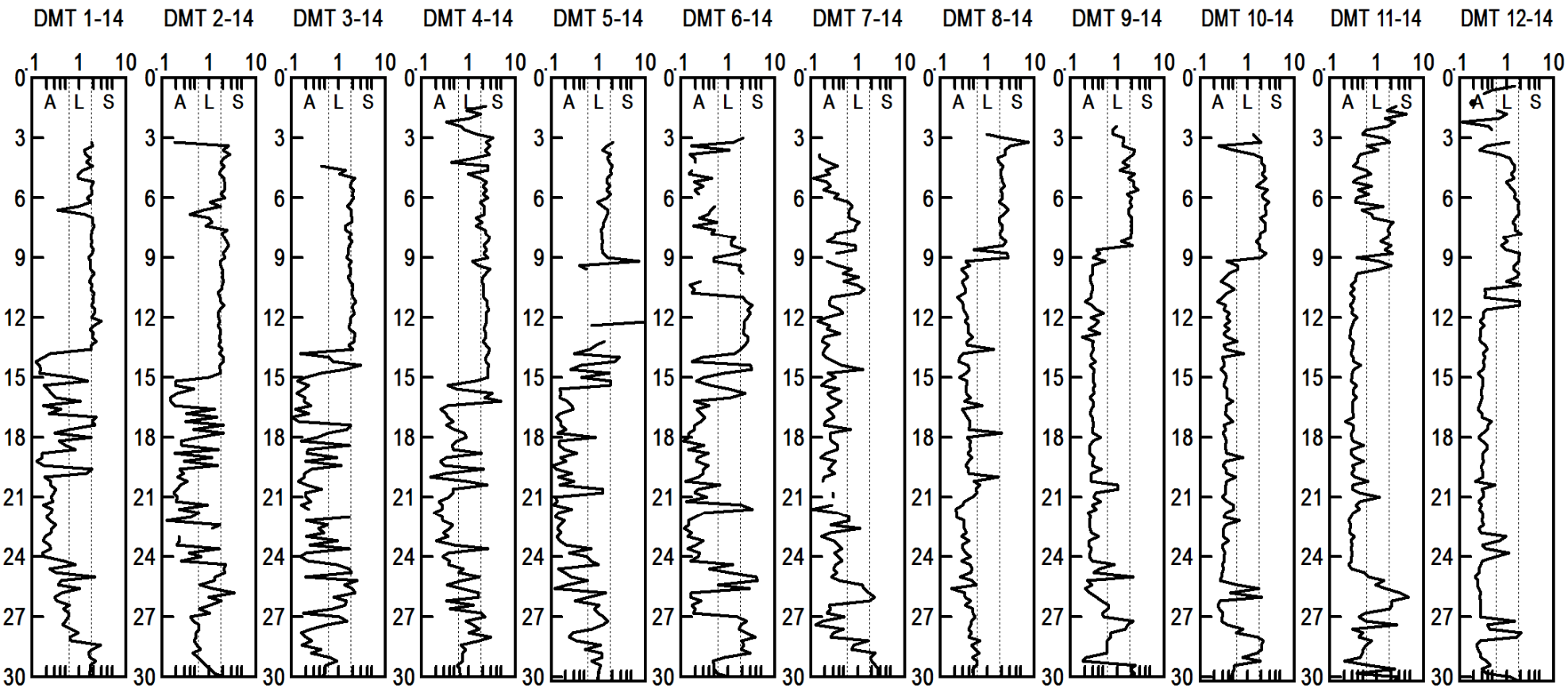
GEOSTUDI SRL

PROFILO DEL PARAMETRO RESIST. TAGLIO NON DRENATA Cu (kPa)



GEOSTUDI SRL

PROFILO DEL PARAMETRO INDICE DI MATERIALE Id



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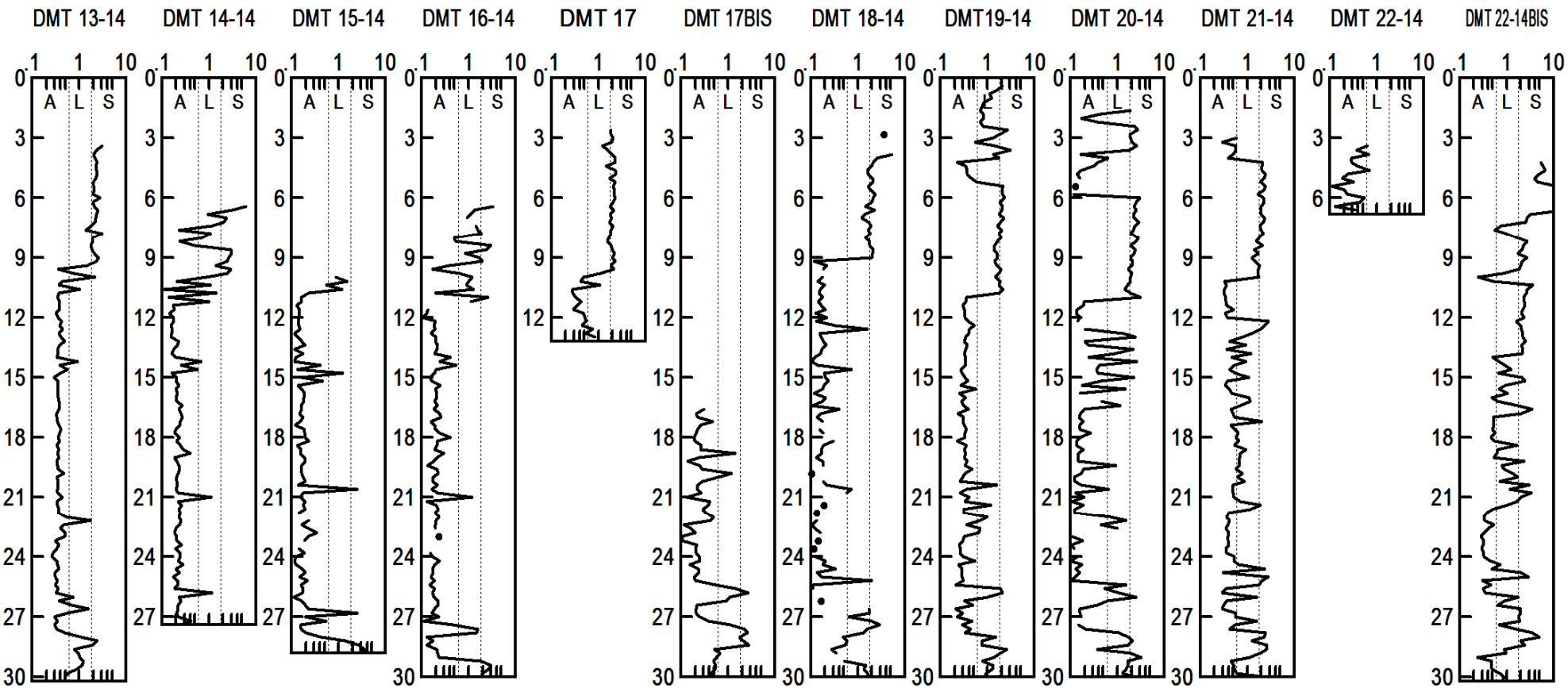

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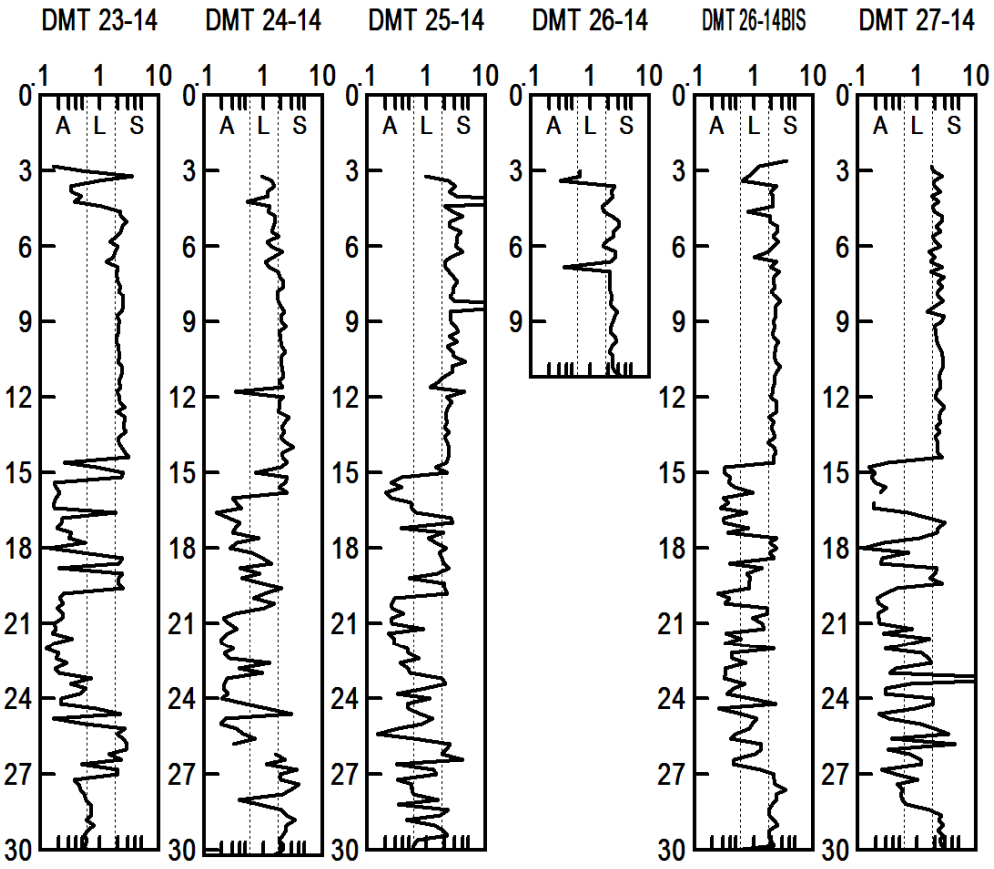
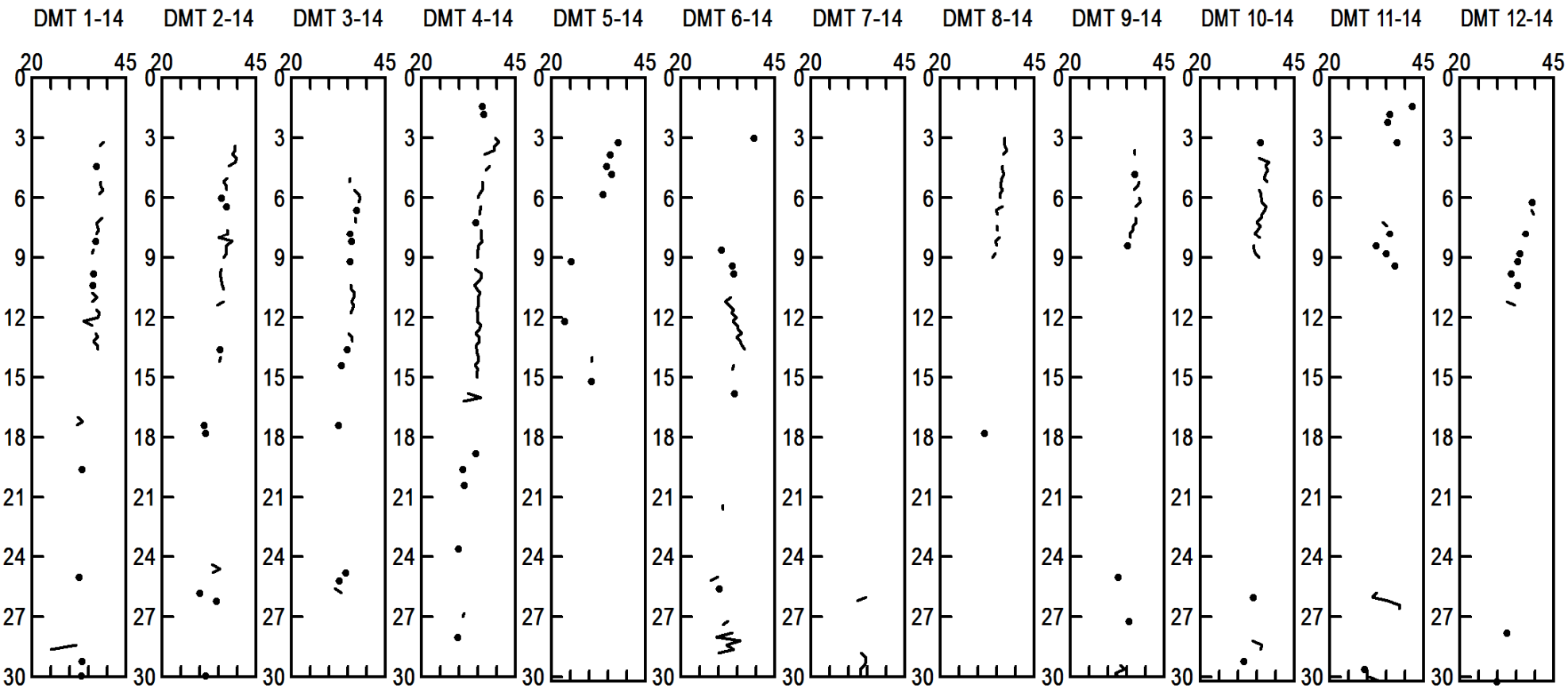


GEOSTUDI SRL

PROFILO DEL PARAMETRO ANGOLO DI ATTRITO (incoerente) Phi (deg)



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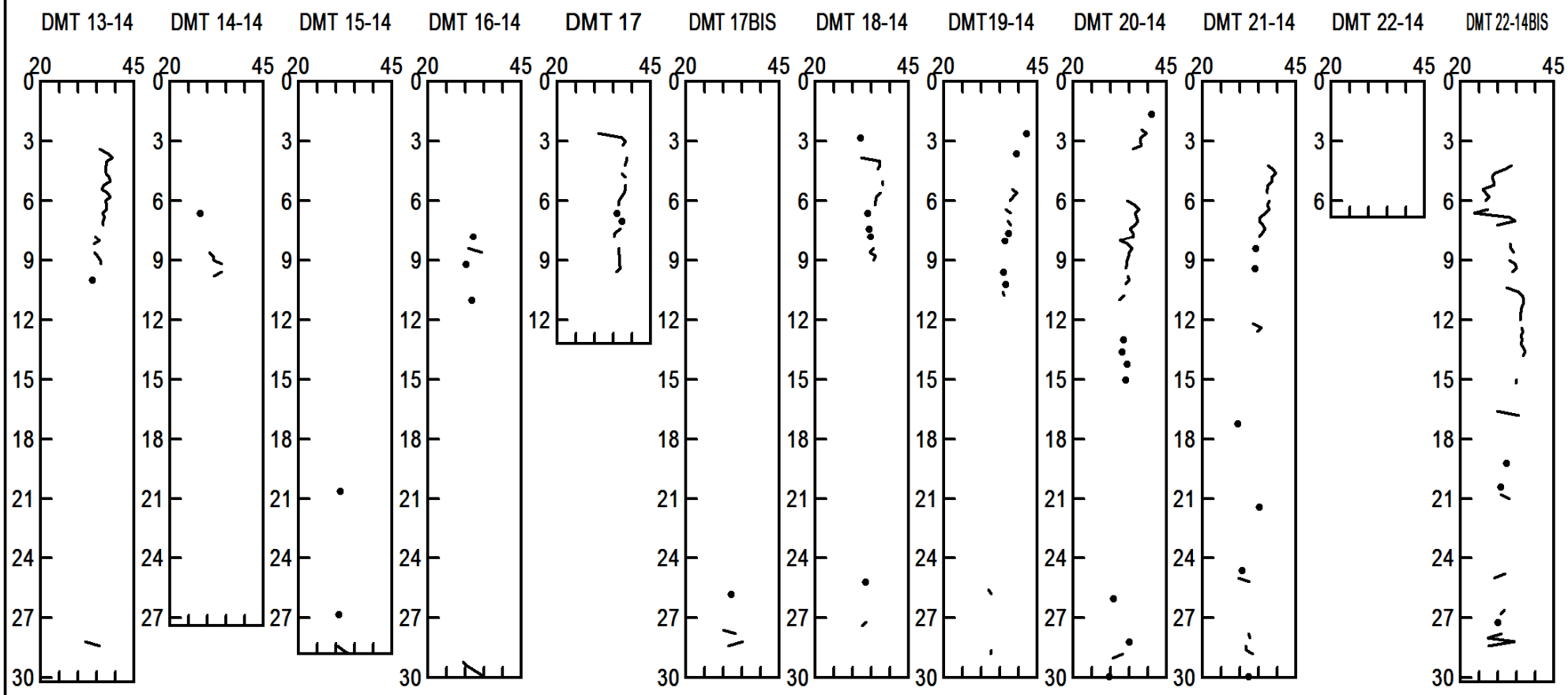

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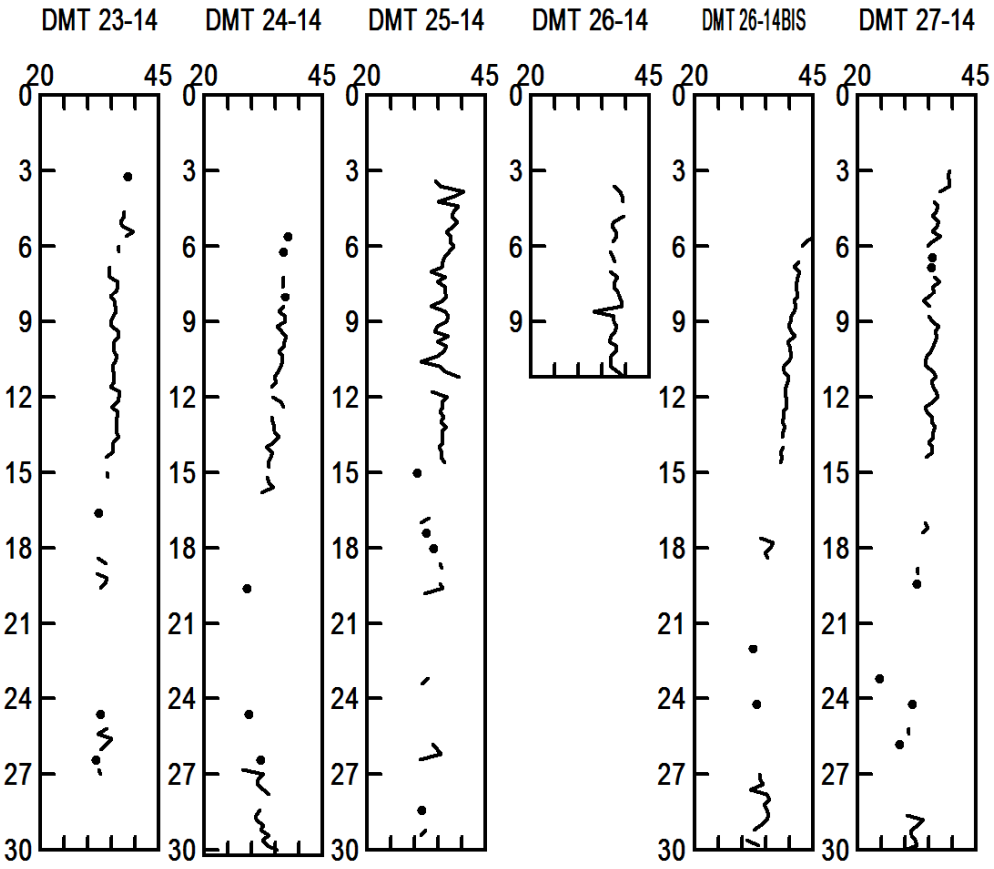
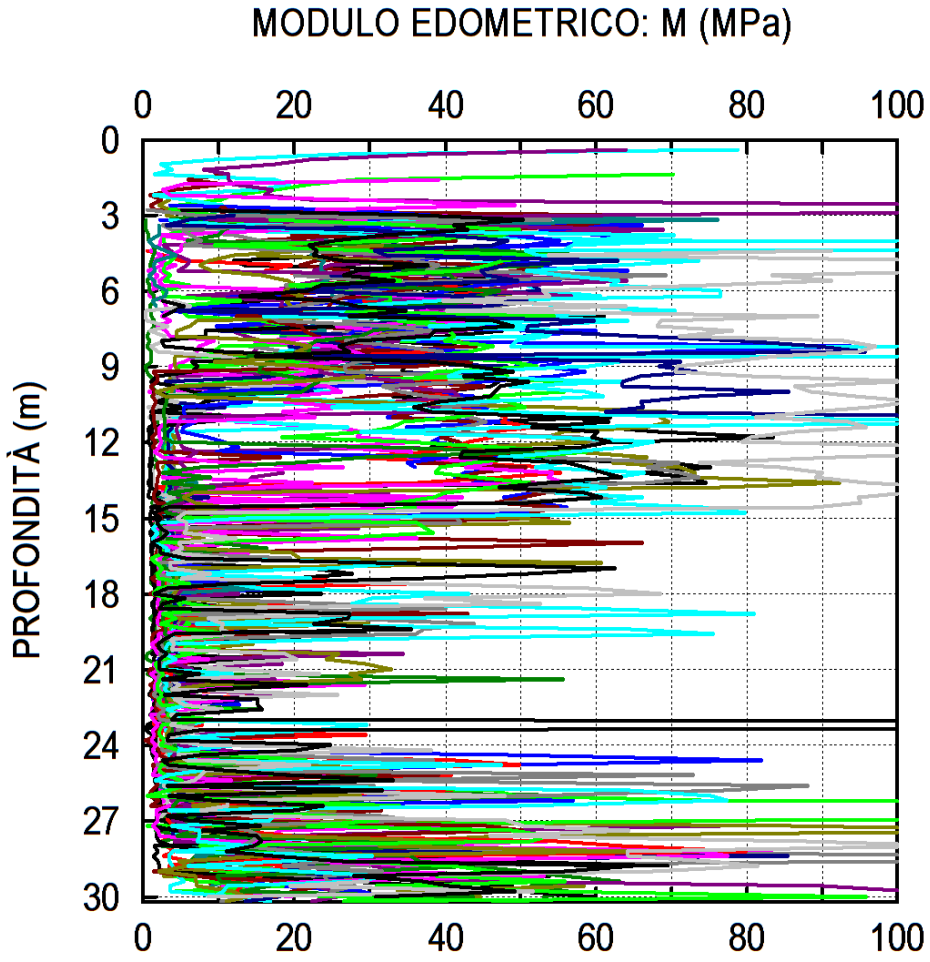
PROFILO DEL PARAMETRO ANGOLO DI ATTRITO (incoerente) Phi (deg)



GEOSTUDI SRL

PROVE SOVRAPPOSTE



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GEOSTUDI SRL

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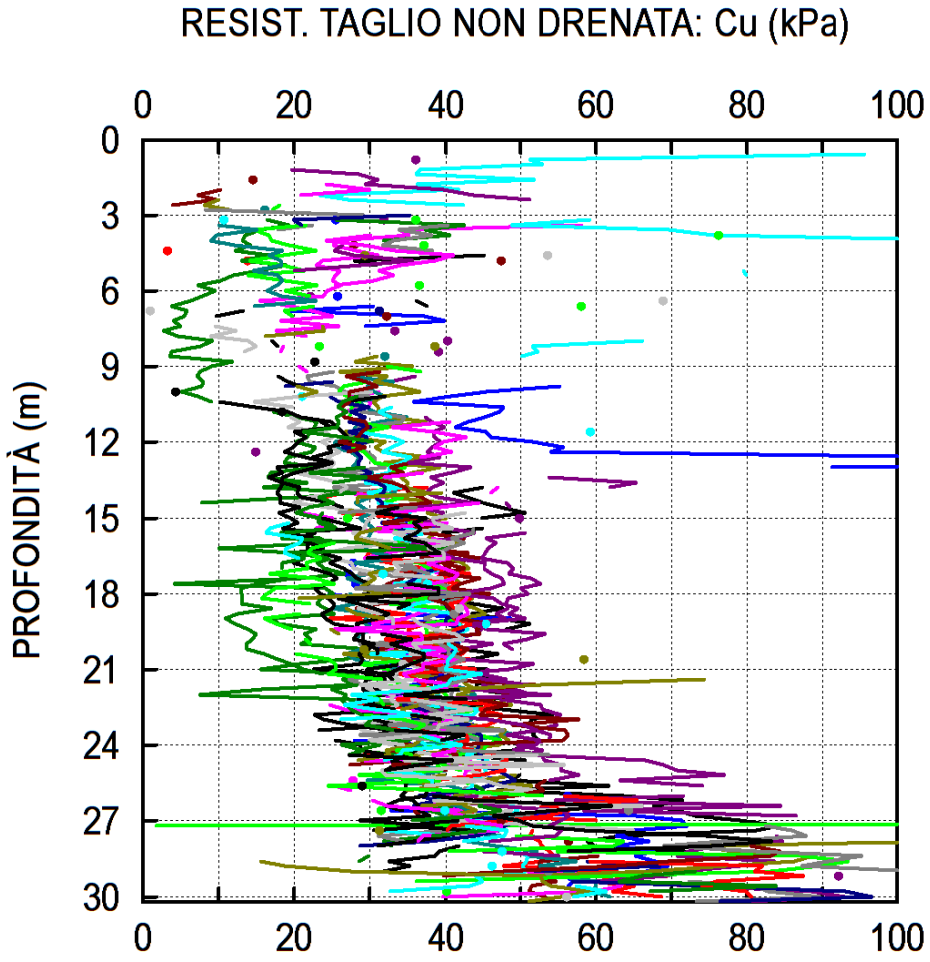

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DMT 13-14 — DMT 14-14 — DMT 15-14 — DMT 16-14
DMT 17 — DMT 17BIS — DMT 18-14 — DMT19-14
DMT 20-14 — DMT 21-14 — DMT 22-14 — DMT 22-14BIS
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DMT 26-14BIS — DMT 27-14

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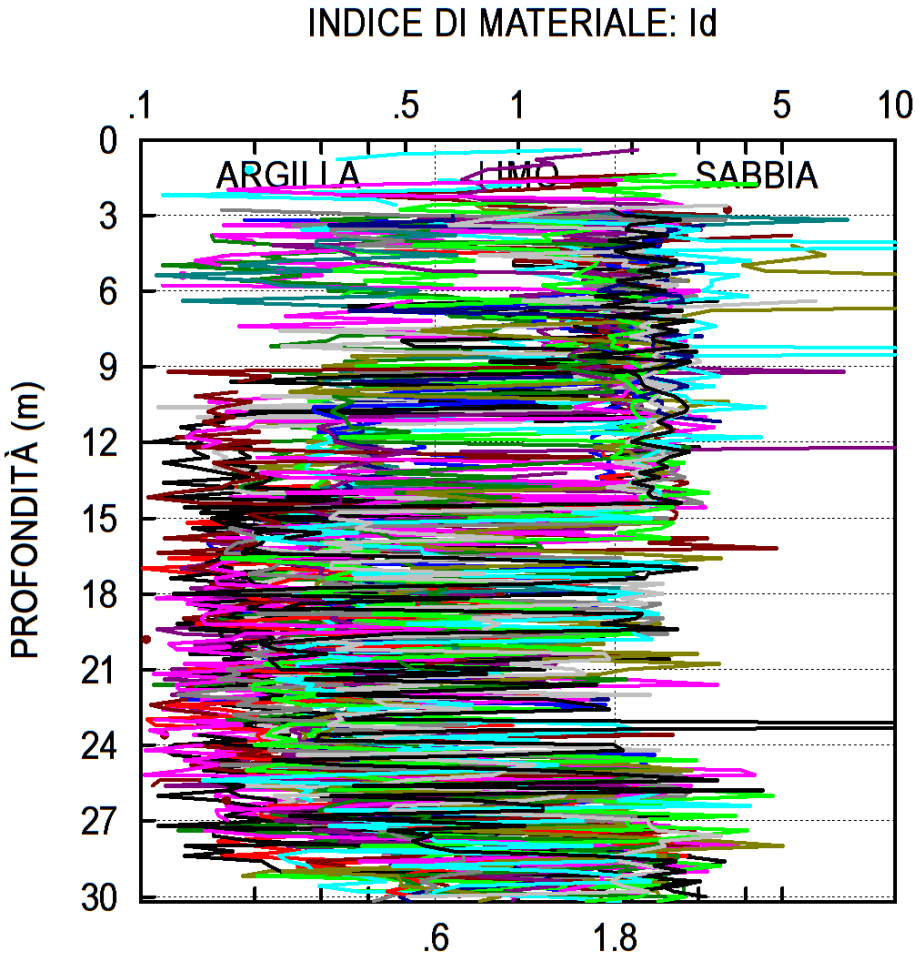
PROVE SOVRAPPOSTE



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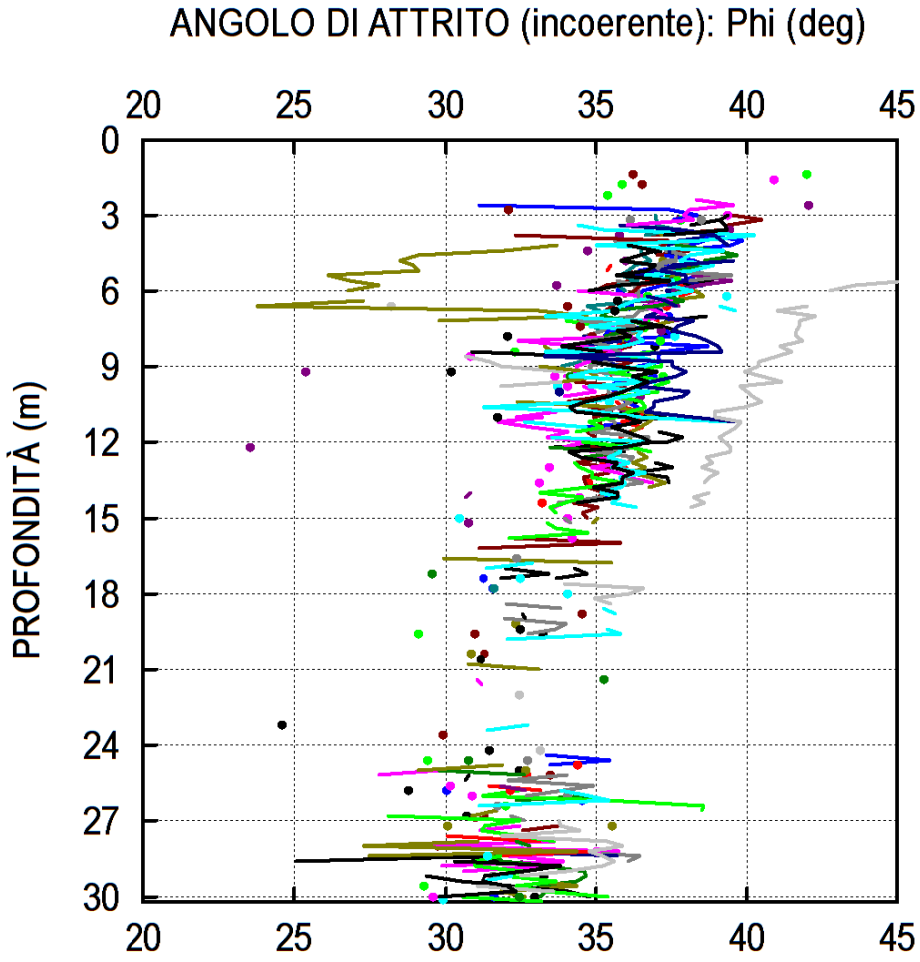
PROVE SOVRAPPOSTE



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DMT 27-14

DMT 1-14

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LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 55 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 1-14 DESCRIZIONE
3.2	270	763		264	708		18.6	33	22	1.83	7.4	15.4				39	34.1		SABBIA LIM
3.4	237	693		233	638		17.7	35	24	1.94	6.0	14.1				38	28.5		SABBIA LIM
3.6	349	803		345	748		17.7	36	26	1.26	8.8	14.0					33.3		LIMO SAB
3.8	277	672		276	617		16.7	38	27	1.37	6.6	11.8					24.8		LIMO SAB
4.0	263	713		259	658		16.7	39	29	1.74	5.9	13.8					27.6		LIMO SAB
4.2	303	738		300	683		17.7	40	31	1.43	6.6	13.3					27.9		LIMO SAB
4.4	241	688		237	633		17.7	42	33	1.94	4.8	13.7				37	25.0		SABBIA LIM
4.6	339	751		337	696		17.7	44	35	1.19	6.9	12.5		1.4	6.9		26.6	45	LIMO
4.8	238	499		243	444		16.7	45	37	0.97	4.6	7.0		1.1	3.6		11.9	28	LIMO
5.0	259	536		264	481		16.7	47	39	0.97	4.8	7.5		1.1	4.0		13.3	31	LIMO
5.2	349	993		335	938		18.6	48	41	2.05	6.1	20.9				38	42.8		SABBIA LIM
5.4	368	980		356	925		18.6	50	43	1.82	6.3	19.7				38	40.7		SABBIA LIM
5.6	424	1129		407	1074		18.6	51	45	1.84	7.0	23.1				39	50.2		SABBIA LIM
5.8	366	981		354	926		18.6	53	47	1.87	5.8	19.9				38	39.3		SABBIA LIM
6.0	468	1104		455	1049		17.7	55	49	1.47	7.4	20.6					45.5		LIMO SAB
6.2	323	828		316	773		17.7	57	51	1.72	4.7	15.8					28.2		LIMO SAB
6.4	317	633		320	578		16.7	58	53	0.97	4.6	9.0		1.1	3.7		15.4	36	LIMO
6.6	321	480		332	425		16.7	60	55	0.34	4.6	3.2		1.1	3.7		5.6	38	ARG LIM
6.8	281	638		282	583		16.7	61	57	1.34	3.7	10.5					16.0		LIMO SAB
7.0	502	1359		478	1304		18.6	62	59	1.97	6.7	28.7				39	61.1		SABBIA LIM
7.2	405	1057		391	1002		18.6	64	61	1.85	5.2	21.2				37	39.8		SABBIA LIM
7.4	409	1124		392	1069		18.6	66	63	2.06	5.0	23.5				37	43.6		SABBIA LIM
7.6	457	1200		438	1145		18.6	68	65	1.89	5.5	24.5				38	47.6		SABBIA LIM
7.8	424	1092		409	1037		18.6	69	67	1.83	4.9	21.8				37	40.0		SABBIA LIM
8.0	388	979		377	924		17.7	71	69	1.77	4.3	19.0					32.4		LIMO SAB
8.2	433	1133		417	1078		18.6	73	71	1.91	4.8	23.0				37	41.4		SABBIA LIM
8.4	444	1100		430	1045		17.7	74	73	1.72	4.8	21.4					38.5		LIMO SAB
8.6	414	1110		398	1055		18.6	76	75	2.03	4.3	22.8				36	38.9		SABBIA LIM
8.8	399	1020		386	965		18.6	78	77	1.87	4.0	20.1				36	32.8		SABBIA LIM
9.0	454	1068		442	1013		17.7	80	78	1.57	4.6	19.8					34.6		LIMO SAB
9.2	434	1064		421	1009		17.7	81	80	1.73	4.2	20.4					34.2		LIMO SAB
9.4	494	1194		477	1139		17.7	83	82	1.67	4.8	23.0					41.2		LIMO SAB
9.6	522	1297		502	1242		17.7	84	84	1.77	5.0	25.7					47.1		LIMO SAB
9.8	476	1283		454	1228		18.6	86	86	2.10	4.3	26.9				36	46.1		SABBIA LIM
10.0	478	1187		461	1132		17.7	88	88	1.80	4.3	23.3					39.4		LIMO SAB
10.2	458	1087		445	1032		17.7	89	90	1.65	4.0	20.4					33.0		LIMO SAB
10.4	486	1228		467	1173		18.6	91	92	1.88	4.1	24.5				36	40.9		SABBIA LIM
10.6	491	1193		474	1138		17.7	92	94	1.75	4.1	23.0					38.1		LIMO SAB
10.8	480	1283		458	1228		18.6	94	96	2.12	3.9	26.7				36	43.2		SABBIA LIM
11.0	618	1596		588	1541		19.6	96	98	1.95	5.1	33.1				37	61.9		SABBIA LIM
11.2	508	1312		486	1257		18.6	98	100	2.00	4.0	26.7				36	43.7		SABBIA LIM
11.4	651	1606		622	1551		19.1	100	102	1.79	5.2	32.2					60.8		LIMO SAB
11.6	637	1724		601	1669		19.6	101	104	2.15	4.9	37.1				37	68.2		SABBIA LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 1-14 DESCRIZIONE
11.8	740	1967		697	1912		19.6	103	106	2.05	5.7	42.2				38	83.5		SABBIA LIM
12.0	689	1703		657	1648		19.6	105	108	1.81	5.2	34.4				37	64.8		SABBIA LIM
12.2	410	1271		385	1216		18.6	107	110	3.01	2.6	28.8				34	38.0		SABBIA LIM
12.4	568	1479		541	1424		18.6	109	112	2.06	3.9	30.6				36	50.0		SABBIA LIM
12.6	578	1365		557	1310		17.7	111	114	1.70	4.0	26.1					42.5		LIMO SAB
12.8	692	1809		655	1754		19.6	112	116	2.04	4.8	38.1				37	69.3		SABBIA LIM
13.0	770	1919		731	1864		19.6	114	118	1.85	5.4	39.3				38	75.2		SABBIA LIM
13.2	644	1775		606	1720		19.6	116	120	2.29	4.2	38.7				36	65.8		SABBIA LIM
13.4	773	1902		735	1847		19.6	118	122	1.81	5.2	38.6				37	72.5		SABBIA LIM
13.6	793	1947		754	1892		19.6	120	124	1.81	5.2	39.5				37	74.6		SABBIA LIM
13.8	484	639		495	584		16.7	122	126	0.24	3.0	3.1		0.79	1.9		3.9	45	ARGILLA
14.0	459	586		471	531		16.7	124	128	0.17	2.8	2.1		0.74	1.7		2.5	41	ARGILLA
14.2	473	584		486	529		15.7	125	129	0.12	2.9	1.5		0.75	1.7		1.8	43	ARGILLA
14.4	490	610		503	555		16.7	126	131	0.14	2.9	1.8		0.77	1.8		2.3	45	ARGILLA
14.6	509	636		521	581		16.7	127	133	0.15	3.0	2.1		0.79	1.9		2.7	47	ARGILLA
14.8	533	659		545	604		16.7	129	135	0.14	3.2	2.0		0.82	2.1		2.7	51	ARGILLA
15.0	507	836		509	781		17.7	130	137	0.73	2.9	9.4		0.75	1.7		11.6	45	LIMO ARG
15.2	509	1096		498	1041		17.7	132	139	1.51	2.7	18.8					23.4		LIMO SAB
15.4	505	637		517	582		16.7	133	141	0.17	2.8	2.3		0.74	1.7		2.7	45	ARGILLA
15.6	471	610		483	555		16.7	135	143	0.21	2.5	2.5		0.67	1.4		2.7	40	ARGILLA
15.8	487	642		498	587		16.7	136	145	0.25	2.6	3.1		0.69	1.5		3.5	41	ARGILLA
16.0	463	634		473	579		16.7	137	147	0.33	2.4	3.7		0.64	1.3		3.8	37	ARGILLA
16.2	431	785		432	730		16.7	139	149	1.05	2.0	10.3		0.55	1.0		9.5	31	LIMO
16.4	487	613		499	558		16.7	140	151	0.17	2.5	2.0		0.67	1.4		2.2	40	ARGILLA
16.6	482	684		490	629		16.7	142	153	0.41	2.4	4.8		0.64	1.3		5.0	39	ARG LIM
16.8	448	583		460	528		16.7	143	155	0.22	2.1	2.4		0.58	1.1		2.2	34	ARGILLA
17.0	451	1133		435	1078		18.6	144	157	2.31	1.9	22.3				32	22.2		SABBIA LIM
17.2	539	1250		522	1195		18.6	146	159	1.85	2.5	23.4				33	27.7		SABBIA LIM
17.4	453	1090		440	1035		18.6	148	161	2.14	1.9	20.7				32	19.8		SABBIA LIM
17.6	492	760		497	705		16.7	150	163	0.62	2.2	7.2		0.61	1.2		7.0	38	LIMO ARG
17.8	511	682		521	627		16.7	151	165	0.30	2.4	3.7		0.64	1.3		3.8	41	ARGILLA
18.0	528	1188		513	1133		17.7	152	167	1.79	2.3	21.5					23.6		LIMO SAB
18.2	493	681		502	626		16.7	154	169	0.37	2.2	4.3		0.59	1.1		4.0	37	ARG LIM
18.4	543	795		549	740		16.7	155	171	0.51	2.4	6.6		0.65	1.4		7.0	44	ARG LIM
18.6	580	977		579	922		17.7	157	173	0.85	2.6	11.9		0.69	1.5		13.5	48	LIMO
18.8	540	668		552	613		16.7	158	175	0.16	2.4	2.1		0.64	1.3		2.2	43	ARGILLA
19.0	571	704		583	649		16.7	160	177	0.16	2.5	2.3		0.68	1.5		2.5	47	ARGILLA
19.2	599	720		611	665		16.7	161	179	0.12	2.7	1.9		0.71	1.6		2.1	51	ARGILLA
19.4	581	720		593	665		16.7	162	181	0.18	2.5	2.5		0.68	1.5		2.8	48	ARGILLA
19.6	595	1365		575	1310		18.6	164	182	1.87	2.4	25.5				33	29.4		SABBIA LIM
19.8	483	945		478	890		17.7	166	184	1.40	1.8	14.3					12.1		LIMO SAB
20.0	574	713		586	658		16.7	167	186	0.18	2.4	2.5		0.64	1.3		2.6	46	ARGILLA
20.2	552	711		563	656		16.7	168	188	0.25	2.2	3.2		0.60	1.2		3.1	42	ARGILLA
20.4	588	751		598	696		16.7	170	190	0.24	2.4	3.4		0.65	1.3		3.5	47	ARGILLA
20.6	567	753		576	698		16.7	171	192	0.32	2.2	4.2		0.61	1.2		4.1	43	ARGILLA
20.8	507	665		518	610		16.7	173	194	0.29	1.9	3.2		0.51	0.91		2.7	35	ARGILLA
21.0	586	751		596	696		16.7	174	196	0.25	2.3	3.5		0.62	1.2		3.4	46	ARGILLA
21.2	583	757		593	702		16.7	175	198	0.28	2.3	3.8		0.61	1.2		3.7	45	ARGILLA
21.4	591	727		603	672		16.7	177	200	0.17	2.3	2.4		0.62	1.2		2.4	46	ARGILLA
21.6	583	753		593	698		16.7	178	202	0.27	2.2	3.6		0.60	1.2		3.4	44	ARGILLA
21.8	586	750		596	695		16.7	179	204	0.25	2.2	3.4		0.59	1.2		3.2	44	ARGILLA
22.0	625	777		636	722		16.7	181	206	0.20	2.4	3.0		0.64	1.3		3.1	49	ARGILLA
22.2	604	763		615	708		16.7	182	208	0.23	2.2	3.2		0.60	1.2		3.1	46	ARGILLA
22.4	573	757		582	702		16.7	184	210	0.32	2.0	4.2		0.55	1.0		3.6	41	ARGILLA
22.6	622	796		632	741		16.7	185	212	0.26	2.3	3.8		0.61	1.2		3.7	48	ARGILLA
22.8	671	853		680	798		16.7	186	214	0.25	2.5	4.1		0.67	1.4		4.4	54	ARGILLA
23.0	653	803		664	748		16.7	188	216	0.19	2.4	2.9		0.64	1.3		3.0	52	ARGILLA
23.2	652	794		663	739		16.7	189	218	0.17	2.4	2.6		0.64	1.3		2.7	51	ARGILLA
23.4	662	831		672	776		16.7	190	220	0.23	2.4	3.6		0.64	1.3		3.7	52	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 1-14 DESCRIZIONE
23.6	663	839		673	784		16.7	192	222	0.25	2.4	3.9		0.63	1.3		3.9	52	ARGILLA
23.8	669	810		680	755		16.7	193	224	0.16	2.4	2.6		0.64	1.3		2.6	52	ARGILLA
24.0	663	812		674	757		16.7	195	226	0.18	2.3	2.9		0.62	1.3		2.9	51	ARGILLA
24.2	656	922		661	867		17.7	196	228	0.47	2.2	7.1		0.60	1.2		6.8	49	ARG LIM
24.4	612	986		612	931		17.7	198	230	0.84	1.9	11.1		0.53	0.95		9.4	42	LIMO
24.6	669	840		679	785		16.7	199	232	0.24	2.2	3.7		0.61	1.2		3.6	51	ARGILLA
24.8	671	879		679	824		16.7	200	233	0.33	2.2	5.0		0.60	1.2		4.8	50	ARGILLA
25.0	684	1613		656	1558		18.6	202	235	2.14	2.1	31.3				32	32.9		SABBIA LIM
25.2	675	921		681	866		17.7	204	237	0.42	2.2	6.4		0.59	1.1		6.0	50	ARG LIM
25.4	668	884		676	829		16.7	205	239	0.35	2.1	5.3		0.58	1.1		4.9	49	ARG LIM
25.6	780	1375		769	1320		17.7	207	241	1.05	2.6	19.1		0.68	1.5		21.8	62	LIMO
25.8	661	902		667	847		17.7	208	243	0.42	2.0	6.2		0.55	1.0		5.4	47	ARG LIM
26.0	780	1004		787	949		17.7	210	245	0.30	2.6	5.6		0.69	1.5		6.2	64	ARGILLA
26.2	838	1099		843	1044		17.7	211	247	0.34	2.8	7.0		0.75	1.7		8.4	71	ARG LIM
26.4	822	1232		820	1177		17.7	213	249	0.63	2.7	12.4		0.71	1.6		14.3	68	LIMO ARG
26.6	842	1174		844	1119		17.7	214	251	0.46	2.8	9.5		0.73	1.7		11.3	71	ARG LIM
26.8	866	1290		863	1235		17.7	216	253	0.61	2.8	12.9		0.75	1.7		15.5	73	LIMO ARG
27.0	908	1339		905	1284		17.7	218	255	0.58	3.0	13.2		0.78	1.9		16.6	79	ARG LIM
27.2	943	1342		942	1287		17.7	219	257	0.50	3.1	12.0		0.81	2.0		15.7	84	ARG LIM
27.4	924	1269		925	1214		17.7	221	259	0.43	3.0	10.0		0.79	1.9		12.8	81	ARG LIM
27.6	809	1224		807	1169		17.7	222	261	0.66	2.5	12.6		0.66	1.4		13.4	63	LIMO ARG
27.8	787	1323		779	1268		17.7	224	263	0.95	2.3	17.0		0.62	1.3		17.5	59	LIMO
28.0	789	1175		788	1120		17.7	225	265	0.63	2.3	11.5		0.63	1.3		11.6	60	LIMO ARG
28.2	878	1342		873	1287		17.7	227	267	0.68	2.7	14.4		0.71	1.6		16.6	72	LIMO ARG
28.4	733	1951		691	1896		19.6	229	269	2.86	1.8	41.8				32	42.5		SABBIA LIM
28.6	415	743		417	688		17.7	230	271	1.85	0.6	9.4				25	8.0		SABBIA LIM
28.8	885	1830		856	1775		19.1	232	273	1.57	2.5	31.9					37.4		LIMO SAB
29.0	801	1667		776	1612		19.1	234	275	1.67	2.1	29.0					29.8		LIMO SAB
29.2	892	2197		845	2142		19.6	236	277	2.28	2.4	45.0				33	53.9		SABBIA LIM
29.4	875	1868		844	1813		19.1	238	279	1.71	2.4	33.6					38.1		LIMO SAB
29.6	958	2107		919	2052		19.1	240	281	1.77	2.7	39.3					49.0		LIMO SAB
29.8	892	1851		863	1796		19.1	241	283	1.61	2.4	32.4					36.7		LIMO SAB
30.0	875	1947		840	1892		19.6	243	284	1.89	2.3	36.5				33	40.5		SABBIA LIM

DMT 2-14

15 GEN 2015

GEOSTUDI SRL
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LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 9 kPa
DeltaB = 58 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.6 m

Falda a 1.60 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 2-14 DESCRIZIONE
3.2	194	294		201	236		15.7	39	16	0.19	4.8	1.2		1.1	3.9		2.1	25	ARGILLA
3.4	368	1224		338	1166		18.6	40	18	2.59	8.0	28.7				39	66.2		SABBIA LIM
3.6	377	1072		355	1014		18.6	42	20	1.97	8.0	22.9				39	52.5		SABBIA LIM
3.8	344	1184		314	1126		18.6	43	22	2.77	6.7	28.2				39	60.6		SABBIA LIM
4.0	444	1274		415	1216		18.6	45	24	2.05	8.7	27.8				40	65.8		SABBIA LIM
4.2	424	1136		401	1078		18.6	47	26	1.80	8.0	23.5				39	53.8		SABBIA LIM
4.4	312	917		294	859		18.6	49	27	2.12	5.5	19.6				38	38.1		SABBIA LIM
4.6	383	1013		364	955		17.7	50	29	1.77	6.6	20.5					43.3		LIMO SAB
4.8	348	897		333	839		17.7	52	31	1.68	5.8	17.6					34.8		LIMO SAB
5.0	332	954		313	896		18.6	54	33	2.08	5.2	20.2				37	38.4		SABBIA LIM
5.2	290	847		275	789		18.6	55	35	2.15	4.3	17.9				36	30.8		SABBIA LIM
5.4	341	995		321	937		18.6	57	37	2.18	5.0	21.4				37	39.6		SABBIA LIM
5.6	357	1014		337	956		18.6	59	39	2.08	5.0	21.5				37	40.1		SABBIA LIM
5.8	392	1023		373	965		17.7	61	41	1.79	5.5	20.5					39.6		LIMO SAB
6.0	297	856		281	798		18.6	62	43	2.17	3.8	17.9				36	28.9		SABBIA LIM
6.2	253	524		252	466		16.7	64	45	1.04	3.2	7.4		0.83	2.1		10.2	26	LIMO
6.4	397	1032		378	974		18.6	65	47	1.80	5.1	20.7				37	38.4		SABBIA LIM
6.6	288	526		288	468		16.7	67	49	0.75	3.6	6.2		0.90	2.5		9.1	30	LIMO ARG
6.8	213	343		219	285		15.7	69	51	0.39	2.4	2.3		0.66	1.4		2.4	19	ARG LIM
7.0	341	684		336	626		16.7	70	53	1.02	4.1	10.1		1.0	3.0		16.1	37	LIMO
7.2	363	766		355	708		17.7	71	55	1.17	4.2	12.2		1.0	3.2		20.2	40	LIMO
7.4	294	554		293	496		16.7	73	57	0.86	3.3	7.0		0.84	2.1		9.6	29	LIMO
7.6	473	1410		439	1352		18.6	74	59	2.41	5.1	31.7				37	60.0		SABBIA LIM
7.8	495	1285		468	1227		18.6	76	61	1.87	5.4	26.3				38	50.4		SABBIA LIM
8.0	340	932		323	874		18.6	78	63	2.12	3.4	19.1				35	28.5		SABBIA LIM
8.2	655	1921		604	1863		19.6	79	65	2.33	6.8	43.7				39	93.8		SABBIA LIM
8.4	512	1591		470	1533		19.6	81	67	2.63	5.0	36.9				37	69.1		SABBIA LIM
8.6	510	1469		474	1411		18.6	83	69	2.31	4.9	32.5				37	59.9		SABBIA LIM
8.8	521	1368		491	1310		18.6	85	71	1.95	4.9	28.4				37	52.3		SABBIA LIM
9.0	475	1329		445	1271		18.6	87	73	2.22	4.3	28.7				36	49.4		SABBIA LIM
9.2	543	1337		516	1279		17.7	89	75	1.73	5.0	26.5					48.7		LIMO SAB
9.4	461	1133		440	1075		17.7	90	77	1.75	4.0	22.0					36.1		LIMO SAB
9.6	451	1163		428	1105		18.6	92	78	1.94	3.8	23.5				36	37.5		SABBIA LIM
9.8	435	1127		413	1069		18.6	93	80	1.97	3.6	22.8				35	34.9		SABBIA LIM
10.0	459	1163		436	1105		18.6	95	82	1.89	3.7	23.2				36	36.4		SABBIA LIM
10.2	487	1296		459	1238		18.6	97	84	2.08	3.9	27.0				36	43.7		SABBIA LIM
10.4	503	1281		476	1223		18.6	99	86	1.91	4.0	25.9				36	42.2		SABBIA LIM
10.6	546	1353		518	1295		18.6	101	88	1.81	4.3	27.0				36	45.7		SABBIA LIM
10.8	514	1174		493	1116		17.7	102	90	1.54	3.9	21.6					34.6		LIMO SAB
11.0	477	1133		457	1075		17.7	104	92	1.70	3.5	21.5					32.2		LIMO SAB
11.2	579	1427		549	1369		18.6	105	94	1.80	4.3	28.5				36	48.5		SABBIA LIM
11.4	455	1194		430	1136		18.6	107	96	2.11	3.1	24.5				35	34.8		SABBIA LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 2-14 DESCRIZIONE
11.6	552	1310		526	1252		17.7	109	98	1.69	3.9	25.2					40.5		LIMO SAB
11.8	570	1300		546	1242		17.7	111	100	1.56	4.0	24.2					39.3		LIMO SAB
12.0	562	1286		538	1228		17.7	112	102	1.58	3.9	23.9					38.1		LIMO SAB
12.2	587	1396		559	1338		17.7	114	104	1.71	4.0	27.0					44.0		LIMO SAB
12.4	622	1407		595	1349		19.1	115	106	1.54	4.2	26.2					43.8		LIMO SAB
12.6	624	1480		594	1422		19.1	117	108	1.71	4.1	28.7					47.8		LIMO SAB
12.8	583	1390		555	1332		17.7	119	110	1.75	3.7	27.0					42.2		LIMO SAB
13.0	662	1547		630	1489		19.1	121	112	1.66	4.3	29.8					50.5		LIMO SAB
13.2	586	1410		557	1352		17.7	122	114	1.79	3.6	27.6					42.4		LIMO SAB
13.4	614	1400		587	1342		17.7	124	116	1.60	3.8	26.2					41.2		LIMO SAB
13.6	604	1486		572	1428		19.6	126	118	1.88	3.6	29.7				36	45.8		SABBIA LIM
13.8	725	1693		689	1635		19.1	127	120	1.66	4.5	32.8					56.8		LIMO SAB
14.0	630	1606		594	1548		19.6	129	122	2.02	3.6	33.1				36	51.7		SABBIA LIM
14.2	607	1548		572	1490		19.6	131	124	2.05	3.4	31.8				35	47.8		SABBIA LIM
14.4	698	1643		663	1585		19.1	133	126	1.72	4.0	32.0					52.3		LIMO SAB
14.6	733	1721		696	1663		19.1	135	128	1.70	4.2	33.6					56.2		LIMO SAB
14.8	671	1604		637	1546		19.1	137	129	1.79	3.7	31.6					49.2		LIMO SAB
15.0	464	834		458	776		17.7	139	131	0.97	2.4	11.0		0.63	1.3		11.6	37	LIMO
15.2	425	549		431	491		15.7	140	133	0.20	2.1	2.1		0.58	1.1		1.9	33	ARGILLA
15.4	464	592		470	534		16.7	142	135	0.19	2.4	2.2		0.64	1.3		2.3	38	ARGILLA
15.6	458	672		460	614		16.7	143	137	0.48	2.3	5.4		0.61	1.2		5.2	37	ARG LIM
15.8	436	564		442	506		16.7	144	139	0.21	2.1	2.2		0.57	1.1		2.0	34	ARGILLA
16.0	478	594		485	536		15.7	146	141	0.15	2.4	1.8		0.64	1.3		1.8	39	ARGILLA
16.2	477	594		484	536		15.7	147	143	0.15	2.3	1.8		0.63	1.3		1.8	39	ARGILLA
16.4	501	631		507	573		16.7	148	145	0.18	2.4	2.3		0.66	1.4		2.4	42	ARGILLA
16.6	446	885		436	827		17.7	149	147	1.35	1.9	13.6					12.2		LIMO SAB
16.8	405	552		410	494		16.7	151	149	0.32	1.7	2.9		0.47	<0.8		2.5	28	ARGILLA
17.0	390	787		383	729		16.7	152	151	1.50	1.5	12.0					10.2		LIMO SAB
17.2	405	549		410	491		16.7	154	153	0.31	1.7	2.8		0.45	<0.8		2.4	27	ARGILLA
17.4	435	1011		419	953		18.6	155	155	2.03	1.7	18.5				31	15.8		SABBIA LIM
17.6	419	604		422	546		16.7	157	157	0.47	1.7	4.3		0.46	<0.8		3.7	28	ARG LIM
17.8	462	1077		444	1019		18.6	158	159	2.02	1.8	20.0				32	18.0		SABBIA LIM
18.0	398	602		400	544		16.7	160	161	0.60	1.5	5.0		0.40	<0.8		4.2	24	LIMO ARG
18.2	430	562		436	504		15.7	161	163	0.25	1.7	2.4		0.46	<0.8		2.0	29	ARGILLA
18.4	463	606		468	548		16.7	163	165	0.26	1.9	2.8		0.51	0.90		2.4	33	ARGILLA
18.6	478	1005		464	947		17.7	164	167	1.63	1.8	16.8					14.5		LIMO SAB
18.8	461	581		467	523		15.7	166	169	0.19	1.8	1.9		0.49	0.85		1.6	32	ARGILLA
19.0	604	1142		589	1084		17.7	167	171	1.18	2.5	17.2		0.67	1.4		19.5	49	LIMO
19.2	450	596		455	538		16.7	168	173	0.29	1.7	2.9		0.45	<0.8		2.4	30	ARGILLA
19.4	460	931		449	873		17.7	170	175	1.55	1.6	14.7					12.5		LIMO SAB
19.6	469	603		475	545		16.7	171	177	0.24	1.7	2.4		0.47	0.81		2.1	32	ARGILLA
19.8	494	651		499	593		16.7	173	179	0.30	1.9	3.3		0.50	0.89		2.8	35	ARGILLA
20.0	476	603		482	545		16.7	174	181	0.21	1.7	2.2		0.47	0.80		1.9	32	ARGILLA
20.2	472	638		476	580		16.7	175	182	0.35	1.7	3.6		0.45	<0.8		3.1	31	ARG LIM
20.4	511	654		516	596		16.7	177	184	0.24	1.9	2.8		0.51	0.91		2.4	36	ARGILLA
20.6	501	632		507	574		16.7	178	186	0.21	1.8	2.3		0.49	0.85		2.0	34	ARGILLA
20.8	491	611		497	553		15.7	179	188	0.18	1.7	1.9		0.47	<0.8		1.6	33	ARGILLA
21.0	509	641		515	583		16.7	181	190	0.21	1.8	2.4		0.49	0.85		2.0	35	ARGILLA
21.2	539	673		545	615		16.7	182	192	0.20	1.9	2.4		0.53	0.95		2.1	38	ARGILLA
21.4	581	982		573	924		17.7	183	194	0.93	2.1	12.2		0.56	1.1		11.2	42	LIMO
21.6	523	663		528	605		16.7	185	196	0.23	1.8	2.7		0.49	0.85		2.3	36	ARGILLA
21.8	515	766		515	708		16.7	186	198	0.61	1.7	6.7		0.46	<0.8		5.7	33	LIMO ARG
22.0	507	698		510	640		16.7	188	200	0.42	1.6	4.5		0.45	<0.8		3.8	32	ARG LIM
22.2	509	614		516	556		15.7	189	202	0.13	1.7	1.4		0.45	<0.8		1.2	33	ARGILLA
22.4	468	946		456	888		17.7	190	204	1.71	1.3	15.0					12.7		LIMO SAB
22.6	476	833		471	775		16.7	192	206	1.15	1.4	10.6		0.36	<0.8		9.0	27	LIMO
22.8	532	628		540	570		13.7	193	208	0.09	1.7	1.1		0.46	<0.8		0.9	35	FANGO E/O TORBA
23.0	559	703		564	645		16.7	194	210	0.23	1.8	2.8		0.50	0.87		2.4	38	ARGILLA
23.2	603	759		608	701		16.7	195	212	0.24	2.0	3.2		0.55	1.0		2.8	44	ARGILLA

23.4	577	715		582	657		16.7	197	214	0.20	1.9	2.6		0.51	0.91		2.2	40	ARGILLA
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 2-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
23.6	577	1187		559	1129		17.7	198	216	1.66	1.7	19.8					16.8		LIMO SAB
23.8	491	656		495	598		16.7	200	218	0.37	1.4	3.6		0.36	<0.8		3.0	28	ARG LIM
24.0	573	868		571	810		17.7	201	220	0.68	1.7	8.3		0.47	0.81		7.1	37	LIMO ARG
24.2	540	686		545	628		16.7	203	222	0.26	1.6	2.9		0.43	<0.8		2.4	34	ARGILLA
24.4	768	1929		722	1871		19.6	204	224	2.30	2.4	39.9				33	48.3		SABBIA LIM
24.6	1027	2549		963	2491		19.6	206	226	2.07	3.6	53.0				35	82.0		SABBIA LIM
24.8	791	1939		746	1881		19.6	208	228	2.19	2.5	39.4				33	48.1		SABBIA LIM
25.0	687	1308		668	1250		17.7	210	230	1.33	2.1	20.2					19.6		LIMO SAB
25.2	438	757		434	699		16.7	211	232	1.30	1.0	9.2					7.8		LIMO SAB
25.4	656	973		652	915		17.7	213	233	0.63	2.0	9.1		0.54	0.98		7.7	46	LIMO ARG
25.6	832	1566		808	1508		19.1	214	235	1.22	2.7	24.3					29.2		LIMO SAB
25.8	578	1648		537	1590		18.6	216	237	3.52	1.4	36.5				30	31.1		SABBIA
26.0	748	1271		734	1213		17.7	218	239	0.97	2.3	16.6		0.61	1.2		16.9	56	LIMO
26.2	953	2164		905	2106		19.6	220	241	1.81	3.0	41.7				35	57.0		SABBIA LIM
26.4	646	1097		636	1039		17.7	222	243	1.03	1.8	14.0		0.48	0.83		11.9	42	LIMO
26.6	568	824		568	766		16.7	223	245	0.62	1.4	6.9		0.38	<0.8		5.9	33	LIMO ARG
26.8	828	1460		809	1402		19.1	225	247	1.06	2.5	20.6		0.67	1.4		23.1	65	LIMO
27.0	855	1151		853	1093		17.7	226	249	0.40	2.7	8.3		0.71	1.6		9.6	71	ARG LIM
27.2	865	1197		861	1139		17.7	228	251	0.46	2.7	9.7		0.71	1.6		11.1	72	ARG LIM
27.4	822	1218		815	1160		17.7	230	253	0.62	2.4	12.0		0.66	1.4		12.7	65	LIMO ARG
27.6	809	1201		802	1143		17.7	231	255	0.62	2.4	11.8		0.64	1.3		12.1	63	LIMO ARG
27.8	840	1201		834	1143		17.7	233	257	0.53	2.5	10.7		0.67	1.4		11.5	67	ARG LIM
28.0	811	1160		806	1102		17.7	234	259	0.54	2.3	10.3		0.63	1.3		10.4	63	ARG LIM
28.2	848	1177		844	1119		17.7	236	261	0.47	2.5	9.5		0.66	1.4		10.2	68	ARG LIM
28.4	836	1203		830	1145		17.7	237	263	0.56	2.4	10.9		0.64	1.3		11.3	65	ARG LIM
28.6	860	1290		851	1232		17.7	239	265	0.65	2.5	13.2		0.66	1.4		14.1	68	LIMO ARG
28.8	869	1195		865	1137		17.7	240	267	0.45	2.5	9.4		0.67	1.4		10.1	69	ARG LIM
29.0	856	1255		848	1197		17.7	242	269	0.60	2.4	12.1		0.65	1.3		12.5	67	LIMO ARG
29.2	783	1189		775	1131		17.7	244	271	0.71	2.1	12.4		0.56	1.1		11.1	56	LIMO ARG
29.4	797	1270		786	1212		17.7	245	273	0.83	2.1	14.8		0.57	1.1		13.6	57	LIMO
29.6	800	1390		783	1332		17.7	247	275	1.08	2.1	19.1		0.56	1.0		17.7	56	LIMO
29.8	890	1687		862	1629		19.1	248	277	1.31	2.4	26.6					28.9		LIMO SAB
30.0	769	1777		731	1719		19.6	250	279	2.18	1.8	34.3				32	31.7		SABBIA LIM

DMT 3-14

12 GEN 2015

GEOSTUDI SRL
AUT. PORT. RAVENNA
PORT HUB
STAB. VERSALIS RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 55 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 3-14 DESCRIZIONE
4.4	54	138		68	83		14.7	41	33	0.42	0.8	0.5		< 0.3	<0.8		0.4	3	FANGO
4.6	89	245		100	190		15.7	42	35	1.40	1.5	3.1					2.7		LIMO SAB
4.8	144	327		153	272		15.7	44	37	1.02	2.7	4.1		0.71	1.6		4.9	14	LIMO
5.0	203	617		201	562		17.7	45	39	2.24	3.6	12.5				35	19.6		SABBIA LIM
5.2	204	566		204	511		17.7	46	41	1.88	3.5	10.6				35	16.1		SABBIA LIM
5.4	274	719		270	664		16.7	48	43	1.73	4.7	13.7					24.5		LIMO SAB
5.6	275	788		268	733		17.7	49	45	2.09	4.5	16.1				37	28.5		SABBIA LIM
5.8	347	950		335	895		18.6	51	47	1.94	5.7	19.4				38	38.2		SABBIA LIM
6.0	393	1103		376	1048		18.6	53	49	2.06	6.2	23.3				38	48.0		SABBIA LIM
6.2	369	969		358	914		18.6	54	51	1.82	5.6	19.3				38	37.8		SABBIA LIM
6.4	354	849		348	794		17.7	56	53	1.51	5.2	15.5					29.1		LIMO SAB
6.6	363	968		351	913		18.6	58	55	1.90	5.1	19.5				37	36.5		SABBIA LIM
6.8	346	893		337	838		17.7	59	57	1.79	4.7	17.4					31.1		LIMO SAB
7.0	352	945		341	890		18.6	61	59	1.95	4.6	19.1				37	33.8		SABBIA LIM
7.2	379	984		367	929		18.6	63	61	1.83	4.9	19.5				37	35.5		SABBIA LIM
7.4	374	846		369	791		17.7	65	63	1.38	4.7	14.6					26.0		LIMO SAB
7.6	309	709		308	654		16.7	66	65	1.43	3.7	12.0					18.4		LIMO SAB
7.8	316	823		309	768		18.6	68	67	1.89	3.6	15.9				35	24.5		SABBIA LIM
8.0	334	809		329	754		17.7	69	69	1.64	3.8	14.8					23.0		LIMO SAB
8.2	354	930		344	875		18.6	71	71	1.95	3.9	18.4				36	29.6		SABBIA LIM
8.4	445	1089		431	1034		17.7	73	73	1.68	4.9	20.9					38.2		LIMO SAB
8.6	345	805		341	750		17.7	74	75	1.54	3.6	14.2					21.5		LIMO SAB
8.8	318	757		315	702		16.7	76	77	1.63	3.1	13.4					18.7		LIMO SAB
9.0	340	773		337	718		17.7	77	78	1.48	3.3	13.2					19.1		LIMO SAB
9.2	376	960		365	905		18.6	79	80	1.89	3.6	18.7				35	28.9		SABBIA LIM
9.4	426	1014		415	959		17.7	80	82	1.63	4.1	18.9					31.2		LIMO SAB
9.6	474	1174		457	1119		17.7	82	84	1.77	4.5	23.0					40.2		LIMO SAB
9.8	453	1125		438	1070		17.7	84	86	1.80	4.2	21.9					36.8		LIMO SAB
10.0	482	1124		468	1069		17.7	85	88	1.58	4.5	20.8					35.9		LIMO SAB
10.2	492	1203		475	1148		17.7	87	90	1.75	4.4	23.4					40.3		LIMO SAB
10.4	439	1140		422	1085		18.6	88	92	2.01	3.7	23.0				36	36.4		SABBIA LIM
10.6	462	1196		444	1141		18.6	90	94	1.99	3.9	24.2				36	39.1		SABBIA LIM
10.8	526	1325		505	1270		18.6	92	96	1.87	4.4	26.6				37	46.1		SABBIA LIM
11.0	528	1366		505	1311		18.6	94	98	1.98	4.3	28.0				36	48.1		SABBIA LIM
11.2	494	1363		469	1308		18.6	95	100	2.27	3.9	29.1				36	47.5		SABBIA LIM
11.4	556	1447		530	1392		18.6	97	102	2.01	4.4	29.9				37	51.9		SABBIA LIM
11.6	530	1356		507	1301		18.6	99	104	1.97	4.1	27.5				36	45.7		SABBIA LIM
11.8	515	1374		491	1319		18.6	101	106	2.15	3.8	28.7				36	46.3		SABBIA LIM
12.0	551	1334		530	1279		17.7	102	108	1.77	4.1	26.0					43.1		LIMO SAB
12.2	538	1303		518	1248		17.7	104	110	1.79	3.9	25.3					40.9		LIMO SAB
12.4	542	1266		524	1211		17.7	106	112	1.66	3.9	23.8					38.2		LIMO SAB
12.6	459	1064		447	1009		17.7	107	114	1.68	3.1	19.5					27.0		LIMO SAB

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 3-14 DESCRIZIONE
12.8	509	1352		485	1297		18.6	109	116	2.20	3.4	28.2				35	42.4		SABBIA LIM
13.0	586	1548		556	1493		19.6	111	118	2.14	4.0	32.5				36	53.5		SABBIA LIM
13.2	604	1590		573	1535		19.6	112	120	2.12	4.0	33.4				36	55.4		SABBIA LIM
13.4	636	1475		613	1420		19.1	114	122	1.64	4.3	28.0					47.4		LIMO SAB
13.6	508	1280		488	1225		18.6	116	124	2.02	3.1	25.6				35	36.3		SABBIA LIM
13.8	430	545		443	490		15.7	118	126	0.15	2.7	1.6		0.71	1.6		1.9	38	ARGILLA
14.0	361	574		369	519		16.7	119	128	0.62	2.0	5.2		0.55	1.0		4.5	27	LIMO ARG
14.2	344	573		351	518		16.7	121	129	0.75	1.8	5.8		0.50	0.88		4.9	24	LIMO ARG
14.4	447	1325		422	1270		18.6	122	131	2.92	2.4	29.4				33	36.7		SABBIA LIM
14.6	452	916		447	861		17.7	124	133	1.32	2.5	14.4					16.6		LIMO SAB
14.8	366	533		376	478		16.7	125	135	0.42	1.9	3.5		0.52	0.94		3.0	26	ARG LIM
15.0	433	559		445	504		15.7	127	137	0.19	2.4	2.0		0.65	1.4		2.1	36	ARGILLA
15.2	413	519		426	464		15.7	128	139	0.13	2.2	1.3		0.61	1.2		1.3	32	ARGILLA
15.4	411	543		423	488		15.7	129	141	0.23	2.2	2.3		0.59	1.1		2.1	32	ARGILLA
15.6	428	549		440	494		15.7	130	143	0.18	2.3	1.9		0.62	1.2		1.8	34	ARGILLA
15.8	444	551		457	496		15.7	131	145	0.12	2.4	1.3		0.64	1.3		1.4	36	ARGILLA
16.0	427	551		439	496		15.7	133	147	0.19	2.2	2.0		0.60	1.2		1.9	33	ARGILLA
16.2	434	555		446	500		15.7	134	149	0.18	2.2	1.9		0.60	1.2		1.8	34	ARGILLA
16.4	410	547		422	492		15.7	135	151	0.26	2.0	2.4		0.55	1.0		2.1	30	ARGILLA
16.6	407	507		421	452		14.7	136	153	0.12	2.0	1.1		0.53	0.98		0.9	29	FANGO
16.8	435	569		447	514		16.7	137	155	0.23	2.1	2.3		0.58	1.1		2.1	33	ARGILLA
17.0	468	569		481	514		14.7	138	157	0.10	2.3	1.1		0.63	1.3		1.1	37	FANGO
17.2	448	558		461	503		15.7	139	159	0.14	2.2	1.5		0.59	1.1		1.4	34	ARGILLA
17.4	466	1045		456	990		18.6	141	161	1.81	2.1	18.5				32	18.9		SABBIA LIM
17.6	644	1388		625	1333		17.7	142	163	1.53	3.2	24.6					34.8		LIMO SAB
17.8	510	781		515	726		16.7	144	165	0.60	2.4	7.3		0.65	1.4		7.7	40	LIMO ARG
18.0	441	607		451	552		16.7	145	167	0.35	2.0	3.5		0.53	0.97		3.0	31	ARG LIM
18.2	496	616		509	561		15.7	147	169	0.15	2.3	1.8		0.63	1.3		1.8	39	ARGILLA
18.4	505	1088		494	1033		17.7	148	171	1.66	2.2	18.7					19.6		LIMO SAB
18.6	432	559		444	504		15.7	149	173	0.22	1.8	2.1		0.49	0.86		1.8	29	ARGILLA
18.8	474	606		486	551		16.7	151	175	0.21	2.1	2.3		0.56	1.1		2.0	35	ARGILLA
19.0	410	691		414	636		16.7	152	177	0.93	1.6	7.7		0.42	<0.8		6.5	25	LIMO
19.2	499	631		511	576		16.7	153	179	0.20	2.2	2.3		0.59	1.1		2.1	37	ARGILLA
19.4	499	915		497	860		17.7	155	181	1.15	2.0	12.6		0.56	1.0		11.7	35	LIMO
19.6	492	643		503	588		16.7	156	182	0.27	2.1	3.0		0.56	1.0		2.6	35	ARGILLA
19.8	521	653		533	598		16.7	158	184	0.19	2.2	2.3		0.60	1.2		2.2	39	ARGILLA
20.0	518	649		530	594		16.7	159	186	0.19	2.2	2.2		0.59	1.1		2.1	39	ARGILLA
20.2	530	646		543	591		15.7	160	188	0.14	2.2	1.7		0.60	1.2		1.6	40	ARGILLA
20.4	506	641		518	586		16.7	162	190	0.21	2.0	2.4		0.55	1.0		2.0	36	ARGILLA
20.6	563	789		570	734		16.7	163	192	0.43	2.3	5.7		0.63	1.3		5.7	43	ARG LIM
20.8	539	674		551	619		16.7	164	194	0.19	2.2	2.4		0.59	1.1		2.2	40	ARGILLA
21.0	555	695		567	640		16.7	166	196	0.20	2.2	2.6		0.61	1.2		2.5	42	ARGILLA
21.2	549	706		560	651		16.7	167	198	0.25	2.2	3.2		0.59	1.1		3.0	41	ARGILLA
21.4	554	678		566	623		16.7	168	200	0.15	2.2	2.0		0.59	1.1		1.8	41	ARGILLA
21.6	557	707		568	652		16.7	170	202	0.23	2.2	2.9		0.58	1.1		2.7	41	ARGILLA
21.8	552	654		565	599		13.7	171	204	0.09	2.1	1.2		0.57	1.1		1.1	40	FANGO E/O TORBA
22.0	579	1227		565	1172		17.7	172	206	1.69	2.1	21.1					21.2		LIMO SAB
22.2	542	677		554	622		16.7	174	208	0.20	2.0	2.4		0.54	1.0		2.0	38	ARGILLA
22.4	473	695		480	640		16.7	175	210	0.59	1.5	5.5		0.41	<0.8		4.7	28	ARG LIM
22.6	554	745		563	690		16.7	176	212	0.36	2.0	4.4		0.54	1.0		3.7	39	ARG LIM
22.8	542	767		549	712		16.7	178	214	0.49	1.9	5.6		0.51	0.92		4.8	36	ARG LIM
23.0	539	672		551	617		16.7	179	216	0.20	1.9	2.3		0.51	0.90		2.0	36	ARGILLA
23.2	489	811		491	756		16.7	180	218	0.97	1.5	9.2		0.40	<0.8		7.8	28	LIMO
23.4	543	688		554	633		16.7	182	220	0.24	1.8	2.7		0.50	0.88		2.3	36	ARGILLA
23.6	685	1461		665	1406		17.7	183	222	1.67	2.4	25.7					29.4		LIMO SAB
23.8	578	718		589	663		16.7	185	224	0.20	2.0	2.6		0.54	0.99		2.2	40	ARGILLA
24.0	572	694		584	639		16.7	186	226	0.15	1.9	1.9		0.52	0.95		1.6	39	ARGILLA
24.2	556	699		567	644		16.7	188	228	0.23	1.8	2.7		0.49	0.86		2.3	36	ARGILLA
24.4	511	819		514	764		16.7	189	230	0.88	1.5	8.7		0.40	<0.8		7.4	29	LIMO

24.6	801	1741		773	1686		19.1	190	232	1.69	2.8	31.7					41.2		LIMO SAB
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 3-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
24.8	835	1920		799	1865		19.6	192	233	1.88	2.9	37.0				34	49.9		SABBIA LIM
25.0	622	765		633	710		16.7	194	235	0.19	2.1	2.7		0.56	1.0		2.3	44	ARGILLA
25.2	697	1766		662	1711		19.6	195	237	2.47	2.2	36.4				33	40.8		SABBIA LIM
25.4	766	1464		750	1409		17.7	197	239	1.29	2.6	22.9					26.9		LIMO SAB
25.6	609	1323		592	1268		18.6	199	241	1.93	1.8	23.5				31	20.4		SABBIA LIM
25.8	754	1833		719	1778		19.6	201	243	2.23	2.4	36.8				33	43.2		SABBIA LIM
26.0	654	1023		654	968		17.7	203	245	0.77	2.0	10.9		0.55	1.0		9.5	45	LIMO ARG
26.2	644	1249		632	1194		17.7	204	247	1.46	1.9	19.5					17.2		LIMO SAB
26.4	770	1485		753	1430		17.7	206	249	1.34	2.4	23.5					26.4		LIMO SAB
26.6	632	974		633	919		17.7	207	251	0.75	1.8	9.9		0.50	0.88		8.4	41	LIMO ARG
26.8	656	795		668	740		16.7	209	253	0.17	2.0	2.5		0.54	0.99		2.1	45	ARGILLA
27.0	784	1367		773	1312		17.7	210	255	1.04	2.5	18.7		0.66	1.4		20.6	60	LIMO
27.2	736	1479		717	1424		17.7	212	257	1.54	2.2	24.5					25.2		LIMO SAB
27.4	717	1036		720	981		17.7	214	259	0.57	2.2	9.1		0.59	1.1		8.4	52	ARG LIM
27.6	710	894		719	839		16.7	215	261	0.26	2.1	4.2		0.58	1.1		3.8	51	ARGILLA
27.8	720	861		731	806		16.7	216	263	0.16	2.2	2.6		0.59	1.1		2.4	53	ARGILLA
28.0	725	884		736	829		16.7	218	265	0.20	2.2	3.2		0.59	1.1		3.0	53	ARGILLA
28.2	737	927		746	872		16.7	219	267	0.26	2.2	4.4		0.59	1.2		4.1	54	ARGILLA
28.4	741	886		752	831		16.7	221	269	0.16	2.2	2.7		0.59	1.2		2.6	54	ARGILLA
28.6	739	997		745	942		17.7	222	271	0.42	2.1	6.8		0.58	1.1		6.3	53	ARG LIM
28.8	700	877		710	822		16.7	224	273	0.26	2.0	3.9		0.53	0.97		3.3	48	ARGILLA
29.0	809	1202		808	1147		17.7	225	275	0.64	2.4	11.8		0.64	1.3		12.1	61	LIMO ARG
29.2	878	1471		867	1416		19.1	226	277	0.93	2.6	19.1		0.70	1.5		21.9	69	LIMO
29.4	797	1129		799	1074		17.7	228	279	0.53	2.3	9.5		0.62	1.2		9.4	59	ARG LIM
29.6	842	1189		843	1134		17.7	230	281	0.52	2.4	10.1		0.66	1.4		10.7	65	ARG LIM
29.8	824	1155		826	1100		17.7	231	283	0.50	2.3	9.5		0.63	1.3		9.6	62	ARG LIM
30.0	871	1188		874	1133		17.7	233	284	0.44	2.5	9.0		0.68	1.4		9.8	69	ARG LIM

DMT 4-14

8 GEN 2015

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
sTABILIMENTO VERSALIS

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 45 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 4-14 DESCRIZIONE
1.4	80	320		86	275		16.7	20	4	2.30	4.1	6.6				36	11.1		SABBIA LIM
1.6	100	250		111	205		15.7	21	6	0.90	4.9	3.3		1.1	4.1		5.9	14	LIMO
1.8	100	330		107	285		16.7	22	8	1.81	4.4	6.2				37	10.7		SABBIA LIM
2.0	80	220		91	175		15.7	24	10	1.03	3.4	2.9		0.87	2.3		4.2	10	LIMO
2.2	60	140		74	95		14.7	25	12	0.34	2.5	0.7		0.67	1.4		0.8	7	FANGO
2.4	80	190		92	145		15.7	26	14	0.67	3.0	1.8		0.79	1.9		2.3	10	LIMO ARG
2.6	40	130		54	85		14.7	27	16	0.83	1.4	1.1		0.37	<0.8		0.9	4	FANGO
2.8	40	150		53	105		15.7	28	18	1.51	1.2	1.8					1.5		LIMO SAB
3.0	280	1100		257	1055		18.6	29	20	3.36	8.1	27.7				40	64.2		SABBIA
3.2	350	1100		331	1055		18.6	31	22	2.35	9.9	25.1				40	62.7		SABBIA LIM
3.4	300	1060		280	1015		18.6	33	24	2.87	7.8	25.5				39	58.2		SABBIA LIM
3.6	310	950		296	905		18.6	35	26	2.25	7.8	21.1				39	48.1		SABBIA LIM
3.8	200	700		193	655		17.7	36	27	2.79	4.6	16.0				37	29.0		SABBIA LIM
4.0	200	480		204	435		16.7	38	29	1.32	4.6	8.0					14.0		LIMO SAB
4.2	220	360		231	315		15.7	39	31	0.42	5.1	2.9		1.2	4.3		5.3	28	ARG LIM
4.4	290	950		275	905		18.6	40	33	2.61	6.0	21.9				38	44.6		SABBIA LIM
4.6	250	810		240	765		17.7	42	35	2.56	4.8	18.2				37	33.7		SABBIA LIM
4.8	350	700		351	655		17.7	44	37	0.97	7.1	10.6		1.5	7.3		22.9	47	LIMO
5.0	240	630		239	585		16.7	45	39	1.74	4.4	12.0					20.7		LIMO SAB
5.2	240	740		233	695		17.7	47	41	2.41	4.1	16.0				36	27.1		SABBIA LIM
5.4	250	700		246	655		17.7	48	43	2.02	4.2	14.2				36	24.0		SABBIA LIM
5.6	260	800		251	755		17.7	50	45	2.45	4.1	17.5				36	29.7		SABBIA LIM
5.8	230	640		228	595		17.7	51	47	2.04	3.5	12.8				35	19.4		SABBIA LIM
6.0	230	720		224	675		17.7	53	49	2.59	3.3	15.7				35	23.6		SABBIA LIM
6.2	250	640		249	595		16.7	55	51	1.75	3.6	12.0					18.4		LIMO SAB
6.4	270	760		264	715		17.7	56	53	2.14	3.8	15.7				36	25.0		SABBIA LIM
6.6	270	760		264	715		17.7	58	55	2.16	3.6	15.7				36	24.5		SABBIA LIM
6.8	270	760		264	715		17.7	59	57	2.19	3.5	15.7				35	24.0		SABBIA LIM
7.0	240	550		243	505		16.7	61	59	1.43	3.0	9.1					12.2		LIMO SAB
7.2	250	660		248	615		17.7	62	61	1.97	3.0	12.8				35	17.5		SABBIA LIM
7.4	330	750		327	705		17.7	64	63	1.43	4.2	13.1					21.6		LIMO SAB
7.6	320	900		309	855		18.6	65	65	2.24	3.7	18.9				36	30.3		SABBIA LIM
7.8	350	1000		336	955		18.6	67	67	2.30	4.0	21.5				36	35.8		SABBIA LIM
8.0	350	1100		331	1055		18.6	69	69	2.77	3.8	25.1				36	41.4		SABBIA LIM
8.2	380	1150		360	1105		18.6	70	71	2.58	4.1	25.9				36	44.0		SABBIA LIM
8.4	330	880		321	835		18.6	72	73	2.08	3.4	17.9				35	26.9		SABBIA LIM
8.6	330	950		317	905		18.6	74	75	2.43	3.3	20.4				35	30.4		SABBIA LIM
8.8	340	900		330	855		18.6	76	77	2.07	3.3	18.2				35	27.0		SABBIA LIM
9.0	340	1000		325	955		18.6	78	78	2.56	3.2	21.9				35	32.2		SABBIA LIM
9.2	320	650		322	605		16.7	79	80	1.18	3.0	9.8		0.79	1.9		13.0	29	LIMO
9.4	280	650		280	605		16.7	81	82	1.65	2.4	11.3					13.0		LIMO SAB
9.6	340	1050		323	1005		18.6	82	84	2.87	2.9	23.7				34	33.5		SABBIA LIM

9.8	440	1250		418	1205		18.6	84	86	2.38	4.0	27.3				36	45.2		SABBIA LIM
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 4-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
10.0	440	1150		423	1105		18.6	86	88	2.04	3.9	23.7				36	38.5		SABBIA LIM
10.2	400	1000		388	955		18.6	87	90	1.90	3.4	19.7				35	29.3		SABBIA LIM
10.4	350	900		341	855		18.6	89	92	2.07	2.8	17.9				34	23.4		SABBIA LIM
10.6	400	1050		386	1005		18.6	91	94	2.13	3.2	21.5				35	31.1		SABBIA LIM
10.8	450	1150		433	1105		18.6	93	96	1.99	3.6	23.3				36	36.3		SABBIA LIM
11.0	420	1100		404	1055		18.6	94	98	2.13	3.2	22.6				35	32.9		SABBIA LIM
11.2	450	1300		426	1255		18.6	96	100	2.55	3.4	28.8				35	43.9		SABBIA LIM
11.4	460	1300		436	1255		18.6	98	102	2.45	3.4	28.4				35	43.4		SABBIA LIM
11.6	440	1300		415	1255		18.6	100	104	2.70	3.1	29.1				35	42.7		SABBIA LIM
11.8	460	1250		439	1205		18.6	101	106	2.30	3.3	26.6				35	39.4		SABBIA LIM
12.0	470	1300		447	1255		18.6	103	108	2.39	3.3	28.1				35	41.7		SABBIA LIM
12.2	470	1300		447	1255		18.6	105	110	2.40	3.2	28.1				35	41.2		SABBIA LIM
12.4	540	1450		513	1405		18.6	107	112	2.23	3.8	31.0				36	49.5		SABBIA LIM
12.6	520	1350		497	1305		18.6	109	114	2.11	3.5	28.1				35	43.0		SABBIA LIM
12.8	460	1240		439	1195		18.6	110	116	2.34	2.9	26.2				34	36.2		SABBIA LIM
13.0	550	1500		521	1455		18.6	112	118	2.32	3.6	32.4				35	50.8		SABBIA LIM
13.2	550	1400		526	1355		18.6	114	120	2.04	3.6	28.8				35	44.3		SABBIA LIM
13.4	500	1360		475	1315		18.6	116	122	2.38	3.1	29.1				35	41.5		SABBIA LIM
13.6	520	1550		487	1505		18.6	117	124	2.81	3.1	35.3				35	51.8		SABBIA LIM
13.8	530	1500		500	1455		18.6	119	126	2.56	3.1	33.2				35	48.4		SABBIA LIM
14.0	580	1590		548	1545		19.6	121	128	2.38	3.5	34.6				35	53.2		SABBIA LIM
14.2	570	1550		539	1505		18.6	123	129	2.36	3.3	33.5				35	50.3		SABBIA LIM
14.4	520	1500		489	1455		18.6	125	131	2.70	2.9	33.5				34	46.6		SABBIA LIM
14.6	590	1650		555	1605		19.6	126	133	2.49	3.3	36.4				35	55.0		SABBIA LIM
14.8	560	1600		526	1555		18.6	128	135	2.63	3.0	35.7				35	51.4		SABBIA LIM
15.0	580	1650		545	1605		19.6	130	137	2.60	3.1	36.8				35	53.8		SABBIA LIM
15.2	560	1150		549	1105		17.7	132	139	1.36	3.1	19.3					26.2		LIMO SAB
15.4	420	580		430	535		16.7	134	141	0.36	2.2	3.6		0.59	1.1		3.4	32	ARG LIM
15.6	440	660		447	615		16.7	135	143	0.55	2.2	5.8		0.61	1.2		5.7	34	ARG LIM
15.8	450	1350		423	1305		18.6	136	145	3.17	2.0	30.6				32	34.2		SABBIA LIM
16.0	720	1900		679	1855		19.6	138	147	2.21	3.8	40.8				36	66.2		SABBIA LIM
16.2	420	1550		382	1505		18.6	140	149	4.83	1.7	39.0				31	36.6		SABBIA
16.4	490	670		499	625		16.7	142	151	0.36	2.5	4.4		0.66	1.4		4.6	40	ARG LIM
16.6	520	670		531	625		16.7	143	153	0.25	2.6	3.3		0.70	1.5		3.7	44	ARGILLA
16.8	490	660		500	615		16.7	145	155	0.34	2.4	4.0		0.64	1.3		4.1	40	ARG LIM
17.0	500	680		509	635		16.7	146	157	0.36	2.4	4.4		0.65	1.3		4.6	41	ARG LIM
17.2	460	660		468	615		16.7	147	159	0.48	2.1	5.1		0.57	1.1		4.6	34	ARG LIM
17.4	460	620		470	575		16.7	149	161	0.34	2.1	3.6		0.56	1.1		3.2	34	ARG LIM
17.6	450	650		458	605		16.7	150	163	0.50	2.0	5.1		0.53	0.98		4.3	32	ARG LIM
17.8	450	730		454	685		16.7	152	165	0.80	1.9	8.0		0.52	0.93		6.8	31	LIMO ARG
18.0	440	740		443	695		16.7	153	167	0.91	1.8	8.7		0.49	0.86		7.4	30	LIMO
18.2	500	740		506	695		16.7	154	169	0.56	2.2	6.6		0.59	1.2		6.2	38	ARG LIM
18.4	450	630		459	585		16.7	156	171	0.44	1.9	4.4		0.50	0.89		3.7	31	ARG LIM
18.6	430	610		439	565		16.7	157	173	0.47	1.7	4.4		0.46	<0.8		3.7	28	ARG LIM
18.8	680	1600		652	1555		19.6	158	175	1.89	3.0	31.3				35	43.0		SABBIA LIM
19.0	540	720		549	675		16.7	160	177	0.34	2.3	4.4		0.63	1.3		4.4	43	ARG LIM
19.2	500	640		511	595		16.7	162	179	0.25	2.1	2.9		0.56	1.0		2.6	37	ARGILLA
19.4	470	620		481	575		16.7	163	181	0.32	1.8	3.3		0.50	0.88		2.8	32	ARGILLA
19.6	460	1050		449	1005		18.6	164	182	2.09	1.6	19.3				31	16.4		SABBIA LIM
19.8	500	660		510	615		16.7	166	184	0.32	2.0	3.6		0.53	0.97		3.1	36	ARGILLA
20.0	520	630		533	585		16.7	168	186	0.15	2.1	1.8		0.56	1.1		1.6	38	ARGILLA
20.2	480	790		483	745		16.7	169	188	0.89	1.7	9.1		0.47	0.81		7.7	31	LIMO
20.4	500	1250		481	1205		18.6	170	190	2.50	1.7	25.1				31	22.7		SABBIA LIM
20.6	460	640		469	595		16.7	172	192	0.46	1.6	4.4		0.43	<0.8		3.7	29	ARG LIM
20.8	470	660		479	615		16.7	174	194	0.48	1.6	4.7		0.44	<0.8		4.0	30	ARG LIM
21.0	490	660		500	615		16.7	175	196	0.38	1.7	4.0		0.47	0.80		3.4	32	ARG LIM
21.2	540	680		551	635		16.7	176	198	0.24	2.0	2.9		0.54	1.0		2.5	39	ARGILLA
21.4	530	680		541	635		16.7	178	200	0.28	1.9	3.3		0.52	0.94		2.8	37	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 4-14 DESCRIZIONE
21.6	540	690		551	645		16.7	179	202	0.27	1.9	3.3		0.53	0.96		2.8	38	ARGILLA
21.8	540	660		552	615		16.7	180	204	0.18	1.9	2.2		0.52	0.95		1.9	38	ARGILLA
22.0	530	680		541	635		16.7	182	206	0.28	1.8	3.3		0.50	0.88		2.8	36	ARGILLA
22.2	530	680		541	635		16.7	183	208	0.28	1.8	3.3		0.49	0.86		2.8	36	ARGILLA
22.4	520	720		528	675		16.7	184	210	0.46	1.7	5.1		0.47	<0.8		4.3	34	ARG LIM
22.6	540	730		549	685		16.7	186	212	0.41	1.8	4.7		0.49	0.86		4.0	36	ARG LIM
22.8	560	720		570	675		16.7	187	214	0.29	1.9	3.6		0.52	0.93		3.1	39	ARGILLA
23.0	570	760		579	715		16.7	189	216	0.38	1.9	4.7		0.52	0.94		4.0	40	ARG LIM
23.2	520	640		532	595		16.7	190	218	0.20	1.7	2.2		0.45	<0.8		1.9	33	ARGILLA
23.4	570	800		577	755		16.7	191	220	0.50	1.9	6.2		0.51	0.90		5.3	39	ARG LIM
23.6	500	1200		483	1155		18.6	193	222	2.57	1.4	23.3				30	19.8		SABBIA LIM
23.8	530	700		540	655		16.7	194	224	0.37	1.6	4.0		0.44	<0.8		3.4	33	ARG LIM
24.0	550	700		561	655		16.7	196	226	0.28	1.7	3.3		0.46	<0.8		2.8	35	ARGILLA
24.2	540	720		549	675		16.7	197	228	0.39	1.6	4.4		0.44	<0.8		3.7	34	ARG LIM
24.4	530	700		540	655		16.7	199	230	0.37	1.6	4.0		0.42	<0.8		3.4	32	ARG LIM
24.6	560	870		563	825		17.7	200	232	0.79	1.7	9.1		0.45	<0.8		7.7	35	LIMO ARG
24.8	500	720		507	675		16.7	202	233	0.61	1.4	5.8		0.35	<0.8		5.0	27	LIMO ARG
25.0	590	1200		578	1155		17.7	203	235	1.69	1.7	20.0					17.0		LIMO SAB
25.2	590	900		593	855		17.7	205	237	0.74	1.7	9.1		0.47	0.80		7.7	38	LIMO ARG
25.4	590	770		599	725		16.7	206	239	0.35	1.7	4.4		0.47	0.81		3.7	38	ARG LIM
25.6	500	740		506	695		16.7	207	241	0.71	1.3	6.6		0.33	<0.8		5.6	26	LIMO ARG
25.8	700	1450		680	1405		17.7	209	243	1.66	2.1	25.1					25.3		LIMO SAB
26.0	620	1250		607	1205		17.7	210	245	1.66	1.7	20.8					17.7		LIMO SAB
26.2	620	800		629	755		16.7	212	247	0.33	1.8	4.4		0.49	0.85		3.7	41	ARG LIM
26.4	690	1280		678	1235		17.7	213	249	1.30	2.0	19.3					17.9		LIMO SAB
26.6	590	780		599	735		16.7	215	251	0.39	1.6	4.7		0.44	<0.8		4.0	36	ARG LIM
26.8	650	1400		630	1355		18.6	216	253	1.92	1.7	25.1				31	21.6		SABBIA LIM
27.0	630	1450		607	1405		18.6	218	255	2.27	1.6	27.7				31	23.5		SABBIA LIM
27.2	630	1000		629	955		17.7	220	257	0.87	1.7	11.3		0.46	<0.8		9.6	39	LIMO
27.4	600	1050		596	1005		17.7	221	259	1.22	1.5	14.2					12.1		LIMO SAB
27.6	640	1300		625	1255		17.7	223	261	1.73	1.6	21.9					18.6		LIMO SAB
27.8	770	1300		761	1255		17.7	225	263	0.99	2.2	17.1		0.60	1.2		17.1	56	LIMO
28.0	590	1500		563	1455		18.6	226	265	3.00	1.3	31.0				30	26.3		SABBIA LIM
28.2	890	1900		857	1855		19.1	228	267	1.69	2.6	34.6					42.0		LIMO SAB
28.4	800	1200		798	1155		17.7	230	269	0.67	2.3	12.4		0.62	1.2		12.4	60	LIMO ARG
28.6	750	1200		745	1155		17.7	231	271	0.86	2.1	14.2		0.56	1.0		12.8	53	LIMO
28.8	750	1150		748	1105		17.7	233	273	0.75	2.0	12.4		0.56	1.0		11.0	53	LIMO ARG
29.0	750	1150		748	1105		17.7	234	275	0.75	2.0	12.4		0.55	1.0		10.9	52	LIMO ARG
29.2	750	1150		748	1105		17.7	236	277	0.76	2.0	12.4		0.54	1.0		10.7	52	LIMO ARG
29.4	770	1100		771	1055		17.7	238	279	0.58	2.1	9.8		0.56	1.1		8.7	55	ARG LIM
29.6	750	1100		750	1055		17.7	239	281	0.65	2.0	10.6		0.53	0.98		9.0	51	LIMO ARG
29.8	750	1100		750	1055		17.7	241	283	0.65	1.9	10.6		0.53	0.96		9.0	51	LIMO ARG
30.0	770	1150		769	1105		17.7	242	284	0.69	2.0	11.7		0.54	1.0		10.0	53	LIMO ARG

DMT 5-14

16 DIC 2014

GEOSTUDI SRL
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PORT HUB
STAB. IFAsrl RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw > Zfinal

Livello falda sotto fondo prova
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 5-14 DESCRIZIONE
3.2	320	970		305	930		18.6	54	0	2.05	5.6	21.7				38	42.5		SABBIA LIM
3.4	97	308		104	268		15.7	58	0	1.57	1.8	5.7					4.8		LIMO SAB
3.6	469	1055		457	1015		17.7	61	0	1.22	7.5	19.3					42.8		LIMO SAB
3.8	252	735		246	695		18.6	65	0	1.83	3.8	15.6				36	24.7		SABBIA LIM
4.0	271	721		266	681		17.7	69	0	1.56	3.9	14.4					22.9		LIMO SAB
4.2	232	657		229	617		16.7	72	0	1.70	3.2	13.5					18.9		LIMO SAB
4.4	243	738		236	698		18.6	75	0	1.96	3.1	16.0				35	22.6		SABBIA LIM
4.6	308	870		298	830		17.7	79	0	1.79	3.8	18.5					29.1		LIMO SAB
4.8	342	986		328	946		18.6	83	0	1.89	4.0	21.5				36	35.0		SABBIA LIM
5.0	310	819		302	779		17.7	86	0	1.58	3.5	16.5					24.7		LIMO SAB
5.2	305	790		299	750		17.7	90	0	1.51	3.3	15.7					22.5		LIMO SAB
5.4	317	886		306	846		17.7	93	0	1.76	3.3	18.7					27.0		LIMO SAB
5.6	327	832		320	792		17.7	97	0	1.48	3.3	16.4					23.4		LIMO SAB
5.8	268	777		260	737		18.6	101	0	1.83	2.6	16.5				34	20.2		SABBIA LIM
6.0	269	719		264	679		17.7	104	0	1.57	2.5	14.4					17.0		LIMO SAB
6.2	197	436		203	396		16.7	108	0	0.95	1.9	6.7		0.51	0.91		5.7	22	LIMO
6.4	331	776		327	736		17.7	111	0	1.25	2.9	14.2					18.4		LIMO SAB
6.6	290	776		283	736		17.7	115	0	1.60	2.5	15.7					18.2		LIMO SAB
6.8	312	821		304	781		17.7	118	0	1.57	2.6	16.5					19.8		LIMO SAB
7.0	321	805		315	765		17.7	122	0	1.43	2.6	15.6					18.5		LIMO SAB
7.2	316	755		312	715		17.7	125	0	1.29	2.5	14.0					15.9		LIMO SAB
7.4	327	785		322	745		17.7	129	0	1.31	2.5	14.7					16.8		LIMO SAB
7.6	295	666		294	626		17.7	132	0	1.13	2.2	11.5		0.60	1.2		11.6	33	LIMO
7.8	312	724		309	684		17.7	136	0	1.21	2.3	13.0					13.6		LIMO SAB
8.0	350	785		346	745		17.7	139	0	1.15	2.5	13.8		0.67	1.4		15.5	40	LIMO
8.2	337	784		332	744		17.7	143	0	1.24	2.3	14.3					15.2		LIMO SAB
8.4	345	778		341	738		17.7	146	0	1.16	2.3	13.8		0.63	1.3		14.6	39	LIMO
8.6	328	760		324	720		17.7	150	0	1.22	2.2	13.7					13.6		LIMO SAB
8.8	384	895		376	855		17.7	153	0	1.27	2.5	16.6					18.6		LIMO SAB
9.0	408	1065		393	1025		17.7	157	0	1.61	2.5	21.9					25.7		LIMO SAB
9.2	129	928		107	888		17.7	161	0	7.31	0.7	27.1				25	23.0		SABBIA
9.4	318	493		327	453		16.7	164	0	0.39	2.0	4.4		0.54	1.0		3.7	36	ARG LIM
9.6	297	513		304	473		16.7	167	0	0.56	1.8	5.9		0.49	0.86		5.0	33	ARG LIM
11.8	188	0		203			16.7	204	0										
12.2	151	1383		107	1343		17.7	211	0	11.53	0.5	42.9				24	36.5		SABBIA
12.4	160	328		169	288		15.7	214	0	0.70	0.8	4.1		< 0.3	<0.8		3.5	15	LIMO ARG
13.2	455	1073		442	1033		17.7	227	0	1.34	1.9	20.5					18.5		LIMO SAB
13.4	489	965		483	925		17.7	230	0	0.92	2.1	15.3		0.57	1.1		14.3	54	LIMO
13.6	569	978		566	938		17.7	234	0	0.66	2.4	12.9		0.65	1.4		13.6	65	LIMO ARG
13.8	536	748		543	708		17.7	237	0	0.30	2.3	5.7		0.62	1.2		5.7	62	ARGILLA
14.0	417	1491		381	1451		18.6	241	0	2.81	1.6	37.1				31	32.5		SABBIA LIM
14.2	401	1254		376	1214		18.6	245	0	2.23	1.5	29.1				31	24.7		SABBIA LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 5-14 DESCRIZIONE
14.4	443	686		449	646		17.7	248	0	0.44	1.8	6.8		0.49	0.85		5.8	48	ARG LIM
14.6	444	608		454	568		16.7	252	0	0.25	1.8	4.0		0.49	0.85		3.4	49	ARGILLA
14.8	472	1258		450	1218		17.7	255	0	1.70	1.8	26.6					22.6		LIMO SAB
15.0	460	710		465	670		17.7	259	0	0.44	1.8	7.1		0.49	0.85		6.0	50	ARG LIM
15.2	429	1202		408	1162		18.6	262	0	1.85	1.6	26.2				31	22.2		SABBIA LIM
15.4	527	1435		499	1395		19.1	266	0	1.79	1.9	31.1					28.4		LIMO SAB
15.6	464	587		476	547		16.7	270	0	0.15	1.8	2.5		0.48	0.82		2.1	51	ARGILLA
15.8	425	547		437	507		16.7	273	0	0.16	1.6	2.4		0.43	<0.8		2.1	45	ARGILLA
16.0	437	557		449	517		16.7	277	0	0.15	1.6	2.4		0.44	<0.8		2.0	47	ARGILLA
16.2	431	580		441	540		16.7	280	0	0.22	1.6	3.4		0.42	<0.8		2.9	46	ARGILLA
16.4	430	601		439	561		16.7	283	0	0.28	1.6	4.2		0.42	<0.8		3.6	45	ARGILLA
16.6	427	605		436	565		16.7	287	0	0.30	1.5	4.5		0.41	<0.8		3.8	45	ARGILLA
16.8	452	575		464	535		16.7	290	0	0.15	1.6	2.5		0.43	<0.8		2.1	48	ARGILLA
17.0	459	571		471	531		16.7	293	0	0.13	1.6	2.1		0.43	<0.8		1.8	49	ARGILLA
17.2	456	583		467	543		16.7	297	0	0.16	1.6	2.6		0.42	<0.8		2.2	48	ARGILLA
17.4	480	609		491	569		16.7	300	0	0.16	1.6	2.7		0.44	<0.8		2.3	51	ARGILLA
17.6	492	646		502	606		16.7	303	0	0.21	1.7	3.6		0.45	<0.8		3.1	53	ARGILLA
17.8	471	588		483	548		16.7	307	0	0.13	1.6	2.3		0.42	<0.8		1.9	50	ARGILLA
18.0	497	958		492	918		17.7	310	0	0.87	1.6	14.8		0.43	<0.8		12.6	51	LIMO
18.2	460	583		472	543		16.7	313	0	0.15	1.5	2.5		0.40	<0.8		2.1	48	ARGILLA
18.4	459	578		471	538		16.7	317	0	0.14	1.5	2.3		0.40	<0.8		2.0	48	ARGILLA
18.6	463	606		474	566		16.7	320	0	0.20	1.5	3.2		0.39	<0.8		2.7	48	ARGILLA
18.8	455	662		462	622		17.7	323	0	0.35	1.4	5.5		0.38	<0.8		4.7	47	ARG LIM
19.0	462	588		473	548		16.7	327	0	0.16	1.4	2.6		0.38	<0.8		2.2	48	ARGILLA
19.2	423	563		434	523		16.7	330	0	0.21	1.3	3.1		0.34	<0.8		2.6	43	ARGILLA
19.4	436	538		449	498		16.7	334	0	0.11	1.3	1.7		0.35	<0.8		1.5	45	ARGILLA
19.6	431	540		443	500		16.7	337	0	0.13	1.3	2.0		0.34	<0.8		1.7	44	ARGILLA
19.8	410	573		420	533		16.7	340	0	0.27	1.2	3.9		0.31	<0.8		3.3	41	ARGILLA
20.0	452	568		464	528		16.7	344	0	0.14	1.3	2.2		0.35	<0.8		1.9	46	ARGILLA
20.2	420	600		429	560		16.7	347	0	0.31	1.2	4.6		0.31	<0.8		3.9	42	ARGILLA
20.4	404	518		416	478		16.7	350	0	0.15	1.2	2.1		< 0.3	<0.8		1.8	40	ARGILLA
20.6	441	1014		430	974		17.7	354	0	1.26	1.2	18.9					16.0		LIMO SAB
20.8	511	1159		496	1119		17.7	357	0	1.25	1.4	21.6					18.4		LIMO SAB
21.0	452	560		464	520		16.7	361	0	0.12	1.3	1.9		0.33	<0.8		1.6	46	ARGILLA
21.2	445	559		457	519		16.7	364	0	0.14	1.3	2.1		0.32	<0.8		1.8	45	ARGILLA
21.4	473	581		485	541		16.7	367	0	0.11	1.3	1.9		0.34	<0.8		1.6	48	ARGILLA
21.6	451	626		460	586		16.7	371	0	0.27	1.2	4.4		0.31	<0.8		3.7	45	ARGILLA
21.8	484	606		496	566		16.7	374	0	0.14	1.3	2.4		0.34	<0.8		2.1	49	ARGILLA
22.0	504	618		516	578		16.7	377	0	0.12	1.4	2.1		0.36	<0.8		1.8	52	ARGILLA
22.2	472	614		483	574		16.7	381	0	0.19	1.3	3.2		0.32	<0.8		2.7	47	ARGILLA
22.4	515	646		526	606		16.7	384	0	0.15	1.4	2.8		0.36	<0.8		2.4	53	ARGILLA
22.6	518	641		530	601		16.7	387	0	0.13	1.4	2.5		0.36	<0.8		2.1	53	ARGILLA
22.8	539	678		550	638		16.7	391	0	0.16	1.4	3.1		0.37	<0.8		2.6	55	ARGILLA
23.0	529	651		541	611		16.7	394	0	0.13	1.4	2.4		0.36	<0.8		2.1	54	ARGILLA
23.2	536	669		547	629		16.7	397	0	0.15	1.4	2.8		0.36	<0.8		2.4	55	ARGILLA
23.4	516	673		526	633		16.7	401	0	0.20	1.3	3.7		0.34	<0.8		3.2	52	ARGILLA
23.6	546	975		542	935		17.7	404	0	0.72	1.3	13.6		0.35	<0.8		11.6	54	LIMO ARG
23.8	533	712		542	672		17.7	408	0	0.24	1.3	4.5		0.34	<0.8		3.8	54	ARGILLA
24.0	507	845		508	805		17.7	411	0	0.59	1.2	10.3		0.31	<0.8		8.8	50	ARG LIM
24.2	539	942		537	902		17.7	415	0	0.68	1.3	12.7		0.33	<0.8		10.8	53	LIMO ARG
24.4	530	1095		520	1055		17.7	418	0	1.03	1.2	18.6		0.31	<0.8		15.8	51	LIMO
24.6	636	776		647	736		17.7	422	0	0.14	1.5	3.1		0.41	<0.8		2.6	67	ARGILLA
24.8	657	833		666	793		17.7	425	0	0.19	1.6	4.4		0.42	<0.8		3.7	69	ARGILLA
25.0	675	904		681	864		17.7	429	0	0.27	1.6	6.3		0.43	<0.8		5.4	71	ARGILLA
25.2	736	1209		730	1169		19.1	432	0	0.60	1.7	15.2		0.46	<0.8		12.9	77	LIMO ARG
25.4	616	799		625	759		17.7	436	0	0.22	1.4	4.7		0.38	<0.8		4.0	63	ARGILLA
25.6	699	832		710	792		17.7	440	0	0.12	1.6	2.8		0.43	<0.8		2.4	74	ARGILLA
25.8	827	1961		788	1921		19.1	443	0	1.44	1.8	39.3					33.4		LIMO SAB
26.0	699	1164		693	1124		19.1	447	0	0.62	1.6	14.9		0.42	<0.8		12.7	72	LIMO ARG

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 5-14 DESCRIZIONE
26.2	553	774		560	734		17.7	451	0	0.31	1.2	6.0		0.31	<0.8		5.1	55	ARGILLA
26.4	819	1672		794	1632		19.1	454	0	1.06	1.7	29.1		0.47	0.81		24.7	84	LIMO
26.6	600	1119		592	1079		17.7	458	0	0.82	1.3	16.9		0.33	<0.8		14.4	58	LIMO
26.8	835	1651		812	1611		19.1	462	0	0.98	1.8	27.7		0.48	0.82		23.6	86	LIMO
27.0	776	1759		745	1719		19.1	466	0	1.31	1.6	33.8					28.7		LIMO SAB
27.2	1258	3096		1184	3056		20.6	469	0	1.58	2.5	65.0					76.4		LIMO SAB
27.4	1081	2385		1034	2345		20.6	474	0	1.27	2.2	45.5					45.8		LIMO SAB
27.6	810	1423		797	1383		19.1	478	0	0.74	1.7	20.3		0.45	<0.8		17.3	84	LIMO ARG
27.8	801	1076		805	1036		17.7	482	0	0.29	1.7	8.0		0.45	<0.8		6.8	85	ARGILLA
28.0	731	956		738	916		17.7	485	0	0.24	1.5	6.2		0.41	<0.8		5.3	76	ARGILLA
28.2	708	993		711	953		17.7	489	0	0.34	1.5	8.4		0.39	<0.8		7.1	72	ARG LIM
28.4	723	1537		700	1497		19.1	492	0	1.14	1.4	27.7		0.37	<0.8		23.5	71	LIMO
28.6	807	1262		802	1222		18.6	496	0	0.52	1.6	14.6		0.44	<0.8		12.4	84	ARG LIM
28.8	795	1701		767	1661		19.1	500	0	1.16	1.5	31.0		0.41	<0.8		26.4	79	LIMO
29.0	736	1601		711	1561		19.1	504	0	1.20	1.4	29.5		0.37	<0.8		25.1	72	LIMO
29.2	701	1226		693	1186		19.1	507	0	0.71	1.4	17.1		0.36	<0.8		14.6	69	LIMO ARG
29.4	638	1351		620	1311		19.1	511	0	1.11	1.2	24.0		0.30	<0.8		20.4	60	LIMO
29.6	749	1538		727	1498		19.1	515	0	1.06	1.4	26.7		0.37	<0.8		22.7	73	LIMO
29.8	873	1743		847	1703		19.1	519	0	1.01	1.6	29.7		0.44	<0.8		25.2	89	LIMO
30.0	908	1789		882	1749		19.1	523	0	0.98	1.7	30.1		0.46	<0.8		25.6	93	LIMO
30.2	804	1577		783	1537		19.1	526	0	0.96	1.5	26.2		0.40	<0.8		22.2	80	LIMO

DMT 6-14

3 DIC 2014

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 18 kPa
DeltaB = 47 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 6-14 DESCRIZIONE
3.0	270	820		264	773		18.6	31	20	2.09	7.8	17.7				39	40.1		SABBIA LIM
3.2	350	830		347	783		17.7	33	22	1.34	9.8	15.1					37.5		LIMO SAB
3.4	360	480		375	433		16.7	35	24	0.16	10.1	2.0		1.9	12.6		5.0	58	ARGILLA
3.6	250	550		256	503		16.7	36	26	1.07	6.4	8.6		1.4	6.1		17.6	34	LIMO
3.8	250	350		266	303		15.7	37	27	0.15	6.4	1.3		1.4	6.1		2.6	35	ARGILLA
4.0	200	300		216	253		15.7	39	29	0.20	4.8	1.3		1.1	4.0		2.2	26	ARGILLA
4.2	200	300		216	253		15.7	40	31	0.20	4.6	1.3		1.1	3.7		2.2	25	ARGILLA
4.4	220	300		237	253		13.7	41	33	0.08	5.0	0.5		1.2	4.2		1.0	28	FANGO E/O TORBA
4.6	240	340		256	293		15.7	42	35	0.17	5.3	1.3		1.2	4.6		2.4	31	ARGILLA
4.8	200	290		217	243		14.7	43	37	0.15	4.2	0.9		1.0	3.2		1.5	24	FANGO
5.0	200	340		214	293		15.7	44	39	0.45	4.0	2.7		0.98	2.9		4.3	23	ARG LIM
5.2	220	320		236	273		15.7	45	41	0.19	4.3	1.3		1.0	3.3		2.1	26	ARGILLA
5.4	220	340		235	293		15.7	46	43	0.30	4.1	2.0		1.0	3.1		3.2	25	ARGILLA
5.6	220	320		236	273		15.7	47	45	0.19	4.0	1.3		0.99	3.0		2.0	25	ARGILLA
5.8	230	340		246	293		15.7	49	47	0.24	4.1	1.6		1.0	3.1		2.6	26	ARGILLA
6.0	220	300		237	253		13.7	50	49	0.08	3.8	0.5		0.94	2.7		0.8	24	FANGO E/O TORBA
6.2	220	300		237	253		13.7	51	51	0.08	3.7	0.5		0.92	2.6		0.8	24	FANGO E/O TORBA
6.4	170	300		185	253		15.7	51	53	0.52	2.6	2.4		0.69	1.5		2.6	15	ARG LIM
6.6	200	330		215	283		15.7	53	55	0.43	3.0	2.4		0.79	1.9		3.0	20	ARG LIM
6.8	220	350		235	303		15.7	54	57	0.38	3.3	2.4		0.85	2.2		3.2	22	ARG LIM
7.0	240	350		256	303		15.7	55	59	0.24	3.6	1.6		0.91	2.5		2.4	25	ARGILLA
7.2	200	350		214	303		15.7	56	61	0.58	2.7	3.1		0.72	1.6		3.6	18	ARG LIM
7.4	250	350		266	303		15.7	57	63	0.18	3.6	1.3		0.90	2.5		1.8	26	ARGILLA
7.6	200	340		214	293		15.7	58	65	0.53	2.6	2.7		0.68	1.5		3.0	17	ARG LIM
7.8	230	370		244	323		15.7	60	67	0.44	3.0	2.7		0.78	1.9		3.4	22	ARG LIM
8.0	220	500		227	453		16.7	61	69	1.42	2.6	7.8					9.4		LIMO SAB
8.2	220	460		229	413		16.7	62	71	1.16	2.6	6.4		0.68	1.5		7.3	19	LIMO
8.4	220	460		229	413		16.7	64	73	1.17	2.5	6.4		0.66	1.4		7.1	18	LIMO
8.6	170	460		177	413		16.7	65	75	2.31	1.6	8.2				31	7.0		SABBIA LIM
8.8	180	420		189	373		15.7	66	77	1.63	1.7	6.4					5.4		LIMO SAB
9.0	240	390		254	343		15.7	67	78	0.51	2.6	3.1		0.69	1.5		3.5	21	ARG LIM
9.2	250	400		264	353		15.7	69	80	0.49	2.7	3.1		0.71	1.6		3.6	22	ARG LIM
9.4	260	650		262	603		17.7	70	82	1.90	2.6	11.8				34	14.5		SABBIA LIM
9.6	280	660		282	613		16.7	71	84	1.67	2.8	11.5					14.6		LIMO SAB
9.8	290	750		288	703		17.7	73	86	2.05	2.8	14.4				34	18.8		SABBIA LIM
10.0	320	400		337	353		13.7	74	88	0.06	3.3	0.5		0.86	2.2		0.8	31	FANGO E/O TORBA
10.2	300	420		315	373		15.7	75	90	0.26	3.0	2.0		0.78	1.9		2.5	27	ARGILLA
10.4	320	420		336	373		15.7	76	92	0.15	3.2	1.3		0.83	2.1		1.7	30	ARGILLA
10.6	320	430		336	383		15.7	77	94	0.20	3.1	1.6		0.81	2.0		2.1	30	ARGILLA
10.8	300	400		316	353		15.7	79	96	0.17	2.8	1.3		0.74	1.7		1.5	26	ARGILLA
11.0	290	740		289	693		17.7	80	98	2.12	2.4	14.0				33	16.5		SABBIA LIM
11.2	250	660		251	613		17.7	81	100	2.40	1.9	12.6				32	12.2		SABBIA LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 6-14 DESCRIZIONE
11.4	300	950		289	903		17.7	83	102	3.29	2.3	21.3				33	25.7		SABBIA LIM
11.6	350	1000		339	953		18.6	85	104	2.62	2.8	21.3				34	28.9		SABBIA LIM
11.8	330	1000		318	953		18.6	86	106	3.00	2.5	22.0				33	28.2		SABBIA LIM
12.0	400	1150		384	1103		18.6	88	108	2.61	3.1	25.0				35	36.5		SABBIA LIM
12.2	360	950		352	903		18.6	90	110	2.28	2.7	19.1				34	24.8		SABBIA LIM
12.4	430	1150		415	1103		18.6	92	112	2.27	3.3	23.9				35	35.5		SABBIA LIM
12.6	440	1150		426	1103		18.6	93	114	2.17	3.3	23.5				35	35.0		SABBIA LIM
12.8	520	1350		500	1303		18.6	95	116	2.09	4.0	27.9				36	46.2		SABBIA LIM
13.0	450	1300		429	1253		18.6	97	118	2.65	3.2	28.6				35	42.5		SABBIA LIM
13.2	520	1500		492	1453		18.6	99	120	2.58	3.8	33.3				36	54.2		SABBIA LIM
13.4	550	1500		524	1453		18.6	100	122	2.31	4.0	32.2				36	53.6		SABBIA LIM
13.6	630	1550		605	1503		19.6	102	124	1.86	4.7	31.2				37	55.8		SABBIA LIM
13.8	400	820		400	773		17.7	104	126	1.36	2.6	12.9					15.5		LIMO SAB
14.0	350	480		365	433		15.7	106	128	0.29	2.2	2.4		0.61	1.2		2.3	27	ARGILLA
14.2	390	500		406	453		15.7	107	129	0.17	2.6	1.6		0.69	1.5		1.8	32	ARGILLA
14.4	450	1350		426	1303		18.6	108	131	2.97	2.7	30.4				34	41.7		SABBIA LIM
14.6	440	1350		416	1303		18.6	110	133	3.14	2.6	30.8				34	40.6		SABBIA LIM
14.8	320	540		330	493		16.7	112	135	0.84	1.7	5.6		0.47	0.81		4.8	21	LIMO
15.0	350	480		365	433		15.7	113	137	0.30	2.0	2.4		0.55	1.0		2.0	25	ARGILLA
15.2	350	460		366	413		15.7	114	139	0.21	2.0	1.6		0.54	0.99		1.4	25	ARGILLA
15.4	340	490		354	443		15.7	115	141	0.42	1.8	3.1		0.50	0.88		2.6	23	ARG LIM
15.6	450	820		453	773		17.7	117	143	1.03	2.7	11.1		0.71	1.6		13.1	37	LIMO
15.8	500	1300		481	1253		18.6	118	145	2.30	2.8	26.8				34	36.2		SABBIA LIM
16.0	450	850		451	803		17.7	120	147	1.16	2.5	12.2		0.68	1.5		14.0	36	LIMO
16.2	440	560		455	513		15.7	121	149	0.19	2.5	2.0		0.68	1.4		2.2	36	ARGILLA
16.4	420	590		433	543		16.7	123	151	0.39	2.3	3.8		0.62	1.2		3.8	32	ARG LIM
16.6	400	520		415	473		15.7	124	153	0.22	2.1	2.0		0.57	1.1		1.8	29	ARGILLA
16.8	470	620		484	573		16.7	125	155	0.27	2.6	3.1		0.70	1.5		3.5	39	ARGILLA
17.0	460	620		473	573		16.7	127	157	0.32	2.5	3.5		0.67	1.4		3.7	37	ARGILLA
17.2	480	630		494	583		16.7	128	159	0.27	2.6	3.1		0.70	1.5		3.5	39	ARGILLA
17.4	490	620		505	573		16.7	129	161	0.20	2.7	2.4		0.71	1.6		2.7	41	ARGILLA
17.6	440	560		455	513		15.7	131	163	0.20	2.2	2.0		0.61	1.2		1.9	33	ARGILLA
17.8	470	580		486	533		15.7	132	165	0.15	2.4	1.6		0.65	1.4		1.7	37	ARGILLA
18.0	470	580		486	533		15.7	133	167	0.15	2.4	1.6		0.65	1.3		1.7	37	ARGILLA
18.2	490	590		506	543		15.7	134	169	0.11	2.5	1.3		0.67	1.4		1.4	39	ARGILLA
18.4	450	600		464	553		16.7	135	171	0.30	2.2	3.1		0.59	1.1		2.9	33	ARGILLA
18.6	490	600		506	553		15.7	137	173	0.14	2.4	1.6		0.66	1.4		1.7	38	ARGILLA
18.8	480	660		492	613		16.7	138	175	0.38	2.3	4.2		0.62	1.2		4.2	36	ARG LIM
19.0	470	600		485	553		16.7	139	177	0.22	2.2	2.4		0.60	1.2		2.3	35	ARGILLA
19.2	440	560		455	513		15.7	141	179	0.21	2.0	2.0		0.54	0.98		1.7	30	ARGILLA
19.4	460	630		473	583		16.7	142	181	0.38	2.1	3.8		0.56	1.1		3.4	32	ARG LIM
19.6	470	620		484	573		16.7	143	182	0.30	2.1	3.1		0.57	1.1		2.8	34	ARGILLA
19.8	500	660		513	613		16.7	145	184	0.30	2.3	3.5		0.62	1.2		3.4	37	ARGILLA
20.0	470	600		485	553		16.7	146	186	0.23	2.0	2.4		0.56	1.0		2.1	33	ARGILLA
20.2	470	570		486	523		15.7	147	188	0.12	2.0	1.3		0.55	1.0		1.1	33	ARGILLA
20.4	470	720		479	673		16.7	149	190	0.67	1.9	6.7		0.53	0.96		5.7	31	LIMO ARG
20.6	520	660		534	613		16.7	150	192	0.23	2.3	2.7		0.62	1.2		2.7	39	ARGILLA
20.8	480	600		495	553		15.7	151	194	0.19	2.0	2.0		0.54	0.99		1.7	33	ARGILLA
21.0	490	660		503	613		16.7	152	196	0.36	2.0	3.8		0.55	1.0		3.3	34	ARG LIM
21.2	470	570		486	523		15.7	154	198	0.13	1.9	1.3		0.51	0.90		1.1	31	ARGILLA
21.4	460	990		455	943		18.6	155	200	1.92	1.6	16.9				31	14.4		SABBIA LIM
21.6	490	1400		466	1353		18.6	157	202	3.37	1.7	30.8				31	29.3		SABBIA
21.8	480	630		494	583		16.7	159	204	0.31	1.8	3.1		0.50	0.87		2.6	31	ARGILLA
22.0	480	600		495	553		15.7	160	206	0.20	1.8	2.0		0.49	0.86		1.7	31	ARGILLA
22.2	520	630		536	583		15.7	161	208	0.14	2.0	1.6		0.55	1.0		1.4	36	ARGILLA
22.4	520	630		536	583		15.7	162	210	0.15	2.0	1.6		0.55	1.0		1.4	36	ARGILLA
22.6	520	620		536	573		15.7	163	212	0.11	2.0	1.3		0.54	0.99		1.1	36	ARGILLA
22.8	540	660		555	613		16.7	165	214	0.17	2.1	2.0		0.56	1.1		1.8	38	ARGILLA
23.0	540	650		556	603		15.7	166	216	0.14	2.0	1.6		0.56	1.0		1.4	38	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 6-14 DESCRIZIONE
23.2	540	700		553	653		16.7	167	218	0.30	2.0	3.5		0.55	1.0		3.0	37	ARGILLA
23.4	530	660		545	613		16.7	169	220	0.21	1.9	2.4		0.52	0.95		2.0	35	ARGILLA
23.6	550	660		566	613		15.7	170	222	0.14	2.0	1.6		0.55	1.0		1.4	38	ARGILLA
23.8	570	720		584	673		16.7	171	224	0.25	2.1	3.1		0.57	1.1		2.8	40	ARGILLA
24.0	590	740		604	693		16.7	172	226	0.24	2.2	3.1		0.59	1.2		2.9	43	ARGILLA
24.2	580	700		595	653		16.7	174	228	0.16	2.1	2.0		0.57	1.1		1.8	41	ARGILLA
24.4	620	1150		615	1103		17.7	175	230	1.27	2.2	16.9					17.2		LIMO SAB
24.6	500	670		513	623		16.7	177	232	0.39	1.6	3.8		0.43	<0.8		3.3	29	ARG LIM
24.8	640	1100		638	1053		17.7	178	233	1.02	2.3	14.4		0.61	1.2		14.7	46	LIMO
25.0	500	1450		474	1403		18.6	180	235	3.90	1.3	32.2				30	27.4		SABBIA
25.2	430	1200		413	1153		18.6	181	237	4.22	1.0	25.7				28	21.8		SABBIA
25.4	500	720		510	673		16.7	183	239	0.60	1.5	5.6		0.39	<0.8		4.8	28	LIMO ARG
25.6	520	1300		502	1253		18.6	185	241	2.88	1.4	26.1				30	22.1		SABBIA LIM
25.8	580	700		595	653		16.7	186	243	0.16	1.9	2.0		0.51	0.92		1.7	38	ARGILLA
26.0	600	720		615	673		16.7	188	245	0.16	2.0	2.0		0.54	0.98		1.7	41	ARGILLA
26.2	600	760		613	713		16.7	189	247	0.27	1.9	3.5		0.53	0.95		2.9	40	ARGILLA
26.4	580	700		595	653		16.7	190	249	0.17	1.8	2.0		0.49	0.86		1.7	37	ARGILLA
26.6	620	760		634	713		16.7	192	251	0.21	2.0	2.7		0.54	1.0		2.3	42	ARGILLA
26.8	620	750		635	703		16.7	193	253	0.18	2.0	2.4		0.54	0.98		2.0	42	ARGILLA
27.0	650	1300		639	1253		17.7	195	255	1.60	2.0	21.3					20.1		LIMO SAB
27.2	700	1750		669	1703		19.6	196	257	2.51	2.1	35.9				32	39.3		SABBIA LIM
27.4	600	1250		589	1203		18.6	198	259	1.86	1.7	21.3				31	18.1		SABBIA LIM
27.6	600	1200		591	1153		17.7	200	261	1.70	1.7	19.5					16.6		LIMO SAB
27.8	820	2050		780	2003		19.6	201	263	2.37	2.6	42.4				34	53.6		SABBIA LIM
28.0	550	1550		521	1503		18.6	203	265	3.83	1.3	34.1				29	29.0		SABBIA
28.2	1100	2600		1046	2553		19.6	205	267	1.93	3.8	52.3				36	83.2		SABBIA LIM
28.4	700	1600		676	1553		18.6	207	269	2.15	2.0	30.4				32	30.4		SABBIA LIM
28.6	870	1950		837	1903		19.6	209	271	1.88	2.7	37.0				34	47.0		SABBIA LIM
28.8	580	1450		558	1403		18.6	211	273	2.97	1.4	29.3				30	24.9		SABBIA LIM
29.0	730	1150		730	1103		17.7	213	275	0.82	2.1	12.9		0.58	1.1		12.2	51	LIMO
29.2	830	1150		835	1103		17.7	214	277	0.48	2.6	9.3		0.70	1.5		10.4	66	ARG LIM
29.4	820	1150		825	1103		17.7	216	279	0.51	2.5	9.7		0.68	1.4		10.5	64	ARG LIM
29.6	820	1150		825	1103		17.7	217	281	0.51	2.5	9.7		0.67	1.4		10.4	63	ARG LIM
29.8	800	1150		804	1103		17.7	219	283	0.57	2.4	10.4		0.64	1.3		10.7	60	ARG LIM
30.0	660	1100		659	1053		17.7	221	284	1.05	1.7	13.7		0.46	<0.8		11.6	40	LIMO

DMT 7-14

2 DIC 2014

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 18 kPa
DeltaB = 46 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 7-14 DESCRIZIONE
3.2	130	200		148	154		13.7	33	22	0.05	3.8	0.2		0.96	2.8		0.3	16	FANGO E/O TORBA
3.4	150	220		168	174		13.7	34	24	0.04	4.3	0.2		1.0	3.3		0.4	19	FANGO E/O TORBA
3.6	130	200		148	154		13.7	34	26	0.05	3.6	0.2		0.90	2.5		0.3	16	FANGO E/O TORBA
3.8	120	200		137	154		14.7	35	27	0.15	3.1	0.6		0.81	2.0		0.8	13	FANGO
4.0	120	200		137	154		14.7	36	29	0.16	3.0	0.6		0.78	1.9		0.7	13	FANGO
4.2	130	220		147	174		14.7	37	31	0.24	3.1	0.9		0.81	2.0		1.2	14	FANGO
4.4	120	220		136	174		15.7	38	33	0.37	2.7	1.3		0.72	1.6		1.5	12	ARG LIM
4.6	150	240		167	194		14.7	39	35	0.21	3.3	0.9		0.86	2.2		1.3	16	FANGO
4.8	130	220		147	174		14.7	40	37	0.25	2.7	0.9		0.72	1.6		1.1	13	FANGO
5.0	170	250		187	204		14.7	41	39	0.11	3.6	0.6		0.91	2.5		0.8	19	FANGO
5.2	150	240		167	194		14.7	42	41	0.22	3.0	0.9		0.78	1.9		1.2	15	FANGO
5.4	130	220		147	174		14.7	43	43	0.26	2.4	0.9		0.65	1.3		1.0	12	FANGO
5.6	120	200		137	154		14.7	44	45	0.18	2.1	0.6		0.57	1.1		0.5	10	FANGO
5.8	100	190		117	144		14.7	45	47	0.39	1.5	0.9		0.41	<0.8		0.8	7	FANGO
6.0	120	210		137	164		14.7	46	49	0.31	1.9	0.9		0.52	0.92		0.8	10	FANGO
6.2	110	220		126	174		15.7	47	51	0.65	1.6	1.7		0.43	<0.8		1.4	8	LIMO ARG
6.4	100	210		116	164		15.7	48	53	0.77	1.3	1.7		0.33	<0.8		1.4	6	LIMO ARG
6.6	80	170		97	124		14.7	49	55	0.65	0.8	0.9		< 0.3	<0.8		0.8	4	FANGO
6.8	100	200		116	154		15.7	50	57	0.64	1.2	1.3		< 0.3	<0.8		1.1	6	LIMO ARG
7.0	100	200		116	154		15.7	52	59	0.66	1.1	1.3		< 0.3	<0.8		1.1	5	LIMO ARG
7.2	90	200		106	154		15.7	53	61	1.08	0.8	1.7		< 0.3	<0.8		1.4	4	LIMO
7.4	100	210		116	164		15.7	54	63	0.91	1.0	1.7		< 0.3	<0.8		1.4	5	LIMO
7.6	80	170		97	124		14.7	55	65	0.85	0.6	0.9		< 0.3	<0.8		0.8	3	FANGO
7.8	100	180		117	134		14.7	56	67	0.33	0.9	0.6		< 0.3	<0.8		0.5	5	FANGO
8.0	140	230		157	184		14.7	57	69	0.31	1.5	0.9		0.41	<0.8		0.8	9	FANGO
8.2	130	210		147	164		14.7	58	71	0.22	1.3	0.6		0.34	<0.8		0.5	8	FANGO
8.4	100	200		116	154		15.7	59	73	0.87	0.7	1.3		< 0.3	<0.8		1.1	4	LIMO
8.6	100	200		116	154		15.7	60	75	0.91	0.7	1.3		< 0.3	<0.8		1.1	4	LIMO
8.8	170	270		186	224		15.7	61	77	0.34	1.8	1.3		0.48	0.84		1.1	12	ARG LIM
9.0	150	220		168	174		13.7	63	78	0.07	1.4	0.2		0.38	<0.8		0.2	9	FANGO E/O TORBA
9.2	140	220		157	174		14.7	63	80	0.22	1.2	0.6		0.30	<0.8		0.5	7	FANGO
9.4	140	230		157	184		14.7	64	82	0.37	1.2	0.9		< 0.3	<0.8		0.8	7	FANGO
9.6	150	270		165	224		15.7	65	84	0.73	1.2	2.0		0.31	<0.8		1.7	8	LIMO ARG
9.8	150	250		166	204		15.7	67	86	0.47	1.2	1.3		< 0.3	<0.8		1.1	8	ARG LIM
10.0	130	250		145	204		15.7	68	88	1.03	0.8	2.0		< 0.3	<0.8		1.7	5	LIMO
10.2	150	250		166	204		15.7	69	90	0.50	1.1	1.3		< 0.3	<0.8		1.1	7	ARG LIM
10.4	170	320		184	274		15.7	70	92	0.99	1.3	3.1		0.34	<0.8		2.7	9	LIMO
10.6	170	350		182	304		15.7	71	94	1.38	1.2	4.2					3.6		LIMO SAB
10.8	240	460		250	414		16.7	72	96	1.06	2.1	5.7		0.58	1.1		5.5	17	LIMO
11.0	260	370		276	324		15.7	74	98	0.27	2.4	1.7		0.65	1.3		1.7	20	ARGILLA
11.2	280	390		296	344		15.7	75	100	0.25	2.6	1.7		0.70	1.5		1.9	23	ARGILLA
11.4	280	390		296	344		15.7	76	102	0.25	2.5	1.7		0.68	1.5		1.8	23	ARGILLA

11.6	280	420		294	374		15.7	77	104	0.42	2.5	2.8		0.66	1.4		2.9	22	ARG LIM
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 7-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
11.8	280	430		294	384		15.7	79	106	0.48	2.4	3.1		0.64	1.3		3.2	22	ARG LIM
12.0	270	370		286	324		15.7	80	108	0.21	2.2	1.3		0.61	1.2		1.3	20	ARGILLA
12.2	290	380		307	334		14.7	81	110	0.14	2.4	0.9		0.65	1.4		1.0	23	FANGO
12.4	290	400		306	354		15.7	82	112	0.25	2.4	1.7		0.64	1.3		1.7	22	ARGILLA
12.6	270	370		286	324		15.7	83	114	0.22	2.1	1.3		0.56	1.1		1.2	19	ARGILLA
12.8	270	400		285	354		15.7	84	116	0.41	2.0	2.4		0.55	1.0		2.1	19	ARG LIM
13.0	300	400		316	354		15.7	85	118	0.19	2.3	1.3		0.63	1.3		1.3	23	ARGILLA
13.2	260	350		277	304		14.7	87	120	0.17	1.8	0.9		0.49	0.86		0.8	17	FANGO
13.4	260	360		276	314		15.7	88	122	0.24	1.8	1.3		0.48	0.83		1.1	16	ARGILLA
13.6	300	400		316	354		15.7	89	124	0.20	2.2	1.3		0.59	1.1		1.2	22	ARGILLA
13.8	260	350		277	304		14.7	90	126	0.18	1.7	0.9		0.45	<0.8		0.8	16	FANGO
14.0	350	460		366	414		15.7	91	128	0.20	2.6	1.7		0.70	1.5		1.9	28	ARGILLA
14.2	300	420		315	374		15.7	92	129	0.32	2.0	2.0		0.55	1.0		1.8	20	ARGILLA
14.4	200	300		216	254		15.7	93	131	0.45	0.9	1.3		< 0.3	<0.8		1.1	8	ARG LIM
14.6	240	450		251	404		15.7	94	133	1.31	1.2	5.3					4.5		LIMO SAB
14.8	330	440		346	394		15.7	96	135	0.23	2.2	1.7		0.60	1.2		1.6	24	ARGILLA
15.0	330	460		345	414		15.7	97	137	0.33	2.1	2.4		0.58	1.1		2.2	23	ARG LIM
15.2	340	450		356	404		15.7	98	139	0.22	2.2	1.7		0.60	1.2		1.6	24	ARGILLA
15.4	350	450		366	404		15.7	99	141	0.17	2.3	1.3		0.61	1.2		1.3	26	ARGILLA
15.6	300	430		315	384		15.7	100	143	0.40	1.7	2.4		0.46	<0.8		2.0	18	ARG LIM
15.8	340	450		356	404		15.7	101	145	0.23	2.1	1.7		0.56	1.1		1.5	23	ARGILLA
16.0	350	470		365	424		15.7	103	147	0.27	2.1	2.0		0.58	1.1		1.9	24	ARGILLA
16.2	240	350		256	304		15.7	104	149	0.45	1.0	1.7		< 0.3	<0.8		1.4	10	ARG LIM
16.4	320	440		335	394		15.7	105	151	0.32	1.8	2.0		0.48	0.82		1.7	20	ARGILLA
16.6	360	470		376	424		15.7	106	153	0.22	2.1	1.7		0.57	1.1		1.5	25	ARGILLA
16.8	350	470		365	424		15.7	107	155	0.28	2.0	2.0		0.53	0.97		1.7	23	ARGILLA
17.0	360	490		375	444		15.7	109	157	0.32	2.0	2.4		0.55	1.0		2.1	24	ARGILLA
17.2	380	490		396	444		15.7	110	159	0.20	2.2	1.7		0.59	1.1		1.6	27	ARGILLA
17.4	340	440		356	394		15.7	111	161	0.19	1.8	1.3		0.48	0.82		1.1	21	ARGILLA
17.6	200	300		216	254		15.7	112	163	0.71	0.5	1.3		< 0.3	<0.8		1.1	4	LIMO ARG
17.8	370	490		385	444		15.7	113	165	0.27	1.9	2.0		0.53	0.96		1.7	24	ARGILLA
18.0	380	500		395	454		15.7	114	167	0.26	2.0	2.0		0.54	1.0		1.7	25	ARGILLA
18.2	370	490		385	444		15.7	116	169	0.27	1.9	2.0		0.51	0.90		1.7	23	ARGILLA
18.4	370	510		384	464		15.7	117	171	0.37	1.8	2.8		0.50	0.87		2.4	23	ARG LIM
18.6	380	520		394	474		15.7	118	173	0.36	1.9	2.8		0.51	0.91		2.4	24	ARG LIM
18.8	390	500		406	454		15.7	119	175	0.21	1.9	1.7		0.53	0.96		1.4	25	ARGILLA
19.0	330	420		347	374		14.7	120	177	0.16	1.4	0.9		0.37	<0.8		0.8	17	FANGO
19.2	340	460		355	414		15.7	121	179	0.33	1.5	2.0		0.39	<0.8		1.7	18	ARG LIM
19.4	380	500		395	454		15.7	122	181	0.27	1.8	2.0		0.48	0.82		1.7	23	ARGILLA
19.6	370	480		386	434		15.7	124	182	0.24	1.6	1.7		0.44	<0.8		1.4	21	ARGILLA
19.8	380	510		395	464		15.7	125	184	0.33	1.7	2.4		0.46	<0.8		2.0	22	ARGILLA
20.0	370	470		386	424		15.7	126	186	0.19	1.6	1.3		0.43	<0.8		1.1	21	ARGILLA
20.2	440	550		456	504		15.7	127	188	0.18	2.1	1.7		0.57	1.1		1.5	30	ARGILLA
20.4	440	520		457	474		13.7	128	190	0.06	2.1	0.6		0.57	1.1		0.5	30	FANGO E/O TORBA
20.6	420	500		437	454		13.7	129	192	0.07	1.9	0.6		0.52	0.92		0.5	27	FANGO E/O TORBA
20.8	380	500		395	454		15.7	130	194	0.29	1.5	2.0		0.41	<0.8		1.7	21	ARGILLA
21.0	340	450		356	404		15.7	131	196	0.30	1.2	1.7		0.31	<0.8		1.4	15	ARGILLA
21.2	440	520		457	474		13.7	132	198	0.06	2.0	0.6		0.53	0.97		0.5	28	FANGO E/O TORBA
21.4	430	560		445	514		15.7	133	200	0.28	1.8	2.4		0.50	0.88		2.0	26	ARGILLA
21.6	440	530		457	484		14.7	134	202	0.11	1.9	0.9		0.52	0.92		0.8	28	FANGO
21.8	350	470		365	424		15.7	135	204	0.36	1.2	2.0		< 0.3	<0.8		1.7	16	ARG LIM
22.0	280	400		295	354		15.7	136	206	0.66	0.7	2.0		< 0.3	<0.8		1.7	7	LIMO ARG
22.2	450	670		460	624		16.7	138	208	0.65	1.8	5.7		0.50	0.88		4.8	27	LIMO ARG
22.4	500	640		514	594		16.7	139	210	0.26	2.2	2.8		0.59	1.2		2.6	34	ARGILLA
22.6	560	1000		559	954		17.7	140	212	1.14	2.5	13.7		0.66	1.4		15.3	40	LIMO
22.8	550	700		564	654		16.7	142	214	0.26	2.5	3.1		0.66	1.4		3.3	41	ARGILLA
23.0	550	670		565	624		16.7	143	216	0.17	2.4	2.0		0.66	1.4		2.1	40	ARGILLA
23.2	540	700		553	654		16.7	145	218	0.30	2.3	3.5		0.63	1.3		3.5	38	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 7-14 DESCRIZIONE
23.4	520	700		532	654		16.7	146	220	0.39	2.1	4.2		0.58	1.1		3.9	35	ARG LIM
23.6	500	690		512	644		16.7	147	222	0.46	2.0	4.6		0.54	0.98		3.9	32	ARG LIM
23.8	500	650		514	604		16.7	149	224	0.31	1.9	3.1		0.53	0.96		2.7	32	ARGILLA
24.0	500	670		513	624		16.7	150	226	0.39	1.9	3.9		0.52	0.93		3.3	31	ARG LIM
24.2	480	660		492	614		16.7	152	228	0.46	1.7	4.2		0.47	0.81		3.6	28	ARG LIM
24.4	520	680		533	634		16.7	153	230	0.33	2.0	3.5		0.54	0.99		3.0	33	ARG LIM
24.6	520	670		534	624		16.7	154	232	0.30	2.0	3.1		0.53	0.97		2.7	33	ARGILLA
24.8	530	700		543	654		16.7	156	233	0.36	2.0	3.9		0.54	0.99		3.3	34	ARG LIM
25.0	550	700		564	654		16.7	157	235	0.28	2.1	3.1		0.57	1.1		2.8	37	ARGILLA
25.2	550	740		562	694		16.7	158	237	0.41	2.0	4.6		0.56	1.0		4.0	36	ARG LIM
25.4	560	1000		559	954		17.7	160	239	1.23	2.0	13.7					12.6		LIMO SAB
25.6	500	900		501	854		16.7	161	241	1.36	1.6	12.2					10.4		LIMO SAB
25.8	550	1100		544	1054		17.7	163	243	1.70	1.8	17.7					15.7		LIMO SAB
26.0	800	2000		761	1954		19.6	164	245	2.31	3.1	41.4				35	59.7		SABBIA LIM
26.2	600	1250		589	1204		18.6	166	247	1.80	2.1	21.4				32	21.4		SABBIA LIM
26.4	600	750		614	704		16.7	168	249	0.25	2.2	3.1		0.59	1.1		2.9	41	ARGILLA
26.6	580	730		594	684		16.7	169	251	0.26	2.0	3.1		0.55	1.0		2.7	38	ARGILLA
26.8	600	740		614	694		16.7	171	253	0.22	2.1	2.8		0.57	1.1		2.5	40	ARGILLA
27.0	620	870		629	824		16.7	172	255	0.52	2.2	6.8		0.59	1.1		6.3	42	ARG LIM
27.2	630	760		645	714		16.7	173	257	0.18	2.2	2.4		0.61	1.2		2.3	44	ARGILLA
27.4	630	740		646	694		16.7	175	259	0.12	2.2	1.7		0.60	1.2		1.6	44	ARGILLA
27.6	600	830		610	784		16.7	176	261	0.50	2.0	6.0		0.54	0.99		5.1	38	ARG LIM
27.8	550	700		564	654		16.7	178	263	0.30	1.7	3.1		0.46	<0.8		2.7	32	ARGILLA
28.0	560	700		574	654		16.7	179	265	0.26	1.7	2.8		0.47	<0.8		2.4	33	ARGILLA
28.2	650	1300		639	1254		17.7	180	267	1.65	2.1	21.4					21.1		LIMO SAB
28.4	550	840		557	794		16.7	182	269	0.82	1.6	8.2		0.42	<0.8		7.0	30	LIMO
28.6	540	800		548	754		16.7	183	271	0.74	1.5	7.1		0.40	<0.8		6.1	28	LIMO ARG
28.8	750	1800		719	1754		19.6	185	273	2.32	2.4	35.9				33	43.2		SABBIA LIM
29.0	880	1950		848	1904		19.6	187	275	1.84	3.1	36.7				35	50.8		SABBIA LIM
29.2	900	2050		864	2004		19.6	189	277	1.94	3.1	39.6				35	55.6		SABBIA LIM
29.4	880	2200		835	2154		19.6	191	279	2.37	2.9	45.8				34	63.2		SABBIA LIM
29.6	770	2000		730	1954		19.6	193	281	2.73	2.3	42.5				33	51.4		SABBIA LIM
29.8	800	2100		756	2054		19.6	194	283	2.74	2.4	45.0				33	56.3		SABBIA LIM
30.0	790	2050		748	2004		19.6	196	284	2.71	2.4	43.6				33	53.1		SABBIA LIM

DMT 8-14

8 GEN 2015

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
STABILIMENTO P.I.R.

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 45 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 8-14 DESCRIZIONE
2.8	130	300		140	255		15.7	30	18	0.95	4.1	4.0		1.0	3.0		6.4	16	LIMO
3.0	170	550		169	505		17.7	31	20	2.25	4.8	11.7				37	21.3		SABBIA LIM
3.2	220	1400		179	1355		18.6	33	22	7.47	4.8	40.8				37	76.1		SABBIA
3.4	200	740		191	695		17.7	34	24	3.01	4.9	17.5				37	32.8		SABBIA LIM
3.6	230	730		223	685		17.7	36	26	2.34	5.5	16.0				38	31.3		SABBIA LIM
3.8	200	640		196	595		17.7	38	27	2.37	4.5	13.8				37	24.5		SABBIA LIM
4.0	250	650		248	605		16.7	39	29	1.63	5.6	12.4					24.1		LIMO SAB
4.2	270	720		266	675		16.7	41	31	1.75	5.8	14.2					28.1		LIMO SAB
4.4	220	650		217	605		17.7	42	33	2.12	4.4	13.5				36	23.4		SABBIA LIM
4.6	230	640		228	595		17.7	43	35	1.91	4.4	12.8				37	22.1		SABBIA LIM
4.8	250	680		247	635		17.7	45	37	1.86	4.6	13.5				37	24.0		SABBIA LIM
5.0	240	680		236	635		17.7	47	39	2.03	4.2	13.8				36	23.5		SABBIA LIM
5.2	240	690		236	645		17.7	48	41	2.11	4.0	14.2				36	23.6		SABBIA LIM
5.4	240	720		234	675		17.7	50	43	2.31	3.8	15.3				36	24.9		SABBIA LIM
5.6	270	720		266	675		17.7	51	45	1.86	4.3	14.2				36	24.2		SABBIA LIM
5.8	250	700		246	655		17.7	53	47	2.06	3.8	14.2				36	22.6		SABBIA LIM
6.0	270	750		264	705		17.7	54	49	2.05	3.9	15.3				36	25.0		SABBIA LIM
6.2	300	760		295	715		17.7	56	51	1.72	4.4	14.6					24.9		LIMO SAB
6.4	320	950		307	905		18.6	58	53	2.36	4.4	20.8				37	36.4		SABBIA LIM
6.6	250	800		241	755		17.7	59	55	2.77	3.1	17.9				35	26.3		SABBIA LIM
6.8	270	770		263	725		17.7	61	57	2.24	3.4	16.0				35	24.1		SABBIA LIM
7.0	300	750		296	705		16.7	63	59	1.73	3.8	14.2					22.4		LIMO SAB
7.2	300	760		295	715		16.7	64	61	1.79	3.7	14.6					22.6		LIMO SAB
7.4	280	760		274	715		17.7	65	63	2.09	3.2	15.3				35	22.2		SABBIA LIM
7.6	300	800		293	755		18.6	67	65	2.02	3.4	16.0				35	24.0		SABBIA LIM
7.8	280	700		277	655		16.7	69	67	1.80	3.1	13.1					18.1		LIMO SAB
8.0	340	880		331	835		18.6	70	69	1.92	3.7	17.5				36	27.6		SABBIA LIM
8.2	300	870		290	825		18.6	72	71	2.45	3.1	18.6				35	26.5		SABBIA LIM
8.4	320	860		311	815		18.6	73	73	2.11	3.2	17.5				35	25.5		SABBIA LIM
8.6	320	500		329	455		16.7	75	75	0.50	3.4	4.4		0.86	2.3		6.1	32	ARG LIM
8.8	320	950		307	905		18.6	77	77	2.60	3.0	20.8				34	29.6		SABBIA LIM
9.0	300	900		288	855		18.6	78	78	2.71	2.7	19.7				34	26.1		SABBIA LIM
9.2	320	460		331	415		16.7	80	80	0.34	3.1	2.9		0.81	2.0		3.8	31	ARG LIM
9.4	300	450		311	405		16.7	82	82	0.41	2.8	3.3		0.74	1.7		3.9	27	ARG LIM
9.6	340	470		352	425		15.7	83	84	0.28	3.2	2.6		0.83	2.1		3.4	33	ARGILLA
9.8	320	460		331	415		15.7	84	86	0.34	2.9	2.9		0.76	1.8		3.6	30	ARG LIM
10.0	330	480		341	435		16.7	85	88	0.37	3.0	3.3		0.78	1.8		4.1	31	ARG LIM
10.2	340	470		352	425		15.7	87	90	0.28	3.0	2.6		0.79	1.9		3.2	32	ARGILLA
10.4	320	450		332	405		15.7	88	92	0.31	2.7	2.6		0.72	1.6		3.0	28	ARGILLA
10.6	330	470		341	425		16.7	89	94	0.34	2.8	2.9		0.73	1.7		3.5	29	ARG LIM
10.8	340	480		351	435		16.7	90	96	0.33	2.8	2.9		0.74	1.7		3.5	31	ARGILLA
11.0	370	490		382	445		15.7	92	98	0.22	3.1	2.2		0.80	2.0		2.8	35	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 8-14 DESCRIZIONE
11.2	350	480		362	435		15.7	93	100	0.28	2.8	2.6		0.74	1.7		3.1	31	ARGILLA
11.4	330	460		342	415		15.7	94	102	0.31	2.5	2.6		0.68	1.5		2.8	28	ARGILLA
11.6	330	460		342	415		15.7	95	104	0.31	2.5	2.6		0.67	1.4		2.7	28	ARGILLA
11.8	340	480		351	435		15.7	96	106	0.34	2.5	2.9		0.68	1.5		3.2	29	ARG LIM
12.0	320	460		331	415		15.7	98	108	0.38	2.3	2.9		0.62	1.2		2.9	25	ARG LIM
12.2	320	450		332	405		15.7	99	110	0.33	2.2	2.6		0.61	1.2		2.5	25	ARG LIM
12.4	340	490		351	445		16.7	100	112	0.40	2.4	3.3		0.64	1.3		3.4	27	ARG LIM
12.6	350	500		361	455		16.7	101	114	0.38	2.4	3.3		0.65	1.4		3.4	29	ARG LIM
12.8	350	500		361	455		16.7	103	116	0.39	2.4	3.3		0.64	1.3		3.4	28	ARG LIM
13.0	350	520		360	475		16.7	104	118	0.48	2.3	4.0		0.63	1.3		4.0	28	ARG LIM
13.2	370	520		381	475		16.7	105	120	0.36	2.5	3.3		0.66	1.4		3.5	30	ARG LIM
13.4	370	520		381	475		16.7	107	122	0.37	2.4	3.3		0.65	1.4		3.4	30	ARG LIM
13.6	300	590		304	545		16.7	108	124	1.34	1.7	8.4					7.1		LIMO SAB
13.8	400	540		411	495		16.7	110	126	0.29	2.6	2.9		0.70	1.5		3.3	34	ARGILLA
14.0	400	530		412	485		16.7	111	128	0.26	2.6	2.6		0.68	1.5		2.8	33	ARGILLA
14.2	380	500		392	455		15.7	112	129	0.24	2.3	2.2		0.63	1.3		2.2	30	ARGILLA
14.4	370	520		381	475		16.7	114	131	0.38	2.2	3.3		0.59	1.2		3.1	28	ARG LIM
14.6	380	540		390	495		16.7	115	133	0.41	2.2	3.6		0.60	1.2		3.5	29	ARG LIM
14.8	390	540		401	495		16.7	116	135	0.36	2.3	3.3		0.62	1.2		3.2	30	ARG LIM
15.0	380	500		392	455		15.7	118	137	0.25	2.2	2.2		0.59	1.1		2.0	29	ARGILLA
15.2	390	540		401	495		16.7	119	139	0.36	2.2	3.3		0.60	1.2		3.1	29	ARG LIM
15.4	400	550		411	505		16.7	120	141	0.35	2.2	3.3		0.61	1.2		3.2	30	ARG LIM
15.6	400	550		411	505		16.7	122	143	0.35	2.2	3.3		0.60	1.2		3.1	30	ARG LIM
15.8	400	550		411	505		16.7	123	145	0.36	2.2	3.3		0.59	1.1		3.0	30	ARG LIM
16.0	400	570		410	525		16.7	124	147	0.44	2.1	4.0		0.57	1.1		3.6	29	ARG LIM
16.2	400	540		411	495		16.7	126	149	0.32	2.1	2.9		0.57	1.1		2.6	29	ARGILLA
16.4	420	680		425	635		16.7	127	151	0.77	2.2	7.3		0.59	1.1		6.9	31	LIMO ARG
16.6	440	580		451	535		16.7	128	153	0.28	2.3	2.9		0.63	1.3		2.9	34	ARGILLA
16.8	400	540		411	495		16.7	130	155	0.33	2.0	2.9		0.54	0.98		2.5	28	ARGILLA
17.0	430	590		440	545		16.7	131	157	0.37	2.2	3.6		0.59	1.1		3.4	32	ARG LIM
17.2	420	590		430	545		16.7	133	159	0.43	2.0	4.0		0.56	1.0		3.5	30	ARG LIM
17.4	400	560		410	515		16.7	134	161	0.42	1.9	3.6		0.51	0.90		3.1	27	ARG LIM
17.6	420	580		430	535		16.7	135	163	0.39	2.0	3.6		0.54	0.98		3.1	29	ARG LIM
17.8	420	950		412	905		18.6	137	165	2.00	1.8	17.1				32	15.4		SABBIA LIM
18.0	410	560		421	515		16.7	138	167	0.37	1.8	3.3		0.50	0.87		2.8	27	ARG LIM
18.2	420	590		430	545		16.7	140	169	0.44	1.9	4.0		0.51	0.90		3.4	28	ARG LIM
18.4	420	580		430	535		16.7	141	171	0.40	1.8	3.6		0.50	0.88		3.1	28	ARG LIM
18.6	400	560		410	515		16.7	143	173	0.44	1.7	3.6		0.45	<0.8		3.1	25	ARG LIM
18.8	440	600		450	555		16.7	144	175	0.38	1.9	3.6		0.52	0.94		3.1	30	ARG LIM
19.0	440	620		449	575		16.7	145	177	0.46	1.9	4.4		0.51	0.91		3.7	29	ARG LIM
19.2	440	600		450	555		16.7	147	179	0.39	1.9	3.6		0.50	0.89		3.1	29	ARG LIM
19.4	450	600		461	555		16.7	148	181	0.34	1.9	3.3		0.51	0.92		2.8	30	ARG LIM
19.6	440	600		450	555		16.7	149	182	0.39	1.8	3.6		0.49	0.84		3.1	29	ARG LIM
19.8	440	600		450	555		16.7	151	184	0.40	1.8	3.6		0.48	0.82		3.1	28	ARG LIM
20.0	350	670		352	625		16.7	152	186	1.65	1.1	9.5					8.1		LIMO SAB
20.2	450	640		459	595		16.7	154	188	0.51	1.8	4.7		0.48	0.82		4.0	29	ARG LIM
20.4	440	670		447	625		16.7	155	190	0.70	1.7	6.2		0.45	<0.8		5.3	27	LIMO ARG
20.6	450	650		458	605		16.7	156	192	0.55	1.7	5.1		0.46	<0.8		4.3	28	ARG LIM
20.8	470	690		477	645		16.7	158	194	0.59	1.8	5.8		0.49	0.85		5.0	30	ARG LIM
21.0	500	700		508	655		16.7	159	196	0.47	2.0	5.1		0.53	0.97		4.3	34	ARG LIM
21.2	520	680		530	635		16.7	160	198	0.32	2.1	3.6		0.56	1.1		3.2	37	ARGILLA
21.4	540	700		550	655		16.7	162	200	0.30	2.2	3.6		0.59	1.1		3.4	39	ARGILLA
21.6	550	680		562	635		16.7	163	202	0.20	2.2	2.6		0.60	1.2		2.4	41	ARGILLA
21.8	570	710		581	665		16.7	165	204	0.22	2.3	2.9		0.62	1.2		2.9	43	ARGILLA
22.0	580	720		591	675		16.7	166	206	0.22	2.3	2.9		0.63	1.3		2.9	44	ARGILLA
22.2	560	730		570	685		16.7	167	208	0.32	2.2	4.0		0.59	1.1		3.7	41	ARGILLA
22.4	580	750		590	705		16.7	169	210	0.30	2.3	4.0		0.61	1.2		3.9	43	ARGILLA
22.6	570	740		580	695		16.7	170	212	0.31	2.2	4.0		0.59	1.1		3.7	41	ARGILLA
22.8	560	740		569	695		16.7	171	214	0.35	2.1	4.4		0.56	1.1		3.9	39	ARG LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 8-14 DESCRIZIONE
23.0	590	750		600	705		16.7	173	216	0.27	2.2	3.6		0.60	1.2		3.5	43	ARGILLA
23.2	570	770		578	725		16.7	174	218	0.41	2.1	5.1		0.56	1.1		4.5	40	ARG LIM
23.4	620	790		630	745		16.7	176	220	0.28	2.3	4.0		0.63	1.3		4.0	47	ARGILLA
23.6	640	820		649	775		16.7	177	222	0.29	2.4	4.4		0.65	1.3		4.6	49	ARGILLA
23.8	590	770		599	725		16.7	178	224	0.34	2.1	4.4		0.57	1.1		3.9	42	ARG LIM
24.0	550	750		558	705		16.7	180	226	0.44	1.9	5.1		0.50	0.89		4.3	36	ARG LIM
24.2	600	760		610	715		16.7	181	228	0.27	2.1	3.6		0.57	1.1		3.3	43	ARGILLA
24.4	540	730		549	685		16.7	182	230	0.43	1.7	4.7		0.47	0.81		4.0	34	ARG LIM
24.6	560	770		568	725		16.7	184	232	0.47	1.8	5.5		0.50	0.87		4.6	36	ARG LIM
24.8	560	760		568	715		16.7	185	233	0.44	1.8	5.1		0.49	0.86		4.3	36	ARG LIM
25.0	590	740		601	695		16.7	187	235	0.26	2.0	3.3		0.53	0.97		2.8	40	ARGILLA
25.2	570	780		578	735		16.7	188	237	0.46	1.8	5.5		0.49	0.86		4.6	36	ARG LIM
25.4	520	740		527	695		16.7	189	239	0.58	1.5	5.8		0.41	<0.8		5.0	30	ARG LIM
25.6	600	720		612	675		16.7	191	241	0.17	1.9	2.2		0.53	0.96		1.9	40	ARGILLA
25.8	620	800		629	755		16.7	192	243	0.33	2.0	4.4		0.55	1.0		3.7	42	ARGILLA
26.0	620	800		629	755		16.7	193	245	0.33	2.0	4.4		0.54	0.99		3.7	42	ARGILLA
26.2	600	810		608	765		16.7	195	247	0.44	1.8	5.5		0.50	0.89		4.6	39	ARG LIM
26.4	620	800		629	755		16.7	196	249	0.33	1.9	4.4		0.53	0.95		3.7	41	ARG LIM
26.6	640	880		646	835		17.7	197	251	0.48	2.0	6.6		0.54	1.0		5.6	43	ARG LIM
26.8	620	850		627	805		16.7	199	253	0.48	1.9	6.2		0.51	0.91		5.3	40	ARG LIM
27.0	600	840		606	795		16.7	200	255	0.54	1.8	6.6		0.47	0.81		5.6	37	ARG LIM
27.2	640	870		646	825		16.7	202	257	0.46	1.9	6.2		0.53	0.95		5.3	42	ARG LIM
27.4	630	850		637	805		16.7	203	259	0.44	1.9	5.8		0.51	0.90		5.0	41	ARG LIM
27.6	680	900		687	855		17.7	205	261	0.39	2.1	5.8		0.57	1.1		5.2	47	ARG LIM
27.8	650	880		656	835		16.7	206	263	0.45	1.9	6.2		0.52	0.93		5.3	43	ARG LIM
28.0	680	900		687	855		17.7	208	265	0.40	2.0	5.8		0.55	1.0		5.1	47	ARG LIM
28.2	730	1100		729	1055		17.7	209	267	0.70	2.2	11.3		0.60	1.2		10.9	52	LIMO ARG
28.4	720	980		725	935		17.7	211	269	0.46	2.2	7.3		0.59	1.1		6.8	51	ARG LIM
28.6	770	1100		771	1055		17.7	212	271	0.57	2.4	9.8		0.64	1.3		10.0	57	ARG LIM
28.8	740	1100		740	1055		17.7	214	273	0.67	2.2	10.9		0.59	1.2		10.4	53	LIMO ARG
29.0	770	1050		774	1005		17.7	215	275	0.46	2.3	8.0		0.63	1.3		8.0	57	ARG LIM
29.2	760	1100		761	1055		17.7	217	277	0.61	2.2	10.2		0.60	1.2		9.8	55	LIMO ARG
29.4	800	1150		800	1105		17.7	218	279	0.58	2.4	10.6		0.64	1.3		10.9	60	ARG LIM
29.6	800	1100		803	1055		17.7	220	281	0.48	2.4	8.7		0.64	1.3		9.0	60	ARG LIM
29.8	800	1100		803	1055		17.7	222	283	0.48	2.3	8.7		0.63	1.3		8.9	60	ARG LIM
30.0	820	1150		821	1105		17.7	223	284	0.53	2.4	9.8		0.65	1.3		10.2	62	ARG LIM

DMT 9-14	LEGENDA	PARAMETRI INTERPRETATI	PARAMETRI GENERALI
12 DIC 2014	Z = Profondità da superficie terreno Po,P1,P2 = Letture A,B,C corrette Id = Indice di materiale Ed = Modulo Dilatometrico Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo) Gamma = Peso volume naturale Sigma' = Press. efficace vertic. Uo = Pressione neutra (H2O)	Phi = Angolo attrito min (cautelativo) Ko = Coeff. spinta orizz. in sito M = Modulo edometrico (per Sigma') Cu = Resist. taglio non drenata Ocr = Grado di sovraconsolidazione (OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)	DeltaA = 15 kPa DeltaB = 40 kPa GammaTop = 17.0 kN/m^3 FactorEd = 34.7 Zm = 0.0 kPa Zabs = 0.0 m Zw = 1.0 m
GEOSTUDI SRL AUT.PORT. RAVENNA PORT HUB RAVENNA			

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 9-14 DESCRIZIONE
2.4	84	213		95	173		15.7	27	14	0.95	3.0	2.7		0.79	1.9		3.5	10	LIMO
2.6	73	179		85	139		15.7	28	16	0.77	2.5	1.9		0.66	1.4		2.0	8	LIMO ARG
2.8	98	224		109	184		15.7	29	18	0.81	3.1	2.6		0.81	2.0		3.4	11	LIMO
3.0	73	212		84	172		15.7	31	20	1.37	2.1	3.1					3.0		LIMO SAB
3.2	105	277		114	237		15.7	32	22	1.33	2.9	4.3					5.5		LIMO SAB
3.4	142	352		149	312		15.7	33	24	1.29	3.8	5.6					8.8		LIMO SAB
3.6	196	627		192	587		17.7	34	26	2.37	4.9	13.7				37	25.3		SABBIA LIM
3.8	209	632		206	592		17.7	36	27	2.17	5.0	13.4				37	24.9		SABBIA LIM
4.0	274	720		269	680		16.7	37	29	1.71	6.4	14.2					29.6		LIMO SAB
4.2	240	549		242	509		16.7	39	31	1.26	5.5	9.3					17.6		LIMO SAB
4.4	192	513		194	473		16.7	40	33	1.74	4.0	9.7					15.8		LIMO SAB
4.6	242	522		246	482		16.7	41	35	1.12	5.1	8.2		1.2	4.3		15.0	29	LIMO
4.8	261	801		252	761		18.6	43	37	2.37	5.0	17.7				37	33.1		SABBIA LIM
5.0	311	802		304	762		17.7	45	39	1.73	6.0	15.9					31.9		LIMO SAB
5.2	347	1019		331	979		18.6	46	41	2.23	6.3	22.5				38	46.6		SABBIA LIM
5.4	327	948		314	908		18.6	48	43	2.20	5.7	20.6				38	40.7		SABBIA LIM
5.6	294	973		278	933		18.6	50	45	2.82	4.7	22.7				37	41.7		SABBIA LIM
5.8	443	1067		430	1027		17.7	51	47	1.56	7.4	20.7					45.9		LIMO SAB
6.0	397	1086		380	1046		18.6	53	49	2.01	6.3	23.1				38	47.6		SABBIA LIM
6.2	429	1118		412	1078		18.6	55	51	1.84	6.6	23.1				39	48.7		SABBIA LIM
6.4	354	959		342	919		18.6	56	53	2.00	5.1	20.0				37	37.5		SABBIA LIM
6.6	365	912		355	872		17.7	58	55	1.72	5.2	17.9					33.5		LIMO SAB
6.8	343	857		335	817		17.7	60	57	1.73	4.6	16.7					29.6		LIMO SAB
7.0	386	1051		371	1011		18.6	61	59	2.06	5.1	22.2				37	41.5		SABBIA LIM
7.2	418	1116		401	1076		18.6	63	61	1.99	5.4	23.4				38	45.0		SABBIA LIM
7.4	377	1015		363	975		18.6	65	63	2.04	4.6	21.2				37	37.8		SABBIA LIM
7.6	372	992		359	952		18.6	67	65	2.02	4.4	20.6				37	35.7		SABBIA LIM
7.8	336	869		327	829		18.6	68	67	1.93	3.8	17.4				36	27.7		SABBIA LIM
8.0	352	909		342	869		18.6	70	69	1.93	3.9	18.3				36	29.5		SABBIA LIM
8.2	365	754		363	714		17.7	72	71	1.20	4.1	12.2		1.0	3.0		19.6	38	LIMO
8.4	333	889		323	849		18.6	74	73	2.10	3.4	18.3				35	27.4		SABBIA LIM
8.6	312	452		323	412		16.7	75	75	0.36	3.3	3.1		0.85	2.2		4.2	31	ARG LIM
8.8	296	443		306	403		16.7	77	77	0.42	3.0	3.4		0.78	1.9		4.2	28	ARG LIM
9.0	347	482		358	442		16.7	78	78	0.30	3.6	2.9		0.90	2.5		4.2	36	ARGILLA
9.2	289	459		298	419		16.7	79	80	0.55	2.7	4.2		0.73	1.6		4.9	26	ARG LIM
9.4	331	459		342	419		15.7	81	82	0.29	3.2	2.7		0.83	2.1		3.6	32	ARGILLA
9.6	323	449		334	409		15.7	82	84	0.30	3.0	2.6		0.80	1.9		3.3	31	ARGILLA
9.8	345	477		356	437		16.7	83	86	0.30	3.2	2.8		0.84	2.1		3.8	33	ARGILLA
10.0	367	494		378	454		16.7	85	88	0.26	3.4	2.6		0.87	2.3		3.7	37	ARGILLA
10.2	338	460		350	420		15.7	86	90	0.27	3.0	2.4		0.79	1.9		3.1	32	ARGILLA
10.4	333	457		345	417		15.7	87	92	0.29	2.9	2.5		0.76	1.8		3.1	30	ARGILLA
10.6	340	469		351	429		15.7	88	94	0.30	2.9	2.7		0.77	1.8		3.3	31	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 9-14 DESCRIZIONE
10.8	343	467		355	427		15.7	89	96	0.28	2.9	2.5		0.76	1.8		3.1	31	ARGILLA
11.0	355	481		366	441		16.7	91	98	0.28	3.0	2.6		0.78	1.8		3.2	33	ARGILLA
11.2	389	502		401	462		15.7	92	100	0.20	3.3	2.1		0.84	2.2		2.9	37	ARGILLA
11.4	358	487		369	447		16.7	93	102	0.29	2.9	2.7		0.76	1.8		3.3	32	ARGILLA
11.6	324	459		335	419		15.7	95	104	0.36	2.4	2.9		0.66	1.4		3.1	27	ARG LIM
11.8	333	501		342	461		16.7	96	106	0.50	2.5	4.1		0.66	1.4		4.4	27	ARG LIM
12.0	365	490		377	450		15.7	97	108	0.27	2.8	2.6		0.73	1.7		3.0	32	ARGILLA
12.2	360	514		370	474		16.7	98	110	0.40	2.6	3.6		0.71	1.6		4.1	31	ARG LIM
12.4	368	508		379	468		16.7	100	112	0.33	2.7	3.1		0.71	1.6		3.6	32	ARG LIM
12.6	411	537		422	497		16.7	101	114	0.24	3.1	2.6		0.80	1.9		3.3	38	ARGILLA
12.8	377	544		386	504		16.7	102	116	0.43	2.6	4.1		0.70	1.5		4.6	32	ARG LIM
13.0	425	534		437	494		15.7	104	118	0.18	3.1	2.0		0.80	2.0		2.5	39	ARGILLA
13.2	406	550		417	510		16.7	105	120	0.31	2.8	3.2		0.75	1.7		3.9	36	ARGILLA
13.4	398	533		409	493		16.7	106	122	0.29	2.7	2.9		0.72	1.6		3.4	34	ARGILLA
13.6	407	550		418	510		16.7	108	124	0.31	2.7	3.2		0.72	1.6		3.7	35	ARGILLA
13.8	407	541		418	501		16.7	109	126	0.28	2.7	2.9		0.71	1.6		3.3	35	ARGILLA
14.0	430	567		441	527		16.7	110	128	0.27	2.8	3.0		0.75	1.7		3.6	38	ARGILLA
14.2	402	551		412	511		16.7	112	129	0.35	2.5	3.4		0.68	1.4		3.7	33	ARG LIM
14.4	448	584		459	544		16.7	113	131	0.26	2.9	3.0		0.76	1.8		3.6	40	ARGILLA
14.6	441	595		451	555		16.7	115	133	0.33	2.8	3.6		0.73	1.7		4.3	38	ARGILLA
14.8	441	588		451	548		16.7	116	135	0.31	2.7	3.4		0.72	1.6		3.9	38	ARGILLA
15.0	461	615		471	575		16.7	117	137	0.31	2.8	3.6		0.75	1.7		4.4	40	ARGILLA
15.2	437	581		448	541		16.7	119	139	0.30	2.6	3.2		0.69	1.5		3.6	36	ARGILLA
15.4	448	604		458	564		16.7	120	141	0.33	2.6	3.7		0.70	1.5		4.2	37	ARG LIM
15.6	460	609		470	569		16.7	121	143	0.30	2.7	3.4		0.72	1.6		4.0	39	ARGILLA
15.8	455	607		465	567		16.7	123	145	0.32	2.6	3.5		0.70	1.5		4.0	38	ARGILLA
16.0	488	631		499	591		16.7	124	147	0.26	2.8	3.2		0.75	1.7		3.9	42	ARGILLA
16.2	471	620		481	580		16.7	126	149	0.30	2.6	3.4		0.70	1.6		3.9	39	ARGILLA
16.4	472	625		482	585		16.7	127	151	0.31	2.6	3.6		0.70	1.5		4.0	39	ARGILLA
16.6	486	632		496	592		16.7	128	153	0.28	2.7	3.3		0.71	1.6		3.8	41	ARGILLA
16.8	498	640		509	600		16.7	130	155	0.26	2.7	3.2		0.72	1.6		3.7	42	ARGILLA
17.0	508	664		518	624		16.7	131	157	0.29	2.8	3.7		0.73	1.7		4.3	43	ARGILLA
17.2	492	645		502	605		16.7	132	159	0.30	2.6	3.6		0.69	1.5		4.0	40	ARGILLA
17.4	501	659		511	619		16.7	134	161	0.31	2.6	3.8		0.70	1.5		4.2	41	ARGILLA
17.6	509	662		519	622		16.7	135	163	0.29	2.6	3.6		0.70	1.5		4.0	42	ARGILLA
17.8	500	653		510	613		16.7	137	165	0.30	2.5	3.6		0.68	1.4		3.9	40	ARGILLA
18.0	463	646		472	606		16.7	138	167	0.44	2.2	4.7		0.60	1.2		4.4	34	ARG LIM
18.2	528	689		538	649		16.7	139	169	0.30	2.6	3.9		0.71	1.6		4.4	44	ARGILLA
18.4	518	662		529	622		16.7	141	171	0.26	2.5	3.2		0.68	1.5		3.6	42	ARGILLA
18.6	535	684		545	644		16.7	142	173	0.26	2.6	3.4		0.70	1.5		3.9	44	ARGILLA
18.8	548	695		558	655		16.7	143	175	0.25	2.7	3.4		0.71	1.6		3.9	45	ARGILLA
19.0	528	693		537	653		16.7	145	177	0.32	2.5	4.0		0.67	1.4		4.3	42	ARGILLA
19.2	530	689		540	649		16.7	146	179	0.30	2.5	3.8		0.66	1.4		4.0	42	ARGILLA
19.4	530	685		540	645		16.7	148	181	0.29	2.4	3.6		0.66	1.4		3.8	42	ARGILLA
19.6	508	710		516	670		16.7	149	182	0.46	2.2	5.4		0.61	1.2		5.2	38	ARG LIM
19.8	503	646		514	606		16.7	150	184	0.28	2.2	3.2		0.59	1.2		3.0	37	ARGILLA
20.0	518	662		529	622		16.7	152	186	0.27	2.3	3.2		0.61	1.2		3.2	39	ARGILLA
20.2	544	697		554	657		16.7	153	188	0.28	2.4	3.6		0.64	1.3		3.7	42	ARGILLA
20.4	440	739		443	699		16.7	154	190	1.01	1.6	8.9		0.44	<0.8		7.6	26	LIMO
20.6	491	843		491	803		17.7	156	192	1.04	1.9	10.8		0.52	0.94		9.3	33	LIMO
20.8	510	672		520	632		16.7	157	194	0.35	2.1	3.9		0.56	1.1		3.4	36	ARG LIM
21.0	530	687		540	647		16.7	159	196	0.31	2.2	3.7		0.59	1.1		3.5	39	ARGILLA
21.2	497	683		505	643		16.7	160	198	0.45	1.9	4.8		0.52	0.94		4.1	33	ARG LIM
21.4	560	717		570	677		16.7	161	200	0.29	2.3	3.7		0.62	1.2		3.7	42	ARGILLA
21.6	569	754		577	714		16.7	163	202	0.36	2.3	4.7		0.62	1.3		4.7	43	ARG LIM
21.8	578	719		589	679		16.7	164	204	0.23	2.3	3.1		0.63	1.3		3.2	44	ARGILLA
22.0	563	713		573	673		16.7	166	206	0.27	2.2	3.5		0.60	1.2		3.3	41	ARGILLA
22.2	584	731		594	691		16.7	167	208	0.25	2.3	3.4		0.63	1.3		3.4	44	ARGILLA
22.4	620	778		630	738		16.7	168	210	0.26	2.5	3.8		0.67	1.4		4.0	49	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 9-14 DESCRIZIONE
22.6	580	730		590	690		16.7	170	212	0.26	2.2	3.5		0.60	1.2		3.3	43	ARGILLA
22.8	560	710		570	670		16.7	171	214	0.28	2.1	3.5		0.57	1.1		3.1	40	ARGILLA
23.0	573	768		581	728		16.7	172	216	0.40	2.1	5.1		0.58	1.1		4.6	41	ARG LIM
23.2	592	740		602	700		16.7	174	218	0.25	2.2	3.4		0.60	1.2		3.2	43	ARGILLA
23.4	627	777		637	737		16.7	175	220	0.24	2.4	3.5		0.64	1.3		3.6	48	ARGILLA
23.6	625	789		635	749		16.7	177	222	0.28	2.3	4.0		0.63	1.3		4.0	47	ARGILLA
23.8	636	797		646	757		16.7	178	224	0.26	2.4	3.9		0.64	1.3		4.0	48	ARGILLA
24.0	629	782		639	742		16.7	179	226	0.25	2.3	3.6		0.62	1.3		3.6	47	ARGILLA
24.2	593	751		603	711		16.7	181	228	0.29	2.1	3.8		0.56	1.1		3.3	42	ARGILLA
24.4	557	885		558	845		17.7	182	230	0.87	1.8	9.9		0.49	0.85		8.5	35	LIMO
24.6	569	762		577	722		16.7	184	232	0.42	1.9	5.0		0.51	0.91		4.3	37	ARG LIM
24.8	629	805		638	765		16.7	185	233	0.31	2.2	4.4		0.59	1.2		4.2	45	ARGILLA
25.0	664	1540		638	1500		18.6	186	235	2.14	2.2	29.9				33	32.4		SABBIA LIM
25.2	660	809		670	769		16.7	188	237	0.23	2.3	3.4		0.62	1.2		3.4	49	ARGILLA
25.4	632	797		642	757		16.7	190	239	0.29	2.1	4.0		0.58	1.1		3.7	45	ARGILLA
25.6	680	822		691	782		16.7	191	241	0.20	2.4	3.2		0.64	1.3		3.2	51	ARGILLA
25.8	658	818		668	778		16.7	192	243	0.26	2.2	3.8		0.60	1.2		3.6	48	ARGILLA
26.0	613	795		622	755		16.7	194	245	0.35	1.9	4.6		0.53	0.96		3.9	41	ARG LIM
26.2	620	840		627	800		16.7	195	247	0.46	1.9	6.0		0.53	0.96		5.1	41	ARG LIM
26.4	634	928		637	888		17.7	196	249	0.65	2.0	8.7		0.54	0.98		7.4	43	LIMO ARG
26.6	648	946		651	906		17.7	198	251	0.64	2.0	8.9		0.55	1.0		7.7	44	LIMO ARG
26.8	620	846		626	806		16.7	200	253	0.48	1.9	6.2		0.51	0.90		5.3	40	ARG LIM
27.0	661	913		666	873		17.7	201	255	0.50	2.0	7.2		0.56	1.0		6.3	45	ARG LIM
27.2	1051	2612		991	2572		19.6	202	257	2.16	3.6	54.9				36	85.7		SABBIA LIM
27.4	1475	3343		1399	3303		20.6	204	259	1.67	5.6	66.1					128.3		LIMO SAB
27.6	954	1943		922	1903		19.1	207	261	1.48	3.2	34.0					47.6		LIMO SAB
27.8	1112	1747		1098	1707		19.1	208	263	0.73	4.0	21.1		0.99	3.0		33.2	109	LIMO ARG
28.0	880	1353		874	1313		17.7	210	265	0.72	2.9	15.2		0.76	1.8		18.9	74	LIMO ARG
28.2	911	1332		908	1292		17.7	212	267	0.60	3.0	13.3		0.79	1.9		17.0	78	ARG LIM
28.4	983	1429		978	1389		18.6	213	269	0.58	3.3	14.2		0.85	2.2		19.5	89	ARG LIM
28.6	971	1425		966	1385		19.1	215	271	0.60	3.2	14.5		0.83	2.1		19.5	86	LIMO ARG
28.8	913	1331		910	1291		17.7	217	273	0.60	2.9	13.2		0.77	1.8		16.4	77	ARG LIM
29.0	836	1008		845	968		17.7	219	275	0.22	2.6	4.3		0.70	1.5		4.8	67	ARGILLA
29.2	726	862		737	822		16.7	220	277	0.18	2.1	3.0		0.57	1.1		2.6	51	ARGILLA
29.4	860	2159		813	2119		19.6	222	279	2.45	2.4	45.3				33	55.0		SABBIA LIM
29.6	983	2227		939	2187		19.6	224	281	1.90	2.9	43.3				34	58.5		SABBIA LIM
29.8	739	1736		707	1696		19.6	226	283	2.33	1.9	34.3				32	33.5		SABBIA LIM
30.0	817	1978		777	1938		19.6	227	284	2.36	2.2	40.3				33	44.6		SABBIA LIM

DMT 10-14

12 DIC 2014

GEOSTUDI SRL
AUT. PORT. RAVENNA
PORT HUB
RAVENNA STAB. P.I.R.

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 10-14 DESCRIZIONE
2.8	195	485		198	445		16.7	30	18	1.37	6.0	8.6					17.2		LIMO SAB
3.0	211	547		212	507		16.7	31	20	1.53	6.1	10.2					20.8		LIMO SAB
3.2	152	462		154	422		17.7	33	22	2.02	4.1	9.3				36	15.4		SABBIA LIM
3.4	174	268		187	228		15.7	34	24	0.25	4.8	1.4		1.1	3.9		2.5	22	ARGILLA
3.6	151	273		163	233		15.7	35	26	0.51	3.9	2.4		0.96	2.8		3.7	18	ARG LIM
3.8	175	430		180	390		16.7	37	27	1.38	4.2	7.3					12.0		LIMO SAB
4.0	168	493		170	453		17.7	38	29	2.02	3.7	9.8				36	15.4		SABBIA LIM
4.2	286	812		277	772		18.6	40	31	2.01	6.2	17.2				38	35.3		SABBIA LIM
4.4	253	782		244	742		17.7	41	33	2.36	5.1	17.3				37	32.6		SABBIA LIM
4.6	300	928		286	888		18.6	43	35	2.40	5.9	20.9				38	42.0		SABBIA LIM
4.8	276	783		268	743		18.6	45	37	2.05	5.2	16.5				37	31.1		SABBIA LIM
5.0	275	875		263	835		18.6	46	39	2.56	4.8	19.9				37	36.6		SABBIA LIM
5.2	322	900		311	860		18.6	48	41	2.04	5.6	19.1				38	37.3		SABBIA LIM
5.4	263	640		262	600		16.7	50	43	1.55	4.4	11.7					20.0		LIMO SAB
5.6	248	811		238	771		17.7	51	45	2.77	3.7	18.5				36	30.2		SABBIA LIM
5.8	278	792		270	752		18.6	53	47	2.16	4.2	16.7				36	28.5		SABBIA LIM
6.0	287	804		279	764		18.6	55	49	2.11	4.2	16.8				36	28.6		SABBIA LIM
6.2	311	1048		292	1008		18.6	56	51	2.97	4.3	24.8				36	43.7		SABBIA LIM
6.4	394	1179		373	1139		18.6	58	53	2.40	5.5	26.6				38	52.0		SABBIA LIM
6.6	370	1113		351	1073		18.6	60	55	2.44	4.9	25.1				37	46.6		SABBIA LIM
6.8	342	1039		325	999		18.6	62	57	2.52	4.3	23.4				36	40.9		SABBIA LIM
7.0	332	871		323	831		18.6	63	59	1.93	4.2	17.6				36	29.6		SABBIA LIM
7.2	287	828		278	788		18.6	65	61	2.35	3.3	17.7				35	26.5		SABBIA LIM
7.4	347	1025		331	985		18.6	67	63	2.44	4.0	22.7				36	37.9		SABBIA LIM
7.6	313	916		301	876		18.6	69	65	2.44	3.4	20.0				35	30.6		SABBIA LIM
7.8	286	720		282	680		17.7	71	67	1.85	3.1	13.8				35	19.1		SABBIA LIM
8.0	357	926		346	886		18.6	72	69	1.94	3.8	18.7				36	30.1		SABBIA LIM
8.2	276	634		276	594		16.7	74	71	1.55	2.8	11.0					14.0		LIMO SAB
8.4	297	737		293	697		17.7	75	73	1.84	2.9	14.0				34	18.8		SABBIA LIM
8.6	301	751		296	711		17.7	77	75	1.87	2.9	14.4				34	19.1		SABBIA LIM
8.8	339	994		324	954		18.6	78	77	2.55	3.2	21.9				35	32.0		SABBIA LIM
9.0	394	1006		381	966		18.6	80	78	1.93	3.8	20.3				36	32.2		SABBIA LIM
9.2	283	413		294	373		15.7	82	80	0.37	2.6	2.7		0.70	1.5		3.1	25	ARG LIM
9.4	263	429		272	389		15.7	83	82	0.61	2.3	4.0		0.62	1.2		4.0	22	LIMO ARG
9.6	269	443		278	403		16.7	84	84	0.65	2.3	4.3		0.62	1.2		4.3	22	LIMO ARG
9.8	293	432		304	392		15.7	86	86	0.41	2.5	3.1		0.68	1.5		3.4	25	ARG LIM
10.0	304	435		315	395		15.7	87	88	0.35	2.6	2.8		0.70	1.5		3.1	27	ARG LIM
10.2	327	446		339	406		15.7	88	90	0.27	2.8	2.3		0.75	1.7		2.8	30	ARGILLA
10.4	304	442		315	402		15.7	89	92	0.39	2.5	3.0		0.67	1.4		3.3	26	ARG LIM
10.6	328	506		337	466		16.7	90	94	0.53	2.7	4.5		0.71	1.6		5.2	29	ARG LIM
10.8	329	471		340	431		16.7	92	96	0.38	2.7	3.2		0.71	1.6		3.6	29	ARG LIM
11.0	370	507		381	467		16.7	93	98	0.30	3.0	3.0		0.79	1.9		3.8	35	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 10-14 DESCRIZIONE
11.2	369	485		381	445		15.7	94	100	0.23	3.0	2.2		0.78	1.9		2.8	34	ARGILLA
11.4	335	472		346	432		16.7	96	102	0.35	2.5	3.0		0.68	1.5		3.3	29	ARG LIM
11.6	336	465		347	425		15.7	97	104	0.32	2.5	2.7		0.67	1.4		2.9	28	ARGILLA
11.8	330	478		340	438		16.7	98	106	0.42	2.4	3.4		0.64	1.3		3.5	27	ARG LIM
12.0	352	494		363	454		16.7	100	108	0.36	2.6	3.2		0.68	1.5		3.5	30	ARG LIM
12.2	338	492		348	452		16.7	101	110	0.44	2.4	3.6		0.64	1.3		3.7	27	ARG LIM
12.4	355	490		366	450		16.7	102	112	0.33	2.5	2.9		0.67	1.4		3.1	30	ARG LIM
12.6	366	527		376	487		16.7	104	114	0.42	2.5	3.9		0.68	1.4		4.2	31	ARG LIM
12.8	368	502		379	462		16.7	105	116	0.32	2.5	2.9		0.67	1.4		3.1	31	ARGILLA
13.0	381	533		391	493		16.7	106	118	0.37	2.6	3.5		0.69	1.5		3.9	32	ARG LIM
13.2	343	536		351	496		16.7	108	120	0.63	2.1	5.0		0.58	1.1		4.7	26	LIMO ARG
13.4	385	522		396	482		16.7	109	122	0.31	2.5	3.0		0.67	1.4		3.2	32	ARGILLA
13.6	397	546		407	506		16.7	111	124	0.35	2.6	3.4		0.69	1.5		3.8	33	ARG LIM
13.8	347	587		353	547		16.7	112	126	0.86	2.0	6.7		0.55	1.0		6.0	25	LIMO
14.0	394	526		405	486		16.7	113	128	0.29	2.4	2.8		0.66	1.4		3.0	32	ARGILLA
14.2	398	537		409	497		16.7	115	129	0.32	2.4	3.1		0.65	1.4		3.2	32	ARGILLA
14.4	400	543		411	503		16.7	116	131	0.33	2.4	3.2		0.65	1.3		3.3	32	ARG LIM
14.6	414	545		425	505		16.7	117	133	0.27	2.5	2.8		0.67	1.4		3.0	34	ARGILLA
14.8	414	563		424	523		16.7	119	135	0.34	2.4	3.4		0.65	1.4		3.6	33	ARG LIM
15.0	428	587		438	547		16.7	120	137	0.36	2.5	3.8		0.67	1.4		4.1	35	ARG LIM
15.2	422	573		432	533		16.7	122	139	0.34	2.4	3.5		0.65	1.3		3.6	34	ARG LIM
15.4	441	589		451	549		16.7	123	141	0.31	2.5	3.4		0.68	1.4		3.7	36	ARGILLA
15.6	431	594		441	554		16.7	124	143	0.38	2.4	3.9		0.64	1.3		4.1	34	ARG LIM
15.8	436	598		446	558		16.7	126	145	0.37	2.4	3.9		0.64	1.3		4.0	35	ARG LIM
16.0	442	604		452	564		16.7	127	147	0.37	2.4	3.9		0.65	1.3		4.0	35	ARG LIM
16.2	426	615		434	575		16.7	128	149	0.49	2.2	4.9		0.60	1.2		4.7	32	ARG LIM
16.4	472	637		482	597		16.7	130	151	0.35	2.5	4.0		0.68	1.5		4.4	39	ARG LIM
16.6	483	654		492	614		16.7	131	153	0.36	2.6	4.2		0.69	1.5		4.7	40	ARG LIM
16.8	450	604		460	564		16.7	133	155	0.34	2.3	3.6		0.62	1.2		3.6	35	ARG LIM
17.0	463	640		472	600		16.7	134	157	0.41	2.4	4.4		0.63	1.3		4.5	36	ARG LIM
17.2	411	588		420	548		16.7	135	159	0.49	1.9	4.4		0.52	0.95		3.8	28	ARG LIM
17.4	488	644		498	604		16.7	137	161	0.31	2.5	3.7		0.66	1.4		3.9	39	ARGILLA
17.6	489	658		498	618		16.7	138	163	0.36	2.4	4.2		0.65	1.4		4.4	39	ARG LIM
17.8	511	670		521	630		16.7	139	165	0.31	2.6	3.8		0.68	1.5		4.2	42	ARGILLA
18.0	508	676		517	636		16.7	141	167	0.34	2.5	4.1		0.67	1.4		4.4	41	ARG LIM
18.2	518	698		527	658		16.7	142	169	0.37	2.5	4.6		0.67	1.4		4.9	42	ARG LIM
18.4	505	671		514	631		16.7	144	171	0.34	2.4	4.0		0.65	1.3		4.2	40	ARG LIM
18.6	506	676		515	636		16.7	145	173	0.35	2.4	4.2		0.64	1.3		4.3	39	ARG LIM
18.8	506	680		515	640		16.7	146	175	0.37	2.3	4.3		0.63	1.3		4.4	39	ARG LIM
19.0	503	815		505	775		17.7	148	177	0.82	2.2	9.4		0.60	1.2		9.2	37	LIMO
19.2	513	683		522	643		16.7	149	179	0.35	2.3	4.2		0.62	1.2		4.2	39	ARG LIM
19.4	510	662		520	622		16.7	151	181	0.30	2.3	3.5		0.61	1.2		3.4	39	ARGILLA
19.6	517	687		526	647		16.7	152	182	0.35	2.3	4.2		0.61	1.2		4.1	39	ARG LIM
19.8	537	715		546	675		16.7	153	184	0.36	2.4	4.5		0.64	1.3		4.6	41	ARG LIM
20.0	448	652		456	612		16.7	155	186	0.58	1.7	5.4		0.47	0.81		4.6	29	ARG LIM
20.2	523	695		532	655		16.7	156	188	0.36	2.2	4.3		0.60	1.2		4.0	39	ARG LIM
20.4	518	687		527	647		16.7	157	190	0.36	2.1	4.2		0.58	1.1		3.8	38	ARG LIM
20.6	506	666		516	626		16.7	159	192	0.34	2.0	3.8		0.55	1.0		3.3	36	ARG LIM
20.8	503	663		513	623		16.7	160	194	0.35	2.0	3.8		0.54	0.99		3.3	35	ARG LIM
21.0	535	689		545	649		16.7	162	196	0.30	2.2	3.6		0.59	1.1		3.4	39	ARGILLA
21.2	506	676		515	636		16.7	163	198	0.38	1.9	4.2		0.53	0.96		3.6	35	ARG LIM
21.4	453	638		462	598		16.7	164	200	0.52	1.6	4.7		0.43	<0.8		4.0	27	ARG LIM
21.6	470	662		478	622		16.7	166	202	0.52	1.7	5.0		0.45	<0.8		4.2	29	ARG LIM
21.8	517	679		527	639		16.7	167	204	0.35	1.9	3.9		0.53	0.95		3.3	35	ARG LIM
22.0	495	639		506	599		16.7	168	206	0.31	1.8	3.2		0.48	0.83		2.8	32	ARGILLA
22.2	473	704		479	664		16.7	170	208	0.68	1.6	6.4		0.43	<0.8		5.5	28	LIMO ARG
22.4	571	749		580	709		16.7	171	210	0.35	2.2	4.5		0.59	1.1		4.2	41	ARG LIM
22.6	559	720		569	680		16.7	173	212	0.31	2.1	3.9		0.56	1.1		3.4	40	ARGILLA
22.8	572	739		581	699		16.7	174	214	0.32	2.1	4.1		0.57	1.1		3.7	41	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 10-14 DESCRIZIONE
23.0	567	727		577	687		16.7	175	216	0.31	2.1	3.8		0.56	1.0		3.4	40	ARGILLA
23.2	536	715		545	675		16.7	177	218	0.40	1.9	4.5		0.50	0.89		3.8	35	ARG LIM
23.4	567	723		577	683		16.7	178	220	0.30	2.0	3.7		0.55	1.0		3.1	39	ARGILLA
23.6	594	761		603	721		16.7	179	222	0.31	2.1	4.1		0.58	1.1		3.7	43	ARGILLA
23.8	612	793		621	753		16.7	181	224	0.33	2.2	4.6		0.60	1.2		4.3	45	ARG LIM
24.0	604	774		613	734		16.7	182	226	0.31	2.1	4.2		0.58	1.1		3.8	43	ARGILLA
24.2	610	788		619	748		16.7	184	228	0.33	2.1	4.5		0.58	1.1		4.1	44	ARG LIM
24.4	644	818		653	778		16.7	185	230	0.30	2.3	4.3		0.62	1.2		4.3	48	ARGILLA
24.6	642	825		651	785		16.7	186	232	0.32	2.2	4.7		0.61	1.2		4.5	47	ARGILLA
24.8	643	816		652	776		16.7	188	233	0.30	2.2	4.3		0.60	1.2		4.1	47	ARGILLA
25.0	641	807		650	767		16.7	189	235	0.28	2.2	4.0		0.60	1.2		3.8	47	ARGILLA
25.2	634	791		644	751		16.7	190	237	0.26	2.1	3.7		0.58	1.1		3.4	45	ARGILLA
25.4	610	885		614	845		17.7	192	239	0.62	2.0	8.0		0.53	0.97		6.8	41	LIMO ARG
25.6	712	1522		689	1482		17.7	193	241	1.77	2.3	27.5					30.6		LIMO SAB
25.8	625	843		632	803		16.7	195	243	0.44	2.0	5.9		0.54	1.0		5.0	43	ARG LIM
26.0	827	1955		788	1915		19.6	196	245	2.07	2.8	39.1				34	51.1		SABBIA LIM
26.2	693	862		702	822		16.7	198	247	0.26	2.3	4.2		0.62	1.2		4.1	52	ARGILLA
26.4	708	869		718	829		16.7	200	249	0.24	2.3	3.9		0.63	1.3		3.9	54	ARGILLA
26.6	706	873		715	833		16.7	201	251	0.25	2.3	4.1		0.62	1.3		4.1	53	ARGILLA
26.8	692	876		701	836		16.7	202	253	0.30	2.2	4.7		0.60	1.2		4.5	50	ARGILLA
27.0	664	838		673	798		16.7	204	255	0.30	2.1	4.3		0.56	1.0		3.8	46	ARGILLA
27.2	639	799		649	759		16.7	205	257	0.28	1.9	3.8		0.52	0.93		3.3	43	ARGILLA
27.4	626	814		634	774		16.7	207	259	0.37	1.8	4.8		0.49	0.86		4.1	40	ARG LIM
27.6	563	858		566	818		16.7	208	261	0.83	1.5	8.7		0.39	<0.8		7.4	31	LIMO
27.8	589	828		595	788		16.7	209	263	0.58	1.6	6.7		0.43	<0.8		5.7	34	ARG LIM
28.0	702	1423		684	1383		17.7	211	265	1.67	2.0	24.3					23.2		LIMO SAB
28.2	894	2169		848	2129		19.6	212	267	2.20	2.7	44.5				34	58.1		SABBIA LIM
28.4	1269	3104		1195	3064		21.1	214	269	2.02	4.3	64.9				36	111.4		SABBIA LIM
28.6	1211	2957		1141	2917		21.1	216	271	2.04	4.0	61.6				36	101.8		SABBIA LIM
28.8	762	1544		741	1504		17.7	219	273	1.63	2.1	26.5					27.1		LIMO SAB
29.0	755	1164		752	1124		17.7	220	275	0.78	2.2	12.9		0.59	1.1		12.3	54	LIMO ARG
29.2	696	1466		675	1426		18.6	222	277	1.88	1.8	26.1				32	23.0		SABBIA LIM
29.4	888	1257		887	1217		17.7	224	279	0.54	2.7	11.4		0.72	1.6		13.3	72	ARG LIM
29.6	950	1344		948	1304		17.7	225	281	0.53	3.0	12.4		0.78	1.9		15.5	81	ARG LIM
29.8	963	1335		962	1295		17.7	227	283	0.49	3.0	11.5		0.78	1.9		14.6	83	ARG LIM
30.0	1011	1378		1010	1338		17.7	228	284	0.45	3.2	11.4		0.82	2.1		15.1	90	ARG LIM
30.2	902	1199		905	1159		17.7	230	286	0.41	2.7	8.8		0.72	1.6		10.2	73	ARG LIM

DMT 11-14

12 DIC 2014

GEOSTUDI SRL
AUT.PORT.RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 11-14 DESCRIZIONE
1.4	300	1040		281	1000		18.6	20	4	2.60	13.9	25.0				42	70.2		SABBIA LIM
1.6	209	580		208	540		16.7	22	6	1.64	9.3	11.5					28.0		LIMO SAB
1.8	100	517		97	477		17.7	23	8	4.27	3.9	13.2				36	22.1		SABBIA
2.0	168	452		172	412		16.7	25	10	1.49	6.6	8.3					17.5		LIMO SAB
2.2	99	361		104	321		16.7	26	12	2.37	3.5	7.5				35	11.7		SABBIA LIM
2.4	118	347		124	307		15.7	27	14	1.65	4.0	6.3					10.4		LIMO SAB
2.6	137	266		148	226		15.7	29	16	0.59	4.7	2.7		1.1	3.7		4.6	18	ARG LIM
2.8	134	248		146	208		15.7	30	18	0.48	4.3	2.1		1.0	3.3		3.5	17	ARG LIM
3.0	141	357		148	317		15.7	31	20	1.32	4.2	5.9					9.6		LIMO SAB
3.2	204	580		203	540		17.7	32	22	1.86	5.7	11.7				38	23.0		SABBIA LIM
3.4	171	316		182	276		15.7	34	24	0.60	4.7	3.3		1.1	3.8		5.7	22	ARG LIM
3.6	133	308		142	268		15.7	35	26	1.08	3.3	4.4		0.86	2.2		6.2	15	LIMO
3.8	145	255		157	215		15.7	36	27	0.44	3.6	2.0		0.91	2.5		2.9	17	ARG LIM
4.0	150	255		163	215		15.7	37	29	0.39	3.6	1.8		0.90	2.5		2.6	17	ARG LIM
4.2	167	275		179	235		15.7	38	31	0.38	3.9	1.9		0.96	2.8		2.9	19	ARG LIM
4.4	192	298		204	258		15.7	39	33	0.31	4.3	1.9		1.0	3.3		3.1	23	ARGILLA
4.6	170	306		181	266		15.7	41	35	0.58	3.6	3.0		0.90	2.5		4.3	19	ARG LIM
4.8	144	284		155	244		15.7	42	37	0.76	2.8	3.1		0.74	1.7		3.8	14	LIMO ARG
5.0	173	283		185	243		15.7	43	39	0.40	3.4	2.0		0.87	2.3		2.8	18	ARG LIM
5.2	194	297		207	257		15.7	44	41	0.30	3.7	1.7		0.94	2.7		2.6	21	ARGILLA
5.4	150	291		161	251		15.7	45	43	0.77	2.6	3.1		0.69	1.5		3.5	14	LIMO ARG
5.6	184	295		196	255		15.7	47	45	0.39	3.2	2.0		0.84	2.1		2.7	19	ARG LIM
5.8	216	384		225	344		15.7	48	47	0.67	3.7	4.1		0.93	2.7		6.2	23	LIMO ARG
6.0	189	297		201	257		15.7	49	49	0.37	3.1	1.9		0.81	2.0		2.5	19	ARG LIM
6.2	213	324		225	284		15.7	50	51	0.34	3.5	2.0		0.88	2.4		2.9	22	ARG LIM
6.4	231	524		234	484		16.7	51	53	1.38	3.5	8.7					12.9		LIMO SAB
6.6	223	358		234	318		15.7	53	55	0.47	3.4	2.9		0.87	2.3		4.1	22	ARG LIM
6.8	202	372		211	332		15.7	54	57	0.78	2.9	4.2		0.76	1.8		5.2	19	LIMO ARG
7.0	213	396		222	356		15.7	55	59	0.83	3.0	4.7		0.78	1.8		5.9	20	LIMO
7.2	217	598		216	558		17.7	56	61	2.21	2.8	11.9				34	15.6		SABBIA LIM
7.4	264	679		261	639		17.7	58	63	1.91	3.4	13.1				35	19.6		SABBIA LIM
7.6	213	507		216	467		16.7	59	65	1.66	2.6	8.7					10.4		LIMO SAB
7.8	315	801		308	761		18.6	61	67	1.87	4.0	15.7				36	25.6		SABBIA LIM
8.0	413	988		402	948		17.7	62	69	1.64	5.3	18.9					36.0		LIMO SAB
8.2	257	527		261	487		16.7	64	71	1.18	3.0	7.8		0.78	1.9		10.2	23	LIMO
8.4	203	510		205	470		17.7	65	73	1.99	2.0	9.2				32	9.3		SABBIA LIM
8.6	217	480		222	440		16.7	67	75	1.49	2.2	7.6					7.8		LIMO SAB
8.8	308	821		300	781		18.6	68	77	2.15	3.3	16.7				35	24.5		SABBIA LIM
9.0	321	465		332	425		16.7	70	78	0.37	3.6	3.2		0.91	2.5		4.7	32	ARG LIM
9.2	362	714		362	674		16.7	71	80	1.11	3.9	10.8		0.97	2.9		17.1	37	LIMO
9.4	470	1238		449	1198		18.6	73	82	2.04	5.0	26.0				37	48.4		SABBIA LIM
9.6	321	633		323	593		16.7	75	84	1.13	3.2	9.4		0.83	2.1		12.8	30	LIMO

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 11-14 DESCRIZIONE
9.8	295	429		306	389		15.7	76	86	0.38	2.9	2.9		0.76	1.8		3.5	27	ARG LIM
10.0	293	421		304	381		15.7	77	88	0.35	2.8	2.7		0.74	1.7		3.2	26	ARG LIM
10.2	303	432		314	392		15.7	78	90	0.35	2.9	2.7		0.75	1.8		3.3	27	ARG LIM
10.4	316	433		328	393		15.7	80	92	0.28	3.0	2.3		0.78	1.9		2.8	29	ARGILLA
10.6	312	439		323	399		15.7	81	94	0.33	2.8	2.6		0.75	1.7		3.2	28	ARGILLA
10.8	314	427		326	387		15.7	82	96	0.26	2.8	2.1		0.74	1.7		2.5	28	ARGILLA
11.0	315	441		326	401		15.7	83	98	0.33	2.7	2.6		0.73	1.6		3.0	27	ARGILLA
11.2	322	446		334	406		15.7	84	100	0.31	2.8	2.5		0.73	1.7		3.0	28	ARGILLA
11.4	354	476		366	436		15.7	85	102	0.27	3.1	2.4		0.80	2.0		3.2	32	ARGILLA
11.6	337	465		348	425		15.7	87	104	0.31	2.8	2.7		0.75	1.7		3.2	29	ARGILLA
11.8	330	449		342	409		15.7	88	106	0.28	2.7	2.3		0.71	1.6		2.7	28	ARGILLA
12.0	332	471		343	431		15.7	89	108	0.38	2.6	3.1		0.70	1.5		3.5	28	ARG LIM
12.2	331	458		342	418		15.7	90	110	0.33	2.6	2.6		0.69	1.5		2.9	27	ARGILLA
12.4	347	473		358	433		15.7	91	112	0.30	2.7	2.6		0.72	1.6		3.0	29	ARGILLA
12.6	354	476		366	436		15.7	92	114	0.28	2.7	2.4		0.72	1.6		2.8	30	ARGILLA
12.8	361	484		373	444		15.7	94	116	0.28	2.7	2.5		0.73	1.6		2.9	31	ARGILLA
13.0	391	515		403	475		16.7	95	118	0.25	3.0	2.5		0.79	1.9		3.2	35	ARGILLA
13.2	381	518		392	478		16.7	96	120	0.32	2.8	3.0		0.75	1.7		3.6	33	ARGILLA
13.4	370	502		381	462		16.7	98	122	0.31	2.7	2.8		0.71	1.6		3.2	31	ARGILLA
13.6	385	517		396	477		16.7	99	124	0.30	2.8	2.8		0.73	1.7		3.3	32	ARGILLA
13.8	386	514		397	474		16.7	100	126	0.28	2.7	2.7		0.72	1.6		3.1	32	ARGILLA
14.0	376	508		387	468		16.7	102	128	0.31	2.6	2.8		0.68	1.5		3.1	30	ARGILLA
14.2	406	549		417	509		16.7	103	129	0.32	2.8	3.2		0.74	1.7		3.8	34	ARGILLA
14.4	393	566		402	526		16.7	104	131	0.46	2.6	4.3		0.69	1.5		4.8	32	ARG LIM
14.6	399	538		410	498		16.7	106	133	0.32	2.6	3.1		0.70	1.5		3.4	33	ARGILLA
14.8	415	552		426	512		16.7	107	135	0.30	2.7	3.0		0.72	1.6		3.5	34	ARGILLA
15.0	416	553		427	513		16.7	109	137	0.30	2.7	3.0		0.71	1.6		3.4	34	ARGILLA
15.2	431	567		442	527		16.7	110	139	0.28	2.8	3.0		0.73	1.7		3.5	36	ARGILLA
15.4	415	571		425	531		16.7	111	141	0.37	2.5	3.7		0.68	1.5		4.0	33	ARG LIM
15.6	437	585		447	545		16.7	113	143	0.32	2.7	3.4		0.72	1.6		3.9	36	ARGILLA
15.8	424	564		435	524		16.7	114	145	0.31	2.5	3.1		0.68	1.5		3.4	34	ARGILLA
16.0	424	578		434	538		16.7	115	147	0.36	2.5	3.6		0.67	1.4		3.9	33	ARG LIM
16.2	451	597		461	557		16.7	117	149	0.31	2.7	3.3		0.71	1.6		3.8	37	ARGILLA
16.4	442	584		453	544		16.7	118	151	0.30	2.6	3.2		0.68	1.5		3.5	35	ARGILLA
16.6	427	566		438	526		16.7	120	153	0.31	2.4	3.1		0.64	1.3		3.2	33	ARGILLA
16.8	456	604		466	564		16.7	121	155	0.31	2.6	3.4		0.69	1.5		3.8	36	ARGILLA
17.0	468	621		478	581		16.7	122	157	0.32	2.6	3.6		0.70	1.5		4.0	38	ARGILLA
17.2	500	625		512	585		16.7	124	159	0.21	2.9	2.6		0.75	1.7		3.1	42	ARGILLA
17.4	492	649		502	609		16.7	125	161	0.31	2.7	3.7		0.72	1.6		4.3	41	ARGILLA
17.6	480	633		490	593		16.7	126	163	0.31	2.6	3.6		0.69	1.5		4.0	38	ARGILLA
17.8	490	638		500	598		16.7	128	165	0.29	2.6	3.4		0.70	1.5		3.8	40	ARGILLA
18.0	502	653		512	613		16.7	129	167	0.29	2.7	3.5		0.71	1.6		4.0	41	ARGILLA
18.2	479	627		489	587		16.7	131	169	0.30	2.5	3.4		0.66	1.4		3.6	37	ARGILLA
18.4	452	652		460	612		16.7	132	171	0.53	2.2	5.3		0.59	1.2		5.0	33	ARG LIM
18.6	509	658		519	618		16.7	133	173	0.28	2.6	3.4		0.69	1.5		3.8	41	ARGILLA
18.8	510	658		520	618		16.7	135	175	0.28	2.6	3.4		0.69	1.5		3.7	40	ARGILLA
19.0	523	690		532	650		16.7	136	177	0.33	2.6	4.1		0.70	1.5		4.6	42	ARG LIM
19.2	498	717		505	677		16.7	137	179	0.53	2.4	6.0		0.64	1.3		6.1	37	ARG LIM
19.4	497	646		507	606		16.7	139	181	0.30	2.4	3.4		0.64	1.3		3.5	37	ARGILLA
19.6	501	661		511	621		16.7	140	182	0.34	2.3	3.8		0.63	1.3		3.9	38	ARG LIM
19.8	503	649		513	609		16.7	142	184	0.29	2.3	3.3		0.63	1.3		3.3	38	ARGILLA
20.0	498	657		508	617		16.7	143	186	0.34	2.2	3.8		0.61	1.2		3.7	36	ARG LIM
20.2	517	781		522	741		16.7	144	188	0.66	2.3	7.6		0.62	1.3		7.6	38	LIMO ARG
20.4	517	672		527	632		16.7	146	190	0.31	2.3	3.6		0.62	1.3		3.6	38	ARGILLA
20.6	518	669		528	629		16.7	147	192	0.30	2.3	3.5		0.62	1.2		3.5	38	ARGILLA
20.8	451	615		461	575		16.7	148	194	0.43	1.8	4.0		0.49	0.85		3.4	29	ARG LIM
21.0	492	873		491	833		17.7	150	196	1.16	2.0	11.9		0.54	0.98		10.6	32	LIMO
21.2	491	674		500	634		16.7	151	198	0.45	2.0	4.7		0.54	1.0		4.0	33	ARG LIM
21.4	491	647		501	607		16.7	153	200	0.35	2.0	3.7		0.54	0.98		3.1	33	ARG LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 11-14 DESCRIZIONE
21.6	503	685		512	645		16.7	154	202	0.43	2.0	4.6		0.55	1.0		4.0	34	ARG LIM
21.8	542	700		552	660		16.7	155	204	0.31	2.2	3.8		0.61	1.2		3.6	39	ARGILLA
22.0	549	698		559	658		16.7	157	206	0.28	2.3	3.4		0.61	1.2		3.3	40	ARGILLA
22.2	554	695		565	655		16.7	158	208	0.25	2.3	3.1		0.61	1.2		3.1	40	ARGILLA
22.4	554	704		564	664		16.7	160	210	0.28	2.2	3.5		0.60	1.2		3.3	40	ARGILLA
22.6	582	733		592	693		16.7	161	212	0.27	2.4	3.5		0.64	1.3		3.6	44	ARGILLA
22.8	572	718		582	678		16.7	162	214	0.26	2.3	3.3		0.61	1.2		3.3	42	ARGILLA
23.0	561	728		570	688		16.7	164	216	0.33	2.2	4.1		0.59	1.1		3.8	40	ARG LIM
23.2	577	728		587	688		16.7	165	218	0.27	2.2	3.5		0.61	1.2		3.4	42	ARGILLA
23.4	578	737		588	697		16.7	166	220	0.30	2.2	3.8		0.60	1.2		3.6	42	ARGILLA
23.6	600	757		610	717		16.7	168	222	0.28	2.3	3.7		0.63	1.3		3.7	44	ARGILLA
23.8	625	798		634	758		16.7	169	224	0.30	2.4	4.3		0.65	1.4		4.5	47	ARGILLA
24.0	614	779		623	739		16.7	171	226	0.29	2.3	4.0		0.63	1.3		4.0	45	ARGILLA
24.2	614	776		624	736		16.7	172	228	0.28	2.3	3.9		0.62	1.2		3.9	45	ARGILLA
24.4	589	731		600	691		16.7	173	230	0.25	2.1	3.2		0.58	1.1		2.9	41	ARGILLA
24.6	570	720		580	680		16.7	175	232	0.29	2.0	3.5		0.54	1.0		2.9	38	ARGILLA
24.8	587	826		593	786		16.7	176	233	0.54	2.0	6.7		0.56	1.0		5.8	40	ARG LIM
25.0	609	908		612	868		17.7	177	235	0.68	2.1	8.9		0.58	1.1		8.2	42	LIMO ARG
25.2	663	1269		650	1229		17.7	179	237	1.40	2.3	20.1					21.6		LIMO SAB
25.4	625	1019		623	979		17.7	181	239	0.93	2.1	12.4		0.58	1.1		11.7	43	LIMO
25.6	626	1212		614	1172		17.7	182	241	1.49	2.0	19.3					18.7		LIMO SAB
25.8	667	1846		626	1806		19.6	184	243	3.09	2.1	41.0				32	46.6		SABBIA LIM
26.0	615	2084		559	2044		18.6	186	245	4.73	1.7	51.5				31	49.3		SABBIA
26.2	960	2337		909	2297		19.6	187	247	2.10	3.5	48.2				35	73.9		SABBIA LIM
26.4	1613	4168		1503	4128		21.1	189	249	2.09	6.6	91.1				39	192.9		SABBIA LIM
26.6	1594	3874		1498	3834		21.1	192	251	1.87	6.5	81.1				38	169.8		SABBIA LIM
26.8	3311	4982		3245	4942		20.1	194	253	0.57	15.4	58.9		2.4	24.3		171.4	549	ARG LIM
27.0	2466	3376		2438	3336		20.1	196	255	0.41	11.1	31.2		2.0	14.6		81.1	369	ARG LIM
27.2	272	343		286	303		14.7	198	257	0.58	0.1	0.6		< 0.3	<0.8		0.5	2	FANGO
27.4	338	602		343	562		16.7	199	259	2.63	0.4	7.6					6.5		SABBIA LIM
27.6	691	870		700	830		16.7	200	261	0.30	2.2	4.5		0.59	1.2		4.3	49	ARGILLA
27.8	799	1111		801	1071		17.7	202	263	0.50	2.7	9.4		0.71	1.6		10.7	64	ARG LIM
28.0	790	1050		795	1010		17.7	203	265	0.41	2.6	7.5		0.70	1.5		8.4	62	ARG LIM
28.2	749	1159		746	1119		17.7	205	267	0.78	2.3	12.9		0.63	1.3		13.3	55	LIMO ARG
28.4	969	1415		964	1375		18.6	206	269	0.59	3.4	14.2		0.86	2.3		19.7	87	ARG LIM
28.6	1010	1415		1008	1375		18.6	208	271	0.50	3.5	12.8		0.90	2.4		18.3	93	ARG LIM
28.8	988	1372		987	1332		17.7	210	273	0.48	3.4	12.0		0.87	2.3		16.7	90	ARG LIM
29.0	947	1285		948	1245		17.7	212	275	0.44	3.2	10.3		0.82	2.1		13.7	83	ARG LIM
29.2	801	959		811	919		16.7	213	277	0.20	2.5	3.8		0.67	1.4		4.1	62	ARGILLA
29.4	621	905		625	865		17.7	215	279	0.70	1.6	8.3		0.43	<0.8		7.1	36	LIMO ARG
29.6	560	1211		545	1171		18.6	216	281	2.36	1.2	21.7				29	18.5		SABBIA LIM
29.8	652	841		660	801		16.7	218	283	0.37	1.7	4.9		0.47	0.80		4.1	40	ARG LIM
30.0	645	1571		616	1531		18.6	219	284	2.76	1.5	31.7				31	27.0		SABBIA LIM
30.2	857	2085		813	2045		19.6	221	286	2.34	2.4	42.7				33	51.0		SABBIA LIM

DMT 12-14

5 DIC 2014

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 12-14 DESCRIZIONE
0.4	388	968		377	928		17.7	7	0	1.46	55.4	19.1					78.8		LIMO SAB
0.6	406	647		412	607		17.7	10	0	0.47	39.8	6.8		4.1	>99.9		25.8	96	ARG LIM
0.8	254	392		265	352		16.7	14	0	0.33	19.1	3.0		2.7	33.9		9.4	51	ARGILLA
1.0	270	346		284	306		13.7	17	0	0.08	16.5	0.8		2.5	27.0		2.3	53	FANGO E/O TORBA
1.2	202	296		215	256		15.7	18	2	0.19	11.8	1.4		2.0	16.1		3.8	37	ARGILLA
1.4	203	273		217	233		13.7	19	4	0.07	11.1	0.5		2.0	14.6		1.4	36	FANGO E/O TORBA
1.6	287	510		294	470		16.7	20	6	0.61	14.4	6.1		2.3	21.9		17.4	52	LIMO ARG
1.8	222	488		226	448		16.7	21	8	1.01	10.3	7.7		1.9	12.8		19.4	36	LIMO
2.0	251	467		258	427		16.7	23	10	0.68	10.9	5.9		1.9	14.2		15.2	42	LIMO ARG
2.2	155	227		169	187		14.7	24	12	0.11	6.5	0.6		1.4	6.4		1.3	23	FANGO
2.4	181	307		192	267		15.7	25	14	0.42	7.1	2.6		1.5	7.3		5.6	27	ARG LIM
2.6	265	436		274	396		16.7	26	16	0.47	9.9	4.2		1.8	12.1		10.5	42	ARG LIM
3.2	373	802		369	762		17.7	30	22	1.13	11.5	13.6		2.0	15.3		35.8	59	LIMO
3.4	315	477		325	437		16.7	32	24	0.37	9.4	3.9		1.8	11.3		9.5	49	ARG LIM
3.6	419	576		429	536		16.7	33	26	0.27	12.1	3.7		2.1	16.7		10.0	70	ARGILLA
3.8	461	808		461	768		17.7	35	27	0.71	12.5	10.6		2.1	17.5		28.9	76	LIMO ARG
4.0	655	1377		637	1337		19.1	36	29	1.15	16.8	24.3		2.5	27.6		72.6	114	LIMO
4.2	511	1146		497	1106		17.7	38	31	1.31	12.2	21.1					56.8		LIMO SAB
4.4	467	1120		452	1080		17.7	40	33	1.50	10.6	21.8					55.6		LIMO SAB
4.6	491	1143		476	1103		17.7	41	35	1.42	10.7	21.8					55.8		LIMO SAB
4.8	482	1050		471	1010		17.7	43	37	1.24	10.1	18.7					47.0		LIMO SAB
5.0	413	961		403	921		17.7	44	39	1.42	8.2	18.0					41.5		LIMO SAB
5.2	527	1029		520	989		17.7	46	41	0.98	10.4	16.3		1.9	13.2		41.3	80	LIMO
5.4	539	1137		527	1097		17.7	48	43	1.18	10.2	19.8		1.9	12.7		49.8	80	LIMO
5.6	459	1045		447	1005		17.7	49	45	1.39	8.2	19.3					44.6		LIMO SAB
5.8	477	1137		462	1097		17.7	51	47	1.53	8.2	22.0					50.9		LIMO SAB
6.0	515	1182		499	1142		17.7	52	49	1.43	8.6	22.3					52.5		LIMO SAB
6.2	488	1280		466	1240		18.6	54	51	1.86	7.7	26.9				39	60.6		SABBIA LIM
6.4	429	1075		414	1035		17.7	56	53	1.72	6.5	21.5					45.0		LIMO SAB
6.6	497	1275		476	1235		18.6	57	55	1.80	7.4	26.3				39	58.2		SABBIA LIM
6.8	568	1459		541	1419		19.6	59	57	1.81	8.2	30.5				40	70.5		SABBIA LIM
7.0	501	1183		485	1143		17.7	61	59	1.55	7.0	22.8					49.3		LIMO SAB
7.2	652	1439		630	1399		19.1	62	61	1.35	9.1	26.7					64.3		LIMO SAB
7.4	508	1197		491	1157		17.7	64	63	1.55	6.7	23.1					48.7		LIMO SAB
7.6	564	1306		545	1266		17.7	66	65	1.50	7.3	25.0					54.9		LIMO SAB
7.8	454	1230		433	1190		18.6	67	67	2.07	5.4	26.3				38	50.8		SABBIA LIM
8.0	520	937		517	897		17.7	69	69	0.85	6.5	13.2		1.4	6.3		27.2	66	LIMO
8.2	443	862		440	822		17.7	71	71	1.04	5.2	13.3		1.2	4.5		24.6	52	LIMO
8.4	446	771		448	731		17.7	72	73	0.76	5.2	9.8		1.2	4.4		18.0	52	LIMO ARG
8.6	440	828		438	788		17.7	74	75	0.96	4.9	12.1		1.1	4.1		21.7	50	LIMO
8.8	390	996		377	956		18.6	75	77	1.92	4.0	20.1				36	32.9		SABBIA LIM
9.0	398	971		387	931		17.7	77	78	1.76	4.0	18.9					30.7		LIMO SAB

9.2	366	904		357	864		18.6	79	80	1.83	3.5	17.6				35	26.6		SABBIA LIM
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 12-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
9.4	344	751		341	711		16.7	81	82	1.43	3.2	12.8					17.9		LIMO SAB
9.6	345	742		343	702		16.7	82	84	1.39	3.2	12.5					17.2		LIMO SAB
9.8	308	746		304	706		17.7	83	86	1.85	2.6	14.0				34	17.2		SABBIA LIM
10.0	391	908		383	868		17.7	85	88	1.65	3.5	16.8					25.0		LIMO SAB
10.2	270	496		276	456		16.7	86	90	0.96	2.2	6.2		0.58	1.1		6.0	21	LIMO
10.4	420	1068		405	1028		18.6	88	92	1.99	3.6	21.6				35	33.2		SABBIA LIM
10.6	353	494		364	454		16.7	90	94	0.34	3.0	3.1		0.79	1.9		4.0	33	ARG LIM
10.8	345	488		356	448		16.7	91	96	0.36	2.9	3.2		0.75	1.7		3.9	31	ARG LIM
11.0	358	500		369	460		16.7	92	98	0.34	2.9	3.2		0.77	1.8		3.9	33	ARG LIM
11.2	305	725		302	685		17.7	94	100	1.90	2.2	13.3				33	14.0		SABBIA LIM
11.4	409	996		397	956		18.6	95	102	1.89	3.1	19.4				35	27.1		SABBIA LIM
11.6	336	478		347	438		16.7	97	104	0.38	2.5	3.2		0.67	1.4		3.4	28	ARG LIM
11.8	370	506		381	466		16.7	98	106	0.31	2.8	3.0		0.74	1.7		3.5	33	ARGILLA
12.0	383	525		394	485		16.7	100	108	0.32	2.9	3.2		0.75	1.8		3.9	34	ARGILLA
12.2	375	502		386	462		16.7	101	110	0.27	2.7	2.6		0.73	1.6		3.1	33	ARGILLA
12.4	370	512		381	472		16.7	103	112	0.34	2.6	3.2		0.70	1.5		3.6	32	ARG LIM
12.6	397	528		408	488		16.7	104	114	0.27	2.8	2.8		0.75	1.7		3.3	35	ARGILLA
12.8	391	522		402	482		16.7	105	116	0.28	2.7	2.8		0.72	1.6		3.2	34	ARGILLA
13.0	384	511		395	471		16.7	107	118	0.27	2.6	2.6		0.70	1.5		2.9	33	ARGILLA
13.2	386	514		397	474		16.7	108	120	0.28	2.6	2.7		0.69	1.5		2.9	33	ARGILLA
13.4	370	510		381	470		16.7	109	122	0.34	2.4	3.1		0.64	1.3		3.2	30	ARG LIM
13.6	370	520		380	480		16.7	111	124	0.39	2.3	3.5		0.63	1.3		3.5	29	ARG LIM
13.8	406	549		417	509		16.7	112	126	0.32	2.6	3.2		0.69	1.5		3.6	34	ARGILLA
14.0	378	520		389	480		16.7	114	128	0.35	2.3	3.2		0.62	1.2		3.1	30	ARG LIM
14.2	391	527		402	487		16.7	115	129	0.31	2.4	3.0		0.64	1.3		3.0	31	ARGILLA
14.4	392	534		403	494		16.7	116	131	0.34	2.3	3.2		0.63	1.3		3.2	31	ARG LIM
14.6	428	574		438	534		16.7	118	133	0.31	2.6	3.3		0.69	1.5		3.7	36	ARGILLA
14.8	426	552		437	512		16.7	119	135	0.25	2.5	2.6		0.68	1.5		2.8	35	ARGILLA
15.0	417	557		428	517		16.7	120	137	0.31	2.4	3.1		0.65	1.3		3.2	33	ARGILLA
15.2	418	559		429	519		16.7	122	139	0.31	2.4	3.1		0.64	1.3		3.2	33	ARGILLA
15.4	430	575		441	535		16.7	123	141	0.32	2.4	3.3		0.65	1.4		3.4	35	ARGILLA
15.6	454	597		465	557		16.7	125	143	0.29	2.6	3.2		0.69	1.5		3.6	38	ARGILLA
15.8	425	559		436	519		16.7	126	145	0.29	2.3	2.9		0.62	1.3		2.9	33	ARGILLA
16.0	453	600		463	560		16.7	127	147	0.31	2.5	3.4		0.67	1.4		3.6	37	ARGILLA
16.2	462	604		473	564		16.7	129	149	0.28	2.5	3.2		0.67	1.4		3.4	38	ARGILLA
16.4	455	590		466	550		16.7	130	151	0.27	2.4	2.9		0.65	1.4		3.1	36	ARGILLA
16.6	467	599		478	559		16.7	131	153	0.25	2.5	2.8		0.66	1.4		3.0	38	ARGILLA
16.8	470	617		480	577		16.7	133	155	0.30	2.5	3.4		0.66	1.4		3.5	38	ARGILLA
17.0	486	635		496	595		16.7	134	157	0.29	2.5	3.4		0.68	1.4		3.7	40	ARGILLA
17.2	475	680		483	640		16.7	136	159	0.49	2.4	5.5		0.64	1.3		5.6	37	ARG LIM
17.4	485	665		494	625		16.7	137	161	0.39	2.4	4.6		0.65	1.4		4.8	38	ARG LIM
17.6	450	613		460	573		16.7	138	163	0.38	2.1	3.9		0.58	1.1		3.6	33	ARG LIM
17.8	465	614		475	574		16.7	140	165	0.32	2.2	3.4		0.60	1.2		3.3	35	ARGILLA
18.0	492	628		503	588		16.7	141	167	0.25	2.4	3.0		0.64	1.3		3.0	39	ARGILLA
18.2	503	657		513	617		16.7	142	169	0.30	2.4	3.6		0.65	1.3		3.8	40	ARGILLA
18.4	481	654		490	614		16.7	144	171	0.39	2.2	4.3		0.60	1.2		4.1	36	ARG LIM
18.6	470	636		479	596		16.7	145	173	0.38	2.1	4.0		0.57	1.1		3.7	34	ARG LIM
18.8	524	686		534	646		16.7	146	175	0.31	2.5	3.9		0.66	1.4		4.1	42	ARGILLA
19.0	531	690		541	650		16.7	148	177	0.30	2.5	3.8		0.66	1.4		4.0	42	ARGILLA
19.2	529	694		538	654		16.7	149	179	0.32	2.4	4.0		0.65	1.3		4.2	41	ARGILLA
19.4	541	699		551	659		16.7	151	181	0.29	2.5	3.8		0.66	1.4		4.0	43	ARGILLA
19.6	535	689		545	649		16.7	152	182	0.29	2.4	3.6		0.64	1.3		3.7	42	ARGILLA
19.8	543	707		553	667		16.7	153	184	0.31	2.4	4.0		0.65	1.3		4.1	42	ARGILLA
20.0	534	694		544	654		16.7	155	186	0.31	2.3	3.8		0.62	1.3		3.8	41	ARGILLA
20.2	541	670		552	630		16.7	156	188	0.21	2.3	2.7		0.63	1.3		2.7	42	ARGILLA
20.4	464	670		471	630		16.7	157	190	0.56	1.8	5.5		0.48	0.84		4.7	30	ARG LIM
20.6	530	681		540	641		16.7	159	192	0.29	2.2	3.5		0.59	1.2		3.3	39	ARGILLA
20.8	537	700		547	660		16.7	160	194	0.32	2.2	3.9		0.60	1.2		3.7	40	ARGILLA

21.0	560	725		570	685		16.7	162	196	0.31	2.3	4.0		0.62	1.3		4.0	43	ARGILLA
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 12-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
21.2	554	697		565	657		16.7	163	198	0.25	2.2	3.2		0.61	1.2		3.1	42	ARGILLA
21.4	542	696		552	656		16.7	164	200	0.30	2.1	3.6		0.58	1.1		3.3	39	ARGILLA
21.6	558	704		568	664		16.7	166	202	0.26	2.2	3.3		0.60	1.2		3.2	41	ARGILLA
21.8	546	701		556	661		16.7	167	204	0.30	2.1	3.6		0.57	1.1		3.3	39	ARGILLA
22.0	547	708		557	668		16.7	168	206	0.32	2.1	3.9		0.57	1.1		3.4	39	ARGILLA
22.2	543	693		553	653		16.7	170	208	0.29	2.0	3.5		0.55	1.0		3.0	38	ARGILLA
22.4	538	698		548	658		16.7	171	210	0.33	2.0	3.8		0.54	0.98		3.3	37	ARGILLA
22.6	592	741		602	701		16.7	173	212	0.25	2.3	3.4		0.61	1.2		3.3	44	ARGILLA
22.8	591	751		601	711		16.7	174	214	0.28	2.2	3.8		0.60	1.2		3.7	44	ARGILLA
23.0	517	853		518	813		17.7	175	216	0.98	1.7	10.2		0.47	<0.8		8.7	32	LIMO
23.2	526	788		531	748		16.7	177	218	0.69	1.8	7.5		0.48	0.83		6.4	33	LIMO ARG
23.4	537	686		547	646		16.7	178	220	0.30	1.8	3.4		0.50	0.88		2.9	35	ARGILLA
23.6	551	722		560	682		16.7	180	222	0.36	1.9	4.2		0.51	0.91		3.6	37	ARG LIM
23.8	565	983		562	943		17.7	181	224	1.13	1.9	13.2		0.51	0.90		11.2	37	LIMO
24.0	565	811		570	771		16.7	183	226	0.58	1.9	7.0		0.51	0.92		5.9	37	ARG LIM
24.2	614	784		623	744		16.7	184	228	0.31	2.2	4.2		0.58	1.1		3.9	44	ARGILLA
24.4	604	762		614	722		16.7	185	230	0.28	2.1	3.8		0.56	1.1		3.3	43	ARGILLA
24.6	628	782		638	742		16.7	187	232	0.26	2.2	3.6		0.59	1.1		3.4	46	ARGILLA
24.8	623	777		633	737		16.7	188	233	0.26	2.1	3.6		0.58	1.1		3.3	45	ARGILLA
25.0	631	768		642	728		16.7	189	235	0.21	2.1	3.0		0.58	1.1		2.8	46	ARGILLA
25.2	631	780		641	740		16.7	191	237	0.24	2.1	3.4		0.57	1.1		3.1	45	ARGILLA
25.4	621	765		632	725		16.7	192	239	0.24	2.0	3.2		0.55	1.0		2.8	43	ARGILLA
25.6	625	774		635	734		16.7	194	241	0.25	2.0	3.4		0.55	1.0		3.0	44	ARGILLA
25.8	622	781		632	741		16.7	195	243	0.28	2.0	3.8		0.54	1.0		3.2	43	ARGILLA
26.0	659	818		669	778		16.7	196	245	0.26	2.2	3.8		0.59	1.1		3.5	47	ARGILLA
26.2	667	837		676	797		16.7	198	247	0.28	2.2	4.2		0.59	1.1		3.9	48	ARGILLA
26.4	675	845		684	805		16.7	199	249	0.28	2.2	4.2		0.59	1.2		3.9	49	ARGILLA
26.6	683	854		692	814		16.7	200	251	0.28	2.2	4.2		0.60	1.2		4.0	50	ARGILLA
26.8	676	845		685	805		16.7	202	253	0.28	2.1	4.2		0.58	1.1		3.8	48	ARGILLA
27.0	615	766		625	726		16.7	203	255	0.27	1.8	3.5		0.49	0.87		3.0	40	ARGILLA
27.2	705	1363		690	1323		17.7	205	257	1.46	2.1	22.0					21.9		LIMO SAB
27.4	560	729		569	689		16.7	206	259	0.39	1.5	4.2		0.40	<0.8		3.5	32	ARG LIM
27.6	635	845		642	805		16.7	208	261	0.43	1.8	5.6		0.50	0.88		4.8	41	ARG LIM
27.8	733	1646		705	1606		19.6	209	263	2.04	2.1	31.3				33	33.0		SABBIA LIM
28.0	701	1412		683	1372		17.7	211	265	1.65	2.0	23.9					22.8		LIMO SAB
28.2	702	873		711	833		16.7	212	267	0.27	2.1	4.2		0.57	1.1		3.8	49	ARGILLA
28.4	715	870		725	830		16.7	214	269	0.23	2.1	3.6		0.58	1.1		3.3	51	ARGILLA
28.6	716	877		726	837		16.7	215	271	0.24	2.1	3.9		0.57	1.1		3.5	51	ARGILLA
28.8	716	890		725	850		16.7	217	273	0.28	2.1	4.3		0.57	1.1		3.9	50	ARGILLA
29.0	721	900		730	860		16.7	218	275	0.29	2.1	4.5		0.57	1.1		4.0	51	ARGILLA
29.2	676	878		684	838		16.7	219	277	0.38	1.9	5.4		0.50	0.89		4.6	44	ARG LIM
29.4	688	919		694	879		17.7	221	279	0.44	1.9	6.4		0.51	0.91		5.5	45	ARG LIM
29.6	674	842		683	802		16.7	222	281	0.29	1.8	4.1		0.49	0.86		3.5	43	ARGILLA
29.8	595	764		604	724		16.7	224	283	0.37	1.4	4.2		0.38	<0.8		3.5	33	ARG LIM
30.0	633	1083		628	1043		17.7	225	284	1.21	1.5	14.4					12.2		LIMO SAB
30.2	605	1204		593	1164		18.6	227	286	1.86	1.4	19.8				30	16.8		SABBIA LIM

DMT 13-14

15 DIC 2014

GEOSTUDI SRL
AUT.PORT.RAVENNA
PORT HUB
RAVENNA PORTO CORSINI

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 13-14 DESCRIZIONE
3.4	159	602		155	562		17.7	34	24	3.11	3.8	14.1				36	23.5		SABBIA LIM
3.6	236	745		228	705		17.7	36	26	2.35	5.7	16.5				38	32.8		SABBIA LIM
3.8	316	899		305	859		18.6	37	27	2.00	7.4	19.2				39	42.7		SABBIA LIM
4.0	256	769		248	729		17.7	39	29	2.20	5.6	16.7				38	32.8		SABBIA LIM
4.2	253	789		244	749		17.7	41	31	2.38	5.2	17.5				37	33.5		SABBIA LIM
4.4	265	803		256	763		18.6	42	33	2.28	5.3	17.6				37	33.6		SABBIA LIM
4.6	279	851		268	811		18.6	44	35	2.33	5.3	18.8				37	36.1		SABBIA LIM
4.8	339	1050		321	1010		18.6	46	37	2.43	6.2	23.9				38	49.4		SABBIA LIM
5.0	377	1123		357	1083		18.6	48	39	2.28	6.7	25.2				39	53.7		SABBIA LIM
5.2	279	782		272	742		18.6	49	41	2.04	4.7	16.3				37	29.2		SABBIA LIM
5.4	261	720		256	680		17.7	51	43	1.99	4.2	14.7				36	24.7		SABBIA LIM
5.6	367	1027		352	987		18.6	53	45	2.07	5.8	22.0				38	44.0		SABBIA LIM
5.8	423	1151		404	1111		18.6	54	47	1.98	6.6	24.5				39	51.6		SABBIA LIM
6.0	361	1172		338	1132		18.6	56	49	2.75	5.1	27.5				37	52.6		SABBIA LIM
6.2	378	1020		364	980		18.6	58	51	1.97	5.4	21.4				38	41.1		SABBIA LIM
6.4	394	1097		377	1057		18.6	60	53	2.10	5.4	23.6				38	45.6		SABBIA LIM
6.6	346	1056		328	1016		18.6	62	55	2.52	4.4	23.9				37	42.2		SABBIA LIM
6.8	392	1146		372	1106		18.6	63	57	2.33	5.0	25.5				37	47.5		SABBIA LIM
7.0	368	1042		352	1002		18.6	65	59	2.22	4.5	22.6				37	39.9		SABBIA LIM
7.2	377	1046		361	1006		18.6	67	61	2.15	4.5	22.4				37	39.4		SABBIA LIM
7.4	310	778		304	738		17.7	69	63	1.80	3.5	15.0					22.7		LIMO SAB
7.6	243	534		246	494		16.7	70	65	1.37	2.6	8.6					10.2		LIMO SAB
7.8	302	996		285	956		18.6	72	67	3.07	3.1	23.3				35	34.2		SABBIA LIM
8.0	361	928		350	888		18.6	73	69	1.91	3.8	18.7				36	29.9		SABBIA LIM
8.2	291	744		286	704		17.7	75	71	1.94	2.9	14.5				34	19.3		SABBIA LIM
8.4	341	835		334	795		17.7	77	73	1.76	3.4	16.0					23.7		LIMO SAB
8.6	307	764		302	724		17.7	78	75	1.86	2.9	14.6				34	19.6		SABBIA LIM
8.8	355	939		344	899		18.6	80	77	2.08	3.3	19.3				35	28.6		SABBIA LIM
9.0	424	1274		399	1234		18.6	82	78	2.60	3.9	29.0				36	48.2		SABBIA LIM
9.2	439	1249		416	1209		18.6	83	80	2.36	4.0	27.5				36	46.0		SABBIA LIM
9.4	348	770		345	730		17.7	85	82	1.47	3.1	13.4					18.2		LIMO SAB
9.6	288	417		299	377		15.7	87	84	0.36	2.5	2.7		0.67	1.4		2.9	25	ARG LIM
9.8	249	431		258	391		15.7	88	86	0.78	2.0	4.6		0.53	0.96		3.9	19	LIMO ARG
10.0	332	870		323	830		18.6	89	88	2.16	2.6	17.6				34	22.3		SABBIA LIM
10.2	295	441		305	401		15.7	91	90	0.44	2.4	3.3		0.64	1.3		3.4	25	ARG LIM
10.4	305	438		316	398		15.7	92	92	0.37	2.4	2.8		0.66	1.4		3.0	26	ARG LIM
10.6	343	647		346	607		16.7	93	94	1.04	2.7	9.1		0.72	1.6		10.8	30	LIMO
10.8	321	460		332	420		15.7	94	96	0.37	2.5	3.1		0.67	1.4		3.3	27	ARG LIM
11.0	337	475		348	435		16.7	96	98	0.35	2.6	3.0		0.70	1.5		3.4	29	ARG LIM
11.2	325	465		336	425		16.7	97	100	0.38	2.4	3.1		0.65	1.4		3.3	27	ARG LIM
11.4	348	497		358	457		16.7	98	102	0.39	2.6	3.4		0.70	1.5		3.8	30	ARG LIM
11.6	330	472		341	432		16.7	100	104	0.39	2.4	3.2		0.64	1.3		3.2	27	ARG LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 13-14 DESCRIZIONE
11.8	349	482		360	442		16.7	101	106	0.32	2.5	2.8		0.67	1.4		3.1	30	ARGILLA
12.0	352	494		363	454		16.7	103	108	0.36	2.5	3.2		0.67	1.4		3.4	30	ARG LIM
12.2	332	480		342	440		16.7	104	110	0.42	2.2	3.4		0.61	1.2		3.3	26	ARG LIM
12.4	347	493		357	453		16.7	105	112	0.39	2.3	3.3		0.63	1.3		3.3	28	ARG LIM
12.6	356	515		366	475		16.7	107	114	0.43	2.4	3.8		0.64	1.3		3.9	29	ARG LIM
12.8	354	496		365	456		16.7	108	116	0.37	2.3	3.2		0.62	1.3		3.2	28	ARG LIM
13.0	358	512		368	472		16.7	109	118	0.42	2.3	3.6		0.62	1.2		3.6	28	ARG LIM
13.2	373	549		382	509		16.7	111	120	0.48	2.4	4.4		0.64	1.3		4.5	30	ARG LIM
13.4	362	508		372	468		16.7	112	122	0.38	2.2	3.3		0.61	1.2		3.2	28	ARG LIM
13.6	383	525		394	485		16.7	114	124	0.34	2.4	3.2		0.64	1.3		3.3	31	ARG LIM
13.8	393	543		403	503		16.7	115	126	0.36	2.4	3.5		0.65	1.3		3.6	32	ARG LIM
14.0	393	535		404	495		16.7	116	128	0.33	2.4	3.2		0.64	1.3		3.3	32	ARG LIM
14.2	396	685		399	645		16.7	118	129	0.91	2.3	8.5		0.62	1.2		8.7	31	LIMO
14.4	398	553		408	513		16.7	119	131	0.38	2.3	3.6		0.63	1.3		3.7	32	ARG LIM
14.6	401	602		409	562		16.7	120	133	0.56	2.3	5.3		0.62	1.2		5.3	31	ARG LIM
14.8	410	572		420	532		16.7	122	135	0.40	2.3	3.9		0.63	1.3		3.9	33	ARG LIM
15.0	429	568		440	528		16.7	123	137	0.29	2.5	3.1		0.66	1.4		3.2	35	ARGILLA
15.2	408	559		418	519		16.7	125	139	0.36	2.2	3.5		0.61	1.2		3.4	32	ARG LIM
15.4	425	575		435	535		16.7	126	141	0.34	2.3	3.5		0.63	1.3		3.5	34	ARG LIM
15.6	439	596		449	556		16.7	127	143	0.35	2.4	3.7		0.65	1.3		3.9	35	ARG LIM
15.8	449	608		459	568		16.7	129	145	0.35	2.4	3.8		0.66	1.4		4.0	36	ARG LIM
16.0	458	623		468	583		16.7	130	147	0.36	2.5	4.0		0.66	1.4		4.3	37	ARG LIM
16.2	455	619		465	579		16.7	131	149	0.36	2.4	4.0		0.65	1.3		4.1	36	ARG LIM
16.4	453	621		462	581		16.7	133	151	0.38	2.3	4.1		0.63	1.3		4.2	36	ARG LIM
16.6	475	646		484	606		16.7	134	153	0.37	2.5	4.2		0.66	1.4		4.5	38	ARG LIM
16.8	479	641		489	601		16.7	135	155	0.34	2.5	3.9		0.66	1.4		4.1	39	ARG LIM
17.0	485	646		495	606		16.7	137	157	0.33	2.5	3.9		0.66	1.4		4.1	39	ARGILLA
17.2	469	630		479	590		16.7	138	159	0.35	2.3	3.9		0.63	1.3		3.9	36	ARG LIM
17.4	468	635		477	595		16.7	140	161	0.37	2.3	4.1		0.61	1.2		4.0	36	ARG LIM
17.6	463	639		472	599		16.7	141	163	0.41	2.2	4.4		0.59	1.2		4.2	35	ARG LIM
17.8	463	630		472	590		16.7	142	165	0.38	2.2	4.1		0.59	1.1		3.8	34	ARG LIM
18.0	509	684		518	644		16.7	144	167	0.36	2.4	4.4		0.66	1.4		4.6	41	ARG LIM
18.2	496	673		505	633		16.7	145	169	0.38	2.3	4.4		0.63	1.3		4.4	38	ARG LIM
18.4	509	673		519	633		16.7	146	171	0.33	2.4	4.0		0.64	1.3		4.1	40	ARGILLA
18.6	515	692		524	652		16.7	148	173	0.36	2.4	4.4		0.64	1.3		4.6	40	ARG LIM
18.8	530	706		539	666		16.7	149	175	0.35	2.4	4.4		0.66	1.4		4.7	42	ARG LIM
19.0	518	694		527	654		16.7	151	177	0.36	2.3	4.4		0.63	1.3		4.4	40	ARG LIM
19.2	520	687		529	647		16.7	152	179	0.34	2.3	4.1		0.62	1.3		4.1	40	ARG LIM
19.4	539	714		548	674		16.7	153	181	0.34	2.4	4.4		0.65	1.3		4.5	42	ARG LIM
19.6	533	708		542	668		16.7	155	182	0.35	2.3	4.4		0.63	1.3		4.4	41	ARG LIM
19.8	531	743		538	703		16.7	156	184	0.47	2.3	5.7		0.61	1.2		5.6	40	ARG LIM
20.0	543	715		552	675		16.7	157	186	0.34	2.3	4.3		0.63	1.3		4.3	42	ARG LIM
20.2	542	720		551	680		16.7	159	188	0.36	2.3	4.5		0.62	1.2		4.4	41	ARG LIM
20.4	534	710		543	670		16.7	160	190	0.36	2.2	4.4		0.60	1.2		4.2	40	ARG LIM
20.6	528	696		537	656		16.7	162	192	0.34	2.1	4.1		0.58	1.1		3.8	39	ARG LIM
20.8	546	721		555	681		16.7	163	194	0.35	2.2	4.4		0.60	1.2		4.2	41	ARG LIM
21.0	550	754		558	714		16.7	164	196	0.43	2.2	5.4		0.60	1.2		5.1	41	ARG LIM
21.2	555	727		564	687		16.7	166	198	0.34	2.2	4.3		0.60	1.2		4.1	41	ARG LIM
21.4	533	700		542	660		16.7	167	200	0.34	2.0	4.1		0.56	1.0		3.6	38	ARG LIM
21.6	543	721		552	681		16.7	168	202	0.37	2.1	4.5		0.56	1.1		4.0	39	ARG LIM
21.8	567	747		576	707		16.7	170	204	0.35	2.2	4.6		0.59	1.2		4.3	42	ARG LIM
22.0	499	704		506	664		16.7	171	206	0.52	1.8	5.5		0.48	0.82		4.6	32	ARG LIM
22.2	496	1013		488	973		17.7	173	208	1.73	1.6	16.8					14.3		LIMO SAB
22.4	522	721		530	681		16.7	174	210	0.47	1.8	5.2		0.50	0.88		4.5	34	ARG LIM
22.6	542	724		551	684		16.7	176	212	0.39	1.9	4.6		0.53	0.95		3.9	37	ARG LIM
22.8	556	779		563	739		16.7	177	214	0.51	2.0	6.1		0.54	0.98		5.2	38	ARG LIM
23.0	536	744		543	704		16.7	178	216	0.49	1.8	5.6		0.50	0.88		4.7	35	ARG LIM
23.2	594	762		603	722		16.7	180	218	0.31	2.1	4.1		0.58	1.1		3.8	43	ARGILLA
23.4	595	783		603	743		16.7	181	220	0.36	2.1	4.8		0.58	1.1		4.4	43	ARG LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 13-14 DESCRIZIONE
23.6	610	792		619	752		16.7	182	222	0.34	2.2	4.6		0.59	1.1		4.3	45	ARG LIM
23.8	613	775		623	735		16.7	184	224	0.28	2.2	3.9		0.59	1.1		3.6	45	ARGILLA
24.0	612	765		622	725		16.7	185	226	0.26	2.1	3.6		0.58	1.1		3.3	44	ARGILLA
24.2	614	795		623	755		16.7	187	228	0.33	2.1	4.6		0.58	1.1		4.2	44	ARG LIM
24.4	621	807		629	767		16.7	188	230	0.34	2.1	4.8		0.58	1.1		4.4	45	ARG LIM
24.6	626	824		634	784		16.7	189	232	0.37	2.1	5.2		0.58	1.1		4.8	45	ARG LIM
24.8	624	795		633	755		16.7	191	233	0.30	2.1	4.2		0.57	1.1		3.8	44	ARGILLA
25.0	645	823		654	783		16.7	192	235	0.31	2.2	4.5		0.59	1.1		4.2	47	ARGILLA
25.2	656	849		664	809		16.7	193	237	0.34	2.2	5.0		0.60	1.2		4.8	48	ARG LIM
25.4	667	852		676	812		16.7	195	239	0.31	2.2	4.7		0.61	1.2		4.6	49	ARGILLA
25.6	645	840		653	800		16.7	196	241	0.36	2.1	5.1		0.57	1.1		4.6	46	ARG LIM
25.8	628	805		637	765		16.7	197	243	0.33	2.0	4.4		0.54	1.0		3.8	43	ARGILLA
26.0	586	886		589	846		17.7	199	245	0.75	1.7	8.9		0.47	<0.8		7.6	36	LIMO ARG
26.2	600	784		609	744		16.7	200	247	0.37	1.8	4.7		0.49	0.85		4.0	39	ARG LIM
26.4	584	861		588	821		16.7	202	249	0.69	1.7	8.1		0.45	<0.8		6.9	36	LIMO ARG
26.6	604	1170		593	1130		17.7	203	251	1.57	1.7	18.6					15.8		LIMO SAB
26.8	635	888		640	848		17.7	205	253	0.54	1.9	7.2		0.51	0.92		6.1	42	ARG LIM
27.0	690	873		699	833		16.7	206	255	0.30	2.1	4.7		0.58	1.1		4.3	50	ARGILLA
27.2	681	879		689	839		16.7	208	257	0.35	2.1	5.2		0.57	1.1		4.6	48	ARG LIM
27.4	677	854		686	814		16.7	209	259	0.30	2.0	4.4		0.56	1.0		3.9	47	ARGILLA
27.6	656	840		665	800		16.7	210	261	0.34	1.9	4.7		0.52	0.94		4.0	44	ARG LIM
27.8	614	838		621	798		16.7	212	263	0.50	1.7	6.2		0.46	<0.8		5.2	38	ARG LIM
28.0	552	912		552	872		17.7	213	265	1.12	1.3	11.1		0.35	<0.8		9.4	29	LIMO
28.2	704	1676		673	1636		18.6	215	267	2.37	1.9	33.4				32	32.9		SABBIA LIM
28.4	1143	2680		1084	2640		19.6	217	269	1.91	3.8	54.0				36	85.4		SABBIA LIM
28.6	788	1224		784	1184		17.7	218	271	0.78	2.3	13.9		0.63	1.3		14.3	59	LIMO ARG
28.8	865	1448		854	1408		19.1	220	273	0.95	2.6	19.2		0.70	1.5		22.4	68	LIMO
29.0	749	1268		741	1228		17.7	222	275	1.05	2.1	16.9		0.57	1.1		16.0	52	LIMO
29.2	863	1577		845	1537		19.1	223	277	1.22	2.5	24.0					27.7		LIMO SAB
29.4	794	1399		781	1359		17.7	225	279	1.15	2.2	20.0		0.60	1.2		20.4	57	LIMO
29.6	919	1507		907	1467		19.1	227	281	0.89	2.8	19.4		0.73	1.7		23.4	75	LIMO
29.8	1036	1490		1031	1450		18.6	229	283	0.56	3.3	14.5		0.84	2.2		19.7	93	ARG LIM
30.0	1059	1468		1056	1428		18.6	231	284	0.48	3.3	12.9		0.86	2.2		17.8	97	ARG LIM
30.2	928	1295		927	1255		17.7	232	286	0.51	2.8	11.4		0.73	1.7		13.4	76	ARG LIM

DMT 14-14

16 DIC 2014

GEOSTUDI SRL
AUT.PORT.RAVENNA
PORT HUB
PORTO CORSINI RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 2.0 m

Falda a 2.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 14-14 DESCRIZIONE
6.4	56	237		65	197		16.7	66	43	6.14	0.3	4.6					3.9		SABBIA
6.6	109	366		114	326		16.7	67	45	3.08	1.0	7.4				28	6.3		SABBIA LIM
6.8	46	113		60	73		14.7	68	47	0.95	0.2	0.4		< 0.3	<0.8		0.4	1	FANGO
7.0	37	98		52	58		14.7	69	49	2.38		0.2					0.2		FANGO
7.2	44	113		58	73		14.7	70	51	2.02	0.1	0.5					0.4		FANGO
7.4	139	300		149	260		15.7	71	53	1.16	1.3	3.9		0.35	<0.8		3.3	10	LIMO
7.6	159	240		173	200		14.7	73	55	0.23	1.6	0.9		0.44	<0.8		0.8	12	FANGO
7.8	138	286		148	246		15.7	73	57	1.07	1.2	3.4		0.32	<0.8		2.9	9	LIMO
8.0	178	321		189	281		15.7	75	59	0.71	1.7	3.2		0.47	0.81		2.7	14	LIMO ARG
8.2	186	272		199	232		14.7	76	61	0.23	1.8	1.1		0.50	0.87		1.0	15	FANGO
8.4	178	293		190	253		15.7	77	63	0.50	1.7	2.2		0.45	<0.8		1.9	13	ARG LIM
8.6	186	570		185	530		17.7	78	65	2.88	1.5	12.0				31	10.3		SABBIA LIM
8.8	213	675		208	635		17.7	80	67	3.03	1.8	14.8				31	14.8		SABBIA LIM
9.0	225	661		221	621		17.7	81	69	2.63	1.9	13.9				32	14.0		SABBIA LIM
9.2	307	879		296	839		18.6	83	71	2.41	2.7	18.8				34	24.9		SABBIA LIM
9.4	399	881		393	841		17.7	84	73	1.40	3.8	15.6					24.2		LIMO SAB
9.6	323	1021		306	981		18.6	86	75	2.92	2.7	23.4				34	31.7		SABBIA LIM
9.8	246	690		242	650		17.7	88	77	2.47	1.9	14.2				32	14.0		SABBIA LIM
10.0	326	590		331	550		16.7	89	78	0.87	2.8	7.6		0.74	1.7		9.3	30	LIMO
10.2	254	346		267	306		15.7	91	80	0.21	2.1	1.3		0.56	1.0		1.2	21	ARGILLA
10.4	217	418		225	378		15.7	92	82	1.08	1.5	5.3		0.41	<0.8		4.5	15	LIMO
10.6	251	325		265	285		14.7	93	84	0.11	1.9	0.7		0.53	0.96		0.6	20	FANGO
10.8	264	568		267	528		16.7	94	86	1.45	1.9	9.1					8.1		LIMO SAB
11.0	254	333		268	293		14.7	95	88	0.14	1.9	0.9		0.51	0.91		0.7	19	FANGO
11.2	273	511		279	471		16.7	96	90	1.02	2.0	6.7		0.53	0.97		5.8	21	LIMO
11.4	257	341		271	301		14.7	98	92	0.17	1.8	1.1		0.50	0.87		0.9	19	FANGO
11.6	295	387		308	347		15.7	99	94	0.18	2.2	1.3		0.59	1.1		1.3	24	ARGILLA
11.8	304	389		318	349		14.7	100	96	0.14	2.2	1.1		0.60	1.2		1.0	25	FANGO
12.0	297	388		310	348		15.7	101	98	0.18	2.1	1.3		0.57	1.1		1.2	24	ARGILLA
12.2	309	402		322	362		15.7	102	100	0.18	2.2	1.4		0.59	1.1		1.3	25	ARGILLA
12.4	319	408		332	368		15.7	103	102	0.16	2.2	1.2		0.60	1.2		1.2	26	ARGILLA
12.6	309	399		322	359		15.7	104	104	0.17	2.1	1.3		0.57	1.1		1.1	24	ARGILLA
12.8	318	407		331	367		15.7	106	106	0.16	2.1	1.2		0.58	1.1		1.1	25	ARGILLA
13.0	317	405		330	365		15.7	107	108	0.16	2.1	1.2		0.57	1.1		1.1	25	ARGILLA
13.2	286	382		299	342		15.7	108	110	0.23	1.8	1.5		0.47	0.81		1.3	20	ARGILLA
13.4	309	407		322	367		15.7	109	112	0.21	1.9	1.6		0.52	0.94		1.3	23	ARGILLA
13.6	334	429		347	389		15.7	110	114	0.18	2.1	1.5		0.57	1.1		1.3	26	ARGILLA
13.8	343	435		356	395		15.7	112	116	0.16	2.2	1.3		0.58	1.1		1.2	27	ARGILLA
14.0	337	435		350	395		15.7	113	118	0.19	2.1	1.6		0.56	1.0		1.4	26	ARGILLA
14.2	316	506		324	466		16.7	114	120	0.69	1.8	4.9		0.49	0.85		4.2	22	LIMO ARG
14.4	298	398		311	358		15.7	115	122	0.25	1.6	1.6		0.44	<0.8		1.4	20	ARGILLA
14.6	338	513		347	473		16.7	116	124	0.56	1.9	4.4		0.52	0.94		3.7	24	ARG LIM

14.8	384	480		397	440		15.7	118	126	0.16	2.3	1.5		0.62	1.2		1.5	31	ARGILLA
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 14-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
15.0	380	486		392	446		15.7	119	128	0.20	2.2	1.9		0.60	1.2		1.8	30	ARGILLA
15.2	379	484		392	444		15.7	120	129	0.20	2.2	1.8		0.59	1.1		1.7	29	ARGILLA
15.4	380	491		392	451		15.7	121	131	0.23	2.1	2.0		0.58	1.1		1.9	29	ARGILLA
15.6	371	473		384	433		15.7	123	133	0.20	2.0	1.7		0.56	1.0		1.5	28	ARGILLA
15.8	383	491		395	451		15.7	124	135	0.21	2.1	1.9		0.57	1.1		1.7	29	ARGILLA
16.0	417	527		429	487		15.7	125	137	0.20	2.3	2.0		0.63	1.3		2.0	33	ARGILLA
16.2	373	476		386	436		15.7	126	139	0.20	2.0	1.7		0.53	0.97		1.5	27	ARGILLA
16.4	356	470		368	430		15.7	127	141	0.27	1.8	2.1		0.48	0.84		1.8	24	ARGILLA
16.6	365	471		377	431		15.7	128	143	0.23	1.8	1.9		0.50	0.87		1.6	25	ARGILLA
16.8	385	500		397	460		15.7	130	145	0.25	1.9	2.2		0.53	0.96		1.9	28	ARGILLA
17.0	390	510		402	470		15.7	131	147	0.27	1.9	2.4		0.53	0.96		2.0	28	ARGILLA
17.2	417	538		429	498		15.7	132	149	0.25	2.1	2.4		0.58	1.1		2.2	31	ARGILLA
17.4	410	526		422	486		15.7	133	151	0.24	2.0	2.2		0.55	1.0		1.9	30	ARGILLA
17.6	407	513		419	473		15.7	134	153	0.20	2.0	1.9		0.54	0.99		1.6	29	ARGILLA
17.8	425	529		438	489		15.7	135	155	0.18	2.1	1.8		0.57	1.1		1.6	31	ARGILLA
18.0	417	534		429	494		15.7	137	157	0.24	2.0	2.3		0.54	0.99		1.9	30	ARGILLA
18.2	453	568		465	528		16.7	138	159	0.21	2.2	2.2		0.60	1.2		2.1	35	ARGILLA
18.4	425	545		437	505		15.7	139	161	0.25	2.0	2.4		0.54	0.99		2.0	30	ARGILLA
18.6	414	539		426	499		15.7	140	163	0.28	1.9	2.6		0.51	0.90		2.2	28	ARGILLA
18.8	439	604		449	564		16.7	142	165	0.41	2.0	4.0		0.55	1.0		3.4	31	ARG LIM
19.0	451	559		463	519		15.7	143	167	0.19	2.1	1.9		0.56	1.1		1.7	33	ARGILLA
19.2	455	569		467	529		15.7	144	169	0.21	2.1	2.1		0.56	1.1		1.9	33	ARGILLA
19.4	456	575		468	535		16.7	145	171	0.23	2.0	2.3		0.56	1.0		2.0	33	ARGILLA
19.6	458	579		470	539		16.7	147	173	0.23	2.0	2.4		0.55	1.0		2.1	33	ARGILLA
19.8	485	608		497	568		16.7	148	175	0.22	2.2	2.5		0.59	1.1		2.3	36	ARGILLA
20.0	475	591		487	551		16.7	149	177	0.21	2.1	2.2		0.56	1.1		2.0	34	ARGILLA
20.2	490	608		502	568		16.7	151	179	0.20	2.1	2.3		0.58	1.1		2.1	36	ARGILLA
20.4	486	606		498	566		16.7	152	181	0.22	2.1	2.4		0.57	1.1		2.1	35	ARGILLA
20.6	518	639		530	599		16.7	154	182	0.20	2.3	2.4		0.61	1.2		2.3	39	ARGILLA
20.8	490	611		502	571		16.7	155	184	0.22	2.0	2.4		0.56	1.0		2.1	35	ARGILLA
21.0	521	935		518	895		17.7	156	186	1.14	2.1	13.1		0.58	1.1		12.6	37	LIMO
21.2	477	596		489	556		16.7	158	188	0.22	1.9	2.3		0.52	0.93		2.0	33	ARGILLA
21.4	489	621		500	581		16.7	159	190	0.26	1.9	2.8		0.53	0.96		2.4	34	ARGILLA
21.6	499	622		511	582		16.7	161	192	0.22	2.0	2.5		0.54	0.99		2.1	35	ARGILLA
21.8	459	578		471	538		15.7	162	194	0.24	1.7	2.3		0.46	<0.8		2.0	29	ARGILLA
22.0	491	613		503	573		16.7	163	196	0.23	1.9	2.4		0.51	0.91		2.1	33	ARGILLA
22.2	490	617		501	577		16.7	165	198	0.25	1.8	2.6		0.50	0.88		2.2	33	ARGILLA
22.4	500	625		512	585		16.7	166	200	0.24	1.9	2.6		0.51	0.91		2.2	34	ARGILLA
22.6	492	604		504	564		15.7	167	202	0.20	1.8	2.1		0.49	0.85		1.8	32	ARGILLA
22.8	492	600		504	560		15.7	168	204	0.19	1.8	1.9		0.48	0.84		1.6	32	ARGILLA
23.0	518	636		530	596		16.7	170	206	0.20	1.9	2.3		0.52	0.93		2.0	35	ARGILLA
23.2	465	572		477	532		15.7	171	208	0.20	1.6	1.9		0.42	<0.8		1.6	28	ARGILLA
23.4	476	600		488	560		16.7	172	210	0.26	1.6	2.5		0.43	<0.8		2.1	29	ARGILLA
23.6	498	608		510	568		15.7	174	212	0.19	1.7	2.0		0.47	<0.8		1.7	32	ARGILLA
23.8	487	609		499	569		16.7	175	214	0.25	1.6	2.4		0.44	<0.8		2.1	30	ARGILLA
24.0	514	640		525	600		16.7	176	216	0.24	1.8	2.6		0.48	0.82		2.2	33	ARGILLA
24.2	530	654		542	614		16.7	177	218	0.22	1.8	2.5		0.50	0.87		2.1	35	ARGILLA
24.4	563	714		573	674		16.7	179	220	0.29	2.0	3.5		0.54	0.98		3.0	39	ARGILLA
24.6	595	722		606	682		16.7	180	222	0.20	2.1	2.6		0.58	1.1		2.4	43	ARGILLA
24.8	595	737		606	697		16.7	182	224	0.24	2.1	3.2		0.57	1.1		2.9	43	ARGILLA
25.0	599	718		611	678		16.7	183	226	0.17	2.1	2.3		0.57	1.1		2.1	43	ARGILLA
25.2	618	755		629	715		16.7	184	228	0.21	2.2	3.0		0.59	1.1		2.8	45	ARGILLA
25.4	621	759		632	719		16.7	186	230	0.22	2.2	3.0		0.59	1.1		2.8	45	ARGILLA
25.6	640	770		651	730		16.7	187	232	0.19	2.2	2.7		0.61	1.2		2.6	48	ARGILLA
25.8	695	1247		685	1207		17.7	188	233	1.16	2.4	18.1		0.65	1.3		19.7	52	LIMO
26.0	617	756		628	716		16.7	190	235	0.22	2.1	3.1		0.56	1.1		2.7	44	ARGILLA
26.2	634	787		644	747		16.7	191	237	0.25	2.1	3.6		0.58	1.1		3.3	45	ARGILLA
26.4	657	801		668	761		16.7	193	239	0.22	2.2	3.2		0.60	1.2		3.1	48	ARGILLA

26.6	663	809		673	769		16.7	194	241	0.22	2.2	3.3		0.60	1.2		3.2	49	ARGILLA
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 14-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
26.8	621	752		632	712		16.7	196	243	0.21	2.0	2.8		0.54	0.99		2.4	43	ARGILLA
27.0	611	745		622	705		16.7	197	245	0.22	1.9	2.9		0.52	0.94		2.4	41	ARGILLA
27.2	714	957		720	917		17.7	198	247	0.42	2.4	6.8		0.64	1.3		7.1	54	ARG LIM
27.4	787	975		795	935		17.7	200	249	0.26	2.7	4.8		0.72	1.6		5.7	65	ARGILLA

DMT 15-14

19 DIC 2014

GEOSTUDI SRL
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MOLO SUD

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.3 m

Falda a 1.30 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 15-14 DESCRIZIONE
10.0	124	221		137	181		15.7	85	85	0.86	0.6	1.5		< 0.3	<0.8		1.3	4	LIMO
10.2	160	333		169	293		15.7	86	87	1.51	1.0	4.3					3.7		LIMO SAB
10.4	181	290		193	250		15.7	87	89	0.55	1.2	2.0		< 0.3	<0.8		1.7	10	ARG LIM
10.6	226	439		233	399		15.7	88	91	1.17	1.6	5.8		0.43	<0.8		4.9	15	LIMO
10.8	255	348		268	308		15.7	89	93	0.23	2.0	1.4		0.53	0.97		1.2	19	ARGILLA
11.0	269	352		283	312		14.7	91	95	0.16	2.1	1.0		0.56	1.1		0.9	21	FANGO
11.2	300	389		313	349		15.7	92	97	0.17	2.4	1.2		0.64	1.3		1.3	25	ARGILLA
11.4	309	391		323	351		14.7	93	99	0.13	2.4	1.0		0.65	1.3		1.0	26	FANGO
11.6	315	402		328	362		14.7	94	101	0.15	2.4	1.2		0.65	1.4		1.2	26	FANGO
11.8	323	410		336	370		14.7	95	103	0.14	2.5	1.2		0.66	1.4		1.2	27	FANGO
12.0	328	415		341	375		14.7	96	105	0.14	2.5	1.2		0.66	1.4		1.2	27	FANGO
12.2	309	392		323	352		14.7	97	107	0.14	2.2	1.0		0.60	1.2		1.0	24	FANGO
12.4	315	399		329	359		14.7	98	109	0.14	2.3	1.1		0.61	1.2		1.0	25	FANGO
12.6	299	383		313	343		14.7	99	111	0.15	2.0	1.1		0.56	1.0		0.9	22	FANGO
12.8	320	399		334	359		14.7	100	113	0.11	2.2	0.9		0.60	1.2		0.8	25	FANGO
13.0	308	390		322	350		14.7	101	115	0.14	2.1	1.0		0.56	1.0		0.9	23	FANGO
13.2	290	374		304	334		14.7	102	117	0.16	1.8	1.1		0.50	0.88		0.9	20	FANGO
13.4	279	366		292	326		14.7	103	119	0.19	1.7	1.2		0.46	<0.8		1.0	18	FANGO
13.6	281	355		295	315		14.7	103	121	0.11	1.7	0.7		0.46	<0.8		0.6	18	FANGO
13.8	301	388		314	348		14.7	104	123	0.18	1.8	1.2		0.50	0.88		1.0	21	FANGO
14.0	300	377		314	337		14.7	105	125	0.12	1.8	0.8		0.49	0.85		0.7	20	FANGO
14.2	307	383		321	343		14.7	106	127	0.11	1.8	0.8		0.50	0.87		0.7	21	FANGO
14.4	340	482		351	442		15.7	107	129	0.41	2.1	3.2		0.56	1.1		2.8	25	ARG LIM
14.6	352	436		366	396		14.7	109	130	0.13	2.2	1.1		0.59	1.1		1.0	26	FANGO
14.8	315	588		319	548		16.7	110	132	1.23	1.7	7.9					6.8		LIMO SAB
15.0	338	426		351	386		15.7	111	134	0.16	2.0	1.2		0.53	0.97		1.0	24	ARGILLA
15.2	360	516		370	476		16.7	112	136	0.45	2.1	3.7		0.57	1.1		3.3	26	ARG LIM
15.4	379	467		392	427		15.7	113	138	0.14	2.2	1.2		0.61	1.2		1.2	29	ARGILLA
15.6	307	390		321	350		14.7	115	140	0.16	1.6	1.0		0.42	<0.8		0.9	19	FANGO
15.8	338	430		351	390		15.7	116	142	0.19	1.8	1.3		0.49	0.86		1.1	22	ARGILLA
16.0	335	425		348	385		15.7	117	144	0.18	1.7	1.3		0.47	0.81		1.1	22	ARGILLA
16.2	338	428		351	388		15.7	118	146	0.18	1.7	1.3		0.47	0.81		1.1	22	ARGILLA
16.4	354	442		367	402		15.7	119	148	0.16	1.8	1.2		0.50	0.88		1.0	24	ARGILLA
16.6	375	467		388	427		15.7	120	150	0.16	2.0	1.3		0.54	0.99		1.1	26	ARGILLA
16.8	366	453		379	413		14.7	122	152	0.15	1.9	1.2		0.51	0.90		1.0	25	FANGO
17.0	382	477		395	437		15.7	123	154	0.17	2.0	1.5		0.54	0.98		1.2	26	ARGILLA
17.2	393	484		406	444		15.7	124	156	0.15	2.0	1.3		0.55	1.0		1.1	28	ARGILLA
17.4	400	484		414	444		14.7	125	158	0.12	2.0	1.1		0.56	1.0		0.9	28	FANGO
17.6	414	517		427	477		15.7	126	160	0.19	2.1	1.7		0.58	1.1		1.6	30	ARGILLA
17.8	417	519		430	479		15.7	127	162	0.18	2.1	1.7		0.57	1.1		1.5	30	ARGILLA
18.0	419	523		432	483		15.7	128	164	0.19	2.1	1.8		0.57	1.1		1.6	30	ARGILLA
18.2	392	500		404	460		15.7	129	166	0.23	1.8	1.9		0.50	0.88		1.6	26	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 15-14 DESCRIZIONE
18.4	414	502		427	462		15.7	131	168	0.13	2.0	1.2		0.54	0.99		1.0	29	ARGILLA
18.6	431	527		444	487		15.7	132	170	0.16	2.1	1.5		0.57	1.1		1.3	30	ARGILLA
18.8	448	544		461	504		15.7	133	172	0.15	2.2	1.5		0.59	1.1		1.4	33	ARGILLA
19.0	440	544		453	504		15.7	134	174	0.18	2.1	1.8		0.57	1.1		1.6	31	ARGILLA
19.2	422	524		435	484		15.7	135	176	0.19	1.9	1.7		0.52	0.94		1.5	28	ARGILLA
19.4	426	521		439	481		15.7	136	178	0.16	1.9	1.5		0.52	0.94		1.2	28	ARGILLA
19.6	433	529		446	489		15.7	138	180	0.16	1.9	1.5		0.53	0.95		1.3	29	ARGILLA
19.8	436	533		449	493		15.7	139	181	0.16	1.9	1.5		0.52	0.95		1.3	29	ARGILLA
20.0	438	537		451	497		15.7	140	183	0.17	1.9	1.6		0.52	0.93		1.4	29	ARGILLA
20.2	455	562		467	522		15.7	141	185	0.19	2.0	1.9		0.54	1.0		1.6	31	ARGILLA
20.4	456	547		469	507		15.7	142	187	0.13	2.0	1.3		0.54	0.99		1.1	31	ARGILLA
20.6	443	1071		429	1031		18.6	144	189	2.51	1.7	20.9				31	18.6		SABBIA LIM
20.8	487	594		499	554		15.7	145	191	0.18	2.1	1.9		0.58	1.1		1.7	34	ARGILLA
21.0	454	548		467	508		15.7	146	193	0.15	1.9	1.4		0.51	0.90		1.2	30	ARGILLA
21.2	455	561		467	521		15.7	148	195	0.20	1.8	1.9		0.50	0.88		1.6	29	ARGILLA
21.4	477	580		490	540		15.7	149	197	0.17	2.0	1.7		0.53	0.98		1.5	32	ARGILLA
21.6	468	574		480	534		15.7	150	199	0.19	1.9	1.9		0.51	0.91		1.6	30	ARGILLA
21.8	472	565		485	525		15.7	151	201	0.14	1.9	1.4		0.51	0.91		1.2	31	ARGILLA
22.0	482	558		496	518		13.7	152	203	0.08	1.9	0.8		0.52	0.94		0.7	32	FANGO E/O TORBA
22.2	460	573		472	533		15.7	153	205	0.23	1.7	2.1		0.47	0.81		1.8	28	ARGILLA
22.4	476	575		489	535		15.7	154	207	0.16	1.8	1.6		0.50	0.87		1.4	30	ARGILLA
22.6	501	620		513	580		16.7	155	209	0.22	2.0	2.3		0.53	0.97		2.0	33	ARGILLA
22.8	423	551		434	511		15.7	157	211	0.34	1.4	2.7		0.38	<0.8		2.3	23	ARG LIM
23.0	434	538		447	498		15.7	158	213	0.22	1.5	1.8		0.39	<0.8		1.5	24	ARGILLA
23.2	463	564		476	524		15.7	159	215	0.19	1.6	1.7		0.44	<0.8		1.4	27	ARGILLA
23.4	505	570		520	530		13.7	160	217	0.03	1.9	0.4		0.51	0.92		0.3	33	FANGO E/O TORBA
23.6	494	588		507	548		15.7	161	219	0.14	1.8	1.4		0.49	0.84		1.2	31	ARGILLA
23.8	503	611		515	571		15.7	162	221	0.19	1.8	1.9		0.49	0.86		1.6	32	ARGILLA
24.0	519	610		532	570		15.7	164	223	0.12	1.9	1.3		0.51	0.92		1.1	34	ARGILLA
24.2	540	631		553	591		15.7	165	225	0.12	2.0	1.3		0.54	1.0		1.1	36	ARGILLA
24.4	534	626		547	586		15.7	166	227	0.12	1.9	1.3		0.53	0.95		1.1	35	ARGILLA
24.6	524	629		536	589		15.7	167	229	0.17	1.8	1.8		0.50	0.88		1.5	33	ARGILLA
24.8	538	651		550	611		16.7	168	231	0.19	1.9	2.1		0.52	0.93		1.8	35	ARGILLA
25.0	529	627		542	587		15.7	170	232	0.15	1.8	1.6		0.50	0.87		1.3	33	ARGILLA
25.2	523	639		535	599		16.7	171	234	0.21	1.8	2.2		0.48	0.82		1.9	32	ARGILLA
25.4	558	662		571	622		15.7	172	236	0.15	1.9	1.8		0.53	0.96		1.5	36	ARGILLA
25.6	578	691		590	651		16.7	173	238	0.17	2.0	2.1		0.55	1.0		1.8	39	ARGILLA
25.8	571	681		583	641		16.7	175	240	0.17	2.0	2.0		0.53	0.97		1.7	38	ARGILLA
26.0	571	662		584	622		15.7	176	242	0.11	1.9	1.3		0.53	0.96		1.1	37	ARGILLA
26.2	547	650		560	610		15.7	177	244	0.16	1.8	1.7		0.48	0.84		1.5	34	ARGILLA
26.4	537	648		549	608		15.7	178	246	0.19	1.7	2.0		0.46	<0.8		1.7	32	ARGILLA
26.6	557	681		569	641		16.7	180	248	0.23	1.8	2.5		0.48	0.84		2.1	34	ARGILLA
26.8	548	1273		529	1233		18.6	181	250	2.52	1.5	24.4				31	20.7		SABBIA LIM
27.0	616	741		628	701		16.7	183	252	0.20	2.1	2.6		0.56	1.0		2.2	42	ARGILLA
27.2	569	790		576	750		16.7	184	254	0.54	1.7	6.0		0.47	0.81		5.1	34	ARG LIM
27.4	632	745		644	705		16.7	186	256	0.16	2.1	2.1		0.57	1.1		1.9	43	ARGILLA
27.6	612	721		624	681		16.7	187	258	0.15	2.0	2.0		0.53	0.97		1.7	40	ARGILLA
27.8	583	702		595	662		16.7	188	260	0.20	1.8	2.3		0.48	0.83		2.0	36	ARGILLA
28.0	552	728		561	688		16.7	190	262	0.42	1.6	4.4		0.42	<0.8		3.7	31	ARG LIM
28.2	516	891		515	851		16.7	191	264	1.34	1.3	11.7					9.9		LIMO SAB
28.4	567	1335		546	1295		18.6	192	266	2.67	1.5	26.0				30	22.1		SABBIA LIM
28.6	682	1972		635	1932		19.6	194	268	3.53	1.9	45.0				32	47.4		SABBIA
28.8	817	2349		758	2309		19.6	196	270	3.18	2.5	53.8				33	69.6		SABBIA LIM

DMT 16-14

19 DIC 2014

GEOSTUDI SRL
AUT.PORT.RAVENNA
PORT HUB
MOLO SUD RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.3 m

Falda a 1.30 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 16-14 DESCRIZIONE
6.4	64	199		75	159		16.7	59	50	3.36	0.4	2.9					2.5		SABBIA
6.6	168	379		175	339		15.7	60	52	1.33	2.0	5.7					5.4		LIMO SAB
6.8	166	347		175	307		15.7	61	54	1.10	2.0	4.6		0.54	0.98		4.1	13	LIMO
7.0	139	277		150	237		15.7	62	56	0.93	1.5	3.0		0.40	<0.8		2.6	10	LIMO
7.2	105	0		120			15.7	64	58										
7.4	374	842		368	802		17.7	65	60	1.41	4.8	15.0					26.7		LIMO SAB
7.6	201	475		205	435		16.7	66	62	1.61	2.2	8.0					8.2		LIMO SAB
7.8	193	484		196	444		17.7	68	64	1.87	2.0	8.6				32	8.3		SABBIA LIM
8.0	205	330		217	290		15.7	69	66	0.49	2.2	2.6		0.59	1.1		2.4	17	ARG LIM
8.2	214	348		225	308		15.7	71	68	0.53	2.2	2.9		0.60	1.2		2.8	18	ARG LIM
8.4	185	563		184	523		17.7	72	70	2.97	1.6	11.8				31	10.6		SABBIA LIM
8.6	295	827		286	787		17.7	73	72	2.33	2.9	17.4				34	24.0		SABBIA LIM
8.8	259	468		266	428		16.7	75	74	0.84	2.6	5.6		0.69	1.5		6.3	23	LIMO
9.0	210	490		214	450		16.7	76	76	1.71	1.8	8.2					7.2		LIMO SAB
9.2	183	445		188	405		16.7	78	77	1.97	1.4	7.5				30	6.4		SABBIA LIM
9.4	228	341		240	301		15.7	79	79	0.38	2.0	2.1		0.55	1.0		1.8	18	ARG LIM
9.6	239	322		253	282		14.7	80	81	0.17	2.1	1.0		0.58	1.1		0.9	19	FANGO
9.8	257	427		266	387		15.7	81	83	0.66	2.3	4.2		0.61	1.2		4.1	21	LIMO ARG
10.0	248	497		253	457		16.7	82	85	1.21	2.0	7.1					6.6		LIMO SAB
10.2	345	647		348	607		16.7	84	87	1.00	3.1	9.0		0.81	2.0		12.0	32	LIMO
10.4	307	552		313	512		16.7	85	89	0.89	2.6	6.9		0.70	1.5		8.0	26	LIMO
10.6	259	522		264	482		16.7	86	91	1.27	2.0	7.6					7.0		LIMO SAB
10.8	248	334		261	294		14.7	88	93	0.19	1.9	1.1		0.52	0.94		1.0	18	FANGO
11.0	264	730		258	690		17.7	89	95	2.64	1.8	15.0				32	14.8		SABBIA LIM
11.2	299	571		303	531		16.7	90	97	1.11	2.3	7.9		0.62	1.2		8.2	23	LIMO
11.4	302	377		316	337		13.7	92	99	0.10	2.4	0.7		0.64	1.3		0.7	25	FANGO E/O TORBA
11.6	269	348		283	308		14.7	93	101	0.14	2.0	0.9		0.53	0.97		0.7	20	FANGO
11.8	283	362		297	322		14.7	93	103	0.13	2.1	0.9		0.56	1.1		0.8	22	FANGO
12.0	277	351		291	311		14.7	94	105	0.11	2.0	0.7		0.54	0.98		0.6	20	FANGO
12.2	276	365		289	325		15.7	95	107	0.20	1.9	1.2		0.52	0.93		1.1	20	ARGILLA
12.4	269	354		283	314		14.7	97	109	0.18	1.8	1.1		0.49	0.85		0.9	19	FANGO
12.6	292	383		305	343		15.7	98	111	0.19	2.0	1.3		0.54	1.0		1.1	21	ARGILLA
12.8	317	405		330	365		15.7	99	113	0.16	2.2	1.2		0.60	1.2		1.1	25	ARGILLA
13.0	269	356		282	316		14.7	100	115	0.20	1.7	1.2		0.45	<0.8		1.0	18	FANGO
13.2	277	364		290	324		14.7	101	117	0.19	1.7	1.2		0.47	<0.8		1.0	18	FANGO
13.4	266	355		279	315		15.7	102	119	0.22	1.6	1.2		0.42	<0.8		1.1	17	ARGILLA
13.6	282	372		295	332		15.7	103	121	0.21	1.7	1.3		0.46	<0.8		1.1	18	ARGILLA
13.8	282	368		295	328		14.7	104	123	0.19	1.7	1.1		0.45	<0.8		1.0	18	FANGO
14.0	283	406		295	366		15.7	105	125	0.42	1.6	2.5		0.43	<0.8		2.1	18	ARG LIM
14.2	287	382		300	342		15.7	106	127	0.24	1.6	1.5		0.44	<0.8		1.2	18	ARGILLA
14.4	291	435		302	395		15.7	108	129	0.54	1.6	3.2		0.43	<0.8		2.8	18	ARG LIM
14.6	311	403		324	363		15.7	109	130	0.20	1.8	1.3		0.48	0.84		1.1	21	ARGILLA

14.8	292	378		305	338		14.7	110	132	0.19	1.6	1.1		0.42	<0.8		1.0	18	FANGO
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 16-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
15.0	306	388		320	348		14.7	111	134	0.15	1.7	1.0		0.45	<0.8		0.8	19	FANGO
15.2	316	401		330	361		14.7	112	136	0.16	1.7	1.1		0.47	<0.8		0.9	20	FANGO
15.4	303	401		316	361		15.7	113	138	0.25	1.6	1.6		0.42	<0.8		1.3	18	ARGILLA
15.6	338	433		351	393		15.7	114	140	0.20	1.8	1.5		0.50	0.89		1.2	23	ARGILLA
15.8	322	416		335	376		15.7	115	142	0.21	1.7	1.4		0.45	<0.8		1.2	20	ARGILLA
16.0	337	433		350	393		15.7	116	144	0.21	1.8	1.5		0.48	0.83		1.3	22	ARGILLA
16.2	353	448		366	408		15.7	118	146	0.19	1.9	1.5		0.51	0.90		1.2	24	ARGILLA
16.4	327	422		340	382		15.7	119	148	0.22	1.6	1.5		0.43	<0.8		1.2	20	ARGILLA
16.6	339	429		352	389		15.7	120	150	0.18	1.7	1.3		0.46	<0.8		1.1	21	ARGILLA
16.8	331	430		344	390		15.7	121	152	0.24	1.6	1.6		0.42	<0.8		1.4	20	ARGILLA
17.0	352	460		364	420		15.7	122	154	0.26	1.7	1.9		0.47	<0.8		1.6	22	ARGILLA
17.2	371	460		384	420		15.7	124	156	0.16	1.8	1.2		0.50	0.89		1.1	25	ARGILLA
17.4	381	479		394	439		15.7	125	158	0.19	1.9	1.6		0.51	0.92		1.3	26	ARGILLA
17.6	374	472		387	432		15.7	126	160	0.20	1.8	1.6		0.49	0.85		1.3	24	ARGILLA
17.8	365	470		378	430		15.7	127	162	0.24	1.7	1.8		0.46	<0.8		1.5	23	ARGILLA
18.0	374	517		385	477		15.7	128	164	0.42	1.7	3.2		0.47	<0.8		2.7	23	ARG LIM
18.2	382	485		395	445		15.7	129	166	0.22	1.8	1.7		0.48	0.83		1.5	24	ARGILLA
18.4	391	493		404	453		15.7	131	168	0.21	1.8	1.7		0.49	0.86		1.5	25	ARGILLA
18.6	391	488		404	448		15.7	132	170	0.19	1.8	1.5		0.48	0.83		1.3	25	ARGILLA
18.8	384	504		396	464		15.7	133	172	0.30	1.7	2.4		0.46	<0.8		2.0	24	ARGILLA
19.0	389	490		402	450		15.7	134	174	0.21	1.7	1.7		0.46	<0.8		1.4	24	ARGILLA
19.2	400	497		413	457		15.7	135	176	0.19	1.8	1.5		0.48	0.82		1.3	25	ARGILLA
19.4	430	519		443	479		15.7	136	178	0.13	1.9	1.2		0.53	0.96		1.1	29	ARGILLA
19.6	428	536		440	496		15.7	138	180	0.21	1.9	1.9		0.52	0.92		1.6	28	ARGILLA
19.8	427	537		439	497		15.7	139	181	0.22	1.9	2.0		0.50	0.89		1.7	28	ARGILLA
20.0	449	551		462	511		15.7	140	183	0.18	2.0	1.7		0.54	0.99		1.5	31	ARGILLA
20.2	445	545		458	505		15.7	141	185	0.17	1.9	1.6		0.52	0.95		1.4	30	ARGILLA
20.4	439	548		451	508		15.7	142	187	0.21	1.9	2.0		0.50	0.89		1.7	28	ARGILLA
20.6	444	541		457	501		15.7	144	189	0.16	1.9	1.5		0.51	0.90		1.3	29	ARGILLA
20.8	445	556		457	516		15.7	145	191	0.22	1.8	2.0		0.50	0.88		1.7	29	ARGILLA
21.0	410	711		413	671		16.7	146	193	1.18	1.5	9.0		0.40	<0.8		7.6	22	LIMO
21.2	481	572		494	532		15.7	147	195	0.13	2.0	1.3		0.55	1.0		1.1	33	ARGILLA
21.4	459	567		471	527		15.7	148	197	0.20	1.8	1.9		0.50	0.89		1.6	30	ARGILLA
21.6	458	571		470	531		15.7	150	199	0.22	1.8	2.1		0.49	0.86		1.8	29	ARGILLA
21.8	459	564		472	524		15.7	151	201	0.19	1.8	1.8		0.49	0.85		1.5	29	ARGILLA
22.0	471	589		483	549		15.7	152	203	0.24	1.8	2.3		0.50	0.88		2.0	30	ARGILLA
22.2	476	586		488	546		15.7	153	205	0.20	1.8	2.0		0.50	0.89		1.7	31	ARGILLA
22.4	476	584		488	544		15.7	154	207	0.20	1.8	1.9		0.50	0.87		1.6	30	ARGILLA
22.6	460	564		473	524		15.7	155	209	0.20	1.7	1.8		0.46	<0.8		1.5	28	ARGILLA
22.8	495	578		509	538		13.7	157	211	0.10	1.9	1.0		0.52	0.93		0.9	32	FANGO E/O TORBA
23.0	485	604		497	564		15.7	157	213	0.24	1.8	2.3		0.49	0.85		2.0	30	ARGILLA
23.2	507	575		521	535		13.7	159	215	0.04	1.9	0.5		0.53	0.95		0.4	33	FANGO E/O TORBA
23.4	432	502		446	462		13.7	159	217	0.07	1.4	0.5		0.38	<0.8		0.5	23	FANGO E/O TORBA
23.6	457	499		473			13.7	160	219										
23.8	454	545		467	505		15.7	161	221	0.15	1.5	1.3		0.41	<0.8		1.1	25	ARGILLA
24.0	483	582		496	542		15.7	162	223	0.17	1.7	1.6		0.46	<0.8		1.4	29	ARGILLA
24.2	484	601		496	561		15.7	163	225	0.24	1.7	2.3		0.45	<0.8		1.9	28	ARGILLA
24.4	515	625		527	585		15.7	165	227	0.19	1.8	2.0		0.50	0.87		1.7	32	ARGILLA
24.6	521	625		534	585		15.7	166	229	0.17	1.8	1.8		0.50	0.88		1.5	33	ARGILLA
24.8	527	634		539	594		15.7	167	231	0.18	1.9	1.9		0.50	0.89		1.6	33	ARGILLA
25.0	519	619		532	579		15.7	168	232	0.16	1.8	1.6		0.48	0.84		1.4	32	ARGILLA
25.2	530	641		542	601		15.7	169	234	0.19	1.8	2.0		0.49	0.86		1.7	33	ARGILLA
25.4	546	646		559	606		15.7	170	236	0.15	1.9	1.6		0.51	0.92		1.4	35	ARGILLA
25.6	547	659		559	619		16.7	172	238	0.19	1.9	2.1		0.51	0.90		1.8	35	ARGILLA
25.8	550	657		562	617		15.7	173	240	0.17	1.9	1.9		0.51	0.90		1.6	35	ARGILLA
26.0	547	657		559	617		15.7	174	242	0.18	1.8	2.0		0.49	0.87		1.7	34	ARGILLA
26.2	562	688		573	648		16.7	175	244	0.23	1.9	2.6		0.51	0.91		2.2	36	ARGILLA
26.4	570	697		581	657		16.7	177	246	0.23	1.9	2.6		0.52	0.92		2.2	36	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 16-14 DESCRIZIONE
26.6	572	687		584	647		16.7	178	248	0.19	1.9	2.2		0.51	0.91		1.9	36	ARGILLA
26.8	585	695		597	655		16.7	179	250	0.17	1.9	2.0		0.53	0.95		1.7	38	ARGILLA
27.0	518	635		530	595		15.7	181	252	0.23	1.5	2.3		0.41	<0.8		1.9	29	ARGILLA
27.2	593	685		606	645		15.7	182	254	0.11	1.9	1.3		0.53	0.95		1.1	38	ARGILLA
27.4	540	725		549	685		16.7	183	256	0.47	1.6	4.7		0.43	<0.8		4.0	30	ARG LIM
27.6	624	1222		612	1182		17.7	185	258	1.61	1.9	19.8					18.1		LIMO SAB
27.8	590	1091		583	1051		17.7	186	260	1.45	1.7	16.3					13.8		LIMO SAB
28.0	628	730		641	690		16.7	188	262	0.13	2.0	1.7		0.55	1.0		1.5	42	ARGILLA
28.2	612	727		624	687		16.7	189	264	0.17	1.9	2.2		0.52	0.93		1.9	39	ARGILLA
28.4	610	709		623	669		15.7	190	266	0.13	1.9	1.6		0.51	0.91		1.4	39	ARGILLA
28.6	567	684		579	644		16.7	192	268	0.21	1.6	2.3		0.44	<0.8		1.9	32	ARGILLA
28.8	591	715		603	675		16.7	193	270	0.22	1.7	2.5		0.47	<0.8		2.1	35	ARGILLA
29.0	566	689		578	649		16.7	194	272	0.23	1.6	2.5		0.42	<0.8		2.1	32	ARGILLA
29.2	523	997		517	957		18.6	196	274	1.81	1.2	15.3				29	13.0		SABBIA LIM
29.4	601	1514		573	1474		18.6	197	276	3.03	1.5	31.3				31	26.8		SABBIA LIM
29.6	710	1768		675	1728		18.6	199	278	2.65	2.0	36.5				32	38.8		SABBIA LIM
29.8	876	1979		839	1939		19.6	201	280	1.97	2.8	38.2				34	49.7		SABBIA LIM
30.0	968	2182		925	2142		19.6	203	282	1.89	3.2	42.2				35	59.9		SABBIA LIM

DMT 17

17 GENNAIO 2015

GEOSTUDI SRL
AUT.PORT.RAVENNA
OPERA
MARINA DI RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 53 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 2.0 m

Falda a 2.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 17 DESCRIZIONE
2.6	60	240		69	187		16.7	38	6	1.85	1.7	4.1				31	3.5		SABBIA LIM
2.8	220	660		216	607		17.7	40	8	1.87	5.3	13.6				37	25.7		SABBIA LIM
3.0	280	850		270	797		18.6	41	10	2.03	6.3	18.3				38	37.9		SABBIA LIM
3.2	250	740		244	687		17.7	43	12	1.91	5.4	15.4				38	29.5		SABBIA LIM
3.4	320	740		317	687		17.7	45	14	1.22	6.8	12.8					27.2		LIMO SAB
3.6	320	840		312	787		17.7	46	16	1.60	6.4	16.5					34.2		LIMO SAB
3.8	360	1050		344	997		18.6	48	18	2.00	6.8	22.7				39	48.6		SABBIA LIM
4.0	370	1150		349	1097		18.6	49	20	2.27	6.7	25.9				39	55.2		SABBIA LIM
4.2	350	1100		331	1047		18.6	51	22	2.32	6.0	24.8				38	50.7		SABBIA LIM
4.4	270	680		268	627		16.7	53	24	1.47	4.6	12.5					21.8		LIMO SAB
4.6	320	1000		304	947		18.6	54	26	2.30	5.1	22.3				37	42.1		SABBIA LIM
4.8	400	1250		376	1197		18.6	56	27	2.36	6.2	28.5				38	58.8		SABBIA LIM
5.0	400	1050		386	997		17.7	58	29	1.71	6.2	21.2					43.2		LIMO SAB
5.2	440	1350		413	1297		18.6	60	31	2.32	6.4	30.7				38	64.2		SABBIA LIM
5.4	440	1250		418	1197		18.6	61	33	2.03	6.3	27.0				38	55.9		SABBIA LIM
5.6	420	1250		397	1197		18.6	63	35	2.21	5.7	27.8				38	55.2		SABBIA LIM
5.8	380	1100		362	1047		18.6	65	37	2.11	5.0	23.8				37	44.2		SABBIA LIM
6.0	350	1050		333	997		18.6	67	39	2.26	4.4	23.0				37	40.3		SABBIA LIM
6.2	350	1000		336	947		18.6	68	41	2.07	4.3	21.2				36	36.4		SABBIA LIM
6.4	380	1000		367	947		17.7	70	43	1.79	4.6	20.1					35.6		LIMO SAB
6.6	350	1000		336	947		18.6	72	45	2.10	4.1	21.2				36	35.3		SABBIA LIM
6.8	480	1250		460	1197		17.7	73	47	1.79	5.6	25.6					50.0		LIMO SAB
7.0	460	1250		439	1197		18.6	75	49	1.94	5.2	26.3				37	49.6		SABBIA LIM
7.2	450	1150		433	1097		17.7	77	51	1.74	5.0	23.0					42.3		LIMO SAB
7.4	450	1250		428	1197		18.6	78	53	2.05	4.8	26.7				37	48.4		SABBIA LIM
7.6	350	920		340	867		18.6	80	55	1.85	3.6	18.3				35	27.9		SABBIA LIM
7.8	350	910		340	857		18.6	82	57	1.82	3.5	17.9				35	26.8		SABBIA LIM
8.0	380	950		370	897		17.7	84	59	1.69	3.7	18.3					28.5		LIMO SAB
8.2	420	1000		409	947		17.7	85	61	1.54	4.1	18.7					30.6		LIMO SAB
8.4	470	1220		451	1167		18.6	87	63	1.85	4.5	24.8				37	43.3		SABBIA LIM
8.6	460	1230		440	1177		18.6	89	65	1.96	4.2	25.6				36	43.4		SABBIA LIM
8.8	510	1450		481	1397		18.6	90	67	2.21	4.6	31.8				37	56.7		SABBIA LIM
9.0	520	1400		494	1347		18.6	92	69	2.00	4.6	29.6				37	52.7		SABBIA LIM
9.2	520	1500		489	1447		18.6	94	71	2.29	4.5	33.2				37	58.5		SABBIA LIM
9.4	560	1450		534	1397		19.6	96	73	1.87	4.8	29.9				37	54.3		SABBIA LIM
9.6	470	1300		447	1247		18.6	98	75	2.15	3.8	27.8				36	44.7		SABBIA LIM
9.8	500	1000		493	947		17.7	99	77	1.09	4.2	15.7		1.0	3.2		25.8	55	LIMO
10.0	430	660		437	607		16.7	101	78	0.47	3.6	5.9		0.90	2.5		8.5	46	ARG LIM
10.2	400	600		408	547		16.7	102	80	0.42	3.2	4.8		0.83	2.1		6.4	41	ARG LIM
10.4	380	760		379	707		17.7	104	82	1.10	2.9	11.4		0.75	1.8		14.3	36	LIMO
10.6	450	620		460	567		16.7	105	84	0.29	3.6	3.7		0.90	2.5		5.4	48	ARGILLA
10.8	450	620		460	567		16.7	107	86	0.29	3.5	3.7		0.89	2.4		5.3	47	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 17 DESCRIZIONE
11.0	440	620		449	567		16.7	108	88	0.33	3.3	4.1		0.86	2.2		5.6	45	ARGILLA
11.2	430	640		438	587		16.7	109	90	0.43	3.2	5.2		0.82	2.1		6.9	43	ARG LIM
11.4	420	600		429	547		16.7	111	92	0.35	3.0	4.1		0.79	1.9		5.2	41	ARG LIM
11.6	450	620		460	567		16.7	112	94	0.29	3.3	3.7		0.84	2.2		5.0	45	ARGILLA
11.8	460	700		466	647		16.7	113	96	0.49	3.3	6.3		0.84	2.2		8.5	46	ARG LIM
12.0	500	770		505	717		17.7	115	98	0.52	3.5	7.4		0.90	2.4		10.6	52	ARG LIM
12.2	530	830		533	777		17.7	116	100	0.56	3.7	8.5		0.93	2.6		12.6	56	ARG LIM
12.4	520	770		526	717		17.7	118	102	0.45	3.6	6.6		0.91	2.5		9.6	54	ARG LIM
12.6	870	1480		858	1427		19.1	120	104	0.75	6.3	19.7		1.4	6.0		40.1	111	LIMO ARG
12.8	990	1500		983	1447		18.6	121	106	0.53	7.2	16.1		1.5	7.4		34.9	133	ARG LIM
13.0	770	1370		758	1317		19.1	123	108	0.86	5.3	19.4		1.2	4.6		36.0	91	LIMO
13.2	1050	0		1065			19.1	125	110										

DMT 17BIS

16 GEN 2015

GEOSTUDI SRL
AUT.PORT.RAVENNA
PORT HUB
MARINA DI RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 11 kPa
DeltaB = 51 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 2.0 m

Falda a 2.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 17BIS DESCRIZIONE
16.6	421	568		428	517		16.7	139	143	0.31	2.0	3.1		0.56	1.0		2.7	31	ARGILLA
16.8	469	598		477	547		16.7	140	145	0.21	2.4	2.4		0.64	1.3		2.5	38	ARGILLA
17.0	475	609		482	558		16.7	142	147	0.23	2.4	2.6		0.64	1.3		2.7	38	ARGILLA
17.2	515	743		518	692		16.7	143	149	0.47	2.6	6.0		0.69	1.5		6.7	43	ARG LIM
17.4	476	619		483	568		16.7	144	151	0.26	2.3	3.0		0.62	1.2		2.9	38	ARGILLA
17.6	505	644		512	593		16.7	146	153	0.23	2.5	2.8		0.66	1.4		3.0	42	ARGILLA
17.8	498	630		505	579		16.7	147	155	0.21	2.4	2.6		0.64	1.3		2.6	40	ARGILLA
18.0	506	632		514	581		16.7	149	157	0.19	2.4	2.3		0.65	1.3		2.4	41	ARGILLA
18.2	524	655		532	604		16.7	150	159	0.19	2.5	2.5		0.67	1.4		2.7	43	ARGILLA
18.4	509	663		515	612		16.7	151	161	0.27	2.3	3.4		0.63	1.3		3.4	41	ARGILLA
18.6	515	664		522	613		16.7	153	163	0.25	2.3	3.2		0.63	1.3		3.2	41	ARGILLA
18.8	493	977		483	926		17.7	154	165	1.39	2.1	15.4					14.8		LIMO SAB
19.0	520	666		527	615		16.7	156	167	0.24	2.3	3.1		0.63	1.3		3.1	41	ARGILLA
19.2	537	649		545	598		16.7	157	169	0.14	2.4	1.8		0.65	1.3		1.9	43	ARGILLA
19.4	527	674		534	623		16.7	158	171	0.25	2.3	3.1		0.62	1.2		3.1	41	ARGILLA
19.6	525	683		531	632		16.7	160	173	0.28	2.2	3.5		0.61	1.2		3.4	41	ARGILLA
19.8	477	875		471	824		17.7	161	175	1.19	1.8	12.2		0.50	0.88		10.4	32	LIMO
20.0	490	743		491	692		16.7	163	177	0.64	1.9	7.0		0.53	0.95		5.9	34	LIMO ARG
20.2	548	712		554	661		16.7	164	179	0.29	2.3	3.7		0.62	1.2		3.7	43	ARGILLA
20.4	545	686		552	635		16.7	165	181	0.22	2.2	2.9		0.61	1.2		2.8	42	ARGILLA
20.6	531	667		538	616		16.7	167	182	0.22	2.1	2.7		0.58	1.1		2.5	40	ARGILLA
20.8	517	665		524	614		16.7	168	184	0.27	2.0	3.1		0.55	1.0		2.7	37	ARGILLA
21.0	564	675		573	624		16.7	170	186	0.13	2.3	1.8		0.62	1.2		1.8	44	ARGILLA
21.2	498	681		503	630		16.7	171	188	0.40	1.8	4.4		0.50	0.88		3.7	34	ARG LIM
21.4	517	700		522	649		16.7	172	190	0.38	1.9	4.4		0.52	0.94		3.7	36	ARG LIM
21.6	527	684		533	633		16.7	174	192	0.29	2.0	3.5		0.53	0.97		2.9	37	ARGILLA
21.8	523	689		529	638		16.7	175	194	0.33	1.9	3.8		0.52	0.93		3.2	36	ARGILLA
22.0	538	760		541	709		16.7	176	196	0.49	2.0	5.8		0.53	0.97		5.0	38	ARG LIM
22.2	508	699		513	648		16.7	178	198	0.43	1.8	4.7		0.48	0.83		4.0	34	ARG LIM
22.4	608	716		617	665		16.7	179	200	0.12	2.3	1.7		0.63	1.3		1.7	48	ARGILLA
22.6	590	713		598	662		16.7	181	202	0.16	2.2	2.2		0.59	1.2		2.1	45	ARGILLA
22.8	614	756		621	705		16.7	182	204	0.20	2.3	2.9		0.62	1.2		2.9	47	ARGILLA
23.0	613	716		622	665		16.7	183	206	0.10	2.3	1.5		0.61	1.2		1.5	47	ARGILLA
23.2	605	709		614	658		16.7	185	208	0.11	2.2	1.5		0.60	1.2		1.4	46	ARGILLA
23.4	573	712		580	661		16.7	186	210	0.22	2.0	2.8		0.54	0.99		2.4	41	ARGILLA
23.6	590	726		597	675		16.7	187	212	0.20	2.1	2.7		0.56	1.0		2.4	43	ARGILLA
23.8	594	732		601	681		16.7	189	214	0.21	2.1	2.8		0.56	1.0		2.4	43	ARGILLA
24.0	579	726		586	675		16.7	190	216	0.24	1.9	3.1		0.53	0.96		2.6	40	ARGILLA
24.2	606	763		612	712		16.7	192	218	0.25	2.1	3.5		0.56	1.0		3.0	44	ARGILLA
24.4	637	760		645	709		16.7	193	220	0.15	2.2	2.2		0.60	1.2		2.1	48	ARGILLA
24.6	643	799		649	748		16.7	194	222	0.23	2.2	3.4		0.60	1.2		3.2	48	ARGILLA
24.8	633	789		639	738		16.7	196	224	0.24	2.1	3.4		0.58	1.1		3.1	46	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 17BIS DESCRIZIONE
25.0	646	784		653	733		16.7	197	226	0.19	2.2	2.8		0.59	1.1		2.6	48	ARGILLA
25.2	624	763		631	712		16.7	198	228	0.20	2.0	2.8		0.55	1.0		2.4	45	ARGILLA
25.4	586	834		588	783		16.7	200	230	0.55	1.8	6.8		0.49	0.85		5.8	38	ARG LIM
25.6	515	944		508	893		17.7	201	232	1.40	1.4	13.4					11.4		LIMO SAB
25.8	676	1767		636	1716		19.6	203	233	2.69	2.0	37.5				32	39.8		SABBIA LIM
26.0	735	1286		722	1235		17.7	205	235	1.06	2.4	17.8		0.64	1.3		19.0	56	LIMO
26.2	804	1353		791	1302		17.7	206	237	0.92	2.7	17.7		0.71	1.6		20.9	65	LIMO
26.4	699	858		705	807		16.7	208	239	0.22	2.2	3.5		0.61	1.2		3.4	53	ARGILLA
26.6	728	888		734	837		16.7	209	241	0.21	2.4	3.6		0.64	1.3		3.6	56	ARGILLA
26.8	710	865		716	814		16.7	211	243	0.21	2.2	3.4		0.61	1.2		3.3	54	ARGILLA
27.0	675	839		681	788		16.7	212	245	0.25	2.1	3.7		0.56	1.0		3.3	48	ARGILLA
27.2	623	822		627	771		16.7	213	247	0.38	1.8	5.0		0.48	0.84		4.2	41	ARG LIM
27.4	635	1092		626	1041		17.7	215	249	1.10	1.8	14.4		0.48	0.82		12.2	40	LIMO
27.6	572	1266		551	1215		18.6	216	251	2.21	1.4	23.0				30	19.6		SABBIA LIM
27.8	819	2131		767	2080		19.6	218	253	2.55	2.4	45.5				33	54.8		SABBIA LIM
28.0	1024	2295		975	2244		19.1	220	255	1.76	3.3	44.0					63.4		LIMO SAB
28.2	1062	2602		999	2551		19.6	222	257	2.09	3.3	53.9				35	79.9		SABBIA LIM
28.4	690	1788		649	1737		18.6	224	259	2.79	1.7	37.7				31	36.2		SABBIA LIM
28.6	782	1092		781	1041		17.7	226	261	0.50	2.3	9.0		0.62	1.2		9.0	59	ARG LIM
28.8	949	1438		939	1387		19.1	227	263	0.66	3.0	15.6		0.78	1.9		19.6	82	LIMO ARG
29.0	941	1357		934	1306		17.7	229	265	0.56	2.9	12.9		0.77	1.8		16.0	81	ARG LIM
29.2	985	1377		979	1326		17.7	231	267	0.49	3.1	12.0		0.80	2.0		15.6	87	ARG LIM
29.4	912	1307		906	1256		17.7	232	269	0.55	2.7	12.1		0.73	1.6		14.3	76	ARG LIM
29.6	901	1273		897	1222		17.7	234	271	0.52	2.7	11.3		0.71	1.6		13.0	74	ARG LIM
29.8	941	1286		938	1235		17.7	235	273	0.45	2.8	10.3		0.75	1.7		12.4	80	ARG LIM
30.0	952	1355		946	1304		17.7	237	275	0.53	2.8	12.4		0.75	1.7		15.0	81	ARG LIM

DMT 18-14

19 DIC 2014

GEOSTUDI SRL
AUT.PORT.RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 2.0 m

Falda a 2.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 18-14 DESCRIZIONE
2.8	84	404		86	364		16.7	40	8	3.57	2.0	9.7				32	10.5		SABBIA
3.0	259	0		274			16.7	41	10										
3.8	122	656		113	616		17.7	47	18	5.27	2.0	17.5				32	19.6		SABBIA
4.0	285	935		270	895		18.6	48	20	2.49	5.2	21.7				37	41.4		SABBIA LIM
4.2	285	843		275	803		18.6	50	22	2.09	5.1	18.3				37	34.3		SABBIA LIM
4.4	267	770		260	730		18.6	52	24	1.99	4.6	16.3				37	28.8		SABBIA LIM
4.6	275	701		271	661		16.7	53	26	1.58	4.6	13.5					23.7		LIMO SAB
4.8	282	734		277	694		17.7	55	27	1.67	4.6	14.5					25.3		LIMO SAB
5.0	382	1090		364	1050		18.6	56	29	2.05	5.9	23.8				38	47.9		SABBIA LIM
5.2	407	1175		386	1135		18.6	58	31	2.11	6.1	26.0				38	53.0		SABBIA LIM
5.4	332	843		324	803		17.7	60	33	1.65	4.9	16.6					30.0		LIMO SAB
5.6	382	1010		368	970		18.6	62	35	1.81	5.4	20.9				38	40.1		SABBIA LIM
5.8	328	1002		312	962		18.6	63	37	2.37	4.3	22.6				36	39.3		SABBIA LIM
6.0	324	922		312	882		18.6	65	39	2.09	4.2	19.8				36	33.5		SABBIA LIM
6.2	314	868		304	828		18.6	67	41	1.99	3.9	18.2				36	29.6		SABBIA LIM
6.4	320	743		317	703		17.7	69	43	1.41	4.0	13.4					21.5		LIMO SAB
6.6	246	726		240	686		17.7	70	45	2.29	2.8	15.5				34	20.6		SABBIA LIM
6.8	281	649		280	609		16.7	72	47	1.41	3.3	11.4					16.1		LIMO SAB
7.0	303	648		304	608		16.7	73	49	1.20	3.5	10.6		0.88	2.4		15.4	32	LIMO
7.2	267	670		265	630		16.7	74	51	1.71	2.9	12.7					16.6		LIMO SAB
7.4	286	760		280	720		17.7	76	53	1.94	3.0	15.3				34	20.9		SABBIA LIM
7.6	319	777		314	737		17.7	77	55	1.63	3.3	14.7					21.3		LIMO SAB
7.8	318	813		311	773		18.6	79	57	1.82	3.2	16.0				35	22.9		SABBIA LIM
8.0	390	889		383	849		17.7	81	59	1.44	4.0	16.2					26.1		LIMO SAB
8.2	374	936		364	896		17.7	82	61	1.76	3.7	18.5					28.6		LIMO SAB
8.4	383	968		372	928		18.6	84	63	1.80	3.7	19.3				36	30.0		SABBIA LIM
8.6	339	916		328	876		18.6	86	65	2.08	3.1	19.0				35	26.7		SABBIA LIM
8.8	448	1213		428	1173		18.6	87	67	2.07	4.1	25.9				36	43.4		SABBIA LIM
9.0	418	1105		401	1065		18.6	89	69	1.99	3.7	23.0				36	36.4		SABBIA LIM
9.2	317	401		331	361		14.7	91	71	0.12	2.9	1.1		0.75	1.7		1.3	31	FANGO
9.4	290	393		303	353		15.7	92	73	0.22	2.5	1.7		0.67	1.4		1.9	27	ARGILLA
9.6	311	409		324	369		15.7	93	75	0.18	2.7	1.6		0.71	1.6		1.8	29	ARGILLA
9.8	322	399		336	359		13.7	94	77	0.09	2.8	0.8		0.73	1.6		0.9	31	FANGO E/O TORBA
10.0	301	396		314	356		15.7	95	78	0.18	2.5	1.5		0.67	1.4		1.6	27	ARGILLA
10.2	302	388		315	348		14.7	96	80	0.14	2.4	1.1		0.66	1.4		1.2	27	FANGO
10.4	306	405		319	365		15.7	97	82	0.20	2.4	1.6		0.65	1.4		1.7	27	ARGILLA
10.6	300	390		313	350		15.7	98	84	0.16	2.3	1.3		0.63	1.3		1.3	26	ARGILLA
10.8	305	393		318	353		15.7	100	86	0.15	2.3	1.2		0.63	1.3		1.2	27	ARGILLA
11.0	308	402		321	362		15.7	101	88	0.18	2.3	1.4		0.62	1.3		1.4	27	ARGILLA
11.2	330	420		343	380		15.7	102	90	0.15	2.5	1.3		0.67	1.4		1.4	29	ARGILLA
11.4	335	430		348	390		15.7	103	92	0.16	2.5	1.5		0.67	1.4		1.6	30	ARGILLA
11.6	332	436		345	396		15.7	104	94	0.21	2.4	1.8		0.65	1.3		1.9	29	ARGILLA

11.8	330	414		344	374		14.7	105	96	0.12	2.3	1.1		0.63	1.3		1.1	28	FANGO
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 18-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
12.0	316	419		329	379		15.7	106	98	0.22	2.2	1.7		0.59	1.1		1.6	26	ARGILLA
12.2	342	429		355	389		14.7	108	100	0.13	2.4	1.2		0.64	1.3		1.2	29	FANGO
12.4	331	460		342	420		15.7	109	102	0.32	2.2	2.7		0.60	1.2		2.6	27	ARGILLA
12.6	389	864		383	824		17.7	110	104	1.58	2.5	15.3					18.1		LIMO SAB
12.8	392	491		405	451		15.7	111	106	0.15	2.7	1.6		0.71	1.6		1.8	35	ARGILLA
13.0	376	476		389	436		15.7	113	108	0.17	2.5	1.6		0.67	1.4		1.8	33	ARGILLA
13.2	391	498		403	458		15.7	114	110	0.19	2.6	1.9		0.69	1.5		2.1	34	ARGILLA
13.4	359	467		371	427		15.7	115	112	0.21	2.3	1.9		0.61	1.2		1.9	29	ARGILLA
13.6	386	488		399	448		15.7	116	114	0.17	2.5	1.7		0.66	1.4		1.8	33	ARGILLA
13.8	400	501		413	461		15.7	117	116	0.16	2.5	1.7		0.68	1.4		1.8	35	ARGILLA
14.0	405	495		418	455		15.7	118	118	0.12	2.5	1.3		0.68	1.5		1.4	35	ARGILLA
14.2	419	505		432	465		14.7	120	120	0.10	2.6	1.1		0.70	1.5		1.3	37	FANGO
14.4	430	528		443	488		15.7	121	122	0.14	2.7	1.6		0.71	1.6		1.8	38	ARGILLA
14.6	392	641		397	601		16.7	122	124	0.74	2.2	7.1		0.61	1.2		7.0	31	LIMO ARG
14.8	408	516		420	476		15.7	123	126	0.19	2.4	1.9		0.64	1.3		2.0	34	ARGILLA
15.0	426	542		438	502		16.7	124	128	0.21	2.5	2.2		0.67	1.4		2.4	36	ARGILLA
15.2	398	515		410	475		15.7	126	129	0.23	2.2	2.3		0.60	1.2		2.2	32	ARGILLA
15.4	444	559		456	519		16.7	127	131	0.19	2.6	2.2		0.68	1.5		2.4	38	ARGILLA
15.6	441	551		453	511		15.7	128	133	0.18	2.5	2.0		0.67	1.4		2.2	37	ARGILLA
15.8	479	573		492	533		15.7	129	135	0.11	2.8	1.4		0.73	1.7		1.7	43	ARGILLA
16.0	454	572		466	532		16.7	131	137	0.20	2.5	2.3		0.67	1.4		2.5	38	ARGILLA
16.2	435	543		447	503		15.7	132	139	0.18	2.3	1.9		0.63	1.3		1.9	35	ARGILLA
16.4	490	583		503	543		15.7	133	141	0.11	2.7	1.4		0.72	1.6		1.6	43	ARGILLA
16.6	454	630		463	590		16.7	134	143	0.40	2.4	4.4		0.64	1.3		4.5	37	ARG LIM
16.8	474	582		486	542		16.7	136	145	0.16	2.5	1.9		0.67	1.4		2.1	40	ARGILLA
17.0	495	596		508	556		15.7	137	147	0.13	2.6	1.7		0.70	1.5		1.9	42	ARGILLA
17.2	476	588		488	548		16.7	138	149	0.18	2.5	2.1		0.66	1.4		2.2	39	ARGILLA
17.4	513	592		527	552		13.7	140	151	0.07	2.7	0.9		0.72	1.6		1.0	45	FANGO E/O TORBA
17.6	499	606		511	566		16.7	140	153	0.15	2.6	1.9		0.68	1.5		2.1	42	ARGILLA
17.8	495	612		507	572		16.7	142	155	0.18	2.5	2.3		0.67	1.4		2.4	41	ARGILLA
18.0	530	604		544	564		13.7	143	157	0.05	2.7	0.7		0.72	1.6		0.8	46	FANGO E/O TORBA
18.2	480	629		490	589		16.7	144	159	0.30	2.3	3.4		0.62	1.2		3.4	38	ARGILLA
18.4	497	614		509	574		16.7	145	161	0.19	2.4	2.3		0.65	1.3		2.3	40	ARGILLA
18.6	502	612		514	572		16.7	147	163	0.16	2.4	2.0		0.65	1.3		2.1	40	ARGILLA
18.8	513	626		525	586		16.7	148	165	0.17	2.4	2.1		0.65	1.4		2.2	42	ARGILLA
19.0	513	612		526	572		15.7	149	167	0.13	2.4	1.6		0.65	1.3		1.7	41	ARGILLA
19.2	548	670		560	630		16.7	151	169	0.18	2.6	2.4		0.69	1.5		2.7	46	ARGILLA
19.4	538	660		550	620		16.7	152	171	0.19	2.5	2.4		0.67	1.4		2.6	44	ARGILLA
19.6	542	630		555	590		15.7	153	173	0.09	2.5	1.2		0.67	1.4		1.3	44	ARGILLA
19.8	488	575		501	535		14.7	155	175	0.10	2.1	1.2		0.57	1.1		1.1	36	FANGO
20.0	522	610		535	570		15.7	156	177	0.10	2.3	1.2		0.62	1.3		1.2	41	ARGILLA
20.2	540	661		552	621		16.7	157	179	0.19	2.4	2.4		0.64	1.3		2.5	43	ARGILLA
20.4	535	663		546	623		16.7	158	181	0.21	2.3	2.7		0.63	1.3		2.7	42	ARGILLA
20.6	492	763		496	723		16.7	159	182	0.72	2.0	7.9		0.54	0.98		6.7	34	LIMO ARG
20.8	505	736		511	696		16.7	161	184	0.57	2.0	6.4		0.55	1.0		5.6	36	ARG LIM
21.0	520	601		534	561		13.7	162	186	0.08	2.1	0.9		0.58	1.1		0.9	39	FANGO E/O TORBA
21.2	540	617		554	577		13.7	163	188	0.06	2.2	0.8		0.61	1.2		0.8	41	FANGO E/O TORBA
21.4	527	646		539	606		16.7	164	190	0.19	2.1	2.3		0.58	1.1		2.1	39	ARGILLA
21.6	618	692		632	652		13.7	165	192	0.05	2.7	0.7		0.71	1.6		0.8	52	FANGO E/O TORBA
21.8	574	679		586	639		16.7	166	194	0.13	2.4	1.8		0.64	1.3		1.9	45	ARGILLA
22.0	611	688		625	648		13.7	167	196	0.05	2.6	0.8		0.69	1.5		0.9	50	FANGO E/O TORBA
22.2	575	679		588	639		16.7	168	198	0.13	2.3	1.8		0.63	1.3		1.8	44	ARGILLA
22.4	604	701		617	661		16.7	169	200	0.11	2.5	1.5		0.66	1.4		1.6	48	ARGILLA
22.6	587	687		600	647		16.7	171	202	0.12	2.3	1.6		0.63	1.3		1.6	45	ARGILLA
22.8	584	698		596	658		16.7	172	204	0.16	2.3	2.1		0.62	1.2		2.1	45	ARGILLA
23.0	674	729		689	689		13.7	174	206		2.8	0.0		0.74	1.7			58	FANGO E/O TORBA
23.2	620	733		632	693		16.7	174	208	0.14	2.4	2.1		0.65	1.4		2.2	49	ARGILLA
23.4	669	761		682	721		15.7	176	210	0.08	2.7	1.3		0.71	1.6		1.6	56	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 18-14 DESCRIZIONE
23.6	675	782		687	742		16.7	177	212	0.11	2.7	1.9		0.71	1.6		2.2	56	ARGILLA
23.8	670	731		685	691		13.7	178	214	0.01	2.6	0.2		0.70	1.5		0.2	56	FANGO E/O TORBA
24.0	569	668		582	628		15.7	179	216	0.13	2.0	1.6		0.56	1.0		1.4	40	ARGILLA
24.2	566	692		577	652		16.7	180	218	0.21	2.0	2.6		0.54	1.0		2.2	40	ARGILLA
24.4	582	701		594	661		16.7	182	220	0.18	2.1	2.3		0.56	1.0		2.1	41	ARGILLA
24.6	580	754		589	714		16.7	183	222	0.34	2.0	4.3		0.55	1.0		3.7	40	ARG LIM
24.8	523	618		536	578		15.7	184	224	0.13	1.7	1.5		0.46	<0.8		1.2	33	ARGILLA
25.0	579	693		591	653		16.7	186	226	0.17	2.0	2.1		0.54	0.98		1.8	40	ARGILLA
25.2	725	1669		696	1629		19.6	187	228	1.99	2.5	32.4				33	39.1		SABBIA LIM
25.4	678	782		691	742		16.7	189	230	0.11	2.4	1.8		0.66	1.4		1.9	53	ARGILLA
25.6	672	773		685	733		16.7	190	232	0.11	2.4	1.7		0.64	1.3		1.7	52	ARGILLA
25.8	680	762		694	722		13.7	192	233	0.06	2.4	1.0		0.65	1.3		1.0	53	FANGO E/O TORBA
26.0	655	730		669	690		13.7	192	235	0.05	2.3	0.7		0.61	1.2		0.7	49	FANGO E/O TORBA
26.2	621	739		633	699		16.7	193	237	0.17	2.0	2.3		0.56	1.0		2.0	44	ARGILLA
26.4	641	725		655	685		13.7	195	239	0.07	2.1	1.1		0.58	1.1		1.0	46	FANGO E/O TORBA
26.6	727	1548		704	1508		17.7	195	241	1.74	2.4	27.9					31.5		LIMO SAB
26.8	606	1250		592	1210		17.7	197	243	1.78	1.8	21.5					18.4		LIMO SAB
27.0	667	975		669	935		17.7	198	245	0.63	2.1	9.2		0.58	1.1		8.5	47	LIMO ARG
27.2	807	1860		772	1820		19.6	200	247	2.00	2.6	36.4				34	45.5		SABBIA LIM
27.4	724	1981		679	1941		19.6	202	249	2.94	2.1	43.8				33	50.3		SABBIA LIM
27.6	697	1386		680	1346		17.7	204	251	1.55	2.1	23.1					23.1		LIMO SAB
27.8	788	1492		771	1452		19.1	206	253	1.32	2.5	23.6					27.2		LIMO SAB
28.0	908	1257		908	1217		17.7	207	255	0.47	3.1	10.7		0.82	2.0		14.1	80	ARG LIM
28.2	940	1379		936	1339		18.6	209	257	0.59	3.2	14.0		0.84	2.1		18.9	84	ARG LIM
28.4	934	1335		932	1295		17.7	211	259	0.54	3.2	12.6		0.83	2.1		16.8	83	ARG LIM
28.6	837	1044		844	1004		17.7	212	261	0.27	2.7	5.5		0.73	1.6		6.5	69	ARGILLA
28.8	795	1026		801	986		17.7	214	263	0.34	2.5	6.4		0.67	1.4		7.0	63	ARG LIM
29.0	685	780		698	740		16.7	215	265	0.10	2.0	1.5		0.55	1.0		1.2	48	ARGILLA
29.2	635	870		641	830		16.7	217	267	0.51	1.7	6.6		0.47	<0.8		5.6	40	ARG LIM
29.4	699	1336		685	1296		17.7	218	269	1.47	1.9	21.2					19.0		LIMO SAB
29.6	772	1455		756	1415		17.7	220	271	1.36	2.2	22.9					23.5		LIMO SAB
29.8	697	1370		681	1330		17.7	221	273	1.59	1.8	22.5					19.7		LIMO SAB
30.0	642	1257		629	1217		17.7	223	275	1.66	1.6	20.4					17.3		LIMO SAB

DMT19-14

5 DIC 2014

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT19-14 DESCRIZIONE
0.4	249	779		240	739		18.6	7	0	2.08	35.3	17.3				46	63.9		SABBIA LIM
0.6	218	596		217	556		16.7	11	0	1.56	20.6	11.8					37.5		LIMO SAB
0.8	195	461		199	421		16.7	14	0	1.11	14.4	7.7		2.3	21.8		21.9	36	LIMO
1.0	160	410		165	370		16.7	17	0	1.24	9.6	7.1					17.5		LIMO SAB
1.2	122	279		132	239		15.7	19	2	0.82	7.0	3.7		1.5	7.1		7.9	20	LIMO
1.4	173	357		182	317		16.7	20	4	0.76	9.0	4.7		1.7	10.5		11.2	28	LIMO ARG
1.6	190	374		199	334		16.7	21	6	0.70	9.1	4.7		1.7	10.7		11.3	31	LIMO ARG
1.8	187	382		195	342		16.7	22	8	0.79	8.3	5.1		1.6	9.3		11.8	29	LIMO ARG
2.0	245	487		251	447		16.7	24	10	0.82	10.1	6.8		1.8	12.5		17.1	40	LIMO
2.2	268	496		274	456		16.7	25	12	0.69	10.4	6.3		1.9	13.1		16.0	44	LIMO ARG
2.4	312	597		316	557		16.7	27	14	0.80	11.3	8.4		2.0	15.0		21.9	51	LIMO
2.6	447	1515		411	1475		18.6	28	16	2.69	14.1	36.9				42	104.4		SABBIA LIM
2.8	738	1938		696	1898		19.1	30	18	1.77	22.8	41.7					136.8		LIMO SAB
3.0	499	1137		485	1097		17.7	32	20	1.32	14.7	21.2					60.9		LIMO SAB
3.2	227	392		237	352		16.7	33	22	0.54	6.5	4.0		1.4	6.3		8.2	32	ARG LIM
3.4	358	850		351	810		17.7	35	24	1.40	9.5	15.9					39.0		LIMO SAB
3.6	336	1216		310	1176		18.6	36	26	3.05	7.9	30.1				39	68.9		SABBIA LIM
3.8	415	943		406	903		17.7	38	27	1.31	10.0	17.2					43.1		LIMO SAB
4.0	280	735		275	695		17.7	39	29	1.71	6.2	14.6					29.8		LIMO SAB
4.2	212	308		225	268		15.7	41	31	0.22	4.7	1.5		1.1	3.8		2.6	26	ARGILLA
4.4	209	324		221	284		15.7	42	33	0.34	4.4	2.2		1.1	3.5		3.6	25	ARG LIM
4.6	228	354		239	314		15.7	43	35	0.37	4.7	2.6		1.1	3.8		4.5	28	ARG LIM
4.8	277	420		288	380		16.7	45	37	0.37	5.6	3.2		1.3	5.0		6.1	36	ARG LIM
5.0	241	388		251	348		15.7	46	39	0.46	4.6	3.4		1.1	3.7		5.7	29	ARG LIM
5.2	190	334		201	294		15.7	47	41	0.59	3.4	3.2		0.86	2.3		4.5	20	ARG LIM
5.4	354	1017		339	977		18.6	48	43	2.16	6.1	22.2				38	45.3		SABBIA LIM
5.6	470	1292		447	1252		18.6	50	45	2.01	8.0	27.9				39	64.1		SABBIA LIM
5.8	396	1107		378	1067		18.6	52	47	2.08	6.4	23.9				38	49.8		SABBIA LIM
6.0	354	1047		337	1007		18.6	54	49	2.33	5.4	23.2				38	44.9		SABBIA LIM
6.2	484	1240		464	1200		17.7	55	51	1.78	7.5	25.5					56.8		LIMO SAB
6.4	313	861		303	821		18.6	57	53	2.07	4.4	18.0				37	31.2		SABBIA LIM
6.6	400	1083		384	1043		18.6	59	55	2.01	5.6	22.9				38	44.8		SABBIA LIM
6.8	382	963		371	923		17.7	60	57	1.76	5.2	19.2					36.0		LIMO SAB
7.0	379	1080		362	1040		18.6	62	59	2.24	4.9	23.5				37	43.3		SABBIA LIM
7.2	432	1113		416	1073		18.6	64	61	1.85	5.6	22.8				38	44.4		SABBIA LIM
7.4	473	1140		457	1100		17.7	66	63	1.63	6.0	22.3					44.9		LIMO SAB
7.6	414	1099		398	1059		18.6	67	65	1.99	5.0	23.0				37	42.3		SABBIA LIM
7.8	369	912		360	872		17.7	69	67	1.75	4.3	17.8					30.0		LIMO SAB
8.0	377	981		365	941		18.6	70	69	1.95	4.2	20.0				36	33.7		SABBIA LIM
8.2	388	920		379	880		17.7	72	71	1.62	4.3	17.4					29.3		LIMO SAB
8.4	348	769		345	729		17.7	74	73	1.41	3.7	13.3					20.4		LIMO SAB
8.6	340	736		338	696		16.7	75	75	1.36	3.5	12.4					18.3		LIMO SAB

8.8	369	843		363	803		17.7	77	77	1.54	3.7	15.3					23.7		LIMO SAB
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT19-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
9.0	361	848		354	808		17.7	78	78	1.64	3.5	15.7					23.6		LIMO SAB
9.2	391	851		386	811		17.7	80	80	1.39	3.8	14.8					23.1		LIMO SAB
9.4	404	919		396	879		17.7	81	82	1.54	3.8	16.8					26.5		LIMO SAB
9.6	428	1082		413	1042		18.6	83	84	1.91	4.0	21.8				36	35.6		SABBIA LIM
9.8	434	1045		421	1005		17.7	85	86	1.74	3.9	20.3					32.8		LIMO SAB
10.0	546	1210		531	1170		17.7	86	88	1.45	5.1	22.2					41.1		LIMO SAB
10.2	491	1215		473	1175		18.6	88	90	1.84	4.3	24.4				36	41.8		SABBIA LIM
10.4	450	1083		436	1043		17.7	90	92	1.76	3.8	21.1					33.5		LIMO SAB
10.6	453	1196		434	1156		18.6	91	94	2.13	3.7	25.1				36	39.7		SABBIA LIM
10.8	486	1189		469	1149		18.6	93	96	1.83	4.0	23.6				36	38.6		SABBIA LIM
11.0	390	547		400	507		16.7	95	98	0.35	3.2	3.7		0.82	2.1		4.9	37	ARG LIM
11.2	398	552		408	512		16.7	96	100	0.34	3.2	3.6		0.83	2.1		4.8	38	ARG LIM
11.4	411	555		422	515		16.7	98	102	0.29	3.3	3.2		0.84	2.2		4.4	40	ARGILLA
11.6	405	553		415	513		16.7	99	104	0.31	3.1	3.4		0.82	2.0		4.5	38	ARGILLA
11.8	409	561		419	521		16.7	100	106	0.33	3.1	3.5		0.81	2.0		4.6	39	ARGILLA
12.0	417	571		427	531		16.7	102	108	0.33	3.1	3.6		0.81	2.0		4.7	39	ARGILLA
12.2	413	580		422	540		16.7	103	110	0.38	3.0	4.1		0.79	1.9		5.2	38	ARG LIM
12.4	414	625		421	585		16.7	104	112	0.53	3.0	5.7		0.78	1.9		7.1	38	ARG LIM
12.6	426	606		435	566		16.7	106	114	0.41	3.0	4.6		0.79	1.9		5.8	39	ARG LIM
12.8	401	568		410	528		16.7	107	116	0.40	2.7	4.1		0.73	1.6		4.8	35	ARG LIM
13.0	458	625		467	585		16.7	109	118	0.34	3.2	4.1		0.83	2.1		5.5	43	ARG LIM
13.2	444	600		454	560		16.7	110	120	0.32	3.0	3.7		0.79	1.9		4.7	41	ARGILLA
13.4	429	596		438	556		16.7	111	122	0.37	2.8	4.1		0.75	1.7		4.9	38	ARG LIM
13.6	442	604		452	564		16.7	113	124	0.34	2.9	3.9		0.77	1.8		4.8	40	ARG LIM
13.8	435	587		445	547		16.7	114	126	0.32	2.8	3.5		0.74	1.7		4.2	38	ARGILLA
14.0	432	590		442	550		16.7	115	128	0.34	2.7	3.8		0.72	1.6		4.4	37	ARG LIM
14.2	446	605		456	565		16.7	117	129	0.33	2.8	3.8		0.74	1.7		4.5	39	ARG LIM
14.4	479	648		488	608		16.7	118	131	0.34	3.0	4.2		0.79	1.9		5.3	44	ARG LIM
14.6	432	565		443	525		16.7	120	133	0.26	2.6	2.8		0.69	1.5		3.2	36	ARGILLA
14.8	458	605		468	565		16.7	121	135	0.29	2.8	3.4		0.73	1.7		4.0	40	ARGILLA
15.0	458	618		468	578		16.7	122	137	0.33	2.7	3.8		0.72	1.6		4.4	39	ARG LIM
15.2	447	615		456	575		16.7	124	139	0.37	2.6	4.1		0.69	1.5		4.6	37	ARG LIM
15.4	469	609		480	569		16.7	125	141	0.26	2.7	3.1		0.72	1.6		3.6	40	ARGILLA
15.6	501	748		506	708		16.7	126	143	0.56	2.9	7.0		0.76	1.8		8.5	44	ARG LIM
15.8	483	620		494	580		16.7	128	145	0.25	2.7	3.0		0.72	1.6		3.5	41	ARGILLA
16.0	447	604		457	564		16.7	129	147	0.35	2.4	3.7		0.65	1.3		3.9	36	ARG LIM
16.2	482	628		492	588		16.7	131	149	0.28	2.6	3.3		0.70	1.5		3.8	40	ARGILLA
16.4	478	631		488	591		16.7	132	151	0.31	2.6	3.6		0.68	1.5		3.9	39	ARGILLA
16.6	494	678		503	638		16.7	133	153	0.39	2.6	4.7		0.70	1.5		5.3	41	ARG LIM
16.8	523	661		534	621		16.7	135	155	0.23	2.8	3.0		0.74	1.7		3.6	45	ARGILLA
17.0	525	689		535	649		16.7	136	157	0.30	2.8	4.0		0.73	1.7		4.7	45	ARGILLA
17.2	535	699		545	659		16.7	137	159	0.30	2.8	4.0		0.74	1.7		4.8	46	ARGILLA
17.4	547	723		556	683		16.7	139	161	0.32	2.8	4.4		0.75	1.7		5.3	47	ARGILLA
17.6	553	741		561	701		16.7	140	163	0.35	2.8	4.8		0.75	1.7		5.9	48	ARG LIM
17.8	543	720		552	680		16.7	141	165	0.33	2.7	4.4		0.73	1.6		5.2	46	ARG LIM
18.0	512	679		521	639		16.7	143	167	0.33	2.5	4.1		0.67	1.4		4.4	41	ARG LIM
18.2	549	686		560	646		16.7	144	169	0.22	2.7	3.0		0.72	1.6		3.5	46	ARGILLA
18.4	562	753		570	713		16.7	146	171	0.36	2.7	5.0		0.73	1.6		5.8	48	ARG LIM
18.6	578	758		587	718		16.7	147	173	0.32	2.8	4.6		0.74	1.7		5.5	50	ARGILLA
18.8	573	760		581	720		16.7	148	175	0.34	2.7	4.8		0.73	1.6		5.6	48	ARG LIM
19.0	590	772		599	732		16.7	150	177	0.32	2.8	4.6		0.74	1.7		5.6	51	ARGILLA
19.2	546	730		555	690		16.7	151	179	0.36	2.5	4.7		0.67	1.4		5.0	44	ARG LIM
19.4	561	737		570	697		16.7	152	181	0.33	2.6	4.4		0.68	1.5		4.9	46	ARGILLA
19.6	620	875		625	835		17.7	154	182	0.47	2.9	7.3		0.76	1.8		8.9	53	ARG LIM
19.8	603	791		611	751		16.7	155	184	0.33	2.7	4.8		0.73	1.6		5.7	51	ARGILLA
20.0	584	753		593	713		16.7	157	186	0.29	2.6	4.2		0.69	1.5		4.6	48	ARGILLA
20.2	594	749		604	709		16.7	158	188	0.25	2.6	3.6		0.70	1.5		4.1	49	ARGILLA
20.4	690	1448		670	1408		17.7	160	190	1.54	3.0	25.6					34.4		LIMO SAB

20.6	552	730		561	690		16.7	161	192	0.35	2.3	4.5		0.62	1.2		4.4	42	ARG LIM
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT19-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
20.8	621	781		631	741		16.7	162	194	0.25	2.7	3.8		0.71	1.6		4.4	52	ARGILLA
21.0	605	822		612	782		16.7	164	196	0.41	2.5	5.9		0.68	1.5		6.5	49	ARG LIM
21.2	560	730		569	690		16.7	165	198	0.33	2.2	4.2		0.61	1.2		4.1	42	ARGILLA
21.4	602	1100		595	1060		17.7	167	200	1.18	2.4	16.1		0.64	1.3		17.4	45	LIMO
21.6	628	808		637	768		16.7	168	202	0.30	2.6	4.6		0.69	1.5		5.1	51	ARGILLA
21.8	577	749		586	709		16.7	170	204	0.32	2.3	4.3		0.61	1.2		4.1	43	ARGILLA
22.0	669	1153		663	1113		17.7	171	206	0.99	2.7	15.6		0.71	1.6		18.4	54	LIMO
22.2	547	826		551	786		17.7	172	208	0.69	2.0	8.2		0.54	0.99		7.0	38	LIMO ARG
22.4	558	733		567	693		16.7	174	210	0.35	2.1	4.4		0.56	1.0		3.8	40	ARG LIM
22.6	567	861		570	821		17.7	175	212	0.70	2.0	8.7		0.56	1.0		7.7	40	LIMO ARG
22.8	549	812		554	772		16.7	177	214	0.64	1.9	7.6		0.52	0.94		6.4	37	LIMO ARG
23.0	610	785		619	745		16.7	178	216	0.31	2.3	4.4		0.61	1.2		4.3	46	ARGILLA
23.2	645	825		654	785		16.7	180	218	0.30	2.4	4.6		0.65	1.4		4.8	50	ARGILLA
23.4	660	821		670	781		16.7	181	220	0.25	2.5	3.9		0.67	1.4		4.1	52	ARGILLA
23.6	635	796		645	756		16.7	182	222	0.26	2.3	3.9		0.63	1.3		3.9	48	ARGILLA
23.8	668	835		677	795		16.7	184	224	0.26	2.5	4.1		0.66	1.4		4.3	53	ARGILLA
24.0	667	847		676	807		16.7	185	226	0.29	2.4	4.6		0.65	1.4		4.8	52	ARGILLA
24.2	654	930		658	890		17.7	187	228	0.54	2.3	8.1		0.62	1.3		8.0	49	ARG LIM
24.4	677	835		687	795		16.7	188	230	0.24	2.4	3.8		0.65	1.4		3.9	53	ARGILLA
24.6	683	862		692	822		16.7	190	232	0.28	2.4	4.5		0.65	1.4		4.7	53	ARGILLA
24.8	702	883		711	843		16.7	191	233	0.28	2.5	4.6		0.67	1.4		5.0	56	ARGILLA
25.0	704	889		712	849		16.7	192	235	0.29	2.5	4.7		0.67	1.4		5.1	55	ARGILLA
25.2	724	924		732	884		17.7	194	237	0.31	2.6	5.3		0.68	1.5		5.8	58	ARGILLA
25.4	697	844		707	804		16.7	195	239	0.21	2.4	3.4		0.65	1.3		3.5	54	ARGILLA
25.6	630	1348		612	1308		18.6	197	241	1.88	1.9	24.2				32	22.4		SABBIA LIM
25.8	699	1600		672	1560		18.6	198	243	2.07	2.2	30.8				33	33.2		SABBIA LIM
26.0	650	1078		646	1038		17.7	200	245	0.98	2.0	13.6		0.55	1.0		12.1	44	LIMO
26.2	610	779		619	739		16.7	202	247	0.32	1.8	4.2		0.50	0.88		3.5	40	ARGILLA
26.4	664	915		669	875		17.7	203	249	0.49	2.1	7.1		0.56	1.1		6.3	47	ARG LIM
26.6	725	875		735	835		16.7	205	251	0.21	2.4	3.5		0.64	1.3		3.5	56	ARGILLA
26.8	736	931		744	891		17.7	206	253	0.30	2.4	5.1		0.64	1.3		5.3	56	ARGILLA
27.0	729	888		739	848		16.7	208	255	0.23	2.3	3.8		0.63	1.3		3.8	55	ARGILLA
27.2	726	989		731	949		17.7	209	257	0.46	2.3	7.6		0.61	1.2		7.4	54	ARG LIM
27.4	737	924		745	884		17.7	211	259	0.28	2.3	4.8		0.62	1.3		4.8	55	ARGILLA
27.6	737	995		742	955		17.7	212	261	0.44	2.3	7.4		0.61	1.2		7.2	55	ARG LIM
27.8	674	862		682	822		16.7	214	263	0.33	2.0	4.8		0.53	0.97		4.1	46	ARG LIM
28.0	769	1510		750	1470		17.7	215	265	1.49	2.3	25.0					26.5		LIMO SAB
28.2	681	1044		681	1004		17.7	217	267	0.78	1.9	11.2		0.52	0.93		9.5	45	LIMO ARG
28.4	758	1161		756	1121		17.7	218	269	0.75	2.2	12.7		0.60	1.2		12.4	55	LIMO ARG
28.6	778	1964		736	1924		19.6	220	271	2.55	2.1	41.2				33	45.6		SABBIA LIM
28.8	760	1630		734	1590		19.6	222	273	1.85	2.1	29.7				32	30.3		SABBIA LIM
29.0	909	1745		885	1705		19.1	224	275	1.34	2.7	28.5					35.0		LIMO SAB
29.2	1029	1634		1017	1594		19.1	226	277	0.78	3.3	20.0		0.84	2.2		27.5	92	LIMO ARG
29.4	1044	2008		1014	1968		19.1	227	279	1.30	3.2	33.1					46.2		LIMO SAB
29.6	1469	2891		1416	2851		20.6	229	281	1.26	5.0	49.8					90.1		LIMO SAB
29.8	1865	3256		1813	3216		20.6	231	283	0.92	6.6	48.7		1.4	6.5		101.5	227	LIMO
30.0	2489	4339		2414	4299		20.6	234	284	0.88	9.1	65.4		1.7	10.7		157.4	342	LIMO

DMT 20-14

4 DIC 2014

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 20-14 DESCRIZIONE
1.6	244	714		238	674		17.7	21	6	1.88	10.9	15.1				41	39.0		SABBIA LIM
1.8	157	279		169	239		15.7	23	8	0.44	7.0	2.4		1.5	7.1		5.2	24	ARG LIM
2.0	189	275		202	235		14.7	24	10	0.17	8.0	1.1		1.6	8.7		2.6	30	FANGO
2.2	144	250		156	210		15.7	25	12	0.37	5.8	1.9		1.3	5.2		3.6	21	ARG LIM
2.4	181	596		178	556		17.7	26	14	2.30	6.3	13.1				38	27.2		SABBIA LIM
2.6	256	895		242	855		18.6	28	16	2.71	8.1	21.3				40	49.3		SABBIA LIM
2.8	196	562		195	522		17.7	30	18	1.84	6.0	11.3				38	22.9		SABBIA LIM
3.0	200	579		199	539		17.7	31	20	1.90	5.8	11.8				38	23.4		SABBIA LIM
3.2	228	677		223	637		17.7	33	22	2.05	6.2	14.4				38	29.4		SABBIA LIM
3.4	163	563		161	523		17.7	34	24	2.64	4.0	12.6				36	21.2		SABBIA LIM
3.6	198	544		198	504		16.7	36	26	1.77	4.8	10.6					19.2		LIMO SAB
3.8	225	313		238	273		15.7	37	27	0.16	5.7	1.2		1.3	5.1		2.3	30	ARGILLA
4.0	198	360		208	320		15.7	38	29	0.63	4.6	3.9		1.1	3.7		6.7	24	LIMO ARG
4.2	228	358		239	318		15.7	40	31	0.38	5.3	2.7		1.2	4.5		5.0	29	ARG LIM
4.4	255	380		267	340		15.7	41	33	0.32	5.7	2.6		1.3	5.2		4.9	33	ARGILLA
4.6	299	399		312	359		15.7	42	35	0.17	6.6	1.6		1.4	6.4		3.4	41	ARGILLA
4.8	289	379		302	339		15.7	43	37	0.14	6.1	1.3		1.3	5.8		2.6	39	ARGILLA
5.0	267	359		280	319		15.7	44	39	0.16	5.4	1.3		1.2	4.8		2.5	34	ARGILLA
5.2	252	316		267	276		13.7	45	41	0.04	5.0	0.3		1.2	4.1		0.6	31	FANGO E/O TORBA
5.4	267	351		281	311		14.7	46	43	0.13	5.1	1.1		1.2	4.4		1.9	33	FANGO
5.6	254	330		268	290		13.7	47	45	0.10	4.7	0.8		1.1	3.8		1.3	30	FANGO E/O TORBA
5.8	227	303		241	263		14.7	48	47	0.11	4.0	0.8		0.99	3.0		1.2	25	FANGO
6.0	200	673		194	633		17.7	49	49	3.03	3.0	15.2				34	22.0		SABBIA LIM
6.2	288	875		276	835		18.6	51	51	2.48	4.5	19.4				37	34.3		SABBIA LIM
6.4	354	1016		339	976		18.6	52	53	2.23	5.5	22.1				38	43.0		SABBIA LIM
6.6	311	950		297	910		18.6	54	55	2.54	4.5	21.3				37	37.8		SABBIA LIM
6.8	338	945		325	905		18.6	56	57	2.16	4.8	20.1				37	36.7		SABBIA LIM
7.0	372	1059		355	1019		18.6	58	59	2.24	5.1	23.0				37	43.5		SABBIA LIM
7.2	340	1102		320	1062		18.6	59	61	2.87	4.4	25.8				36	45.6		SABBIA LIM
7.4	280	795		272	755		17.7	61	63	2.31	3.4	16.8				35	25.5		SABBIA LIM
7.6	325	902		314	862		18.6	63	65	2.20	4.0	19.0				36	31.4		SABBIA LIM
7.8	342	882		333	842		18.6	64	67	1.91	4.1	17.7				36	29.5		SABBIA LIM
8.0	209	627		206	587		17.7	66	69	2.78	2.1	13.2				32	14.7		SABBIA LIM
8.2	285	823		276	783		17.7	68	71	2.47	3.0	17.6				35	25.0		SABBIA LIM
8.4	348	882		339	842		18.6	69	73	1.89	3.8	17.5				36	27.9		SABBIA LIM
8.6	323	919		311	879		18.6	71	75	2.40	3.3	19.7				35	29.6		SABBIA LIM
8.8	317	866		307	826		18.6	73	77	2.25	3.2	18.0				35	26.0		SABBIA LIM
9.0	301	752		296	712		17.7	75	78	1.91	2.9	14.4				34	19.4		SABBIA LIM
9.2	314	828		306	788		18.6	76	80	2.14	3.0	16.7				34	23.0		SABBIA LIM
9.4	300	766		294	726		17.7	78	82	2.04	2.7	15.0				34	19.3		SABBIA LIM
9.6	300	705		298	665		16.7	80	84	1.72	2.7	12.8					15.9		LIMO SAB
9.8	342	876		333	836		18.6	81	86	2.04	3.0	17.5				35	24.3		SABBIA LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 20-14 DESCRIZIONE
10.0	369	920		359	880		18.6	83	88	1.92	3.3	18.1				35	26.2		SABBIA LIM
10.2	326	795		320	755		17.7	84	90	1.89	2.7	15.1				34	19.2		SABBIA LIM
10.4	346	790		342	750		17.7	86	92	1.64	2.9	14.2					18.6		LIMO SAB
10.6	446	961		438	921		17.7	88	94	1.40	3.9	16.8					26.7		LIMO SAB
10.8	333	799		327	759		17.7	89	96	1.87	2.6	15.0				34	18.4		SABBIA LIM
11.0	297	907		284	867		17.7	91	98	3.13	2.1	20.2				32	22.7		SABBIA LIM
11.2	409	525		421	485		16.7	92	100	0.20	3.5	2.2		0.88	2.4		3.1	41	ARGILLA
11.4	362	466		375	426		15.7	94	102	0.19	2.9	1.8		0.76	1.8		2.2	33	ARGILLA
11.6	400	496		413	456		15.7	95	104	0.14	3.3	1.5		0.84	2.1		2.0	38	ARGILLA
11.8	430	527		443	487		15.7	96	106	0.13	3.5	1.5		0.89	2.4		2.2	43	ARGILLA
12.0	414	518		427	478		15.7	97	108	0.16	3.3	1.8		0.84	2.2		2.4	40	ARGILLA
12.2	409	507		422	467		15.7	98	110	0.14	3.2	1.6		0.82	2.1		2.1	39	ARGILLA
12.4	426	510		440	470		13.7	100	112	0.09	3.3	1.1		0.85	2.2		1.4	41	FANGO E/O TORBA
12.6	403	516		415	476		15.7	100	114	0.20	3.0	2.1		0.78	1.9		2.7	37	ARGILLA
12.8	348	695		348	655		16.7	102	116	1.32	2.3	10.6					11.3		LIMO SAB
13.0	388	1030		374	990		18.6	103	118	2.41	2.5	21.4				33	26.5		SABBIA LIM
13.2	413	528		425	488		16.7	105	120	0.21	2.9	2.2		0.77	1.8		2.7	37	ARGILLA
13.4	382	500		394	460		15.7	106	122	0.24	2.6	2.3		0.69	1.5		2.5	32	ARGILLA
13.6	386	969		375	929		18.6	107	124	2.21	2.3	19.2				33	22.4		SABBIA LIM
13.8	500	866		499	826		17.7	109	126	0.87	3.4	11.3		0.87	2.3		16.1	47	LIMO
14.0	485	625		496	585		16.7	111	128	0.24	3.3	3.1		0.85	2.2		4.3	46	ARGILLA
14.2	488	1364		462	1324		18.6	112	129	2.59	3.0	29.9				34	42.3		SABBIA LIM
14.4	483	679		491	639		16.7	114	131	0.41	3.2	5.1		0.82	2.0		6.8	44	ARG LIM
14.6	451	617		460	577		16.7	115	133	0.36	2.8	4.0		0.75	1.7		4.9	39	ARG LIM
14.8	410	569		420	529		16.7	116	135	0.38	2.4	3.8		0.66	1.4		4.0	33	ARG LIM
15.0	484	1241		464	1201		18.6	118	137	2.26	2.8	25.6				34	33.8		SABBIA LIM
15.2	467	662		475	622		16.7	120	139	0.44	2.8	5.1		0.74	1.7		6.1	40	ARG LIM
15.4	401	502		414	462		15.7	121	141	0.18	2.3	1.7		0.61	1.2		1.6	31	ARGILLA
15.6	380	767		378	727		16.7	122	143	1.48	1.9	12.1					11.0		LIMO SAB
15.8	457	561		470	521		15.7	124	145	0.16	2.6	1.8		0.70	1.5		2.0	38	ARGILLA
16.0	472	559		485	519		13.7	125	147	0.10	2.7	1.2		0.72	1.6		1.4	40	FANGO E/O TORBA
16.2	423	601		432	561		16.7	125	149	0.46	2.3	4.5		0.61	1.2		4.4	32	ARG LIM
16.4	469	866		467	826		17.7	127	151	1.14	2.5	12.5		0.67	1.4		14.0	37	LIMO
16.6	484	603		496	563		16.7	128	153	0.20	2.7	2.3		0.71	1.6		2.7	41	ARGILLA
16.8	466	571		479	531		15.7	130	155	0.16	2.5	1.8		0.67	1.4		2.0	38	ARGILLA
17.0	483	587		496	547		15.7	131	157	0.15	2.6	1.8		0.69	1.5		2.0	40	ARGILLA
17.2	499	617		511	577		16.7	132	159	0.19	2.7	2.3		0.71	1.6		2.6	42	ARGILLA
17.4	498	605		510	565		16.7	134	161	0.16	2.6	1.9		0.70	1.5		2.1	41	ARGILLA
17.6	481	586		494	546		15.7	135	163	0.16	2.5	1.8		0.66	1.4		1.9	38	ARGILLA
17.8	460	594		471	554		16.7	136	165	0.27	2.3	2.9		0.61	1.2		2.8	35	ARGILLA
18.0	518	628		530	588		16.7	137	167	0.16	2.6	2.0		0.70	1.5		2.3	43	ARGILLA
18.2	519	622		532	582		16.7	139	169	0.14	2.6	1.7		0.70	1.5		2.0	43	ARGILLA
18.4	517	617		530	577		15.7	140	171	0.13	2.6	1.6		0.69	1.5		1.8	42	ARGILLA
18.6	525	645		537	605		16.7	141	173	0.19	2.6	2.4		0.69	1.5		2.6	43	ARGILLA
18.8	529	636		541	596		16.7	143	175	0.15	2.6	1.9		0.69	1.5		2.1	43	ARGILLA
19.0	522	626		535	586		16.7	144	177	0.14	2.5	1.8		0.67	1.4		1.9	42	ARGILLA
19.2	523	628		535	588		16.7	146	179	0.15	2.5	1.8		0.66	1.4		1.9	41	ARGILLA
19.4	418	691		422	651		16.7	147	181	0.95	1.6	7.9		0.44	<0.8		6.8	25	LIMO
19.6	496	609		508	569		16.7	148	182	0.19	2.2	2.1		0.60	1.2		2.0	37	ARGILLA
19.8	500	609		512	569		16.7	150	184	0.17	2.2	2.0		0.59	1.2		1.9	37	ARGILLA
20.0	476	565		489	525		15.7	151	186	0.12	2.0	1.2		0.55	1.0		1.1	33	ARGILLA
20.2	530	627		543	587		15.7	152	188	0.12	2.3	1.5		0.63	1.3		1.5	41	ARGILLA
20.4	512	622		524	582		16.7	153	190	0.17	2.2	2.0		0.59	1.1		1.9	38	ARGILLA
20.6	554	840		557	800		17.7	155	192	0.66	2.4	8.4		0.64	1.3		8.6	42	LIMO ARG
20.8	513	609		526	569		15.7	156	194	0.13	2.1	1.5		0.58	1.1		1.4	37	ARGILLA
21.0	516	632		528	592		16.7	157	196	0.19	2.1	2.2		0.57	1.1		2.0	37	ARGILLA
21.2	498	585		511	545		14.7	159	198	0.11	2.0	1.2		0.54	0.98		1.0	34	FANGO
21.4	508	621		520	581		16.7	160	200	0.19	2.0	2.1		0.54	1.0		1.8	35	ARGILLA
21.6	555	653		568	613		15.7	161	202	0.12	2.3	1.6		0.61	1.2		1.5	42	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 20-14 DESCRIZIONE
21.8	542	639		555	599		15.7	162	204	0.13	2.2	1.5		0.59	1.1		1.4	39	ARGILLA
22.0	472	710		478	670		16.7	164	206	0.71	1.7	6.7		0.45	<0.8		5.7	29	LIMO ARG
22.2	476	916		472	876		17.7	165	208	1.53	1.6	14.0					11.9		LIMO SAB
22.4	443	601		453	561		16.7	167	210	0.45	1.5	3.8		0.39	<0.8		3.2	25	ARG LIM
22.6	467	771		470	731		16.7	168	212	1.01	1.5	9.1		0.41	<0.8		7.7	27	LIMO
22.8	545	631		558	591		13.7	169	214	0.09	2.0	1.1		0.55	1.0		1.0	38	FANGO E/O TORBA
23.0	570	663		583	623		15.7	170	216	0.11	2.2	1.4		0.59	1.1		1.3	41	ARGILLA
23.2	553	669		565	629		16.7	171	218	0.18	2.0	2.2		0.55	1.0		1.9	38	ARGILLA
23.4	567	658		580	618		15.7	173	220	0.10	2.1	1.3		0.57	1.1		1.2	40	ARGILLA
23.6	584	681		597	641		15.7	174	222	0.12	2.2	1.5		0.59	1.1		1.4	42	ARGILLA
23.8	573	661		586	621		15.7	175	224	0.10	2.1	1.2		0.56	1.1		1.1	40	ARGILLA
24.0	576	681		589	641		16.7	176	226	0.14	2.1	1.8		0.56	1.1		1.6	40	ARGILLA
24.2	585	676		598	636		15.7	177	228	0.10	2.1	1.3		0.57	1.1		1.2	41	ARGILLA
24.4	567	681		579	641		16.7	179	230	0.18	2.0	2.1		0.53	0.97		1.8	38	ARGILLA
24.6	600	702		613	662		16.7	180	232	0.13	2.1	1.7		0.58	1.1		1.6	43	ARGILLA
24.8	618	733		630	693		16.7	181	233	0.16	2.2	2.2		0.59	1.2		2.1	45	ARGILLA
25.0	606	708		619	668		16.7	183	235	0.13	2.1	1.7		0.57	1.1		1.5	43	ARGILLA
25.2	607	699		620	659		15.7	184	237	0.10	2.1	1.3		0.56	1.1		1.2	43	ARGILLA
25.4	502	934		498	894		17.7	185	239	1.53	1.4	13.7					11.7		LIMO SAB
25.6	486	667		495	627		16.7	187	241	0.52	1.4	4.6		0.35	<0.8		3.9	25	ARG LIM
25.8	513	844		514	804		16.7	188	243	1.07	1.4	10.1		0.38	<0.8		8.5	27	LIMO
26.0	567	1330		547	1290		18.6	190	245	2.47	1.6	25.8				31	21.9		SABBIA LIM
26.2	535	760		542	720		16.7	191	247	0.61	1.5	6.2		0.41	<0.8		5.3	30	LIMO ARG
26.4	549	712		559	672		16.7	193	249	0.37	1.6	3.9		0.43	<0.8		3.3	32	ARG LIM
26.6	605	715		617	675		16.7	194	251	0.16	1.9	2.0		0.51	0.91		1.7	40	ARGILLA
26.8	628	742		640	702		16.7	196	253	0.16	2.0	2.1		0.54	0.99		1.8	42	ARGILLA
27.0	635	753		647	713		16.7	197	255	0.17	2.0	2.3		0.54	0.99		2.0	43	ARGILLA
27.2	668	757		681	717		15.7	198	257	0.08	2.1	1.2		0.58	1.1		1.1	47	ARGILLA
27.4	669	783		681	743		16.7	199	259	0.15	2.1	2.1		0.57	1.1		2.0	47	ARGILLA
27.6	597	722		609	682		16.7	201	261	0.21	1.7	2.6		0.47	<0.8		2.2	37	ARGILLA
27.8	609	1013		607	973		17.7	202	263	1.07	1.7	12.7		0.46	<0.8		10.8	36	LIMO
28.0	776	1623		751	1583		19.1	204	265	1.71	2.4	28.9					32.8		LIMO SAB
28.2	998	2428		944	2388		19.6	206	267	2.13	3.3	50.1				35	73.8		SABBIA LIM
28.4	1134	2511		1083	2471		19.1	208	269	1.71	3.9	48.2					77.4		LIMO SAB
28.6	1236	1636		1234	1596		18.6	209	271	0.38	4.6	12.6		1.1	3.7		21.4	130	ARG LIM
28.8	807	1774		776	1734		19.6	211	273	1.90	2.4	33.2				33	38.3		SABBIA LIM
29.0	633	1670		599	1630		18.6	213	275	3.18	1.5	35.8				31	30.9		SABBIA LIM
29.2	985	2094		947	2054		19.1	215	277	1.65	3.1	38.4					53.2		LIMO SAB
29.4	713	1434		695	1394		17.7	217	279	1.68	1.9	24.3					22.4		LIMO SAB
29.6	596	1092		589	1052		17.7	218	281	1.50	1.4	16.1					13.7		LIMO SAB
29.8	648	1141		641	1101		17.7	220	283	1.28	1.6	16.0					13.6		LIMO SAB
30.0	585	1273		568	1233		18.6	222	284	2.34	1.3	23.1				30	19.6		SABBIA LIM

DMT 21-14	LEGENDA	PARAMETRI INTERPRETATI	PARAMETRI GENERALI
4 DIC 2014	Z = Profondità da superficie terreno Po,P1,P2 = Letture A,B,C corrette Id = Indice di materiale Ed = Modulo Dilatometrico Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo) Gamma = Peso volume naturale Sigma' = Press. efficace vertic. Uo = Pressione neutra (H2O)	Phi = Angolo attrito min (cautelativo) Ko = Coeff. spinta orizz. in sito M = Modulo edometrico (per Sigma') Cu = Resist. taglio non drenata Ocr = Grado di sovraconsolidazione (OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)	DeltaA = 15 kPa DeltaB = 40 kPa GammaTop = 17.0 kN/m^3 FactorEd = 34.7 Zm = 0.0 kPa Zabs = 0.0 m Zw = 1.0 m
GEOSTUDI SRL AUT. PORTUALE RAVENNA PORT HUB RAVENNA			

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 21-14 DESCRIZIONE
3.0	203	366		213	326		15.7	31	20	0.59	6.1	3.9		1.3	5.8		7.9	28	ARG LIM
3.2	189	295		201	255		15.7	33	22	0.30	5.5	1.9		1.2	4.9		3.5	26	ARGILLA
3.4	288	491		296	451		16.7	34	24	0.57	8.1	5.4		1.6	8.8		12.3	42	ARG LIM
3.6	265	456		273	416		16.7	35	26	0.58	7.1	5.0		1.5	7.2		10.6	37	ARG LIM
3.8	285	465		294	425		16.7	36	27	0.49	7.3	4.6		1.5	7.6		9.9	40	ARG LIM
4.0	239	375		250	335		15.7	38	29	0.39	5.8	3.0		1.3	5.3		5.7	32	ARG LIM
4.2	253	751		246	711		17.7	39	31	2.17	5.5	16.1				38	31.4		SABBIA LIM
4.4	342	983		328	943		18.6	41	33	2.09	7.2	21.4				39	47.0		SABBIA LIM
4.6	409	1155		389	1115		18.6	42	35	2.05	8.4	25.2				40	58.7		SABBIA LIM
4.8	349	1086		330	1046		18.6	44	37	2.45	6.6	24.8				39	52.9		SABBIA LIM
5.0	370	1102		351	1062		18.6	46	39	2.28	6.8	24.7				39	52.9		SABBIA LIM
5.2	312	852		303	812		18.6	48	41	1.95	5.5	17.7				38	34.2		SABBIA LIM
5.4	312	955		298	915		18.6	49	43	2.43	5.1	21.4				37	40.7		SABBIA LIM
5.6	330	975		316	935		18.6	51	45	2.29	5.3	21.5				37	41.2		SABBIA LIM
5.8	298	741		294	701		17.7	53	47	1.65	4.7	14.1					25.0		LIMO SAB
6.0	381	1088		363	1048		18.6	55	49	2.18	5.8	23.8				38	47.3		SABBIA LIM
6.2	358	1053		341	1013		18.6	56	51	2.32	5.2	23.3				37	44.2		SABBIA LIM
6.4	404	1087		388	1047		18.6	58	53	1.97	5.8	22.9				38	45.4		SABBIA LIM
6.6	349	918		338	878		18.6	60	55	1.90	4.7	18.7				37	33.7		SABBIA LIM
6.8	282	753		276	713		17.7	62	57	1.99	3.6	15.2				35	23.3		SABBIA LIM
7.0	283	822		274	782		18.6	63	59	2.36	3.4	17.6				35	26.8		SABBIA LIM
7.2	340	958		327	918		18.6	65	61	2.22	4.1	20.5				36	34.5		SABBIA LIM
7.4	381	974		369	934		18.6	67	63	1.84	4.6	19.6				37	34.6		SABBIA LIM
7.6	345	910		335	870		18.6	68	65	1.99	3.9	18.6				36	30.3		SABBIA LIM
7.8	323	892		312	852		18.6	70	67	2.20	3.5	18.7				35	28.7		SABBIA LIM
8.0	322	798		316	758		17.7	72	69	1.79	3.4	15.3					22.8		LIMO SAB
8.2	341	789		336	749		17.7	74	71	1.55	3.6	14.3					21.8		LIMO SAB
8.4	301	799		294	759		17.7	75	73	2.10	2.9	16.1				34	22.1		SABBIA LIM
8.6	298	646		298	606		16.7	77	75	1.37	2.9	10.7					13.9		LIMO SAB
8.8	301	719		298	679		16.7	78	77	1.72	2.8	13.2					17.2		LIMO SAB
9.0	333	696		333	656		16.7	79	78	1.27	3.2	11.2					15.5		LIMO SAB
9.2	312	693		311	653		16.7	81	80	1.49	2.8	11.9					15.3		LIMO SAB
9.4	319	776		314	736		17.7	82	82	1.82	2.8	14.6				34	19.1		SABBIA LIM
9.6	361	863		354	823		17.7	84	84	1.74	3.2	16.3					23.1		LIMO SAB
9.8	364	848		358	808		17.7	85	86	1.66	3.2	15.6					22.0		LIMO SAB
10.0	349	835		342	795		17.7	87	88	1.78	2.9	15.7					21.0		LIMO SAB
10.2	317	445		328	405		15.7	88	90	0.32	2.7	2.7		0.72	1.6		3.1	28	ARGILLA
10.4	307	440		318	400		15.7	90	92	0.36	2.5	2.8		0.68	1.4		3.1	26	ARG LIM
10.6	305	430		317	390		15.7	91	94	0.33	2.4	2.6		0.66	1.4		2.7	26	ARG LIM
10.8	316	441		328	401		15.7	92	96	0.32	2.5	2.6		0.67	1.4		2.8	27	ARGILLA
11.0	309	437		320	397		15.7	93	98	0.34	2.4	2.7		0.64	1.3		2.7	26	ARG LIM
11.2	314	444		325	404		15.7	94	100	0.35	2.4	2.7		0.64	1.3		2.8	26	ARG LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 21-14 DESCRIZIONE
11.4	315	447		326	407		15.7	96	102	0.36	2.3	2.8		0.63	1.3		2.8	26	ARG LIM
11.6	286	435		296	395		15.7	97	104	0.51	2.0	3.4		0.54	0.99		2.9	21	ARG LIM
11.8	325	453		336	413		15.7	98	106	0.33	2.4	2.7		0.64	1.3		2.7	26	ARG LIM
12.0	355	501		365	461		16.7	99	108	0.37	2.6	3.3		0.69	1.5		3.7	30	ARG LIM
12.2	380	1113		361	1073		18.6	100	110	2.83	2.5	24.7				33	31.7		SABBIA LIM
12.4	532	1462		503	1422		18.6	102	112	2.35	3.8	31.9				36	51.8		SABBIA LIM
12.6	447	1081		433	1041		18.6	104	114	1.90	3.1	21.1				35	29.3		SABBIA LIM
12.8	453	911		448	871		17.7	106	116	1.27	3.1	14.7					20.0		LIMO SAB
13.0	367	616		372	576		16.7	107	118	0.80	2.4	7.1		0.64	1.3		7.4	29	LIMO
13.2	312	448		323	408		15.7	109	120	0.42	1.9	3.0		0.51	0.90		2.5	22	ARG LIM
13.4	376	665		379	625		16.7	110	122	0.95	2.3	8.5		0.63	1.3		8.9	29	LIMO
13.6	340	475		351	435		15.7	111	124	0.37	2.0	2.9		0.56	1.0		2.5	25	ARG LIM
13.8	357	682		359	642		16.7	112	126	1.22	2.1	9.8					9.3		LIMO SAB
14.0	350	509		360	469		16.7	114	128	0.47	2.0	3.8		0.56	1.0		3.3	26	ARG LIM
14.2	339	589		344	549		16.7	115	129	0.95	1.9	7.1		0.51	0.90		6.0	23	LIMO
14.4	352	523		361	483		16.7	117	131	0.53	2.0	4.2		0.54	0.98		3.6	25	ARG LIM
14.6	328	465		339	425		15.7	118	133	0.42	1.7	3.0		0.47	0.81		2.5	22	ARG LIM
14.8	319	475		329	435		15.7	119	135	0.55	1.6	3.7		0.44	<0.8		3.1	20	ARG LIM
15.0	350	631		354	591		16.7	120	137	1.10	1.8	8.2		0.49	0.85		7.0	23	LIMO
15.2	345	478		356	438		15.7	122	139	0.38	1.8	2.8		0.48	0.84		2.4	23	ARG LIM
15.4	363	494		374	454		15.7	123	141	0.34	1.9	2.8		0.52	0.92		2.4	25	ARG LIM
15.6	316	445		327	405		15.7	124	143	0.42	1.5	2.7		0.39	<0.8		2.3	19	ARG LIM
15.8	314	448		325	408		15.7	125	145	0.46	1.4	2.9		0.38	<0.8		2.4	18	ARG LIM
16.0	409	741		410	701		16.7	126	147	1.11	2.1	10.1		0.57	1.1		9.5	29	LIMO
16.2	494	925		490	885		17.7	128	149	1.16	2.7	13.7		0.71	1.6		16.4	40	LIMO
16.4	335	521		343	481		16.7	129	151	0.72	1.5	4.8		0.40	<0.8		4.1	20	LIMO ARG
16.6	348	490		359	450		15.7	131	153	0.44	1.6	3.2		0.42	<0.8		2.7	21	ARG LIM
16.8	327	468		338	428		15.7	132	155	0.49	1.4	3.1		0.36	<0.8		2.7	18	ARG LIM
17.0	329	477		339	437		15.7	133	157	0.54	1.4	3.4		0.36	<0.8		2.9	18	ARG LIM
17.2	332	718		330	678		17.7	134	159	2.03	1.3	12.1				30	10.3		SABBIA LIM
17.4	344	483		355	443		15.7	136	161	0.45	1.4	3.1		0.38	<0.8		2.6	20	ARG LIM
17.6	310	449		321	409		15.7	137	163	0.56	1.2	3.1		< 0.3	<0.8		2.6	15	ARG LIM
17.8	293	433		304	393		15.7	138	165	0.64	1.0	3.1		< 0.3	<0.8		2.6	13	LIMO ARG
18.0	296	428		307	388		15.7	139	167	0.58	1.0	2.8		< 0.3	<0.8		2.4	13	ARG LIM
18.2	300	445		311	405		15.7	140	169	0.67	1.0	3.3		< 0.3	<0.8		2.8	13	LIMO ARG
18.4	300	428		311	388		15.7	142	171	0.54	1.0	2.7		< 0.3	<0.8		2.3	13	ARG LIM
18.6	340	554		347	514		16.7	143	173	0.96	1.2	5.8		0.31	<0.8		4.9	17	LIMO
18.8	301	449		311	409		15.7	144	175	0.71	0.9	3.4		< 0.3	<0.8		2.9	12	LIMO ARG
19.0	288	424		299	384		15.7	145	177	0.70	0.8	3.0		< 0.3	<0.8		2.5	11	LIMO ARG
19.2	302	444		313	404		15.7	147	179	0.68	0.9	3.2		< 0.3	<0.8		2.7	12	LIMO ARG
19.4	319	470		329	430		15.7	148	181	0.68	1.0	3.5		< 0.3	<0.8		3.0	14	LIMO ARG
19.6	330	473		341	433		15.7	149	182	0.58	1.1	3.2		< 0.3	<0.8		2.7	15	ARG LIM
19.8	330	502		339	462		15.7	150	184	0.79	1.0	4.3		< 0.3	<0.8		3.6	14	LIMO ARG
20.0	323	466		334	426		15.7	151	186	0.63	1.0	3.2		< 0.3	<0.8		2.7	14	LIMO ARG
20.2	329	508		338	468		15.7	152	188	0.87	1.0	4.5		< 0.3	<0.8		3.8	14	LIMO
20.4	348	483		359	443		15.7	154	190	0.50	1.1	2.9		< 0.3	<0.8		2.5	16	ARG LIM
20.6	366	505		377	465		15.7	155	192	0.48	1.2	3.1		< 0.3	<0.8		2.6	18	ARG LIM
20.8	382	530		392	490		15.7	156	194	0.49	1.3	3.4		0.32	<0.8		2.9	19	ARG LIM
21.0	399	560		409	520		16.7	157	196	0.52	1.4	3.9		0.35	<0.8		3.3	21	ARG LIM
21.2	424	639		431	599		16.7	159	198	0.72	1.5	5.8		0.39	<0.8		5.0	24	LIMO ARG
21.4	787	1861		751	1821		19.6	160	200	1.94	3.4	37.1				35	55.7		SABBIA LIM
21.6	471	828		471	788		16.7	162	202	1.18	1.7	11.0		0.45	<0.8		9.4	28	LIMO
21.8	437	585		447	545		16.7	163	204	0.40	1.5	3.4		0.40	<0.8		2.9	25	ARG LIM
22.0	454	600		464	560		16.7	165	206	0.37	1.6	3.3		0.42	<0.8		2.8	27	ARG LIM
22.2	453	608		463	568		16.7	166	208	0.41	1.5	3.6		0.41	<0.8		3.1	26	ARG LIM
22.4	460	610		470	570		16.7	167	210	0.38	1.6	3.5		0.42	<0.8		2.9	27	ARG LIM
22.6	466	609		477	569		16.7	169	212	0.35	1.6	3.2		0.42	<0.8		2.7	27	ARG LIM
22.8	481	644		491	604		16.7	170	214	0.41	1.6	3.9		0.44	<0.8		3.3	29	ARG LIM
23.0	493	656		503	616		16.7	171	216	0.40	1.7	3.9		0.45	<0.8		3.3	30	ARG LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 21-14 DESCRIZIONE
23.2	489	647		499	607		16.7	173	218	0.38	1.6	3.8		0.44	<0.8		3.2	29	ARG LIM
23.4	523	700		532	660		16.7	174	220	0.41	1.8	4.4		0.49	0.84		3.8	33	ARG LIM
23.6	548	714		557	674		16.7	176	222	0.35	1.9	4.0		0.52	0.93		3.4	37	ARG LIM
23.8	539	708		548	668		16.7	177	224	0.37	1.8	4.2		0.50	0.88		3.5	35	ARG LIM
24.0	476	664		484	624		16.7	178	226	0.54	1.5	4.8		0.38	<0.8		4.1	26	ARG LIM
24.2	501	695		509	655		16.7	180	228	0.52	1.6	5.1		0.42	<0.8		4.3	29	ARG LIM
24.4	490	714		497	674		16.7	181	230	0.66	1.5	6.2		0.39	<0.8		5.2	27	LIMO ARG
24.6	532	1222		515	1182		18.6	182	232	2.35	1.6	23.1				31	19.7		SABBIA LIM
24.8	558	709		568	669		16.7	184	233	0.30	1.8	3.5		0.49	0.86		3.0	36	ARGILLA
25.0	501	1224		483	1184		18.6	186	235	2.84	1.3	24.3				30	20.7		SABBIA LIM
25.2	666	1508		642	1468		18.6	187	237	2.04	2.2	28.7				33	30.8		SABBIA LIM
25.4	677	1435		657	1395		17.7	189	239	1.77	2.2	25.6					27.3		LIMO SAB
25.6	629	820		637	780		16.7	191	241	0.36	2.1	5.0		0.56	1.1		4.4	44	ARG LIM
25.8	639	807		648	767		16.7	192	243	0.29	2.1	4.1		0.57	1.1		3.7	45	ARGILLA
26.0	669	1343		653	1303		17.7	193	245	1.59	2.1	22.6					22.7		LIMO SAB
26.2	645	842		653	802		16.7	195	247	0.37	2.1	5.2		0.57	1.1		4.6	45	ARG LIM
26.4	642	819		651	779		16.7	196	249	0.32	2.0	4.4		0.56	1.0		3.9	44	ARGILLA
26.6	666	840		675	800		16.7	198	251	0.29	2.1	4.3		0.58	1.1		4.0	47	ARGILLA
26.8	649	924		653	884		17.7	199	253	0.58	2.0	8.0		0.55	1.0		6.9	44	ARG LIM
27.0	587	819		593	779		16.7	201	255	0.55	1.7	6.4		0.46	<0.8		5.5	36	ARG LIM
27.2	746	1508		726	1468		17.7	202	257	1.58	2.3	25.8					28.2		LIMO SAB
27.4	666	936		670	896		17.7	204	259	0.55	2.0	7.8		0.55	1.0		6.7	45	ARG LIM
27.6	613	813		621	773		16.7	205	261	0.42	1.8	5.3		0.48	0.82		4.5	38	ARG LIM
27.8	722	1771		687	1731		19.6	207	263	2.46	2.1	36.2				32	38.7		SABBIA LIM
28.0	763	1828		727	1788		19.6	209	265	2.29	2.2	36.8				33	41.3		SABBIA LIM
28.2	603	1058		598	1018		17.7	211	267	1.27	1.6	14.6					12.4		LIMO SAB
28.4	690	1726		656	1686		18.6	212	269	2.66	1.8	35.7				32	35.2		SABBIA LIM
28.6	711	1760		676	1720		19.6	214	271	2.57	1.9	36.2				32	36.6		SABBIA LIM
28.8	846	1900		811	1860		19.6	216	273	1.95	2.5	36.4				33	43.6		SABBIA LIM
29.0	903	1605		886	1565		19.1	218	275	1.11	2.8	23.6		0.74	1.7		29.2	73	LIMO
29.2	838	1133		841	1093		17.7	220	277	0.45	2.6	8.7		0.69	1.5		9.7	66	ARG LIM
29.4	821	1140		823	1100		17.7	221	279	0.51	2.5	9.6		0.66	1.4		10.2	63	ARG LIM
29.6	968	1377		965	1337		17.7	223	281	0.54	3.1	12.9		0.80	2.0		16.6	84	ARG LIM
29.8	857	1232		856	1192		17.7	224	283	0.59	2.6	11.7		0.68	1.5		12.8	67	ARG LIM
30.0	797	1956		757	1916		19.6	226	284	2.45	2.1	40.2				32	43.6		SABBIA LIM

DMT 22-14

3 DIC 2014

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 22-14 DESCRIZIONE
3.4	97	204		109	164		15.7	34	24	0.64	2.5	1.9		0.67	1.4		2.1	10	LIMO ARG
3.6	132	229		145	189		15.7	35	26	0.37	3.4	1.5		0.86	2.3		2.1	15	ARG LIM
3.8	100	210		112	170		15.7	37	27	0.68	2.3	2.0		0.63	1.3		2.0	10	LIMO ARG
4.0	95	172		109	132		14.7	38	29	0.29	2.1	0.8		0.57	1.1		0.7	9	FANGO
4.2	120	203		134	163		14.7	39	31	0.29	2.6	1.0		0.70	1.5		1.2	12	FANGO
4.4	165	273		177	233		15.7	40	33	0.39	3.6	1.9		0.91	2.5		2.8	18	ARG LIM
4.6	158	300		169	260		15.7	41	35	0.69	3.3	3.2		0.84	2.1		4.3	17	LIMO ARG
4.8	168	256		181	216		15.7	42	37	0.24	3.4	1.2		0.87	2.3		1.7	18	ARGILLA
5.0	171	251		185	211		14.7	43	39	0.18	3.4	0.9		0.86	2.3		1.3	18	FANGO
5.2	150	242		163	202		15.7	44	41	0.32	2.8	1.3		0.73	1.7		1.6	15	ARGILLA
5.4	173	243		187	203		14.7	45	43	0.11	3.2	0.5		0.82	2.1		0.7	18	FANGO
5.6	180	264		194	224		14.7	46	45	0.21	3.2	1.1		0.83	2.1		1.4	18	FANGO
5.8	178	265		191	225		14.7	47	47	0.23	3.0	1.2		0.79	1.9		1.5	18	FANGO
6.0	174	299		186	259		15.7	48	49	0.54	2.8	2.6		0.74	1.7		3.1	16	ARG LIM
6.2	189	307		201	267		15.7	50	51	0.44	3.0	2.3		0.79	1.9		2.9	18	ARG LIM
6.4	219	296		233	256		14.7	51	53	0.13	3.5	0.8		0.90	2.4		1.2	23	FANGO
6.6	169	266		182	226		15.7	52	55	0.35	2.5	1.5		0.66	1.4		1.6	15	ARG LIM
6.8	305	0		320			15.7	53	57										

DMT 22-14BIS

11 DIC 2014

GEOSTUDI SRL
COMMITTENTE
PORT HUB
LOCALITÀ

LEGENDA
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Po,P1,P2 = Letture A,B,C corrette
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PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
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Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 2.0 m

Falda a 2.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 22-14BIS DESCRIZIONE
4.2	169	876		151	836		17.7	50	22	5.27	2.6	23.8				34	31.6		SABBIA
4.4	135	743		122	703		17.7	51	24	5.88	1.9	20.1				32	21.5		SABBIA
4.6	93	537		89	497		16.7	53	26	6.48	1.2	14.2				29	12.0		SABBIA
4.8	85	419		86	379		16.7	54	27	5.00	1.1	10.2				28	8.6		SABBIA
5.0	91	387		94	347		16.7	56	29	3.92	1.2	8.8				29	7.5		SABBIA
5.2	99	444		100	404		16.7	57	31	4.47	1.2	10.6				29	9.0		SABBIA
5.4	87	645		77	605		16.7	58	33	12.14	0.7	18.3				26	15.6		SABBIA
5.6	101	775		85	735		16.7	60	35	13.07	0.8	22.6				27	19.2		SABBIA
5.8	114	819		97	779		17.7	61	37	11.52	1.0	23.7				28	20.1		SABBIA
6.0	106	761		91	721		16.7	63	39	12.17	0.8	21.9				27	18.6		SABBIA
6.2	71	807		52	767		16.7	64	41	66.53	0.2	24.8					21.1		SABBIA
6.4	117	781		102	741		17.7	66	43	10.95	0.9	22.2				27	18.9		SABBIA
6.6	97	783		80	743		16.7	67	45	18.76	0.5	23.0				24	19.5		SABBIA
6.8	217	761		208	721		17.7	68	47	3.20	2.3	17.8				33	22.1		SABBIA LIM
7.0	281	902		268	862		18.6	70	49	2.72	3.1	20.6				35	30.3		SABBIA LIM
7.2	143	426		147	386		16.7	72	51	2.50	1.3	8.3				30	7.1		SABBIA LIM
7.4	244	441		252	401		16.7	73	53	0.75	2.7	5.2		0.72	1.6		6.1	24	LIMO ARG
7.6	247	408		257	368		16.7	75	55	0.55	2.7	3.9		0.72	1.6		4.5	24	ARG LIM
7.8	196	387		204	347		15.7	76	57	0.97	1.9	5.0		0.53	0.96		4.3	16	LIMO
8.0	293	716		290	676		16.7	77	59	1.67	3.0	13.4					18.1		LIMO SAB
8.2	260	804		251	764		17.7	78	61	2.71	2.4	17.8				33	22.1		SABBIA LIM
8.4	273	772		266	732		17.7	80	63	2.30	2.5	16.2				34	20.2		SABBIA LIM
8.6	311	844		302	804		18.6	82	65	2.11	2.9	17.4				34	23.6		SABBIA LIM
8.8	229	553		231	513		16.7	83	67	1.72	2.0	9.8					9.3		LIMO SAB
9.0	279	847		268	807		17.7	85	69	2.70	2.4	18.7				33	22.7		SABBIA LIM
9.2	354	959		342	919		18.6	86	71	2.13	3.1	20.0				35	28.6		SABBIA LIM
9.4	377	979		365	939		18.6	88	73	1.97	3.3	19.9				35	29.2		SABBIA LIM
9.6	324	811		317	771		18.6	90	75	1.87	2.7	15.7				34	19.9		SABBIA LIM
9.8	253	453		261	413		16.7	92	77	0.83	2.0	5.3		0.55	1.0		4.6	20	LIMO
10.0	270	373		283	333		15.7	93	78	0.25	2.2	1.7		0.60	1.2		1.7	23	ARGILLA
10.2	258	407		268	367		15.7	94	80	0.53	2.0	3.4		0.54	1.0		2.9	21	ARG LIM
10.4	298	1028		279	988		18.6	95	82	3.60	2.1	24.6				32	27.8		SABBIA
10.6	476	1454		445	1414		18.6	97	84	2.69	3.7	33.6				36	54.5		SABBIA LIM
10.8	563	1692		524	1652		19.6	99	86	2.57	4.4	39.1				37	69.3		SABBIA LIM
11.0	604	1692		567	1652		19.6	101	88	2.26	4.8	37.6				37	68.4		SABBIA LIM
11.2	600	1723		562	1683		19.6	103	90	2.38	4.6	38.9				37	69.7		SABBIA LIM
11.4	585	1688		548	1648		19.6	105	92	2.42	4.3	38.2				36	66.6		SABBIA LIM
11.6	563	1528		532	1488		19.6	107	94	2.18	4.1	33.2				36	55.7		SABBIA LIM
11.8	570	1502		541	1462		19.6	109	96	2.07	4.1	32.0				36	53.4		SABBIA LIM
12.0	575	1615		541	1575		19.6	111	98	2.34	4.0	35.9				36	59.7		SABBIA LIM
12.2	592	1358		571	1318		17.7	113	100	1.58	4.2	25.9					43.1		LIMO SAB
12.4	622	1595		591	1555		19.6	114	102	1.97	4.3	33.4				36	57.1		SABBIA LIM

12.6	669	1761		632	1721		19.6	116	104	2.06	4.5	37.8				37	66.8		SABBIA LIM
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 22-14BIS
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
12.8	630	1697		594	1657		19.6	118	106	2.18	4.1	36.9				36	62.2		SABBIA LIM
13.0	687	1850		647	1810		19.6	120	108	2.16	4.5	40.4				37	71.1		SABBIA LIM
13.2	654	1893		610	1853		19.6	122	110	2.49	4.1	43.1				36	73.1		SABBIA LIM
13.4	727	1903		686	1863		19.6	124	112	2.05	4.6	40.8				37	72.9		SABBIA LIM
13.6	812	2213		760	2173		19.6	126	114	2.19	5.1	49.0				37	92.4		SABBIA LIM
13.8	747	1981		703	1941		19.6	128	116	2.11	4.6	43.0				37	76.4		SABBIA LIM
14.0	447	663		454	623		16.7	130	118	0.50	2.6	5.9		0.69	1.5		6.5	39	ARG LIM
14.2	372	597		379	557		16.7	131	120	0.69	2.0	6.2		0.54	0.98		5.3	28	LIMO ARG
14.4	376	652		380	612		16.7	133	122	0.90	1.9	8.1		0.53	0.96		6.9	28	LIMO
14.6	395	768		394	728		16.7	134	124	1.23	2.0	11.6					10.7		LIMO SAB
14.8	372	587		379	547		16.7	135	126	0.66	1.9	5.8		0.51	0.90		5.0	27	LIMO ARG
15.0	615	1593		584	1553		19.6	137	128	2.12	3.3	33.6				35	49.9		SABBIA LIM
15.2	615	1720		578	1680		19.6	139	129	2.46	3.2	38.3				35	56.6		SABBIA LIM
15.4	414	727		416	687		16.7	141	131	0.95	2.0	9.4		0.55	1.0		8.5	31	LIMO
15.6	392	617		399	577		16.7	142	133	0.67	1.9	6.2		0.51	0.90		5.3	29	LIMO ARG
15.8	394	708		396	668		16.7	143	135	1.04	1.8	9.4		0.49	0.86		8.0	28	LIMO
16.0	408	591		417	551		16.7	145	137	0.48	1.9	4.7		0.52	0.95		4.0	30	ARG LIM
16.2	429	661		435	621		16.7	146	139	0.63	2.0	6.4		0.55	1.0		5.6	33	LIMO ARG
16.4	471	1042		460	1002		17.7	148	141	1.70	2.2	18.8					19.5		LIMO SAB
16.6	365	1089		347	1049		18.6	149	143	3.45	1.4	24.4				30	20.7		SABBIA
16.8	731	1857		692	1817		19.6	151	145	2.05	3.6	39.0				36	60.8		SABBIA LIM
17.0	440	643		448	603		16.7	153	147	0.52	2.0	5.4		0.53	0.98		4.6	33	ARG LIM
17.2	419	613		427	573		16.7	154	149	0.53	1.8	5.1		0.49	0.85		4.3	30	ARG LIM
17.4	428	625		436	585		16.7	156	151	0.52	1.8	5.2		0.50	0.87		4.4	31	ARG LIM
17.6	422	610		430	570		16.7	157	153	0.50	1.8	4.8		0.48	0.83		4.1	30	ARG LIM
17.8	416	617		424	577		16.7	158	155	0.57	1.7	5.3		0.46	<0.8		4.5	28	ARG LIM
18.0	449	634		458	594		16.7	160	157	0.45	1.9	4.7		0.51	0.91		4.0	33	ARG LIM
18.2	358	522		368	482		16.7	161	159	0.55	1.3	4.0		0.33	<0.8		3.4	21	ARG LIM
18.4	478	1021		469	981		17.7	162	161	1.67	1.9	17.8					16.2		LIMO SAB
18.6	414	624		421	584		16.7	164	163	0.63	1.6	5.6		0.42	<0.8		4.8	27	LIMO ARG
18.8	427	638		434	598		16.7	165	165	0.61	1.6	5.7		0.44	<0.8		4.8	28	LIMO ARG
19.0	456	662		463	622		16.7	167	167	0.53	1.8	5.5		0.48	0.84		4.7	32	ARG LIM
19.2	536	1367		512	1327		18.6	168	169	2.37	2.0	28.3				32	29.8		SABBIA LIM
19.4	409	646		415	606		16.7	170	171	0.78	1.4	6.6		0.38	<0.8		5.6	25	LIMO ARG
19.6	422	691		426	651		16.7	171	173	0.89	1.5	7.8		0.39	<0.8		6.6	26	LIMO
19.8	492	948		487	908		17.7	173	175	1.35	1.8	14.6					12.4		LIMO SAB
20.0	477	1001		469	961		17.7	174	177	1.69	1.7	17.1					14.5		LIMO SAB
20.2	453	694		459	654		16.7	176	179	0.70	1.6	6.8		0.43	<0.8		5.8	29	LIMO ARG
20.4	485	1334		460	1294		18.6	177	181	2.98	1.6	28.9				31	25.9		SABBIA LIM
20.6	685	1284		673	1244		17.7	179	182	1.16	2.7	19.8		0.73	1.6		24.2	58	LIMO
20.8	496	1463		465	1423		18.6	180	184	3.41	1.6	33.2				31	29.4		SABBIA
21.0	637	1483		612	1443		18.6	182	186	1.95	2.3	28.8				33	32.8		SABBIA LIM
21.2	635	1367		616	1327		17.7	184	188	1.66	2.3	24.7					27.3		LIMO SAB
21.4	804	1437		790	1397		19.1	186	190	1.01	3.2	21.1		0.83	2.1		28.9	74	LIMO
21.6	644	912		648	872		17.7	187	192	0.49	2.4	7.8		0.65	1.4		8.2	53	ARG LIM
21.8	560	746		568	706		16.7	189	194	0.37	2.0	4.8		0.54	0.99		4.1	41	ARG LIM
22.0	532	693		542	653		16.7	190	196	0.32	1.8	3.9		0.49	0.86		3.3	37	ARGILLA
22.2	538	703		547	663		16.7	192	198	0.33	1.8	4.0		0.49	0.87		3.4	38	ARG LIM
22.4	537	768		543	728		16.7	193	200	0.54	1.8	6.4		0.48	0.83		5.5	37	ARG LIM
22.6	518	697		527	657		16.7	195	202	0.40	1.7	4.5		0.45	<0.8		3.8	34	ARG LIM
22.8	524	684		534	644		16.7	196	204	0.33	1.7	3.8		0.45	<0.8		3.3	35	ARG LIM
23.0	560	714		570	674		16.7	197	206	0.29	1.8	3.6		0.50	0.88		3.1	39	ARGILLA
23.2	563	731		572	691		16.7	199	208	0.33	1.8	4.1		0.50	0.88		3.5	39	ARGILLA
23.4	562	726		572	686		16.7	200	210	0.32	1.8	4.0		0.49	0.86		3.4	39	ARGILLA
23.6	547	698		557	658		16.7	201	212	0.29	1.7	3.5		0.46	<0.8		3.0	37	ARGILLA
23.8	550	712		560	672		16.7	203	214	0.32	1.7	3.9		0.46	<0.8		3.3	37	ARGILLA
24.0	546	707		556	667		16.7	204	216	0.33	1.7	3.9		0.45	<0.8		3.3	36	ARGILLA
24.2	522	711		530	671		16.7	206	218	0.45	1.5	4.9		0.41	<0.8		4.1	32	ARG LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 22-14BIS DESCRIZIONE
24.4	533	812		537	772		16.7	207	220	0.74	1.5	8.2		0.41	<0.8		6.9	33	LIMO ARG
24.6	497	682		506	642		16.7	208	222	0.48	1.4	4.7		0.36	<0.8		4.0	28	ARG LIM
24.8	645	1448		623	1408		18.6	210	224	1.97	1.9	27.3				32	25.8		SABBIA LIM
25.0	496	1241		477	1201		18.6	211	226	2.89	1.2	25.1				29	21.4		SABBIA LIM
25.2	592	754		602	714		16.7	213	228	0.30	1.8	3.9		0.48	0.82		3.3	40	ARGILLA
25.4	560	765		568	725		16.7	215	230	0.47	1.6	5.5		0.42	<0.8		4.6	35	ARG LIM
25.6	591	757		600	717		16.7	216	232	0.32	1.7	4.0		0.46	<0.8		3.4	39	ARGILLA
25.8	562	730		571	690		16.7	217	233	0.35	1.6	4.1		0.42	<0.8		3.5	35	ARG LIM
26.0	716	1548		692	1508		17.7	219	235	1.79	2.1	28.3					28.8		LIMO SAB
26.2	678	1104		674	1064		17.7	220	237	0.89	2.0	13.5		0.54	0.99		11.8	48	LIMO
26.4	589	855		593	815		16.7	222	239	0.63	1.6	7.7		0.43	<0.8		6.5	37	LIMO ARG
26.6	676	1492		653	1452		18.6	223	241	1.94	1.8	27.7				32	25.4		SABBIA LIM
26.8	619	1334		601	1294		18.6	225	243	1.94	1.6	24.0				31	20.4		SABBIA LIM
27.0	775	1666		748	1626		19.1	227	245	1.75	2.2	30.5					32.6		LIMO SAB
27.2	579	1214		565	1174		18.6	229	247	1.92	1.4	21.1				30	18.0		SABBIA LIM
27.4	556	810		561	770		16.7	230	249	0.67	1.4	7.3		0.35	<0.8		6.2	31	LIMO ARG
27.6	620	1225		608	1185		17.7	232	251	1.62	1.5	20.0					17.0		LIMO SAB
27.8	686	1999		638	1959		19.6	233	253	3.43	1.7	45.8				31	42.9		SABBIA
28.0	500	1559		465	1519		18.6	235	255	5.03	0.9	36.6				27	31.1		SABBIA
28.2	1002	2361		952	2321		19.6	237	257	1.97	2.9	47.5				34	64.2		SABBIA LIM
28.4	489	1058		478	1018		18.6	239	259	2.46	0.9	18.7				27	15.9		SABBIA LIM
28.6	434	638		442	598		16.7	241	261	0.87	0.8	5.4		< 0.3	<0.8		4.6	16	LIMO
28.8	466	712		471	672		16.7	242	263	0.96	0.9	7.0		< 0.3	<0.8		5.9	19	LIMO
29.0	538	657		550	617		15.7	243	265	0.24	1.2	2.3		< 0.3	<0.8		2.0	27	ARGILLA
29.2	744	1018		748	978		17.7	245	267	0.48	2.0	8.0		0.54	0.98		6.8	53	ARG LIM
29.4	748	1026		752	986		17.7	246	269	0.48	2.0	8.1		0.53	0.97		6.9	53	ARG LIM
29.6	759	1042		763	1002		17.7	248	271	0.49	2.0	8.3		0.54	0.99		7.1	54	ARG LIM
29.8	806	1212		803	1172		17.7	249	273	0.69	2.1	12.8		0.58	1.1		11.8	59	LIMO ARG
30.0	784	1264		778	1224		17.7	251	275	0.89	2.0	15.5		0.55	1.0		13.7	55	LIMO
30.2	752	1160		749	1120		17.7	252	277	0.78	1.9	12.9		0.51	0.90		10.9	51	LIMO ARG

DMT 23-14

18 DIC 2014

GEOSTUDI SRL
AUT.PORT.RAVENNA
PORT HUB
STAB. SETRAMAR

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 23-14 DESCRIZIONE
2.8	74	140		88	100		14.7	30	18	0.16	2.4	0.4		0.64	1.3		0.4	8	FANGO
3.0	207	353		217	313		15.7	31	20	0.48	6.4	3.3		1.4	6.1		6.8	29	ARG LIM
3.2	249	1003		229	963		18.6	32	22	3.54	6.5	25.5				38	54.0		SABBIA
3.4	282	574		285	534		16.7	34	24	0.95	7.7	8.6		1.6	8.3		19.4	40	LIMO
3.6	243	367		255	327		15.7	35	26	0.32	6.5	2.5		1.4	6.3		5.2	34	ARGILLA
3.8	270	405		281	365		16.7	36	27	0.33	7.0	2.9		1.5	7.0		6.2	38	ARG LIM
4.0	248	410		258	370		16.7	38	29	0.49	6.0	3.9		1.3	5.6		7.7	33	ARG LIM
4.2	242	375		253	335		15.7	39	31	0.37	5.7	2.8		1.3	5.1		5.4	32	ARG LIM
4.4	291	608		293	568		16.7	40	33	1.06	6.4	9.5		1.4	6.2		19.7	38	LIMO
4.6	274	826		264	786		18.6	42	35	2.28	5.5	18.1				38	35.3		SABBIA LIM
4.8	286	846		276	806		18.6	43	37	2.22	5.5	18.4				38	35.8		SABBIA LIM
5.0	268	904		254	864		18.6	45	39	2.84	4.7	21.2				37	39.1		SABBIA LIM
5.2	289	892		277	852		18.6	47	41	2.44	5.0	20.0				37	37.4		SABBIA LIM
5.4	461	1343		435	1303		18.6	49	43	2.22	8.0	30.1				39	69.2		SABBIA LIM
5.6	363	991		349	951		18.6	51	45	1.98	6.0	20.9				38	42.3		SABBIA LIM
5.8	266	631		266	591		16.7	52	47	1.49	4.2	11.3					18.7		LIMO SAB
6.0	288	795		280	755		18.6	54	49	2.05	4.3	16.5				36	28.3		SABBIA LIM
6.2	296	765		290	725		18.6	55	51	1.82	4.3	15.1				36	25.7		SABBIA LIM
6.4	304	757		299	717		17.7	57	53	1.70	4.3	14.5					24.6		LIMO SAB
6.6	321	699		320	659		16.7	59	55	1.28	4.5	11.8					20.2		LIMO SAB
6.8	243	645		241	605		17.7	60	57	1.98	3.1	12.6				35	17.6		SABBIA LIM
7.0	244	635		242	595		17.7	62	59	1.92	3.0	12.2				34	16.7		SABBIA LIM
7.2	254	664		251	624		17.7	63	61	1.96	3.0	12.9				35	17.8		SABBIA LIM
7.4	346	930		335	890		18.6	65	63	2.04	4.2	19.3				36	32.6		SABBIA LIM
7.6	362	1026		347	986		18.6	67	65	2.27	4.2	22.2				36	38.0		SABBIA LIM
7.8	345	929		334	889		18.6	68	67	2.08	3.9	19.3				36	31.3		SABBIA LIM
8.0	297	861		287	821		18.6	70	69	2.45	3.1	18.5				35	26.8		SABBIA LIM
8.2	343	991		328	951		18.6	72	71	2.42	3.6	21.6				35	33.9		SABBIA LIM
8.4	369	1094		351	1054		18.6	74	73	2.53	3.8	24.4				36	39.6		SABBIA LIM
8.6	389	1102		371	1062		18.6	75	75	2.33	3.9	24.0				36	39.5		SABBIA LIM
8.8	359	923		349	883		18.6	77	77	1.96	3.5	18.5				35	28.3		SABBIA LIM
9.0	338	901		328	861		18.6	79	78	2.14	3.2	18.5				35	26.5		SABBIA LIM
9.2	351	914		341	874		18.6	81	80	2.05	3.2	18.5				35	26.8		SABBIA LIM
9.4	463	1231		442	1191		18.6	83	82	2.08	4.4	26.0				36	44.9		SABBIA LIM
9.6	469	1203		450	1163		18.6	84	84	1.95	4.3	24.7				36	42.5		SABBIA LIM
9.8	410	1028		397	988		18.6	86	86	1.90	3.6	20.5				35	31.6		SABBIA LIM
10.0	415	1079		400	1039		18.6	88	88	2.05	3.5	22.2				35	34.1		SABBIA LIM
10.2	435	1150		417	1110		18.6	90	90	2.12	3.6	24.0				36	37.7		SABBIA LIM
10.4	492	1311		469	1271		18.6	91	92	2.13	4.1	27.8				36	46.8		SABBIA LIM
10.6	466	1202		447	1162		18.6	93	94	2.03	3.8	24.8				36	39.6		SABBIA LIM
10.8	441	1206		421	1166		18.6	95	96	2.30	3.4	25.9				35	39.3		SABBIA LIM
11.0	456	1282		432	1242		18.6	97	98	2.42	3.5	28.1				35	43.2		SABBIA LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 23-14 DESCRIZIONE
11.2	488	1329		464	1289		18.6	98	100	2.27	3.7	28.6				36	45.5		SABBIA LIM
11.4	495	1286		473	1246		18.6	100	102	2.08	3.7	26.8				36	42.3		SABBIA LIM
11.6	449	1198		429	1158		18.6	102	104	2.24	3.2	25.3				35	36.7		SABBIA LIM
11.8	612	1563		582	1523		19.6	104	106	1.98	4.6	32.6				37	57.9		SABBIA LIM
12.0	608	1611		576	1571		19.6	106	108	2.13	4.4	34.5				37	60.3		SABBIA LIM
12.2	601	1590		569	1550		19.6	108	110	2.13	4.3	34.0				36	58.3		SABBIA LIM
12.4	508	1503		476	1463		18.6	110	112	2.71	3.3	34.2				35	52.1		SABBIA LIM
12.6	605	1531		576	1491		19.6	111	114	1.98	4.2	31.7				36	53.3		SABBIA LIM
12.8	613	1823		570	1783		19.6	113	116	2.67	4.0	42.1				36	71.0		SABBIA LIM
13.0	605	1769		565	1729		19.6	115	118	2.61	3.9	40.4				36	66.8		SABBIA LIM
13.2	644	1848		602	1808		19.6	117	120	2.50	4.1	41.9				36	71.1		SABBIA LIM
13.4	630	1901		584	1861		19.6	119	122	2.76	3.9	44.3				36	73.7		SABBIA LIM
13.6	696	1800		659	1760		19.6	121	124	2.06	4.4	38.2				37	66.5		SABBIA LIM
13.8	590	1502		562	1462		18.6	123	126	2.06	3.5	31.2				35	48.0		SABBIA LIM
14.0	599	1623		566	1583		19.6	125	128	2.32	3.5	35.3				35	54.5		SABBIA LIM
14.2	598	1762		558	1722		19.6	127	129	2.72	3.4	40.4				35	62.1		SABBIA LIM
14.4	503	1542		469	1502		18.6	129	131	3.06	2.6	35.9				34	47.9		SABBIA LIM
14.6	436	567		447	527		16.7	131	133	0.25	2.4	2.8		0.65	1.3		2.9	36	ARGILLA
14.8	371	621		376	581		16.7	132	135	0.85	1.8	7.1		0.50	0.87		6.0	26	LIMO
15.0	528	1441		500	1401		18.6	133	137	2.48	2.7	31.3				34	41.4		SABBIA LIM
15.2	550	1459		522	1419		18.6	135	139	2.34	2.8	31.1				34	42.0		SABBIA LIM
15.4	498	613		510	573		16.7	137	141	0.17	2.7	2.2		0.72	1.6		2.5	44	ARGILLA
15.6	501	621		513	581		16.7	138	143	0.18	2.7	2.4		0.71	1.6		2.7	44	ARGILLA
15.8	484	609		495	569		16.7	140	145	0.21	2.5	2.6		0.67	1.4		2.8	41	ARGILLA
16.0	498	615		510	575		16.7	141	147	0.18	2.6	2.3		0.69	1.5		2.5	42	ARGILLA
16.2	485	596		497	556		16.7	142	149	0.17	2.4	2.0		0.66	1.4		2.2	40	ARGILLA
16.4	479	588		491	548		16.7	144	151	0.17	2.4	2.0		0.64	1.3		2.0	39	ARGILLA
16.6	463	1047		452	1007		18.6	145	153	1.86	2.1	19.3				32	19.5		SABBIA LIM
16.8	445	567		457	527		16.7	147	155	0.23	2.1	2.4		0.56	1.0		2.1	33	ARGILLA
17.0	462	584		474	544		16.7	148	157	0.22	2.1	2.4		0.58	1.1		2.2	35	ARGILLA
17.2	481	597		493	557		16.7	150	159	0.19	2.2	2.2		0.60	1.2		2.1	38	ARGILLA
17.4	481	641		491	601		16.7	151	161	0.33	2.2	3.8		0.59	1.2		3.6	37	ARG LIM
17.6	483	633		493	593		16.7	152	163	0.30	2.2	3.5		0.59	1.1		3.2	37	ARGILLA
17.8	421	616		429	576		16.7	154	165	0.56	1.7	5.1		0.47	<0.8		4.3	28	ARG LIM
18.0	529	634		541	594		16.7	155	167	0.14	2.4	1.8		0.65	1.3		1.9	43	ARGILLA
18.2	500	719		507	679		16.7	156	169	0.51	2.2	6.0		0.59	1.1		5.6	38	ARG LIM
18.4	496	1243		476	1203		18.6	158	171	2.38	1.9	25.2				32	25.4		SABBIA LIM
18.6	627	1542		599	1502		18.6	160	173	2.12	2.7	31.3				34	40.0		SABBIA LIM
18.8	525	650		537	610		16.7	161	175	0.20	2.2	2.6		0.61	1.2		2.5	41	ARGILLA
19.0	511	1289		490	1249		18.6	163	177	2.42	1.9	26.3				32	26.5		SABBIA LIM
19.2	663	1636		632	1596		19.6	165	179	2.13	2.8	33.4				34	43.7		SABBIA LIM
19.4	636	1513		610	1473		18.6	166	181	2.01	2.6	29.9				34	37.0		SABBIA LIM
19.6	581	1511		552	1471		18.6	168	182	2.48	2.2	31.9				33	36.1		SABBIA LIM
19.8	527	664		538	624		16.7	170	184	0.24	2.1	3.0		0.57	1.1		2.7	39	ARGILLA
20.0	529	655		540	615		16.7	171	186	0.21	2.1	2.6		0.56	1.1		2.3	39	ARGILLA
20.2	540	678		551	638		16.7	173	188	0.24	2.1	3.0		0.57	1.1		2.7	40	ARGILLA
20.4	541	661		553	621		16.7	174	190	0.19	2.1	2.4		0.57	1.1		2.1	40	ARGILLA
20.6	560	701		571	661		16.7	176	192	0.24	2.2	3.1		0.59	1.1		2.9	42	ARGILLA
20.8	551	688		562	648		16.7	177	194	0.23	2.1	3.0		0.56	1.1		2.7	41	ARGILLA
21.0	540	652		552	612		16.7	178	196	0.17	2.0	2.1		0.54	1.0		1.8	39	ARGILLA
21.2	561	681		573	641		16.7	180	198	0.18	2.1	2.4		0.57	1.1		2.1	42	ARGILLA
21.4	571	684		583	644		16.7	181	200	0.16	2.1	2.1		0.57	1.1		1.9	43	ARGILLA
21.6	558	731		567	691		16.7	182	202	0.34	2.0	4.3		0.54	1.0		3.7	40	ARG LIM
21.8	564	678		576	638		16.7	184	204	0.17	2.0	2.1		0.55	1.0		1.9	41	ARGILLA
22.0	563	662		576	622		15.7	185	206	0.12	2.0	1.6		0.54	1.0		1.4	41	ARGILLA
22.2	568	695		579	655		16.7	186	208	0.20	2.0	2.6		0.54	1.0		2.2	41	ARGILLA
22.4	538	651		550	611		16.7	188	210	0.18	1.8	2.1		0.49	0.86		1.8	37	ARGILLA
22.6	553	702		563	662		16.7	189	212	0.28	1.9	3.4		0.51	0.89		2.9	38	ARGILLA
22.8	569	685		581	645		16.7	190	214	0.17	1.9	2.2		0.52	0.95		1.9	40	ARGILLA

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 23-14 DESCRIZIONE
23.0	563	687		575	647		16.7	192	216	0.20	1.9	2.5		0.51	0.90		2.1	39	ARGILLA
23.2	525	794		529	754		16.7	193	218	0.72	1.6	7.8		0.43	<0.8		6.6	32	LIMO ARG
23.4	636	822		644	782		16.7	195	220	0.32	2.2	4.8		0.59	1.1		4.5	48	ARGILLA
23.6	497	708		504	668		16.7	196	222	0.58	1.4	5.7		0.38	<0.8		4.8	29	ARG LIM
23.8	585	798		592	758		16.7	197	224	0.45	1.9	5.8		0.51	0.90		4.9	40	ARG LIM
24.0	596	732		607	692		16.7	199	226	0.22	1.9	3.0		0.52	0.94		2.5	42	ARGILLA
24.2	604	739		615	699		16.7	200	228	0.22	1.9	2.9		0.53	0.95		2.5	42	ARGILLA
24.4	704	1147		700	1107		17.7	201	230	0.87	2.3	14.1		0.63	1.3		14.6	54	LIMO
24.6	709	1716		676	1676		19.6	203	232	2.25	2.2	34.7				33	38.4		SABBIA LIM
24.8	605	719		617	679		16.7	205	233	0.16	1.9	2.1		0.51	0.90		1.8	41	ARGILLA
25.0	595	846		600	806		16.7	206	235	0.56	1.8	7.1		0.48	0.83		6.1	39	ARG LIM
25.2	870	2400		811	2360		19.6	208	237	2.70	2.8	53.7				34	73.0		SABBIA LIM
25.4	674	1482		651	1442		18.6	210	239	1.92	2.0	27.4				32	26.7		SABBIA LIM
25.6	995	2677		929	2637		19.6	211	241	2.49	3.3	59.3				35	88.1		SABBIA LIM
25.8	884	2501		821	2461		19.6	213	243	2.84	2.7	56.9				34	76.9		SABBIA LIM
26.0	760	2038		714	1998		19.6	215	245	2.74	2.2	44.6				33	51.2		SABBIA LIM
26.2	667	1279		654	1239		17.7	217	247	1.44	1.9	20.3					17.7		LIMO SAB
26.4	682	1621		653	1581		18.6	219	249	2.30	1.8	32.2				32	30.7		SABBIA LIM
26.6	801	1112		803	1072		17.7	221	251	0.49	2.5	9.3		0.67	1.4		10.1	64	ARG LIM
26.8	724	1643		696	1603		19.6	222	253	2.05	2.0	31.5				32	31.4		SABBIA LIM
27.0	770	1749		739	1709		19.6	224	255	2.01	2.2	33.7				33	36.0		SABBIA LIM
27.2	931	1223		934	1183		17.7	226	257	0.37	3.0	8.6		0.78	1.9		10.9	82	ARG LIM
27.4	960	1310		960	1270		17.7	228	259	0.44	3.1	10.7		0.80	2.0		13.9	86	ARG LIM
27.6	977	1356		976	1316		17.7	229	261	0.48	3.1	11.8		0.81	2.0		15.4	88	ARG LIM
27.8	906	1289		905	1249		17.7	231	263	0.54	2.8	12.0		0.74	1.7		14.2	77	ARG LIM
28.0	856	1235		855	1195		17.7	232	265	0.58	2.5	11.8		0.68	1.5		12.9	69	ARG LIM
28.2	948	1445		941	1405		19.1	234	267	0.69	2.9	16.1		0.76	1.8		19.8	81	LIMO ARG
28.4	1047	1625		1036	1585		19.1	236	269	0.72	3.3	19.1		0.84	2.1		25.9	95	LIMO ARG
28.6	1019	1574		1009	1534		19.1	238	271	0.71	3.1	18.2		0.81	2.0		23.9	91	LIMO ARG
28.8	995	1452		990	1412		18.6	240	273	0.59	3.0	14.6		0.78	1.9		18.5	87	ARG LIM
29.0	1106	1781		1090	1741		19.1	241	275	0.80	3.4	22.6		0.86	2.3		31.7	102	LIMO ARG
29.2	1095	1627		1086	1587		19.1	243	277	0.62	3.3	17.4		0.85	2.2		23.9	101	LIMO ARG
29.4	1171	1686		1163	1646		18.6	245	279	0.55	3.6	16.8		0.91	2.5		24.4	113	ARG LIM
29.6	1203	1779		1192	1739		19.1	247	281	0.60	3.7	19.0		0.93	2.6		28.1	117	LIMO ARG
29.8	1169	1698		1160	1658		18.6	249	283	0.57	3.5	17.3		0.89	2.4		24.7	111	ARG LIM
30.0	1178	1716		1169	1676		18.6	250	284	0.57	3.5	17.6		0.89	2.4		25.2	112	ARG LIM

DMT 24-14

3 DIC 2014

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 45 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 24-14 DESCRIZIONE
3.0	146	197		161			13.7	31	20										
3.2	253	523		258	478		16.7	32	22	0.93	7.3	7.7		1.5	7.6		16.7	36	LIMO
3.4	336	805		331	760		17.7	34	24	1.40	9.2	14.9					36.0		LIMO SAB
3.6	403	1003		391	958		17.7	35	26	1.55	10.4	19.7					49.9		LIMO SAB
3.8	479	1027		470	982		17.7	37	27	1.16	12.1	17.8		2.1	16.5		47.6	76	LIMO
4.0	370	819		366	774		17.7	38	29	1.22	8.8	14.2					33.6		LIMO SAB
4.2	275	461		284	416		16.7	40	31	0.52	6.3	4.6		1.4	6.1		9.3	37	ARG LIM
4.4	341	772		337	727		17.7	41	33	1.28	7.4	13.5					29.8		LIMO SAB
4.6	543	1169		530	1124		17.7	43	35	1.20	11.6	20.6					54.4		LIMO SAB
4.8	416	1041		403	996		17.7	44	37	1.62	8.2	20.6					47.7		LIMO SAB
5.0	415	1026		402	981		17.7	46	39	1.59	7.9	20.1					45.7		LIMO SAB
5.2	416	991		405	946		17.7	47	41	1.49	7.7	18.8					42.1		LIMO SAB
5.4	353	819		348	774		17.7	49	43	1.40	6.2	14.8					30.1		LIMO SAB
5.6	333	875		324	830		18.6	51	45	1.82	5.5	17.6				38	34.0		SABBIA LIM
5.8	310	661		310	616		16.7	52	47	1.16	5.0	10.6		1.2	4.2		19.3	36	LIMO
6.0	341	765		338	720		17.7	54	49	1.32	5.4	13.3					25.1		LIMO SAB
6.2	313	878		303	833		18.6	55	51	2.11	4.6	18.4				37	32.6		SABBIA LIM
6.4	385	904		377	859		17.7	57	53	1.49	5.7	16.7					32.7		LIMO SAB
6.6	450	906		445	861		17.7	59	55	1.07	6.7	14.4		1.4	6.5		30.2	58	LIMO
6.8	361	779		358	734		17.7	60	57	1.25	5.0	13.0					23.7		LIMO SAB
7.0	493	1259		473	1214		17.7	62	59	1.79	6.7	25.7					54.5		LIMO SAB
7.2	363	945		352	900		18.6	63	61	1.88	4.6	19.0				37	33.6		SABBIA LIM
7.4	378	1069		361	1024		18.6	65	63	2.22	4.6	23.0				37	41.0		SABBIA LIM
7.6	382	1073		365	1028		18.6	67	65	2.20	4.5	23.0				37	40.6		SABBIA LIM
7.8	443	1100		428	1055		17.7	69	67	1.73	5.3	21.8					41.1		LIMO SAB
8.0	431	1087		416	1042		18.6	70	69	1.80	4.9	21.7				37	39.8		SABBIA LIM
8.2	482	1203		464	1158		17.7	72	71	1.76	5.5	24.1					46.4		LIMO SAB
8.4	436	1155		418	1110		18.6	74	73	2.00	4.7	24.0				37	43.1		SABBIA LIM
8.6	384	1079		367	1034		18.6	75	75	2.28	3.9	23.1				36	37.8		SABBIA LIM
8.8	480	1264		459	1219		18.6	77	77	1.99	5.0	26.4				37	48.7		SABBIA LIM
9.0	495	1328		471	1283		18.6	79	78	2.07	5.0	28.2				37	52.2		SABBIA LIM
9.2	389	1125		370	1080		18.6	81	80	2.45	3.6	24.6				35	38.8		SABBIA LIM
9.4	447	1109		432	1064		18.6	82	82	1.81	4.2	21.9				36	37.0		SABBIA LIM
9.6	550	1426		524	1381		18.6	84	84	1.95	5.2	29.7				37	56.2		SABBIA LIM
9.8	520	1360		496	1315		18.6	86	86	2.00	4.8	28.4				37	51.4		SABBIA LIM
10.0	542	1438		515	1393		18.6	88	88	2.06	4.9	30.5				37	55.8		SABBIA LIM
10.2	453	1276		430	1231		18.6	89	90	2.36	3.8	27.8				36	45.0		SABBIA LIM
10.4	515	1343		492	1298		18.6	91	92	2.02	4.4	28.0				36	48.4		SABBIA LIM
10.6	537	1390		512	1345		18.6	93	94	1.99	4.5	28.9				37	50.7		SABBIA LIM
10.8	503	1305		481	1260		18.6	95	96	2.02	4.1	27.0				36	44.9		SABBIA LIM
11.0	478	1255		457	1210		18.6	97	98	2.10	3.7	26.1				36	41.4		SABBIA LIM
11.2	428	1144		410	1099		18.6	98	100	2.22	3.2	23.9				35	34.4		SABBIA LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 24-14 DESCRIZIONE
11.4	460	1124		445	1079		18.6	100	102	1.85	3.4	22.0				35	32.8		SABBIA LIM
11.6	416	1076		401	1031		18.6	102	104	2.12	2.9	21.9				34	29.7		SABBIA LIM
11.8	832	1126		835	1081		17.7	104	106	0.34	7.0	8.5		1.5	7.1		18.2	110	ARG LIM
12.0	446	1182		427	1137		18.6	105	108	2.22	3.0	24.6				35	34.6		SABBIA LIM
12.2	571	1407		547	1362		18.6	107	110	1.86	4.1	28.3				36	46.9		SABBIA LIM
12.4	649	1613		619	1568		19.6	109	112	1.87	4.7	32.9				37	58.7		SABBIA LIM
12.6	620	1489		595	1444		19.1	111	114	1.77	4.3	29.5					50.4		LIMO SAB
12.8	469	1381		441	1336		18.6	113	116	2.75	2.9	31.0				34	43.5		SABBIA LIM
13.0	483	1310		460	1265		18.6	114	118	2.36	3.0	27.9				34	39.2		SABBIA LIM
13.2	515	1308		493	1263		18.6	116	120	2.06	3.2	26.7				35	38.6		SABBIA LIM
13.4	526	1415		500	1370		18.6	118	122	2.30	3.2	30.2				35	44.1		SABBIA LIM
13.6	617	1548		588	1503		19.6	120	124	1.97	3.9	31.7				36	51.3		SABBIA LIM
13.8	532	1470		503	1425		18.6	122	126	2.44	3.1	32.0				35	46.1		SABBIA LIM
14.0	447	1389		418	1344		18.6	123	128	3.19	2.4	32.1				33	40.0		SABBIA LIM
14.2	532	1348		509	1303		18.6	125	129	2.09	3.0	27.5				35	38.4		SABBIA LIM
14.4	499	1264		479	1219		18.6	127	131	2.13	2.7	25.7				34	33.4		SABBIA LIM
14.6	479	1325		455	1280		18.6	129	133	2.57	2.5	28.6				33	36.0		SABBIA LIM
14.8	490	1183		473	1138		18.6	130	135	1.97	2.6	23.1				34	28.5		SABBIA LIM
15.0	380	614		386	569		16.7	132	137	0.73	1.9	6.3		0.51	0.91		5.4	27	LIMO ARG
15.2	492	1352		467	1307		18.6	134	139	2.56	2.5	29.1				33	36.1		SABBIA LIM
15.4	518	1379		493	1334		18.6	135	141	2.39	2.6	29.2				34	37.3		SABBIA LIM
15.6	595	1405		573	1360		18.6	137	143	1.83	3.1	27.3				35	38.4		SABBIA LIM
15.8	436	1150		418	1105		18.6	139	145	2.51	2.0	23.8				32	24.7		SABBIA LIM
16.0	375	503		387	458		15.7	141	147	0.30	1.7	2.5		0.46	<0.8		2.1	25	ARGILLA
16.2	354	485		365	440		15.7	142	149	0.34	1.5	2.6		0.41	<0.8		2.2	22	ARG LIM
16.4	353	499		364	454		15.7	143	151	0.42	1.5	3.1		0.40	<0.8		2.7	22	ARG LIM
16.6	366	461		379	416		15.7	144	153	0.16	1.6	1.3		0.42	<0.8		1.1	23	ARGILLA
16.8	354	466		366	421		15.7	145	155	0.26	1.5	1.9		0.39	<0.8		1.6	21	ARGILLA
17.0	360	502		371	457		15.7	146	157	0.40	1.5	3.0		0.39	<0.8		2.5	22	ARG LIM
17.2	320	436		332	391		15.7	148	159	0.34	1.2	2.0		< 0.3	<0.8		1.7	17	ARG LIM
17.4	371	496		383	451		15.7	149	161	0.31	1.5	2.4		0.40	<0.8		2.0	23	ARGILLA
17.6	400	657		405	612		16.7	150	163	0.85	1.6	7.2		0.43	<0.8		6.1	25	LIMO
17.8	333	454		345	409		15.7	151	165	0.36	1.2	2.2		< 0.3	<0.8		1.9	17	ARG LIM
18.0	326	430		339	385		15.7	153	167	0.27	1.1	1.6		< 0.3	<0.8		1.4	16	ARGILLA
18.2	325	487		335	442		15.7	154	169	0.64	1.1	3.7		< 0.3	<0.8		3.2	16	LIMO ARG
18.4	384	644		389	599		16.7	155	171	0.96	1.4	7.3		0.37	<0.8		6.2	22	LIMO
18.6	422	809		421	764		16.7	156	173	1.38	1.6	11.9					10.1		LIMO SAB
18.8	372	513		383	468		15.7	158	175	0.41	1.3	3.0		0.34	<0.8		2.5	21	ARG LIM
19.0	338	538		346	493		16.7	159	177	0.87	1.1	5.1		< 0.3	<0.8		4.3	16	LIMO
19.2	351	486		362	441		15.7	160	179	0.43	1.1	2.7		< 0.3	<0.8		2.3	18	ARG LIM
19.4	375	619		381	574		16.7	161	181	0.96	1.2	6.7		0.31	<0.8		5.7	20	LIMO
19.6	380	817		376	772		17.7	163	182	2.04	1.2	13.7				29	11.7		SABBIA LIM
19.8	396	669		400	624		16.7	164	184	1.04	1.3	7.8		0.34	<0.8		6.6	21	LIMO
20.0	401	608		409	563		16.7	166	186	0.69	1.3	5.4		0.35	<0.8		4.6	22	LIMO ARG
20.2	406	786		405	741		16.7	167	188	1.55	1.3	11.7					9.9		LIMO SAB
20.4	393	656		398	611		16.7	168	190	1.03	1.2	7.4		0.31	<0.8		6.3	20	LIMO
20.6	424	563		435	518		15.7	170	192	0.34	1.4	2.9		0.38	<0.8		2.4	25	ARG LIM
20.8	431	541		444	496		15.7	171	194	0.21	1.5	1.8		0.39	<0.8		1.5	25	ARGILLA
21.0	435	557		447	512		15.7	172	196	0.26	1.5	2.3		0.39	<0.8		1.9	25	ARGILLA
21.2	430	573		441	528		16.7	173	198	0.36	1.4	3.0		0.37	<0.8		2.6	24	ARG LIM
21.4	487	619		498	574		16.7	175	200	0.25	1.7	2.6		0.46	<0.8		2.2	32	ARGILLA
21.6	488	604		500	559		15.7	176	202	0.20	1.7	2.0		0.46	<0.8		1.7	31	ARGILLA
21.8	518	639		530	594		16.7	177	204	0.20	1.8	2.2		0.50	0.88		1.9	35	ARGILLA
22.0	481	627		492	582		16.7	179	206	0.32	1.6	3.1		0.43	<0.8		2.7	30	ARGILLA
22.2	494	617		506	572		16.7	180	208	0.22	1.7	2.3		0.45	<0.8		2.0	31	ARGILLA
22.4	501	639		512	594		16.7	181	210	0.27	1.7	2.8		0.45	<0.8		2.4	32	ARGILLA
22.6	520	952		516	907		17.7	183	212	1.28	1.7	13.6					11.5		LIMO SAB
22.8	489	654		499	609		16.7	184	214	0.39	1.5	3.8		0.41	<0.8		3.3	29	ARG LIM
23.0	538	893		538	848		17.7	186	216	0.96	1.7	10.7		0.47	0.80		9.1	34	LIMO

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 24-14 DESCRIZIONE
23.2	552	692		563	647		16.7	187	218	0.24	1.8	2.9		0.50	0.88		2.5	37	ARGILLA
23.4	544	675		555	630		16.7	189	220	0.22	1.8	2.6		0.48	0.84		2.2	36	ARGILLA
23.6	548	677		560	632		16.7	190	222	0.21	1.8	2.5		0.48	0.83		2.1	36	ARGILLA
23.8	572	720		583	675		16.7	191	224	0.26	1.9	3.2		0.51	0.91		2.7	39	ARGILLA
24.0	594	726		605	681		16.7	193	226	0.20	2.0	2.6		0.54	0.98		2.2	42	ARGILLA
24.2	539	748		547	703		16.7	194	228	0.49	1.6	5.4		0.44	<0.8		4.6	33	ARG LIM
24.4	569	1006		565	961		17.7	196	230	1.18	1.7	13.7		0.46	<0.8		11.7	36	LIMO
24.6	497	1253		477	1208		18.6	197	232	2.97	1.2	25.4				29	21.6		SABBIA LIM
24.8	584	722		595	677		16.7	199	233	0.23	1.8	2.8		0.49	0.86		2.4	39	ARGILLA
25.0	590	716		602	671		16.7	200	235	0.19	1.8	2.4		0.50	0.87		2.0	39	ARGILLA
25.2	510	664		520	619		16.7	202	237	0.35	1.4	3.4		0.37	<0.8		2.9	28	ARG LIM
25.4	598	819		605	774		16.7	203	239	0.46	1.8	5.9		0.49	0.85		5.0	39	ARG LIM
25.6	486	722		492	677		16.7	204	241	0.74	1.2	6.4		0.31	<0.8		5.5	24	LIMO ARG
25.8	602	772		612	727		16.7	206	243	0.31	1.8	4.0		0.49	0.84		3.4	39	ARGILLA
26.0	698	772		712	727		13.7	207	245	0.03	2.3	0.5		0.61	1.2		0.5	53	FANGO E/O TORBA
26.2	555	1068		547	1023		17.7	208	247	1.58	1.4	16.5					14.0		LIMO SAB
26.4	685	1668		654	1623		18.6	209	249	2.39	1.9	33.6				32	33.9		SABBIA LIM
26.6	561	951		560	906		17.7	211	251	1.12	1.5	12.0		0.39	<0.8		10.2	31	LIMO
26.8	493	1330		469	1285		18.6	213	253	3.78	1.0	28.3				28	24.1		SABBIA
27.0	731	1616		705	1571		19.6	215	255	1.93	2.1	30.1				32	31.1		SABBIA LIM
27.2	649	1405		629	1360		18.6	216	257	1.96	1.7	25.4				31	21.6		SABBIA LIM
27.4	681	2152		625	2107		19.6	218	259	4.04	1.7	51.4				31	48.8		SABBIA
27.6	772	2129		722	2084		19.6	220	261	2.95	2.1	47.3				32	53.7		SABBIA LIM
27.8	876	2071		834	2026		19.6	222	263	2.09	2.6	41.4				34	51.3		SABBIA LIM
28.0	797	1053		802	1008		17.7	224	265	0.38	2.4	7.1		0.65	1.3		7.4	62	ARG LIM
28.2	650	1021		649	976		17.7	226	267	0.85	1.7	11.3		0.46	<0.8		9.6	40	LIMO
28.4	722	1611		696	1566		18.6	227	269	2.04	1.9	30.2				32	28.5		SABBIA LIM
28.6	671	1602		642	1557		18.6	229	271	2.46	1.6	31.7				31	27.2		SABBIA LIM
28.8	693	1973		647	1928		19.6	231	273	3.42	1.6	44.5				31	40.9		SABBIA
29.0	813	2030		770	1985		19.6	233	275	2.45	2.1	42.2				33	46.4		SABBIA LIM
29.2	764	1879		726	1834		19.6	235	277	2.46	1.9	38.4				32	38.7		SABBIA LIM
29.4	938	2229		891	2184		19.6	237	279	2.11	2.6	44.9				34	56.0		SABBIA LIM
29.6	797	1701		770	1656		19.6	239	281	1.81	2.0	30.8				32	30.8		SABBIA LIM
29.8	913	2204		866	2159		19.6	241	283	2.21	2.4	44.9				33	53.7		SABBIA LIM
30.0	1214	2987		1143	2942		21.1	243	284	2.09	3.5	62.4				35	95.9		SABBIA LIM
30.2	820	1614		798	1569		19.1	245	286	1.51	2.1	26.7					26.4		LIMO SAB

DMT 25-14

28 NOV 2014

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 45 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 25-14 DESCRIZIONE
3.2	100	240		111	195		15.7	33	22	0.94	2.7	2.9		0.72	1.6		3.5	11	LIMO
3.4	120	400		124	355		16.7	34	24	2.30	3.0	8.0				34	11.1		SABBIA LIM
3.6	150	560		148	515		17.7	35	26	3.01	3.4	12.8				35	20.1		SABBIA LIM
3.8	400	1250		376	1205		18.6	37	27	2.38	9.4	28.8				40	70.4		SABBIA LIM
4.0	300	1100		278	1055		18.6	39	29	3.13	6.4	27.0				38	57.0		SABBIA LIM
4.2	260	8200		165	8155		18.6	40	31	59.80	3.3	277.3				35	426.3		SABBIA
4.4	370	1050		354	1005		18.6	42	33	2.03	7.6	22.6				39	50.7		SABBIA LIM
4.6	320	1080		300	1035		18.6	44	35	2.78	6.0	25.5				38	52.3		SABBIA LIM
4.8	330	1400		295	1355		18.6	46	37	4.12	5.6	36.8				38	73.6		SABBIA
5.0	400	1250		376	1205		18.6	48	39	2.47	7.1	28.8				39	63.0		SABBIA LIM
5.2	360	1100		341	1055		18.6	49	41	2.38	6.1	24.8				38	50.7		SABBIA LIM
5.4	300	1200		273	1155		18.6	51	43	3.84	4.5	30.6				37	55.3		SABBIA
5.6	360	1300		331	1255		18.6	53	45	3.23	5.4	32.1				38	63.1		SABBIA LIM
5.8	360	1300		331	1255		18.6	55	47	3.25	5.2	32.1				37	61.9		SABBIA LIM
6.0	430	1500		395	1455		18.6	56	49	3.07	6.1	36.8				38	76.4		SABBIA LIM
6.2	380	1550		340	1505		18.6	58	51	4.04	5.0	40.4				37	76.5		SABBIA
6.4	320	1000		304	955		18.6	60	53	2.59	4.2	22.6				36	38.9		SABBIA LIM
6.6	300	820		292	775		18.6	62	55	2.04	3.8	16.8				36	27.0		SABBIA LIM
6.8	300	820		292	775		18.6	63	57	2.05	3.7	16.8				36	26.4		SABBIA LIM
7.0	220	640		217	595		17.7	65	59	2.39	2.4	13.1				33	15.9		SABBIA LIM
7.2	380	1250		355	1205		18.6	67	61	2.90	4.4	29.5				37	52.6		SABBIA LIM
7.4	300	1050		281	1005		18.6	69	63	3.33	3.2	25.1				35	37.8		SABBIA
7.6	400	1300		373	1255		18.6	70	65	2.86	4.4	30.6				37	54.4		SABBIA LIM
7.8	400	1300		373	1255		18.6	72	67	2.88	4.3	30.6				36	53.6		SABBIA LIM
8.0	420	1250		397	1205		18.6	74	69	2.47	4.4	28.1				37	49.6		SABBIA LIM
8.2	390	1250		365	1205		18.6	76	71	2.85	3.9	29.1				36	48.7		SABBIA LIM
8.4	420	16300		261	16255		19.6	77	73	84.89	2.4	555.0				33	706.6		SABBIA
8.6	440	1300		415	1255		18.6	79	75	2.47	4.3	29.1				36	50.6		SABBIA LIM
8.8	500	1500		468	1455		18.6	81	77	2.52	4.8	34.2				37	63.2		SABBIA LIM
9.0	480	1450		450	1405		18.6	83	78	2.58	4.5	33.2				37	59.0		SABBIA LIM
9.2	370	1200		347	1155		18.6	85	80	3.04	3.1	28.1				35	41.9		SABBIA LIM
9.4	350	1200		326	1155		18.6	86	82	3.41	2.8	28.8				34	40.3		SABBIA
9.6	540	1550		508	1505		19.6	88	84	2.36	4.8	34.6				37	63.4		SABBIA LIM
9.8	400	1350		371	1305		18.6	90	86	3.29	3.2	32.4				35	48.6		SABBIA LIM
10.0	540	1500		510	1455		18.6	92	88	2.24	4.6	32.8				37	58.5		SABBIA LIM
10.2	500	1550		466	1505		18.6	94	90	2.77	4.0	36.1				36	61.0		SABBIA LIM
10.4	420	1300		394	1255		18.6	95	92	2.85	3.2	29.9				35	44.5		SABBIA LIM
10.6	280	1050		260	1005		17.7	97	94	4.51	1.7	25.9				31	24.9		SABBIA
10.8	450	1350		423	1305		18.6	99	96	2.70	3.3	30.6				35	46.5		SABBIA LIM
11.0	580	1800		537	1755		19.6	101	98	2.78	4.4	42.3				36	74.7		SABBIA LIM
11.2	950	2450		893	2405		19.6	102	100	1.91	7.7	52.5				39	118.5		SABBIA LIM
11.4	620	1450		597	1405		19.1	104	102	1.64	4.7	28.1					50.1		LIMO SAB

11.6	560	1100		551	1055		17.7	106	104	1.13	4.2	17.5		1.0	3.2		28.7	59	LIMO
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 25-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
11.8	420	1620		378	1575		18.6	108	106	4.40	2.5	41.5				34	54.1		SABBIA
12.0	650	1750		613	1705		19.6	110	108	2.16	4.6	37.9				37	67.6		SABBIA LIM
12.2	570	1700		532	1655		19.6	112	110	2.66	3.8	39.0				36	63.7		SABBIA LIM
12.4	580	1600		547	1555		19.6	114	112	2.32	3.8	35.0				36	56.8		SABBIA LIM
12.6	550	1450		523	1405		18.6	116	114	2.16	3.5	30.6				35	47.2		SABBIA LIM
12.8	620	1600		589	1555		19.6	117	116	2.04	4.0	33.5				36	55.5		SABBIA LIM
13.0	580	1550		550	1505		19.6	119	118	2.21	3.6	33.2				36	51.9		SABBIA LIM
13.2	700	1800		663	1755		19.6	121	120	2.01	4.5	37.9				37	66.4		SABBIA LIM
13.4	630	1750		592	1705		19.6	123	122	2.37	3.8	38.6				36	62.7		SABBIA LIM
13.6	650	1650		618	1605		19.6	125	124	2.00	4.0	34.2				36	55.9		SABBIA LIM
13.8	650	1750		613	1705		19.6	127	126	2.24	3.8	37.9				36	61.4		SABBIA LIM
14.0	600	1650		566	1605		19.6	129	128	2.37	3.4	36.1				35	54.7		SABBIA LIM
14.2	670	1850		629	1805		19.6	131	129	2.35	3.8	40.8				36	66.2		SABBIA LIM
14.4	650	1750		613	1705		19.6	133	131	2.27	3.6	37.9				36	59.5		SABBIA LIM
14.6	750	2000		705	1955		19.6	135	133	2.18	4.2	43.4				36	74.1		SABBIA LIM
14.8	1000	2150		961	2105		19.1	137	135	1.39	6.0	39.7					79.7		LIMO SAB
15.0	350	850		343	805		17.7	139	137	2.25	1.5	16.0				30	13.6		SABBIA LIM
15.2	320	450		332	405		15.7	140	139	0.38	1.4	2.6		0.36	<0.8		2.2	19	ARG LIM
15.4	300	400		313	355		15.7	142	141	0.24	1.2	1.5		0.30	<0.8		1.2	17	ARGILLA
15.6	300	420		312	375		15.7	143	143	0.37	1.2	2.2		< 0.3	<0.8		1.9	16	ARG LIM
15.8	340	440		353	395		15.7	144	145	0.20	1.4	1.5		0.38	<0.8		1.2	21	ARGILLA
16.0	340	450		353	405		15.7	145	147	0.26	1.4	1.8		0.37	<0.8		1.5	21	ARGILLA
16.2	330	490		340	445		15.7	146	149	0.55	1.3	3.6		0.34	<0.8		3.1	19	ARG LIM
16.4	330	490		340	445		15.7	147	151	0.56	1.3	3.6		0.33	<0.8		3.1	19	ARG LIM
16.6	350	540		359	495		16.7	149	153	0.66	1.4	4.7		0.36	<0.8		4.0	21	LIMO ARG
16.8	520	1400		494	1355		18.6	150	155	2.54	2.3	29.9				33	34.8		SABBIA LIM
17.0	440	1200		420	1155		18.6	152	157	2.79	1.7	25.5				31	24.3		SABBIA LIM
17.2	440	600		450	555		16.7	153	159	0.36	1.9	3.6		0.52	0.92		3.1	32	ARG LIM
17.4	500	1150		486	1105		18.6	155	161	1.91	2.1	21.5				32	22.2		SABBIA LIM
17.6	500	900		498	855		17.7	157	163	1.07	2.1	12.4		0.58	1.1		12.0	37	LIMO
17.8	500	1000		493	955		17.7	158	165	1.41	2.1	16.0					15.6		LIMO SAB
18.0	640	1600		610	1555		19.6	160	167	2.13	2.8	32.8				34	43.1		SABBIA LIM
18.2	620	1350		602	1305		17.7	162	169	1.63	2.7	24.4					30.2		LIMO SAB
18.4	580	1300		562	1255		17.7	163	171	1.77	2.4	24.0					27.5		LIMO SAB
18.6	780	1900		742	1855		19.6	165	173	1.95	3.5	38.6				35	58.1		SABBIA LIM
18.8	850	2300		795	2255		19.6	167	175	2.35	3.7	50.6				36	81.0		SABBIA LIM
19.0	620	1300		604	1255		17.7	169	177	1.52	2.5	22.6					26.5		LIMO SAB
19.2	570	820		576	775		17.7	170	179	0.50	2.3	6.9		0.63	1.3		7.0	45	ARG LIM
19.4	830	2050		787	2005		19.6	172	181	2.01	3.5	42.3				35	64.6		SABBIA LIM
19.6	900	2250		850	2205		19.6	174	182	2.03	3.8	47.0				36	75.6		SABBIA LIM
19.8	550	1350		528	1305		18.6	176	184	2.26	2.0	27.0				32	27.0		SABBIA LIM
20.0	540	700		550	655		16.7	178	186	0.29	2.0	3.6		0.56	1.0		3.2	40	ARGILLA
20.2	550	700		561	655		16.7	179	188	0.25	2.1	3.3		0.57	1.1		2.9	41	ARGILLA
20.4	550	700		561	655		16.7	180	190	0.26	2.1	3.3		0.56	1.0		2.9	41	ARGILLA
20.6	550	750		558	705		16.7	182	192	0.40	2.0	5.1		0.55	1.0		4.4	40	ARG LIM
20.8	550	700		561	655		16.7	183	194	0.26	2.0	3.3		0.54	1.0		2.8	40	ARGILLA
21.0	550	700		561	655		16.7	184	196	0.26	2.0	3.3		0.54	0.98		2.8	40	ARGILLA
21.2	600	1000		598	955		17.7	186	198	0.89	2.2	12.4		0.58	1.1		11.8	45	LIMO
21.4	560	700		571	655		16.7	187	200	0.23	2.0	2.9		0.54	0.99		2.5	41	ARGILLA
21.6	560	720		570	675		16.7	189	202	0.29	1.9	3.6		0.53	0.96		3.1	40	ARGILLA
21.8	540	690		551	645		16.7	190	204	0.27	1.8	3.3		0.50	0.87		2.8	37	ARGILLA
22.0	470	650		479	605		16.7	192	206	0.46	1.4	4.4		0.38	<0.8		3.7	28	ARG LIM
22.2	500	700		508	655		16.7	193	208	0.49	1.6	5.1		0.42	<0.8		4.3	31	ARG LIM
22.4	470	720		476	675		16.7	194	210	0.75	1.4	6.9		0.36	<0.8		5.9	27	LIMO ARG
22.6	500	660		510	615		16.7	196	212	0.35	1.5	3.6		0.41	<0.8		3.1	31	ARG LIM
22.8	550	770		557	725		16.7	197	214	0.49	1.7	5.8		0.47	0.81		5.0	36	ARG LIM
23.0	470	660		479	615		16.7	198	216	0.52	1.3	4.7		0.34	<0.8		4.0	26	ARG LIM
23.2	680	1500		657	1455		18.6	200	218	1.82	2.2	27.7				33	29.6		SABBIA LIM

23.4	590	1350		570	1305		18.6	202	220	2.10	1.7	25.5				31	22.4		SABBIA LIM
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 25-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
23.6	570	940		570	895		17.7	203	222	0.94	1.7	11.3		0.46	<0.8		9.6	37	LIMO
23.8	580	750		590	705		16.7	205	224	0.32	1.8	4.0		0.48	0.84		3.4	39	ARGILLA
24.0	620	1100		614	1055		17.7	206	226	1.14	1.9	15.3		0.51	0.91		13.0	42	LIMO
24.2	550	760		558	715		16.7	208	228	0.48	1.6	5.5		0.43	<0.8		4.6	34	ARG LIM
24.4	550	760		558	715		16.7	209	230	0.48	1.6	5.5		0.42	<0.8		4.6	34	ARG LIM
24.6	540	830		544	785		16.7	211	232	0.77	1.5	8.4		0.39	<0.8		7.1	32	LIMO ARG
24.8	1000	1950		971	1905		19.1	212	233	1.27	3.5	32.4					47.5		LIMO SAB
25.0	550	860		553	815		16.7	214	235	0.83	1.5	9.1		0.39	<0.8		7.7	32	LIMO
25.2	580	750		590	705		16.7	215	237	0.33	1.6	4.0		0.44	<0.8		3.4	37	ARGILLA
25.4	590	700		603	655		16.7	217	239	0.14	1.7	1.8		0.45	<0.8		1.5	38	ARGILLA
25.6	600	870		605	825		17.7	218	241	0.61	1.7	7.7		0.45	<0.8		6.5	38	LIMO ARG
25.8	880	2300		827	2255		19.6	220	243	2.45	2.7	49.6				34	64.5		SABBIA LIM
26.0	1000	2500		943	2455		19.6	221	245	2.17	3.2	52.5				35	75.2		SABBIA LIM
26.2	1100	2550		1046	2505		19.6	223	247	1.83	3.6	50.6				35	77.4		SABBIA LIM
26.4	680	2200		622	2155		19.6	225	249	4.11	1.7	53.2				31	49.9		SABBIA
26.6	620	790		630	745		16.7	227	251	0.31	1.7	4.0		0.45	<0.8		3.4	40	ARGILLA
26.8	700	1300		688	1255		17.7	229	253	1.30	1.9	19.7					17.2		LIMO SAB
27.0	650	1250		638	1205		17.7	230	255	1.48	1.7	19.7					16.7		LIMO SAB
27.2	650	830		659	785		16.7	232	257	0.31	1.7	4.4		0.47	0.80		3.7	43	ARGILLA
27.4	700	1000		703	955		17.7	233	259	0.57	1.9	8.7		0.52	0.93		7.4	48	ARG LIM
27.6	700	1000		703	955		17.7	235	261	0.57	1.9	8.7		0.51	0.91		7.4	48	ARG LIM
27.8	660	950		663	905		17.7	236	263	0.60	1.7	8.4		0.46	<0.8		7.1	42	LIMO ARG
28.0	580	1100		572	1055		17.7	238	265	1.57	1.3	16.8					14.2		LIMO SAB
28.2	700	900		708	855		16.7	240	267	0.33	1.8	5.1		0.50	0.88		4.3	48	ARG LIM
28.4	720	1700		689	1655		18.6	241	269	2.30	1.7	33.5				31	30.3		SABBIA LIM
28.6	650	1300		635	1255		17.7	243	271	1.70	1.5	21.5					18.3		LIMO SAB
28.8	700	950		705	905		17.7	244	273	0.46	1.8	6.9		0.48	0.83		5.9	46	ARG LIM
29.0	770	1450		754	1405		17.7	246	275	1.36	2.0	22.6					20.4		LIMO SAB
29.2	800	1750		770	1705		19.6	247	277	1.89	2.0	32.4				32	31.9		SABBIA LIM
29.4	730	1690		700	1645		18.6	249	279	2.24	1.7	32.8				31	28.5		SABBIA LIM
29.6	800	1200		798	1155		17.7	251	281	0.69	2.1	12.4		0.56	1.1		11.0	57	LIMO ARG
29.8	830	1200		829	1155		17.7	253	283	0.60	2.2	11.3		0.59	1.1		10.5	61	ARG LIM
30.0	800	1150		800	1105		17.7	254	284	0.59	2.0	10.6		0.55	1.0		9.1	57	ARG LIM

DMT 26-14

11 DIC 2014

GEOSTUDI SRL
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LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 40 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 0.6 m

Falda a 0.60 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 26-14 DESCRIZIONE
3.0	241	439		249	399		16.7	27	24	0.67	8.2	5.2		1.6	9.1		12.0	35	LIMO ARG
3.2	159	306		169	266		15.7	29	26	0.67	5.0	3.4		1.2	4.2		6.0	20	LIMO ARG
3.4	166	266		179	226		15.7	30	27	0.31	5.0	1.6		1.2	4.2		2.9	21	ARGILLA
3.6	201	671		195	631		17.7	31	29	2.63	5.3	15.1				37	29.3		SABBIA LIM
3.8	275	831		265	791		18.6	33	31	2.25	7.1	18.3				39	40.0		SABBIA LIM
4.0	307	954		292	914		18.6	35	33	2.40	7.5	21.6				39	48.3		SABBIA LIM
4.2	333	947		320	907		18.6	36	35	2.06	7.8	20.4				39	46.3		SABBIA LIM
4.4	304	751		299	711		17.7	38	37	1.57	6.9	14.3					30.6		LIMO SAB
4.6	307	780		301	740		17.7	40	39	1.68	6.6	15.2					32.1		LIMO SAB
4.8	398	1200		376	1160		18.6	41	41	2.35	8.1	27.2				40	62.9		SABBIA LIM
5.0	293	1023		274	983		18.6	43	43	3.07	5.4	24.6				38	48.2		SABBIA LIM
5.2	284	988		267	948		18.6	45	45	3.08	5.0	23.6				37	44.7		SABBIA LIM
5.4	335	1010		319	970		18.6	46	47	2.39	5.8	22.6				38	45.5		SABBIA LIM
5.6	352	1081		333	1041		18.6	48	49	2.49	5.9	24.6				38	49.7		SABBIA LIM
5.8	319	825		311	785		18.6	50	51	1.82	5.2	16.4				37	30.9		SABBIA LIM
6.0	265	646		264	606		16.7	52	53	1.62	4.1	11.9					19.5		LIMO SAB
6.2	313	988		297	948		18.6	53	55	2.69	4.6	22.6				37	40.7		SABBIA LIM
6.4	360	1147		338	1107		18.6	55	57	2.73	5.1	26.7				37	50.9		SABBIA LIM
6.6	387	1084		370	1044		18.6	57	59	2.17	5.5	23.4				38	45.5		SABBIA LIM
6.8	287	422		298	382		15.7	58	61	0.35	4.1	2.9		1.0	3.0		4.6	31	ARG LIM
7.0	345	967		332	927		18.6	60	63	2.21	4.5	20.7				37	36.5		SABBIA LIM
7.2	469	1321		444	1281		18.6	61	65	2.21	6.2	29.0				38	59.7		SABBIA LIM
7.4	436	1209		415	1169		18.6	63	67	2.16	5.5	26.2				38	51.0		SABBIA LIM
7.6	438	1217		417	1177		18.6	65	69	2.18	5.4	26.4				38	50.8		SABBIA LIM
7.8	519	1441		491	1401		18.6	67	71	2.17	6.3	31.6				38	65.5		SABBIA LIM
8.0	571	1641		535	1601		19.6	68	73	2.30	6.8	37.0				39	79.2		SABBIA LIM
8.2	629	1792		589	1752		19.6	70	75	2.26	7.3	40.4				39	89.3		SABBIA LIM
8.4	661	1893		617	1853		19.6	72	77	2.29	7.5	42.9				39	95.8		SABBIA LIM
8.6	268	817		258	777		17.7	74	78	2.88	2.4	18.0				33	22.6		SABBIA LIM
8.8	524	1585		489	1545		19.6	76	80	2.59	5.4	36.7				38	71.3		SABBIA LIM
9.0	533	1558		500	1518		19.6	78	82	2.44	5.4	35.3				38	68.4		SABBIA LIM
9.2	588	1643		553	1603		19.6	80	84	2.24	5.9	36.4				38	73.3		SABBIA LIM
9.4	568	1550		537	1510		19.6	82	86	2.16	5.5	33.8				38	65.8		SABBIA LIM
9.6	514	1526		481	1486		18.6	84	88	2.56	4.7	34.9				37	63.5		SABBIA LIM
9.8	495	1539		461	1499		18.6	86	90	2.80	4.3	36.0				36	63.5		SABBIA LIM
10.0	656	1868		613	1828		19.6	87	92	2.33	6.0	42.2				38	85.5		SABBIA LIM
10.2	641	1715		605	1675		19.6	89	94	2.09	5.7	37.1				38	73.6		SABBIA LIM
10.4	564	1610		529	1570		19.6	91	96	2.40	4.8	36.1				37	65.9		SABBIA LIM
10.6	573	1628		538	1588		19.6	93	98	2.39	4.7	36.4				37	66.2		SABBIA LIM
10.8	560	1564		528	1524		19.6	95	100	2.33	4.5	34.6				37	61.2		SABBIA LIM
11.0	756	2287		697	2247		19.6	97	102	2.60	6.1	53.8				38	110.9		SABBIA LIM
11.2	1045	3787		926	3747		21.1	99	104	3.43	8.3	97.9				40	228.8		SABBIA

DMT 26-14BIS

11 DIC 2014

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(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
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GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 0.6 m

Falda a 0.60 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 26-14BIS DESCRIZIONE
0.2	5	0		20			0.0	3	0										
0.4	28	0		43			0.0	3	0										
2.4	60	100		76			13.7	-14	18										
2.6	91	397		93	357		16.7	-13	20	3.57		9.1							SABBIA
2.8	123	310		131	270		15.7	-12	22	1.26		4.8							LIMO SAB
3.0	219	476		224	436		16.7	-11	24	1.06		7.4		< 0.3					LIMO
3.2	283	541		288	501		16.7	-10	26	0.81		7.4		< 0.3					LIMO
3.4	255	456		263	416		16.7	-8	27	0.65		5.3		< 0.3					LIMO ARG
3.6	233	743		225	703		17.7	-7	29	2.44		16.6							SABBIA LIM
3.8	311	867		301	827		18.6	-5	31	1.95		18.3							SABBIA LIM
4.0	296	857		286	817		18.6	-3	33	2.11		18.4							SABBIA LIM
4.2	329	936		316	896		18.6	-2	35	2.06		20.1							SABBIA LIM
4.4	312	902		300	862		18.6	0	37	2.14	>99.9	19.5					91.2		SABBIA LIM
4.6	464	834		463	794		17.7	2	39	0.78	>99.9	11.5		6.6	>99.9		53.7	53	LIMO ARG
4.8	415	1126		397	1086		18.6	3	41	1.93	>99.9	23.9					111.8		SABBIA LIM
5.0	430	1146		412	1106		18.6	5	43	1.88	71.4	24.1				48	105.0		SABBIA LIM
5.2	382	1191		359	1151		18.6	7	45	2.52	45.3	27.5				46	108.0		SABBIA LIM
5.4	332	1028		315	988		18.6	9	47	2.51	30.8	23.4				45	83.3		SABBIA LIM
5.6	412	1157		393	1117		18.6	10	49	2.11	32.8	25.1				45	91.1		SABBIA LIM
5.8	323	1019		306	979		18.6	12	51	2.64	20.8	23.4				44	74.6		SABBIA LIM
6.0	297	838		288	798		18.6	14	53	2.17	16.8	17.7				43	52.9		SABBIA LIM
6.2	349	887		340	847		17.7	16	55	1.78	18.1	17.6					53.9		LIMO SAB
6.4	410	808		408	768		17.7	17	57	1.03	20.3	12.5		2.8	37.1		39.6	69	LIMO
6.6	341	1018		325	978		18.6	19	59	2.45	14.1	22.7				42	64.0		SABBIA LIM
6.8	297	774		291	734		17.7	21	61	1.93	11.1	15.4				41	40.0		SABBIA LIM
7.0	423	1330		395	1290		18.6	22	63	2.69	15.0	31.0				42	89.4		SABBIA LIM
7.2	402	1137		383	1097		18.6	24	65	2.24	13.3	24.8				42	68.6		SABBIA LIM
7.4	424	1157		405	1117		18.6	26	67	2.10	13.1	24.7				42	68.1		SABBIA LIM
7.6	447	1285		423	1245		18.6	28	69	2.32	12.9	28.5				42	78.1		SABBIA LIM
7.8	469	1235		448	1195		18.6	29	71	1.98	12.9	25.9				42	71.0		SABBIA LIM
8.0	525	1494		494	1454		18.6	31	73	2.28	13.6	33.3				42	92.9		SABBIA LIM
8.2	485	1555		449	1515		18.6	33	75	2.84	11.4	37.0				41	97.1		SABBIA LIM
8.4	541	1557		508	1517		19.6	35	77	2.34	12.5	35.0				41	94.9		SABBIA LIM
8.6	516	1454		487	1414		18.6	37	78	2.27	11.2	32.2				41	83.8		SABBIA LIM
8.8	483	1388		456	1348		18.6	38	80	2.38	9.8	31.0				40	76.8		SABBIA LIM
9.0	495	1336		471	1296		18.6	40	82	2.13	9.7	28.6				40	70.7		SABBIA LIM
9.2	477	1345		451	1305		18.6	42	84	2.33	8.8	29.6				40	70.5		SABBIA LIM
9.4	549	1491		520	1451		19.6	44	86	2.15	9.9	32.3				40	80.6		SABBIA LIM
9.6	654	1769		616	1729		19.6	46	88	2.11	11.6	38.6				41	101.9		SABBIA LIM
9.8	530	1590		495	1550		19.6	48	90	2.61	8.5	36.6				40	86.3		SABBIA LIM
10.0	571	1637		535	1597		19.6	50	92	2.40	9.0	36.8				40	88.4		SABBIA LIM
10.2	612	1731		574	1691		19.6	51	94	2.33	9.3	38.8				40	94.4		SABBIA LIM

10.4	671	1855		630	1815		19.6	53	96	2.22	10.0	41.1				40	102.8		SABBIA LIM
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 26-14BIS
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
10.6	626	1789		586	1749		19.6	55	98	2.39	8.8	40.4				40	96.2		SABBIA LIM
10.8	549	1712		509	1672		19.6	57	100	2.85	7.1	40.4				39	88.9		SABBIA LIM
11.0	563	1629		527	1589		19.6	59	102	2.50	7.2	36.8				39	81.1		SABBIA LIM
11.2	668	1811		629	1771		19.6	61	104	2.18	8.6	39.6				40	93.4		SABBIA LIM
11.4	673	1858		631	1818		19.6	63	106	2.26	8.3	41.2				40	95.9		SABBIA LIM
11.6	658	1752		621	1712		19.6	65	108	2.13	7.9	37.9				39	86.2		SABBIA LIM
11.8	638	1690		603	1650		19.6	67	110	2.12	7.3	36.3				39	80.4		SABBIA LIM
12.0	674	1697		641	1657		19.6	69	112	1.92	7.6	35.3				39	79.3		SABBIA LIM
12.2	733	2101		682	2061		19.6	71	114	2.42	8.0	47.8				39	109.9		SABBIA LIM
12.4	747	2125		696	2085		19.6	73	116	2.39	7.9	48.2				39	110.4		SABBIA LIM
12.6	666	1897		622	1857		19.6	75	118	2.45	6.7	42.8				39	91.7		SABBIA LIM
12.8	693	1680		661	1640		19.6	77	120	1.81	7.0	34.0				39	73.6		SABBIA LIM
13.0	677	1830		637	1790		19.6	79	122	2.24	6.5	40.0				39	84.4		SABBIA LIM
13.2	755	1930		714	1890		19.6	81	124	1.99	7.3	40.8				39	90.0		SABBIA LIM
13.4	734	1927		692	1887		19.6	83	126	2.11	6.8	41.5				39	89.1		SABBIA LIM
13.6	739	2031		692	1991		19.6	85	128	2.30	6.7	45.1				39	95.9		SABBIA LIM
13.8	932	2224		885	2184		19.1	87	129	1.72	8.7	45.1					106.7		LIMO SAB
14.0	790	2138		740	2098		19.6	89	131	2.23	6.9	47.1				39	101.5		SABBIA LIM
14.2	741	2058		693	2018		19.6	91	133	2.37	6.2	46.0				38	94.8		SABBIA LIM
14.4	796	2083		749	2043		19.6	93	135	2.11	6.6	44.9				39	95.1		SABBIA LIM
14.6	753	2005		708	1965		19.6	95	137	2.20	6.0	43.6				38	88.8		SABBIA LIM
14.8	466	627		476	587		16.7	96	139	0.33	3.5	3.9		0.89	2.4		5.5	43	ARG LIM
15.0	441	589		451	549		16.7	98	141	0.31	3.2	3.4		0.82	2.1		4.5	38	ARGILLA
15.2	447	623		456	583		16.7	99	143	0.41	3.2	4.4		0.82	2.0		5.8	39	ARG LIM
15.4	465	636		474	596		16.7	101	145	0.37	3.3	4.2		0.84	2.2		5.7	41	ARG LIM
15.6	417	598		426	558		16.7	102	147	0.47	2.7	4.6		0.72	1.6		5.4	33	ARG LIM
15.8	442	767		444	727		16.7	103	149	0.96	2.8	9.8		0.75	1.7		12.2	35	LIMO
16.0	473	624		483	584		16.7	105	151	0.30	3.2	3.5		0.82	2.1		4.6	41	ARGILLA
16.2	455	623		464	583		16.7	106	153	0.38	2.9	4.1		0.77	1.8		5.1	38	ARG LIM
16.4	470	611		481	571		16.7	107	155	0.28	3.0	3.1		0.79	1.9		4.0	40	ARGILLA
16.6	481	774		484	734		16.7	109	157	0.76	3.0	8.7		0.79	1.9		11.1	40	LIMO ARG
16.8	431	572		442	532		16.7	110	159	0.32	2.6	3.1		0.69	1.5		3.5	33	ARGILLA
17.0	439	581		450	541		16.7	112	161	0.32	2.6	3.2		0.69	1.5		3.5	34	ARGILLA
17.2	443	718		447	678		16.7	113	163	0.81	2.5	8.0		0.67	1.4		8.9	33	LIMO
17.4	484	653		493	613		16.7	114	165	0.36	2.9	4.2		0.76	1.8		5.1	40	ARG LIM
17.6	504	1288		483	1248		18.6	116	167	2.42	2.7	26.6				34	35.1		SABBIA LIM
17.8	723	1712		691	1672		19.6	117	169	1.88	4.4	34.0				37	59.1		SABBIA LIM
18.0	696	1869		655	1829		19.6	119	171	2.42	4.1	40.7				36	68.5		SABBIA LIM
18.2	589	1350		569	1310		18.6	121	173	1.87	3.3	25.7				35	37.2		SABBIA LIM
18.4	651	1632		620	1592		19.6	123	175	2.18	3.6	33.7				35	52.7		SABBIA LIM
18.6	517	701		526	661		16.7	125	177	0.39	2.8	4.7		0.74	1.7		5.6	42	ARG LIM
18.8	596	1186		584	1146		17.7	127	179	1.38	3.2	19.5					27.1		LIMO SAB
19.0	485	761		489	721		16.7	128	181	0.75	2.4	8.1		0.65	1.3		8.5	36	LIMO ARG
19.2	497	821		499	781		17.7	129	182	0.89	2.4	9.8		0.66	1.4		10.6	37	LIMO
19.4	512	821		514	781		17.7	131	184	0.81	2.5	9.3		0.67	1.4		10.2	38	LIMO
19.6	535	872		536	832		17.7	133	186	0.85	2.6	10.3		0.70	1.5		11.9	41	LIMO
19.8	536	676		547	636		16.7	134	188	0.25	2.7	3.1		0.71	1.6		3.6	42	ARGILLA
20.0	493	662		502	622		16.7	136	190	0.38	2.3	4.2		0.62	1.2		4.1	36	ARG LIM
20.2	501	656		511	616		16.7	137	192	0.33	2.3	3.6		0.63	1.3		3.7	36	ARGILLA
20.4	507	1051		498	1011		17.7	138	194	1.69	2.2	17.8					18.8		LIMO SAB
20.6	519	1093		508	1053		17.7	140	196	1.75	2.2	18.9					20.3		LIMO SAB
20.8	503	835		504	795		17.7	141	198	0.95	2.2	10.1		0.59	1.1		9.7	34	LIMO
21.0	462	865		460	825		16.7	143	200	1.41	1.8	12.7					10.8		LIMO SAB
21.2	588	1178		576	1138		17.7	144	202	1.50	2.6	19.5					23.3		LIMO SAB
21.4	511	669		521	629		16.7	146	204	0.34	2.2	3.8		0.59	1.1		3.5	36	ARG LIM
21.6	466	676		473	636		16.7	147	206	0.61	1.8	5.6		0.49	0.86		4.8	29	LIMO ARG
21.8	533	693		543	653		16.7	149	208	0.33	2.3	3.8		0.61	1.2		3.7	38	ARGILLA
22.0	541	1263		523	1223		18.6	150	210	2.24	2.1	24.3				32	25.8		SABBIA LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 26-14BIS DESCRIZIONE
22.2	522	702		531	662		16.7	152	212	0.41	2.1	4.6		0.57	1.1		4.1	36	ARG LIM
22.4	559	762		567	722		16.7	153	214	0.44	2.3	5.4		0.62	1.2		5.4	40	ARG LIM
22.6	590	913		592	873		17.7	155	216	0.75	2.4	9.8		0.65	1.4		10.4	43	LIMO ARG
22.8	545	705		555	665		16.7	156	218	0.33	2.2	3.8		0.59	1.1		3.6	38	ARGILLA
23.0	585	761		594	721		16.7	158	220	0.34	2.4	4.4		0.64	1.3		4.5	43	ARG LIM
23.2	559	717		569	677		16.7	159	222	0.31	2.2	3.8		0.59	1.2		3.5	39	ARGILLA
23.4	567	858		570	818		17.7	160	224	0.72	2.2	8.6		0.59	1.1		8.1	39	LIMO ARG
23.6	547	748		555	708		16.7	162	226	0.47	2.0	5.3		0.55	1.0		4.6	36	ARG LIM
23.8	501	652		511	612		16.7	163	228	0.36	1.7	3.5		0.47	0.81		3.0	30	ARG LIM
24.0	543	854		545	814		17.7	165	230	0.85	1.9	9.3		0.52	0.94		7.9	34	LIMO
24.2	653	1591		624	1551		18.6	166	232	2.36	2.4	32.2				33	38.2		SABBIA LIM
24.4	667	831		677	791		16.7	168	233	0.26	2.6	4.0		0.70	1.5		4.5	52	ARGILLA
24.6	548	789		554	749		16.7	169	235	0.61	1.9	6.8		0.51	0.91		5.8	34	LIMO ARG
24.8	716	1266		706	1226		17.7	171	237	1.11	2.7	18.0		0.73	1.6		22.0	56	LIMO
25.0	535	854		537	814		16.7	172	239	0.93	1.7	9.6		0.47	<0.8		8.2	32	LIMO
25.2	540	842		543	802		16.7	174	241	0.86	1.7	9.0		0.47	0.80		7.6	32	LIMO
25.4	636	880		642	840		17.7	175	243	0.50	2.3	6.9		0.62	1.2		6.8	45	ARG LIM
25.6	579	767		587	727		16.7	177	245	0.41	1.9	4.8		0.53	0.95		4.1	37	ARG LIM
25.8	660	1235		649	1195		17.7	178	247	1.36	2.3	18.9					19.9		LIMO SAB
26.0	953	1860		925	1820		19.1	179	249	1.32	3.8	31.0					48.0		LIMO SAB
26.2	605	1012		602	972		17.7	181	251	1.05	1.9	12.8		0.53	0.95		11.1	38	LIMO
26.4	795	1093		798	1053		17.7	183	253	0.47	3.0	8.9		0.78	1.9		11.1	66	ARG LIM
26.6	703	953		708	913		17.7	184	255	0.45	2.5	7.1		0.66	1.4		7.5	52	ARG LIM
26.8	618	1112		611	1072		17.7	186	257	1.30	1.9	16.0					14.0		LIMO SAB
27.0	790	1882		753	1842		19.6	188	259	2.20	2.6	37.8				34	48.1		SABBIA LIM
27.2	806	1936		767	1896		19.6	190	261	2.23	2.7	39.2				34	50.4		SABBIA LIM
27.4	882	2203		834	2163		19.6	192	263	2.33	3.0	46.1				34	64.4		SABBIA LIM
27.6	675	1928		630	1888		18.6	194	265	3.44	1.9	43.6				32	45.9		SABBIA
27.8	1018	2627		955	2587		19.6	195	267	2.37	3.5	56.6				35	87.9		SABBIA LIM
28.0	1109	2946		1035	2906		19.6	197	269	2.44	3.9	64.9				36	106.8		SABBIA LIM
28.2	946	2233		899	2193		19.6	199	271	2.06	3.2	44.9				35	64.1		SABBIA LIM
28.4	1007	2248		963	2208		19.6	201	273	1.80	3.4	43.2				35	64.3		SABBIA LIM
28.6	1075	2452		1024	2412		19.6	203	275	1.85	3.7	48.2				36	75.1		SABBIA LIM
28.8	1041	2570		982	2530		19.6	205	277	2.19	3.4	53.7				35	81.5		SABBIA LIM
29.0	902	2339		848	2299		19.6	207	279	2.55	2.7	50.4				34	67.5		SABBIA LIM
29.2	745	1584		721	1544		18.6	209	281	1.87	2.1	28.6				33	29.5		SABBIA LIM
29.4	767	1595		743	1555		17.7	211	283	1.76	2.2	28.2					29.8		LIMO SAB
29.6	648	1327		632	1287		18.6	212	284	1.89	1.6	22.7				31	19.3		SABBIA LIM
29.8	874	2074		832	2034		19.6	214	286	2.20	2.5	41.7				34	51.8		SABBIA LIM
30.0	778	1069		781	1029		17.7	216	288	0.50	2.3	8.6		0.62	1.2		8.5	56	ARG LIM

DMT 27-14

1 DIC 2014

GEOSTUDI SRL
AUT. PORTUALE RAVENNA
PORT HUB
RAVENNA

LEGENDA
Z = Profondità da superficie terreno
Po,P1,P2 = Letture A,B,C corrette
Id = Indice di materiale
Ed = Modulo Dilatometrico
Ud = Ind. Press.Neutra = (P2-Uo)/(Po-Uo)
Gamma = Peso volume naturale
Sigma' = Press. efficace vertic.
Uo = Pressione neutra (H2O)

PARAMETRI INTERPRETATI
Phi = Angolo attrito min (cautelativo)
Ko = Coeff. spinta orizz. in sito
M = Modulo edometrico (per Sigma')
Cu = Resist. taglio non drenata
Ocr = Grado di sovraconsolidazione
(OCR = 'OCR relativo'- generalmente realistico. Se accurato OCR disponib. applicare opport. fattore correttivo)

PARAMETRI GENERALI
DeltaA = 15 kPa
DeltaB = 45 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 1.0 m

Falda a 1.00 m
Formule di riduzione secondo Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi secondo TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 27-14 DESCRIZIONE
2.8	80	260		89	215		15.7	30	18	1.77	2.4	4.4					5.0		LIMO SAB
3.0	270	770		263	725		18.6	31	20	1.90	7.8	16.0				39	36.4		SABBIA LIM
3.2	280	960		264	915		18.6	33	22	2.69	7.4	22.6				39	50.4		SABBIA LIM
3.4	300	860		290	815		18.6	35	24	1.97	7.7	18.2				39	41.1		SABBIA LIM
3.6	320	900		309	855		18.6	36	26	1.93	7.8	18.9				39	42.9		SABBIA LIM
3.8	230	750		222	705		17.7	38	27	2.48	5.1	16.8				37	31.7		SABBIA LIM
4.0	250	670		247	625		16.7	40	29	1.74	5.5	13.1					25.3		LIMO SAB
4.2	200	620		197	575		17.7	41	31	2.28	4.0	13.1				36	21.9		SABBIA LIM
4.4	240	650		238	605		17.7	43	33	1.80	4.8	12.8				37	23.0		SABBIA LIM
4.6	230	650		227	605		17.7	44	35	1.97	4.3	13.1				36	22.5		SABBIA LIM
4.8	220	720		213	675		17.7	46	37	2.63	3.8	16.0				36	26.4		SABBIA LIM
5.0	280	900		267	855		18.6	47	39	2.58	4.8	20.4				37	37.6		SABBIA LIM
5.2	270	770		263	725		17.7	49	41	2.08	4.5	16.0				37	28.2		SABBIA LIM
5.4	240	750		233	705		17.7	51	43	2.50	3.7	16.4				36	26.4		SABBIA LIM
5.6	330	870		321	825		18.6	52	45	1.83	5.3	17.5				37	33.1		SABBIA LIM
5.8	260	720		255	675		17.7	54	47	2.02	3.8	14.6				36	23.4		SABBIA LIM
6.0	230	700		225	655		17.7	56	49	2.45	3.2	14.9				35	21.8		SABBIA LIM
6.2	220	540		222	495		16.7	57	51	1.60	3.0	9.5					12.7		LIMO SAB
6.4	280	770		274	725		17.7	59	53	2.05	3.8	15.7				36	24.9		SABBIA LIM
6.6	340	840		333	795		17.7	60	55	1.66	4.6	16.0					28.3		LIMO SAB
6.8	300	950		286	905		18.6	62	57	2.71	3.7	21.5				36	34.8		SABBIA LIM
7.0	340	840		333	795		17.7	63	59	1.69	4.3	16.0					27.2		LIMO SAB
7.2	350	1150		328	1105		18.6	65	61	2.91	4.1	27.0				36	46.4		SABBIA LIM
7.4	420	1200		399	1155		18.6	67	63	2.25	5.0	26.2				37	49.0		SABBIA LIM
7.6	340	1050		323	1005		18.6	69	65	2.65	3.8	23.7				36	38.5		SABBIA LIM
7.8	370	1050		354	1005		18.6	70	67	2.27	4.1	22.6				36	37.9		SABBIA LIM
8.0	320	900		309	855		18.6	72	69	2.27	3.3	18.9				35	28.3		SABBIA LIM
8.2	280	870		269	825		17.7	74	71	2.81	2.7	19.3				34	25.9		SABBIA LIM
8.4	340	900		330	855		18.6	75	73	2.04	3.4	18.2				35	27.3		SABBIA LIM
8.6	300	670		300	625		16.7	77	75	1.45	2.9	11.3					14.7		LIMO SAB
8.8	350	1100		331	1055		18.6	79	77	2.85	3.2	25.1				35	37.9		SABBIA LIM
9.0	400	1200		378	1155		18.6	80	78	2.59	3.7	27.0				36	43.6		SABBIA LIM
9.2	500	1300		478	1255		18.6	82	80	1.95	4.8	27.0				37	49.1		SABBIA LIM
9.4	450	1200		431	1155		18.6	84	82	2.08	4.1	25.1				36	42.3		SABBIA LIM
9.6	500	1350		476	1305		18.6	86	84	2.12	4.6	28.8				37	51.1		SABBIA LIM
9.8	480	1300		457	1255		18.6	87	86	2.15	4.2	27.7				36	47.3		SABBIA LIM
10.0	460	1300		436	1255		18.6	89	88	2.36	3.9	28.4				36	46.7		SABBIA LIM
10.2	440	1300		415	1255		18.6	91	90	2.59	3.6	29.1				35	46.0		SABBIA LIM
10.4	400	1200		378	1155		18.6	93	92	2.72	3.1	27.0				35	39.3		SABBIA LIM
10.6	380	1150		360	1105		18.6	94	94	2.81	2.8	25.9				34	35.7		SABBIA LIM
10.8	400	1200		378	1155		18.6	96	96	2.76	2.9	27.0				34	38.1		SABBIA LIM
11.0	520	1500		489	1455		18.6	98	98	2.47	4.0	33.5				36	56.0		SABBIA LIM

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	DMT 27-14 DESCRIZIONE
11.2	570	1600		537	1555		19.6	100	100	2.33	4.4	35.3				36	61.7		SABBIA LIM
11.4	500	1450		471	1405		18.6	102	102	2.54	3.6	32.4				36	51.5		SABBIA LIM
11.6	550	1600		516	1555		19.6	104	104	2.53	4.0	36.1				36	60.2		SABBIA LIM
11.8	600	1600		568	1555		19.6	105	106	2.14	4.4	34.2				37	59.5		SABBIA LIM
12.0	640	1650		607	1605		19.6	107	108	2.00	4.6	34.6				37	61.8		SABBIA LIM
12.2	570	1600		537	1555		19.6	109	110	2.39	3.9	35.3				36	58.1		SABBIA LIM
12.4	450	1350		423	1305		18.6	111	112	2.83	2.8	30.6				34	42.2		SABBIA LIM
12.6	480	1350		455	1305		18.6	113	114	2.50	3.0	29.5				35	41.9		SABBIA LIM
12.8	580	1600		547	1555		19.6	115	116	2.34	3.8	35.0				36	56.2		SABBIA LIM
13.0	580	1650		545	1605		19.6	117	118	2.48	3.7	36.8				36	58.6		SABBIA LIM
13.2	650	1700		615	1655		19.6	119	120	2.10	4.2	36.1				36	60.9		SABBIA LIM
13.4	630	1750		592	1705		19.6	121	122	2.37	3.9	38.6				36	63.4		SABBIA LIM
13.6	630	1600		599	1555		19.6	123	124	2.01	3.9	33.2				36	53.6		SABBIA LIM
13.8	560	1500		531	1455		18.6	125	126	2.28	3.3	32.1				35	47.2		SABBIA LIM
14.0	640	1700		605	1655		19.6	126	128	2.20	3.8	36.4				36	58.4		SABBIA LIM
14.2	650	1750		613	1705		19.6	128	129	2.26	3.8	37.9				36	60.8		SABBIA LIM
14.4	550	1600		516	1555		18.6	130	131	2.71	2.9	36.1				34	51.0		SABBIA LIM
14.6	420	570		431	525		16.7	132	133	0.32	2.2	3.3		0.61	1.2		3.2	34	ARGILLA
14.8	400	500		413	455		15.7	134	135	0.15	2.1	1.5		0.57	1.1		1.3	31	ARGILLA
15.0	450	570		462	525		16.7	135	137	0.19	2.4	2.2		0.65	1.3		2.3	37	ARGILLA
15.2	440	550		453	505		15.7	136	139	0.17	2.3	1.8		0.62	1.2		1.8	36	ARGILLA
15.4	450	570		462	525		16.7	137	141	0.20	2.3	2.2		0.63	1.3		2.2	37	ARGILLA
15.6	450	600		461	555		16.7	139	143	0.30	2.3	3.3		0.62	1.2		3.2	36	ARGILLA
15.8	440	570		452	525		16.7	140	145	0.24	2.2	2.6		0.59	1.2		2.4	34	ARGILLA
16.0	460	550		474	505		13.7	141	147	0.10	2.3	1.1		0.62	1.3		1.1	37	FANGO E/O TORBA
16.2	470	590		482	545		16.7	142	149	0.19	2.3	2.2		0.63	1.3		2.2	38	ARGILLA
16.4	480	600		492	555		16.7	144	151	0.18	2.4	2.2		0.64	1.3		2.2	39	ARGILLA
16.6	420	660		426	615		16.7	145	153	0.69	1.9	6.6		0.51	0.91		5.6	30	LIMO ARG
16.8	600	1300		583	1255		17.7	146	155	1.57	2.9	23.3					30.7		LIMO SAB
17.0	630	1900		584	1855		19.6	148	157	2.97	2.9	44.1				34	62.6		SABBIA LIM
17.2	660	1700		626	1655		19.6	150	159	2.20	3.1	35.7				35	51.0		SABBIA LIM
17.4	580	1450		555	1405		18.6	152	161	2.16	2.6	29.5				34	37.0		SABBIA LIM
17.6	480	870		479	825		17.7	154	163	1.10	2.1	12.0		0.56	1.0		11.2	35	LIMO
17.8	500	650		511	605		16.7	155	165	0.27	2.2	3.3		0.60	1.2		3.2	39	ARGILLA
18.0	500	600		513	555		15.7	156	167	0.12	2.2	1.5		0.60	1.2		1.4	39	ARGILLA
18.2	420	660		426	615		16.7	158	169	0.73	1.6	6.6		0.44	<0.8		5.6	27	LIMO ARG
18.4	480	620		491	575		16.7	159	171	0.26	2.0	2.9		0.55	1.0		2.5	35	ARGILLA
18.6	470	600		482	555		16.7	160	173	0.24	1.9	2.6		0.52	0.94		2.2	34	ARGILLA
18.8	540	1300		520	1255		18.6	162	175	2.13	2.1	25.5				33	27.3		SABBIA LIM
19.0	550	1300		531	1255		18.6	164	177	2.05	2.2	25.1				33	27.0		SABBIA LIM
19.2	560	1200		546	1155		17.7	165	179	1.66	2.2	21.1					22.4		LIMO SAB
19.4	560	1500		531	1455		18.6	167	181	2.64	2.1	32.1				32	35.5		SABBIA LIM
19.6	470	660		479	615		16.7	169	182	0.46	1.8	4.7		0.48	0.82		4.0	32	ARG LIM
19.8	500	650		511	605		16.7	170	184	0.29	1.9	3.3		0.52	0.94		2.8	35	ARGILLA
20.0	480	600		492	555		16.7	171	186	0.21	1.8	2.2		0.48	0.84		1.9	33	ARGILLA
20.2	500	630		512	585		16.7	173	188	0.23	1.9	2.6		0.51	0.90		2.2	35	ARGILLA
20.4	520	680		530	635		16.7	174	190	0.31	2.0	3.6		0.53	0.96		3.1	37	ARGILLA
20.6	520	650		532	605		16.7	176	192	0.22	1.9	2.6		0.53	0.95		2.2	37	ARGILLA
20.8	510	640		522	595		16.7	177	194	0.22	1.9	2.6		0.50	0.89		2.2	35	ARGILLA
21.0	500	630		512	585		16.7	178	196	0.23	1.8	2.6		0.48	0.83		2.2	34	ARGILLA
21.2	500	800		503	755		16.7	180	198	0.83	1.7	8.7		0.46	<0.8		7.4	32	LIMO
21.4	500	640		511	595		16.7	181	200	0.27	1.7	2.9		0.47	<0.8		2.5	33	ARGILLA
21.6	600	1250		586	1205		17.7	182	202	1.62	2.1	21.5					21.6		LIMO SAB
21.8	580	930		581	885		17.7	184	204	0.81	2.0	10.6		0.56	1.0		9.5	42	LIMO
22.0	520	670		531	625		16.7	186	206	0.29	1.7	3.3		0.47	0.81		2.8	35	ARGILLA
22.2	600	1100		593	1055		17.7	187	208	1.20	2.1	16.0		0.56	1.0		15.1	43	LIMO
22.4	550	1100		541	1055		17.7	188	210	1.56	1.8	17.9					15.2		LIMO SAB
22.6	530	1100		520	1055		17.7	190	212	1.74	1.6	18.6					15.8		LIMO SAB
22.8	540	740		548	695		16.7	192	214	0.44	1.7	5.1		0.47	0.81		4.3	36	ARG LIM

23.0	570	750		579	705		16.7	193	216	0.35	1.9	4.4		0.51	0.91		3.7	39	ARG LIM
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	DMT 27-14
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIZIONE
23.2	540	10550		333	10505		18.6	194	218	88.28	0.6	353.0				25	300.0		SABBIA
23.4	535	830		538	785		16.7	196	220	0.77	1.6	8.6		0.44	<0.8		7.3	33	LIMO ARG
23.6	600	770		610	725		16.7	197	222	0.30	2.0	4.0		0.53	0.97		3.4	42	ARGILLA
23.8	580	740		590	695		16.7	199	224	0.29	1.8	3.6		0.50	0.88		3.1	39	ARGILLA
24.0	650	1400		630	1355		17.7	200	226	1.79	2.0	25.1					24.8		LIMO SAB
24.2	600	1300		583	1255		18.6	202	228	1.89	1.8	23.3				31	20.2		SABBIA LIM
24.4	500	800		503	755		16.7	204	230	0.92	1.3	8.7		0.35	<0.8		7.4	27	LIMO
24.6	600	740		611	695		16.7	205	232	0.22	1.9	2.9		0.50	0.89		2.5	41	ARGILLA
24.8	570	740		580	695		16.7	206	233	0.33	1.7	4.0		0.45	<0.8		3.4	36	ARG LIM
25.0	550	950		548	905		17.7	208	235	1.14	1.5	12.4		0.40	<0.8		10.5	32	LIMO
25.2	580	1250		565	1205		18.6	209	237	1.96	1.6	22.2				31	18.9		SABBIA LIM
25.4	600	1700		563	1655		18.6	211	239	3.37	1.5	37.9				31	33.0		SABBIA
25.6	520	680		530	635		16.7	213	241	0.36	1.4	3.6		0.35	<0.8		3.1	29	ARG LIM
25.8	520	1600		484	1555		18.6	214	243	4.45	1.1	37.2				29	31.6		SABBIA
26.0	600	770		610	725		16.7	216	245	0.32	1.7	4.0		0.46	<0.8		3.4	38	ARGILLA
26.2	650	1000		650	955		17.7	217	247	0.76	1.9	10.6		0.50	0.89		9.0	44	LIMO ARG
26.4	800	1450		785	1405		19.1	219	249	1.16	2.5	21.5		0.66	1.4		23.8	62	LIMO
26.6	750	1350		738	1305		17.7	221	251	1.16	2.2	19.7		0.60	1.2		19.8	55	LIMO
26.8	670	830		680	785		16.7	222	253	0.25	1.9	3.6		0.52	0.94		3.1	46	ARGILLA
27.0	700	950		705	905		17.7	224	255	0.44	2.0	6.9		0.55	1.0		5.9	50	ARG LIM
27.2	730	1250		722	1205		17.7	225	257	1.04	2.1	16.8		0.56	1.1		15.6	52	LIMO
27.4	770	1050		774	1005		17.7	227	259	0.45	2.3	8.0		0.61	1.2		7.9	58	ARG LIM
27.6	890	1300		887	1255		17.7	228	261	0.59	2.7	12.8		0.73	1.6		15.0	75	ARG LIM
27.8	950	1350		948	1305		17.7	230	263	0.52	3.0	12.4		0.78	1.9		15.6	83	ARG LIM
28.0	900	1300		898	1255		17.7	232	265	0.56	2.7	12.4		0.73	1.6		14.5	75	ARG LIM
28.2	770	1150		769	1105		17.7	233	267	0.67	2.2	11.7		0.58	1.1		10.9	56	LIMO ARG
28.4	640	1250		627	1205		17.7	235	269	1.61	1.5	20.0					17.0		LIMO SAB
28.6	640	1550		612	1505		18.6	236	271	2.61	1.4	31.0				30	26.3		SABBIA LIM
28.8	960	2400		906	2355		19.6	238	273	2.29	2.7	50.3				34	64.8		SABBIA LIM
29.0	840	2250		787	2205		19.6	240	275	2.76	2.1	49.2				33	55.9		SABBIA LIM
29.2	720	1650		691	1605		18.6	242	277	2.20	1.7	31.7				31	27.8		SABBIA LIM
29.4	730	1880		690	1835		19.6	244	279	2.78	1.7	39.7				31	36.9		SABBIA LIM
29.6	800	1950		760	1905		19.6	246	281	2.38	2.0	39.7				32	40.4		SABBIA LIM
29.8	840	2150		792	2105		19.6	248	283	2.57	2.1	45.5				32	49.4		SABBIA LIM
30.0	650	1700		615	1655		18.6	250	284	3.14	1.3	36.1				30	30.7		SABBIA LIM