

AGENZIA INTERREGIONALE PER IL FIUME PO – PARMA

Strada Giuseppe Garibaldi 75, I-43121 Parma

(PC-E-810) LAVORI DI ADEGUAMENTO PIANO SIMPO DELLA SAGOMA
 ARGINE MAESTRO FIUME PO NEL TRATTO COMPRESO TRA IL TORRENTE
 ARDA E LA ZONA DI RIGURGITO DEL TORRENTE ONGINA

Primo stralcio funzionale

PROGETTO ESECUTIVO

RELAZIONE GEOLOGICO GEOTECNICA

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IL GRUPPO DI PROGETTAZIONE:

PROGETTAZIONE GENERALE – INGEGNERIA IDRAULICA

EOS
 INGEGNERIA

Via Tione 3
 Villafranca di Verona (VR)
 Tel. 045 2213000
 P.IVA e C.F. 02503920205

ING. PAOLO CERCHIA

ING. ANDREA ZIN

GEOLOGIA E GEOTECNICA

STUDIO COLLESELLI & Partners
 INGEGNERIA GEOTECNICA

ASPETTI AMBIENTALI E PAESAGGISTICI

A+C Architettura e Città Studio Associato

Dott. Biol. PAOLO PIOVANI

ARCHEOLOGIA

SAP Società Archeologica S.r.l.

TOPOGRAFIA E PIANO PARTICELLARE ESPROPRI

Geom. IVANO ZAMBELLI

PROGETTISTA:

DOTT. ING. PAOLO CERCHIA

RUP:

DOTT. ING. MIRELLA VERGNANI

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Lavori di adeguamento
PIANO SIMPO della
sagoma argine maestro
fiume Po nel tratto
compreso tra il Torrente
Arda e la zona di rigurgito
del Torrente Ongina

PROGETTO ESECUTIVO RELAZIONE GEOLOGICA e GEOTECNICA

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1 PREMESSE

La presente relazione riguarda i lavori relativi all'adeguamento PIANO SIMPO della sagoma argine maestro del Fiume Po nel tratto compreso tra il Torrente Arda e la zona di rigurgito del Torrente Ongina nei comuni di Castelvetro Piacentino e Villanova sull'Adda, provincia di Piacenza (PC). Nella seguente figura 1 viene evidenziata l'area di intervento.

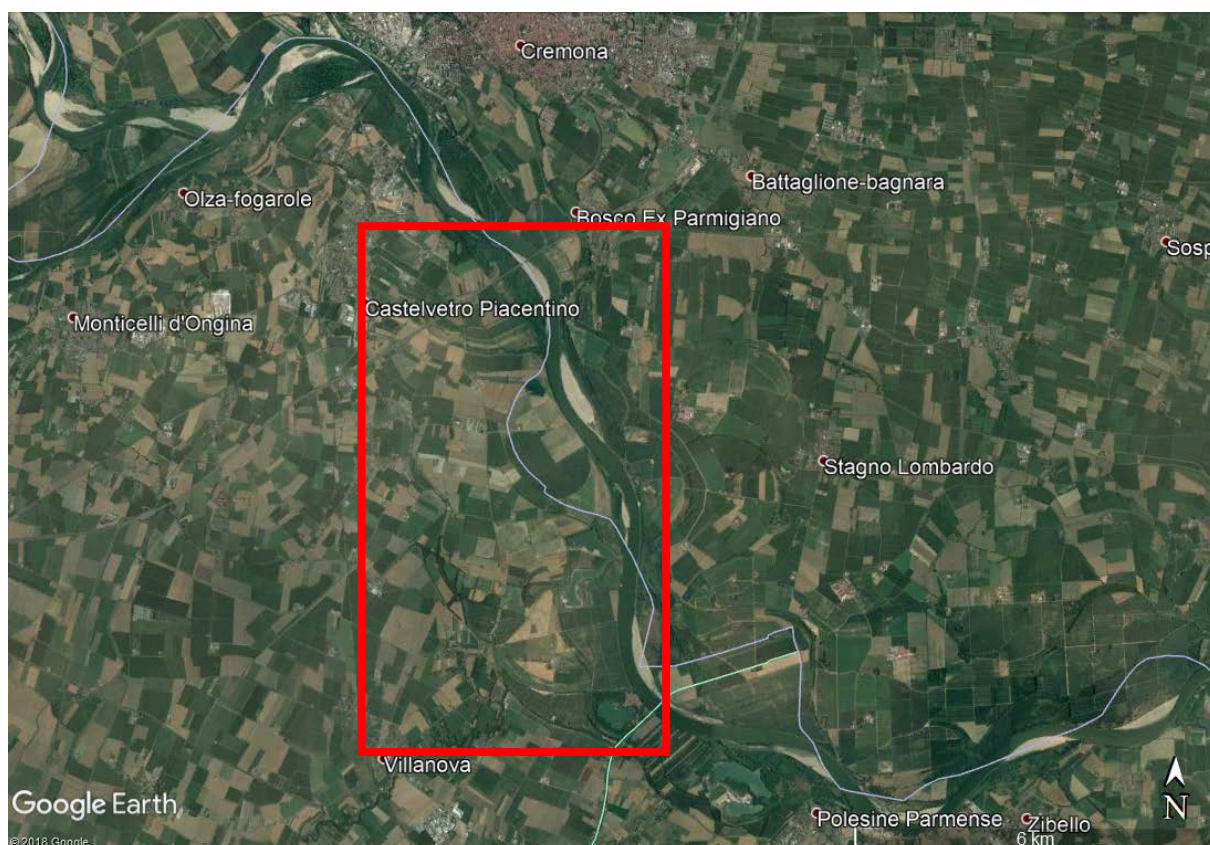


Figura 1 – Vista aerea dell'area di intervento

Il progetto prevede l'adeguamento e la risagomatura dell'argine maestro destro che si eleva con altezze variabili da 3 a 5 m circa da piano campagna con limitati rialzi di qualche decina di centimetri e/o il ringrosso lato campagna/lato fiume con l'utilizzo di materiale proveniente dalla cava di prestito demaniale. È previsto anche il rifacimento della strada che corre lungo la sommità arginale con la posa in opera di misto granulare stabilizzato su una larghezza di 5.0 m.

Per l'inquadramento geologico dell'area in oggetto si rimanda alla *Relazione Geologica e Geotecnica* redatta in fase di progetto preliminare (Maggio 2018).

2 **NORMATIVA DI RIFERIMENTO**

- Nuove “Norme tecniche per le costruzioni” Decreto Ministeriale del 17 gennaio 2018.
- UNI EN 1997-1:2005 Eurocodice 7 - Progettazione geotecnica - Parte 1: Regole generali.
- UNI EN 1997-2:2007 Eurocodice 7 - Progettazione geotecnica - Parte 2: Indagini e prove nel sottosuolo.
- Raccomandazioni sulla programmazione ed esecuzione delle indagini geotecniche. 1977 AGI – Associazione Geotecnica Italiana
- Aspetti geotecnici della progettazione in zona sismica - Linee guida 2005 AGI – Associazione Geotecnica Italiana
- Linee guida per l'esecuzione degli interventi di adeguamento delle arginature di Po sia in corso di esecuzione che di progettazione. – Direttiva del Magistrato per il Po (Parma, 22 luglio 1998)

3 INQUADRAMENTO GEOLOGICO

3.1 RIFERIMENTI GEOGRAFICI

L'intervento in progetto si sviluppa per gran parte nel territorio comunale di Villanova sull'Arda, nel settore nord orientale, e per un limitato tratto nel settore sud-orientale del Comune di Castelvetro Piacentino (cfr. Figura 2).

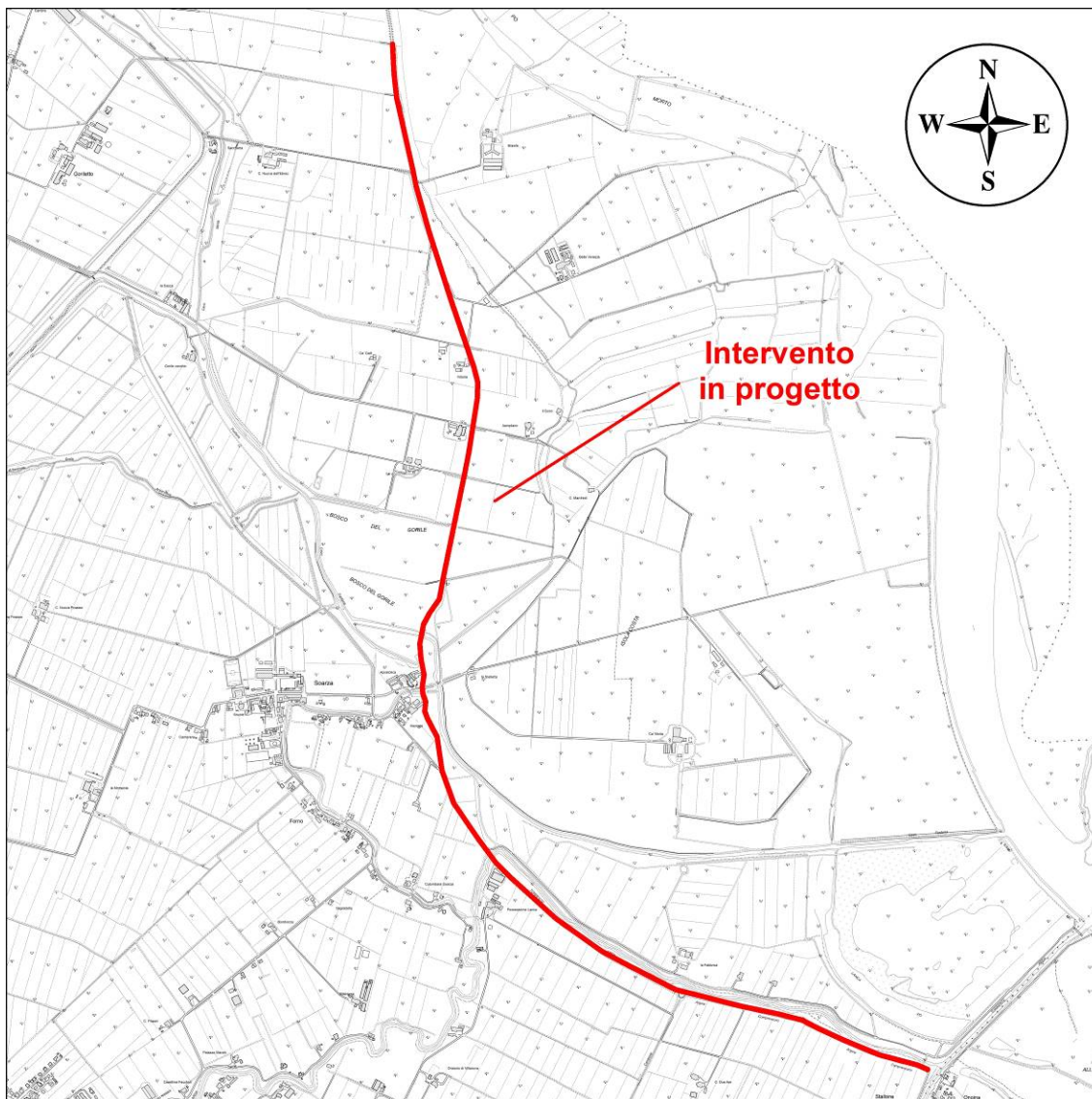


Figura 2 Inquadramento topografico dell'area in oggetto (CTR- Sezioni 163090, 163130) – scala 1:30.000

La stessa zona, alle estremità del tratto di argine in questione, ha i seguenti riferimenti geografici (da CTR Sezioni 163090 e 163130):

Argine	Quota (s.l.m.)	COORDINATE	Latitudine	Longitudine
Parte iniziale (Villanova sull'Arda)	37 m	UTM Zone 32N	N 4986730	E 582322
		Geografiche (ED50)	45,030188°	10,046035°
		Geografiche (WGS84)	45° 01' 45,3"	10° 02' 42,1"
Parte finale (Castelvetro Piacentino)	36 m	UTM Zone 32N	N 4990934	E 580127
		Geografiche (ED50)	45,068278°	10,018850°
		Geografiche (WGS84)	45° 04' 02,4"	10° 01' 04,2"

3.2 CENNI GEOLOGICI, GEOMORFOLOGICI ED IDROGEOLOGICI

Il tratto di arginatura oggetto degli interventi si sviluppa all'interno del territorio comunale di Villanova sull'Arda e in parte nel territorio comunale di Castelvetro Vicentino, per una lunghezza complessiva di circa 5,5 km.

Lo stesso argine maestro si sviluppa in destra idrografica del Fiume Po a distanze variabili da 800 m a 2 km dall'alveo attuale dello stesso Fiume.

L'area in esame è caratterizzata da una morfologia sub-pianeggiante, con una lieve inclinazione da sud-sudovest a nord-nordest e un'acclività media dello 0,01 – 0,2 %.

I lineamenti morfologici che caratterizzano la zona sono riconducibili principalmente alla dinamica fluviale, legata all'azione del Fiume Po e dei suoi affluenti Arda e Ongina, e in parte alla pressione antropica riferita alle esigenze economiche, produttive ed insediative.

In particolare la stessa area può essere suddivisa in due unità morfologiche distinte: l'unità morfologica golenare e l'unità morfologica della bassa pianura (cfr. Figura 3).

La prima unità si sviluppa nella fascia di meandreggiamento del Fiume Po, delimitata dallo stesso rilevato arginale maestro, ed è interessata periodicamente dagli eventi di piena dello stesso fiume; è caratterizzata dalla presenza di depositi alluvionali recenti (di piana di meandri) costituiti perlopiù da sabbie medie e grossolane e subordinatamente da ghiaie e ghiaie sabbiose, limi e limi sabbiosi.

L'unità morfologica della bassa pianura è caratterizzata da una dinamica evolutiva più antica e consolidata, in cui l'unica evidenza di evoluzione in atto è legata all'attività antropica.

L'aspetto morfologico del ripiano principale della pianura è dominato da un paesaggio sub-pianeggiante omogeneo ed è caratterizzato dalla presenza di depositi alluvionali medio-recenti costituiti dall'alternanza di sabbie, limi sabbiosi, limi argillosi e argille limose (cfr. Figura 4).

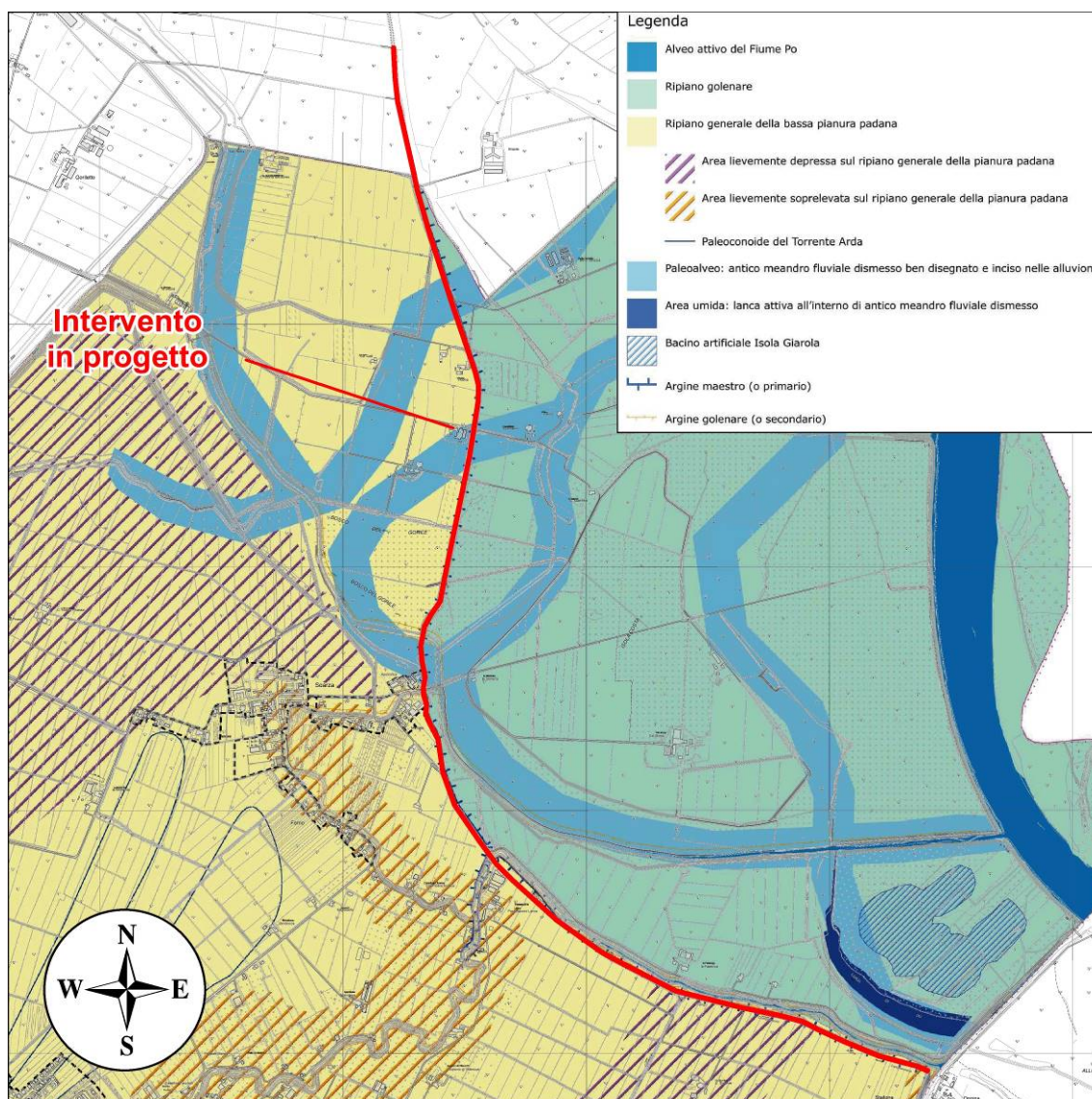


Figura 3 Estratto Tavola B1.2 "Geomorfologia e idrografia di superficie" allegata al PSC (Piano Strutturale Comunale) del Comune di Villanova sull'Arda, scala 1:30.000

L'idrografia superficiale è rappresentata dal Fiume Po, il cui alveo attuale è ubicato ad una distanza variabile da 800 m a 2 km dal tratto di argine da sistemare, e dai torrenti Arda e Ongina immissari in destra idrografica dello stesso Po.

Oltre ai sopracitati corsi d'acqua la zona è percorsa da una fitta rete idrica superficiale di rilevanza minore e talora anche solo locale, che è costituita da una serie di rivi e canali, in grande parte artificiali.

L'assetto idrogeologico della zona è legato ai depositi alluvionali quaternari contraddistinti da una permeabilità per porosità media che dà luogo ad una attiva circolazione idrica sotterranea a carattere freatico e/o semiconfinato.

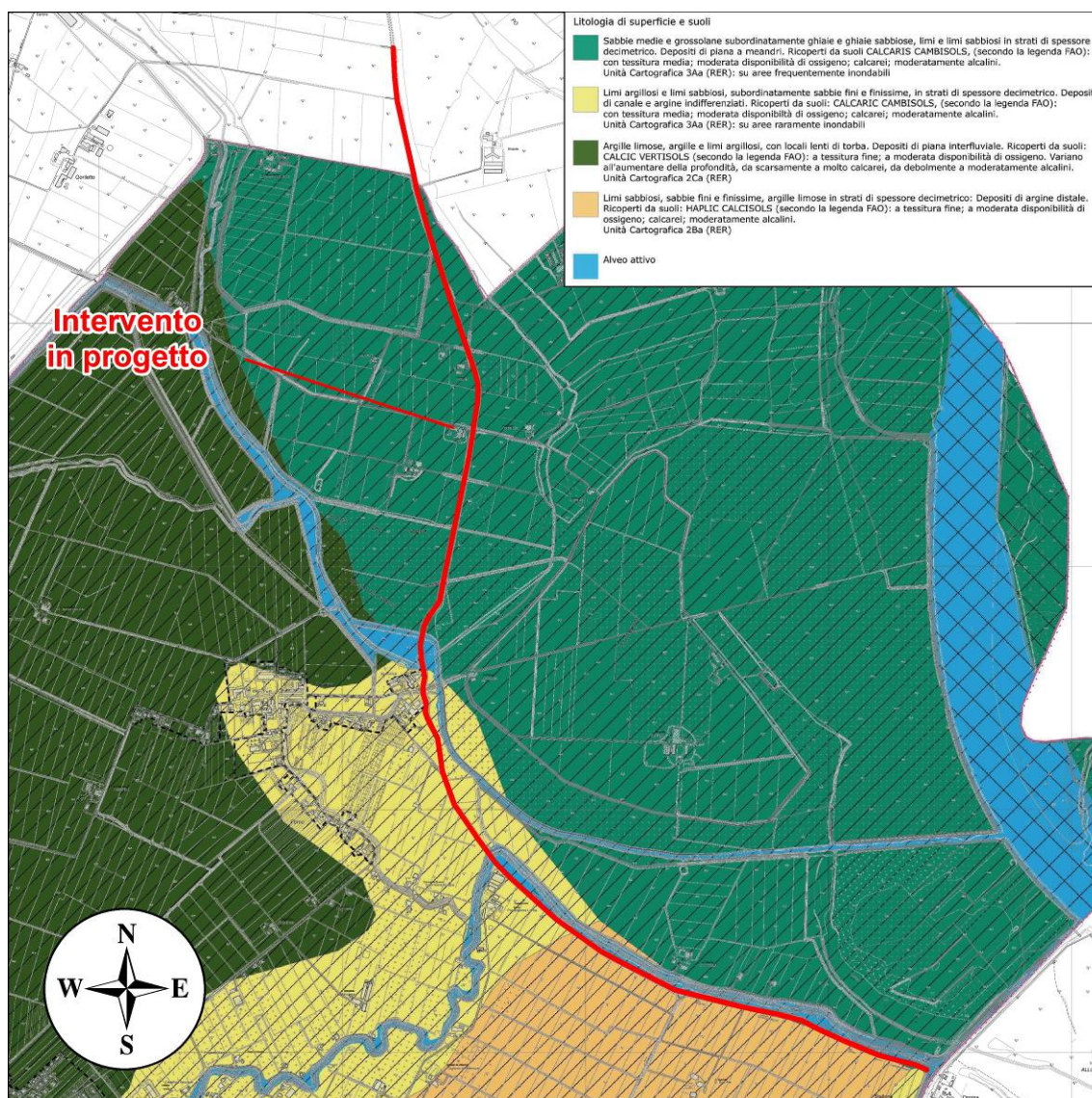


Figura 4 Estratto Tavola B1.1 "Litologia di superficie e suoli" allegata al PSC (Piano Strutturale Comunale) del Comune di Villanova sull'Arda, scala 1:30.000

La falda freatica superficiale presenta soggiacenze di pochi metri da piano campagna da 1 a 10 m, come evidenziato nella "Carta dei livelli piezometrici e soggiacenza della falda acquifera" allegata al PSC del Comune di Villanova sull'Arda.

Le isofreatiche relative ai livelli piezometrici evidenziano una direzione generale del deflusso idrico sotterraneo rivolta verso nord-nordest.

4 INQUADRAMENTO GEOTECNICO

4.1 INDAGINI ESEGUITE

La campagna di indagini descritta in seguito è stata realizzata su incarico diretto di AIPO.

Per l'inquadramento geotecnico dei materiali costituenti il rilevato arginale e dei terreni di fondazione delle arginature nell'area in oggetto si hanno a disposizione i risultati della campagna di indagine condotta da *Parmageo S.r.l.* nel Febbraio - Marzo 2018, di seguito descritta:

- *Lungo il tratto di arginatura oggetto di intervento a partire dalla sommità arginale:*
 - n.1 sondaggio a carotaggio continuo spinto sino a profondità di -20 m (S1); nel corso del sondaggio sono state condotte misure di consistenza con pocket penetrometer e vane test;
 - n.10 prove penetrometriche statiche con punta meccanica (CPT);
 - n.11 prove penetrometriche statiche con piezocono (CPTU);
 - n.1 prova penetrometrica statica con piezocono sismico (SCPTU);
 - prelievo n.2 campioni di terreno indisturbati sottoposti in laboratorio a prove geotecniche di classificazione (peso di volume, limiti di Atterberg, analisi granulometriche); prove di taglio diretto presso il laboratorio *Studio MM S.r.l.*
- *Nella possibile area di cava di prestito demaniale a valle della A21:*
 - n.4 trincee scavate con pala meccanica sino a profondità di -3 m da p.c.;
 - prelievo n.4 campioni di terreno rimaneggiati sottoposti in laboratorio a prove geotecniche di classificazione (limiti di Atterberg, analisi granulometriche) presso il laboratorio di geotecnica di Boretto (RE).

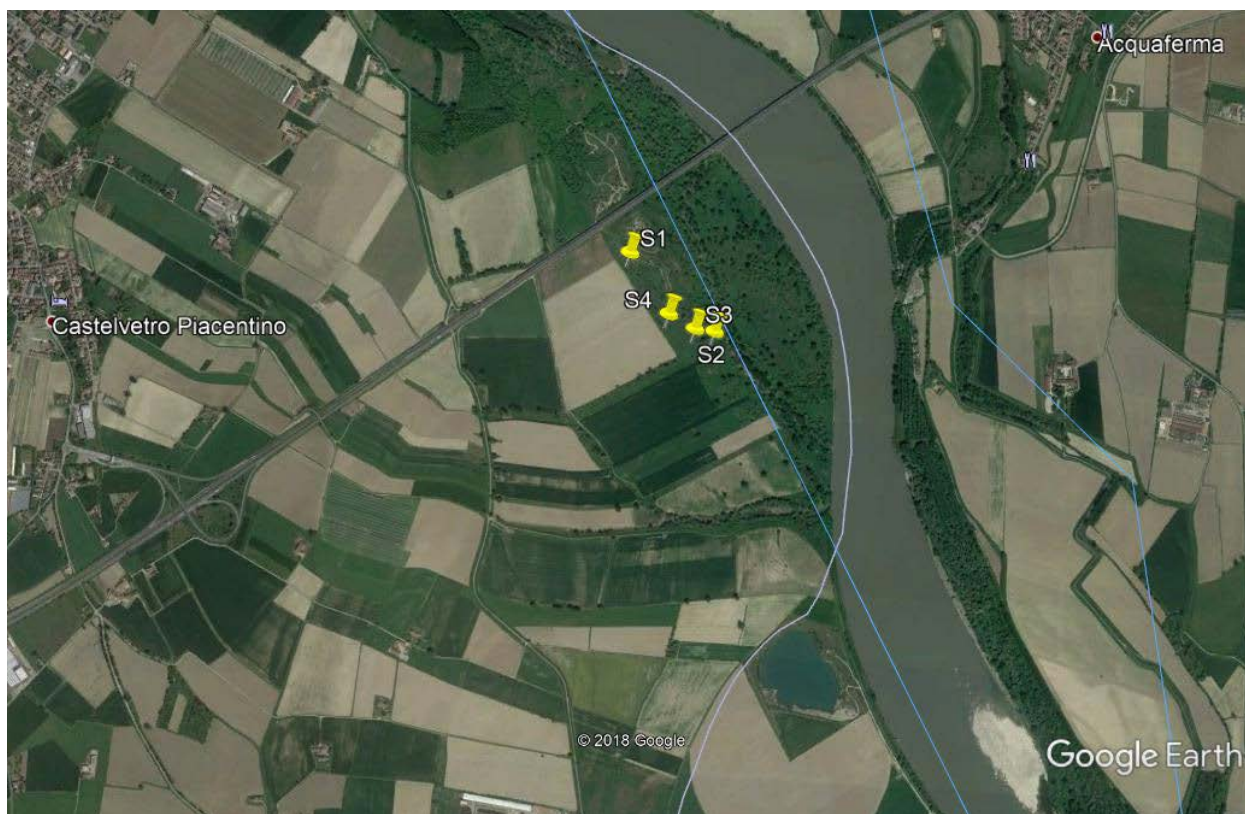


Figura 5 - Ubicazione delle trincee esplorative ubicate nell'area di presito.

Sono inoltre a disposizione le indagini condotte in corrispondenza di due altre potenziali cave di prestito una appena a Nord della A21 e una qualche km più a Sud, sempre in prossimità del fiume e consistenti in:

- n.12 trincee scavate con pala meccanica sino a profondità di -3 m da p.c. (Area 1-traccia 1÷6; Area 2 -Traccia1÷6);
- prelievo n.20 campioni di terreno rimaneggiati sottoposti in laboratorio a prove geotecniche di classificazione (limiti di Atterberg, analisi granulometriche) presso il laboratorio *Studio MM S.r.l.* e a prove di analisi chimica presso il laboratorio *CHELAB S.r.l.*

L'ubicazione delle indagini è riportata nella planimetria in figura seguente.

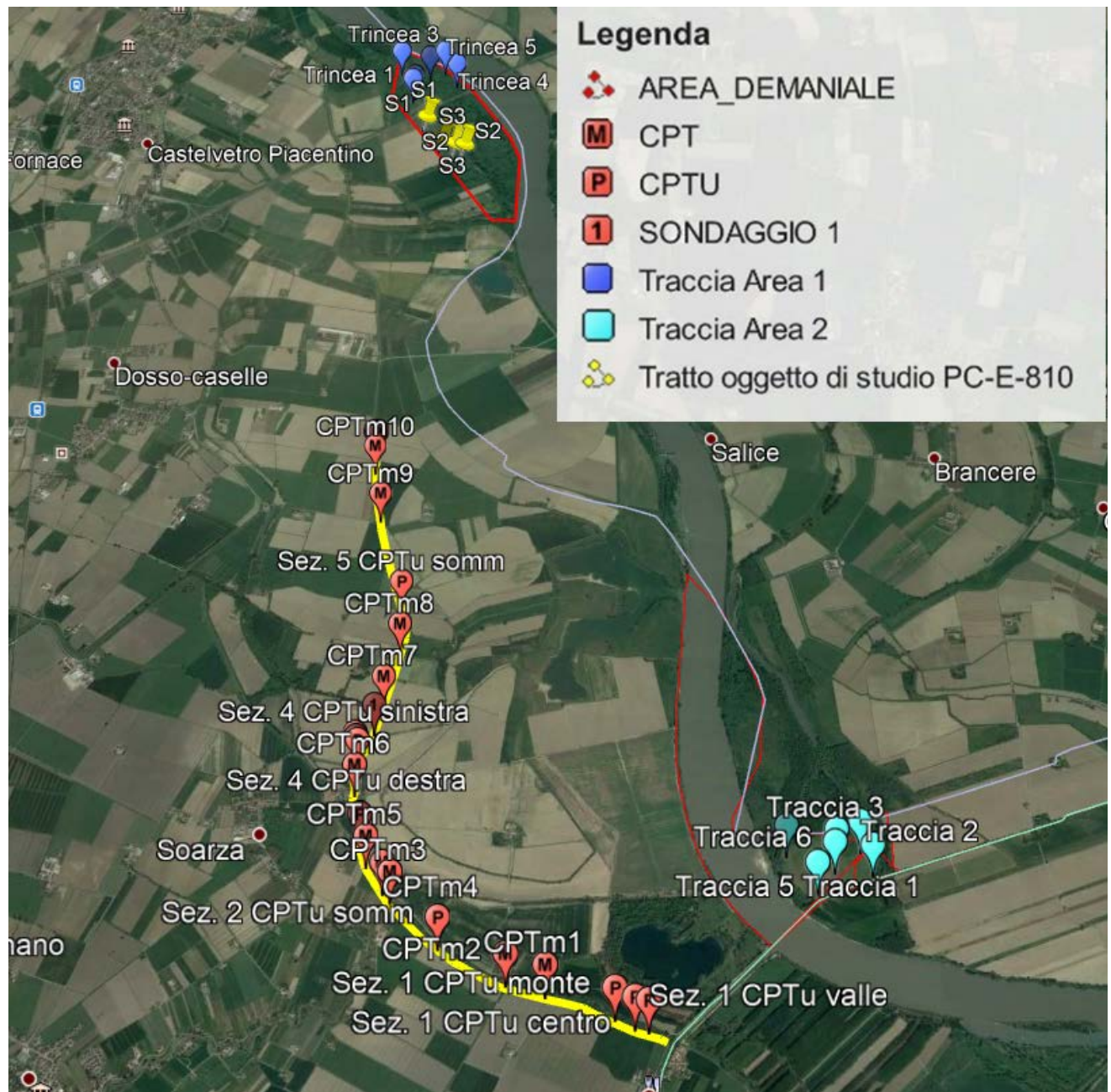


Figura 6 - Ubicazione delle indagini geognostiche

I risultati delle prove di laboratorio condotte nella campagna di indagine vengono riportati nelle tabelle sottostanti.

– *Lungo il tratto di arginatura oggetto di intervento:*

Sigla campione	Profondità prelievo (m)	Peso dell'unità di volume dei grani solidi γ_s (daN/dm ³)	Peso dell'unità di volume umido γ (daN/dm ³)	Peso dell'unità di volume secco γ_s (daN/dm ³)	Fine (A+L)	Limiti di Atterberg (%)			Prova a taglio diretto parametri di picco		Prova a taglio diretto parametri residui		Prova Triassiale UU
						WL	WP	IP	Angolo resistenza a al taglio $\phi'(^{\circ})$	Coesione c' (kPa)	Angolo resistenza a al taglio $\phi'(^{\circ})$	Coesione c' (kPa)	Coesione non drenata c_u (kPa)
S1Cl1/1	3,0-3,6	2,7	1,8	1,4	98	40	24	16	20	10	19	8	-
S1Cl1/2	3,0-3,6	2,6	-	-	23	-	-	-	-	-	-	-	-
S1Cl1/3	3,0-3,6	2,7	-	-	90	-	-	-	-	-	-	-	-
S1Cl1/4	3,0-3,6	2,6	-	-	10	-	-	-	-	-	-	-	-
S1Cl2	7,4-8,0	2,6	2,0	1,7	62	24	n.d.	N.P.	44	0	37	0	-
CPT.M01	2,2-2,8	2,6	2,0		71	-	-	-	-	-	-	-	150

– *Nell'area di cava prevista*

	Sigla campione		Profondità trincea (m)	Passante al setaccio			Limiti di Atterberg (%)			Gruppo di classificazione	Indice di gruppo
				2	0,400	0,075	WL	WP	IP		
Area cava	Saggio 1	C1	-3,0	99,7	94,7	58,9	-	-	-	A4	5
	Saggio 2	C2	-2,0	99,7	99,3	63,1	-	-	-	A4	6
	Saggio 3	C3	-1,9	99,7	99,7	84,3	31,7	17,5	14,1	A6	10
	Saggio 4	C4	-1,6	99,7	99,8	92,9	39,9	21,9	18,0	A6	11

– Nelle altre due potenziali aree di cava di prestito demaniale:

	Sigla campione		Profondità prelievo (m)	Passante al setaccio																Limiti di Atterberg (%)				Gruppo di Classificazione		Indice di gruppo
				20	16	14	12,5	10	8	6,3	4	2	1	0,5	0,4	0,25	0,125	0,063	WL	WP	IP	CT	IG			
Area 1	Tr. 1-2	C1	-0,5	100	100	100	100	100	100	100	100	100	100	99	96	85	72	70	32	25	7	A4	7			
		C2	-2,0	100	98	96	96	94	92	91	90	89	88	75	40	11	2	1	n.d.	n.d.	N.P.	A1-b	0			
	Tr. 3	C1	-1,0	100	100	100	100	100	100	100	100	100	100	100	100	99	94	76	32	28	4	A4	8			
		C2	-2,0	100	100	100	100	100	100	100	100	100	100	100	100	96	77	50	26	n.d.	N.P.	A4	3			
	Tr. 4	C1	-1,8	100	100	100	100	100	100	100	100	100	100	100	100	98	72	44	27	n.d.	N.P.	A4	2			
		C2	-2,9	100	100	100	100	100	100	100	100	100	100	100	99	98	67	38	20	n.d.	N.P.	A4	1			
	Tr. 5	C1	-1,0	100	100	100	100	100	100	100	100	100	100	100	100	99	77	49	26	n.d.	N.D.	A4	3			
		C2	-2,7	100	100	100	100	100	100	100	100	100	100	99	99	98	94	82	46	29	17	A7-6	12			
	Tr. 6	C1	-1,2	100	100	100	100	100	100	100	100	100	100	99	98	97	84	63	30	27	3	A4	6			
		C2	-2,0	100	100	100	100	100	100	100	100	100	100	100	97	92	78	62	29	n.d.	N.P.	A4	5			
	Area 2	Tr. 1	C1	-0,5	100	100	100	100	100	100	100	100	100	99	97	85	75	65	30	n.d.	N.P.	A4	6			
			C2	-1,9	100	100	100	100	100	100	100	100	100	96	81	31	13	10	17	n.d.	N.P.	A3	0			
Tr. 2		C1	-0,5	100	100	100	100	100	100	100	100	100	100	96	68	46	36	23	n.d.	N.P.	A4	0				
		C2	-2,1	100	100	100	100	100	100	100	100	100	99	99	97	94	82	37	28	9	A4	8				
Tr. 3		C1	-1,4	100	100	100	100	100	100	100	100	100	99	98	95	91	83	43	28	15	A6	10				
		C1	-1,2	100	100	100	100	100	100	100	100	100	98	96	89	74	58	35	28	7	A4	5				
Tr. 5		C1	-0,4	100	100	100	100	100	100	100	100	100	100	99	94	78	60	42	29	n.d.	N.P.	A4	1			
		C2	-2,0	100	100	100	100	100	100	100	100	100	99	96	79	57	49	35	27	8	A4	3				
Tr. 6		C1	-0,8	100	100	100	100	100	100	100	100	100	100	99	98	93	85	76	40	28	12	A6	9			
		C2	-1,6	100	100	100	100	100	100	100	100	100	100	99	98	87	75	57	38	28	10	A4	4			

4.2 PROFILO GEOTECNICO

La grande estensione dell'area in esame comporta necessariamente un'analisi locale della successione stratigrafica in corrispondenza delle singole sezioni o insiemi di sezioni consecutive, successione che può comunque essere sintetizzata come segue:

- Tra le sezioni 1 e 20, con riferimento alle prove CPT8,9,10 e alle CPTU 5,6, è possibile osservare la presenza di uno strato limoso-sabbioso (q_c mediamente compresa tra 3 e 4 MPa) di spessore variabile tra 1 e 4.5 m, confinato tra due strati prevalentemente argillosi ($q_c=1\div1.5$ MPa): lo strato superiore a partire dalla sommità del rilevato (ad una quota di +39.83÷+38.84 m s.l.m.) e si estende sino ad una profondità variabile tra 1.5 e 3 m, mentre lo strato inferiore, con le medesime caratteristiche geotecniche, ha origine a -6.5÷-7 m dalla quota di sommità arginale e spessore pari a circa 1 m. A seguire e sino alla massima profondità indagata dalle prove penetrometriche svolte si ha prevalenza di terreni sabbiosi caratterizzati da una resistenza alla punta compresa tra 10 e 15 MPa.
- In corrispondenza della prova CPT 7 (sezioni 20 ÷ 23) lo strato limoso si estende dalla quota di sommità arginale sino alla profondità di -6.5 m. A seguire, come per

l'area precedentemente descritta, si trovano terreni di natura prevalentemente sabbiosa.

- Tra le sezioni 24 e 30, con riferimento alle prove penetrometriche CPT6 e CPTU4 e al sondaggio a carotaggio continuo S1, si riscontra nuovamente la presenza di uno strato prevalentemente argilloso che si estende fino alla base del rilevato (valori di pocket penetrometer sulle carote del sondaggio S1 compresi tra 150 kPa e 425 kPa). Dalle analisi in laboratorio si sono determinati valori bassi della plasticità (limite liquido $w_L = 40$ e indice di plasticità $IP = 16$). Al di sotto del rilevato arginale segue uno strato limoso di spessore pari a circa 2 m e quindi, sino alla massima profondità indagata, nuovamente sabbie eterometriche ($q_c = 10 \div 15$ MPa).
- Dalla sezione 31 alla sezione 40 (vedi prove CPT3,4,5 e CPTU3) l'andamento stratigrafico torna ad essere del tutto simile ad quanto descritto per le sezioni 1÷20: caratterizzato da uno strato sommitale di natura prevalentemente argillosa di circa 1.5 m con $q_c = 1 \div 1.5$ MPa. A seguire e sino alla profondità di 4÷4.5 m da quota sommità arginale si trovano terreni di natura limosa e limoso-sabbiosa ($q_c = 3 \div 5$ MPa), sottesi da uno strato sabbioso che si estende in profondità.
- Tra le sezioni 41 e 56 (vedi CPT1,2 e CPTU 1,2) l'andamento stratigrafico risulta analogo a quello descritto al punto precedente, ma con spessori diversi degli strati di terreno: in particolare il livello argilloso si estende fino a profondità comprese tra 3 e 4.5 m da quota sommità arginale, mentre quello limo-sabbioso va da -3÷-4.5 m a -6.5÷-7 m di profondità.

Nel corso dei rilievi condotti in sito la falda è stata rilevata ad una profondità di 8.50÷10.20 m dalla sommità dell'argine.

Nella tabella seguente si riporta il profilo geotecnico dell'area: per i vari strati vengono individuati i parametri caratteristici di resistenza al taglio in condizioni di sforzi efficaci (angolo Φ' e coesione c'), per gli strati coesivi viene anche riportata la coesione non drenata c_u .

L'angolo di resistenza al taglio Φ' è stato valutato con la relazione dell'American Petroleum Institute (1987), che fa riferimento alla densità relativa

$$\phi' = 16 \times D_r^2 + 0.17 \times D_r + 28.4$$

Dove D_r (%) viene valutata con riferimento alla relazione di Baldi et al. (1986), relativa a sabbie normalconsolidate:

$$D_r = \frac{1}{C_2} \times \ln \frac{q_c}{C_o \times (\sigma'_{v0})^{C_1}}$$

Nella quale C_0 , C_1 e C_2 sono costanti del terreno che dipendono dalla composizione granulometrica, che valgono nel caso in oggetto rispettivamente 157, 0.55 e 2.41, mentre σ'_{v0} è la tensione verticale efficace alla profondità di riferimento, espressa in kPa, e q_c rappresenta la resistenza di punta al penetrometro (in kPa).

La coesione non drenata c_u , è stata ricavata secondo la seguente relazione empirica:

$$c_u = \frac{q_c - \sigma_{v0}}{N_c}$$

dove q_c rappresenta la resistenza di punta misurata con le prove penetrometriche statiche, σ_{v0} la tensione verticale totale e N_c rappresenta un fattore di capacità portante che assume, in funzione della plasticità, valori compresi tra 10 e 15 per terreni normalconsolidati e tra 15 e 25 per terreni sovraconsolidati (per il caso in esame è stato assunto $N_c=15$).

Strato	Peso di volume totale/immerso	Angolo di resistenza al taglio (valore caratteristico)	Coesione c' (valore caratteristico)	Coesione non drenata, c_u (valore caratteristico)
	[kN/m ³]	[°]	[kPa]	[kPa]
Argilloso-limoso	19/9	25	10	60
Limoso-sabbioso	19/9	28	5	-
Sabbia	19/9	34	-	-

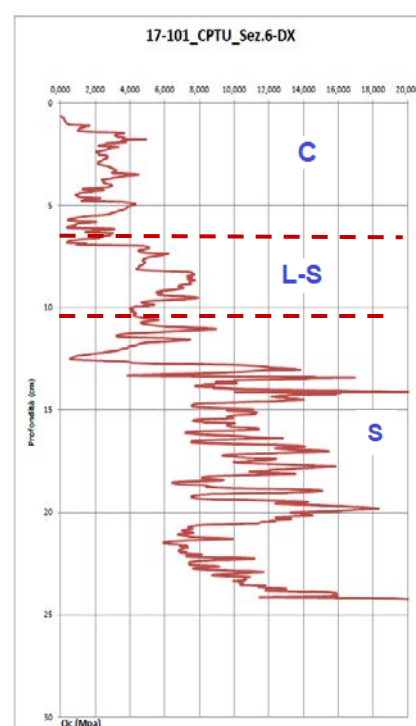
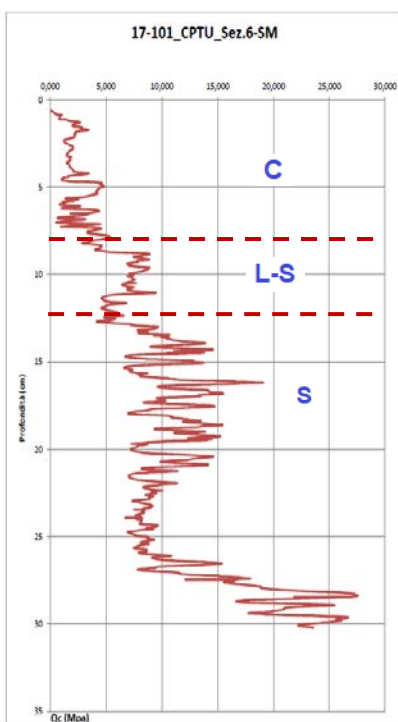
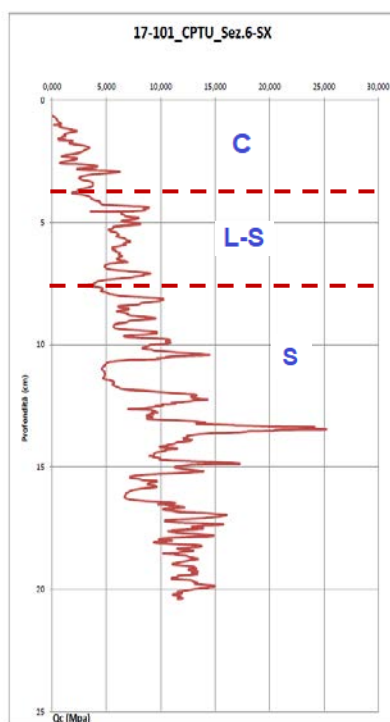
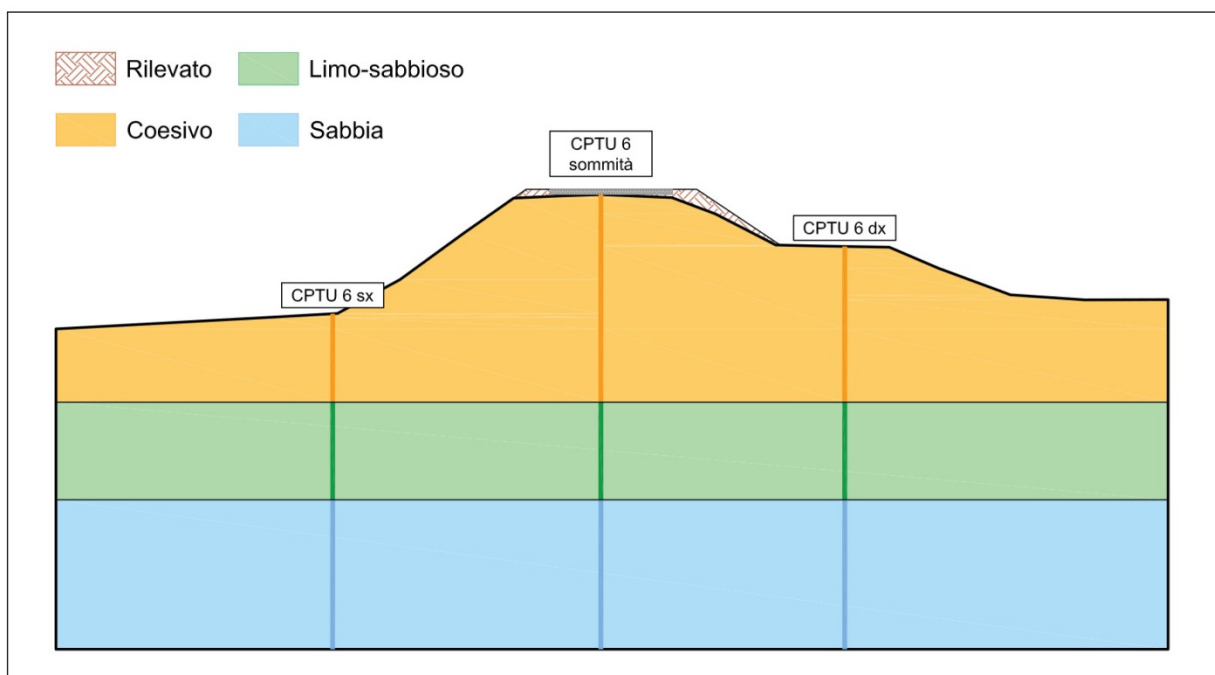
Nelle figure seguenti si riportano la planimetria di dettaglio con l'ubicazione delle indagini geognostiche e il profilo stratigrafico e geotecnico trasversale (si allegano alla presente relazione i risultati delle prove svolte in sito e in laboratorio).

RELAZIONE GEOLOGICA E GEOTECNICA

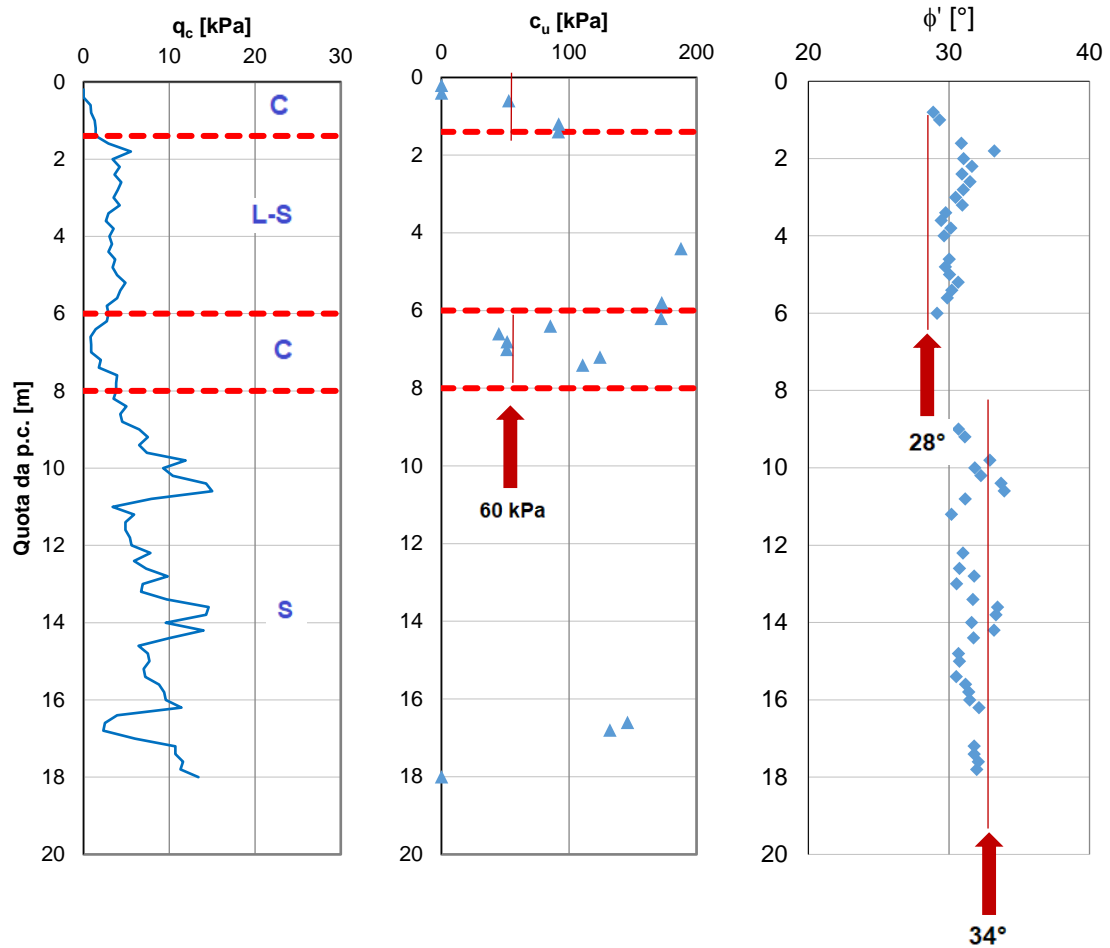
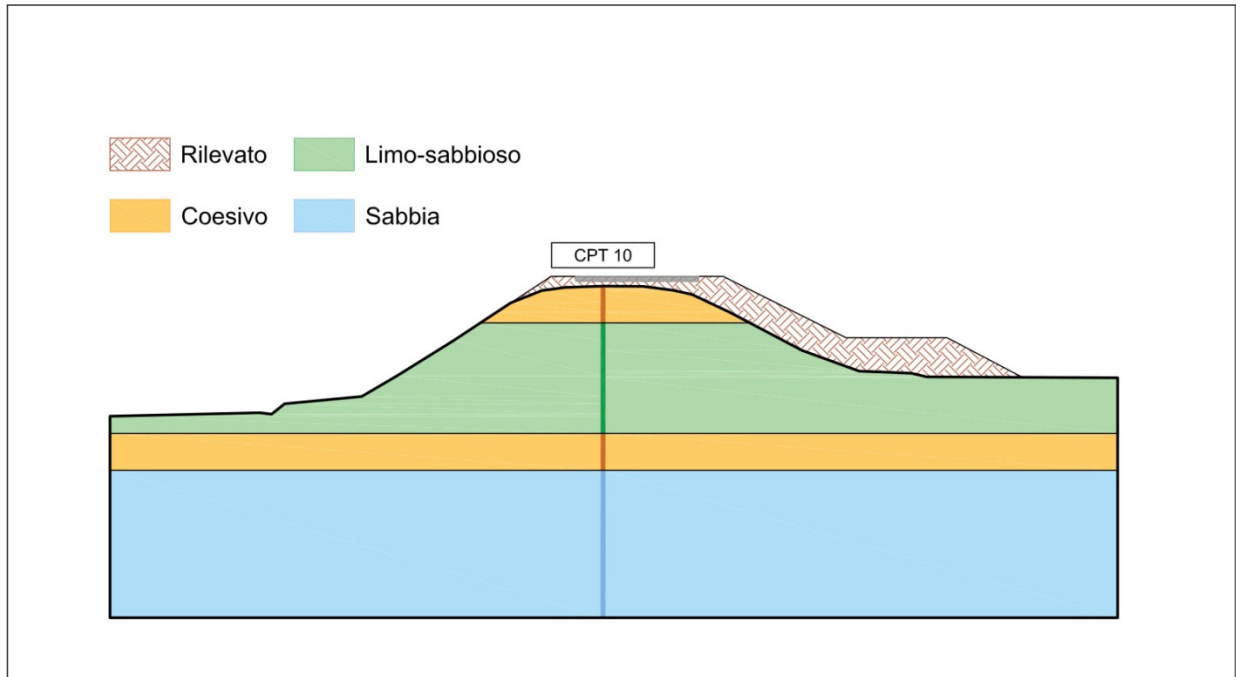


Figura 7 - Ubicazione delle sezioni

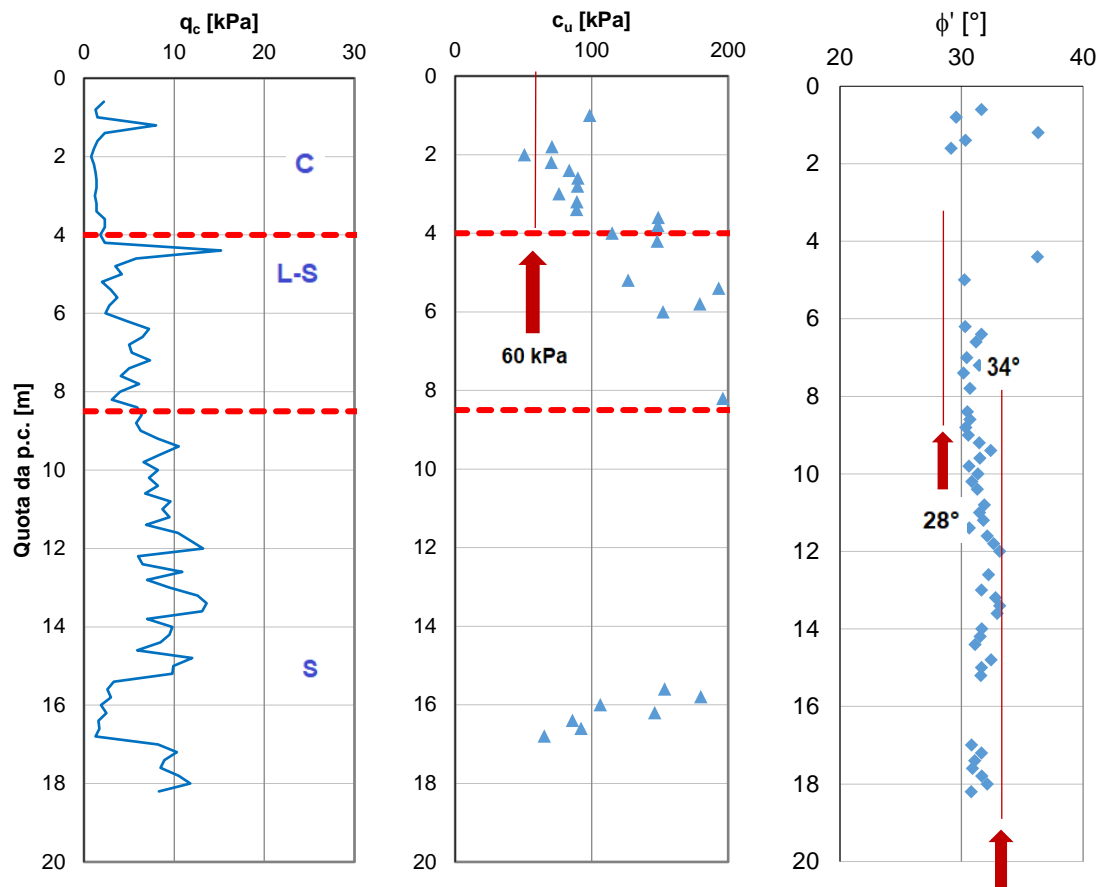
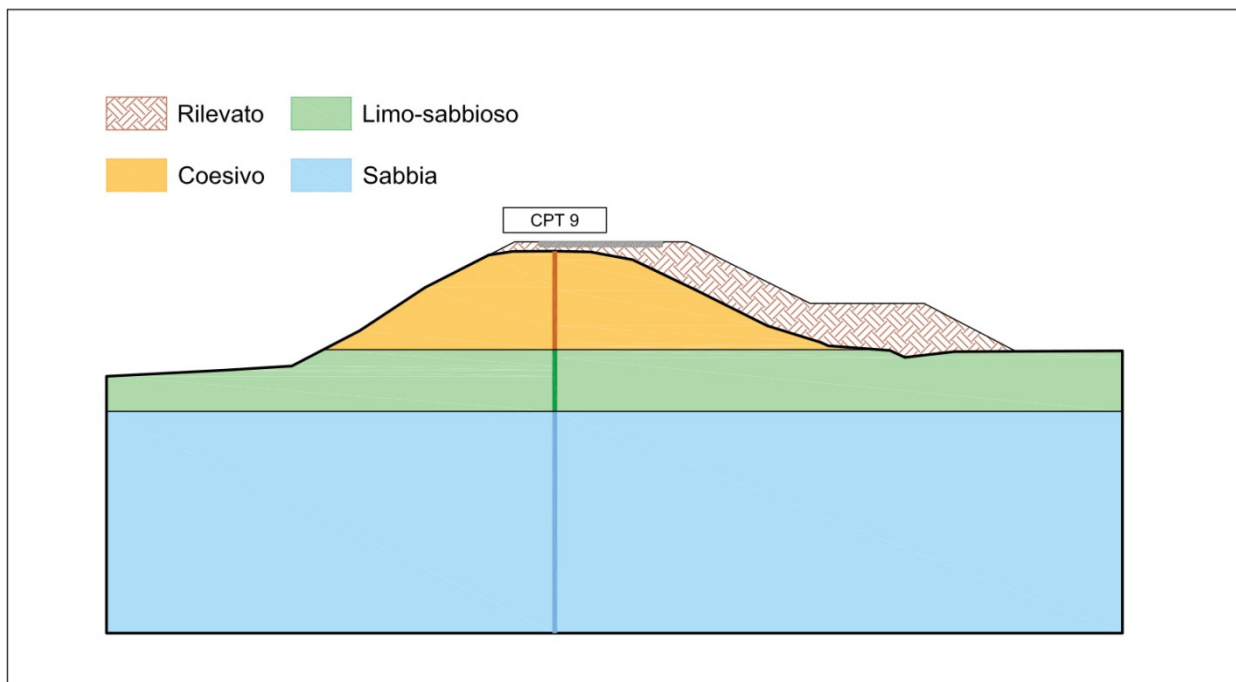
Sezione 1



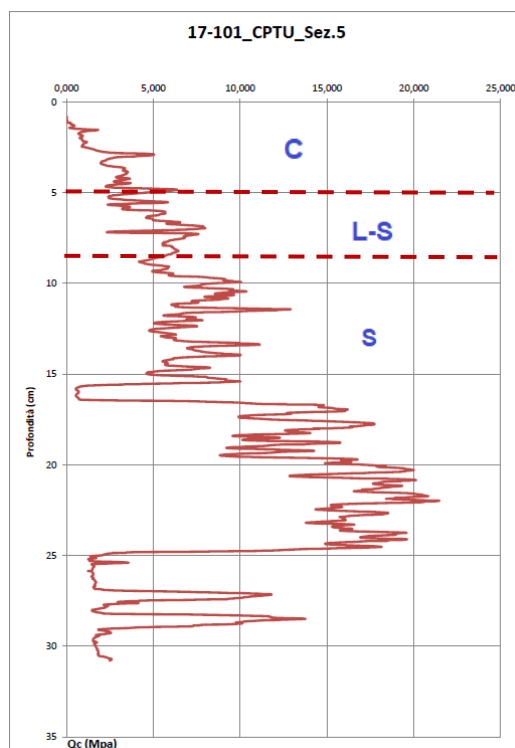
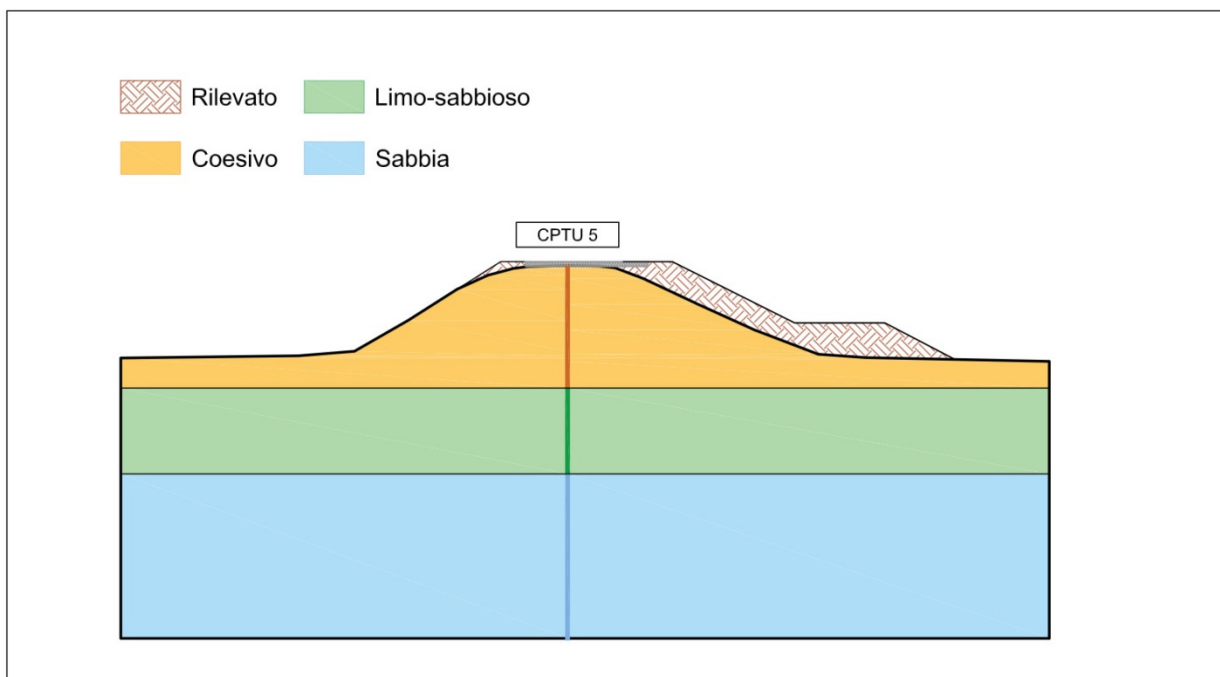
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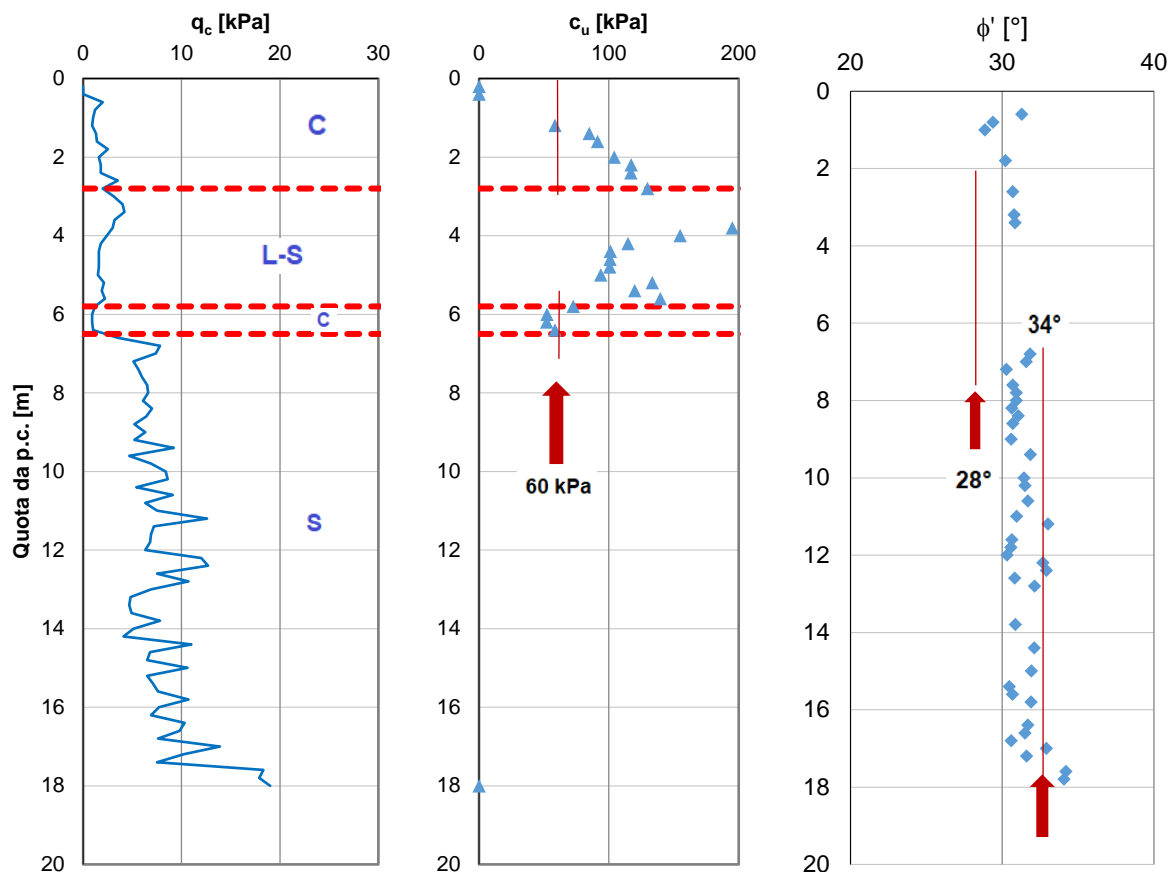
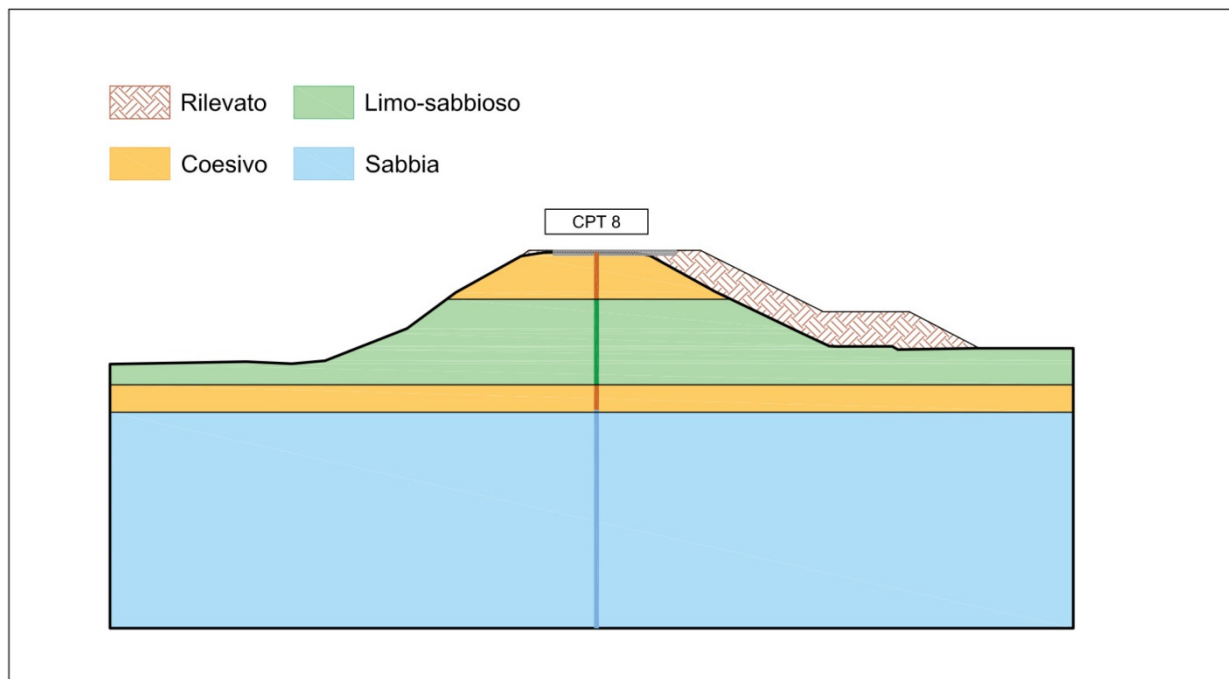
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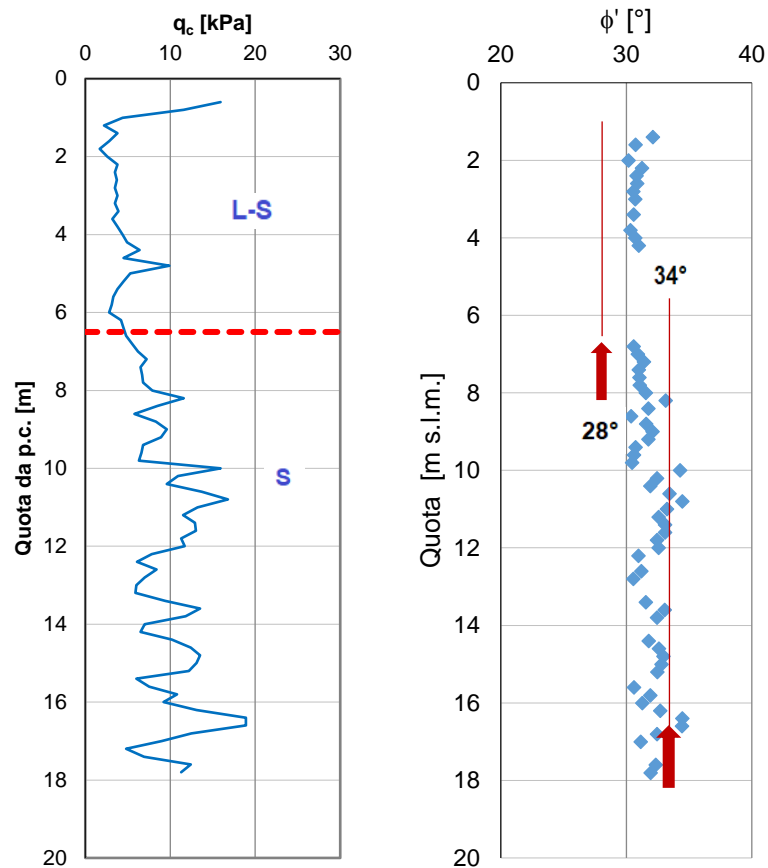
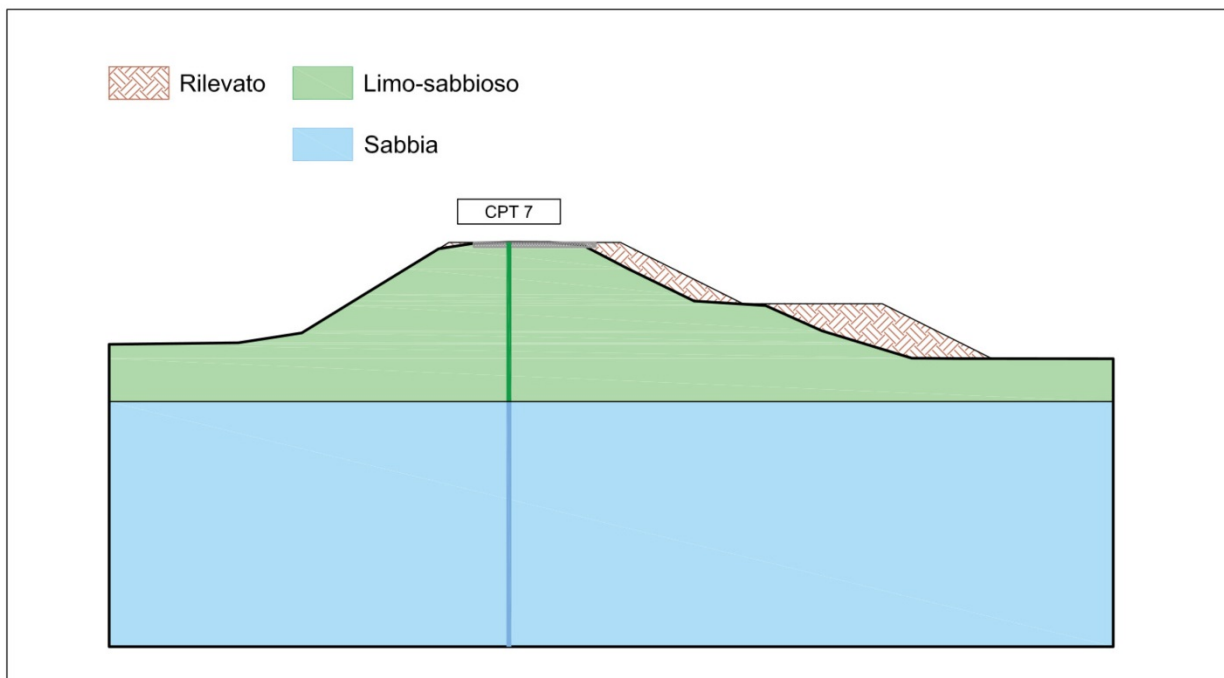
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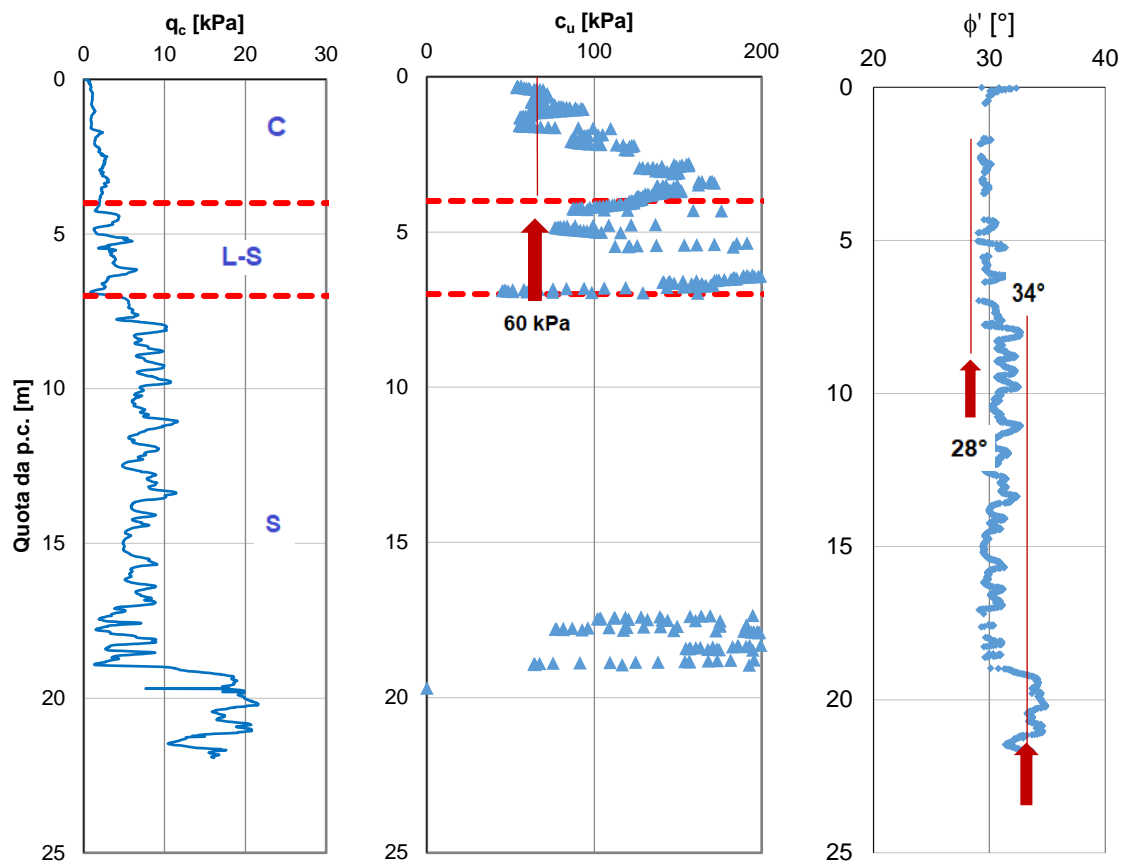
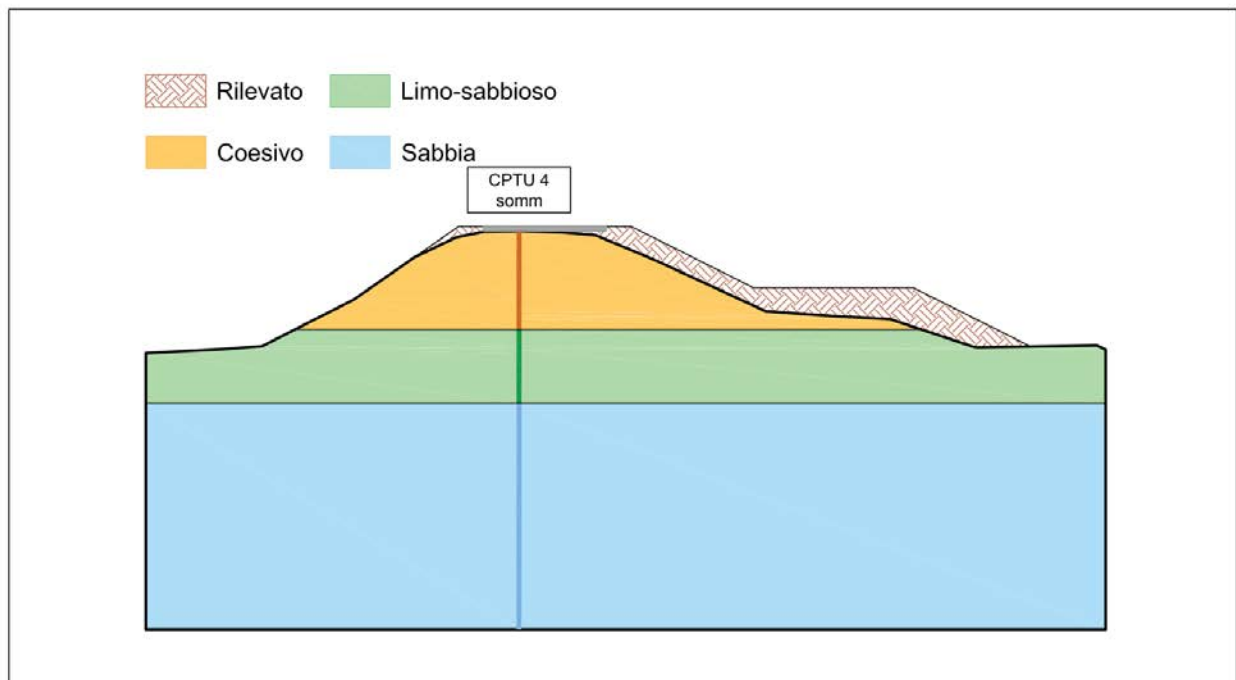
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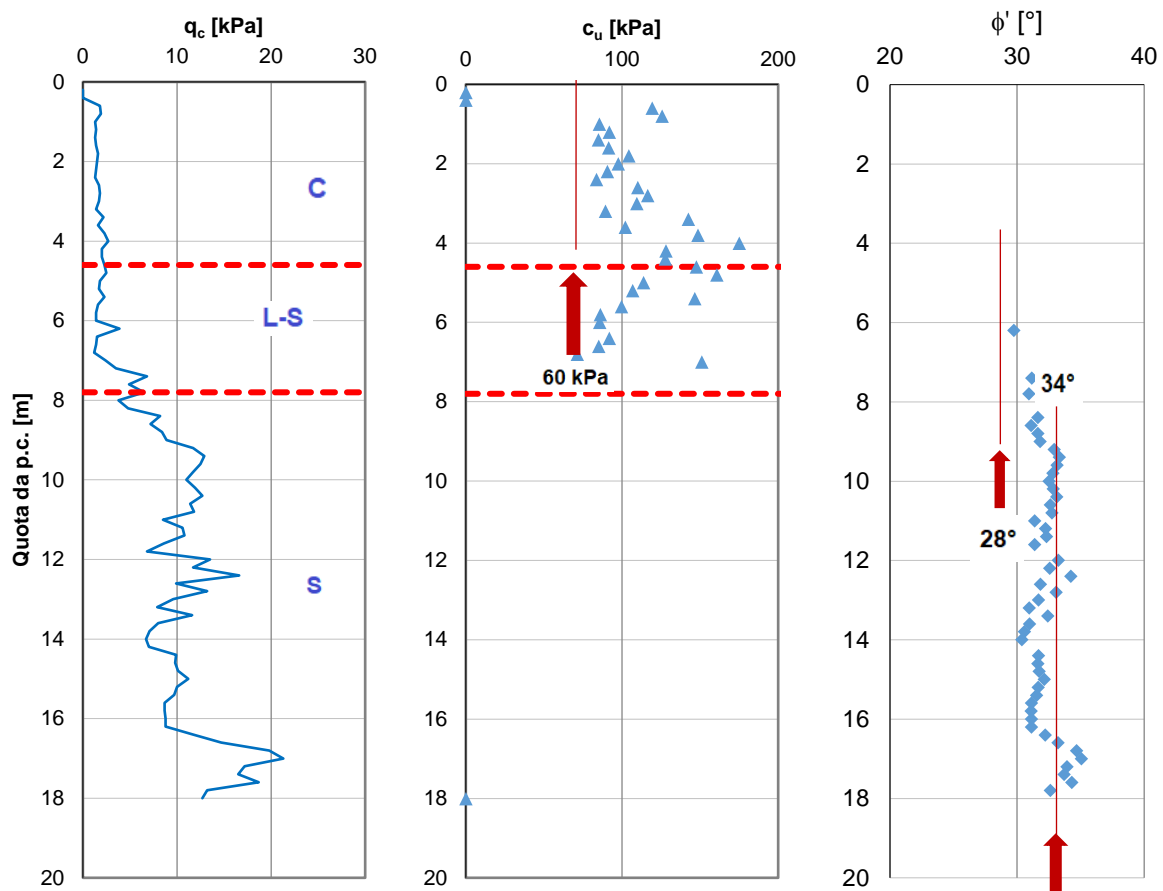
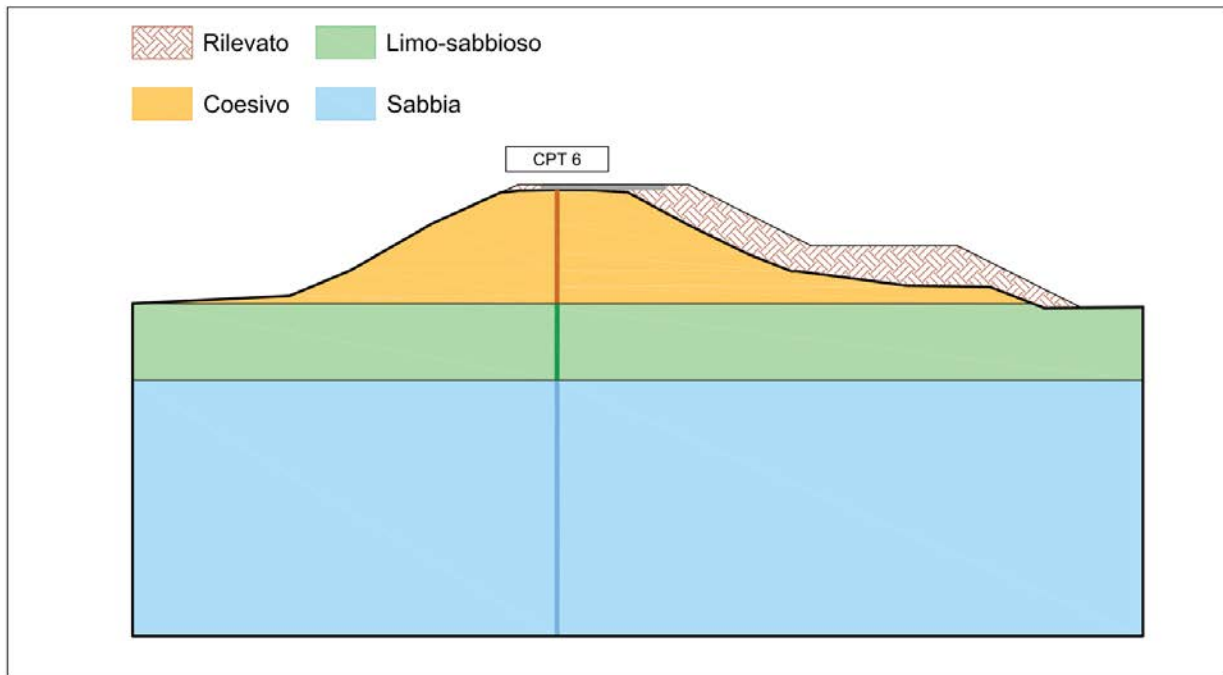
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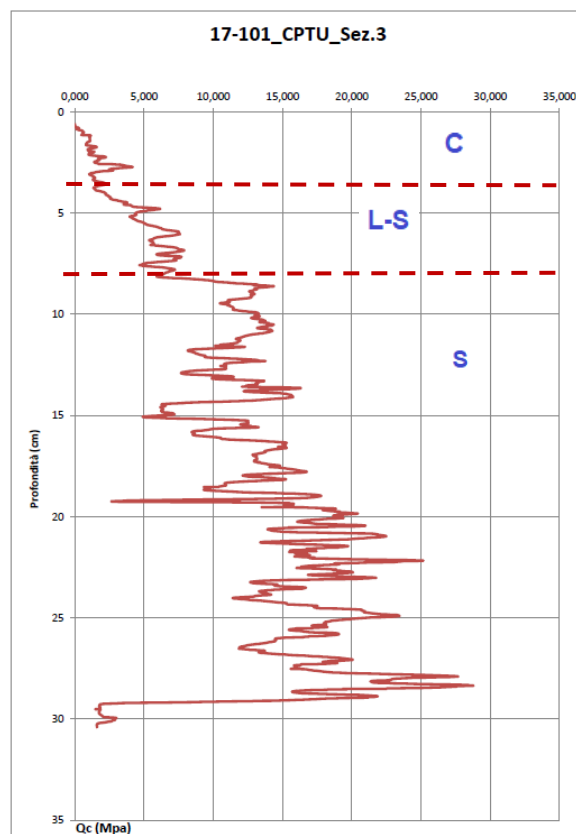
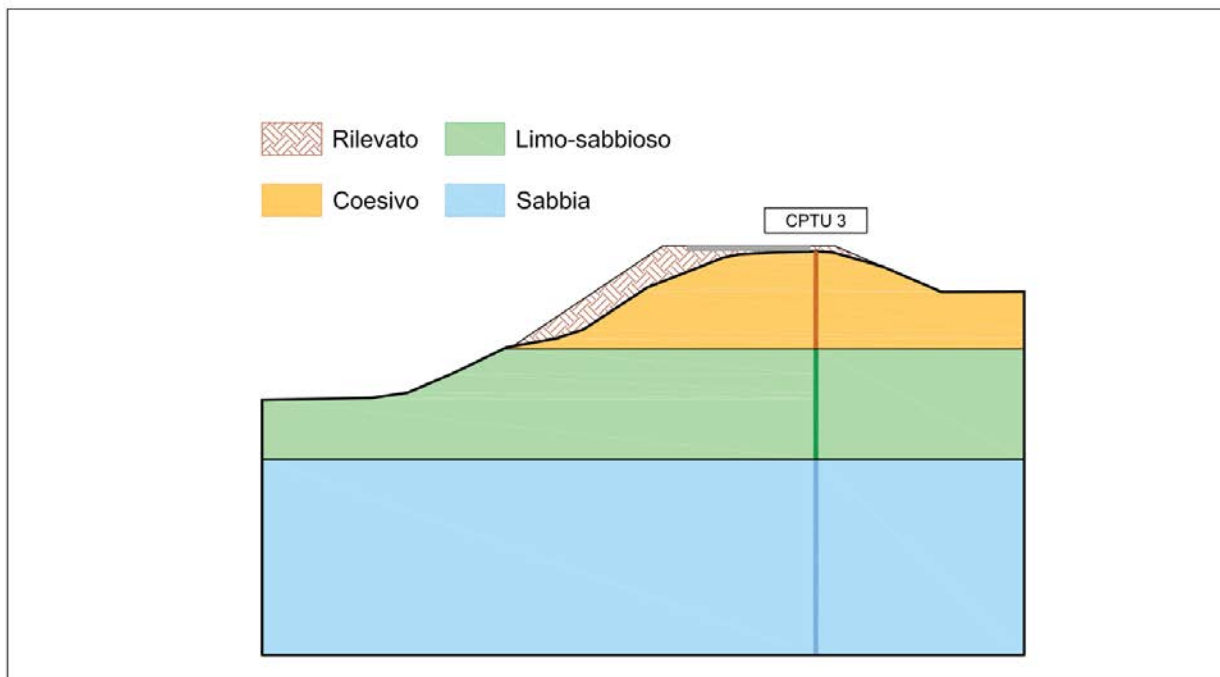
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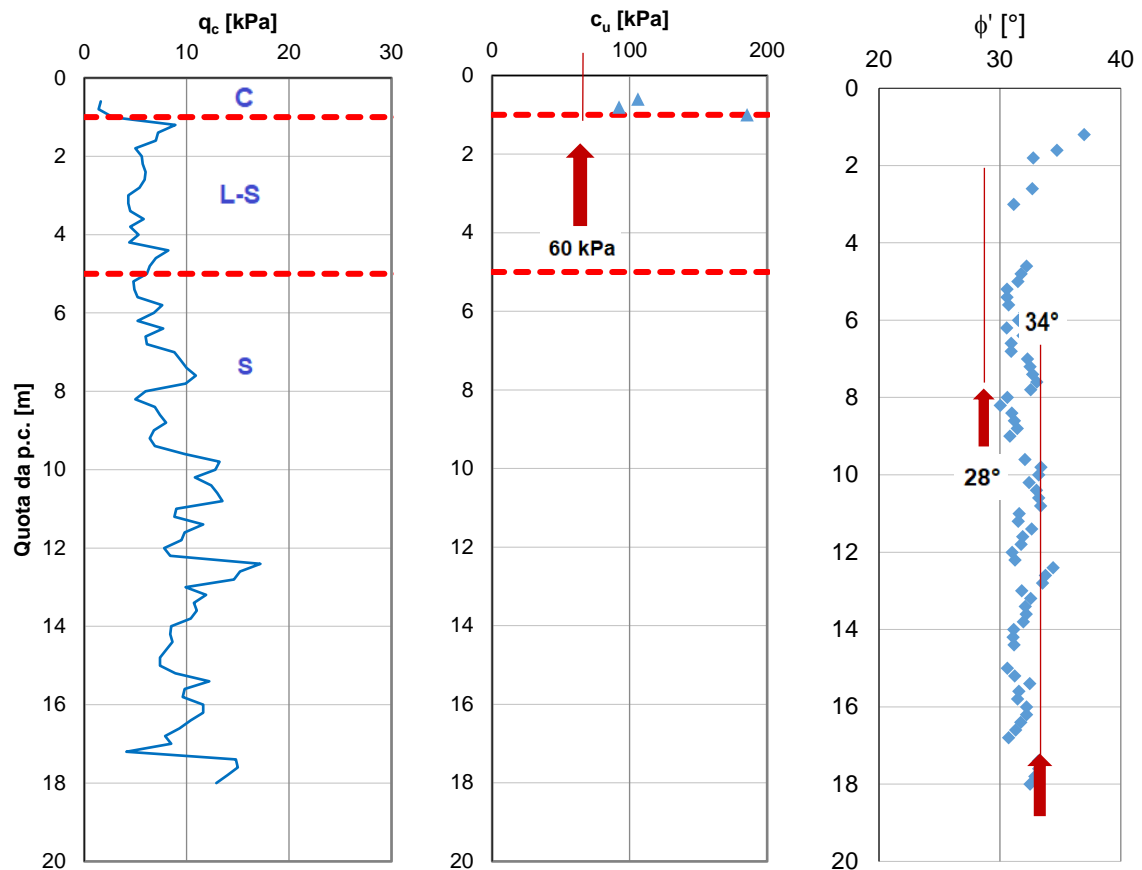
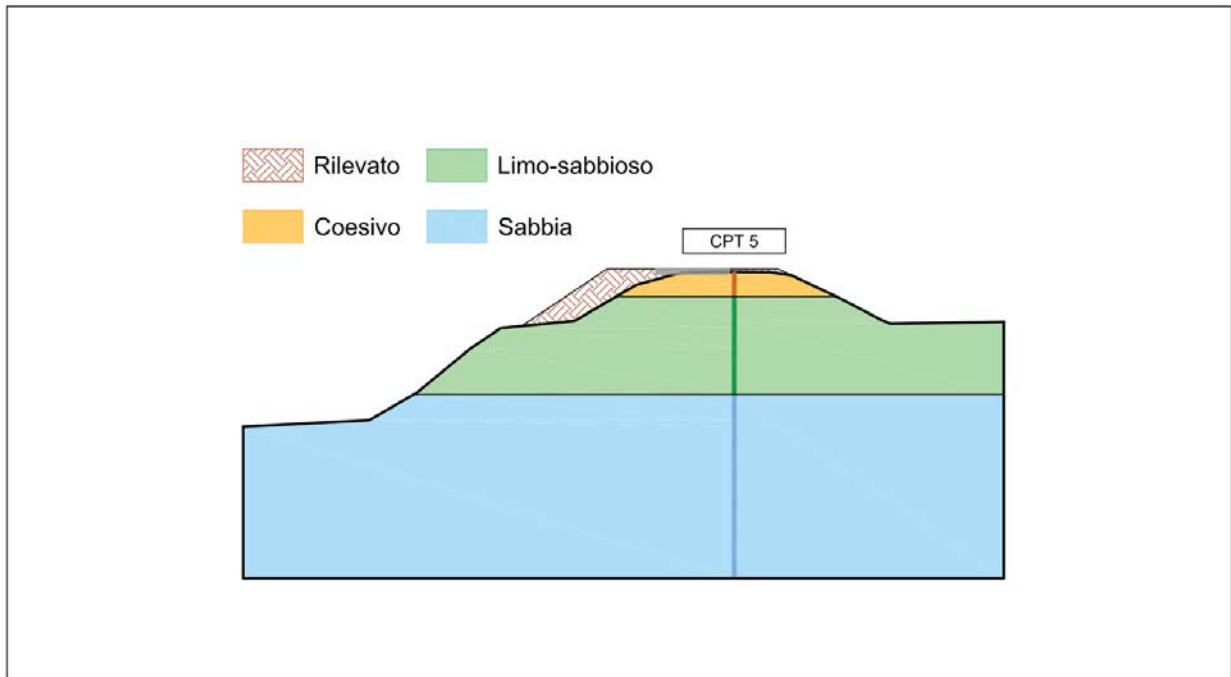
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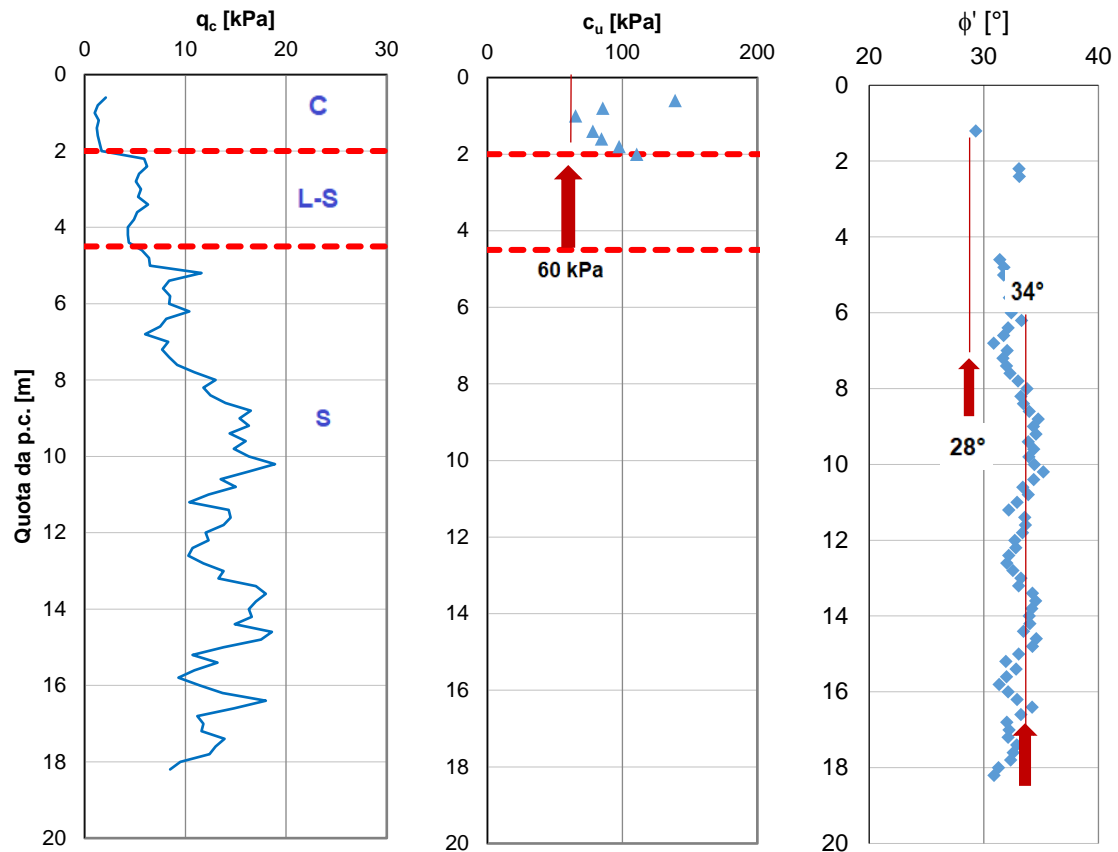
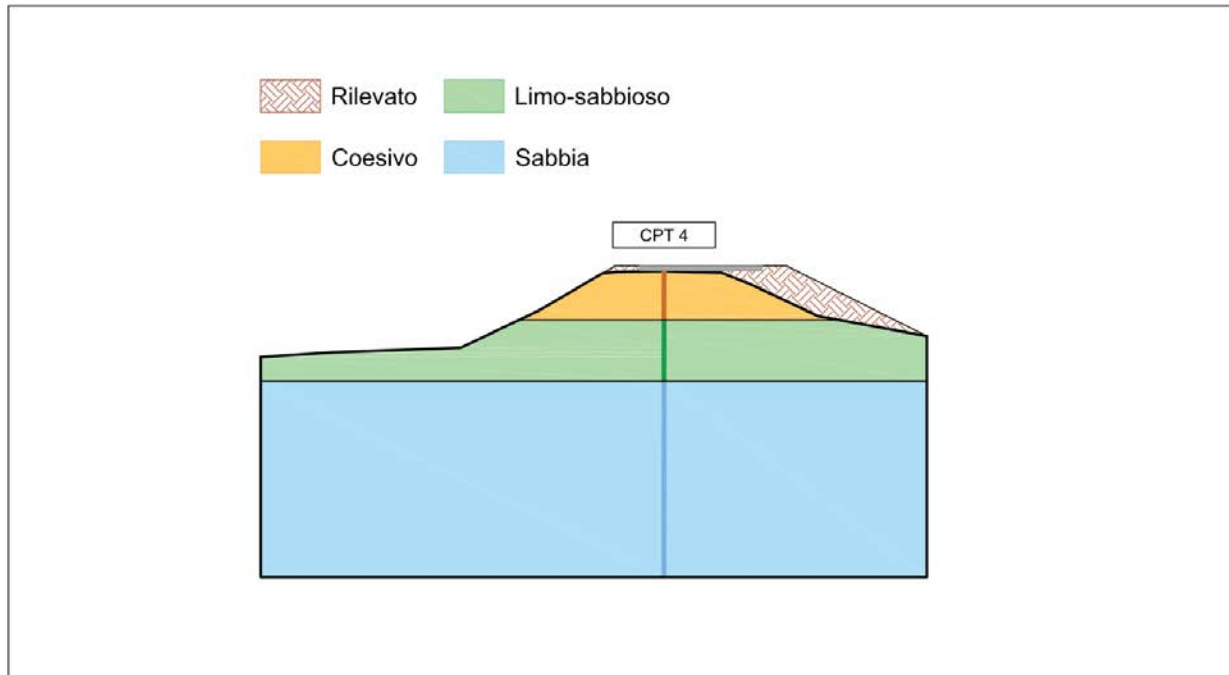
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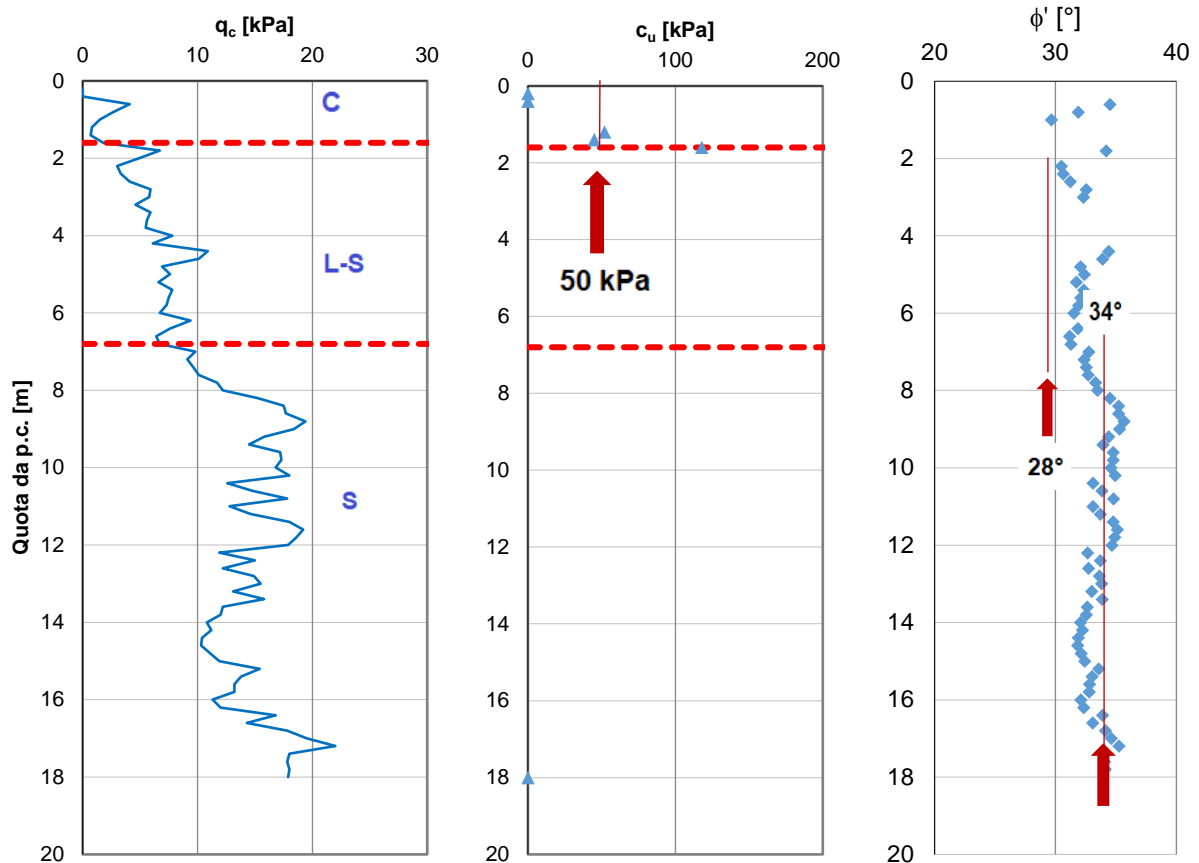
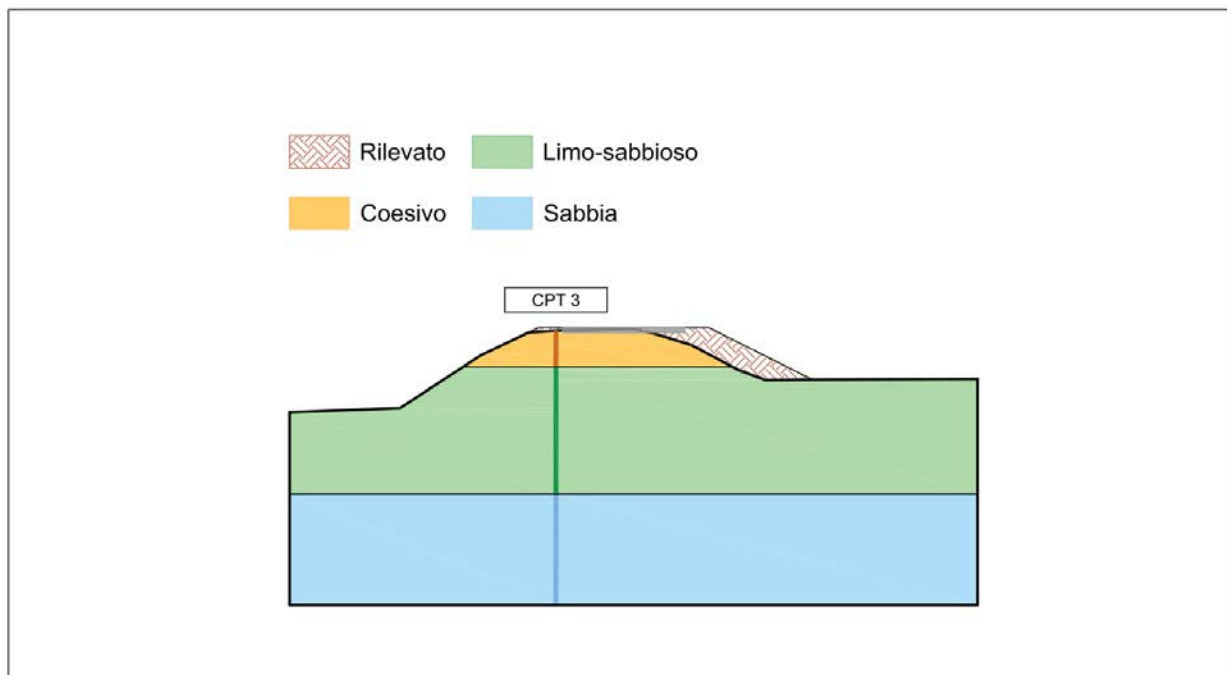
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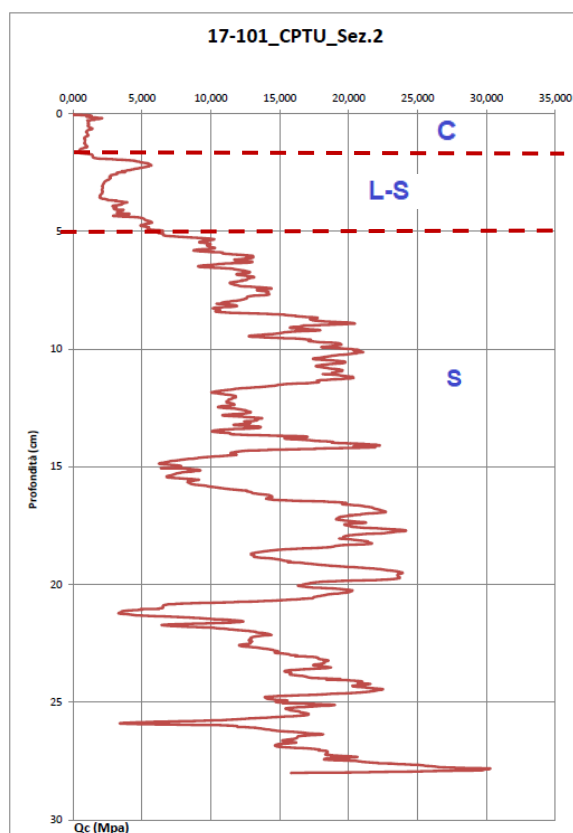
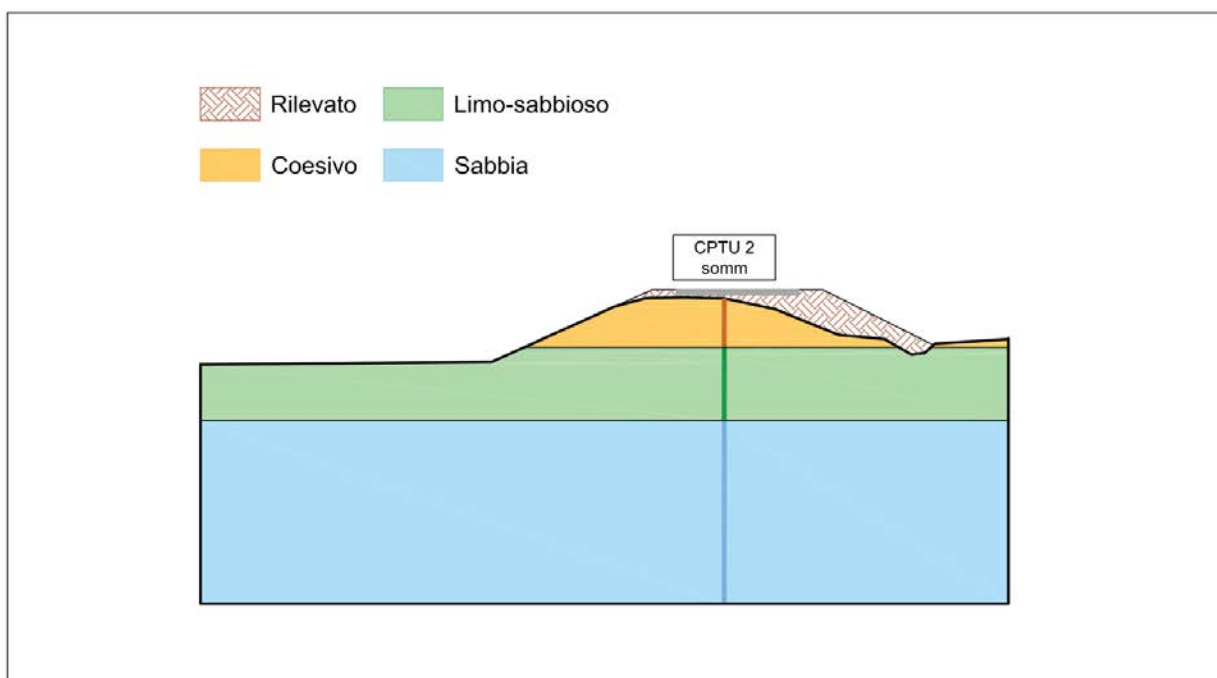
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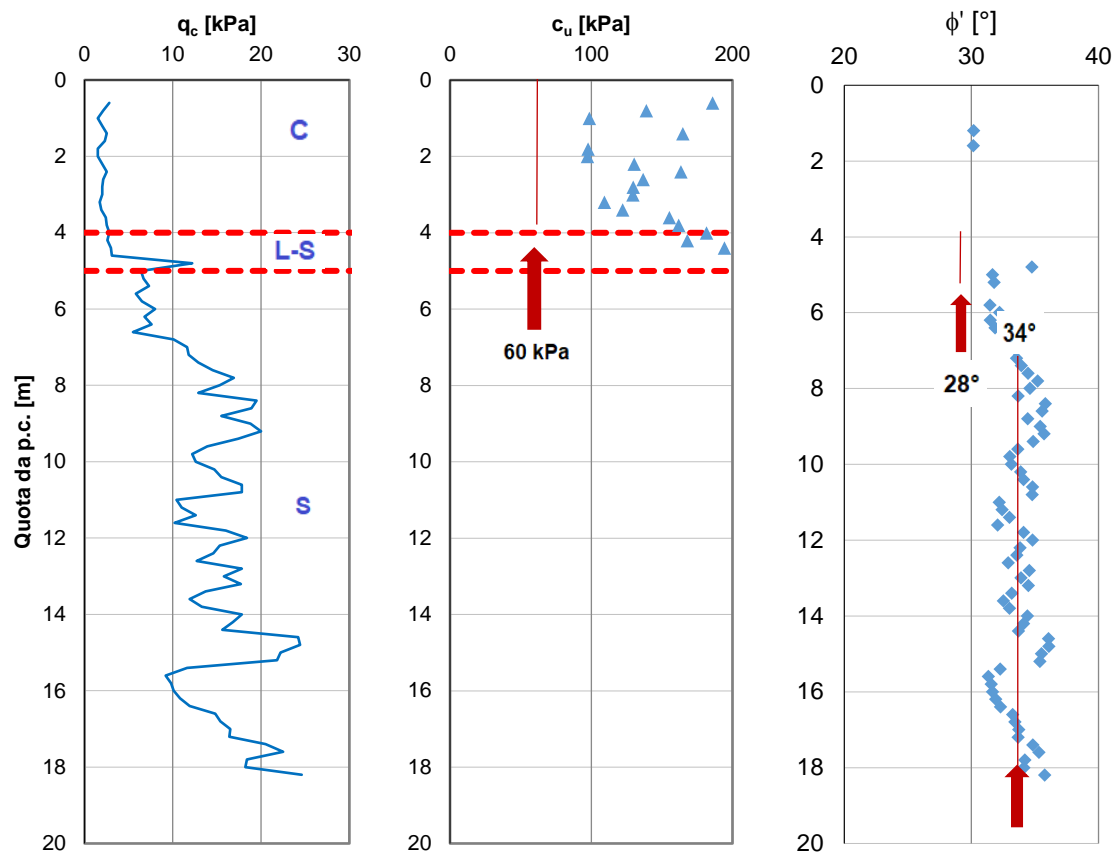
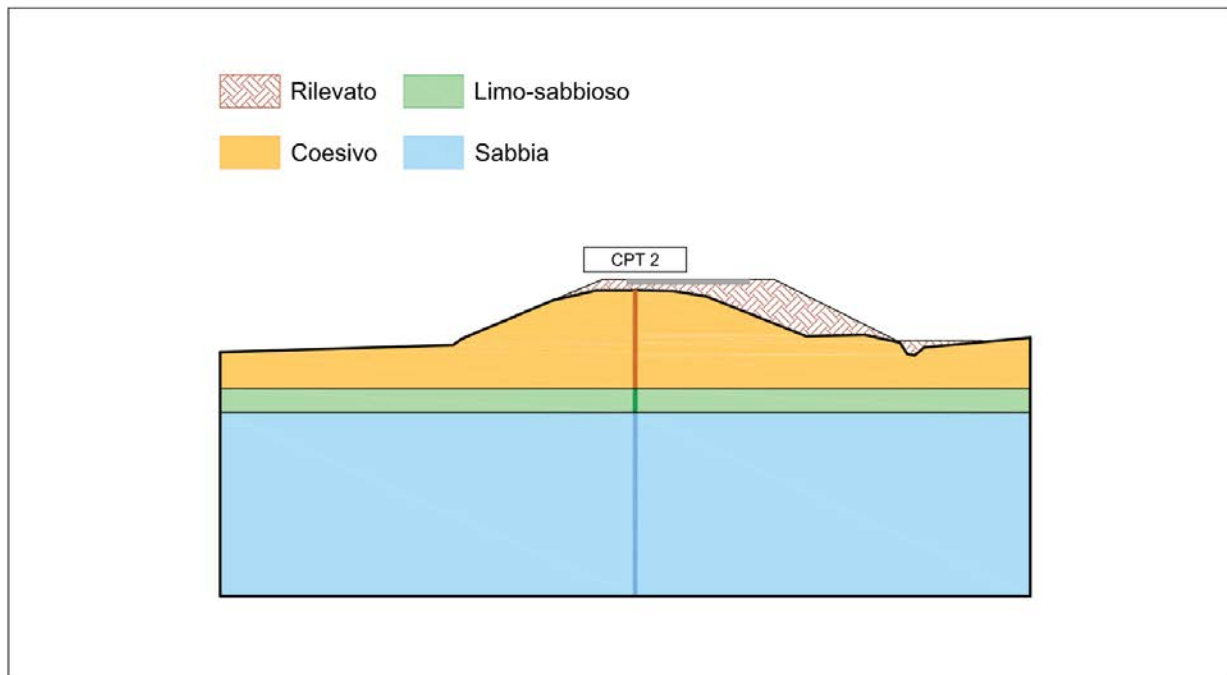
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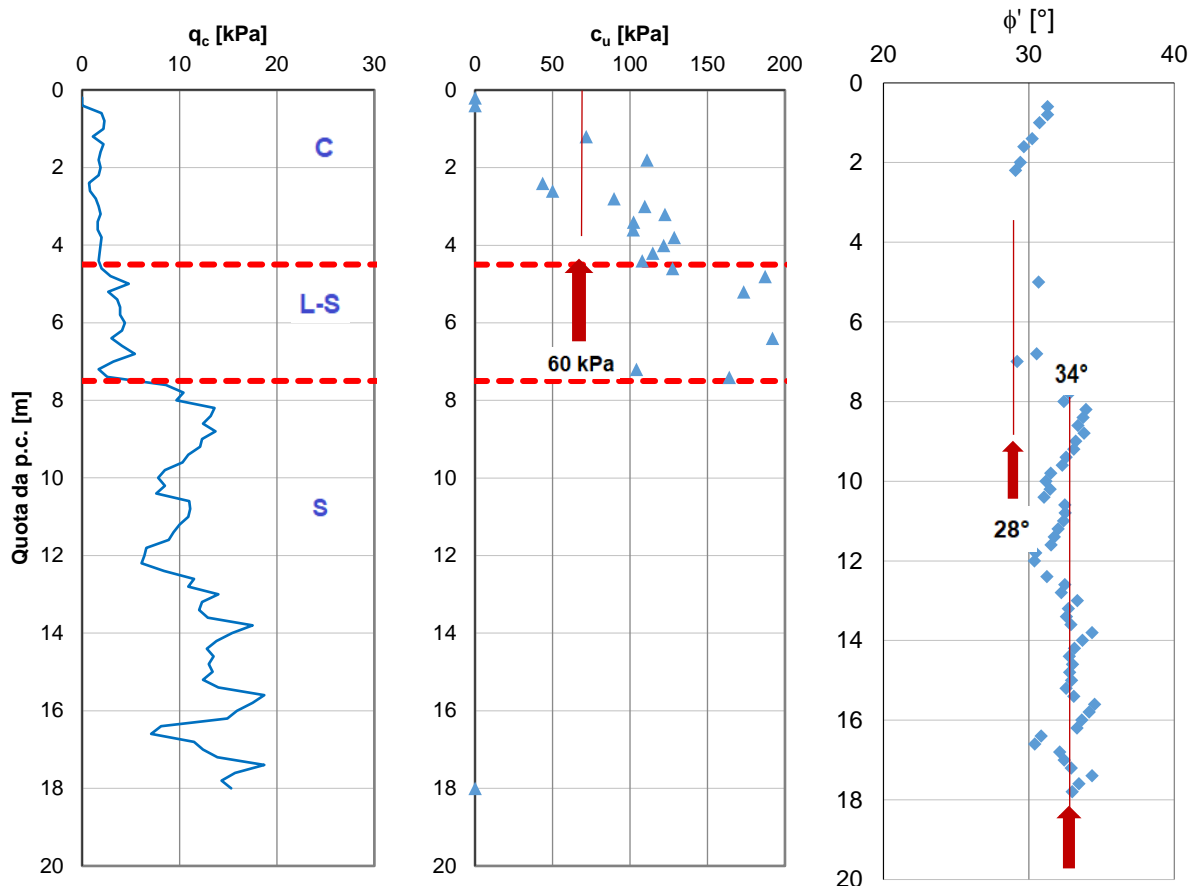
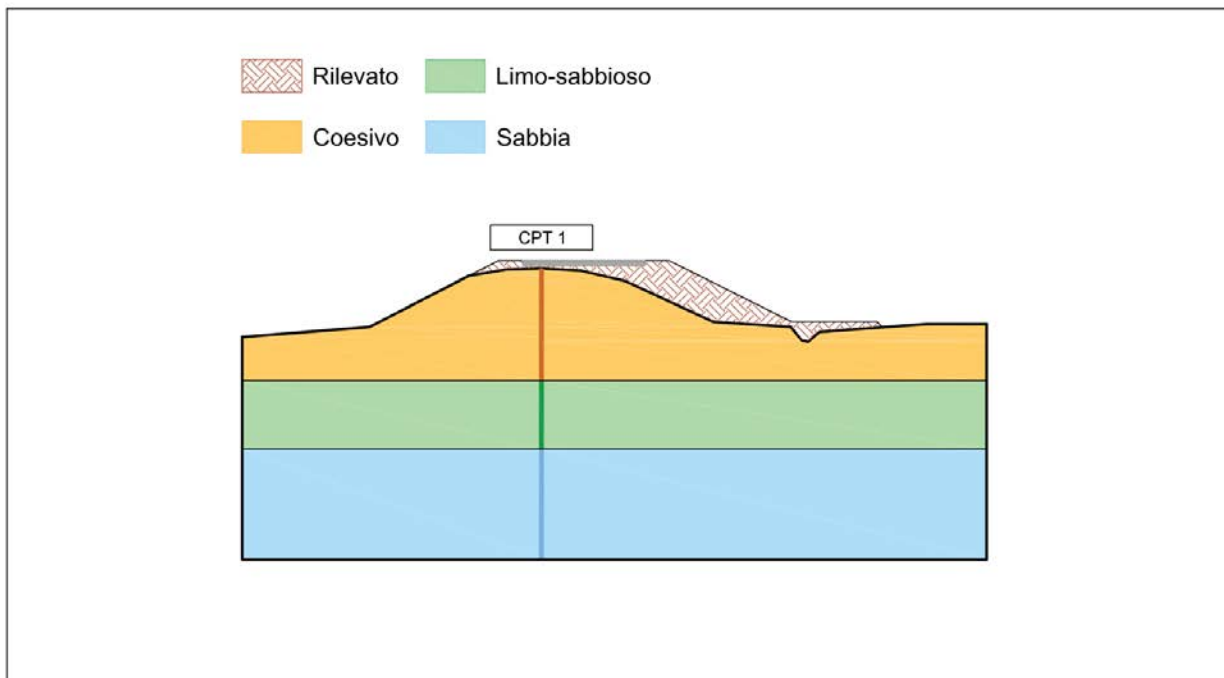
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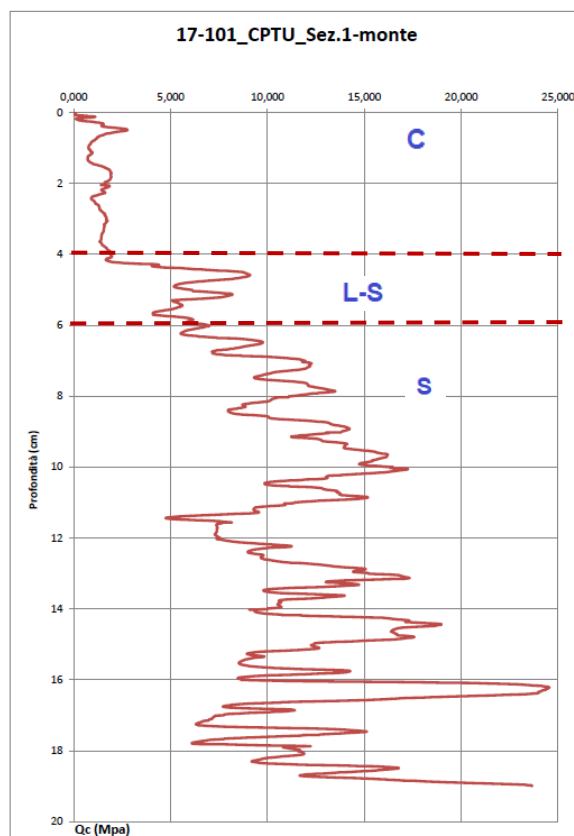
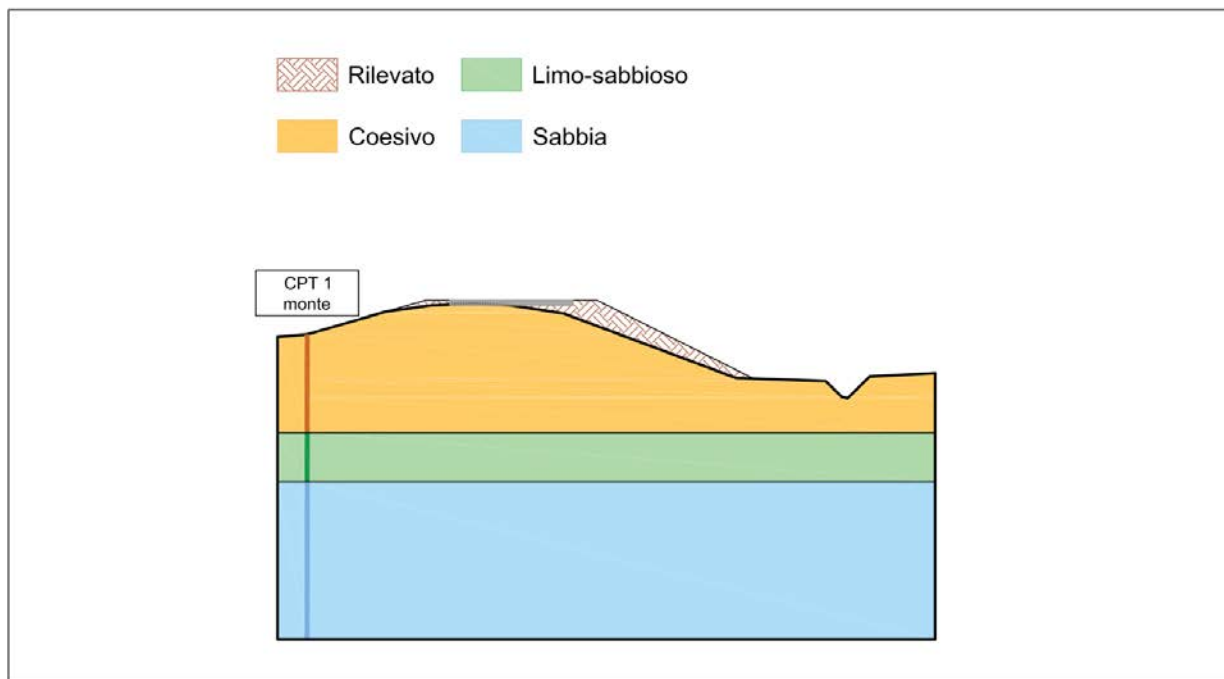
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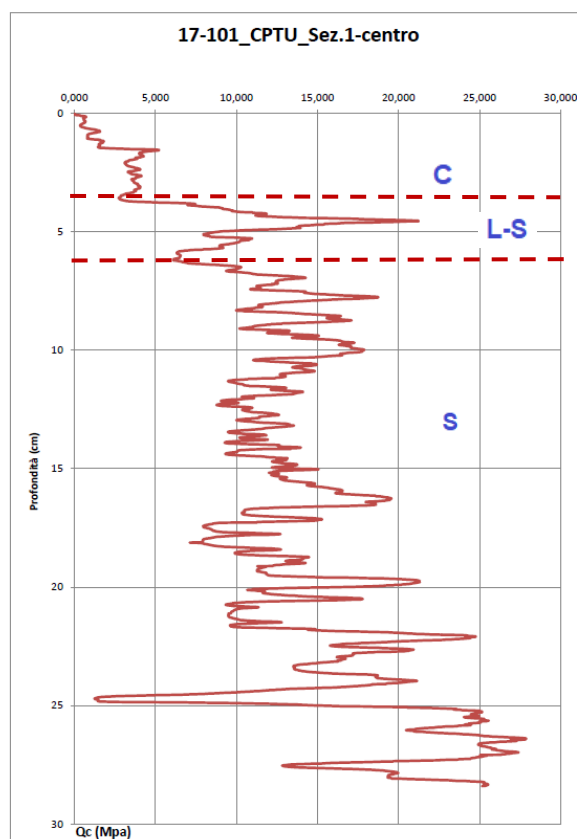
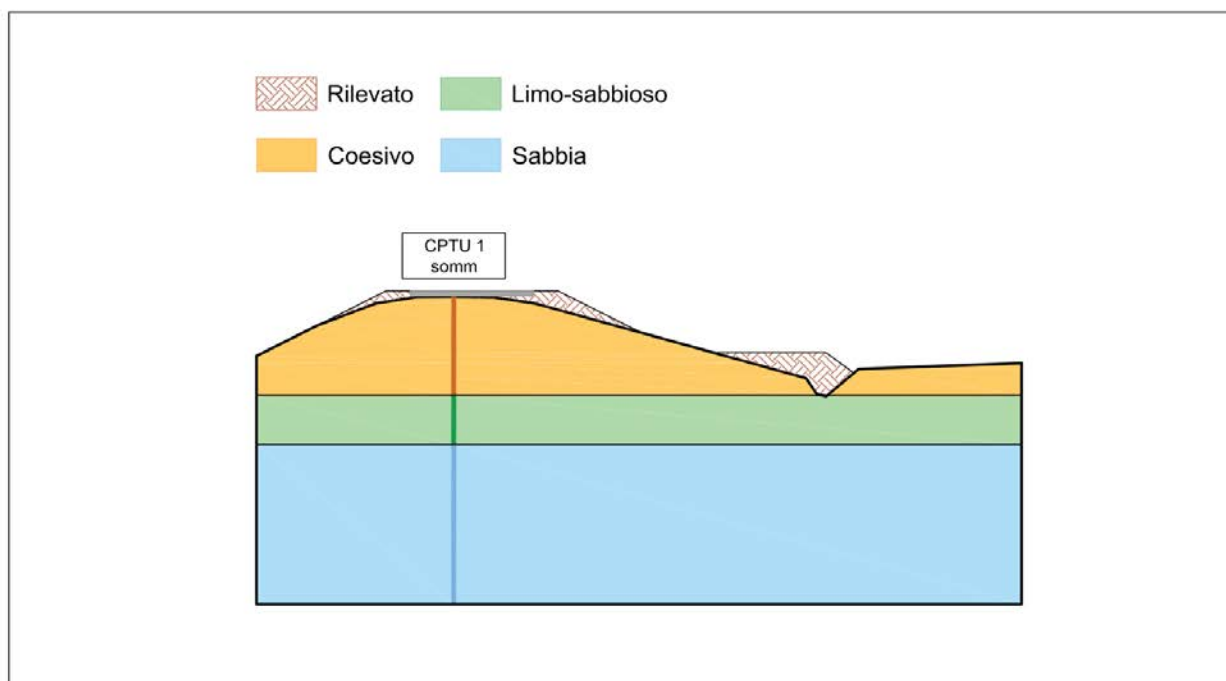
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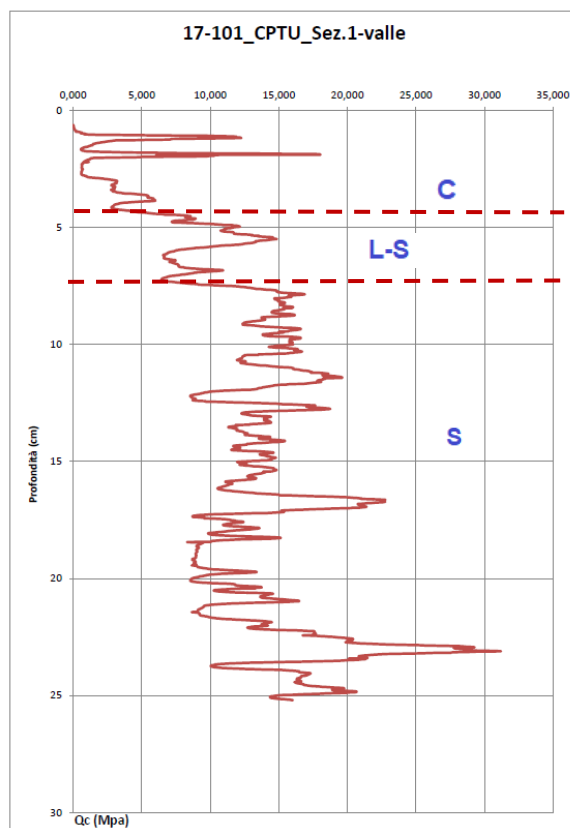
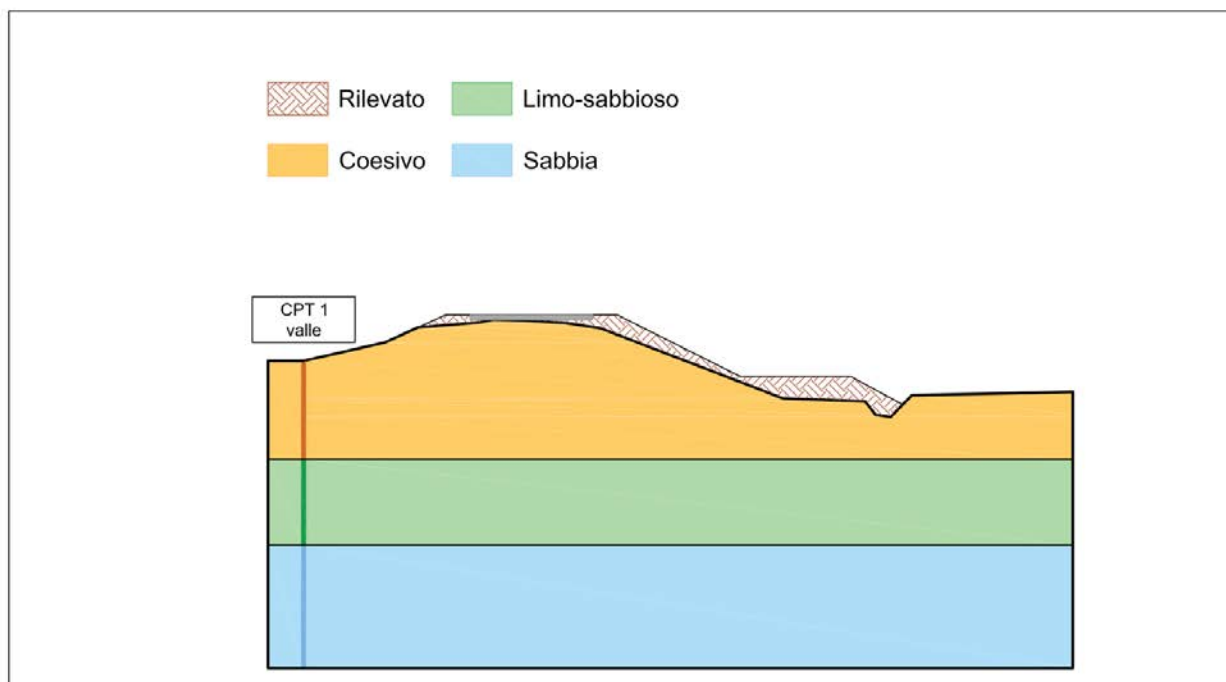
Sezione 52



Sezione 53



Sezione 54

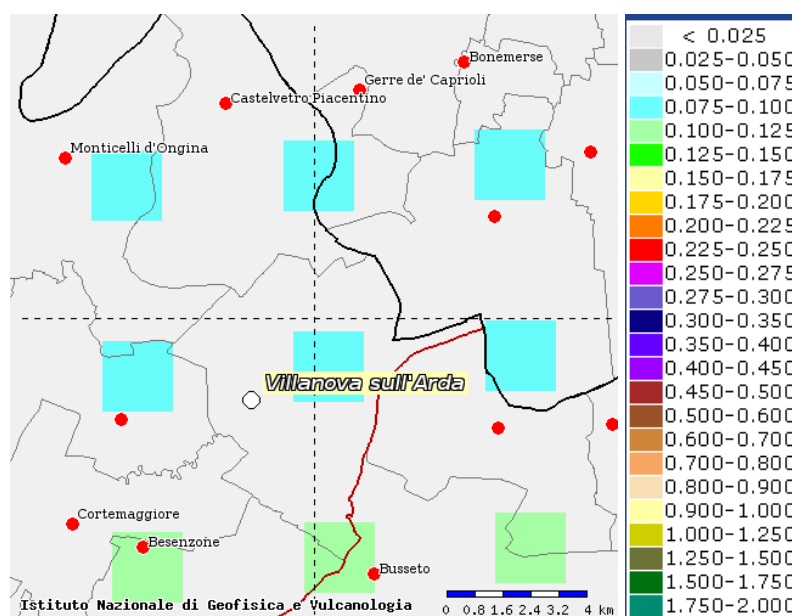


5 RISPOSTA SISMICA LOCALE

L'azione sismica di riferimento per le analisi è stata definita sulle basi delle indicazioni delle “*Norme tecniche per le costruzioni*” Decreto Ministeriale 17 gennaio 2018.

L'azione sismica viene valutata a partire dalla cosiddetta “pericolosità sismica di base” riferita ad un sito con suolo rigido (categoria A) e superficie topografica orizzontale. In assenza di studi sismotettonici e di pericolosità sismica, si fa riferimento a quanto definito nelle NTC.

Allo stato attuale la pericolosità sismica di base sul territorio Italiano è fornita dai dati pubblicati sul sito dell'Istituto Nazionale di Geofisica e Vulcanologia. In figura viene riportata l'accelerazione massima orizzontale a_g di riferimento su suolo rigido con possibilità di superamento pari al 10 % in 50 anni, ottenuta dal citato database, per l'area in oggetto con coordinate Long. 10.02 – Lat. 45.05.



Accelerazione massima orizzontale a_g di riferimento su suolo rigido con possibilità di superamento pari al 10 % in 50 anni, dal sito dell'istituto nazionale di Geofisica e Vulcanologia

Alle citate coordinate sono associate i valori dei parametri a_g (accelerazione orizzontale massima al sito), F_0 (valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale) e T_c^* (periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale), riportati nella seguente tabella, per i periodi di ritorno T_R di riferimento (Forniti attraverso l'applicativo 'Spettri' elaborato dal M.LL.PP).

T_R [anni]	a_g [g]	F_o [-]	T_c^* [s]
30	0,034	2,546	0,212
50	0,042	2,558	0,243
72	0,049	2,542	0,255
101	0,055	2,562	0,266
140	0,061	2,572	0,278
201	0,070	2,558	0,284
475	0,094	2,562	0,298
975	0,119	2,577	0,308
2475	0,158	2,612	0,319

Valori dei parametri a_g , F_o , T_c^* forniti dalla Mappa di Pericolosità Sismica in funzione del periodo di ritorno T_R al sito di Villanova sull'Arda (PC).

Secondo quanto indicato nelle NTC le opere in progetto possono essere classificate come segue:

5.1 VITA NOMINALE

La vita nominale di un'opera è intesa come numero di anni nel quale deve poter essere usata per lo scopo al quale è destinata ed è definita dalle NTC in funzione del tipo di costruzione (*tabella 2.4.I*).

Nel caso del presente intervento si considera:

$$V_N = 100 \text{ anni}$$

5.2 CLASSE D'USO

In presenza di azioni sismiche, con lo scopo di valutare le conseguenze di una interruzione di operatività assegnata o di un eventuale collasso della struttura, le costruzioni sono catalogate in 4 classi d'uso (par. 2.4.2, NTC2018) a cui corrisponde un valore del coefficiente d'uso C_u per la definizione dell'azione sismica.

All'opera in oggetto viene assegnata una Classe d'uso IV. A tale classe d'uso è associato un coefficiente d'uso C_u pari a 2.

Nel caso in esame si ha una vita nominale dell'opera di 100 anni che con coefficiente d'uso di 2 fornisce un periodo di riferimento pari a 200 anni; i valori dei parametri per i periodi di ritorno associati ai quattro stati limite sono riportati nella tabella seguente.

SLATO LIMITE	T_R [anni]	a_g [g]	F_0 [-]	T_C^* [s]
SLO	120	0,060	2,553	0,272
SLD	201	0,073	2,543	0,282
SLV	1898	0,155	2,585	0,310
SLC	2475	0,169	2,595	0,313

L'accelerazione di riferimento a_g così ottenuta deve essere variata per tener conto sia delle modifiche prodotte dalle condizioni stratigrafiche locali che della morfologia del sito; l'accelerazione massima orizzontale di riferimento si ottiene con la seguente espressione:

$$a_{max} = a_g \times S_s \times S_t$$

dove S_s è un coefficiente di amplificazione stratigrafica e S_t di amplificazione topografica.

In base alle prove è stato possibile definire i terreni di fondazione come appartenenti alla categoria C: *“Depositi di terreni a grana grossa mediamente addensati o terreni a grana fina mediamente consistenti, con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di $V_{s,30}$ compresi tra 180 m/s e 360 m/s”*.

Nel caso in esame, con $S_s = 1.495$ (terreno tipo C) e $S_t = 1.0$ (categoria topografica T1), con riferimento allo Stato Limite di salvaguardia della Vita (SLV), si ha:

$$a_{max} = a_g \times S_s \times S_t = 0.155g \times 1.495 \times 1.0 = 0.23g$$

6 VERIFICHE DI SICUREZZA DEI RILEVATI

6.1 VERIFICHE DI STABILITÀ GLOBALE

Le verifiche di stabilità globale sono state condotte secondo quanto previsto nelle Norme Tecniche per le Costruzioni di cui al DM del 17 gennaio 2018.

La verifica, che confronta il valore di progetto dell'azione o dell'effetto dell'azione E_d con quello di progetto della resistenza del sistema geotecnico R_d , è stata condotta, per quanto riguarda le verifiche nelle condizioni più critiche per il rilevato arginale di rapido svaso e massimo invaso, con la combinazione "A2+M2+R2", tenendo conto dei coefficienti parziali riportati nelle tabella 6.2.I, 6.2.II e 6.8.I delle NTC, di seguito riportati per completezza. Nelle verifiche in condizioni sismiche, invece, sono stati posti pari all'unità i coefficienti parziali sulle azioni e sui parametri geotecnici e considerato un coefficiente pari a $\gamma_r=1.2$ (§ 7.11.4 NTC18). Le verifiche per effetto delle azioni sono state condotte solo per condizioni di livelli idrometrici ordinari; tali verifiche sono state omesse in condizioni di eventi di piena critici.

Tab. 6.2.I – Coefficienti parziali per le azioni o per l'effetto delle azioni

	Effetto	Coefficiente Parziale γ_F (o γ_E)	EQU	(A1)	(A2)
Carichi permanenti G_1	Favorevole	γ_{G1}	0,9	1,0	1,0
	Sfavorevole		1,1	1,3	1,0
Carichi permanenti $G_2^{(1)}$	Favorevole	γ_{G2}	0,8	0,8	0,8
	Sfavorevole		1,5	1,5	1,3
Azioni variabili Q	Favorevole	γ_{Q1}	0,0	0,0	0,0
	Sfavorevole		1,5	1,5	1,3

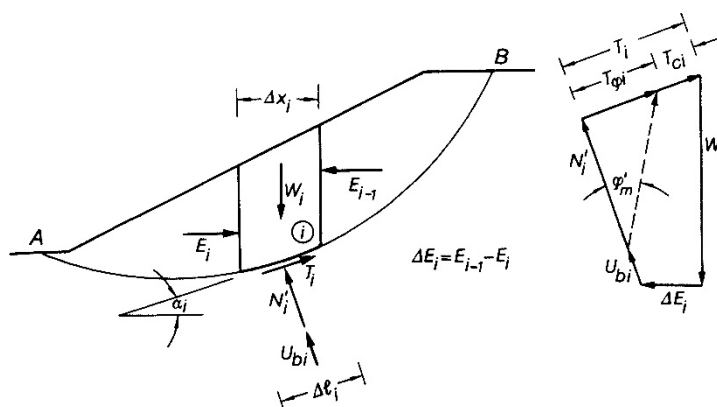
Tab. 6.2.II – Coefficienti parziali per i parametri geotecnici del terreno

Parametro	Grandezza alla quale applicare il coefficiente parziale	Coefficiente parziale γ_M	(M1)	(M2)
Tangente dell'angolo di resistenza al taglio	$\tan \varphi'_k$	$\gamma_{\varphi'}$	1,0	1,25
Coesione efficace	c'_k	$\gamma_{c'}$	1,0	1,25
Resistenza non drenata	c_{uk}	γ_{cu}	1,0	1,4
Peso dell'unità di volume	γ_γ	γ_γ	1,0	1,0

Tab. 6.8.I - Coefficienti parziali per le verifiche di sicurezza di opere di materiali sciolti e di fronti di scavo

COEFFICIENTE	R2
γ_R	1,1

Le verifiche sono state eseguite con il codice di calcolo Slide (ver. 7.0) della Rocscience utilizzando il metodo di Bishop semplificato (1955) ed ipotizzando superfici di scorrimento circolari di raggio r , con il materiale coinvolto nella rottura suddiviso in conci di larghezza b (vedi schema riportato di seguito), per ognuna delle quali vengono valutati il momento stabilizzante M_s (resistenza R del sistema geotecnico) e il momento ribaltante M_r (azione E) calcolati rispetto al centro del cerchio.



Il contributo al momento stabilizzante M_s di un concio è fornito in generale dalla resistenza alla base, somma della componente del peso W ortogonale alla base moltiplicata per la tangente dell'angolo di resistenza al taglio ϕ e della eventuale coesione c , moltiplicata per la lunghezza $b/\cos\alpha$, dove α è l'inclinazione della base del concio rispetto all'orizzontale. Nell'ipotesi che il concio sia parzialmente immerso in acqua e che alla base la pressione idraulica valga u si ottiene:

$$M_s = \frac{c \times b + (W - u \times b) \times \tan \phi}{m \alpha} \times r$$

dove:

$$m\alpha = \cos \alpha \times \left(1 + \frac{tg\alpha \times tg\phi}{F} \right)$$

Il contributo al momento ribaltante M_r di un concio è fornito dalla componente del peso W parallela alla base del concio:

$$M_r = W \times \sin \alpha \times r$$

Il programma non definisce separatamente il valore dell'effetto delle azioni E che portano instabilità (momenti ribaltanti M_r) e della resistenza corrispondente R (momenti stabilizzanti M_s), ma solo il loro rapporto ($F=R/E$) che è il “fattore di sicurezza globale”.

La stabilità globale, secondo quanto indicato nell'Eurocodice 7, può essere verificata utilizzando il “fattore di sicurezza globale” F e un fattore ausiliario definito ODF (“Over-design factor”):

- viene calcolato il fattore di sicurezza F come rapporto R/E utilizzando i parametri di resistenza dei terreni di progetto ϕ_d e c_d e amplificando i carichi con i coefficiente parziali γ_{G1} e γ_{G2} ;
- viene calcolato ODF dividendo F per il coefficiente parziale sulle resistenze γ_R .

Affinché le verifiche siano soddisfatte deve quindi risultare:

$$ODF = \frac{F}{\gamma_R} = \frac{R(\phi_d, c_d)/E(\phi_d, c_d)}{\gamma_R} > 1$$

Nelle analisi si è considerata, in via cautelativa, la presenza sulla sede stradale di un sovraccarico distribuito di 10kN/m^2 .

Le verifiche in condizioni sismiche sono state condotte, come già detto, mediante l'analisi di tipo pseudo-statico che considera un sistema di forze orizzontali e verticali applicate ai volumi di terreno coinvolti.

Le forze orizzontali di inerzia, dovute all'azione sismica, sono state considerate con intensità pari a:

$$F_h = k_h \times W$$

con

$$k_h = \beta_s \times \frac{a_{\max}}{g}$$

dove:

- β_s = coefficiente di riduzione dell'accelerazione massima al sito, pari a 0.38 per verifiche allo stato limite ultimo (SLV) – come riportato al § 7.11.4 delle NTC18;
- a_{\max} = 0.23 g accelerazione orizzontale massima attesa al sito, calcolata come descritto al §4, con categoria di suolo di tipo C.
- W = peso del materiale;
- g = accelerazione di gravità.

Ne consegue che $k_h=0.089$ e $k_v=0.044$.

Sono state verificate 6 sezioni tipologiche rappresentative (5, 17, 28, 30, 37, 48) degli interventi di manutenzione e risagomatura dell'argine, la cui ubicazione è riportata in pianta nella seguente figura.



Figura 8 - Ubicazione in pianta delle sezioni di verifica

In ottemperanza alla normativa vigente le verifiche in condizioni di svasso rapido e massimo invaso sono state svolte secondo l'approccio A2+M2+R2, mentre le verifiche in condizioni sismiche sono condotte ponendo pari all'unità i coefficienti parziali sulle azioni e sui parametri geotecnici e impiegando le resistenze di progetto calcolate con un coefficiente pari a $\gamma_r=1.2$ (§ 7.11.4 NTC18).

Il calcolo è stato condotto lato fiume per la condizione di svasso rapido dopo l'evento di massima piena. Le verifiche di stabilità a lato campagna sono state condotte nella condizione di massimo invaso. Le verifiche in condizioni sismiche sono state condotte per il paramento lato fiume solo per le condizioni di piena ordinaria.

Dall'analisi del modello geotecnico sono stati ricostruiti gli orizzonti costituenti il corpo arginale e i terreni di fondazione e sono stati individuati i parametri geotecnici necessari alle verifiche di stabilità, come riportato nella tabella seguente (i parametri sono stati mantenuti costanti per tutte le sezioni, ad eccezione della sezione 37, per la quale si ricava dall'analisi delle prove penetrometriche $c_u=50\text{kPa}$).

Le verifiche per le condizioni sismiche e di svasso rapido sono state condotte considerando lo strato coesivo argilloso in condizioni non drenate, mentre la condizione di massimo invasivo è stata verificata considerando condizioni drenate anche per lo strato coesivo ($c'=10$ kPa, $\phi'=25^\circ$).

La linea di infiltrazione nel rilevato arginale in condizioni di massima piena è stata disposta come da progetto con pendenza di 1:5 e garantisce un ricoprimento di almeno 1 m rispetto al profilo dell'argine a campagna.




Material Name	Color	Unit Weight (kN/m ³)	Strength Type	Cohesion (kPa)	Phi (deg)
sabbia		19	Mohr-Coulomb	0	34
Limo-sabbioso		19	Mohr-Coulomb	5	28
coesivo		19	Undrained	60	

Tabella 1 - Parametri geotecnici caratteristici

Per il materiale che verrà utilizzato per il ringrosso dell'argine è stato assunto, sulla base delle prove geotecniche di laboratorio eseguite sui campioni rimaneggiati (vedi §3.1):

- ringrosso lato campagna: $\phi'=27^\circ$ e $c'=10$ kPa;
- ringrosso lato fiume: $\phi'=23^\circ$ e $c'=15$ kPa.

Sezione 5

Per la sezione 5 è previsto il rialzo della sommità arginale e il ringrosso a lato campagna.

Lavori di adeguamento PIANO SIMPO della sagoma argine maestro fiume Po nel tratto compreso tra il Torrente Arda e la zona di rigurgito del Torrente Ongina.

RELAZIONE GEOLOGICA E GEOTECNICA

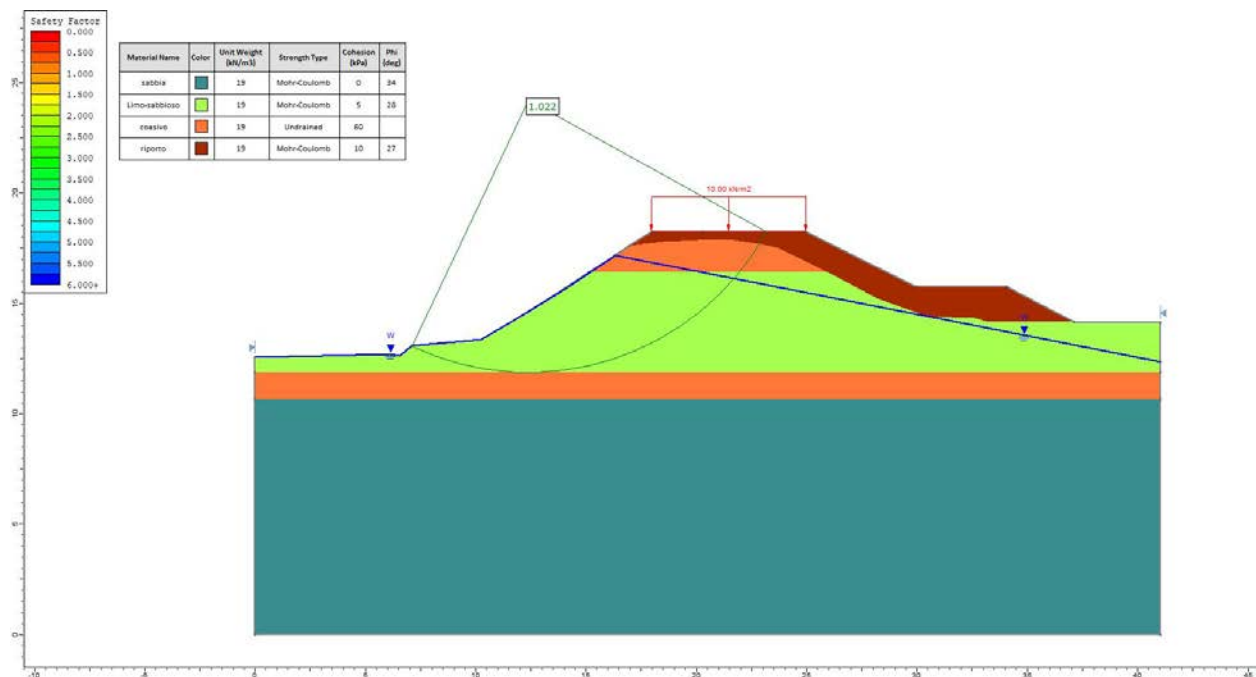


Figura 9 - Sezione 5, condizione di rapido svasso, ODF=1.02

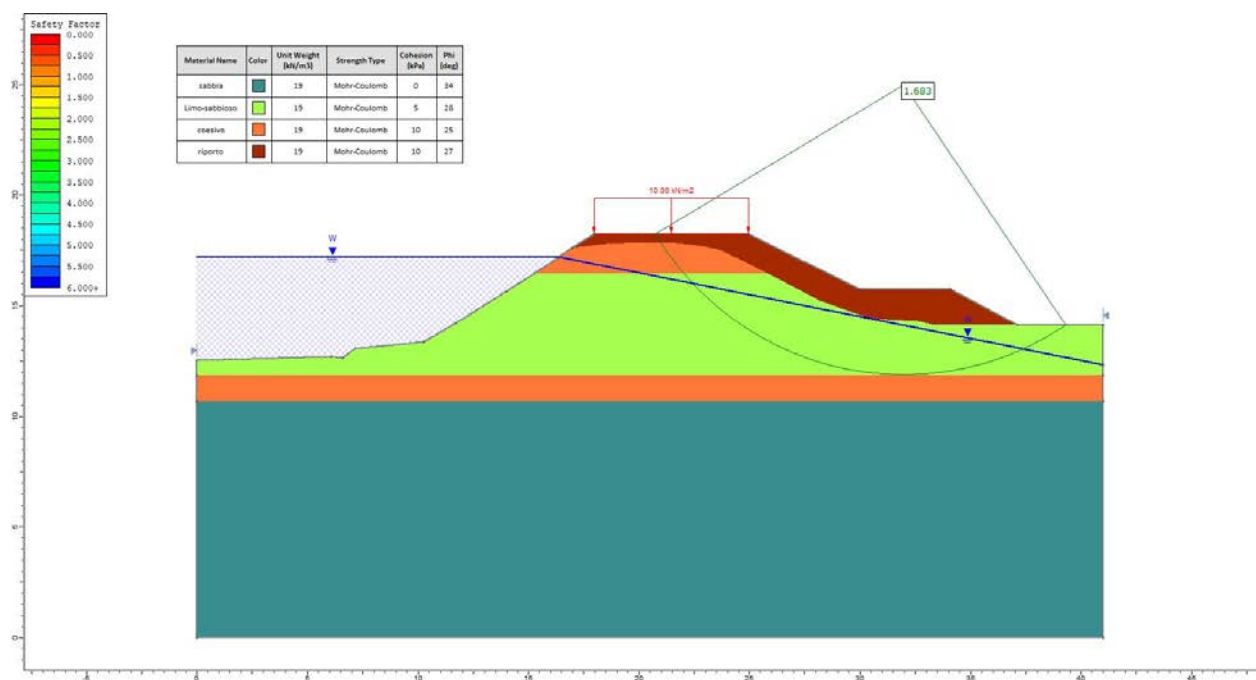


Figura 10 - Sezione 5, condizione di massimo invaso, ODF=1.68

Lavori di adeguamento PIANO SIMPO della sagoma argine maestro fiume Po nel tratto compreso tra il Torrente Arda e la zona di rigurgito del Torrente Ongina.

RELAZIONE GEOLOGICA E GEOTECNICA

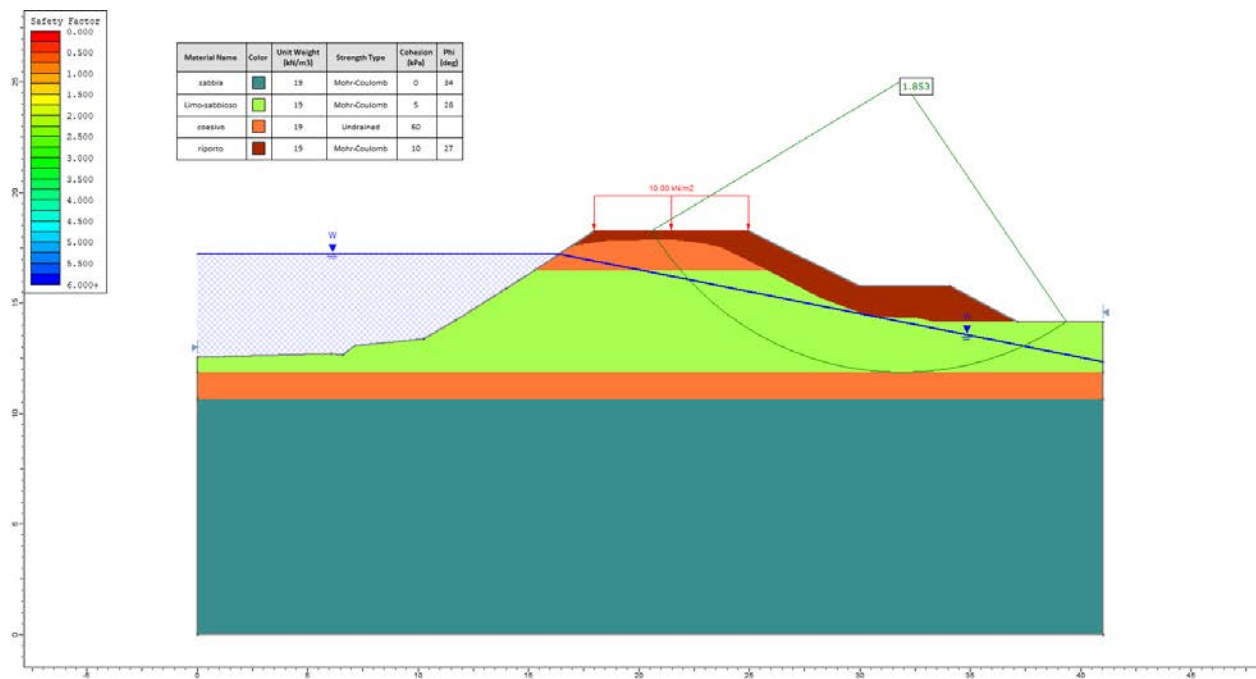


Figura 11 - Sezione 5, condizione di massimo invaso, ODF=1.85

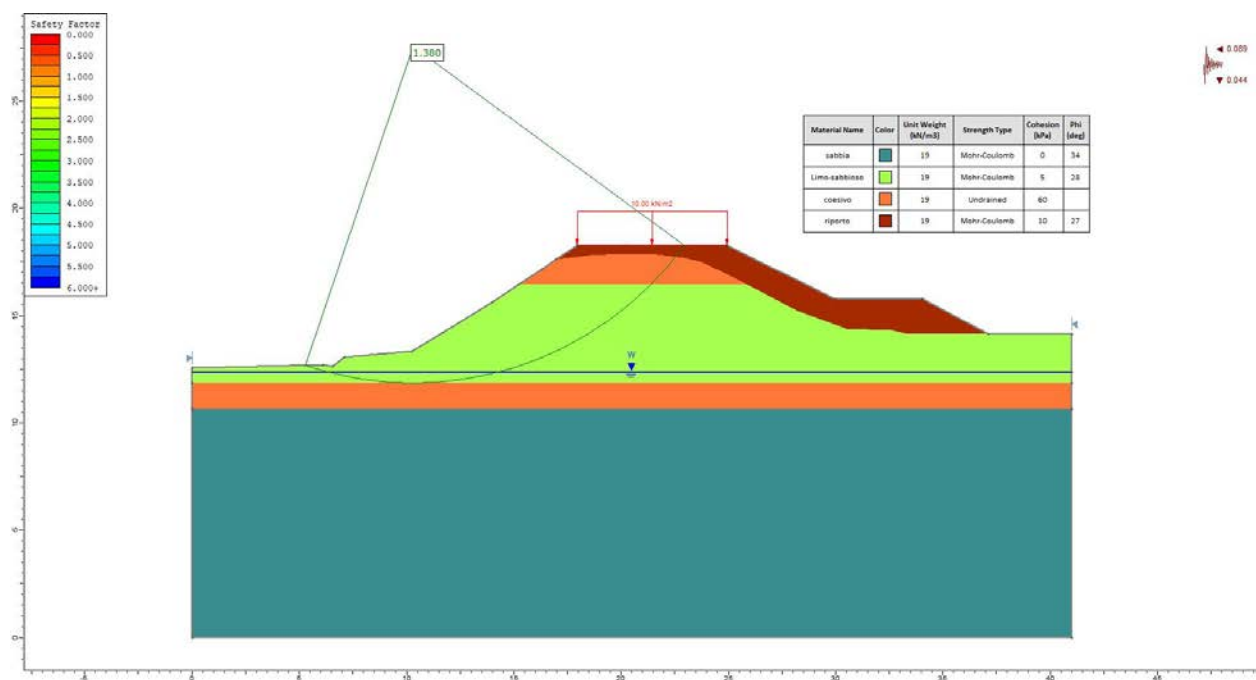


Figura 12 - Sezione 5, condizione sismica, ODF=1.38

SEZIONE	VERIFICA	LATO	AZIONE SISMICA	SOVRACCARICO	CONDIZIONE	ODF
5	SLU (A2+M2+R2)	fiume	No	10 kPa	Non drenata	1.02
5	SLU (A2+M2+R2)	campagna	No	10 kPa	Drenata	1,68
5	SLU (A2+M2+R2)	campagna	No	10 kPa	Non drenata	1,85
5	$\gamma_R=1,2$	fiume	SLV, classe III VN 50 anni	10 kPa	Non drenata	1.38

Tabella 2 - Valori di ODF minimo per i profili di verifica

Sezione 17

Per la sezione 17, come per la sezione 5 precedentemente analizzata, è previsto il rialzo della sommità arginale e il ringrosso a lato campagna.

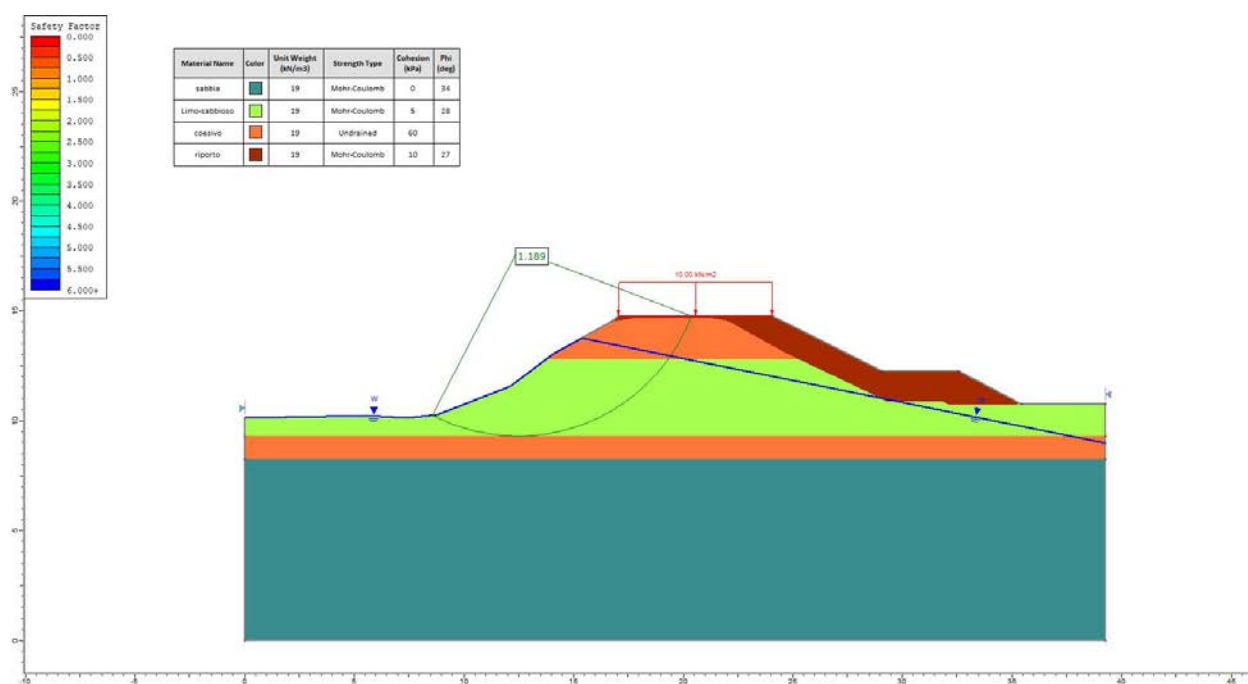


Figura 13 - Sezione 17, condizione di rapido svasso, ODF=1.19

Lavori di adeguamento PIANO SIMPO della sagoma argine maestro fiume Po nel tratto compreso tra il Torrente Arda e la zona di rigurgito del Torrente Ongina.

RELAZIONE GEOLOGICA E GEOTECNICA

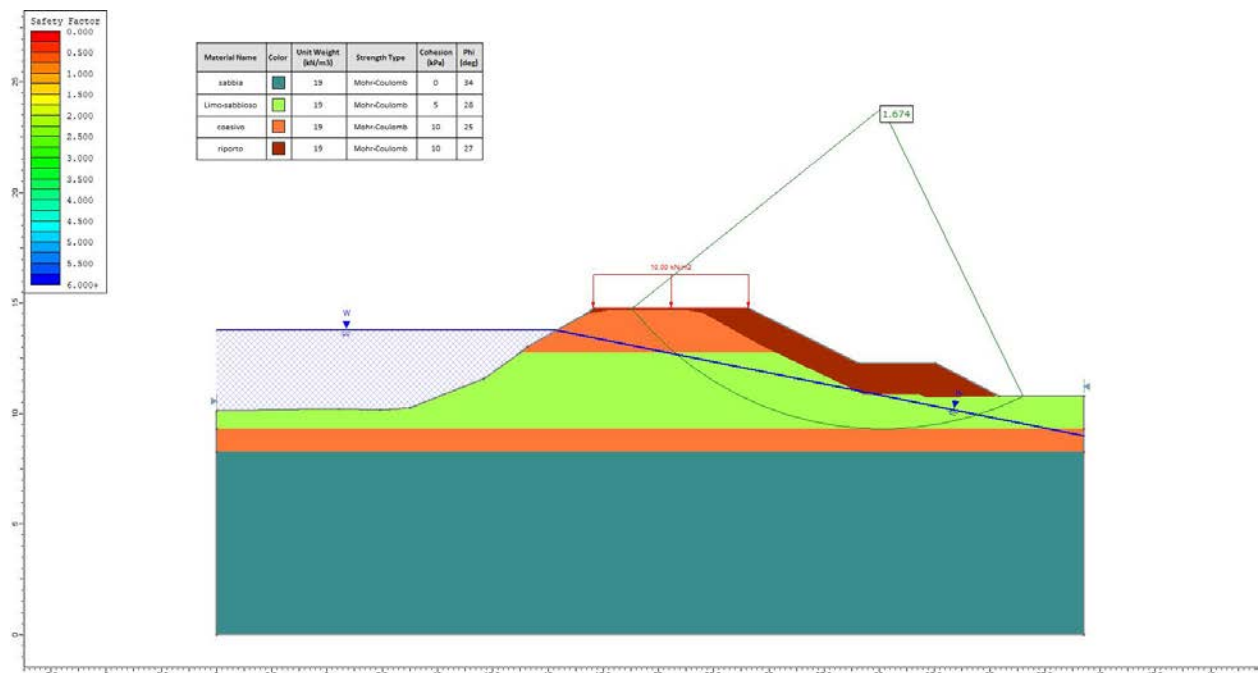


Figura 14 - Sezione 17, condizione di massimo invaso, ODF=1.67

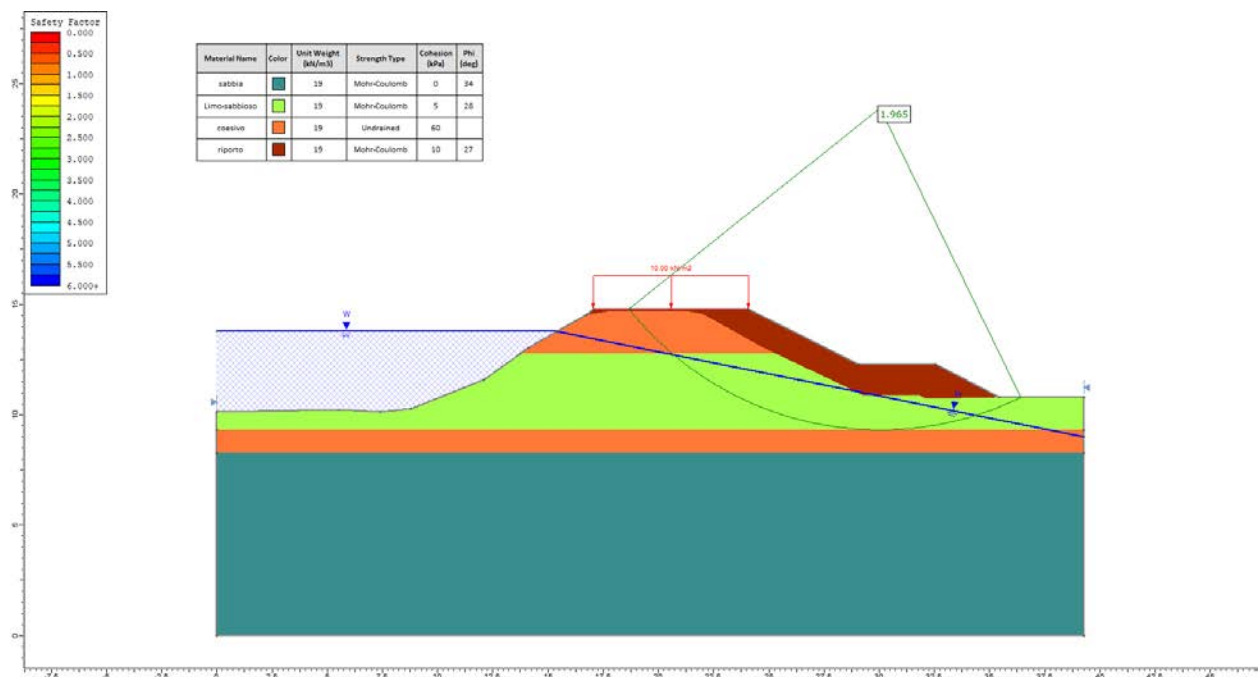


Figura 15 - Sezione 17, condizione di massimo invaso, ODF=1.97

Lavori di adeguamento PIANO SIMPO della sagoma argine maestro fiume Po nel tratto compreso tra il Torrente Arda e la zona di rigurgito del Torrente Ongina.

RELAZIONE GEOLOGICA E GEOTECNICA

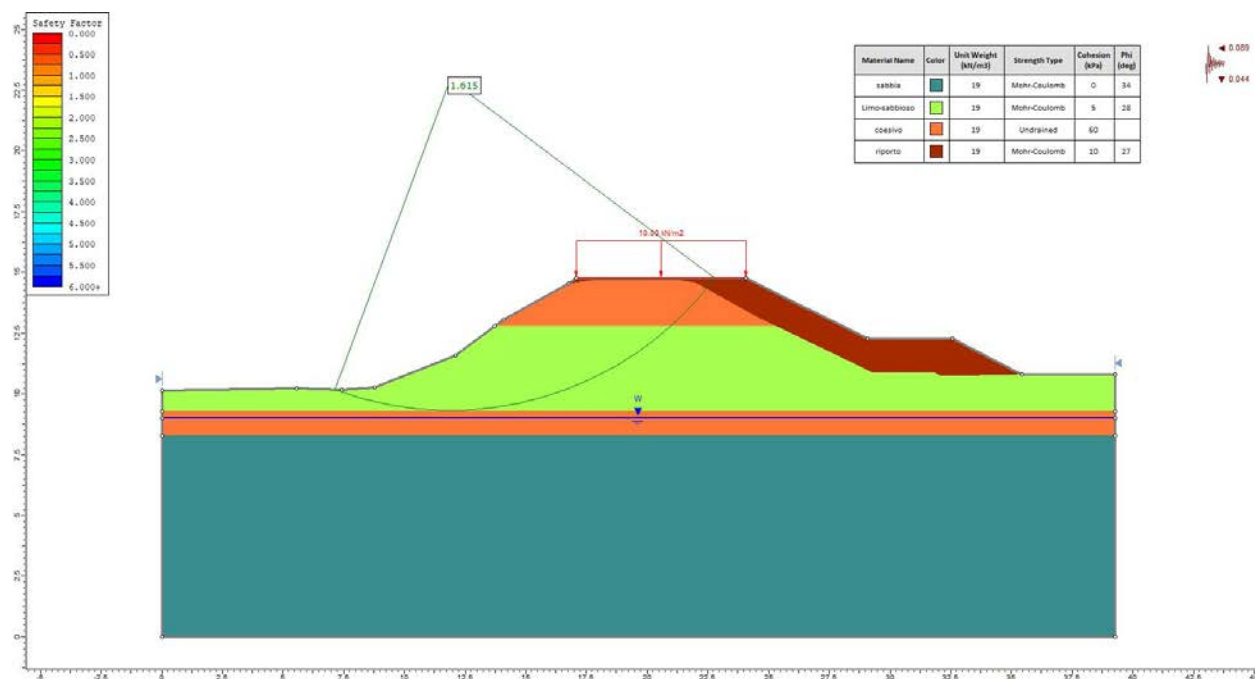


Figura 16 - Sezione 17, condizione sismica, ODF=1.62

SEZIONE	VERIFICA	LATO	AZIONE SISMICA	SOVRACCARICO	CONDIZIONE	ODF
17	SLU (A2+M2+R2)	fiume	No	10 kPa	Non drenata	1,19
17	SLU (A2+M2+R2)	campagna	No	10 kPa	Drenata	1,67
17	SLU (A2+M2+R2)	campagna	No	10 kPa	Non drenata	1,97
17	$\gamma_R=1,2$	fiume	SLV, classe III VN 50 anni	10 kPa	Non drenata	1,62

Tabella 3 - Valori di ODF minimi per i profili di verifica

Sezione 28

RELAZIONE GEOLOGICA E GEOTECNICA

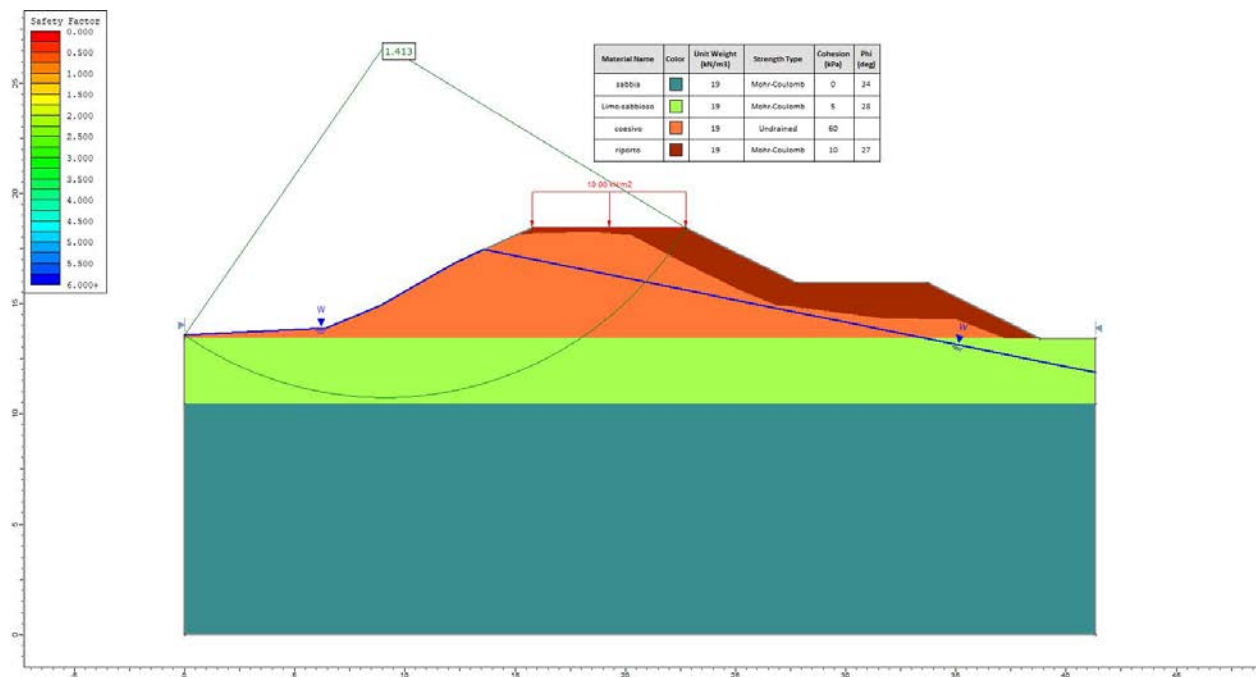


Figura 17 - Sezione 28, condizione di svasso rapido, ODF=1.41

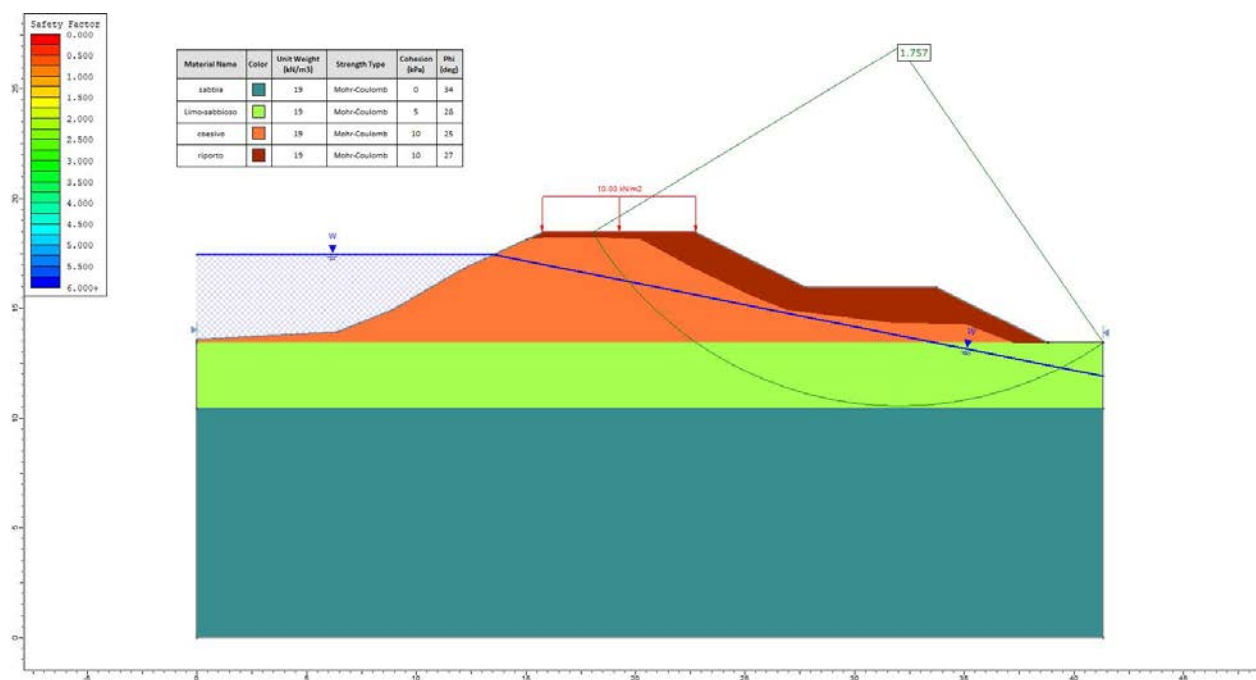


Figura 18 - Sezione 28, condizione di massimo invaso, ODF=1.76

Lavori di adeguamento PIANO SIMPO della sagoma argine maestro fiume Po nel tratto compreso tra il Torrente Arda e la zona di rigurgito del Torrente Ongina.

RELAZIONE GEOLOGICA E GEOTECNICA

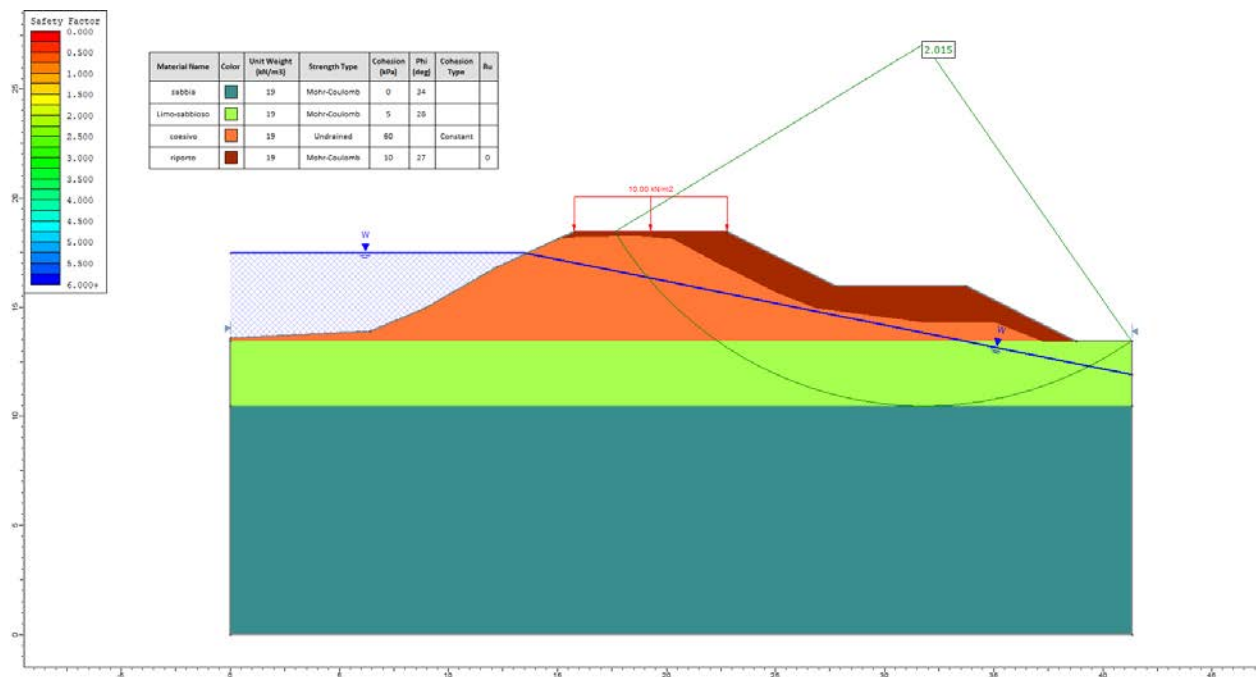


Figura 19 - Sezione 28, condizione di massimo invaso, ODF=2.02

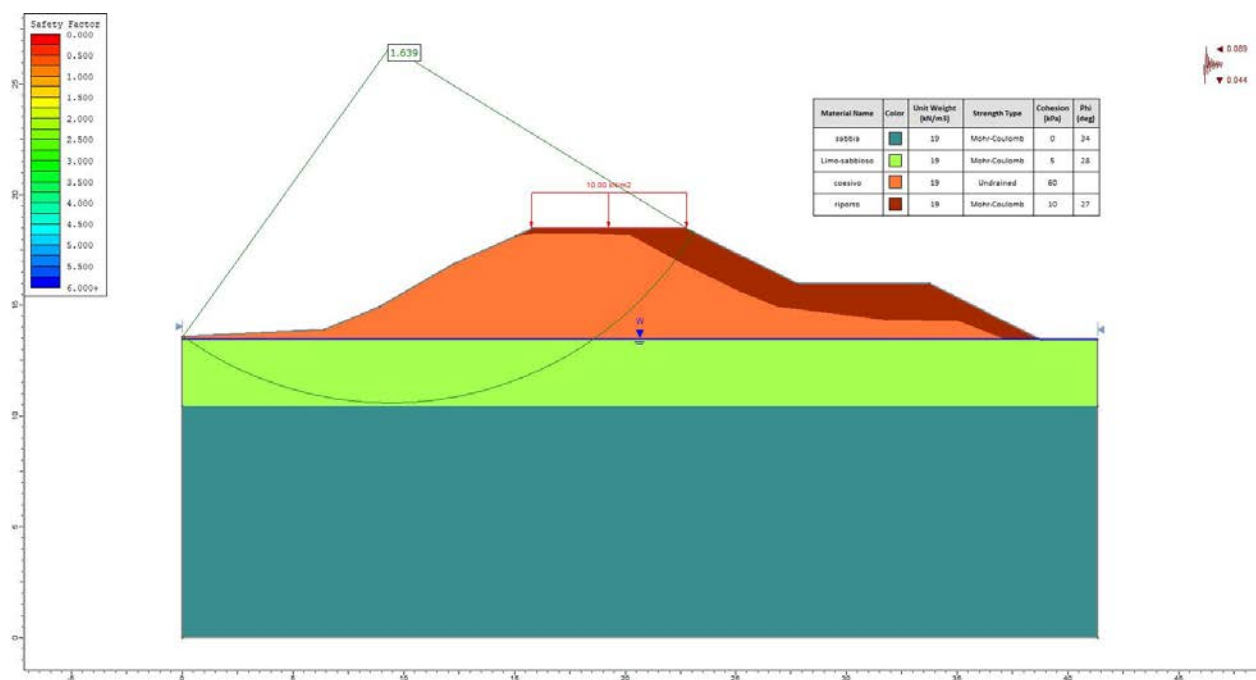


Figura 20 - Sezione 28, condizioni sismiche, ODF=1.64

SEZIONE	VERIFICA	LATO	AZIONE SISMICA	SOVRACCARICO	CONDIZIONE	ODF
28	SLU (A2+M2+R2)	fiume	No	10 kPa	Non drenata	1.41
28	SLU (A2+M2+R2)	campagna	No	10 kPa	Drenata	1.76
28	SLU (A2+M2+R2)	campagna	No	10 kPa	Non drenata	2.02
28	$\gamma_R=1,2$	fiume	SLV, classe III VN 50 anni	10 kPa	Non drenata	1.64

Tabella 4 - Valori di ODF minimi per i profili di verifica

Sezione 30

Per la sezione 30 è previsto un lieve rialzo della sommità arginale con ringrosso a lato fiume.

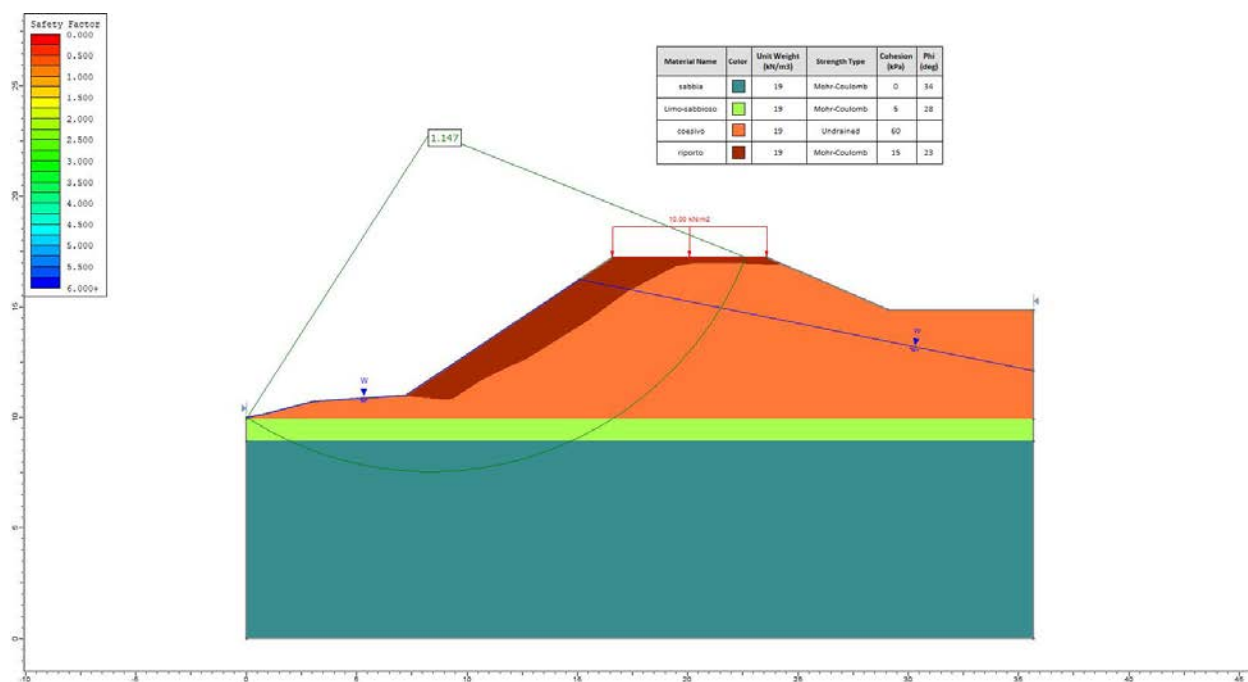


Figura 21 - Sezione 30, condizione di svaso rapido, ODF=1.15

Lavori di adeguamento PIANO SIMPO della sagoma argine maestro fiume Po nel tratto compreso tra il Torrente Arda e la zona di rigurgito del Torrente Ongina.

RELAZIONE GEOLOGICA E GEOTECNICA

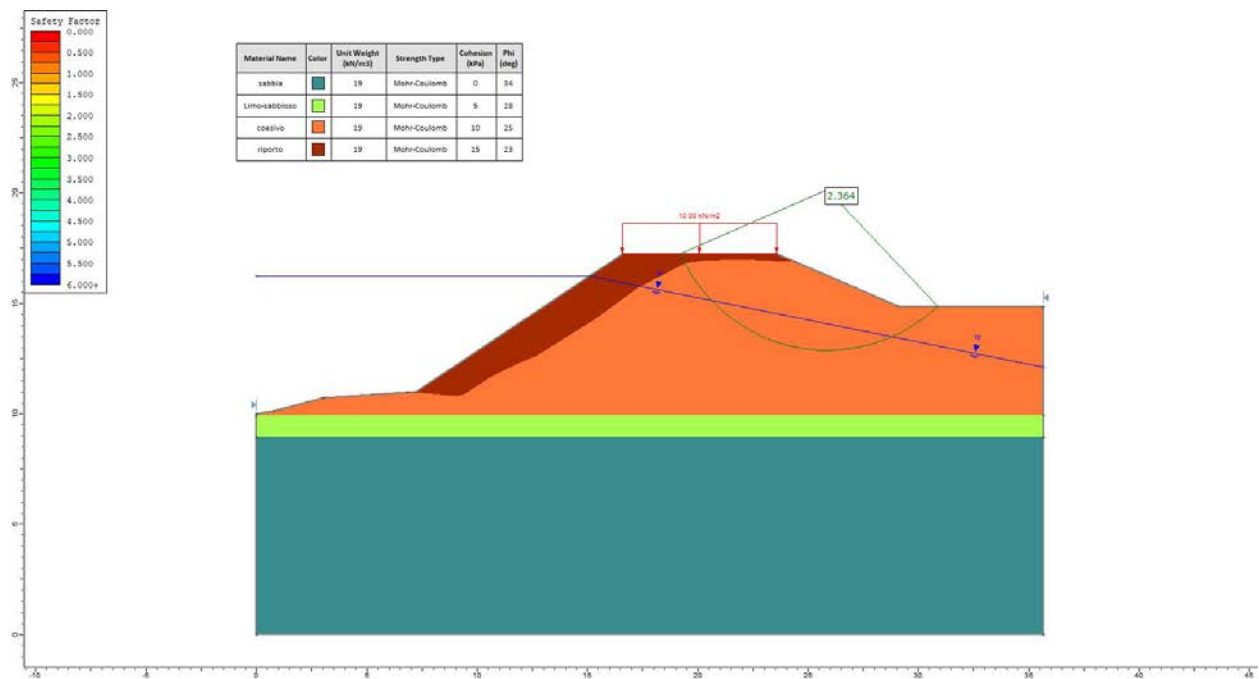


Figura 22 - Sezione 30, condizione di massimo invaso, ODF=2.36

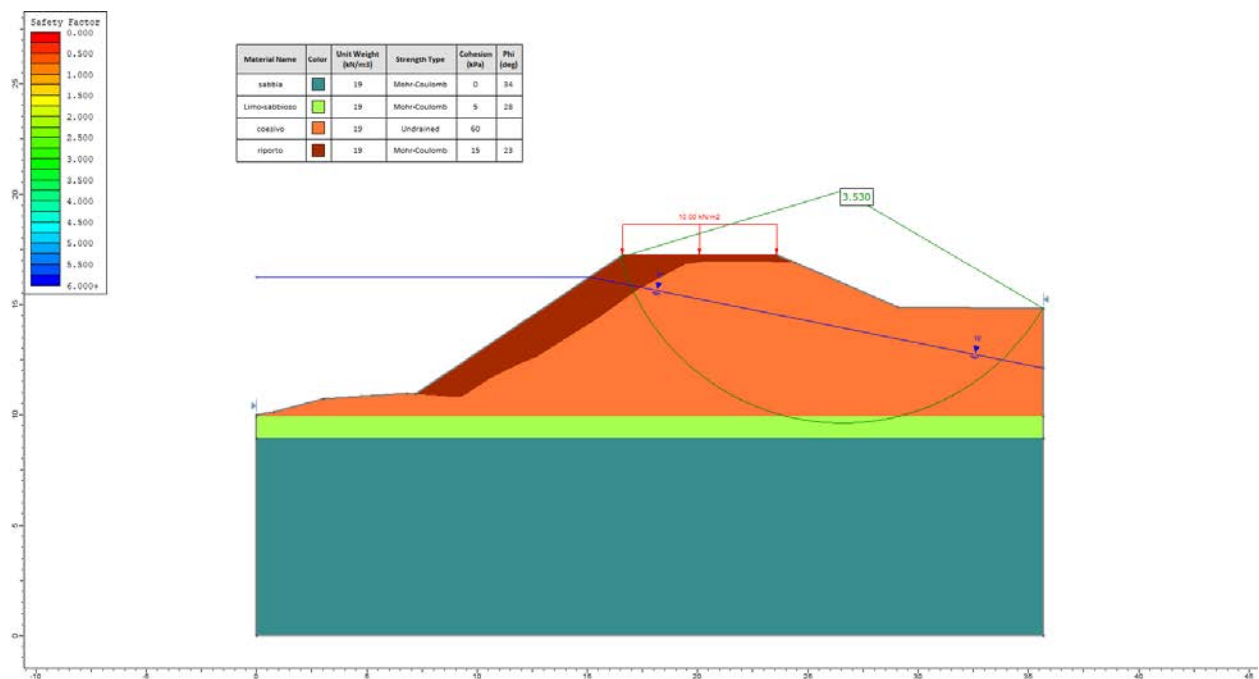


Figura 23 - Sezione 30, condizione di massimo invaso, ODF=3.53

RELAZIONE GEOLOGICA E GEOTECNICA

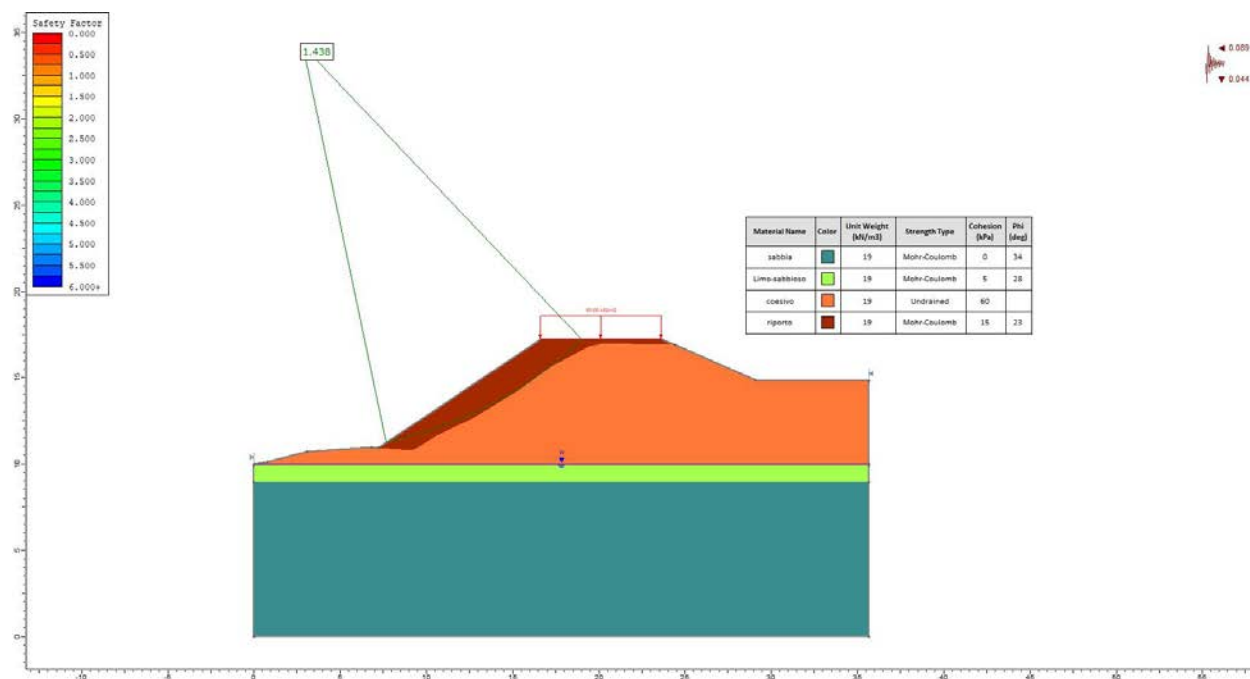


Figura 24 - Sezione 30, condizioni sismiche, ODF=1.44

SEZIONE	VERIFICA	LATO	AZIONE SISMICA	SOVRACCARICO	CONDIZIONE	ODF
30	SLU (A2+M2+R2)	fiume	No	10 kPa	Non drenata	1.15
30	SLU (A2+M2+R2)	campagna	No	10 kPa	Drenata	2.36
30	SLU (A2+M2+R2)	campagna	No	10 kPa	Non drenata	3.53
30	$\gamma_R=1,2$	fiume	SLV, classe III VN 50 anni	10 kPa	Non drenata	1.44

Tabella 5 - Valori di ODF minimi per i profili di verifica

Sezione 37

Per la sezione 37 l'intervento previsto riguarda l'incappucciamento dell'arginatura con ringrosso a lato campagna.

RELAZIONE GEOLOGICA E GEOTECNICA

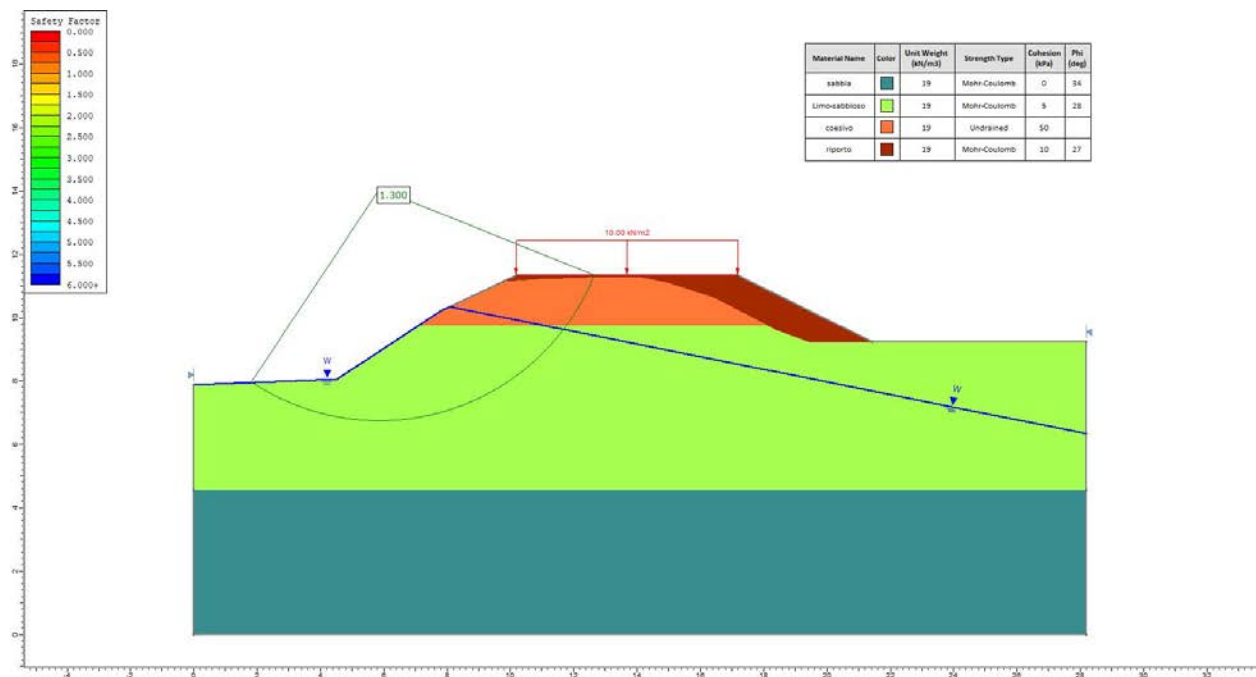


Figura 25 - Sezione 37, condizione di rapido svasso, ODF=1.30

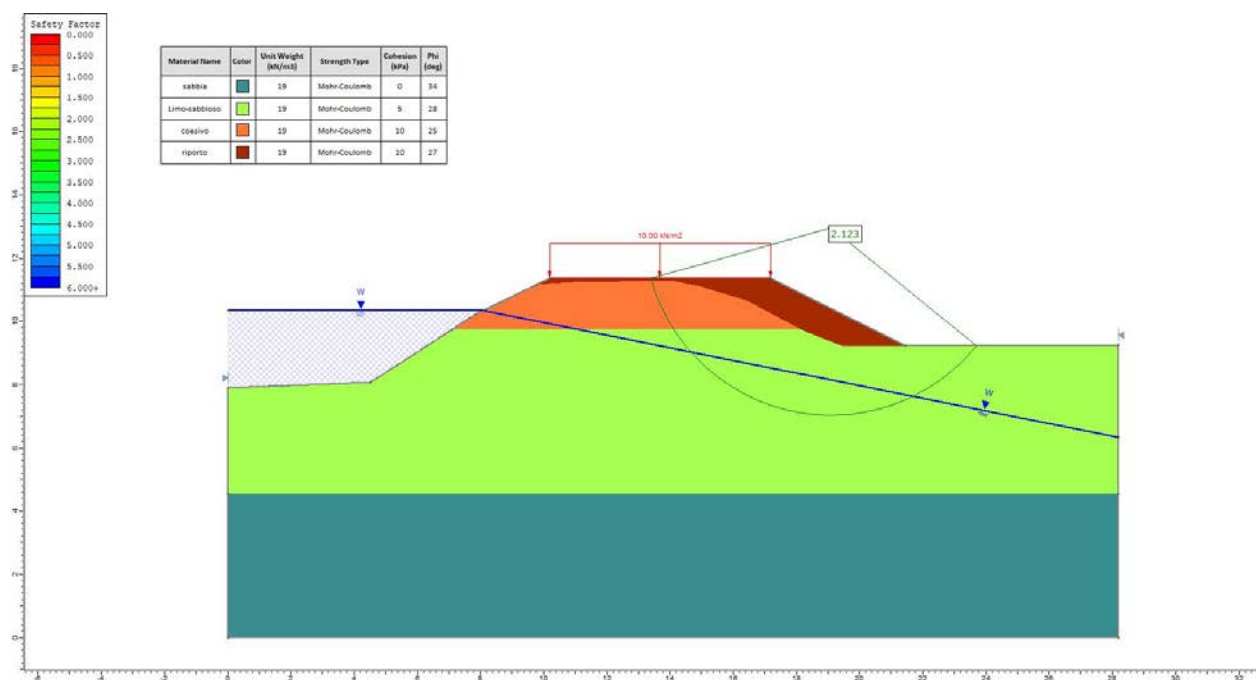


Figura 26 - Sezione 37, condizione di massimo invaso, ODF=2.12

Lavori di adeguamento PIANO SIMPO della sagoma argine maestro fiume Po nel tratto compreso tra il Torrente Arda e la zona di rigurgito del Torrente Ongina.

RELAZIONE GEOLOGICA E GEOTECNICA

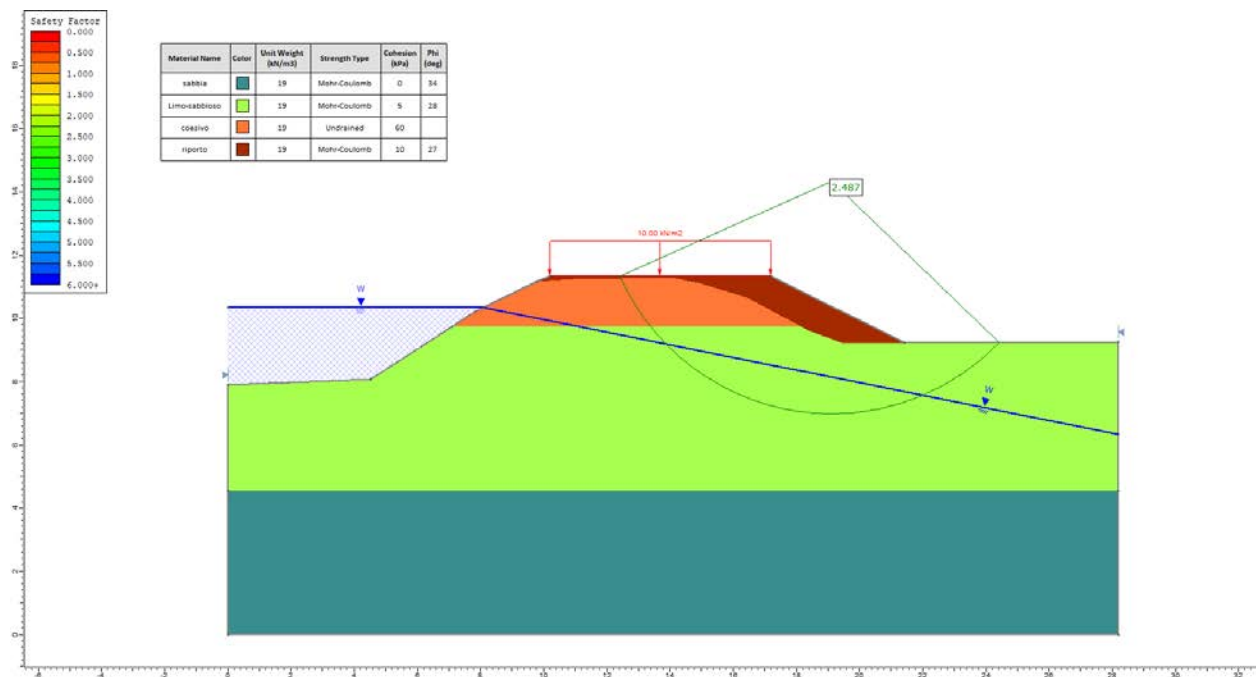


Figura 27 - Sezione 37, condizione di massimo invaso, ODF=2.49

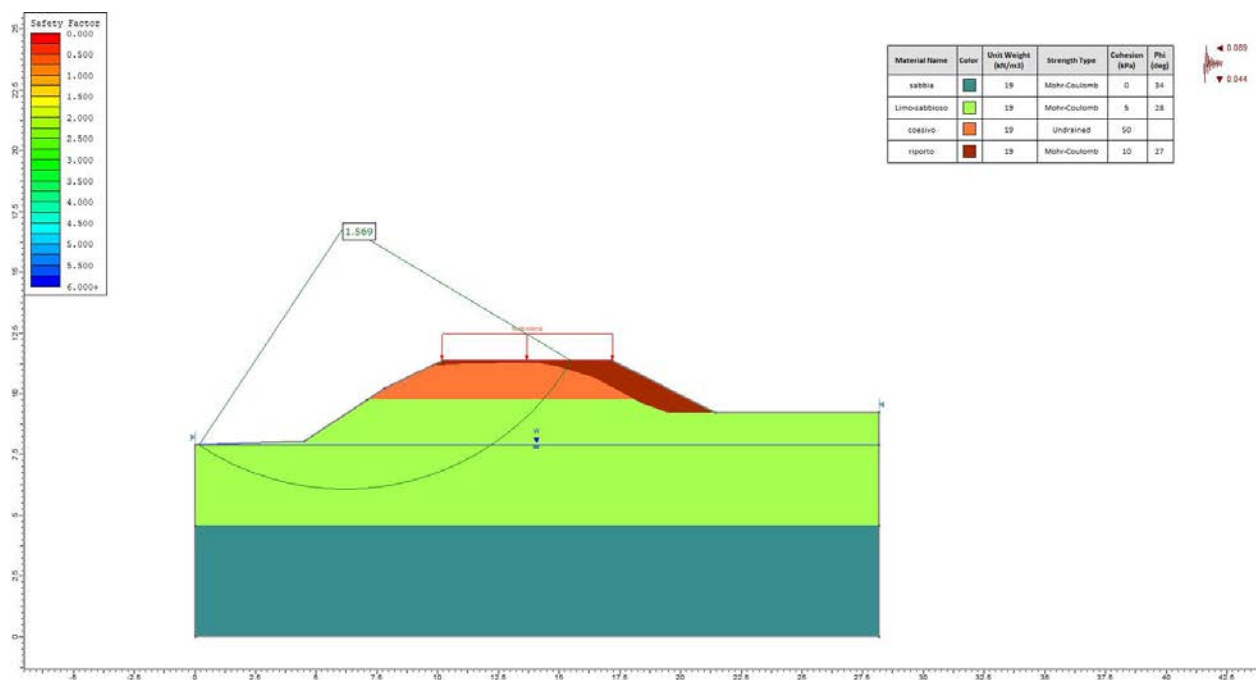


Figura 28 - Sezione 37, condizione sismica, ODF=1.57

SEZIONE	VERIFICA	LATO	AZIONE SISMICA	SOVRACCARICO	CONDIZIONE	ODF
37	SLU (A2+M2+R2)	fiume	No	10 kPa	Non drenata	1.30
37	SLU (A2+M2+R2)	campagna	No	10 kPa	Drenata	2.12
37	SLU (A2+M2+R2)	campagna	No	10 kPa	Non drenata	2.49
37	$\gamma_R=1,2$	fiume	SLV, classe III VN 50 anni	10 kPa	Non drenata	1.57

Tabella 6 - Valori di ODF minimi per i profili di verifica

Sezione 48

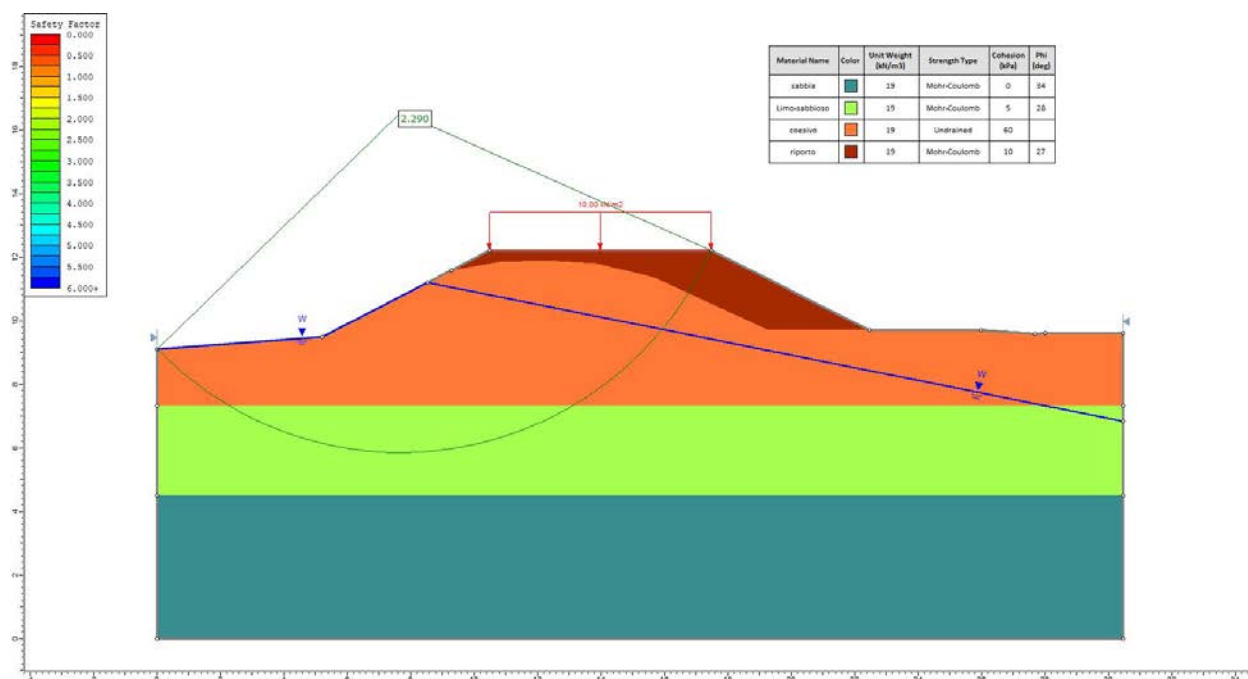


Figura 29 - Sezione 48, condizione di svasso rapido, ODF=2.29

Lavori di adeguamento PIANO SIMPO della sagoma argine maestro fiume Po nel tratto compreso tra il Torrente Arda e la zona di rigurgito del Torrente Ongina.

RELAZIONE GEOLOGICA E GEOTECNICA

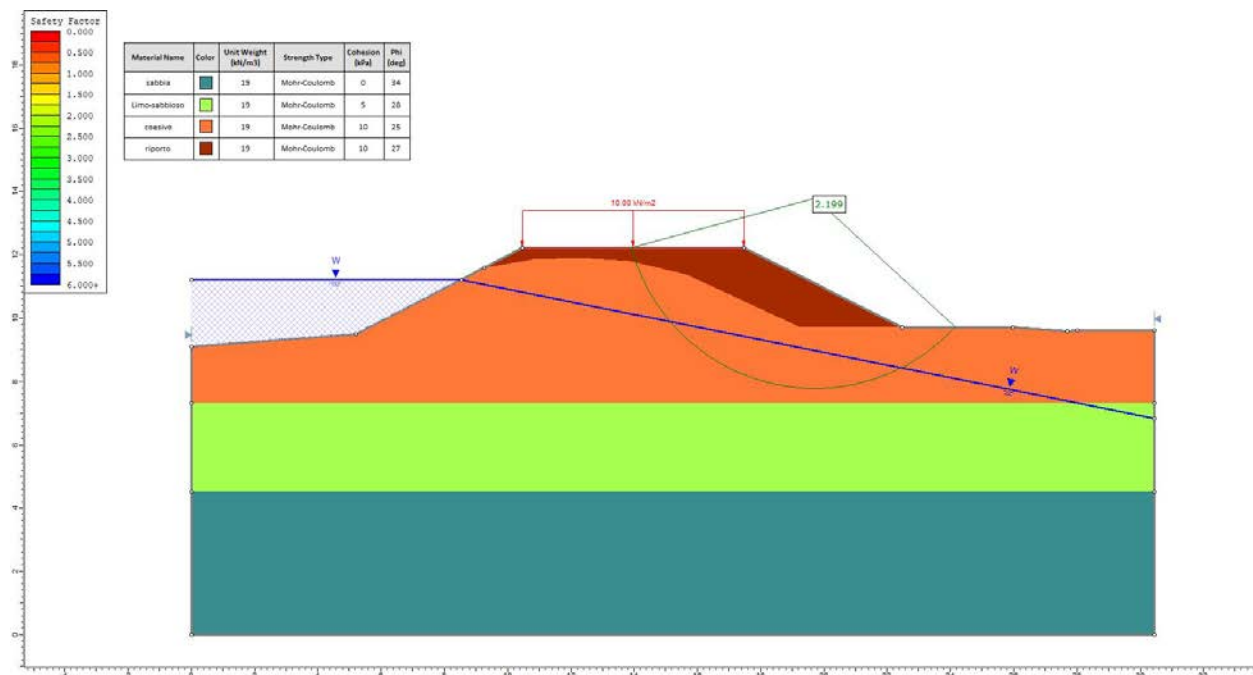


Figura 30 - Sezione 48, condizioni di massimo invaso, ODF=2.20

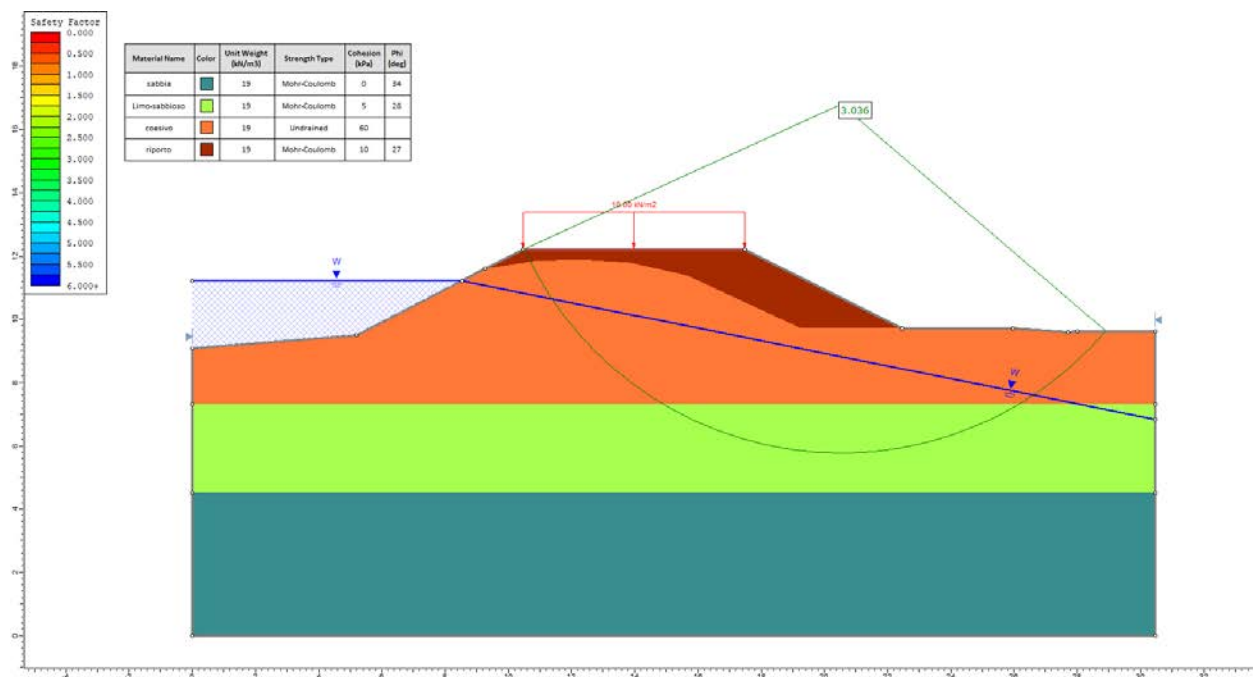


Figura 31 - Sezione 48, condizioni di massimo invaso, ODF=3.04

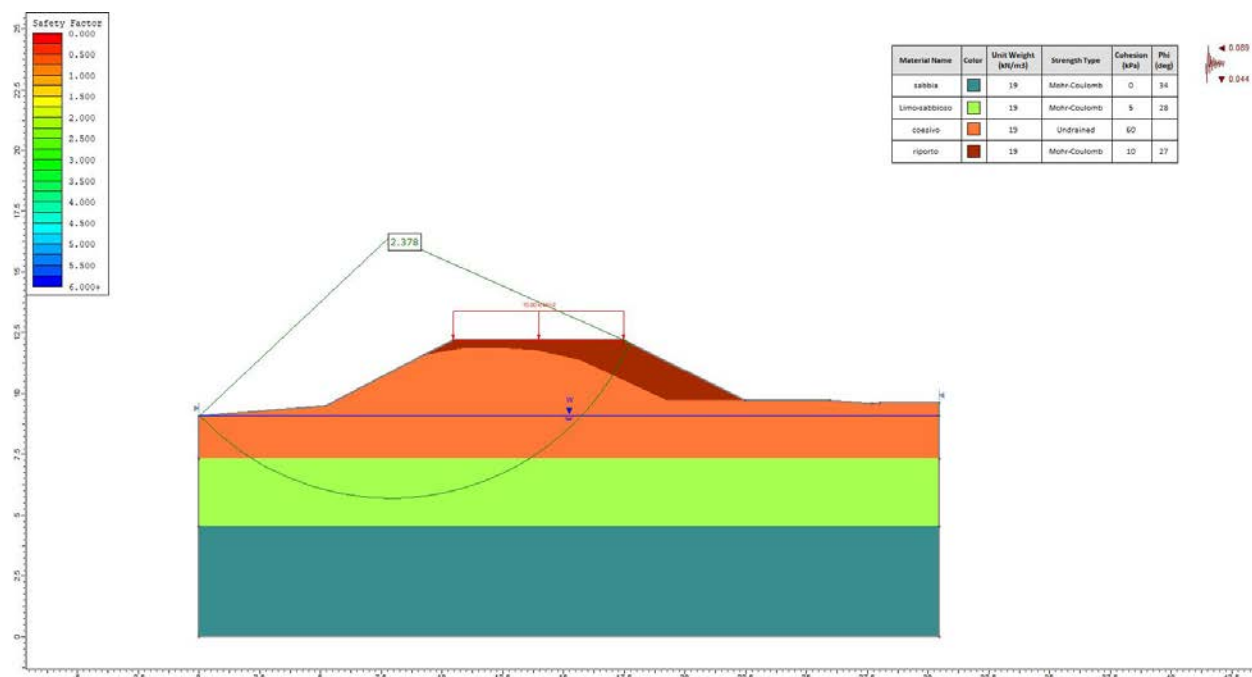


Figura 32 - Sezione 48, condizioni sismiche, ODF=2.34

SEZIONE	VERIFICA	LATO	AZIONE SISMICA	SOVRACCARICO	CONDIZIONE	ODF
48	SLU (A2+M2+R2)	fiume	No	10 kPa	Non drenata	2.29
48	SLU (A2+M2+R2)	campagna	No	10 kPa	Drenata	2.20
48	SLU (A2+M2+R2)	campagna	No	10 kPa	Non drenata	3.04
48	$\gamma_R=1,2$	fiume	SLV, classe III VN 50 anni	10 kPa	Non drenata	2.34

Tabella 7 - Valori di ODF minimi per i profili di verifica

6.2 VERIFICHE FILTRAZIONE E SIFONAMENTO

6.2.1 Gradiente idraulico e filtrazione

Le verifiche della filtrazione attraverso i rilevati arginali sono state svolte con il codice di calcolo Slide (ver. 7.0) della Rocscience. I parametri caratteristici di permeabilità dei terreni di fondazione e del corpo arginale sono stati desunti sulla base della letteratura tecnica disponibile a partire dalle caratteristiche dei terreni attraversati di cui al §3. In particolare per lo strato prevalentemente argilloso si è assunto $k=1.0 \times 10^{-8}$ m/s, per lo strato limo-sabbioso $k=1.0 \times 10^{-7}$ m/s, mentre per lo strato sabbioso sottostante $k=1.0 \times 10^{-5}$ m/s. Per il materiale di ringrosso si è assunto $k=1.0 \times 10^{-7}$ m/s per il ringrosso a lato campagna, $k=1.0 \times 10^{-8}$ m/s per il ringrosso a lato fiume, dove il materiale di riporto dovrà essere meno permeabile.

Le verifiche agli stati limite idraulici nei confronti del pericolo di sifonamento sono state condotte valutando che il rapporto tra il gradiente idraulico critico i_c , assunto pari a 1, ed il gradiente idraulico alla filtrazione in uscita a campagna i_e sia superiore a 2, come indicato dalla normativa vigente.

Le verifiche per le sei sezioni analizzate (5, 17, 28, 30, 37, 48) sono state condotte in via cautelativa sulla base delle ipotesi di condizioni di moto permanente e falda assunta alla quota del p.c.

RELAZIONE GEOLOGICA E GEOTECNICA

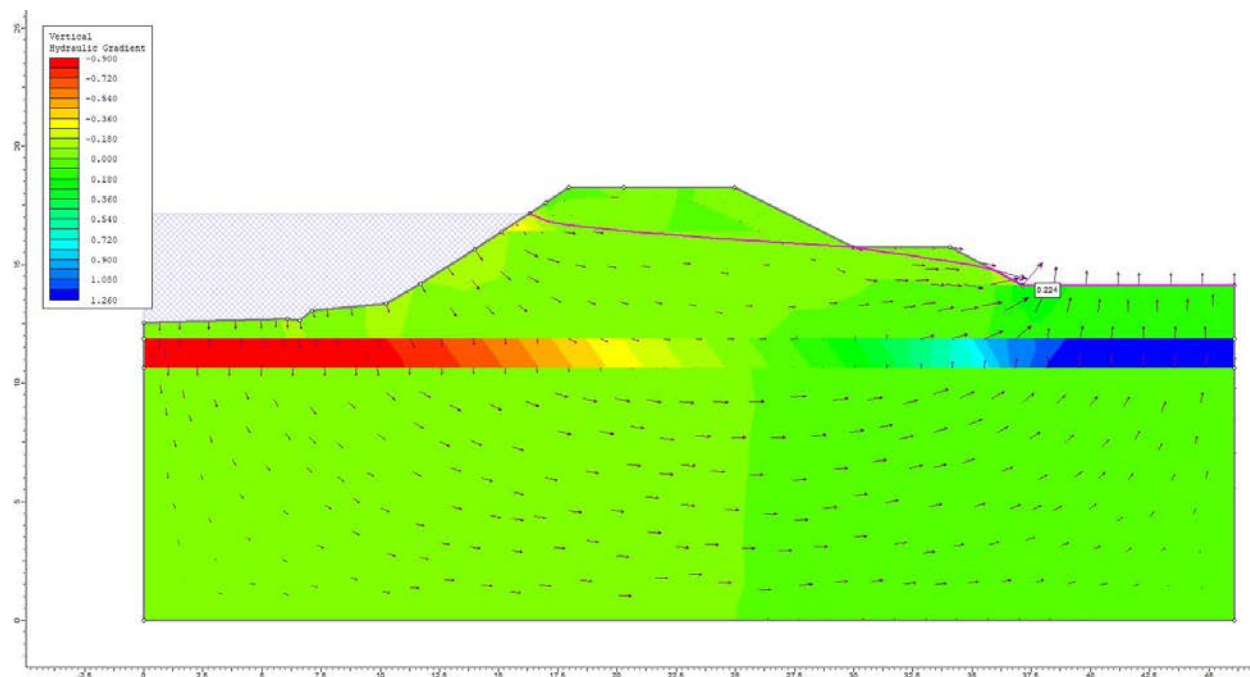


Figura 33 - Andamento del gradiente idraulico per la sezione 5

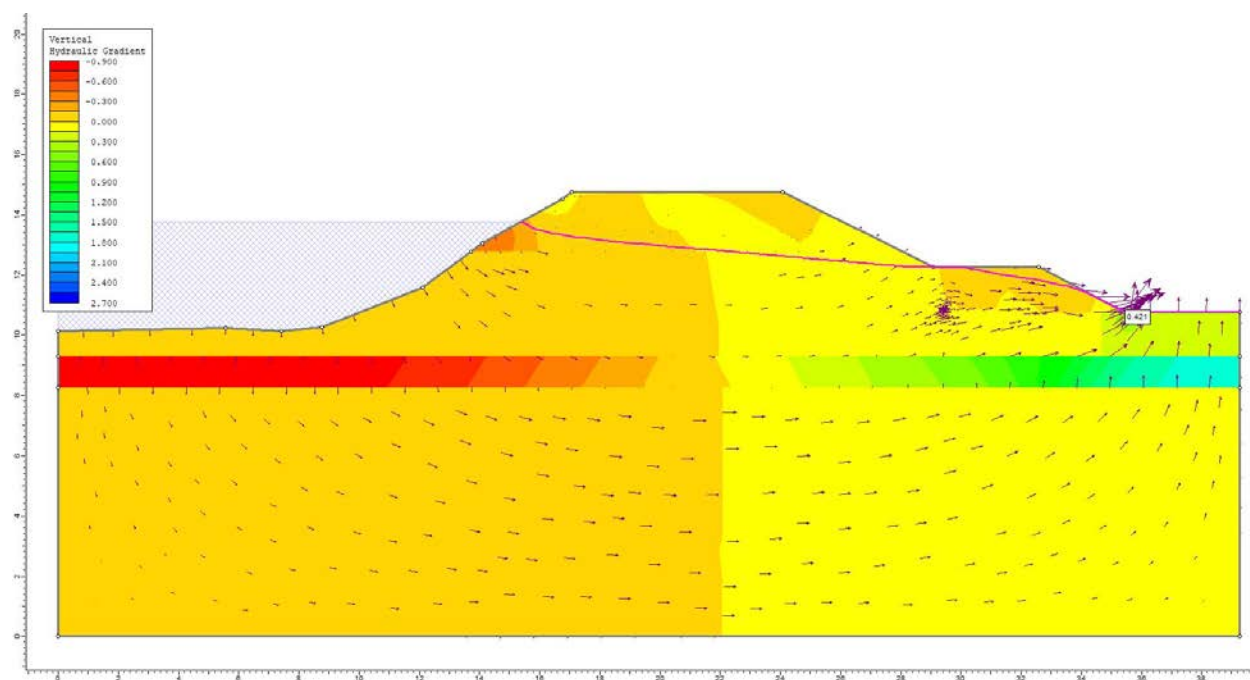


Figura 34 - Andamento del gradiente idraulico per la sezione 17

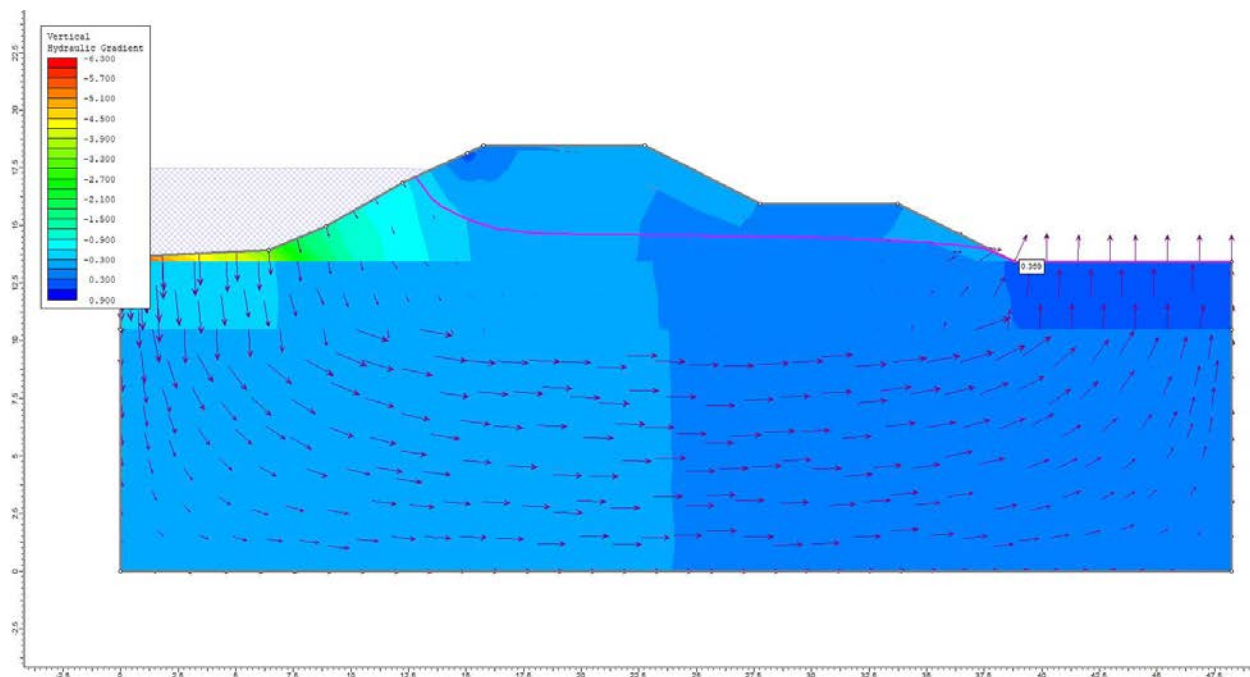


Figura 35- Andamento del gradiente idraulico per la sezione 28

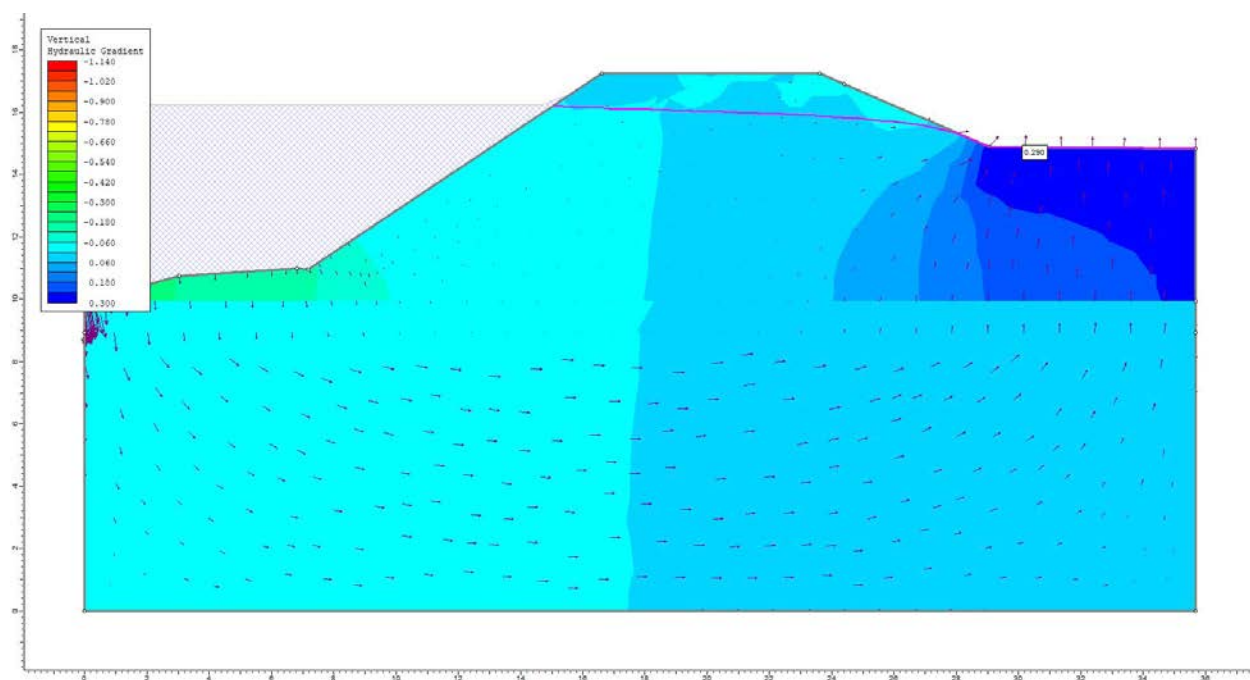


Figura 36 - Andamento del gradiente idraulico per la sezione 30

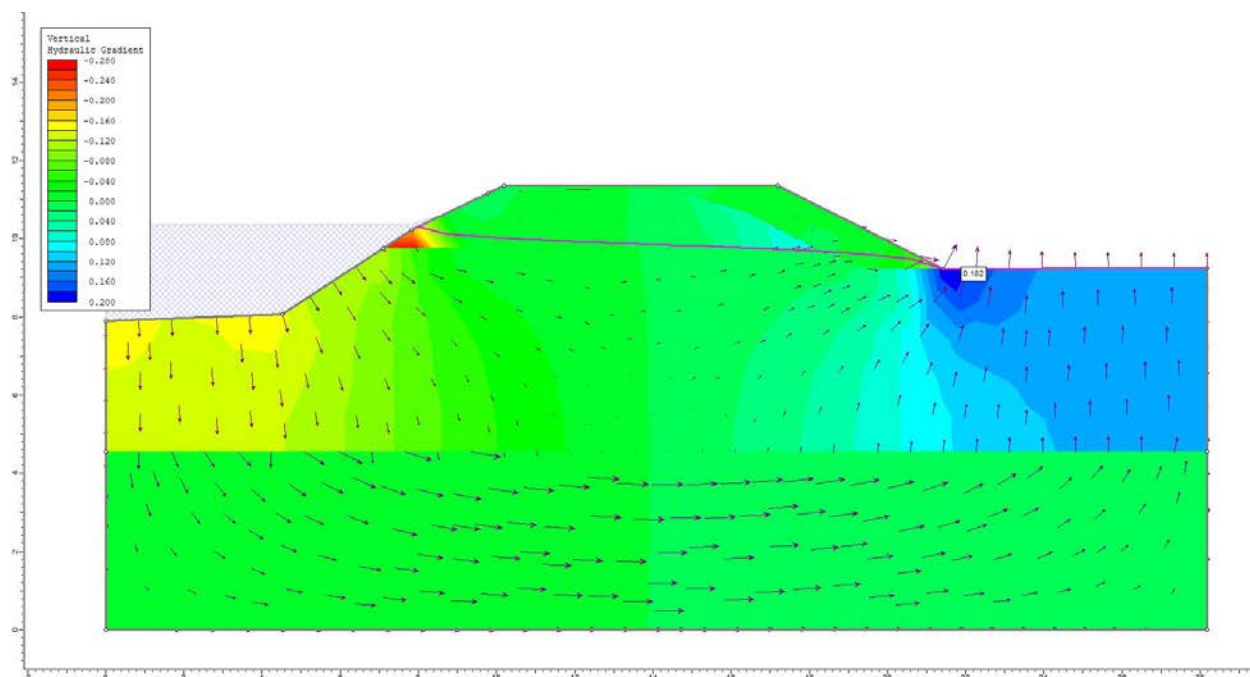


Figura 37 - Andamento del gradiente idraulico per la sezione 37

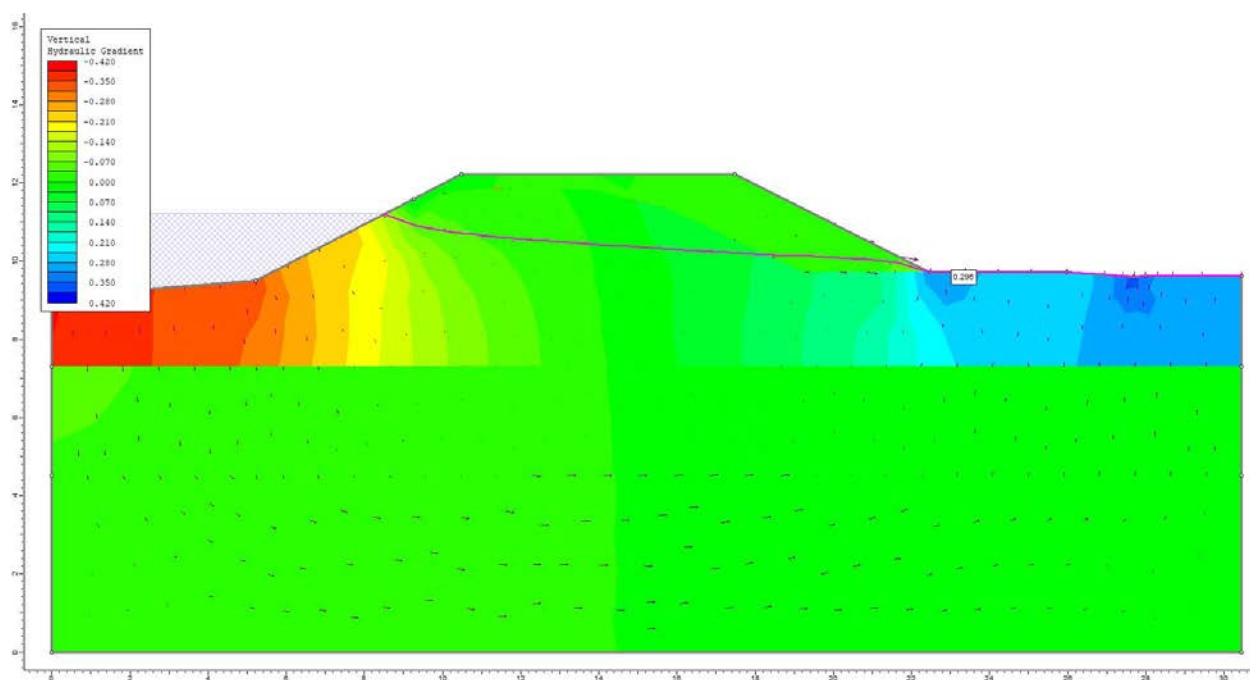


Figura 38 - Andamento del gradiente idraulico per la sezione 48

Nella seguente tabella vengono riassunte le verifiche condotte con riferimento al gradiente idraulico in uscita a campagna indicato nelle precedenti figure.

Sezioni tipo	Gradiente verticale i_e	i_c/i_e
5	0.224	4.46
17	0.421	2.38
28	0.359	2.79
30	0.290	3.45
37	0.182	5.49
48	0.296	3.38

Tabella 8 - Valori del gradiente idraulico verticale nella zona di deflusso

In accordo con la normativa vigente la verifica risulta soddisfatta, per frontiera di efflusso libera, quando il rapporto $\frac{\text{gradiente idraulico critico } i_c}{\text{gradiente di efflusso } i_e}$ risulti maggiore o uguale a $\gamma_r=2$ (§6.2.4.2 NTC18).

6.2.2 Verifica al sollevamento

In accordo con la Normativa vigente sono stati inoltre verificati gli stati limite idraulici nei confronti del pericolo di sollevamento al piede dell'argine a campagna. Nelle Norme Tecniche viene indicato che il valore di progetto della pressione interstiziale instabilizzante ($u_{inst,d}$) deve risultare non superiore al valore di progetto della tensione totale stabilizzante ($\sigma_{stb,d}$) tenendo conto dei seguenti coefficienti parziali:

Tab. 6.2.III – Coefficienti parziali sulle azioni per le verifiche nei confronti di stati limite di sollevamento

	Effetto	Coefficiente Parziale γ_F (o γ_E)	Sollevamento (UPL)
Carichi permanenti G_1	Favorevole	γ_{G1}	0,9
	Sfavorevole		1,1
Carichi permanenti $G_2^{(1)}$	Favorevole	γ_{G2}	0,8
	Sfavorevole		1,5
Azioni variabili Q	Favorevole	γ_{Qi}	0,0
	Sfavorevole		1,5

A partire dalle verifiche di filtrazione dei rilevati arginali, presentate nel precedente paragrafo, si sono ricavati i valori della pressione interstiziale e confrontate con le pressioni totali, calcolate cautelativamente considerando un peso di volume del terreno pari 19kN/m^3 .

Sezione 5

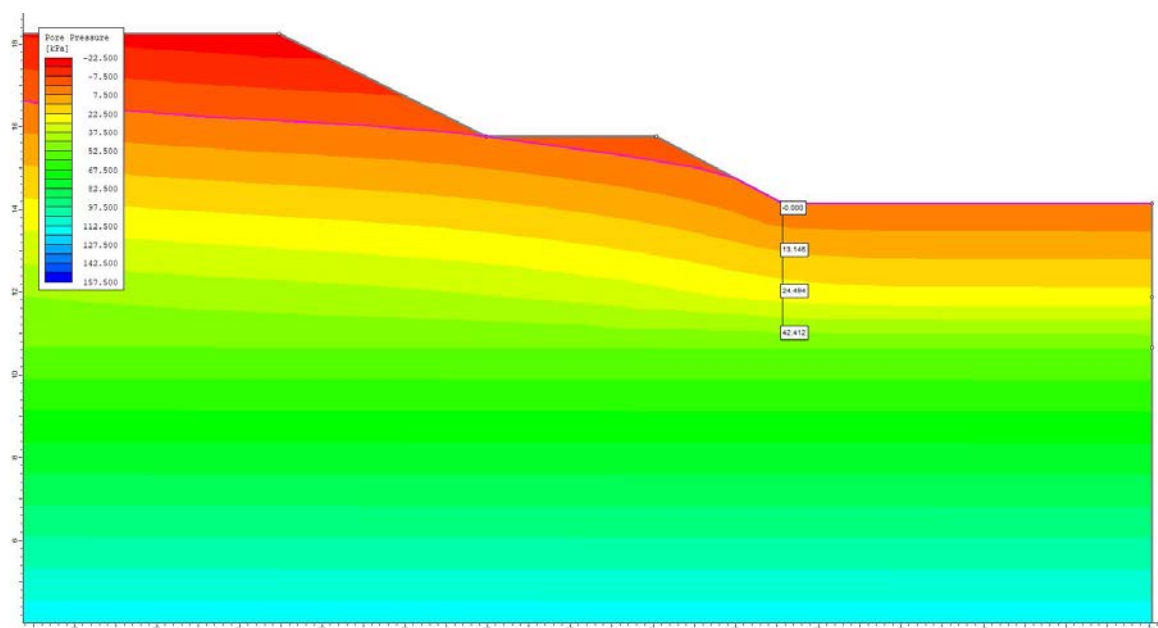


Figura 39 - Sezione 5, andamento delle pressioni interstiziali nel terreno

PROFONDITÀ	u_k	$u_{inst,d}$	σ_k	$\sigma_{stb,d}$
[m]	[kPa]	[kPa]	[kPa]	[kPa]
1	13.1	14.4	19	17,1
2	24.5	27.0	38	34,2
3	42.4	46.6	57	51,3

Tabella 9 - Verifica al sollevamento sezione 5

Sezione 17

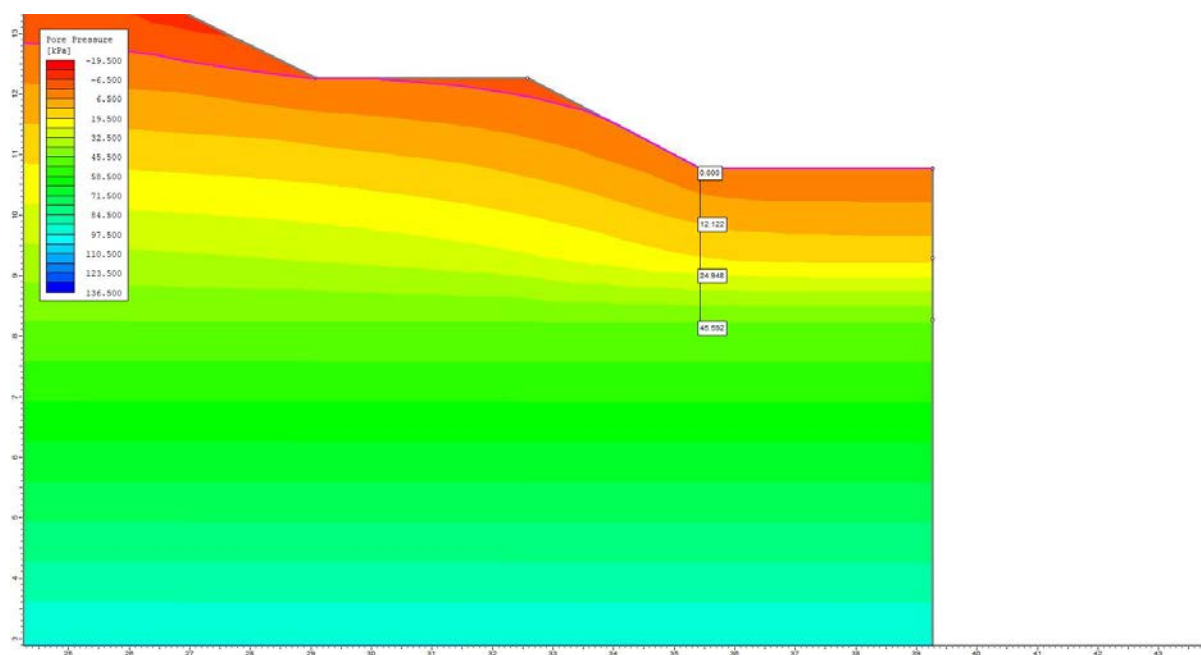


Figura 40 – Sezione 17, andamento delle pressioni interstiziali nel terreno

PROFONDITÀ	U_k	$U_{inst,d}$	σ_k	$\sigma_{stb,d}$
[m]	[kPa]	[kPa]	[kPa]	[kPa]
1	12.1	13.3	19	17,1
2	25.0	27.5	38	34,2
3	45.6	44.1	57	51,3

Tabella 10 - Verifica al sollevamento sezione 17

Sezione 28

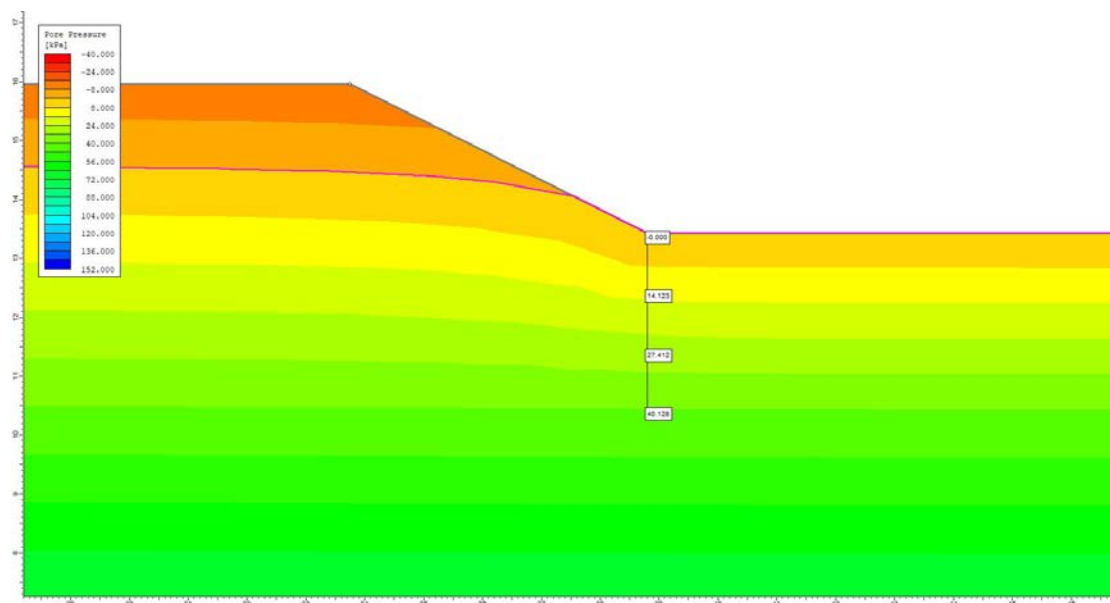


Figura 41 - Sezione 28, andamento delle pressioni interstiziali nel terreno

PROFONDITÀ	U_k	$U_{inst,d}$	σ_k	$\sigma_{stb,d}$
[m]	[kPa]	[kPa]	[kPa]	[kPa]
1	14.1	15.5	19	17.1
2	27.5	30.3	38	34.2
3	40.1	44.1	57	51.3

Tabella 11 - Verifica al sollevamento sezione 28

Sezione 30

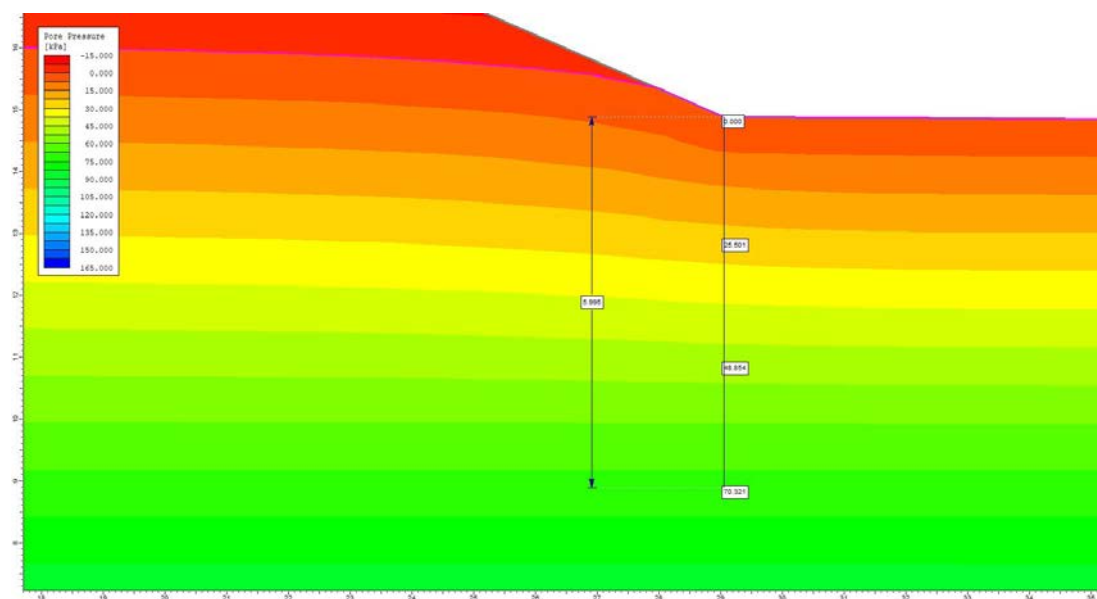


Figura 42 - Sezione 30, andamento delle pressioni interstiziali nel terreno

PROFONDITÀ	u_k	$u_{inst,d}$	σ_k	$\sigma_{stb,d}$
[m]	[kPa]	[kPa]	[kPa]	[kPa]
2	25.5	28.1	38	34.2
4	48.8	53.4	76	68.4
6	70.3	77.3	114	102.6

Tabella 12 - Verifica al sollevamento sezione 30

Sezione 37

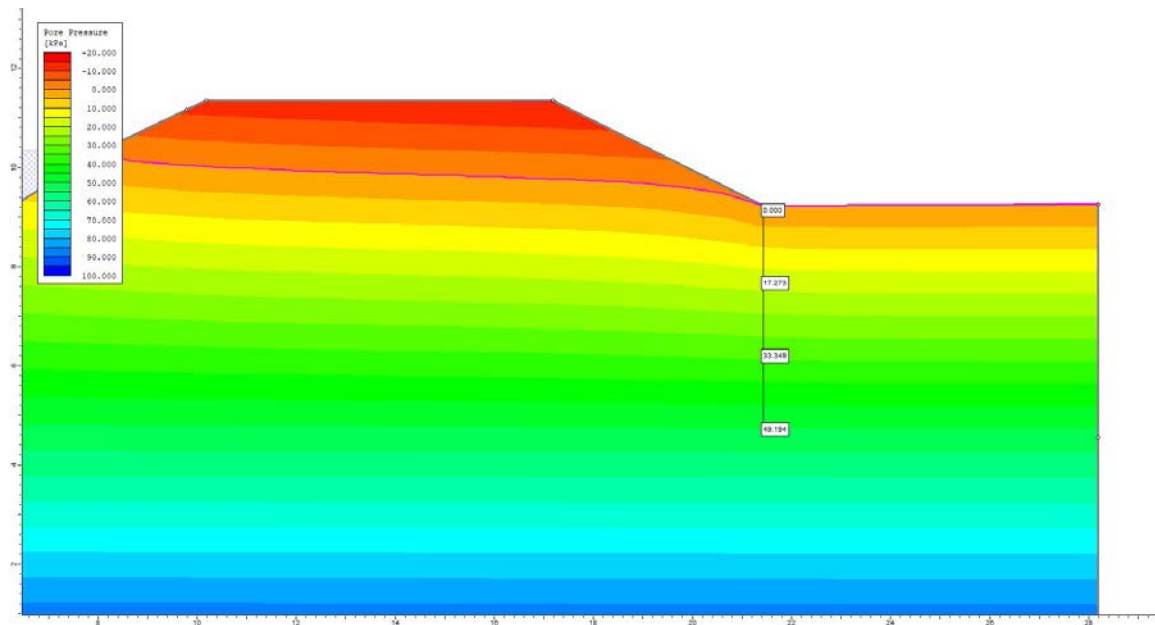


Figura 43 - Sezione 37, andamento delle pressioni interstiziali nel terreno

PROFONDITÀ	u_k	$u_{inst,d}$	σ_k	$\sigma_{stb,d}$
[m]	[kPa]	[kPa]	[kPa]	[kPa]
1,5	17,3	19,0	36,1	32,49
3	33,4	36,6	57	51,3
4,5	49,2	54,1	85,8	77,22

Tabella 13 - Verifica al sollevamento sezione 37

Sezione 48

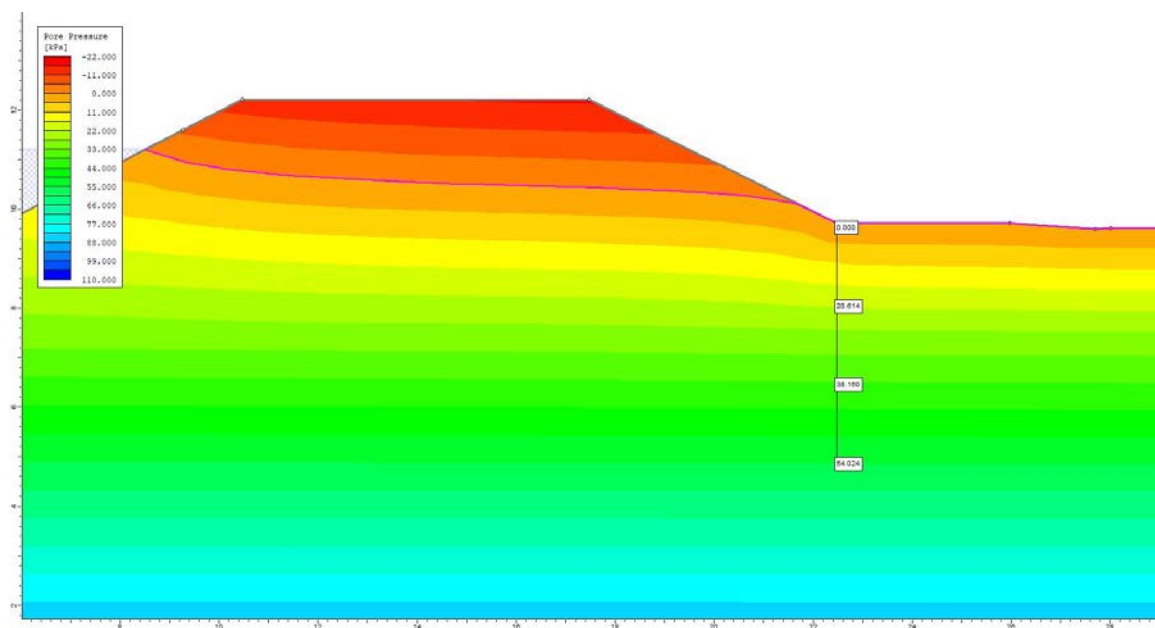


Figura 44 - Sezione 48, andamento delle pressioni interstiziali nel terreno

PROFONDITÀ	u_k	$u_{inst,d}$	σ_k	$\sigma_{stb,d}$
[m]	[kPa]	[kPa]	[kPa]	[kPa]
1,6	20,6	22,7	30,4	27,4
3,2	38,2	42,0	60,8	54,7
4,8	54,0	59,4	91,2	82,1

Tabella 14 - Verifica al sollevamento sezione 48

Per tutte le sezioni analizzate la verifica nei confronti del pericolo di sollevamento risulta soddisfatta.

7 VERIFICA NEI CONFRONTI DEL PERICOLO DI LIQUEFAZIONE

Di seguito viene condotta la verifica nei confronti del pericolo di liquefazione nei terreni di fondazione del rilevato arginale.

Tale verifica si rende necessaria in quanto:

- L'accelerazione massima attesa al piano campagna risulta maggiore a 0.1g;
- La profondità media della falda è tra 8 e 10 m dalla sommità arginale (<15 m);
- la resistenza q_{c1N} determinata dalle prove penetrometriche statiche normalizzata rispetto alla pressione atmosferica risulta inferiore a 180;
- la distribuzione granulometrica dei terreni non permettere di escludere la possibilità di liquefazione.

La verifica a liquefazione è stata condotta con riferimento ai risultati delle prove penetrometriche e ad un'accelerazione "free-field" $a_{max}=0.23$ g relativa ad un sisma con $T_r = 1898$ anni e magnitudo $M=5.0$.

La verifica nei confronti del pericolo di liquefazione è stata condotta con il software SETTLE3D della Rocscience, sulla base dei risultati delle prove penetrometriche CPT. Il coefficiente di sicurezza FS alla liquefazione viene espresso dal rapporto tra la resistenza disponibile alla liquefazione (rapporto di resistenza ciclica CRR) e la sollecitazione indotta dal terremoto di progetto (rapporto di tensione ciclica CSR). Il software determina il valore del rapporto di resistenza ciclica CRR corrispondente a $M=7.5$ attraverso la correlazione empirica di Idriss & Boulanger (2014):

$$CSR = 0.65 \times \frac{a_{max}}{g} \times \frac{\sigma_v}{\sigma'_v} \times r_d$$

$$CRR_{M=7.5, \sigma'_v=1atm} = \exp \left[\frac{q_{c1Ncs}}{113} + \left(\frac{q_{c1Ncs}}{1000} \right)^2 - \left(\frac{q_{c1Ncs}}{140} \right)^3 + \left(\frac{q_{c1Ncs}}{137} \right)^4 - 2.8 \right]$$

Dove r_d , coefficiente riduttivo dell'azione sismica, è determinato secondo la relazione di Idriss (1999):

$$\ln(r_d) = \alpha(z) + \beta(z) \times M$$

Dove:

$$\alpha(z) = -1.012 - 1.126 \times \operatorname{sen}\left(\frac{z}{11.73} + 5.133\right)$$

$$\beta(z) = 0.106 + 0.118 \times \operatorname{sen}\left(\frac{z}{11.28} + 5.142\right)$$

Con z =profondità in metri ($z < 34$ m).

Il valore di CRR viene infine corretto per rapportarlo alla magnitudo del sisma considerato attraverso la relazione di Idriss & Boulanger (2008):

$$MSF = 6.9 \exp\left(-\frac{M}{4}\right) - 0.058 \leq 1.8$$

Nelle figure seguenti vengono riportati i risultati della verifica nei confronti del pericolo di liquefazione condotte per ciascuna delle 10 CPT analizzate.

In accordo con le verifiche svolte è possibile escludere il pericolo di liquefazione per i terreni di fondazione del rilevato arginale.

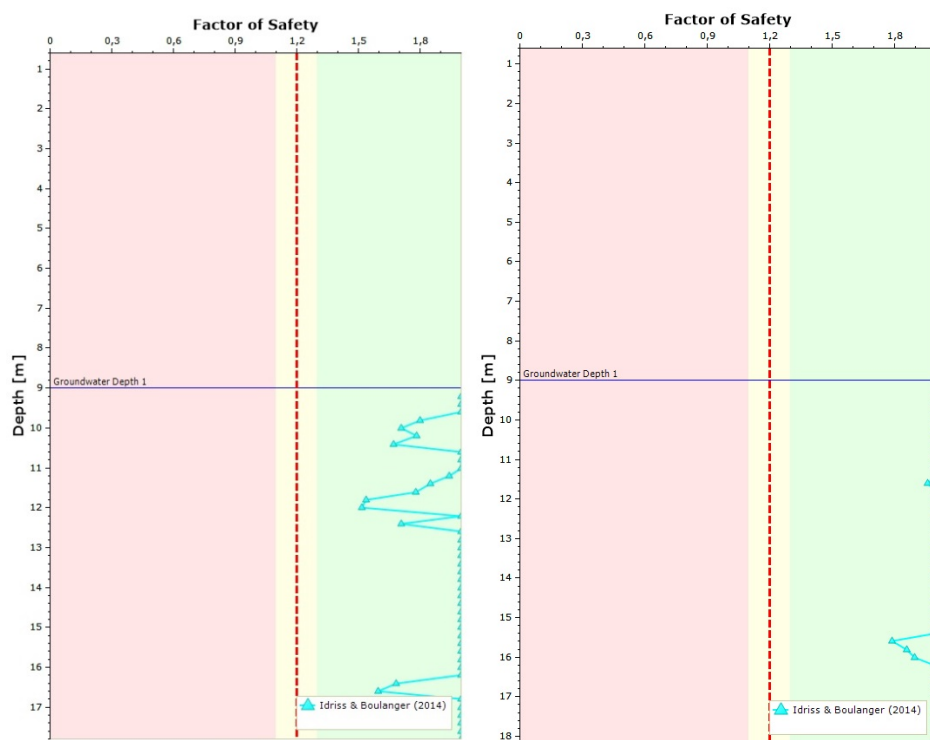


Figura 45 - Coefficiente di sicurezza contro il pericolo di liquefazione valutato per le prove CPT 1 (a sinistra) e CPT 2 (a destra)

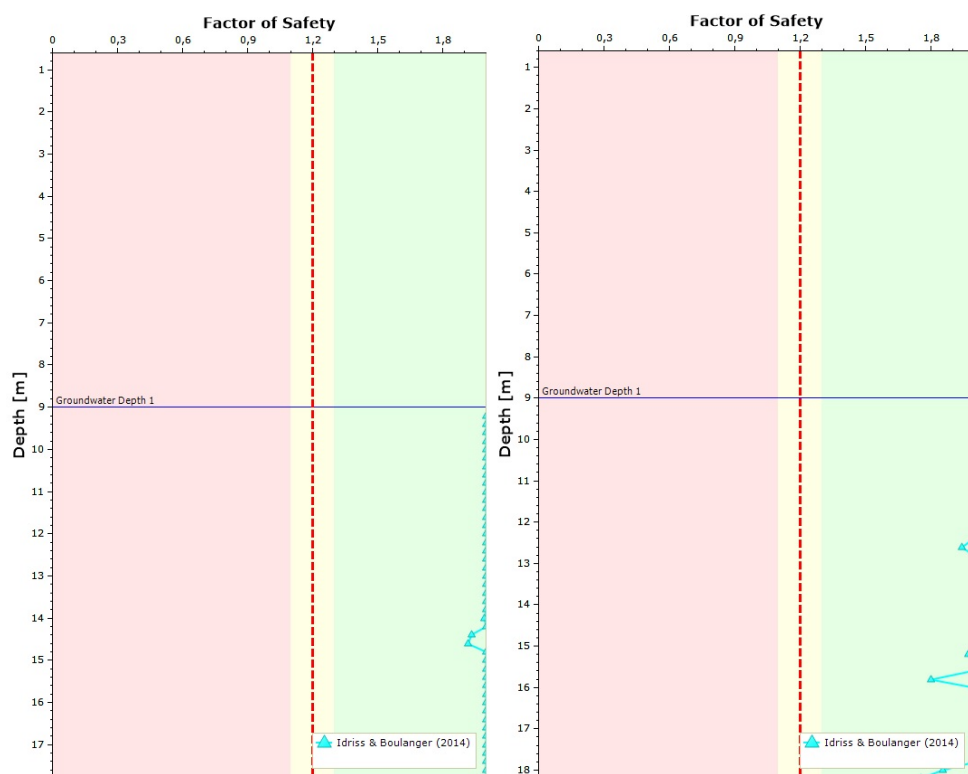


Figura 46 - Coefficiente di sicurezza contro il pericolo di liquefazione valutato per le prove CPT 3 (a sinistra) e CPT 4 (a destra)

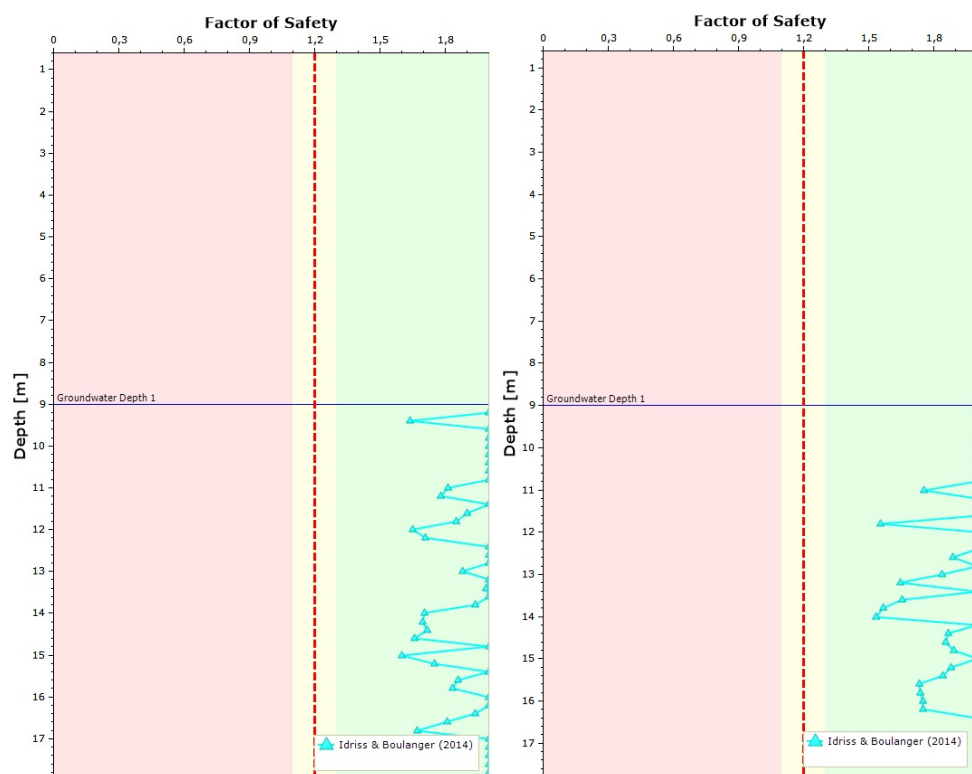


Figura 47 - Coefficiente di sicurezza contro il pericolo di liquefazione valutato per le prove CPT 5 (a sinistra) e CPT 6 (a destra)

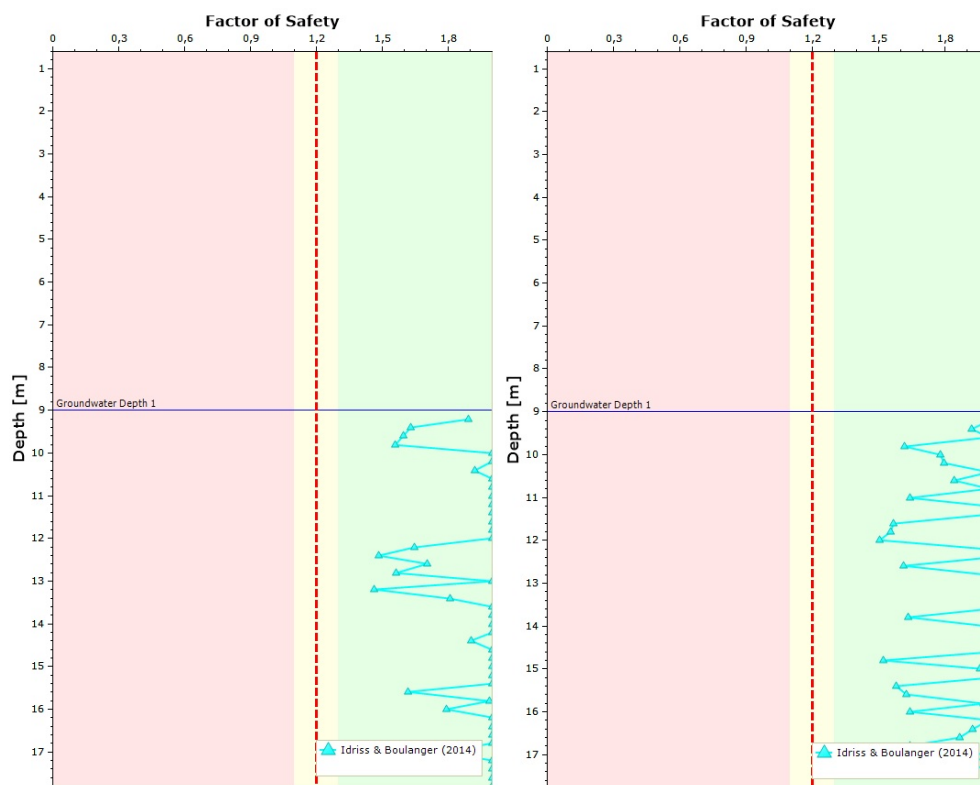


Figura 48 - Coefficiente di sicurezza contro il pericolo di liquefazione valutato per le prove CPT 7 (a sinistra) e CPT 8 (a destra)

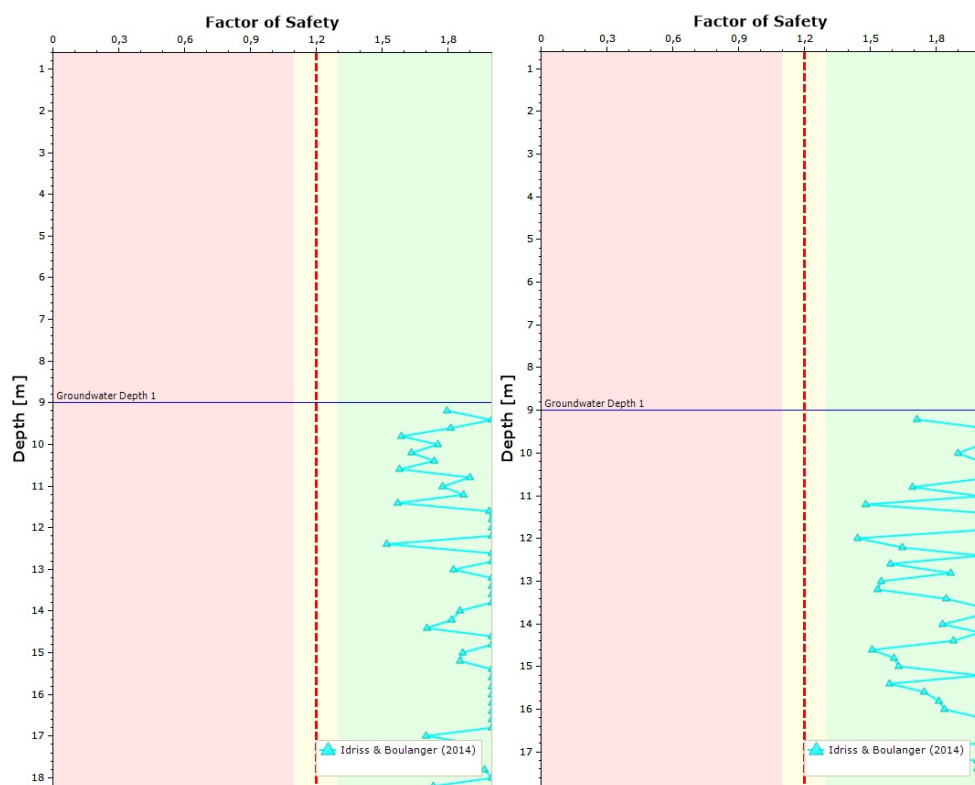


Figura 49 - Coefficiente di sicurezza contro il pericolo di liquefazione valutato per le prove CPT 9 (a sinistra) e CPT 10 (a destra)

8 CHIAVICA SOARZA

Lungo l'argine oggetto di intervento è presente nel corpo arginale il manufatto indicato in Figura 50 e denominato "Chiavica Soarza".



Figura 50 - Ubicazione chiavica Soarza su CTR

Nelle seguenti figure sono riportate la planimetria e la sezione del manufatto idraulico esistente che presenta dei problemi, evidenziati dal gestore, relativi a cedimenti e sifonamenti che trovano riscontro con i risultati nelle prove geotecniche eseguite.

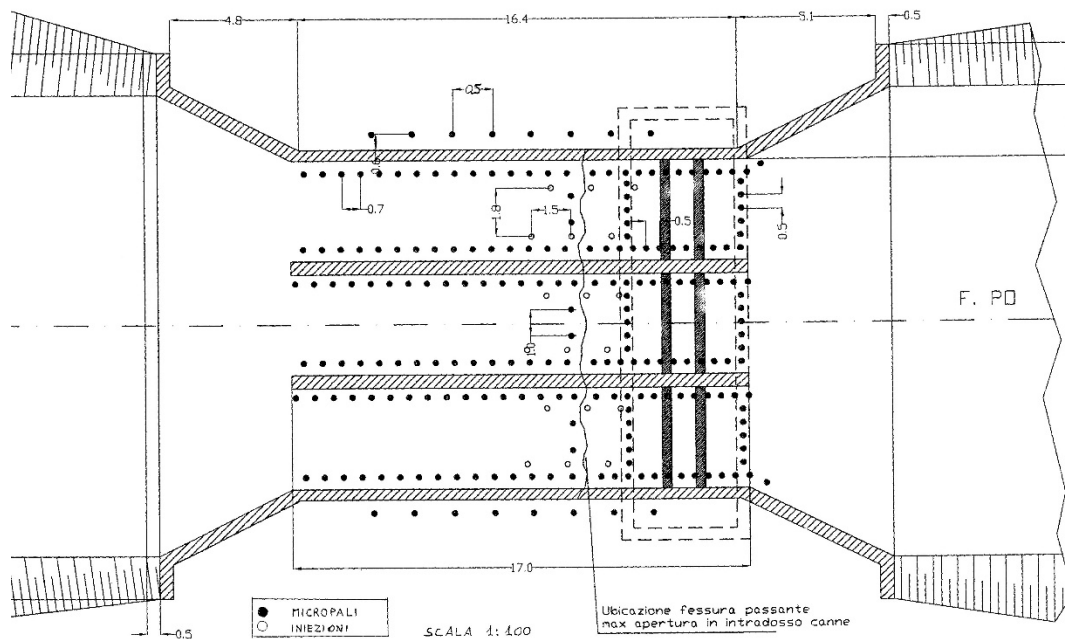


Figura 51 - Planimetria chiavica Soarza

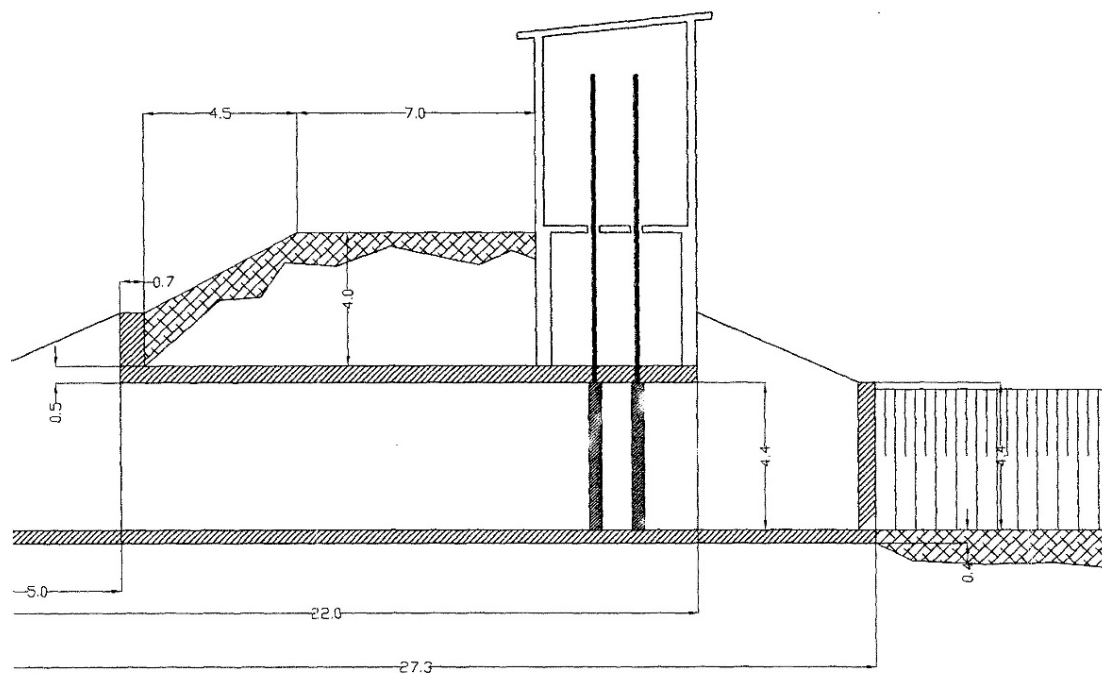


Figura 52 - Sezione chiavica Soarza

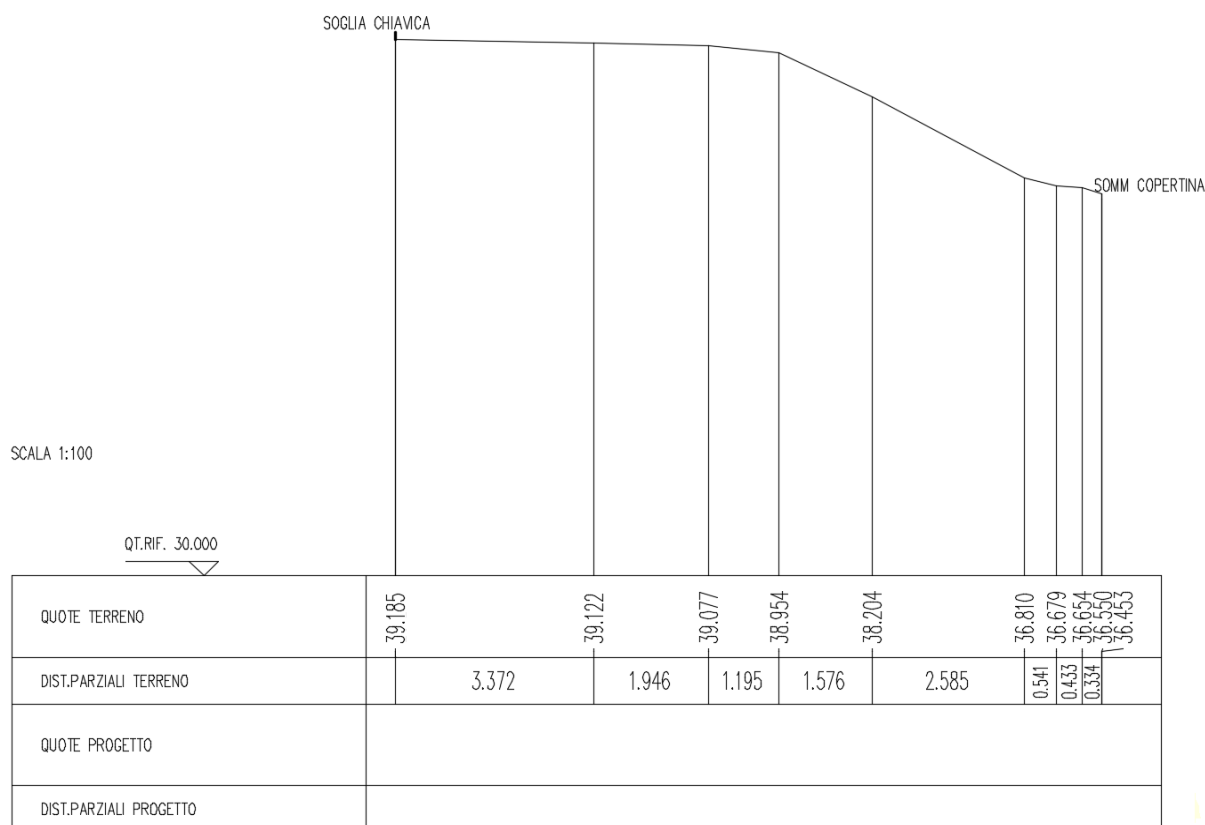


Figura 53 - Altimetria dell'argine in corrispondenza della chiavica

Analizzando le indagini condotte nella zona (SCPTU-Sez.4-SM; CPTU-Sez.4-SX; CPTU-Sez.4-DX;S1) emerge come il piano di imposta del manufatto, a circa 9 m dalla sommità del rilevato arginale (alla +30.285 m s.l.m.), sia fondato sullo strato di terreno sabbioso di elevata permeabilità.

Si ritiene che il problema del sifonamento, dovuto alla filtrazione negli strati permeabili lungo la fondazione del manufatto, possa essere affrontato con la realizzazione di un diaframma con funzione di taglione idraulico. Sulla base di esperienze in casi analoghi si può progettare un diaframma lamellare eseguito con la tecnologia del "jet-grouting".

Per valutare la lunghezza necessaria per il diaframma ci si è basati sul metodo di Lane (1915) per il calcolo del rapporto di scorrimento, il quale confronta il percorso più breve (orizzontale e verticale) che l'acqua dovrebbe compiere da monte a valle in rapporto al carico idraulico.

Il rapporto di scorrimento è:

$$C = \frac{\frac{1}{3}L_0 + L_v}{h}$$

Dove:

- L_0 è il percorso di filtrazione orizzontale, assunto pari a 27.3 m (lunghezza della chiavica);
- L_v è il percorso di filtrazione verticale, il quale dipende dalla lunghezza del diaframma;
- h è il dislivello idraulico tra monte e valle (assunto pari a 7 m ipotizzando condizioni di massimo invaso a lato fiume con chiavica chiusa e, cautelativamente, la presenza di circa 1.5 m d'acqua nel canale a lato campagna).

Il valore di scorrimento raccomandato da Lane per terreni di natura sabbiosa come quelli attraversati è pari a 5.0. Tale valore viene raggiunto realizzando un diaframma di lunghezza pari a 13 m a partire dal fondo della chiavica, spinto approssimativamente sino alla +17.8 m s.l.m.

La tecnologia del jet-grouting presenta significativi vantaggi in termini di esecuzione (tempi ridotti) e ambientali (non si produce materiale di risulta). Il diaframma lamellare plastico è composto da lame sottili accostate di spessore variabile (≥ 15 cm) realizzati con l'iniezione di una miscela plastica ad alta pressione (jettiniezione) composta da cemento pozzolanico o d'altoforno, bentonite ed additivi speciali. Le lame sono ottenute mediante l'utilizzo di iniettori monodirezionali aventi una prefissata inclinazione rispetto l'asse longitudinale del tracciato dell'opera al fine di garantire, unitamente all'interasse, la compenetrazione delle lame stesse. I pannelli dovranno assicurare la continuità e la perfetta tenuta idraulica della diaframmatrice. Normalmente gli ugelli vanno posizionati con angolazione di 15° rispetto all'asse della paratia da realizzare.

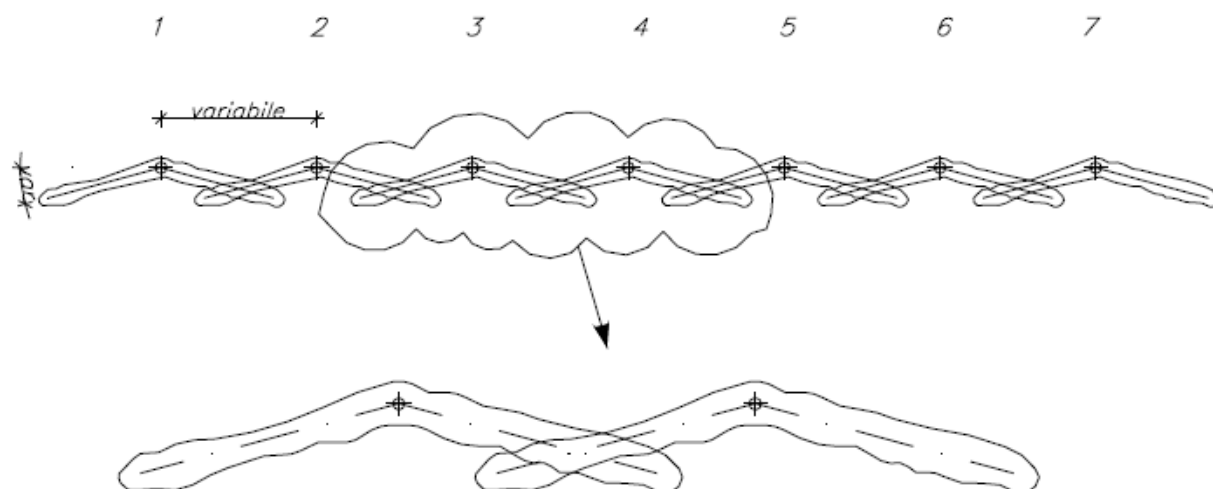


Figura 54 - Sequenza costruttiva diaframma lamellare con jet-grouting

Si potrà eseguire il diaframma a partire dalla sommità arginale con l'utilizzo di un gruppo di perforazione "standard" composto da una sonda cingolata con guida verticale e da una motopompa per iniezione ad alta pressione completa di motocompressore per il trattamento bifluido, il jet verrà iniettato a partire da 1.5 m dalla sommità arginale ed esteso per 20 m sia a monte che a valle della chiavica. Per quanto riguarda l'iniezione al di sotto della chiavica, invece, la stessa operazione di iniezione descritta in precedenza potrà essere condotta dall'interno della chiavica stessa, avendo opportunamente impedito l'accesso dell'acqua dal canale. Dalla SCPTU-Sez.4-SM si ricava una quota di falda a profondità di 9.5 m circa da sommità arginale, tale cioè da non causare problemi legati alla fuoriuscita dell'acqua in pressione sul fondo della chiavica una volta iniziata la perforazione. L'intervento dovrà essere eseguito in un periodo dell'anno favorevole.

Nelle figure seguenti si riporta in pianta ed in prospetto uno schema dell'iniezione del diaframma lamellare. La distanza tra gli ugelli è fissata a 2.2 m.

RELAZIONE GEOLOGICA E GEOTECNICA

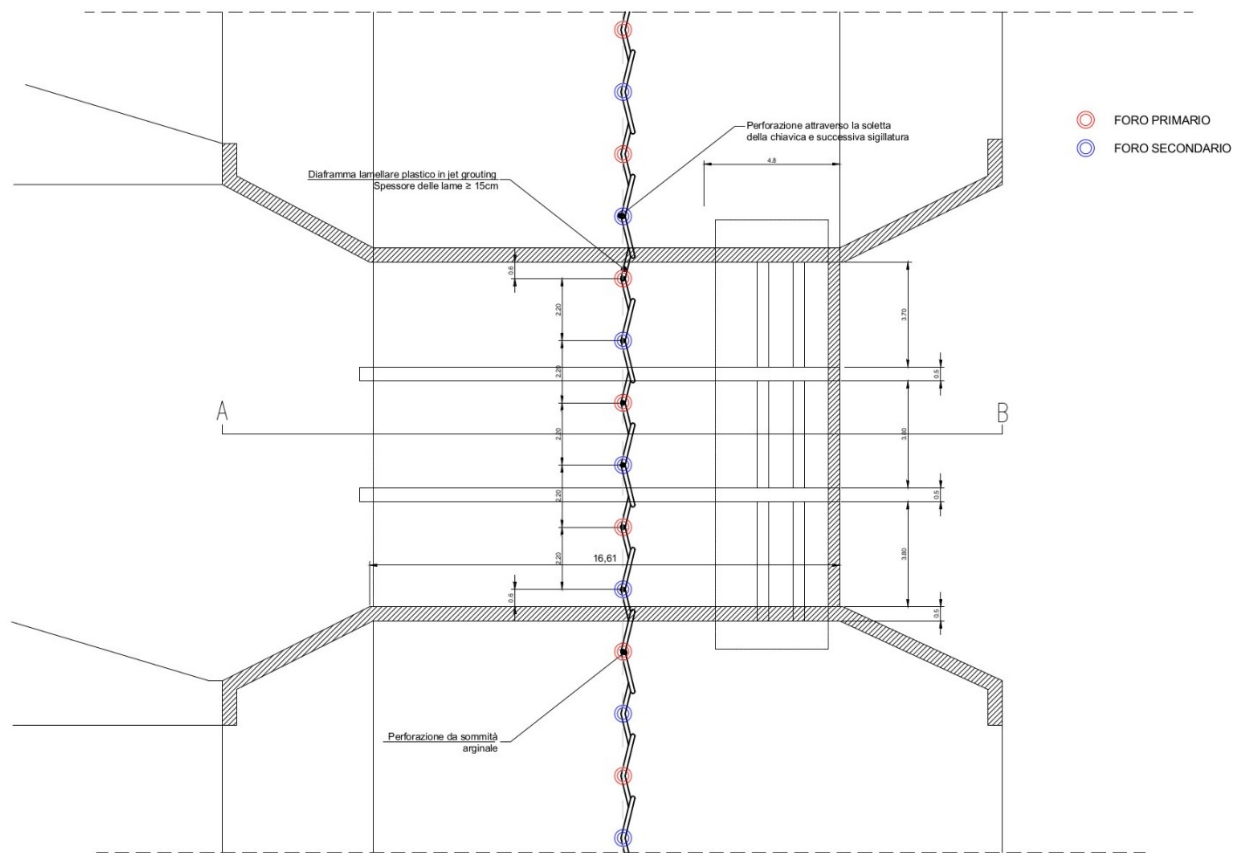


Figura 55 - Planimetria chiavica con diaframma

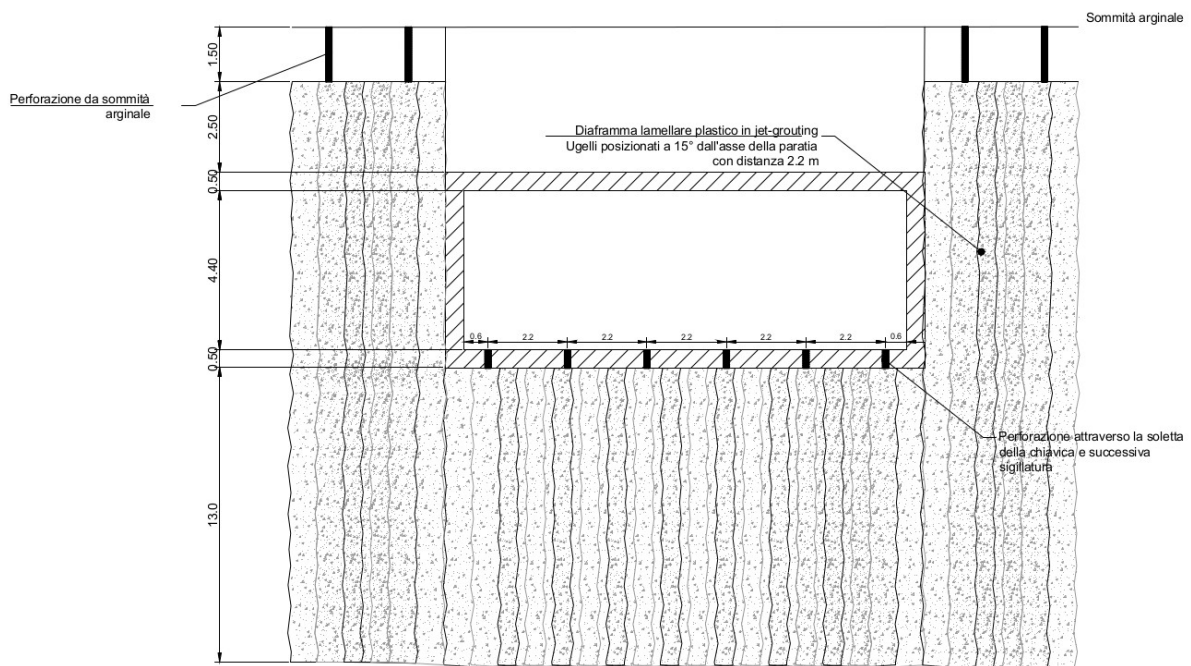


Figura 56 - Prospetto chiavica e diaframma

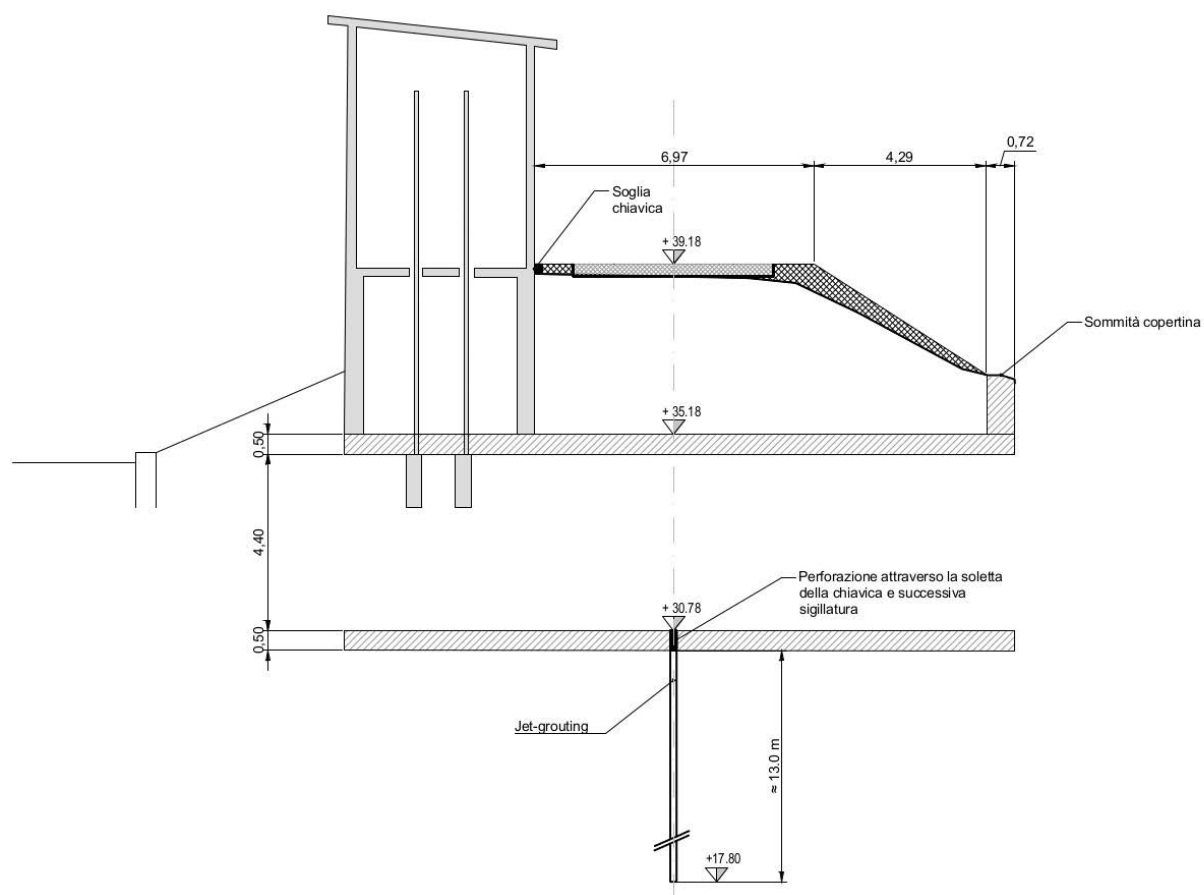


Figura 57 - Sezione chiavica con diaframma

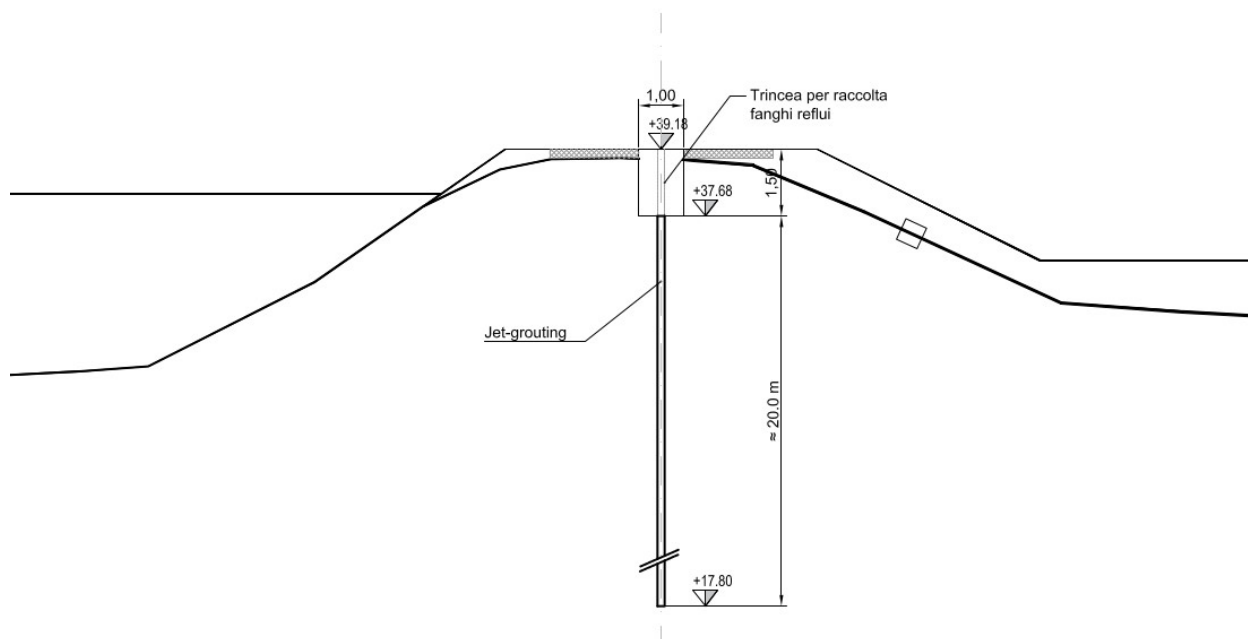


Figura 58 Sezione 26 argine con diaframma

Campo prova

In sede di inizio lavori è necessario effettuare un campo prove per:

- consentire una selezione del sistema e dei parametri di trattamento più efficace;
- verificare che i risultati siano conformi ai requisiti indicati nella presente relazione.

Inoltre per ogni tipo di miscela utilizzata nel campo prova si dovranno essere prelevati campioni da sottoporre in laboratorio a prove di compressione semplice e a prove di permeabilità in cella triassiale per verificare le proprietà a lungo termine della miscela consolidante di seguito descritte.

Il campo prova dovrà prevedere per le differenti miscele e parametri di trattamento testati l'esecuzione di n° 2 pannelli primari e n° 1 pannello secondario.

Le caratteristiche geometriche e la perfetta compenetrazione dei pannelli dovranno essere verificate a vista effettuando uno scavo per una profondità non inferiore ai 2 m.



ALLEGATO A: PROVE IN SITO E DI LABORATORIO

**REGIONE EMILIA ROMAGNA
PROVINCIA DI PIACENZA**

LAVORO:

PC-E-810
**LAVORI DI ADEGUAMENTO PIANO SIMPO
DELLA SAGOMA ARGINE MAESTRO F. PO
NEL TRATTO COMPRESO TRA IL T. ARDA E LA ZONA DI
RIGURGITO DEL T. ONGINA**

CIG.: Z8C202A5FC

CUP: B34H17000580001

TITOLO:

**RAPPORTO FINALE
DELLE INDAGINI ESEGUITE**

COMMESSA N°	1	7	1	0	1	G	S	O	A
DATA	Settembre 2017								
ELABORATO	R	p	0	1	a				
DOCUMENTO	17-101.G Rp.01.a SOA								

ESTENSORE:

PARMAGEO S.r.l.
indagini geognostiche

Via Argini Sud, 31 - 43030 Basilicanova (PR)
Tel.: 0521.681030 - Fax: 0521.1550449
info@parmageo.com - www.parmageo.com
Iscr. CCIAA di PR, P. IVA e C.F.: 01716130347
REA: 173188 - cap. soc.: 30.000,00 Euro int. vers.



Dott. Geol. Enrico Faccini

COMMITTENTE:



**Agenzia Interregionale
per il fiume Po
- Ufficio Operativo di Piacenza -**

A - NOTE GENERALI

Nel presente rapporto sono raccolte le risultanze delle indagini geognostiche eseguite per conto dell'Agenzia Interregionale per il fiume Po – Ufficio Operativo di Piacenza, funzionali alla progettazione di un intervento di adeguamento dell'argine maestro del F. Po nel tratto tra la confluenza del T. Arda e la zona di rigurgito del T. Ongina.

La campagna di indagini geognostiche, atta a definire lo stato delle arginature esistenti, del suolo di fondazione e le caratteristiche dei materiali da prelevare presso le potenziali cave di prestito, è stata così articolata.

- n° 1 sondaggio geognostico a carotaggio continuo, nel corso del quale sono stati prelevati n° 2 campioni indisturbati sottoposti a prove geotecniche di laboratorio;
- n° 11 prove penetrometriche statiche con punta elettrica e piezocono (CPTU);
- n° 1 prova penetrometrica statica con punta elettrica, piezocono e cono sismico (S-CPTU);
- n° 10 prove penetrometriche statiche con punta meccanica (CPTm); nel corso delle prove (a circa 1 m da CPTm 1) è stato prelevato n° 1 campione indisturbato;
- n° 11 trincee con pala meccanica in due aree distinte in destra e rispettivamente sinistra del F. Po, con prelievo di n° 30 campioni rimaneggiati dei quali n° 20 sottoposti a prove geotecniche (granulometria e limiti di Atterberg) e n° 10 ad analisi chimiche per individuare l'eventuale presenza di agenti inquinanti.

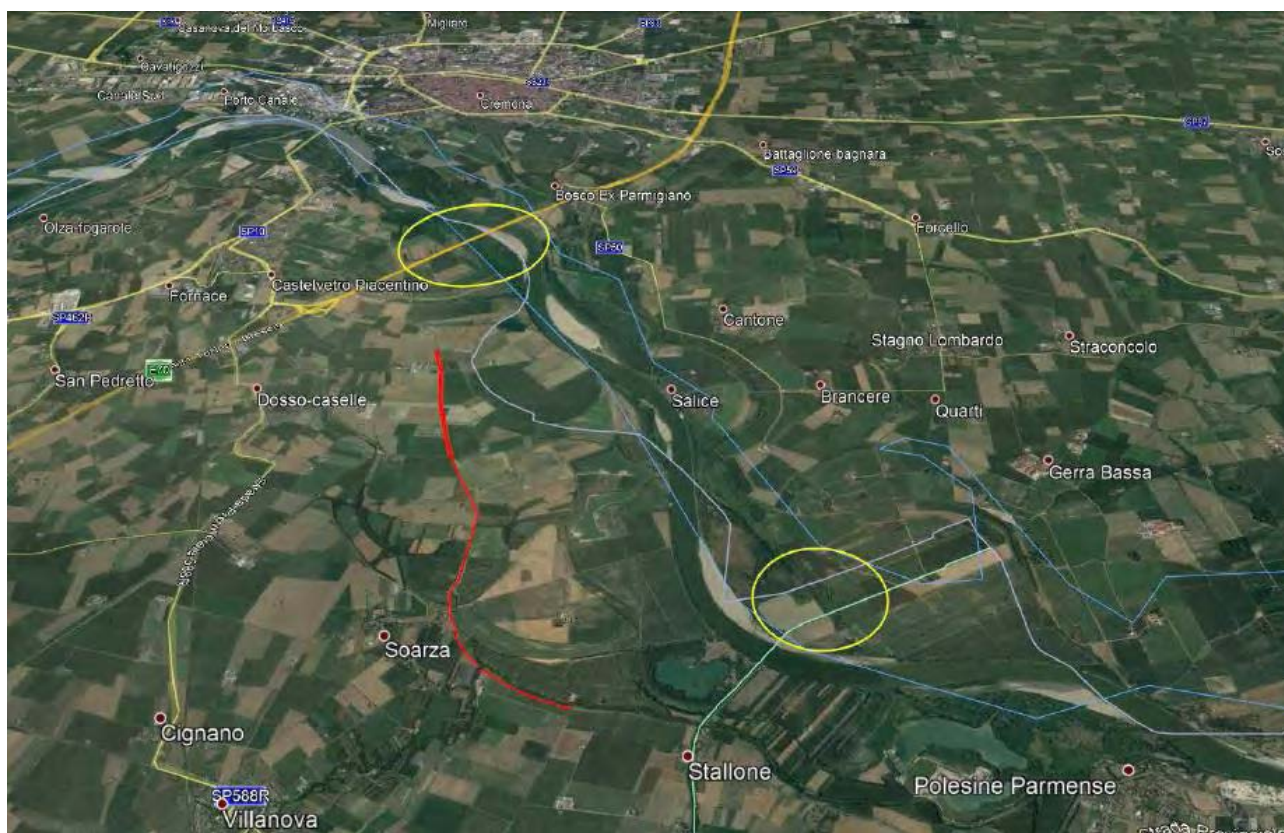


Fig. 1

In rosso tratto di argine oggetto di intervento, in giallo sono indicate le aree di potenziale prelievo del materiale per il rilevato.

(Google Earth)

B - INDAGINI GEOGNOSTICHE

B1 – Sondaggio a carotaggio continuo

Per la realizzazione del sondaggio a carotaggio continuo è stata utilizzata una sonda semovente cingolata MDT 80V, con prestazioni più che adeguate alla profondità da raggiungere.

Il sondaggio è stato eseguito a rotazione con l'usuale metodologia che prevede di spingere in profondità l'utensile di perforazione per il tramite di aste di prolunga giuntabili con filetto M/F.

In particolare è stato utilizzato un carotiere semplice con corona ad inserti di carburo di tungsteno, adatto al campionamento dei locali terreni alluvionali sciolti.

La perforazione è stata condotta a secco, in modo da consentire il recupero totale dei campioni, preservandone per quanto possibile la composizione.

Per sostenere le pareti del perforo si è reso necessario l'utilizzo dei tubi di rivestimento provvisori in acciaio, giuntabili anch'essi al pari delle aste di perforazione, con filetti M/F ricavati nello spessore. I tubi di rivestimento, muniti alla base di utensile costituito da corona con inserti in carburo di tungsteno, sono stati infissi con ausilio dell'acqua.

Il sondaggio, ubicato sulla sommità arginale, è stato spinto fino a 20,00 m di profondità.

Nel corso del sondaggio venivano prelevati n. 2 campioni indisturbati utilizzando un campionatore a pareti sottili di tipo Shelby.



Fig. 2

Sondaggio S1

B2 – Prove penetrometriche statiche (CPT, CPTU e S-CPTU)

Le prove penetrometriche sono state condotte utilizzando un penetrometro statico/dinamico PAGANI TG73 100 kN.

In relazione al tipo di prova la sonda veniva attrezzata con punta elettrica e piezocono per le CPTU (Sistema Pagani TGAS07B), con punta elettrica, piezocono e cono sismico per la S-CPTU (Sistema Pagani TGAS08) e infine con punta tipo Begemann per le prove statiche meccaniche CPT.

Le profondità previste per le varie tipologie di prove era rispettivamente:

30 m per la S-CPTU e per le CPTU in sommità argine;

20 m per le CPTU al piede dell'argine;

18 m per le CPT, tutte in sommità argine.

Le prove con punta elettrica tuttavia sono talora state sospese prima del raggiungimento delle profondità previste a causa del disancoraggio della sonda penetrometrica per la scarsa coerenza dei terreni costituenti la parte superficiale dell'argine o ancora per raggiungimento dei limiti di salvaguardia della strumentazione di misura.

Il penetrometro, opportunamente attrezzato con campionatore adatto allo scopo, è stato anche utilizzato per il prelievo di n° 1 campione indisturbato a circa 1 m da CPTm 1.

Fig. 3 - Prove Penetrometriche Statiche con Punta Elettrica (CPTU E S-CPTU)



SEZ. 1 – CPTU valle



SEZ. 2 – CPTU sommità



SEZ. 3 – CPTU sommità



SEZ. 4 – CPTU sinistra



SEZ. 4 – S-CPTU sommità



SEZ. 5 – CPTU sommità



SEZ. 6 – CPTU destra

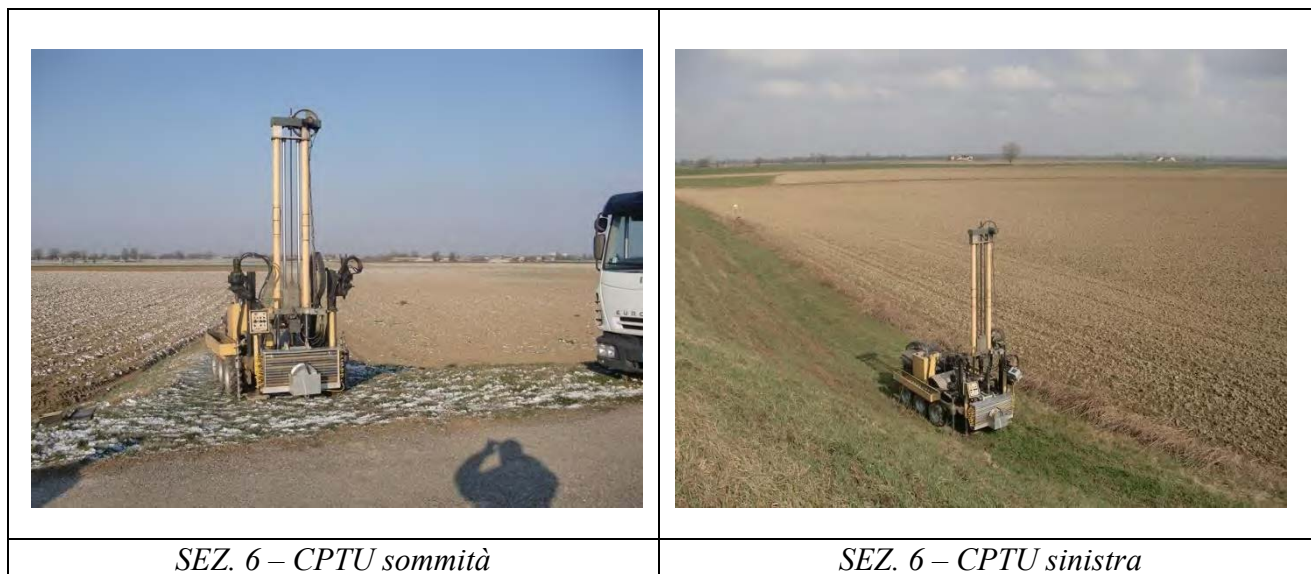


Fig. 4 - Prove Penetrometriche Statiche con punta meccanica (CPT)





CPT-m 05



CPT-m 06



CPT-m 07



CPT-m 08



CPT-m 09



CP- m 10

B3 – Trincee con pala meccanica.

Sono state realizzate in totale n° 12 trincee utilizzando una pala meccanica Komatsu da 30 q.li. Nel corso degli scavi, spinti fino a un massimo di 3 m di profondità, sono stati prelevati complessivamente n° 30 campioni rimaneggiati dei quali n° 20 sottoposti a prove geotecniche (granulometria e limiti di Atterberg) e n° 10 ad analisi chimiche per individuare l'eventuale presenza di agenti inquinanti.

Le schede stratigrafiche e i rapporti con i risultati delle prove e analisi eseguite sui campioni sono riportate in allegato.

Fig. 5 - Trincee con Pala Meccanica





AREA 1 – Traccia 5



AREA 1 – Traccia 6



AREA 2 – Traccia 1



AREA 2 – Traccia 2



AREA 2 – Traccia 3



AREA 2 – Traccia 4



AREA 2 – Traccia 5



AREA 2 – Traccia 6

Aprile 2018

Dr. Geol. Enrico Faccini



ALLEGATI

- Ubicazione indagini
- Scheda stratigrafica sondaggio a carotaggio continuo
- Foto casse campioni
- Prove penetrometriche con punta elettrica CPTU e S-CPTU
- Prova con cono sismico
- Prove penetrometriche con punta meccanica CPT
- Schede stratigrafiche sondaggi con escavatore
- Rapporto laboratorio prove geotecniche
- Rapporto laboratorio analisi chimiche



CPTm04
CPTm03

1 CPT

SEZ. 2
CPTU sommità

CPTm02

CPTm01

SEZ.1
CPTU centro

3 CPT

SEZ.1
CPTU monte

SEZ.1
CPTU valle



SONDAGGIO 1

CPTm07

3 CPT (con sismico in sommità)

SEZ.4
CPTU sinistra - destra
CPTS sommità

CPTm06

SEZ.3
CPTU sommità

1 CPT

CPTm05

CPTm04

CPTm03

600 m

Google earth

© 2018 Google





3 CPT

SEZ.6
CPTU: destra, sinistra, sommità

CPTm10

CPTm09

1 CPT

SEZ.5
CPTU sommità




CPTm08

CPTm07

SONDAGGIO 1





Impresa esecutrice:   	
Committente: Nome: A.L.Po P. IVA / C.F.: Indirizzo: Ufficio di Piacenza Telefono: Tel. Fax: e-mail:	
Cantiero: PC-E-810	
Prova: Ubicazione: Soarza (PC) Quota assoluta [m]: Data: 28/02/2016 Q. inizio da Q. ass. [m]: Tipo prova: 17101 Preforo [m]: 0,60 Codice Prova: C.Ta falda [m]: -9,20 Note: Sommità argine Dr. Geol. Stefano Verdini Dr. Geol. Enrico Fasani	

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0,61	0,000	0,00	0,00	0,00	0,0000	0,00	2,40	0,042	0,00	0,00	0,00
0,62	0,010	0,00	0,00	0,00	0,0000	0,01	2,40	0,084	1,80	0,01	0,00
0,63	0,010	0,28	0,00	2,80	0,0000	0,01	2,40	0,126	1,80	0,01	0,00
0,64	0,010	0,19	0,00	1,90	0,0000	0,01	2,40	0,168	2,00	0,01	0,00
0,65	0,040	0,88	0,37	2,20	0,9250	0,04	2,40	0,209	2,00	0,04	0,37
0,66	0,040	0,79	0,18	1,98	0,4500	0,04	2,40	0,251	1,80	0,04	0,18
0,67	0,040	0,65	0,00	1,63	0,0000	0,04	2,40	0,293	1,80	0,04	0,00
0,68	0,040	1,16	0,18	2,90	0,4500	0,04	2,30	0,333	2,00	0,04	0,18
0,69	0,040	1,20	0,37	3,00	0,9250	0,04	2,30	0,373	2,00	0,04	0,37
0,7	0,040	1,25	0,55	3,13	1,3750	0,04	2,30	0,414	2,00	0,04	0,55
0,71	0,040	1,25	0,55	3,13	1,3750	0,04	2,30	0,454	2,00	0,04	0,55
0,72	0,060	0,46	0,73	0,77	1,2167	0,06	2,50	0,497	2,00	0,06	0,73
0,73	0,060	0,46	0,73	0,77	1,2167	0,06	2,50	0,541	1,80	0,06	0,73
0,74	0,060	0,32	1,28	0,53	2,1333	0,06	2,50	0,585	1,80	0,06	1,28
0,75	0,070	0,51	1,46	0,73	2,0857	0,07	2,40	0,626	1,80	0,07	1,46
0,76	0,070	0,79	1,10	1,13	1,5714	0,07	2,40	0,668	1,80	0,07	1,10
0,77	0,070	0,65	0,73	0,93	1,0429	0,07	2,40	0,710	2,00	0,07	0,73
0,78	0,080	0,74	0,37	0,93	0,4625	0,08	2,50	0,754	2,00	0,08	0,37
0,79	0,080	0,83	0,55	0,92	0,6111	0,08	2,50	0,797	1,80	0,08	0,55
0,8	0,100	1,44	0,73	1,44	0,7300	0,10	2,50	0,841	1,80	0,10	0,73
0,81	0,100	1,39	0,91	1,39	0,9100	0,10	2,50	0,885	1,80	0,10	0,91
0,82	0,120	2,08	0,73	1,73	0,6083	0,12	2,50	0,928	1,80	0,12	0,73
0,83	0,130	2,13	0,55	1,64	0,4231	0,13	2,50	0,972	1,80	0,13	0,55
0,84	0,140	2,18	0,73	1,56	0,5214	0,14	2,50	1,015	1,80	0,14	0,73
0,85	0,150	2,50	0,91	1,67	0,6087	0,15	2,50	1,059	1,80	0,15	0,91
0,86	0,150	2,69	1,10	1,70	0,7333	0,15	2,50	1,100	2,00	0,15	1,10
0,87	0,160	3,06	1,83	1,91	1,1438	0,16	2,50	1,146	2,00	0,16	1,83
0,88	0,260	3,75	5,48	1,44	2,0777	0,26	1,90	1,500	1,50	0,26	5,48
0,89	0,180	3,29	2,01	1,83	1,1167	0,18	2,50	1,234	2,00	0,18	2,01
0,9	0,200	3,80	3,10	1,90	1,5500	0,20	2,50	1,277	2,00	0,20	3,10
0,91	0,210	5,56	8,77	1,36	2,6100	0,21	1,80	1,323	1,80	0,21	8,77
0,92	0,500	5,56	7,49	1,11	1,4980	0,49	2,60	1,368	1,80	0,50	7,49
0,93	0,510	4,82	3,29	0,95	0,6451	0,51	2,60	1,413	1,80	0,51	3,29
0,94	0,610	5,74	8,95	0,94	1,4672	0,60	2,60	1,459	1,80	0,61	8,95
0,95	0,650	4,35	9,31	0,67	1,4323	0,64	2,70	1,506	2,00	0,65	9,31
0,96	0,580	4,17	9,31	0,67	1,4323	0,64	2,70	1,506	2,00	0,65	9,31
0,97	0,580	5,74	17,90	1,03	3,1964	0,54	2,70	1,600	1,80	0,57	17,90
0,98	0,730	4,63	22,46	0,63	0,3767	0,71	2,70	1,647	1,80	0,74	22,46
0,99	0,840	7,92	18,99	0,94	2,2607	0,82	2,70	1,694	1,80	0,85	18,99
1	0,920	7,32	16,80	0,80	1,8261	0,90	2,70	1,741	1,80	0,93	16,80
1,01	0,760	11,76	25,57	1,55	3,3645	0,76	1,80	1,790	1,80	0,77	25,57
1,02	1,060	10,51	25,02	0,99	2,3604	1,03	2,80	1,839	1,80	1,07	25,02
1,03	1,650	11,81	22,64	0,72	1,3721	1,63	2,80	1,888	1,50	1,66	22,64
1,04	2,880	12,09	15,89	0,42	0,5517	2,86	2,90	1,938	1,50	2,89	15,89
1,05	4,880	7,32	30,50	0,15	0,6250	4,85	2,90	1,989	1,30	4,89	30,50
1,06	6,580	10,70	38,90	0,16	0,5912	6,42	2,90	2,040	1,50	6,60	38,90
1,07	8,720	15,61	31,96	0,16	0,3286	8,69	3,10	2,094	1,50	8,73	31,96

17-101.G_CPTU_Soarza

17-101_CPTU.S1_valle

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
1,08	9,840	23,11	30,31	0,23	0,3080	9,81	3,10	2,148	1,50	9,85	30,31
1,09	10,910	28,06	29,22	0,26	0,2678	10,88	3,10	2,202	1,50	10,92	29,22
1,1	11,310	26,35	27,03	0,23	0,2390	11,28	3,10	2,256	1,50	11,32	27,03
1,11	11,910	29,45	26,48	0,25	0,2223	11,88	3,10	2,310	1,80	11,92	26,48
1,12	11,450	48,07	11,43	0,12	0,1579	11,43	3,10	2,364	1,80	11,46	18,08
1,13	11,270	85,07	20,10	0,75	0,1783	11,25	3,10	2,418	1,80	11,28	20,10
1,14	11,670	78,96	18,09	0,68	0,1550	11,65	3,10	2,472	1,80	11,68	18,09
1,15	12,140	64,93	21,37	0,53	0,1760	12,12	3,10	2,526	1,80	12,15	21,37
1,16	12,210	71,92	10,59	0,59	0,0867	12,20	3,10	2,580	1,80	12,21	10,59
1,17	12,280	62,94	9,68	0,68	0,1225	12,25	3,10	2,634	1,80	12,26	9,68
1,18	11,430	76,87	11,87	0,67	0,1038	11,42	3,10	2,689	2,00	11,43	11,87
1,19	9,900	87,94	12,36	0,89	0,1248	9,89	3,40	2,748	2,00	9,91	12,36
1,2	8,170	109,85	21,55	1,34	0,2638	8,15	3,40	2,807	1,80	8,18	21,55
1,21	7,230	164,88	13,21	2,28	0,1827	7,22	3,40	2,866	1,80	7,24	13,21
1,22	7,130	147,71	13,49	2,19	0,1579	7,11	3,40	2,926	2,00	7,14	15,18
1,23	7,060	127,49	24,84	1,81	0,3518	7,04	3,50	2,987	2,00	7,07	24,84
1,24	6,910	119,71	22,65	1,73	0,3278	6,89	3,50	3,048	2,00	6,92	22,65
1,25	5,260	140,09	6,03	2,66	0,1146	5,25	3,50	3,109	2,00	5,26	6,03
1,26	4,680	153,81	21,00	3,28	0,4487	4,66	3,40	3,168	2,00	4,69	21,00
1,27	3,140	210,98	26,86	6,70	0,8490	3,11	3,40	3,228	2,00	3,15	26,86
1,28	2,990	209,09	25,93	6,99	0,8672	2,96	3,40	3,287	1,80	3,00	25,93
1,29	2,870	211,63	24,47	7,37	0,8526	2,85	3,40	3,346	1,80	2,88	24,47
1,3	2,800	220,94	22,10	7,89	0,7893	2,78	3,50	3,407	2,00	2,81	22,10
1,31	2,560	222,52	17,17	6,69	0,6707	2,54	3,50	3,468	1,80	2,57	17,17
1,32	2,220	222,30	13,88	6,89	0,5568	2,20	3,50	3,529	1,80	2,21	13,88
1,33	2,240	210,66	10,59	9,00	0,4526	2,33	3,50	3,590	2,00	2,34	10,59
1,34	2,280	204,83	15,70	8,98	0,6886	2,26	3,50	3,651	2,00	2,29	15,70
1,35	2,190	201,40	17,53	9,20	0,8005	2,17	3,50	3,712	1,80	2,20	17,53
1,36	2,100	183,11	19,54	9,11	0,9721	1,99	3,50	3,773	1,80	2,02	19,54
1,37	1,910	186,35	18,81	9,76	0,9848	1,89	3,50	3,835	2,00	1,92	18,81
1,38	1,830	186,35	17,53	10,18	0,9579	1,81	3,50	3,896	2,00	1,84	17,53
1,39	1,710	181,58	15,34	10,62	0,8971	1,69	3,50	3,957	2,00	1,72	15,34
1,4	1,620	126,05	13,70	7,78	0,8457	1,61	3,60	4,019	2,00	1,63	13,70
1,41	1,590	124,25	13,88	7,81	0,8370	1,58	3,60	4,082	1,80	1,60	13,88
1,42	1,510	121,98	13,51	8,08	0,8947	1,50	3,60	4,145	1,80	1,52	13,51
1,43	1,430	119,01	12,97	8,32	0,9070	1,42	3,60	4,208	2,00	1,44	12,97
1,44	1,430	119,01	12,97	8,32	0,9070	1,42	3,60	4,271	2,00	1,44	12,97
1,45	1,430	119,01	12,97	8,32	0,9070	1,42	3,60	4,333	2,00	1,44	12,97
1,46	1,430	115,00	15,50	8,04	1,0839	1,41	3,60	4,396	2,30	1,44	15,50
1,47	1,430	110,63	16,07	7,74	1,1238	1,41	3,60	4,459	1,80	1,44	16,07
1,48	1,400	103,08	17,17	7,36	1,2264	1,38	3,60	4,522	1,80	1,41	17,17
1,49	1,290	94,47	18,99	7,32	1,4721	1,27	3,60	4,585	2,00	1,30	18,99
1,5	1,240	90,86	19,91	7,33	1,6056	1,22	3,60	4,647	2,00	1,25	19,91
1,51	1,190	87,34	20,82	7,34	1,7496	1,17	3,60	4,710	1,80	1,20	20,82
1,52	1,150	85,02	20,82	7,39	1,8104	1,13	3,60	4,773	1,80	1,16	20,82
1,53	1,110	82,71	21,00	7,45	1,8919	1,09	3,60	4,836	2,00	1,12	21,00
1,54	1,090	80,86	21,94	7,51	1,9670	1,04	3,60	4,898	2,00	1,09	21,94
1,55	1,000	78,49	22,46	7,85	2,2460	0,98	3,60	4,961	2,00	1,01	22,46
1,56	0,870	71,08	23,19	8,17	2,6655	0,85	3,60	5,024	2,00	0,88	23,19
1,57	0,810	67,10	23,37	8,28	2,8852	0,79	3,60	5,087	2,00	0,82	23,37
1,58	0,760	62,66	23,37	8,24	3,0959	0,72	3,60	5,150	2,00	0,77	23,37
1,59	0,730	59,04	23,37	8,20	3,2014	0,71	3,60	5,212	1,80	0,74	23,37
1,6	0,700	55,29	23,56	7,90	3,3657	0,68	3,60	5,275	1,80	0,71	23,56
1,61	0,650	48,62	23,37	7,48	3,5954	0,63	3,60	5,338	2,00	0,66	23,37
1,62	0,630	44,48	23,19	6,79	3,6810	0,61	3,60	5,401	2,00	0,64	23,19
1,63	0,610	40,93	23,19	6,72	3,7271	0,59	3,70	5,465	2,00	0,62	23,19
1,64	0,590	35,37	23,37	6,13	3,2656	0,57	3,70	5,529	2,00	0,59	23,37
1,65	0,570	32,93	23,56	5,78	4,1333	0,55	3,70	5,594	1,80	0,58	23,56
1,66	0,560	30,24	23,92	5,40	4,2714	0,54	3,70	5,659	2,00	0,57	23,92
1,67	0,570	27,79	24,29	4,88	4,2614	0,55	3,70	5,723	2,00	0,58	24,29
1,68	0,590	25,93	24,65	4,49	4,1780	0,57	3,70	5,788	2,00	0,60	24,65
1,69	0,620	24,27	24,84	4,91	4,1811	0,59	3,70	5,853	1,80	0,63	24,84
1,7	0,650	22,88	25,38	3,52	3,9066	0,62	3,70	5,917	1,80	0,66	25,38
1,71	0,690	21,30	25,20	3,39	3,6522	0,66	3,70	5,982	2,00	0,70	25,20
1,72	0,830	19,40	24,84	2,34	2,9928	0,81	3,70	6,046	2,00	0,84	24,84
1,73	0,830	19,40	24,84	2,34	2,9928	0,81	3,70	6,111	2,00	0,84	24,84
1,74	1,020	18,71	24,77	1,83	2,5260	1,00	3,70	6,175	2,00	1,03	24,77
1,75	1,390	19,03	24,65	1,37	1,7734	1,37	3,70	6,240	2,30	1,40	24,65
1,76	1,960	20,14	25,75	1,03	1,3138	1,93	3,70	6,304	2,30	1,97	25,75

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[kPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/s]	[MPa]	[kPa]
3.15	2,900	142.22	26.84	4.90	0.9255	2.87	2.40	12.643	2.00	2.91	26.84
3.16	2,890	146.48	26.66	5.07	0.9225	2.86	2.40	12.685	2.00	2.90	26.66
3.17	2,820	150.09	26.66	5.32	0.9454	2.79	2.30	12.725	2.00	2.83	26.66
3.18	2,800	152.36	27.03	5.44	0.9654	2.77	2.30	12.765	2.00	2.81	27.03
3.19	2,770	154.36	26.84	5.57	0.9809	2.74	2.30	12.805	2.00	2.78	26.84
3.2	2,780	155.27	27.03	5.59	0.9723	2.75	2.30	12.845	2.00	2.79	27.03
3.21	2,830	151.34	27.76	5.35	0.9809	2.80	2.30	12.885	2.00	2.84	27.76
3.22	2,890	148.19	27.03	5.13	0.9353	2.86	2.30	12.925	2.00	2.90	27.03
3.23	2,940	146.06	27.03	4.97	0.9194	2.91	2.40	12.967	2.00	2.95	27.03
3.24	3,010	142.02	27.03	4.78	0.8890	2.98	2.40	13.009	2.00	3.03	27.03
3.25	3,040	145.41	26.84	4.78	0.8829	3.01	2.40	13.051	2.00	3.05	26.84
3.26	3,070	147.68	25.38	4.81	0.8267	3.04	2.40	13.093	2.00	3.08	25.38
3.27	3,020	148.10	26.66	4.80	0.8828	2.99	2.40	13.135	2.00	3.03	26.66
3.28	2,920	151.85	27.21	5.20	0.9318	2.89	2.40	13.177	2.00	2.93	27.21
3.29	2,920	155.65	27.76	5.31	0.9507	2.89	2.40	13.219	2.00	2.94	27.76
3.3	2,970	152.91	27.94	5.15	0.9407	2.94	2.40	13.260	1.80	2.98	27.94
3.31	3,010	154.67	27.94	5.14	0.9282	2.98	2.40	13.302	2.00	3.02	27.94
3.32	3,000	154.90	27.94	5.16	0.9313	2.97	2.40	13.344	2.00	3.01	27.94
3.33	3,020	155.37	27.94	5.14	0.9252	2.99	2.40	13.386	2.00	3.03	27.94
3.34	3,000	158.97	27.76	5.13	0.9253	2.97	2.40	13.426	2.00	3.01	27.76
3.35	2,940	163.61	28.12	5.56	0.9565	2.91	2.30	13.466	1.80	2.95	28.12
3.36	2,890	168.70	27.94	5.84	0.9668	2.86	2.40	13.508	1.80	2.90	27.94
3.37	2,840	172.64	28.31	6.08	0.9968	2.81	2.30	13.548	2.00	2.85	28.31
3.38	2,780	173.38	26.67	6.24	1.0313	2.75	2.40	13.590	2.00	2.79	26.67
3.39	2,760	173.81	29.77	6.23	1.0377	2.73	2.30	13.630	2.00	2.77	29.77
3.4	2,840	173.81	30.13	6.12	1.0609	2.81	2.40	13.672	1.80	2.85	30.13
3.41	2,880	167.73	29.58	5.82	1.0771	2.85	2.40	13.714	1.80	2.89	29.58
3.42	2,890	164.30	27.21	5.69	0.9415	2.86	2.40	13.756	2.00	2.90	27.21
3.43	2,870	164.07	26.11	5.72	0.9098	2.84	2.40	13.798	2.00	2.88	26.11
3.44	2,870	164.07	26.11	5.72	0.9098	2.84	2.40	13.840	2.50	2.88	26.11
3.45	2,870	164.07	26.11	5.72	0.9098	2.84	2.40	13.882	2.50	2.88	26.11
3.46	3,090	118.78	37.07	3.84	1.1997	3.05	2.30	13.922	2.00	3.11	37.07
3.47	3,090	118.78	37.07	3.84	1.1997	3.05	2.30	13.962	2.00	3.11	37.07
3.48	3,110	113.87	38.17	3.66	1.2273	3.07	2.30	14.002	2.00	3.13	38.17
3.49	3,150	112.81	39.08	3.58	1.2406	3.11	2.30	14.042	2.00	3.17	39.08
3.5	3,240	112.16	39.63	3.46	1.2231	3.20	2.30	14.082	1.80	3.26	39.63
3.51	3,530	111.19	40.36	3.24	1.1767	3.39	2.30	14.122	1.80	3.45	40.36
3.52	3,510	112.72	42.00	3.21	1.1966	3.47	2.30	14.163	2.00	3.53	42.00
3.53	3,590	113.13	43.83	3.15	1.2209	3.55	2.30	14.203	1.80	3.61	43.83
3.54	3,780	111.05	45.11	2.94	1.1934	3.73	2.30	14.243	1.80	3.80	45.11
3.55	4,230	113.23	49.12	2.68	1.1612	4.18	2.30	14.283	2.00	4.25	49.12
3.56	4,450	114.52	49.94	2.57	1.0998	4.40	2.30	14.323	2.00	4.47	49.94
3.57	4,440	115.31	48.94	2.49	1.0547	4.59	2.30	14.363	2.00	4.66	48.94
3.58	4,790	116.65	49.12	2.44	1.0255	4.74	2.30	14.403	2.00	4.81	49.12
3.59	4,970	121.05	49.85	2.44	1.0030	4.92	2.30	14.443	1.80	4.99	49.85
3.6	5,100	126.33	49.85	2.46	0.9775	5.05	2.30	14.484	1.80	5.12	49.85
3.61	5,280	143.79	49.85	2.72	0.8898	5.23	2.20	14.524	1.80	5.29	49.85
3.62	5,380	157.78	46.38	2.93	0.8621	5.33	2.20	14.560	1.80	5.40	46.38
3.63	5,410	164.68	46.57	3.04	0.8608	5.36	2.20	14.599	1.80	5.43	46.57
3.64	5,450	171.07	48.39	3.14	0.8879	5.40	2.20	14.637	1.80	5.47	48.39
3.65	5,460	176.21	48.39	3.23	0.8867	5.41	2.20	14.676	1.80	5.48	48.39
3.66	5,500	176.21	48.39	3.23	0.8867	5.41	2.20	14.714	1.80	5.52	48.39
3.67	5,440	177.09	47.11	3.26	0.8660	5.39	2.20	14.752	1.80	5.46	47.11
3.68	5,410	175.37	47.48	3.24	0.8776	5.36	2.20	14.791	1.80	5.43	47.48
3.69	5,430	174.40	46.93	3.21	0.8643	5.38	2.20	14.829	2.00	5.45	46.93
3.7	5,440	173.61	47.48	3.19	0.8728	5.39	2.20	14.867	2.00	5.46	47.48
3.71	5,420	173.61	47.48	3.19	0.8728	5.39	2.20	14.906	2.00	5.47	47.48
3.72	5,460	173.43	48.76	3.18	0.8930	5.41	2.20	14.944	1.80	5.48	48.76
3.73	5,550	169.91	49.12	3.06	0.8850	5.50	2.20	14.983	2.00	5.57	49.12
3.74	5,690	167.04	48.58	2.94	0.8538	5.64	2.20	15.021	2.00	5.71	48.58
3.75	5,780	163.19	47.66	2.82	0.8246	5.73	2.20	15.059	2.00	5.80	47.66
3.76	5,870	163.19	47.66	2.82	0.8246	5.73	2.20	15.098	2.00	5.82	47.66
3.77	5,860	170.88	48.76	2.92	0.8321	5.81	2.20	15.136	2.00	5.88	48.76
3.78	5,800	171.95	48.03	2.96	0.8281	5.75	2.10	15.173	2.00	5.82	48.03
3.79	5,770	170.30	47.30	2.95	0.8198	5.72	2.10	15.209	2.00	5.79	47.30
3.8	5,800	172.50	48.21	2.97	0.8312	5.75	2.10	15.246	2.00	5.82	48.21
3.81	5,940	173.17	48.21	2.97	0.8312	5.75	2.10	15.283	2.00	5.85	48.21
3.82	5,900	173.00	49.12	2.95	0.8325	5.85	2.10	15.319	1.80	5.92	49.12
3.83	5,970	184.03	47.66	3.08	0.7983	5.92	2.10	15.356	1.80	5.99	47.66

17-101_G_CPTU_Soarza

17-101_CPTU.S1_valle

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[kPa]	[kPa]	[kPa]	[%]	[%]	[kPa]	[°]	[cm]	[cm/s]	[MPa]	[kPa]
3.84	5,950	191.86	47.11	3.22	0.7918	5.90	2.10	15.393	1.80	5.97	47.11
3.85	5,900	190.98	46.93	3.19	0.7835	5.94	2.10	15.429	1.80	6.01	46.93
3.86	5,900	191.58	47.66	3.25	0.8078	5.85	2.10	15.466	1.80	5.92	47.66
3.87	5,690	188.94	48.94	3.32	0.8601	5.64	2.10	15.503	1.80	5.71	48.94
3.88	5,100	198.17	47.85	3.56	0.7382	4.95	2.10	15.539	2.00	5.12	47.85
3.89	4,830	195.98	48.21	4.06	0.9681	4.78	2.10	15.576	2.00	4.85	48.21
3.9	4,600	196.12	49.49	4.26	1.0759	4.55	2.10	15.613	1.80	4.62	49.49
3.91	4,380	195.38	49.49	4.46	1.1299	4.33	2.10	15.649	1.80	4.40	49.49
3.92	4,170	194.54	48.03	4.67	1.1518	4.12	2.10	15.686	2.00	4.19	48.03
3.93	3,980	196.07	47.48	5.05	1.2337	3.85	2.10	15.722	2.00	3.97	47.48
3.94	3,680	194.50	48.03	5.29	1.3052	3.63	2.20	15.761	2.00	3.70	48.03
3.95	3,530	186.90	47.11	5.29	1.3346	3.48	2.10	15.797	2.00	3.55	47.11
3.96	3,400	162.41	46.75	4.78	1.3750	3.35	2.10	15.834	1.80	3.42	46.75
3.97	3,370	155.00	46.75	4.60	1.3872	3.32	2.10	15.871	1.80	3.39	46.75
3.98	3,310	150.97	47.30	4.56	1.4220	3.26	2.10	15.907	2.30	3.33	47.30
3.99	3,240	146.80	47.66	4.53	1.4710	3.19	2.10	15.944	2.30	3.26	47.66
4	3,160	142.03	46.93	4.49	1.4851	3.11	2.10	15.981	2.00	3.18	46.93
4.01	3,090	136.94	46.38	4.43	1.5010	3.04	2.10	16.017	1.80	3.11	46.38
4.02	3,030	131.93	45.84	4.35	1.5129	2.98	2.10	16.054	1.80	3.05	45.84
4.03	2,980	127.15	45.11	4.39	1.5287	2.94	2.10	16.091	1.80	3.01	45.11
4.04	2,960	131.84	45.65	4.42	1.5319	2.93	2.10	16.127	2.00	3.00	45.65
4.05	2,960	132.03	46.02	4.46	1.5547	2.91	2.10	16.164	2.00	2.98	46.02
4.06	2,960	131.04	45.84	4.44	1.5486	2.91	2.10	16.201	2.00	2.98	45.84
4.07	2,960	130.40	45.65	4.39	1.5422	2.91	2.10	16.237	2.00	2.98	45.65
4.08	2,920	136.75	45.84	4.68	1.5699	2.87	2.10	16.274	2.30	2.94	45.84
4.09	2,890	143.51	45.85	4.97	1.5796	2.84	2.10	16.310	2.30	2.91	45.85
4.1	2,860	149.39	45.84	5.22	1.6028	2.81	2.10	16.347	2.00	2.88	45.84
4.11	2,830	158.01	46.02	5.58	1.6261	2.78	2.10	16.384	2.00	2.85	46.02
4.12	2,810	164.21	45.84	5.84	1.6313	2.76	2.10	16.420	2.00	2.83	45.84
4.13	2,790	168.75	46.38	6.05	1.6433	2.73	2.10	16.457	2.30	2.80	46.38
4.14	2,790	172.64	46.93	6.19	1.6821	2.74	2.10	16.494	2.00	2.81	46.93
4.15	2,800	174.40	47.30	6.23	1.6893	2.75	2.10	16.530	2.00	2.82	47.30
4.16	2,800	176.67	47.48	6.31	1.6957	2.75	2.10	16.567	2.30	2.82	47.48
4.17	2,810	177.41	47.85	6.31	1.7028	2.76	2.10	16.604	2.30	2.83	47.85
4.18	2,840	178.34	48.55	6.26	1.7179	2.79	2.10	16.641	2.00	2.84	48.55
4.19	2,890	177.64	47.66	6.15	1.6491	2.84	2.10	16.677	2.00	2.91	47.66
4.2	3,010	177.32	47.48	5.89	1.5774	2.96	2.10	16.714	2.00	3.03	47.48
4.21	3,070	177.46	47.30	5.78	1.5407	3.02	2.10	16.750	2.00	3.09	47.30
4.22	3,170	179.59	47.11	5.67	1.4861	3.12	2.10	16.787	2.00	3.19	47.11
4.23	3,280	181.67	47.11	5.51	1.3853	3.23	2.10	16.824	2.30	3.30	47.11
4.24	3,430	184.60	46.75	5.36	1.3630	3.38	2.10	16.861	2.00	3.43	46.75
4.25	3,590	190.33	46.38	5.30	1.2919	3.54	2.10	16.897	2.00	3.61	46.38
4.26	3,750	194.59	46.75	5.19	1.2467	3.70	2.10	16.933	2.00	3.79	46.75
4.27	3,880	199.73	46.75	5.15	1.2049	3.83	2.10	16.970	2.00	3.90	46.75
4.28	4,130	205.75	46.20	4.98	1.1186	4.08	2.20	17.008	1.80	4.15	46.20
4.29	4,390	213.62	47.30	4.81	1.1443	4.35	2.10	17.045	1.80	4.30	47.30
4.3	4,180	226.56	52.41	5.32	1.2538	4.13	2.20	17.085	2.00	4.20	52.41
4.31	4,610	231.68	43.46	5.03	0.9427	4.57	2.20	17.124	2.00	4.63	43.46
4.32	4,620	235.34	39.81	5.09	0.8617	4.58	2.20	17.162	2.00	4.64	39.81
4.33	4,670	233.77	38.71	5.01	0.8269	4.63	2.20	17.200	2.00	4.69	38.71
4.34	4,800	236.87	39.63	4.93	0.8056	4.78	2.20	17.238	2.00	4.80	39.63
4.35	5,010	242.47	39.81	4.84	0.6999	4.97	2.20	17.277	2.00	5.03	39.81
4.36	5,230	247.43	40.18	4.73	0.7683	5.15	2.20	17.316	2.00	5.25	40.18
4.37	5,380	252.52	39.99	4.69	0.7433	5.34	2.20	17.354	2.00	5.40	39.99
4.38	5,520	252.01	41.45	4.57	0.7509	5.48	2.20	17.392	1.80	5.54	41.45
4.39	5,610	251.60	43.64	4.57	0.7579	5.57	2.20	17.430	1.80	5.63	43.64
4.4	5,770	250.07	44.74	4.53	0.7754	5.73	2.20	17.469	2.00	5.79	44.74
4.41	5,960	247.29	46.57	4.51	0.7814	5.91	2.20	17.508	2.00	5.98	46.57
4.42	6,310	249.19	49.84	3.95	0.7756	6.26	2.20	17.546	2.00	6.33	49.84
4.43	6,650	253.31	48.58	3.81	0.7305	6.60	2.20	17.584	1.80	6.67	48.58
4.44	6,650	253.31	45.58	3.81	0.7305	6.60	2.20	17.623	1.80	6.67	45.58
4.45	6,650	253.31	45.58	3.81	0.7305	6.60	2.20	17.661	2.00	6.67	45.58
4.46	7,810	251.88	28.12	3.23	0.3601	7.78	2.10	17.698	2.30	7.82	28.12
4.47	7,810	251.88	28.12	3.23	0.3601	7.78	2.10	17.734	1.50	7.82	28.12
4.48	8,120	243.98	29.77	3.30	0.3666	8.09	2.10	17.771	1.50	8.13	29.77
4.49	8,810	237.47	31.96	2.92	0.3426	8.81	2.10	17.808	1.50	8.85	31.96
4.5	8,380	222.18	31.41	2.73	0.3748	8.35	2.10	17.844	2.00	8.39	31.41
4.51	8,540	216.31	31.96	2.53	0.3742	8.51	2.20	17.883	1.80	8.55	31.96
4.52	8,560	207.60	33.24	2.43	0.3883	8.53	2.20	17.921	1.80	8.57	33.24

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
5.91	8,420	64.18	61.36	0.76	7.305	8.34	2.30	23.321	2.00	8.43	61.36
5.92	8,200	64.32	61.36	0.78	7.465	8.16	2.30	23.362	2.00	8.25	61.36
5.93	8,040	64.60	61.18	0.80	7.769	7.98	2.30	23.402	2.00	8.07	61.18
5.94	7,890	64.60	61.18	0.82	7.754	7.83	2.20	23.440	2.30	7.92	61.18
5.95	7,760	64.60	61.36	0.84	7.707	7.70	2.20	23.479	1.30	7.77	61.36
5.96	7,650	65.06	61.72	0.85	8.068	7.59	2.20	23.517	2.00	7.68	61.72
5.97	7,550	65.43	61.91	0.87	8.200	7.49	2.20	23.555	2.00	7.58	61.91
5.98	7,490	65.06	62.09	0.87	8.290	7.43	2.20	23.594	2.00	7.52	62.09
5.99	7,450	64.74	62.27	0.87	8.358	7.39	2.20	23.632	2.00	7.48	62.27
6.00	7,420	64.18	62.27	0.81	8.392	7.36	2.20	23.670	2.00	7.45	62.27
6.01	7,380	63.40	62.64	0.86	8.488	7.32	2.30	23.711	2.00	7.41	62.64
6.02	7,260	61.50	62.82	0.85	8.653	7.20	2.30	23.751	2.00	7.29	62.82
6.03	7,170	60.25	62.82	0.84	8.762	7.11	2.30	23.791	2.00	7.20	62.82
6.04	7,100	58.58	63.18	0.83	8.899	7.04	2.30	23.831	2.30	7.13	63.18
6.05	7,040	56.91	63.37	0.81	9.032	6.98	2.30	23.874	2.00	7.07	63.37
6.06	6,970	55.02	63.37	0.79	9.092	6.91	2.30	23.911	2.30	7.00	63.37
6.07	6,930	53.02	63.55	0.77	9.170	6.87	2.30	23.951	2.00	6.96	63.55
6.08	6,910	51.40	63.37	0.74	9.171	6.85	2.30	23.992	2.00	6.94	63.37
6.09	6,900	50.11	63.37	0.73	9.194	6.84	2.20	24.030	2.00	6.93	63.37
6.1	6,870	48.33	63.37	0.71	9.224	6.81	2.20	24.068	2.00	6.90	63.37
6.11	6,840	48.62	63.18	0.71	9.237	6.78	2.20	24.107	2.00	6.87	63.18
6.12	6,820	48.39	63.37	0.71	9.292	6.76	2.20	24.145	2.00	6.85	63.37
6.13	6,780	47.93	63.55	0.71	9.373	6.72	2.30	24.185	2.30	6.81	63.55
6.14	6,730	47.51	63.55	0.71	9.443	6.67	2.30	24.225	2.30	6.76	63.55
6.15	6,690	47.51	63.73	0.71	9.526	6.63	2.30	24.265	2.00	6.72	63.73
6.16	6,590	46.97	64.10	0.74	9.727	6.53	2.30	24.306	2.00	6.62	64.10
6.17	6,570	49.46	64.28	0.75	9.784	6.51	2.30	24.348	2.30	6.60	64.28
6.18	6,570	49.46	64.28	0.75	9.784	6.51	2.30	24.386	2.30	6.60	64.28
6.19	6,570	50.38	64.28	0.77	9.784	6.51	2.20	24.424	2.00	6.60	64.28
6.2	6,590	50.80	64.65	0.77	9.810	6.53	2.20	24.463	2.00	6.62	64.65
6.21	6,610	51.36	64.46	0.78	9.792	6.55	2.20	24.501	2.00	6.64	64.46
6.22	6,640	52.05	64.65	0.78	9.736	6.58	2.30	24.541	2.00	6.67	64.65
6.23	6,640	52.65	64.65	0.79	9.736	6.58	2.30	24.581	1.80	6.67	64.65
6.24	6,660	52.89	64.65	0.79	9.707	6.60	2.30	24.621	1.80	6.69	64.65
6.25	6,670	53.26	64.65	0.80	9.693	6.61	2.30	24.662	2.00	6.70	64.65
6.26	6,660	53.53	64.46	0.80	9.679	6.60	2.20	24.700	2.00	6.69	64.46
6.27	6,680	53.44	64.65	0.80	9.707	6.60	2.20	24.738	2.30	6.69	64.65
6.28	6,630	53.12	64.65	0.80	9.751	6.57	2.20	24.777	2.30	6.66	64.65
6.29	6,610	53.16	64.83	0.80	9.808	6.55	2.30	24.817	1.80	6.64	64.83
6.3	6,610	53.16	65.19	0.80	9.862	6.54	2.30	24.857	1.80	6.64	65.19
6.31	6,623	53.12	65.19	0.80	9.847	6.55	2.20	24.895	2.30	6.65	65.19
6.32	6,670	53.44	65.38	0.80	9.802	6.60	2.20	24.934	2.30	6.70	65.38
6.33	6,720	53.67	65.38	0.80	9.729	6.65	2.20	24.972	2.00	6.75	65.38
6.34	6,800	54.04	65.38	0.79	9.615	6.73	2.20	25.011	2.00	6.83	65.38
6.35	6,910	54.00	65.74	0.78	9.514	6.84	2.30	25.051	2.00	6.94	65.74
6.36	7,020	54.18	65.74	0.77	9.025	6.95	2.30	25.091	2.00	7.05	65.74
6.37	7,160	54.32	65.74	0.76	8.912	7.05	2.30	25.131	2.00	7.16	65.74
6.38	7,260	54.55	65.92	0.75	9.080	7.19	2.30	25.171	2.00	7.29	65.92
6.39	7,340	54.55	66.29	0.73	8.922	7.36	2.30	25.211	2.00	7.46	66.29
6.4	7,470	54.64	66.29	0.73	8.874	7.40	2.30	25.251	2.00	7.50	66.29
6.41	7,460	54.64	66.29	0.73	8.886	7.39	2.30	25.291	1.90	7.49	66.29
6.42	7,400	54.56	66.47	0.74	8.892	7.33	2.30	25.332	1.80	7.41	66.47
6.43	7,330	54.60	66.47	0.74	9.068	7.26	2.30	25.372	2.00	7.36	66.47
6.44	7,330	54.60	66.47	0.74	9.068	7.26	2.30	25.412	2.80	7.36	66.47
6.45	7,330	54.60	66.47	0.74	9.068	7.26	2.30	25.452	1.80	7.36	66.47
6.46	7,010	47.42	62.64	0.88	9.836	6.95	2.10	25.499	1.80	7.04	62.64
6.47	7,010	47.42	62.64	0.88	9.836	6.95	2.10	25.526	1.80	7.04	62.64
6.48	7,170	48.12	62.45	0.87	8.710	7.11	2.10	25.562	2.30	7.20	62.45
6.49	7,170	48.12	62.45	0.87	8.710	7.11	2.10	25.599	1.80	7.20	62.45
6.5	7,230	49.50	62.27	0.88	8.613	7.17	2.20	25.637	1.80	7.26	62.27
6.51	7,270	50.15	62.09	0.89	8.541	7.21	2.20	25.675	2.30	7.30	62.09
6.52	7,330	50.48	62.09	0.89	8.474	7.27	2.20	25.714	2.30	7.32	62.09
6.53	7,400	50.34	61.72	0.88	8.341	7.34	2.20	25.752	2.00	7.43	61.72
6.54	7,450	50.01	61.72	0.87	8.285	7.39	2.20	25.790	2.00	7.48	61.72
6.55	7,500	49.50	61.54	0.86	8.205	7.44	2.20	25.829	2.00	7.53	61.54
6.56	7,570	48.67	61.54	0.84	8.028	7.51	2.20	25.867	2.00	7.60	61.54
6.57	7,623	47.19	61.54	0.86	8.016	7.56	2.10	25.904	2.00	7.63	61.54
6.58	7,640	46.08	61.36	0.80	8.031	7.58	2.10	25.941	2.30	7.67	61.36
6.59	7,650	45.24	61.54	0.59	8.044	7.59	2.10	25.977	2.30	7.68	61.54

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17-101_CPTU.S1_valle

Depth	Qc	Fs	U2	Rt	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[kPa]	[kPa]
6.6	7.680	44.36	61.54	0.58	8.013	7.62	2.10	26.014	2.00	7.71	61.54
6.61	7.680	42.84	61.36	0.56	7.990	7.62	2.10	26.050	2.00	7.71	61.36
6.62	7.680	42.37	61.18	0.55	7.966	7.62	2.10	26.087	2.00	7.71	61.18
6.63	7.710	42.00	61.18	0.54	7.935	7.65	2.10	26.124	2.30	7.74	61.18
6.64	7.760	41.63	60.99	0.54	7.921	7.64	2.10	26.160	2.30	7.73	60.99
6.65	7.700	41.31	60.81	0.54	7.897	7.64	2.10	26.197	2.00	7.73	60.81
6.66	7.690	41.63	60.63	0.54	7.884	7.63	2.10	26.234	2.00	7.72	60.63
6.67	7.720	42.05	60.63	0.54	7.854	7.66	2.10	26.270	2.00	7.75	60.63
6.68	7.770	42.60	60.81	0.55	7.786	7.71	2.10	26.307	2.00	7.80	60.81
6.69	7.850	43.30	61.18	0.55	7.774	7.76	2.10	26.344	2.30	7.88	61.18
6.7	8.080	44.09	61.91	0.55	7.662	8.02	2.10	26.380	2.30	8.11	61.91
6.71	8.080	44.09	61.91	0.55	7.662	8.02	2.10	26.417	2.30	8.11	61.91
6.72	8.190	44.83	61.91	0.55	7.759	8.13	2.10	26.454	2.00	8.22	61.91
6.73	8.450	44.50	61.54	0.53	7.283	8.39	2.10	26.490	2.00	8.48	61.54
6.74	8.450	44.50	61.54	0.53	7.283	8.39	2.10	26.527	2.30	8.48	61.54
6.75	8.790	44.64	61.18	0.51	6.960	8.73	2.10	26.564	2.30	8.82	61.18
6.76	9.000	45.75	61.36	0.51	6.818	8.94	2.10	26.600	2.00	9.03	61.36
6.77	9.240	46.17	61.54	0.50	6.680	9.18	2.10	26.637	2.00	9.27	61.54
6.78	9.550	46.03	61.91	0.48	6.643	9.49	2.10	26.673	2.30	9.58	61.91
6.79	9.920	46.26	62.27	0.47	6.273	9.86	2.10	26.710	2.30	9.95	62.27
6.8	10.290	46.12	62.82	0.45	6.105	10.23	2.10	26.747	2.00	10.32	62.82
6.81	10.620	46.36	63.00	0.44	5.932	10.56	2.10	26.783	2.00	10.65	63.00
6.82	10.880	46.59	62.64	0.43	5.757	10.82	2.10	26.820	2.00	10.91	62.64
6.83	10.940	46.36	61.72	0.42	5.562	10.88	2.10	26.857	2.00	10.97	61.72
6.84	10.950	46.82	60.81	0.43	5.505	10.79	2.10	26.893	2.00	10.88	60.81
6.85	10.630	46.81	60.63	0.44	5.510	10.57	2.10	26.930	2.00	10.66	60.63
6.86	10.410	47.79	60.63	0.46	5.824	10.35	2.10	26.967	2.30	10.44	60.63
6.87	10.160	49.00	60.99	0.48	6.003	10.10	2.10	27.003	2.30	10.19	60.99
6.88	9.910	50.29	61.36	0.51	6.192	9.85	2.10	27.040	2.00	9.94	61.36
6.89	9.630	50.85	61.54	0.53	6.390	9.57	2.10	27.077	2.00	9.68	61.54
6.9	9.390	51.68	61.54	0.55	6.654	9.33	2.10	27.113	2.00	9.42	61.54
6.91	9.030	52.42	61.72	0.58	6.835	9.27	2.10	27.150	2.00	9.06	61.72
6.92	9.030	52.42	61.72	0.58	6.835	8.97	2.10	27.186	2.00	9.06	61.72
6.93	8.830	52.84	61.72	0.60	6.690	8.77	2.10	27.223	2.30	8.88	61.72
6.94	8.790	53.02	61.91	0.60	6.670	8.74	2.10	27.260	2.30	8.82	61.91
6.95	8.680	53.49	62.27	0.62	6.714	8.62	2.10	27.296	2.00	8.71	62.27
6.96	8.580	53.49	62.27	0.62	6.728	8.52	2.10	27.333	2.00	8.61	62.27
6.97	8.490	53.26	62.45	0.63	6.756	8.43	2.10	27.370	2.00	8.52	62.45
6.98	8.380	53.30	62.45	0.64	6.742	8.32	2.10	27.406	2.00	8.41	62.45
6.99	8.250	53.45	62.45	0.65	6.750	8.19	2.10	27.443	2.00	8.28	62.45
7	8.130	53.90	62.09	0.66	6.707	8.09	2.10	27.480	2.00	8.16	62.09
7.01	7.960	54.09	62.09	0.68	6.780	7.90	2.10	27.516	2.30	7.99	62.09
7.02	7.820	54.37	61.72	0.70	7.093	7.76	2.10	27.553	2.30	7.75	61.72
7.03	7.700	54.92	61.91	0.71	8.040	7.64	2.10	27.590	2.00	7.73	61.91
7.04	7.570	55.66	62.09	0.74	8.825	7.51	2.10	27.626	2.00	7.60	62.09
7.05	7.430	56.68	62.45	0.76	9.231	7.37	2.10	27.663	2.00	7.46	62.45
7.06	7.310	57.24	62.45	0.78	9.543	7.25	2.10	27.699	2.00	7.34	62.45
7.07	7.100	57.05	62.64	0.80	9.823	7.04	2.10	27.736	2.00	7.13	62.64
7.08	7.020	57.47	62.64	0.82	9.823	6.96	2.10	27.773	2.00	7.05	62.64
7.09	6.960	57.65	62.82	0.83	9.800	6.90	2.10	27.809	2.30	6.99	62.82
7.1	6.910	57.79	62.82	0.84	9.909	6.82	2.10	27.846	2.00	6.92	62.82
7.11	6.870	57.61	62.84	0.84	9.944	6.81	2.10	27.883	2.00	6.90	62.84
7.12	6.820	57.01	62.82	0.84	9.921	6.76	2.10	27.919	2.00	6.85	62.82
7.13	6.770	56.59	62.82	0.84	9.929	6.71	2.10	27.956	2.00	6.80	62.82
7.14	6.700	56.40	62.82	0.84	9.9376	6.64	2.10	27.993	2.00	6.73	62.82
7.15	6.650	56.76	62.82	0.84	9.9376	6.58	2.10	28.030	2.00	6.68	62.82
7.16	6.580	54.92	63.00	0.83	9.574	6.52	2.10	28.066	2.00	6.61	63.00
7.17	6.530	54.23	63.18	0.83	9.9675	6.47	2.10	28.103	2.00	6.56	63.18
7.18	6.490	53.39	63.00	0.82	9.9707	6.43	2.10	28.139	2.00	6.52	63.00
7.19	6.440	52.89	63.18	0.82	9.9765	6.41	2.10	28.176	2.00	6.50	63.18
7.2	6.450	51.63	63.00	0.80	9.860	6.38	2.10	28.212	2.00	6.48	63.00
7.21	6.440	51.22	63.73	0.80	9.8966	6.38	2.10	28.249	2.00	6.47	63.73
7.22	6.440	51.03	63.92	0.79	9.9255	6.38	2.10	28.286	2.00	6.47	63.92
7.23	6.440	50.80	64.10	0.79	9.9593	6.38	2.10	28.322	2.00	6.47	64.10
7.24	6.430	50.48	64.10	0.79	9.9669	6.37	2.00	28.357	2.00	6.46	64.10
7.25	6.440	50.15	63.92	0.78	9.9927	6.38	2.10	28.394	2.00	6.47	63.92
7.26	6.450	49.78	63.73	0.77	9.9910	6.39	2.00	28.427	2.00	6.48	63.92
7.27	6.490	49.64	63.73	0.76	9.9820	6.43	2.00	28.462	2.00	6.52	63.73
7.28	6.540	49.60	63.55	0.76	9.9717	6.48	2.10	28.499	2.00	6.57	63.55

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.67	14,990	85.39	71.40	0.57	0.4763	14.92	2.00	33.303	2.00	15.02	71.40
8.68	15,220	83.54	71.59	0.55	0.4704	15.15	2.00	33.337	2.00	15.25	71.59
8.69	15,420	82.48	71.77	0.53	0.4654	15.35	2.00	33.372	2.30	15.45	71.77
8.7	15,640	80.81	71.95	0.51	0.4542	15.77	1.90	33.406	2.30	15.87	71.95
8.71	15,010	79.79	71.95	0.50	0.4494	15.94	2.00	33.440	1.90	15.94	71.95
8.72	16,100	79.61	71.95	0.49	0.4469	16.03	2.00	33.475	2.00	16.13	71.95
8.73	16,160	79.05	71.95	0.49	0.4452	16.09	1.90	33.508	2.00	16.19	71.95
8.74	16,160	79.10	71.40	0.49	0.4448	16.09	1.90	33.542	2.00	16.19	71.40
8.75	16,160	78.77	71.77	0.49	0.4447	16.07	1.90	33.575	2.30	16.17	71.77
8.76	16,070	79.20	71.77	0.46	0.4466	16.07	1.90	33.608	2.30	16.17	71.77
8.77	15,840	81.27	72.32	0.51	0.4566	15.77	2.00	33.643	2.00	15.87	72.32
8.78	15,300	82.15	72.32	0.53	0.4657	15.46	2.00	33.678	2.00	15.56	72.32
8.79	15,180	83.54	71.95	0.55	0.4740	15.11	2.00	33.713	2.00	15.21	71.95
8.8	14,900	85.35	71.59	0.57	0.4805	14.83	2.00	33.748	2.30	14.93	71.59
8.81	14,550	86.92	71.40	0.60	0.4904	14.48	1.90	33.781	2.30	14.58	71.40
8.82	14,180	89.19	71.04	0.63	0.5010	14.11	1.90	33.814	2.30	14.21	71.04
8.83	13,880	90.67	71.22	0.65	0.5131	13.81	2.00	33.849	2.30	13.91	71.22
8.84	13,750	92.06	71.22	0.67	0.5180	13.68	2.00	33.884	2.00	13.78	71.22
8.85	13,730	92.94	71.95	0.68	0.5240	13.66	2.00	33.919	2.00	13.76	71.95
8.86	13,800	92.66	72.50	0.70	0.5285	13.73	2.00	33.953	2.30	13.83	72.50
8.87	13,750	94.47	71.95	0.69	0.5233	13.68	1.90	33.987	2.30	13.78	71.95
8.88	13,840	95.58	71.77	0.69	0.5186	13.77	1.90	34.020	2.30	13.87	71.77
8.89	13,900	95.81	71.95	0.69	0.5176	13.83	1.90	34.053	2.30	13.93	71.95
8.9	13,950	96.18	72.13	0.69	0.5171	13.88	1.90	34.086	2.00	13.98	72.13
8.91	13,980	96.55	72.00	0.69	0.5165	13.91	2.00	34.121	2.00	14.01	72.00
8.92	14,000	96.46	72.68	0.69	0.5191	13.93	2.00	34.156	2.00	14.03	72.68
8.93	14,010	96.37	72.68	0.69	0.5188	13.94	2.00	34.191	2.00	14.04	72.68
8.94	13,960	97.11	72.68	0.70	0.5206	13.89	2.00	34.226	2.00	13.99	72.68
8.95	13,870	97.02	72.50	0.70	0.5227	13.80	2.00	34.261	2.00	13.90	72.50
8.96	13,820	97.06	72.68	0.70	0.5259	13.70	2.00	34.295	2.00	13.85	72.68
8.97	13,670	97.20	72.50	0.71	0.5304	13.60	2.00	34.330	2.00	13.70	72.50
8.98	13,560	96.93	72.68	0.71	0.5360	13.49	2.00	34.365	2.00	13.59	72.68
8.99	13,380	98.22	72.68	0.73	0.5432	13.31	2.00	34.400	2.00	13.41	72.68
9	13,260	98.04	72.86	0.74	0.5495	13.19	2.00	34.435	2.00	13.29	72.86
9.01	13,100	98.18	73.41	0.75	0.5604	13.03	2.00	34.470	2.00	13.13	73.41
9.02	12,950	97.20	73.96	0.75	0.5711	12.88	1.90	34.503	2.00	12.98	73.96
9.03	12,800	96.97	73.96	0.76	0.5778	12.73	1.90	34.536	2.00	12.83	73.96
9.04	12,700	96.37	73.59	0.76	0.5794	12.63	1.90	34.569	2.00	12.73	73.59
9.05	12,610	95.81	73.59	0.76	0.5836	12.54	1.90	34.603	2.00	12.64	73.59
9.06	12,480	94.29	73.41	0.76	0.5882	12.41	2.00	34.637	2.00	12.51	73.41
9.07	12,470	93.22	73.23	0.75	0.5872	12.40	2.00	34.672	2.00	12.50	73.23
9.08	12,480	92.43	72.86	0.74	0.5858	12.41	2.00	34.707	2.00	12.51	72.86
9.09	12,440	91.46	72.32	0.74	0.5814	12.37	2.00	34.742	2.00	12.47	72.32
9.1	12,410	90.21	71.95	0.73	0.5798	12.34	2.00	34.777	2.00	12.44	71.95
9.11	12,360	89.98	71.95	0.73	0.5821	12.29	2.00	34.812	2.00	12.39	71.95
9.12	12,380	89.52	71.95	0.72	0.5812	12.31	2.00	34.847	2.00	12.41	71.95
9.13	12,370	89.38	72.13	0.72	0.5821	12.30	2.00	34.882	2.00	12.42	72.13
9.14	12,370	89.24	72.13	0.72	0.5831	12.30	2.00	34.917	2.00	12.40	72.13
9.15	12,360	89.65	71.95	0.73	0.5821	12.29	2.00	34.952	2.00	12.39	71.95
9.16	12,550	90.07	72.13	0.72	0.5747	12.48	2.00	34.986	2.00	12.58	72.13
9.17	12,760	89.47	72.50	0.70	0.5682	12.69	2.00	35.021	2.00	12.79	72.50
9.18	13,020	89.15	72.68	0.68	0.5596	12.95	2.00	35.056	1.80	12.87	72.68
9.19	13,280	89.28	73.23	0.67	0.5514	13.21	2.00	35.091	1.80	13.31	73.23
9.2	13,450	88.77	73.23	0.66	0.5445	13.38	2.00	35.126	2.00	13.48	73.23
9.21	13,570	88.08	72.86	0.65	0.5369	13.50	2.00	35.161	2.00	13.60	-17.49
9.22	13,620	87.62	72.68	0.64	0.5336	13.55	2.00	35.196	2.00	13.65	-17.77
9.23	13,980	88.17	73.96	0.65	0.4677	15.51	2.10	35.231	1.80	15.61	-26.71
9.24	14,240	88.17	73.96	0.62	0.5194	14.17	2.00	35.266	2.00	14.27	-16.88
9.25	14,520	88.68	74.32	0.61	0.5118	14.45	2.00	35.301	2.00	14.55	-16.42
9.26	14,770	89.10	74.87	0.60	0.5069	14.70	2.00	35.335	1.80	14.80	-15.97
9.27	15,080	89.98	75.24	0.60	0.4989	15.00	2.00	35.370	1.80	15.11	-15.70
9.28	15,410	91.58	75.24	0.59	0.4883	15.33	2.00	35.405	1.80	15.41	-16.66
9.29	16,000	91.09	74.87	0.57	0.4679	15.93	2.00	35.440	2.00	16.03	-16.26
9.3	16,250	91.78	74.69	0.56	0.4596	16.18	2.00	35.475	2.00	16.28	-16.54
9.31	16,440	92.16	74.69	0.56	0.4543	16.37	2.00	35.510	1.80	16.47	-16.64
9.32	16,530	92.94	74.69	0.56	0.4518	16.46	2.00	35.545	1.80	16.56	-16.74
9.33	16,600	93.15	74.69	0.56	0.4509	16.53	2.00	35.580	2.00	16.60	-16.84
9.34	16,610	93.91	74.69	0.57	0.4497	16.54	2.00	35.615	2.00	16.64	-16.94
9.35	16,540	96.55	75.05	0.58	0.4537	16.46	2.00	35.650	1.80	16.57	-16.67

17-101_G_CPTU_Soarza

17-101_CPTU.S1_valle

Pag.13

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
9.36	16,450	97.67	75.05	0.59	0.4562	16.37	2.00	35.684	1.80	16.48	-16.77
9.37	16,350	98.55	75.05	0.60	0.4590	16.27	2.00	35.719	1.80	16.38	-16.87
9.38	16,230	99.43	74.87	0.61	0.4613	16.16	2.00	35.754	1.80	16.28	-17.15
9.39	16,010	101.14	75.05	0.63	0.4688	15.93	2.00	35.789	1.80	16.04	-17.07
9.4	15,880	102.53	75.05	0.64	0.4726	15.80	2.00	35.824	1.80	15.91	-17.16
9.41	15,780	102.71	75.05	0.65	0.4756	15.70	2.00	35.859	1.80	15.81	-17.26
9.42	15,690	102.76	75.05	0.65	0.4783	15.61	2.00	35.894	2.00	15.72	-17.36
9.43	15,690	102.76	75.05	0.65	0.4783	15.61	2.00	35.929	2.80	15.72	-17.46
9.44	15,690	102.76	75.05	0.65	0.4783	15.61	2.00	35.964	2.80	15.72	-17.56
9.45	15,310	101.79	74.87	0.64	0.4766	15.44	2.00	35.999	1.80	15.44	-21.11
9.46	15,100	102.48	72.68	0.62	0.4842	14.94	2.00	36.033	1.80	15.04	-20.12
9.47	15,350	94.15	72.68	0.61	0.4735	15.28	2.00	36.068	1.80	15.38	-20.22
9.48	15,320	95.17	72.68	0.62	0.4744	15.25	2.00	36.103	1.80	15.35	-20.32
9.49	15,290	95.86	72.13	0.63	0.4717	15.22	2.00	36.138	1.80	15.32	-20.97
9.5	15,020	95.67	71.22	0.64	0.4742	14.65	2.00	36.173	1.80	15.05	-21.98
9.51	14,840	95.44	71.04	0.64	0.4787	14.77	2.00	36.208	1.80	14.87	-22.25
9.52	14,620	94.98	70.85	0.65	0.4846	14.55	2.10	36.245	1.80	14.65	-22.54
9.53	14,400	94.61	70.85	0.66	0.4907	14.37	2.10	36.281	1.80	14.47	-22.64
9.54	14,270	94.86	70.85	0.66	0.4965	14.20	2.00	36.316	2.00	14.30	-22.74
9.55	14,100	94.47	70.87	0.67	0.5012	14.03	2.00	36.353	2.00	14.13	-23.02
9.56	13,850	97.34	69.94	0.70	0.5050	13.78	2.00	36.388	1.80	13.88	-23.84
9.57	13,820	98.45	69.76	0.71	0.5048	13.75	2.10	36.424	1.80	13.85	-24.12
9.58	13,810	98.78	69.76	0.72	0.5051	13.74	2.00	36.459	2.00	13.84	-24.22
9.59	13,820	99.24	69.21	0.72	0.5008	13.75	2.10	36.496	2.00	13.85	-24.87
9.6	13,930	99.43	68.85	0.72	0.4971	13.78	2.00	36.533	2.00	13.88	-25.33
9.61	13,970	100.03	68.12	0.72	0.4987	13.81	2.00	36.568	1.80	13.97	-25.15
9.62	13,940	100.63	67.93	0.72	0.4983	13.90	2.00	36.601	1.80	14.00	-26.44
9.63	14,090	100.17	67.93	0.71	0.4821	14.02	2.00	36.635	2.00	14.12	-26.54
9.64	14,260	99.18	72.12	0.70	0.4777	14.20	2.00	36.670	2.00	14.29	-26.45
9.65	14,610	98.45	68.85	0.67	0.4713	14.54	2.00	36.705	2.00	14.64	-27.22
9.66	14,780	98.88	71.04	0.68	0.4750	14.78	2.00	36.740	2.00	14.80	-27.60
9.67	15,980	96.42	72.13	0.60	0.4514	15.91	2.00	36.775	2.00	15.01	-22.73
9.68	16,250	96.33	72.30	0.59	0.4450	16.18	2.10	36.812	2.00	16.28	-22.22
9.69	16,430	95.86	72.50	0.58	0.4413	16.36	2.10	36.848	2.00	16.46	-22.56
9.7	16,520	95.58	72.50	0.58	0.4389	16.45	2.10	36.885	2.00	16.55	-22.66
9.71	16,520	95.58	72.50	0.58	0.4389	16.45	2.10	36.920	2.00	16.55	-22.76
9.72	16,580	96.93	72.32	0.58	0.4362	16.51	2.10	36.957	2.00	16.61	-23.03
9.73	16,590	97.16	71.95	0.59	0.4337	16.52	2.10	36.993	2.00	16.62	-23.50
9.74	16,580	97.10	71.59	0.59	0.4318	16.51	2.10	37.030	2.00	16.61	-23.55
9.75	16,480	96.83	71.21	0.59	0.4322	16.41	2.10	37.066	2.00	16.51	-24.04
9.76	16,470	96.79	71.22	0.59	0.4322	16.42	2.10	37.102	2.00	16.50	-24.09
9.77	16,050	97.20	70.85	0.61	0.4434	15.98	2.10	37.138	2.00	16.08	-24.93
9.78	15,900	98.18	70.49	0.62	0.4433	15.83	2.00	37.173	2.00	15.93	-25.45
9.79	15,780	99.89	70.12	0.63	0.4444	15.71	2.00	37.208	2.00	15.81	-25.92
9.8	15,770	101.09	69.76	0.64	0.4424	15.70	2.00	37.244	2.00	15.80	-26.38
9.81	15,790	101.19	69.94	0.64	0.4424	15.71	2.00	37.280	2.00	15.81	-26.33
9.82	15,800	101.09	69.94	0.64	0.4402	15.82	2.10	37.318	2.00	15.92	-26.35
9.83	15,900	100.95	69.94	0.63	0.4399	15.83	2.10	37.354	2.00	15.93	-26.45
9.84	15,830	99.29	69.39	0.63	0.4383	15.76	2.10	37.391	2.00	15.86	-27.17
9.85	15,780	98.13	69.21	0.62	0.4386	15.71	2.10	37.428	2.00	15.81	-27.42
9.86	15,780	98.13	69.21	0.62	0.4386	15.71	2.10	37.464	2.00	15.81	-27.42
9.87	15,750	97.34	69.76	0.62	0.4429	15.68	2.10	37.501	2.00	15.78	-27.06
9.88	15,840	97.43	70.31	0.62	0.4439	15.77	2.10	37.538	2.30	15.87	-26.61
9.89	15,950	97.30	70.61	0.61	0.4431	15.88	2.10	37.574	2.00	15.98	-26.35
9.9	16,000	97.48	71.04	0.61	0.4440	15.93	2.10	37.611	2.00	16.03	-26.08
9.91	16,000	97.48	71.04	0.61	0.4440	15.93	2.10	37.647	2.00	16.03	-26.08
9.92	15,930	97.67	71.04	0.61	0.4482	15.86	2.10	37.684	2.00	15.96	-25.92
9.93	15,870	98.45	71.22	0.62	0.4488	15.80	2.10	37.721	2.00	15.90	-26.16
9.94	15,770	99.52	70.85	0.63	0.4493	15.70	2.10	37.757	2.00	15.80	-26.65
9.95	15,840	100.03	70.85	0.63	0.4473	15.77	2.10	37.794	2.00	15.87	-26.65
9.96	15,840	100.03	70.85	0.63	0.4473	15.77	2.10	37.830	2.00	15.87	-26.65
9.97	15,920	97.00	70.85	0.63	0.4450	15.85	2.10	37.867	2.00	15.95	-26.96
9.98	16,000	98.38	71.22	0.62	0.4451	15.93	2.10	37.904	2.00	16.03	-26.68
9.99	16,040	99.31	71.59	0.61	0.4463	15.97	2.10	37.941	2.00	16.07	-26.41
10	15,940	97.16	71.40	0.61	0.4479	15.87	2.10	37.977	2.00	15.97	-26.70
10.01	15,950	97.10	71.22	0.61	0.4478	15.78	2.10	38.014	2.00	15.98	-26.78
10.02	15,890	96.12	71.22	0.61	0.4539	15.62	2.10	38.051	2.00	15.72	-27.08
10.03	15,490	94.47	71.04	0.61	0.4586	15.42	2.10	38.087	2.00	15.52	-27.35
10.04	15,320	92.80	71.40	0.61	0.4537	15.25	2.10	38.124	1.80	15.35	-27.45

Depth [m]	Qc [kPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
11.43	19,620	66.41	69.39	0.34	0.3537	19.55	2.20	43.381	2.80	19.65	-42.74
11.44	18,240	59.37	67.57	0.33	0.3704	18.17	2.20	43.420	2.80	18.27	-44.66
11.45	18,240	59.37	67.57	0.33	0.3704	18.17	2.20	43.458	2.80	18.27	-44.75
11.46	18,240	59.23	66.94	0.32	0.3629	18.35	2.20	43.497	2.80	18.45	-45.58
11.47	18,320	70.16	66.29	0.33	0.3618	18.25	2.20	43.535	2.80	18.35	-46.29
11.48	18,240	66.78	65.19	0.37	0.3574	18.17	2.20	43.573	2.80	18.27	-47.43
11.49	18,220	67.84	65.01	0.37	0.3568	18.15	2.20	43.612	2.80	18.25	-47.71
11.5	18,170	70.02	64.46	0.39	0.3548	18.11	2.20	43.650	2.80	18.20	-48.36
11.51	18,060	71.83	63.92	0.40	0.3539	18.00	2.20	43.688	2.80	18.09	-48.99
11.52	17,950	73.38	63.92	0.41	0.3561	17.89	2.20	43.727	2.80	17.89	-49.62
11.53	17,880	74.42	63.73	0.42	0.3564	17.82	2.20	43.765	2.80	17.91	-49.38
11.54	17,820	74.93	63.73	0.42	0.3576	17.76	2.20	43.804	2.80	17.85	-49.48
11.55	17,820	75.48	63.73	0.42	0.3576	17.76	2.20	43.842	2.80	17.85	-49.58
11.56	17,790	75.76	64.28	0.43	0.3613	17.73	2.20	43.880	2.80	17.82	-49.12
11.57	17,820	74.79	64.46	0.42	0.3610	17.76	2.20	43.919	2.80	17.85	-49.04
11.58	17,880	72.89	64.65	0.41	0.3616	17.82	2.20	43.957	2.80	17.91	-48.95
11.59	18,050	72.71	64.65	0.40	0.3582	17.99	2.20	43.996	2.80	18.08	-49.05
11.6	18,900	71.64	64.65	0.40	0.3574	18.03	2.20	44.034	2.80	18.12	-49.15
11.61	17,930	70.34	64.1	0.39	0.3575	17.87	2.20	44.072	1.80	17.96	-49.79
11.62	17,720	69.63	63.92	0.36	0.3607	17.66	2.20	44.111	2.80	17.45	-50.07
11.63	17,550	70.58	63.73	0.40	0.3631	17.49	2.20	44.149	2.80	17.58	-50.36
11.64	17,380	71.13	63.73	0.41	0.3667	17.32	2.20	44.187	2.80	17.41	-50.46
11.65	17,240	72.01	63.18	0.42	0.3665	17.18	2.20	44.226	2.80	17.27	-51.11
11.66	17,130	71.27	62.64	0.42	0.3657	17.07	2.20	44.264	2.80	17.16	-51.74
11.67	16,980	71.68	62.27	0.41	0.3667	16.92	2.20	44.303	2.80	17.05	-52.37
11.68	16,710	70.53	63.18	0.42	0.3781	16.65	2.20	44.343	2.80	16.74	-51.40
11.69	16,010	71.64	64.83	0.45	0.4049	15.95	2.30	44.383	2.80	16.04	-49.85
11.7	15,580	72.38	64.83	0.46	0.4161	15.52	2.30	44.423	2.30	15.61	-49.95
11.71	15,580	72.38	64.83	0.46	0.4161	15.52	2.30	44.463	2.30	15.61	-50.05
11.72	15,070	73.63	65.92	0.49	0.4374	15.00	2.20	44.502	2.30	15.10	-49.05
11.73	14,890	73.35	66.11	0.49	0.4440	14.82	2.20	44.540	2.20	14.92	-48.96
11.74	14,760	74.28	65.92	0.50	0.4466	14.69	2.20	44.578	2.20	14.79	-49.25
11.75	14,630	74.19	65.92	0.51	0.4506	14.56	2.20	44.617	2.20	14.66	-49.35
11.76	14,570	73.21	65.38	0.50	0.4487	14.50	2.20	44.655	2.20	14.60	-49.99
11.77	14,490	73.17	65.56	0.50	0.4524	14.42	2.20	44.694	2.30	14.52	-49.90
11.78	14,390	73.93	65.38	0.51	0.4543	14.32	2.20	44.732	2.30	14.42	-50.18
11.79	14,300	73.12	65.38	0.51	0.4572	14.23	2.20	44.770	2.20	14.33	-50.28
11.8	14,170	72.89	65.38	0.51	0.4614	14.10	2.20	44.809	2.20	14.20	-50.38
11.81	14,020	72.01	65.19	0.51	0.4650	13.95	2.20	44.847	2.20	14.05	-50.67
11.82	13,940	71.27	65.19	0.51	0.4676	13.87	2.20	44.885	2.20	13.97	-50.76
11.83	13,840	71.22	65.19	0.51	0.4710	13.77	2.20	44.924	2.20	13.87	-50.86
11.84	13,790	70.44	64.83	0.51	0.4701	13.73	2.20	44.962	2.20	13.82	-51.32
11.85	13,710	67.19	64.83	0.49	0.4729	13.65	2.20	45.001	2.20	13.74	-51.42
11.86	13,550	67.98	64.83	0.50	0.4785	13.49	2.20	45.039	2.20	13.58	-51.52
11.87	13,510	67.75	65.01	0.50	0.4812	13.44	2.20	45.077	2.20	13.54	-51.43
11.88	13,470	67.57	65.01	0.50	0.4840	13.40	2.20	45.116	2.20	13.54	-51.43
11.89	13,430	68.03	65.38	0.51	0.4868	13.36	2.20	45.154	2.20	13.46	-51.26
11.9	13,390	68.49	65.56	0.51	0.4896	13.32	2.20	45.193	2.20	13.42	-51.18
11.91	13,310	68.72	65.74	0.52	0.4939	13.24	2.20	45.231	2.20	13.34	-51.10
11.92	13,160	68.86	65.74	0.52	0.4985	13.09	2.20	45.269	2.20	13.19	-51.20
11.93	12,940	69.83	65.74	0.54	0.5088	12.87	2.20	45.308	2.20	13.27	-51.29
11.94	12,300	70.71	65.56	0.56	0.5330	12.23	2.20	45.346	1.80	13.03	-51.57
11.95	11,880	71.04	65.38	0.60	0.5503	11.81	2.20	45.384	2.00	11.91	-51.85
11.96	11,470	72.01	65.56	0.63	0.5716	11.40	2.20	45.423	2.00	11.50	-51.77
11.97	11,090	72.75	65.38	0.66	0.5895	11.02	2.20	45.461	2.00	11.12	-52.05
11.98	10,750	72.98	65.01	0.68	0.6047	10.68	2.20	45.500	2.00	10.78	-52.51
11.99	10,500	73.59	65.01	0.70	0.6191	10.43	2.20	45.538	2.00	10.78	-52.67
12	10,270	73.96	65.01	0.72	0.6330	10.20	2.20	45.576	2.00	10.30	-52.71
12.01	10,080	73.96	65.01	0.73	0.6449	10.01	2.20	45.615	2.00	10.11	-52.81
12.02	9,950	74.00	64.83	0.74	0.6516	9.89	2.20	45.653	2.00	9.98	-53.09
12.03	9,840	73.63	64.83	0.75	0.6588	9.78	2.20	45.692	2.00	9.87	-53.18
12.04	9,770	73.63	64.83	0.76	0.6636	9.71	2.20	45.730	2.00	9.87	-53.18
12.05	9,640	70.39	64.28	0.73	0.6668	9.58	2.20	45.768	2.00	9.67	-53.93
12.06	9,550	68.54	64.1	0.72	0.6712	9.49	2.20	45.807	2.00	9.58	-54.21
12.07	9,480	66.55	63.92	0.70	0.6743	9.42	2.20	45.845	2.00	9.51	-54.49
12.08	9,390	64.09	63.73	0.68	0.6787	9.33	2.20	45.884	2.00	9.42	-54.77
12.09	9,340	62.15	63.92	0.62	0.6828	9.28	2.20	45.922	2.00	9.36	-54.76
12.1	9,300	60.25	63.92	0.65	0.6873	9.24	2.20	45.960	2.30	9.33	-54.78
12.11	9,200	58.30	64.1	0.63	0.6967	9.14	2.20	45.999	2.00	9.23	-54.70

17-101_G_CPTU_Soarza

17-101_CPTU.S1_valle

Pag.17

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
12.12	9,080	56.40	64.1	0.62	0.7059	9.02	2.20	46.037	2.00	9.11	-54.80
12.13	8,960	55.02	64.46	0.61	0.7194	8.90	2.20	46.075	2.00	8.99	-54.54
12.14	8,860	53.90	64.46	0.61	0.7275	8.80	2.20	46.114	2.00	8.89	-54.63
12.15	8,780	53.21	64.65	0.61	0.7380	8.70	2.20	46.152	2.00	8.79	-54.54
12.16	8,670	70.98	64.65	0.61	0.7457	8.61	2.20	46.191	2.00	8.70	-54.64
12.17	8,610	52.51	64.46	0.61	0.7487	8.55	2.20	46.229	2.30	8.64	-54.93
12.18	8,570	52.33	64.46	0.61	0.7522	8.51	2.20	46.267	2.30	8.60	-55.03
12.19	8,540	52.01	64.46	0.61	0.7548	8.48	2.20	46.306	2.00	8.57	-55.12
12.2	8,540	52.14	64.28	0.61	0.7527	8.48	2.20	46.344	2.00	8.57	-55.40
12.21	8,500	52.00	64.28	0.61	0.7518	8.45	2.20	46.383	2.00	8.58	-55.50
12.22	8,570	51.87	64.1	0.61	0.7480	8.51	2.20	46.421	2.00	8.60	-55.78
12.23	8,580	51.59	63.92	0.60	0.7450	8.52	2.20	46.459	2.30	8.61	-56.06
12.24	8,610	51.50	63.92	0.60	0.7424	8.55	2.20	46.498	2.30	8.64	-56.15
12.25	8,610	50.99	63.92	0.59	0.7424	8.55	2.20	46.536	2.00	8.64	-56.25
12.26	8,660	50.73	63.92	0.59	0.7507	8.57	2.20	46.575	2.00	8.66	-56.35
12.27	8,660	50.57	63.73	0.58	0.7359	8.60	2.20	46.613	2.00	8.69	-56.64
12.28	8,690	50.29	63.73	0.58	0.7334	8.63	2.20	46.651	2.00	8.72	-56.74
12.29	8,760	49.55	63.73	0.57	0.7275	8.70	2.20	46.690	2.00	8.79	-56.83
12.3	8,830	48.67	63.73	0.55	0.7217	8.77	2.20	46.730	2.00	8.86	-56.93
12.31	8,880	48.39	63.55	0.54	0.7157	8.82	2.20	46.770	2.00	8.91	-57.21
12.32	8,910	48.25	63.55	0.54	0.7132	8.85	2.20	46.810	2.00	8.94	-57.31
12.33	8,920	47.84	63.37	0.54	0.7104	8.86	2.20	46.850	1.80	8.95	-57.59
12.34	8,930	47.65	63.37	0.53	0.7096	8.87	2.20	46.889	1.80	8.96	-57.69
12.35	8,880	47.33	63.37	0.53	0.7136	8.82	2.20	46.929	2.00	8.91	-57.78
12.36	8,810	47.19	63.37	0.54	0.7193	8.75	2.20	46.969	2.00	8.84	-57.88
12.37	8,740	47.14	63.18	0.54	0.7229	8.67	2.20	47.007	2.00	8.77	-58.17
12.38	8,710	47.28	63.18	0.54	0.7254	8.65	2.20	47.047	2.00	8.74	-58.27
12.39	8,820	47.45	63.18	0.54	0.7163	8.76	2.20	47.088	2.00	8.85	-58.33
12.4	8,980	47.74	63.18	0.53	0.7036	8.92	2.20	47.128	2.00	8.91	-58.46
12.41	9,280	47.93	63.37	0.52	0.6829	9.22	2.20	47.166	1.80	9.31	-58.33
12.42	9,660	49.88	63.37	0.50	0.5960	9.60	2.20	47.201	1.80	9.60	-58.00
12.43	9,660	49.78	63.37	0.50	0.6560	9.60	2.20	47.243	3.30	9.69	-58.55
12.44	9,660	49.78	63.37	0.50	0.6560	9.60	2.20	47.281	3.30	9.69	-58.65
12.45	10,480	40.01	59.72	0.38	0.5698	10.40	2.20	47.320	2.00	10.51	-62.41
12.46	11,180	40.71	59.9	0.36	0.5358	11.12	2.20	47.358	2.00	11.21	-62.33
12.47	11,000	40.32	60.08	0.36	0.5483	10.99	2.20	47.396	2.00	11.03	-62.44
12.48	11,250	43.02	60.08	0.35	0.4865	12.29	2.20	47.435	2.00	12.38	-63.36
12.49	12,890	44.32	59.9	0.34	0.4647	12.83	2.20	47.473	2.00	12.92	-62.73
12.5	13,420	45.48	59.9	0.34	0.4463	13.60	2.20	47.512	2.00	13.45	-62.72
12.51	13,900	46.82	59.9	0.34	0.4294	13.90	2.20	47.550	1.80	13.98	-62.86
12.52	15,390	50.57	60.26	0.32	0.3893	15.23	2.20	47.588	1.80	15.42	-62.72
12.53	14,910	52.38	61.18	0.35	0.4103	14.85	2.20	47.627	2.00	14.94	-61.74
12.54	15,060	55.62	62.09	0.37	0.4123	15.00	2.20	47.665	1.80	15.09	-60.90
12.55	15,300	58.49	62.64	0.38	0.4094	15.24	2.20	47.703	1.80	15.33	-60.40
12.56	15,970	63.07	61.91	0.39	0.3877	15.91	2.30	47.744	1.80	16.00	-61.30
12.57	16,380	65.81	61.72	0.40	0.3766	16.33	2.30	47.784	1.80	16.42	-61.39
12.58	16,980	67.32	61.91	0.39	0.3678	16.76	2.30	47.822	1.80	17.00	-61.50
12.59	17,160	69.42	61.54	0.40	0.3586	17.10	2.30	47.864	1.80	17.19	-61.91
12.6	17,610	74.97	62.09	0.43	0.3526	17.55	2.30	47.904	1.80	17.64	-61.52
12.61	17,650	77.52	62.64	0.46	0.3538	17.59	2.30	47.944	1.80	17.68	-61.11
12.62	17,510	78.36	62.64	0.45	0.3577	17.49	2.30	47.984	1.80	17.61	-61.20
12.63	18,000	78.00	63.18	0.46	0.3722	17.82	2.30	48.025	1.80	17.73	-61.33
12.64	17,010	78.68	62.64	0.46	0.3683	16.95	2.30	48.065	1.80	17.04	-61.31
12.65	17,030	78.63	62.82	0.46	0.3689	16.97	2.30	48.105	1.80	17.06	-61.26
12.66	17,020	78.03	62.64	0.46	0.3669	16.99	2.30	48.145	1.80	17.05	-61.19
12.67	17,100	77.98	62.64	0.46	0.3663	17.04	2.30	48.185	1.80	17.13	-61.65
12.68	17,440	78.57	62.82	0.46	0.3522	17.42	2.30	48.223	1.80	17.47	-61.21
12.69	17,700	76.18	61.91	0.43	0.3498	17.64	2.30	48.265	1.80	17.73	-62.20
12.7	17,910	75.16	61.72	0.42	0.3446	17.85	2.30	48.305	1.80	17.94	-62.87
12.71	18,190	74.42	61.91	0.41	0.3404	18.13	2.30	48.346	2.00	18.22	-62.72
12.72	18,390	71.36	61.91	0.39	0.3367	18.33	2.30	48.386	2.00	18.42	-62.87
12.73	18,980	70.20	61.91	0.38	0.3242	18.82	2.30	48.426	2.00	18.91	-62.81
12.74	18,700	69.88	61.36	0.37	0.3281	18.64	2.30	48.466	2.00	18.73	-63.63
12.75	18,740	70.16	61.54	0.37	0.3284	18.68	2.30	48.506	2.00	18.77	-63.35
12.76	18,660	70.67	61.91	0.38	0.3318	18.60	2.30	48.546	2.00	18.69	-63.23
12.77	18,360	75.73	62.82	0.41	0.3422	18.30	2.30	48.586	2.00	18.39	-62.44
12.78	18,660	75.69	63.18	0.42	0.3402	18.30	2.30	48.626	2.00	18.49	-62.50
12.79	17,690	78.40	63	0.44	0.3561	17.63	2.30	48.667	2.00	17.72	-62.27
12.8	17,170	80.90	63.37	0.47	0.3691	17.11	2.30	48.707	2.00	17.20	-62.20

Depth [m]	Qc [kPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.19	14,200	77.24	65.19	0.54	0.4591	14.13	2.40	54,322	1.80	14.23	-74.01
14.2	13,950	78.31	65.01	0.56	0.4680	13.88	2.40	54,364	2.00	13.98	-74.29
14.21	13,640	79.14	64.83	0.58	0.4753	13.58	2.40	54,405	2.00	13.67	-74.57
14.22	13,350	79.79	64.65	0.60	0.4843	13.29	2.40	54,447	2.00	13.38	-74.85
14.23	13,080	80.65	64.56	0.61	0.4943	13.02	2.40	54,489	2.00	13.11	-74.95
14.24	12,860	80.21	65.01	0.62	0.5055	12.79	2.40	54,531	2.00	12.89	-74.68
14.25	12,700	80.53	65.56	0.63	0.5162	12.63	2.40	54,573	2.00	12.73	-74.23
14.26	12,660	80.53	65.56	0.64	0.5179	12.59	2.40	54,615	2.00	12.69	-74.31
14.27	12,680	80.07	65.38	0.63	0.5152	12.62	2.40	54,657	2.00	12.72	-74.63
14.28	12,610	79.19	65.19	0.63	0.5170	12.54	2.40	54,699	2.00	12.74	-74.70
14.29	12,420	78.91	65.19	0.64	0.5249	12.35	2.40	54,740	2.00	12.45	-74.99
14.3	12,170	78.12	65.19	0.64	0.5357	12.10	2.40	54,782	2.30	12.20	-75.09
14.31	11,980	77.85	65.38	0.65	0.5467	11.89	2.40	54,824	2.30	11.99	-75.00
14.32	11,760	76.64	65.38	0.65	0.5580	11.71	2.40	54,866	2.00	11.81	-75.10
14.33	11,700	75.90	65.56	0.66	0.5603	11.51	2.40	54,908	2.00	11.70	-75.02
14.34	11,670	75.16	65.74	0.64	0.5633	11.60	2.40	54,950	2.30	11.70	-74.94
14.35	11,710	73.86	66.11	0.63	0.5646	11.64	2.40	54,992	2.30	11.74	-74.66
14.36	11,810	72.15	66.11	0.61	0.5698	11.74	2.40	55,034	2.30	11.84	-74.76
14.37	11,850	71.18	65.92	0.60	0.5663	11.78	2.40	55,075	2.00	11.88	-75.05
14.38	11,910	69.88	66.11	0.58	0.5551	11.84	2.40	55,117	2.00	11.94	-74.98
14.39	11,970	68.07	66.11	0.57	0.5523	11.90	2.40	55,159	2.30	12.00	-75.06
14.4	12,060	66.92	66.47	0.55	0.5512	11.99	2.40	55,201	2.30	12.09	-74.79
14.41	12,180	66.64	66.47	0.55	0.5457	12.11	2.40	55,243	2.30	12.21	-74.89
14.42	12,180	66.64	66.47	0.55	0.5457	12.11	2.40	55,285	2.30	12.21	-74.99
14.43	12,180	66.64	66.47	0.55	0.5457	12.11	2.40	55,327	2.30	12.21	-75.09
14.44	11,840	63.95	63.92	0.46	0.5399	11.78	2.40	55,369	1.30	11.87	-77.74
14.45	11,840	63.95	63.92	0.46	0.5399	11.78	2.40	55,410	1.30	11.87	-77.83
14.46	11,880	64.46	63.55	0.46	0.5349	11.82	2.40	55,452	2.30	11.91	-78.30
14.47	11,780	64.69	63.37	0.46	0.5379	11.72	2.40	55,494	2.30	11.81	-78.58
14.48	11,660	65.39	63.37	0.48	0.5435	11.60	2.40	55,536	2.30	11.69	-78.68
14.49	11,570	65.80	63.55	0.46	0.5463	11.51	2.40	55,578	2.30	11.60	-78.60
14.5	11,530	66.64	64.1	0.49	0.5559	11.47	2.40	55,620	2.30	11.56	-78.15
14.51	11,560	67.65	64.28	0.50	0.5581	11.50	2.40	55,662	2.30	11.59	-78.06
14.52	11,710	68.07	64.46	0.50	0.5565	11.65	2.40	55,704	2.30	11.74	-77.98
14.53	11,980	68.77	64.46	0.49	0.5381	11.92	2.40	55,745	2.50	12.01	-78.08
14.54	12,370	68.86	64.83	0.48	0.5241	12.31	2.40	55,787	2.50	12.40	-77.81
14.55	12,560	59.09	65.01	0.46	0.5059	12.78	2.40	55,829	2.30	12.88	-77.73
14.56	13,350	59.23	63.37	0.44	0.4747	13.29	2.40	55,871	2.30	13.38	-79.46
14.57	13,250	58.67	62.64	0.43	0.4566	13.06	2.40	55,913	2.30	13.75	-80.29
14.58	14,020	59.04	61.91	0.42	0.4416	13.96	2.40	55,955	2.00	14.05	-81.12
14.59	14,180	61.04	61.18	0.43	0.4315	14.12	2.40	55,997	2.30	14.21	-81.95
14.6	14,070	68.59	59.53	0.43	0.4143	14.31	2.40	56,039	2.30	14.40	-83.70
14.61	14,580	62.84	59.17	0.43	0.4058	14.52	2.50	56,082	2.30	14.60	-84.15
14.62	14,610	63.07	60.08	0.43	0.4112	14.55	2.50	56,126	2.30	14.64	-83.34
14.63	14,610	63.07	60.08	0.43	0.4112	14.55	2.50	56,169	2.30	14.64	-83.44
14.64	14,320	62.61	61.18	0.44	0.4277	14.26	2.40	56,211	2.30	14.26	-81.12
14.65	14,320	62.61	61.18	0.44	0.4277	14.26	2.40	56,253	2.30	14.30	-82.54
14.66	13,850	63.03	61.91	0.46	0.4470	13.79	2.40	56,295	2.30	13.88	-81.90
14.67	13,850	63.03	61.91	0.46	0.4470	13.79	2.40	56,337	2.30	13.88	-82.00
14.68	13,600	63.86	61.72	0.47	0.4538	13.54	2.50	56,381	2.30	13.63	-82.29
14.69	13,600	63.86	61.72	0.47	0.4538	13.54	2.50	56,424	2.30	13.63	-82.39
14.7	13,600	63.86	61.72	0.47	0.4538	13.54	2.50	56,466	2.30	13.63	-82.67
14.71	13,650	64.46	61.54	0.47	0.4508	13.59	2.50	56,511	2.30	13.68	-82.77
14.72	13,740	64.55	61.54	0.47	0.4479	13.68	2.40	56,553	2.30	13.77	-82.86
14.73	13,850	64.60	61.54	0.47	0.4443	13.79	2.40	56,595	2.30	13.88	-82.96
14.74	13,970	65.20	61.54	0.47	0.4405	13.91	2.40	56,637	2.30	14.00	-83.06
14.75	14,030	65.93	61.72	0.47	0.4399	13.97	2.40	56,679	2.30	14.06	-82.98
14.76	14,070	65.71	61.54	0.47	0.4374	14.01	2.50	56,723	2.30	14.10	-83.26
14.77	14,130	65.94	61.36	0.47	0.4343	14.07	2.50	56,766	2.30	14.16	-83.53
14.78	14,200	66.41	61.18	0.47	0.4308	14.14	2.50	56,810	2.30	14.23	-83.81
14.79	14,300	66.27	61.36	0.46	0.4291	14.24	2.50	56,853	2.50	14.33	-83.73
14.8	14,400	66.27	61.36	0.46	0.4291	14.24	2.50	56,895	2.50	14.37	-83.86
14.81	14,480	66.18	61.18	0.46	0.4225	14.42	2.50	56,941	2.00	14.51	-84.11
14.82	14,600	66.31	61.36	0.45	0.4203	14.54	2.50	56,984	2.00	14.63	-84.02
14.83	14,730	66.64	61.54	0.45	0.4178	14.67	2.50	57,028	2.30	14.76	-83.94
14.84	14,790	68.80	61.72	0.46	0.4173	14.73	2.40	57,070	2.30	14.82	-83.86
14.85	14,710	69.36	61.72	0.47	0.4154	14.65	2.40	57,112	2.30	14.86	-84.00
14.86	14,600	69.60	62.27	0.48	0.4265	14.54	2.40	57,154	2.30	14.63	-83.51
14.87	14,440	70.62	62.45	0.49	0.4325	14.38	2.40	57,195	2.30	14.47	-83.42

17-101_G_CPTU_Soarza

17-101_CPTU.S1_valle

Pag.21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.88	14,420	71.69	62.64	0.50	0.4344	14.36	2.40	57,237	2.30	14.45	-83.33
14.89	14,430	72.24	62.64	0.50	0.4341	14.37	2.40	57,279	2.30	14.46	-83.43
14.9	14,460	73.49	62.64	0.51	0.4332	14.40	2.40	57,321	2.30	14.49	-83.53
14.91	14,500	73.82	62.65	0.51	0.4337	14.44	2.40	57,363	2.30	14.53	-83.62
14.92	14,440	73.77	62.45	0.51	0.4325	14.38	2.50	57,407	2.30	14.47	-83.92
14.93	14,360	73.68	62.45	0.51	0.4349	14.30	2.50	57,450	2.30	14.39	-84.01
14.94	14,180	73.77	62.64	0.52	0.4417	14.12	2.50	57,494	2.30	14.21	-83.92
14.95	14,180	73.77	62.64	0.52	0.4417	14.12	2.50	57,537	2.30	14.21	-84.02
14.96	13,800	74.19	63.73	0.55	0.4686	13.54	2.50	57,581	2.30	13.63	-83.03
14.97	13,600	74.19	63.73	0.55	0.4686	13.54	2.50	57,625	2.50	13.63	-83.13
14.98	13,100	74.23	63.92	0.57	0.4879	13.04	2.50	57,668	2.50	13.13	-83.03
14.99	12,660	73.49	64.65	0.58	0.5107	12.60	2.50	57,712	2.30	12.69	-82.40
15	12,250	73.40	65.01	0.60	0.5307	12.18	2.50	57,755	2.30	12.28	-82.14
15.01	12,040	73.21	65.38	0.61	0.5430	11.97	2.40	57,797	2.30	12.07	-81.87
15.02	11,950	72.80	65.19	0.61	0.5455	11.88	2.40	57,839	2.30	11.98	-82.16
15.03	12,020	72.20	64.65	0.60	0.5379	11.96	2.50	57,883	2.30	12.05	-82.79
15.04	12,120	72.15	64.46	0.60	0.5318	12.06	2.50	57,926	2.30	12.15	-83.08
15.05	12,290	71.87	63.73	0.58	0.5198	12.23	2.50	57,970	2.30	12.32	-83.91
15.06	12,420	72.20	63.37	0.58	0.5102	12.36	2.50	58,014	2.00	12.45	-84.37
15.07	12,640	71.73	63.37	0.57	0.4984	12.58	2.50	58,057	2.00	12.61	-84.84
15.08	12,650	70.90	63.37	0.56	0.4980	12.59	2.50	58,101	2.00	12.68	-84.93
15.09	12,610	70.25	63.18	0.56	0.5010	12.55	2.50	58,145	1.80	12.64	-84.85
15.1	12,500	69.28	63.55	0.55	0.5084	12.44	2.50	58,188	1.80	12.53	-84.58
15.11	12,390	68.82	64.1	0.56	0.5174	12.33	2.50	58,232	1.80	12.42	-84.13
15.12	12,300	69.32	65.01	0.57	0.5329	12.13	2.50	58,275	1.80	12.23	-83.32
15.13	12,300	69.32	65.01	0.57	0.5329	12.13	2.50	58,319	1.80	12.16	-83.42
15.14	12,140	70.85	66.11	0.58	0.5446	12.07	2.50	58,363	1.80	12.17	-82.41
15.15	12,220	71.83	66.29	0.59	0.5425	12.15	2.50	58,406	1.80	12.25	-82.33
15.16	12,470	72.94	65.92	0.58	0.5286	12.40	2.50	58,450	1.80	12.50	-82.80
15.17	12,590	73.59	65.74	0.58	0.5222	12.52	2.50	58,494	1.80	12.62	-83.08
15.18	12,840	74.68	65.92	0.56	0.5089	12.72	2.50	58,537	1.80	12.83	-83.57
15.19	12,980	75.30	65.19	0.59	0.5022	12.91	2.50	58,581	1.50	13.01	-83.82
15.2	13,130	75.30	65.19	0.57	0.4965	13.06	2.50	58,624	1.50	13.18	-83.92
15.21	13,510	75.39	65.19	0.56	0.4825	13.44	2.50	58,668	1.50	13.54	-84.02
15.22	13,870	74.17	66.65	0.53	0.4840	13.70	2.50	58,715	1.50	13.80	-82.65
15.23	13,770	73.28	65.56	0.54	0.4723	13.81	2.50	58,758	1.50	13.81	-83.66
15.24	13,630	72.94	65.90	0.56	0.4763	14.01	2.50	58,802	1.80	13.64	-84.01
15.25	14,190	70.85	65.19	0.50	0.4594	14.12	2.50	58,842	1.80	14.22	-84.41
15.26	14,290	69.70	64.83	0.49	0.4537	14.23	2.50	58,886	2.00	14.32	-84.87
15.27	14,440	68.31	65.01	0.47	0.4502	14.37	2.50	58,930	2.00	14.47	-84.79
15.28	14,540	68.61	65.56	0.45	0.4509	14.47	2.50	58,973	1.80	14.57	-84.34
15.29	14,620	69.20	65.56	0.44	0.4477	14.55	2.50	59,017	1.80	14.67	-84.80
15.3	14,640	66.41	65.19	0.45	0.4453	14.57	2.50	59,061	1.80	14.67	-84.90
15.31	14,620	66.27	65.01	0.45	0.4447	14.55	2.50	59,104	1.80	14.65	-85.18
15.32	14,360	66.64	64.28	0.46	0.4394	14.57	2.50	59,148	2.00	14.66	-86.01
15.33	14,690	67.19	64.48	0.46	0.4376	14.63	2.50	59,191	1.80	14.72	-86.11
15.34	14,710	67.19	64.48	0.46	0.4376	14.63	2.50	59,235	1.80	14.76	-86.21
15.35	14,490	70.02	65.19	0.47	0.4408	14.72	2.50	59,279	1.80	14.82	-85.39
15.36	14,830	71.92	66.11	0.48	0.4458	14.76	2.50	59,322	1.80	14.86	-85.47
15.37	14,800	74.14	67.02	0.50	0.4528	14.73	2.50	59,366	1.80	14.83	-83.76
15.38	14,760	77.10	67.2	0.52	0.4553	14.69	2.50	59,410	1.80	14.79	-83.68
15.39	14,670	76.97	67.2	0.54	0.4601	14.59	2.50	59,453	1.80	14.70	-83.76
15.4	14,570	81.78	67.2	0.56	0.4612	14.50	2.50	59,497	1.80	14.60	-83.87
15.41	14,570	81.78	67.2	0.56	0.4612	14.50	2.50	59,540	3.80	14.60	-83.97
15.42	14,570	81.78	67.2	0.56	0.4612	14.50	2.50	59,584	3.50	14.60	-84.07
15.43	13,860	83.87	62.09	0.61	0.4480	13.80	2.50	59,628	3.50	13.89	-89.28
15.44	13,860	83.87	62.09	0.61	0.4480	13.80	2.50	59,672	3.00	13.85	-87.13
15.45	14,030	80.30	65.56	0.57	0.4673	13.96	2.50	59,715	2.00	14.06	-86.06
15.46	14,100	83.87	64.83	0.60	0.4627	13.95	2.50	59,758	2.00	14.04	-86.83
15.47	13,940	86.51	64.46	0.62	0.4624	13.88	2.50	59,802	2.00	13.97	-87.07
15.48	13,880	89.15	64.65	0.64	0.4658	13.82	2.50	59,846	2.30	13.91	-87.21
15.49	13,820	91.65	64.65	0.66	0.4691	13.76	2.50	59,890	1.80	13.85	-87.13
15.5	13,760	92.71	65.74	0.67	0.474	13.60	2.50	59,933	2.00	13.78	-86.73
15.51	13,690	93.59	65.92	0.68	0.4815	13.62	2.50	59,977	2.00	13.72	-86.25
15.52	13,570	94.38	66.47	0.70	0.4898	13.50	2.50	60,020	2.00	13.60	-85.78
15.53	13,440	95.07	66.65	0.71	0.4999	13.37	2.50	60,064	2.50	13.47	-85.75
15.54	13,290	96.26	66.65	0.72	0.5015	13.22	2.50	60,107	2.50	13.32	-85.80
15.55	13,210	96.51	66.65	0.72	0.5035	13.15	2.50	60,151	2.30	13.15	-86.30
15.56	13,120	94.70	66.29	0.72	0.5053	13.05	2.50	60,195	2.30	13.15	-86.36

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
16.95	21,300	134.57	68.12	0.63	0.3198	21,231	2.60	66,315	2.00	21,33	-98.16
16.96	21,080	132.81	68.66	0.63	0.3257	21,011	2.60	66,361	2.00	21,11	-97.72
16.97	20,890	131.70	68.85	0.63	0.3296	20,822	2.60	66,406	2.30	20,92	-97.63
16.98	20,330	130.96	68.66	0.64	0.3377	20,266	2.60	66,451	2.30	20,36	-97.91
16.99	20,330	130.96	68.66	0.64	0.3377	20,266	2.60	66,451	2.00	20,36	-98.01
17	19,490	131.98	68.85	0.68	0.3533	19,422	2.50	66,540	2.00	19,52	-97.92
17.01	19,030	132.35	68.48	0.70	0.3599	18,962	2.50	66,584	2.00	19,06	-98.39
17.02	18,510	133.32	68.66	0.72	0.3709	18,444	2.50	66,628	2.00	18,54	-98.31
17.03	18,000	133.74	68.66	0.74	0.3814	17,933	2.60	66,673	2.30	18,03	-98.40
17.04	17,500	134.00	69.03	0.77	0.3965	17,443	2.60	66,719	2.30	17,53	-98.37
17.05	17,060	134.20	69.58	0.79	0.4079	16,999	2.60	66,764	2.00	17,09	-97.88
17.06	16,630	134.44	69.76	0.81	0.4195	16,566	2.60	66,809	2.00	16,66	-97.60
17.07	16,150	134.90	69.39	0.84	0.4429	16,088	2.50	66,853	2.00	16,18	-98.07
17.08	15,720	134.90	69.76	0.86	0.4438	15,655	2.50	66,896	2.30	15,75	-97.79
17.09	15,400	135.55	70.12	0.87	0.4553	15,333	2.50	66,940	2.00	15,43	-97.53
17.1	15,190	131.61	71.04	0.87	0.4677	15,122	2.50	66,984	2.30	15,22	-96.71
17.11	15,150	128.83	71.22	0.85	0.4701	15,068	2.60	67,029	2.30	15,18	-96.63
17.12	15,210	126.33	71.77	0.83	0.4719	15,144	2.60	67,074	2.00	15,24	-96.18
17.13	15,320	123.78	72.13	0.81	0.4708	15,255	2.60	67,120	2.00	15,35	-95.92
17.14	15,390	120.87	72.32	0.79	0.4736	15,322	2.60	67,165	2.00	15,42	-96.22
17.15	15,390	117.72	72.5	0.76	0.4711	15,322	2.60	67,210	2.00	15,42	-95.74
17.16	15,300	114.01	72.5	0.75	0.4739	15,233	2.60	67,256	2.30	15,33	-95.84
17.17	15,100	110.73	72.32	0.73	0.4789	15,033	2.60	67,301	2.30	15,13	-96.12
17.18	14,850	107.11	72.32	0.72	0.4870	14,768	2.60	67,346	2.30	14,88	-96.22
17.19	14,520	106.78	72.5	0.71	0.4953	14,445	2.60	67,392	2.00	14,55	-96.13
17.2	14,170	100.58	72.86	0.71	0.5142	14,102	2.60	67,437	1.80	14,20	-95.98
17.21	13,210	95.54	72.32	0.72	0.5475	13,144	2.60	67,483	1.80	13,24	-96.51
17.22	12,580	94.33	71.95	0.75	0.5719	12,511	2.60	67,528	2.30	12,61	-96.98
17.23	11,920	93.73	71.4	0.79	0.5990	11,855	2.60	67,573	2.30	11,95	-97.63
17.24	11,260	92.85	71.4	0.82	0.6341	11,199	2.60	67,619	2.00	11,29	-97.72
17.25	10,670	91.92	71.59	0.86	0.6709	10,603	2.60	67,664	2.00	10,70	-97.63
17.26	10,180	90.35	71.77	0.89	0.7050	10,111	2.60	67,709	2.00	10,21	-97.55
17.27	9,800	89.01	71.77	0.91	0.7323	9,733	2.60	67,755	2.00	9,83	-97.65
17.28	9,480	87.11	71.95	0.92	0.7590	9,411	2.60	67,800	2.00	9,51	-97.57
17.29	9,250	85.21	72.13	0.92	0.7798	9,188	2.60	67,845	2.00	9,28	-97.48
17.3	9,060	82.89	72.32	0.91	0.7982	8,999	2.60	67,891	2.00	9,09	-97.39
17.31	8,940	81.27	72.32	0.91	0.8089	8,877	2.60	67,936	2.00	8,97	-97.49
17.32	8,820	79.10	72.5	0.90	0.8220	8,75	2.60	67,982	2.30	8,85	-97.41
17.33	8,740	76.97	72.5	0.88	0.8295	8,67	2.60	68,027	2.30	8,77	-97.51
17.34	8,700	74.65	72.5	0.86	0.8333	8,63	2.60	68,072	2.30	8,73	-97.61
17.35	8,690	72.38	72.86	0.83	0.8364	8,62	2.60	68,118	2.00	8,72	-97.32
17.36	8,700	69.98	72.86	0.80	0.8354	8,63	2.60	68,163	2.00	8,73	-97.62
17.37	8,770	67.43	72.86	0.77	0.8308	8,67	2.60	68,208	2.00	8,80	-97.54
17.38	9,100	63.12	73.23	0.69	0.8047	9,03	2.60	68,254	2.00	9,13	-97.27
17.39	9,330	61.13	73.41	0.66	0.7868	9,26	2.60	68,299	2.00	9,36	-97.19
17.4	9,650	59.74	73.59	0.62	0.7650	9,55	2.60	68,344	2.00	9,46	-97.10
17.41	9,620	59.74	73.59	0.62	0.7650	9,55	2.60	68,390	1.80	9,52	-97.09
17.42	9,620	59.74	73.59	0.62	0.7650	9,55	2.60	68,435	1.80	9,55	-97.30
17.43	9,540	49.64	70.31	0.52	0.7370	9,47	2.60	68,481	2.00	9,57	-100.68
17.44	10,260	48.62	70.67	0.47	0.6888	10,200	2.60	68,526	2.00	10,29	-100.42
17.45	10,630	46.58	70.67	0.46	0.6848	10,568	2.60	68,571	2.00	10,66	-100.51
17.46	10,940	45.58	70.67	0.45	0.6747	10,879	2.60	68,616	2.00	10,93	-100.19
17.47	11,190	48.67	70.31	0.43	0.6283	11,122	2.60	68,662	2.00	11,22	-101.07
17.48	11,250	48.90	70.31	0.43	0.6250	11,188	2.60	68,707	2.00	11,28	-101.17
17.49	11,380	49.46	70.49	0.43	0.6194	11,311	2.60	68,753	2.00	11,41	-101.09
17.5	11,460	50.20	70.67	0.44	0.6167	11,399	2.60	68,798	2.00	11,49	-101.01
17.51	11,580	50.98	70.67	0.44	0.6151	11,511	2.60	68,843	2.00	11,61	-101.10
17.52	11,690	52.24	70.49	0.45	0.6030	11,622	2.60	68,889	2.00	11,72	-101.38
17.53	11,830	53.72	70.67	0.45	0.5974	11,766	2.60	68,934	2.00	11,86	-101.30
17.54	11,830	53.72	70.67	0.45	0.5974	11,766	2.60	68,980	1.50	11,86	-101.40
17.55	11,830	53.72	70.67	0.45	0.5974	11,766	2.60	68,925	1.50	11,86	-101.50
17.56	12,180	53.81	71.4	0.44	0.5862	12,111	2.60	69,070	1.50	12,05	-101.46
17.57	12,530	56.22	71.59	0.46	0.5806	12,266	2.60	69,116	2.00	12,36	-100.77
17.58	12,420	58.67	71.59	0.47	0.5764	12,335	2.60	69,161	2.00	12,45	-100.87
17.59	12,420	60.34	71.59	0.49	0.5784	12,335	2.60	69,206	2.00	12,45	-100.97
17.6	12,520	62.61	71.4	0.51	0.5781	12,288	2.60	69,252	2.00	12,38	-101.26
17.61	12,020	60.58	71.4	0.48	0.5622	11,965	2.60	69,297	2.00	12,18	-101.49
17.62	11,850	67.94	71.4	0.57	0.6025	11,788	2.60	69,342	2.00	11,88	-101.45
17.63	11,370	69.14	71.4	0.59	0.6087	11,666	2.60	69,388	2.00	11,76	-101.55

17-101_G_CPTU_Soarza

17-101_CPTU.S1_valle

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.64	11,470	71.08	70.85	0.62	0.6177	11,400	2.60	69,433	2.30	11,50	-102.20
17.65	11,470	71.08	70.85	0.62	0.6177	11,400	2.60	69,478	2.30	11,50	-102.30
17.66	11,320	72.10	71.04	0.64	0.6276	11,250	2.60	69,524	2.30	11,35	-102.20
17.67	11,200	72.61	71.04	0.65	0.6343	11,130	2.60	69,569	2.30	11,23	-102.30
17.68	11,100	72.75	71.22	0.64	0.6410	11,040	2.60	69,615	2.30	11,14	-102.22
17.69	11,030	73.03	71.22	0.66	0.6457	10,960	2.60	69,660	2.30	11,06	-102.32
17.7	10,970	72.52	71.4	0.66	0.6509	10,900	2.60	69,705	2.00	11,00	-102.24
17.71	10,930	72.10	71.59	0.66	0.6550	10,860	2.60	69,751	2.00	10,96	-102.15
17.72	10,900	71.27	71.59	0.65	0.6538	10,880	2.60	69,796	2.30	10,98	-102.24
17.73	11,010	70.44	71.77	0.64	0.6519	10,940	2.60	69,841	2.30	11,04	-102.16
17.74	11,110	69.79	71.77	0.63	0.6460	11,040	2.60	69,887	2.30	11,14	-102.26
17.75	11,270	69.14	71.77	0.61	0.6368	11,200	2.60	69,932	2.30	11,30	-102.36
17.76	11,490	67.94	71.95	0.59	0.6262	11,420	2.60	69,977	2.30	11,52	-102.28
17.77	11,730	67.43	72.32	0.57	0.6165	11,660	2.60	70,023	2.30	11,76	-102.00
17.78	12,300	66.50	73.05	0.54	0.5939	12,250	2.60	70,068	2.30	12,33	-101.37
17.79	12,300	66.50	73.05	0.54	0.5939	12,233	2.60	70,114	2.00	12,33	-101.47
17.8	12,620	66.04	73.23	0.52	0.5803	12,555	2.60	70,159	2.00	12,65	-101.39
17.81	13,070	65.76	73.05	0.50	0.5589	13,000	2.60	70,204	2.00	13,10	-101.67
17.82	13,260	66.45	73.05	0.50	0.5509	13,190	2.60	70,250	2.00	13,29	-101.78
17.83	13,480	66.78	73.23	0.50	0.5432	13,410	2.60	70,295	2.30	13,51	-101.68
17.84	13,580	67.24	73.23	0.50	0.5392	13,510	2.60	70,340	2.30	13,61	-101.78
17.85	13,580	67.57	73.41	0.50	0.5406	13,510	2.60	70,386	2.00	13,61	-101.70
17.86	13,510	67.98	73.59	0.50	0.5447	13,440	2.60	70,431	2.00	13,54	-101.62
17.87	13,380	68.77	73.59	0.51	0.5500	13,310	2.60	70,476	2.00	13,41	-101.71
17.88	13,260	69.56	73.59	0.52	0.5562	13,190	2.60	70,522	2.00	13,29	-101.81
17.89	12,980	71.18	73.78	0.54	0.5641	12,900	2.60	70,567	2.00	13,11	-101.91
17.9	13,090	72.61	73.78	0.56	0.5715	12,840	2.60	70,613	2.00	12,94	-101.94
17.91	12,660	73.73	73.36	0.58	0.5842	12,580	2.60	70,658	2.00	12,69	-101.97
17.92	12,440	75.21	74.32	0.60	0.5974	12,397	2.60	70,703	2.00	12,47	-101.94
17.93	12,700	70.64	74.69	0.55	0.5624	12,640	2.60	70,748	2.30	12,70	-101.82
17.94	13,930	77.98	74.69	0.55	0.6261	13,860	2.60	70,794	2.30	13,96	-101.67
17.95	11,710	79.61	74.51	0.68	0.6363	11,640	2.60	70,839	2.30	11,74	-101.94
17.96	11,510	80.76	74.32	0.70	0.6457	11,440	2.60	70,885	2.30	11,54	-101.94
17.97	11,350	82.66	73.96	0.72	0.6516	11,260	2.60	70,930	2.30	11,38	-102.03
17.98	11,240	82.62	73.96	0.74	0.6591	11,140	2.60	70,975	2.30	11,26	-102.13
17.99	11,080	83.17	74.14	0.75	0.6691	11,000	2.60	71,021	2.30	11,11	-102.23
18	10,950	83.71	74.14	0.76	0.6771	10,880	2.60	71,066	2.30	10,98	-102.32
18.01	10,790	82.80	73.96	0.77	0.6854	10,720	2.60	71,112	2.30	10,82	-102.42
18.02	10,620	81.97	74.14	0.77	0.6981	10,550	2.60	71,157	2.30	10,65	-102.52
18.03	10,410	80.81	73.96	0.78	0.7204	10,340	2.60	71,202	2.30	10,47	-102.62
18.04	10,210	79.33	73.96	0.78	0.7244	10,140	2.70	71,251	2.30	10,24	-102.73
18.05	10,010	78.12	73.96	0.78	0.7389	9,940	2.70	71,298	2.30	10,04	-102.83
18.06	9,900	76.87	74.32	0.78	0.7507	9,830	2.70	71,345	2.30	9,93	-102.93
18.07	9,840	75.44	74.51	0.77	0.7572	9,770	2.70	71,391	2.50	9,87	-102.97
18.08	9,850	74.28	74.32	0.77	0.7549	9,780	2.70	71,438	2.50	9,88	-102.99
18.09	9,850	74.28	74.32	0.75	0.7545	9,780	2.70	71,481	2.50	9,88	-103.01
18.1	9,960	72.10	74.69	0.72	0.7499	9,890	2.70	71,529	2.30	9,99	-102.94
18.11	9,960	72.10	74.69	0.72	0.7499	9,890	2.70	71,576	2.30	9,99	-102.94
18.12	10,050	70.71	74.51	0.70	0.7414	9,980	2.70	71,623	2.50	10,08	-103.03
18.13	10,180	69.65	74.51	0.71	0.7419	10,090	2.70	71,669	2.50	10,21	-103.13
18.14	10,340	68.26	74.87	0.66	0.7241	10,247	2.70	71,717	2.30	10,37	-103.23
18.15	10,550	67.24	75.05	0.64	0.7144	10,427	2.70	71,764	2.30	10,58	-103.33
18.16	10,850	66.22	75.8	0.61	0.6968	10,770	2.70	71,811	2.30	10,88	-102.93
18.17	11,220	65.25	76.15	0.58	0.6787	11,147	2.70	71,858	2.50	11,25	-102.02
18.18	11,860	62.23	76.83	0.45	0.5643	11,797	2.70	72,004	2.50	11,89	-101.00
18.19	12,130	64.23	76.87	0.53	0.6323	12,050	2.60	71,949	2.30	12,16	-101.10
18.2	12,670	63.91	77.06	0.50	0.6082	12,590	2.60	71,994	2.30	12,70	-101.14
18.21	13,260	63.91	77.61	0.48	0.5853	13,180	2.60	72,040	2.00	13,29	-101.01
18.22	13,860	64.05	77.98	0.46	0.5626	13,738	2.70	72,087	2.00	13,89	-100.90
18.23	14,110	63.24	78.34	0.45	0.5617	14,040	2.70	72,134	2.30	14,08	-100.80
18.24	14,840	64.48	78.32	0.43	0.5091	14,776	2.70	72,181	2.30	14,87	-100.70
18.25	15,040	64.83	78.71	0.43	0.5233	14,960	2.70	72,228	2.00	15,07	-100.73
18.26	15,130	66.10	79.07	0.44	0.5226	15,050	2.70	72,275	2.00	15,16	-100.80
18.27	15,150	67.04	79.07	0.44	0.5236	15,020	2.70	72,322	2.00	15,13	-100.90
18.28	14,950	68.26	78.89	0.46	0.5577	14,870	2.70	72,369	2.00	14,98	-101.00
18.29	14,660	70.67	78.89	0.48	0.5391	14,590	2.70	72,416	2.30	14,69	-101.10
18.3	14,220	73.49	78.52	0.52	0.5522	14,140	2.70	72,464	2.00	14,25	-101.14
18.31	13,590	76.92	77.61	0.57	0.5711	13,510	2.70	72,511	2.30	13,62	-102.24
18.32	12,910	79.56	76.88	0.62	0.5955	12,830	2.70	72,558	2.30	12,94	-102.34

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
19.71	13.290	59.92	82.54	0.45	0.6211	13.21	2.70	79.085	2.00	13.32	-110.82
19.72	13.380	61.08	82.72	0.46	0.6182	13.30	2.70	79.132	2.00	13.41	-110.73
19.73	13.350	61.78	82.72	0.46	0.6196	13.27	2.70	79.179	2.30	13.38	-110.83
19.74	13.160	63.03	82.91	0.48	0.6291	13.10	2.70	79.226	2.30	13.21	-110.74
19.75	12.890	64.90	83.27	0.50	0.6460	12.81	2.70	79.273	2.00	12.92	-110.48
19.76	12.520	65.81	83.09	0.53	0.6637	12.44	2.70	79.320	2.00	12.55	-110.76
19.77	10.270	67.52	83.09	0.56	0.6884	11.99	2.70	79.367	2.00	12.10	-110.85
19.78	11.150	69.32	83.09	0.60	0.7182	11.49	2.70	79.415	2.30	11.60	-110.95
19.79	11.570	70.71	82.91	0.63	0.7436	11.07	2.70	79.462	2.30	11.18	-111.23
19.80	10.800	72.69	82.91	0.67	0.7777	10.72	2.70	79.509	2.50	10.84	-111.53
19.81	10.520	72.89	82.91	0.69	0.7881	10.44	2.70	79.556	2.50	10.55	-111.43
19.82	10.270	73.40	83.09	0.71	0.8091	10.19	2.70	79.603	2.30	10.30	-111.34
19.83	10.090	73.63	83.09	0.73	0.8235	10.01	2.70	79.650	2.30	10.12	-111.44
19.84	9.930	73.40	83.09	0.74	0.8368	9.85	2.70	79.697	2.30	9.96	-111.54
19.85	9.810	72.99	83.27	0.74	0.8468	9.73	2.70	79.744	2.30	9.84	-111.38
19.86	9.700	72.15	83.46	0.74	0.8604	9.62	2.70	79.791	2.30	9.74	-111.37
19.87	9.700	72.15	83.46	0.74	0.8604	9.62	2.70	79.838	2.50	9.74	-111.46
19.88	9.600	70.99	83.46	0.74	0.8894	9.52	2.70	79.886	2.50	9.64	-111.56
19.89	9.490	69.37	83.64	0.73	0.8613	9.41	2.70	79.933	2.50	9.53	-111.48
19.90	9.380	67.52	83.64	0.73	0.8969	9.30	2.70	79.980	2.50	9.42	-111.49
19.91	9.290	65.53	83.82	0.71	0.9023	9.21	2.70	80.027	2.50	9.33	-111.50
19.92	9.170	63.68	84	0.69	0.9160	9.09	2.70	80.074	2.80	9.21	-111.51
19.93	9.170	63.68	84	0.69	0.9160	9.09	2.70	80.121	2.80	9.21	-111.51
19.94	9.100	62.10	84	0.68	0.9231	9.02	2.70	80.168	2.80	9.14	-111.61
19.95	9.000	60.48	84	0.67	0.9322	8.92	2.70	80.215	2.50	8.92	-111.62
19.96	8.920	58.95	84.19	0.67	0.9438	8.84	2.70	80.262	2.50	8.96	-111.62
19.97	8.820	57.75	84.37	0.65	0.9566	8.74	2.70	80.310	2.50	8.86	-111.54
19.98	8.760	56.64	84.55	0.65	0.9652	8.68	2.70	80.357	2.50	8.80	-111.45
19.99	8.720	55.66	84.73	0.64	0.9717	8.64	2.70	80.404	2.30	8.76	-111.37
20	8.670	54.74	84.73	0.63	0.9773	8.59	2.70	80.451	2.30	8.71	-111.47
20.01	8.640	54.00	84.92	0.63	0.9829	8.56	2.70	80.498	2.30	8.68	-111.38
20.02	8.620	53.35	85.1	0.62	0.9872	8.53	2.70	80.545	2.30	8.66	-111.30
20.03	8.630	52.75	85.28	0.61	0.9882	8.54	2.70	80.592	2.30	8.67	-111.21
20.04	8.620	52.33	85.46	0.61	0.9914	8.53	2.70	80.639	2.30	8.66	-111.13
20.05	8.590	51.91	85.46	0.60	0.9949	8.50	2.70	80.686	2.30	8.63	-111.23
20.06	8.580	51.22	85.65	0.60	0.9983	8.49	2.70	80.734	2.30	8.62	-111.14
20.07	8.550	50.94	85.83	0.60	1.0039	8.46	2.70	80.781	2.00	8.59	-111.06
20.08	8.540	50.48	86.19	0.59	1.0093	8.45	2.70	80.828	2.30	8.58	-110.79
20.09	8.540	50.34	86.19	0.59	1.0093	8.45	2.70	80.875	2.30	8.58	-110.89
20.1	8.550	49.87	86.38	0.58	1.0103	8.46	2.70	80.922	2.30	8.59	-110.80
20.11	8.590	49.78	86.56	0.58	1.0077	8.50	2.70	80.969	2.30	8.63	-110.72
20.12	8.630	49.64	86.56	0.58	1.0030	8.54	2.70	81.016	2.30	8.67	-110.82
20.13	8.720	49.13	86.74	0.56	0.9947	8.63	2.70	81.063	2.00	8.76	-110.74
20.14	8.810	49.04	86.92	0.56	0.9866	8.72	2.70	81.110	2.00	8.85	-110.65
20.15	8.920	48.76	87.11	0.55	0.9766	8.83	2.70	81.157	2.30	8.96	-110.56
20.16	9.090	48.58	87.29	0.53	0.9608	9.00	2.70	81.205	2.30	9.06	-110.48
20.17	9.290	48.21	87.29	0.51	0.9406	9.19	2.70	81.252	2.30	9.32	-110.40
20.18	9.530	48.16	87.47	0.51	0.9178	9.44	2.70	81.299	2.30	9.57	-110.50
20.19	9.820	48.58	87.47	0.49	0.8907	9.73	2.70	81.346	2.00	9.86	-110.59
20.2	10.150	48.53	87.47	0.48	0.8618	10.06	2.70	81.393	2.00	10.19	-110.69
20.21	10.620	48.72	87.47	0.45	0.8264	10.73	2.70	81.460	2.00	10.86	-110.79
20.22	11.160	48.76	87.66	0.44	0.7855	11.07	2.70	81.487	2.00	11.20	-110.90
20.23	11.500	49.09	87.66	0.43	0.7623	11.41	2.70	81.534	2.00	11.54	-110.80
20.24	11.720	49.41	88.2	0.42	0.7526	11.63	2.70	81.581	2.00	11.76	-110.35
20.25	11.800	49.87	88.93	0.42	0.7536	11.71	2.70	81.629	2.00	11.84	-109.72
20.26	11.810	50.66	89.3	0.43	0.7561	11.72	2.70	81.676	2.00	11.85	-109.45
20.27	11.800	51.46	89.3	0.43	0.7586	11.71	2.70	81.723	2.00	11.86	-109.40
20.28	11.820	52.19	88.93	0.44	0.7524	11.73	2.70	81.770	2.00	11.86	-110.02
20.29	11.900	53.26	88.93	0.45	0.7473	11.81	2.70	81.817	2.00	11.94	-110.11
20.3	12.020	54.27	88.75	0.45	0.7384	11.93	2.70	81.864	2.00	12.06	-110.39
20.31	12.170	55.43	88.75	0.46	0.7293	12.08	2.70	81.911	2.00	12.21	-110.49
20.32	12.410	56.16	88.75	0.46	0.7151	12.32	2.70	81.958	2.00	12.46	-110.61
20.33	12.690	57.61	88.75	0.45	0.6994	12.60	2.70	82.005	2.00	12.73	-110.69
20.34	13.290	60.43	88.75	0.45	0.6678	13.20	2.70	82.052	2.00	13.33	-110.79
20.35	13.510	60.99	88.93	0.45	0.6583	13.42	2.70	82.100	2.00	13.55	-110.70
20.36	13.650	61.87	89.3	0.45	0.6542	13.56	2.70	82.147	2.00	13.69	-110.43
20.37	13.730	62.99	89.12	0.45	0.6511	13.64	2.70	82.194	2.00	13.81	-110.16
20.38	13.740	63.58	88.75	0.46	0.6459	13.65	2.70	82.241	1.80	13.78	-111.18
20.39	13.570	65.25	88.75	0.46	0.6450	13.48	2.70	82.288	1.80	13.61	-111.28

17-101_G_CPTU_Soarza

17-101_CPTU.S1_valle

Pag.29

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
20.4	13.310	66.36	88.75	0.50	0.6668	13.22	2.70	82.335	2.00	13.35	-111.37
20.41	13.310	66.36	88.75	0.50	0.6668	13.22	2.70	82.382	3.00	13.35	-111.47
20.42	13.310	66.36	88.75	0.50	0.6668	13.22	2.70	82.429	3.00	13.35	-111.57
20.43	12.100	63.07	92.22	0.52	0.7621	12.01	2.70	82.476	2.30	12.14	-108.20
20.44	11.690	62.42	91.41	0.54	0.7858	11.60	2.70	82.524	2.30	11.73	-108.68
20.45	11.520	60.06	91.49	0.52	0.7942	11.43	2.70	82.571	1.80	11.56	-109.12
20.46	11.200	62.15	91.12	0.55	0.8136	11.11	2.70	82.618	1.80	11.24	-109.59
20.47	10.910	63.63	91.12	0.58	0.8352	10.82	2.70	82.665	2.00	10.95	-109.69
20.48	10.680	65.34	90.94	0.61	0.8515	10.59	2.70	82.712	2.00	10.72	-109.97
20.49	10.500	67.47	90.94	0.65	0.8753	10.39	2.70	82.759	2.00	10.43	-110.03
20.5	10.320	67.94	90.94	0.66	0.8812	10.23	2.70	82.806	2.00	10.36	-110.17
20.51	10.250	68.21	90.94	0.67	0.8872	10.16	2.70	82.853	1.80	10.29	-110.26
20.52	10.270	68.44	90.76	0.67	0.8837	10.18	2.70	82.900	1.80	10.31	-110.54
20.53	10.330	68.03	90.76	0.66	0.8786	10.24	2.70	82.948	2.00	10.37	-110.64
20.54	10.430	67.52	90.76	0.65	0.8702	10.34	2.70	82.995	2.00	10.47	-110.85
20.55	10.590	66.69	90.76	0.63	0.8570	10.50	2.70	83.042	2.00	10.63	-110.84
20.56	10.790	65.11	90.94	0.60	0.8428	10.70	2.70	83.089	2.00	10.83	-110.75
20.57	11.030	63.77	91.12	0.58	0.8261	10.94	2.70	83.136	2.30	11.07	-110.67
20.58	11.300	63.44	91.12	0.56	0.8064	11.21	2.70	83.183	2.30	11.34	-110.77
20.59	11.530	63.94	90.94	0.54	0.7919	11.54	2.70	83.230	2.00	11.67	-110.95
20.6	11.950	61.59	91.12	0.52	0.7625	11.86	2.70	83.277	2.00	11.99	-110.97
20.61	12.700	60.25	91.12	0.47	0.7175	12.61	2.80	83.326	2.00	12.74	-111.06
20.62	13.640	60.11	91.31	0.44	0.6894	13.55	2.70	83.373	2.00	13.68	-110.97
20.63	14.100	60.25	91.49	0.43	0.6484	14.02	2.70	83.420	2.00	14.15	-110.89
20.64	14.500	60.57	91.31	0.42	0.6233	14.35	2.70	83.467	2.00	14.48	-111.17
20.65	14.580	60.94	91.31	0.42	0.6263	14.65	2.70	83.515	2.00	14.82	-111.27
20.66	14.530	61.01	91.49	0.42	0.6297	14.44	2.70	83.562	2.00	14.57	-111.18
20.67	14.430	62.61	91.49	0.43	0.6340	14.34	2.70	83.609	2.00	14.47	-111.28
20.68	14.300	64.32	91.67	0.45	0.6410	14.21	2.70	83.656	2.00	14.34	-111.20
20.69	14.220	66.93	92.04	0.47	0.6473	14.13	2.70	83.703	2.00	14.26	-110.93
20.7	14.150	68.25	92.26	0.48	0.6517	14.00	2.70	83.750	2.00	14.19	-110.84
20.71	14.070	69.93	92.59	0.50	0.6581	13.98	2.70	83.797	2.30	14.11	-110.58
20.72	14.030	71.41	92.22	0.51	0.6573	13.94	2.70	83.844	2.30	14.07	-110.74
20.73	13.940	73.35	92.22	0.53	0.6615	13.85	2.70	83.891	2.00	13.98	-111.14
20.74	13.860	74.93	91.86	0.54	0.6618	13.79	2.70	83.939	2.00	13.92	-111.60
20.75	13.790	76.78	91.49	0.56	0.6673	13.69	2.70	83.986	2.00	13.85	-112.04
20.76	13.730	78.36	91.31	0.57	0.6650	13.64	2.70	84.033	2.00	13.77	-112.35
20.77	13.650	80.49	91.31	0.59	0.6689	13.56	2.70	84.080	2.30	13.69	-112.44
20.78	13.640	81.09	91.67	0.59	0.6721	13.55	2.70	84.127	2.30	13.68	-112.18
20.79	13.660	80.62	91.67	0.59	0.6711	13.57	2.70	84.174	2.00	13.70	-112.24
20.8	13.700	84.35	91.31	0.59	0.6765	13.49	2.70	84.221	2.00	13.74	-112.48
20.81	13.710	79.79	91.31	0.58	0.6660	13.62	2.70	84.268	2.00	13.77	-112.84
20.82	13.760	78.88	91.67	0.57	0.6662	13.70	2.70	84.315	2.00	13.80	-112.57
20.83	13.860	77.60	92.22	0.56	0.6654	13.77	2.70	84.362	1.80	13.90	-112.12
20.84	14.020	77.01	92.24	0.54	0.6591	13.93	2.70	84.410	1.80	14.06	-112.04
20.85	14.390	75.85	92.77	0.53	0.6447	14.30	2.70	84.457	2.00	14.31	-111.77
20.86	14.570	75.90	92.77	0.51	0.6389	14.58	2.70	84.504	2.00	14.48	-111.71
20.87	14.800	74.14	92.59	0.50	0.6256	14.71	2.70	84.551	1.80	14.84	-112.14
20.88	15.000	73.54	92.59	0.49	0.6173	14.91	2.70	84.598	1.80	15.04	-112.24
20.89	15.310	72.20	92.22	0.47	0.6024	15.27	2.70	84.645	1.80	15.30	-112.71
20.9	15.460	71.50	91.86	0.46	0.5942	15.37	2.70	84.692	1.80	15.50	-112.17
20.91	15.610	71.22	91.66	0.45	0.5885	15.62	2.70	84.739	2.00	15.65	-112.14
20.92	15.760	71.08	92.04	0.45	0.5840	15.67	2.70	84.786	1.80	15.56	-113.19
20.93	15.960	71.73	92.22	0.45	0.5778	15.87	2.70	84.834	1.80	16.00	-113.10
20.94	16.290	73.37	92.77	0.45	0.5695	16.20	2.70	84.881	1.80	16.33	-112.65
20.95	16.420	73.63	92.95	0.45	0.5661	16.33	2.70	84.928	1.80	16.46	-112.87
20.96	16.480	74.37	93.00	0.45	0.5640	16.49	2.70	84.975	1.80	16.59	-113.04
20.97	16.480	75.21	93.13	0.46	0.5651	16.39	2.70	85.022	2.00	16.52	-112.59
20.98	16.210	75.58	93.5	0.47	0.5768	16.12	2.70	85.069	2.00	16.25	-112.31
20.99	15.910	76.69	93.38	0.48	0.5865	15.82	2.70	85.116	1.80	15.95	-112.51
21	15.500	77.77	93.5	0.50	0.6221	15.41	2.70	85.163	1.80	15.54	-112.51
21.01	15.030	79.07	93.5	0.52	0.6332	14.94	2.70	85.210	1.80	15.07	-112.51
21.02	14.390	80.49	92.77	0.56	0.6447	14.30	2.70	85.257	2.00	14.43	-113.44
21.03	13.730	82.43	92.22	0.60	0.6717	13.64	2.70	85.305	2.00	13.77	-114.08
21.04	13.020	83.50	92.4	0.64	0.7097	12.93	2.70	85.352	2.00	13.06	-114.00
21.05	12.450	84.93	92.4	0.68	0.7422	12.36	2.70	85.399	2.00	12.49	-114.10
21.06	11.930	85.81	92.59	0.72	0.7761	11.69	2.70	85.446	2.00	11.93	-114.17
21.07	11.560	85.95	92.77	0.74	0.8025	11.47	2.70	85.493	2.30	11.60	-113.93
21.08	11.190	85.72	92.95	0.77	0.8307	11.10	2.70	85.540	2.30	11.23	-113.83

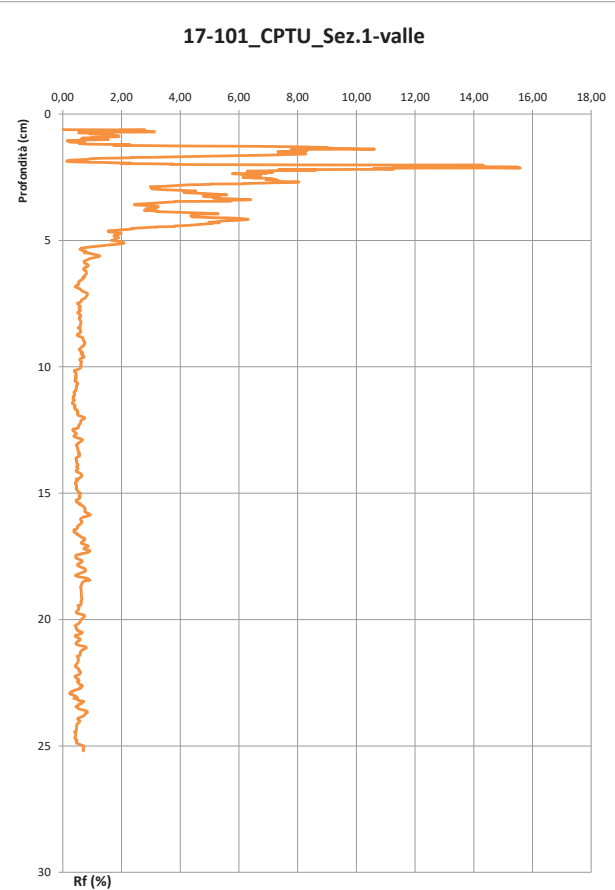
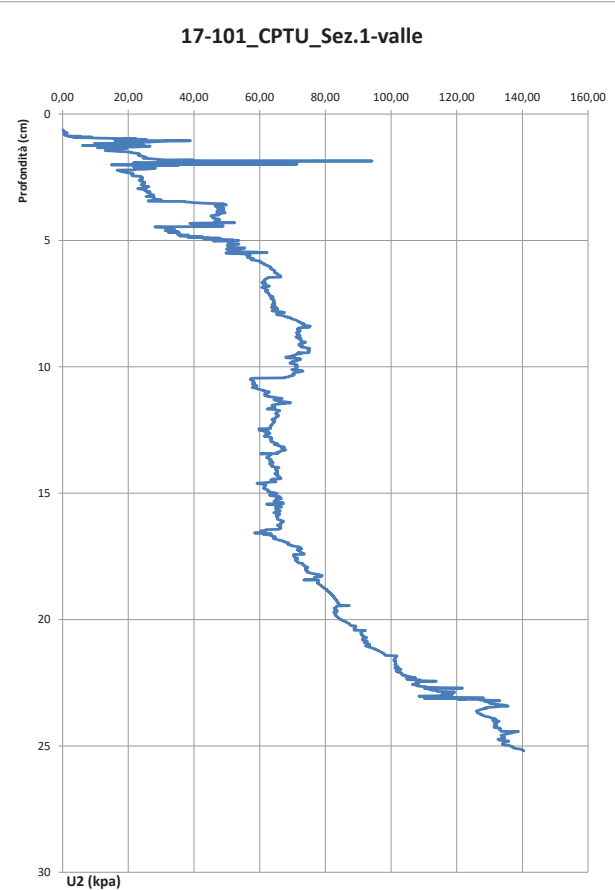
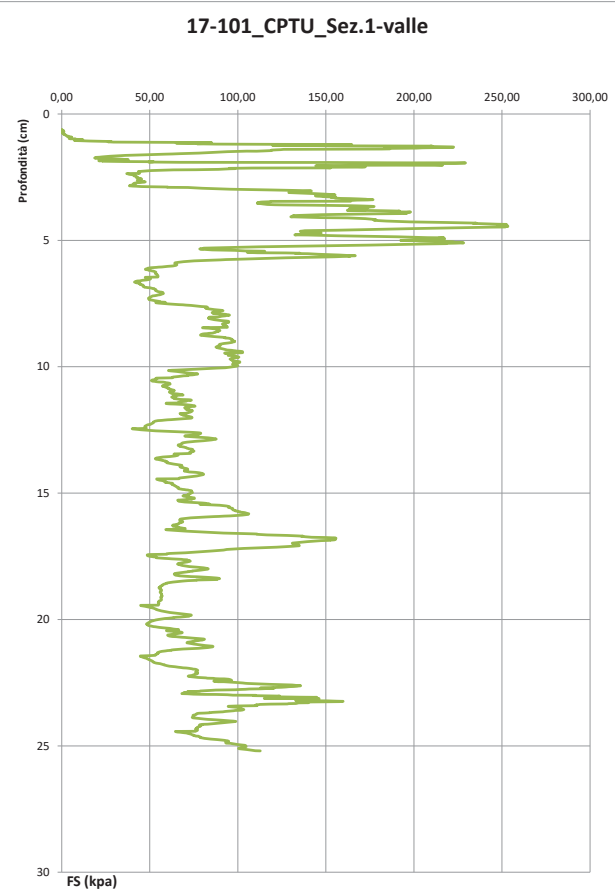
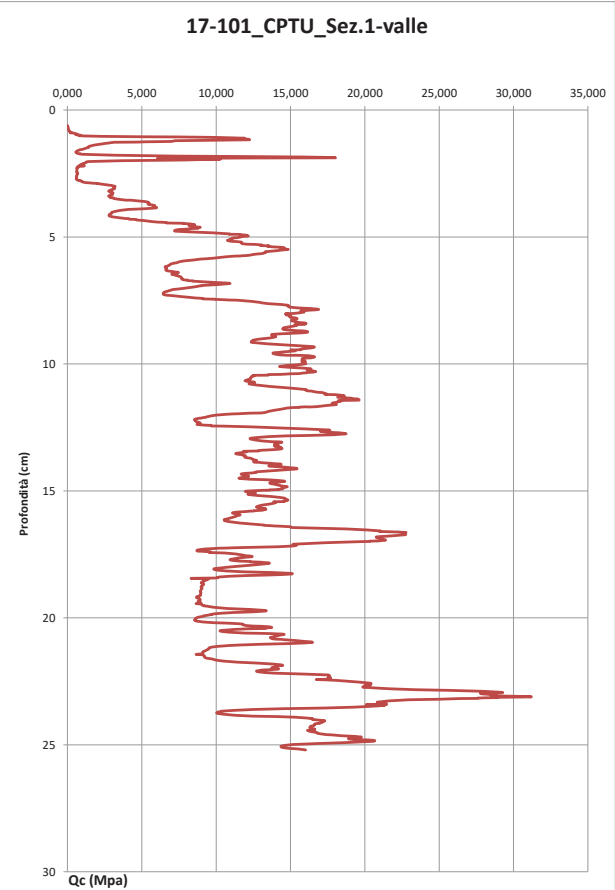
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
22.47	18,280	94.38	107.74	0.52	0.5894	18.17	2.70	92.102	1.80	18.33	-112.69
22.48	18,440	96.69	107.74	0.52	0.5843	18.33	2.70	92.149	1.80	18.49	-112.79
22.49	18,690	98.64	107.74	0.53	0.5765	18.58	2.70	92.196	1.80	18.74	-112.89
22.5	19,010	101.65	107.56	0.53	0.5658	18.90	2.70	92.243	1.80	19.06	-113.17
22.51	19,170	103.61	107.74	0.54	0.5620	19.06	2.70	92.290	1.80	19.22	-113.08
22.52	19,370	104.24	108.11	0.54	0.5581	19.26	2.70	92.337	1.80	19.42	-112.81
22.53	19,520	105.40	108.47	0.54	0.5557	19.41	2.70	92.385	1.80	19.57	-112.55
22.54	19,820	109.94	107.93	0.55	0.5446	19.71	2.70	92.432	1.80	19.87	-113.19
22.55	20,000	111.74	107.38	0.56	0.5369	19.89	2.80	92.480	1.80	20.05	-113.84
22.56	20,110	113.33	107.56	0.56	0.5303	20.00	2.80	92.529	1.80	20.15	-113.84
22.57	20,320	122.30	106.46	0.60	0.5239	20.21	2.80	92.578	1.50	20.36	-114.95
22.58	20,420	126.38	107.2	0.62	0.5250	20.31	2.80	92.627	1.80	20.47	-114.31
22.59	20,420	130.82	107.56	0.64	0.5267	20.31	2.80	92.676	1.80	20.47	-114.05
22.6	20,530	132.54	107.93	0.65	0.5304	20.24	2.80	92.725	1.50	20.40	-113.78
22.61	20,400	133.13	107.93	0.65	0.5291	20.29	2.80	92.774	1.80	20.45	-113.97
22.62	20,300	135.69	107.93	0.67	0.5317	20.19	2.80	92.822	1.50	20.35	-113.97
22.63	20,310	133.97	108.47	0.66	0.5341	20.20	2.80	92.871	1.50	20.36	-113.53
22.64	20,380	133.88	108.66	0.66	0.5332	20.27	2.80	92.920	1.80	20.43	-113.44
22.65	20,320	131.66	109.93	0.65	0.5410	20.21	2.80	92.969	1.80	20.37	-112.27
22.66	20,110	129.25	110.26	0.66	0.4903	20.00	2.80	93.018	1.80	20.16	-111.63
22.67	19,970	127.40	110.46	0.64	0.5532	19.86	2.80	93.067	1.80	20.02	-111.91
22.68	20,000	124.66	110.85	0.62	0.5543	19.89	2.80	93.116	1.80	20.05	-111.64
22.69	20,260	121.42	111.76	0.60	0.5516	20.15	2.80	93.164	1.80	20.31	-110.83
22.7	20,210	119.71	115.23	0.59	0.5702	20.09	2.80	93.213	1.80	20.26	-107.46
22.71	20,220	112.76	121.8	0.56	0.5624	20.10	2.80	93.262	2.00	20.04	-107.86
22.72	19,850	109.59	110.12	0.52	0.5948	19.74	2.80	93.311	2.00	19.90	-112.76
22.73	19,950	116.93	111.21	0.59	0.5574	19.84	2.80	93.360	1.80	20.00	-111.77
22.74	20,140	112.72	111.58	0.56	0.5540	20.03	2.80	93.409	1.80	20.19	-111.50
22.75	20,360	106.51	111.4	0.52	0.5472	20.25	2.80	93.457	1.80	20.41	-111.78
22.76	20,160	104.29	111.94	0.51	0.5431	20.50	2.80	93.506	1.80	20.66	-111.34
22.77	20,880	101.56	111.94	0.49	0.5361	20.77	2.80	93.555	1.80	20.93	-111.43
22.78	21,050	98.64	111.94	0.47	0.5318	20.94	2.80	93.604	1.80	21.10	-111.53
22.79	21,670	87.52	112.49	0.40	0.5191	21.56	2.80	93.653	1.80	21.72	-111.08
22.8	22,020	86.14	113.22	0.39	0.5142	21.91	2.80	93.702	1.50	22.07	-110.45
22.81	22,430	83.22	113.4	0.37	0.5056	22.32	2.80	93.751	1.80	22.48	-110.37
22.82	22,930	80.25	114.32	0.35	0.4986	22.82	2.80	93.799	1.80	22.98	-109.54
22.83	23,760	78.63	114.13	0.33	0.4803	23.65	2.80	93.848	1.80	23.81	-109.83
22.84	24,280	78.49	114.13	0.32	0.4701	24.17	2.80	93.897	1.80	24.33	-109.93
22.85	25,280	71.55	117.6	0.28	0.4652	25.16	2.80	93.946	1.50	25.33	-106.56
22.86	25,660	74.84	119.25	0.29	0.4647	25.54	2.80	93.995	1.80	25.71	-105.01
22.87	26,190	75.85	119.43	0.29	0.4560	26.07	2.80	94.044	1.80	26.24	-104.92
22.88	27,260	70.39	118.15	0.26	0.4334	27.14	2.80	94.092	1.30	27.31	-106.30
22.89	26,190	69.83	117.79	0.25	0.4178	28.07	2.80	94.141	1.50	28.24	-106.76
22.9	28,430	69.14	118.88	0.24	0.4181	28.31	2.80	94.190	1.30	28.48	-105.77
22.91	28,480	69.74	115.6	0.24	0.4059	28.36	2.80	94.239	1.30	28.53	-105.15
22.92	28,710	69.42	116.51	0.24	0.4058	28.59	2.80	94.288	1.50	28.76	-105.34
22.93	29,090	68.48	116.33	0.23	0.3998	28.97	2.80	94.337	1.80	29.14	-105.62
22.94	29,280	71.55	118.88	0.24	0.4060	29.16	2.80	94.386	1.50	29.33	-106.16
22.95	28,880	74.42	117.79	0.26	0.4079	28.76	2.80	94.434	1.50	29.93	-107.35
22.96	28,450	80.44	115.96	0.28	0.4076	28.33	2.80	94.483	1.50	28.50	-109.28
22.97	27,760	80.12	114.72	0.32	0.4184	27.64	2.80	94.532	1.50	27.81	-109.28
22.98	27,950	85.63	115.41	0.31	0.4129	27.83	2.80	94.581	1.50	28.00	-110.02
22.99	27,840	97.25	118.33	0.35	0.4250	27.72	2.80	94.630	1.50	27.89	-107.20
23	28,040	110.22	118.15	0.39	0.4214	27.92	2.80	94.679	1.50	28.09	-107.48
23.01	28,220	108.78	116.51	0.39	0.4129	28.10	2.80	94.728	1.80	28.27	-109.22
23.02	28,550	114.11	112.86	0.40	0.3960	28.39	2.80	94.776	1.80	28.55	-112.97
23.03	28,440	123.78	108.47	0.43	0.4161	28.33	2.80	94.825	1.80	28.72	-109.42
23.04	28,490	122.49	110.66	0.43	0.3884	28.38	2.80	94.874	1.80	28.54	-115.36
23.05	28,840	121.98	116.51	0.42	0.4040	28.72	2.80	94.923	1.80	28.89	-109.61
23.06	28,660	123.14	117.97	0.43	0.4116	28.54	2.80	94.972	2.00	28.71	-108.25
23.07	29,140	134.85	117.97	0.46	0.4048	29.02	2.80	95.021	2.00	29.19	-108.35
23.08	29,440	123.78	118.33	0.46	0.4019	29.32	2.80	95.069	2.00	29.47	-107.45
23.09	29,990	136.29	121.8	0.45	0.4061	29.87	2.80	95.118	2.00	30.04	-104.71
23.1	30,880	131.10	128.2	0.42	0.4150	30.76	2.80	95.167	2.00	30.94	-98.41
23.11	31,200	122.72	122.17	0.39	0.3916	31.08	2.80	95.216	2.00	31.25	-104.54
23.12	30,670	114.99	110.12	0.37	0.3590	30.56	2.80	95.265	2.00	30.72	-116.69
23.13	28,910	102.14	113.75	0.35	0.4018	28.79	2.80	95.314	2.00	28.82	-107.72
23.14	28,910	146.11	122.72	0.51	0.4245	28.79	2.80	95.363	2.00	28.96	-104.28
23.15	28,100	136.33	120.34	0.49	0.4283	27.98	2.80	95.411	2.30	28.15	-106.76


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17-101_CPTU.S1_valle

Pag.33

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
23.16	27.580	139.90	126.92	0.51	0.4602	27.45	2.80	95.460	2.30	27.63	-100.28
23.17	27.580	139.90	126.92	0.51	0.4602	27.45	2.80	95.509	2.00	27.63	-100.38
23.18	26.370	140.55	127.28	0.53	0.4827	26.24	2.80	95.558	2.00	26.42	-100.12
23.19	25.800	138.23	129.28	0.54	0.5011	25.67	2.80	95.607	2.30	25.85	-98.20
23.2	25.130	132.73	131.9	0.52	0.5205	25.07	2.80	95.656	2.30	25.19	-98.29
23.21	24.470	137.68	133.13	0.56	0.5441	24.34	2.80	95.705	2.30	24.53	-94.56
23.22	23.390	151.15	128.38	0.65	0.5489	23.26	2.80	95.753	2.30	23.44	-99.41
23.23	22.840	156.11	128.56	0.68	0.5629	22.71	2.80	95.802	2.00	22.89	-99.33
23.24	22.430	159.81	129.66	0.71	0.5781	22.30	2.80	95.851	2.00	22.48	-98.32
23.25	22,510	157.78	129.47	0.71	0.5856	22.16	2.80	95.899	2.30	22.16	-98.66
23.26	21,940	141.57	130.02	0.65	0.5926	21.81	2.80	95.949	2.30	21.99	-98.16
23.27	21,670	139.21	129.66	0.64	0.5983	21.54	2.80	95.998	2.30	21.72	-98.62
23.28	21,510	138.70	129.66	0.64	0.6028	21.38	2.80	96.046	2.00	21.56	-98.72
23.29	21,300	140.09	129.84	0.66	0.6096	21.17	2.80	96.095	2.00	21.35	-98.63
23.3	21,090	133.97	130.02	0.64	0.6165	20.86	2.80	96.144	2.30	21.14	-98.55
23.31	20,950	133.79	130.02	0.64	0.6206	20.82	2.80	96.193	2.30	21.00	-98.65
23.32	20,830	133.00	130.2	0.64	0.6251	20.70	2.80	96.242	2.30	20.88	-98.57
23.33	20,830	128.83	130.93	0.62	0.6286	20.70	2.80	96.291	2.30	20.88	-97.94
23.34	20,940	128.04	132.03	0.61	0.6305	20.81	2.80	96.340	2.00	21.00	-96.94
23.35	21,060	118.55	132.21	0.56	0.6276	20.95	2.80	96.388	2.00	21.12	-96.72
23.36	21,250	112.53	132.76	0.53	0.6248	21.12	2.80	96.437	2.00	21.31	-96.40
23.37	21,310	111.61	133.49	0.52	0.6264	21.16	2.80	96.486	2.00	21.37	-95.77
23.38	21,390	110.26	134.4	0.52	0.6283	21.26	2.80	96.535	2.00	21.45	-94.96
23.39	21,460	110.86	134.59	0.52	0.6272	21.33	2.80	96.584	2.00	21.52	-94.97
23.4	21,460	110.86	134.59	0.52	0.6272	21.33	2.80	96.584	2.00	21.52	-94.97
23.41	21,460	110.86	134.59	0.52	0.6272	21.33	2.80	96.584	2.00	21.52	-94.97
23.42	21,460	110.86	134.59	0.52	0.6272	21.33	2.80	96.584	2.00	21.52	-94.97
23.43	21,230	94.61	133.86	0.45	0.6305	21.10	2.80	96.779	2.30	21.29	-95.95
23.44	21,350	94.52	132.94	0.44	0.6227	21.22	2.80	96.828	2.30	21.41	-97.01
23.45	21,220	95.63	131.87	0.45	0.6205	21.25	2.80	96.877	2.30	21.28	-98.37
23.46	21,020	96.85	131.67	0.46	0.6165	20.89	2.80	96.926	2.30	21.08	-98.40
23.47	20,830	98.59	129.84	0.47	0.6233	20.70	2.80	96.975	2.30	20.88	-97.47
23.48	20,450	99.98	129.29	0.49	0.6322	20.32	2.80	97.023	2.00	20.50	-101.05
23.49	20,110	100.91	128.74	0.50	0.6402	19.98	2.80	97.072	2.00	20.16	-101.70
23.5	19,810	100.68	128.56	0.51	0.6490	19.68	2.80	97.121	2.30	19.86	-101.96
23.51	19,130	101.33	129.1	0.53	0.6521	19.13	2.80	97.170	2.30	19.57	-102.57
23.52	19,180	101.23	128.74	0.53	0.6512	19.05	2.80	97.219	2.00	19.23	-101.99
23.53	18,690	101.19	128.2	0.54	0.6859	18.56	2.80	97.268	2.00	18.74	-102.63
23.54	18,040	102.76	127.83	0.57	0.7086	17.91	2.80	97.317	2.30	18.09	-103.10
23.55	17,260	102.53	127.65	0.59	0.7396	17.13	2.80	97.365	2.30	17.31	-103.38
23.56	16,730	103.4	127.29	0.61	0.7532	16.44	2.80	97.414	2.30	16.65	-103.85
23.57	15,480	102.90	126.92	0.66	0.8199	15.35	2.80	97.463	2.30	15.53	-104.30
23.58	14,590	102.76	126.93	0.70	0.8699	14.46	2.80	97.512	2.30	14.64	-104.40
23.59	13,780	101.56	126.73	0.74	0.9197	13.65	2.80	97.561	2.50	13.83	-104.69
23.6	13,050	98.59	126.37	0.76	0.9884	12.92	2.80	97.610	2.50	13.10	-105.15
23.61	12,420	97.57	126.33	0.78	1.0250	12.20	2.80	97.659	2.50	12.42	-105.67
23.62	11,820	95.55	126	0.80	1.0570	11.73	2.80	97.707	2.30	11.97	-105.71
23.63	11,540	94.42	126.19	0.82	1.0935	11.41	2.80	97.760	2.30	11.59	-105.62
23.64	11,190	92.57	126.19	0.83	1.1277	11.06	2.80	97.810	2.30	11.24	-105.72
23.65	10,890	91.55	126.37	0.84	1.1604	10.76	2.80	97.861	2.50	10.94	-105.64
23.66	10,660	90.53	126.37	0.85	1.1919	10.53	2.80	97.912	2.50	10.71	-105.56
23.67	10,440	89.23	126.19	0.82	1.2041	10.35	2.80	97.962	2.50	10.53	-105.61
23.68	10,330	84.14	126.37	0.81	1.2233	10.20	2.80	98.013	2.50	10.38	-105.93
23.69	10,330	84.14	126.37	0.81	1.2233	10.20	2.80	98.063	2.50	10.38	-106.03
23.7	10,230	81.09	126.37	0.79	1.2353	10.10	2.80	98.114	2.80	10.28	-106.13
23.71	10,040	78.12	126.73	0.77	1.2510	10.00	2.80	98.164	2.80	10.08	-106.87
23.72	9,890	75.81	127.65	0.77	1.2690	9.90	2.80	98.214	2.80	9.88	-107.17
23.73	10,050	76.69	127.28	0.76	1.2665	9.92	2.80	98.266	2.80	10.00	-105.51
23.74	10,030	76.48	127.47	0.76	1.2709	9.90	2.80	98.316	2.80	10.08	-105.42
23.75	10,030	78.46	127.47	0.76	1.2709	9.90	2.80	98.367	2.30	10.08	-105.52
23.76	10,080	75.99	127.28	0.75	1.2627	9.95	2.80	98.417	2.30	10.13	-105.81
23.77	10,080	75.81	127.65	0.74	1.2644	9.99	2.80	98.468	2.30	10.13	-105.81
23.78	10,210	75.07	128.01	0.74	1.2520	10.08	3.00	98.520	2.50	10.26	-105.45
23.79	10,310	74.56	128.01	0.72	1.2416	10.18	3.00	98.573	2.50	10.36	-105.37
23.8	10,450	74.74	128.01	0.71	1.2250	10.32	3.00	98.623	2.30	10.50	-105.47
23.81	10,620	74.84	128.38	0.70	1.2089	10.49	2.80	98.674	2.30	10.67	-105.20
23.82	10,740	74.81	128.38	0.69	1.1929	10.71	2.80	98.724	2.30	10.84	-104.93
23.83	11,090	74.97	128.93	0.68	1.1626	10.98	2.80	98.775	2.30	11.14	-104.84
23.84	11,400	74.97	129.11	0.66	1.1325	11.27	3.00	98.827	2.00	11.44	-104.76



Impresa esecutrice: 																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Committente: Nome: A.L.Po P. IVA / C.F.: Indirizzo: Ufficio di Piacenza Telefono: Tel. Fax: e-mail: PC-E-810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Prova: Ubicazione: Soarza (PC) Quota assoluta [m]: Data: 28/02/2016 Q. inizio da Q. ass. [m]: Tipo prova: CPTU Preforo [m]: NO Codice Prova: 17-101_CPTU_Sez.1-centro Q.ta falda [m]: -9.30 Note: Sommità argine																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Il responsabile di sito: Dr. Geol. Stefano Verdini Il direttore tecnico: Dr. Geol. Enrico Fasani																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
<table border="1"><thead><tr><th>Depth [m]</th><th>Qc [MPa]</th><th>Fs [kPa]</th><th>U2 [kPa]</th><th>Rf [%]</th><th>U2/Qc [%]</th><th>Qc-U2 [MPa]</th><th>Tilt [°]</th><th>Dist [cm]</th><th>Speed [cm/sec]</th><th>Qt [MPa]</th><th>U2-U0 [kPa]</th></tr></thead><tbody><tr><td>0.01</td><td>0.000</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.000</td><td>0.00</td><td>0.50</td><td>0.009</td><td>0.50</td><td>0.00</td><td>0.00</td></tr><tr><td>0.02</td><td>0.010</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.000</td><td>0.01</td><td>0.40</td><td>0.016</td><td>1.00</td><td>0.01</td><td>0.00</td></tr><tr><td>0.03</td><td>0.010</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.000</td><td>0.01</td><td>0.50</td><td>0.024</td><td>0.00</td><td>0.01</td><td>0.00</td></tr><tr><td>0.04</td><td>0.010</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.000</td><td>0.01</td><td>0.50</td><td>0.033</td><td>0.00</td><td>0.01</td><td>0.00</td></tr><tr><td>0.05</td><td>0.020</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.000</td><td>0.02</td><td>0.50</td><td>0.042</td><td>1.00</td><td>0.02</td><td>0.00</td></tr><tr><td>0.06</td><td>0.050</td><td>0.05</td><td>0.00</td><td>0.10</td><td>0.000</td><td>0.05</td><td>0.50</td><td>0.051</td><td>1.00</td><td>0.05</td><td>0.00</td></tr><tr><td>0.07</td><td>0.130</td><td>0.32</td><td>-0.55</td><td>0.25</td><td>-0.4231</td><td>0.13</td><td>0.50</td><td>0.059</td><td>1.00</td><td>0.13</td><td>-0.55</td></tr><tr><td>0.08</td><td>0.280</td><td>0.05</td><td>-0.55</td><td>0.02</td><td>-0.1964</td><td>0.28</td><td>0.50</td><td>0.068</td><td>1.00</td><td>0.28</td><td>-0.55</td></tr><tr><td>0.09</td><td>0.360</td><td>0.65</td><td>-0.73</td><td>0.18</td><td>-0.2028</td><td>0.36</td><td>0.40</td><td>0.075</td><td>1.50</td><td>0.36</td><td>-0.73</td></tr><tr><td>0.1</td><td>0.360</td><td>0.37</td><td>-0.73</td><td>0.10</td><td>-0.2028</td><td>0.36</td><td>0.50</td><td>0.084</td><td>1.00</td><td>0.36</td><td>-0.73</td></tr><tr><td>0.11</td><td>0.500</td><td>1.25</td><td>-0.73</td><td>0.25</td><td>-0.1460</td><td>0.50</td><td>0.50</td><td>0.093</td><td>1.00</td><td>0.50</td><td>-0.73</td></tr><tr><td>0.12</td><td>0.630</td><td>2.04</td><td>-1.10</td><td>0.32</td><td>-0.1746</td><td>0.63</td><td>0.40</td><td>0.099</td><td>2.00</td><td>0.63</td><td>-1.10</td></tr><tr><td>0.13</td><td>0.690</td><td>2.64</td><td>-1.10</td><td>0.38</td><td>-0.1594</td><td>0.69</td><td>0.40</td><td>0.106</td><td>2.00</td><td>0.69</td><td>-1.10</td></tr><tr><td>0.14</td><td>0.710</td><td>5.23</td><td>-1.83</td><td>0.74</td><td>-0.2577</td><td>0.71</td><td>0.40</td><td>0.113</td><td>2.00</td><td>0.71</td><td>-1.83</td></tr><tr><td>0.15</td><td>0.710</td><td>6.02</td><td>-2.37</td><td>0.85</td><td>-0.3338</td><td>0.71</td><td>0.40</td><td>0.120</td><td>2.00</td><td>0.71</td><td>-2.37</td></tr><tr><td>0.16</td><td>0.700</td><td>7.22</td><td>-2.01</td><td>1.03</td><td>-0.2871</td><td>0.70</td><td>0.40</td><td>0.127</td><td>2.00</td><td>0.70</td><td>-2.01</td></tr><tr><td>0.17</td><td>0.630</td><td>8.38</td><td>-1.46</td><td>1.33</td><td>-0.2317</td><td>0.63</td><td>0.40</td><td>0.134</td><td>2.00</td><td>0.63</td><td>-1.46</td></tr><tr><td>0.18</td><td>0.590</td><td>9.45</td><td>-1.10</td><td>1.60</td><td>-0.1864</td><td>0.59</td><td>0.40</td><td>0.141</td><td>2.00</td><td>0.59</td><td>-1.10</td></tr><tr><td>0.19</td><td>0.570</td><td>10.47</td><td>-1.10</td><td>1.84</td><td>-0.1930</td><td>0.57</td><td>0.40</td><td>0.148</td><td>2.00</td><td>0.57</td><td>-1.10</td></tr><tr><td>0.2</td><td>0.540</td><td>13.00</td><td>-0.91</td><td>2.09</td><td>-0.1685</td><td>0.54</td><td>0.40</td><td>0.155</td><td>2.00</td><td>0.54</td><td>-0.91</td></tr><tr><td>0.21</td><td>0.540</td><td>12.32</td><td>-0.73</td><td>2.28</td><td>-0.1352</td><td>0.54</td><td>0.40</td><td>0.162</td><td>2.00</td><td>0.54</td><td>-0.73</td></tr><tr><td>0.22</td><td>0.540</td><td>13.29</td><td>-0.73</td><td>2.46</td><td>-0.1352</td><td>0.54</td><td>0.40</td><td>0.169</td><td>2.00</td><td>0.54</td><td>-0.73</td></tr><tr><td>0.23</td><td>0.570</td><td>14.22</td><td>-0.91</td><td>2.49</td><td>-0.1596</td><td>0.57</td><td>0.40</td><td>0.176</td><td>2.00</td><td>0.57</td><td>-0.91</td></tr><tr><td>0.24</td><td>0.600</td><td>15.42</td><td>-1.28</td><td>2.57</td><td>-0.2133</td><td>0.60</td><td>0.40</td><td>0.183</td><td>2.00</td><td>0.60</td><td>-1.28</td></tr><tr><td>0.25</td><td>0.610</td><td>16.87</td><td>-1.64</td><td>2.73</td><td>-0.2689</td><td>0.61</td><td>0.40</td><td>0.190</td><td>2.00</td><td>0.61</td><td>-1.64</td></tr><tr><td>0.26</td><td>0.590</td><td>18.15</td><td>-1.46</td><td>3.05</td><td>-0.2475</td><td>0.59</td><td>0.40</td><td>0.197</td><td>2.00</td><td>0.59</td><td>-1.46</td></tr><tr><td>0.27</td><td>0.580</td><td>17.69</td><td>-1.28</td><td>3.05</td><td>-0.2207</td><td>0.58</td><td>0.40</td><td>0.204</td><td>2.00</td><td>0.58</td><td>-1.28</td></tr><tr><td>0.28</td><td>0.570</td><td>17.13</td><td>-1.28</td><td>3.01</td><td>-0.2246</td><td>0.57</td><td>0.40</td><td>0.211</td><td>2.00</td><td>0.57</td><td>-1.28</td></tr><tr><td>0.29</td><td>0.590</td><td>18.15</td><td>-1.28</td><td>3.08</td><td>-0.2169</td><td>0.59</td><td>0.40</td><td>0.218</td><td>2.00</td><td>0.59</td><td>-1.28</td></tr><tr><td>0.3</td><td>0.610</td><td>17.32</td><td>-1.28</td><td>2.84</td><td>-0.2098</td><td>0.61</td><td>0.40</td><td>0.225</td><td>2.00</td><td>0.61</td><td>-1.28</td></tr><tr><td>0.31</td><td>0.630</td><td>16.76</td><td>-1.10</td><td>2.66</td><td>-0.1746</td><td>0.63</td><td>0.40</td><td>0.232</td><td>2.00</td><td>0.63</td><td>-1.10</td></tr><tr><td>0.32</td><td>0.650</td><td>16.72</td><td>-0.91</td><td>2.57</td><td>-0.1400</td><td>0.65</td><td>0.40</td><td>0.239</td><td>2.00</td><td>0.65</td><td>-0.91</td></tr><tr><td>0.33</td><td>0.670</td><td>16.72</td><td>-0.91</td><td>2.50</td><td>-0.1358</td><td>0.67</td><td>0.40</td><td>0.246</td><td>2.30</td><td>0.67</td><td>-0.91</td></tr><tr><td>0.34</td><td>0.670</td><td>16.90</td><td>-0.73</td><td>2.52</td><td>-0.1090</td><td>0.67</td><td>0.40</td><td>0.253</td><td>2.00</td><td>0.67</td><td>-0.73</td></tr><tr><td>0.35</td><td>0.680</td><td>16.67</td><td>-0.18</td><td>2.53</td><td>-0.0273</td><td>0.68</td><td>0.40</td><td>0.260</td><td>2.00</td><td>0.68</td><td>-0.18</td></tr><tr><td>0.36</td><td>0.680</td><td>17.30</td><td>-0.18</td><td>2.60</td><td>0.0000</td><td>0.68</td><td>0.40</td><td>0.267</td><td>2.00</td><td>0.68</td><td>0.00</td></tr><tr><td>0.37</td><td>0.650</td><td>17.50</td><td>-0.18</td><td>2.69</td><td>-0.0277</td><td>0.65</td><td>0.40</td><td>0.274</td><td>2.00</td><td>0.65</td><td>-0.18</td></tr><tr><td>0.38</td><td>0.650</td><td>18.01</td><td>0.18</td><td>2.77</td><td>0.0277</td><td>0.65</td><td>0.40</td><td>0.281</td><td>2.00</td><td>0.65</td><td>0.18</td></tr><tr><td>0.39</td><td>0.620</td><td>19.50</td><td>0.37</td><td>3.15</td><td>0.0597</td><td>0.62</td><td>0.40</td><td>0.288</td><td>2.00</td><td>0.62</td><td>0.37</td></tr><tr><td>0.4</td><td>0.600</td><td>20.38</td><td>0.00</td><td>3.40</td><td>0.0000</td><td>0.60</td><td>0.40</td><td>0.295</td><td>2.00</td><td>0.60</td><td>0.00</td></tr><tr><td>0.41</td><td>0.560</td><td>21.86</td><td>0.55</td><td>3.90</td><td>0.0982</td><td>0.56</td><td>0.30</td><td>0.300</td><td>2.00</td><td>0.56</td><td>0.55</td></tr><tr><td>0.42</td><td>0.540</td><td>21.90</td><td>0.18</td><td>4.06</td><td>0.0333</td><td>0.54</td><td>0.30</td><td>0.305</td><td>2.00</td><td>0.54</td><td>0.18</td></tr><tr><td>0.43</td><td>0.510</td><td>21.26</td><td>0.18</td><td>4.17</td><td>0.0353</td><td>0.51</td><td>0.40</td><td>0.312</td><td>2.30</td><td>0.51</td><td>0.18</td></tr><tr><td>0.44</td><td>0.480</td><td>21.63</td><td>0.00</td><td>4.51</td><td>0.0000</td><td>0.48</td><td>0.40</td><td>0.319</td><td>2.00</td><td>0.48</td><td>0.00</td></tr><tr><td>0.45</td><td>0.450</td><td>21.39</td><td>-0.18</td><td>4.75</td><td>-0.0400</td><td>0.45</td><td>0.40</td><td>0.326</td><td>2.00</td><td>0.45</td><td>-0.18</td></tr><tr><td>0.46</td><td>0.430</td><td>20.75</td><td>-0.18</td><td>4.43</td><td>-0.0419</td><td>0.43</td><td>0.40</td><td>0.333</td><td>2.00</td><td>0.43</td><td>-0.18</td></tr><tr><td>0.47</td><td>0.410</td><td>20.47</td><td>-0.18</td><td>4.98</td><td>-0.0439</td><td>0.41</td><td>0.40</td><td>0.340</td><td>2.00</td><td>0.41</td><td>-0.18</td></tr></tbody></table>		Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]	0.01	0.000	0.00	0.00	0.00	0.000	0.00	0.50	0.009	0.50	0.00	0.00	0.02	0.010	0.00	0.00	0.00	0.000	0.01	0.40	0.016	1.00	0.01	0.00	0.03	0.010	0.00	0.00	0.00	0.000	0.01	0.50	0.024	0.00	0.01	0.00	0.04	0.010	0.00	0.00	0.00	0.000	0.01	0.50	0.033	0.00	0.01	0.00	0.05	0.020	0.00	0.00	0.00	0.000	0.02	0.50	0.042	1.00	0.02	0.00	0.06	0.050	0.05	0.00	0.10	0.000	0.05	0.50	0.051	1.00	0.05	0.00	0.07	0.130	0.32	-0.55	0.25	-0.4231	0.13	0.50	0.059	1.00	0.13	-0.55	0.08	0.280	0.05	-0.55	0.02	-0.1964	0.28	0.50	0.068	1.00	0.28	-0.55	0.09	0.360	0.65	-0.73	0.18	-0.2028	0.36	0.40	0.075	1.50	0.36	-0.73	0.1	0.360	0.37	-0.73	0.10	-0.2028	0.36	0.50	0.084	1.00	0.36	-0.73	0.11	0.500	1.25	-0.73	0.25	-0.1460	0.50	0.50	0.093	1.00	0.50	-0.73	0.12	0.630	2.04	-1.10	0.32	-0.1746	0.63	0.40	0.099	2.00	0.63	-1.10	0.13	0.690	2.64	-1.10	0.38	-0.1594	0.69	0.40	0.106	2.00	0.69	-1.10	0.14	0.710	5.23	-1.83	0.74	-0.2577	0.71	0.40	0.113	2.00	0.71	-1.83	0.15	0.710	6.02	-2.37	0.85	-0.3338	0.71	0.40	0.120	2.00	0.71	-2.37	0.16	0.700	7.22	-2.01	1.03	-0.2871	0.70	0.40	0.127	2.00	0.70	-2.01	0.17	0.630	8.38	-1.46	1.33	-0.2317	0.63	0.40	0.134	2.00	0.63	-1.46	0.18	0.590	9.45	-1.10	1.60	-0.1864	0.59	0.40	0.141	2.00	0.59	-1.10	0.19	0.570	10.47	-1.10	1.84	-0.1930	0.57	0.40	0.148	2.00	0.57	-1.10	0.2	0.540	13.00	-0.91	2.09	-0.1685	0.54	0.40	0.155	2.00	0.54	-0.91	0.21	0.540	12.32	-0.73	2.28	-0.1352	0.54	0.40	0.162	2.00	0.54	-0.73	0.22	0.540	13.29	-0.73	2.46	-0.1352	0.54	0.40	0.169	2.00	0.54	-0.73	0.23	0.570	14.22	-0.91	2.49	-0.1596	0.57	0.40	0.176	2.00	0.57	-0.91	0.24	0.600	15.42	-1.28	2.57	-0.2133	0.60	0.40	0.183	2.00	0.60	-1.28	0.25	0.610	16.87	-1.64	2.73	-0.2689	0.61	0.40	0.190	2.00	0.61	-1.64	0.26	0.590	18.15	-1.46	3.05	-0.2475	0.59	0.40	0.197	2.00	0.59	-1.46	0.27	0.580	17.69	-1.28	3.05	-0.2207	0.58	0.40	0.204	2.00	0.58	-1.28	0.28	0.570	17.13	-1.28	3.01	-0.2246	0.57	0.40	0.211	2.00	0.57	-1.28	0.29	0.590	18.15	-1.28	3.08	-0.2169	0.59	0.40	0.218	2.00	0.59	-1.28	0.3	0.610	17.32	-1.28	2.84	-0.2098	0.61	0.40	0.225	2.00	0.61	-1.28	0.31	0.630	16.76	-1.10	2.66	-0.1746	0.63	0.40	0.232	2.00	0.63	-1.10	0.32	0.650	16.72	-0.91	2.57	-0.1400	0.65	0.40	0.239	2.00	0.65	-0.91	0.33	0.670	16.72	-0.91	2.50	-0.1358	0.67	0.40	0.246	2.30	0.67	-0.91	0.34	0.670	16.90	-0.73	2.52	-0.1090	0.67	0.40	0.253	2.00	0.67	-0.73	0.35	0.680	16.67	-0.18	2.53	-0.0273	0.68	0.40	0.260	2.00	0.68	-0.18	0.36	0.680	17.30	-0.18	2.60	0.0000	0.68	0.40	0.267	2.00	0.68	0.00	0.37	0.650	17.50	-0.18	2.69	-0.0277	0.65	0.40	0.274	2.00	0.65	-0.18	0.38	0.650	18.01	0.18	2.77	0.0277	0.65	0.40	0.281	2.00	0.65	0.18	0.39	0.620	19.50	0.37	3.15	0.0597	0.62	0.40	0.288	2.00	0.62	0.37	0.4	0.600	20.38	0.00	3.40	0.0000	0.60	0.40	0.295	2.00	0.60	0.00	0.41	0.560	21.86	0.55	3.90	0.0982	0.56	0.30	0.300	2.00	0.56	0.55	0.42	0.540	21.90	0.18	4.06	0.0333	0.54	0.30	0.305	2.00	0.54	0.18	0.43	0.510	21.26	0.18	4.17	0.0353	0.51	0.40	0.312	2.30	0.51	0.18	0.44	0.480	21.63	0.00	4.51	0.0000	0.48	0.40	0.319	2.00	0.48	0.00	0.45	0.450	21.39	-0.18	4.75	-0.0400	0.45	0.40	0.326	2.00	0.45	-0.18	0.46	0.430	20.75	-0.18	4.43	-0.0419	0.43	0.40	0.333	2.00	0.43	-0.18	0.47	0.410	20.47	-0.18	4.98	-0.0439	0.41	0.40	0.340	2.00	0.41	-0.18
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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0.03	0.010	0.00	0.00	0.00	0.000	0.01	0.50	0.024	0.00	0.01	0.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.04	0.010	0.00	0.00	0.00	0.000	0.01	0.50	0.033	0.00	0.01	0.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.05	0.020	0.00	0.00	0.00	0.000	0.02	0.50	0.042	1.00	0.02	0.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.06	0.050	0.05	0.00	0.10	0.000	0.05	0.50	0.051	1.00	0.05	0.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.07	0.130	0.32	-0.55	0.25	-0.4231	0.13	0.50	0.059	1.00	0.13	-0.55																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.08	0.280	0.05	-0.55	0.02	-0.1964	0.28	0.50	0.068	1.00	0.28	-0.55																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.09	0.360	0.65	-0.73	0.18	-0.2028	0.36	0.40	0.075	1.50	0.36	-0.73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.1	0.360	0.37	-0.73	0.10	-0.2028	0.36	0.50	0.084	1.00	0.36	-0.73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.11	0.500	1.25	-0.73	0.25	-0.1460	0.50	0.50	0.093	1.00	0.50	-0.73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.12	0.630	2.04	-1.10	0.32	-0.1746	0.63	0.40	0.099	2.00	0.63	-1.10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.13	0.690	2.64	-1.10	0.38	-0.1594	0.69	0.40	0.106	2.00	0.69	-1.10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.14	0.710	5.23	-1.83	0.74	-0.2577	0.71	0.40	0.113	2.00	0.71	-1.83																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.15	0.710	6.02	-2.37	0.85	-0.3338	0.71	0.40	0.120	2.00	0.71	-2.37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.16	0.700	7.22	-2.01	1.03	-0.2871	0.70	0.40	0.127	2.00	0.70	-2.01																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.17	0.630	8.38	-1.46	1.33	-0.2317	0.63	0.40	0.134	2.00	0.63	-1.46																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.18	0.590	9.45	-1.10	1.60	-0.1864	0.59	0.40	0.141	2.00	0.59	-1.10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.19	0.570	10.47	-1.10	1.84	-0.1930	0.57	0.40	0.148	2.00	0.57	-1.10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.2	0.540	13.00	-0.91	2.09	-0.1685	0.54	0.40	0.155	2.00	0.54	-0.91																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.21	0.540	12.32	-0.73	2.28	-0.1352	0.54	0.40	0.162	2.00	0.54	-0.73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.22	0.540	13.29	-0.73	2.46	-0.1352	0.54	0.40	0.169	2.00	0.54	-0.73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.23	0.570	14.22	-0.91	2.49	-0.1596	0.57	0.40	0.176	2.00	0.57	-0.91																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.24	0.600	15.42	-1.28	2.57	-0.2133	0.60	0.40	0.183	2.00	0.60	-1.28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.25	0.610	16.87	-1.64	2.73	-0.2689	0.61	0.40	0.190	2.00	0.61	-1.64																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.26	0.590	18.15	-1.46	3.05	-0.2475	0.59	0.40	0.197	2.00	0.59	-1.46																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.27	0.580	17.69	-1.28	3.05	-0.2207	0.58	0.40	0.204	2.00	0.58	-1.28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.28	0.570	17.13	-1.28	3.01	-0.2246	0.57	0.40	0.211	2.00	0.57	-1.28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.29	0.590	18.15	-1.28	3.08	-0.2169	0.59	0.40	0.218	2.00	0.59	-1.28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.3	0.610	17.32	-1.28	2.84	-0.2098	0.61	0.40	0.225	2.00	0.61	-1.28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.31	0.630	16.76	-1.10	2.66	-0.1746	0.63	0.40	0.232	2.00	0.63	-1.10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.32	0.650	16.72	-0.91	2.57	-0.1400	0.65	0.40	0.239	2.00	0.65	-0.91																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.33	0.670	16.72	-0.91	2.50	-0.1358	0.67	0.40	0.246	2.30	0.67	-0.91																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.34	0.670	16.90	-0.73	2.52	-0.1090	0.67	0.40	0.253	2.00	0.67	-0.73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.35	0.680	16.67	-0.18	2.53	-0.0273	0.68	0.40	0.260	2.00	0.68	-0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.36	0.680	17.30	-0.18	2.60	0.0000	0.68	0.40	0.267	2.00	0.68	0.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.37	0.650	17.50	-0.18	2.69	-0.0277	0.65	0.40	0.274	2.00	0.65	-0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.38	0.650	18.01	0.18	2.77	0.0277	0.65	0.40	0.281	2.00	0.65	0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.39	0.620	19.50	0.37	3.15	0.0597	0.62	0.40	0.288	2.00	0.62	0.37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.4	0.600	20.38	0.00	3.40	0.0000	0.60	0.40	0.295	2.00	0.60	0.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.41	0.560	21.86	0.55	3.90	0.0982	0.56	0.30	0.300	2.00	0.56	0.55																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.42	0.540	21.90	0.18	4.06	0.0333	0.54	0.30	0.305	2.00	0.54	0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.43	0.510	21.26	0.18	4.17	0.0353	0.51	0.40	0.312	2.30	0.51	0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.44	0.480	21.63	0.00	4.51	0.0000	0.48	0.40	0.319	2.00	0.48	0.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.45	0.450	21.39	-0.18	4.75	-0.0400	0.45	0.40	0.326	2.00	0.45	-0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.46	0.430	20.75	-0.18	4.43	-0.0419	0.43	0.40	0.333	2.00	0.43	-0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0.47	0.410	20.47	-0.18	4.98	-0.0439	0.41	0.40	0.340	2.00	0.41	-0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

17-101_G_CPTU_Soarza

17-101_CPTU.S1_Centro

Pag. 1

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0.48	0.380	19.08	-0.18	5.02	-0.0474	0.38	0.40	0.347	2.00	0.38	-0.18
0.49	0.360	18.06	-0.18	5.02	-0.0500	0.36	0.40	0.354	2.00	0.36	-0.18
0.5	0.340	16.39	-0.18	4.82	-0.0529	0.34	0.40	0.361	2.00	0.34	-0.18
0.51	0.340	15.24	-0.37	4.48	-0.1088	0.34	0.40	0.368	2.00	0.34	-0.37
0.52	0.350	14.36	-0.37	4.32	-0.1057	0.35	0.40	0.375	2.00	0.35	-0.37
0.53	0.350	12.60	-0.37	3.80	-0.1057	0.35	0.40	0.382	2.00	0.35	-0.37
0.54	0.360	12.46	0.37	3.46	0.1028	0.36	0.40	0.389	2.00	0.36	0.37
0.55	0.360	12.46	0.37	3.46	0.1028	0.36	0.40	0.396	2.30	0.36	0.37
0.56	0.420	13.24	0.91	3.15	0.2167	0.42	0.40	0.403	2.30	0.42	0.91
0.57	0.440	13.57	0.73	3.03	0.1659	0.44	0.40	0.410	2.30	0.44	0.73
0.58	0.490	14.36	1.10	2.93	0.2245	0.49	0.40	0.417	2.00	0.49	1.10
0.59	0.540	14.59	0.91	2.70	0.1685	0.54	0.40	0.424	2.00	0.54	0.91
0.6	0.600	15.33	0.55	2.56	0.0917	0.60	0.40	0.431	2.00	0.60	0.55
0.61	0.640	15.47	0.18	2.42	0.0281	0.64	0.40	0.438	2.00	0.64	0.18
0.62	0.690	16.86	-0.46	2.44	-0.2167	0.69	0.40	0.445	2.00	0.69	-0.46
0.63	0.750	18.52	-2.01	2.47	-0.2680	0.75	0.30	0.449	2.00	0.75	-2.01
0.64	0.840	18.99	-2.37	2.26	-0.2821	0.84	0.30	0.454	2.00	0.84	-2.37
0.65	0.930	20.01	-2.92	2.15	-0.3140	0.93	0.30	0.459	2.30	0.93	-2.92
0.66	1.000	20.98	-3.65	2.10	-0.3650	1.00	0.30	0.464	2.30	1.00	-3.65
0.67	1.100	22.74	-4.57	2.07	-0.4155	1.10	0.30	0.469	2.00	1.10	-4.57
0.68	1.230	25.93	-4.38	2.11	-0.3561	1.23	0.30	0.475	2.00	1.23	-4.38
0.69	1.300	28.53	-3.83	2.19	-0.2946	1.30	0.30	0.480	2.00	1.30	-3.83
0.7	1.340	31.12	-2.56	2.32	-0.1910	1.34	0.30	0.485	2.00	1.34	-2.56
0.71	1.400	33.85	-1.10	2.42	-0.0786	1.40	0.30	0.490	2.00	1.40	-1.10
0.72	1.500	37.37	0.55	2.58	0.0379	1.45	0.30	0.496	2.00	1.45	0.55
0.73	1.520	42.05	1.46	2.77	0.0961	1.52	0.30	0.501	2.00	1.52	1.46
0.74	1.540	45.61	4.02	2.96	0.2610	1.54	0.30	0.506	2.00	1.54	4.02
0.75	1.560	50.38	4.20	3.23	0.2692	1.56	0.30	0.511	2.00	1.56	4.20
0.76	1.560	54.23	4.02	3.48	0.2577	1.56	0.30	0.517	2.00	1.56	4.02
0.77	1.570	58.72	3.65	3.74	0.2325	1.57	0.30	0.522	1.80	1.57	3.65
0.78	1.510	68.21	4.02	4.52	0.2662	1.51	0.30	0.527	1.80	1.51	4.02
0.79	1.430	71.87	2.74	5.03	0.1916	1.43	0.30	0.532	2.00	1.43	2.74
0.8	1.370	73.91	2.19	5.39	0.1599	1.37	0.30	0.538	2.00	1.37	2.19
0.81	1.300	75.39	2.19	5.80	0.1685	1.30	0.30	0.543	2.00	1.30	2.19
0.82	1.220	76.55	1.10	6.27	0.0902	1.22	0.30	0.548	2.00	1.22	1.10
0.83	1.140	75.11	1.28	6.59	0.1123	1.14	0.30	0.553	2.00	1.14	1.28
0.84	1.050	72.47	0.91	6.90	0.0867	1.05	0.20	0.557	2.00	1.05	0.91
0.85	1.010	72.06	0.91	7.13	0.0901	1.01	0.20	0.560	2.00	1.01	0.91
0.86	0.920	65.90	-0.18	7.16	-0.1936	0.92	0.20	0.564	2.00	0.92	-0.18
0.87	0.870	61.36	-0.18	7.05	-0.2027	0.87	0.20	0.567	2.00	0.87	-0.18
0.88	0.870	61.36	-0.18	7.05	-0.2027	0.87	0.20	0.571	2.00	0.87	-0.18
0.89	0.840	53.35	0.00	6.35	0.0000	0.84	0.20	0.574	2.00	0.84	0.00
0.9	0.820	51.31	-0.73	6.26	-0.0890	0.82	0.20	0.578	2.00	0.82	-0.73
0.91	0.800	48.12	-0.91	6.02	-0.1138	0.80	0.20	0.581	2.00	0.80	-0.91
0.92	0.790	43.16	-1.10	5.46	-0.1372	0.79	0.20	0.585	2.00	0.79	-1.10
0.93	0.800	40.01	-1.10	5.00	-0.1395	0.80	0.20	0.589	2.00	0.80	-1.10
0.94	0.790	37.09	-0.91	4.69	-0.1152	0.79	0.20	0.592	2.00	0.79	-0.91
0.95	0.810	34.69	-0.55	4.28	-0.0679	0.81	0.30	0.597	2.00	0.81	-0.55
0.96	0.790	32.79	-0.37	4.15	-0.0468	0.79	0.30	0.602	2.00	0.79	-0.37
0.97	0.800	29.50	0.91	3.69	0.1138	0.80	0.30	0.607	2.00	0.80	0.91
0.98	0.810	27.79	1.64	3.41	0.2025	0.81	0.20	0.611	2.00	0.81	1.64
0.99	0.830	26.12	2.19	3.15	0.2639	0.83	0.20	0.614	2.00	0.83	2.19
1	0.830	24.24	2.92	2.99	0.3518	0.83	0.20	0.618	2.00	0.83	2.92
1.01	0.830	23.20	3.47	2.80	0.4181	0.83	0.20	0.621	2.00	0.83	3.47
1.02	0.790	22.46	2.96	2.68	0.3718	0.79	0.20	0.625	2.00	0.79	2.96
1.03	0.780	22.14	2.37	2.84	0.3038	0.78	0.20	0.629	2.00	0.78	2.37
1.04	0.770	20.84	2.37	2.71	0.3078	0.77	0.20	0.632	2.00	0.77	2.37
1.05	0.780	21.22	2.19	2.78	0.2808	0.78	0.20	0.635	2.00	0.78	2.19
1.06	0.810	22.69	1.83	2.80	0.2259	0.81	0.20	0.639	2.00	0.81	1.83
1.07	0.850	23.85	1.40	2.81	0.1648	0.85	0.20	0.642	2.00	0.85	1.40
1.08	0.980	27.23	1.10	2.78	0.1122	0.98	0.20	0.646	1.00	0.98	1.10
1.09	1.100	28.85	1.28	2.62	0.1164	1.10	0.20	0.649	2.00	1.10	1.28
1.1	1.230	30.18	1.28	2.36	0.1041	1.23	0.20	0.653	2.00	1.23	1.28
1.11	1.580	32.14	2.01	2.04	0.1272	1.58	0.20	0.656	2.00	1.58	2.01
1.12	1.510	31.07	2.37	2.20	0.1570	1.51	0.20	0.660	2.00	1.51	2.37
1.13	1.510	34.08	0.91	2.26	0.2053	1.51	0.20	0.663	2.00	1.51	0.91
1.14	1.550	37.05	3.29	2.29	0.2123	1.55	0.20	0.667	2.00	1.55	3.29
1.15	1.640	39.89	3.10	2.43	0.1890	1.64	0.20	0.670	1.80	1.64	3.10
1.16	1.770	46.57	2.74	2.63	0.1548	1.77	0.20	0.674	2.00	1.77	2.74

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
2.55	3,500	158.28	10.77	4.52	0.3077	3.49	0.40	1,511	2.00	3.50	10.77
2.56	3,530	159.07	10.23	4.51	0.2898	3.52	0.40	1,518	2.00	3.53	10.23
2.57	3,570	161.02	9.50	4.51	0.2661	3.56	0.40	1,525	2.00	3.57	9.50
2.58	3,750	157.54	9.31	4.20	0.2463	3.74	0.40	1,532	1.80	3.75	9.31
2.59	3,840	158.30	9.40	4.12	0.2474	3.83	0.40	1,539	1.80	3.84	9.40
2.6	3,900	161.11	10.96	4.13	0.2810	3.89	0.40	1,546	2.00	3.90	10.96
2.61	3,990	165.51	12.24	4.15	0.3068	3.98	0.40	1,553	2.00	4.00	12.24
2.62	4,110	171.02	12.42	4.16	0.3022	4.10	0.40	1,560	2.00	4.12	12.42
2.63	4,110	171.02	12.42	4.16	0.3022	4.10	0.40	1,567	2.50	4.12	12.42
2.64	4,130	165.55	12.05	4.05	0.2918	4.12	0.40	1,574	2.50	4.14	12.05
2.65	4,110	171.20	11.69	4.17	0.2844	4.10	0.40	1,581	2.50	4.11	11.69
2.66	4,050	175.79	11.69	4.34	0.2886	4.04	0.40	1,588	2.50	4.05	11.69
2.67	3,990	177.78	11.69	4.46	0.2930	3.98	0.40	1,595	2.50	3.99	11.69
2.68	3,970	182.13	11.69	4.59	0.2945	3.96	0.40	1,602	2.50	3.97	11.69
2.69	3,910	183.25	11.69	4.65	0.2990	3.83	0.40	1,609	2.50	3.91	11.69
2.7	3,790	187.83	11.87	4.96	0.3132	3.78	0.40	1,616	2.30	3.79	11.87
2.71	3,790	187.83	11.87	4.96	0.3132	3.78	0.40	1,623	2.30	3.79	11.87
2.72	3,750	196.58	12.42	5.24	0.3312	3.74	0.40	1,630	2.30	3.76	12.42
2.73	3,750	196.58	12.42	5.24	0.3312	3.74	0.40	1,637	2.50	3.76	12.42
2.74	3,780	193.30	12.42	5.16	0.3244	3.76	0.40	1,644	2.50	3.79	12.42
2.75	3,780	187.04	16.82	4.95	0.4397	3.76	0.40	1,651	2.30	3.79	16.82
2.76	3,700	179.36	16.44	4.85	0.4443	3.68	0.40	1,658	2.30	3.71	16.44
2.77	3,560	163.10	15.43	4.58	0.4309	3.54	0.40	1,665	2.00	3.57	15.43
2.78	3,510	157.40	14.34	4.48	0.4111	3.50	0.40	1,672	2.00	3.52	14.34
2.79	3,540	149.21	14.43	4.21	0.4076	3.53	0.40	1,679	2.00	3.54	14.43
2.8	3,570	141.89	13.51	4.08	0.3974	3.57	0.40	1,686	2.00	3.58	13.51
2.81	3,580	136.66	13.15	3.82	0.3673	3.57	0.40	1,693	1.80	3.59	13.15
2.82	3,550	134.07	12.97	3.78	0.3654	3.54	0.40	1,700	1.80	3.56	12.97
2.83	3,570	130.82	13.15	3.66	0.3683	3.56	0.40	1,707	2.00	3.58	13.15
2.84	3,610	131.01	13.33	3.63	0.3693	3.60	0.40	1,714	2.00	3.62	13.33
2.85	3,640	132.86	13.33	3.65	0.3662	3.63	0.40	1,721	1.80	3.65	13.33
2.86	3,640	136.20	12.97	3.74	0.3563	3.63	0.40	1,728	2.00	3.65	12.97
2.87	3,670	140.22	12.97	3.82	0.3534	3.66	0.40	1,735	2.00	3.68	12.97
2.88	3,670	147.82	13.51	4.03	0.3681	3.66	0.40	1,742	2.00	3.68	13.51
2.89	3,670	154.02	13.51	4.20	0.3681	3.66	0.40	1,749	2.00	3.68	13.51
2.9	3,660	156.71	13.51	4.28	0.3691	3.65	0.40	1,756	1.80	3.67	13.51
2.91	3,680	163.15	12.97	4.46	0.3544	3.65	0.40	1,763	1.80	3.67	12.97
2.92	3,690	168.43	12.78	4.56	0.3463	3.68	0.40	1,770	2.00	3.70	12.78
2.93	3,710	174.31	13.15	4.70	0.3544	3.70	0.40	1,777	2.00	3.72	13.15
2.94	3,730	177.73	13.70	4.76	0.3873	3.72	0.40	1,784	1.80	3.74	13.70
2.95	3,780	179.16	13.70	4.76	0.3824	3.77	0.40	1,791	1.80	3.79	13.70
2.96	3,830	181.30	13.51	4.73	0.3527	3.82	0.40	1,798	2.00	3.84	13.51
2.97	3,880	182.00	13.33	4.69	0.3436	3.87	0.40	1,805	2.00	3.89	13.33
2.98	3,890	185.79	13.33	4.78	0.3427	3.88	0.40	1,812	2.00	3.90	13.33
2.99	3,890	188.66	13.15	4.85	0.3380	3.88	0.50	1,820	2.00	3.90	13.15
3	3,910	188.99	13.15	4.83	0.3363	3.90	0.50	1,828	1.80	3.92	13.15
3.01	3,940	193.33	13.33	4.93	0.3393	3.93	0.50	1,835	1.80	3.93	13.33
3.02	3,940	188.20	13.33	4.78	0.3383	3.93	0.50	1,847	1.80	3.95	13.33
3.03	3,900	187.97	13.51	4.82	0.3464	3.89	0.50	1,855	2.00	3.91	13.51
3.04	3,890	179.59	13.51	4.62	0.3473	3.88	0.50	1,864	2.00	3.90	13.51
3.05	3,920	175.11	13.51	4.49	0.3446	3.91	0.50	1,873	2.00	3.93	13.51
3.06	3,960	176.30	13.98	4.64	0.3505	3.98	0.50	1,881	1.80	3.97	13.98
3.07	3,990	176.11	13.70	4.41	0.3434	3.98	0.50	1,890	2.00	4.00	13.70
3.08	4,040	188.94	14.24	4.68	0.3525	4.03	0.50	1,899	2.00	4.05	14.24
3.09	4,060	194.41	14.61	4.79	0.3599	4.05	0.60	1,909	2.00	4.07	14.61
3.1	4,060	197.09	14.97	4.85	0.3667	4.05	0.60	1,920	2.00	4.07	14.97
3.11	4,090	203.34	15.89	4.95	0.3982	4.09	0.60	1,930	1.80	4.09	15.89
3.12	3,880	205.80	16.07	5.17	0.4038	3.96	0.60	1,941	1.80	3.99	16.07
3.13	4,020	210.89	15.52	5.25	0.3861	4.00	0.60	1,951	2.00	4.03	15.52
3.14	4,050	214.04	14.79	5.28	0.3652	4.04	0.60	1,962	2.00	4.06	14.79
3.15	4,030	218.12	14.24	5.41	0.3533	4.02	0.60	1,972	2.30	4.04	14.24
3.16	4,020	223.40	14.43	5.61	0.3630	4.09	0.60	1,983	2.30	4.09	14.43
3.17	3,970	230.25	14.61	5.80	0.3680	3.96	0.60	1,993	2.00	3.98	14.61
3.18	3,870	238.08	14.79	6.15	0.3822	3.86	0.60	2,004	2.00	3.88	14.79
3.19	3,870	238.08	14.79	6.15	0.3822	3.86	0.60	2,014	2.30	3.88	14.79
3.2	3,870	238.08	14.79	6.15	0.3822	3.86	0.60	2,025	2.30	3.88	14.79
3.21	3,790	237.17	17.17	6.30	0.3770	3.79	0.60	2,037	2.30	3.89	17.17
3.22	3,760	224.74	17.17	5.98	0.4566	3.74	0.70	2,049	2.00	3.77	17.17
3.23	3,680	241.64	17.53	6.57	0.4764	3.66	0.70	2,061	2.30	3.69	17.53

17-101.G_CPTU_Soarza

17-101.CPTU.S1_Centro

Pag. 5

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
3.24	3,680	241.64	17.53	6.57	0.4764	3.66	0.70	2,073	2.30	3.69	17.53
3.25	3,790	238.03	17.35	6.28	0.4578	3.77	0.70	2,086	2.00	3.80	17.35
3.26	3,790	238.03	17.35	6.28	0.4578	3.77	0.70	2,098	2.00	3.80	17.35
3.27	3,770	233.17	17.53	6.18	0.4650	3.75	0.70	2,110	2.00	3.78	17.53
3.28	3,780	234.79	17.53	6.37	0.4638	3.72	0.70	2,122	2.30	3.79	17.53
3.29	3,730	240.99	17.53	6.46	0.4700	3.71	0.70	2,135	2.30	3.74	17.53
3.3	3,680	245.11	17.71	6.66	0.4813	3.66	0.70	2,147	2.00	3.69	17.71
3.31	3,640	247.34	17.90	6.80	0.4918	3.62	0.70	2,159	2.00	3.65	17.90
3.32	3,640	247.43	17.71	6.80	0.4895	3.62	0.70	2,171	2.30	3.65	17.71
3.33	3,650	246.27	18.63	6.71	0.4816	3.62	0.70	2,183	2.30	3.65	18.63
3.34	3,620	246.74	18.63	6.82	0.5146	3.60	0.70	2,196	2.30	3.63	18.63
3.35	3,500	248.26	19.36	7.09	0.5531	3.48	0.70	2,208	2.30	3.51	19.36
3.36	3,450	247.34	20.09	7.17	0.5823	3.43	0.70	2,220	2.00	3.46	20.09
3.37	3,390	246.27	20.27	7.26	0.5999	3.37	0.70	2,232	2.00	3.40	20.27
3.38	3,290	247.80	19.36	7.53	0.5884	3.27	0.80	2,246	2.00	3.30	19.36
3.39	3,170	247.94	20.45	7.82	0.6451	3.15	0.80	2,260	2.00	3.18	20.45
3.4	3,140	244.51	20.82	7.79	0.6631	3.12	0.80	2,274	2.30	3.15	20.82
3.41	3,130	239.97	21.00	7.67	0.6709	3.11	0.80	2,288	2.30	3.14	21.00
3.42	3,140	234.51	20.82	7.47	0.6831	3.12	0.80	2,304	2.30	3.15	20.82
3.43	3,050	230.67	20.84	7.56	0.7067	3.03	0.90	2,307	2.00	3.06	20.84
3.44	3,010	225.90	20.64	7.50	0.6857	2.99	0.90	2,335	2.30	3.02	20.64
3.45	2,990	219.04	20.27	7.33	0.6779	2.97	0.90	2,351	2.00	3.00	20.27
3.46	2,990	212.56	20.27	7.25	0.6918	2.91	0.90	2,367	2.00	2.94	20.27
3.47	2,880	208.02	20.64	7.27	0.7217	2.84	0.90	2,382	2.30	2.87	20.64
3.48	2,860	202.00	20.64	7.01	0.7167	2.86	0.90	2,388	2.30	2.88	20.64
3.49	2,860	199.59	20.45	6.98	0.7150	2.84	0.90	2,414	2.30	2.87	20.45
3.5	2,840	195.42	19.91	6.88	0.7011	2.82	0.90	2,429	2.30	2.85	19.91
3.51	2,870	190.52	20.09	6.64	0.7000	2.85	0.90	2,445	2.00	2.88	20.09
3.52	2,830	184.08	19.91	6.50	0.7035	2.81	0.90	2,461	2.00	2.84	19.91
3.53	2,830	184.08	19.91	6.50	0.7035	2.81	0.90	2,461	2.00	2.84	19.91
3.54	2,810	178.48	20.09	6.35	0.7149	2.79	0.90	2,492	2.30	2.82	20.09
3.55	2,770	178.20	20.45	6.43	0.7387	2.75	0.90	2,508	2.30	2.78	20.45
3.56	2,740	181.02	20.27	6.37	0.7398	2.72	0.90	2,524	2.00	2.75	20.27
3.57	2,730	184.82	21.37	6.71	0.7828	2.71	0.90	2,539	2.00	2.74	21.37
3.58	2,750	189.59	20.64	6.96	0.6965	2.73	0.90	2,565	2.30	2.78	20.64
3.59	2,790	189.64	22.10	6.80	0.7921	2.77	0.90	2,571	2.30	2.80	22.10
3.6	2,810	186.58	21.73	6.64	0.7733	2.79	0.90	2,587	2.30	2.82	21.73
3.61	2,820	185.25	21.00	6.59	0.7447	2.80	0.90	2,602	2.30	2.83	21.00
3.62	2,780	183.29	20.82	6.59	0.7489	2.76	1.00	2,620	2.00	2.79	20.82
3.63	2,820	186.56	20.82	6.44	0.7853	2.80	1.00	2,637	2.00	2.83	20.82
3.64	2,860	183.80	20.82	6.43	0.7280	2.84	1.00	2,655	2.30	2.87	20.82
3.65	2,910	185.19	20.82	6.35	0.7155	2.89	1.00	2,672	2.30	2.92	20.82
3.66	2,970	184.13	20.64	6.20	0.6949	2.95	1.00	2,690	2.00	2.98	20.64
3.67	3,030	184.50	20.82	6.09	0.6871	3.01	1.00	2,707	2.00	3.04	20.82
3.68	3,150	191.56	20.82	6.20	0.6832	3.13	1.00	2,724	2.30	3.10	20.84
3.69	3,150	195.15	20.64	6.20	0.6552	3.20	1.00	2,742	2.30	3.16	20.64
3.7	3,220	198.43	21.00	6.16	0.6522	3.20	1.00	2,759	2.30	3.23	21.00
3.71	3,460	208.07	20.64	6.01	0.5965	3.44	1.00	2,777	2.00	3.47	20.64
3.72	3,650	212.98	19.36	5.64	0.5304	3.63	1.00	2,794	2.00	3.66	19.36
3.73	3,620	219.56	19.36	5.84	0.5551	3.60	1.00	2,812	2.00	3.67	19.36
3.74	4,270	222.24	17.35	5.20	0.4063	4.25	1.00	2,829	2.30	4.28	17.35
3.75	4,740	225.57	18.44	4.76	0.3980	4.72	1.00	2,847	2.00	4.75	18.44
3.76	5,180	229.51	18.99	4.43	0.3666	5.16	1.00	2,864	2.00	5.19	18.99
3.77	5,660	232.72	18.99	4.13	0.3555	5.64	1.00	2,881	2.00	5.67	18.99
3.78	3,300	238.17	17.35	3.78	0.4217	3.62	1.00	2,899	2.00	3.79	17.35
3.79	6,790	244.33	17.53	3.60	0.2582	6.77	1.00	2,916	2.00	6.80	17.53
3.8	7,050	246.78	16.80	3.50	0.2383	7.03	1.00	2,934	2.00	7.06	16.80
3.81	7,300	254.84	15.34	3.49	0.2101	7.28	1.00	2,951	2.00	7.31	15.34
3.82	7,450	258.91	17.35	3.48	0.2329	7.43	1.00	2,969	2.00	7.46	17.35
3.83	7,430	258.26	15.55	3.49	0.2090	7.41	1.10	2,988	2.00	7.44	15.55
3.84	7,250	255.49	19.36	3.52	0.2732	7.23	1.00	3,007	2.00	7.26	19.36
3.85	7,090	258.45	20.09	3.65	0.2834	7.07	1.10	3,026	2.00	7.10	20.09
3.86	6,900	260.67	19.72	3.73	0.2821	6.97	1.10	3,046	2.00	7.00	19.72
3.87	6,970	261.10	19.91	3.74	0.2857	6.95	1.10	3,065	2.00	6.98	19.91
3.88	7,190	258.64	19.36	3.60	0.2819	7.17	1.10	3,083	2.00	7.20	20.27
3.89	7,380	258.41	19.36	3.50	0.2835	7.33	1.10	3,101	2.00	7.39	19.36
3.9	7,540	257.57	18.81	3.42	0.2495	7.52	1.00	3,119	2.00	7.55	18.81
3.91	7,620	258.27	18.81	3.39	0.2469	7.60	1.00	3,136	2.00	7.63	18.81
3.92	7,690	257.53	18.81	3.33	0.2446	7.67	1.00	3,154	2.00	7.70	18.81

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
5.31	10,790	76.97	24.11	0.71	0.2234	10.77	1.50	6.100	2.00	10.80	24.11
5.32	10,730	77.01	24.11	0.72	0.2247	10.71	1.50	6.126	2.00	10.74	24.11
5.33	10,790	77.29	23.92	0.72	0.2217	10.77	1.50	6.152	1.80	10.80	23.92
5.34	10,770	78.36	23.92	0.73	0.2221	10.75	1.50	6.178	1.80	10.78	23.92
5.35	10,630	82.13	23.92	0.81	0.2250	10.61	1.40	6.203	2.30	10.64	23.92
5.36	10,460	82.43	24.11	0.79	0.2305	10.44	1.40	6.227	2.30	10.47	24.11
5.37	10,320	83.50	24.11	0.81	0.2336	10.30	1.40	6.251	1.80	10.33	24.11
5.38	10,230	83.87	23.92	0.82	0.2338	10.21	1.50	6.278	1.80	10.24	23.92
5.39	10,200	84.42	24.11	0.83	0.2364	10.18	1.50	6.304	2.00	10.21	24.11
5.4	10,210	85.53	24.11	0.84	0.2379	10.19	1.50	6.330	2.00	10.24	24.11
5.41	10,210	86.69	24.47	0.85	0.2397	10.19	1.50	6.356	2.00	10.22	24.47
5.42	10,180	87.62	24.84	0.86	0.2440	10.16	1.50	6.382	2.00	10.19	24.84
5.43	10,140	88.27	25.02	0.87	0.2467	10.11	1.50	6.409	2.30	10.15	25.02
5.44	10,110	89.28	24.65	0.88	0.2438	10.09	1.50	6.435	2.30	10.12	24.65
5.45	10,050	90.58	25.38	0.90	0.2453	10.03	1.50	6.461	2.00	10.06	25.38
5.46	9,990	92.16	24.65	0.92	0.2467	9.97	1.50	6.487	2.00	10.00	24.65
5.47	9,930	92.99	24.29	0.94	0.2446	9.91	1.50	6.513	2.00	9.94	24.29
5.48	9,850	93.68	23.92	0.95	0.2428	9.83	1.50	6.539	2.00	9.86	23.92
5.49	9,780	94.66	24.11	0.97	0.2470	9.74	1.50	6.568	2.30	9.77	24.11
5.5	9,680	96.12	23.92	0.98	0.2485	9.66	1.50	6.592	2.30	9.74	23.92
5.51	9,540	94.56	24.47	0.99	0.2565	9.52	1.50	6.618	2.00	9.55	24.47
5.52	9,540	94.56	24.47	0.99	0.2565	9.52	1.50	6.644	2.00	9.55	24.47
5.53	9,330	91.14	24.65	0.98	0.2662	9.31	1.50	6.670	2.00	9.34	24.65
5.54	9,240	88.50	24.65	0.96	0.2688	9.22	1.50	6.696	2.00	9.25	24.65
5.55	9,140	85.07	24.65	0.93	0.2687	9.12	1.50	6.723	2.00	9.24	24.65
5.56	9,030	81.18	24.84	0.90	0.2751	9.01	1.50	6.749	2.00	9.04	24.84
5.57	8,970	77.66	24.84	0.87	0.2769	8.95	1.50	6.775	2.30	8.98	24.84
5.58	8,950	74.79	25.02	0.84	0.2796	8.92	1.50	6.801	2.30	8.96	25.02
5.59	8,960	72.75	25.02	0.81	0.2796	8.92	1.50	6.827	2.30	8.96	25.02
5.6	8,960	70.44	25.20	0.79	0.2813	8.93	1.50	6.854	2.00	8.97	25.20
5.61	8,960	68.03	25.38	0.76	0.2833	8.93	1.50	6.880	2.00	8.97	25.38
5.62	8,980	65.81	25.38	0.73	0.2826	8.95	1.50	6.906	2.00	8.99	25.38
5.63	9,000	64.42	25.20	0.72	0.2800	8.97	1.50	6.932	2.00	9.01	25.20
5.64	9,030	63.30	25.20	0.70	0.2791	9.00	1.50	6.958	2.30	9.04	25.20
5.65	9,060	61.82	25.20	0.68	0.2781	9.03	1.50	6.984	2.30	9.07	25.20
5.66	9,130	61.04	25.02	0.67	0.2740	9.10	1.50	7.011	2.00	9.14	25.02
5.67	9,180	58.72	25.20	0.64	0.2745	9.15	1.50	7.037	2.00	9.19	25.20
5.68	9,180	57.70	25.38	0.63	0.2765	9.15	1.50	7.063	2.30	9.19	25.38
5.69	9,090	56.96	25.75	0.63	0.2833	9.06	1.50	7.089	2.30	9.10	25.75
5.7	8,910	57.01	26.48	0.64	0.2972	8.98	1.50	7.115	2.00	8.92	26.48
5.71	8,740	56.59	26.68	0.65	0.3050	8.71	1.50	7.141	2.00	8.75	26.68
5.72	8,590	56.82	26.48	0.66	0.3093	8.53	1.50	7.168	2.30	8.57	26.48
5.73	8,410	57.33	26.11	0.68	0.3105	8.38	1.50	7.194	2.30	8.42	26.11
5.74	7,940	57.70	25.93	0.73	0.3266	7.91	1.50	7.220	2.00	7.95	25.93
5.75	7,940	57.70	25.93	0.73	0.3266	7.91	1.50	7.246	2.00	7.95	25.93
5.76	7,360	57.65	26.11	0.78	0.3348	7.33	1.50	7.272	2.30	7.37	26.11
5.77	7,130	57.90	26.30	0.82	0.3689	7.10	1.50	7.298	2.30	7.14	26.30
5.78	7,130	57.10	26.30	0.80	0.3689	7.10	1.50	7.325	2.30	7.14	26.30
5.79	6,780	55.71	26.30	0.82	0.3879	6.75	1.50	7.351	2.30	6.79	26.30
5.8	6,780	55.71	26.30	0.82	0.3879	6.75	1.50	7.377	2.30	6.79	26.30
5.81	6,660	54.69	26.48	0.82	0.3976	6.63	1.50	7.403	2.30	6.76	26.48
5.82	6,480	52.67	26.48	0.81	0.4142	6.45	1.50	7.429	2.30	6.49	26.48
5.83	6,420	51.54	26.84	0.80	0.4181	6.39	1.50	7.456	2.00	6.43	26.84
5.84	6,420	51.54	26.84	0.80	0.4181	6.39	1.50	7.482	2.00	6.43	26.84
5.85	6,360	49.69	26.84	0.78	0.4220	6.33	1.50	7.508	2.30	6.37	26.84
5.86	6,360	49.69	26.84	0.78	0.4220	6.33	1.50	7.534	2.30	6.37	26.84
5.87	6,330	48.26	26.84	0.77	0.4240	6.30	1.50	7.560	2.30	6.36	26.84
5.88	6,310	48.81	26.84	0.77	0.4254	6.28	1.50	7.586	2.30	6.32	26.84
5.89	6,310	48.62	26.84	0.77	0.4254	6.28	1.50	7.614	2.30	6.32	26.84
5.9	6,310	48.95	27.03	0.78	0.4284	6.28	1.50	7.642	2.30	6.32	27.03
5.91	6,320	49.23	26.84	0.78	0.4247	6.29	1.50	7.670	2.30	6.33	26.84
5.92	6,340	49.42	26.84	0.79	0.4283	6.31	1.50	7.698	2.30	6.35	26.84
5.93	6,370	50.29	26.84	0.79	0.4214	6.34	1.50	7.724	2.30	6.38	26.84
5.94	6,400	50.66	26.84	0.79	0.4194	6.37	1.50	7.751	2.30	6.41	26.84
5.95	6,440	50.94	26.84	0.79	0.4168	6.41	1.50	7.777	2.30	6.45	26.84
5.96	6,460	51.13	26.84	0.79	0.4155	6.43	1.50	7.803	2.00	6.47	26.84
5.97	6,490	51.46	27.03	0.80	0.4165	6.46	1.50	7.831	2.30	6.47	27.03
5.98	6,510	52.24	26.84	0.80	0.4123	6.48	1.50	7.859	2.30	6.52	26.84
5.99	6,510	52.24	26.84	0.80	0.4123	6.48	1.50	7.887	2.30	6.52	26.84

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/Sec]	[MPa]	[kPa]
6	6,550	52.42	26.84	0.80	0.4098	6.52	1.60	7.915	2.30	6.56	26.84
6.01	6,540	52.33	26.84	0.80	0.4104	6.51	1.60	7.942	2.00	6.55	26.84
6.02	6,540	52.33	26.84	0.80	0.4104	6.51	1.60	7.970	2.00	6.55	26.84
6.03	6,510	51.68	26.84	0.79	0.4123	6.48	1.60	7.998	2.30	6.52	26.84
6.04	6,510	51.68	26.84	0.79	0.4123	6.48	1.60	8.026	2.30	6.52	26.84
6.05	6,500	51.54	26.84	0.79	0.4129	6.47	1.60	8.054	2.30	6.51	26.84
6.06	6,500	51.54	26.84	0.79	0.4129	6.47	1.60	8.082	2.30	6.51	26.84
6.07	6,490	51.82	27.03	0.80	0.4165	6.46	1.60	8.110	2.30	6.50	27.03
6.08	6,490	51.82	27.03	0.80	0.4165	6.46	1.60	8.138	2.30	6.50	27.03
6.09	6,490	52.19	27.03	0.80	0.4165	6.46	1.60	8.166	2.30	6.50	27.03
6.1	6,460	52.24	27.21	0.81	0.4212	6.43	1.60	8.194	2.30	6.47	27.21
6.11	6,430	52.84	27.57	0.82	0.4288	6.40	1.60	8.222	2.30	6.44	27.57
6.12	6,350	53.49	27.57	0.84	0.4342	6.32	1.60	8.250	2.30	6.36	27.57
6.13	6,270	54.37	27.57	0.87	0.4397	6.24	1.60	8.278	2.30	6.28	27.57
6.14	6,190	55.43	27.57	0.90	0.4454	6.16	1.60	8.306	2.30	6.20	27.57
6.15	6,140	56.91	27.21	0.93	0.4432	6.11	1.60	8.333	2.30	6.15	27.21
6.16	6,100	58.26	27.03	0.96	0.4431	6.07	1.60	8.361	2.30	6.11	27.03
6.17	6,090	59.32	27.03	0.97	0.4438	6.06	1.60	8.389	2.30	6.10	27.03
6.18	6,090	59.32	27.03	0.97	0.4438	6.06	1.60	8.417	3.00	6.10	27.03
6.19	6,090	59.32	27.03	0.97	0.4438	6.06	1.60	8.445	3.00	6.10	27.03
6.2	6,100	60.57	27.21	0.99	0.4461	6.07	1.60	8.473	2.30	6.11	27.21
6.21	6,170	58.44	26.48	0.95	0.4292	6.14	1.60	8.501	2.30	6.18	26.48
6.22	6,300	58.86	26.48	0.93	0.4203	6.27	1.60	8.529	2.00	6.31	26.48
6.23	6,390	59.41	26.66	0.93	0.4172	6.36	1.60	8.557	2.00	6.40	26.66
6.24	6,390	60.52	26.84	0.92	0.4142	6.45	1.60	8.585	2.30	6.49	26.84
6.25	6,390	60.52	27.03	0.94	0.4120	6.53	1.60	8.613	2.30	6.57	27.03
6.26	6,610	62.80	26.84	0.95	0.4061	6.58	1.70	8.642	2.30	6.62	26.84
6.27	6,650	64.28	26.66	0.97	0.4009	6.62	1.70	8.672	2.30	6.66	26.66
6.28	6,720	65.16	26.30	0.97	0.3914	6.69	1.70	8.702	2.30	6.73	26.30
6.29	6,810	65.11	25.93	0.96	0.3808	6.78	1.70	8.730	2.30	6.82	25.93
6.3	6,900	65.25	25.75	0.95	0.3732	6.87	1.60	8.759	2.30	6.91	25.75
6.31	6,940	65.39	25.57	0.94	0.3684	6.91	1.60	8.787	2.30	6.95	25.57
6.32	6,990	65.94	25.75	0.94	0.3684	6.97	1.70	8.817	2.30	7.00	25.75
6.33	7,100	68.81	25.57	0.93	0.3601	7.07	1.70	8.846	2.30	7.11	25.57
6.34	7,310	71.31	25.57	0.91	0.3487	7.28	1.70	8.875	2.30	7.36	25.57
6.35	7,520	67.19	25.20	0.89	0.3351	7.49	1.70	8.906	2.30	7.53	25.20
6.36	7,780	68.54	25.20	0.88	0.3299	7.75	1.70	8.935	2.30	7.79	25.20
6.37	8,070	70.30	25.20	0.87	0.3123	8.04	1.70	8.965	2.30	8.08	25.20
6.38	8,350	71.32	25.02	0.85	0.2996	8.32	1.70	8.995	2.00	8.36	25.02
6.39	8,620	71.63	25.38	0.83	0.2864	8.59	1.70	9.024	2.00	8.63	25.38
6.4	8,890	71.50	25.75	0.80	0.2787	8.86	1.70	9.054	2.30	8.90	25.75
6.41	9,140	71.22	25.57	0.78	0.2691	9.17	1.70	9.084	2.30	9.15	25.57
6.42	9,340	71.13	25.38	0.76	0.2717	9.31	1.70	9.113	2.30	9.35	25.38
6.43	9,560	70.76	25.38	0.74	0.2636	9.53	1.70	9.143	2.30	9.57	25.38
6.44	9,780	69.97	25.20	0.72	0.2577	9.75	1.70	9.173	2.00	9.79	25.20
6.45	9,930	68.88	24.94	0.69	0.2504	9.91	1.70	9.202	2.00	9.95	24.94
6.46	10,040	67.38	24.65	0.67	0.2455	10.07	1.70	9.232	2.00	10.05	24.65
6.47	10,180	65.71	24.47	0.65	0.2404	10.17	1.70	9.262	2.00	10.19	24.47
6.48	10,230	64.28	24.29	0.63	0.2374	10.21	1.70	9.291	2.30	10.24	24.29
6.49	10,290	62.84	24.29	0.61	0.2361	10.27	1.70	9.321	2.30	10.30	24.29
6.5	10,290	61.11	25.02	0.59	0.2439	10.27	1.70	9.350	2.30	10.27	25.02
6.51	10,260	60.11	25.02	0.59	0.2439	10.23	1.70	9.380	2.00	10.27	25.02
6.52	10,230	57.10	26.11	0.56	0.2552	10.20	1.60	9.412	2.30	10.24	26.11
6.53	10,190	56.78	26.84	0.56	0.2634	10.16	1.60	9.443	2.30	10.20	26.84
6.54	10,110	55.69	27.76	0.56	0.2746	10.08	1.60	9.475	2.00	10.12	27.76
6.55	10,080	55.49	28.66	0.55	0.2850	10.00	1.60	9.507	2.00	10.09	28.66
6.56	10,040	57.13	28.66	0.57	0.2655	10.01	1.60	9.537	2.00	10.05	28.66
6.57	9,990	58.03	28.66	0.58	0.2669	9.96	1.60	9.569	2.00	10.00	28.66
6.58	9,920	58.95	28.64	0.59	0.2706	9.98	1.60	9.600	2.00	9.93	28.64
6.59	9,830	59.14	26.66	0.60	0.2712	9.80	1.60	9.632	2.00	9.84	26.66
6.6	9,750	59.41	26.66	0.61	0.2704	9.72	1.60	9.663	2.00	9.76	26.66
6.61	9,640	59.55	26.48	0.62	0.2747	9.61	1.60	9.695	2.30	9.65	26.48
6.62	9,530	59.97	26.30	0.63	0.2760	9.50	1.60	9.726	2.30	9.54	26.30
6.63	9,440	61.08	25.93	0.65	0.2747	9.41	1.60	9.757	2.00	9.45	25.93
6.64	9,390	61.73	25.75	0.66	0.2742	9.36	1.60	9.789	2.00	9.40	25.75
6.65	9,360	61.70	25.93	0.67	0.2743	9.33	1.60	9.820	2.00	9.37	25.93
6.66	9,380	63.63	25.75	0.68	0.2745	9.35	1.60	9.852	2.30	9.39	25.75
6.67	9,460	64.03	25.93	0.69	0.2741	9.43	1.60	9.883	2.00	9.47	25.93
6.68	9,580	65.20	26.11	0.68	0.2725	9.55	1.60	9.914	2.00	9.59	26.11

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.07	11,510	89.38	33.05	0.78	0.2871	11.48	2.40	15,027	2.00	11.52	33.05
8.08	11,410	89.47	33.42	0.78	0.2929	11.38	2.40	15,069	2.00	11.42	33.42
8.09	11,370	88.87	33.60	0.78	0.2955	11.34	2.40	15,111	2.00	11.38	33.60
8.11	11,380	89.56	33.78	0.79	0.2976	11.32	2.40	15,153	2.00	11.36	33.78
8.11	11,350	89.36	33.78	0.78	0.2976	11.32	2.40	15,156	2.00	11.36	33.78
8.12	11,390	89.24	33.97	0.78	0.2982	11.36	2.40	15,236	2.00	11.40	33.97
8.13	11,530	88.68	34.33	0.77	0.2977	11.50	2.40	15,278	2.00	11.54	34.33
8.14	11,600	88.82	34.70	0.77	0.2991	11.57	2.40	15,320	2.00	11.61	34.70
8.15	11,620	86.78	35.06	0.75	0.3017	11.58	2.40	15,362	2.00	11.63	35.06
8.16	11,620	86.72	35.06	0.74	0.3065	11.58	2.40	15,404	2.00	11.63	35.06
8.17	11,580	84.47	35.61	0.73	0.3075	11.54	2.40	15,446	2.00	11.59	35.61
8.18	11,580	84.47	35.61	0.73	0.3075	11.54	2.40	15,488	3.00	11.59	35.61
8.19	11,580	84.47	35.61	0.73	0.3075	11.54	2.40	15,530	3.00	11.59	35.61
8.2	11,150	74.88	33.42	0.67	0.2987	11.12	2.40	15,571	2.30	11.16	33.42
8.21	11,180	75.07	32.42	0.67	0.2989	11.35	2.40	15,577	2.00	11.19	32.42
8.22	11,110	75.30	33.24	0.68	0.2992	11.08	2.40	15,655	2.00	11.12	33.24
8.23	10,970	75.53	33.24	0.69	0.3030	10.94	2.40	15,697	2.00	10.98	33.24
8.24	10,810	75.21	33.05	0.70	0.3057	10.78	2.50	15,741	2.00	10.82	33.05
8.25	10,640	76.18	32.32	0.72	0.3038	10.61	2.50	15,784	2.00	10.65	32.32
8.26	10,480	77.06	32.14	0.70	0.3037	10.45	2.50	15,828	2.00	10.49	32.14
8.27	10,380	77.98	31.78	0.75	0.3062	10.35	2.50	15,872	2.00	10.39	31.78
8.28	10,260	79.19	31.59	0.77	0.3079	10.23	2.50	15,915	2.00	10.27	31.59
8.29	10,150	79.98	31.23	0.79	0.3077	10.12	2.50	15,959	2.00	10.16	31.23
8.3	10,030	81.23	31.04	0.81	0.3095	10.00	2.50	16,002	2.30	10.04	31.04
8.31	9,980	81.78	30.68	0.82	0.3074	9.95	2.50	16,046	2.30	10.01	30.68
8.32	10,000	80.87	30.86	0.81	0.3086	9.97	2.50	16,090	2.00	10.01	30.86
8.33	10,090	81.92	31.04	0.81	0.3076	10.06	2.50	16,133	2.00	10.10	31.04
8.34	10,460	81.78	31.41	0.78	0.3003	10.43	2.50	16,177	2.30	10.47	31.41
8.35	10,460	81.78	31.41	0.78	0.3003	10.43	2.50	16,220	3.00	10.47	31.41
8.36	10,590	80.62	31.96	0.73	0.2908	10.96	2.50	16,264	2.00	11.00	31.96
8.37	11,380	79.79	32.14	0.70	0.2824	11.35	2.50	16,308	2.00	11.39	32.14
8.38	11,820	78.96	31.78	0.67	0.2689	11.79	2.50	16,351	2.00	11.83	31.78
8.39	12,330	78.08	31.78	0.63	0.2577	12.30	2.50	16,395	2.00	12.34	31.78
8.4	12,760	77.01	31.59	0.60	0.2476	12.73	2.50	16,439	2.00	12.77	31.59
8.41	13,060	76.27	31.41	0.58	0.2405	13.03	2.50	16,482	2.00	13.07	31.41
8.42	13,300	75.99	31.59	0.57	0.2375	13.27	2.50	16,526	2.00	13.31	31.59
8.43	13,500	75.72	31.59	0.56	0.2340	13.47	2.50	16,569	2.00	13.51	31.59
8.44	13,710	75.85	31.59	0.55	0.2304	13.68	2.50	16,613	2.00	13.72	31.59
8.45	13,910	75.35	31.41	0.54	0.2258	13.88	2.50	16,657	2.00	13.92	31.41
8.46	14,050	75.39	31.04	0.54	0.2209	14.02	2.50	16,700	2.00	14.06	31.04
8.47	14,230	75.30	31.23	0.53	0.2195	14.20	2.50	16,744	2.00	14.24	31.23
8.48	14,580	76.41	31.41	0.52	0.2154	14.55	2.50	16,788	2.00	14.59	31.41
8.49	14,870	77.80	31.41	0.52	0.2112	14.84	2.50	16,831	2.00	14.88	31.41
8.5	15,110	78.31	31.59	0.52	0.2091	15.08	2.50	16,875	2.00	15.12	31.59
8.51	15,370	78.82	31.78	0.51	0.2068	15.34	2.50	16,918	2.00	15.38	31.78
8.52	15,530	79.42	32.14	0.51	0.2050	15.60	2.50	16,962	2.00	15.62	32.14
8.53	15,910	79.42	32.14	0.50	0.2033	15.88	2.50	17,006	2.00	15.92	32.14
8.54	16,300	80.99	32.51	0.50	0.1994	16.27	2.60	17,051	1.80	16.31	32.51
8.55	16,420	82.20	32.69	0.50	0.1991	16.39	2.60	17,096	1.80	16.43	32.69
8.56	16,440	82.06	32.69	0.50	0.1988	16.41	2.60	17,142	2.00	16.45	32.69
8.57	16,390	82.62	32.69	0.50	0.1985	16.36	2.60	17,187	2.00	16.40	32.69
8.58	16,270	83.12	32.87	0.51	0.2020	16.32	2.60	17,232	2.00	16.28	32.87
8.59	16,110	83.82	33.05	0.52	0.2052	16.08	2.60	17,278	2.00	16.12	33.05
8.6	15,920	85.21	33.05	0.54	0.2076	15.89	2.60	17,323	2.00	15.93	33.05
8.61	15,680	86.37	32.69	0.55	0.2066	15.79	2.60	17,369	2.00	15.83	32.69
8.62	15,820	89.15	32.14	0.57	0.2050	15.65	2.60	17,414	2.00	15.69	32.14
8.63	15,620	90.77	31.78	0.58	0.2035	15.59	2.60	17,459	2.00	15.63	31.78
8.64	15,570	91.60	31.78	0.59	0.2041	15.54	2.60	17,505	2.00	15.58	31.78
8.65	15,580	94.29	31.59	0.61	0.2028	15.55	2.60	17,550	2.00	15.59	31.59
8.66	15,700	95.58	31.78	0.61	0.2036	15.67	2.60	17,595	2.00	15.71	31.78
8.67	15,850	96.46	31.78	0.61	0.2035	15.82	2.60	17,641	2.00	15.86	31.78
8.68	16,000	97.18	31.78	0.61	0.1986	15.97	2.60	17,686	2.00	15.93	31.78
8.69	16,220	97.39	32.14	0.60	0.1982	16.19	2.60	17,731	2.00	16.23	32.14
8.7	16,650	97.90	32.14	0.60	0.1957	16.39	2.60	17,777	2.00	16.43	32.14
8.71	16,650	98.08	32.14	0.59	0.1930	16.62	2.60	17,822	2.00	16.66	32.14
8.72	16,870	97.85	32.14	0.58	0.1905	16.84	2.60	17,868	2.00	16.88	32.14
8.73	17,040	98.14	32.14	0.58	0.1864	17.01	2.60	17,913	2.00	17.02	32.14
8.74	17,100	97.11	32.32	0.57	0.1890	17.07	2.60	17,958	2.00	17.11	32.32
8.75	16,920	95.35	32.69	0.56	0.1932	16.89	2.60	18,004	2.00	16.93	32.69

17-101_G_CPTU_Soarza

17-101_CPTU.S1_Centro

Pag. 13

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.76	16,660	95.58	32.87	0.57	0.1973	16.63	2.60	18,049	2.00	16.67	32.87
8.77	16,660	95.58	32.87	0.57	0.1973	16.63	2.60	18,094	2.00	16.67	32.87
8.78	16,140	94.98	33.24	0.59	0.2059	16.11	2.60	18,140	2.30	16.15	33.24
8.79	15,880	95.12	33.24	0.60	0.2093	15.85	2.60	18,185	2.30	15.89	33.24
8.8	15,660	95.58	33.90	0.61	0.2146	15.63	2.60	18,230	2.00	15.67	33.90
8.81	15,350	95.86	33.42	0.62	0.2177	15.32	2.60	18,276	2.00	15.36	33.42
8.82	14,960	96.37	33.42	0.64	0.2234	14.93	2.60	18,321	2.30	14.97	33.42
8.83	14,510	96.93	32.87	0.67	0.2265	14.48	2.60	18,367	2.30	14.52	32.87
8.84	14,050	96.83	32.51	0.69	0.2314	14.02	2.60	18,412	2.30	14.06	32.51
8.85	13,560	97.06	32.32	0.72	0.2363	13.53	2.60	18,456	2.30	13.57	32.32
8.86	13,150	96.51	32.69	0.73	0.2486	13.12	2.60	18,503	2.00	13.16	32.69
8.87	12,810	95.95	33.05	0.75	0.2580	12.78	2.70	18,550	2.00	12.82	33.05
8.88	12,810	95.95	33.05	0.75	0.2580	12.78	2.70	18,597	2.00	12.82	33.05
8.89	12,820	94.29	33.24	0.77	0.2698	12.29	2.70	18,644	2.50	12.33	33.24
8.9	12,130	93.27	33.42	0.77	0.2755	12.16	2.70	18,691	2.50	12.14	33.42
8.91	12,130	93.27	33.42	0.77	0.2755	12.10	2.70	18,738	2.00	12.14	33.42
8.92	11,840	93.08	33.05	0.79	0.2791	11.81	2.70	18,785	2.00	11.85	33.05
8.93	11,840	93.08	33.05	0.79	0.2791	11.81	2.70	18,832	2.30	11.85	33.05
8.94	11,610	93.08	32.87	0.80	0.2831	11.58	2.70	18,879	2.30	11.62	32.87
8.95	11,450	93.41	33.05	0.81	0.2886	11.42	2.70	18,927	2.00	11.46	33.05
8.96	11,330	93.91	33.78	0.83	0.2981	11.30	2.70	18,974	2.30	11.34	33.78
8.97	11,200	94.33	34.51	0.84	0.3081	11.17	2.70	19,021	2.00	11.21	34.51
8.98	11,120	95.30	34.88	0.86	0.3137	11.09	2.70	19,068	2.00	11.13	34.88
8.99	11,070	95.86	34.70	0.87	0.3135	11.04	2.70	19,115	2.00	11.08	34.70
9	10,970	95.96	34.70	0.87	0.3135	11.04	2.70	19,162	2.30	11.08	34.70
9.01	10,960	97.71	34.51	0.89	0.3149	10.93	2.70	19,209	2.00	10.97	34.51
9.02	10,960	97.71	34.51	0.89	0.3149	10.93	2.70	19,256	2.30	10.97	34.51
9.03	10,780	100.49	34.33	0.93	0.3185	10.75	2.70	19,303	2.30	10.79	34.33
9.04	10,780	100.49	34.33	0.93	0.3185	10.75	2.70	19,351	2.30	10.79	34.33
9.05	10,670	101.46	34.78	0.95	0.3245	10.64	2.70	19,398	2.30	10.68	34.78
9.06	10,370	102.90	33.90	0.99	0.3152	10.35	2.70	19,445	2.00	10.32	33.90
9.07	10,370	102.90	32.69	0.99	0.3152	10.34	2.70	19,492	2.30	10.38	32.69
9.08	10,180	101.93	32.69	1.00	0.3175	10.15	2.80	19,541	2.30	10.19	32.62
9.09	10,200	101.93	32.69	0.99	0.3035	10.17	2.80	19,590	2.00	10.21	32.62
9.1	10,330	99.64	33.24	0.97	0.3188	10.30	2.80	19,638	2.00	10.34	33.24
9.11	10,380	98.13	33.05	0.99	0.3176	10.30	2.80	19,687	2.00	10.35	33.05
9.12	10,940	96.05	33.78	0.88	0.3088	10.91	2.80	19,736	2.00	10.95	33.78
9.13	11,410	94.01	33.97	0.82	0.2977	11.38	2.80	19,785	2.00	11.42	33.97
9.14	11,920	91.92	34.15	0.77	0.2865	11.89	2.80	19,834	1.80	11.93	34.15
9.15	12,420	89.47	34.15	0.72	0.2750	12.39	2.80	19,883	1.80	12.43	34.15
9.16	13,030	88.90	34.09	0.68	0.2697	12.94	2.80	19,932	1.80	13.04	34.09
9.17	13,270	84.51	34.33	0.64	0.2587	13.24	2.80	19,980	2.00	13.28	34.33
9.18	13,270	84.51	34.33	0.64	0.2587	13.24	2.80	20,029	1.50	13.28	34.33
9.19	13,270	84.51	34.33	0.64	0.2587	13.24	2.80	20,078	1.00	13.28	34.33
9.2	13,130	69.42	28.12	0.53	0.2145	13.08	2.80	20,127	1.00	13.12	28.12
9.21	13,240	69.35	28.12	0.53	0.2145	13.08	2.80	20,176	1.50	13.15	28.12
9.22	13,000	69.46	27.21	0.53	0.2093	12.97	2.90	20,226	2.00	13.01	27.21
9.23	12,750	70.34	27.03	0.55	0.2120	12.72	2.90	20,277	1.80	12.76	27.03
9.24	12,410	71.13	27.03	0.57	0.2178	12.38	2.90	20,328	1.80	12.42	27.03
9.25	12,170	72.33	27.03	0.59	0.2221	12.14	2.90	20,378	1.80	12.18	27.03
9.26	12,940	70.62	27.03	0.61	0.2197	12.91	2.90	20,429	1.80	12.95	27.03
9.27	11,880	73.68	27.68	0.56	0.2206	11.85	2.90	20,479	1.80	11.89	27.68
9.28	11,960	74.42	27.21	0.62	0.2275	11.93	2.90	20,530	1.80	11.97	27.21
9.29	12,290	75.35	27.21	0.61	0.2214	12.26	2.90	20,580	2.00	12.30	27.21
9.3	12,520	75.39	27.21	0.60	0.2173	12.49	2.90	20,631	1.80	12.53	27.21
9.31	12,780	74.63	27.68	0.58	0.2217	12.70	2.90	20,682	1.80	12.79	27.68
9.32	13,130	73.68	26.84	0.56	0.2044	13.10	2.90	20,732	2.00	13.14	-64.59
9.33	13,800	71.78	27.03	0.52	0.1959	13.77	2.90	20,783	2.00	13.81	-64.50
9.34	14,110	70.95	27.03	0.50	0.1916	14.08	2.90	20,833	1.80	14.12	-64.60
9.35	14,430	70.62	27.27	0.49	0.1903	14.36	2.90	20,884	1.80	14.40	-64.33
9.36	14,630	73.71	27.27	0.48	0.1877	14.65	2.90	20,935	1.80	14.61	-64.54
9.37	15,000	71.78	27.94	0.48	0.1863	14.97	2.90	20,985	1.80	15.01	-63.98
9.38	15,060	73.03	27.76	0.48	0.1843	15.03	2.90	21,036	1.80	15.07	-64.26
9.39	15,080	74.42	27.76	0.49	0.1841	15.05	2.90	21,086	1.80	15.09	-64.36
9.4	15,050	75.95	27.57	0.50	0.1832	15.02	2.90	21,137	1.80	15.06	-64.64
9.41	14,830	76.63	27.57	0.51	0.1827	14.80	2.90	21,188	1.80	14.81	-64.64
9.42	14,570	80.53	27.57	0.55	0.1892	14.54	2.90	21,238	1.80	14.58	-64.84
9.43	14,290	81.32	27.76	0.57	0.1943	14.26	2.90	21,289	1.50	14.40	-64.75
9.44	13,990	82.06	27.57	0.59	0.1971	13.96	2.90	21,339	1.80	14.00	-65.04

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
10.83	14,300	72.10	29.58	0.50	0.2069	14,227	3.20	28,743	2.30	14,31	-76.66
10.84	14,500	72.15	30.13	0.50	0.2078	14,427	3.20	28,799	2.00	14,51	-76.21
10.85	14,500	72.15	30.13	0.50	0.2078	14,427	3.20	28,855	2.00	14,51	-76.31
10.86	14,770	71.96	30.31	0.49	0.2052	14,742	3.20	28,911	2.50	14,78	-76.23
10.87	14,770	71.96	30.31	0.49	0.2052	14,742	3.20	28,966	2.50	14,78	-76.34
10.88	14,820	70.76	30.31	0.48	0.2045	14,792	3.20	29,022	2.00	14,83	-76.42
10.89	14,810	69.83	30.13	0.47	0.2034	14,782	3.20	29,078	2.00	14,82	-76.70
10.9	14,730	69.83	29.58	0.47	0.2018	14,702	3.20	29,134	2.30	14,74	-77.35
10.91	14,600	69.28	29.54	0.47	0.2004	14,572	3.20	29,190	2.30	14,61	-77.63
10.92	14,330	69.28	29.22	0.46	0.2039	14,302	3.20	29,245	1.40	14,34	-77.91
10.93	14,110	68.26	29.58	0.48	0.2096	14,082	3.20	29,301	2.30	14,12	-77.64
10.94	13,780	67.84	29.95	0.49	0.2173	13,752	3.20	29,357	2.30	13,79	-77.37
10.95	13,570	67.47	29.95	0.50	0.2207	13,542	3.20	29,413	2.30	13,58	-77.47
10.96	13,360	67.89	30.13	0.51	0.2255	13,332	3.20	29,469	2.30	13,37	-77.39
10.97	13,160	67.75	30.13	0.51	0.2290	13,132	3.20	29,525	2.30	12,91	-77.49
10.98	13,010	67.15	30.31	0.52	0.2330	12,982	3.20	29,580	2.30	13,02	-77.40
10.99	12,830	66.45	30.13	0.52	0.2348	12,802	3.20	29,636	2.30	12,84	-77.77
11	12,750	65.71	30.13	0.52	0.2363	12,722	3.20	29,692	2.30	12,76	-77.78
11.01	12,690	65.43	30.31	0.52	0.2388	12,662	3.20	29,748	2.30	12,70	-77.70
11.02	12,680	64.92	30.31	0.51	0.2434	12,652	3.20	29,804	2.30	12,69	-77.25
11.03	12,680	63.81	31.04	0.50	0.2448	12,652	3.20	29,859	2.30	12,69	-77.16
11.04	12,700	63.35	31.04	0.50	0.2444	12,672	3.20	29,915	2.00	12,71	-77.26
11.05	12,770	62.98	31.04	0.49	0.2431	12,742	3.20	29,971	2.00	12,78	-77.36
11.06	12,770	61.96	31.23	0.48	0.2427	12,842	3.20	30,027	2.30	12,88	-77.27
11.07	12,940	61.54	31.04	0.48	0.2491	12,912	3.20	30,083	2.30	12,94	-77.27
11.08	12,990	60.85	30.96	0.47	0.2376	12,962	3.20	30,139	2.30	13,00	-77.83
11.09	13,030	60.80	30.86	0.47	0.2368	13,002	3.20	30,194	2.30	13,04	-77.93
11.1	13,040	60.90	30.86	0.47	0.2367	13,012	3.20	30,250	2.30	13,05	-78.03
11.11	13,020	61.04	30.86	0.47	0.2370	12,992	3.20	30,306	2.30	13,03	-78.13
11.12	12,970	61.59	30.86	0.47	0.2379	12,942	3.20	30,362	2.00	12,98	-78.23
11.13	12,900	61.92	30.68	0.48	0.2378	12,872	3.20	30,418	2.00	12,91	-78.51
11.14	12,780	63.26	30.55	0.49	0.2387	12,752	3.20	30,474	2.30	12,79	-78.78
11.15	12,610	64.05	30.31	0.51	0.2404	12,582	3.20	30,529	2.30	12,62	-79.07
11.16	12,400	64.97	29.95	0.52	0.2415	12,372	3.20	30,585	2.30	12,41	-79.53
11.17	12,400	64.97	29.95	0.52	0.2415	12,372	3.20	30,641	3.30	12,41	-79.63
11.18	12,400	64.97	29.95	0.52	0.2415	12,372	3.20	30,697	2.00	12,41	-79.73
11.19	11,360	57.84	27.03	0.51	0.2379	11,332	3.20	30,754	2.00	11,37	-82.74
11.2	11,250	59.55	26.84	0.53	0.2386	11,222	3.20	30,810	2.00	11,26	-83.03
11.21	10,720	63.49	27.21	0.59	0.2538	10,692	3.20	30,866	2.30	10,73	-82.76
11.22	10,720	63.49	27.21	0.59	0.2538	10,692	3.20	30,922	2.30	10,73	-82.86
11.23	10,500	65.25	27.21	0.62	0.2591	10,472	3.20	30,978	2.30	10,51	-82.96
11.24	10,280	66.96	27.39	0.65	0.2664	10,252	3.20	31,035	2.30	10,29	-82.87
11.25	10,100	68.21	27.21	0.68	0.2694	10,072	3.20	31,093	2.30	10,11	-83.15
11.26	9,760	69.42	27.21	0.71	0.2788	9,732	3.20	31,150	2.30	9,77	-83.25
11.27	9,760	69.42	27.21	0.71	0.2788	9,732	3.20	31,208	2.30	9,77	-83.35
11.28	9,570	68.44	27.76	0.72	0.2876	9,542	3.20	31,265	2.30	9,57	-83.45
11.29	9,520	67.61	27.76	0.71	0.2872	9,492	3.20	31,323	2.00	9,53	-82.99
11.3	9,480	67.01	27.94	0.71	0.2947	9,452	3.20	31,381	2.00	9,49	-82.91
11.31	9,480	66.55	28.12	0.70	0.2966	9,452	3.20	31,438	2.30	9,49	-82.91
11.32	9,510	66.41	28.31	0.70	0.2977	9,482	3.20	31,496	2.30	9,52	-82.74
11.33	9,560	65.76	28.31	0.69	0.2980	9,532	3.20	31,553	2.30	9,57	-82.82
11.34	9,630	65.12	28.31	0.68	0.2982	9,602	3.20	31,611	2.00	9,64	-83.13
11.35	9,720	64.65	28.12	0.67	0.2893	9,692	3.20	31,668	2.00	9,73	-83.22
11.36	9,810	63.68	28.12	0.65	0.2866	9,782	3.20	31,726	2.30	9,82	-83.32
11.37	9,880	62.56	28.12	0.63	0.2846	9,852	3.20	31,784	2.30	9,89	-83.42
11.38	9,930	61.73	28.12	0.62	0.2832	9,902	3.20	31,841	2.00	9,94	-83.52
11.39	9,980	60.62	28.12	0.61	0.2837	9,952	3.20	31,899	2.00	9,98	-83.43
11.4	10,040	60.34	28.31	0.60	0.2820	10,012	3.20	31,956	2.30	10,05	-83.52
11.41	10,110	59.92	28.31	0.59	0.2800	10,082	3.20	32,014	2.30	10,12	-83.62
11.42	10,190	59.88	28.31	0.59	0.2778	10,162	3.20	32,071	2.30	10,20	-83.72
11.43	10,310	59.14	27.94	0.57	0.2710	10,282	3.20	32,129	2.30	10,32	-84.19
11.44	10,390	58.81	27.76	0.56	0.2712	10,362	3.20	32,187	2.30	10,40	-84.29
11.45	10,430	58.67	27.39	0.56	0.2626	10,402	3.20	32,244	2.00	10,44	-84.93
11.46	10,440	58.86	27.21	0.56	0.2606	10,412	3.20	32,302	2.30	10,45	-85.21
11.47	10,440	59.04	27.21	0.57	0.2606	10,412	3.20	32,359	2.30	10,45	-85.31
11.48	10,480	59.22	27.03	0.57	0.2579	10,442	3.20	32,417	2.30	10,49	-85.59
11.49	10,600	60.11	27.21	0.57	0.2567	10,562	3.20	32,474	2.30	10,59	-85.69
11.5	10,780	60.43	27.39	0.56	0.2541	10,752	3.20	32,532	2.50	10,79	-85.43
11.51	10,780	60.43	27.39	0.56	0.2541	10,752	3.20	32,589	2.30	10,79	-85.52

17-101_G_CPTU_Soarza

17-101_CPTU.S1_Centro

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Depth	Qc	Fs	U2	Rt	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
11.52	11,370	60.85	28.31	0.54	0.2490	11,34	3.30	32,647	2.30	11,38	-84.70
11.53	11,800	60.90	28.85	0.52	0.2445	11,77	3.30	32,705	2.00	11,81	-84.26
11.54	12,180	60.53	29.04	0.50	0.2384	12,15	3.30	32,762	2.00	12,19	-84.17
11.55	12,510	60.99	28.85	0.49	0.2306	12,48	3.30	32,820	2.30	12,52	-84.46
11.56	12,510	60.59	28.85	0.48	0.2306	12,48	3.30	32,877	2.30	12,52	-84.55
11.57	12,990	60.62	28.12	0.47	0.2165	12,96	3.30	32,935	2.30	13,00	-85.38
11.58	12,990	60.62	28.12	0.47	0.2165	12,96	3.30	32,992	2.30	13,00	-85.48
11.59	13,080	60.76	27.94	0.46	0.2136	13,05	3.30	33,050	2.30	13,09	-85.76
11.6	13,010	61.17	27.94	0.47	0.2148	12,98	3.30	33,108	2.30	13,02	-85.86
11.61	12,880	61.54	27.76	0.48	0.2155	12,85	3.30	33,165	2.30	12,89	-86.13
11.62	12,620	63.21	27.76	0.50	0.2200	12,59	3.30	33,223	2.30	12,63	-86.23
11.63	12,410	64.55	27.76	0.52	0.2237	12,38	3.30	33,280	2.30	12,42	-86.33
11.64	12,240	66.31	27.94	0.54	0.2283	12,21	3.40	33,340	2.30	12,25	-86.25
11.65	12,130	67.75	27.94	0.56	0.2203	12,10	3.40	33,399	2.50	12,14	-86.35
11.66	12,110	68.91	27.94	0.57	0.2217	12,08	3.40	33,458	2.50	12,12	-86.44
11.67	12,110	70.25	28.12	0.58	0.2322	12,08	3.40	33,517	2.30	12,12	-86.36
11.68	12,280	70.81	28.31	0.58	0.2309	12,23	3.40	33,577	2.30	12,27	-86.27
11.69	12,430	71.41	28.31	0.57	0.2278	12,40	3.40	33,636	2.30	12,44	-86.37
11.7	12,700	72.06	28.31	0.57	0.2229	12,67	3.40	33,695	2.30	12,71	-86.47
11.71	13,020	72.47	28.87	0.56	0.2252	12,99	3.40	33,755	2.30	13,03	-86.21
11.72	13,360	72.01	29.04	0.54	0.2174	13,33	3.40	33,814	2.50	13,37	-85.93
11.73	13,680	72.01	29.4	0.53	0.2149	13,65	3.40	33,873	2.50	13,69	-85.67
11.74	13,920	71.87	29.58	0.52	0.2125	13,89	3.40	33,933	2.30	13,93	-85.59
11.75	14,090	71.46	29.77	0.51	0.2133	14,06	3.40	33,992	2.30	14,10	-85.50
11.76	14,300	70.85	29.4	0.50	0.2085	14,07	3.30	34,050	2.30	14,11	-85.97
11.77	14,090	70.67	29.4	0.50	0.2091	14,03	3.40	34,107	2.00	14	-86.00
11.78	13,940	71.13	29.22	0.51	0.2096	13,91	3.30	34,165	2.30	13,95	-86.34
11.79	13,830	72.15	29.58	0.52	0.2139	13,80	3.30	34,222	2.30	13,84	-86.08
11.8	13,740	73.05	29.58	0.53	0.2153	13,71	3.30	34,280	2.30	13,75	-86.18
11.81	13,670	74.23	29.95	0.54	0.2191	13,64	3.30	34,337	2.30	13,68	-85.91
11.82	13,620	75.21	30.13	0.55	0.2217	13,55	3.30	34,395	2.30	13,61	-86.07
11.83	13,590	76.18	30.31	0.56	0.2230	13,56	3.30	34,452	2.00	13,60	-85.74
11.84	13,540	76.73	30.31	0.57	0.2239	13,51	3.40	34,512	2.00	13,55	-85.85
11.85	13,420	78.85	30.31	0.57	0.2273	13,39	3.40	34,571	2.00	13,43	-85.75
11.86	13,250	75.15	30.31	0.57	0.2202	13,22	3.40	34,630	2.00	13,26	-85.85
11.87	13,290	75.30	30.31	0.57	0.2209	13,23	3.40	34,688	2.00	13,29	-86.04
11.88	12,680	74.93	30.13	0.59	0.2376	12,65	3.40	34,749	2.00	12,69	-86.41
11.89	12,350	74.37	29.95	0.60	0.2425	12,32	3.40	34,808	2.00	12,36	-86.69
11.9	12,030	73.82	30.13	0.61	0.2505	12,00	3.40	34,868	2.00	12,04	-86.61
11.91	11,740	73.40	29.95	0.63	0.2551	11,71	3.40	34,927	2.30	11,75	-86.89
11.92	11,520	73.30	29.95	0.65	0.2661	11,48	3.40	34,986	2.30	11,49	-87.17
11.93	10,970	72.52	30.13	0.66	0.2747	10,94	3.40	35,045	2.00	10,98	-88.00
11.94	10,770	71.18	29.12	0.66	0.2696	10,74	3.40	35,105	2.00	10,78	-88.09
11.95	10,490	68.40	28.04	0.65	0.2881	10,46	3.40	35,164	2.00	10,50	-89.11
11.96	10,350	67.15	28.15	0.65	0.2735	10,32	3.40	35,223	2.00	10,36	-89.02
11.97	10,280	65.53	28.49	0.65	0.2820	10,29	3.40	35,283	2.30	10,33	-88.94
11.98	10,400	63.17	29.04	0.61	0.2792	10,37	3.40	35,342	2.00	10,44	-88.69
11.99	10,590	61.96	29.58	0.59	0.2793	10,56	3.40	35,401	2.00	10,60	-88.04
12	10,690	60.76	30.86	0.57	0.2887	10,66	3.40	35,461	2.00	10,70	-86.86
12.01	10,690	59.04	30.31	0.53	0.2733	11,06	3.40	35,520	2.00	11,10	-87.51
12.02	10,680	58.29	30.04	0.51	0.2623	11,04	3.40	35,579	2.00	10,99	-88.88
12.03	11,030	56.95	32.32	0.51	0.2607	11,00	3.40	35,638	2.00	11,10	-85.65
12.04	10,680	59.32	30.86	0.56	0.2890	10,65	3.40	35,698	2.00	10,69	-87.25
12.05	10,570	59.04	31.41	0.56	0.2972	10,54	3.40	35,757	2.00	10,58	-86.80
12.06	10,440	58.67	31.41	0.56	0.3020	10,37	3.40	35,816	2.00	10,41	-88.61
12.07	10,180	58.44	31.23	0.57	0.3068	10,15	3.50	35,876	2.30	10,19	-87.18
12.08	9,740	58.35	31.59	0.60	0.3211	9,73	3.50	35,935	2.30	9,78	-86.90
12.09	9,560	58.58	31.41	0.61	0.3286	9,53	3.50	36,000	2.00	9,57	-87.19
12.1	9,390	59.92	31.41	0.64	0.3435	9,36	3.40	36,059	2.00	9,40	-87.29
12.11	9,240	62.01	31.41	0.67	0.3399	9,21	3.40	36,118	2.00	9,25	-87.39
12.12	9,150	63.72	31.59	0.70	0.3452	9,12	3.40	36,178	2.00	9,16	-87.31
12.13	9,060	65.39	31.41	0.72	0.3491	9,03	3.40	36,237	2.30	9,07	-87.07
12.14	9,040	66.82	31.23	0.74	0.3455	9,01	3.50	36,298	2.30	9,05	-87.86
12.15	9,050	67.61	30.86	0.75	0.3401	9,02	3.50	36,359	1.80	9,06	-88.33
12.16	9,100	68.35	30.86	0.75	0.3371	9,07	3.50	36,420	1.80	9,11	-88.61
12.17	9,100	68.35	30.68	0.75	0.3371	9,07	3.50	36,481	3.30	9,11	-88.71
12.18	9,100	68.35	30.68	0.75	0.3371	9,07	3.50	36,542	3.30	9,15	-88.71
12.19	9,770	54.74	29.22	0.56	0.2991	9,74	3.40	36,601	1.80	9,78	-90.36
12.2	9,950	55.66	29.22	0.56	0.2937	9,92	3.40	36,661	2.00	9,96	-90.46

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
13.59	11,850	60.16	26.3	0.51	0.2219	11.82	3.90	45.488	2.00	11.86	-107.02
13.6	11,670	57.65	28.67	0.49	0.2457	11.64	3.90	45.556	2.00	11.68	-104.75
13.61	11,100	60.02	28.85	0.52	0.2509	11.47	3.90	45.624	2.00	11.51	-104.66
13.62	11,540	59.28	27.57	0.53	0.2475	11.11	3.90	45.892	2.00	11.15	-106.04
13.63	13,080	52.24	29.30	0.52	0.2472	11.65	3.90	45.760	2.00	11.62	-105.30
13.64	10,940	56.17	27.76	0.51	0.2537	10.91	3.90	45.828	2.30	10.95	-105.05
13.65	10,680	53.58	27.94	0.50	0.2597	10.73	3.90	45.896	2.30	10.77	-105.97
13.66	10,570	52.42	28.12	0.50	0.2660	10.54	3.90	45.964	2.30	10.58	-105.83
13.67	10,360	51.87	28.67	0.50	0.2767	10.33	3.90	46.032	2.30	10.37	-105.43
13.68	10,250	52.24	29.22	0.51	0.2851	10.22	3.90	46.100	2.30	10.37	-105.43
13.69	10,180	51.63	29.22	0.51	0.2870	10.15	3.90	46.168	2.30	10.19	-105.08
13.7	10,190	52.98	29.4	0.52	0.2885	10.16	3.90	46.236	2.30	10.20	-105.05
13.71	10,290	54.04	29.04	0.53	0.2882	10.26	3.90	46.304	2.30	10.30	-105.46
13.72	10,430	56.78	29.04	0.54	0.2724	10.40	3.90	46.372	2.30	10.44	-105.55
13.73	10,700	59.00	29.04	0.56	0.2440	10.67	3.90	46.440	2.00	10.52	-105.65
13.74	11,000	60.53	29.22	0.55	0.2656	10.97	3.90	46.508	2.30	11.01	-105.57
13.75	11,400	57.84	29.04	0.51	0.2547	11.37	3.90	46.576	2.30	11.41	-105.85
13.76	11,740	58.03	28.85	0.49	0.2457	11.71	3.90	46.644	2.00	11.75	-106.14
13.77	11,930	58.49	28.85	0.49	0.2418	11.90	3.90	46.712	2.00	11.94	-106.23
13.78	11,910	58.90	28.85	0.49	0.2418	11.88	3.90	46.780	2.30	11.97	-106.33
13.79	11,680	57.84	29.04	0.50	0.2486	11.65	3.90	46.848	2.30	11.69	-106.24
13.8	11,410	57.56	29.04	0.50	0.2545	11.38	3.90	46.916	2.30	11.42	-106.34
13.81	11,040	58.16	28.67	0.53	0.2599	11.01	3.90	46.984	2.30	11.05	-106.81
13.82	10,680	59.46	28.67	0.56	0.2689	10.63	3.90	47.052	2.30	10.67	-106.90
13.83	10,300	60.39	28.85	0.59	0.2601	10.27	3.90	47.120	2.30	10.71	-107.52
13.84	9,970	61.31	29.22	0.61	0.2303	9.94	3.90	47.188	2.30	9.98	-108.04
13.85	9,730	62.98	29.22	0.65	0.2033	9.70	3.90	47.256	2.30	9.74	-106.65
13.86	9,560	64.18	29.58	0.67	0.3094	9.53	3.90	47.324	2.30	9.57	-106.39
13.87	9,380	65.53	29.4	0.70	0.3131	9.36	3.90	47.392	2.30	9.40	-106.66
13.88	9,310	65.90	29.77	0.71	0.3198	9.28	3.90	47.460	2.30	9.32	-106.39
13.89	9,310	65.90	29.77	0.71	0.3198	9.28	3.90	47.528	2.50	9.32	-106.49
13.9	9,270	66.36	29.77	0.72	0.3211	9.24	3.90	47.596	2.50	9.28	-106.59
13.91	9,270	66.45	29.95	0.72	0.3231	9.24	3.90	47.664	2.50	9.28	-106.51
13.92	9,370	66.22	29.95	0.71	0.3196	9.34	4.00	47.734	2.30	9.38	-106.61
13.93	9,520	65.99	29.95	0.69	0.3146	9.49	4.00	47.804	2.30	9.53	-106.70
13.94	9,780	65.71	30.13	0.67	0.3081	9.75	4.00	47.874	2.30	9.79	-106.62
13.95	10,140	65.02	29.95	0.64	0.2954	10.11	4.00	47.943	2.30	10.15	-106.90
13.96	10,610	64.23	29.58	0.61	0.2788	10.58	3.90	48.011	2.30	10.62	-107.37
13.97	11,150	63.40	29.22	0.57	0.2621	11.12	3.90	48.079	2.30	11.16	-107.83
13.98	11,170	62.42	29.04	0.53	0.2480	11.68	3.90	48.147	2.00	11.72	-108.10
13.99	12,210	61.92	29.04	0.51	0.2378	12.18	3.90	48.215	2.00	12.22	-108.20
14	12,540	61.59	28.67	0.49	0.2286	12.51	4.00	48.285	2.30	12.55	-108.67
14.01	12,640	61.13	28.69	0.48	0.2254	12.61	4.00	48.355	2.30	12.65	-108.95
14.02	12,660	60.57	28.47	0.48	0.2265	12.63	4.00	48.425	2.30	12.67	-108.87
14.03	12,590	60.25	28.67	0.48	0.2277	12.56	4.00	48.494	2.30	12.60	-108.96
14.04	12,550	60.25	28.67	0.48	0.2280	12.54	4.00	48.564	2.30	12.52	-109.04
14.05	12,570	60.85	28.85	0.48	0.2295	12.54	4.00	48.634	2.00	12.58	-108.98
14.06	12,630	61.82	28.85	0.49	0.2284	12.60	4.00	48.704	2.00	12.64	-109.08
14.07	12,780	63.03	28.85	0.49	0.2257	12.75	4.00	48.773	2.30	12.79	-109.18
14.08	13,050	63.71	28.49	0.49	0.2225	13.02	4.00	48.843	2.30	13.06	-109.08
14.09	13,700	65.86	28.49	0.48	0.2080	13.67	4.00	48.913	2.00	13.71	-109.73
14.1	13,900	66.73	28.31	0.48	0.2037	13.93	4.00	48.983	2.00	13.91	-110.21
14.11	13,970	67.38	28.12	0.48	0.2013	13.94	4.00	49.052	2.00	13.98	-110.30
14.12	13,890	68.44	28.31	0.49	0.2038	13.86	4.00	49.122	2.00	13.90	-110.21
14.13	13,670	69.93	28.85	0.51	0.2110	13.64	4.00	49.192	2.00	13.68	-109.77
14.14	13,360	71.36	29.04	0.53	0.2174	13.33	4.00	49.262	2.00	13.37	-109.67
14.15	13,360	71.36	29.04	0.53	0.2174	13.33	4.00	49.332	2.00	13.34	-109.70
14.16	13,360	71.36	29.04	0.53	0.2174	13.33	4.00	49.401	2.80	13.37	-109.87
14.17	11,670	63.40	30.31	0.54	0.2597	11.64	4.10	49.473	2.00	11.68	-107.00
14.18	11,390	65.11	30.13	0.57	0.2645	11.36	4.10	49.544	2.00	11.40	-108.98
14.19	10,980	67.24	30.13	0.61	0.2744	10.95	4.10	49.616	2.00	10.99	-109.07
14.2	10,670	68.31	30.13	0.64	0.2807	10.64	4.10	49.687	2.00	10.98	-110.12
14.21	10,440	70.11	30.31	0.67	0.2903	10.41	4.10	49.759	2.30	10.45	-109.09
14.22	10,240	71.55	30.13	0.70	0.2942	10.21	4.10	49.830	2.00	10.25	-109.37
14.23	10,130	72.61	30.13	0.72	0.2974	10.10	4.10	49.902	2.00	10.14	-109.47
14.24	10,070	72.94	29.95	0.72	0.2974	10.04	4.10	49.973	2.30	10.08	-109.74
14.25	10,040	72.75	29.85	0.72	0.2974	10.01	4.10	50.045	2.30	10.04	-109.82
14.26	10,060	72.47	29.77	0.72	0.2959	10.03	4.10	50.116	2.00	10.07	-110.12
14.27	10,040	71.41	29.95	0.71	0.2983	10.01	4.10	50.188	2.00	10.05	-110.04

17-101_G_CPTU_Soarza

17-101_CPTU.S1_Centro

Pag. 21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.28	10,050	70.67	29.77	0.70	0.2962	10.02	4.10	50.259	2.30	10.06	-110.32
14.29	10,020	70.02	30.13	0.70	0.3007	9.99	4.10	50.331	2.30	10.03	-110.05
14.3	9,940	69.23	30.5	0.70	0.3068	9.91	4.10	50.402	2.00	9.95	-109.78
14.31	9,820	68.40	30.86	0.70	0.3143	9.79	4.10	50.474	2.00	9.83	-109.52
14.32	9,670	67.96	31.23	0.68	0.3374	9.64	4.10	50.545	2.30	9.68	-109.25
14.33	9,580	66.18	31.23	0.69	0.3260	9.55	4.10	50.617	2.30	9.59	-109.35
14.34	9,490	65.34	31.23	0.69	0.3291	9.46	4.10	50.688	2.00	9.50	-109.45
14.35	9,360	64.32	31.23	0.69	0.3337	9.33	4.10	50.760	2.00	9.37	-109.54
14.36	9,360	64.32	31.23	0.69	0.3337	9.33	4.10	50.831	2.00	9.37	-109.64
14.37	9,170	63.04	30.86	0.68	0.3374	9.07	4.10	50.902	2.00	9.11	-109.56
14.38	9,310	63.17	31.41	0.68	0.3374	9.28	4.10	50.974	2.00	9.32	-109.66
14.39	9,350	62.70	31.41	0.67	0.3359	9.32	4.10	51.046	2.30	9.36	-109.76
14.4	9,450	62.56	31.41	0.66	0.3324	9.42	4.20	51.119	2.30	9.46	-109.85
14.41	9,560	62.24	31.23	0.65	0.3267	9.53	4.20	51.192	2.00	9.57	-110.13
14.42	9,750	62.15	31.23	0.64	0.3205	9.72	4.20	51.265	2.00	9.76	-110.23
14.43	9,970	61.96	31.23	0.62	0.3132	9.94	4.20	51.339	2.00	9.98	-110.33
14.44	10,210	61.68	31.23	0.60	0.3059	10.18	4.20	51.412	2.00	10.22	-110.43
14.45	10,530	61.13	31.04	0.58	0.2948	10.50	4.20	51.485	2.30	10.54	-110.71
14.46	10,860	60.85	31.04	0.56	0.2858	10.83	4.20	51.558	2.30	10.87	-110.81
14.47	11,200	60.84	30.68	0.54	0.2738	11.17	4.20	51.632	2.00	11.21	-110.91
14.48	11,500	60.94	30.66	0.53	0.2683	11.47	4.20	51.705	2.00	11.51	-111.19
14.49	11,690	61.31	30.5	0.52	0.2609	11.66	4.20	51.778	2.00	11.70	-111.65
14.5	11,820	61.45	30.13	0.52	0.2549	11.79	4.20	51.851	2.00	11.83	-112.12
14.51	11,850	61.82	29.58	0.52	0.2496	11.82	4.20	51.925	2.00	11.86	-112.76
14.52	12,310	60.69	29.4	0.51	0.2424	12.10	4.20	51.998	2.00	12.14	-113.04
14.53	12,400	62.61	29.04	0.50	0.2342	12.37	4.20	52.071	2.00	12.18	-113.50
14.54	12,400	62.61	29.04	0.50	0.2342	12.37	4.20	52.144	2.00	12.41	-113.60
14.55	13,000	64.60	28.85	0.50	0.2219	12.97	4.20	52.218	2.30	13.01	-113.89
14.56	13,140	65.62	28.67	0.50	0.2182	13.11	4.20	52.291	2.30	13.15	-114.16
14.57	13,130	65.62	28.67	0.50	0.2182	13.11	4.20	52.364	2.30	13.18	-114.43
14.58	13,120	68.21	28.67	0.52	0.2185	13.09	4.20	52.437	2.00	13.13	-114.36
14.59	13,100	68.14	28.85	0.53	0.2202	13.07	4.20	52.510	2.30	13.11	-114.28
14.6	13,070	70.16	28.85	0.54	0.2207	13.04	4.20	52.584	2.30	13.08	-114.38
14.61	13,100	70.90	29.22	0.54	0.2231	13.07	4.20	52.657	2.30	13.11	-114.10
14.62	13,090	70.90	29.22	0.54	0.2231	13.07	4.20	52.730	2.30	13.14	-114.40
14.63	13,050	72.84	29.4	0.56	0.2253	13.02	4.20	52.803	2.00	13.06	-114.12
14.64	12,960	73.59	29.4	0.57	0.2269	12.93	4.20	52.877	2.30	12.97	-114.22
14.65	12,820	74.70	29.22	0.58	0.2279	12.79	4.20	52.950	2.30	12.83	-114.50
14.66	12,640	75.21	29.4	0.60	0.2326	12.61	4.20	53.023	2.00	12.65	-114.41
14.67	12,430	76.18	29.22	0.62	0.2411	12.49	4.20	53.096	2.00	12.69	-114.56
14.68	12,270	78.03	29.4	0.64	0.2396	12.24	4.20	53.170	2.30	12.28	-114.71
14.69	12,210	78.14	29.4	0.65	0.2408	12.18	4.20	53.243	2.30	12.22	-114.71
14.7	12,190	79.74	29.4	0.65	0.2412	12.16	4.20	53.316	2.30	12.20	-114.71
14.71	12,290	80.30	29.4	0.66	0.2404	12.20	4.20	53.389	2.30	12.24	-114.91
14.72	12,330	80.30	29.4	0.66	0.2394	12.30	4.20	53.463	2.30	12.24	-114.93
14.73	12,440	81.37	29.4	0.67	0.2411	12.37	4.20	53.536	2.00	12.28	-115.10
14.74	12,510	81.50	29.77	0.65	0.2380	12.48	4.20	53.609	2.30	12.52	-114.83
14.75	12,620	81.41	29.77	0.65	0.2359	12.59	4.20	53.682	2.30	12.63	-114.93
14.76	12,730	81.64	29.77	0.64	0.2339	12.70	4.20	53.756	2.30	12.74	-115.03
14.77	12,910	81.64	29.58	0.62	0.2256	12.86	4.20	53.829	2.00	12.87	-115.13
14.78	13,110	81.64	29.58	0.62	0.2256	13.08	4.20	53.902	2.00	13.12	-115.41
14.79	13,320	81.74	29.58	0.61	0.2221	13.29	4.30	53.977	2.00	13.33	-115.51
14.8	13,520	81.60	29.4	0.60	0.2175	13.49	4.30	54.052	2.00	13.53	-115.59
14.81	13,730	81.46	29.58	0.59	0.2154	13.70	4.30	54.127	2.30	13.74	-115.71
14.82	13,730	81.46	29.58	0.59	0.2154	13.70	4.30	54.200	2.30	13.77	-115.81
14.83	13,750	81.13	29.95	0.59	0.2178	13.72	4.30	54.277	2.00	13.76	-115.53
14.84	13,730	81.32	29.77	0.59	0.2168	13.70	4.30	54.352	2.00	13.74	-115.81
14.85	13,680	81.23	29.77	0.59	0.2176	13.65	4.30	54.427	2.00	13.69	-115.91
14.86	13,630	81.32	29.4	0.60	0.2157	13.60	4.30	54.502	2.00	13.64	-116.38
14.87	13,560	81.83	29.56	0.60	0.2181	13.53	4.30	54.577	2.30	13.57	-116.57
14.88	13,390	81.39	29.27	0.61	0.2233	13.36	4.30	54.652	2.00	13.40	-116.20
14.89	13,230	81.46	29.95	0.62	0.2264	13.20	4.30	54.727	2.30	13.24	-116.12
14.9	13,030	80.86	30.68	0.62	0.2355	13.00	4.30	54.802	2.30	13.04	-115.49
14.91	12,840	80.35	31.04	0.63	0.2417	12.81	4.30	54.877	2.00	12.85	-115.23
14.92	12,660	79.93	31.23	0.63	0.2467	12.63	4.30	54.952	2.00	12.87	-115.47
14.93	12,440	81.39	31.09	0.64	0.2541	12.41	4.30	55.027	2.30	12.90	-115.72
14.94	12,230	80.58	31.59	0.66	0.2583	12.20	4.30	55.102	2.30	12.24	-114.97
14.95	12,180	80.95	31.78	0.66	0.2609	12.15	4.30	55.177	2.30	12.19	-114.88
14.96	12,230	81.78	31.78	0.67	0.2599	12.20	4.30	55.252	2.30	12.24	-114.98

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
16.35	19.160	132.77	35.24	0.69	0.1839	19.12	4.30	65.674	1.50	19.17	-125.15
16.36	19.010	133.60	34.88	0.70	0.1835	18.98	4.30	65.749	1.50	19.02	-125.61
16.37	18.820	133.97	35.24	0.71	0.1872	18.78	4.30	65.824	2.00	18.83	-125.35
16.38	18.570	134.48	35.43	0.72	0.1908	18.53	4.30	65.899	2.00	18.58	-125.26
16.39	18.270	135.18	35.61	0.72	0.1949	18.23	4.30	65.974	2.00	18.26	-125.18
16.4	18.010	135.96	35.06	0.75	0.1947	17.97	4.30	66.049	2.00	18.02	-125.82
16.41	17.970	135.50	34.33	0.75	0.1910	17.94	4.30	66.124	2.00	17.98	-126.65
16.42	18.270	133.19	32.69	0.73	0.1789	18.24	4.30	66.200	2.00	18.28	-126.39
16.43	18.460	132.12	33.24	0.72	0.1801	18.43	4.40	66.277	2.00	18.47	-127.94
16.44	18.590	130.15	34.15	0.71	0.1837	18.56	4.40	66.354	2.00	18.39	-126.18
16.45	18.570	130.82	34.7	0.70	0.1869	18.54	4.40	66.430	2.00	18.58	-126.67
16.46	18.520	130.31	35.06	0.70	0.1893	18.48	4.40	66.507	2.00	18.53	-126.41
16.47	18.370	129.39	35.61	0.70	0.1938	18.33	4.40	66.584	2.00	18.38	-125.96
16.48	18.340	129.02	36.16	0.70	0.1972	18.30	4.40	66.661	2.00	18.36	-125.51
16.49	18.340	127.95	35.98	0.70	0.1962	18.30	4.40	66.737	2.00	18.36	-125.99
16.5	18.460	126.66	35.98	0.69	0.1949	18.42	4.40	66.814	2.00	18.48	-125.89
16.51	18.580	125.17	35.79	0.67	0.1926	18.54	4.40	66.891	2.00	18.60	-126.17
16.52	18.600	122.07	35.61	0.66	0.1915	18.56	4.40	66.967	2.00	18.61	-126.45
16.53	18.510	121.28	35.61	0.66	0.1924	18.47	4.40	67.044	2.00	18.52	-126.55
16.54	18.260	120.55	35.79	0.66	0.1888	18.22	4.40	67.121	2.00	18.28	-126.47
16.55	18.020	120.45	35.98	0.67	0.1907	17.98	4.40	67.198	2.00	18.04	-126.38
16.56	17.950	120.31	36.16	0.68	0.2056	17.55	4.40	67.274	2.00	17.61	-126.29
16.57	17.060	120.03	37.25	0.70	0.2183	17.02	4.40	67.351	2.00	17.08	-125.30
16.58	16.360	119.20	38.9	0.73	0.2378	16.32	4.40	67.428	2.00	16.38	-123.75
16.59	15.680	118.80	40.16	0.74	0.2564	15.64	4.40	67.504	2.00	15.69	-121.68
16.6	15.000	118.04	41.09	0.79	0.2739	14.96	4.40	67.581	2.00	15.02	-121.76
16.61	14.620	117.35	41.27	0.82	0.2862	14.28	4.40	67.658	2.00	14.34	-121.67
16.62	13.690	116.98	42	0.85	0.3068	13.65	4.40	67.735	2.00	13.71	-121.04
16.63	13.150	116.51	41.64	0.89	0.3167	13.11	4.40	67.811	2.30	13.17	-121.50
16.64	12.670	116.47	41.45	0.92	0.3272	12.63	4.40	67.888	2.30	12.69	-121.79
16.65	12.270	116.00	41.27	0.95	0.3363	12.23	4.40	67.965	2.00	12.29	-122.07
16.66	11.960	115.26	40.91	0.96	0.3421	11.92	4.40	68.042	2.00	11.98	-122.52
16.67	11.440	111.23	41.09	0.97	0.3592	11.40	4.40	68.118	2.30	11.46	-122.44
16.68	11.440	111.23	41.09	0.97	0.3592	11.40	4.40	68.195	2.30	11.46	-122.54
16.69	11.050	105.12	41.09	0.95	0.3719	11.01	4.40	68.272	2.30	11.07	-122.64
16.7	10.910	102.11	41.27	0.94	0.3783	10.87	4.40	68.348	2.00	10.93	-122.56
16.71	10.770	98.27	41.45	0.91	0.3849	10.73	4.40	68.425	2.00	10.79	-122.48
16.72	10.670	94.10	41.64	0.88	0.3903	10.63	4.40	68.502	2.00	10.69	-122.38
16.73	10.590	90.77	41.45	0.86	0.3914	10.55	4.40	68.579	2.00	10.61	-122.67
16.74	10.540	86.92	41.64	0.82	0.3951	10.50	4.40	68.655	2.30	10.56	-122.58
16.75	10.480	82.85	41.82	0.79	0.3990	10.44	4.40	68.732	2.30	10.50	-122.50
16.76	10.480	79.42	42.18	0.76	0.4025	10.40	4.40	68.809	2.00	10.50	-122.24
16.77	10.470	77.98	42.18	0.74	0.4029	10.43	4.50	68.887	2.00	10.49	-122.33
16.78	10.490	75.99	42.37	0.72	0.4039	10.45	4.50	68.966	2.00	10.51	-122.24
16.79	10.490	73.54	42.37	0.70	0.4039	10.45	4.50	69.044	2.00	10.51	-122.34
16.8	10.500	70.25	42.37	0.68	0.4039	10.46	4.50	69.121	2.30	10.52	-122.44
16.81	10.500	70.25	42.37	0.68	0.4039	10.46	4.50	69.198	2.30	10.52	-122.44
16.82	10.490	68.44	42.37	0.65	0.4039	10.45	4.50	69.276	2.50	10.51	-122.63
16.83	10.470	65.71	42	0.63	0.4011	10.43	4.40	69.353	2.50	10.49	-123.10
16.84	10.410	64.29	42	0.62	0.4035	10.37	4.40	69.429	2.50	10.43	-123.20
16.85	10.340	62.37	42.37	0.62	0.4068	10.30	4.50	69.506	2.00	10.36	-123.23
16.86	10.340	64.28	42.55	0.62	0.4115	10.30	4.50	69.582	2.00	10.36	-122.85
16.87	10.330	64.18	42.55	0.62	0.4119	10.29	4.50	69.655	2.30	10.35	-122.94
16.88	10.340	64.00	42.73	0.62	0.4132	10.30	4.50	69.743	2.30	10.36	-122.86
16.89	10.340	63.77	42.73	0.62	0.4132	10.30	4.50	69.822	2.30	10.36	-122.96
16.9	10.340	63.81	42.73	0.62	0.4132	10.30	4.50	69.900	2.30	10.36	-123.06
16.91	10.370	61.97	42.91	0.62	0.4170	10.31	4.50	69.979	2.30	10.36	-123.06
16.92	10.370	64.09	42.91	0.62	0.4138	10.33	4.50	70.057	2.30	10.39	-123.08
16.93	10.440	64.37	42.91	0.62	0.4110	10.40	4.50	70.136	2.30	10.46	-123.17
16.94	10.500	64.55	42.91	0.61	0.4087	10.46	4.50	70.214	2.30	10.52	-123.27
16.95	10.610	64.97	43.28	0.61	0.4079	10.57	4.50	70.292	2.30	10.63	-123.00
16.96	10.740	65.16	43.28	0.61	0.4086	10.70	4.50	70.370	2.30	10.71	-123.00
16.97	10.900	65.34	43.28	0.60	0.3971	10.86	4.50	70.449	2.30	10.92	-123.20
16.98	11.100	65.43	43.64	0.59	0.3932	11.06	4.50	70.528	2.00	11.12	-122.93
16.99	11.320	65.30	43.46	0.58	0.3839	11.28	4.50	70.606	2.00	11.34	-123.21
17	11.590	65.25	43.46	0.56	0.3750	11.35	4.50	70.685	2.30	11.61	-123.31
17.01	11.880	65.11	43.28	0.54	0.3665	11.48	4.50	70.763	2.30	11.67	-123.40
17.02	12.170	65.57	43.28	0.54	0.3556	12.13	4.50	70.842	2.30	12.19	-123.69
17.03	12.530	65.67	43.46	0.52	0.3468	12.49	4.50	70.920	2.30	12.55	-123.60

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.04	12.930	65.85	43.64	0.51	0.3375	12.89	4.50	70.999	2.30	12.95	-123.52
17.05	13.330	65.99	43.46	0.50	0.3260	13.29	4.50	71.077	2.30	13.35	-123.80
17.06	13.740	65.76	43.28	0.48	0.3150	13.70	4.50	71.156	2.30	13.76	-124.08
17.07	14.090	66.13	42.91	0.47	0.3045	14.05	4.50	71.234	2.00	14.14	-124.55
17.08	14.520	66.59	42.73	0.46	0.2967	14.36	4.50	71.312	2.00	14.42	-124.83
17.09	14.650	67.29	42.55	0.46	0.2904	14.61	4.50	71.391	2.00	14.67	-125.10
17.1	14.870	68.31	42.55	0.46	0.2861	14.83	4.50	71.469	1.80	14.89	-125.20
17.11	15.020	70.11	42.37	0.47	0.2821	14.98	4.50	71.548	1.80	15.04	-125.48
17.12	15.170	71.41	42.37	0.47	0.2793	15.13	4.50	71.626	2.00	15.19	-125.58
17.13	15.270	74.65	42.91	0.49	0.2813	15.23	4.50	71.705	2.00	15.25	-125.14
17.14	15.270	74.65	42.91	0.49	0.2810	15.23	4.50	71.783	3.50	15.29	-125.23
17.15	15.270	74.65	42.91	0.49	0.2810	15.23	4.50	71.862	3.00	15.29	-125.33
17.16	14.360	67.24	44.38	0.47	0.3091	14.32	4.50	71.940	3.00	14.38	-123.96
17.17	14.940	67.38	43.64	0.45	0.2921	14.90	4.50	72.019	2.00	14.96	-124.80
17.18	15.130	70.02	43.46	0.47	0.2862	14.98	4.50	72.097	2.00	15.05	-125.08
17.19	14.850	74.14	43.1	0.50	0.2902	14.81	4.50	72.175	2.00	14.87	-125.53
17.2	14.500	76.73	43.1	0.53	0.2972	14.46	4.50	72.254	2.00	14.52	-125.63
17.21	14.000	79.51	43.1	0.57	0.3079	13.96	4.50	72.332	1.80	14.02	-125.73
17.22	13.370	82.20	42.91	0.61	0.3209	13.33	4.50	72.411	1.80	13.39	-126.02
17.23	12.610	84.55	42.91	0.67	0.3403	12.57	4.50	72.489	2.30	12.63	-126.12
17.24	11.910	86.23	43.28	0.72	0.3634	11.87	4.50	72.568	2.00	11.93	-125.84
17.25	11.270	86.88	44.19	0.77	0.3921	11.23	4.50	72.646	2.00	11.29	-125.03
17.26	11.270	86.88	44.19	0.77	0.3921	11.23	4.50	72.725	2.00	11.29	-125.13
17.27	11.270	86.88	44.19	0.77	0.3921	11.23	4.50	72.803	2.30	11.29	-125.23
17.28	9.050	75.59	45.84	0.87	0.5065	9.00	4.50	72.882	2.30	9.07	-123.68
17.29	8.900	77.34	45.84	0.87	0.5151	8.90	4.50	72.961	2.30	9.00	-123.88
17.3	8.750	75.59	46.02	0.87	0.5259	8.70	4.50	73.042	2.50	8.77	-123.65
17.31	8.630	74.05	45.84	0.86	0.5312	8.58	4.40	73.122	2.30	8.65	-123.97
17.32	8.530	71.96	45.65	0.84	0.5352	8.48	4.40	73.202	2.30	8.55	-124.26
17.33	8.530	71.96	45.65	0.84	0.5352	8.48	4.40	73.283	2.30	8.55	-124.56
17.34	8.440	69.05	45.84	0.85	0.5439	8.39	4.40	73.363	2.30	8.48	-124.86
17.35	8.360	66.45	44.97	0.79	0.5439	8.31	4.40	73.443	2.30	8.38	-124.73
17.36	8.270	64.18	45.65	0.78	0.5520	8.22	4.40	73.523	2.50	8.29	-124.65
17.37	8.200	62.70	45.84	0.76	0.5590	8.15	4.40	73.603	2.50	8.22	-124.56
17.38	8.130	61.12	45.84	0.75	0.5638	8.08	4.40	73.684	2.30	8.15	-124.66
17.39	8.070	59.63	45.84	0.74	0.5693	8.02	4.40	73.764	2.30	8.08	-124.77
17.4	8.030	58.86	45.84	0.73	0.5709	7.98	4.40	73.844	2.30	8.05	-124.88
17.41	7.990	57.65	46.02	0.72	0.5760	7.94	4.40	73.924	2.50	8.01	-124.77
17.42	7.950	56.31	46.2	0.71	0.5811	7.90	4.40	74.004	2.50	7.97	-124.69
17.43	7.940	55.43	46.38	0.70	0.5841	7.89	4.40	74.085	2.50	7.94	-124.61
17.44	7.930	54.46	46.38	0.69	0.5881	7.88	4.40	74.165	2.50	7.91	-124.71
17.45	7.950	54.14	46.2	0.68	0.5811	7.90	4.40	74.245	2.30	7.96	-124.88
17.46	7.950	54.14	46.2	0.68	0.5811	7.90	4.40	74.325	2.30	7.97	-125.08
17.47	7.980	53.72	46.57	0.67	0.5836	7.93	4.40	74.405	2.30	8.00	-124.97
17.48	8.010	53.39	46.93	0.67	0.5859	7.96	4.40	74.486	2.50	8.03	-124.88
17.49	8.080	52.98	46.75	0.66	0.5786	8.03	4.40	74.566	2.50	8.10	-124.53
17.5	8.150	52.51	46.75	0.65	0.5740	8.10	4.40	74.646	2.30	8.17	-124.64
17.51	8.200	52.24	46.57	0.64	0.5679	8.15	4.70	74.728	2.30	8.22	-125.20
17.52	8.280	51.87	46.38	0.63	0.5601	8.23	4.70	74.810	2.30	8.30	-125.25
17.53	8.320	51.54	46.38	0.62	0.5575	8.27	4.70	74.892	2.30	8.34	-125.55
17.54	8.360	51.16	46.38	0.62	0.5568	8.31	4.70	74.972	2.30	8.38	-125.65
17.55	8.400	51.03	46.2	0.61	0.5550	8.36	4.70	75.052	2.30	8.42	-125.85
17.56	8.430	51.13	46.38	0.61	0.5502	8.38	4.70	75.130	2.50	8.45	-125.88
17.57	8.460	51.50	46.38	0.61	0.5482	8.41	4.70	75.220	2.30	8.48	-125.95
17.58	8.470	51.56	46.38	0.61	0.5476	8.42	4.70	75.301	2.30	8.49	-126.00
17.59	8.490	51.93	46.38	0.61	0.5463	8.44	4.70	75.383	2.30	8.51	-126.18
17.6	8.530	52.42	46.57	0.62	0.5463	8.48	4.70	75.463	2.30	8.54	-126.37
17.61	8.550	53.26	46.75	0.62	0.5468	8.50	4.70	75.547	2.30	8.57	-126.10
17.62	8.550	53.26	46.75	0.62	0.5468	8.50	4.70	75.629	2.30	8.57	-126.00
17.63	8.680	54.09	46.75	0.62	0.5386	8.63	4.70	75.711	2.30	8.70	-126.20
17.64	8.680	54.09	46.75	0.62	0.5386	8.63	4.70	75.793	2.30	8.70	-126.20
17.65	8.750	53.83	46.75	0.63	0.5343	8.70	4.70	75.875	2.30	8.77	-126.26
17.66	8.870	55.48	46.75	0.63	0.5271	8.82	4.70	75.957	2.30	8.89	-126.55
17.67	9.000	56.31	46.75	0.63	0.5194	8.95	4.70	76.039	2.30	9.02	-126.45
17.68	9.220	56.40	46.75	0.61	0.5070	9.17	4.70	76.121	2.30	9.24	-126.69
17.69	9.500	57.01	46.75	0.60	0.4921	9.45	4.70	76.203	2.30	9.52	-126.95
17.7	10.040	57.65	46.75	0.59	0.4733	10.01	4.70	76.285	2.30	10.26	-127.26
17.71	10.680	57.65	46.75	0.54	0.4386	10.61	4.70	76.367	2.00	10.68	-129.95
17.72	11.120	57.56	46.38	0.52	0.4171	11.07	4.70	76.449	1.80	11.14	-127.45

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
19.11	12,250	86.60	51.5	0.71	4.204	12.20	5.00	88.269	2.80	12.27	-135.97
19.12	11,280	73.68	55.51	0.65	4.921	11.22	5.00	88.357	2.80	11.30	-132.06
19.13	11,840	72.80	55.51	0.61	4.688	11.77	5.00	88.445	1.80	11.86	-132.16
19.14	11,830	73.35	55.51	0.62	4.692	11.78	5.00	88.534	2.00	11.85	-132.25
19.15	11,770	73.96	55.51	0.63	4.716	11.71	5.00	88.623	1.70	11.79	-132.35
19.16	11,710	74.56	55.51	0.64	4.740	11.65	5.00	88.712	1.80	11.73	-132.45
19.17	11,650	74.65	55.33	0.64	4.749	11.59	5.00	88.799	1.80	11.67	-132.73
19.18	11,590	75.02	55.51	0.65	4.789	11.53	5.00	88.886	2.30	11.61	-132.65
19.19	11,520	74.97	55.51	0.65	4.819	11.46	5.00	88.974	2.30	11.54	-132.74
19.20	11,500	74.97	55.51	0.65	4.827	11.44	5.00	89.062	2.30	11.52	-132.84
19.21	11,440	74.97	55.51	0.66	4.852	11.38	5.00	89.148	2.00	11.46	-132.94
19.22	11,430	74.88	55.51	0.66	4.857	11.37	5.00	89.235	2.00	11.45	-133.04
19.23	11,390	74.42	55.51	0.65	4.804	11.33	5.00	89.322	2.30	11.41	-133.14
19.24	11,360	73.86	55.7	0.65	4.973	11.30	5.00	89.409	2.30	11.38	-133.04
19.25	11,310	73.36	55.51	0.65	4.908	11.25	5.00	89.497	2.30	11.33	-133.33
19.26	11,300	73.03	55.7	0.65	4.929	11.24	5.00	89.584	2.30	11.32	-133.24
19.27	11,280	72.61	55.51	0.64	4.921	11.22	5.00	89.671	2.00	11.30	-133.53
19.28	11,270	72.33	55.7	0.64	4.942	11.21	5.00	89.758	2.00	11.29	-133.44
19.29	11,270	71.92	56.06	0.64	4.974	11.21	5.00	89.847	2.30	11.29	-133.17
19.30	11,270	71.59	55.86	0.64	4.996	11.21	5.00	89.936	2.30	11.29	-133.45
19.31	11,280	71.36	55.7	0.63	4.938	11.22	5.00	90.025	2.30	11.30	-133.73
19.32	11,260	71.18	55.7	0.63	4.947	11.20	5.00	90.114	2.30	11.28	-133.83
19.33	11,290	71.22	55.7	0.63	4.934	11.23	5.00	90.201	2.30	11.31	-133.93
19.34	11,330	70.90	55.7	0.63	4.916	11.27	5.00	90.288	2.50	11.35	-134.03
19.35	11,440	70.76	55.88	0.62	4.685	11.38	5.00	90.375	2.50	11.42	-134.13
19.36	11,520	70.53	55.88	0.61	4.851	11.46	5.00	90.462	2.30	11.54	-134.04
19.37	11,620	70.81	55.7	0.61	4.793	11.56	5.00	90.549	2.30	11.64	-134.32
19.38	11,670	70.71	55.7	0.61	4.773	11.61	5.00	90.637	2.30	11.69	-134.42
19.39	11,750	70.76	56.06	0.60	4.771	11.69	5.00	90.724	2.30	11.77	-134.16
19.4	11,830	70.53	55.88	0.60	4.724	11.77	5.00	90.811	2.30	11.85	-134.43
19.41	11,840	70.36	55.88	0.59	4.720	11.78	5.00	90.898	2.30	11.86	-134.53
19.42	11,840	70.30	55.7	0.59	4.704	11.78	5.00	90.985	2.30	11.86	-134.81
19.43	11,810	70.71	55.7	0.60	4.716	11.75	5.00	91.072	2.30	11.83	-134.91
19.44	11,810	71.27	56.06	0.60	4.747	11.75	5.00	91.159	2.30	11.83	-134.65
19.45	11,860	71.41	56.06	0.60	4.727	11.80	5.00	91.247	2.30	11.88	-134.74
19.46	11,870	71.87	56.06	0.61	4.723	11.81	5.00	91.334	2.30	11.89	-134.94
19.47	11,900	72.24	55.7	0.61	4.681	11.84	5.00	91.421	2.00	11.92	-135.30
19.48	11,900	72.80	55.88	0.61	4.696	11.84	5.00	91.508	2.00	11.92	-135.22
19.49	11,930	73.17	55.88	0.61	4.684	11.87	5.00	91.595	2.00	11.95	-135.32
19.5	11,990	73.68	56.06	0.61	4.676	11.93	5.00	91.682	2.00	12.01	-135.24
19.51	12,100	73.91	56.06	0.61	4.633	12.04	5.00	91.770	2.00	12.12	-135.33
19.52	12,270	74.14	56.06	0.60	4.569	12.21	5.00	91.857	2.00	12.29	-135.43
19.53	12,480	74.60	55.88	0.60	4.478	12.42	5.00	91.944	2.00	12.50	-135.71
19.54	13,100	75.30	55.88	0.57	4.266	13.04	5.00	92.031	2.00	13.12	-135.81
19.55	13,470	75.53	55.88	0.56	4.148	13.41	5.00	92.118	2.00	13.49	-135.91
19.56	13,930	75.32	55.7	0.54	3.987	13.87	5.00	92.207	1.80	13.95	-136.19
19.57	14,380	75.81	55.51	0.51	3.860	14.32	5.00	92.296	1.80	14.40	-136.37
19.58	14,920	75.85	55.33	0.51	3.708	14.86	5.00	92.385	1.80	14.94	-136.75
19.59	15,450	76.32	54.6	0.49	3.534	15.40	5.00	92.474	2.00	15.47	-137.58
19.6	16,800	76.97	54.24	0.46	3.229	16.78	5.00	92.563	2.00	16.82	-138.04
19.61	17,490	77.47	54.05	0.44	3.080	17.44	5.00	92.652	1.80	17.51	-138.32
19.62	18,060	78.40	54.05	0.43	2.993	18.01	5.00	92.740	1.50	18.08	-138.62
19.63	18,960	81.04	54.05	0.43	2.851	18.91	5.00	92.829	1.50	18.98	-138.52
19.64	19,340	82.57	54.24	0.43	2.805	19.29	5.00	92.918	1.80	19.36	-138.43
19.65	19,660	84.05	54.78	0.43	2.795	19.55	5.00	93.007	1.80	19.62	-137.99
19.66	20,060	88.87	54.78	0.44	2.731	20.01	5.00	93.096	1.50	20.08	-138.08
19.67	20,200	90.31	54.78	0.45	2.701	20.23	5.00	93.185	1.50	20.36	-138.40
19.68	20,610	96.60	54.97	0.47	2.667	20.56	5.00	93.274	1.50	20.63	-138.09
19.69	20,760	98.55	55.15	0.47	2.657	20.70	5.00	93.363	1.50	20.78	-138.30
19.7	20,980	104.20	54.78	0.50	2.611	20.93	5.00	93.452	1.50	21.00	-138.48
19.71	21,100	107.07	54.97	0.51	2.605	21.05	5.00	93.540	1.30	21.12	-138.39
19.72	21,210	107.36	54.97	0.52	2.612	21.16	5.00	93.629	1.30	21.23	-138.49
19.73	21,250	118.37	54.78	0.56	2.578	21.20	5.00	93.718	1.50	21.27	-138.77
19.74	21,300	122.07	54.78	0.57	2.572	21.25	5.00	93.807	1.50	21.32	-138.87
19.75	21,280	125.45	54.6	0.59	2.566	21.23	5.00	93.896	1.50	21.30	-139.15
19.76	21,280	131.47	54.6	0.62	2.566	21.23	5.00	93.983	1.50	21.30	-139.25
19.77	21,290	132.47	54.6	0.62	2.567	21.24	5.00	94.070	1.50	21.31	-139.35
19.78	21,310	139.02	54.78	0.65	2.571	21.26	5.00	94.158	1.50	21.33	-139.26
19.79	21,300	140.73	54.24	0.66	2.546	21.25	5.00	94.246	1.80	21.32	-139.90

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Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[MPa]
19.8	21,230	143.00	54.6	0.67	0.2572	21.16	5.0	94.335	1.80	21.25	-139.64
19.81	21,140	144.86	54.6	0.69	0.2583	21.09	5.0	94.424	2.00	21.16	-139.74
19.82	21,050	146.52	54.6	0.70	0.2594	21.00	5.0	94.513	2.00	21.07	-139.83
19.83	20,960	148.24	54.97	0.71	0.2623	20.91	5.0	94.602	2.00	20.98	-139.56
19.84	20,870	149.96	55.15	0.74	0.2705	20.83	5.0	94.691	2.00	20.91	-139.48
19.85	20,810	149.21	55.33	0.72	0.2659	20.75	5.0	94.780	2.00	20.83	-139.40
19.86	20,730	150.37	55.51	0.73	0.2678	20.67	5.0	94.869	2.00	20.75	-139.32
19.87	20,600	150.60	55.7	0.73	0.2704	20.54	5.0	94.956	2.00	20.62	-139.22
19.88	20,460	150.55	56.06	0.74	0.2740	20.40	5.0	95.043	2.00	20.48	-138.96
19.89	20,390	150.44	56.43	0.74	0.2765	20.30	5.0	95.130	2.00	20.37	-138.69
19.9	20,190	150.04	56.43	0.74	0.2795	20.13	5.0	95.217	2.30	20.21	-138.79
19.91	19,730	149.44	56.61	0.76	0.2869	19.67	5.0	95.306	2.30	19.75	-138.71
19.92	19,730	149.44	56.61	0.76	0.2869	19.67	5.0	95.395	2.30	19.75	-138.81
19.93	19,200	147.59	57.16	0.77	0.2977	19.14	5.0	95.484	2.30	19.22	-138.35
19.94	19,200	147.59	57.16	0.77	0.2977	19.14	5.0	95.573	2.30	19.22	-138.45
19.95	18,880	146.52	57.16	0.78	0.3028	18.82	5.0	95.662	2.30	18.90	-138.55
19.96	18,530	145.18	57.52	0.78	0.3104	18.47	5.0	95.751	2.30	18.55	-138.29
19.97	18,100	143.33	58.25	0.79	0.3218	18.04	5.0	95.840	2.30	18.12	-137.66
19.98	17,620	142.08	58.44	0.81	0.3317	17.58	5.0	95.928	2.30	17.64	-137.56
19.99	17,380	140.18	58.8	0.82	0.3443	17.02	5.0	96.017	2.30	17.10	-137.30
20	16,430	138.93	59.17	0.85	0.3601	16.37	5.0	96.106	2.30	16.45	-137.03
20.01	15,620	137.35	59.53	0.88	0.3811	15.56	5.0	96.195	2.50	15.65	-136.77
20.02	14,780	135.59	59.35	0.92	0.4016	14.72	5.0	96.284	2.50	14.80	-137.05
20.03	13,880	133.19	58.98	0.96	0.4249	13.82	5.0	96.373	2.50	13.90	-137.51
20.04	12,960	130.22	59.17	1.01	0.4509	12.89	5.0	96.462	2.50	13.02	-137.42
20.05	12,040	127.22	59.17	1.01	0.4569	12.89	5.0	96.551	2.50	12.97	-137.33
20.06	12,180	120.03	60.08	1.04	0.4933	12.12	5.0	96.640	2.50	12.21	-136.76
20.07	11,620	124.25	60.81	1.07	0.5233	11.56	5.0	96.728	2.50	11.65	-136.16
20.08	11,200	122.68	61.54	1.08	0.5425	11.14	5.0	96.817	2.50	11.23	-135.55
20.09	10,960	117.44	61.72	1.07	0.5631	10.80	5.0	96.906	2.50	10.99	-135.00
20.1	10,960	117.44	61.72	1.07	0.5631	10.90	5.0	96.995	2.50	10.99	-135.00
20.11	10,960	117.44	61.72	1.07	0.5631	10.90	5.0	97.084	3.50	10.99	-135.00
20.12	10,660	93.59	65.38	0.88	0.6133	10.59	5.0	97.171	2.30	10.69	-132.17
20.13	10,900	89.19	65.01	0.82	0.5964	10.83	5.0	97.258	2.30	10.93	-132.27
20.14	11,150	84.84	65.19	0.77	0.5847	10.80	5.0	97.346	2.30	11.18	-132.32
20.15	11,150	84.84	65.19	0.76	0.5847	10.80	5.0	97.433	2.30	11.18	-132.32
20.16	11,400	80.81	65.93	0.71	0.5718	11.33	5.0	97.520	2.80	11.43	-132.32
20.17	11,670	77.24	64.83	0.66	0.5555	11.61	5.0	97.609	2.50	11.70	-133.13
20.18	11,760	74.70	63.92	0.64	0.5435	11.70	5.0	97.698	2.50	11.79	-134.14
20.19	11,720	73.62	63.73	0.63	0.5438	11.66	5.0	97.787	2.50	11.75	-134.14
20.2	11,660	72.47	63.92	0.62	0.5482	11.60	5.0	97.875	2.50	11.75	-134.14
20.21	11,660	72.47	63.92	0.62	0.5482	11.60	5.0	97.964	2.50	11.69	-134.14
20.22	11,630	71.22	63.92	0.61	0.5496	11.57	5.0	98.053	2.50	11.66	-134.14
20.23	11,630	69.83	63.73	0.60	0.5498	11.55	5.0	98.142	2.50	11.64	-134.14
20.24	11,610	69.65	63.73	0.60	0.5499	11.55	5.0	98.231	2.50	11.64	-134.14
20.25	11,640	69.46	63.92	0.61	0.5511	11.58	5.0	98.320	2.50	11.64	-134.14
20.26	11,700	68.63	63.73	0.60	0.5447	11.64	5.0	98.409	2.50	11.73	-135.15
20.27	11,810	70.48	64.1	0.60	0.5428	11.75	5.0	98.498	2.50	11.84	-134.14
20.28	11,950	70.58	64.1	0.59	0.5364	11.89	5.0	98.587	2.50	11.98	-134.14
20.29	12,080	70.58	63.92	0.58	0.5291	12.02	5.0	98.675	2.50	12.11	-135.15
20.3	12,190	70.81	63.73	0.57	0.5228	12.13	5.0	98.764	2.50	12.23	-136.16
20.31	12,340	70.81	63.73	0.57	0.5165	12.28	5.0	98.853	2.50	12.37	-135.15
20.32	12,530	70.34	63.55	0.56	0.5072	12.47	5.0	98.942	2.50	12.56	-135.15
20.33	12,730	70.16	63.55	0.55	0.4992	12.67	5.0	99.031	2.00	12.76	-135.15
20.34	12,940	69.70	63.55	0.54	0.4911	12.88	5.0	99.120	2.00	12.97	-135.15
20.35	13,150	69.44	63.55	0.53	0.4830	13.09	5.0	99.209	2.00	13.18	-136.16
20.36	13,540	68.03	63	0.50	0.4653	13.46	5.0	99.298	2.00	13.57	-136.16
20.37	13,720	67.75	63	0.49	0.4592	13.66	5.0	99.387	2.00	13.75	-136.16
20.38	13,940	67.38	62.82	0.48	0.4506	13.88	5.0	99.476	1.80	13.97	-137.17
20.39	14,190	67.72	63	0.48	0.4440	14.13	5.0	99.564	1.80	14.22	-137.17
20.4	14,430	68.80	62.82	0.47	0.4353	14.39	5.0	99.653	1.80	14.46	-138.18
20.41	15,040	68.77	63	0.46	0.4189	14.98	5.0	99.742	1.80	15.07	-137.17
20.42	15,370	69.46	63.18	0.45	0.4111	15.31	5.0	99.831	1.80	15.40	-137.17
20.43	15,740	70.07	63	0.45	0.4003	15.58	5.0	99.920	1.80	15.77	-137.17
20.44	16,460	71.22	63	0.43	0.3827	16.40	5.0	100.009	1.80	16.49	-137.17
20.45	16,820	72.10	63	0.42	0.3746	16.76	5.0	100.098	1.80	16.86	-137.17
20.46	17,120	72.10	62.82	0.42	0.3669	17.08	5.0	100.187	1.80	17.15	-137.17
20.47	17,580	74.47	62.64	0.42	0.3563	17.62	5.0	100.276	1.80	17.61	-138.18
20.48	17,690	75.39	62.45	0.43	0.3530	17.53	5.0	100.364	1.50	17.72	-138.18

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
21.87	17,110	110.45	73.76	0.65	0.4312	17.04	5.50	113.141	1.80	17.14	-140.76
21.88	17,650	113.13	73.96	0.64	0.4190	17.58	5.50	113.237	1.80	17.68	-140.68
21.89	18,180	117.12	73.23	0.64	0.4028	18.11	5.50	113.333	1.80	18.21	-141.51
21.9	19,040	125.08	71.77	0.66	0.3769	18.97	5.50	113.429	1.80	19.07	-143.07
21.91	19,350	116.00	71.77	0.60	0.3709	19.28	5.50	113.525	1.80	19.36	-143.17
21.92	19,620	106.74	71.77	0.54	0.3658	19.55	5.50	113.621	1.50	19.65	-143.27
21.93	20,400	89.05	72.13	0.44	0.3599	19.97	5.50	113.716	1.50	20.07	-143.00
21.94	20,270	89.01	71.95	0.44	0.3550	20.20	5.50	113.812	1.80	20.30	-143.28
21.95	20,360	90.07	71.77	0.44	0.3525	20.29	5.50	113.908	1.80	20.39	-143.56
21.96	20,800	90.07	72.68	0.60	0.3484	20.73	5.50	114.004	1.80	20.83	-144.35
21.97	20,970	90.77	72.13	0.43	0.3440	20.90	5.50	114.100	1.50	21.00	-143.40
21.98	21,150	90.49	72.32	0.43	0.3419	21.08	5.50	114.196	1.50	21.18	-143.30
21.99	21,590	93.27	73.96	0.43	0.3426	21.52	5.50	114.292	1.80	21.62	-141.76
22	21,920	92.90	74.32	0.42	0.3391	21.85	5.50	114.387	1.50	21.95	-141.50
22.01	22,660	95.12	75.51	0.42	0.3298	22.04	5.50	114.483	1.50	22.29	-141.41
22.02	23,290	92.94	72.68	0.40	0.3121	23.22	5.50	114.579	1.50	23.32	-143.34
22.03	23,970	93.91	69.21	0.39	0.2887	23.90	5.50	114.675	1.30	24.00	-146.90
22.04	24,180	96.93	71.22	0.40	0.2945	24.11	5.50	114.771	1.30	24.21	-144.99
22.05	24,230	92.29	71.22	0.38	0.2939	24.16	5.50	114.867	1.30	24.26	-145.09
22.06	24,310	94.36	71.95	0.40	0.2909	24.24	5.50	114.962	1.50	24.34	-144.46
22.07	24,440	91.74	70.85	0.38	0.2899	24.37	5.50	115.058	1.30	24.47	-145.66
22.08	24,760	92.16	72.13	0.37	0.2913	24.69	5.50	115.154	1.30	24.79	-144.47
22.09	24,760	92.16	72.13	0.37	0.2913	24.69	5.50	115.250	1.30	24.79	-144.57
22.1	24,760	92.16	72.13	0.37	0.2913	24.69	5.50	115.346	1.80	24.79	-144.67
22.11	24,140	91.74	70.82	0.31	0.3288	24.86	5.50	115.442	1.50	25.17	-137.75
22.12	24,480	78.96	79.25	0.32	0.3237	24.40	5.50	115.538	1.50	24.81	-137.75
22.13	24,430	81.83	79.44	0.35	0.3252	24.35	5.50	115.633	1.50	24.46	-137.66
22.14	24,460	86.74	78.89	0.35	0.3225	24.38	5.50	115.731	1.30	24.49	-138.30
22.15	24,400	91.60	78.89	0.38	0.3233	24.32	5.50	115.829	1.50	24.43	-138.40
22.16	24,330	94.52	78.71	0.39	0.3235	24.25	5.50	115.926	1.50	24.36	-138.68
22.17	24,120	98.08	79.07	0.41	0.3278	24.04	5.50	116.022	1.50	24.15	-138.42
22.18	23,950	99.52	78.89	0.42	0.3294	23.87	5.50	116.118	1.50	23.98	-138.70
22.19	23,750	100.49	78.52	0.42	0.3306	23.67	5.50	116.214	1.50	23.78	-139.16
22.2	23,390	103.50	77.98	0.44	0.3334	23.31	5.50	116.310	1.50	23.42	-139.80
22.21	23,260	104.71	77.43	0.45	0.3329	23.18	5.50	116.405	1.50	23.29	-140.45
22.22	22,920	107.85	74.51	0.47	0.3251	22.85	5.50	116.503	1.50	22.95	-143.47
22.23	22,720	107.72	71.4	0.47	0.3143	22.65	5.50	116.601	1.50	22.75	-146.68
22.24	22,600	112.99	77.98	0.51	0.3535	21.98	5.50	116.698	1.50	22.09	-140.19
22.25	21,610	117.25	80.53	0.54	0.3727	21.53	5.50	116.796	1.80	21.64	-137.74
22.26	21,250	121.52	81.08	0.57	0.3816	21.17	5.50	116.893	1.50	21.28	-137.29
22.27	20,940	123.37	80.53	0.59	0.3846	20.86	5.50	116.991	1.50	20.97	-137.94
22.28	20,310	124.25	80.9	0.61	0.3983	20.23	5.50	117.088	1.80	20.34	-137.67
22.29	20,050	123.55	80.72	0.62	0.4026	19.97	5.50	117.186	1.80	20.08	-137.94
22.3	19,880	122.95	80.72	0.62	0.4064	19.78	5.50	117.284	1.80	19.89	-138.04
22.31	19,510	121.01	79.99	0.62	0.4100	19.43	5.50	117.381	1.80	19.54	-138.87
22.32	19,280	119.44	79.44	0.62	0.4120	19.20	5.50	117.478	1.80	19.31	-139.52
22.33	19,000	118.18	82.36	0.62	0.4335	18.92	5.50	117.576	1.80	19.03	-139.40
22.34	18,880	116.70	82.18	0.62	0.4399	18.60	5.50	117.674	1.80	18.71	-139.98
22.35	18,270	115.12	83.27	0.63	0.4558	18.19	5.50	117.772	1.80	18.30	-139.98
22.36	17,800	114.48	84.55	0.64	0.4750	17.72	5.50	117.869	2.00	17.84	-134.80
22.37	17,510	115.55	85.1	0.65	0.4860	17.42	5.50	117.967	2.00	17.55	-134.80
22.38	17,520	108.88	86.38	0.60	0.4832	17.43	5.50	118.064	2.00	17.56	-133.17
22.39	17,030	105.77	84.55	0.62	0.4965	16.95	5.50	118.162	2.00	17.07	-135.10
22.4	16,570	122.44	83.27	0.74	0.5025	16.49	5.50	118.259	2.00	16.60	-136.47
22.41	16,440	128.00	83.64	0.78	0.5088	16.36	5.50	118.357	2.00	16.48	-136.20
22.42	16,400	124.90	84.19	0.76	0.5134	16.32	5.50	118.455	2.30	16.44	-135.75
22.43	16,280	129.03	83.46	0.76	0.5167	16.20	5.50	118.552	2.30	16.24	-136.06
22.44	16,080	122.95	84.73	0.77	0.5276	15.98	5.50	118.650	2.30	16.10	-135.41
22.45	15,920	121.42	84.92	0.76	0.5334	15.84	5.50	118.747	2.30	15.96	-135.31
22.46	15,820	119.94	85.28	0.76	0.5391	15.73	5.50	118.845	2.00	15.86	-135.05
22.47	15,760	117.21	85.28	0.74	0.5411	15.67	5.50	118.944	2.00	15.80	-135.15
22.48	15,940	117.74	85.46	0.72	0.5448	15.75	5.50	119.041	2.30	15.87	-135.45
22.49	15,910	108.92	85.65	0.68	0.5383	15.82	5.50	119.143	2.30	15.95	-134.98
22.5	16,050	104.66	85.83	0.65	0.5348	15.96	5.50	119.242	2.00	16.09	-134.90
22.51	16,310	100.72	86.56	0.62	0.5307	16.22	5.50	119.340	2.00	16.35	-134.26
22.52	16,300	95.95	86.38	0.58	0.5226	16.44	5.50	119.437	2.00	16.57	-134.54
22.53	16,800	96.79	86.01	0.61	0.5283	16.71	5.50	119.535	2.00	16.82	-134.82
22.54	17,570	69.42	84.92	0.40	0.4833	17.49	5.50	119.634	2.00	17.61	-136.20
22.55	18,130	67.01	84.55	0.37	0.4664	18.05	5.50	119.730	2.00	18.17	-136.67

17-101.G_CPTU_Soarza

17-101_CPTU.S1_Centro

Pag. 33

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
22.56	18,780	66.31	85.1	0.35	0.4531	18.69	5.70	119.833	2.00	18.82	-136.21
22.57	18,880	65.99	80.9	0.35	0.4285	18.80	5.70	119.932	2.00	18.91	-140.51
22.58	19,240	75.67	84.92	0.39	0.4414	19.16	5.70	120.032	2.30	19.28	-136.59
22.59	19,760	77.20	85.1	0.39	0.4307	19.67	5.70	120.131	2.30	19.80	-136.51
22.6	20,000	75.99	86.01	0.36	0.4165	20.05	5.70	120.230	2.00	20.13	-135.70
22.61	20,360	75.81	86.19	0.37	0.4233	20.27	5.70	120.330	2.00	20.40	-135.61
22.62	20,600	76.60	86.38	0.37	0.4193	20.51	5.80	120.431	2.00	20.64	-135.52
22.63	20,790	77.34	86.38	0.37	0.4155	20.70	5.80	120.532	2.00	20.83	-135.62
22.64	20,930	79.00	87.11	0.38	0.4162	20.84	5.80	120.633	2.00	20.97	-134.99
22.65	20,860	80.60	87.29	0.38	0.4185	20.95	5.80	120.734	2.00	21.09	-134.65
22.66	20,770	84.42	87.11	0.41	0.4194	20.68	5.80	120.835	2.00	20.81	-135.18
22.67	20,710	85.39	86.38	0.41	0.4171	20.62	5.80	120.936	2.00	20.75	-136.01
22.68	20,640	87.34	85.83	0.42	0.4158	20.55	5.80	121.037	2.00	20.68	-136.66
22.69	20,640	87.34	85.83	0.42	0.4158	20.55	5.80	121.138	2.30	20.68	-136.76
22.7	20,370	88.50	86.56	0.43	0.4249	20.28	5.70	121.237	2.30	20.41	-136.13
22.71	20,370	88.50	86.56	0.43	0.4249	20.28	5.70	121.337	2.30	20.41	-136.23
22.72	19,570	85.81	87.29	0.44	0.4460	19.48	5.70	121.436	2.30	19.61	-135.59
22.73	19,570	85.81	87.29	0.44	0.4460	19.48	5.70	121.535	2.30	19.61	-135.69
22.74	18,490	91.28	88.93	0.49	0.4810	18.40	5.80	121.636	2.30	18.53	-134.15
22.75	18,490	91.28	88.93	0.49	0.4810	18.40	5.80	121.737	2.30	18.53	-134.25
22.76	18,130	92.90	89.3	0.51	0.4926	18.04	5.80	121.838	2.30	18.17	-133.98
22.77	17,790	93.50	89.66	0.53	0.5040	17.70	5.80	121.939	2.30	17.83	-133.71
22.78	17,490	93.91	89.68	0.54	0.5116	17.40	5.80	122.041	2.30	17.53	-133.99
22.79	17,300	94.84	89.66	0.55	0.5183	17.21	5.80	122.142	2.30	17.34	-133.91
22.8	17,180	95.86	90.56	0.56	0.5261	16.92	5.80	122.243	2.30	17.22	-133.83
22.81	17,210	95.86	90.56	0.56	0.5261	17.12	5.80	122.344	2.30	17.22	-133.19
22.82	17,270	96.00	91.12	0.56	0.5276	17.18	5.70	122.443	2.30	17.31	-132.74
22.83	17,230	96.32	91.12	0.56	0.5288	17.14	5.70	122.542	2.30	17.27	-132.84
22.84	17,170	96.32	90.76	0.56	0.5286	17.08	5.70	122.642	2.30	17.21	-133.30
22.85	17,160	96.60	91.67	0.56	0.5321	16.97	5.70	122.741	2.30	17.20	-132.85
22.86	17,150	96.62	91.86	0.56	0.5346	17.05	5.70	122.840	2.30	17.20	-132.85
22.87	17,150	95.21	91.66	0.56	0.5345	17.06	5.80	122.943	2.30	17.19	-132.68
22.88	17,180	94.79	91.86	0.55	0.5347	17.09	5.80	123.044	2.30	17.22	-132.59
22.89	17,130	95.63	91.86	0.56	0.5383	17.04	5.80	123.145	2.30	17.17	-132.69
22.9	17,070	97.71	91.31	0.57	0.5371	16.91	5.80	123.246	2.30	17.04	-133.34
22.91	16,930	97.71	91.31	0.57	0.5371	16.91	5.80	123.347	2.30	16.97	-133.44
22.92	16,630	101.97	91.49	0.61	0.5502	16.54	5.80	123.448	2.00	16.67	-133.36
22.93	16,640	103.59	91.49	0.63	0.5579	16.31	5.80	123.549	2.30	16.44	-133.45
22.94	16,250	104.98	92.04	0.65	0.5684	16.18	5.80	123.650	2.30	16.29	-133.00
22.95	16,210	106.88	92.4	0.66	0.5700	16.12	5.80	123.752	2.30	16.25	-132.74
22.96	16,190	106.88	92.4	0.66	0.5700	16.12	5.80	123.853	2.30	16.25	-132.74
22.97	16,250	106.98	93.62	0.67	0.5743	16.16	5.80	123.954	2.00	16.29	-132.02
22.98	16,380	110.26	93.61	0.67	0.5708	16.29	5.80	124.055	2.00	16.48	-131.93
22.99	16,440	110.99	93.68	0.67	0.5698	16.35	5.80	124.156	2.00	16.49	-131.85
23	16,590	110.40	93.68	0.67	0.5647	16.50	5.80	124.257	2.30	16.63	-131.95
23.01	16,670	109.97	90.60	0.69	0.5402	16.58	5.80	124.358	2.30	16.67	-132.05
23.02	16,730	108.43	93.5	0.65	0.5589	16.64	5.80	124.459	2.30	16.77	-132.33
23.03	16,720	108.78	93.13	0.65	0.5570	16.63	5.80	124.560	2.30	16.76	-132.79
23.04	16,620	106.97	92.77	0.64	0.5582	16.53	5.80	124.661	1.80	16.66	-133.25
23.05	16,560	104.84	92.95	0.63	0.5613	16.47	5.90	124.764	1.80	16.60	-133.17
23.06	16,530	103.96	93.63	0.63	0.5617	16.47	5.90	124.867	2.00	16.65	-132.95
23.07	16,490	102.39	93.32	0.62	0.5659	16.40	5.90	124.969	2.00	16.53	-133.00
23.08	16,450	101.42	93.68	0.62	0.5695	16.36	5.90	125.072	2.00	16.49	-132.73
23.09	16,450	101.42	93.68	0.62	0.5695	16.36	5.90	125.175	4.00	16.49	-132.83
23.1	16,450	101.42	93.68	0.62	0.5695	16.36	5.90	125.278	1.80	16.49	-132.93
23.11	16,190	80.40	90.63	0.51	0.5502	16.09	5.80	125.381	2.00	16.06	-132.80
23.12	16,240	90.07	90.06	0.55	0.5515	16.14	5.90	125.483	2.00	16.28	-130.75
23.13	16,270	91.18	95.87	0.56	0.5892	16.17	5.90	125.586	2.00	16.31	-130.14
23.14	16,230	91.88	95.87	0.57	0.5907	16.13	5.90	125.689	2.00	16.27	-131.13
23.15	16,060	93.96	94.96	0.59	0.5935	15.91	5.90	125.792	2.00	16.04	-132.14
23.16	16,760	94.40	94.96	0.56	0.5402	16.07	5.90	125.895	2.00	16.00	-132.80
23.17	15,540	96.65	94.96	0.62	0.6087	15.45	5.90	125.997	2.00	15.58	-132.71
23.18	15,370	97.48	94.78	0.63	0.6167	15.28	5.90	126.100	2.30	15.41	-132.62
23.19	15,190	97.53	94.96	0.64	0.6251	15.10	5.90	126.203	2.30	15.23	-132.53
23.2	15,050	97.48	95.14	0.65	0.6322	14.95	5.90	126.306	2.30	15.09	-132.45
23.21	15,020	97.48	95.14	0.65	0.6322	14.95	5.90	126.409	2.30	15.09	-132.45
23.22	14,920	97.80	95.33	0.66	0.6389	14.82	5.90	126.511	2.30	14.96	-132.46
23.23	14,530	98.96	94.96	0.68	0.6535	14.44	5.90	126.614	2.30	14.57	-132.93
23.24	14,530	98.96	94.96	0.68	0.6535	14.44	5.90	126.717	2.30	14.57	-133.93

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
24.63	1,790	40.84	101,17	2.28	5,6520	1.69	6.20	141,383	2.00	1.83	-140.45
24.64	1,670	38.62	101.35	2.31	6,0689	1.57	6.20	141,491	2.00	1.71	-140.37
24.65	1,570	36.40	101.17	2.32	6,4439	1.47	6.20	141,599	1.80	1.61	-140.65
24.66	1,420	32.56	101.72	2.29	7,1634	1.32	6.20	141,707	1.80	1.46	-140.19
24.67	1,410	31.86	101.63	2.20	7,2787	1.31	6.20	141,815	1.80	1.45	-139.37
24.68	1,360	29.82	102.81	2.19	7,5596	1.26	6.20	141,923	1.80	1.40	-139.30
24.69	1,280	28.29	102.63	2.21	8,0180	1.18	6.20	142,031	1.80	1.32	-139.58
24.71	1,250	25.15	102.63	2.01	8,2104	1.15	6.20	142,139	1.80	1.29	-139.68
24.72	1,240	24.13	103.54	1.95	8,5000	1.14	6.20	142,247	1.80	1.28	-138.87
24.73	1,240	24.13	103.54	1.83	8,6242	1.14	6.20	142,355	1.80	1.28	-138.87
24.73	1,200	22.41	107.74	1.74	8,3519	1.18	6.20	142,463	1.80	1.34	-134.86
24.74	1,350	20.33	117.42	1.51	8,6978	1.23	6.20	142,571	1.80	1.40	-125.28
24.75	1,410	18.66	183.71	1.32	13,0291	1.23	6.20	142,679	1.80	1.49	-59.09
24.76	1,440	17.32	184.26	1.20	12,7958	1.26	6.20	142,787	1.80	1.52	-58.64
24.77	1,470	16.59	185.41	1.20	12,5171	1.29	6.20	142,895	2.00	1.55	-58.19
24.78	1,470	20.05	184.44	1.36	12,5469	1.29	6.20	143,003	2.00	1.55	-58.65
24.79	1,490	20.19	183.35	1.36	12,3054	1.31	6.20	143,111	1.80	1.57	-59.84
24.8	1,430	21.07	183.89	1.47	12,8594	1.25	6.20	143,219	1.80	1.51	-59.40
24.81	1,440	18.29	186.08	1.27	12,9222	1.25	6.20	143,327	2.00	1.52	-57.31
24.82	1,490	19.66	186.45	1.28	12,1534	1.26	6.20	143,435	2.00	1.57	-57.49
24.83	1,560	19.54	187.18	1.25	11,9987	1.37	6.20	143,543	2.00	1.64	-56.40
24.84	1,890	20.28	187.73	1.07	9,9328	1.70	6.20	143,651	2.00	1.97	-55.95
24.85	2,780	24.22	187.55	0.87	6,7464	2.59	6.20	143,759	1.80	2.86	-56.23
24.86	5,330	34.73	187.73	0.65	3,5221	5.14	6.20	143,867	1.80	5.41	-56.15
24.87	6,640	34.87	187.36	0.53	2,8217	6.48	6.20	143,975	1.80	6.72	-56.05
24.88	7,730	39.73	187	0.51	2,4191	7.54	6.20	144,083	1.50	7.87	-57.07
24.89	9,370	39.04	184.26	0.42	1,9665	9.19	6.20	144,191	1.50	9.45	-59.91
24.9	9,980	40.20	182.25	0.40	1,8262	9.80	6.20	144,299	1.80	10.06	-62.02
24.91	10,560	42.37	180.42	0.40	1,7085	10.38	6.20	144,407	1.80	10.64	-63.95
24.92	11,130	44.13	178.96	0.40	1,6079	10.95	6.20	144,515	1.80	11.21	-65.51
24.93	12,160	46.22	175.49	0.38	1,4432	11.98	6.20	144,623	1.50	12.23	-69.07
24.94	12,640	47.93	173.67	0.38	1,3740	12.47	6.20	144,731	1.50	12.71	-70.99
24.95	13,050	49.69	172.02	0.38	1,3182	12.88	6.20	144,839	1.80	13.12	-72.74
24.96	13,760	52.56	169.28	0.38	1,2302	13.59	6.20	144,947	1.80	13.83	-75.58
24.97	14,050	54.74	167.82	0.39	1,1944	13.88	6.20	145,055	1.80	14.12	-77.14
24.98	14,280	57.15	166.54	0.40	1,1662	14.11	6.20	145,163	1.80	14.38	-78.51
24.99	14,540	59.14	165.27	0.41	1,1367	14.37	6.30	145,273	1.80	14.61	-79.88
25	15,170	59.23	163.08	0.39	1,0750	15.01	6.30	145,383	1.80	15.24	-82.17
25.01	15,570	60.67	161.98	0.39	1,0403	15.41	6.30	145,493	1.80	15.64	-83.37
25.02	16,060	59.60	160.88	0.37	1,0017	15.90	6.20	145,601	1.80	16.13	-84.57
25.03	16,600	62.70	157.6	0.38	9,9494	16.44	6.20	145,709	1.80	16.67	-87.94
25.04	17,820	64.14	156.14	0.36	8,7862	17.66	6.20	145,817	1.80	17.89	-89.50
25.05	18,470	65.30	151.39	0.35	8,1917	18.32	6.20	145,925	1.50	18.53	-94.35
25.06	19,180	65.99	149.2	0.34	7,7779	19.03	6.20	146,033	1.50	19.24	-96.64
25.07	20,550	66.87	147.01	0.33	7,1154	20.40	6.20	146,141	1.80	20.61	-98.93
25.08	20,560	68.87	147.01	0.33	6,154	20.40	6.20	146,249	3.50	20.69	-92.2
25.09	20,550	66.87	147.01	0.33	7,1154	20.40	6.20	146,357	1.80	20.61	-98.93
25.1	21,950	53.12	132.03	0.24	6,015	21.82	6.30	146,466	1.80	22.01	-114.20
25.11	22,220	57.01	132.03	0.26	5,5942	22.09	6.30	146,576	1.80	22.28	-114.30
25.12	22,670	59.85	130.93	0.26	5,5775	22.54	6.30	146,686	1.80	22.72	-115.50
25.13	23,080	78.31	145	0.34	5,2294	22.94	6.30	146,796	1.80	23.14	-101.53
25.14	23,420	82.98	152.86	0.38	4,8526	23.27	6.30	146,906	1.80	23.48	-102.53
25.15	23,600	90.16	164.17	0.38	4,6956	23.44	6.30	147,015	1.80	23.67	-82.55
25.16	23,390	90.67	141.34	0.39	4,6043	23.25	6.30	147,125	1.50	23.45	-105.48
25.17	23,510	91.41	139.7	0.39	4,5942	23.37	6.30	147,235	1.50	23.57	-107.22
25.18	23,830	95.07	134.4	0.40	4,5640	23.70	6.30	147,344	1.50	23.89	-112.62
25.19	23,830	94.19	134.95	0.40	4,6673	23.15	6.30	147,454	1.80	23.56	-106.21
25.2	24,200	96.14	134.59	0.40	4,5562	24.07	6.30	147,564	1.50	24.26	-112.62
25.21	24,540	95.72	134.59	0.39	4,5485	24.41	6.30	147,673	1.50	24.60	-112.72
25.22	25,000	92.39	135.32	0.37	4,5413	24.86	6.30	147,783	1.50	25.06	-112.29
25.23	25,050	100.31	134.22	0.40	4,5358	24.92	6.30	147,893	1.50	25.11	-113.29
25.24	24,950	100.31	134.22	0.41	4,5416	24.81	6.30	148,003	1.50	25.16	-113.29
25.25	25,050	106.93	134.4	0.43	4,5365	24.92	6.30	148,112	1.80	25.11	-113.30
25.26	25,160	107.76	133.86	0.43	4,5320	25.03	6.30	148,222	1.80	25.22	-113.94
25.27	25,100	103.83	133.86	0.41	4,5333	24.97	6.30	148,332	1.50	25.16	-114.04
25.28	25,160	105.54	134.22	0.42	4,5335	25.03	6.30	148,442	1.50	25.22	-113.78
25.29	25,100	105.54	134.22	0.42	4,5335	25.03	6.30	148,552	1.50	25.22	-113.78
25.3	24,830	118.74	134.22	0.48	4,5406	24.70	6.30	148,661	2.00	24.89	-113.97
25.31	24,750	120.77	134.4	0.49	4,5430	24.62	6.30	148,771	1.80	24.81	-113.89

17-101.G_CPTU_Soarza

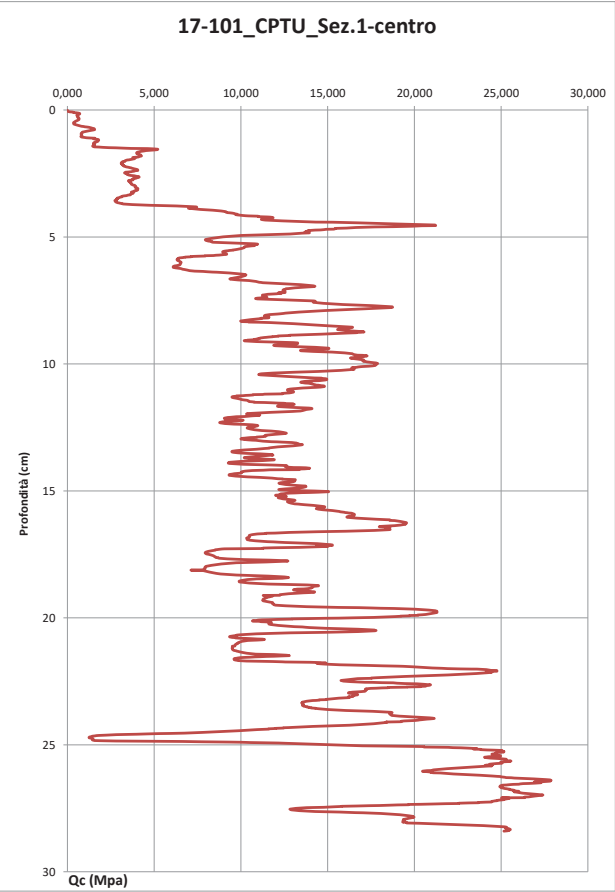
17-101_CPTU.S1_Centro

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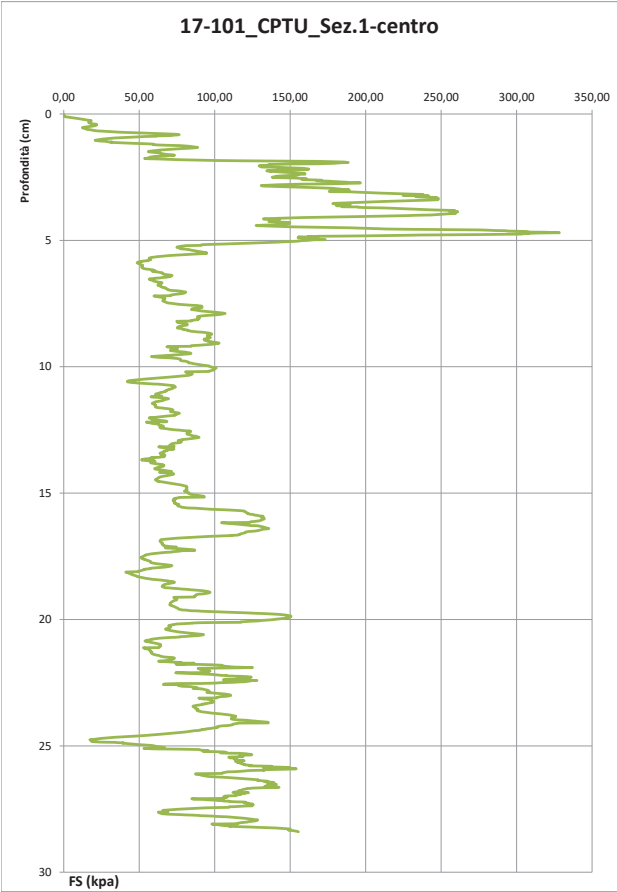
Depth [cm]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
25.32	24,710	121.65	134.59	0.49	4.5447	24.58	6.30	148,881	1.80	24.77	-113.80
25.33	24,720	122.53	134.4	0.50	4.5347	24.59	6.30	148,992	1.80	24.78	-114.09
25.34	24,650	123.51	134.59	0.50	4.5460	24.52	6.40	149,103	1.80	24.71	-114.00
25.35	24,670	124.71	134.77	0.51	4.5463	24.54	6.40	149,215	1.80	24.73	-113.91
25.36	24,540	123.46	135.87	0.50	4.5522	24.40	6.30	149,325	2.00	24.63	-113.28
25.37	24,470	117.07	135.87	0.48	4.5553	24.33	6.30	149,434	2.00	24.53	-113.01
25.38	24,490	118.00	135.68	0.48	4.5540	24.35	6.30	149,544	2.00	24.55	-113.30
25.39	24,570	117.63	135.68	0.48	4.5522	24.43	6.30	149,654	2.00	24.63	-113.40
25.4	24,700	116.33	135.87	0.47	4.5501	24.56	6.30	149,764	2.00	24.76	-113.30
25.41	24,700	116.28	136.23	0.47	4.5500	24.51	6.30	149,873	2.00	24.83	-113.94
25.42	24,880	117.07	137.33	0.47	4.5520	24.74	6.30	149,983	2.00	24.94	-112.04
25.43	24,940	118.78	137.69	0.48	4.5521	24.80	6.30	150,093	2.00	25.00	-111.78
25.44	24,970	109.98	138.06	0.44	4.5529	24.83	6.30	150,203	1.80	25.03	-111.51
25.45	24,890	109.29	137.87	0.44	4.5539	24.75	6.30	150,312	1.80	24.95	-111.79
25.46	24,840	111.05	139.15	0.45	4.5567	24.68	6.30	150,422	2.00	24.70	-110.61
25.47	24,260	110.03	138.24	0.45	4.5698	24.12	6.30	150,532	2.00	24.32	-111.62
25.48	24,130	112.44	138.79	0.47	4.5752	23.99	6.30	150,641	2.00	24.19	-111.17
25.49	24,040	114.24	138.79	0.48	4.5773	23.90	6.30	150,751	2.00	24.10	-111.27
25.5	24,080	113.27	138.97	0.47	4.5771	23.94	6.30	150,861	2.00	24.14	-111.19
25.51	24,230	112.95	139.52	0.47	4.5761	24.08	6.30	150,972	2.00	24.28	-110.73
25.52	24,300	112.90	139.15	0.46	4.5705	24.25	6.30	151,084	2.00	24.45	-111.20
25.53	24,530	114.20	139.15	0.47	4.5673	24.39	6.30	151,195	2.00	24.59	-111.30
25.54	24,700	114.94	138.79	0.47	4.5619	24.56	6.40	151,307	2.00	24.76	-111.76
25.55	25,050	114.48	138.6	0.46	4.5533	24.91	6.30	151,418	2.00	25.11	-112.05
25.56	25,200	114.68	139.34	0.45	4.5529	25.06	6.30	151,528	2.00	25.26	-111.94
25.57	25,290	114.75	140.61	0.45	4.5537	25.07	6.30	151,639	2.00	25.37	-111.83
25.58	25,290	117.16	141.34	0.46	4.5589	25.15	6.30	151,749	2.00	25.35	-109.90
25.59	25,310	119.57	141.53	0.47	4.5592	25.17	6.40	151,861	2.00	25.37	-109.90
25.6	25,280	113.78	141.53	0.45	4.5598	25.14	6.30	151,972	1.80	25.34	-109.64
25.61	25,250	113.87	140.98	0.45	4.5583	25.11	6.40	152,084	1.80	25.31	-109.40
25.62	25,400	114.80	141.6	0.45	4.5618	25.16	6.30	152,195	1.80	25.38	-109.30
25.63	25,350	115.87	140.61	0.46	4.5547	25.21	6.40	152,307	1.80	25.41	-110.48
25.64	25,570	116.47	140.43	0.46	4.5492	25.43	6.40	152,418	1.80	25.63	-111.1
25.65	25,410	116.42	141.53	0.46	4.5570	25.27	6.30	152,530	1.80	25.47	-110.17
25.66	25,450	115.08	140.61	0.45	4.5525	25.31	6.40	152,641	1.80	25.51	-111.1
25.67	25,410	116.88	140.98	0.46	4.5517	25.26	6.30	152,752	1.80	25.49	-110.90
25.68	25,490	116.84	141.53	0.47	4.5563	25.35	6.30	152,864	1.80	25.50	-110.30
25.69	25,000	118.04	141.71	0.47	4.5668	24.86	6.30	152,975	1.80	25.06	-110.30
25.7	24,960	118.13	141.89	0.47	4.5685	24.62	6.40	153,087	1.80	25.02	-110.20
25.71	25,020	118.00	143.17	0.47	4.5722	24.84	6.30	153,198	1.80	25.08	-109.09
25.72	25,060	118.88	143.54	0.47	4.5739	24.97	6.30	153,310	1.80	25.10	-109.09
25.73	24,910	117.66	143.36	0.48	4.5835	24.76	6.30	153,421	1.80	24.97	-107.77
25.74	24,720	119.62	143.54	0.48	4.5807	24.48	6.40	153,533	1.80	24.78	-108.85
25.75	24,530	119.71	140.8	0.49	4.5740	24.39	6.40	153,644	1.80	24.59	-111.1
25.76	24,350	121.84	142.26	0.50	4.5842	24.21	6.40	153,756	1.80	24.41	-110.40
25.77	24,330	123.39	141.63	0.51	4.5870	24.26	6.30	153,867	1.80	24.48	-110.40
25.78	24,420	123.88	144.08	0.51	4.5900	24.28	6.30	153,979	1.80	24.46	-109.80
25.79	24,510	123.14	145	0.50	4.5916	24.37	6.40	154,090	1.80	24.57	-108.60
25.8	24,500	124.67	148.65	0.56	6.0155	24.00	6.30	154,200	1.80	24.21	-104.00
25.81	24,070	137.91	149.38	0.57	6.0206	23.92	6.30	154,310	1.50	24.13	-103.80
25.82	24,000	132.35	149.73	0.54	6.0173	24.03	6.30	154,421	1.50	24.06	-103.60
25.83	24,040	133.09	150.29	0.54	6.0142	24.32	6.30	154,529	1.50	24.53	-103.00
25.84	24,140	142.59	150.66	0.59	6.241	23.99	6.30	154,639	1.50	24.27	-102.80
25.85	23,810	147.91	151.02	0.62	6.0343	23.66	6.30	154,750	1.50	23.80	-102.80
25.86	23,860	148.75	151.21	0.63	6.0391	23.51	6.30	154,862	1.80	23.72	-102.80
25.87	24,000	150.13	151.84	0.64	6.0345	23.45	6.30	154,974	1.80	23.80	-102.80
25.88	23,470	139.76	141.71	0.60	6.0038	23.33	6.40	155,085	1.50	23.53	-112.1
25.89	22,850	152.50	151.57	0.67	6.6633	22.27	6.30	155,196	1.50	22.91	-102.40
25.9	22,680	154.02	152.12	0.68	6.6707	22.53	6.40	155,308	1.80	22.74	-102.40
25.91	22,440	153.89	152.83	0.69	6.6811	22.29	6.40	155,419	1.80	22.50	-101.30
25.92	22,090	150.18	151.67	0.67	6.6607	22.45	6.30	155,530	1.80	22.30	-101.30
25.93	22,220	141.41	153.03	0.64	6.6887	22.07	6.30	155,642	1.80	22.28	-101.1
25.94	22,090	132.86	153.58	0.60	6.6952	21.48	6.40	155,753	1.80	22.15	-100.90
25.95	21,630	131.84	152.67	0.61	6.7058	21.64	6.40	155,865	1.80	21.69	-101.00
25.96	21,500	133.00	154.67	0.62	6.7194	21.35	6.40	155,976	1.80	21.56	-100.80
25.97	21,660	132.82	155.69	0.61	6.7151	21.60	6.30	156,088	1.80	21.63	-100.80
25.98	21,240	121.61	156.14	0.57	6.7191	21.08	6.40	156,199	1.80	21.31	-98.30
25.99	21,110	120.45	155.77	0.57	6.7379	20.85	6.40	156,311	1.80	21.18	-99.40
26	21,030	118.69	155.59	0.56	6.7398	20.67	6.30	156,422	1.80	21.10	-99.40

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
27.39	17,970	117.07	163.26	0.65	0.9085	17.81	6.50	172.033	2.50	18.04	-105.44
27.4	17,380	113.83	163.08	0.65	0.9383	17.22	6.50	172.146	2.50	17.45	-105.71
27.41	16,690	109.52	163.26	0.66	0.9782	16.53	6.50	172.259	2.80	16.76	-105.63
27.42	15,800	109.34	161.43	0.69	1.0217	15.64	6.50	172.372	2.80	15.87	-107.56
27.43	15,800	109.34	161.43	0.69	1.0217	15.64	6.50	172.485	2.80	15.87	-107.66
27.44	15,380	102.02	159.61	0.66	1.0378	15.22	6.60	172.599	2.80	15.45	-109.58
27.45	15,220	95.21	161.8	0.63	1.0631	15.06	6.60	172.714	2.80	15.29	-107.48
27.46	14,590	89.98	162.34	0.62	1.1127	14.43	6.60	172.829	2.30	14.66	-107.04
27.47	14,160	86.46	163.08	0.61	1.1517	14.00	6.60	172.943	2.30	14.23	-106.40
27.48	13,600	81.32	162.71	0.60	1.1964	13.44	6.60	173.058	2.30	13.67	-106.87
27.49	13,390	80.72	162.71	0.60	1.2152	13.23	6.60	173.173	2.30	13.46	-106.97
27.5	13,200	78.49	162.89	0.59	1.2340	13.04	6.60	173.288	2.00	13.27	-106.89
27.51	13,090	76.32	163.26	0.58	1.2472	12.93	6.60	173.403	2.00	13.16	-106.61
27.52	12,930	72.24	163.44	0.56	1.2640	12.77	6.60	173.518	1.80	13.00	-106.53
27.53	12,850	69.46	163.62	0.54	1.2733	12.69	6.60	173.633	1.80	12.92	-106.45
27.54	12,820	67.43	163.81	0.53	1.2778	12.66	6.60	173.748	1.80	12.89	-106.36
27.55	12,870	65.67	164.17	0.51	1.2756	12.71	6.60	173.863	1.80	12.94	-106.10
27.56	12,910	66.41	164.17	0.51	1.2716	12.75	6.60	173.978	1.50	12.98	-106.19
27.57	12,960	67.57	164.54	0.52	1.2696	12.80	6.60	174.093	1.80	13.03	-105.92
27.58	13,120	69.05	164.9	0.53	1.2589	12.96	6.50	174.206	1.30	13.19	-105.66
27.59	13,330	68.40	165.08	0.51	1.2384	13.16	6.50	174.319	1.30	13.40	-105.58
27.6	13,480	68.95	165.27	0.51	1.2260	13.31	6.50	174.432	1.50	13.55	-105.49
27.61	13,670	68.58	165.45	0.50	1.2103	13.50	6.60	174.547	1.50	13.74	-105.40
27.62	14,200	62.61	165.81	0.44	1.1677	14.03	6.60	174.662	1.50	14.27	-105.14
27.63	14,540	63.30	166	0.44	1.1417	14.37	6.60	174.777	1.50	14.61	-105.05
27.64	15,150	63.21	166.54	0.42	1.0993	14.98	6.60	174.892	1.50	15.22	-104.61
27.65	15,780	63.63	166.73	0.40	1.0566	15.61	6.60	175.007	1.50	15.85	-104.52
27.66	16,040	63.91	166.91	0.40	1.0406	15.87	6.60	175.122	1.30	16.11	-104.43
27.67	16,590	64.65	167.09	0.39	1.0072	16.42	6.60	175.237	1.30	16.66	-104.35
27.68	17,050	64.97	167.28	0.38	0.9811	16.88	6.50	175.350	1.30	17.12	-104.26
27.69	17,510	66.45	167.46	0.38	0.9564	17.34	6.50	175.463	1.00	17.58	-104.18
27.7	17,900	68.95	167.82	0.39	0.9375	17.73	6.50	175.577	1.00	17.97	-103.92
27.71	18,190	71.69	168.01	0.39	0.9236	18.02	6.50	175.690	1.00	18.26	-103.83
27.72	18,510	77.52	167.82	0.42	0.9066	18.34	6.50	175.803	1.00	18.58	-104.11
27.73	18,660	81.32	167.82	0.44	0.8994	18.49	6.50	175.916	0.80	18.73	-104.21
27.74	18,960	85.02	167.46	0.45	0.8832	18.79	6.50	176.029	1.30	19.03	-104.67
27.75	19,120	89.10	167.46	0.47	0.8758	18.95	6.50	176.143	1.30	19.19	-104.77
27.76	19,210	90.81	167.28	0.47	0.8708	19.04	6.50	176.256	1.50	19.28	-105.05
27.77	19,340	94.70	167.28	0.49	0.8649	19.17	6.50	176.369	1.30	19.41	-105.14
27.78	19,490	99.38	167.09	0.51	0.8573	19.32	6.50	176.482	1.00	19.56	-105.43
27.79	19,650	102.16	166.91	0.52	0.8494	19.48	6.50	176.595	1.30	19.72	-105.71
27.8	19,720	105.35	166.91	0.53	0.8464	19.55	6.50	176.709	1.00	19.79	-105.81
27.81	19,840	108.46	166.91	0.55	0.8413	19.67	6.50	176.822	1.00	19.91	-105.91
27.82	19,900	111.28	166.54	0.56	0.8369	19.73	6.50	176.935	1.00	19.97	-106.37
27.83	19,850	113.97	166.54	0.57	0.8390	19.68	6.50	177.048	1.30	19.92	-106.47
27.84	19,940	115.50	166.54	0.58	0.8352	19.77	6.50	177.161	1.30	20.01	-106.57
27.85	19,980	117.39	166.36	0.59	0.8326	19.81	6.50	177.275	1.30	20.05	-106.85
27.86	19,940	118.97	166.54	0.60	0.8352	19.77	6.50	177.388	1.30	20.01	-106.77
27.87	19,820	121.05	166.36	0.61	0.8394	19.65	6.50	177.501	1.50	19.89	-107.04
27.88	19,750	122.12	166.18	0.62	0.8414	19.58	6.50	177.614	1.50	19.82	-107.32
27.89	19,720	123.46	166.18	0.63	0.8427	19.55	6.50	177.727	1.50	19.79	-107.42
27.9	19,680	124.15	166	0.63	0.8444	19.49	6.50	177.841	1.50	19.73	-107.70
27.91	19,570	126.01	166	0.64	0.8482	19.40	6.50	177.954	1.50	19.64	-107.80
27.92	19,520	126.93	166.18	0.65	0.8513	19.35	6.50	178.067	1.30	19.59	-107.72
27.93	19,430	128.55	166	0.66	0.8543	19.26	6.50	178.180	1.30	19.50	-107.99
27.94	19,370	128.09	165.81	0.66	0.8560	19.20	6.50	178.293	1.50	19.44	-108.28
27.95	19,410	127.77	165.81	0.66	0.8543	19.24	6.50	178.407	1.50	19.48	-108.38
27.96	19,360	126.98	164.72	0.66	0.8508	19.20	6.50	178.520	1.50	19.43	-109.57
27.97	19,380	126.56	164.54	0.65	0.8490	19.22	6.50	178.633	1.30	19.45	-109.85
27.98	19,340	125.22	163.26	0.65	0.8442	19.18	6.50	178.746	1.50	19.41	-111.22
27.99	19,410	123.97	162.89	0.64	0.8392	19.25	6.50	178.860	1.50	19.48	-111.69
28	19,380	122.16	162.71	0.63	0.8396	19.22	6.40	178.971	1.50	19.45	-111.97
28.01	19,400	121.65	162.53	0.63	0.8378	19.24	6.40	179.082	1.50	19.47	-112.25
28.02	19,380	120.59	162.53	0.62	0.8386	19.22	6.40	179.194	1.50	19.45	-112.35
28.03	19,390	118.46	162.53	0.61	0.8382	19.23	6.40	179.305	1.50	19.46	-112.44
28.04	19,320	117.35	162.34	0.61	0.8403	19.16	6.40	179.417	1.50	19.39	-112.73
28.05	19,440	116.24	163.99	0.60	0.8436	19.28	6.40	179.528	1.50	19.51	-111.18
28.06	19,550	115.26	163.62	0.59	0.8369	19.39	6.40	179.640	1.80	19.62	-111.65
28.07	19,550	115.26	163.62	0.59	0.8369	19.39	6.40	179.751	3.00	19.62	-111.75

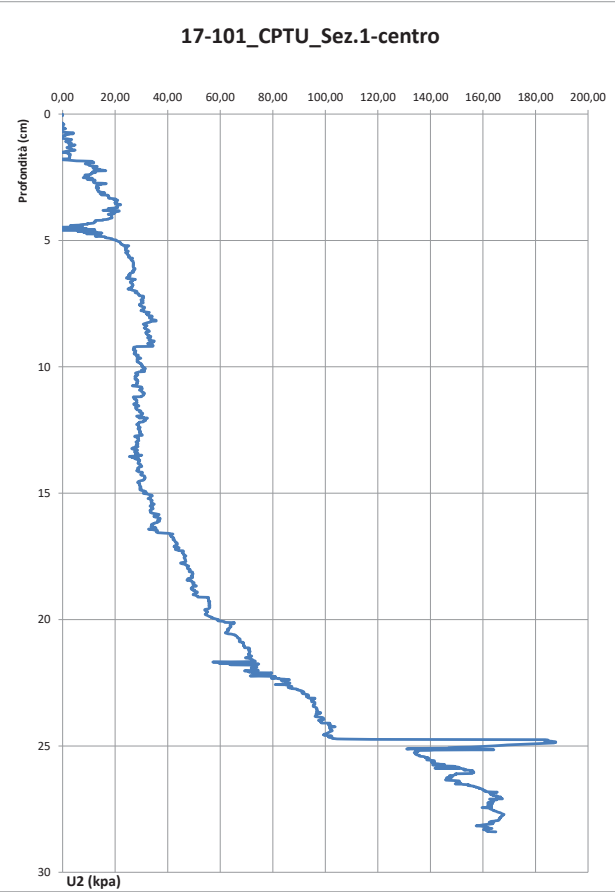
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
28.08	19,550	115.26	163.62	0.59	0.8369	19.39	6.40	179.863	2.00	19.62	-111.84
28.09	20,290	98.08	162.53	0.48	0.8010	20.13	6.50	179.976	2.00	20.36	-113.03
28.1	20,580	98.82	161.8	0.48	0.7862	20.42	6.50	180.089	2.00	20.65	-113.86
28.11	20,880	100.03	161.07	0.48	0.7714	20.72	6.50	180.202	2.00	20.95	-114.69
28.12	21,590	102.67	159.97	0.48	0.7409	21.43	6.50	180.316	2.00	21.66	-115.89
28.13	21,840	103.73	159.24	0.47	0.7291	21.68	6.50	180.429	2.00	21.91	-116.72
28.14	22,190	104.66	158.88	0.47	0.7160	22.03	6.50	180.542	1.80	22.26	-117.17
28.15	22,920	105.82	158.14	0.46	0.6900	22.76	6.50	180.655	1.80	22.99	-118.01
28.16	23,210	108.18	157.41	0.47	0.6782	23.05	6.50	180.768	1.80	23.28	-118.84
28.17	23,360	111.19	159.24	0.48	0.6817	23.20	6.50	180.882	1.80	23.43	-117.11
28.18	23,600	109.75	159.97	0.47	0.6778	23.44	6.50	180.995	1.80	23.67	-116.48
28.19	24,180	113.36	160.34	0.47	0.6631	24.02	6.50	181.108	1.50	24.25	-116.20
28.2	24,420	116.70	160.52	0.48	0.6573	24.26	6.50	181.221	1.50	24.49	-116.12
28.21	24,840	123.00	161.43	0.50	0.6499	24.68	6.50	181.334	1.50	24.91	-115.31
28.22	25,100	130.41	161.98	0.52	0.6453	24.94	6.50	181.448	1.30	25.17	-114.86
28.23	25,200	133.28	162.16	0.53	0.6435	25.04	6.50	181.561	1.50	25.27	-114.78
28.24	25,300	139.48	162.16	0.55	0.6409	25.14	6.50	181.674	1.30	25.37	-114.87
28.25	25,300	140.41	162.34	0.55	0.6417	25.14	6.50	181.787	1.30	25.37	-114.79
28.26	25,330	141.61	163.44	0.56	0.6452	25.17	6.50	181.900	1.50	25.40	-113.79
28.27	25,260	146.38	162.16	0.58	0.6420	25.10	6.50	182.014	1.30	25.33	-115.17
28.28	25,240	149.44	161.43	0.59	0.6396	25.08	6.50	182.127	1.30	25.31	-116.00
28.29	25,290	150.00	161.25	0.59	0.6376	25.13	6.50	182.240	1.00	25.36	-116.27
28.3	25,370	150.27	160.88	0.59	0.6341	25.21	6.50	182.353	1.00	25.44	-116.74
28.31	25,460	148.65	160.15	0.58	0.6290	25.30	6.50	182.466	1.30	25.53	-117.5



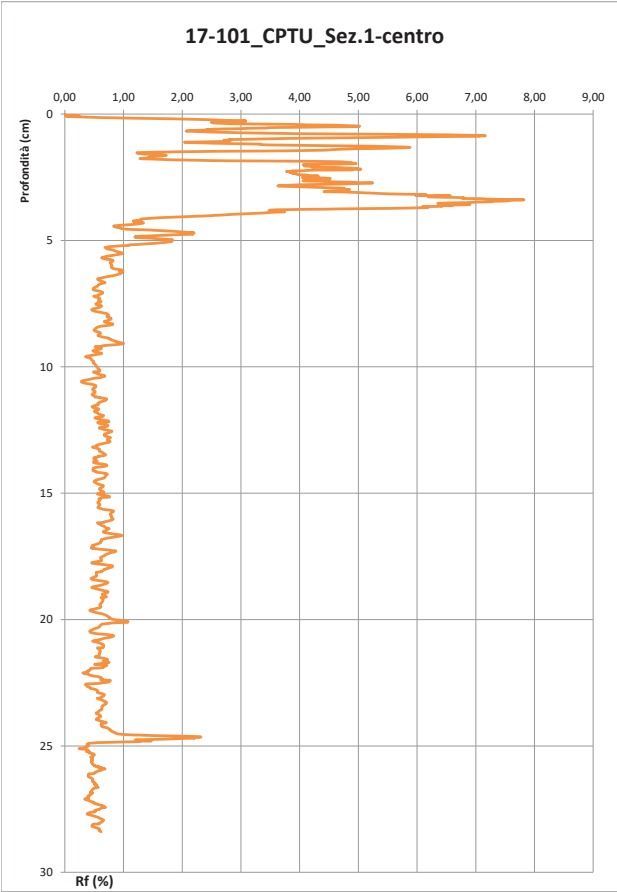
17-101.G_CPTU_Soarza L'operatore Il direttore




17-101.G_CPTU_Soarza L'operatore Il direttore



17-101.G_CPTU_Soarza L'operatore Il direttore



17-101.G_CPTU_Soarza L'operatore Il direttore

Impresa esecutrice: 			
Committente: Nome: A.L.P.O. Indirizzo: Ufficio di Piacenza Tel.: _____ Fax: _____		Cantiero: P. IVA / C.F.: _____ PC-E-810 Telefono: _____ e-mail: _____	
Prova: Ubicazione: Soarza (PC) Quota assoluta [m]: _____ Coordinate: _____ Data: 28/02/2016 Q. inizio da Q. ass. [m]: _____ Nord: _____ Tipo prova: CPTU Preforo [m]: NO Codice Prova: 17-101_CPTU_Sez.1-monte Q.ta falda [m]: -9.50 Note: Sommità argine Il responsabile di sito: Dr. Geol. Stefano Verdini Il direttore tecnico: Dr. Geol. Enrico Fasani			

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0.01	0.000	0.00	-0.18	0.00	0.0000	0.00	1.40	0.024	0.00	0.00	-0.18
0.02	0.080	0.00	-0.18	0.00	0.2250	0.08	1.40	0.049	0.00	0.08	-0.18
0.03	0.100	0.00	-0.55	0.00	0.5500	0.10	1.60	0.077	0.00	0.10	-0.55
0.04	0.080	0.00	-0.55	0.00	0.6875	0.08	1.60	0.105	0.00	0.08	-0.55
0.05	0.070	0.00	-0.55	0.00	0.7857	0.07	1.60	0.133	0.00	0.07	-0.55
0.06	0.060	0.00	-0.55	0.00	0.9167	0.06	1.60	0.161	0.00	0.06	-0.55
0.07	0.060	0.00	-0.73	0.00	1.2167	0.06	1.60	0.188	0.00	0.06	-0.73
0.08	0.080	0.00	-0.55	0.00	0.6875	0.08	1.60	0.216	0.00	0.08	-0.55
0.09	0.340	0.23	-0.18	0.07	0.0529	0.34	1.50	0.243	0.23	0.34	-0.18
0.1	0.690	0.66	0.37	0.09	0.0536	0.69	1.50	0.269	0.37	0.69	0.37
0.11	0.690	0.65	0.37	0.09	0.0536	0.69	1.50	0.295	0.37	0.69	0.37
0.12	1.110	1.48	-0.18	0.13	-0.0162	1.11	1.50	0.321	0.37	1.11	-0.18
0.13	1.110	1.48	-0.18	0.13	-0.0162	1.11	1.50	0.347	0.37	1.11	-0.18
0.14	0.920	4.91	1.28	0.53	0.1391	0.92	1.60	0.375	2.50	0.92	1.28
0.15	0.670	7.50	1.18	1.12	-0.0269	0.67	1.60	0.403	2.50	0.67	-0.18
0.16	0.430	8.34	-0.91	1.94	-0.2116	0.43	1.60	0.431	2.30	0.43	-0.91
0.17	0.180	7.18	-0.55	3.99	-0.3056	0.18	1.60	0.459	2.30	0.18	-0.55
0.18	0.100	7.13	-0.18	7.13	-0.1800	0.10	1.60	0.487	2.30	0.10	-0.18
0.19	0.130	6.90	0.00	5.31	0.0000	0.13	1.60	0.515	2.50	0.13	0.00
0.2	0.170	9.95	0.18	4.09	-0.1058	0.17	1.60	0.543	2.50	0.17	-0.18
0.21	0.210	7.09	-0.37	3.38	-0.1762	0.21	1.60	0.571	2.30	0.21	-0.37
0.22	0.270	7.46	-0.73	2.76	-0.2704	0.27	1.60	0.599	2.30	0.27	-0.73
0.23	0.340	7.83	-0.18	2.30	-0.0529	0.34	1.60	0.626	2.50	0.34	-0.18
0.24	0.470	8.47	0.37	1.80	0.0787	0.47	1.60	0.654	2.50	0.47	0.37
0.25	0.530	9.63	1.46	1.53	0.3017	0.53	1.60	0.682	2.50	0.53	1.46
0.26	0.850	10.47	2.01	1.23	0.2365	0.85	1.60	0.710	2.00	0.85	2.01
0.27	1.060	10.56	3.83	1.00	0.3613	1.06	1.60	0.738	2.00	1.06	3.83
0.28	1.060	10.56	3.83	1.00	0.3613	1.06	1.60	0.764	2.50	1.06	3.83
0.29	1.330	13.38	7.12	1.01	0.5353	1.32	1.60	0.794	2.50	1.33	7.12
0.3	1.330	13.38	7.12	1.01	0.5353	1.32	1.60	0.822	2.30	1.33	7.12
0.31	1.510	20.14	9.31	1.33	0.6166	1.50	1.50	0.848	2.30	1.51	9.31
0.32	1.510	20.14	9.31	1.33	0.6166	1.50	1.50	0.874	2.00	1.51	9.31
0.33	1.540	27.83	10.41	1.81	0.6760	1.53	1.50	0.900	2.00	1.54	10.41
0.34	1.540	27.83	10.41	1.81	0.6760	1.53	1.50	0.927	2.00	1.54	10.41
0.35	1.510	32.18	10.23	2.13	0.6775	1.50	1.50	0.953	2.30	1.51	10.23
0.36	1.480	33.30	27.57	4.56	3.7767	0.70	1.60	0.979	2.30	1.48	27.57
0.37	1.450	42.05	12.05	2.90	0.8310	1.44	1.50	1.005	2.30	1.46	12.05
0.38	1.430	45.24	11.50	3.16	0.8042	1.42	1.50	1.031	2.30	1.43	11.50
0.39	1.450	48.58	10.96	3.35	0.7559	1.44	1.50	1.058	2.50	1.45	10.96
0.4	1.520	52.70	10.41	3.47	0.6849	1.51	1.50	1.084	2.50	1.52	10.41
0.41	1.630	56.87	10.96	3.48	0.6724	1.62	1.50	1.110	2.00	1.63	10.96
0.42	1.800	61.11	11.87	3.41	0.6594	1.79	1.50	1.136	2.00	1.80	11.87
0.43	2.010	64.55	14.97	3.21	0.7448	2.00	1.50	1.162	2.30	2.02	14.97
0.44	2.200	64.69	22.10	2.94	1.0045	2.18	1.50	1.188	2.30	2.21	22.10
0.45	2.390	60.85	26.11	2.55	1.0925	2.36	1.50	1.215	2.30	2.40	26.11
0.46	2.550	60.53	31.04	2.37	1.2173	2.52	1.50	1.241	2.00	2.52	31.04
0.47	2.690	70.02	37.44	2.60	1.3816	2.65	1.50	1.267	2.00	2.71	37.44

17-101.G_CPTU_Soarza

17-101_CPTU.S1_Monte

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0.48	2.740	76.83	37.80	2.80	1.3796	2.70	1.50	1.293	2.00	2.76	37.80
0.49	2.770	84.33	38.35	3.04	1.3845	2.73	1.50	1.319	2.00	2.79	38.35
0.5	2.770	93.45	38.90	3.37	1.4043	2.73	1.40	1.344	2.00	2.79	38.90
0.51	2.720	102.71	39.26	3.78	1.4434	2.68	1.40	1.368	1.80	2.74	39.26
0.52	2.630	122.99	41.59	3.59	1.5428	2.59	1.40	1.393	1.80	2.65	41.59
0.53	2.510	122.86	38.71	4.89	1.5422	2.47	1.40	1.417	2.00	2.53	38.71
0.54	2.310	142.26	37.07	6.16	1.6048	2.27	1.40	1.441	2.00	2.33	37.07
0.55	2.220	153.14	35.61	6.90	1.6041	2.18	1.40	1.466	2.00	2.23	35.61
0.56	2.120	163.38	35.06	7.71	1.6538	2.08	1.40	1.490	2.00	2.13	35.06
0.57	2.020	172.50	35.79	8.54	1.7718	1.96	1.50	1.517	1.80	2.04	35.79
0.58	1.930	181.25	35.24	9.39	1.8259	1.89	1.50	1.543	1.80	1.94	35.24
0.59	1.850	188.39	34.70	10.18	1.8757	1.82	1.50	1.569	1.80	1.86	34.70
0.6	1.690	197.07	33.05	11.27	1.9556	1.66	1.40	1.593	1.80	1.70	33.05
0.61	1.630	187.00	32.69	11.47	2.0055	1.60	1.40	1.618	2.00	1.64	32.69
0.62	1.580	182.64	33.05	11.56	2.0915	1.55	1.40	1.642	2.00	1.59	33.05
0.63	1.560	177.50	33.42	11.38	2.1423	1.53	1.40	1.667	1.80	1.57	33.42
0.64	1.530	172.27	34.15	11.26	2.2320	1.50	1.40	1.691	1.80	1.54	34.15
0.65	1.410	162.96	35.61	11.56	2.5255	1.37	1.40	1.715	2.00	1.42	35.61
0.66	1.370	157.84	35.79	11.51	2.6124	1.33	1.40	1.740	1.80	1.39	35.79
0.67	1.330	153.19	36.34	11.32	2.7323	1.29	1.40	1.764	1.80	1.35	36.34
0.68	1.300	147.87	36.71	11.37	2.8238	1.26	1.40	1.789	2.00	1.32	36.71
0.69	1.260	142.68	36.52	11.27	2.8994	1.22	1.40	1.813	2.00	1.28	36.52
0.7	1.220	128.60	35.24	10.54	2.8885	1.18	1.40	1.838	1.80	1.23	35.24
0.71	1.210	122.63	34.51	10.13	2.8521	1.18	1.40	1.862	1.80	1.22	34.51
0.72	1.200	117.21	34.33	9.53	2.2311	1.20	1.40	1.886	2.00	1.24	34.33
0.73	1.180	110.91	33.24	9.40	2.6119	1.15	1.40	1.911	2.00	1.19	33.24
0.74	1.170	105.91	33.42	9.05	2.8564	1.14	1.40	1.935	1.80	1.18	33.42
0.75	1.130	101.65	33.24	9.00	2.9416	1.10	1.40	1.960	1.80	1.14	33.24
0.76	1.110	98.64	32.87	8.89	2.9613	1.08	1.40	1.984	2.00	1.12	32.87
0.77	1.120	94.89	32.32	8.47	2.8857	1.09	1.40	2.009	2.00	1.13	32.32
0.78	1.090	89.05	32.32	8.17	2.9651	1.06	1.40	2.033	2.00	1.10	32.32
0.79	1.040	76.83	32.14	7.39	3.0054	1.01	1.40	2.058	2.00	1.05	32.14
0.8	1.010	71.46	31.96	7.08	3.1644	0.98	1.40	2.082	2.00	1.02	31.96
0.81	0.980	66.41	31.78	6.78	3.2429	0.95	1.50	2.108	2.00	0.99	31.78
0.82	0.950	62.19	31.41	6.55	3.3063	0.92	1.50	2.134	1.80	0.96	31.41
0.83	0.930	57.15	31.78	6.15	3.4172	0.90	1.50	2.160	1.80	0.94	31.78
0.84	0.910	53.86	31.78	5.92	3.4923	0.88	1.50	2.187	2.00	0.92	31.78
0.85	0.900	51.17	31.96	5.69	3.5511	0.87	1.50	2.213	2.00	0.91	31.96
0.86	0.890	47.98	32.32	5.39	3.6135	0.86	1.50	2.239	2.00	0.90	32.32
0.87	0.880	41.40	32.51	4.70	3.6943	0.85	1.50	2.265	2.00	0.89	32.51
0.88	0.860	38.53	32.87	4.38	3.7352	0.85	1.50	2.291	2.00	0.89	32.87
0.89	0.870	36.03	32.87	4.14	3.7822	0.84	1.50	2.318	2.00	0.88	32.87
0.9	0.840	34.82	32.87	4.15	3.9131	0.81	1.50	2.344	2.00	0.85	32.87
0.91	0.820	34.22	33.05	4.17	4.0305	0.79	1.50	2.370	2.00	0.83	33.05
0.92	0.810	33.57	33.05	4.14	4.0802	0.78	1.50	2.396	2.00	0.82	33.05
0.93	0.790	32.83	32.87	4.16	4.1608	0.76	1.50	2.422	2.00	0.80	32.87
0.94	0.780	31.77	32.87	4.24	4.1438	0.75	1.50	2.448	2.00	0.79	32.87
0.95	0.770	30.29	31.96	3.93	4.1506	0.74	1.50	2.475	1.80	0.78	31.96
0.96	0.770	29.68	31.41	3.85	4.0792	0.74	1.50	2.501	1.80	0.78	31.41
0.97	0.770	29.36	31.41	3.81	4.0792	0.74	1.50	2.527	2.00	0.78	31.41
0.98	0.760	28.36	31.04	3.86	4.0424	0.73	1.50	2.553	2.00	0.77	31.04
0.99	0.760	29.36	31.04	3.84	4.0942	0.73	1.50	2.579	2.00	0.77	31.04
1	0.760	29.13	31.23	3.83	4.1092	0.73	1.50	2.605	2.00	0.77	31.23
1.01	0.760	28.80	30.68	3.79	4.0605	0.73	1.50	2.632	1.80	0.77	30.68
1.02	0.770	28.80	30.68	3.74	3.9844	0.74	1.50	2.658	1.80	0.78	30.68
1.03	0.770	28.80	30.68	3.74	3.9844	0.74	1.50	2.684	2.00	0.78	30.68
1.04	0.770	28.80	30.68	3.74	3.9844	0.74	1.50	2.710	2.00	0.78	30.68
1.05	0.840	25.66	29.04	3.05	3.4571	0.81	1.50	2.736	2.00	0.85	29.04
1.06	0.860	26.16	27.94	3.04	3.2488	0.83	1.50	2.763	2.00	0.87	27.94
1.07	0.850	26.77	27.76	3.15	3.2659	0.82	1.50	2.789	2.00	0.86	27.76
1.08	0.850	27.04	27.76	3.15	3.2659	0.82	1.50	2.815	2.00	0.86	27.76
1.09	0.850	27.51	27.94	3.24	3.2871	0.82	1.50	2.841	2.00	0.86	27.94
1.1	0.870	27.65	28.67	3.18	3.2954	0.84	1.50	2.867	1.80	0.88	28.67
1.11	0.930	28.62	29.58	3.08	3.1806	0.90	1.50	2.893	1.80	0.94	29.58
1.12	0.950	29.50	30.31	3.11	3.1905	0.92	1.50	2.920	2.00	0.96	30.31
1.13	0.960	30.47	30.47	3.17	3.1905	0.93	1.50	2.946	2.00	0.97	30.47
1.14	0.960	31.49	30.31	3.28	3.1573	0.93	1.50	2.972	2.00	0.97	30.31
1.15	0.950	32.28	30.31	3.40	3.1905	0.92	1.50	2.998	2.00	0.96	30.31
1.16	0.940	32.88	30.31	3.50	3.2245	0.91	1.50	3.024	2.00	0.95	30.31

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
2.55	1,110	59.79	34.51	5.39	3,1090	1.08	1.70	6.905	2.00	1.12	34.51
2.56	1,110	62.93	34.51	5.67	3,1090	1.08	1.70	6.935	2.00	1.12	34.51
2.57	1,120	66.08	34.15	5.90	3,0491	1.09	1.70	6.965	2.00	1.13	34.15
2.58	1,150	71.22	33.24	6.19	2,8994	1.12	1.70	6.994	2.00	1.16	33.24
2.59	1,180	73.32	33.24	6.25	2,8524	1.15	1.70	7.024	2.00	1.20	33.24
2.6	1,220	76.04	33.60	6.23	2,7541	1.19	1.70	7.054	2.00	1.23	33.60
2.61	1,250	80.16	33.97	6.41	2,7176	1.22	1.70	7.083	2.00	1.26	33.97
2.62	1,280	83.12	34.15	6.49	2,6680	1.25	1.70	7.113	2.00	1.29	34.15
2.63	1,290	87.34	33.97	6.77	2,6333	1.26	1.70	7.143	2.00	1.30	33.97
2.64	1,290	91.74	34.15	6.77	2,6112	1.26	1.70	7.172	2.00	1.30	34.15
2.65	1,300	95.12	34.51	7.32	2,6546	1.27	1.70	7.202	2.30	1.31	34.51
2.66	1,310	98.04	34.33	7.48	2,6206	1.28	1.70	7.232	2.00	1.32	34.33
2.67	1,320	99.61	34.33	7.55	2,6008	1.29	1.70	7.261	2.00	1.33	34.33
2.68	1,320	101.88	34.70	7.72	2,6288	1.29	1.70	7.291	2.30	1.33	34.70
2.69	1,320	104.47	37.94	7.91	2,6697	1.30	1.70	7.321	2.00	1.36	37.94
2.7	1,330	106.51	35.98	8.01	2,7053	1.29	1.70	7.350	2.30	1.35	35.98
2.71	1,330	109.06	36.52	8.20	2,7459	1.29	1.70	7.380	2.30	1.35	36.52
2.72	1,330	111.23	36.89	8.36	2,7737	1.29	1.70	7.410	2.00	1.35	36.89
2.73	1,330	112.62	37.62	8.47	2,8298	1.29	1.70	7.439	2.00	1.35	37.62
2.74	1,340	113.87	37.98	8.50	2,8343	1.30	1.70	7.469	2.00	1.36	37.98
2.75	1,350	115.36	38.53	8.55	2,8541	1.31	1.70	7.499	2.00	1.37	38.53
2.76	1,380	116.47	38.71	8.44	2,8051	1.34	1.70	7.528	2.00	1.40	38.71
2.77	1,400	117.35	38.53	8.38	2,7521	1.36	1.70	7.558	2.30	1.42	38.53
2.78	1,410	118.04	38.35	8.37	2,7199	1.37	1.70	7.588	2.30	1.43	38.35
2.79	1,440	120.27	38.53	8.21	2,6757	1.40	1.70	7.617	2.00	1.46	38.53
2.8	1,460	119.52	37.80	8.19	2,6014	1.42	1.70	7.647	2.00	1.48	37.80
2.81	1,480	120.54	37.62	8.14	2,5419	1.44	1.70	7.677	2.30	1.50	37.62
2.82	1,510	120.68	38.35	7.99	2,5397	1.47	1.70	7.706	2.30	1.53	38.35
2.83	1,530	121.47	38.53	7.94	2,5183	1.49	1.70	7.736	2.00	1.55	38.53
2.84	1,550	122.53	38.35	7.91	2,4742	1.51	1.70	7.766	2.00	1.57	38.35
2.85	1,570	124.25	37.80	7.91	2,4076	1.56	1.70	7.795	2.30	1.59	37.80
2.86	1,600	125.91	37.44	7.87	2,3400	1.56	1.70	7.825	2.00	1.62	37.44
2.87	1,610	127.72	37.80	7.93	2,3478	1.57	1.70	7.855	2.30	1.63	37.80
2.88	1,580	131.93	37.98	8.35	2,4038	1.54	1.70	7.884	2.30	1.60	37.98
2.89	1,580	131.93	37.98	8.35	2,4038	1.54	1.70	7.914	2.00	1.60	37.98
2.9	1,600	134.25	37.80	8.39	2,3625	1.56	1.70	7.944	2.00	1.62	37.80
2.91	1,600	134.25	37.80	8.39	2,3625	1.56	1.70	7.973	2.00	1.62	37.80
2.92	1,630	136.52	38.35	8.38	2,3528	1.59	1.70	8.003	2.30	1.65	38.35
2.93	1,640	137.72	38.90	8.40	2,3720	1.60	1.70	8.033	2.30	1.66	38.90
2.94	1,670	139.11	39.08	8.33	2,3401	1.63	1.70	8.062	2.00	1.69	39.08
2.95	1,670	140.73	39.44	8.43	2,3617	1.63	1.70	8.092	2.00	1.69	39.44
2.96	1,660	142.08	39.63	8.56	2,3873	1.62	1.70	8.122	2.00	1.68	39.63
2.97	1,670	143.56	39.81	8.60	2,3838	1.63	1.70	8.151	2.00	1.69	39.81
2.98	1,680	145.09	39.44	8.64	2,3476	1.64	1.70	8.181	2.30	1.70	39.44
2.99	1,690	146.01	39.44	8.64	2,3337	1.65	1.70	8.211	2.30	1.71	39.44
3	1,700	147.22	39.63	8.66	2,3012	1.66	1.80	8.242	2.00	1.72	39.63
3.01	1,690	152.96	39.63	8.64	2,3775	1.65	1.80	8.274	2.00	1.71	39.63
3.02	1,680	150.04	40.36	8.93	2,4024	1.64	1.80	8.305	2.00	1.70	40.36
3.03	1,680	150.04	40.36	8.93	2,4024	1.64	1.80	8.336	2.50	1.70	40.36
3.04	1,680	150.04	40.36	8.93	2,4024	1.64	1.80	8.368	2.50	1.70	40.36
3.05	1,740	149.76	42.91	8.61	2,4661	1.60	1.70	8.397	1.80	1.70	42.91
3.06	1,740	150.12	42.91	8.58	2,4454	1.70	1.80	8.427	1.80	1.76	42.55
3.07	1,730	151.62	42.18	8.76	2,4382	1.69	1.70	8.457	2.30	1.75	42.18
3.08	1,700	152.63	42.91	8.98	2,5241	1.66	1.70	8.486	2.30	1.72	42.91
3.09	1,670	152.40	43.28	9.13	2,5916	1.63	1.70	8.516	2.00	1.69	43.28
3.1	1,660	152.59	43.46	9.19	2,6181	1.62	1.80	8.546	2.00	1.68	43.46
3.11	1,660	152.96	43.63	9.21	2,6404	1.62	1.80	8.576	2.00	1.68	43.63
3.12	1,650	151.89	44.92	9.21	2,7224	1.61	1.80	8.610	2.00	1.67	44.92
3.13	1,630	151.62	45.11	9.30	2,7675	1.58	1.80	8.642	2.00	1.65	45.11
3.14	1,610	151.57	45.11	9.41	2,8019	1.56	1.80	8.673	2.00	1.63	45.11
3.15	1,580	151.52	45.29	9.59	2,8665	1.53	1.80	8.705	2.00	1.60	45.29
3.16	1,570	151.34	45.11	9.64	2,8732	1.52	1.80	8.736	2.00	1.59	45.11
3.17	1,560	151.76	44.74	9.73	2,8679	1.52	1.80	8.767	2.00	1.58	44.74
3.18	1,570	151.11	44.38	9.62	2,8268	1.53	1.80	8.797	2.00	1.59	44.38
3.19	1,570	150.23	43.83	9.57	2,7917	1.53	1.80	8.830	2.00	1.59	43.83
3.2	1,580	148.93	43.83	9.43	2,7741	1.54	1.80	8.862	2.00	1.60	43.83
3.21	1,580	149.34	43.83	9.43	2,7741	1.54	1.80	8.893	1.80	1.60	43.83
3.22	1,580	145.18	43.94	9.19	2,7620	1.54	1.80	8.924	1.80	1.60	43.94
3.23	1,570	144.30	43.64	9.19	2,7796	1.53	1.80	8.956	2.00	1.59	43.64

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Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
3.24	1,570	143.93	43.64	9.17	2,7796	1.53	1.80	8.987	2.00	1.59	43.64
3.25	1,560	143.37	44.01	9.19	2,8212	1.52	1.80	9.019	2.00	1.58	44.01
3.26	1,570	142.35	44.38	9.07	2,8268	1.53	1.80	9.050	2.00	1.59	44.38
3.27	1,560	142.12	44.74	9.11	2,8679	1.52	1.80	9.082	2.00	1.58	44.74
3.28	1,560	140.59	44.74	9.11	2,8679	1.52	1.80	9.113	2.00	1.58	44.74
3.29	1,550	138.51	45.29	8.94	2,9219	1.50	1.80	9.144	2.00	1.57	45.29
3.3	1,550	137.31	44.92	8.86	2,8981	1.51	1.80	9.176	2.00	1.57	44.92
3.31	1,560	137.08	45.29	8.79	2,9032	1.51	1.80	9.207	2.00	1.58	45.29
3.32	1,550	137.12	45.84	8.85	2,9574	1.50	1.80	9.239	1.80	1.57	45.84
3.33	1,560	136.96	46.20	8.94	2,9702	1.49	1.80	9.270	1.80	1.56	46.20
3.34	1,550	136.80	46.02	8.83	2,9690	1.50	1.80	9.301	2.00	1.57	46.02
3.35	1,540	136.98	46.20	8.89	3,0000	1.49	1.80	9.333	2.00	1.56	46.20
3.36	1,530	136.94	46.20	8.95	3,0196	1.48	1.80	9.364	2.00	1.55	46.20
3.37	1,520	137.26	46.38	9.03	3,0513	1.47	1.80	9.396	2.00	1.54	46.38
3.38	1,510	135.52	46.75	9.3	3,0960	1.46	1.80	9.427	2.00	1.53	46.75
3.39	1,500	137.40	46.93	9.16	3,1297	1.45	1.80	9.458	2.00	1.52	46.93
3.4	1,490	137.49	46.57	9.23	3,1255	1.44	1.80	9.490	2.00	1.51	46.57
3.41	1,470	138.37	46.38	9.41	3,1551	1.42	1.80	9.521	2.00	1.49	46.38
3.42	1,450	139.53	46.38	9.62	3,1864	1.40	1.80	9.553	2.00	1.47	46.38
3.43	1,450	139.76	46.20	9.64	3,1862	1.40	1.80	9.584	2.00	1.47	46.20
3.44	1,450	140.59	46.20	9.70	3,1862	1.40	1.80	9.615	2.00	1.47	46.20
3.45	1,450	141.06	46.02	9.73	3,1738	1.40	1.80	9.647	2.00	1.47	46.02
3.46	1,440	141.80	46.20	9.85	3,2033	1.39	1.80	9.678	2.00	1.46	46.20
3.47	1,440	142.62	46.75	9.92	3,2465	1.39	1.80	9.710	2.00	1.46	46.75
3.48	1,430	142.64	46.93	9.98	3,2618	1.38	1.80	9.741	1.80	1.45	46.93
3.49	1,420	141.29	47.11	9.88	3,2944	1.38	1.80	9.773	1.80	1.45	47.11
3.5	1,420	140.04	47.48	9.86	3,3437	1.37	1.80	9.804	2.00	1.44	47.48
3.51	1,410	138.97	48.21	9.86	3,4191	1.36	1.80	9.835	2.00	1.43	48.21
3.52	1,410	138.33	48.03	9.81	3,4064	1.36	1.80	9.867	2.00	1.43	48.03
3.53	1,410	136.98	47.85	9.71	3,4009	1.36	1.80	9.898	2.00	1.43	47.85
3.54	1,410	135.92	47.48	9.64	3,3674	1.36	1.80	9.930	2.00	1.43	47.48
3.55	1,410	135.13	47.30	9.58	3,3546	1.36	1.80	9.961	2.00	1.43	47.30
3.56	1,420	134.11	46.83	9.44	3,3049	1.37	1.80	9.992	2.00	1.44	46.83
3.57	1,420	133.93	46.57	9.43	3,2796	1.37	1.80	10.024	2.00	1.44	46.57
3.58	1,410	133.51	46.37	9.47	3,3023	1.37	1.80	10.055	2.00	1.44	46.37
3.59	1,410	133.00	46.38	9.43	3,2894	1.36	1.80	10.087	1.80	1.43	46.38
3.6	1,400	132.31	46.57	9.45	3,3264	1.35	1.80	10.118	2.00	1.42	46.57
3.61	1,390	131.75	46.57	9.48	3,3504	1.34	1.80	10.149	2.00	1.41	46.57
3.62	1,370	131.24	46.57	9.58	3,3993	1.32	1.80	10.181	2.00	1.39	46.57
3.63	1,360	130.56	46.93	9.60	3,4277	1.31	1.80	10.212	2.00	1.38	46.93
3.64	1,340	128.51	46.75	9.59	3,4888	1.29	1.80	10.244	2.00	1.36	46.75
3.65	1,340	127.67	46.75	9.53	3,4888	1.29	1.80	10.275	2.00	1.36	46.75
3.66	1,335	126.84	47.11	9.40	3,4896	1.30	1.80	10.307	1.80	1.37	47.11
3.67	1,380	126.42	47.48	9.16	3,4406	1.33	1.80	10.338	1.80	1.40	47.48
3.68	1,410	126.05	48.03	8.94	3,3664	1.36	1.80	10.369	1.80	1.43	48.03
3.69	1,420	126.15	48.76	8.82	3,4098	1.38	1.80	10.401	2.00	1.45	48.76
3.7	1,440	126.56	49.12	8.79	3,4111	1.39	1.80	10.432	2.00	1.46	49.12
3.71	1,440	127.03	49.85	8.82	3,4618	1.39	1.80	10.465	2.00	1.46	49.85
3.72	1,450	126.33	50.58	8.71	3,4883	1.40	1.90	10.498	2.00	1.49	50.58
3.73	1,450	125.17	50.04	8.57	3,4774	1.41	1.90	10.530	2.00	1.48	50.04
3.74	1,470	123.27	48.76	8.39	3,3770	1.42	1.80	10.563	1.80	1.49	48.76
3.75	1,500	122.73	48.39	8.05	3,2260	1.45	1.80	10.594	2.00	1.52	48.39
3.76	1,540	118.13	48.76	7.67	3,1662	1.49	1.80	10.626	2.00	1.56	48.76
3.77	1,550	116.93	48.76	7.54	3,1458	1.50	1.80	10.657	2.00	1.57	48.76
3.78	1,580	114.24	48.49	7.23	3,0253	1.53	1.80	10.688	2.00	1.60	48.49
3.79	1,600	112.90	50.04	7.06	3,1275	1.55	1.80	10.720	1.80	1.62	50.04
3.8	1,630	112.67	50.77	6.91	3,1147	1.58	1.80	10.752	1.80	1.65	50.77
3.81	1,650	113.97	51.13	6.91	3,0988	1.60	1.80	10.783	1.80	1.67	51.13
3.82	1,680	116.61	51.31	6.94	3,0542	1.63	1.80	10.814	1.80	1.70	51.31
3.83	1,700	117.08	51.50	7.03	3,0994	1.65	1.80	10.845	1.80	1.72	51.50
3.84	1,700	123.69	52.41	7.28	3,0629	1.65	1.80	10.877	2.00	1.75	52.41
3.85	1,720	125.45	53.14	7.29	3,0895	1.67	1.80	10.909	2.00	1.74	53.14
3.86	1,710	126.24	54.05	7.38	3,1608	1.66	1.80	10.940	1.80	1.76	54.05
3.87	1,740	125.36	54.60	7.20	3,1379	1.69	1.80	10.971	1.80	1.73	54.60
3.88	1,770	126.88	54.97	7.04	3,1056	1.72	1.80	11.003	2.00	1.79	54.97
3.89	1,790	123.78	55.51	6.92	3,1011	1.73	1.80	11.034	2.00	1.81	55.51
3.9	1,840	122.86	57.71	6.68	3,1364	1.78	1.80	11.066	1.80	1.86	57.71
3.91	1,860	123.23	58.98	6.63	3,1710	1.80	1.80	11.097	1.80	1.88	58.98
3.92	1,860	123.23	60.26	6.63	3,2398	1.80	1.80	11.128	2.00	1.89	60.26

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/s]	[MPa]	[kPa]
5.31	5,070	55.76	141.53	1.10	2.7915	4.93	1.90	15.597	2.00	5.13	141.53
5.32	1,590	58.95	141.16	1.14	2.7198	5.05	1.90	15.631	2.00	5.25	141.16
5.33	5,170	67.80	142.44	1.31	2.7551	5.03	1.90	15.684	2.00	5.23	142.44
5.34	5,150	75.25	143.17	1.46	2.7850	5.01	1.90	15.697	2.00	5.21	143.17
5.35	5,240	84.26	143.72	1.55	2.8272	5.10	1.90	15.730	2.00	5.30	143.72
5.36	5,340	82.38	146.27	1.54	2.7391	5.19	1.90	15.763	2.00	5.40	146.27
5.37	5,380	83.36	146.46	1.55	2.7223	5.23	1.90	15.796	2.00	5.44	146.46
5.38	5,400	84.24	146.64	1.56	2.7156	5.25	1.90	15.830	2.00	5.46	146.64
5.39	5,440	84.65	146.64	1.56	2.6956	5.29	1.90	15.863	2.00	5.50	146.64
5.4	5,460	84.26	146.64	1.54	2.6824	5.31	1.90	15.896	2.00	5.48	146.64
5.41	5,480	83.45	146.09	1.52	2.6659	5.33	1.90	15.929	2.00	5.54	146.09
5.42	5,560	79.51	145.91	1.43	2.6243	5.41	1.90	15.962	1.80	5.62	145.91
5.43	5,590	77.01	145.73	1.38	2.6070	5.44	1.90	15.995	1.80	5.65	145.73
5.44	5,610	74.28	145.91	1.32	2.6009	5.46	1.90	16.028	2.00	5.67	145.91
5.45	5,600	72.29	145.73	1.29	2.6019	5.45	1.90	16.062	2.00	5.66	145.73
5.46	5,580	69.83	145.73	1.25	2.6116	5.43	1.90	16.095	2.00	5.64	145.73
5.47	5,550	66.04	145.73	1.19	2.6258	5.40	1.90	16.128	2.00	5.61	145.73
5.48	5,510	59.04	145.54	1.07	2.6414	5.36	1.90	16.161	2.00	5.57	145.54
5.49	5,450	48.30	145.73	0.89	2.6739	5.30	1.90	16.194	2.00	5.51	145.73
5.5	5,340	46.28	145.91	0.8	2.7234	5.19	1.90	16.227	2.00	5.49	145.91
5.51	5,340	41.26	145.91	0.77	2.7324	5.19	1.90	16.261	2.00	5.40	145.91
5.52	5,250	38.81	145.91	0.74	2.7792	5.10	2.00	16.295	2.00	5.31	145.91
5.53	5,200	38.53	145.91	0.74	2.8060	5.05	1.90	16.329	2.00	5.26	145.91
5.54	5,140	38.44	145.91	0.75	2.8387	4.99	2.00	16.364	2.00	5.20	145.91
5.55	5,060	36.02	146.09	0.76	2.8672	4.91	1.90	16.397	2.00	5.14	146.09
5.56	4,990	38.07	145.91	0.77	2.9244	4.84	2.00	16.432	2.00	5.05	145.91
5.57	4,850	31.40	146.09	0.65	3.0122	4.70	1.90	16.465	0.50	4.91	146.09
5.58	4,670	37.93	146.46	0.81	3.1362	4.52	1.90	16.498	0.50	4.73	146.46
5.59	4,620	37.79	146.27	0.82	3.1660	4.47	1.90	16.531	2.00	4.68	146.27
5.6	4,510	37.83	146.27	0.84	3.2432	4.36	1.90	16.564	2.00	4.57	146.27
5.61	4,390	37.83	146.27	0.86	3.3319	4.24	1.90	16.597	2.00	4.45	146.27
5.62	4,290	37.65	145.91	0.88	3.4012	4.14	1.90	16.631	2.00	4.35	145.91
5.63	4,210	37.42	145.73	0.89	3.4615	4.06	1.90	16.664	2.30	4.27	145.73
5.64	4,140	37.19	145.54	0.90	3.5155	3.99	1.90	16.697	2.30	4.20	145.54
5.65	4,090	36.72	145.54	0.90	3.5594	3.94	1.90	16.730	2.00	4.15	145.54
5.66	4,080	36.40	145.54	0.89	3.5672	3.93	1.90	16.763	2.00	4.14	145.54
5.67	4,080	36.77	145.54	0.90	3.5672	3.93	1.90	16.796	2.00	4.14	145.54
5.68	4,080	37.09	145.00	0.91	3.5539	3.94	1.90	16.829	2.00	4.14	145.00
5.69	4,080	38.62	145.18	0.95	3.5583	3.93	1.90	16.863	2.30	4.14	145.18
5.7	4,080	38.62	145.18	0.95	3.5583	3.93	1.90	16.896	2.30	4.14	145.18
5.71	4,120	40.57	145.73	0.98	3.5371	3.97	2.00	16.931	2.30	4.18	145.73
5.72	4,330	45.29	146.27	1.05	3.3781	4.18	2.00	16.966	2.00	4.39	146.27
5.73	4,530	47.47	146.64	1.05	3.2371	4.38	2.00	17.000	2.00	4.59	146.64
5.74	4,740	50.52	147.37	1.07	3.1091	4.59	2.00	17.035	2.00	4.80	147.37
5.75	5,030	53.39	147.01	1.06	2.9227	4.88	2.00	17.070	2.00	5.09	147.01
5.76	5,290	54.27	146.47	1.03	2.8066	5.14	2.00	17.105	2.00	5.47	146.47
5.77	5,450	57.63	146.10	1.05	2.7174	5.30	2.00	17.140	2.00	5.51	146.10
5.78	5,630	57.98	148.47	1.03	2.6371	5.48	2.00	17.175	2.30	5.69	148.47
5.79	5,780	58.63	148.47	1.01	2.5687	5.63	2.00	17.210	2.30	5.84	148.47
5.8	5,910	58.95	148.47	1.00	2.5122	5.76	2.00	17.245	1.80	5.97	148.47
5.81	5,980	59.04	148.47	1.00	2.4816	5.84	2.00	17.280	1.80	6.05	148.47
5.82	6,030	59.04	148.47	0.98	2.4540	5.90	2.00	17.315	1.80	6.11	148.47
5.83	6,120	57.65	148.65	0.94	2.4289	5.97	2.00	17.349	2.00	6.18	148.65
5.84	6,140	57.05	148.65	0.93	2.4210	5.99	2.00	17.384	2.00	6.20	148.65
5.85	6,170	56.22	148.83	0.91	2.4122	6.02	2.00	17.419	2.00	6.23	148.83
5.86	6,140	55.29	148.83	0.90	2.4329	5.99	2.00	17.454	2.30	6.20	148.83
5.87	6,070	49.69	153.94	0.89	2.4519	5.92	1.90	17.489	2.00	6.16	153.94
5.88	5,990	50.94	148.83	0.85	2.4846	5.84	2.00	17.524	2.00	6.05	148.83
5.89	5,920	47.19	148.83	0.80	2.5140	5.77	2.00	17.559	2.00	5.98	148.83
5.9	5,850	44.83	148.65	0.77	2.5410	5.70	2.00	17.594	2.00	5.91	148.65
5.91	5,850	41.54	148.65	0.71	2.5410	5.70	1.90	17.627	2.00	5.91	148.65
5.92	5,880	40.85	148.65	0.69	2.5816	5.73	1.90	17.660	2.00	5.91	148.65
5.93	5,900	40.75	148.47	0.68	2.4911	5.81	1.90	17.693	2.00	6.02	148.47
5.94	5,960	41.40	148.83	0.68	2.4559	5.91	1.90	17.726	2.00	6.12	148.83
5.95	6,200	41.49	149.01	0.67	2.4034	6.05	1.90	17.760	2.00	6.26	149.01
5.96	6,540	41.49	149.38	0.63	2.2841	6.39	1.90	17.793	2.00	6.60	149.38
5.97	6,670	41.72	149.38	0.62	2.2841	6.39	1.90	17.826	2.00	6.52	149.38
5.98	6,770	41.72	149.38	0.62	2.2065	6.62	2.00	17.861	2.00	6.83	149.38
5.99	6,850	42.10	149.56	0.61	2.1834	6.70	2.00	17.896	2.00	6.91	149.56

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Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
6	6.930	42.47	149.74	0.61	2.1608	6.78	2.00	17.931	2.00	6.99	149.74
6.01	6.990	42.74	149.74	0.61	2.1422	6.84	2.00	17.965	2.00	7.05	149.74
6.02	6.990	42.74	149.74	0.61	2.1422	6.84	2.00	18.000	2.80	7.05	149.74
6.03	6.990	42.74	149.74	0.61	2.1422	6.84	2.00	18.035	2.50	7.05	149.74
6.04	6.990	38.71	146.46	0.39	2.3161	6.51	1.90	18.068	2.30	6.96	146.46
6.05	6.770	39.78	146.27	0.59	2.1606	6.62	1.90	18.102	2.00	6.83	146.27
6.06	6.700	40.89	146.09	0.61	2.1804	6.55	1.90	18.135	2.00	6.76	146.09
6.07	6.590	42.19	145.73	0.64	2.2114	6.44	1.90	18.168	2.00	6.65	145.73
6.08	6.470	43.11	145.54	0.67	2.2495	6.32	1.90	18.201	2.00	6.53	145.54
6.09	6.390	44.03	145.18	0.68	2.2755	6.24	1.90	18.234	2.00	6.44	145.18
6.1	6.280	44.55	144.81	0.71	2.3059	6.14	1.90	18.267	2.00	6.34	144.81
6.11	6.190	44.92	144.81	0.73	2.3394	6.05	1.90	18.300	2.30	6.25	144.81
6.12	6.100	44.97	144.63	0.74	2.3710	5.96	1.90	18.334	2.30	6.16	144.63
6.13	6.000	44.97	144.63	0.75	2.4105	5.86	1.90	18.367	2.30	6.06	144.63
6.14	5.900	44.97	144.45	0.76	2.4483	5.76	1.90	18.400	2.30	5.96	144.45
6.15	5.830	44.60	144.45	0.77	2.4777	5.69	1.90	18.433	2.30	5.89	144.45
6.16	5.770	43.81	144.27	0.76	2.5003	5.63	2.00	18.468	2.00	5.83	144.27
6.17	5.720	43.02	144.27	0.75	2.5222	5.58	2.00	18.503	2.00	5.78	144.27
6.18	5.690	42.42	144.45	0.75	2.5387	5.55	2.00	18.538	2.30	5.75	144.45
6.19	5.650	41.83	144.27	0.74	2.5555	5.51	2.00	18.573	2.00	5.71	144.27
6.2	5.620	41.31	144.27	0.74	2.5671	5.48	2.00	18.608	2.30	5.68	144.27
6.21	5.580	40.80	144.27	0.73	2.5855	5.44	2.00	18.642	2.30	5.64	144.27
6.22	5.540	40.61	144.45	0.73	2.6074	5.40	2.00	18.677	2.30	5.60	144.45
6.23	5.520	40.80	144.27	0.74	2.6136	5.38	2.00	18.712	2.30	5.58	144.27
6.24	5.500	40.80	144.45	0.74	2.6168	5.38	2.00	18.747	2.00	5.58	144.45
6.25	5.520	40.80	144.45	0.74	2.6168	5.38	2.00	18.782	2.00	5.58	144.45
6.26	5.640	41.22	144.63	0.73	2.5644	5.50	2.00	18.817	2.00	5.70	144.63
6.27	5.640	41.22	144.63	0.73	2.5644	5.50	2.00	18.852	2.30	5.70	144.63
6.28	5.880	41.72	145.00	0.71	2.4660	5.74	2.00	18.887	2.30	5.94	145.00
6.29	5.880	41.77	145.00	0.71	2.4660	5.74	2.00	18.922	2.30	5.94	145.00
6.3	6.250	42.23	145.36	0.68	2.3258	6.10	2.10	18.958	2.30	6.31	145.36
6.31	6.430	43.02	145.54	0.67	2.2635	6.28	2.00	18.993	2.00	6.49	145.54
6.32	6.430	43.02	145.54	0.67	2.2635	6.28	2.00	19.028	2.00	6.49	145.54
6.33	6.780	44.78	149.09	0.66	2.1547	6.63	2.10	19.065	2.30	6.84	149.09
6.34	6.780	44.78	149.09	0.66	2.1547	6.63	2.10	19.100	2.30	6.84	149.09
6.35	7.380	45.89	146.46	0.62	1.9846	7.23	2.00	19.135	2.00	7.44	146.46
6.36	7.380	45.89	146.46	0.62	1.9846	7.23	2.00	19.169	2.00	7.44	146.46
6.37	8.140	47.51	147.19	0.58	1.8082	7.99	2.00	19.204	2.30	8.20	147.19
6.38	8.440	48.58	147.57	0.58	1.7461	8.29	2.10	19.241	2.30	8.50	147.57
6.39	8.710	49.74	148.33	0.57	1.6782	8.56	2.00	19.276	2.30	8.77	148.33
6.4	8.910	50.75	147.74	0.57	1.6581	8.76	2.00	19.311	2.00	8.97	147.74
6.41	9.040	51.87	147.92	0.57	1.6363	8.99	2.00	19.346	2.00	9.10	147.92
6.42	9.200	52.98	148.10	0.58	1.6098	9.05	2.00	19.381	2.30	9.26	148.10
6.43	9.360	54.04	148.28	0.58	1.5842	9.21	2.00	19.415	2.30	9.42	148.28
6.44	9.510	54.92	148.65	0.58	1.5631	9.36	2.00	19.450	2.00	9.57	148.65
6.45	9.650	55.80	148.83	0.58	1.5420	9.51	2.00	19.485	2.00	9.71	148.83
6.46	9.690	56.08	149.01	0.58	1.5378	9.54	2.00	19.522	2.30	9.75	149.01
6.47	9.730	56.64	149.20	0.58	1.5334	9.58	2.00	19.557	2.30	9.79	149.20
6.48	9.760	57.19	149.38	0.59	1.5305	9.61	2.10	19.593	2.00	9.82	149.38
6.49	9.750	58.16	149.56	0.59	1.5260	9.60	2.10	19.630	2.00	9.81	149.56
6.5	9.740	58.67	149.56	0.60	1.5355	9.59	2.10	19.665	2.30	9.80	149.56
6.51	9.700	59.09	149.49	0.61	1.5437	9.55	2.10	19.703	2.30	9.76	149.74
6.52	9.650	59.28	149.93	0.61	1.5537	9.50	2.10	19.740	2.00	9.71	149.93
6.53	9.590	59.00	150.11	0.62	1.5653	9.44	2.10	19.777	2.00	9.65	150.11
6.54	9.520	58.91	150.66	0.62	1.5626	9.37	2.10	19.813	2.30	9.58	150.66
6.55	9.400	58.90	150.87	0.63	1.5747	9.24	2.10	19.849	2.30	9.46	150.87
6.56	9.290	58.86	150.84	0.63	1.6237	9.14	2.10	19.887	2.00	9.35	150.84
6.57	9.180	58.88	151.02	0.64	1.6451	9.03	2.10	19.923	2.00	9.24	151.02
6.58	9.050	58.85	150.84	0.65	1.6667	8.90	2.10	19.960	2.00	9.11	150.84
6.59	8.920	58.91	150.84	0.66	1.6910	8.77	2.10	19.997	2.00	8.98	150.84
6.6	8.820	59.49	150.84	0.66	1.7167	8.67	2.10	20.034	2.00	8.86	150.84
6.61	8.740	58.35	150.84	0.67	1.7259	8.59	2.10	20.070	2.30	8.80	150.84
6.62	8.640	58.12	151.02	0.67	1.7479	8.49	2.10	20.106	2.30	8.70	151.02
6.63	8.560	57.93	151.21	0.68	1.7665	8.41	2.10	20.143	2.30	8.62	151.21
6.64	8.470	57.89	151.57	0.68	1.7895	8.32	2.10	20.180	2.30	8.53	151.57
6.65	8.390	57.24	151.75	0.69	1.8144	8.24	2.10	20.217	2.30	8.45	151.75
6.66	8.290	57.24	151.75	0.69	1.8305	8.14	2.10	20.253	2.00	8.35	151.75
6.67	8.030	56.45	152.30	0.70	1.8966	7.88	2.20	20.291	2.30	8.09	152.30
6.68	8.030	56.45	152.30	0.70	1.8966	7.88	2.20	20.330	2.30	8.09	152.30

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.07	10,340	58.07	171.84	0.56	1.6619	10.17	2.40	25.905	2.50	10.41	171.84
8.08	10,230	58.30	171.48	0.57	1.6762	10.06	2.40	25.947	2.50	10.30	171.48
8.09	10,220	58.58	171.29	0.57	1.6760	10.05	2.40	25.988	2.30	10.29	171.29
8.11	10,220	58.53	171.11	0.57	1.6743	10.05	2.40	26.030	2.30	10.29	171.11
8.11	10,190	57.52	170.75	0.56	1.7252	10.02	2.40	26.072	2.80	10.26	170.75
8.12	10,130	56.91	170.75	0.56	1.6856	9.96	2.40	26.114	2.80	10.20	170.75
8.13	10,130	56.91	170.75	0.56	1.6856	9.96	2.40	26.156	2.80	10.20	170.75
8.14	10,070	56.36	170.38	0.56	1.6920	9.90	2.40	26.198	2.30	10.14	170.38
8.15	9,990	56.50	170.38	0.57	1.7055	9.82	2.50	26.241	2.30	10.06	170.38
8.16	9,860	56.58	170.38	0.57	1.7262	9.69	2.50	26.285	2.30	9.83	170.38
8.17	9,860	57.38	170.56	0.59	1.7656	9.49	2.50	26.329	2.80	9.73	170.56
8.18	9,500	57.93	170.75	0.61	1.7974	9.33	2.50	26.372	2.80	9.57	170.75
8.19	9,300	58.44	170.93	0.63	1.8380	9.13	2.50	26.416	2.50	9.37	170.93
8.2	9,080	58.58	171.48	0.65	1.8885	8.91	2.50	26.460	2.50	9.15	171.48
8.21	9,080	58.58	171.48	0.65	1.8885	8.91	2.50	26.503	2.50	9.15	171.48
8.22	8,900	58.77	171.11	0.66	1.9226	8.73	2.50	26.547	2.50	8.97	171.11
8.23	8,800	59.04	170.93	0.67	1.9424	8.63	2.50	26.590	2.50	8.87	170.93
8.24	8,700	59.23	170.56	0.68	1.9605	8.53	2.50	26.634	2.50	8.77	170.56
8.25	8,720	59.60	170.01	0.68	1.9497	8.55	2.50	26.678	2.50	8.79	170.01
8.26	8,790	59.23	170.56	0.68	1.9625	8.62	2.50	26.721	2.50	8.96	170.56
8.27	8,810	59.23	170.56	0.67	1.9360	8.64	2.50	26.765	2.50	8.88	170.56
8.28	8,810	59.23	170.56	0.67	1.9360	8.64	2.50	26.808	2.50	8.88	170.56
8.29	8,860	58.35	170.93	0.66	1.9252	8.69	2.50	26.852	2.80	8.93	170.93
8.3	8,870	57.84	170.75	0.65	1.9250	8.70	2.50	26.896	2.80	8.94	170.75
8.31	8,820	57.70	170.56	0.65	1.9338	8.65	2.50	26.939	2.30	8.86	170.56
8.32	8,740	57.81	170.56	0.66	1.9515	8.57	2.50	26.983	2.30	8.81	170.56
8.33	8,630	57.56	170.56	0.67	1.9764	8.46	2.50	27.027	2.30	8.70	170.56
8.34	8,470	57.47	170.56	0.68	2.0137	8.30	2.50	27.070	2.80	8.54	170.56
8.35	8,470	57.47	170.56	0.68	2.0137	8.30	2.50	27.114	2.80	8.54	170.56
8.36	8,280	57.15	170.56	0.69	2.0599	8.11	2.50	27.157	2.80	8.35	170.56
8.37	8,130	57.01	170.38	0.70	2.0867	7.96	2.50	27.201	2.50	8.20	170.38
8.38	8,030	56.78	170.38	0.71	2.1218	7.86	2.50	27.245	2.50	8.10	170.38
8.39	7,980	56.96	170.38	0.71	2.1351	7.81	2.50	27.288	2.50	8.05	170.38
8.4	7,950	56.68	170.56	0.71	2.1454	7.78	2.50	27.332	2.50	8.02	170.56
8.41	7,940	56.22	170.56	0.71	2.1481	7.77	2.50	27.376	2.30	8.01	170.56
8.42	7,960	55.57	170.56	0.72	2.1451	7.79	2.50	27.419	2.30	8.03	170.56
8.43	7,970	54.88	170.75	0.69	2.1424	7.80	2.50	27.463	2.30	8.04	170.75
8.44	8,010	54.27	170.75	0.68	2.1317	7.84	2.50	27.506	2.30	8.08	170.75
8.45	8,020	53.39	170.93	0.67	2.1313	7.85	2.50	27.550	2.30	8.09	170.93
8.46	8,080	52.89	171.11	0.65	2.1177	7.91	2.50	27.594	2.30	8.15	171.11
8.47	8,130	52.24	171.11	0.64	2.1047	7.96	2.50	27.637	2.30	8.20	171.11
8.48	8,170	52.01	171.11	0.64	2.0944	8.00	2.50	27.681	2.30	8.24	171.11
8.49	8,250	51.45	171.11	0.62	2.0741	8.08	2.50	27.724	2.30	8.32	171.11
8.5	8,340	51.03	171.11	0.61	2.0517	8.17	2.50	27.768	2.30	8.41	171.11
8.51	8,490	50.62	171.29	0.60	2.0176	8.32	2.50	27.812	2.30	8.56	171.29
8.52	8,720	50.29	171.66	0.58	1.9686	8.55	2.50	27.855	2.30	8.69	171.66
8.53	8,000	49.92	172.02	0.58	1.9113	8.32	2.50	27.899	2.00	8.07	172.02
8.54	9,320	49.27	172.39	0.53	1.8497	9.15	2.50	27.943	2.00	9.39	172.39
8.55	9,610	49.13	173.12	0.51	1.8015	9.44	2.50	27.986	2.30	9.68	173.12
8.56	9,850	49.74	174.21	0.50	1.7686	9.68	2.50	28.030	2.30	9.92	174.21
8.57	9,970	50.32	174.76	0.51	1.7529	9.80	2.50	28.073	2.30	10.04	174.76
8.58	10,030	50.86	174.76	0.51	1.7424	9.86	2.50	28.117	2.30	10.10	174.76
8.59	10,070	52.33	174.40	0.52	1.7319	9.90	2.50	28.161	2.00	10.14	174.40
8.6	10,070	52.79	174.03	0.52	1.7282	9.90	2.50	28.204	2.00	10.14	174.03
8.61	10,090	53.86	173.67	0.53	1.7212	9.92	2.50	28.248	2.30	10.16	173.67
8.62	10,130	55.11	173.85	0.54	1.7162	9.96	2.50	28.292	2.30	10.20	173.85
8.63	10,220	54.32	173.85	0.54	1.7011	10.05	2.50	28.335	2.30	10.24	173.85
8.64	10,400	56.36	174.21	0.54	1.6751	10.23	2.50	28.379	2.00	10.47	174.21
8.65	10,650	57.01	174.40	0.54	1.6376	10.48	2.50	28.422	2.00	10.72	174.40
8.66	11,010	57.52	174.58	0.52	1.5856	10.84	2.50	28.466	2.00	11.08	174.58
8.67	11,300	57.56	174.76	0.51	1.5384	11.19	2.50	28.510	2.30	11.43	174.76
8.68	11,680	57.66	174.76	0.49	1.5041	11.50	2.50	28.553	2.30	11.67	174.76
8.69	11,960	58.12	176.41	0.49	1.4750	11.78	2.50	28.597	2.00	12.03	176.41
8.7	12,190	58.58	177.14	0.48	1.4532	12.01	2.50	28.640	2.00	12.26	177.14
8.71	12,420	59.37	177.87	0.48	1.4321	12.24	2.50	28.684	2.00	12.49	177.87
8.72	12,580	60.57	178.05	0.48	1.4153	12.40	2.50	28.728	2.00	12.65	178.05
8.73	12,630	60.85	178.12	0.48	1.4082	12.42	2.50	28.771	2.00	12.68	178.12
8.74	13,070	63.44	178.60	0.49	1.3665	12.89	2.50	28.815	2.30	13.15	178.60
8.75	13,130	64.46	178.60	0.49	1.3602	12.95	2.50	28.859	2.30	13.21	178.60

17-101.G_CPTU_Soarza

17-101.CPTU.S1_Monte

Pag. 13

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.76	13,180	65.48	178.96	0.50	1.3576	13.00	2.50	28.902	2.00	13.26	178.96
8.77	13,220	66.87	178.78	0.51	1.3523	13.04	2.50	28.946	2.00	13.30	178.78
8.78	13,240	68.12	178.78	0.51	1.3503	13.06	2.50	28.989	2.00	13.32	178.78
8.79	13,270	69.09	178.15	0.52	1.3500	13.09	2.50	29.033	2.00	13.35	178.15
8.8	13,300	70.52	178.96	0.53	1.3462	13.06	2.50	29.077	2.30	13.44	178.96
8.81	13,380	72.20	178.98	0.54	1.3444	13.20	2.50	29.120	2.30	13.46	178.98
8.82	13,510	73.63	180.06	0.55	1.3328	13.33	2.50	29.164	2.00	13.59	180.06
8.83	13,650	74.56	180.06	0.55	1.3311	13.47	2.50	29.208	2.00	13.73	180.06
8.84	13,740	74.88	180.24	0.54	1.3198	13.56	2.50	29.251	2.00	13.82	180.24
8.85	13,800	75.53	180.42	0.55	1.3086	13.65	2.50	29.295	2.00	13.95	180.42
8.86	13,960	76.85	180.79	0.54	1.2951	13.78	2.50	29.338	2.30	14.04	180.79
8.87	14,020	76.27	181.34	0.54	1.2934	13.84	2.50	29.382	2.30	14.10	181.34
8.88	14,080	76.36	181.88	0.54	1.2918	13.90	2.50	29.426	2.00	14.16	181.88
8.89	14,130	76.83	182.25	0.54	1.2898	13.95	2.50	29.469	2.00	14.21	182.25
8.9	14,160	77.29	182.43	0.55	1.2883	13.98	2.50	29.513	2.00	14.24	182.43
8.91	14,230	78.82	182.80	0.55	1.2846	14.05	2.50	29.556	2.00	14.31	182.80
8.92	14,230	78.82	182.80	0.55	1.2846	14.05	2.50	29.600	2.30	14.31	182.80
8.93	14,230	80.39	183.71	0.56	1.2910	14.05	2.50	29.644	2.30	14.31	183.71
8.94	14,220	81.09	183.97	0.57	1.2932	14.04	2.50	29.687	2.00	14.30	183.97
8.95	14,140	82.25	184.26	0.58	1.3031	13.96	2.50	29.731	2.00	14.22	184.26
8.96	14,090	82.89	184.44	0.59	1.3090	13.91	2.50	29.775	1.80	14.17	184.44
8.97	14,020	83.68	184.26	0.60	1.3143	13.84	2.50	29.818	1.80	14.10	184.26
8.98	13,980	84.84	184.81	0.61	1.3220	13.80	2.50	29.862	2.00	14.06	184.81
8.99	13,900	84.98	184.62	0.61	1.3282	13.72	2.50	29.905	2.00	13.98	184.62
9	13,820	85.58	185.17	0.62	1.3369	13.63	2.50	29.949	2.00	13.90	185.17
9.01	13,820	85.58	185.17	0.62	1.3369	13.63	2.50	29.993	2.30	13.90	185.17
9.02	13,820	85.58	185.17	0.62	1.3369	13.63	2.50	30.036	2.50	13.90	185.17
9.03	13,020	70.95	182.02	0.54	1.4026	12.84	2.50	30.080	2.50	13.10	182.02
9.04	13,180	71.64	182.67	0.54	1.3814	13.00	2.50	30.124	2.00	13.26	182.67
9.05	13,020	72.47	181.15	0.56	1.4133	12.84	2.50	30.167	2.00	13.10	181.15
9.06	13,220	73.08	182.43	0.56	1.4082	12.21	2.50	30.209	2.00	13.30	182.43
9.07	12,570	73.40	179.69	0.58	1.4295	13.29	2.50	30.254	2.65	12.90	179.69
9.08	12,380	73.68	177.41	0.60	1.4411	12.20	2.50	30.298	2.00	12.45	177.41
9.09	12,190	74.14	178.50	0.61	1.4581	12.01	2.50	30.342	2.00	12.26	178.50
9.1	11,980	74.51	176.95	0.62	1.4770	11.80	2.50	30.386	2.00	12.05	176.95
9.11	11,720	72.61	176.95	0.62	1.5142	11.40	2.50	30.428	2.00	11.75	176.95
9.12	11,610	72.61	176.95	0.63	1.5226	11.43	2.50	30.473	2.00	11.68	176.95
9.13	11,440	71.50	176.77	0.63	1.5452	11.26	2.50	30.516	2.00	11.51	176.77
9.14	11,230	67.66	176.04	0.60	1.5676	11.05	2.50	30.560	2.30	11.30	176.04
9.15	11,220	65.06	175.49	0.58	1.5641	11.04	2.50	30.603	2.30	11.29	175.49
9.16	11,220	62.47	175.49	0.60	1.5644	11.09	2.50	30.646	2.00	11.34	175.49
9.17	11,540	60.25	175.31	0.52	1.5192	11.36	2.50	30.691	2.00	11.61	175.31
9.18	11,900	57.47	175.49	0.48	1.4947	11.72	2.50	30.734	2.00	11.97	175.45
9.19	12,240	55.43	176.25	0.45	1.4377	12.06	2.50	30.778	2.00	12.31	176.25
9.2	12,460	53.72	176.77	0.43	1.4187	12.28	2.50	30.821	2.00	12.53	176.77
9.21	12,600	52.65	176.77	0.42	1.4242	12.42	2.50	30.865	2.00	12.67	176.77
9.22	12,680	52.10	177.87	0.41	1.4028	12.50	2.50	30.909	2.00	12.75	177.87
9.23	12,740	50.99	177.50	0.40	1.3932	12.56	2.50	30.952	2.00	12.81	177.50
9.24	12,780	49.60	177.14	0.39	1.3861	12.60	2.50	30.994	2.00	12.85	177.14
9.25	12,880	48.13	176.77	0.38	1.3810	12.62	2.50	31.036	2.00	12.87	176.77
9.26	12,900	47.01	176.77	0.37	1.3800	12.65	2.50	31.078	2.00	12.91	176.77
9.27	12,870	51.50	177.32	0.40	1.3778	12.69	2.50	31.122	2.00	12.94	177.32
9.28	13,020	53.67	177.68	0.41	1.3647	12.84	2.50	31.165	2.00	13.09	177.68
9.29	13,260	55.57	178.23	0.42	1.3441	13.00	2.50	31.209	2.00	13.33	178.23
9.3	13,470	57.89	178.23	0.43	1.3252	13.29	2.50	31.252	2.00	13.54	178.23
9.31	13,590	56.69	178.23	0.41	1.3429	13.40	2.50	31.295	2.00	13.77	178.23
9.32	13,840	62.19	178.60	0.45	1.3035	13.66	2.50	31.336	2.00	13.92	178.60
9.33	13,940	63.63	178.96	0.46	1.2838	13.76	2.50	31.380	2.00	14.02	178.96
9.34	14,070	64.60	178.96	0.46	1.2719	13.98	2.50	31.423	1.80	14.15	178.96
9.35	14,120	65.67	179.51	0.47	1.2713	13.94	2.50	31.467	1.80	14.20	179.51
9.36	14,060	65.67	179.51	0.47	1.2713	13.94	2.50	31.510	2.00	14.15	179.51
9.37	14,040	65.43	179.51	0.47	1.2760	13.86	2.50	31.554	2.30	14.12	179.51
9.38	14,040	64.79	178.41	0.46	1.2707	13.86	2.50	31.598	1.80	14.11	178.41
9.39	14,020	64.42	177.68	0.46	1.2673	13.84	2.50	31.642	1.80	14.09	177.68
9.4	14,010	63.49	177.50	0.45	1.2670	13.83	2.50	31.685	2.00	14.08	177.50
9.41	14,070	63.07	177.50	0.45	1.2721	13.79	2.50	31.729	2.00	14.09	177.50
9.42	13,980	62.93	178.05	0.45	1.2736	13.80	2.50	31.772	2.00	14.05	178.05
9.43	13,960	63.35	178.78	0.45	1.2807	13.78	2.50	31.816	2.00	14.04	178.78
9.44	13,960	63.40	178.41	0.45	1.2780	13.78	2.50	31.860	2.00	14.03	178.41

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
10.83	14,840	73.77	176.04	0.50	1.1863	14.66	2.80	38.184	2.00	14.91	69.80
10.84	15,080	74.00	176.04	0.49	1.1674	14.90	2.80	38.233	2.00	15.15	69.70
10.85	15,170	74.19	176.41	0.49	1.1629	14.99	2.80	38.282	2.00	15.24	69.97
10.86	15,180	73.86	176.22	0.49	1.1609	15.00	2.80	38.331	2.00	15.25	69.68
10.87	15,110	74.09	176.04	0.50	1.1651	14.93	2.80	38.380	2.00	15.18	69.41
10.88	14,990	74.23	176.04	0.50	1.1744	14.81	2.80	38.428	2.00	15.06	69.31
10.89	14,840	74.42	176.04	0.50	1.1863	14.66	2.80	38.477	2.30	14.91	69.21
10.9	14,640	74.65	176.22	0.51	1.2037	14.46	2.80	38.526	2.30	14.71	69.29
10.91	14,390	74.79	176.04	0.52	1.2233	14.21	2.80	38.575	2.00	14.46	69.01
10.92	13,970	74.86	176.04	0.54	1.2586	13.79	2.80	38.624	2.00	14.04	68.11
10.93	13,520	75.25	175.49	0.56	1.2980	13.34	2.80	38.673	2.50	13.59	68.27
10.94	13,030	75.53	174.95	0.58	1.3427	12.86	2.80	38.722	2.50	13.10	67.93
10.95	12,670	75.58	174.21	0.60	1.3970	12.50	2.80	38.770	2.00	12.74	66.79
10.96	12,400	76.32	173.3	0.62	1.3756	12.23	2.80	38.819	2.00	12.47	65.78
10.97	12,170	76.46	173.3	0.63	1.4264	12.00	2.80	38.868	2.00	12.24	65.69
10.98	11,900	76.22	173.3	0.64	1.4563	11.73	2.80	38.917	2.30	11.97	65.59
10.99	11,610	76.50	173.3	0.66	1.4927	11.44	2.80	38.966	2.30	11.68	65.49
11	11,390	76.04	173.12	0.67	1.5199	11.22	2.80	39.015	2.50	11.46	65.21
11.01	11,390	76.04	173.12	0.67	1.5199	11.22	2.80	39.064	3.00	11.46	65.11
11.02	11,390	76.04	173.12	0.67	1.5199	11.22	2.80	39.112	3.00	11.46	65.01
11.03	10,850	62.75	163.44	0.58	1.5064	10.69	2.80	39.161	2.30	10.92	55.24
11.04	10,940	61.68	162.89	0.56	1.4889	10.78	2.80	39.210	2.30	11.01	54.49
11.05	10,940	61.68	162.89	0.56	1.4889	10.78	2.80	39.259	2.30	11.01	54.49
11.06	10,930	59.41	161.98	0.54	1.4820	10.77	2.80	39.308	2.50	11.00	53.48
11.07	10,930	59.41	161.98	0.54	1.4820	10.77	2.80	39.357	2.50	11.00	53.48
11.08	10,760	59.09	161.8	0.55	1.5037	10.60	2.80	39.407	2.30	10.83	53.11
11.09	10,470	58.40	161.25	0.56	1.5401	10.31	2.90	39.458	2.30	10.54	52.46
11.1	10,170	56.87	160.15	0.56	1.5747	10.01	2.90	39.508	2.50	10.24	51.26
11.11	9,910	55.02	159.42	0.56	1.6087	9.75	2.90	39.559	2.50	9.98	50.43
11.12	9,690	53.44	159.24	0.55	1.6433	9.53	2.90	39.610	2.50	9.76	50.15
11.13	9,520	51.77	158.88	0.54	1.6689	9.36	2.90	39.660	2.30	9.59	49.69
11.14	9,340	50.20	158.69	0.53	1.6882	9.24	2.90	39.711	2.30	9.47	49.41
11.15	9,340	48.81	158.69	0.52	1.6990	9.18	2.90	39.761	2.80	9.41	49.31
11.16	9,340	48.81	158.69	0.52	1.6990	9.18	2.90	39.812	2.80	9.41	49.21
11.17	9,300	48.07	158.69	0.52	1.7063	9.14	2.90	39.863	2.80	9.37	49.11
11.18	9,290	47.65	158.51	0.51	1.7062	9.13	2.90	39.913	2.30	9.36	48.93
11.19	9,280	47.37	158.51	0.51	1.7081	9.12	2.90	39.964	2.30	9.35	48.74
11.2	9,280	47.19	158.51	0.51	1.7081	9.12	2.90	40.014	2.30	9.35	48.64
11.21	9,280	46.77	158.51	0.50	1.7081	9.12	2.90	40.065	2.30	9.35	48.54
11.22	9,310	46.49	158.33	0.50	1.7006	9.15	2.90	40.116	2.50	9.38	48.26
11.23	9,350	45.94	158.51	0.49	1.6953	9.19	2.90	40.166	2.50	9.42	48.34
11.24	9,300	45.48	158.51	0.48	1.6881	9.23	2.90	40.217	2.50	9.46	48.25
11.25	9,440	45.01	158.51	0.48	1.6791	9.28	2.90	40.267	2.30	9.51	48.15
11.26	9,520	44.50	158.69	0.47	1.6669	9.36	2.90	40.318	2.30	9.59	48.23
11.27	9,560	43.85	158.51	0.46	1.6581	9.40	2.90	40.368	2.30	9.63	47.95
11.28	9,560	43.85	158.51	0.46	1.6581	9.40	2.90	40.419	2.30	9.63	47.95
11.29	9,470	42.86	158.33	0.47	1.6719	9.31	2.90	40.470	2.30	9.54	47.86
11.3	9,320	42.93	157.96	0.46	1.6948	9.16	2.90	40.520	2.30	9.39	47.11
11.31	9,300	42.47	157.41	0.47	1.7432	8.87	2.90	40.571	2.30	9.10	46.46
11.32	8,440	42.88	156.68	0.51	1.8564	8.28	2.90	40.622	2.30	8.51	45.63
11.33	8,283	39.70	156.32	0.54	1.9614	7.81	2.90	40.673	2.30	8.04	45.17
11.34	7,590	43.07	156.32	0.57	2.0596	7.43	2.90	40.723	2.30	7.66	44.77
11.35	7,170	42.84	156.14	0.60	2.1777	7.01	2.90	40.773	2.30	7.24	44.80
11.36	6,720	43.11	154.86	0.64	2.3045	6.57	2.90	40.824	2.30	6.79	43.43
11.37	6,270	43.58	153.94	0.70	2.4552	6.10	2.90	40.874	2.30	6.33	42.40
11.38	5,950	43.48	153.03	0.73	2.5719	5.80	2.90	40.925	2.30	6.01	41.39
11.39	5,550	42.65	152.48	0.78	2.7474	5.40	2.90	40.976	2.30	5.68	40.40
11.4	5,290	43.02	152.85	0.81	2.8894	5.14	2.90	41.026	2.30	5.35	41.02
11.41	5,080	43.76	153.58	0.86	3.0232	4.93	2.90	41.077	2.30	5.14	41.65
11.42	4,890	43.81	153.4	0.90	3.1370	4.74	2.90	41.127	2.30	4.95	41.37
11.43	4,760	43.16	153.21	0.91	3.2197	4.61	2.90	41.178	2.30	4.82	41.08
11.44	4,740	42.44	152.48	0.90	3.2323	4.59	2.90	41.229	2.30	4.63	40.79
11.45	4,790	42.42	153.21	0.89	3.1985	4.64	2.90	41.279	2.00	4.85	40.89
11.46	4,930	42.10	153.4	0.85	3.1116	4.78	2.90	41.330	2.00	4.99	40.98
11.47	5,180	41.63	153.58	0.80	2.9649	5.03	2.90	41.380	2.30	5.24	41.06
11.48	5,510	40.89	153.94	0.74	2.7938	5.36	2.90	41.431	2.30	5.57	41.32
11.49	5,930	39.67	153.37	0.68	2.5788	5.78	2.90	41.482	2.00	6.04	41.62
11.5	6,410	39.64	155.04	0.62	2.4187	6.25	2.90	41.532	2.00	6.48	42.23
11.51	6,880	38.99	155.95	0.57	2.2667	6.72	2.90	41.583	2.00	6.95	43.04

17-101.G_CPTU_Soarza

17-101_CPTU.S1_Monte

Pag. 17

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
11.52	7,280	39.96	155.95	0.55	2.1422	7.12	2.90	41.633	2.00	7.35	42.94
11.53	7,530	41.03	156.14	0.54	2.0736	7.37	2.90	41.684	2.30	7.60	43.03
11.54	7,690	40.66	155.77	0.53	2.0256	7.53	2.90	41.734	2.30	7.76	42.56
11.55	7,830	40.66	155.95	0.52	1.9917	7.67	2.90	41.785	2.00	7.90	42.64
11.56	8,160	39.96	157.91	0.49	2.0069	8.00	2.90	41.836	2.00	8.23	43.65
11.57	7,570	42.56	152.48	0.56	2.0143	7.42	2.90	41.886	2.00	7.63	38.98
11.58	7,650	48.76	155.22	0.64	2.0290	7.49	2.90	41.937	2.00	7.72	41.62
11.59	7,590	44.27	153.94	0.58	2.0282	7.44	2.90	41.987	2.00	7.65	40.24
11.6	7,480	43.67	153.76	0.58	2.0556	7.33	2.90	42.038	2.00	7.54	39.96
11.61	7,380	43.76	154.31	0.59	2.0599	7.23	2.90	42.089	2.00	7.44	40.42
11.62	7,380	44.83	154.31	0.61	2.0909	7.23	2.90	42.139	2.00	7.44	40.32
11.63	7,360	44.78	154.13	0.61	2.0942	7.21	2.90	42.190	2.00	7.42	40.04
11.64	7,360	45.71	154.13	0.62	2.0942	7.21	2.90	42.240	2.00	7.42	39.94
11.65	7,360	46.82	153.94	0.64	2.0916	7.21	2.90	42.291	2.30	7.42	39.65
11.66	7,360	47.42	153.94	0.66	2.0559	7.23	2.90	42.342	2.30	7.44	39.56
11.67	7,390	48.86	153.94	0.66	2.0831	7.24	2.90	42.392	2.00	7.45	39.46
11.68	7,400	50.48	153.94	0.68	2.0803	7.25	2.90	42.443	2.00	7.46	39.36
11.69	7,400	52.96	153.94	0.71	2.0803	7.25	2.90	42.493	2.00	7.46	39.26
11.7	7,420	54.23	153.76	0.73	2.0722	7.27	2.90	42.544	2.30	7.48	38.98
11.71	7,390	51.54	152.76	0.70	2.0866	7.24	2.90	42.595	2.30	7.45	38.88
11.72	7,410	46.45	153.76	0.63	2.0750	7.26	2.90	42.645	2.30	7.47	38.79
11.73	7,410	47.10	153.58	0.64	2.0726	7.26	2.90	42.696	2.30	7.47	38.51
11.74	7,410	45.24	153.58	0.61	2.0726	7.26	2.90	42.746	2.50	7.47	38.41
11.75	7,390	43.39	153.4	0.59	2.0758	7.24	2.90	42.797	2.50	7.45	38.13
11.76	7,390	42.47	153.4	0.58	2.0768	7.23	2.90	42.848	2.30	7.44	38.03
11.77	7,380	42.71	153.21	0.58	2.0762	7.23	2.90	42.898	2.30	7.44	37.75
11.78	7,390	42.70	153.21	0.58	2.0732	7.24	2.90	42.949	2.30	7.45	37.65
11.79	7,390	42.70	153.21	0.58	2.0732	7.24	2.90	42.999	2.30	7.45	37.57
11.8	7,390	42.97	153.03	0.58	2.0708	7.24	2.90	43.050	2.30	7.45	37.37
11.81	7,390	42.97	153.03	0.58	2.0708	7.24	2.90	43.100	2.30	7.45	37.37
11.82	7,390	43.02	152.85	0.58	2.0711	7.24	2.90	43.151	2.30	7.45	37.17
11.83	7,370	43.25	152.67	0.59	2.0715	7.22	2.90	43.202	2.30	7.43	36.96
11.84	7,370	43.30	152.85	0.59	2.0739	7.22	2.90	43.252	2.30	7.43	36.86
11.85	7,360	43.58	152.85	0.59	2.0768	7.21	2.90	43.303	2.30	7.42	36.66
11.86	7,340	43.76	152.67	0.59	2.0800	7.19	2.90	43.353	2.50	7.40	36.46
11.87	7,330	43.76	152.85	0.60	2.0885	7.18	2.90	43.404	2.50	7.40	36.36
11.88	7,310	43.58	152.67	0.60	2.0865	7.20	2.90	43.455	2.30	7.37	36.16
11.89	7,280	43.39	152.48	0.60	2.0945	7.13	2.90	43.505	2.30	7.34	35.95
11.9	7,280	43.44	152.48	0.60	2.0945	7.13	2.90	43.556	2.30	7.34	35.85
11.91	7,280	43.07	152.3	0.59	2.0920	7.13	2.90	43.606	2.50	7.34	35.65
11.92	7,320	42.93	152.48	0.59	2.0851	7.17	2.90	43.657	2.50	7.34	35.55
11.93	7,320	42.93	152.48	0.59	2.0831	7.17	2.90	43.708	2.30	7.38	35.55
11.94	7,370	42.37	152.12	0.57	2.0640	7.22	2.90	43.758	2.30	7.43	35.44
11.95	7,370	42.37	152.12	0.57	2.0640	7.22	2.90	43.809	2.30	7.43	35.34
11.96	7,420	41.96	152.3	0.57	2.0526	7.27	2.90	43.859	2.30	7.48	35.34
11.97	7,460	41.86	152.3	0.58	2.0616	7.27	2.90	43.910	2.30	7.48	35.14
11.98	7,470	41.49	152.12	0.56	2.0644	7.32	3.00	43.964	2.30	7.53	35.34
11.99	7,510	41.26	152.12	0.55	2.0256	7.36	3.00	44.016	2.00	7.57	35.34
12	7,550	40.89	152.12	0.54	2.0148	7.40	3.00	44.069	2.00	7.61	35.34
12.01	7,550	40.89	152.12	0.54	2.0148	7.40	3.00	44.121	2.00	7.61	35.34
12.02	7,550	39.96	152.12	0.53	2.0069	7.40	3.00	44.172	2.00	7.61	35.14
12.03	7,370	29.68	144.81	0.40	1.9649	7.23	2.90	44.224	2.00	7.24	26.64
12.04	7,560	30.80	144.81	0.41	1.9555	7.42	3.00	44.275	2.30	7.62	26.26
12.05	7,630	31.44	144.63	0.41	1.9155	7.49	3.00	44.325	2.30	7.69	26.26
12.06	7,730	32.05	144.45	0.41	1.8887	7.59	2.90	44.376	2.00	7.79	26.26
12.07	7,810	32.51	144.27	0.42	1.8616	7.69	2.90	44.427	2.00	7.85	26.26
12.08	7,920	33.16	144.27	0.42	1.8216	7.78	3.00	44.480	2.50	7.92	25.25
12.09	8,050	33.44	144.27	0.42	1.7922	7.91	3.00	44.533	2.50	8.11	25.25
12.1	8,180	33.81	144.27	0.41	1.7637	8.04	3.00	44.585	2.00	8.24	25.25
12.11	8,340	33.90	144.45	0.41	1.7299	8.20	3.00	44.637	2.00	8.40	25.25
12.12	8,510	34.04	144.45	0.40	1.6959	8.36	3.00	44.689	2.00	8.57	25.25
12.13	8,750	34.08	144.45	0.39	1.6509	8.61	3.00	44.742	2.30	8.81	25.25
12.14	9,010	34.27	144.63	0.38	1.6052	8.87	3.00	44.794	2.30	9.07	25.25
12.15	9,280	34.82	145	0.38	1.5625	9.14	3.00	44.847	2.30	9.34	25.25
12.16	9,520	35.23	145.54	0.37	1.5288	9.37	3.00	44.899	2.30	9.58	25.25
12.17	9,690	35.75	145.09	0.36	1.4957	9.65	3.00	44.952	2.30	9.86	25.25
12.18	10,070	36.07	146.27	0.36	1.4525	9.92	3.00	45.004	2.00	10.13	26.26
12.19	10,380	36.21	146.46	0.35	1.4110	10.23	3.00	45.056	2.30	10.44	26.26
12.2	10,640	36.07	146.46	0.34	1.3765	10.49	3.00	45.108	2.30	10.70	26.26

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
13.59	12,570	64.37	162.89	0.51	1.2959	12.41	3.50	52,946	1.80	12.64	29.57
13.6	13,030	63.81	163.26	0.49	1.2530	12.87	3.50	53,007	1.80	13.10	29.84
13.61	13,470	63.40	163.81	0.47	1.2161	13.31	3.50	53,088	1.80	13.54	30.30
13.62	13,930	62.56	164.35	0.45	1.1748	13.83	3.50	53,129	2.00	14.06	30.74
13.63	13,990	62.99	164.35	0.50	1.1748	13.83	3.50	53,190	2.00	14.06	30.74
13.64	13,850	62.52	163.99	0.45	1.1840	13.69	3.50	53,251	1.80	13.92	30.18
13.65	13,620	62.66	163.62	0.46	1.2013	13.46	3.50	53,312	1.80	13.69	29.71
13.66	13,340	63.68	162.71	0.48	1.2197	13.18	3.50	53,373	2.00	13.41	28.71
13.67	13,100	63.95	162.53	0.49	1.2407	12.94	3.50	53,434	2.00	13.17	28.43
13.68	12,910	64.33	162.98	0.50	1.2547	12.75	3.50	53,496	2.00	12.90	28.16
13.69	12,670	65.90	162.16	0.52	1.2799	12.51	3.50	53,557	2.00	12.74	27.86
13.7	12,410	67.01	162.53	0.54	1.3097	12.25	3.50	53,618	2.00	12.48	28.13
13.71	12,120	67.70	162.71	0.56	1.3425	11.96	3.50	53,679	2.00	12.19	28.21
13.72	11,490	69.70	162.71	0.61	1.4161	11.33	3.60	53,741	2.30	11.56	28.12
13.73	11,160	70.07	162.71	0.63	1.4589	11.00	3.60	53,804	2.30	11.23	28.02
13.74	10,920	70.02	162.34	0.64	1.4866	10.76	3.50	53,865	2.00	10.99	27.55
13.75	10,710	69.93	161.8	0.65	1.5107	10.55	3.50	53,926	2.00	10.78	26.91
13.76	10,620	68.68	161.43	0.65	1.5201	10.46	3.50	53,987	2.00	10.69	26.44
13.77	10,590	68.31	161.43	0.65	1.5244	10.43	3.50	54,048	2.00	10.66	26.35
13.78	10,590	67.42	161.61	0.61	1.5286	10.43	3.50	54,109	2.30	10.69	26.43
13.79	10,580	65.90	161.8	0.62	1.5293	10.42	3.50	54,171	2.30	10.65	26.52
13.8	10,620	65.30	161.98	0.61	1.5252	10.46	3.50	54,232	2.00	10.69	26.60
13.81	10,710	63.91	162.16	0.60	1.5141	10.55	3.50	54,293	2.00	10.78	26.68
13.82	10,680	62.47	161.8	0.58	1.5150	10.52	3.50	54,354	2.00	10.75	26.23
13.83	10,670	62.89	162.16	0.58	1.5151	10.52	3.50	54,415	2.00	10.75	26.49
13.84	10,640	61.78	162.53	0.58	1.5275	10.48	3.50	54,476	2.00	10.71	26.76
13.85	10,590	60.80	162.89	0.57	1.5381	10.43	3.50	54,537	2.00	10.66	27.02
13.86	10,570	59.60	162.89	0.56	1.5411	10.41	3.50	54,598	2.30	10.64	26.92
13.87	10,510	58.35	162.71	0.56	1.5481	10.35	3.50	54,659	2.30	10.58	26.65
13.88	10,550	57.05	162.71	0.54	1.5423	10.39	3.60	54,722	2.00	10.62	26.55
13.89	10,560	56.36	162.89	0.53	1.5425	10.40	3.60	54,784	2.00	10.63	26.63
13.9	10,590	55.80	162.71	0.53	1.5363	10.43	3.60	54,847	2.30	10.66	26.35
13.91	10,610	55.76	162.89	0.53	1.5352	10.45	3.60	54,910	2.30	10.68	26.43
13.92	10,630	55.80	162.71	0.52	1.5307	10.47	3.60	54,973	2.30	10.70	26.15
13.93	10,670	55.66	162.53	0.52	1.5232	10.51	3.60	55,036	2.30	10.74	25.88
13.94	10,710	55.52	162.16	0.52	1.5141	10.55	3.60	55,098	2.30	10.78	25.41
13.95	10,720	55.80	161.25	0.52	1.5042	10.56	3.60	55,161	2.30	10.79	24.40
13.96	10,650	55.43	161.25	0.52	1.5141	10.49	3.60	55,224	2.30	10.72	24.30
13.97	10,490	54.97	161.8	0.52	1.5424	10.33	3.60	55,287	2.30	10.56	24.75
13.98	10,240	55.52	162.53	0.54	1.5872	10.08	3.60	55,350	2.30	10.31	25.39
13.99	10,000	55.99	162.71	0.56	1.6271	9.84	3.60	55,412	2.30	10.07	25.47
14	10,000	55.99	162.71	0.56	1.6271	9.84	3.60	55,475	2.30	10.07	25.37
14.01	10,000	55.99	162.71	0.56	1.6271	9.84	3.60	55,538	2.30	10.07	25.27
14.02	9,060	47.14	154.13	0.52	1.7012	8.91	3.60	55,601	2.30	9.12	16.59
14.03	9,340	47.98	153.94	0.51	1.6482	9.19	3.60	55,664	2.30	9.40	16.31
14.04	9,330	48.11	153.4	0.52	1.6482	9.18	3.60	55,726	2.30	9.40	16.31
14.05	9,330	49.74	152.86	0.53	1.6933	9.18	3.60	55,789	2.80	9.39	16.02
14.06	9,330	49.74	152.3	0.53	1.6324	9.18	3.60	55,852	2.80	9.39	14.37
14.07	9,330	49.74	152.3	0.53	1.6324	9.18	3.60	55,915	2.30	9.39	14.27
14.08	9,360	50.38	151.75	0.54	1.6213	9.21	3.60	55,978	2.30	9.42	13.63
14.09	9,410	50.38	151.57	0.54	1.6107	9.26	3.60	56,040	2.50	9.47	13.65
14.1	9,470	50.38	151.39	0.54	1.5986	9.30	3.60	56,103	2.50	9.53	13.07
14.11	9,570	50.62	151.21	0.53	1.5800	9.42	3.60	56,166	2.50	9.63	12.79
14.12	9,670	50.75	151.21	0.52	1.5637	9.52	3.60	56,229	2.50	9.73	12.69
14.13	9,850	51.45	151.21	0.52	1.5351	9.70	3.70	56,293	2.50	9.91	12.59
14.14	10,040	51.68	151.21	0.51	1.5061	9.89	3.70	56,356	2.50	10.10	12.50
14.15	10,340	51.82	151.21	0.50	1.4624	10.19	3.60	56,421	2.50	10.40	12.40
14.16	10,710	52.10	151.39	0.49	1.4135	10.56	3.60	56,483	2.50	10.77	12.48
14.17	10,710	52.10	151.39	0.49	1.4135	10.56	3.60	56,546	2.30	10.77	12.38
14.18	11,770	52.19	151.94	0.44	1.2909	11.62	3.60	56,609	2.30	11.83	12.83
14.19	11,770	52.19	151.94	0.44	1.2909	11.62	3.60	56,672	2.50	11.83	12.74
14.2	12,410	51.82	151.94	0.42	1.2243	12.26	3.60	56,734	2.50	12.65	11.84
14.21	13,130	51.73	152.3	0.39	1.1599	12.98	3.60	56,797	2.30	13.19	12.90
14.22	13,850	50.99	152.67	0.37	1.1023	13.70	3.70	56,862	2.30	13.91	13.17
14.23	14,550	50.71	152.85	0.35	1.0505	14.40	3.70	56,926	2.30	14.61	13.25
14.24	15,130	51.36	153.21	0.34	1.0126	14.98	3.70	56,991	2.30	15.19	13.52
14.25	15,930	53.21	153.13	0.31	0.9104	15.78	3.70	57,054	2.30	15.80	13.64
14.26	16,140	56.31	155.41	0.35	0.9629	15.98	3.70	57,120	2.00	16.21	15.52
14.27	16,300	59.37	157.41	0.36	0.9657	16.14	3.70	57,184	2.00	16.37	17.42

17-101.G_CPTU_Soarza

17-101.CPTU.S1_Monte

Pag. 21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.28	16,420	62.33	158.33	0.38	0.9643	16.26	3.70	57,249	2.00	16.49	18.24
14.29	16,600	64.46	158.51	0.39	0.9549	16.44	3.70	57,314	2.00	16.67	18.33
14.3	16,780	67.52	158.33	0.40	0.9436	16.62	3.70	57,378	2.00	16.85	18.05
14.31	17,050	70.25	158.88	0.41	0.9318	16.89	3.70	57,443	2.00	17.12	18.50
14.32	17,270	73.91	159.79	0.42	0.9084	17.11	3.70	57,507	2.00	17.34	19.52
14.33	17,310	76.55	160.52	0.44	0.9273	17.15	3.70	57,572	2.00	17.38	19.94
14.34	17,330	76.22	159.42	0.44	0.9199	17.17	3.70	57,636	2.00	17.40	18.74
14.35	17,260	79.19	156.87	0.46	0.9099	17.10	3.70	57,701	2.00	17.33	16.10
14.36	17,170	82.34	155.77	0.48	0.9072	17.01	3.70	57,765	2.00	17.24	14.90
14.37	17,110	86.27	155.59	0.49	0.9054	16.85	3.70	57,829	2.00	17.16	14.62
14.38	17,460	90.16	156.14	0.52	0.8943	17.30	3.70	57,894	2.00	17.53	15.07
14.39	17,840	89.33	155.41	0.50	0.8711	17.68	3.70	57,959	2.00	17.91	14.24
14.4	18,060	88.55	156.14	0.49	0.8646	17.90	3.70	58,023	2.00	18.13	14.88
14.41	18,510	91.37	156.32	0.49	0.8445	18.35	3.70	58,088	2.00	18.58	14.96
14.42	18,760	96.23	157.96	0.51	0.8403	18.60	3.70	58,152	2.00	18.83	16.50
14.43	18,980	89.01	157.78	0.47	0.8313	18.82	3.70	58,217	2.00	19.05	16.22
14.44	18,970	87.39	159.24	0.46	0.8394	18.81	3.70	58,282	2.00	19.04	17.58
14.45	18,950	86.55	160.15	0.46	0.8451	18.79	3.70	58,346	2.00	19.02	18.40
14.46	18,710	85.72	159.79	0.46	0.8540	18.55	3.70	58,411	2.00	18.78	17.94
14.47	18,540	85.03	167.28	0.57	0.1014	16.37	3.80	58,474	2.00	18.61	23.27
14.48	18,590	85.81	159.61	0.46	0.8596	18.43	3.70	58,540	2.00	18.66	17.56
14.49	18,220	87.66	160.34	0.48	0.8800	18.06	3.70	58,604	2.00	18.29	18.19
14.5	17,920	88.36	160.34	0.49	0.8948	17.76	3.70	58,669	2.00	17.99	18.10
14.51	17,300	89.56	159.97	0.51	0.9255	17.37	3.70	58,733	2.00	17.60	17.63
14.52	17,120	92.85	159.97	0.54	0.9311	17.02	3.70	58,798	2.30	17.52	17.53
14.53	16,990	96.93	159.61	0.57	0.9411	16.63	3.70	58,862	2.30	17.03	17.07
14.54	16,800	98.96	159.79	0.59	0.9511	16.44	3.70	58,927	2.00	16.87	17.15
14.55	16,710	102.39	160.52	0.61	0.9606	16.55	3.70	58,991	2.00	16.78	17.78
14.56	16,660	103.55	161.15	0.62	0.9679	16.50	3.70	59,056	2.00	16.73	18.42
14.57	16,590	103.13	161.66	0.62	0.9655	16.43	3.70	59,120	2.00	16.68	19.23
14.58	16,540	104.18	162.89	0.63	0.9648	16.38	3.70	59,185	2.00	16.63	19.91
14.59	16,490	104.66	163.62	0.63	0.9622	16.33	3.70	59,249	2.30	16.56	20.49
14.6	16,470	104.71	163.81	0.64	0.9946	16.31	3.70	59,314	2.00	16.54	20.58
14.61	16,420	104.75	164.17	0.64	0.9998	16.26	3.80	59,380	2.00	16.49	20.85
14.62	16,420	104.33	165.08	0.64	1.0054	16.25	3.80	59,447	2.30	16.49	21.66
14.63	16,390	103.62	165.66	0.63	1.0088	16.21	3.80	59,512	2.00	16.43	22.32
14.64	16,380	101.42	166	0.62	1.0134	16.25	3.80	59,579	2.00	16.45	22.88
14.65	16,410	99.75	166.18	0.61	1.0127	16.24	3.80	59,645	2.00	16.48	22.46
14.66	16,480	96.55	166.54	0.59	1.0106	16.31	3.80	59,712	2.00	16.55	22.73
14.67	16,500	96.81	166.91	0.59	1.0104	16.35	3.80	59,778	2.00	16.59	23.00
14.68	16,540	98.04	167.28	0.59	1.0148	16.31	3.80	59,843	2.00	16.63	23.27
14.69	16,570	94.33	167.64	0.57	1.0117	16.40	3.80	59,910	2.00	16.64	23.53
14.7	16,650	93.54	168.01	0.56	1.0091	16.48	3.80	59,975	2.00	16.72	23.80
14.71	16,680	93.50	168.19	0.56	1.0083	16.51	3.80	60,043	2.00	16.75	23.88
14.72	16,690	93.22	168.74	0.56	1.0110	16.52	3.80	60,109	2.00	16.76	24.34
14.73	16,690	93.22	168.74	0.56	1.0110	16.52	3.80	60,175	2.00	16.75	24.75
14.74	16,690	93.82	168.28	0.56	1.0143	16.52	3.80	60,242	2.00	16.76	24.68
14.75	16,790	93.68	169.65	0.56	1.0104	16.62	3.80	60,308	2.00	16.86	24.95
14.76	17,150	93.54	170.01	0.55	0.9913	16.98	3.80	60,374	2.00	17.22	25.21
14.77	17,340	93.22	170.75	0.54	0.9847	17.17	3.80	60,441	2.00	17.41	25.56
14.78	17,510	93.22	171.42	0.53	0.9808	17.39	3.80	60,507	2.00	17.59	25.89
14.79	17,580	93.13	171.48	0.53	0.9754	17.41	3.80	60,573	1.80	17.65	26.39
14.8	17,560	93.08	172.21	0.53	0.9807	17.39	3.80	60,640	1.80	17.63	27.02
14.81	17,440	93.08	172.75	0.53	0.9905	17.27	3.80	60,706	1.80	17.51	27.46
14.82	17,200	95.07	174.58	0.55	1.0150	17.03	3.80	60,772	2.00	17.27	29.20
14.83	17,030	95.37	175.07	0.56	1.0272	16.71	3.80	60,838	2.00	17.29	29.73
14.84	16,970	95.40	175.31	0.56	1.0331	16.79	3.80	60,905	1.80	17.04	29.23
14.85	16,780	95.72	175.13	0.57	1.0437	16.60	3.80	60,971	2.00	16.85	29.45
14.86	16,750	96.65	174.58	0.58	1.0386	16.40	3.80	61,037	2.00	16.64	28.80
14.87	16,330	96.65	174.03	0.59	1.0657	16.16	3.80	61,103	1.80	16.40	28.16
14.88	16,680	97.39	174.58	0.58	1.0522	16.11	3.80	61,169	2.00	16.70	28.75
14.89	15,280	97.53	174.04	0.64	1.1414	15.11	3.80	61,236	2.00	15.35	28.33
14.9	14,850	98.22	174.16	0.66	1.1768	14.68	3.80	61,302	2.00	14.92	28.59
14.91	14,660	97.99	175.63	0.67	1.1946	14.48	3.80	61,369	2.00	14.73	28.86
14.92	14,180	96.51	173.12	0.68	1.2209	14.01	3.80	61,435	2.00	14.25	26.75
14.93	13,580	96.97	172.71	0.71	1.2742	13.41	3.80	61,501	2.00	13.67	27.27
14.94	13,210	96.79	172.94	0.73	1.3092	13.04	3.80	61,567	2.00	13.28	26.38
14.95	12,740	94.19	172.94	0.74	1.3575	12.57	3.90	61,635	2.00	12.61	26.28
14.96	12,590	92.48	173.3	0.73	1.3765	12.42	3.90	61,703	2.00	12.66	26.54

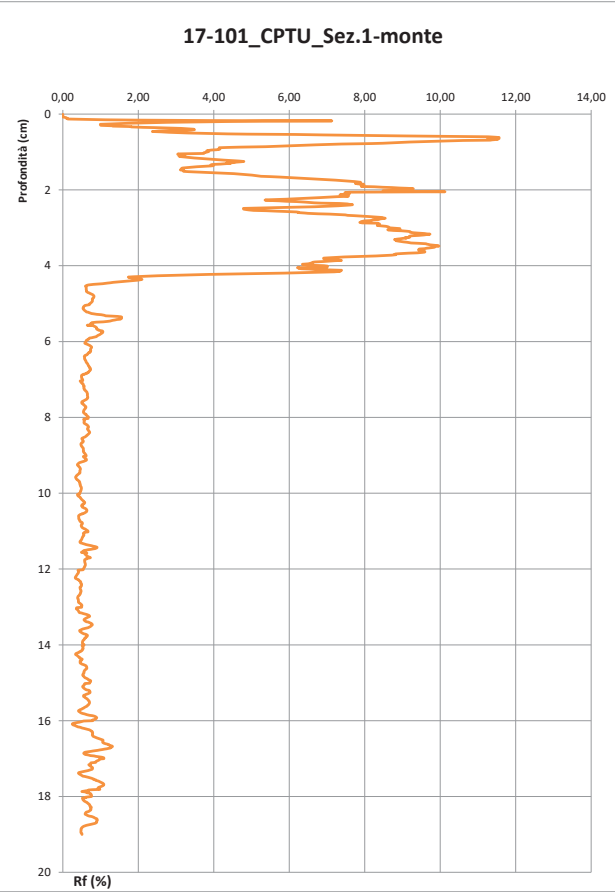
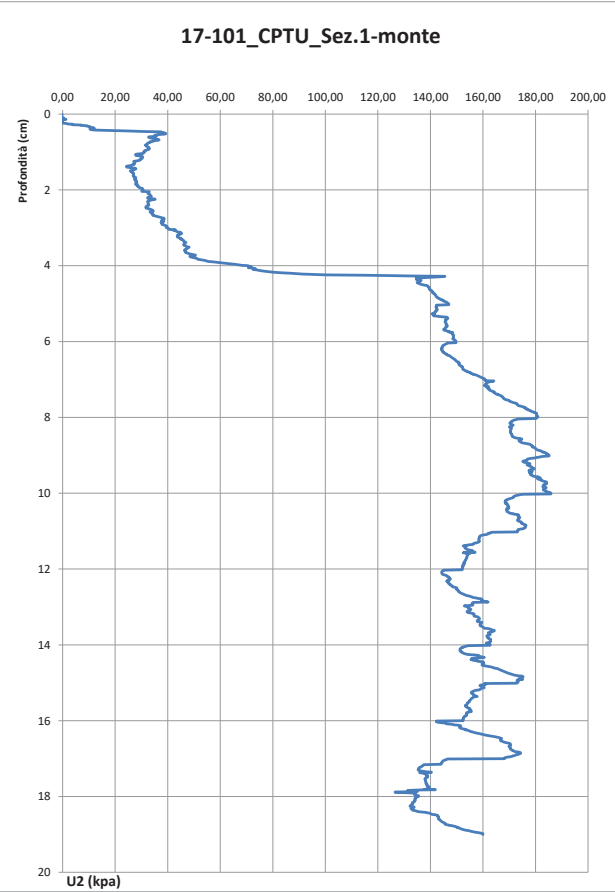
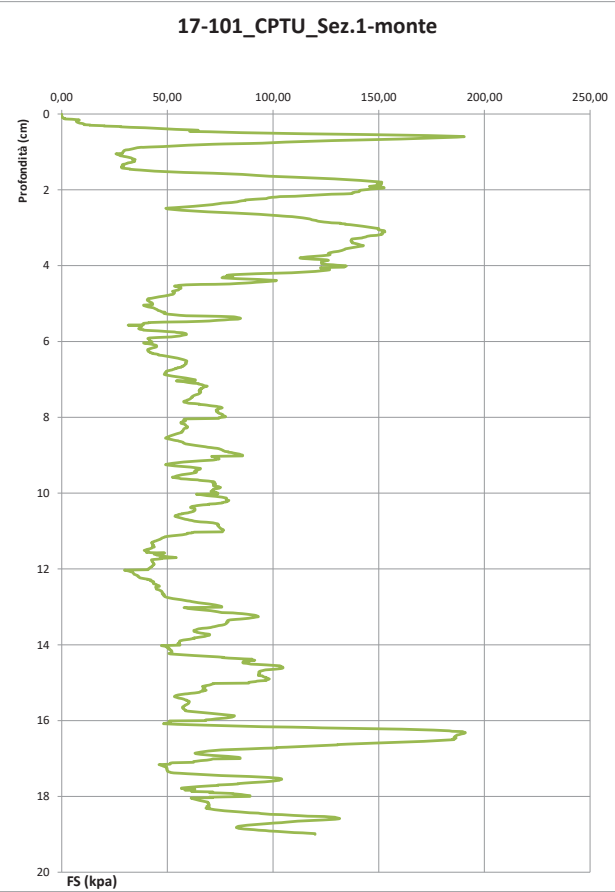
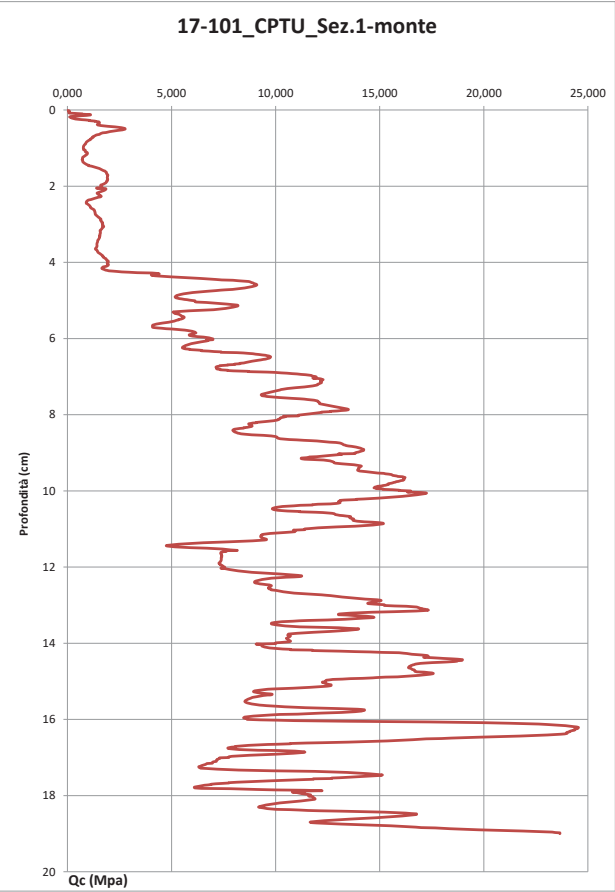
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
16.35	23.980	189.13	159.24	0.79	0.6641	23.82	4.30	71.581	1.80	24.05	-1.15
16.36	23.990	188.71	159.61	0.79	0.6653	23.83	4.30	71.656	2.00	24.06	-0.88
16.37	24.000	187.92	160.15	0.78	0.6673	23.84	4.30	71.731	2.00	24.07	-0.44
16.38	23.980	187.04	161.07	0.78	0.6742	23.73	4.30	71.806	2.00	23.96	0.38
16.39	23.700	186.81	162.16	0.79	0.6862	23.54	4.30	71.886	1.00	23.77	0.37
16.4	23.470	186.72	162.53	0.80	0.6925	23.31	4.30	71.955	2.00	23.54	1.65
16.41	23.180	186.07	163.26	0.80	0.7043	23.02	4.30	72.030	1.80	23.25	2.28
16.42	22.450	186.07	164.54	0.83	0.7329	22.29	4.30	72.105	1.80	22.52	3.46
16.43	22.020	185.63	165.08	0.84	0.7497	21.85	4.30	72.180	2.00	22.09	3.90
16.44	21.490	185.63	165.63	0.86	0.7707	21.32	4.30	72.255	2.00	21.56	4.14
16.45	20.880	186.16	166.18	0.89	0.7955	20.72	4.30	72.330	2.00	20.96	4.81
16.46	20.220	186.58	166.73	0.92	0.8246	20.05	4.30	72.405	2.00	20.29	5.26
16.47	19.590	186.12	167.09	0.95	0.8529	19.42	4.30	72.480	2.00	19.66	5.52
16.48	19.000	185.47	166.91	0.98	0.8785	18.83	4.30	72.555	2.00	19.07	5.24
16.49	18.440	184.96	166.91	1.02	0.9052	18.27	4.30	72.630	2.00	18.51	5.14
16.5	17.960	185.65	166.54	1.03	0.9273	17.79	4.30	72.705	2.00	18.03	4.67
16.51	17.230	183.29	166.54	1.06	0.9666	17.06	4.30	72.780	2.00	17.30	4.58
16.52	16.910	180.47	166.73	1.07	0.9808	16.74	4.30	72.855	2.00	16.98	4.67
16.53	16.650	176.95	166.73	1.06	1.0014	16.48	4.30	72.930	2.00	16.72	4.57
16.54	16.340	173.71	167.26	1.06	1.0237	16.14	4.30	73.005	2.00	16.41	4.02
16.55	16.010	169.40	167.46	1.06	1.0460	15.84	4.30	73.080	2.00	16.08	5.10
16.56	15.610	165.00	167.82	1.06	1.0751	15.44	4.30	73.155	2.00	15.68	5.37
16.57	15.140	160.14	168.37	1.06	1.1121	14.97	4.30	73.230	2.00	15.21	5.82
16.58	14.580	155.37	168.74	1.07	1.1573	14.41	4.30	73.305	2.00	14.65	6.09
16.59	13.850	150.09	169.65	1.08	1.2088	13.68	4.30	73.380	2.00	13.78	6.38
16.6	13.100	144.99	170.2	1.11	1.2692	12.93	4.30	73.455	2.00	13.17	7.35
16.61	12.240	140.09	170.38	1.14	1.3820	12.07	4.30	73.530	2.30	12.31	7.44
16.62	11.470	135.64	170.38	1.18	1.4854	11.30	4.30	73.605	2.30	11.54	7.34
16.63	10.720	130.64	170.56	1.22	1.5910	10.55	4.30	73.682	2.30	10.79	7.42
16.64	10.720	130.64	170.56	1.22	1.5910	10.55	4.30	73.758	2.50	10.79	7.32
16.65	10.070	125.73	170.56	1.25	1.6937	9.90	4.30	73.835	2.50	10.14	7.22
16.66	9.540	121.38	170.38	1.27	1.7860	9.37	4.30	73.912	2.50	9.61	6.95
16.67	9.110	118.78	170.01	1.30	1.8662	8.94	4.30	73.989	2.50	9.18	6.48
16.68	8.770	115.45	169.83	1.32	1.9365	8.60	4.30	74.064	2.50	8.84	6.20
16.69	8.520	111.28	170.01	1.31	1.9954	8.35	4.30	74.139	2.80	8.59	6.28
16.7	8.260	106.33	170.2	1.29	2.0605	8.09	4.30	74.214	2.80	8.33	6.37
16.71	8.070	101.74	170.38	1.26	2.1113	7.90	4.30	74.289	2.80	8.14	6.45
16.72	8.070	101.74	170.38	1.26	2.1113	7.90	4.30	74.363	2.30	8.14	6.36
16.73	7.880	95.81	170.56	1.22	2.1645	7.71	4.30	74.440	2.30	7.95	6.44
16.74	7.770	90.40	170.38	1.16	2.1928	7.60	4.30	74.517	2.50	7.84	6.16
16.75	7.700	85.12	170.56	1.11	2.2151	7.53	4.30	74.594	2.50	7.77	6.24
16.76	7.710	80.44	170.75	1.04	2.2147	7.54	4.30	74.670	2.50	7.78	6.33
16.77	7.810	76.97	170.93	0.99	2.1866	7.64	4.30	74.747	2.50	7.88	6.42
16.78	8.000	74.05	171.29	0.93	2.1411	7.83	4.30	74.824	2.50	8.07	6.68
16.79	8.300	71.78	171.29	0.86	2.0637	8.13	4.30	74.901	2.00	8.37	6.58
16.8	8.730	70.11	171.66	0.80	1.9663	8.56	4.30	74.977	2.00	8.67	6.85
16.81	9.270	68.21	172.02	0.74	1.8527	9.10	4.30	75.054	2.00	9.34	7.12
16.82	9.880	66.69	172.39	0.68	1.7448	9.71	4.30	75.131	2.00	9.95	7.39
16.83	10.890	65.20	173.85	0.60	1.5964	10.24	4.30	75.207	2.00	10.96	8.75
16.84	11.220	64.32	174.21	0.57	1.5527	11.05	4.50	75.286	2.00	11.29	9.01
16.85	11.370	63.72	174.4	0.56	1.5339	11.20	4.50	75.364	1.80	11.44	9.10
16.86	11.410	63.03	174.4	0.55	1.5285	11.24	4.50	75.443	1.80	11.48	9.09
16.87	11.260	63.40	174.03	0.56	1.5456	11.09	4.50	75.521	1.80	11.33	8.54
16.88	11.100	64.05	173.67	0.58	1.5646	10.93	4.50	75.600	1.80	11.17	8.08
16.89	10.920	65.20	173.3	0.60	1.5870	10.75	4.50	75.678	1.80	10.99	7.61
16.9	10.400	68.17	172.57	0.66	1.6953	10.23	4.50	75.757	1.80	10.47	6.78
16.91	10.100	69.63	172.39	0.69	1.7068	9.93	4.50	75.835	1.80	10.16	6.50
16.92	9.760	71.32	172.02	0.73	1.7625	9.59	4.50	75.914	1.80	9.83	6.03
16.93	9.110	75.48	171.29	0.83	1.8802	8.94	4.50	75.992	1.50	9.18	5.21
16.94	8.820	77.29	171.11	0.88	1.9400	8.65	4.50	76.070	1.50	8.89	4.93
16.95	8.530	79.42	170.56	0.93	1.9995	8.36	4.50	76.149	1.80	8.60	4.28
16.96	8.090	82.66	169.26	1.02	2.0925	7.92	4.50	76.225	1.50	8.05	3.45
16.97	7.910	83.82	168.74	1.06	2.1332	7.74	4.50	76.308	1.50	7.98	2.26
16.98	7.750	84.47	168.19	1.09	2.1702	7.58	4.50	76.384	1.50	7.82	1.62
16.99	7.750	84.47	168.19	1.09	2.1702	7.58	4.50	76.463	1.80	7.82	1.52
17	7.750	84.47	168.19	1.09	2.1702	7.58	4.50	76.541	3.80	7.82	1.42
17.1	7.310	75.99	163.46	1.06	2.2819	7.16	4.50	76.620	1.90	7.16	-0.41
17.02	7.320	71.04	146.27	0.97	1.9982	7.17	4.50	76.698	1.80	7.38	-20.70
17.03	7.280	70.34	145.73	0.97	1.9918	7.13	4.50	76.777	1.80	7.34	-21.33


17-101_G_CPTU_Soarza

17-101_CPTU.S1_Monte

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rr [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.04	7.240	69.23	145.73	0.96	2.0128	7.09	4.50	76.855	1.80	7.30	-21.43
17.05	7.190	66.96	145	0.93	2.0167	7.05	4.50	76.933	1.80	7.25	-22.26
17.06	7.190	65.39	144.81	0.91	2.0140	7.05	4.50	77.012	1.80	7.25	-22.55
17.07	7.160	63.81	144.63	0.89	2.0200	7.02	4.50	77.090	1.80	7.22	-22.83
17.08	7.150	62.38	144.45	0.87	2.0303	7.01	4.50	77.169	1.80	7.21	-23.10
17.09	7.150	62.38	144.45	0.87	2.0303	7.01	4.50	77.247	1.50	7.21	-23.20
17.1	7.150	62.38	144.45	0.87	2.0303	7.01	4.50	77.326	1.50	7.21	-23.30
17.11	7.040	52.42	144.27	0.74	2.0493	6.90	4.50	77.404	2.00	7.10	-23.58
17.12	6.990	51.50	144.08	0.74	2.0612	6.85	4.50	77.483	2.00	7.05	-23.87
17.13	6.970	49.64	143.87	0.71	2.0701	6.81	4.50	77.561	2.00	7.02	-24.01
17.14	6.960	51.31	144.08	0.74	2.0701	6.82	4.50	77.640	1.50	7.02	-24.06
17.15	6.960	51.31	144.08	0.74	2.0701	6.82	4.50	77.718	1.50	7.02	-24.16
17.16	6.700	46.03	137.51	0.69	2.0524	6.56	4.50	77.797	2.00	6.76	-30.83
17.17	6.670	46.59	137.33	0.70	2.0589	6.53	4.50	77.875	2.00	6.73	-31.11
17.18	6.630	47.05	137.14	0.71	2.0665	6.50	4.50	77.953	2.00	6.69	-31.40
17.19	6.580	47.79	137.14	0.73	2.0842	6.44	4.50	78.032	2.00	6.64	-31.49
17.2	6.520	48.02	136.78	0.74	2.0979	6.38	4.50	78.110	2.00	6.58	-31.95
17.21	6.470	48.58	136.6	0.75	2.1113	6.33	4.50	78.189	2.00	6.53	-32.23
17.22	6.410	49.04	136.41	0.77	2.1281	6.27	4.50	78.267	2.30	6.47	-32.52
17.23	6.370	49.64	136.24	0.78	2.1460	6.23	4.50	78.346	2.30	6.43	-33.16
17.24	6.310	49.78	135.68	0.79	2.1502	6.17	4.50	78.426	2.00	6.37	-33.44
17.25	6.310	49.78	135.68	0.79	2.1502	6.17	4.50	78.506	2.00	6.37	-33.54
17.26	6.320	49.74	135.5	0.79	2.1440	6.18	4.50	78.586	2.30	6.38	-33.82
17.27	6.390	49.92	135.5	0.78	2.1205	6.25	4.50	78.667	2.30	6.45	-33.92
17.28	6.390	49.92	135.5	0.78	2.1205	6.25	4.50	78.747	2.30	6.45	-34.02
17.29	6.680	49.69	135.32	0.74	2.0257	6.59	4.50	78.827	2.00	6.74	-34.25
17.3	6.930	49.74	135.32	0.72	1.9527	6.79	4.50	78.907	2.30	6.99	-34.36
17.31	7.270	48.87	135.68	0.69	1.8663	7.13	4.50	78.987	2.30	7.33	-34.13
17.32	7.730	50.01	136.23	0.65	1.7624	7.59	4.50	79.068	2.00	7.79	-33.69
17.33	8.340	50.01	136.78	0.60	1.6400	8.20	4.50	79.148	2.00	8.40	-33.23
17.34	9.210	50.15	136.78	0.54	1.4678	8.70	4.50	79.228	2.00	9.18	-32.73
17.35	10.120	50.75	138.97	0.50	1.3732	9.98	4.50	79.308	2.30	10.18	-31.23
17.36	11.140	51.31	140.43	0.46	1.2606	11.00	4.50	79.388	2.30	11.20	-29.87
17.37	12.090	51.34	135.87	0.43	1.1238	11.95	4.50	79.469	2.00	12.16	-34.41
17.38	12.870	53.07	136.78	0.41	1.0628	12.93	4.50	79.549	2.00	12.93	-32.37
17.39	13.610	56.03	137.07	0.41	1.0324	13.62	4.50	79.630	2.00	13.74	-31.84
17.4	13.780	59.46	137.87	0.43	1.0005	13.64	4.50	79.709	2.00	13.84	-32.82
17.41	14.070	62.42	138.06	0.44	0.9812	13.93	4.50	79.789	2.00	14.13	-32.77
17.42	14.330	66.36	138.06	0.46	0.9659	14.49	4.50	79.870	2.00	14.39	-32.47
17.43	14.580	69.83	138.79	0.46	0.9519	14.44	4.50	79.950	2.00	14.64	-32.20
17.44	14.810	73.63	138.79	0.50	0.9240	14.59	4.50	80.030	2.00	14.89	-31.93
17.45	14.980	76.97	138.79	0.51	0.9265	14.84	4.50	80.110	2.30	15.04	-32.35
17.46	15.130	79.70	138.42	0.53	0.9149	14.99	4.50	80.190	2.30	15.19	-32.46
17.47	15.040	87.15	138.97	0.58	0.9240	14.90	4.50	80.272	2.00	15.10	-32.41
17.48	14.760	91.28	139.87	0.62	0.9415	14.62	4.50	80.354	2.00	14.82	-32.58
17.49	14.560	95.03	139.87	0.65	0.9347	14.40	4.50	80.436	2.00	14.62	-32.81
17.5	14.100	98.27	138.6	0.70	0.9830	13.96	4.50	80.518	2.00	14.16	-33.05
17.51	13.770	100.82	138.24	0.73	1.0039	13.63	4.50	80.600	2.30	13.83	-33.53
17.52	13.420	102.53	138.06	0.76	1.0288	13.28	4.50	80.682	2.30	13.48	-33.81
17.53	13.070	103.83	137.87	0.79	1.0549	12.93	4.50	80.764	2.30	13.13	-34.10
17.54	12.640	104.06	137.87	0.82	1.0804	12.55	4.50	80.846	2.30	12.78	-34.39
17.55	12.690	104.06	137.87	0.82	1.0864	12.55	4.50	80.928	2.30	12.75	-34.34
17.56	11.810	103.08	138.06	0.87	1.1690	11.67	4.50	81.010	2.30	11.87	-34.20
17.57	11.810	103.08	138.06	0.87	1.1690	11.67	4.50	81.092	2.30	11.87	-34.30
17.58	11.360	101.88	138.06	0.90	1.2153	11.22	4.50	81.174	2.30	11.42	-34.64
17.59	10.990	100.91	138.06	0.92	1.2377	10.77	4.50	81.256	2.30	10.93	-35.03
17.6	10.390	99.47	138.24	0.96	1.3305	10.25	4.50	81.337	2.50	10.45	-34.42
17.61	9.900	97.25	138.24	0.98	1.3964	9.76	4.50	81.419	2.50	9.96	-34.61
17.62	9.430	94.15	138.24	1.00	1.4660	9.29	4.50	81.501	2.50	9.49	-34.81
17.63	8.970	91.37	138.24	1.02	1.5411	8.83	4.50	81.585	2.50	9.03	-34.77
17.64	8.540	88.87	138.24	1.04	1.6207	8.40	4.50	81.669	2.50	8.60	-34.93
17.65	8.140	86.18	138.24	1.06	1.6983	8.00	4.50	81.752	2.80	8.19	-35.04
17.66	7.760	83.59	138.6	1.08	1.7861	7.62	4.50	81.836	2.50	7.82	-34.64
17.67	7.760	83.59	138.6	1.08	1.7861	7.62	4.50	81.920	2.50	7.82	-34.74
17.68	7.400	80.62	138.79	1.09	1.8755	7.26	4.50	82.003	2.50	7.46	-34.68
17.69	7.190	77.34	138.79	1.09	1.9087	6.90	4.50	82.087	2.50	7.25	-35.00
17.7	7.900	73.86	138.6	1.07	2.0087	6.76	4.50	82.171	2.80	7.96	-35.04
17.71	6.900	73.86	138.6	1.07	2.0087	6.76	4.50	82.254	2.80	6.96	-35.04
17.72	6.720	70.62	138.79	1.05	2.0653	6.58	4.50	82.338	2.80	6.78	-35.14



Impresa esecutrice: 	
Committente: Nome: A.L.Po P. IVA / C.F.: Indirizzo: Ufficio di Piacenza Telefono: Tel. Fax: e-mail:	
Cantiero: PC-E-810	
Prova: Ubicazione: Soarza (PC) Quota assoluta [m]: Data: 28/02/2016 Q. inizio da Q. ass. [m]: Tipo prova: CPTU Preforo [m]: NO Codice Prova: 17-101_CPTU_Se2.2 Q.ta falda [m]: -8.50 Note: Sommità argine	
Il responsabile di sito: Dr. Geol. Stefano Verdini Il direttore tecnico: Dr. Geol. Enrico Fasani	

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0.01	0.000	0.00	0.00	0.00	0.0000	0.00	1.40	0.024	0.00	0.00	0.00
0.02	0.001	0.00	0.00	0.00	0.0000	0.00	1.40	0.049	1.80	0.00	0.00
0.03	0.001	0.00	0.00	0.00	0.0000	0.00	1.40	0.073	1.80	0.00	0.00
0.04	0.005	0.00	0.00	0.00	0.0000	0.00	1.40	0.098	1.50	0.01	0.00
0.05	0.020	0.00	0.00	0.00	0.0000	0.02	1.20	0.119	1.50	0.02	0.00
0.06	0.050	0.05	-0.18	0.10	-0.3600	0.05	1.30	0.141	1.50	0.05	-0.18
0.07	0.820	1.07	-4.57	0.13	-0.5573	0.82	1.20	0.162	1.50	0.82	-4.57
0.08	1.010	1.34	-5.66	0.13	-0.5604	1.02	1.20	0.183	1.50	1.01	-5.66
0.09	1.240	1.94	-7.67	0.16	-0.6185	1.25	1.20	0.204	1.50	1.24	-7.67
0.1	1.330	2.46	-6.94	0.18	-0.5218	1.34	0.60	0.215	1.30	1.33	-6.94
0.11	1.340	3.01	-7.30	0.22	-0.5448	1.35	0.80	0.229	1.30	1.34	-7.30
0.12	1.340	3.01	-7.30	0.22	-0.5448	1.35	0.80	0.243	1.80	1.34	-7.30
0.13	1.340	3.01	-7.30	0.22	-0.5448	1.35	0.80	0.257	0.30	1.34	-7.30
0.14	0.980	1.11	-5.48	0.12	-0.5708	0.97	1.80	0.290	0.30	0.98	-5.48
0.15	1.140	1.94	-6.76	0.17	-0.5930	1.15	1.90	0.323	1.50	1.14	-6.76
0.16	1.310	7.32	-5.66	0.56	-0.4321	1.32	1.80	0.354	1.50	1.31	-5.66
0.17	1.400	8.24	-1.46	0.59	-0.1043	1.40	1.80	0.386	1.50	1.40	-1.46
0.18	1.800	12.13	3.10	0.67	0.1722	1.80	1.90	0.419	1.30	1.80	3.10
0.19	1.770	12.23	-1.46	0.69	-0.0825	1.77	1.90	0.452	1.30	1.77	-1.46
0.2	2.120	13.29	0.55	0.63	0.0259	2.12	2.10	0.489	1.50	2.12	0.55
0.21	1.710	10.60	1.64	0.62	0.0959	1.71	2.10	0.525	1.50	1.71	1.64
0.22	1.940	9.96	-0.91	0.51	-0.0469	1.94	2.00	0.560	1.30	1.94	-0.91
0.23	2.000	9.12	1.83	0.46	0.0915	2.00	2.00	0.595	1.30	2.00	1.83
0.24	1.630	12.09	13.70	0.74	0.8405	1.62	2.10	0.632	1.50	1.64	13.70
0.25	1.570	11.25	13.15	0.61	0.3899	1.56	2.10	0.668	1.50	1.57	13.15
0.26	1.420	11.16	5.46	0.75	0.3859	1.41	1.70	0.705	1.30	1.42	5.46
0.27	1.580	10.84	5.11	0.69	0.3234	1.57	2.10	0.742	1.50	1.58	5.11
0.28	1.380	12.04	2.74	0.87	0.1986	1.38	2.10	0.778	1.30	1.38	2.74
0.29	1.030	13.24	-4.20	1.29	-0.4078	1.03	2.10	0.815	1.30	1.03	-4.20
0.3	1.060	14.63	-2.56	1.38	-0.2415	1.06	2.10	0.852	1.50	1.06	-2.56
0.31	1.040	20.98	-3.83	2.02	-0.3683	1.04	2.10	0.890	1.50	1.04	-3.83
0.32	1.070	22.88	-4.57	2.14	-0.4271	1.07	2.20	0.928	1.50	1.07	-4.57
0.33	1.100	26.44	-4.20	2.40	-0.3818	1.10	2.20	0.967	1.30	1.10	-4.20
0.34	1.120	28.43	-3.83	2.54	-0.3420	1.12	2.20	1.005	1.50	1.12	-3.83
0.35	1.160	31.54	-3.10	2.72	-0.2672	1.16	2.10	1.042	1.50	1.16	-3.10
0.36	1.090	57.75	6.94	4.22	0.6676	1.09	2.20	1.078	1.50	1.09	6.94
0.37	1.090	36.91	-1.83	3.39	-0.1679	1.09	2.10	1.115	1.30	1.09	-1.83
0.38	1.110	41.17	-1.28	3.71	-0.1153	1.11	2.20	1.153	1.50	1.11	-1.28
0.39	1.110	43.39	-1.10	3.91	-0.0991	1.11	2.20	1.192	1.50	1.11	-1.10
0.4	1.080	46.63	-1.10	4.32	-0.1019	1.08	2.10	1.228	1.30	1.08	-1.10
0.41	1.080	47.98	-1.26	4.44	-0.1185	1.08	2.10	1.265	1.50	1.08	-1.26
0.42	1.090	48.35	-0.91	4.44	-0.0835	1.09	2.20	1.304	1.50	1.09	-0.91
0.43	1.080	48.86	-0.91	4.52	-0.0843	1.08	2.20	1.342	1.50	1.08	-0.91
0.44	1.120	49.00	-0.55	4.38	-0.0491	1.12	2.20	1.380	1.30	1.12	-0.55
0.45	1.150	51.99	-0.55	4.49	-0.0478	1.15	2.20	1.419	1.50	1.15	-0.55
0.46	1.150	51.59	-0.37	4.49	-0.0322	1.15	2.20	1.457	1.50	1.15	-0.37
0.47	1.130	49.97	-0.37	4.42	-0.0327	1.13	2.20	1.495	1.30	1.13	-0.37

17-101_G_CPTU_Soarza

17-101_CPTU_S2

Pag. 1

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	R [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0.48	1.120	49.00	-0.18	4.38	-0.0161	1.12	2.20	1.534	1.50	1.12	-0.18
0.49	1.100	49.78	-0.18	4.53	-0.0164	1.10	2.20	1.572	1.50	1.10	-0.18
0.5	1.070	52.38	-0.18	4.90	-0.0168	1.07	2.20	1.611	1.50	1.07	-0.18
0.51	1.060	53.02	0.00	5.00	0.0000	1.06	2.20	1.649	1.30	1.06	0.00
0.52	1.060	53.86	-0.18	5.06	-0.0170	1.06	2.20	1.687	1.50	1.06	-0.18
0.53	1.070	54.69	-0.73	5.11	-0.0682	1.07	2.20	1.726	1.50	1.07	-0.73
0.54	1.090	57.10	-2.01	5.24	-0.1844	1.09	2.20	1.764	1.30	1.09	-2.01
0.55	1.110	57.93	-2.92	5.22	-0.2631	1.11	2.20	1.803	1.80	1.11	-2.92
0.56	1.130	57.33	-3.10	5.07	-0.2743	1.13	2.20	1.841	1.80	1.13	-3.10
0.57	1.150	56.57	-2.92	4.89	-0.2539	1.15	2.20	1.879	1.50	1.15	-2.92
0.58	1.170	54.97	-3.47	4.70	-0.2966	1.17	2.20	1.918	2.00	1.17	-3.47
0.59	1.220	54.00	-3.83	4.43	-0.3139	1.22	2.20	1.956	1.80	1.22	-3.83
0.6	1.250	54.14	-3.10	4.33	-0.2480	1.25	2.20	1.994	1.80	1.25	-3.10
0.61	1.270	54.14	-2.92	4.26	-0.2299	1.27	2.20	2.033	1.80	1.27	-2.92
0.62	1.300	53.58	-2.37	4.12	-0.1853	1.30	2.20	2.071	1.80	1.30	-2.37
0.63	1.350	52.33	-2.74	3.88	-0.2030	1.35	2.20	2.110	1.80	1.35	-2.74
0.64	1.410	49.23	-2.92	3.49	-0.2071	1.41	2.20	2.148	2.00	1.41	-2.92
0.65	1.400	48.39	-2.92	3.46	-0.2086	1.40	2.20	2.186	2.00	1.40	-2.92
0.66	1.390	47.70	-2.74	3.43	-0.1971	1.39	2.20	2.225	1.80	1.39	-2.74
0.67	1.340	47.88	-2.56	3.37	-0.1910	1.34	2.20	2.263	1.80	1.34	-2.56
0.68	1.280	48.25	-2.37	3.77	-0.1852	1.28	2.20	2.302	1.80	1.28	-2.37
0.69	1.170	50.06	-1.83	4.28	-0.1564	1.17	2.20	2.340	1.80	1.17	-1.83
0.7	1.120	50.43	-1.83	4.50	-0.1634	1.12	2.20	2.378	1.80	1.12	-1.83
0.71	1.090	50.43	-2.01	4.63	-0.1844	1.09	2.20	2.417	1.80	1.09	-2.01
0.72	1.060	50.38	-2.01	4.75	-0.1896	1.06	2.20	2.455	1.80	1.06	-2.01
0.73	1.020	50.57	-1.83	4.96	-0.1794	1.02	2.20	2.494	2.00	1.02	-1.83
0.74	1.000	50.52	-1.83	5.05	-0.1830	1.00	2.20	2.532	2.00	1.00	-1.83
0.75	0.980	50.66	-1.64	5.17	-0.1673	0.98	2.20	2.570	1.80	0.98	-1.64
0.76	0.970	51.45	-1.46	5.30	-0.1505	0.97	2.20	2.609	1.80	0.97	-1.46
0.77	0.950	52.14	-1.64	5.49	-0.1726	0.95	2.20	2.647	2.00	0.95	-1.64
0.78	0.940	54.00	-1.46	5.74	-0.1553	0.94	2.20	2.685	2.00	0.94	-1.46
0.79	0.950	54.55	-1.64	5.74	-0.1726	0.95	2.20	2.724	2.00	0.95	-1.64
0.8	0.990	52.05	-1.46	5.26	-0.1475	0.99	2.20	2.762	2.50	0.99	-1.46
0.81	0.990	52.05	-1.46	5.26	-0.1475	0.99	2.20	2.801	2.50	0.99	-1.46
0.82	1.010	49.97	-1.64	4.95	-0.1624	1.01	2.20	2.839	2.80	1.01	-1.64
0.83	1.010	49.78	-1.46	4.93	-0.1446	1.01	2.20	2.877	2.80	1.01	-1.46
0.84	1.010	49.50	-1.28	4.90	-0.1267	1.01	2.20	2.916	2.80	1.01	-1.28
0.85	1.020	51.82	-1.46	5.08	-0.1431	1.02	2.20	2.954	2.00	1.02	-1.46
0.86	1.030	55.43	-1.28	5.38	-0.1243	1.03	2.20	2.993	1.80	1.03	-1.28
0.87	1.040	58.44	-1.10	5.62	-0.1058	1.04	2.20	3.031	1.80	1.04	-1.10
0.88	1.040	62.84	-1.10	6.04	-0.1058	1.04	2.20	3.069	1.50	1.04	-1.10
0.89	1.060	64.32	-0.91	6.07	-0.0858	1.06	2.20	3.108	1.80	1.06	-0.91
0.9	1.060	65.53	-0.91	6.18	-0.0858	1.06	2.20	3.146	1.80	1.06	-0.91
0.91	1.080	69.97	-0.91	6.48	-0.0843	1.08	2.20	3.185	1.50	1.08	-0.91
0.92	1.100	72.01	-0.91	6.55	-0.0827	1.10	2.20	3.223	1.50	1.10	-0.91
0.93	1.110	74.79	-0.55	6.74	-0.0493	1.11	2.20	3.261	1.50	1.11	-0.55
0.94	1.080	77.94	-0.37	7.22	-0.0343	1.08	2.20	3.299	1.80	1.08	-0.37
0.95	1.060	79.37	-0.18	7.49	-0.0170	1.06	2.20	3.338	1.80	1.06	-0.18
0.96	1.030	80.16	-0.18	7.78	-0.0175	1.03	2.20	3.376	1.80	1.03	-0.18
0.97	0.980	81.41	0.37	8.31	0.0378	0.98	2.20	3.415	1.80	0.98	0.37
0.98	0.960	80.90	0.55	8.05	0.0573	0.96	2.20	3.453	1.50	0.96	0.55
0.99	0.920	79.61	0.37	8.65	0.0402	0.92	2.20	3.492	1.80	0.92	0.37
1	0.890	80.11	0.00	9.00	0.0000	0.89	2.20	3.530	1.80	0.89	0.00
1.01	0.870	80.67	0.18	9.27	0.0207	0.87	2.20	3.568	1.50	0.87	0.18
1.02	0.840	79.74	0.18	9.49	0.0214	0.84	2.20	3.607	1.80	0.84	0.18
1.03	0.830	79.29	0.18	9.59	0.0217	0.83	2.20	3.645	1.80	0.83	0.18
1.04	0.810	78.59	0.55	9.70	0.0679	0.81	2.20	3.684	1.50	0.81	0.55
1.05	0.800	76.04	0.91	9.51	0.1138	0.80	2.20	3.722	1.50	0.80	0.91
1.06	0.810	76.13	0.55	9.40	0.0799	0.81	2.20	3.760	1.50	0.81	0.55
1.07	0.810	76.13	0.55	9.40	0.0799	0.81	2.20	3.799	2.30	0.81	0.55
1.08	0.810	76.13	0.55	9.40	0.0799	0.81	2.20	3.837	2.30	0.81	0.55
1.09	0.880	74.19	-0.91	8.43	-0.1034	0.88	2.20	3.875	2.00	0.88	-0.91
1.1	0.880	74.19	-0.91	8.43	-0.1034	0.88	2.20	3.914	2.30	0.88	-0.91
1.11	0.890	71.08	-0.91	7.99	-0.1022	0.89	2.20	3.952	2.30	0.89	-0.91
1.12	0.880	68.72	-1.10	7.81	-0.1250	0.88	2.20	3.991	2.00	0.88	-1.10
1.13	0.870	67.73	-1.10	7.79	-0.1250	0.87	2.20	4.029	2.00	0.87	-1.10
1.14	0.860	67.33	-0.91	7.83	-0.1058	0.86	2.20	4.067	2.00	0.86	-0.91
1.15	0.860	66.81	-0.37	7.77	-0.0430	0.86	2.20	4.106	2.00	0.86	-0.37
1.16	0.860	65.78	-0.18	7.65	-0.0209	0.86	2.20	4.144	2.30	0.86	-0.18

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
2.55	3,120	148.47	12.97	4.76	0.4157	3.11	2.30	9,707	2.00	3.13	12.97
2.56	3,170	143.70	13.15	4.53	0.4148	3.16	2.30	9,747	2.00	3.18	13.15
2.57	3,190	142.40	12.97	4.46	0.4066	3.18	2.30	9,787	2.00	3.20	12.97
2.58	3,100	150.46	13.15	4.85	0.4262	3.09	2.30	9,827	2.00	3.11	13.15
2.59	3,000	158.94	13.51	5.27	0.4503	2.99	2.30	9,867	2.00	3.01	13.51
2.6	2,920	164.07	13.70	5.62	0.4692	2.91	2.30	9,907	2.00	2.93	13.70
2.61	2,840	168.24	14.06	5.92	0.4951	2.83	2.30	9,948	2.00	2.85	14.06
2.62	2,760	170.83	13.70	6.19	0.4964	2.75	2.30	9,988	2.00	2.77	13.70
2.63	2,740	171.16	13.33	6.25	0.4885	2.73	2.30	10,028	2.00	2.75	13.33
2.64	2,740	171.16	12.97	6.19	0.4599	2.73	2.30	10,068	2.00	2.75	12.97
2.65	2,740	171.76	12.05	6.27	0.4398	2.73	2.30	10,108	2.00	2.75	12.05
2.66	2,730	176.07	11.87	6.45	0.4348	2.72	2.30	10,148	2.00	2.73	11.87
2.67	2,650	181.39	11.69	6.84	0.4411	2.64	2.30	10,188	2.00	2.65	11.69
2.68	2,630	180.28	11.69	6.85	0.4445	2.62	2.30	10,228	2.00	2.63	11.69
2.69	2,640	179.38	11.69	6.76	0.4386	2.62	2.30	10,268	2.00	2.64	11.69
2.7	2,600	182.69	11.87	6.87	0.4462	2.65	2.30	10,309	2.00	2.66	11.87
2.71	2,680	180.79	12.24	6.75	0.4567	2.67	2.30	10,349	2.00	2.69	12.24
2.72	2,690	176.95	12.24	6.58	0.4505	2.68	2.30	10,389	1.80	2.70	12.24
2.73	2,710	176.62	12.42	6.52	0.4583	2.70	2.30	10,429	1.80	2.72	12.42
2.74	2,730	177.97	12.80	6.47	0.4615	2.72	2.30	10,469	2.00	2.74	12.80
2.75	2,680	182.87	12.78	6.82	0.4769	2.67	2.20	10,508	2.00	2.69	12.78
2.76	2,670	183.62	12.78	6.88	0.4787	2.66	2.20	10,548	2.00	2.68	12.78
2.77	2,650	182.46	12.78	6.89	0.4823	2.64	2.20	10,584	2.00	2.66	12.78
2.78	2,640	184.54	12.78	6.99	0.4841	2.63	2.20	10,625	2.00	2.65	12.78
2.79	2,610	187.14	12.97	7.17	0.4989	2.60	2.20	10,665	2.00	2.63	12.97
2.8	2,590	190.70	12.97	7.36	0.5008	2.58	2.20	10,705	2.00	2.60	12.97
2.81	2,580	193.53	13.33	7.50	0.5167	2.57	2.30	10,745	2.00	2.59	13.33
2.82	2,550	193.11	13.70	7.57	0.5373	2.54	2.20	10,783	2.00	2.56	13.70
2.83	2,450	196.49	13.51	8.02	0.5514	2.44	2.20	10,822	2.00	2.46	13.51
2.84	2,450	196.03	14.24	8.00	0.5912	2.44	2.20	10,860	1.80	2.46	14.24
2.85	2,430	194.50	14.06	8.00	0.5786	2.42	2.30	10,900	1.80	2.44	14.06
2.86	2,370	193.94	14.24	8.18	0.6108	2.36	2.30	10,940	1.80	2.38	14.24
2.87	2,340	193.25	14.24	8.26	0.6085	2.33	2.30	10,981	1.80	2.35	14.24
2.88	2,340	194.13	14.61	8.30	0.6244	2.33	2.30	11,021	2.00	2.35	14.61
2.89	2,330	196.17	15.16	8.53	0.6591	2.28	2.30	11,061	2.00	2.31	15.16
2.9	2,280	197.74	15.34	8.67	0.6728	2.26	2.30	11,101	2.00	2.29	15.34
2.91	2,280	199.64	14.97	8.76	0.6566	2.27	2.30	11,141	2.00	2.29	14.97
2.92	2,270	199.50	15.16	8.79	0.6678	2.25	2.30	11,181	1.80	2.28	15.16
2.93	2,250	200.33	14.97	8.90	0.6653	2.24	2.30	11,221	2.00	2.26	14.97
2.94	2,240	201.82	15.16	9.01	0.6768	2.22	2.30	11,262	2.00	2.25	15.16
2.95	2,240	202.79	14.97	9.05	0.6683	2.23	2.30	11,302	2.00	2.25	14.97
2.96	2,240	202.42	14.79	9.04	0.6603	2.23	2.30	11,342	2.00	2.25	14.79
2.97	2,230	202.00	14.97	9.06	0.6713	2.22	2.30	11,382	2.00	2.24	14.97
2.98	2,220	201.40	15.89	9.07	0.7158	2.20	2.30	11,422	2.00	2.23	15.89
2.99	2,220	202.65	16.44	9.21	0.7473	2.18	2.30	11,462	2.00	2.21	16.44
3	2,170	203.39	16.62	9.37	0.7659	2.15	2.30	11,502	2.00	2.17	16.62
3.01	2,160	203.79	16.62	9.30	0.7694	2.14	2.30	11,542	2.00	2.17	16.62
3.02	2,150	203.20	16.80	9.45	0.7814	2.13	2.30	11,583	2.00	2.16	16.80
3.03	2,160	203.62	16.98	9.43	0.7861	2.14	2.40	11,624	2.00	2.17	16.98
3.04	2,160	202.65	17.17	9.38	0.7949	2.14	2.40	11,666	2.00	2.17	17.17
3.05	2,140	201.85	17.35	9.44	0.8107	2.12	2.40	11,706	2.00	2.15	17.35
3.06	2,120	200.84	17.35	9.47	0.8184	2.10	2.40	11,750	2.00	2.13	17.35
3.07	2,120	200.84	17.35	9.47	0.8184	2.10	2.40	11,792	2.50	2.13	17.35
3.08	2,120	200.84	17.35	9.47	0.8184	2.10	2.40	11,834	2.00	2.13	17.35
3.09	2,090	192.51	18.26	9.21	0.8377	2.07	2.40	11,876	2.00	2.10	18.26
3.1	2,150	198.90	17.90	8.79	0.8232	2.13	2.40	11,918	2.00	2.16	17.90
3.11	2,150	197.71	18.08	8.87	0.8409	2.13	2.40	11,959	2.00	2.16	18.08
3.12	2,140	181.16	18.08	8.47	0.8449	2.12	2.40	12,001	1.80	2.15	18.08
3.13	2,150	178.34	18.08	8.29	0.8409	2.13	2.40	12,043	1.80	2.16	18.08
3.14	2,150	177.27	18.08	8.25	0.8409	2.13	2.40	12,085	2.00	2.16	18.08
3.15	2,150	177.27	18.08	8.25	0.8409	2.13	2.40	12,127	2.00	2.16	18.08
3.16	2,150	178.49	18.08	8.36	0.8426	2.13	2.40	12,169	2.00	2.16	18.08
3.17	2,130	181.90	17.90	8.54	0.8404	2.11	2.40	12,211	2.00	2.14	17.90
3.18	2,130	183.99	18.08	8.64	0.8488	2.11	2.40	12,253	2.00	2.14	18.08
3.19	2,130	185.61	18.08	8.71	0.8488	2.11	2.40	12,294	2.00	2.14	18.08
3.2	2,130	186.67	18.08	8.76	0.8488	2.11	2.40	12,336	2.00	2.14	18.08
3.21	2,100	182.63	17.71	8.51	0.8533	2.08	2.40	12,378	2.00	2.11	17.71
3.22	2,100	186.44	17.71	8.88	0.8433	2.08	2.40	12,420	2.00	2.11	17.71
3.23	2,100	185.75	17.71	8.85	0.8433	2.08	2.40	12,462	2.00	2.11	17.71

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
3.24	2090	185.24	17.53	8.86	0.8388	2.07	2.40	12,504	2.00	2.10	17.53
3.25	2090	184.03	17.53	8.81	0.8388	2.07	2.40	12,546	2.00	2.10	17.53
3.26	2100	183.57	17.53	8.74	0.8348	2.08	2.50	12,589	2.00	2.11	17.53
3.27	2130	183.48	17.35	8.61	0.8146	2.11	2.50	12,633	2.00	2.14	17.35
3.28	2130	183.34	17.53	8.61	0.8483	2.11	2.50	12,677	2.00	2.14	17.53
3.29	2130	184.36	17.53	8.66	0.8230	2.11	2.50	12,720	2.00	2.14	17.53
3.3	2160	184.73	17.71	8.55	0.8199	2.14	2.50	12,764	2.00	2.17	17.71
3.31	2150	183.11	17.90	8.52	0.8326	2.13	2.50	12,807	2.00	2.16	17.90
3.32	2130	182.74	17.90	8.58	0.8404	2.11	2.50	12,851	2.00	2.14	17.90
3.33	2110	181.62	17.90	8.61	0.8483	2.09	2.50	12,895	2.00	2.13	17.90
3.34	2130	180.51	17.71	8.47	0.8315	2.11	2.50	12,938	2.00	2.14	17.71
3.35	2120	178.15	17.90	8.40	0.8443	2.10	2.50	12,982	2.00	2.13	17.90
3.36	2110	177.55	17.90	8.41	0.8483	2.09	2.50	13,026	2.00	2.12	17.90
3.37	2110	177.73	18.08	8.42	0.8569	2.09	2.50	13,069	2.00	2.12	18.08
3.38	2120	176.99	18.08	8.35	0.8528	2.16	2.50	13,111	2.00	2.13	18.08
3.39	2120	176.02	17.90	8.30	0.8443	2.10	2.50	13,156	2.00	2.13	17.90
3.4	2080	175.97	17.90	8.46	0.8606	2.06	2.50	13,200	2.00	2.09	17.90
3.41	2050	177.41	18.08	8.65	0.8820	2.03	2.50	13,244	2.00	2.07	18.08
3.42	2060	178.01	18.08	8.64	0.8777	2.04	2.50	13,287	2.00	2.08	18.08
3.43	2020	178.75	18.44	8.85	0.9129	2.00	2.50	13,331	2.00	2.03	18.44
3.44	2010	178.80	18.63	8.90	0.9269	1.99	2.50	13,374	2.00	2.02	18.63
3.45	2000	177.60	18.81	8.88	0.9405	1.98	2.50	13,418	2.00	2.01	18.81
3.46	1980	178.24	18.63	9.00	0.9409	1.96	2.50	13,462	2.00	1.99	18.63
3.47	1980	177.64	18.81	8.97	0.9509	1.96	2.50	13,505	2.00	1.99	18.81
3.48	1960	177.69	18.81	8.97	0.9587	1.94	2.50	13,549	2.00	1.97	18.81
3.49	1940	177.46	18.99	9.15	0.9789	1.92	2.50	13,593	2.00	1.95	18.99
3.5	1940	177.09	19.17	9.13	0.9881	1.92	2.50	13,636	2.00	1.95	19.17
3.51	1950	175.70	19.36	9.01	0.9928	1.93	2.50	13,680	2.00	1.96	19.36
3.52	1950	171.85	19.36	8.81	0.9928	1.93	2.50	13,723	2.00	1.96	19.36
3.53	1960	170.72	19.36	8.68	0.9928	1.94	2.50	13,767	2.00	1.97	19.36
3.54	2000	169.31	19.54	8.47	0.9770	1.98	2.50	13,811	2.00	2.01	19.54
3.55	1950	167.69	19.72	8.60	1.0113	1.93	2.50	13,854	2.00	1.96	19.72
3.56	1930	166.44	19.17	8.62	0.9933	1.90	2.50	13,898	2.00	1.94	19.17
3.57	1930	166.28	19.17	8.56	0.9933	1.91	2.50	13,942	2.00	1.94	19.17
3.58	1960	165.89	19.36	8.39	0.9928	1.96	2.50	13,985	2.00	1.96	19.36
3.59	1990	162.55	19.54	8.17	0.9819	1.97	2.50	14,029	2.00	2.00	19.54
3.6	2030	161.16	19.74	7.94	0.9626	2.01	2.50	14,072	1.80	2.04	19.54
3.61	2070	160.55	19.54	7.76	0.9440	2.05	2.50	14,116	1.80	2.08	19.54
3.62	2130	159.03	19.36	7.47	0.9089	2.11	2.50	14,160	2.30	2.14	19.36
3.63	2280	156.69	19.36	6.85	0.8989	2.26	2.60	14,205	2.30	2.29	19.36
3.64	2370	155.27	18.63	6.55	0.8688	2.35	2.60	14,250	2.60	2.38	18.63
3.65	2410	154.95	19.54	6.43	0.8106	2.39	2.60	14,296	1.80	2.42	19.54
3.66	2510	153.47	20.09	6.11	0.8004	2.49	2.50	14,339	2.00	2.52	20.09
3.67	2540	151.43	21.37	5.96	0.8413	2.52	2.50	14,383	2.00	2.55	21.37
3.68	2500	148.65	21.18	5.95	0.8472	2.48	2.60	14,428	2.00	2.51	21.18
3.69	2530	148.65	21.18	5.95	0.8472	2.48	2.60	14,474	2.00	2.51	21.18
3.7	3180	141.80	16.80	4.46	0.5283	3.16	2.60	14,519	2.00	3.19	16.80
3.71	3030	135.04	21.73	4.46	0.7172	3.01	2.60	14,564	2.00	3.04	21.73
3.72	3180	137.45	23.37	4.32	0.7349	3.16	2.60	14,610	2.00	3.19	23.37
3.73	3280	136.20	22.11	4.15	0.6880	3.26	2.60	14,655	2.00	3.29	22.11
3.74	3420	135.04	23.37	3.91	0.5686	3.38	2.60	14,700	1.80	3.40	23.37
3.75	3590	132.44	18.63	3.69	0.5200	3.57	2.60	14,746	1.80	3.60	18.63
3.76	3720	134.44	17.17	3.61	0.4616	3.70	2.60	14,791	1.80	3.73	17.17
3.77	3920	129.67	16.63	3.31	0.4753	3.90	2.60	14,837	1.80	3.93	16.63
3.78	3930	127.72	16.26	3.25	0.4646	3.91	2.60	14,882	2.00	3.94	16.26
3.79	4210	126.10	16.80	3.44	0.4600	3.44	2.60	14,927	2.00	3.94	16.80
3.8	3730	123.14	22.36	3.30	0.6316	3.71	2.60	14,973	2.00	3.74	22.36
3.81	3670	125.45	23.92	3.42	0.6518	3.65	2.60	15,018	2.00	3.68	23.92
3.82	3600	125.08	27.94	3.47	0.7781	3.57	2.60	15,063	2.00	3.61	27.94
3.83	3590	125.27	31.59	3.49	0.8799	3.56	2.60	15,109	2.00	3.60	31.59
3.84	3580	125.91	31.59	3.47	0.8799	3.55	2.60	15,154	2.00	3.59	31.59
3.85	3540	126.05	30.68	3.56	0.8661	3.51	2.60	15,199	2.00	3.55	30.68
3.86	3550	125.91	29.95	3.55	0.8437	3.52	2.70	15,247	2.00	3.56	29.95
3.87	3460	123.46	29.40	3.57	0.8497	3.43	2.70	15,294	2.00	3.47	29.40
3.88	3440	124.66	29.58	3.67	0.9000	3.37	2.70	15,341	2.00	3.41	29.58
3.89	3310	124.66	29.58	3.76	0.9000	3.37	2.70	15,388	2.00	3.41	29.58
3.9	3080	126.93	29.58	4.12	0.6674	3.60	2.60	15,433	2.00	3.09	29.58
3.91	2970	133.09	29.95	4.48	1.0084	2.94	2.60	15,479	2.00	2.89	29.95
3.92	2880	139.16	30.31	4.83	1.0224	2.85	2.60	15,524	2.00	2.89	30.31

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
5.31	9,770	49.46	38.90	0.51	0.3982	9.73	3.00	22.542	1.80	9.79	38.90
5.32	9,960	51.40	39.44	0.50	0.3960	9.92	3.00	22.595	1.80	9.98	39.44
5.33	10,100	53.86	38.90	0.53	0.3851	10.06	3.00	22.647	2.00	10.12	38.90
5.34	10,250	55.99	38.35	0.55	0.3741	10.21	3.00	22.699	2.00	10.27	38.35
5.35	10,220	56.42	39.08	0.56	0.3824	10.18	3.00	22.752	2.00	10.34	39.08
5.36	10,140	58.53	39.44	0.58	0.3890	10.10	3.00	22.804	1.80	10.16	39.44
5.37	10,010	59.74	39.99	0.60	0.3995	9.97	3.00	22.856	1.80	10.03	39.99
5.38	9,870	61.22	40.36	0.62	0.4099	9.83	3.00	22.909	1.80	9.89	40.36
5.39	9,750	62.70	39.99	0.64	0.4102	9.71	3.00	22.961	2.00	9.77	39.99
5.4	9,610	63.91	39.81	0.66	0.4143	9.57	3.00	23.013	2.00	9.83	39.81
5.41	9,480	64.23	39.81	0.68	0.4199	9.44	3.00	23.066	2.00	9.50	39.81
5.42	9,390	64.14	40.54	0.68	0.4317	9.35	3.00	23.118	2.00	9.41	40.54
5.43	9,310	63.91	40.72	0.69	0.4374	9.27	3.00	23.170	2.00	9.33	40.72
5.44	9,230	64.09	41.09	0.69	0.4452	9.19	3.00	23.223	2.00	9.25	41.09
5.45	9,180	64.42	42.07	0.70	0.4696	9.04	3.00	23.275	2.00	9.25	42.07
5.46	9,160	64.37	41.27	0.70	0.4505	9.12	3.00	23.327	1.80	9.18	41.27
5.47	9,150	64.14	41.27	0.70	0.4510	9.11	3.00	23.380	1.80	9.17	41.27
5.48	9,120	63.72	41.27	0.69	0.4481	9.17	3.00	23.434	2.00	9.23	41.27
5.49	9,250	63.03	41.27	0.67	0.4367	9.41	3.00	23.488	2.00	9.47	41.27
5.5	9,370	62.75	42.07	0.68	0.4317	9.69	3.00	23.542	2.00	9.59	42.07
5.51	9,750	61.73	41.64	0.63	0.4271	9.71	3.00	23.596	2.00	9.77	41.64
5.52	9,880	61.17	41.64	0.62	0.4215	9.84	3.00	23.650	1.80	9.90	41.64
5.53	9,950	59.18	41.64	0.59	0.4185	9.91	3.00	23.704	1.80	9.97	41.64
5.54	9,970	58.53	41.45	0.59	0.4157	9.93	3.00	23.758	2.00	9.99	41.45
5.55	9,900	57.89	41.45	0.57	0.4086	9.86	3.00	23.812	2.00	9.95	41.45
5.56	9,820	57.79	41.45	0.56	0.4221	9.78	3.00	23.867	2.00	9.84	41.45
5.57	9,760	57.65	41.45	0.58	0.4247	9.72	3.00	23.921	2.00	9.78	41.45
5.58	9,750	56.82	41.64	0.58	0.4271	9.71	3.00	23.975	2.00	9.77	41.64
5.59	9,710	56.40	41.82	0.58	0.4307	9.67	3.00	24.029	2.00	9.73	41.82
5.6	9,720	56.87	42.00	0.59	0.4321	9.68	3.00	24.083	2.00	9.74	42.00
5.61	9,730	56.87	42.00	0.58	0.4317	9.69	3.00	24.137	2.00	9.75	42.00
5.62	9,750	57.47	42.18	0.59	0.4326	9.71	3.00	24.191	2.00	9.77	42.18
5.63	9,820	57.93	42.18	0.59	0.4295	9.78	3.00	24.245	2.00	9.84	42.18
5.64	9,930	58.49	42.55	0.59	0.4285	9.89	3.00	24.299	1.80	9.95	42.55
5.65	9,970	58.67	42.37	0.59	0.4250	9.93	3.00	24.353	1.80	9.99	42.37
5.66	9,980	58.77	42.37	0.59	0.4245	9.94	3.00	24.407	2.00	10.00	42.37
5.67	9,990	58.86	42.37	0.59	0.4241	9.95	3.00	24.461	2.00	10.01	42.37
5.68	10,050	58.67	42.18	0.58	0.4197	10.01	3.00	24.515	1.80	10.07	42.18
5.69	10,140	58.44	42.37	0.58	0.4179	10.10	3.00	24.570	2.00	10.16	42.37
5.7	10,270	59.69	42.73	0.58	0.4161	10.23	3.00	24.624	2.00	10.29	42.73
5.71	10,300	61.45	43.10	0.60	0.4184	10.26	3.00	24.678	1.80	10.32	43.10
5.72	10,250	61.73	43.28	0.60	0.4222	10.21	3.00	24.732	1.80	10.27	43.28
5.73	10,210	61.27	43.28	0.60	0.4239	10.17	3.00	24.786	2.00	10.23	43.28
5.74	10,130	61.96	43.83	0.61	0.4327	10.09	3.00	24.840	2.00	10.15	43.83
5.75	10,030	62.19	44.01	0.62	0.4388	9.99	3.00	24.894	2.00	10.05	44.01
5.76	9,950	60.20	44.56	0.63	0.4642	9.96	3.00	24.948	2.00	9.98	44.56
5.77	9,300	59.76	45.47	0.62	0.4889	9.25	3.00	25.002	1.80	9.32	45.47
5.78	9,070	60.25	45.11	0.66	0.4974	9.02	3.00	25.056	1.80	9.09	45.11
5.79	8,900	59.41	45.29	0.67	0.5089	8.85	3.00	25.110	2.00	8.92	45.29
5.8	8,810	59.74	45.29	0.68	0.5143	8.76	3.00	25.164	2.00	8.83	45.29
5.81	8,760	58.86	45.29	0.67	0.5170	8.71	3.00	25.219	2.00	8.78	45.29
5.82	8,740	58.86	45.29	0.67	0.5203	8.69	3.00	25.273	2.00	8.75	45.29
5.83	8,880	56.73	45.29	0.64	0.5100	8.83	3.00	25.327	1.80	8.90	45.29
5.84	9,050	55.94	45.29	0.62	0.5004	9.00	3.00	25.382	1.80	8.97	45.29
5.85	9,240	55.39	45.29	0.60	0.4902	9.19	3.00	25.438	1.80	9.26	45.29
5.86	9,500	55.06	45.29	0.58	0.4767	9.45	3.00	25.494	1.80	9.52	45.29
5.87	9,760	54.71	45.29	0.56	0.4642	9.71	3.00	25.550	1.80	9.68	45.29
5.88	10,010	54.51	45.29	0.54	0.4524	9.96	3.00	25.606	2.00	10.03	45.29
5.89	10,560	53.58	45.11	0.51	0.4272	10.51	3.00	25.662	2.00	10.58	45.11
5.9	10,790	53.67	45.11	0.48	0.4181	10.74	3.00	25.717	1.80	10.81	45.11
5.91	10,860	51.77	45.47	0.48	0.4187	10.81	3.00	25.773	1.80	10.88	45.47
5.92	10,870	52.75	46.02	0.48	0.4234	10.82	3.00	25.829	1.80	10.93	46.02
5.93	10,810	52.05	46.02	0.48	0.4257	10.76	3.00	25.885	1.80	10.83	46.02
5.94	10,810	52.24	46.02	0.48	0.4223	10.76	3.00	25.941	2.00	10.83	46.02
5.95	10,980	52.14	46.02	0.47	0.4191	10.93	3.00	25.997	2.00	11.00	46.02
5.96	11,170	51.87	46.02	0.46	0.4120	11.12	3.00	26.052	1.80	11.19	46.02
5.97	11,360	53.26	46.02	0.45	0.4051	11.31	3.00	26.108	1.80	11.36	46.02
5.98	11,530	52.94	46.02	0.46	0.4007	11.48	3.00	26.164	1.80	11.55	46.02
5.99	11,910	53.49	46.02	0.45	0.3864	11.86	3.00	26.220	2.00	11.93	46.02

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Pag. 9

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
6	12,110	53.76	46.20	0.44	0.3815	12.06	3.20	26.276	2.00	12.13	46.20
6.01	12,330	53.90	45.84	0.44	0.3718	12.28	3.20	26.331	1.80	12.35	45.84
6.02	12,550	53.63	45.65	0.43	0.3637	12.50	3.20	26.387	1.80	12.57	45.65
6.03	12,730	54.60	45.65	0.43	0.3586	12.68	3.20	26.443	1.80	12.75	45.65
6.04	13,000	56.36	45.84	0.43	0.3527	12.95	3.20	26.499	1.80	13.02	45.84
6.05	13,060	56.64	45.84	0.43	0.3510	13.01	3.20	26.555	1.80	13.08	45.84
6.06	13,060	56.64	45.84	0.43	0.3510	13.01	3.20	26.611	0.80	13.08	45.84
6.07	13,060	56.64	45.84	0.43	0.3510	13.01	3.20	26.666	2.00	13.08	45.84
6.08	12,570	47.47	49.85	0.38	0.3966	12.52	3.20	26.722	1.80	12.59	49.85
6.09	12,900	49.74	49.31	0.39	0.3845	12.77	3.20	26.778	1.80	12.84	49.31
6.1	13,050	56.03	49.49	0.43	0.3792	13.00	3.20	26.834	2.00	13.07	49.49
6.11	13,090	59.04	49.49	0.45	0.3781	13.04	3.20	26.890	2.00	13.11	49.49
6.12	13,030	63.17	49.67	0.48	0.3812	12.98	3.20	26.945	1.50	13.05	49.67
6.13	12,960	66.82	49.67	0.52	0.3833	12.91	3.20	27.001	1.50	12.98	49.67
6.14	12,770	70.25	49.76	0.55	0.3918	12.72	3.20	27.057	1.80	12.79	49.76
6.15	12,690	71.78	49.84	0.57	0.3857	12.64	3.20	27.113	2.00	12.71	49.84
6.16	12,600	73.40	49.85	0.58	0.3956	12.55	3.20	27.169	2.00	12.62	49.85
6.17	12,450	74.65	50.58	0.60	0.4063	12.40	3.20	27.225	1.80	12.47	50.58
6.18	12,260	76.04	50.40	0.62	0.4111	12.21	3.20	27.280	1.80	12.28	50.40
6.19	12,060	76.93	50.40	0.64	0.4226	12.01	3.20	27.336	2.00	12.08	50.40
6.2	11,740	78.08	50.40	0.67	0.4293	11.69	3.20	27.392	2.00	11.76	50.40
6.21	11,690	78.86	50.40	0.67	0.4311	11.64	3.20	27.448	2.00	11.71	50.40
6.22	11,690	79.51	50.40	0.68	0.4311	11.64	3.20	27.504	2.00	11.71	50.40
6.23	11,750	78.63	50.40	0.67	0.4289	11.70	3.20	27.561	2.00	11.77	50.40
6.24	11,900	78.63	50.22	0.66	0.4260	11.85	3.20	27.619	2.00	11.92	50.22
6.25	12,090	77.85	50.04	0.64	0.4142	12.03	3.20	27.676	1.80	12.10	50.04
6.26	12,340	76.83	49.85	0.62	0.4040	12.29	3.20	27.734	1.80	12.36	49.85
6.27	12,590	75.90	49.67	0.60	0.3945	12.54	3.30	27.792	2.00	12.61	49.67
6.28	12,930	74.00	49.85	0.57	0.3855	12.88	3.30	27.849	2.00	12.95	49.85
6.29	12,980	73.82	49.87	0.57	0.3827	12.93	3.30	27.907	2.00	13.00	49.87
6.3	13,030	73.03	49.87	0.58	0.3818	12.98	3.30	27.964	2.00	13.07	49.87
6.31	13,020	73.28	49.85	0.56	0.3835	12.95	3.30	28.022	2.00	13.02	49.85
6.32	12,900	71.46	49.85	0.55	0.3864	12.85	3.30	28.079	2.00	12.92	49.85
6.33	12,740	71.59	50.22	0.56	0.3942	12.69	3.30	28.137	2.00	12.76	50.22
6.34	12,460	72.20	50.58	0.58	0.4059	12.41	3.30	28.194	2.00	12.48	50.58
6.35	12,220	72.29	51.13	0.57	0.4222	12.19	3.30	28.252	2.00	12.12	51.13
6.36	11,650	72.89	53.31	0.63	0.4404	11.60	3.30	28.310	1.80	11.67	53.31
6.37	11,000	74.23	51.31	0.67	0.4665	10.95	3.30	28.367	2.30	11.02	51.31
6.38	11,000	74.23	51.31	0.67	0.4665	10.95	3.30	28.425	2.30	11.02	51.31
6.39	10,620	74.97	51.68	0.71	0.4866	10.57	3.30	28.482	2.00	10.64	51.68
6.4	10,340	74.65	51.50	0.71	0.4905	10.46	3.30	28.540	2.00	10.39	51.50
6.41	10,370	74.60	51.68	0.72	0.4984	10.32	3.40	28.599	2.00	10.39	51.68
6.42	10,200	73.96	52.05	0.73	0.5103	10.15	3.40	28.658	2.00	10.22	52.05
6.43	10,010	73.49	52.41	0.73	0.5236	9.96	3.40	28.718	2.00	10.03	52.41
6.44	9,760	73.54	53.32	0.75	0.5463	9.71	3.40	28.777	2.00	9.78	53.32
6.45	9,510	73.08	53.87	0.78	0.5774	9.46	3.40	28.836	2.00	9.56	53.87
6.46	9,330	72.47	53.87	0.78	0.5774	9.28	3.30	28.892	2.00	9.35	53.87
6.47	9,190	72.06	53.87	0.78	0.5862	9.14	3.30	28.950	2.30	9.21	53.87
6.48	9,100	71.50	53.87	0.79	0.5920	9.05	3.30	29.007	2.30	9.12	53.87
6.49	9,070	70.62	53.87	0.78	0.5959	9.02	3.40	29.067	2.00	9.09	53.87
6.5	9,070	69.65	54.05	0.77	0.5999	8.92	3.40	29.125	2.00	9.09	54.05
6.51	9,150	68.35	53.85	0.75	0.5889	9.10	3.20	29.184	2.00	9.17	53.85
6.52	9,280	67.57	53.87	0.73	0.5805	9.23	3.30	29.241	2.00	9.30	53.87
6.53	9,680	66.08	53.87	0.68	0.5565	9.63	3.40	29.300	2.00	9.70	53.87
6.54	9,970	65.34	53.69	0.66	0.5385	9.92	3.40	29.360	2.00	9.99	53.69
6.55	10,040	64.46	53.51	0.65	0.5341	10.12	3.40	29.419	2.00	10.06	53.51
6.56	10,440	63.54	53.51	0.60	0.5029	10.59	3.40	29.478	2.00	10.66	53.51
6.57	11,000	62.70	53.32	0.57	0.4847	10.95	3.40	29.538	2.00	11.02	53.32
6.58	11,310	62.29	53.14	0.55	0.4608	11.26	3.40	29.597	2.30	11.33	53.14
6.59	11,520	62.05	53.14	0.54	0.4613	11.47	3.40	29.656	2.30	11.54	53.14
6.6	11,640	61.54	53.32	0.53	0.4577	11.64	3.40	29.715	2.00	11.66	53.32
6.61	11,690	62.10	53.51	0.53	0.4577	11.64	3.40	29.775	2.00	11.71	53.51
6.62	11,790	62.66	53.87	0.53	0.4569	11.74	3.40	29.834	2.00	11.81	53.87
6.63	11,900	63.88	54.24	0.54	0.4558	11.85	3.40	29.893	2.00	11.92	54.24
6.64	12,010	64.93	54.05	0.54	0.4500	11.96	3.40	29.953	2.00	12.03	54.05
6.65	12,070	64.75	53.69	0.56	0.4472	12.12	3.40	30.012	2.00	12.09	53.69
6.66	12,260	69.05	53.51	0.56	0.4365	12.21	3.40	30.071	2.00	12.28	53.51
6.67	12,370	70.53	53.87	0.57	0.4355	12.32	3.40	30.131	1.80	12.39	53.87
6.68	12,450	72.24	54.24	0.58	0.4357	12.40	3.40	30.190	1.80	12.47	54.24

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.07	10,750	86.88	67.02	0.81	0.6234	10.68	3.70	38.785	2.50	10.78	67.02
8.08	10,400	77.94	64.83	0.75	0.6234	10.34	3.70	38.850	1.80	10.43	64.83
8.09	10,960	76.92	64.46	0.70	0.5881	10.90	3.70	38.915	1.80	10.99	64.46
8.11	11,140	77.38	64.28	0.69	0.5770	11.08	3.70	38.979	1.80	11.17	64.28
8.11	11,310	78.08	64.26	0.60	0.5668	11.26	3.70	39.044	1.80	11.34	64.10
8.12	11,450	78.45	63.92	0.69	0.5583	11.39	3.70	39.108	1.80	11.48	63.92
8.13	11,660	79.28	63.92	0.68	0.5482	11.60	3.70	39.173	1.80	11.69	63.92
8.14	11,730	79.10	63.92	0.67	0.5449	11.67	3.80	39.239	1.80	11.76	63.92
8.15	11,810	78.77	64.10	0.67	0.5428	11.75	3.80	39.305	1.80	11.84	64.10
8.16	11,860	78.76	64.10	0.67	0.5428	11.80	3.80	39.371	1.80	11.93	64.10
8.17	11,900	78.91	63.92	0.66	0.5371	11.84	3.80	39.438	1.80	11.93	63.92
8.18	11,870	79.19	64.10	0.67	0.5400	11.81	3.80	39.504	1.80	11.90	64.10
8.19	11,790	79.28	63.92	0.67	0.5422	11.73	3.80	39.570	1.80	11.82	63.92
8.22	11,670	79.47	64.10	0.68	0.5493	11.61	3.80	39.637	2.00	11.70	64.10
8.21	11,490	80.07	63.65	0.74	0.6035	10.47	3.70	39.701	2.00	11.52	64.65
8.22	10,970	80.76	64.46	0.74	0.5876	10.91	3.70	39.766	1.80	11.00	64.46
8.23	10,700	80.90	63.73	0.76	0.5956	10.64	3.70	39.830	1.80	10.73	63.73
8.24	10,460	81.50	63.37	0.78	0.6058	10.40	3.80	39.896	1.80	10.49	63.37
8.25	10,300	82.11	63.18	0.80	0.6134	10.24	3.80	39.963	1.80	10.33	63.18
8.26	10,210	82.75	63.18	0.80	0.6188	10.15	3.80	40.029	1.80	10.24	63.18
8.27	10,130	82.75	63.18	0.82	0.6237	10.07	3.80	40.095	1.80	10.16	63.18
8.28	10,180	82.99	63.37	0.82	0.6225	10.12	3.80	40.162	1.80	10.21	63.37
8.29	10,250	82.66	63.37	0.81	0.6182	10.19	3.80	40.228	1.80	10.28	63.37
8.33	10,440	82.11	63.18	0.79	0.6052	10.38	3.80	40.294	1.80	10.47	63.18
8.31	10,330	81.69	63.37	0.78	0.6019	10.30	3.80	40.360	2.00	10.47	63.37
8.32	10,610	81.23	63.37	0.77	0.5973	10.55	3.80	40.427	2.00	10.64	63.37
8.33	10,640	80.53	63.37	0.76	0.5956	10.58	3.80	40.493	1.80	10.67	63.37
8.34	10,680	79.88	63.18	0.75	0.5916	10.62	3.80	40.559	1.80	10.71	63.18
8.35	10,640	78.96	63.37	0.74	0.5956	10.58	3.80	40.625	1.80	10.67	63.37
8.36	10,600	78.22	63.55	0.74	0.5995	10.54	3.80	40.692	1.80	10.63	63.55
8.37	10,530	77.96	63.55	0.74	0.6035	10.47	3.80	40.758	1.80	10.56	63.55
8.38	10,450	78.08	63.55	0.75	0.6081	10.39	3.80	40.824	1.80	10.48	63.55
8.39	10,380	77.85	63.73	0.75	0.6140	10.32	3.80	40.891	1.80	10.41	63.73
8.4	10,320	78.03	63.92	0.76	0.6194	10.26	3.80	40.957	2.00	10.35	63.92
8.41	10,360	78.31	64.10	0.76	0.6187	10.30	3.80	41.023	2.00	10.39	64.10
8.42	10,470	78.59	64.10	0.75	0.6122	10.41	3.80	41.089	1.80	10.50	64.10
8.43	10,620	78.68	63.92	0.74	0.6019	10.56	3.80	41.156	1.80	10.65	63.92
8.44	10,620	78.45	63.92	0.73	0.5908	10.76	3.80	41.222	2.00	10.85	63.92
8.45	11,080	78.12	63.73	0.71	0.5762	11.00	3.80	41.288	2.00	11.09	63.73
8.46	11,360	77.80	63.73	0.68	0.5610	11.30	3.80	41.354	1.80	11.39	63.73
8.47	12,100	76.78	63.37	0.63	0.5237	12.04	3.80	41.421	1.80	12.13	63.37
8.48	12,540	75.95	63.00	0.61	0.5024	12.48	3.80	41.487	1.80	12.57	63.00
8.49	13,030	75.62	62.82	0.58	0.4821	12.97	3.80	41.553	2.00	13.06	62.82
8.5	13,510	74.88	62.82	0.55	0.4650	13.45	3.80	41.620	2.00	13.54	62.82
8.51	14,170	73.08	61.72	0.52	0.4356	14.11	3.80	41.782	1.80	14.20	-21.76
8.52	14,450	72.15	62.02	0.50	0.4257	14.38	3.80	41.852	1.80	14.38	-21.76
8.53	14,700	71.96	62.02	0.50	0.4258	14.70	3.80	41.922	1.80	14.79	-21.76
8.54	15,350	73.49	65.01	0.48	0.4235	15.28	3.80	41.885	1.80	15.38	-18.77
8.55	15,280	77.34	65.56	0.51	0.4291	15.21	3.80	41.951	1.80	15.31	-18.32
8.56	15,490	80.62	66.47	0.52	0.4291	15.42	3.80	42.017	1.80	15.52	-17.50
8.57	15,640	81.27	66.11	0.52	0.4277	15.67	3.80	42.083	1.80	15.67	-17.96
8.58	15,930	82.56	67.02	0.52	0.4207	15.90	3.80	42.150	1.80	15.96	-17.15
8.59	16,190	84.65	68.30	0.52	0.4219	16.12	3.80	42.216	1.80	16.22	-15.97
8.6	16,090	82.29	66.65	0.51	0.4142	16.02	3.80	42.282	1.50	16.12	-17.72
8.61	16,290	87.06	66.11	0.53	0.4058	16.22	3.80	42.349	1.80	16.32	-18.35
8.62	16,500	89.33	66.65	0.54	0.4039	16.43	3.80	42.415	1.80	16.53	-17.91
8.63	16,710	91.60	66.65	0.54	0.4000	16.64	3.80	42.481	1.80	16.64	-18.47
8.64	16,960	88.64	66.29	0.52	0.3909	16.89	3.80	42.547	1.50	16.99	-18.47
8.65	17,370	87.06	65.38	0.50	0.3764	17.30	3.80	42.614	1.80	17.40	-19.48
8.66	17,500	85.58	64.10	0.49	0.3663	17.44	3.80	42.680	1.50	17.53	-20.85
8.67	17,750	82.71	63.55	0.47	0.3580	17.69	3.80	42.746	1.50	17.78	-21.50
8.68	17,720	79.47	63.55	0.46	0.3555	17.66	3.80	42.813	1.80	17.87	-21.50
8.69	17,660	71.13	63.00	0.40	0.3567	17.60	3.80	42.879	1.80	17.69	-22.25
8.7	17,510	69.51	63.00	0.40	0.3598	17.45	3.80	42.945	1.80	17.54	-22.35
8.71	17,270	69.23	63.37	0.40	0.3669	17.21	3.80	43.011	1.80	17.30	-22.08
8.72	17,250	68.21	63.92	0.40	0.3706	17.19	3.80	43.078	1.80	17.28	-21.62
8.73	17,320	67.75	63.92	0.40	0.3726	17.30	3.80	43.144	1.80	17.37	-21.62
8.74	17,190	68.21	63.37	0.40	0.3696	17.13	3.80	43.210	1.80	17.22	-22.37
8.75	17,250	63.54	63.55	0.37	0.3684	17.19	3.80	43.276	1.80	17.28	-22.29

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Pag. 13

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.76	17,300	67.06	63.73	0.39	0.3684	17.24	3.80	43.343	1.80	17.33	-22.21
8.77	17,370	67.33	63.73	0.39	0.3669	17.31	3.80	43.409	1.80	17.40	-22.30
8.78	17,370	68.07	63.18	0.39	0.3637	17.31	3.80	43.475	1.80	17.40	-22.95
8.79	17,470	68.44	63.00	0.39	0.3606	17.41	3.80	43.542	2.00	17.50	-23.23
8.8	17,720	70.43	63.99	0.36	0.3595	17.66	3.80	43.608	1.80	17.75	-22.78
8.81	17,870	70.62	63.00	0.40	0.3525	17.81	3.80	43.674	1.80	17.90	-23.43
8.82	18,050	71.92	63.37	0.40	0.3511	17.99	3.80	43.742	1.80	18.08	-23.15
8.83	18,280	73.35	63.18	0.40	0.3456	18.22	3.90	43.810	1.80	18.31	-23.44
8.84	18,490	74.42	62.82	0.40	0.3398	18.43	3.90	43.878	1.80	18.52	-23.90
8.85	18,500	74.79	63.18	0.41	0.3355	18.36	3.90	43.944	1.80	18.55	-24.91
8.86	18,260	76.36	60.99	0.40	0.3367	18.20	3.80	44.011	1.80	18.29	-25.93
8.87	19,590	76.64	60.63	0.39	0.3095	19.53	3.80	44.077	1.80	19.62	-26.38
8.88	20,060	76.60	59.90	0.38	0.2986	20.00	3.90	44.145	1.80	20.09	-27.21
8.89	20,220	77.06	60.99	0.38	0.3016	20.16	3.90	44.213	1.80	20.25	-26.22
8.9	20,340	77.06	62.99	0.38	0.3053	20.36	3.90	44.281	1.80	20.37	-25.22
8.91	20,390	78.17	62.09	0.38	0.3045	20.33	3.90	44.349	1.80	20.42	-25.32
8.92	20,460	79.33	62.82	0.39	0.3070	20.40	3.90	44.417	1.80	20.49	-24.69
8.93	20,140	79.61	62.84	0.40	0.3110	20.08	3.90	44.485	1.80	20.17	-24.96
8.94	19,730	81.18	63.18	0.41	0.3202	19.67	3.90	44.553	1.80	19.76	-24.52
8.95	19,340	83.99	63.00	0.43	0.3257	19.26	3.90	44.621	2.00	19.37	-24.80
8.96	19,500	83.45	63.00	0.44	0.3316	18.94	3.90	44.689	2.00	19.03	-24.90
8.97	19,580	83.91	63.37	0.45	0.3411	18.52	3.90	44.757	2.00	18.61	-24.63
8.98	19,120	85.12	63.55	0.47	0.3507	18.06	3.90	44.825	2.00	18.15	-24.54
8.99	17,690	86.04	63.55	0.49	0.3592	17.63	3.90	44.893	2.00	17.72	-24.64
9	17,900	85.44	63.92	0.50	0.3710	17.17	3.90	44.961	2.00	17.26	-24.37
9.01	16,670	86.46	64.10	0.52	0.3845	16.61	3.90	45.029	2.00	16.70	-24.29
9.02	16,670	86.46	64.10	0.52	0.3845	16.61	3.90	45.097	2.00	16.70	-24.39
9.03	16,540	85.35	64.10	0.52	0.3875	16.48	3.90	45.165	2.00	16.57	-24.48
9.04	16,460	83.40	64.10	0.51	0.3894	16.40	3.90	45.233	2.00	16.49	-24.58
9.05	16,460	83.40	64.10	0.51	0.3894	16.40	3.90	45.301	2.50	16.49	-24.68
9.06	16,460	83.40	64.10	0.51	0.3894	16.40	3.90	45.369	2.50	16.49	-24.78
9.07	15,780	68.03	58.80	0.43	0.3726	15.72	3.90	45.437	2.30	15.80	-30.18
9.08	15,780	68.03	58.82	0.43	0.3715	15.72	3.90	45.505	2.30	15.80	-30.45
9.09	15,730	68.40	58.07	0.43	0.3692	15.67	3.90	45.573	2.00	15.75	-31.10
9.1	15,740	69.00	58.07	0.44	0.3689	15.68	3.90	45.641	2.00	15.76	-31.21
9.11	15,850	68.86	57.71	0.44	0.3638	15.93	3.90	45.709	2.00	15.83	-31.32
9.12	15,990	67.98	57.52	0.43	0.3597	15.93	3.90	45.777	2.30	16.01	-31.95
9.13	16,240	66.69	57.34	0.41	0.3531	16.18	3.90	45.845	2.30	16.26	-32.23
9.14	16,520	65.99	57.34	0.40	0.3471	16.46	3.90	45.913	2.00	16.54	-32.32
9.15	17,100	63.58	57.16	0.38	0.3421	16.85	3.90	45.981	2.00	16.73	-32.60
9.16	17,040	62.93	56.79	0.33	0.3357	17.00	3.90	46.049	2.00	16.73	-32.70
9.17	17,380	61.68	56.61	0.35	0.3257	17.32	3.90	46.117	2.30	17.40	-33.35
9.18	17,660	59.83	56.06	0.34	0.3174	17.60	3.90	46.185	2.00	17.68	-34.00
9.19	17,860	58.63	55.88	0.33	0.3129	17.80	3.90	46.253	2.00	17.88	-34.27
9.2	17,940	57.65	55.88	0.32	0.3115	17.88	3.90	46.321	2.00	17.96	-34.37
9.21	17,890	58.21	56.25	0.33	0.3155	17.80	3.90	46.389	2.00	17.96	-34.47
9.22	17,820	59.05	56.43	0.34	0.3203	17.56	3.90	46.457	2.00	17.64	-34.02
9.23	17,050	59.60	56.43	0.35	0.3310	16.99	3.90	46.525	2.00	17.07	-34.12
9.24	16,630	63.07	56.25	0.38	0.3382	16.57	3.90	46.593	2.00	16.65	-34.39
9.25	16,370	61.96	56.25	0.38	0.3436	16.31	3.90	46.662	2.00	16.39	-34.49
9.26	16,050	60.70	56.06	0.37	0.3475	16.00	3.90	46.730	2.00	16.09	-34.59
9.27	15,770	60.53	55.88	0.41	0.3671	15.71	3.90	46.798	2.00	15.79	-33.05
9.28	15,540	66.78	57.16	0.43	0.3678	15.48	3.90	46.866	2.00	15.56	-33.88
9.29	15,380	65.94	57.52	0.43	0.3740	15.32	3.90	46.934	2.00	15.40	-33.61
9.3	15,280	65.37	57.52	0.43	0.3764	15.22	3.90	47.002	2.00	15.30	-33.71
9.31	15,150	63.68	57.52	0.42	0.3815	15.03	4.00	47.070	2.00	15.13	-33.83
9.32	15,090	64.05	57.52	0.42	0.3812	15.03	4.00	47.141	2.00	15.11	-33.91
9.33	14,990	62.89	57.07	0.42	0.3862	14.93	4.00	47.211	2.00	15.01	-33.64
9.34	14,870	63.44	58.62	0.43	0.3942	14.81	4.00	47.281	1.80	14.89	-33.01
9.35	14,770	64.42	59.17	0.44	0.4006	14.71	4.00	47.350	1.80	14.79	-32.55
9.36	14,610	64.11	58.62	0.45	0.4091	14.45	4.00	47.419	2.00	14.53	-32.03
9.37	14,260	65.58	58.62	0.46	0.4111	14.20	4.00	47.490	2.00	14.28	-33.00
9.38	14,020	66.22	58.62	0.47	0.4181	13.96	4.00	47.560	2.00	14.04	-33.40
9.39	13,830	66.45	58.44	0.48	0.4226	13.77	4.00	47.629	2.00	13.85	-33.68
9.4	13,650	66.69	60.48	0.49	0.4401	13.59	4.00	47.699	2.00	13.68	-32.13
9.41	13,400	66.69	60.48	0.50	0.4501	13.33	4.00	47.769	2.00	13.40	-32.53
9.42	13,200	66.92	58.44	0.51	0.4427	13.14	4.00	47.839	2.00	13.22	-33.97
9.43	13,020	66.82	58.80	0.51	0.4516	12.96	4.00	47.908	2.00	13.04	-33.71
9.44	12,820	67.01	59.35	0.52	0.4629	12.76	4.00	47.978	2.00	12.84	-33.32

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
10.83	18,660	95.40	60.99	0.51	0.3268	18.60	4.40	58,245	1.80	18.69	-45.25
10.84	18,790	95.40	60.81	0.51	0.3236	18.73	4.50	58,324	2.00	18.82	-45.53
10.85	19,090	96.65	60.81	0.51	0.3185	19.03	4.50	58,402	1.80	19.12	-45.63
10.86	19,200	96.46	60.45	0.50	0.3148	19.14	4.50	58,481	1.80	19.23	-46.09
10.87	19,300	96.74	60.45	0.50	0.3132	19.24	4.50	58,559	1.80	19.33	-46.18
10.88	19,390	97.11	60.45	0.50	0.3118	19.33	4.50	58,638	2.00	19.42	-46.28
10.89	19,480	97.25	60.63	0.50	0.3112	19.42	4.50	58,716	1.80	19.51	-46.20
10.9	19,550	97.48	60.99	0.50	0.3120	19.49	4.50	58,794	1.80	19.58	-45.94
10.91	19,560	98.31	60.99	0.50	0.3118	19.50	4.50	58,873	2.00	19.59	-46.04
10.92	19,540	98.54	60.99	0.51	0.3121	19.48	4.50	58,951	1.80	19.67	-46.14
10.93	19,530	99.56	61.18	0.51	0.3133	19.47	4.50	59,032	2.00	19.56	-46.04
10.94	19,480	99.19	61.18	0.51	0.3141	19.42	4.50	59,110	2.00	19.51	-46.14
10.95	19,380	98.68	61.18	0.51	0.3160	19.30	4.60	59,190	2.00	19.39	-46.24
10.96	19,260	99.15	61.54	0.51	0.3192	19.22	4.60	59,270	2.00	19.31	-45.98
10.97	19,190	99.94	61.54	0.52	0.3226	19.14	4.60	59,351	1.80	19.52	-45.71
10.98	19,070	100.40	62.27	0.53	0.3265	19.01	4.60	59,431	1.80	19.10	-45.44
10.99	18,960	100.72	61.72	0.53	0.3255	18.90	4.60	59,511	2.00	18.99	-46.09
11	18,900	101.37	61.72	0.54	0.3266	18.84	4.60	59,591	2.00	18.93	-46.19
11.01	18,800	101.23	61.72	0.54	0.3263	18.74	4.60	59,671	1.80	18.83	-46.29
11.02	18,770	102.54	61.91	0.54	0.3298	18.62	4.60	59,752	1.80	18.90	-46.29
11.03	18,800	100.72	62.09	0.54	0.3303	18.74	4.60	59,832	2.00	18.83	-46.11
11.04	18,860	100.72	62.09	0.53	0.3292	18.80	4.60	59,912	2.00	18.89	-46.21
11.05	18,860	100.72	62.09	0.53	0.3292	18.80	4.60	59,992	3.00	18.89	-46.31
11.06	18,860	100.72	62.09	0.53	0.3292	18.80	4.60	60,072	2.50	18.89	-46.41
11.07	18,110	89.51	61.91	0.49	0.3419	18.05	4.60	60,153	2.50	18.05	-46.19
11.08	18,720	88.94	61.91	0.47	0.3387	18.66	4.60	60,233	1.80	18.75	-47.15
11.09	19,060	88.91	59.72	0.47	0.3133	19.00	4.60	60,313	1.80	19.09	-49.07
11.1	19,180	88.91	59.35	0.46	0.3094	19.12	4.70	60,395	2.00	19.20	-49.54
11.11	19,310	89.05	59.17	0.46	0.3064	19.25	4.70	60,477	2.00	19.33	-49.82
11.12	19,360	89.56	59.17	0.46	0.3056	19.30	4.60	60,557	1.80	19.38	-49.92
11.13	19,500	90.95	58.98	0.47	0.3025	19.44	4.60	60,637	1.80	19.52	-50.21
11.14	19,640	91.37	58.62	0.47	0.2985	19.58	4.60	60,718	1.80	19.66	-50.66
11.15	19,750	92.02	58.44	0.47	0.2959	19.69	4.60	60,798	2.00	19.77	-50.94
11.16	19,880	93.27	58.07	0.47	0.2921	19.82	4.60	60,878	2.00	19.90	-51.41
11.17	20,150	93.91	56.06	0.47	0.2792	20.09	4.70	60,960	1.50	20.17	-53.52
11.18	20,320	97.57	56.61	0.48	0.2786	20.26	4.70	61,042	1.50	20.34	-53.07
11.19	20,050	101.69	59.35	0.51	0.2960	19.99	4.70	61,124	1.80	20.07	-50.42
11.2	20,260	105.31	59.17	0.52	0.2921	20.20	4.60	61,204	1.50	20.28	-50.70
11.21	20,330	105.49	59.17	0.52	0.2910	20.27	4.60	61,284	1.50	20.35	-50.80
11.22	20,330	106.88	59.53	0.53	0.2928	20.27	4.60	61,364	1.80	20.36	-50.54
11.23	20,350	109.34	59.17	0.54	0.2908	20.29	4.70	61,446	1.50	20.37	-51.00
11.24	20,200	109.61	58.62	0.54	0.2902	20.14	4.70	61,528	1.50	20.22	-51.64
11.25	20,110	110.31	58.98	0.55	0.2933	20.05	4.70	61,610	1.50	20.13	-51.38
11.26	19,760	113.64	58.8	0.58	0.2976	19.70	4.70	61,692	1.50	19.78	-51.66
11.27	19,560	115.26	58.8	0.59	0.3006	19.50	4.70	61,774	1.80	19.58	-51.76
11.28	19,390	116.28	58.6	0.60	0.3032	19.33	4.70	61,856	1.80	19.67	-51.86
11.29	18,890	118.00	59.17	0.62	0.3132	18.83	4.70	61,938	1.80	19.91	-51.89
11.3	18,660	118.18	59.17	0.63	0.3171	18.60	4.70	62,020	1.50	19.68	-51.68
11.31	18,400	118.00	59.17	0.64	0.3216	18.34	4.60	62,100	1.50	18.42	-51.78
11.32	17,990	103.69	59.72	0.58	0.3320	17.93	4.70	62,182	1.80	18.02	-51.33
11.33	17,880	105.21	59.9	0.59	0.3350	17.82	4.70	62,264	1.80	17.91	-51.25
11.34	17,770	105.21	59.9	0.59	0.3371	17.71	4.70	62,346	1.80	17.80	-51.35
11.35	17,680	103.32	60.08	0.58	0.3398	17.62	4.70	62,428	1.80	17.71	-51.26
11.36	17,700	103.83	60.08	0.59	0.3394	17.64	4.70	62,510	1.80	17.73	-51.36
11.37	17,740	103.83	60.08	0.59	0.3387	17.68	4.70	62,592	1.50	17.77	-51.46
11.38	17,790	103.69	59.9	0.58	0.3367	17.73	4.60	62,672	1.50	17.82	-51.74
11.39	17,780	102.76	59.9	0.57	0.3369	17.72	4.70	62,754	1.80	17.86	-51.66
11.4	17,810	101.00	59.72	0.57	0.3353	17.75	4.70	62,836	1.80	17.84	-52.11
11.41	17,850	100.35	59.53	0.56	0.3335	17.79	4.70	62,918	1.80	17.88	-52.40
11.42	17,650	98.82	60.08	0.56	0.3408	17.59	4.70	63,000	1.80	17.68	-51.95
11.43	17,480	98.27	60.45	0.56	0.3458	17.42	4.70	63,082	1.80	17.51	-51.68
11.44	17,270	98.11	60.45	0.56	0.3511	17.21	4.60	63,162	1.50	17.25	-52.12
11.45	17,060	96.97	61.54	0.57	0.3607	17.00	4.60	63,242	2.00	17.09	-50.78
11.46	16,400	97.90	63.55	0.60	0.3875	16.34	4.70	63,324	2.00	16.43	-48.87
11.47	16,050	98.41	63.55	0.61	0.3960	15.99	4.70	63,408	1.80	16.08	-48.97
11.48	15,720	99.10	63.63	0.63	0.4088	15.66	4.70	63,488	1.80	15.75	-49.62
11.49	15,450	95.39	62.80	0.65	0.4168	15.32	4.70	63,571	1.80	15.45	-49.69
11.5	15,260	97.16	61.91	0.64	0.4057	15.20	4.70	63,653	1.80	15.29	-50.91
11.51	15,120	97.25	61.54	0.64	0.4070	15.06	4.70	63,735	1.80	15.15	-51.37

17-101_G_CPTU_Soarza

17-101_CPTU.S2

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
11.52	14,900	96.65	61.72	0.65	0.4142	14.84	4.80	63,819	1.80	14.93	-51.29
11.53	14,830	96.14	61.72	0.65	0.4162	14.77	4.70	63,901	1.80	14.86	-51.39
11.54	14,790	95.54	61.72	0.65	0.4173	14.73	4.80	63,985	1.80	14.82	-51.49
11.55	14,710	94.19	61.54	0.64	0.4184	14.65	4.80	64,068	1.80	14.74	-51.77
11.56	14,610	94.19	61.54	0.64	0.4212	14.55	4.80	64,152	1.80	14.64	-51.86
11.57	14,490	91.23	60.99	0.63	0.4209	14.43	4.80	64,236	2.00	14.52	-52.51
11.58	14,220	87.94	60.99	0.62	0.4289	14.16	4.80	64,319	2.00	14.25	-52.61
11.59	14,040	85.81	61.18	0.61	0.4338	13.98	4.80	64,403	2.00	14.07	-52.52
11.6	13,870	84.05	61.54	0.61	0.4437	13.81	4.80	64,487	2.00	13.90	-52.26
11.61	13,690	81.57	61.54	0.60	0.4495	13.63	4.80	64,570	2.00	13.72	-52.35
11.62	13,480	80.81	61.54	0.60	0.4565	13.42	4.80	64,654	2.00	13.51	-52.45
11.63	13,220	80.21	61.72	0.61	0.4669	13.16	4.80	64,738	2.00	13.25	-52.37
11.64	12,940	79.84	62.09	0.62	0.4738	12.88	4.80	64,821	2.00	12.97	-52.10
11.65	12,670	78.86	62.45	0.62	0.4929	12.61	4.70	64,903	2.30	12.70	-51.84
11.66	12,390	78.49	62.27	0.63	0.5003	12.32	4.80	64,987	2.30	12.41	-52.11
11.67	12,130	78.03	62.45	0.64	0.5148	12.07	4.70	65,069	2.30	12.16	-52.03
11.68	11,950	77.80	62.64	0.64	0.5242	11.89	4.70	65,151	2.30	11.98	-51.94
11.69	11,800	77.52	62.64	0.66	0.5308	11.74	4.70	65,233	2.30	11.83	-52.04
11.7	11,680	76.78	62.84	0.66	0.5363	11.62	4.70	65,315	2.30	11.71	-52.14
11.71	11,610	76.32	62.82	0.66	0.5411	11.55	4.70	65,397	2.30	11.64	-52.28
11.72	11,530	75.39	62.82	0.65	0.5448	11.47	4.80	65,480	2.30	11.56	-52.15
11.73	11,410	74.05	62.64	0.65	0.5490	11.35	4.80	65,564	2.30	11.44	-52.43
11.74	11,210	72.43	62.64	0.65	0.5588	11.15	4.80	65,648	2.30	11.24	-52.53
11.75	10,980	70.58	62.64	0.64	0.5705	10.92	4.80	65,731	2.30	11.01	-52.63
11.76	10,760	70.58	62.64	0.64	0.5705	10.92	4.80	65,815	2.30	11.01	-52.73
11.77	10,540	69.37	63.04	0.63	0.5839	10.73	4.80	65,899	2.50	10.82	-52.46
11.78	10,330	68.63	62.82	0.65	0.5910	10.57	4.80	65,982	2.50	10.66	-52.74
11.79	10,480	68.17	62.82	0.65	0.5994	10.42	4.80	66,066	2.30	10.51	-52.84
11.8	10,380	66.73	62.82	0.64	0.6052	10.32	4.80	66,150	2.30	10.41	-52.94
11.81	10,260	65.75	62.82	0.64	0.6112	10.22	4.80	66,233	2.30	10.31	-53.03
11.82	10,190	64.23	62.82	0.63	0.6165	10.14	4.80	66,315	2.30	10.22	-53.13
11.83	10,130	63.49	62.82	0.63	0.6201	10.07	4.80	66,401	2.30	10.16	-53.23
11.84	10,030	62.84	62.64	0.63	0.6245	9.97	4.80	66,485	2.30	10.06	-53.51
11.85	10,060	62.05	62.82	0.62	0.6245	10.00	4.80	66,568	1.50	10.09	-53.43
11.86	10,130	61.31	63.01	0.61	0.6219	10.07	4.80	66,652	1.80	10.19	-53.35
11.87	10,240	60.55	63.01	0.58	0.6259	10.00	4.80	66,736	1.80	10.29	-53.26
11.88	10,040	58.58	63.01	0.56	0.6023	10.40	4.80	66,819	1.80	10.46	-53.54
11.89	10,580	57.61	62.82	0.54	0.5938	10.52	4.80	66,903	1.80	10.61	-53.82
11.9	10,690	56.13	63.01	0.53	0.5983	10.63	4.80	66,987	1.50	10.72	-53.74
11.91	10,840	54.23	62.82	0.50	0.5975	10.78	4.80	67,070	1.80	10.87	-54.02
11.92	10,960	53.81	62.82	0.48	0.5975	10.91	4.80	67,154	1.80	11.00	-54.30
11.93	11,070	53.31	62.82	0.48	0.5965	11.01	4.80	67,238	1.80	11.10	-54.21
11.94	11,220	53.30	62.82	0.48	0.5999	11.16	4.80	67,321	1.80	11.25	-54.31
11.95	11,420	53.30	61.91	0.47	0.5421	11.36	4.80	67,405	1.80	11.45	-55.32
11.96	11,500	53.21	61.91	0.46	0.5383	11.44	4.80	67,489	1.80	11.53	-55.42
11.97	11,580	53.26	61.91	0.46	0.5421	11.52	4.80	67,573	1.80	11.61	-55.52
11.98	11,680	54.37	62.82	0.47	0.5378	11.82	4.80	67,656	2.00	11.71	-56.70
11.99	11,740	55.02	62.64	0.47	0.5336	11.68	4.80	67,740	2.00	11.77	-54.98
12	11,790	55.76	62.45	0.47	0.5297	11.73	4.80	67,823	1.80	11.82	-55.25
12.01	11,810	56.78	62.45	0.48	0.5288	11.75	4.80	67,907	1.80	11.84	-55.37
12.02	11,830	57.17	62.45	0.48	0.5288	11.78	4.80	67,991	1.80	11.86	-55.49
12.03	11,800	58.58	61.91	0.50	0.5247	11.74	4.80	68,074	1.80	11.83	-56.10
12.04	11,810	59.18	60.81	0.50	0.5149	11.75	4.80	68,158	2.00	11.84	-57.30
12.05	11,810	59.18	60.81	0.50	0.5149	11.75	4.80	68,242	3.00	11.84	-57.40
12.06	11,810	59.18	60.81	0.50	0.5149	11.75	4.80	68,325	2.00	11.84	-57.50
12.07	11,550	50.99	57.51	0.44	0.4402	11.82	4.80	68,409	1.80	11.59	-58.80
12.08	11,620	51.87	57.52	0.45	0.4950	11.56	4.80	68,493	2.00	11.64	-59.08
12.09	11,600	52.84	57.16	0.46	0.4928	11.54	4.80	68,576	2.00	11.62	-61.44
12.1	11,550	53.95	57.34	0.47	0.4965	11.49	4.80	68,660	2.00	11.57	-61.36
12.11	11,520	55.94	57.34	0.49	0.4977	11.46	4.80	68,744	2.00	11.54	-61.46
12.12	11,480	57.28	57.34	0.50	0.5002	11.42	4.80	68,828	2.00	11.51	-61.56
12.13	11,440	59.51	58.25	0.52	0.5092	11.38	4.80	68,911	1.80	11.46	-60.75
12.14	11,340	64.65	59.17	0.57	0.5218	11.28	4.80	68,995	2.00	11.36	-59.92
12.15	11,280	66.41	59.17	0.59	0.5466	11.22	4.80	69,079	2.00	11.30	-60.02
12.16	11,260	66.28	59.98	0.61	0.5238	11.20	4.80	69,162	2.00	11.28	-60.31
12.17	11,270	67.17	59.98	0.61	0.5238	11.20	4.80	69,246	2.00	11.30	-60.41
12.18	11,290	71.50	59.84	0.63	0.5224	11.23	4.80	69,330	1.80	11.31	-60.51
12.19	11,300	72.57	59.84	0.64	0.5219	11.24	4.80	69,413	1.80	11.32	-60.60
12.2	11,240	74.28	58.46	0.66	0.5199	11.18	4.80	69,497	1.80	11.26	-61.21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-Uq [kPa]
13.59	11.400	59.32	56.06	0.52	0.4918	11.34	5.10	81.519	2.30	11.42	-77.26
13.6	11.380	58.67	55.88	0.52	0.4910	11.32	5.10	81.608	2.30	11.40	-77.54
13.61	11.460	58.49	55.51	0.51	0.4844	11.40	5.10	81.697	2.00	11.48	-78.00
13.62	11.460	58.49	55.51	0.51	0.4844	11.40	5.10	81.786	2.00	11.48	-78.10
13.63	11.900	58.93	54.6	0.46	0.4598	11.85	5.10	81.975	2.00	11.92	-79.11
13.64	12.310	58.86	53.87	0.48	0.4376	12.26	5.10	81.964	2.00	12.33	-79.94
13.65	12.850	59.37	53.14	0.46	0.4135	12.80	5.20	82.055	2.00	12.87	-80.77
13.66	13.460	59.69	52.78	0.44	0.3921	13.41	5.20	82.145	2.00	13.48	-81.22
13.67	14.140	59.63	52.74	0.42	0.3733	14.09	5.20	82.236	1.80	14.16	-81.32
13.68	14.790	59.63	52.74	0.40	0.3605	14.74	5.20	82.326	1.80	14.81	-81.32
13.69	15.910	59.09	53.69	0.37	0.3375	15.86	5.20	82.417	2.00	15.93	-80.61
13.7	16.410	59.69	53.51	0.36	0.3261	16.36	5.20	82.508	2.00	16.43	-80.89
13.71	16.740	60.16	53.32	0.36	0.3185	16.69	5.20	82.598	1.80	16.76	-81.18
13.72	16.970	60.11	53.32	0.35	0.3142	16.92	5.20	82.689	1.80	16.99	-81.27
13.73	17.020	59.51	52.76	0.35	0.3101	17.36	5.20	82.780	1.80	17.04	-81.91
13.74	16.390	63.40	51.31	0.39	0.3131	16.34	5.20	82.870	2.00	16.41	-83.48
13.75	16.050	72.24	52.05	0.45	0.3243	16.00	5.20	82.961	2.00	16.07	-82.84
13.76	15.830	77.75	52.78	0.49	0.3334	15.78	5.20	83.051	1.80	15.85	-82.21
13.77	15.690	78.96	53.32	0.50	0.3398	15.64	5.20	83.142	1.80	15.71	-81.76
13.78	15.480	82.41	52.41	0.51	0.3488	15.48	5.20	83.233	1.80	15.59	-82.77
13.79	15.330	80.07	55.51	0.52	0.3621	15.27	5.20	83.323	1.80	15.35	-79.77
13.8	15.360	88.08	58.07	0.57	0.3781	15.30	5.20	83.414	1.80	15.38	-77.31
13.81	15.440	92.29	61.18	0.60	0.3962	15.38	5.20	83.505	1.80	15.47	-74.30
13.82	15.500	95.81	60.63	0.62	0.3909	15.45	5.20	83.595	2.00	15.54	-74.94
13.83	16.140	105.96	57.79	0.66	0.3587	16.08	5.10	83.684	1.80	16.21	-75.08
13.84	16.430	106.37	57.94	0.66	0.3493	16.37	5.10	83.773	1.80	16.45	-78.43
13.85	16.690	106.46	56.79	0.64	0.3403	16.63	5.10	83.862	1.80	16.71	-79.08
13.86	16.860	106.19	56.25	0.63	0.3336	16.80	5.10	83.951	1.80	16.88	-79.72
13.87	17.180	99.89	55.33	0.58	0.3221	17.12	5.10	84.040	1.80	17.20	-80.73
13.88	17.270	94.33	55.51	0.55	0.3214	17.21	5.10	84.129	1.80	17.29	-80.65
13.89	17.420	90.07	55.51	0.52	0.3187	17.36	5.10	84.218	1.80	17.44	-80.75
13.9	17.590	87.15	55.7	0.50	0.3167	17.53	5.10	84.306	1.80	17.61	-80.66
13.91	17.800	84.33	55.51	0.47	0.3119	17.74	5.10	84.395	1.80	17.82	-80.95
13.92	18.390	82.66	53.87	0.45	0.2929	18.34	5.10	84.484	1.80	18.41	-82.69
13.93	18.640	81.92	53.51	0.44	0.2871	18.59	5.10	84.573	1.80	18.66	-83.14
13.94	18.800	81.60	53.69	0.43	0.2866	18.75	5.10	84.662	1.80	18.82	-83.06
13.95	18.890	81.46	54.42	0.43	0.2881	18.84	5.20	84.753	2.00	18.91	-82.43
13.96	18.810	81.18	55.33	0.43	0.2942	18.75	5.20	84.843	1.80	18.83	-81.62
13.97	18.740	82.80	55.7	0.44	0.2972	18.68	5.10	84.932	1.80	18.76	-81.35
13.98	18.970	90.86	56.98	0.48	0.3004	18.91	5.10	85.021	2.00	18.99	-80.16
13.99	19.230	94.47	57.89	0.49	0.3010	19.17	5.10	85.110	2.00	19.25	-79.35
14	19.640	97.57	58.07	0.50	0.2957	19.58	5.10	85.199	2.00	19.66	-79.27
14.01	20.120	98.96	56.61	0.49	0.2814	20.06	5.10	85.288	2.00	20.14	-80.83
14.02	20.640	100.31	54.78	0.49	0.2654	20.59	5.10	85.377	1.80	20.66	-82.76
14.03	21.140	101.46	53.87	0.48	0.2548	21.09	5.10	85.466	1.80	21.16	-83.76
14.04	21.140	101.46	53.87	0.48	0.2548	21.09	5.10	85.554	2.00	21.16	-83.76
14.05	21.140	101.46	53.87	0.48	0.2548	21.09	5.10	85.643	2.00	21.16	-83.96
14.06	22.000	90.16	55.33	0.41	0.2515	21.94	5.10	85.732	2.00	22.02	-82.60
14.07	22.040	88.08	54.42	0.40	0.2469	21.99	5.10	85.821	2.00	22.06	-83.61
14.08	22.040	88.08	54.42	0.40	0.2469	21.99	5.10	85.910	2.00	22.06	-83.76
14.09	22.260	91.46	53.51	0.41	0.2464	22.21	5.20	86.000	2.00	22.22	-84.71
14.1	22.240	94.93	52.78	0.41	0.2373	22.24	5.20	86.090	2.00	22.28	-85.54
14.11	21.390	102.25	55.51	0.48	0.2595	21.33	5.10	86.178	2.30	21.41	-82.91
14.12	20.420	110.59	58.98	0.54	0.2888	20.36	5.10	86.267	2.30	20.44	-79.54
14.13	20.420	110.59	58.98	0.54	0.2888	20.36	5.10	86.356	2.30	20.44	-79.64
14.14	20.330	112.48	55.33	0.55	0.2722	20.27	5.10	86.445	2.30	20.35	-83.38
14.15	20.500	109.61	51.31	0.51	0.2653	20.45	5.10	86.534	2.30	20.52	-87.50
14.16	21.300	110.86	47.48	0.52	0.2229	21.25	5.10	86.623	2.30	21.32	-91.43
14.17	21.940	121.05	46.2	0.55	0.2106	21.89	5.10	86.712	2.30	21.96	-92.81
14.18	21.520	114.89	41.09	0.53	0.1909	21.48	5.10	86.801	2.30	21.54	-98.02
14.19	21.360	110.40	46.38	0.52	0.2171	21.31	5.10	86.890	2.50	21.38	-92.82
14.2	20.230	109.73	50.68	0.56	0.2018	20.18	5.10	86.978	2.50	20.28	-93.68
14.21	18.810	149.25	52.96	0.79	0.2816	18.76	5.10	87.067	2.50	18.83	-86.44
14.22	18.280	142.72	52.96	0.78	0.2897	18.23	5.10	87.156	2.50	18.30	-86.54
14.23	17.590	143.00	52.96	0.81	0.3011	17.54	5.10	87.245	2.50	17.61	-86.64
14.24	17.590	143.00	52.96	0.81	0.3011	17.54	5.10	87.334	2.50	17.61	-86.73
14.25	16.800	151.43	51.31	0.84	0.2764	16.75	5.10	87.424	2.50	16.88	-91.42
14.26	15.910	150.41	52.96	0.95	0.3329	15.86	5.10	87.512	2.50	15.93	-86.93
14.27	14.970	150.04	51.5	1.00	0.3440	14.92	5.10	87.601	2.50	14.99	-88.49

17-101_G_CPTU_Soarza

17-101_CPTU.S2

Pag. 21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-Uq [kPa]
14.28	14.120	143.42	50.04	1.02	0.3544	14.07	5.10	87.690	2.50	14.14	-90.05
14.29	14.120	143.42	50.04	1.02	0.3544	14.07	5.10	87.779	3.00	14.14	-90.14
14.3	13.400	140.55	51.88	1.05	0.3857	13.35	5.10	87.867	3.00	13.42	-88.60
14.31	12.840	139.62	53.51	1.09	0.4167	12.79	5.10	87.956	3.00	12.86	-86.87
14.32	12.440	140.92	54.42	1.13	0.4375	12.39	5.10	88.045	2.80	12.46	-86.06
14.33	12.440	140.92	54.42	1.13	0.4375	12.39	5.10	88.134	2.80	12.46	-86.16
14.34	12.160	89.19	54.6	0.73	0.4490	12.11	5.10	88.223	2.80	12.18	-86.08
14.35	12.010	86.04	54.6	0.72	0.4546	11.96	5.10	88.312	2.80	12.03	-86.17
14.36	11.900	83.12	54.97	0.70	0.4619	11.85	5.20	88.403	2.80	11.92	-85.90
14.37	11.760	79.51	55.15	0.68	0.4689	11.70	5.20	88.493	2.80	11.78	-85.82
14.38	11.760	79.51	55.15	0.68	0.4690	11.70	5.20	88.584	2.80	11.78	-85.92
14.39	11.620	75.72	55.51	0.65	0.4777	11.56	5.20	88.674	2.80	11.64	-85.66
14.4	11.500	72.89	55.51	0.63	0.4827	11.44	5.20	88.765	2.80	11.52	-85.75
14.41	11.430	71.22	55.51	0.62	0.4857	11.37	5.20	88.856	2.80	11.45	-85.85
14.42	11.420	69.37	55.51	0.61	0.4981	11.36	5.20	88.946	2.80	11.44	-85.95
14.43	11.440	67.75	55.7	0.59	0.4869	11.38	5.20	89.037	2.50	11.46	-85.86
14.44	11.520	66.55	55.7	0.58	0.4835	11.46	5.20	89.128	2.50	11.54	-85.96
14.45	11.610	65.34	55.7	0.56	0.4798	11.55	5.20	89.218	2.30	11.63	-86.05
14.46	11.720	64.80	55.7	0.55	0.4753	11.66	5.20	89.309	2.30	11.74	-86.15
14.47	11.840	63.95	55.7	0.54	0.4704	11.78	5.20	89.399	2.30	11.86	-86.25
14.48	11.840	63.95	55.7	0.54	0.4704	11.78	5.20	89.490	2.50	11.86	-86.35
14.49	11.870	63.07	55.88	0.53	0.4708	11.81	5.20	89.581	2.50	11.89	-86.27
14.5	11.770	62.52	56.06	0.53	0.4763	11.71	5.20	89.671	2.50	11.79	-86.19
14.51	11.590	62.29	56.43	0.54	0.4869	11.53	5.20	89.762	2.50	11.61	-85.91
14.52	11.160	62.15	56.81	0.55	0.4970	11.33	5.20	89.853	2.50	11.41	-85.83
14.53	10.910	62.42	56.79	0.56	0.5089	11.10	5.20	89.943	2.50	11.18	-85.78
14.54	10.890	62.05	56.43	0.57	0.5182	10.83	5.20	90.034	2.30	10.91	-85.62
14.55	10.610	62.29	56.98	0.59	0.5370	10.55	5.20	90.125	2.50	10.63	-85.76
14.56	10.330	62.47	57.16	0.60	0.5533	10.27	5.20	90.215	2.50	10.35	-85.67
14.57	10.100	62.80	57.52	0.62	0.5695	10.00	5.20	90.306	2.30	10.12	-85.44
14.58	9.980	62.56	57.52	0.62	0.5750	9.99	5.20	90.396	2.30	10.02	-85.54
14.59	9.830	62.57	57.1	0.65	0.5993	9.57	5.20	90.487	2.30	9.85	-85.45
14.6	9.620	62.15	57.71	0.66	0.6126	9.36	5.20	90.578	2.30	9.64	-85.52
14.61	9.240	61.84	57.89	0.67	0.6265	9.18	5.20	90.668	2.30	9.26	-85.43
14.62	9.110	60.94	58.07	0.67	0.6374	9.05	5.20	90.759	2.30	9.13	-85.51
14.63	9.010	59.92	58.07	0.67	0.6483	8.89	5.20	90.850	2.30	9.00	-85.61
14.64	9.010	59.92	58.07	0.67	0.6485	8.95	5.20	90.940	2.30	9.03	-85.55
14.65	8.760	57.52	58.44	0.66	0.6671	8.70	5.20	91.031	2.30	8.78	-85.58
14.66	8.760	57.52	58.44	0.66	0.6671	8.70	5.20	91.121	2.30	8.78	-85.53
14.67	8.350	54.18	58.8	0.65	0.7042	8.29	5.20	91.212	2.30	8.37	-85.11
14.68	8.170	53.63	58.8	0.66	0.7107	8.11	5.20	91.303	2.30	8.18	-85.22
14.69	8.030	52.38	59.8	0.68	0.7323	7.97	5.20	91.393	2.30	8.05	-85.35
14.7	7.900	51.45	58.8	0.65	0.7443	7.84	5.20	91.484	2.00	7.92	-85.45
14.71	7.800	50.06	58.98	0.64	0.7562	7.74	5.20	91.575	2.00	7.82	-85.33
14.72	7.690	48.90	58.98	0.64	0.7670	7.63	5.20	91.666	2.00	7.71	-85.42
14.73	7.560	47.74	58.98	0.63	0.7802	7.50	5.20	91.755	2.00	7.58	-85.53
14.74	7.410	46.40	59.17	0.65	0.7958	7.35	5.20	91.845	2.00	7.47	-85.64
14.75	7.180	44.78	59.17	0.62	0.8241	7.12	5.20	91.937	2.00	7.20	-85.63
14.76	7.070	44.23	59.17	0.63	0.8369	7.01	5.20	92.028	1.80	7.09	-85.63
14.77	7.010	43.85	59.35	0.63	0.8466	6.95	5.20	92.118	1.80	7.03	-85.64
14.78	6.950	42.79	59.35	0.62	0.8490	6.89	5.20	92.209	1.80	6.93	-85.64
14.79	6.870	41.91	59.53	0.61	0.8695	6.81	5.20	92.300	1.80	6.85	-85.60
14.8	6.810	41.12	59.53	0.60	0.8742	6.75	5.20	92.390	2.00	6.84	-85.66
14.81	6.730	40.24	59.72	0.60	0.8874	6.67	5.20	92.481	2.00	6.76	-85.57
14.82	6.610	39.41	59.72	0.60	0.9033	6.55	5.20	92.572	2.00	6.64	-85.66
14.83	6.480	38.71	59.9	0.60	0.9200	6.43	5.20	92.662	2.00	6.52	-85.58
14.84	6.390	38.02	59.9	0.60	0.9374	6.33	5.20	92.753	2.00	6.43	-85.60
14.85	6.300	37.45	59.9	0.59	0.9508	6.24	5.30	92.845	2.00	6.33	-85.70
14.86	6.250	36.00	59.72	0.58	0.9555	6.19	5.30	92.938	2.30	6.28	-86.01
14.87	6.220	35.75	59.53	0.57	0.9571	6.16	5.30	93.030	2.30	6.25	-86.34
14.88	6.330	35.80	59.53	0.57	0.9404	6.27	5.30	93.122	2.30	6.36	-86.46
14.89	6.500	36.72	60.08	0.56	0.9214	6.53	5.30	93.214	2.30	6.53	-86.50
14.9	6.710	37.33	60.63	0.56	0.9036	6.65	5.30	93.307	2.00	6.74	-85.54
14.91	6.950	37.37	60.81	0.54	0.8750	6.89	5.30	93.399	2.00	6.98	-85.45
14.92	7.170	36.58	60.08	0.51	0.8379	7.13	5.30	93.492	2.00	7.20	-86.28
14.93	7.350	35.57	58.8	0.48	0.8000	7.29	5.30	93.584	2.00	7.37	-86.67
14.94	7.530	34.96	58.25	0.47	0.7747	7.47	5.30	93.676	2.00	7.54	-87.06
14.95	7.660	35.52	58.44	0.46	0.7629	7.60	5.30	93.769	2.00	7.68	-88.22
14.96	7.770	36.63	58.44	0.47	0.7521	7.71	5.30	93.861	2.00	7.79	-88.32

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
16.35	14,010	116.79	53.32	0.83	0.3806	13.96	5.70	107.099	1.50	14.03	-107.07
16.36	14,000	116.61	53.69	0.83	0.3835	13.95	5.70	107.198	1.50	14.02	-106.80
16.37	14,160	116.61	54.6	0.82	0.3856	14.11	5.70	107.297	1.80	14.18	-105.99
16.38	14,140	116.75	54.78	0.82	0.3847	14.29	5.70	107.397	1.80	14.26	-105.91
16.39	14,370	116.84	54.6	0.81	0.3800	14.32	5.70	107.496	1.80	14.38	-105.19
16.4	14,510	117.53	54.42	0.81	0.3751	14.46	5.70	107.595	1.80	14.53	-106.46
16.41	14,870	118.51	53.87	0.80	0.3623	14.82	5.70	107.695	1.80	14.89	-107.11
16.42	15,100	118.32	53.69	0.78	0.3556	15.05	5.70	107.794	1.50	15.12	-107.39
16.43	15,680	118.23	54.05	0.75	0.3447	15.63	5.80	107.895	1.50	15.70	-107.13
16.44	16,030	119.46	54.6	0.74	0.3366	15.96	5.80	107.996	1.50	16.04	-107.34
16.45	16,420	118.04	55.51	0.72	0.3381	16.36	5.80	108.097	1.80	16.44	-105.86
16.46	17,370	118.97	55.33	0.68	0.3185	17.31	5.80	108.198	1.80	17.39	-106.14
16.47	17,890	116.28	51.31	0.65	0.2868	17.84	5.80	108.299	1.50	17.91	-110.26
16.48	18,580	118.60	54.05	0.64	0.2918	18.47	5.80	108.400	1.50	18.54	-107.62
16.49	18,490	127.77	54.42	0.69	0.2966	18.50	5.80	108.501	1.50	18.56	-107.35
16.5	19,340	128.18	53.51	0.67	0.2810	18.99	5.80	108.602	1.30	19.06	-108.36
16.51	19,350	128.79	52.59	0.67	0.2718	19.30	5.80	108.703	1.80	19.37	-109.37
16.52	19,560	130.41	51.68	0.67	0.2642	19.51	5.80	108.805	1.80	19.58	-110.38
16.53	19,780	134.90	50.4	0.68	0.2548	19.73	5.80	108.908	1.50	19.80	-111.76
16.54	19,830	137.35	50.4	0.68	0.2542	19.78	5.80	109.007	1.50	19.85	-111.76
16.55	19,740	142.68	50.58	0.72	0.2562	19.69	5.80	109.108	1.50	19.76	-111.78
16.56	19,660	144.95	50.77	0.74	0.2582	19.61	5.80	109.209	1.80	19.68	-111.68
16.57	19,560	147.54	50.95	0.75	0.2605	19.47	5.80	109.310	1.80	19.58	-111.60
16.58	19,520	152.36	51.13	0.78	0.2819	19.47	5.80	109.411	1.50	19.54	-111.52
16.59	19,550	154.21	51.31	0.81	0.2925	19.50	5.80	109.512	1.80	19.56	-111.80
16.6	19,700	156.39	51.68	0.79	0.2923	19.65	5.80	109.613	1.80	19.72	-111.17
16.61	20,050	159.91	52.59	0.80	0.2623	20.00	5.80	109.714	1.80	20.07	-110.35
16.62	20,220	150.00	53.32	0.74	0.2637	20.17	5.80	109.815	1.80	20.24	-109.72
16.63	20,390	149.49	53.32	0.73	0.2615	20.34	5.80	109.918	1.50	20.41	-109.62
16.64	20,710	146.89	53.69	0.71	0.2592	20.66	5.90	110.021	1.80	20.73	-109.55
16.65	20,840	144.90	53.87	0.70	0.2585	20.79	5.90	110.123	1.80	20.86	-109.47
16.66	20,940	144.86	53.69	0.68	0.2564	20.89	5.90	110.226	1.50	20.96	-109.74
16.67	21,090	140.09	52.96	0.66	0.2511	21.04	5.90	110.329	1.50	21.11	-110.57
16.68	21,140	138.70	52.59	0.66	0.2488	21.09	5.90	110.432	1.50	21.16	-111.04
16.69	21,240	136.47	52.23	0.64	0.2459	21.19	5.90	110.535	1.50	21.26	-111.50
16.7	21,380	134.67	52.05	0.63	0.2435	21.33	5.90	110.637	1.80	21.40	-111.78
16.71	21,500	133.32	52.05	0.62	0.2421	21.45	5.90	110.740	1.80	21.52	-111.88
16.72	21,650	131.75	51.86	0.61	0.2395	21.60	5.90	110.843	1.80	21.67	-112.16
16.73	21,720	131.93	51.86	0.61	0.2388	21.67	5.90	110.946	1.80	21.74	-112.26
16.74	21,740	132.49	52.05	0.61	0.2394	21.69	5.90	111.049	1.80	21.76	-112.17
16.75	21,770	132.91	52.05	0.61	0.2391	21.72	5.90	111.151	1.80	21.79	-112.27
16.76	21,780	135.13	52.59	0.62	0.2415	21.73	5.90	111.254	1.80	21.80	-111.83
16.77	21,840	135.41	52.59	0.62	0.2408	21.79	5.90	111.357	1.80	21.86	-111.92
16.78	21,900	135.73	52.59	0.62	0.2401	21.85	5.90	111.460	1.80	21.92	-112.02
16.79	21,940	136.33	52.96	0.62	0.2414	21.89	5.90	111.563	1.80	21.96	-111.75
16.8	22,030	136.70	53.69	0.62	0.2448	21.98	6.00	111.667	2.00	22.04	-111.94
16.81	22,120	137.02	54.6	0.61	0.2469	22.07	6.00	111.770	2.00	22.14	-112.06
16.82	22,190	138.74	55.33	0.63	0.2493	22.13	5.90	111.873	2.00	22.21	-109.67
16.83	22,220	139.07	55.33	0.62	0.2485	22.21	5.90	111.975	1.80	22.29	-109.77
16.84	22,310	139.71	55.15	0.63	0.2472	22.25	5.90	112.078	1.80	22.33	-110.05
16.85	22,340	140.04	54.6	0.63	0.2444	22.29	6.00	112.183	1.80	22.36	-110.70
16.86	22,450	141.61	53.51	0.61	0.2384	22.40	6.00	112.287	1.80	22.47	-111.29
16.87	22,480	143.14	53.32	0.64	0.2372	22.43	6.00	112.392	2.00	22.50	-112.17
16.88	22,530	144.16	53.32	0.64	0.2367	22.48	6.00	112.496	2.00	22.55	-112.27
16.89	22,630	145.36	53.51	0.64	0.2365	22.58	6.00	112.601	2.00	22.65	-112.18
16.9	22,640	147.08	53.69	0.65	0.2371	22.59	6.00	112.705	2.00	22.66	-112.10
16.91	22,770	147.77	53.51	0.67	0.2402	22.65	6.00	112.810	2.00	22.71	-112.12
16.92	22,690	148.98	53.87	0.66	0.2374	22.64	6.00	112.914	2.00	22.71	-112.12
16.93	22,670	149.95	54.24	0.66	0.2393	22.64	6.00	113.019	2.00	22.69	-111.84
16.94	22,520	151.11	54.24	0.67	0.2409	22.47	6.00	113.124	2.00	22.54	-111.94
16.95	22,580	151.89	54.42	0.68	0.2432	22.33	6.00	113.228	2.30	22.40	-111.86
16.96	22,140	152.02	54.6	0.69	0.2466	22.09	6.00	113.333	2.30	22.16	-111.66
16.97	21,830	154.07	54.97	0.71	0.2518	21.78	6.00	113.437	2.30	21.85	-111.51
16.98	21,560	155.37	55.15	0.72	0.2558	21.50	6.00	113.542	2.30	21.58	-111.42
16.99	21,290	155.27	55.51	0.73	0.2607	21.23	6.00	113.646	2.00	21.31	-111.16
17	21,110	155.04	55.13	0.73	0.2630	21.05	6.00	113.751	2.00	21.13	-111.26
17.01	20,970	154.77	55.36	0.74	0.2661	20.91	6.00	113.855	2.00	20.97	-111.36
17.02	20,870	154.07	56.06	0.74	0.2696	20.81	6.00	113.960	2.30	20.89	-110.91
17.03	20,870	154.07	56.06	0.74	0.2686	20.81	6.00	114.064	2.00	20.89	-111.00

17-101_G_CPTU_Soarza

17-101_CPTU.S2

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
17.04	20,870	154.07	56.06	0.74	0.2686	20.81	6.00	114.169	3.00	20.89	-111.10
17.05	20,800	136.47	57.34	0.68	0.2867	19.94	6.00	114.273	3.00	20.02	-109.92
17.06	20,300	134.20	57.34	0.66	0.2825	20.24	6.00	114.378	2.00	20.32	-110.02
17.07	20,300	134.20	57.34	0.66	0.2825	20.24	6.00	114.482	2.00	20.32	-110.12
17.08	20,070	134.11	57.34	0.64	0.2857	20.01	6.00	114.587	2.00	20.08	-110.21
17.09	19,920	134.44	57.52	0.67	0.2888	19.86	6.00	114.691	2.30	19.94	-110.13
17.1	19,740	133.74	57.52	0.68	0.2914	19.68	6.00	114.796	2.30	19.76	-110.23
17.11	19,590	132.81	57.52	0.68	0.2936	19.53	6.00	114.901	2.30	19.61	-110.33
17.12	19,480	131.05	57.71	0.67	0.2963	19.42	6.00	115.005	2.30	19.50	-110.24
17.13	19,370	129.62	57.34	0.67	0.2990	19.31	6.00	115.110	2.30	19.39	-110.31
17.14	19,370	129.62	57.34	0.67	0.2990	19.31	6.00	115.214	2.30	19.39	-110.80
17.15	19,260	127.63	57.34	0.66	0.2977	19.20	6.00	115.319	2.30	19.28	-110.90
17.16	19,260	127.63	57.34	0.66	0.2977	19.20	6.00	115.423	2.30	19.28	-111.00
17.17	19,220	126.15	57.34	0.66	0.2983	19.16	6.00	115.528	2.30	19.24	-111.10
17.18	19,230	124.20	57.52	0.68	0.2991	19.17	6.00	115.632	2.30	19.25	-111.02
17.19	19,210	123.37	57.34	0.64	0.2985	19.15	6.00	115.738	2.30	19.23	-111.29
17.2	19,160	123.23	57.34	0.64	0.2993	19.10	6.00	115.845	2.30	19.18	-111.39
17.21	19,120	122.90	57.34	0.64	0.2999	19.06	6.00	115.949	2.30	19.14	-111.49
17.22	19,080	121.89	57.52	0.64	0.3015	19.03	6.00	116.054	2.30	19.10	-111.41
17.23	19,090	121.47	57.52	0.64	0.3013	19.03	6.00	116.158	2.30	19.11	-111.45
17.24	19,170	120.68	57.34	0.63	0.2991	19.11	6.00	116.263	2.30	19.19	-111.78
17.25	19,280	120.13	57.16	0.62	0.2965	19.22	6.00	116.369	2.30	19.30	-112.06
17.26	19,410	119.89	57.16	0.62	0.2945	19.35	6.00	116.475	2.30	19.43	-112.16
17.27	19,560	119.43	56.98	0.61	0.2913	19.50	6.00	116.582	2.30	19.58	-1

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
19.11	17,110	84.79	69.03	0.50	0.4034	17.04	6.70	136.984	1.80	17.14	-118.44
19.12	17,240	85.67	69.03	0.50	0.4004	17.17	6.70	137.101	1.80	17.27	-118.54
19.13	17,380	86.88	68.66	0.50	0.3951	17.31	6.70	137.218	1.50	17.41	-119.01
19.14	17,600	89.24	68.48	0.51	0.3891	17.53	6.70	137.334	1.50	17.63	-119.28
19.15	17,720	90.27	68.33	0.51	0.3854	17.65	6.70	137.451	1.50	17.75	-119.56
19.16	17,860	91.04	68.12	0.51	0.3814	17.79	6.70	137.568	1.80	17.89	-119.84
19.17	18,110	92.71	68.12	0.51	0.3761	18.04	6.70	137.684	1.80	18.14	-119.94
19.18	18,280	93.91	67.93	0.51	0.3716	18.21	6.70	137.801	1.50	18.31	-120.23
19.19	18,550	95.86	67.57	0.52	0.3643	18.48	6.70	137.918	1.50	18.58	-120.68
19.2	18,680	96.12	67.2	0.52	0.3597	18.61	6.70	138.034	1.50	18.71	-121.15
19.21	19,020	97.11	66.11	0.51	0.3476	18.95	6.70	138.151	1.50	19.05	-122.34
19.22	19,170	97.48	65.92	0.51	0.3439	19.10	6.70	138.268	1.50	19.20	-122.63
19.23	19,350	97.76	65.74	0.51	0.3397	19.28	6.70	138.384	1.50	19.38	-122.91
19.24	19,690	98.92	65.56	0.50	0.3330	19.62	6.70	138.601	1.50	19.72	-123.18
19.25	19,900	99.29	65.56	0.50	0.3294	19.83	6.70	138.718	1.50	19.94	-123.28
19.26	20,250	100.63	65.19	0.50	0.3219	20.18	6.70	138.734	1.50	20.28	-123.75
19.27	20,600	102.11	64.46	0.50	0.3129	20.54	6.70	138.851	1.50	20.63	-124.58
19.28	20,760	103.59	64.46	0.50	0.3105	20.70	6.70	138.968	1.50	20.79	-124.68
19.29	21,070	104.84	64.46	0.50	0.3059	21.01	6.70	139.084	1.50	21.10	-124.77
19.3	21,230	105.29	64.46	0.50	0.3030	21.17	6.70	139.201	1.30	21.26	-124.88
19.31	21,560	108.59	64.28	0.50	0.2981	21.50	6.70	139.318	1.50	21.59	-125.15
19.32	21,770	109.61	64.1	0.50	0.2944	21.71	6.70	139.434	1.50	21.80	-125.43
19.33	21,940	111.28	64.1	0.51	0.2922	21.88	6.70	139.551	1.50	21.97	-125.53
19.34	22,220	113.83	63.92	0.51	0.2877	22.16	6.70	139.668	1.80	22.25	-126.81
19.35	22,350	115.36	63.73	0.52	0.2851	22.29	6.70	139.784	1.80	22.38	-127.04
19.36	22,420	116.98	63.92	0.52	0.2851	22.36	6.70	139.901	1.80	22.45	-126.00
19.37	22,590	121.93	63.58	0.54	0.2894	22.52	6.70	140.018	1.80	22.62	-124.64
19.38	22,680	123.88	65.38	0.55	0.2883	22.61	6.70	140.134	1.80	22.71	-124.74
19.39	22,740	124.99	65.01	0.55	0.2859	22.67	6.70	140.251	1.50	22.77	-125.21
19.4	22,900	126.47	64.65	0.55	0.2823	22.84	6.70	140.368	1.50	22.93	-125.66
19.41	23,120	129.25	64.1	0.56	0.2772	23.06	6.70	140.484	1.80	23.15	-126.31
19.42	23,270	129.43	63.92	0.56	0.2747	23.21	6.70	140.601	1.80	23.30	-126.59
19.43	23,380	129.90	64.1	0.56	0.2742	23.32	6.80	140.719	1.80	23.41	-126.51
19.44	23,530	131.61	65.01	0.56	0.2763	23.46	6.80	140.838	1.50	23.56	-125.70
19.45	23,580	133.28	65.74	0.57	0.2788	23.51	6.80	140.956	1.50	23.61	-125.06
19.46	23,640	135.22	66.11	0.57	0.2797	23.57	6.80	141.075	1.80	23.67	-124.79
19.47	23,760	136.24	65.92	0.57	0.2774	23.69	6.80	141.193	1.80	23.79	-125.08
19.48	23,780	136.29	65.56	0.57	0.2757	23.71	6.80	141.311	1.50	23.81	-125.54
19.49	23,890	136.61	65.56	0.57	0.2744	23.82	6.80	141.430	1.80	23.92	-125.64
19.5	23,920	136.75	65.74	0.57	0.2748	23.85	6.80	141.548	1.80	23.95	-125.56
19.51	23,910	137.54	66.11	0.58	0.2765	23.84	6.80	141.667	1.50	23.94	-125.28
19.52	23,850	139.99	67.2	0.59	0.2818	23.78	6.80	141.785	1.50	23.88	-124.29
19.53	23,820	140.78	67.57	0.59	0.2837	23.75	6.80	141.904	1.50	23.85	-124.02
19.54	23,750	141.38	67.57	0.60	0.2845	23.68	6.80	142.022	1.50	23.78	-124.12
19.55	23,640	142.40	67.75	0.60	0.2866	23.57	6.80	142.140	1.50	23.67	-124.04
19.56	23,600	142.08	67.93	0.60	0.2878	23.53	6.80	142.259	1.80	23.63	-124.01
19.57	23,560	141.52	67.38	0.60	0.2869	23.49	6.80	142.377	1.80	23.59	-124.60
19.58	23,550	139.90	67.2	0.59	0.2854	23.46	6.80	142.496	1.80	23.58	-124.88
19.59	23,530	139.90	67.38	0.59	0.2864	23.46	6.80	142.614	1.50	23.56	-124.80
19.6	23,540	140.13	67.57	0.60	0.2870	23.47	6.80	142.732	1.80	23.57	-124.71
19.61	23,530	139.71	67.75	0.59	0.2878	23.46	6.80	142.851	1.80	23.55	-124.62
19.62	23,550	139.58	67.75	0.59	0.2877	23.46	6.80	142.969	1.80	23.58	-124.12
19.63	23,540	139.67	68.3	0.59	0.2901	23.47	6.80	143.088	1.50	23.57	-124.27
19.64	23,600	139.44	69.21	0.59	0.2933	23.53	6.90	143.208	1.80	23.63	-124.46
19.65	23,670	139.25	69.39	0.59	0.2944	23.50	6.90	143.328	1.80	23.60	-123.38
19.66	23,610	137.12	69.21	0.58	0.2931	23.54	6.90	143.448	1.80	23.64	-123.65
19.67	23,630	136.10	69.39	0.58	0.2937	23.56	6.90	143.568	1.50	23.66	-123.06
19.68	23,670	134.90	69.76	0.57	0.2947	23.60	6.90	143.688	1.50	23.70	-123.30
19.69	23,720	134.62	69.94	0.57	0.2949	23.65	6.90	143.808	1.50	23.75	-123.22
19.7	23,720	134.90	69.94	0.57	0.2949	23.65	6.90	143.929	1.80	23.75	-123.32
19.71	23,730	134.62	71.04	0.57	0.2994	23.66	6.90	144.049	1.80	23.76	-122.32
19.72	23,710	134.61	70.67	0.57	0.2982	23.64	6.90	144.169	1.80	23.74	-122.60
19.73	23,700	135.27	71.4	0.57	0.3013	23.63	6.90	144.289	1.80	23.73	-122.15
19.74	23,570	134.67	71.77	0.57	0.3045	23.54	6.90	144.409	1.80	23.60	-121.88
19.75	23,550	133.79	70.31	0.57	0.2992	23.43	6.90	144.529	1.80	23.53	-123.44
19.76	23,320	136.98	72.68	0.59	0.3117	23.25	7.00	144.651	1.80	23.35	-121.17
19.77	23,130	136.98	73.96	0.60	0.3182	23.06	7.00	144.773	1.80	23.16	-120.90
19.78	22,980	133.97	74.32	0.58	0.3237	22.89	7.00	144.895	1.80	22.99	-119.72
19.79	22,660	133.37	74.51	0.59	0.3288	22.59	7.00	145.017	1.80	22.69	-119.63

17-101_G_CPTU_Soarza

17-101_CPTU.S2

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
19.8	22,340	133.74	74.51	0.60	0.3335	22.27	7.00	145.139	1.80	22.37	-119.73
19.81	21,960	134.76	74.32	0.61	0.3384	21.89	7.00	145.260	1.80	21.99	-120.02
19.82	20,960	136.33	73.78	0.65	0.3520	20.89	7.00	145.382	1.80	20.99	-120.65
19.83	20,360	136.24	73.59	0.67	0.3609	20.32	7.00	145.504	2.00	20.42	-120.94
19.84	19,850	136.35	74.14	0.74	0.3735	19.78	7.00	145.626	1.80	19.88	-120.49
19.85	19,380	134.62	75.24	0.69	0.3882	19.30	7.00	145.748	1.80	19.41	-119.49
19.86	19,010	135.08	76.33	0.71	0.4015	18.93	7.00	145.870	2.00	19.04	-118.50
19.87	18,370	135.32	80.17	0.74	0.4364	18.29	7.00	145.992	2.00	18.40	-114.75
19.88	18,130	135.59	80.72	0.75	0.4452	18.05	7.00	146.113	1.80	18.16	-114.30
19.89	17,910	132.91	80.17	0.74	0.4476	17.89	7.00	146.235	1.80	17.94	-114.93
19.9	17,680	132.49	79.8	0.75	0.4514	17.60	7.00	146.357	2.00	17.71	-115.42
19.91	17,520	131.70	78.89	0.75	0.4503	17.44	7.00	146.479	2.00	17.55	-116.43
19.92	17,420	131.43	78.16	0.75	0.4487	17.34	7.00	146.601	1.80	17.45	-117.26
19.93	17,290	128.83	77.43	0.75	0.4478	17.21	7.00	146.725	1.80	17.32	-118.08
19.94	17,220	127.63	77.06	0.74	0.4475	17.14	7.00	146.848	1.80	17.25	-118.55
19.95	17,160	125.87	77.06	0.73	0.4491	17.08	7.00	146.972	1.80	17.19	-118.65
19.96	17,080	124.48	77.43	0.73	0.4533	17.00	7.00	147.095	1.80	17.11	-118.38
19.97	16,930	122.49	77.43	0.72	0.4574	16.85	7.00	147.219	1.80	16.96	-118.48
19.98	16,850	121.75	77.61	0.72	0.4606	16.77	7.00	147.343	1.80	16.88	-118.39
19.99	16,790	120.96	77.61	0.72	0.4632	16.71	7.00	147.466	1.80	16.82	-118.49
20	16,720	120.22	77.98	0.72	0.4664	16.64	7.00	147.590	1.80	16.75	-118.22
20.01	16,660	119.66	78.52	0.72	0.4713	16.58	7.00	147.713	1.80	16.69	-117.76
20.02	16,630	118.97	78.71	0.72	0.4733	16.55	7.00	147.837	1.80	16.66	-117.69
20.03	16,630	118.97	78.71	0.72	0.4733	16.55	7.00	147.961	4.00	16.66	-117.78
20.	16,630	118.97	78.71	0.72	0.4733	16.55	7.00	148.084	4.00	16.66	-117.87
20.05	16,500	117.48	80.53	0.65	0.4822	16.42	7.00	148.207	1.80	16.51	-117.38
20.06	16,430	107.02	80.09	0.65	0.4924	16.33	7.00	148.331	1.80	16.46	-116.51
20.07	16,510	107.02	80.35	0.65	0.4867	16.43	7.00	148.455	1.80	16.54	-116.51
20.08	16,590	107.67	80.53	0.65	0.4854	16.51	7.00	148.579	2.00	16.62	-116.46
20.09	16,800	109.01	80.72	0.65	0.4805	16.72	7.00	148.702	2.00	16.83	-116.31
20.1	16,950	110.40	81.08	0.65	0.4817	16.87	7.00	148.826	2.00	16.93	-116.16
20.11	17,100	110.91	79.99	0.65	0.4678	17.02	7.00	148.949	1.80	17.13	-117.21
20.12	17,250	111.42	79.8	0.65	0.4626	17.17	7.00	149.073	1.80	17.28	-117.47
20.13	17,430	111.37	79.62	0.64	0.4568	17.35	7.00	149.197	1.80	17.46	-117.87
20.14	17,940	110.03	79.25	0.61	0.4418	17.86	7.00	149.320	1.80	17.97	-118.37
20.15	18,230	109.47	79.07	0.61	0.4407	18.15	7.00	149.444	1.80	18.08	-118.87
20.16	18,510	79.71	78.52	0.59	0.4242	18.43	7.00	149.567	1.80	18.54	-119.42
20.17	18,990	107.17	79.07	0.58	0.4164	18.91	7.20	149.693	1.80	19.02	-118.87
20.18	19,170	111.61	79.07	0.58	0.4125	19.09	7.20	149.818	1.80	19.20	-118.87
20.19	19,350	112.11	78.89	0.58	0.4077	19.27	7.20	149.943	1.80	19.38	-119.19
20.2	19,560	115.54	78.16	0.59	0.4018	19.48	7.20	150.067	1.80	19.59	-119.69
20.21	19,660	116.33	77.61	0.59	0.3948	19.58	7.20	150.191	1.80	19.69	-120.00
20.22	19,960	118.92	76.33	0.60	0.3824	19.88	7.20	150.314	1.30	19.99	-122.22
20.23	20,060	120.36	75.6	0.60	0.3769	19.98	7.20	150.438	1.50	20.09	-122.60
20.24	20,210	122.81	75.61	0.61	0.3732	20.13	7.20	150.561	1.50	20.24	-123.03
20.25	20,280	124.11	75.42	0.61	0.3719	20.20	7.20	150.685	1.50	20.31	-123.45
20.26	20,440	124.73	75.42	0.62	0.3702	20.37	7.20	150.809	1.50	20.38	-123.87
20.27	20,250	126.75	75.6	0.63	0.3733	20.17	7.20	150.934	1.30	20.28	-123.33
20.28	20,200	127.35	75.6	0.63	0.3743	20.12	7.20	151.059	1.30	20.23	-123.33
20.29	20,140	127.95	75.97	0.64	0.3772	20.06	7.20	151.185	1.50	20.17	-123.03
20.3	20,110	127.91	75.97	0.64	0.3768	20.03	7.20	151.310	1.30	20.14	-123.03
20.31	20,093	128.32	76.15	0.64	0.3801	19.97	7.20	151.434	1.30	20.16	-122.96
20.32	20,054	127.44	76.15	0.64	0.3798	19.92	7.20	151.561	1.50	20.08	-122.96
20.33	19,930	126.29	76.7	0.63	0.3848	19.85	7.20	151.686	1.50	19.96	-122.71
20.34	19,880	125.64	76.7	0.63	0.3858	19.80	7.20	151.811	1.50	19.91	-122.61
20.35	19,640	125.13	77.06	0.64	0.3924	19.56	7.20	151.937	1.50	19.87	-122.51
20.36	19,440	124.80	77.06	0.64	0.3956	19.36	7.20	152.063	1.50	19.68	-122.41
20.37	19,380	124.48	77.25	0.64	0.3986	19.30	7.20	152.187	1.50	19.41	-122.25
20.38	19,230	123.97	77.25	0.64	0.4017	19.15	7.20	152.313	1.80	19.26	-122.15
20.39	18,940	123.40	77.25	0.65	0.4079	18.86	7.20	152.438	1.80	18.97	-122.15
20.4	18,790	122.30	77.25	0.65	0.4111	18.71	7.20	152.563	1.50	18.82	-122.05
20.41	18,530	121.65	77.9	0.65	0.4155	18.45	7.20	152.688	1.50	18.56	-121.95
20.42	18,440	120.17	77.79	0.65	0.4219	18.36	7.20	152.814	1.80	18.47	-122.25
20.43	18,400	119.48	77.79	0.65	0.4228	18.32	7.20	152.939	1.80	18.43	-122.25
20.44	18,330	118.92	78.16	0.65	0.4264	18.25	7.20	153.065	1.80	18.36	-122.25
20.45	18,290	118.37	77.61	0.65	0.4243	18.21	7.20	153.190	1.80	18.32	-122.25
20.46	18,170	117.21	77.9	0.65	0.4288	18.04	7.20	153.315	1.80	18.20	-122.15
20.47	18,060	117.21	77.79	0.65	0.4307	17.98	7.20	153.441	2.00	18.09	-123.03
20.48	17,970	116.51	77.61	0.65	0.4319	17.89	7.20	153.566	1.80	18.00	-123.33

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
21.87	10,900	63.91	151.21	0.59	1.3872	10.75	7.60	171,408	1.80	10.96	-63.33
21.88	11,050	65.43	151.39	0.59	1.3700	10.90	7.60	171,540	2.00	11.11	-63.25
21.89	11,220	64.74	151.39	0.58	1.3493	11.07	7.70	171,674	2.00	11.28	-63.35
21.9	11,230	63.77	151.21	0.56	1.3346	11.18	7.70	171,808	1.80	11.39	-63.63
21.91	11,580	60.57	152.12	0.54	1.3073	11.43	7.70	171,942	1.80	11.64	-63.58
21.92	11,120	60.43	149.74	0.52	1.2776	11.57	7.70	172,076	1.50	11.78	-65.30
21.93	11,890	62.52	151.57	0.53	1.2748	11.74	7.70	172,210	1.80	11.95	-65.56
21.94	12,150	63.91	151.57	0.53	1.2475	12.00	7.70	172,344	1.80	12.21	-63.66
21.95	12,330	63.03	151.57	0.51	1.2293	12.18	7.70	172,478	1.50	12.39	-63.76
21.96	12,600	60.57	152.12	0.49	1.2065	12.45	7.70	172,612	1.50	12.68	-63.59
21.97	12,740	61.96	151.94	0.49	1.1926	12.59	7.70	172,746	1.50	12.80	-63.59
21.98	12,830	61.41	152.12	0.48	1.1857	12.68	7.70	172,880	1.50	12.89	-63.50
21.99	13,010	59.28	152.3	0.46	1.1706	12.86	7.70	173,014	1.50	13.07	-63.42
22	13,180	59.88	152.3	0.46	1.1555	13.03	7.70	173,148	1.50	13.24	-63.52
22.01	13,290	60.57	152.12	0.46	1.1455	13.13	7.70	173,282	1.50	13.34	-63.90
22.02	13,280	60.57	152.12	0.46	1.1455	13.13	7.70	173,416	3.80	13.34	-63.90
22.03	13,280	60.57	152.12	0.46	1.1455	13.13	7.70	173,550	1.50	13.34	-63.99
22.04	13,430	48.21	144.27	0.36	1.0742	13.29	7.80	173,686	1.50	13.49	-71.94
22.05	13,720	54.37	143.54	0.40	1.0462	13.58	7.80	173,821	1.50	13.78	-72.77
22.06	13,800	50.68	143.17	0.41	1.0366	13.66	7.80	173,957	1.50	13.86	-73.24
22.07	13,880	57.52	142.8	0.41	1.0298	13.74	7.80	174,093	1.50	13.94	-73.71
22.08	14,000	58.16	142.62	0.42	1.0187	13.86	7.80	174,229	1.50	14.06	-73.98
22.09	14,140	59.65	143.17	0.42	1.0125	14.00	7.80	174,364	1.80	14.20	-73.53
22.1	14,200	62.89	143.54	0.44	1.0108	14.06	7.80	174,500	1.80	14.26	-73.26
22.11	14,230	64.93	143.54	0.46	1.0088	14.08	7.80	174,636	2.00	14.30	-73.07
22.12	14,320	66.89	143.36	0.47	1.0010	14.18	7.80	174,771	2.00	14.38	-73.65
22.13	14,290	67.80	143.17	0.47	1.0019	14.15	7.80	174,907	2.00	14.35	-73.93
22.14	14,400	67.70	142.07	0.47	0.9866	14.26	7.80	175,043	2.00	14.46	-75.12
22.15	14,100	71.32	142.99	0.51	1.0141	13.96	7.80	175,179	2.00	14.16	-74.30
22.16	13,860	70.58	143.72	0.51	1.0369	13.72	7.80	175,314	2.00	13.92	-73.67
22.17	13,700	71.27	143.9	0.52	1.0673	13.46	7.80	175,450	2.00	13.76	-73.59
22.18	13,590	72.75	145	0.54	1.0693	13.42	7.80	175,586	2.00	13.62	-72.59
22.19	13,420	73.86	145.73	0.55	1.0859	13.27	7.90	175,723	2.00	13.48	-71.95
22.2	13,300	74.14	146.46	0.56	1.1012	13.15	7.90	175,861	2.00	13.36	-71.32
22.21	13,190	74.19	145.91	0.56	1.1062	13.04	7.90	175,998	2.00	13.25	-71.97
22.22	13,110	74.00	145.91	0.56	1.1130	12.96	7.90	176,135	2.00	13.17	-72.07
22.23	13,020	74.09	145.54	0.57	1.1178	12.87	7.90	176,273	1.80	13.08	-72.54
22.24	12,990	74.09	145.36	0.57	1.1190	12.84	7.90	176,410	1.80	13.05	-72.81
22.25	12,910	74.09	145.54	0.57	1.1273	12.76	7.90	176,548	2.00	12.97	-72.73
22.26	12,920	73.96	145.36	0.57	1.1251	12.77	7.90	176,685	2.00	12.98	-73.01
22.27	12,900	73.82	145.36	0.57	1.1288	12.75	7.90	176,823	2.00	12.96	-73.11
22.28	12,860	73.54	145.54	0.57	1.1317	12.71	7.90	176,958	2.00	12.92	-73.03
22.29	12,860	73.45	145.54	0.57	1.1317	12.71	7.90	177,094	1.80	12.92	-73.12
22.3	12,860	69.28	145.54	0.54	1.1317	12.71	7.90	177,232	1.80	12.92	-73.22
22.31	12,930	68.44	145.54	0.53	1.1256	12.78	7.90	177,369	2.00	12.99	-73.32
22.32	12,910	67.89	145.73	0.53	1.1288	12.76	7.90	177,506	2.00	12.91	-73.23
22.33	12,850	67.89	145.73	0.53	1.1342	12.70	7.90	177,644	2.00	12.97	-73.62
22.34	12,800	66.73	145.91	0.52	1.1399	12.65	7.90	177,781	2.00	12.86	-73.25
22.35	12,770	66.69	146.09	0.52	1.1440	12.62	7.90	177,919	1.80	12.83	-73.16
22.36	12,740	66.69	146.09	0.52	1.1467	12.59	7.90	178,056	2.00	12.80	-73.26
22.37	12,740	66.59	146.27	0.52	1.1478	12.59	7.90	178,194	2.00	12.78	-73.18
22.38	12,790	66.59	146.27	0.52	1.1438	12.64	7.90	178,331	2.00	12.85	-73.37
22.39	12,870	66.50	146.27	0.52	1.1365	12.72	7.90	178,469	2.00	12.93	-73.38
22.4	12,960	66.13	146.27	0.51	1.1295	12.80	7.90	178,606	2.00	13.01	-73.47
22.41	12,990	64.05	146.46	0.49	1.1275	12.84	8.00	178,745	2.00	13.05	-73.38
22.42	12,990	64.05	146.46	0.49	1.1275	12.84	8.00	178,884	2.00	13.05	-73.48
22.43	12,900	63.54	146.64	0.48	1.1363	12.75	8.00	179,024	2.00	13.12	-73.87
22.44	12,880	63.26	146.64	0.49	1.1385	12.73	8.00	179,163	2.00	13.14	-73.50
22.45	12,880	63.26	146.64	0.49	1.1385	12.73	8.00	179,302	2.30	13.14	-73.59
22.46	12,850	62.89	146.46	0.49	1.1412	12.70	8.00	179,441	2.30	13.21	-73.69
22.47	12,820	62.15	146.62	0.48	1.1452	12.67	8.00	179,580	2.30	13.28	-73.61
22.48	12,820	62.15	146.62	0.48	1.1452	12.67	8.00	179,719	2.30	13.28	-73.61
22.49	12,850	61.45	147.01	0.48	1.1440	12.70	8.00	179,859	2.30	13.21	-73.62
22.5	12,870	61.68	147.19	0.48	1.1437	12.72	8.00	179,998	2.30	13.23	-73.54
22.51	12,820	61.50	147.19	0.48	1.1481	12.67	8.00	180,137	2.30	13.28	-73.63
22.52	12,710	61.82	147.55	0.49	1.1609	12.56	8.00	180,276	2.30	13.27	-73.37
22.53	12,540	60.57	147.55	0.49	1.1829	12.39	8.00	180,415	2.30	13.30	-73.89
22.54	12,360	62.33	147.74	0.50	1.1953	12.21	8.00	180,554	2.50	13.42	-73.38
22.55	12,210	62.38	147.92	0.51	1.2115	12.06	8.00	180,694	2.50	13.50	-73.30

17-101_G_CPTU_Soarza

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
22.56	12,090	62.29	148.1	0.52	1.2250	11.94	8.00	180,833	2.50	12.15	-73.21
22.57	12,050	62.42	148.1	0.52	1.2290	11.90	8.00	180,972	2.50	12.11	-73.31
22.58	12,050	62.47	148.28	0.52	1.2305	11.90	8.00	181,111	2.50	12.11	-73.23
22.59	12,050	62.47	148.28	0.52	1.2305	11.90	8.00	181,250	2.50	12.11	-73.33
22.6	12,150	62.56	148.47	0.51	1.2232	12.00	8.00	181,389	2.50	12.21	-73.24
22.61	12,150	62.56	148.47	0.51	1.2220	12.00	8.00	181,529	2.30	12.21	-73.33
22.62	12,280	62.24	148.47	0.51	1.2090	12.13	8.10	181,670	2.30	12.34	-73.43
22.63	12,440	62.05	148.65	0.50	1.1949	12.29	8.10	181,810	2.30	12.50	-73.35
22.64	12,630	61.73	148.47	0.49	1.1755	12.48	8.10	181,951	2.30	12.69	-73.63
22.65	12,850	61.59	148.65	0.48	1.1586	12.65	8.10	182,092	2.30	12.91	-73.55
22.66	13,080	60.57	148.47	0.46	1.1351	12.93	8.10	182,233	2.30	13.14	-73.82
22.67	13,260	59.79	148.65	0.45	1.1210	13.11	8.10	182,374	2.30	13.32	-73.74
22.68	13,410	58.81	148.47	0.44	1.1072	13.26	8.10	182,515	2.30	13.47	-74.02
22.69	13,500	58.49	148.65	0.43	1.1011	13.35	8.10	182,656	2.30	13.58	-73.94
22.7	13,620	58.53	148.65	0.43	1.0947	13.47	8.10	182,797	2.30	13.68	-74.04
22.71	13,750	58.81	148.65	0.43	1.0811	13.60	8.10	182,938	2.30	13.81	-74.14
22.72	13,870	58.91	148.65	0.42	1.0717	13.72	8.10	183,079	2.30	13.93	-74.23
22.73	14,100	59.28	148.65	0.42	1.0610	13.86	8.10	183,219	2.30	14.07	-74.33
22.74	14,160	59.89	148.65	0.42	1.0498	14.01	8.10	183,360	2.30	14.22	-74.43
22.75	14,170	72.75	149.74	0.49	1.0947	13.62	8.10	183,501	2.30	14.33	-74.53
22.76	14,300	61.45	148.65	0.43	1.0352	14.21	8.10	183,642	2.00	14.42	-74.63
22.77	14,430	62.98	149.2	0.44	1.0340	14.28	8.10	183,783	2.30	14.49	-74.17
22.78	14,510	64.05	149.74	0.44	1.0320	14.36	8.10	183,924	2.30	14.57	-73.73
22.79	14,540	65.30	149.74	0.45	1.0298	14.39	8.10	184,065	2.00	14.60	-73.83
22.8	14,650	65.99	149.2	0.45	1.0276	14.42	8.10	184,206	2.00	14.66	-73.93
22.81	14,650	66.87	149.2	0.46	1.0195	14.50	8.10	184,347	2.00	14.71	-74.39
22.82	14,780	68.44	149.2	0.46	1.0097	14.63	8.10	184,488	2.00	14.84	-74.66
22.83	14,870	69.46	149.38	0.47	1.0046	14.72	8.10	184,628	2.00	14.93	-74.58
22.84	14,880	70.61	149.38	0.48	1.0039	14.73	8.10	184,769	2.00	14.94	-74.68
22.85	14,830	72.06	149.56	0.49	1.0085	14.68	8.20	184,912	2.00	14.89	-74.60
22.86	14,770	73.78	149.38	0.51	1.0046	14.62	8.20	185,055	2.00	14.74	-74.54
22.87	14,700	73.86	149.38	0.50	1.0199	14.55	8.20	185,197	2.00	14.76	-74.42
22.88	14,640	74.37	150.29	0.51	1.0266	14.49	8.20	185,340	2.00	14.70	-74.16
22.89	14,630	75.21	150.29	0.51	1.0273	14.48	8.10	185,481	2.00	14.69	-74.26
22.9	14,700	75.99	150.29	0.52	1.0224	14.55	8.10	185,622	2.00	14.76	-74.36
22.91	14,830	75.93	150.29	0.52	1.0183	14.51	8.10	185,763	2.00	14.82	-74.46
22.92	15,070	77.85	150.27	0.52	0.9985	14.92	8.20	185,905	2.00	15.13	-74.38
22.93	15,240	78.26	150.29	0.51	0.9862	15.09	8.20	186,048	2.00	15.30	-74.65
22.94	15,420	78.86	150.29	0.51	0.9746	15.27	8.20	186,190	2.00	15.48	-74.75
22.95	15,570	79.51	150.29	0.51	0.9653	15.42	8.20	186,333	2.00	15.63	-74.85
22.96	15,670	80.37	150.29	0.51	0.9574	15.61	8.20	186,476	2.00	15.79	-74.95
22.97	15,690	81.74	151.39	0.52	0.9649	15.54	8.20	186,618	2.00	15.75	-74.95
22.98	15,710	82.25	152.12	0.52	0.9683	15.56	8.20	186,761	2.00	15.77	-73.31
22.99	15,760	82.51	151.02	0.52	0.9682	15.61	8.20	186,904	1.80	15.72	-74.51
23	16,120	81.32	151.02	0.50	0.9368	15.97	8.20	187,046	1.80	16.18	-74.61
23.01	16,280	84.50	150.62	0.51	0.9254	16.13	8.20	187,188	2.00	16.31	-74.61
23.02	16,280	84.14	150.66	0.52	0.9254	16.13	8.20	187,332	3.80	16.34	-75.17
23.03	16,280	84.14	150.66	0.52	0.9254	16.13	8.20	187,474	3.80	16.34	-75.26
23.04	16,100	88.12	150.11	0.42	0.9324	16.95	8.20	187,617	2.00	16.16	-75.91
23.05	16,940	72.94	149.2	0.43	0.8808	16.79	8.20	187,759	2.00	17.00	-76.92
23.06	16,940	74.94	149.2	0.43	0.8808	16.79	8.20	187,901	2.00	17.00	-76.92
23.07	17,380	74.88	148.83	0.43	0.8563	17.23	8.20	188,045	2.30	17.44	-77.49
23.08	17,520	75.39	148.83	0.43	0.8495	17.37	8.20	188,187	2.00	17.58	-77.57
23.09	17,640	76.60	148.83	0.43	0.8427	17.49	8.20	188,330	2.00	17.70	-77.86
23.1	17,720	77.52	148.85	0.44	0.8389	17.57	8.20	188,473	2.00	17.78	-77.96
23.11	17,780	78.40	148.83	0.44	0.8344	17.64	8.20	188,615	2.00	17.85	-77.96
23.12	17,780	77.29	148.83	0.43	0.8371	17.63	8.20	188,758	2.30	17.84	-78.97
23.13	17,770	80.30	148.28	0.45	0.8344	17.62	8.20	188,900	2.30	17.83	-78.63
23.14	17,770	81.64	148.83	0.46	0.8375	17.62	8.30	189,045	2.00	17.83	-78.17
23.15	17,800	81.87	148.65	0.46	0.8351	17.65	8.30	189,189	2.00	17.86	-78.45
23.16	17,850	80.50	148.65	0.46	0.8344	17.69	8.30	189,332	2.00	17.91	-78.45
23.17	17,950	82.34	149.01	0.46	0.8301	17.80	8.30	189,478	2.30	18.01	-78.29
23.18	18,060	82.99	149.01	0.46	0.8251	17.91	8.30	189,622	2.30	18.12	-78.39
23.19	18,200	83.36	149.2	0.46	0.8198	18.05	8.30	189,767	2.30	18.26	-78.29
23.2	18,320	83.45	149.2	0.46	0.8144	18.17	8.30	189,911	2.30	18.38	-78.39
23.21	18,420	83.45	149.2	0.46	0.8091	18.29	8.30	190,055	2.30	18.49	-78.39
23.22	18,500	82.75	149.2	0.45	0.8065	18.35	8.30	190,200	2.00	18.56	-78.59
23.23	18,530	82.71	149.2	0.45	0.8052	18.38	8.30	190,344	2.00	18.59	-78.69
23.24	18,500	83.03	150.29	0.45	0.8124	18.35	8.30	190,488	2.00	18.56	-77.89

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/s]	[MPa]	[kPa]
24.63	19,070	132.54	162.71	0.70	0.8532	18.91	8.70	211,025	1.80	19.14	-78.91
24.64	18,760	133.93	162.53	0.71	0.8664	18.60	8.70	211,176	2.00	18.83	-79.19
24.65	18,470	129.48	163.08	0.70	0.8829	18.31	8.70	211,328	2.00	18.54	-78.74
24.66	18,200	129.37	164.17	0.71	0.9020	18.04	8.70	211,479	1.80	18.27	-77.74
24.67	17,910	128.99	165.63	0.72	0.9248	17.74	8.70	211,630	1.80	17.98	-76.38
24.68	17,610	126.66	166.18	0.72	0.9437	17.44	8.70	211,781	2.00	17.68	-75.93
24.69	16,900	124.06	166.73	0.73	0.9866	16.73	8.70	211,933	2.00	16.97	-75.48
24.7	16,440	123.37	167.46	0.75	1.0186	16.27	8.70	212,084	1.80	16.51	-74.85
24.71	15,930	123.46	167.09	0.78	1.0489	15.76	8.70	212,235	1.80	16.00	-75.32
24.72	15,500	120.82	166.73	0.78	1.0751	15.33	8.70	212,387	2.00	15.57	-75.71
24.73	15,040	118.41	166.54	0.79	1.1073	14.87	8.70	212,538	2.00	15.11	-76.06
24.74	14,680	115.77	166.18	0.79	1.1320	14.51	8.70	212,689	2.00	14.75	-76.52
24.75	14,420	113.04	166.18	0.78	1.1524	14.25	8.70	212,840	2.00	14.49	-76.62
24.76	14,210	109.85	166.54	0.77	1.1720	14.04	8.70	212,992	1.80	14.28	-76.36
24.77	13,960	104.52	166.91	0.75	1.1956	13.70	8.70	213,143	1.80	14.03	-76.08
24.78	13,900	102.34	167.09	0.74	1.2021	13.73	8.70	213,294	2.00	13.97	-76.00
24.79	13,930	100.03	167.09	0.72	1.1995	13.76	8.70	213,445	2.00	14.00	-76.10
24.8	13,900	97.30	167.28	0.70	1.1991	13.78	8.70	213,597	2.00	14.02	-76.01
24.81	14,000	94.75	167.28	0.68	1.1949	13.83	8.70	213,748	2.00	14.07	-76.11
24.82	14,020	92.85	167.46	0.66	1.1944	13.85	8.70	213,899	1.80	14.09	-76.06
24.83	14,030	87.52	168.74	0.62	1.2027	13.86	8.70	214,050	2.00	14.10	-74.84
24.84	14,050	84.88	169.83	0.60	1.2088	13.88	8.70	214,202	2.00	14.12	-73.85
24.85	14,120	82.48	170.56	0.58	1.2079	13.95	8.70	214,353	2.00	14.19	-73.22
24.86	14,400	80.53	170.38	0.57	1.1965	14.07	8.70	214,504	2.00	14.31	-73.50
24.87	14,380	78.47	170.38	0.55	1.1848	14.21	8.70	214,655	2.00	14.45	-73.50
24.88	14,450	76.36	170.93	0.54	1.1748	14.38	8.70	214,807	2.00	14.62	-73.14
24.89	14,740	76.92	170.38	0.52	1.1559	14.57	8.80	214,960	2.00	14.81	-73.79
24.9	14,980	77.29	170.38	0.52	1.1374	14.81	8.80	215,113	2.00	15.05	-73.89
24.91	15,240	77.01	170.01	0.51	1.1156	15.07	8.80	215,266	1.80	15.31	-74.36
24.92	15,550	76.87	169.28	0.49	1.0866	15.38	8.80	215,419	1.80	15.62	-75.19
24.93	15,560	76.92	169.1	0.49	1.0868	15.39	8.80	215,572	2.00	15.63	-75.46
24.94	15,420	77.10	169.1	0.50	1.0966	15.25	8.80	215,725	2.00	15.49	-75.56
24.95	15,210	77.66	168.37	0.51	1.1070	15.04	8.80	215,878	1.80	15.28	-76.39
24.96	14,950	78.59	167.82	0.53	1.1225	14.78	8.80	216,031	1.80	15.02	-77.04
24.97	14,810	79.33	168.01	0.54	1.1344	14.64	8.80	216,184	2.00	14.88	-76.95
24.98	14,680	81.74	168.19	0.56	1.1457	14.51	8.80	216,337	2.00	14.75	-76.86
24.99	14,700	82.75	168.19	0.56	1.1395	14.59	8.80	216,490	2.00	14.83	-76.96
25	14,950	83.82	168.01	0.56	1.1238	14.78	8.80	216,643	2.00	15.02	-77.24
25.01	15,180	84.19	168.01	0.55	1.1068	15.01	8.80	216,796	1.80	15.25	-77.44
25.02	15,180	84.19	168.01	0.55	1.1068	15.01	8.80	216,949	4.00	15.25	-77.44
25.03	15,180	84.19	168.01	0.55	1.1068	15.01	8.80	217,101	4.00	15.25	-77.53
25.04	15,680	87.57	162.34	0.43	1.0236	15.70	8.80	217,254	2.00	15.93	-83.30
25.05	16,480	68.40	161.07	0.42	0.9774	16.32	8.80	217,407	2.00	16.55	-84.67
25.06	17,020	69.46	159.61	0.41	0.9378	16.86	8.80	217,560	1.80	17.09	-86.23
25.07	17,530	69.93	158.51	0.40	0.9042	17.37	8.80	217,713	1.80	17.60	-87.43
25.08	18,080	67.97	157.6	0.39	0.8717	17.92	8.80	217,866	2.00	18.17	-88.70
25.09	18,530	70.92	157.23	0.38	0.8458	18.37	8.80	218,019	2.00	18.60	-89.50
25.1	18,830	71.59	157.6	0.38	0.8370	18.67	8.80	218,172	1.80	18.90	-88.63
25.11	19,000	76.13	159.06	0.40	0.8372	18.84	8.80	218,325	1.80	19.07	-87.27
25.12	18,930	78.22	159.79	0.41	0.8441	18.80	8.80	218,478	2.00	19.00	-86.64
25.13	18,760	80.30	160.34	0.43	0.8547	18.60	8.80	218,631	1.80	18.83	-85.90
25.14	18,580	82.42	160.7	0.45	0.8689	18.44	8.80	218,784	1.80	18.63	-85.02
25.15	18,010	88.45	160.7	0.49	0.8923	17.85	8.80	218,937	1.80	18.08	-86.02
25.16	17,770	92.11	160.7	0.52	0.9043	17.61	8.80	219,090	1.80	17.84	-86.12
25.17	17,490	94.98	160.7	0.54	0.9188	17.33	8.80	219,243	2.00	17.56	-86.22
25.18	17,240	98.04	160.7	0.57	0.9321	17.08	8.80	219,396	2.00	17.31	-86.32
25.19	16,990	106.88	160.7	0.61	0.9459	16.80	8.80	219,549	1.80	16.98	-86.59
25.2	16,760	103.41	161.07	0.62	0.9610	16.60	8.80	219,702	1.80	16.83	-86.14
25.21	16,290	106.79	161.25	0.66	0.9899	16.13	8.80	219,855	2.00	16.36	-86.06
25.22	16,040	108.09	161.43	0.67	1.0064	15.88	8.80	220,008	2.00	16.11	-85.98
25.23	15,840	109.01	161.61	0.69	1.0203	15.68	8.80	220,161	1.80	15.91	-85.90
25.24	15,660	110.19	161.61	0.70	1.0317	15.50	8.80	220,314	1.80	15.73	-85.81
25.25	15,520	108.46	161.8	0.70	1.0425	15.36	8.80	220,467	2.00	15.59	-85.90
25.26	15,430	107.25	161.98	0.70	1.0498	15.27	8.80	220,620	2.00	15.50	-85.82
25.27	15,410	106.05	161.8	0.69	1.0500	15.25	8.80	220,773	1.80	15.48	-86.10
25.28	15,460	102.16	160.7	0.66	1.0395	15.30	8.80	220,926	2.00	15.53	-87.30
25.29	15,540	103.58	160.7	0.67	1.0438	15.30	8.80	221,079	2.00	15.60	-87.30
25.3	15,500	98.92	161.25	0.63	1.0337	15.44	8.80	221,232	1.80	15.67	-86.94
25.31	15,650	97.99	161.98	0.63	1.0350	15.49	8.80	221,385	1.80	15.72	-86.31

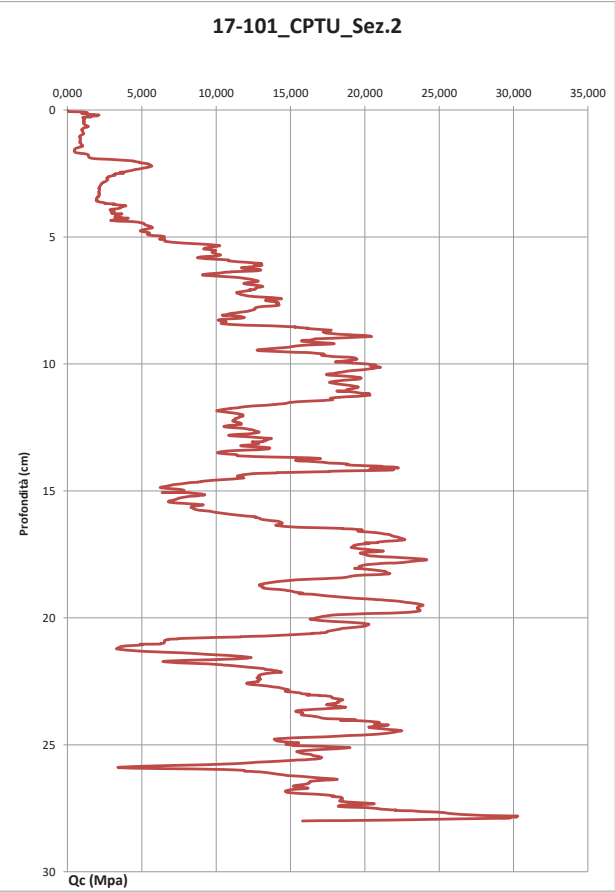
17-101_G_CPTU_Soarza

17-101_CPTU_S2

Pag. 37

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
25.32	15,680	97.82	162.71	0.62	1.0377	15.52	8.80	221,538	2.00	15.75	-85.68
25.33	15,730	96.32	163.62	0.61	1.0402	15.57	8.80	221,691	2.00	15.80	-84.87
25.34	15,770	95.91	163.81	0.61	1.0387	15.61	8.80	221,844	1.80	15.84	-84.78
25.35	15,900	94.79	163.44	0.60	1.0279	15.74	8.80	221,997	1.80	15.97	-85.24
25.36	16,010	94.79	163.44	0.61	1.0394	15.85	8.80	222,150	1.80	16.08	-85.34
25.37	16,170	94.01	163.99	0.58	1.0142	16.01	8.80	222,303	1.80	16.24	-84.89
25.38	16,360	92.57	163.99	0.57	1.0024	16.20	8.80	222,456	2.00	16.43	-84.99
25.39	16,430	91.69	164.17	0.56	0.9992	16.27	8.80	222,609	2.00	16.50	-84.91
25.4	16,450	90.67	164.54	0.55	1.0002	16.29	8.90	222,764	1.80	16.52	-84.84
25.41	16,400	89.57	164.17	0.55	1.0017	16.31	8.80	222,917	1.80	16.53	-85.10
25.42	16,490	90.81	163.82	0.55	0.9922	16.33	8.90	223,073	1.80	16.56	-85.75
25.43	16,560	91.18	163.81	0.55	0.9982	16.40	8.90	223,228	2.00	16.63	-85.66
25.44	16,710	91.83	163.99	0.55	0.9814	16.55	8.90	223,383	2.00	16.78	-85.58
25.45	16,810	92.06	164.35	0.55	0.9777	16.65	8.90	223,537	2.00	16.88	-85.31
25.46	16,900	92.34	164.54	0.55	0.9736	16.74	8.90	223,692	2.00	16.97	-85.06
25.47	16,960	92.25	164.35	0.54	0.9690	16.80	8.80	223,845	1.80	17.03	-85.51
25.48	17,030	92.71	164.9	0.54	0.9683	16.87	8.80	223,998	1.80	17.10	-85.06
25.49	17,090	93.73	166	0.55	0.9713	16.92	8.90	224,153	2.00	17.16	-84.06
25.5	17,100	94.52	166.91	0.55	0.9781	16.93	8.90	224,307	2.00	17.17	-83.25
25.51	17,080	96.28	166.19	0.56	0.9847	16.91	8.90	224,462	2.00	17.15	-82.06
25.52	17,060	96.88	168.19	0.57	0.9859	16.89	8.80	224,615	2.00	17.13	-82.16
25.53	17,040	96.55	168.19	0.57	0.9870	16.87	8.80	224,768	1.80	17.11	-82.26
25.54	16,990	96.42	167.82	0.57	0.9878	16.82	8.90	224,923	1.80	17.06	-82.73
25.55	16,860	96.23	166.91	0.57	0.9900	16.69	8.90	225,077	2.00	16.93	-83.74
25.56	17,040	96.51	165.45	0.58	0.9907	16.53	8.90	225,232	2.00	16.86	-85.29
25.57	16,490	96.79	165.08	0.59	1.0029	16.29	8.90	225,387	2.30	16.53	-85.73
25.58	16,210	96.83	164.9	0.60	1.0173	16.05	8.90	225,542	2.30	16.28	-86.04
25.59	15,970	97.57	165.08	0.61	1.0337	15.80	8.90	225,696	1.80	16.04	-85.96
25.6	15,440	97.57	165.27	0.63	1.0704	15.27	8.90	225,851	1.80	15.51	-85.87
25.61	15,190	95.25	165.45	0.64	1.0822	15.02	9.00	226,007	2.00	15.26	-85.78
25.62	14,910	92.28	165.83	0.65	1.1126	14.77	9.00	226,162	2.00	14.90	-85.70
25.63	14,640	95.58	165.81	0.65	1.1368	14.48	9.00	226,319	2.00	14.71	-85.62
25.64	14,320	95.07	166	0.66	1.1592	14.15	9.00	226,473	2.00	14.39	-85.53
25.65	14,020	94.29	166.18	0.67	1.1853	13.85	8.90	226,628	1.80	14.09	-85.45
25.66	13,670	93.50	166.54	0.68	1.2183	13.50	8.90	226,783	1.80	13.74	-85.18
25.67	13,360	92.76	166.73	0.69	1.2567	13.17	8.90	226,938	2.00	13.42	-85.00
25.68	13,060	91.32	166.73	0.70	1.2766	12.89	8.90	227,092	2.00	13.13	-85.19
25.69	12,630	87.06	166.91	0.69	1.3215	12.46	9.00	227,249	2.00	12.70	-85.11
25.7	12,460	83.82	166.91	0.67	1.3381	12.29	9.00	227,405	2.00	12.53	-85.39
25.71	12,210	81.91	166.18	0.66	1.3610	12.04	9.00	227,561	2.00	12.28	-86.04
25.72	11,940	78.91	166.27	0.67	1.3898	11.79	8.90	227,717	2.00	12.01	-86.07
25.73	11,600	77.57	164.9	0.67	1.4216	11.44	8.90	227,871	2.00	11.67	-85.71
25.74	11,290	75.39	165.08	0.67	1.4622	11.12	8.90	228,026	2.00	11.36	-86.23
25.75	10,990	74.47	166.36	0.68	1.5137	10.82	8.90	228,180	2.00	11.06	-87.45
25.76	10,720	74.47	167	0.70	1.5587	10.55	9.00	228,337	2.00	10.79	-85.62
25.77	10,050	68.72	167.46	0.69	1.6399	9.39	9.00	228,492	2.00	10.02	-85.69
25.78	9,560	65.43	167.64	0.68	1.7536	9.39	9.00	228,650	2.00	9.63	-85.26
25.79	8,820	62.42	168.55	0.71	1.9110	8.65	9.00	228,806	2.00	8.89	-84.45
25.8	8,080	60.43	168.74	0.75	2.0884	7.91	9.00	228,962	2.00	8.15	-84.36
25.81	7,270	59.32	168.19	0.82	2.3135	7.10	9.00	229,119	2.00	7.34	-85.01
25.82	6,560	58.33	168.01	0.88	2.5639	6.39	9.00	229,275	2.00	6.60	-85.01
25.83	5,850	55.52	168.01	0.98	2.8720	5.68	9.00	229,432	2.00	5.92	-85.38
25.84	5,260	58.30	167.28	1.11	3.1802	5.09	9.00	229,588	2.00	5.33	-86.21
25.85	4,770	58.77	166.18	1.23	3.4899	4.60	9.00	229,745	2.30	4.84	-87.41
25.86	4,310	60.11	165.08	1.39	3.8302	4.14	9.00	229,901	2.30	4.38	-88.61
25.87	3,900	62.68	166.72	1.61	4.2988	3.40	9.00	230,058	2.30	3.99	-89.79
25.88	3,570	65.02	167.46	1.82	4.8908	3.40	9.00	230,214	2.30	3.64	-86.42
25.89	3,380	69.60	169.1	2.06	5.5030	3.21	9.00	230,370	2.30	3.45	-84.88
25.9	3,430	75.25	171.29	2.19	4.9939	3.26	9.00	230,527	2.30	3.50	-82.79
25.91	3,760	84.00	176.59	2.23	4.6895	3.58	9.00	230,683	2.00	3.83	-77.59
25.92	4,500	94.28	182.62	2.07	4.3302	4.32	9.00	230,840	2.00	4.58	-80.00
25.93	5,730	97.20	186.63	1.70	3.2571	5.54	9.00	230,996	2.00	5.81	-79.94
25.94	6,900	97.25	186.45	1.41	2.7022	6.71	9.00	231,153	2.00	6.98	-68.02
25.95	7,990	90.90	183.35	1.14	2.2947	7.81	9.00	231,309	2.00	8.07	-71.22
25.96	9,040	83.45	179.15	0.92	1.9817	8.86	9.00	231,465	2.00	9.12	-75.52
25.97	10,430	71.74	172.62	0.67	1.5849	10.69	9.00	231,622	2.00	10.17	-80.16
25.98	11,140	70.20	175.88	0.63	1.5770	10.96	9.00	231,778	2.00	11.21	-79.18
25.99	11,510	68.26	175.31	0.59	1.5231	11.33	9.00	231,935	2.00	11.58	-79.65
26	11,720	65.02	175.13	0.55	1.4943	11.54	9.00	232,091	2.00	11.79	-79.99

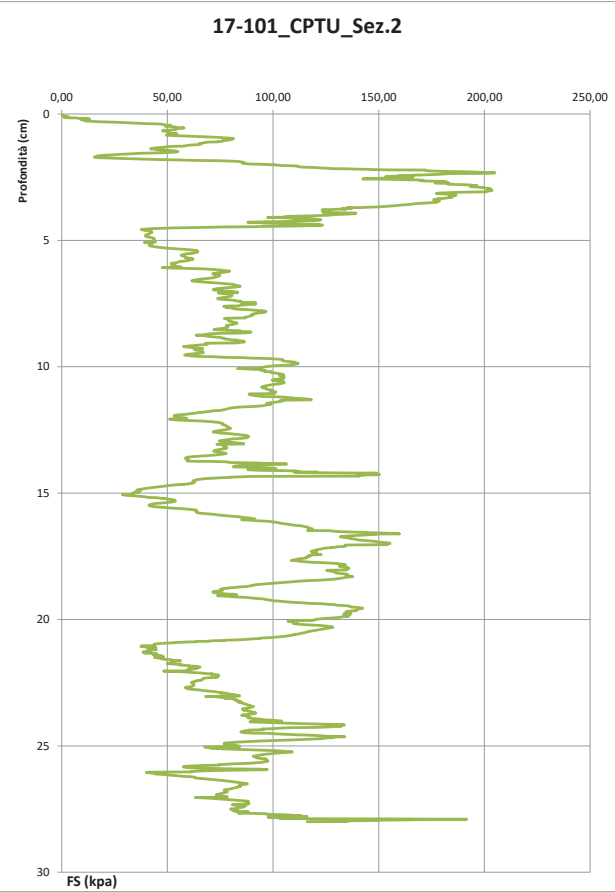
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
27.39	18,380	85.21	166,91	0.46	0.9081	18.21	9.40	254,132	2.30	18,45	-101.79
27.4	18,270	85.95	168,92	0.47	0.9246	18.10	9.40	254,295	2.30	18,34	-99.87
27.41	18,230	86.18	168,19	0.47	0.9226	18.06	9.40	254,459	2.30	18,30	-100.70
27.42	18,200	85.76	172.21	0.47	0.9462	18.03	9.40	254,522	2.50	18,27	-96.78
27.43	18,240	85.53	172.21	0.47	0.9441	18.07	9.40	254,785	2.50	18,31	-96.88
27.44	18,470	84.14	172.57	0.46	0.9343	18.30	9.40	254,949	2.30	18,54	-96.62
27.45	18,840	83.17	172.57	0.44	0.9160	18.67	9.40	255,112	2.30	18,91	-96.71
27.46	19,340	82.85	173.12	0.43	0.8951	19.17	9.40	255,275	2.30	19,41	-96.26
27.47	19,830	82.99	173.48	0.42	0.8748	19.66	9.40	255,439	2.30	19,90	-96.00
27.48	20,300	82.25	173.12	0.41	0.8528	20.13	9.40	255,602	2.50	20,37	-96.46
27.49	20,560	82.29	172.57	0.40	0.8393	20.39	9.40	255,765	2.50	20,63	-97.11
27.5	20,710	79.88	172.21	0.39	0.8315	20.54	9.40	255,929	2.50	20,78	-97.57
27.51	20,900	81.46	174.21	0.39	0.8335	20.73	9.40	256,092	2.30	20,97	-95.66
27.52	20,900	82.75	178.23	0.40	0.8528	20.72	9.40	256,255	2.30	20,97	-91.74
27.53	21,040	82.94	176.41	0.39	0.8385	20.86	9.40	256,418	2.30	21,11	-93.66
27.54	21,220	83.12	174.4	0.39	0.8219	21.05	9.50	256,584	2.30	21,29	-95.77
27.55	21,500	80.90	174.4	0.38	0.8112	21.33	9.50	256,749	2.30	21,57	-95.87
27.56	21,750	83.54	175.68	0.38	0.8077	21.57	9.50	256,914	2.30	21,82	-94.68
27.57	22,120	83.26	175.68	0.38	0.7942	21.94	9.50	257,079	1.80	22,19	-94.78
27.58	22,020	81.74	174.76	0.37	0.7936	21.85	9.50	257,244	1.80	22,09	-95.80
27.59	22,390	82.15	175.31	0.37	0.7830	22.21	9.50	257,409	2.00	22,46	-95.35
27.6	23,160	88.17	175.86	0.38	0.7593	22.98	9.50	257,574	2.00	23,23	-94.90
27.61	23,350	86.88	177.5	0.37	0.7602	23.17	9.50	257,739	1.80	23,42	-93.35
27.62	23,580	86.92	179.15	0.37	0.7598	23.40	9.50	257,904	1.80	23,66	-91.80
27.63	23,970	88.22	181.7	0.37	0.7580	23.79	9.50	258,069	1.80	24,05	-89.35
27.64	24,370	86.09	179.88	0.35	0.7381	24.19	9.50	258,234	1.80	24,45	-91.27
27.65	24,860	85.16	176.95	0.34	0.7118	24.68	9.50	258,399	1.80	24,93	-94.30
27.66	25,180	83.59	179.51	0.33	0.7129	25.00	9.50	258,564	2.00	25,26	-91.83
27.67	25,240	90.49	179.15	0.36	0.7098	25.06	9.50	258,729	2.00	25,32	-92.29
27.68	25,420	96.28	178.05	0.38	0.7004	25.24	9.50	258,894	1.50	25,49	-93.49
27.69	25,500	96.18	178.41	0.38	0.6996	25.32	9.50	259,059	1.50	25,57	-93.23
27.7	25,650	97.85	179.15	0.38	0.6984	25.47	9.50	259,224	1.50	25,73	-92.59
27.71	25,990	97.80	182.98	0.38	0.7040	25.81	9.50	259,389	1.80	26,07	-88.86
27.72	26,090	103.27	179.15	0.40	0.6867	25.91	9.50	259,554	1.50	26,17	-92.78
27.73	26,370	107.11	180.24	0.41	0.6835	26.19	9.50	259,719	1.50	26,45	-91.79
27.74	26,420	108.27	180.24	0.41	0.6822	26.24	9.50	259,884	1.50	26,50	-91.89
27.75	26,520	110.54	179.88	0.42	0.6783	26.34	9.50	260,050	1.50	26,60	-92.35
27.76	26,820	112.30	179.51	0.42	0.6693	26.64	9.50	260,215	1.50	26,90	-92.82
27.77	27,540	113.50	179.15	0.41	0.6505	27.36	9.50	260,380	1.30	27,62	-93.27
27.78	27,870	111.14	181.7	0.40	0.6520	27.69	9.50	260,545	1.50	27,95	-90.82
27.79	28,800	116.05	179.51	0.40	0.6233	28.62	9.60	260,711	1.50	28,88	-93.11
27.8	29,580	106.42	181.52	0.36	0.6137	29.40	9.60	260,878	1.30	29,66	-91.20
27.81	30,290	106.19	182.07	0.35	0.6011	30.11	9.60	261,045	1.50	30,37	-90.75
27.82	29,930	97.62	185.72	0.33	0.6205	29.74	9.60	261,212	1.50	30,01	-87.19
27.83	30,000	102.44	184.99	0.34	0.6166	29.82	9.60	261,379	1.50	30,08	-88.02
27.84	30,230	104.29	183.53	0.34	0.6071	30.05	9.60	261,545	1.50	30,31	-89.58
27.85	29,650	110.26	179.15	0.37	0.6042	29.47	9.60	261,712	1.50	29,73	-94.06
27.86	29,640	108.18	182.98	0.36	0.6173	29.46	9.60	261,879	1.50	29,72	-90.33
27.87	29,070	108.32	194.49	0.37	0.6690	28.88	9.60	262,046	1.50	29,15	-78.91
27.88	29,800	103.22	197.22	0.35	0.6618	29.60	9.60	262,212	1.50	29,88	-76.28
27.89	29,370	161.06	187.73	0.55	0.6392	29.18	9.60	262,379	1.50	29,45	-85.87
27.9	27,690	191.63	170.93	0.69	0.6173	27.52	9.60	262,546	1.80	27,76	-102.77
27.91	27,190	173.61	170.93	0.64	0.6287	27.02	9.60	262,713	1.80	27,26	-102.87
27.92	25,940	167.27	183.53	0.64	0.7075	25.76	9.60	262,879	1.50	26,02	-90.37
27.93	25,040	165.28	190.65	0.66	0.7614	24.85	9.60	263,046	1.80	25,12	-83.34
27.94	24,790	149.58	197.95	0.60	0.7985	24.59	9.60	263,213	1.80	24,87	-76.14
27.95	22,970	150.00	192.66	0.65	0.8387	22.78	9.60	263,380	2.00	23,05	-81.53
27.96	21,590	142.35	189.01	0.66	0.8755	21.40	9.60	263,547	2.00	21,67	-85.28
27.97	21,330	132.17	190.83	0.62	0.8947	21.14	9.60	263,713	2.00	21,41	-83.56
27.98	19,140	129.34	187.73	0.68	0.9808	18.95	9.60	263,880	2.00	19,22	-86.75
27.99	17,040	135.18	181.52	0.79	1.0653	16.86	9.60	264,047	2.00	17,12	-93.06
28	15,810	116.14	197.04	0.73	1.2463	15.61	9.70	264,215	2.00	15,89	-77.64



17-101.G_CPTU_Soarza

L'operatore

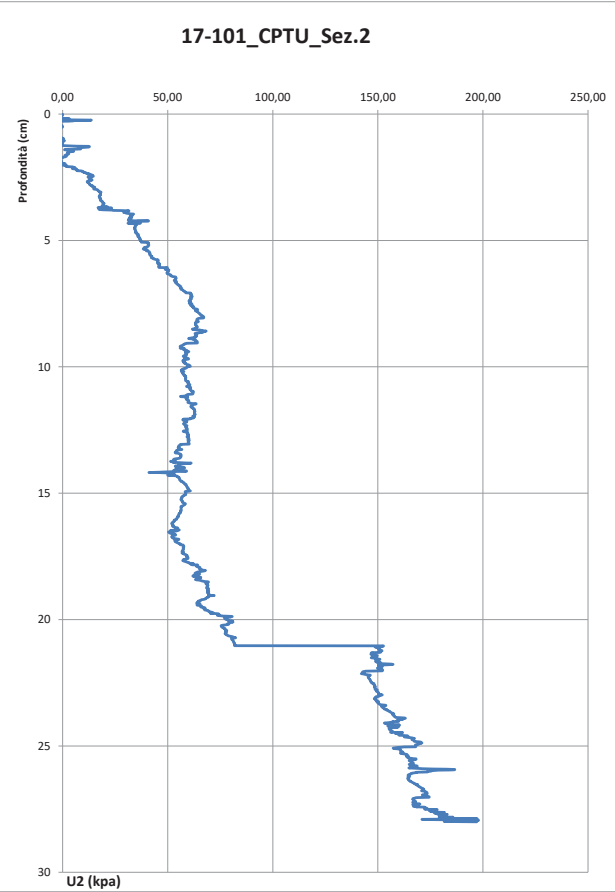
Il direttore



17-101.G_CPTU_Soarza

L'operatore

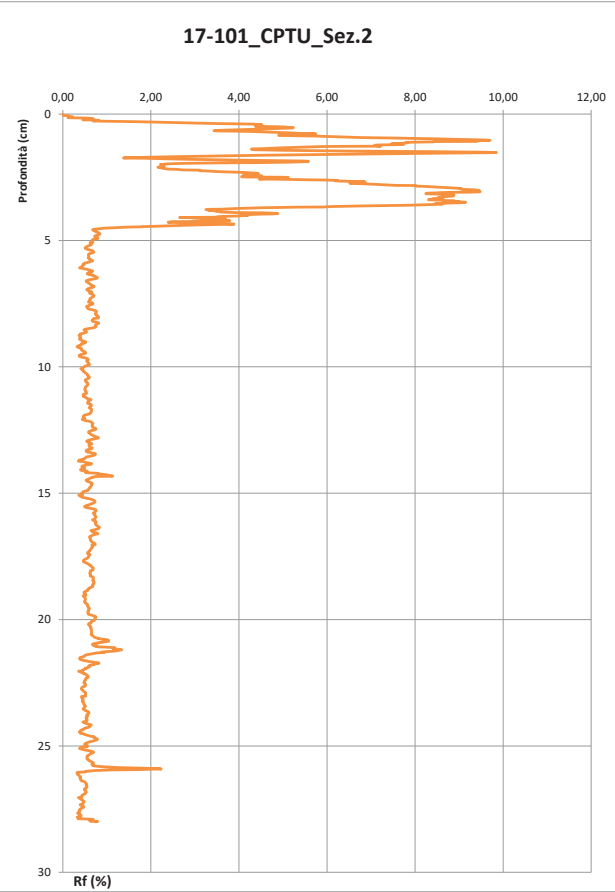
Il direttore



17-101.G_CPTU_Soarza

L'operatore


Il direttore



17-101.G_CPTU_Soarza

L'operatore

Il direttore

Impresa esecutrice: 	
Committente: Nome: A.L.Po P. IVA / C.F. : Indirizzo: Ufficio di Piacenza Telefono: Tel. Fax: e-mail:	
Cantiero: PC-E-810	
Prova: Ubicazione: Soarza (PC) Quota assoluta [m]: Data: 21/02/2016 Q. inizio da Q. ass. [m]: Tipo prova: CPTU Preforo [m]: 0,6 Codice Prova: 17-101_CPTU_Se3.3 Q.ta falda [m]: -9,00 Note: Sommità argine	
Il responsabile di sito: Dr. Geol. Stefano Verdini Il direttore tecnico: Dr. Geol. Enrico Fasani	

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0,61	0,020	0,00	-0,55	0,00	0,000	0,02	1,10	0,019	0,00	0,02	-0,55
0,62	0,010	0,00	-0,55	0,00	-5,000	0,01	1,10	0,038	0,00	0,01	-0,55
0,63	0,002	0,00	-0,55	0,00	-27,500	0,00	1,10	0,058	1,80	0,00	-0,55
0,64	0,003	0,00	-0,55	0,00	-16,333	0,00	0,90	0,073	1,50	0,00	-0,55
0,65	0,010	0,00	-0,55	0,00	-5,000	0,01	1,00	0,091	1,50	0,01	-0,55
0,66	0,020	0,00	-0,55	0,00	-2,500	0,02	1,00	0,108	1,80	0,02	-0,55
0,67	0,011	0,00	-0,55	0,00	-5,000	0,01	1,00	0,126	1,80	0,01	-0,55
0,68	0,030	0,00	-0,55	0,00	-1,833	0,03	1,00	0,143	1,50	0,03	-0,55
0,69	0,030	0,00	-0,55	0,00	-1,833	0,03	1,00	0,161	1,50	0,03	-0,55
0,7	0,030	0,00	-0,55	0,00	-1,833	0,03	1,00	0,178	1,50	0,03	-0,55
0,71	0,010	0,00	-0,55	0,00	-5,000	0,01	1,00	0,195	1,80	0,01	-0,55
0,72	0,010	0,00	-0,73	0,00	-7,300	0,01	1,00	0,213	1,50	0,01	-0,73
0,73	0,010	0,00	-0,55	0,00	-5,000	0,01	1,00	0,230	1,50	0,01	-0,55
0,74	0,070	0,97	-1,64	1,39	-2,342	0,07	0,90	0,246	1,80	0,07	-1,64
0,75	0,060	1,07	-1,64	1,78	-2,733	0,06	0,90	0,262	1,80	0,06	-1,64
0,76	0,130	2,13	-2,74	1,64	-2,107	0,13	0,90	0,277	1,50	0,13	-2,74
0,77	0,140	1,71	-3,47	1,22	-2,478	0,14	0,70	0,290	0,00	0,14	-3,47
0,78	0,270	3,10	-5,66	1,15	-2,093	0,28	0,90	0,305	1,30	0,27	-5,66
0,79	0,270	5,14	-6,57	1,90	-2,433	0,28	0,90	0,321	1,30	0,27	-6,57
0,8	0,300	9,90	-7,85	2,30	-2,617	0,31	0,90	0,337	1,50	0,30	-7,85
0,81	0,270	10,14	-7,95	3,76	-2,9074	0,28	0,90	0,353	1,50	0,27	-7,95
0,82	0,240	11,39	-7,49	4,75	-3,1208	0,25	0,90	0,368	1,80	0,24	-7,49
0,83	0,120	11,35	-2,56	9,46	-2,1333	0,12	0,90	0,384	1,80	0,12	-2,56
0,84	0,110	11,21	-3,47	10,19	-3,1545	0,11	0,80	0,398	1,80	0,11	-3,47
0,85	0,120	11,11	-4,93	9,26	-1,083	0,12	0,80	0,412	1,50	0,12	-4,93
0,86	0,200	10,80	-5,11	5,20	-2,550	0,21	0,80	0,428	1,80	0,20	-5,11
0,87	0,220	10,84	-8,58	4,93	-3,900	0,23	0,70	0,438	1,80	0,22	-8,58
0,88	0,220	10,84	-8,58	4,93	-3,900	0,23	0,70	0,450	1,80	0,22	-8,58
0,89	0,220	10,84	-8,58	4,93	-3,900	0,23	0,70	0,462	1,80	0,22	-8,58
0,9	0,330	13,75	-7,67	4,17	-2,342	0,34	0,90	0,478	1,80	0,33	-7,67
0,91	0,450	17,99	-7,12	8,06	-1,582	0,40	0,90	0,494	1,50	0,45	-7,12
0,92	0,480	18,89	-6,94	3,94	-1,4458	0,49	0,90	0,510	1,80	0,48	-6,94
0,93	0,510	20,61	-6,03	4,04	-1,1824	0,52	0,90	0,525	1,80	0,51	-6,03
0,94	0,550	23,85	-6,39	4,34	-1,1618	0,56	0,90	0,541	1,50	0,55	-6,39
0,95	0,580	25,81	-6,94	4,57	-1,2393	0,57	0,90	0,557	1,50	0,56	-6,94
0,96	0,580	26,07	-6,94	4,57	-1,2393	0,57	0,90	0,572	1,80	0,56	-6,94
0,97	0,570	31,07	-6,57	5,45	-1,1526	0,58	0,90	0,588	1,80	0,57	-6,57
0,98	0,590	40,29	-5,84	6,83	-0,9898	0,60	0,90	0,604	1,80	0,59	-5,84
0,99	0,620	45,15	-5,11	7,28	-0,8242	0,63	0,90	0,620	1,80	0,62	-5,11
1	0,640	48,53	-3,47	7,58	-0,5422	0,64	0,90	0,635	1,80	0,64	-3,47
1,01	0,650	53,16	-1,26	8,16	-0,1969	0,65	1,00	0,651	1,50	0,65	-1,26
1,02	0,630	58,21	8,40	9,24	1,3333	0,62	0,90	0,667	1,50	0,63	8,40
1,03	0,600	62,89	11,14	10,48	1,8567	0,59	0,90	0,682	1,80	0,60	11,14
1,04	0,560	65,94	11,87	11,78	2,1196	0,55	0,90	0,698	1,80	0,56	11,87
1,05	0,570	70,39	8,95	12,35	1,5702	0,56	0,90	0,714	1,80	0,57	8,95
1,06	0,550	72,10	8,22	13,11	1,4945	0,54	1,00	0,731	1,80	0,55	8,22
1,07	0,550	73,72	8,22	13,40	1,4945	0,54	1,00	0,749	1,80	0,55	8,22

17-101.G_CPTU_Soarza

17-101_CPTU.S3

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
1,08	0,570	75,90	8,22	13,32	1,4421	0,56	1,00	0,766	1,80	0,57	8,22
1,09	0,610	77,10	5,84	12,64	0,9574	0,60	1,00	0,784	1,80	0,61	5,84
1,1	0,570	77,48	8,04	13,59	1,4105	0,56	1,00	0,801	2,00	0,57	8,04
1,11	0,570	76,60	7,85	13,44	1,3772	0,56	1,00	0,819	2,00	0,57	7,85
1,12	0,560	74,90	8,04	13,32	1,4357	0,56	1,00	0,836	1,80	0,56	8,04
1,13	0,500	55,48	8,04	11,10	1,6080	0,49	1,00	0,853	1,80	0,50	8,04
1,14	0,460	42,51	8,58	9,24	1,8652	0,45	1,00	0,871	2,00	0,46	8,58
1,15	0,610	36,17	8,58	5,93	1,4066	0,60	1,00	0,888	1,80	0,61	8,58
1,16	1,150	41,82	4,75	3,64	0,4130	1,15	1,00	0,906	1,80	1,15	4,75
1,17	1,150	41,82	4,75	3,64	0,4130	1,15	1,00	0,923	1,80	1,15	4,75
1,18	1,150	40,80	3,10	3,55	0,2696	1,15	1,00	0,941	2,30	1,15	3,10
1,19	1,150	40,80	3,10	3,55	0,2696	1,15	1,00	0,958	2,30	1,15	3,10
1,2	1,080	39,13	5,66	3,62	0,5241	1,07	1,00	0,976	2,00	1,08	5,66
1,21	1,080	39,08	7,30	3,62	0,7519	1,07	1,00	0,993	2,00	1,08	7,30
1,22	1,080	39,08	7,30	3,62	0,7519	1,07	1,00	1,010	2,00	1,08	7,30
1,23	1,020	37,37	7,30	3,66	0,7157	1,01	1,00	1,028	2,30	1,02	7,30
1,24	1,030	37,60	7,49	3,65	0,7272	1,02	1,00	1,045	2,30	1,03	7,49
1,25	1,030	37,60	7,49	3,65	0,7272	1,02	1,00	1,063	2,30	1,03	7,49
1,26	1,060	40,61	7,49	3,83	0,7066	1,05	1,00	1,080	2,00	1,06	7,49
1,27	1,070	42,05	7,30	3,93	0,6862	1,06	1,00	1,098	2,00	1,07	7,30
1,28	1,080	44,32	7,85	4,10	0,7269	1,07	1,00	1,115	2,00	1,08	7,85
1,29	1,090	47,28	7,85	4,34	0,7202	1,08	1,00	1,133	2,00	1,09	7,85
1,3	1,100	49,64	7,85	4,51	0,7136	1,09	1,00	1,150	2,00	1,10	7,85
1,31	1,090	50,66	7,67	4,65	0,7037	1,08	1,00	1,168	2,00	1,09	7,67
1,32	1,090	53,16	7,85	4,88	0,7202	1,08	1,00	1,186	2,00	1,09	7,85
1,33	1,070	55,90	7,85	5,22	0,7336	1,06	1,00	1,202	2,00	1,07	7,85
1,34	1,080	56,36	7,67	5,22	0,7102	1,07	1,00	1,220	2,00	1,08	7,67
1,35	1,090	58,07	7,67	5,33	0,7037	1,08	1,00	1,237	2,00	1,09	7,67
1,36	1,070	61,73	8,95	5,77	0,8364	1,06	1,00	1,255	2,00	1,07	8,95
1,37	1,080	63,95	9,86	5,92	0,8963	1,07	1,00	1,272	2,00	1,08	9,86
1,38	1,080	64,79	9,86	6,00	0,9133	1,07	1,00	1,290	2,00	1,08	9,86
1,39	1,090	64,51	9,86	5,92	0,9046	1,08	1,00	1,307	2,00	1,09	9,86
1,4	1,090	64,18	10,41	5,89	0,9550	1,08	1,00	1,325	2,00	1,09	10,41
1,41	1,110	64,60	10,96	5,82	0,9874	1,10	1,00	1,342	2,00	1,11	10,96
1,42	1,110	65,06	11,50	5,86	1,0360	1,10	1,00	1,360	2,00	1,11	11,50
1,43	1,100	64,23	10,41	5,84	0,9464	1,09	1,00	1,377	2,00	1,10	10,41
1,44	1,100	62,70	9,86	5,70	0,8964	1,09	1,00	1,394	2,00	1,10	9,86
1,45	1,070	60,62	9,31	5,67	0,8701	1,06	1,00	1,412	2,00	1,07	9,31
1,46	1,060	58,58	9,13	5,53	0,8613	1,05	1,00	1,429	2,00	1,06	9,13
1,47	1,020	56,13	9,50	5,50	0,9314	1,01	1,00	1,447	2,00	1,02	9,50
1,48	1,020	55,11	9,31	5,51	0,9310	0,99	1,10	1,466	2,00	1,00	9,31
1,49	0,960	54,27	9,31	5,65	0,9698	0,95	1,10	1,485	2,00	0,96	9,31
1,5	0,930	53,90	9,31	5,80	1,0011	0,92	1,00	1,503	2,00	0,93	9,31
1,51	0,890	53,39	9,68	6,00	1,0876	0,88	1,00	1,520	2,00	0,89	9,68
1,52	0,880	52,70	10,04	5,99	1,1409	0,87	1,00	1,538	2,00	0,88	10,04
1,53	0,860	52,01	9,86	5,65	1,1665	0,85	1,00	1,555	2,00	0,86	9,86
1,54	0,860	52,01	10,23	6,00	1,1895	0,85	1,00	1,572	2,00	0,86	10,23
1,55	0,860	52,01	10,23	6,05	1,1895	0,85	1,00	1,590	2,30	0,86	10,23
1,56	0,860	52,01	10,23	6,05	1,1895	0,85	1,00	1,607	2,30	0,86	10,23
1,57	0,810	54,41	6,03	6,72	0,7444	0,80	1,00	1,625	2,00	0,81	6,03
1,58	0,840	49,50	6,21	5,90	0,7393	0,83	1,00	1,642	2,00	0,84	6,21
1,59	0,830	48,16	6,39	5,86	0,7699	0,89	1,00	1,660	2,00	0,83	6,39
1,6	0,820	47,84	6,21	5,83	0,7573	0,81	1,00	1,677	2,00	0,82	6,21
1,61	0,810	46,58	5,48	6,00	0,6765	0,80	1,00	1,695	1,80	0,81	5,48
1,62	0,800	49,27	5,11	6,16	0,6388	0,79	1,00	1,712	2,00	0,80	5,11
1,63	0,800	49,46	5,11	6,16	0,6388	0,79	1,00	1,730	2,00	0,80	5,11
1,64	0,820	49,46	5,66	6,82	0,822	0,81	1,00	1,747	2,00	0,82	5,66
1,65	0,850	49,32	6,57	8,00	0,7729	0,84	1,00	1,764	2,00	0,85	6,57
1,66	0,930	50,48	7,12	5,43	0,7656	0,92	1,00	1,782	2,30	0,93	7,12
1,68	1,200	49,93	10,59	4,45	0,9616	1,11	1,00	1,799	2,30	1,12	10,59
1,69	1,300	49,37	10,77	4,16	0,8625	1,19	1,00	1,817	2,00	1,20	10,59
1,7	1,390	47,80	7,75	3,44	0,6309	1,38	1,00	1,852	1,80	1,39	7,75
1,71	1,480	47,70	8,87	3,22	0,5304	1,47	1,00	1,869	1,80	1,48	7,85
1,72	1,540	46,68	8,04	3,03	0,5221	1,53	1,00	1,887	2,00	1,54	8,04
1,73	1,570	47,67	8,04	3,03	0,5121	1,56	1,00	1,904	2,00	1,57	8,04
1,74	1,570	45,22	8,04	3,03	0,5121	1,56	1,00	1,922	2,00	1,57	8,04
1,75	1,560	56,17	8,22	3,80	0,5269	1,55	1,00	1,939	2,00	1,56	8,22
1,76	1,520	62,19	8,40	4,09	0,5526	1,51	1,00	1,956	2,00	1,52	8,40

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[kPa]	[kPa]	[kPa]	[%]	[%]	[kPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
3.15	1,240	68.82	35.98	5.55	2,901.6	1.20	0.90	4.185	2.00	1.26	35.98
3.16	1,260	65.62	38.53	5.25	3,082.4	1.21	0.90	4.201	2.00	1.27	38.53
3.17	1,260	62.75	39.26	4.98	3,115.9	1.22	0.90	4.217	2.00	1.28	39.26
3.18	1,330	62.33	36.16	4.69	2,718.8	1.29	0.90	4.232	2.00	1.35	36.16
3.19	1,340	62.33	37.94	4.76	2,085.1	1.31	0.90	4.248	2.00	1.36	37.94
3.2	1,320	66.04	21.37	5.00	1,618.9	1.30	0.90	4.264	2.00	1.33	21.37
3.21	1,340	66.55	17.90	4.97	1,335.8	1.32	0.90	4.279	2.30	1.35	17.90
3.22	1,370	68.26	12.97	4.98	9,946.7	1.36	0.80	4.293	2.30	1.38	12.97
3.23	1,410	70.39	10.59	4.99	9,751.1	1.40	0.80	4.307	2.00	1.41	10.59
3.24	1,440	72.94	10.94	5.04	4,321.0	1.40	0.80	4.321	2.00	1.44	10.94
3.25	1,450	77.98	10.41	5.38	7,717.9	1.44	0.80	4.335	2.30	1.45	10.41
3.26	1,460	82.89	12.05	5.68	8,825.3	1.45	0.80	4.349	2.30	1.47	12.05
3.27	1,450	88.40	13.51	6.10	9,931.7	1.44	0.80	4.363	2.00	1.46	13.51
3.28	1,440	93.08	13.88	6.46	9,939.9	1.43	0.80	4.377	2.00	1.45	13.88
3.29	1,380	102.81	18.34	7.46	1,116.6	1.36	0.80	4.391	1.80	1.39	18.34
3.3	1,360	107.02	15.70	7.87	1,154.4	1.34	0.80	4.405	1.80	1.37	15.70
3.31	1,350	110.54	16.07	8.19	1,190.4	1.33	0.90	4.421	1.80	1.36	16.07
3.32	1,340	114.24	16.44	8.53	1,226.9	1.32	0.90	4.436	1.80	1.35	16.44
3.33	1,320	116.24	16.80	8.81	1,272.7	1.30	0.90	4.452	2.00	1.33	16.80
3.34	1,300	118.09	19.28	9.06	1,308.9	1.28	0.80	4.466	2.00	1.31	19.28
3.35	1,300	120.73	18.44	9.29	4,185	1.28	0.80	4.480	1.80	1.31	18.44
3.36	1,310	121.56	18.81	9.28	1,435.9	1.29	0.80	4.494	1.80	1.32	18.81
3.37	1,310	120.36	19.17	9.19	1,456.4	1.29	0.80	4.508	2.00	1.32	19.17
3.38	1,330	118.51	19.36	8.91	1,465.6	1.31	0.80	4.522	2.00	1.34	19.36
3.39	1,400	115.08	19.91	8.22	1,422.1	1.38	0.80	4.536	1.80	1.41	19.91
3.4	1,400	115.08	19.91	8.22	1,422.1	1.38	0.80	4.550	1.80	1.41	19.91
3.41	1,470	112.76	19.72	7.67	1,341.5	1.45	0.90	4.566	2.00	1.48	19.72
3.42	1,530	111.23	19.54	7.27	1,277.1	1.51	0.90	4.581	2.00	1.54	19.54
3.43	1,590	110.08	19.36	6.92	1,217.6	1.57	0.80	4.595	2.00	1.60	19.36
3.44	1,660	108.73	18.44	6.55	1,110.8	1.64	0.80	4.609	1.80	1.67	18.44
3.45	1,710	108.46	18.63	6.34	1,085.5	1.69	0.80	4.623	1.80	1.72	18.63
3.46	1,770	108.32	18.99	6.12	1,072.9	1.75	0.80	4.637	2.00	1.78	18.99
3.47	1,920	108.92	18.99	5.67	9,989.1	1.90	0.80	4.651	2.00	1.93	18.99
3.48	1,970	108.18	19.17	5.49	9,973.1	1.95	0.80	4.665	2.00	1.98	19.17
3.49	2,030	108.83	19.36	5.36	9,953.7	2.01	0.80	4.679	2.00	2.04	19.36
3.5	2,080	111.65	19.36	5.37	9,930.8	2.06	0.80	4.693	1.80	2.09	19.36
3.51	2,120	113.64	18.99	5.36	8,958.2	2.10	0.80	4.707	1.80	2.13	18.99
3.52	2,150	116.00	18.44	5.40	8,577.7	2.13	0.80	4.721	2.00	2.16	18.44
3.53	2,180	120.96	17.90	5.55	8,821.1	2.16	0.80	4.735	2.00	2.19	17.90
3.54	2,150	127.49	17.90	5.93	8,836.2	2.13	0.80	4.749	1.80	2.16	17.90
3.55	2,150	127.49	17.90	5.93	8,836.2	2.13	0.80	4.763	2.30	2.16	17.90
3.56	2,150	127.49	17.90	5.93	8,836.2	2.13	0.80	4.777	2.30	2.16	17.90
3.57	1,620	127.21	19.72	7.85	1,213.3	1.60	0.80	4.791	2.30	1.63	19.72
3.58	2,120	136.15	20.09	6.42	9,947.6	2.10	0.80	4.805	1.80	2.13	20.09
3.59	2,100	143.84	19.72	6.85	9,930.0	2.08	0.80	4.819	1.80	2.11	19.72
3.6	2,050	149.53	19.54	7.29	9,954.0	2.03	0.80	4.833	1.80	2.19	19.54
3.61	1,980	158.19	19.91	7.80	9,950.0	1.96	0.80	4.847	2.00	1.99	19.91
3.62	1,930	158.98	19.36	8.24	1,003.1	1.91	0.90	4.862	2.00	1.94	19.36
3.63	1,890	162.50	18.81	8.60	9,952.2	1.87	0.90	4.878	1.80	1.90	18.81
3.64	1,780	164.63	19.54	9.25	1,097.8	1.76	0.90	4.894	1.80	1.79	19.54
3.65	1,730	165.09	19.72	9.51	1,138.9	1.71	0.90	4.909	2.00	1.74	19.72
3.66	1,670	163.56	19.72	9.76	1,180.8	1.63	0.90	4.925	2.00	1.68	19.72
3.67	1,620	163.05	19.91	10.06	1,229.0	1.60	0.90	4.941	2.00	1.63	19.91
3.68	1,570	159.49	19.91	10.16	1,268.2	1.55	0.90	4.957	2.00	1.58	19.91
3.69	1,540	155.97	20.09	10.13	1,304.5	1.52	0.90	4.972	1.80	1.55	20.09
3.7	1,490	146.15	20.64	9.81	1,385.2	1.47	0.90	4.988	2.00	1.50	20.64
3.71	1,460	142.22	20.82	9.74	1,426.6	1.44	0.90	5.004	2.00	1.49	20.82
3.72	1,430	135.18	20.82	9.45	1,455.9	1.41	0.90	5.019	1.80	1.44	20.82
3.73	1,410	129.57	20.82	9.19	1,476.6	1.39	0.90	5.035	1.80	1.42	20.82
3.74	1,370	124.20	21.00	9.07	1,532.8	1.35	0.90	5.051	2.00	1.38	21.00
3.75	1,360	118.13	21.00	8.69	1,544.1	1.34	0.90	5.066	2.00	1.37	21.00
3.76	1,350	116.72	21.00	8.45	1,582.2	1.30	0.90	5.082	1.80	1.35	21.00
3.77	1,380	99.80	20.45	7.23	1,481.9	1.36	0.90	5.098	1.80	1.39	20.45
3.78	1,400	94.42	20.27	6.74	1,447.9	1.38	0.90	5.114	2.00	1.41	20.27
3.79	1,400	89.42	20.09	6.39	1,435.0	1.38	0.90	5.129	2.00	1.41	20.09
3.8	1,430	86.00	20.09	6.01	1,404.9	1.41	0.90	5.145	1.80	1.44	20.09
3.81	1,440	81.26	19.91	5.76	1,361.2	1.42	0.90	5.161	1.80	1.45	19.91
3.82	1,460	81.32	19.91	5.57	1,363.7	1.44	0.90	5.176	2.00	1.47	19.91
3.83	1,470	80.76	19.72	5.49	1,341.5	1.45	0.90	5.192	2.00	1.48	19.72

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[kPa]	[kPa]	[kPa]	[%]	[%]	[kPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
3.84	1,480	78.63	20.09	5.31	1,357.4	1.46	0.90	5.208	2.00	1.49	20.09
3.85	1,480	78.45	20.27	5.30	1,369.6	1.46	0.90	5.224	2.00	1.49	20.27
3.86	1,490	78.82	20.45	5.29	1,372.5	1.47	0.90	5.239	1.80	1.50	20.45
3.87	1,510	80.21	20.64	5.31	1,366.9	1.49	0.90	5.255	2.00	1.52	20.64
3.88	1,540	80.76	21.00	5.34	1,363.6	1.52	0.90	5.271	2.00	1.55	21.00
3.89	1,600	81.64	21.18	5.10	1,323.8	1.58	0.90	5.286	2.00	1.61	21.18
3.9	1,720	84.19	21.91	4.89	1,273.8	1.70	0.90	5.302	2.00	1.73	21.91
3.91	1,770	86.32	21.91	4.88	1,237.9	1.75	0.90	5.318	1.80	1.78	21.91
3.92	1,830	89.05	22.83	4.87	1,247.5	1.81	0.90	5.333	1.80	1.84	22.83
3.93	1,870	90.44	23.19	4.84	1,240.1	1.85	0.90	5.349	1.80	1.88	23.19
3.94	1,940	92.25	23.37	4.76	1,204.6	1.92	0.90	5.365	2.00	1.95	23.37
3.95	1,980	92.66	23.19	4.68	1,171.2	1.96	0.90	5.381	2.00	1.99	23.19
3.96	2,080	94.66	22.83	4.55	1,097.6	2.06	0.90	5.396	1.80	2.09	22.83
3.97	2,110	96.74	22.64	4.58	1,073.0	2.09	0.90	5.412	2.00	2.12	22.64
3.98	2,130	100.07	23.56	4.7	1,061.1	2.11	0.90	5.428	2.00	2.14	23.56
3.99	2,150	104.38	23.56	4.85	1,058.8	2.13	0.90	5.443	2.00	2.16	23.56
4	2,160	106.70	22.64	4.94	1,048.1	2.14	0.90	5.459	2.00	2.17	22.64
4.01	2,180	110.77	21.91	5.08	1,005.0	2.16	0.90	5.475	1.80	2.19	21.91
4.02	2,200	115.45	21.91	5.25	9,999.9	2.18	0.90	5.491	1.80	2.21	21.91
4.03	2,240	122.72	21.91	5.48	9,978.1	2.22	1.00	5.508	2.00	2.25	21.91
4.04	2,240	125.03	21.91	5.58	9,978.1	2.22	1.00	5.525	2.00	2.25	21.91
4.05	2,250	129.57	21.00	5.76	9,933.2	2.23	1.00	5.543	2.00	2.26	21.00
4.06	2,270	134.62	20.09	5.93	8,855.0	2.25	1.00	5.560	2.00	2.28	20.09
4.07	2,260	138.33	19.36	6.12	8,866.6	2.24	1.00	5.578	1.80	2.27	19.36
4.08	2,240	144.30	20.64	6.04	9,921.4	2.22	1.00	5.595	1.80	2.25	20.64
4.09	2,270	147.54	21.73	6.05	9,948.0	2.29	1.00	5.613	2.00	2.27	21.73
4.1	2,270	150.18	22.64	6.02	9,974.7	2.25	1.00	5.630	2.00	2.28	22.64
4.11	2,310	148.47	23.19	6.43	1,003.9	2.29	1.00	5.648	2.00	2.32	23.19
4.12	2,330	147.45	24.47	6.33	1,005.2	2.31	1.00	5.665	2.00	2.34	24.47
4.13	2,360	147.73	25.02	6.26	1,060.2	2.33	1.00	5.683	1.80	2.37	25.02
4.14	2,380	146.85	25.02	6.17	1,051.3	2.35	1.00	5.700	2.00	2.39	25.02
4.15	2,420	146.66	25.02	6.06	1,033.9	2.39	1.00	5.717	2.00	2.43	25.02
4.16	2,440	147.54	25.20	6.05	1,032.8	2.41	1.00	5.735	1.80	2.45	25.20
4.17	2,440	149.95	24.47	6.15	1,029.2	2.42	1.00	5.752	1.80	2.45	24.47
4.18	2,450	150.00	24.29	6.12	9,914.4	2.43	1.00	5.770	1.80	2.46	24.29
4.19	2,490	150.50	23.92	6.04	9,906.4	2.47	1.00	5.787	1.80	2.50	23.92
4.2	2,520	151.57	23.56	6.01	9,949.9	2.50	1.00	5.805	2.00	2.53	23.56
4.21	2,550	152.82	23.37	5.99	9,916.5	2.53	1.00	5.822	2.00	2.56	23.37
4.22	2,570	154.58	22.83	6.01	9,888.3	2.55	1.00	5.840	2.00	2.58	22.83
4.23	2,580	153.65	23.56	6.25	9,855.0	2.58	1.00	5.857	2.00	2.60	23.56
4.24	2,570	161.48	24.47	6.28	9,951.2	2.55	1.00	5.875	2.00	2.58	24.47
4.25	2,610	161.62	25.20	6.19	9,965.5	2.58	1.00	5.892	2.00	2.62	25.20
4.26	2,610	162.27	23.38	6.22	9,924.2	2.58	1.00	5.909	1.80	2.62	23.38
4.27	2,590	166.26	25.02	6.42	9,980.2	2.56	1.00	5.927	2.00	2.60	25.02
4.28	2,540	169.20	24.84	6.66	9,780.0	2.52	1.00	5.944	2.00	2.55	24.84
4.29	2,570	170.14	24.84	6.62	9,840.7	2.55	1.00	5.962	2.00	2.58	24.84
4.3	2,580	167.45	24.84	6.49	9,968.2	2.56	1.00	5.979	1.80	2.59	24.84
4.31	2,640	166.53	24.65	6.31	9,933.7	2.62	1.00	5.997	2.00	2.65	24.65
4.32	2,680	164.07	24.65	6.10	9,916.4	2.67	1.00	6.014	2.00	2.70	24.65
4.33	2,730	161.62	24.65	5.92	9,902.9	2.71	1.00	6.032	1.80	2.74	24.65
4.34	2,760	159.30	24.47	5.77	9,886.6	2.74	1.00	6.049	1.80	2.77	24.47
4.35	2,880	154.16	24.47	5.35	9,840.7	2.82	1.00	6.089	1.80	2.84	24.47
4.36	2,970	153.24	24.65	5.16	8,830.0	2.95	1.00	6.084	1.80	2.98	24.65
4.37	3,050	153.61	24.84	5.04	8,844.4	3.03	1.00	6.101	2.00	3.06	24.84
4.38	3,080	155.00	25.93	5.03	8,819.3	3.05	1.00	6.119	2.00	3.09	25.93
4.39	3,110	154.85	25.93	4.98	8,838.3	3.08	1.00	6.136	1.80	3.12	25.93
4.4	3,220	157.82	25.93	4.90	8,853.3	3.19	1.00	6.154	2.00	3.28	25.93
4.41	3,270	158.38	25.93	4.84	8,793.0	3.24	1.00	6.172	2.00	3.32	25.93
4.42	3,340	160.88	25.75	4.82	8,771.0	3.31	1.00	6.189	1.80	3.35	25.75
4.43	3,390	162.31	26.48	4.79	8,781.3	3.36	1.00	6.206	1.80	3.40	26.48
4.44	3,450	162.82	27.21	4.72	8,788.7	3.42	1.00	6.224	1.80	3.46	27.21
4.45	3,630	162.45	26.48	4.48	8,729.6	3.60	1.00	6.241	1.80	3.64	26.48
4.46	3,720	158.79	26.11	4.27	8,699.9	3.69	1.00	6.259	1.80	3.68	26.11
4.47	3,750	153.51	25.93	4.09	8,691.5	3.72	1.00	6.276	1.80	3.76	25.93
4.48	3,770	147.77	25.38	3.92	8,732.3	3.74	1.00	6.293	1.80	3.78	25.38
4.49	3,780	142.26	25.38	3.76	8,714.3	3.75	1.00	6.311	1.80	3.79	25.38
4.5	3,770	139.94	25.57	3.58	8,782.3	3.74	1.00	6.328	1.80	3.78	25.57
4.51	3,720	118.74	25.93	3.19	8,697.0	3.69	1.00	6.346	1.80	3.73	25.93
4.52	3,650	109.75	26.11	3.01	8,715.3	3.62	1.00	6.363	2.00	3.66	26.11

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
5.91	7,470	46.31	32.32	0.62	0.4327	7.44	1.10	8.930	2.00	7.48	32.32
5.92	7,480	46.77	32.51	0.63	0.4346	7.45	1.10	8.950	2.00	7.49	32.51
5.93	7,500	47.14	32.51	0.63	0.4335	7.47	1.10	8.969	1.80	7.51	32.51
5.94	7,490	47.42	32.51	0.63	0.4340	7.46	1.10	8.988	1.80	7.50	32.51
5.95	7,510	47.89	32.69	0.64	0.4353	7.48	1.10	9.007	2.00	7.52	32.69
5.96	7,470	49.18	32.87	0.66	0.4400	7.44	1.10	9.026	2.00	7.48	32.87
5.97	7,470	49.18	32.87	0.66	0.4400	7.44	1.10	9.046	2.00	7.48	32.87
5.98	7,450	50.15	32.87	0.67	0.4412	7.42	1.10	9.065	2.00	7.46	32.87
5.99	7,440	50.52	32.87	0.68	0.4418	7.41	1.10	9.084	2.00	7.45	32.87
6.00	7,460	50.90	33.05	0.68	0.4415	7.46	1.10	9.103	2.00	7.49	33.05
6.01	7,520	50.85	33.05	0.68	0.4395	7.49	1.10	9.122	2.00	7.53	33.05
6.02	7,580	50.99	32.51	0.67	0.4289	7.55	1.10	9.142	1.80	7.59	32.51
6.03	7,580	51.26	32.32	0.68	0.4294	7.55	1.10	9.161	1.80	7.59	32.32
6.04	7,590	51.36	32.51	0.68	0.4283	7.56	1.10	9.180	2.00	7.60	32.51
6.05	7,520	51.59	32.87	0.75	0.4371	7.10	1.10	9.199	2.00	7.53	32.87
6.06	7,440	51.68	33.05	0.69	0.4442	7.41	1.10	9.218	2.00	7.45	33.05
6.07	7,380	51.63	32.87	0.70	0.4454	7.35	1.10	9.238	2.00	7.39	32.87
6.08	7,230	51.68	33.24	0.71	0.4598	7.20	1.10	9.257	1.80	7.24	33.24
6.09	7,280	51.17	33.42	0.71	0.4622	7.20	1.10	9.276	1.80	7.24	33.42
6.10	7,130	50.94	33.42	0.72	0.4627	7.10	1.10	9.255	1.80	7.14	33.42
6.11	7,030	50.38	33.60	0.72	0.4780	7.00	1.10	9.314	1.80	7.04	33.60
6.12	6,920	49.87	33.78	0.72	0.4882	6.89	1.10	9.334	2.00	6.93	33.78
6.13	6,800	49.32	33.97	0.73	0.4996	6.77	1.10	9.353	2.00	6.81	33.97
6.14	6,700	48.72	34.15	0.73	0.5097	6.67	1.10	9.372	2.00	6.71	34.15
6.15	6,470	49.18	34.15	0.76	0.5308	6.44	1.10	9.391	1.50	6.48	34.15
6.16	6,330	49.18	34.15	0.77	0.5396	6.30	1.10	9.410	1.50	6.34	34.15
6.17	6,230	47.33	34.88	0.76	0.5599	6.20	1.10	9.430	2.30	6.24	34.88
6.18	6,110	46.73	34.88	0.76	0.5709	6.08	1.10	9.449	2.30	6.12	34.88
6.19	6,030	45.94	35.06	0.76	0.5814	5.99	1.10	9.468	2.00	6.04	35.06
6.20	5,950	45.11	35.06	0.76	0.5922	5.91	1.10	9.487	2.00	5.96	35.06
6.21	5,860	44.13	35.06	0.75	0.6053	5.82	1.10	9.506	2.00	5.87	35.06
6.22	5,820	43.58	35.06	0.75	0.6024	5.78	1.10	9.526	2.00	5.83	35.06
6.23	5,770	42.74	35.06	0.74	0.6076	5.73	1.10	9.545	2.00	5.78	35.06
6.24	5,750	42.05	35.06	0.73	0.6097	5.71	1.10	9.564	2.30	5.76	35.06
6.25	5,710	41.54	34.88	0.73	0.6109	5.68	1.10	9.583	2.30	5.72	34.88
6.26	5,720	41.40	35.24	0.72	0.6161	5.68	1.10	9.602	2.00	5.73	35.24
6.27	5,680	41.59	35.43	0.73	0.6280	5.62	1.10	9.622	2.00	5.67	35.43
6.28	5,630	41.17	35.61	0.73	0.6325	5.59	1.10	9.641	2.30	5.64	35.61
6.29	5,610	41.22	35.61	0.73	0.6348	5.57	1.10	9.660	2.30	5.62	35.61
6.30	5,560	40.94	35.79	0.74	0.6437	5.52	1.10	9.679	2.00	5.58	35.79
6.31	5,520	40.89	35.79	0.74	0.6484	5.48	1.10	9.698	2.00	5.54	35.79
6.32	5,450	41.31	35.98	0.76	0.6602	5.41	1.10	9.718	2.30	5.47	35.98
6.33	5,410	40.94	36.16	0.76	0.6684	5.37	1.10	9.737	2.30	5.43	36.16
6.34	5,370	41.22	36.34	0.77	0.6767	5.33	1.10	9.756	2.00	5.39	36.34
6.35	5,380	41.22	36.71	0.77	0.6823	5.34	1.10	9.775	2.00	5.40	36.71
6.36	5,390	41.59	36.99	0.77	0.6944	5.35	1.10	9.794	2.30	5.41	36.99
6.37	5,420	42.00	36.71	0.78	0.6773	5.38	1.10	9.813	2.30	5.42	36.71
6.38	5,470	42.74	36.89	0.78	0.6744	5.43	1.10	9.833	2.30	5.49	36.89
6.39	5,510	42.88	36.89	0.78	0.6695	5.47	1.10	9.852	2.00	5.53	36.89
6.40	5,570	42.88	36.97	0.77	0.6623	5.53	1.10	9.871	2.00	5.59	36.89
6.41	5,590	42.74	36.52	0.77	0.6533	5.55	1.10	9.890	2.30	5.61	36.52
6.42	5,630	43.07	36.34	0.76	0.6538	5.60	1.10	9.909	2.30	5.63	36.34
6.43	5,600	43.07	36.34	0.77	0.6489	5.56	1.10	9.929	2.00	5.62	36.34
6.44	5,610	43.11	36.34	0.77	0.6478	5.57	1.10	9.948	2.00	5.63	36.34
6.45	5,620	43.25	36.34	0.77	0.6466	5.58	1.10	9.967	2.00	5.64	36.34
6.46	5,650	43.39	36.52	0.77	0.6464	5.61	1.10	9.986	2.00	5.67	36.52
6.47	5,670	43.76	36.71	0.77	0.6474	5.63	1.10	10.005	2.00	5.69	36.71
6.48	5,670	44.13	36.89	0.78	0.6506	5.63	1.10	10.025	2.00	5.69	36.89
6.49	5,690	44.32	37.07	0.78	0.6515	5.65	1.10	10.044	2.00	5.71	37.07
6.50	5,690	44.55	37.25	0.78	0.6547	5.65	1.10	10.063	2.00	5.71	37.25
6.51	5,700	44.64	37.25	0.78	0.6536	5.62	1.10	10.082	2.00	5.72	37.25
6.52	5,700	44.64	37.44	0.78	0.6568	5.66	1.10	10.101	2.00	5.74	37.44
6.53	5,720	44.80	37.44	0.78	0.6545	5.68	1.10	10.121	2.00	5.74	37.44
6.54	5,730	44.46	37.44	0.78	0.6534	5.69	1.10	10.140	2.00	5.75	37.44
6.55	5,730	44.46	37.44	0.78	0.6534	5.69	1.10	10.159	2.50	5.75	37.44
6.56	5,730	44.46	37.44	0.78	0.6534	5.69	1.10	10.178	2.50	5.75	37.44
6.57	5,450	43.07	36.26	0.76	0.6443	5.41	1.10	10.197	2.00	5.46	36.26
6.58	5,670	42.14	39.08	0.74	0.6892	5.63	1.10	10.217	2.00	5.69	39.08
6.59	5,770	42.19	39.08	0.73	0.6773	5.73	1.10	10.236	2.00	5.79	39.08

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Pag. 9

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
6.6	5,810	42.19	38.90	0.73	0.6695	5.77	1.10	10.255	2.00	5.83	38.90
6.61	5,980	42.05	38.71	0.70	0.6473	5.94	1.10	10.274	2.00	6.00	38.71
6.62	6,110	41.72	38.53	0.68	0.6306	6.07	1.10	10.293	2.00	6.13	38.53
6.63	6,250	41.88	38.53	0.67	0.6165	6.21	1.10	10.313	2.00	6.27	38.53
6.64	6,400	41.82	38.53	0.65	0.6062	6.36	1.10	10.332	2.00	6.42	38.53
6.65	6,540	42.14	38.71	0.64	0.5919	6.50	1.10	10.351	2.00	6.56	38.71
6.66	6,670	42.51	38.71	0.64	0.5804	6.63	1.10	10.370	2.00	6.69	38.71
6.67	6,910	43.25	38.90	0.63	0.5630	6.87	1.10	10.389	2.00	6.93	38.90
6.68	7,030	43.87	38.90	0.62	0.5533	6.99	1.10	10.409	2.00	7.05	38.90
6.69	7,110	44.18	38.90	0.62	0.5471	7.07	1.10	10.428	2.00	7.13	38.90
6.7	7,200	44.78	38.71	0.62	0.5376	7.16	1.10	10.447	2.00	7.22	38.71
6.71	7,270	45.06	38.71	0.62	0.5325	7.23	1.10	10.466	2.00	7.29	38.71
6.72	7,330	45.52	38.53	0.62	0.5256	7.29	1.10	10.485	2.00	7.35	38.53
6.73	7,370	46.22	38.53	0.63	0.5228	7.33	1.10	10.505	2.00	7.39	38.53
6.74	7,400	46.73	38.35	0.53	0.5182	7.47	1.10	10.524	2.00	7.45	38.35
6.75	7,440	47.74	38.35	0.54	0.5155	7.40	1.10	10.543	2.00	7.46	38.35
6.76	7,450	48.58	38.53	0.65	0.5172	7.41	1.10	10.562	2.00	7.47	38.53
6.77	7,440	49.09	38.53	0.66	0.5179	7.40	1.10	10.581	2.00	7.46	38.53
6.78	7,480	50.01	38.71	0.67	0.5175	7.44	1.10	10.601	1.80	7.50	38.71
6.79	7,510	50.52	38.53	0.67	0.5083	7.47	1.10	10.620	1.80	7.53	38.53
6.8	7,630	50.99	38.17	0.67	0.5003	7.59	1.10	10.639	2.00	7.65	38.17
6.81	7,720	51.40	38.35	0.67	0.4968	7.68	1.20	10.660	2.00	7.74	38.35
6.82	7,810	51.54	38.35	0.66	0.4910	7.77	1.20	10.681	2.30	7.83	38.35
6.83	7,850	51.81	38.35	0.66	0.4885	7.81	1.20	10.702	2.30	7.87	38.35
6.84	7,900	52.01	38.53	0.66	0.4877	7.86	1.20	10.723	2.00	7.92	38.53
6.85	7,890	52.38	38.53	0.66	0.4883	7.85	1.20	10.744	2.00	7.91	38.53
6.86	7,830	52.33	39.08	0.67	0.4991	7.79	1.20	10.765	1.80	7.85	39.08
6.87	7,730	52.61	39.08	0.68	0.5056	7.69	1.20	10.786	1.80	7.75	39.08
6.88	7,690	52.84	39.08	0.69	0.5082	7.65	1.20	10.807	2.00	7.71	39.08
6.89	7,600	52.89	39.08	0.70	0.5142	7.56	1.20	10.827	2.00	7.62	39.08
6.9	7,530	53.07	39.26	0.72	0.5214	7.49	1.20	10.848	2.30	7.53	39.26
6.91	7,400	53.30	39.08	0.72	0.5281	7.38	1.20	10.869	2.30	7.42	39.08
6.92	7,310	53.07	39.44	0.73	0.5395	7.27	1.20	10.890	2.00	7.33	39.44
6.93	7,210	52.75	39.08	0.73	0.5402	7.12	1.20	10.911	2.00	7.23	39.08
6.94	7,070	52.79	39.44	0.75	0.5579	7.03	1.20	10.932	2.00	7.09	39.44
6.95	6,960	52.79	39.44	0.76	0.5607	6.92	1.20	10.953	2.00	6.94	39.44
6.96	6,800	52.51	39.44	0.77	0.5680	6.76	1.20	10.974	2.00	6.82	39.44
6.97	6,670	51.91	39.44	0.78	0.5913	6.63	1.20	10.995	2.00	6.69	39.44
6.98	6,510	51.36	39.26	0.79	0.6031	6.47	1.20	11.016	2.00	6.53	39.26
6.99	6,250	50.20	39.63	0.80	0.6341	6.21	1.20	11.037	2.00	6.27	39.63
7	6,150	49.27	39.63	0.81	0.6444	6.11	1.20	11.058	2.00	6.17	39.63
7.01	6,050	48.53	39.63	0.80	0.6550	6.01	1.20	11.079	2.00	6.07	39.63
7.02	5,980	48.02	39.63	0.80	0.6627	5.94	1.20	11.100	2.00	5.96	39.63
7.03	5,940	48.96	39.63	0.79	0.6672	5.90	1.20	11.121	2.00	5.96	39.63
7.04	5,890	48.65	39.63	0.79	0.6728	5.85	1.20	11.142	2.00	5.91	39.63
7.05	5,920	49.12	39.81	0.78	0.6755	5.87	1.20	11.163	2.00	5.94	39.81
7.06	5,940	45.71	39.63	0.77	0.6627	5.90	1.20	11.183	2.30	5.96	39.63
7.07	6,000	45.61	39.63	0.76	0.6605	5.96	1.20	11.204	2.30	6.02	39.63
7.08	6,100	45.29	39.81	0.74	0.6526	6.00	1.20	11.225	2.00	6.12	39.81
7.09	6,210	44.73	39.63	0.72	0.6382	6.17	1.20	11.246	2.00	6.23	39.63
7.1	6,420	44.60	39.63	0.69	0.6173	6.46	1.20	11.267	2.00	6.44	39.63
7.11	6,600	50.50	39.44	0.67	0.5976	6.56	1.20	11.288	2.00	6.62	39.44
7.12	7,110	44.09	39.26	0.62	0.5522	7.07	1.20	11.309	2.00	7.13	39.26
7.13	7,420	44.50	40.36	0.60	0.5439	7.38	1.20	11.330	2.00	7.44	40.36
7.14	7,540	44.41	40.91	0.59	0.5426	7.50	1.20	11.351	2.00	7.56	40.91
7.15	7,630	45.05	40.72	0.58	0.5457	7.62	1.20	11.372	2.00	7.65	40.72
7.16	7,700	44.27	40.54	0.57	0.5265	7.66	1.20	11.393	2.00	7.72	40.54
7.17	7,670	44.18	40.36	0.58	0.5262	7.63	1.20	11.414	2.00	7.69	40.36
7.18	7,680	45.29	39.99	0.59	0.5221	7.62	1.20	11.435	2.00	7.68	39.99
7.19	7,650	45.94	40.18	0.60	0.5252	7.61	1.20	11.456	2.00	7.67	40.18
7.2	7,660	46.01	39.81	0.61	0.5197	7.67	1.20	11.477	1.80	7.68	39.81
7.21	7,560	47.74	39.81	0.63	0.5266	7.52	1.20	11.498	1.80	7.58	39.81
7.22	7,390	49.23	39.63	0.67	0.5363	7.35	1.20	11.519	2.30	7.41	39.63
7.23	7,370	49.69	39.63	0.67	0.5377	7.33	1.20	11.540	2.30	7.39	39.63
7.24	7,340	50.80	40.54	0.69	0.5523	7.30	1.20	11.560	2.00	7.36	40.54
7.25	7,350	51.67	41.04	0.69	0.5605	7.19	1.20	11.581	2.00	7.37	41.04
7.26	7,200	51.45	41.45	0.71	0.5757	7.16	1.20	11.602	2.00	7.22	41.45
7.27	7,140	53.30	39.99	0.75	0.5601	7.10	1.20	11.623	2.00	7.26	39.99
7.28	7,180	55.29	40.18	0.77	0.5596	7.14	1.20	11.644	2.00	7.20	40.18

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.67	13,540	75.95	43.64	0.56	0.3223	13.50	1.40	14,880	2.00	13.56	43.64
8.68	13,360	76.64	43.28	0.57	0.3240	13.32	1.40	14,904	2.00	13.38	43.28
8.69	13,300	77.89	43.10	0.59	0.3265	13.16	1.40	14,929	2.30	13.22	43.10
8.7	13,120	78.86	43.10	0.60	0.3263	13.09	1.40	14,953	2.00	13.15	43.10
8.71	13,010	79.25	43.28	0.61	0.3327	12.97	1.40	14,978	2.00	13.07	43.28
8.72	12,980	80.39	43.46	0.62	0.3348	12.94	1.40	15,002	2.00	13.00	43.46
8.73	13,050	82.01	43.83	0.63	0.3359	13.01	1.40	15,026	2.00	13.07	43.83
8.74	13,120	82.20	43.46	0.63	0.3313	13.08	1.40	15,051	2.00	13.14	43.46
8.75	13,170	82.11	43.28	0.62	0.3296	13.13	1.40	15,075	2.00	13.19	43.28
8.76	13,140	81.50	43.28	0.61	0.3294	13.10	1.40	15,100	2.00	13.16	43.28
8.77	13,120	81.50	43.10	0.62	0.3285	13.08	1.40	15,124	2.30	13.14	43.10
8.78	13,050	80.86	43.46	0.62	0.3330	13.01	1.40	15,149	2.30	13.07	43.46
8.79	12,940	80.07	44.01	0.62	0.3401	12.90	1.40	15,173	2.00	12.96	44.01
8.8	12,930	79.51	44.19	0.61	0.3418	12.89	1.40	15,197	2.00	12.95	44.19
8.81	12,890	79.19	45.01	0.61	0.3422	12.85	1.40	15,222	2.00	12.91	45.01
8.82	12,900	78.22	43.83	0.61	0.3398	12.86	1.40	15,246	2.00	12.92	43.83
8.83	12,840	77.52	43.83	0.60	0.3414	12.80	1.40	15,271	2.30	12.86	43.83
8.84	12,760	76.69	43.64	0.60	0.3420	12.72	1.40	15,295	2.30	12.78	43.64
8.85	12,670	75.67	43.46	0.60	0.3430	12.63	1.40	15,320	2.00	12.69	43.46
8.86	12,620	73.82	43.64	0.61	0.3458	12.58	1.40	15,344	2.00	12.64	43.64
8.87	12,590	76.87	43.83	0.61	0.3481	12.55	1.40	15,368	2.30	12.61	43.83
8.88	12,620	77.29	43.83	0.61	0.3473	12.58	1.40	15,393	2.30	12.64	43.83
8.89	12,660	77.80	44.19	0.61	0.3491	12.62	1.40	15,417	2.30	12.68	44.19
8.9	12,690	77.89	44.19	0.61	0.3482	12.65	1.40	15,442	2.30	12.71	44.19
8.91	12,710	77.38	44.19	0.61	0.3477	12.68	1.40	15,466	2.30	12.73	44.19
8.92	12,770	76.83	44.19	0.60	0.3460	12.73	1.40	15,491	2.00	12.76	44.19
8.93	12,810	76.78	44.38	0.60	0.3464	12.77	1.40	15,515	2.00	12.83	44.38
8.94	12,850	76.60	44.92	0.60	0.3496	12.81	1.40	15,539	2.00	12.87	44.92
8.95	12,880	76.73	44.92	0.60	0.3488	12.84	1.40	15,564	2.00	12.90	44.92
8.96	12,890	78.08	45.20	0.61	0.3584	12.84	1.40	15,588	2.30	12.91	45.20
8.97	12,860	78.73	46.03	0.61	0.3649	12.81	1.40	15,613	2.30	12.88	46.03
8.98	12,970	77.48	45.65	0.60	0.3520	12.92	1.40	15,637	2.00	12.99	45.65
8.99	12,970	77.48	45.65	0.60	0.3520	12.92	1.40	15,662	2.00	12.99	45.65
9	12,990	77.57	44.92	0.60	0.3458	12.95	1.40	15,686	2.00	13.01	44.92
9.01	12,900	80.58	44.56	0.62	0.3454	12.86	1.50	15,712	2.00	12.92	44.56
9.02	12,820	80.95	44.01	0.63	0.3433	12.78	1.50	15,738	2.30	12.84	44.48
9.03	12,690	81.64	43.83	0.64	0.3454	12.65	1.50	15,765	2.30	12.71	44.75
9.04	12,740	83.03	44.19	0.65	0.3469	12.70	1.50	15,791	2.00	12.76	44.49
9.05	12,770	84.00	46.38	0.66	0.3632	12.72	1.50	15,817	2.00	12.79	42.40
9.06	12,800	84.93	46.75	0.66	0.3652	12.75	1.50	15,843	2.30	12.82	42.13
9.07	12,790	86.32	46.02	0.68	0.3598	12.74	1.50	15,869	2.30	12.81	42.96
9.08	12,830	87.62	46.20	0.68	0.3601	12.78	1.50	15,895	2.00	12.85	42.87
9.09	12,830	88.03	46.38	0.69	0.3615	12.78	1.50	15,922	2.00	12.85	42.79
9.1	12,860	88.03	46.20	0.69	0.3609	12.75	1.50	15,948	2.00	12.82	43.07
9.11	12,790	88.87	45.47	0.69	0.3555	12.74	1.50	15,974	2.00	12.81	43.90
9.12	12,710	89.05	45.29	0.70	0.3563	12.66	1.50	16,000	2.00	12.73	44.18
9.13	12,690	89.61	44.74	0.71	0.3526	12.62	1.50	16,026	2.00	12.72	44.60
9.14	12,690	88.87	44.01	0.70	0.3468	12.65	1.50	16,053	2.00	12.71	45.65
9.15	12,720	88.45	44.01	0.70	0.3460	12.68	1.50	16,079	2.00	12.74	45.75
9.16	12,740	88.22	44.01	0.69	0.3454	12.70	1.50	16,105	2.00	12.76	45.65
9.17	12,700	86.37	44.38	0.68	0.3484	12.66	1.50	16,131	2.00	12.72	45.28
9.18	12,690	86.56	44.38	0.68	0.3451	12.65	1.50	16,157	2.00	12.71	45.50
9.19	12,630	86.64	45.11	0.69	0.3572	12.58	1.50	16,183	2.00	12.65	45.04
9.2	12,500	85.16	45.29	0.68	0.3623	12.45	1.50	16,210	2.00	12.52	44.96
9.21	12,420	85.95	45.65	0.69	0.3676	12.37	1.50	16,236	2.00	12.44	44.70
9.22	12,440	85.72	45.84	0.70	0.3745	12.19	1.50	16,262	2.30	12.26	44.61
9.23	12,090	76.23	45.84	0.71	0.3792	12.04	1.50	16,288	2.30	12.04	45.84
9.24	11,970	84.70	46.02	0.71	0.3845	11.92	1.50	16,314	2.00	11.99	44.62
9.25	11,860	83.31	45.84	0.70	0.3865	11.81	1.50	16,340	2.00	11.88	44.90
9.26	11,610	80.07	45.84	0.69	0.3948	11.56	1.50	16,367	2.00	11.63	45.00
9.27	11,440	78.49	45.47	0.69	0.3975	11.39	1.50	16,393	2.00	11.46	45.47
9.28	11,300	76.41	45.65	0.68	0.4024	11.25	1.50	16,419	2.00	11.34	45.65
9.29	11,100	75.81	45.11	0.68	0.4042	11.11	1.50	16,445	1.80	11.18	46.02
9.3	11,070	75.25	45.29	0.68	0.4091	11.02	1.50	16,471	2.00	11.09	45.94
9.31	11,040	74.65	45.29	0.68	0.4102	10.99	1.50	16,498	2.00	11.06	46.04
9.32	11,040	74.28	45.84	0.67	0.4152	10.99	1.50	16,524	2.00	11.06	45.59
9.33	11,050	73.82	46.02	0.67	0.4185	11.00	1.50	16,550	2.00	11.02	46.02
9.34	11,100	72.75	46.57	0.66	0.4195	11.05	1.50	16,576	1.80	11.12	45.06
9.35	11,120	73.12	46.57	0.66	0.4188	11.07	1.50	16,602	1.80	11.14	45.15

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Pag. 13

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
9.36	11,140	73.31	46.38	0.66	0.4163	11.09	1.50	16,628	2.00	11.16	-45.44
9.37	11,160	73.96	46.38	0.66	0.4156	11.11	1.50	16,655	2.00	11.18	-45.54
9.38	11,120	74.28	46.38	0.66	0.4141	11.15	1.50	16,681	2.00	11.22	-45.64
9.39	11,150	74.47	46.20	0.67	0.4143	11.10	1.50	16,707	2.00	11.17	-45.92
9.4	11,090	74.19	46.02	0.67	0.4161	11.01	1.50	16,733	2.00	11.07	-46.19
9.41	10,970	73.63	46.02	0.67	0.4195	10.92	1.50	16,759	2.00	10.99	-46.29
9.42	10,880	73.35	46.02	0.67	0.4230	10.83	1.50	16,785	2.00	10.90	-46.39
9.43	10,740	73.35	45.84	0.68	0.4268	10.69	1.50	16,812	2.00	10.76	-46.67
9.44	10,570	73.49	46.02	0.70	0.4354	10.52	1.50	16,838	2.00	10.59	-46.59
9.45	10,500	73.77	45.84	0.70	0.4370	10.41	1.50	16,864	2.00	10.51	-46.86
9.46	10,480	74.00	45.84	0.71	0.4374	10.43	1.50	16,890	2.00	10.50	-46.96
9.47	10,520	74.28	45.84	0.71	0.4377	10.47	1.50	16,916	2.00	10.54	-47.06
9.48	10,610	74.56	45.65	0.70	0.4303	10.56	1.50	16,943	2.00	10.63	-47.35
9.49	10,760	74.79	45.84	0.70	0.4280	10.71	1.50	16,969	2.00	10.78	-47.26
9.5	10,870	74.19	45.84	0.69	0.4217	11.37	1.50	16,995	1.80	10.89	-47.36
9.51	10,990	74.93	46.02	0.68	0.4187	10.94	1.50	17,021	1.80	11.01	-47.27
9.52	11,150	74.51	45.84	0.67	0.4111	11.10	1.50	17,047	2.00	11.17	-47.55
9.53	11,150	74.51	45.84	0.67	0.4111	11.10	1.50	17,073	2.30	11.17	-47.65
9.54	11,150	74.51	45.84	0.67	0.4111	11.10	1.50	17,100	2.30	11.17	-47.75
9.55	11,000	63.77	41.64	0.58	0.3785	10.96	1.50	17,126	2.30	11.02	-52.05
9.56	11,090	64.00	41.27	0.58	0.3721	11.05	1.50	17,152	1.80	11.11	-52.51
9.57	11,140	64.37	40.72	0.58	0.3655	11.10	1.50	17,178	1.80	11.16	-53.16
9.58	11,160	65.06	40.72	0.58	0.3649	11.12	1.50	17,204	2.30	11.18	-53.26
9.59	11,160	65.67	40.91	0.59	0.3659	11.14	1.50	17,230	2.30	11.20	-53.17
9.6	11,220	66.41	41.27	0.59	0.3678	11.16	1.50	17,257	2.00	11.24	-52.91
9.61	11,300	67.07	41.64	0.60	0.3685	11.26	1.50	17,283	2.00	11.31	-52.63
9.62	11,300	68.95	41.62	0.61	0.3701	11.26	1.50	17,309	2.00	11.32	-52.55
9.63	11,340	69.32	42.00	0.61	0.3704	11.30	1.50	17,335	2.00	11.38	-52.47
9.64	11,370	70.18	42.00	0.62	0.3694	11.33	1.50	17,361	2.00	11.39	-52.57
9.65	11,410	70.62	42.00	0.62	0.3685	11.36	1.50	17,388	2.00	11.42	-52.67
9.66	11,410	71.22	41.64	0.62	0.3649	11.37	1.50	17,414	2.00	11.43	-53.12
9.67	11,440	70.95	41.45	0.62	0.3623	11.40	1.50	17,440	2.30	11.46	-53.41
9.68	11,460	71.46	41.27	0.62	0.3601	11.42	1.50	17,466	2.30	11.48	-53.69
9.69	11,440	72.08	40.72	0.63	0.3550	11.43	1.50	17,492	2.00	11.49	-54.34
9.7	11,450	72.39	40.72	0.63	0.3542	11.45	1.50	17,518	2.00	11.51	-54.62
9.71	11,480	73.35	39.81	0.64	0.3468	11.44	1.50	17,545	2.00	11.50	-55.45
9.72	11,480	73.45	39.81	0.64	0.3468	11.44	1.50	17,571	2.00	11.50	-55.54
9.73	11,460	73.63	39.99	0.64	0.3480	11.45	1.50	17,597	2.00	11.51	-55.46
9.74	11,500	73.31	39.99	0.64	0.3477	11.46	1.50	17,623	2.00	11.52	-55.56
9.75	11,440	73.38	39.99	0.64	0.3522	11.37	1.50	17,649	2.00	11.47	-55.65
9.76	11,430	72.75	40.36	0.64	0.3531	11.39	1.60	17,677	2.00	11.46	-55.39
9.77	11,410	72.15	41.18	0.63	0.3521	11.37	1.60	17,705	2.00	11.43	-55.68
9.78	11,460	72.20	40.54	0.63	0.3538	11.42	1.60	17,731	2.00	11.48	-55.59
9.79	11,560	71.78	41.09	0.62	0.3554	11.52	1.60	17,763	2.00	11.58	-54.95
9.8	11,710	70.48	42.00	0.60	0.3422	11.67	1.50	17,787	1.80	11.53	-54.62
9.81	11,786	69.88	42.37	0.59	0.3507	11.79	1.50	17,813	2.00	11.60	-53.87
9.82	11,860	70.16	41.28	0.59	0.3556	11.82	1.50	17,840	2.00	11.88	-55.14
9.83	11,970	70.02	42.00	0.58	0.3509	11.93	1.60	17,867	2.00	11.99	-54.43
9.84	12,100	69.51	41.64	0.57	0.3441	12.06	1.60	17,895	2.00	12.12	-54.56
9.85	12,240	69.00	41.27	0.56	0.3397	12.19	1.60	17,923	2.00	12.26	-54.69
9.86	12,400	68.54	40.91	0.55	0.3299	12.36	1.60	17,951	2.00	12.42	-55.82
9.87	12,530	68.91	40.72	0.55	0.3250	12.49	1.60	17,979	2.00	12.55	-56.10
9.88	12,650	68.60	40.91	0.54	0.3234	12.61	1.60	18,005	2.00	12.67	-56.01
9.89	12,940	66.80	41.62	0.54	0.3232	12.90	1.60	18,037	2.00	12.96	-55.20
9.9	13,040	70.53	42.00	0.53	0.3150	13.09	1.60	18,063	2.00	13.03	-54.44
9.91	13,200	70.81	42.73	0.54	0.3257	13.08	1.60	18,091	2.00	13.14	-54.49
9.92	13,200	71.13	42.73	0.54	0.3237	13.16	1.60	18,119	2.00	13.22	-54.59
9.93	13,190	71.73	42.91	0.54	0.3253	13.15	1.60	18,147	1.80	13.21	-54.54
9.94	13,190	71.18	42.37	0.54	0.3212	13.15	1.60	18,175	1.80	13.21	-55.14
9.95	13,210	72.30	42.73	0.54	0.3250	13.19	1.60	18,203	2.00	13.18	-54.85
9.96	13,270	72.52	42.18	0.55	0.3179	13.23	1.60	18,230	2.00	13.25	-55.29
9.97	13,260	72.75	41.65	0.55	0.3154	13.22	1.60	18,258	2.00	13.28	-55.99
9.98	13,210	74.14	41.82	0.56	0.3166	13.17	1.60	18,286	2.00	13.23	-56.08
9.99	13,200	73.68	41.64	0.56	0.3155	13.16	1.60	18,314	2.00	13.22	-56.36
10	13,160	73.96	41.45	0.56	0.3150	13.12	1.60	18,342	2.00	13.18	-56.65
10.01	13,080	73.91	41.09	0.57	0.3141	13.00	1.60	18,370	2.00	13.07	-57.07
10.02	13,040	74.14	41.09	0.57	0.3151	13.00	1.60	18,398	2.00	13.06	-57.21
10.03	12,990	74.37	42.00	0.57	0.3233	12.95	1.60	18,426	2.00	13.01	-56.39
10.04	13,000	74.14	42.73	0.57	0.3287	12.96	1.60	18,454	2.00	13.02	-56.75

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
11.43	11,540	72.84	43.83	0.63	0.3798	11.50	1.80	22.551	2.00	11.56	-68.30
11.44	11,470	73.08	44.38	0.64	0.3869	11.43	1.80	22.583	2.00	11.49	-67.85
11.45	11,400	73.68	44.74	0.65	0.3925	11.36	1.80	22.614	2.00	11.42	-67.58
11.46	11,340	73.12	44.38	0.64	0.3914	11.30	1.80	22.645	2.00	11.36	-68.04
11.47	11,120	72.15	42.73	0.65	0.3843	11.08	1.80	22.977	2.00	11.14	-69.55
11.48	10,950	72.84	42.18	0.67	0.3852	10.91	1.80	22.708	2.00	10.97	-70.44
11.49	10,760	73.03	42	0.68	0.3907	10.71	1.80	22.740	2.00	10.77	-70.72
11.5	10,610	73.08	42	0.69	0.3959	10.57	1.80	22.771	1.80	10.63	-70.82
11.51	10,510	73.54	42.37	0.70	0.4031	10.47	1.80	22.803	1.80	10.53	-70.54
11.52	10,470	73.43	42.91	0.70	0.4098	10.43	1.80	22.834	1.80	10.49	-70.30
11.53	10,470	73.63	42.91	0.70	0.4098	10.43	1.80	22.865	3.00	10.49	-70.20
11.54	10,470	73.63	42.91	0.70	0.4098	10.43	1.80	22.897	3.00	10.49	-70.30
11.55	10,470	15.51	38.9	0.15	0.3715	10.43	1.80	22.928	3.00	10.49	-74.41
11.56	10,120	63.72	40.91	0.63	0.4042	10.08	1.80	22.960	1.80	10.14	-72.49
11.57	10,650	64.51	41.45	0.7	0.3892	10.61	1.80	22.991	1.80	10.67	-72.05
11.58	11,010	65.67	42	0.60	0.3815	10.97	1.80	23.022	2.00	11.03	-71.60
11.59	11,160	66.55	42.18	0.59	0.3713	11.32	1.80	23.054	2.00	11.38	-71.52
11.6	12,070	67.47	42.73	0.56	0.3564	12.03	1.90	23.087	1.80	12.09	-71.07
11.61	12,290	64.55	41.27	0.53	0.3558	12.25	1.90	23.120	2.00	12.31	-72.62
11.62	12,190	62.42	40.54	0.51	0.3472	12.15	1.90	23.153	2.00	12.31	-73.45
11.63	11,920	62.56	39.81	0.52	0.3340	11.88	1.90	23.186	2.00	11.94	-74.28
11.64	11,620	62.93	39.81	0.54	0.3426	11.58	1.90	23.220	2.00	11.64	-74.38
11.65	11,340	63.63	39.44	0.56	0.3478	11.30	1.90	23.253	2.00	11.36	-74.85
11.66	11,100	64.65	39.44	0.59	0.3585	10.96	1.90	23.286	2.00	11.02	-74.94
11.67	10,650	65.16	39.44	0.61	0.3703	10.61	1.90	23.319	2.00	11.06	-75.04
11.68	10,290	65.02	39.26	0.63	0.3819	10.24	1.90	23.352	2.00	11.07	-75.84
11.69	9,900	65.48	39.44	0.66	0.3984	9.86	1.90	23.385	2.00	9.92	-75.24
11.7	9,560	65.25	39.63	0.68	0.4145	9.52	1.90	23.419	2.00	9.58	-75.15
11.71	9,290	65.25	40.18	0.70	0.4325	9.25	1.90	23.452	2.30	9.31	-74.70
11.72	9,020	64.74	39.81	0.72	0.4414	8.98	1.90	23.485	2.30	9.04	-75.16
11.73	8,620	62.86	39.99	0.73	0.4696	8.58	1.90	23.518	2.00	8.64	-75.08
11.74	8,480	60.57	39.81	0.71	0.4695	8.44	1.90	23.551	2.00	8.50	-75.36
11.75	8,360	58.81	39.81	0.70	0.4762	8.32	1.90	23.584	2.00	8.38	-75.46
11.76	8,260	57.38	39.63	0.69	0.4798	8.22	1.90	23.617	2.00	8.28	-75.74
11.77	8,200	55.71	39.63	0.68	0.4833	8.16	1.90	23.651	2.00	8.22	-75.83
11.78	8,160	54.51	39.99	0.67	0.4901	8.12	1.90	23.684	2.30	8.18	-75.57
11.79	8,150	54.00	39.99	0.66	0.4907	8.11	1.90	23.717	2.30	8.17	-75.67
11.8	8,170	52.79	39.99	0.65	0.4895	8.13	1.90	23.750	2.00	8.19	-75.77
11.81	8,190	52.24	39.99	0.64	0.4883	8.15	1.90	23.783	2.00	8.21	-75.87
11.82	8,240	50.62	39.99	0.61	0.4853	8.20	1.90	23.816	2.30	8.26	-75.96
11.83	8,300	50.06	39.81	0.60	0.4796	8.26	1.90	23.850	2.30	8.32	-76.24
11.84	8,380	48.44	39.44	0.58	0.4706	8.34	1.90	23.883	2.00	8.40	-76.71
11.85	8,430	47.88	39.26	0.57	0.4657	8.39	1.90	23.916	2.00	8.45	-76.99
11.86	8,480	46.86	39.26	0.55	0.4630	8.44	1.90	23.949	2.30	8.50	-77.09
11.87	8,530	46.26	39.63	0.54	0.4646	8.49	1.90	23.982	2.30	8.55	-76.81
11.88	8,570	45.56	39.81	0.53	0.4645	8.53	1.90	24.015	2.00	8.58	-76.90
11.89	8,630	44.99	39.81	0.51	0.4613	8.59	1.90	24.048	2.00	8.65	-77.81
11.9	8,660	44.36	39.44	0.51	0.4554	8.62	1.90	24.082	2.30	8.68	-77.30
11.91	8,700	42.84	39.44	0.49	0.4533	8.66	1.90	24.115	2.30	8.72	-77.40
11.92	8,720	41.59	39.08	0.48	0.4462	8.68	1.90	24.148	2.30	8.74	-77.86
11.93	8,730	40.43	39.08	0.46	0.4461	8.68	1.90	24.181	2.30	8.74	-78.13
11.94	8,740	40.43	39.08	0.46	0.4461	8.68	1.90	24.214	2.30	8.76	-78.13
11.95	8,830	40.38	39.26	0.46	0.4466	8.79	1.90	24.247	2.00	8.85	-77.97
11.96	8,880	40.94	39.63	0.46	0.4463	8.84	1.90	24.281	2.00	8.90	-77.70
11.97	8,920	41.35	39.81	0.46	0.4463	8.88	1.90	24.314	2.30	8.94	-77.62
11.98	8,960	41.08	39.81	0.46	0.4443	8.92	1.90	24.347	2.30	8.98	-77.71
11.99	8,990	40.94	39.81	0.46	0.4428	8.96	1.90	24.380	2.00	8.98	-77.81
12	9,050	42.10	39.99	0.47	0.4419	9.01	2.00	24.415	2.00	9.07	-77.73
12.01	9,090	43.30	40.36	0.48	0.4440	9.05	2.00	24.450	2.30	9.11	-77.46
12.02	9,180	43.81	40.72	0.48	0.4436	9.14	1.90	24.483	2.30	9.20	-77.20
12.03	9,260	44.46	40.54	0.48	0.4438	9.22	1.90	24.516	2.30	9.28	-77.47
12.04	9,370	45.94	40.18	0.46	0.4398	9.33	1.90	24.549	2.30	9.36	-77.81
12.05	9,420	44.41	39.26	0.47	0.4168	9.38	1.90	24.582	2.00	9.44	-78.95
12.06	9,400	44.83	38.9	0.48	0.4138	9.36	2.00	24.617	2.00	9.42	-79.41
12.07	9,380	46.08	38.53	0.49	0.4108	9.34	2.00	24.652	2.00	9.40	-79.88
12.08	9,360	47.47	38.35	0.51	0.4097	9.32	1.90	24.685	2.30	9.38	-80.15
12.09	9,380	48.72	38.71	0.51	0.4136	9.32	1.90	24.719	2.30	9.38	-80.15
12.1	9,360	49.60	38.9	0.53	0.4156	9.32	1.90	24.752	2.30	9.38	-79.80
12.11	9,400	50.29	38.9	0.54	0.4138	9.36	1.90	24.785	2.30	9.42	-79.90

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Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
12.12	9.470	51.26	39.08	0.54	0.4127	9.43	2.00	24.820	2.00	9.49	-79.82
12.13	9.590	51.63	39.26	0.54	0.4094	9.55	2.00	24.855	2.00	9.61	-79.74
12.14	9.750	51.87	39.44	0.53	0.4045	9.71	2.00	24.890	2.30	9.77	-79.65
12.15	9.970	52.05	39.63	0.52	0.3975	9.93	2.00	24.924	2.30	9.99	-79.56
12.16	10.470	52.05	39.81	0.49	0.3802	10.47	2.00	24.959	2.00	10.49	-79.48
12.17	10.790	52.38	39.81	0.49	0.3690	10.75	2.00	24.994	2.00	10.81	-79.58
12.18	11.110	52.51	39.81	0.47	0.3583	11.07	2.00	25.029	2.00	11.13	-79.68
12.19	11.430	52.19	39.99	0.46	0.3499	11.39	2.00	25.064	2.00	11.45	-79.59
12.2	11.750	51.77	39.99	0.44	0.3403	11.71	2.00	25.099	2.00	11.77	-79.69
12.21	12.050	51.50	39.81	0.43	0.3304	12.01	2.00	25.134	2.00	12.07	-79.91
12.22	12.270	51.22	39.63	0.42	0.3230	12.23	2.00	25.169	2.30	12.29	-80.25
12.23	12.530	50.94	39.44	0.41	0.3148	12.49	2.00	25.204	2.30	12.55	-80.54
12.24	12.750	51.22	38.17	0.40	0.2994	12.71	2.00	25.239	1.80	12.77	-81.90
12.25	13.010	51.03	38.53	0.39	0.2962	12.97	2.00	25.273	1.80	13.03	-81.64
12.26	13.110	50.71	38.35	0.38	0.2925	13.07	2.00	25.308	1.80	13.13	-81.90
12.27	13.170	53.86	39.08	0.41	0.2967	13.13	2.00	25.343	1.80	13.19	-81.29
12.28	13.250	54.32	39.44	0.41	0.2977	13.21	2.00	25.378	2.00	13.27	-81.03
12.29	13.220	55.66	34.51	0.42	0.2610	13.19	2.00	25.413	2.00	13.23	-86.05
12.3	13.450	56.64	34.42	0.42	0.2485	13.42	2.00	25.448	2.00	13.46	-87.24
12.31	13.770	53.49	40.54	0.39	0.2944	13.73	2.00	25.483	2.00	13.79	-80.22
12.32	13.560	53.39	33.24	0.39	0.2451	13.53	2.00	25.518	1.80	13.57	-87.62
12.33	12.870	59.14	27.03	0.46	0.2100	12.84	2.00	25.553	1.80	12.88	-93.93
12.34	12.300	66.92	39.81	0.54	0.3237	12.26	2.00	25.588	2.00	12.32	-81.25
12.35	12.420	76.64	42.37	0.62	0.3411	12.38	2.00	25.622	2.00	12.44	-78.78
12.36	12.560	77.10	46.02	0.62	0.3414	12.34	2.00	25.657	2.00	12.41	-75.23
12.37	11.720	81.09	40.54	0.68	0.3441	11.74	2.00	25.692	2.00	11.80	-80.61
12.38	11.780	80.07	41.82	0.69	0.3568	11.68	2.00	25.727	2.00	11.74	-79.63
12.39	11.430	86.14	41.27	0.75	0.3611	11.39	2.00	25.762	2.00	11.45	-80.28
12.4	11.210	85.14	41.27	0.76	0.3649	11.17	2.00	25.797	2.00	11.23	-80.83
12.41	11.090	84.84	39.36	0.78	0.3646	10.96	2.00	25.832	2.00	11.11	-81.62
12.42	10.980	86.37	39.99	0.79	0.3642	10.94	2.00	25.867	2.00	11.00	-81.85
12.43	10.880	87.71	39.99	0.81	0.3676	10.84	2.00	25.902	2.00	10.90	-81.95
12.44	10.840	90.09	39.99	0.83	0.3689	10.80	2.00	25.937	2.00	10.86	-82.05
12.45	10.790	92.20	40.18	0.85	0.3724	10.75	2.00	25.971	2.00	10.81	-81.95
12.46	10.800	91.51	40.54	0.86	0.3746	10.76	2.00	26.006	2.00	10.82	-82.05
12.47	10.770	86.69	41.27	0.82	0.3832	10.73	2.00	26.041	2.30	10.79	-81.06
12.48	10.840	70.30	42.18	0.65	0.3891	10.80	2.00	26.076	2.00	10.86	-80.25
12.49	10.860	69.93	42.18	0.64	0.3884	10.82	2.00	26.111	2.00	10.88	-80.35
12.5	10.890	61.82	41.82	0.57	0.3940	10.85	2.00	26.146	2.00	10.91	-80.81
12.51	10.920	59.35	41.82	0.58	0.3976	10.88	2.00	26.181	2.00	10.94	-81.63
12.52	10.930	58.35	41.27	0.53	0.3776	10.89	2.00	26.216	1.80	10.95	-81.95
12.53	10.930	58.35	41.27	0.53	0.3776	10.89	2.00	26.251	3.00	10.95	-81.65
12.54	10.930	58.35	41.27	0.53	0.3776	10.89	2.00	26.286	3.00	10.95	-81.75
12.55	10.900	49.46	40.18	0.47	0.3896	10.46	2.00	26.320	3.00	10.52	-82.21
12.56	10.800	50.17	41.09	0.47	0.3983	10.56	2.00	26.355	1.80	10.62	-81.94
12.57	10.840	51.87	40.99	0.48	0.4017	10.81	2.00	26.390	1.80	10.66	-82.02
12.58	10.890	53.61	41.09	0.49	0.3773	10.85	2.00	26.425	2.00	10.91	-82.32
12.59	10.920	54.92	41.09	0.50	0.3763	10.88	2.00	26.460	2.00	10.94	-82.42
12.6	10.930	59.75	41.09	0.53	0.3773	10.85	2.00	26.495	2.00	10.91	-82.52
12.61	10.830	61.14	41.27	0.55	0.3811	10.79	2.00	26.530	2.00	10.85	-82.43
12.62	10.900	60.80	41.64	0.56	0.3837	10.81	2.00	26.565	2.00	10.88	-82.46
12.63	10.850	61.00	41.82	0.56	0.3838	10.81	2.00	26.600	2.00	10.87	-82.26
12.64	10.840	61.96	42.18	0.57	0.3891	10.80	2.00	26.635	2.00	10.86	-81.82
12.65	10.880	62.38	42.37	0.57	0.3894	10.84	2.00	26.669	2.30	10.90	-81.73
12.66	10.900	62.84	42.37	0.58	0.3887	10.86	2.00	26.704	2.30	10.92	-81.82
12.67	10.930	63.61	42.37	0.57	0.3916	10.91	2.00	26.739	1.80	10.95	-81.90
12.68	10.920	62.84	42.18	0.58	0.3863	10.88	2.00	26.774	1.80	10.94	-82.21
12.69	10.920	62.80	42.18	0.58	0.3863	10.88	2.00	26.809	2.00	10.94	-82.31
12.7	10.870	62.66	41.64	0.58	0.3831	10.83	2.00	26.844	2.00	10.89	-82.95
12.71	10.810	62.05	41.27	0.57	0.3818	10.77	2.00	26.879	2.00	10.83	-83.42
12.72	10.870	62.38	41.09	0.59	0.3916	10.81	2.00	26.914	2.00	10.89	-83.09
12.73	10.820	62.98	40.18	0.62	0.3932	10.18	2.00	26.949	2.00	10.24	-80.74
12.74	9.950	62.98	40.36	0.63	0.4056	9.91	2.00	26.984	2.00	9.97	-84.62
12.75	9.650	63.17	40.72	0.65	0.4020	9.61	2.00	27.018	2.00	9.67	-84.36
12.76	9.330	62.89	40.54	0.67	0.4454	9.29	2.00	27.053	2.00	9.35	-84.64
12.77	9.050	62.89	40.36	0.69	0.4911	8.93	2.00	27.088	2.00	9.07	-84.64
12.78	8.800	62.52	39.99	0.71	0.4544	8.76	2.00	27.123	2.30	8.82	-85.38
12.79	8.590	62.01	39.81	0.72	0.4634	8.55	2.00	27.158	2.00	8.61	-85.65
12.8	8.440	62.15	39.63	0.73	0.4695	8.40	2.00	27.193	2.00	8.46	-85.94

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.19	14,170	88.54	42.91	0.62	0.3028	14.13	1.90	32.009	2.00	14.19	-96.29
14.22	14,000	88.64	42.55	0.63	0.3039	13.96	1.90	32.042	2.00	14.02	-96.75
14.21	13,810	88.45	42.37	0.64	0.3068	13.77	1.90	32.075	2.00	13.83	-97.03
14.22	13,680	88.77	42.18	0.65	0.3088	13.62	1.90	32.109	2.00	13.68	-97.32
14.23	13,460	88.94	42.02	0.66	0.3148	13.42	1.90	32.142	2.00	13.42	-97.23
14.24	13,310	88.73	42.37	0.67	0.3183	13.27	1.90	32.175	2.00	13.33	-97.32
14.25	13,100	88.03	42.18	0.67	0.3220	13.06	1.90	32.208	2.00	13.12	-97.61
14.26	12,850	87.15	42.18	0.68	0.3282	12.81	1.90	32.241	2.00	12.87	-97.71
14.27	12,520	86.37	42.18	0.69	0.3369	12.48	1.90	32.274	2.00	12.54	-97.81
14.28	11,900	85.16	42.37	0.72	0.3561	11.86	2.00	32.309	2.00	11.92	-97.81
14.29	11,900	85.16	42.37	0.72	0.3561	11.86	2.00	32.344	2.00	11.92	-97.81
14.3	11,140	84.14	44.01	0.76	0.3951	11.10	2.00	32.379	2.30	11.16	-96.27
14.31	10,690	82.89	44.92	0.78	0.4202	10.65	2.00	32.414	2.30	10.71	-95.46
14.32	10,690	82.89	44.92	0.78	0.4202	10.65	2.00	32.449	2.30	10.71	-95.56
14.33	9,670	81.98	44.74	0.84	0.4667	9.63	1.90	32.482	2.00	9.69	-95.94
14.34	9,140	81.04	45.11	0.89	0.4935	9.09	1.90	32.515	2.00	9.16	-95.57
14.35	8,660	80.53	45.29	0.93	0.5230	8.61	1.90	32.548	2.00	8.68	-95.48
14.36	8,300	79.23	45.11	0.95	0.5435	8.25	1.90	32.581	2.00	8.32	-95.76
14.37	7,970	78.36	44.38	0.98	0.5688	7.93	1.90	32.615	2.30	7.99	-96.59
14.38	7,970	78.36	44.38	0.98	0.5688	7.93	1.90	32.648	2.30	7.99	-96.49
14.39	7,640	76.22	43.46	1.00	0.5698	7.60	1.90	32.681	2.30	7.66	-97.71
14.4	7,350	73.54	43.1	1.00	0.5864	7.31	1.90	32.714	2.30	7.37	-98.16
14.41	7,040	70.71	43.28	1.00	0.6148	7.00	1.90	32.747	2.30	7.06	-98.08
14.42	6,760	67.66	42.91	1.00	0.6348	6.72	1.90	32.780	2.30	6.78	-98.55
14.43	6,520	64.83	42.91	1.00	0.6581	6.48	1.90	32.814	2.30	6.83	-98.55
14.44	6,330	61.27	42.91	0.97	0.6779	6.29	1.90	32.847	2.30	6.35	-98.75
14.45	6,260	57.61	42.91	0.92	0.6855	6.22	1.90	32.880	2.30	6.28	-98.84
14.46	6,310	54.00	42.91	0.86	0.6800	6.27	1.90	32.913	2.50	6.33	-98.94
14.47	6,430	50.52	43.1	0.79	0.6703	6.39	1.90	32.946	2.50	6.45	-98.85
14.48	6,550	47.51	42.91	0.73	0.6571	6.49	1.90	32.979	2.30	6.55	-99.14
14.49	6,580	45.34	42.55	0.69	0.6467	6.54	1.90	33.012	2.30	6.60	-99.60
14.5	6,530	44.64	42.55	0.68	0.6496	6.51	1.90	33.046	2.30	6.57	-99.70
14.51	6,510	44.73	42.55	0.69	0.6536	6.47	1.90	33.079	2.30	6.53	-99.79
14.52	6,510	44.73	42.55	0.69	0.6536	6.47	1.90	33.112	2.30	6.53	-99.89
14.53	6,510	44.73	42.55	0.69	0.6536	6.47	1.90	33.145	2.30	6.53	-99.99
14.54	6,500	35.29	38.17	0.54	0.5872	6.46	1.90	33.178	2.30	6.52	-104.47
14.55	6,240	36.82	38.71	0.59	0.6204	6.20	1.90	33.211	2.30	6.26	-104.03
14.56	6,260	36.63	38.35	0.59	0.6126	6.22	1.90	33.245	2.30	6.28	-104.48
14.57	6,200	36.35	38.35	0.59	0.6185	6.16	1.90	33.278	2.30	6.22	-104.58
14.58	6,200	36.35	38.35	0.59	0.6185	6.16	1.90	33.311	2.30	6.22	-104.68
14.59	6,170	38.85	38.35	0.63	0.6216	6.13	1.90	33.344	2.30	6.19	-104.78
14.6	6,170	38.85	38.35	0.63	0.6216	6.13	1.90	33.377	2.30	6.19	-104.88
14.61	6,240	43.02	38.9	0.69	0.6234	6.20	2.00	33.412	2.30	6.26	-104.42
14.62	6,290	43.95	38.71	0.70	0.6154	6.25	1.90	33.445	2.30	6.31	-104.71
14.63	6,320	44.60	38.71	0.71	0.6105	6.28	1.90	33.478	2.30	6.34	-104.81
14.64	6,340	44.87	38.71	0.71	0.6036	6.30	1.90	33.512	2.30	6.30	-104.90
14.65	6,350	45.38	38.71	0.72	0.6019	6.31	1.90	33.545	2.30	6.37	-105.01
14.66	6,350	45.89	38.71	0.72	0.6096	6.31	1.90	33.578	2.30	6.37	-105.10
14.67	6,360	46.03	38.71	0.72	0.6086	6.32	1.90	33.611	2.30	6.38	-105.11
14.68	6,360	42.93	38.9	0.68	0.6116	6.32	1.90	33.644	2.00	6.38	-105.11
14.69	6,360	43.58	38.71	0.68	0.6067	6.34	1.90	33.677	2.00	6.40	-105.40
14.7	6,360	42.60	38.71	0.67	0.6096	6.30	1.90	33.710	2.30	6.39	-105.40
14.71	6,340	42.19	38.71	0.67	0.6106	6.30	1.90	33.744	2.00	6.36	-105.60
14.72	6,310	40.98	38.71	0.65	0.6135	6.27	1.90	33.777	2.30	6.33	-105.69
14.73	6,290	40.89	38.71	0.65	0.6154	6.25	1.90	33.810	2.30	6.31	-105.79
14.74	6,260	41.26	38.71	0.66	0.6184	6.22	1.90	33.843	2.00	6.28	-105.89
14.75	6,240	41.77	38.53	0.67	0.6175	6.20	1.90	33.876	2.00	6.26	-105.97
14.76	6,240	42.51	38.71	0.68	0.6204	6.20	1.90	33.909	2.00	6.26	-106.09
14.77	6,230	43.02	38.71	0.69	0.6213	6.19	1.90	33.943	2.00	6.25	-106.18
14.78	6,230	43.48	38.9	0.70	0.6244	6.19	1.90	33.976	2.00	6.25	-106.09
14.79	6,250	43.76	38.9	0.70	0.6224	6.21	1.90	34.009	2.30	6.27	-106.19
14.8	6,260	44.18	39.08	0.71	0.6145	6.22	1.90	34.042	2.30	6.28	-106.29
14.81	6,290	44.41	39.08	0.71	0.6213	6.25	1.90	34.075	2.00	6.31	-106.21
14.82	6,320	44.41	38.71	0.70	0.6125	6.28	1.90	34.108	2.00	6.34	-106.67
14.83	6,380	44.50	38.71	0.70	0.6067	6.34	1.90	34.141	2.00	6.40	-106.77
14.84	6,430	44.73	38.35	0.70	0.5964	6.39	1.90	34.175	2.00	6.45	-107.23
14.85	6,510	45.34	38.71	0.71	0.5789	6.47	1.90	34.208	2.17	6.47	-107.40
14.86	6,710	46.86	38.35	0.70	0.5715	6.67	1.90	34.241	2.00	6.73	-107.43
14.87	6,850	46.91	38.53	0.68	0.5625	6.81	1.90	34.274	2.00	6.87	-107.34

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Pag. 21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.88	6,990	46.17	38.9	0.66	0.5565	6.95	1.90	34.307	2.00	7.01	-107.07
14.89	7,080	46.03	38.9	0.65	0.5494	7.04	1.90	34.340	1.80	7.10	-107.17
14.9	7,120	46.26	38.9	0.65	0.5463	7.08	1.90	34.374	2.00	7.14	-107.27
14.91	7,130	46.26	38.9	0.65	0.5456	7.09	1.90	34.407	2.00	7.15	-107.37
14.92	7,120	46.54	38.9	0.64	0.5463	7.08	1.90	34.440	2.00	7.14	-107.47
14.93	7,130	47.00	38.71	0.66	0.5429	7.09	1.90	34.473	2.00	7.15	-107.57
14.94	7,200	47.33	38.9	0.66	0.5403	7.16	1.90	34.506	1.80	7.22	-107.67
14.95	7,150	48.90	39.08	0.68	0.5466	7.11	1.90	34.539	1.80	7.17	-107.77
14.96	7,070	50.15	38.71	0.71	0.5475	7.03	1.90	34.572	2.00	7.09	-107.87
14.97	6,990	51.13	38.71	0.74	0.5602	6.87	1.90	34.605	2.00	6.93	-107.97
14.98	6,650	52.19	38.71	0.78	0.5821	6.61	1.90	34.639	2.00	6.67	-108.07
14.99	6,390	53.39	38.9	0.84	0.6088	6.35	1.90	34.672	2.00	6.41	-108.17
15	6,130	54.78	39.08	0.89	0.6375	6.09	1.90	34.705	2.30	6.15	-108.27
15.01	5,880	56.45	38.9	0.96	0.6616	5.84	1.90	34.738	2.30	5.90	-108.37
15.02	5,650	57.42	38.9	1.00	0.6885	5.61	1.90	34.771	2.00	5.67	-108.47
15.03	5,450	57.15	38.9	1.05	0.7138	5.41	1.90	34.805	2.00	5.47	-108.57
15.04	5,240	57.15	38.53	1.09	0.7353	5.20	1.90	34.838	2.00	5.26	-109.07
15.05	5,070	56.80	38.35	1.11	0.7564	5.03	1.90	34.871	2.00	5.09	-109.27
15.06	4,930	56.17	37.98	1.14	0.7704	4.89	1.90	34.904	2.00	4.95	-109.77
15.07	4,890	56.17	38.17	1.15	0.7686	4.85	1.90	34.937	2.30	4.91	-109.87
15.08	4,960	56.78	38.17	1.14	0.7696	4.92	1.90	34.970	2.30	4.98	-109.97
15.09	5,100	57.10	37.98	1.12	0.7447	5.06	1.90	35.003	2.30	5.12	-110.07
15.1	5,380	57.75	37.44	1.07	0.6959	5.34	1.90	35.037	2.30	5.40	-110.67
15.11	5,790	59.41	36.34	1.03	0.6276	5.75	1.90	35.070	2.00	5.81	-111.17
15.12	6,240	61.22	36.16	0.98	0.5795	6.20	1.90	35.103	2.00	6.26	-111.67
15.13	6,600	62.10	36.16	0.91	0.5592	6.56	1.90	35.136	2.30	6.62	-111.77
15.14	6,960	65.30	37.44	0.94	0.5379	6.92	1.90	35.169	2.30	6.98	-111.17
15.15	7,470	70.30	38.53	0.94	0.5158	7.43	1.90	35.202	2.30	7.49	-110.17
15.16	8,630	77.57	39.26	0.90	0.4549	8.59	1.90	35.236	2.30	8.65	-109.17
15.17	9,150	77.71	39.81	0.85	0.4351	9.11	1.90	35.269	2.00	9.17	-109.67
15.18	9,670	78.38	39.81	0.84	0.4177	9.63	1.90	35.302	2.00	9.69	-109.17
15.19	10,140	78.88	39.81	0.74	0.3826	10.10	1.90	35.335	2.00	10.16	-109.67
15.2	10,600	69.09	39.99	0.65	0.3773	10.56	1.90	35.368	2.00	10.62	-109.17
15.21	11,050	65.25	40.34	0.59	0.3652	11.01	1.90	35.401	2.00	11.07	-108.67
15.22	11,530	63.44	40.54	0.55	0.3516	11.49	1.90	35.435	2.00	11.55	-108.17
15.23	11,970	62.93	40.54	0.53	0.3415	11.95	1.90	35.468	2.00	12.00	-107.67
15.24	12,180	63.54	40.72	0.52	0.3343	12.14	1.90	35.501	2.00	12.55	-107.17
15.25	12,380	63.58	41.09	0.51	0.3319	12.34	1.90	35.534	2.00	12.60	-107.67
15.26	12,500	63.33	41.09	0.50	0.3287	12.46	1.90	35.567	2.00	12.52	-108.17
15.27	12,530	61.73	41.09	0.49	0.3279	12.49	1.90	35.600	2.00	12.55	-108.67
15.28	12,490	59.79	40.72	0.48	0.3247	12.45	1.90	35.633	2.00	12.51	-109.17
15.29	12,490	60.16	40.36	0.48	0.3231	12.45	1.90	35.666	2.00	12.51	-109.67
15.3	12,470	69.70	40.36	0.56	0.3237	12.43	1.90	35.700	2.30	12.49	-109.17
15.31	12,450	75.02	40.36	0.60	0.3242	12.43	1.90	35.733	2.30	12.47	-109.67
15.32	12,480	77.80	40.36	0.62	0.3244	12.41	1.90	35.766	2.00	12.47	-109.67
15.33	12,470	79.65	40.36	0.62	0.3243	12.43	1.90	35.799	2.00	12.47	-109.67
15.34	12,480	81.55	40.36	0.63	0.3244	12.44	1.90	35.832	1.80	12.50	-110.17
15.35	12,520	83.59	41.09	0.67	0.3194	12.48	1.90	35.866	1.80	12.54	-110.17
15.36	12,520	85.67	40.18	0.68	0.3209	12.48	1.90	35.899	2.30	12.54	-110.67
15.37	12,540	87.34	40.36	0.70	0.3219	12.50	1.90	35.932	2.30	12.56	-110.17
15.38	12,510	88.36	40.54	0.69	0.3224	12.51	1.90	35.965	2.00	12.56	-110.67
15.39	12,420	88.82	40.91	0.72	0.3294	12.38	1.90	35.998	2.00	12.54	-110.17
15.4	12,320	88.50	41.27	0.72	0.3350	12.28	1.90	36.031	2.00	12.53	-109.67
15.41	12,210	88.25	41.27	0.72	0.3380	12.17	1.90	36.064	2.00	12.24	-109.17
15.42	12,120	87.25	40.91	0.72	0.3375	12.08	1.90	36.098	2.30	12.14	-110.17
15.43	11,980	86.37	40.54	0.74	0.3394	11.94	1.90	36.131	2.00	12.12	-110.67
15.44	11,860	86.37	40.54	0.72	0.3384	11.94	1.90	36.164	2.00	12.10	-110.17
15.45	11,940	86.55	40.72	0.72	0.3410	11.90	1.90	36.197	2.00	11.96	-110.17
15.46	12,000	86.69	40.91	0.72	0.3409	11.90	1.90	36.230	2.30	12.02	-110.67
15.47	12,070	86.83	40.91	0.72	0.3399	12.03	1.90	36.263	2.30	12.09	-110.17
15.48	12,090	86.60	41.27	0.71	0.3398	12.15	1.90	36.296	2.00	12.10	-110.67
15.49	12,200	86.60	42	0.70	0.3417	12.25	1.90	36.326	2.00	12.31	-109.67
15.5	12,420	86.83	42	0.70	0.3382	12.38	1.90	36.358	2.00	12.40	-110.17
15.51	12,580	86.69	42	0.69	0.3339	12.54	1.90	36.389	2.00	12.60	-110.17
15.52	12,730	86.69	42	0.68	0.3299	12.69	1.90	36.422	2.30	12.75	-110.17
15.53	12,730	86.69	42	0.68	0.3299	12.69	1.90	36.455	3.00	12.75	-110.67
15.54	12,730	86.69	42	0.68	0.3299	12.69	1.90	36.488	3.00	12.75	-110.17
15.55	12,700	77.06	45.47	0.61	0.3580	12.65	1.90	36.520	2.00	12.72	-107.67
15.56	13,030	78.03	45.47	0.60	0.3490	12.98	1.90	36.551	2.00	13.05	-107.67

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
16.95	12,870	79.84	44.92	0.62	0.3490	12.83	1.80	40.849	2.00	12.89	-121.36
16.96	12,900	79.88	45.65	0.62	0.3539	12.85	1.80	40.881	2.30	12.92	-120.73
16.97	12,860	79.88	46.2	0.62	0.3593	12.81	1.80	40.912	2.30	12.88	-120.28
16.98	12,980	80.11	46.38	0.62	0.3598	12.84	1.80	40.944	2.30	12.91	-120.19
16.99	12,910	79.87	46.33	0.62	0.3635	12.86	1.80	40.975	2.30	12.93	-119.65
17	12,970	80.86	47.3	0.62	0.3647	12.92	1.80	41.006	2.30	12.99	-119.47
17.01	13,000	80.39	47.3	0.62	0.3638	12.95	1.80	41.038	2.30	13.02	-119.57
17.02	13,020	79.79	46.75	0.61	0.3591	12.97	1.80	41.069	2.30	13.04	-120.22
17.03	13,120	79.56	46.38	0.61	0.3535	13.07	1.80	41.101	2.30	13.14	-120.68
17.04	13,140	79.87	46.75	0.61	0.3558	13.08	1.80	41.132	2.30	13.17	-121.39
17.05	13,130	78.96	46.57	0.60	0.3547	13.08	1.80	41.163	2.30	13.15	-120.69
17.06	13,100	78.73	46.75	0.60	0.3569	13.05	1.80	41.195	2.30	13.12	-120.61
17.07	13,110	79.33	46.93	0.61	0.3580	13.06	1.80	41.226	2.30	13.13	-120.53
17.08	13,120	79.56	46.93	0.61	0.3577	13.07	1.80	41.258	2.30	13.14	-120.62
17.09	13,100	79.23	46.75	0.60	0.3569	13.05	1.80	41.289	2.30	13.12	-120.90
17.1	13,130	77.38	46.75	0.59	0.3561	13.08	1.80	41.321	2.30	13.15	-121.00
17.11	13,150	77.10	46.93	0.59	0.3569	13.10	1.80	41.352	2.30	13.17	-120.92
17.12	13,130	77.48	46.93	0.59	0.3574	13.08	1.80	41.385	2.30	13.15	-121.02
17.13	13,130	77.85	46.93	0.59	0.3574	13.08	1.80	41.418	2.30	13.15	-121.12
17.14	13,150	78.31	46.75	0.59	0.3555	13.14	1.80	41.450	2.30	13.17	-121.39
17.15	13,170	78.17	46.75	0.59	0.3550	13.12	1.80	41.481	2.30	13.19	-121.49
17.16	13,160	77.80	46.75	0.59	0.3552	13.11	1.80	41.512	2.30	13.18	-121.59
17.17	13,150	77.57	46.75	0.59	0.3555	13.10	1.80	41.544	2.30	13.17	-121.69
17.18	13,110	76.97	46.38	0.59	0.3538	13.06	1.80	41.577	2.30	13.13	-122.16
17.19	13,080	76.87	46.38	0.59	0.3532	13.03	1.80	41.610	2.30	13.17	-121.39
17.2	13,060	76.55	46.38	0.59	0.3551	13.01	1.80	41.643	2.30	13.09	-122.35
17.21	13,000	76.46	46.38	0.59	0.3568	12.95	1.80	41.677	2.30	13.02	-122.45
17.22	12,950	77.01	46.93	0.59	0.3624	12.90	1.80	41.708	2.30	12.97	-122.00
17.23	12,960	77.24	47.3	0.60	0.3653	12.90	1.80	41.739	2.30	12.97	-121.73
17.24	12,940	77.38	47.48	0.60	0.3669	12.89	1.80	41.771	2.00	12.96	-121.64
17.25	12,930	77.61	47.66	0.60	0.3666	12.88	1.80	41.802	2.00	12.95	-121.56
17.26	12,940	77.66	47.66	0.60	0.3683	12.89	1.80	41.834	2.00	12.96	-121.66
17.27	12,970	77.01	47.3	0.59	0.3647	12.92	1.80	41.865	2.00	12.99	-122.12
17.28	12,970	77.43	47.48	0.60	0.3661	12.92	1.80	41.896	2.00	12.99	-122.04
17.29	13,000	76.63	47.3	0.59	0.3638	12.95	1.80	41.928	2.00	13.02	-122.31
17.3	13,210	75.30	47.66	0.57	0.3608	13.16	1.80	41.959	2.00	13.23	-122.05
17.31	13,390	75.48	49.12	0.56	0.3668	13.34	1.80	41.991	2.30	13.41	-120.69
17.32	13,160	76.55	51.68	0.58	0.3927	13.11	1.80	42.022	2.30	13.18	-118.23
17.33	13,400	81.74	46.38	0.61	0.3461	13.35	1.80	42.053	2.00	13.42	-123.63
17.34	13,380	79.00	46.75	0.59	0.3494	13.33	1.80	42.085	2.00	13.40	-123.36
17.35	13,490	79.41	46.93	0.58	0.3478	13.44	1.80	42.116	2.00	13.51	-123.27
17.36	13,580	78.49	46.57	0.58	0.3429	13.53	1.80	42.148	2.00	13.60	-123.73
17.37	13,660	78.31	46.57	0.57	0.3409	13.61	1.80	42.179	2.00	13.68	-123.83
17.38	13,740	78.77	46.38	0.57	0.3376	13.69	1.80	42.211	2.00	13.76	-124.12
17.39	13,840	79.23	46.75	0.57	0.3378	13.79	1.80	42.242	2.00	13.86	-123.85
17.4	13,880	79.84	47.11	0.58	0.3375	13.83	1.80	42.273	2.00	13.90	-123.68
17.41	13,960	80.02	47.11	0.58	0.3375	13.91	1.80	42.306	2.30	13.98	-123.69
17.42	14,070	80.11	47.3	0.57	0.3362	14.02	1.80	42.336	2.30	14.09	-123.59
17.43	14,190	80.53	47.3	0.57	0.3333	14.14	1.80	42.369	2.00	14.21	-123.69
17.44	14,340	81.04	47.11	0.57	0.3285	14.29	1.80	42.402	2.00	14.36	-123.98
17.45	14,540	85.58	47.48	0.59	0.3265	14.49	1.80	42.436	2.00	14.56	-124.09
17.46	14,650	86.47	47.11	0.58	0.3268	14.60	1.80	42.469	2.00	14.67	-124.17
17.47	14,740	82.01	46.93	0.56	0.3184	14.69	1.80	42.502	2.00	14.76	-124.45
17.48	14,780	82.20	46.75	0.56	0.3163	14.73	1.80	42.535	2.00	14.80	-124.73
17.49	14,810	82.71	46.57	0.56	0.3144	14.76	1.80	42.568	2.00	14.83	-125.01
17.5	14,820	83.17	46.57	0.56	0.3142	14.77	1.80	42.601	2.00	14.84	-125.11
17.51	14,820	82.24	46.38	0.57	0.3130	14.77	1.80	42.634	2.00	14.82	-125.10
17.52	14,820	84.24	46.38	0.57	0.3130	14.77	1.80	42.668	2.00	14.84	-125.49
17.53	14,820	84.24	46.38	0.57	0.3130	14.77	1.80	42.701	3.00	14.84	-125.59
17.54	14,050	72.89	44.56	0.52	0.3172	14.01	1.80	42.734	2.00	14.07	-127.51
17.55	14,050	72.89	44.56	0.52	0.3172	14.01	1.80	42.767	2.00	14.07	-127.61
17.56	14,680	76.63	46.38	0.52	0.3160	14.64	1.80	42.800	2.00	14.63	-127.66
17.57	14,750	78.08	44.92	0.53	0.3045	14.71	1.80	42.833	2.30	14.77	-127.44
17.58	14,750	78.08	44.92	0.53	0.3045	14.71	1.80	42.867	2.30	14.77	-127.54
17.59	14,920	79.37	44.74	0.53	0.2999	14.88	1.80	42.900	2.00	14.94	-127.82
17.6	15,010	80.86	44.38	0.54	0.2957	14.97	1.80	42.933	2.00	15.03	-128.28
17.61	15,180	83.46	45.67	0.56	0.3035	15.14	1.80	42.966	2.30	15.03	-128.39
17.62	15,280	84.28	44.92	0.55	0.2940	15.24	1.80	42.999	2.00	15.30	-127.93
17.63	15,360	84.93	44.92	0.55	0.2924	15.32	1.80	43.032	2.00	15.38	-128.03

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.64	15,470	85.49	45.11	0.55	0.2916	15.42	1.90	43.066	2.00	15.49	-127.94
17.65	15,580	86.14	45.29	0.55	0.2907	15.53	2.00	43.100	2.00	15.60	-127.86
17.66	15,730	86.37	45.11	0.55	0.2868	15.68	2.00	43.135	2.30	15.75	-128.13
17.67	15,840	86.51	44.74	0.55	0.2824	15.80	2.00	43.170	2.30	15.86	-128.60
17.68	15,930	86.55	44.56	0.55	0.2797	15.86	2.00	43.205	2.00	15.95	-128.85
17.69	16,010	87.06	44.38	0.54	0.2772	15.97	1.90	43.238	2.00	16.03	-129.16
17.7	16,020	87.80	44.19	0.55	0.2758	15.98	1.90	43.271	2.00	16.04	-129.45
17.71	16,120	87.94	44.01	0.55	0.2730	16.08	1.90	43.305	2.00	16.14	-129.73
17.72	16,210	88.31	43.64	0.54	0.2692	16.17	1.90	43.338	2.00	16.23	-130.19
17.73	16,300	88.86	43.46	0.54	0.2658	16.23	1.90	43.371	2.00	16.34	-130.43
17.74	16,440	89.84	44.01	0.55	0.2677	16.40	1.90	43.404	2.00	16.46	-130.92
17.75	16,540	90.63	44.19	0.55	0.2672	16.50	1.90	43.437	2.00	16.56	-129.94
17.76	16,680	91.28	44.74	0.55	0.2682	16.64	1.90	43.470	2.00	16.70	-129.49
17.77	16,720	92.16	44.74	0.55	0.2676	16.68	1.90	43.504	2.00	16.74	-129.58
17.78	16,750	92.20	44.56	0.55	0.2660	16.71	1.90	43.539	2.00	16.77	-129.85
17.79	16,700	92.34	44.56	0.55	0.2668	16.66	1.90	43.570	2.00	16.72	-129.96
17.8	16,830	92.57	44.19	0.56	0.2657	16.59	2.00	43.605	2.00	16.65	-130.43
17.81	16,510	93.17	44.01	0.56	0.2666	16.47	2.00	43.640	2.00	16.53	-130.71
17.82	16,340	93.31	44.38	0.57	0.2716	16.30	2.00	43.675	2.00	16.38	-130.43
17.83	16,210	93.53	44.19	0.58	0.2743	16.07	2.00	43.709	2.00	16.19	-130.72
17.84	15,450	94.29	44.74	0.61	0.2896	15.41	1.90	43.743	1.80	15.47	-130.27
17.85	15,090	94.38	45.29	0.63	0.3001	15.04	1.90	43.776	1.80	15.11	-129.82
17.86	14,780	95.40	45.47	0.65	0.3076	14.73	1.90	43.809	1.80	14.80	-129.74
17.87	14,460	95.86	45.11	0.66	0.3120	14.41	1.90	43.842	1.80	14.48	-130.19
17.88	13,870	96.51	44.92	0.70	0.3339	13.83	1.80	43.875	1.80	13.89	-130.65
17.89	13,550	96.69	44.92	0.71	0.3315	13.51	1.90	43.908	1.80	13.57	-130.58
17.9	13,270	96.42	44.92	0.73	0.3385	13.23	2.00	43.943	1.80	13.29	-130.68
17.91	13,050	95.66	44.11	0.73	0.3457	13.00	2.00	43.978	1.80	13.07	-130.59
17.92	12,810	94.57	44.17	0.75	0.3548	12.57	2.00	44.013	1.80	12.83	-131.06
17.93	12,430	93.31	44.74	0.75	0.3599	12.40	2.00	44.048	1.80	12.49	-131.53
17.94	12,320	92.02	44.92	0.75	0.3646	12.28	1.90	44.079	1.80	12.34	-131.07
17.95	12,200	91.09	45.11	0.75	0.3698	12.15	1.90	44.113	2.00	12.22	-130.98
17.96	12,110	90.49	45.65	0.75	0.3737	12.06	1.90	44.146	2.00	12.13	-130.54
17.97	12,140	88.22	46.02	0.73	0.3791	12.09	2.00	44.181	1.80	12.16	-130.27
17.98	12,170	87.22	46.37	0.69	0.3844	12.10	2.00	44.216	2.00	12.19	-130.00
17.99	12,340	85.58	45.11	0.69	0.3656	12.29	2.00	44.250	2.00	12.33	-131.37
18	12,360	80.81	44.56	0.65	0.3605	12.32	2.00	44.285	2.00	12.38	-132.02
18.01	12,500	78.26	43.64	0.63	0.3491	12.46	2.00	44.320	2.00	12.52	-133.04
18.02	12,610	77.34	43.64	0.61	0.3461	12.57	2.00	44.355	1.80	12.63	-133.14
18.03	12,810	75.44	44.19	0.60	0.3534	12.77	2.00	44.390	1.80	12.83	-132.68
18.04	13,450	72.31	47.48	0.54	0.3530	13.00	2.00	44.425	2.00	13.44	-129.49
18.05	13,600	72.06	44.38	0.53	0.3263	13.56	2.00	44.460	2.00	13.62	-132.69
18.06	13,700	68.63	44.56	0.50	0.3253	13.66	2.00	44.495	1.80	13.72	-132.61
18.07	14,040	68.63	44.74	0.49	0.3317	14.00	2.00	44.530	1.80	14.06	-132.53
18.08	13,910	69.97	46.93	0.50	0.3374	13.86	2.00	44.565	1.80	13.93	-130.43
18.09	14,500	75.09	47.11	0.52	0.3249	14.48	2.00	44.600	2.00	14.59	-129.49
18.1	14,500	74.93	47.32	0.52	0.3677	14.45	2.00	44.634	1.80	14.52	-130.24
18.11	14,440	81.64	45.11	0.57	0.3124	14.39	2.00	44.669	1.80	14.46	-132.55
18.12	14,680	85.16	45.65	0.58	0.3110	14.63	2.00	44.704	1.80	14.70	-132.11
18.13	14,860	85.99	46.02	0.56	0.3091	14.84	2.00	44.739	2.00	14.91	-131.84
18.15	15,200	83.08	46.62	0.55	0.3040	15.24	2.00	44.774	1.80	15.27	-131.75
18.15	15,240	82.06	46.02	0.54	0.3020	15.19	2.00	44.809	1.80	15.26	-132.03
18.16	15,210	82.52	46.2	0.54	0.3037	15.16	2.00	44.844	1.80	15.23	-131.93
18.17	15,110	83.22	46.93	0.55	0.3106	15.06	2.00	44.879	1.80	15.13	-131.32
18.18	15,030	84.48	47.11	0.56	0.3147	14.98	2.00	44.914	1.80	15.05	-131.05
18.19	14,500	86.40	47.11	0.61	0.3249	14.48	2.00	44.949	1.80	14.52	-131.51
18.2	14,210	92.87	47.11	0.65	0.3315	14.16	2.00	44.983	2.00	14.23	-131.43
18.21	13,890	83.50	47.66	0.60	0.3341	13.84	2.00	45.018	1.80	13.91	-130.98
18.22	13,530	80.81	47.66	0.60	0.3523	13.48	2.00	45.053	1.80	13.55	-131.08
18.23	13,260	81.05	46.02	0.62	0.3594	13.21	2.00	45.088	2.30	13.28	-131.18
18.24	12,990	75.05	47.85	0.58	0.3172	12.94	2.00	45.123	2.00	13.01	-131.21
18.25	12,560	72.33	47.37	0.58	0.3676	12.51	2.00	45.158	2.00	12.58	-131.73
18.26	12,270	74.88	47.11	0.61	0.3839	12.22	2.00	45.193	2.00	12.29	-132.02
18.27	11,980	75.95	46.93	0.63	0.3917	11.93	2.00	45.228	2.00	12.00	-132.30
18.28	11,740	76.46	46.2	0.65	0.3935	11.69	2.00	45.263	2.00	11.76	-133.13
18.29	11,530	77.38	46.2	0.67	0.3907	11.49	2.00	45.298	2.00	11.53	-133.41
18.3	11,320	77.98	46.02	0.69	0.4005	11.27	2.00	45.332	2.30	11.34	-133.50
18.31	11,160	78.49	46.02	0.70	0.4124	11.11	2.00	45.367	2.30	11.18	-133.60
18.32	11,020	77.57	46.57	0.70	0.4226	10.97	2.00	45.402	2.30	11.04	-133.15

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
19.71	18,320	76.56	45.47	0.43	0.2482	18.27	2.10	50.417	1.80	18.34	-147.89
19.72	18,310	81.23	46.57	0.44	0.2516	18.46	2.10	50.454	1.80	18.53	-146.88
19.73	18,890	83.68	46.75	0.45	0.2501	18.64	2.10	50.490	1.50	18.71	-146.80
19.74	18,970	80.86	47.11	0.43	0.2483	18.92	2.10	50.527	1.50	18.99	-146.54
19.75	19,170	84.33	46.38	0.41	0.2419	19.12	2.10	50.564	1.80	19.24	-147.37
19.76	18,880	80.90	47.48	0.43	0.2515	18.83	2.20	50.602	1.80	18.90	-146.37
19.77	18,980	82.62	47.66	0.44	0.2511	18.93	2.20	50.640	1.80	19.00	-146.28
19.78	19,140	83.91	47.66	0.44	0.2490	19.09	2.10	50.677	1.80	19.16	-146.38
19.79	19,230	85.30	48.03	0.44	0.2498	19.18	2.10	50.714	1.80	19.25	-146.11
19.80	19,580	86.93	46.93	0.41	0.2397	19.53	2.10	50.750	1.80	19.60	-147.50
19.81	19,740	87.71	46.93	0.44	0.2377	19.69	2.20	50.789	1.80	19.76	-147.41
19.82	18,890	87.99	46.75	0.44	0.2350	19.84	2.20	50.827	1.80	19.91	-147.68
19.83	20,090	90.16	46.75	0.45	0.2327	20.04	2.20	50.866	1.80	20.11	-147.78
19.84	20,040	91.78	46.75	0.45	0.2386	20.39	2.20	50.904	1.80	20.46	-145.87
19.85	20,230	91.28	47.05	0.45	0.2373	20.18	2.20	50.942	1.80	20.25	-142.68
19.86	20,340	97.99	46.93	0.48	0.2307	20.29	2.20	50.981	2.00	20.36	-147.90
19.87	19,920	100.68	47.48	0.51	0.2384	19.87	2.20	51.019	2.00	19.94	-147.44
19.88	19,810	103.22	47.85	0.52	0.2415	19.76	2.20	51.057	1.80	19.83	-147.17
19.89	19,560	105.96	48.03	0.54	0.2456	19.51	2.20	51.096	1.80	19.58	-147.09
19.90	19,310	105.47	47.48	0.56	0.2497	19.26	2.20	51.134	2.00	19.33	-147.49
19.91	19,180	108.04	47.48	0.56	0.2475	19.13	2.20	51.173	2.00	19.20	-147.94
19.92	18,990	111.23	47.85	0.59	0.2520	18.94	2.20	51.211	2.30	19.01	-147.57
19.93	18,880	115.50	48.03	0.61	0.2544	18.83	2.20	51.249	2.30	18.90	-147.48
19.94	18,670	123.18	47.85	0.66	0.2563	18.62	2.10	51.286	2.00	18.69	-147.76
19.95	18,670	123.18	47.85	0.66	0.2563	18.62	2.10	51.323	2.00	18.69	-147.76
19.96	18,660	125.41	48.03	0.67	0.2574	18.61	2.10	51.359	2.30	18.68	-147.78
19.97	18,650	128.92	48.21	0.69	0.2585	18.60	2.10	51.396	2.30	18.67	-147.70
19.98	18,710	132.44	48.76	0.71	0.2606	18.66	2.10	51.433	2.50	18.73	-147.24
19.99	18,730	133.79	48.58	0.71	0.2594	18.68	2.10	51.469	2.50	18.75	-147.52
20.00	18,730	131.15	48.58	0.70	0.2594	18.68	2.10	51.506	2.50	18.75	-147.62
20.01	18,750	131.24	48.76	0.70	0.2601	18.70	2.10	51.543	2.30	18.77	-147.54
20.02	18,840	131.98	48.94	0.70	0.2598	18.79	2.20	51.581	2.30	18.86	-147.46
20.03	19,020	131.70	49.12	0.69	0.2583	18.97	2.20	51.619	2.00	19.04	-147.37
20.04	19,150	132.35	49.12	0.69	0.2585	19.10	2.20	51.658	2.00	19.17	-147.47
20.05	19,330	131.84	49.12	0.68	0.2541	19.28	2.20	51.696	2.00	19.35	-147.57
20.06	19,400	130.82	49.49	0.67	0.2551	19.35	2.10	51.733	2.00	19.42	-147.30
20.07	19,320	129.16	49.67	0.67	0.2571	19.27	2.10	51.769	1.80	19.34	-147.22
20.08	19,110	128.32	49.67	0.67	0.2599	19.06	2.10	51.806	2.00	19.13	-147.31
20.09	18,980	127.21	50.04	0.67	0.2649	18.84	2.10	51.843	2.00	18.91	-147.04
20.10	18,320	125.78	50.77	0.69	0.2771	18.27	2.10	51.879	1.80	18.34	-146.41
20.11	18,110	124.80	51.13	0.69	0.2823	18.06	2.10	51.916	1.80	18.13	-146.15
20.12	17,900	124.71	51.68	0.70	0.2887	17.85	2.10	51.953	1.80	17.92	-145.70
20.13	17,680	124.15	52.23	0.70	0.2954	17.63	2.10	51.989	1.80	17.70	-145.25
20.14	17,490	123.60	52.41	0.71	0.2997	17.44	2.10	52.026	2.00	17.51	-145.16
20.15	17,290	123.55	52.23	0.71	0.3021	17.24	2.10	52.063	2.00	17.31	-145.44
20.16	17,040	123.41	52.23	0.72	0.3065	16.99	2.10	52.099	2.00	17.06	-145.99
20.17	16,830	123.04	52.23	0.73	0.3102	16.78	2.10	52.136	2.30	16.85	-145.64
20.18	16,670	123.00	52.41	0.74	0.3144	16.62	2.10	52.172	2.00	16.69	-145.56
20.19	16,540	122.72	52.41	0.74	0.3169	16.49	2.10	52.209	2.00	16.56	-145.65
20.20	16,420	122.21	52.59	0.74	0.3203	16.37	2.10	52.246	2.00	16.44	-145.57
20.21	16,310	120.96	52.59	0.74	0.3224	16.26	2.10	52.282	2.00	16.33	-145.97
20.22	16,220	119.25	52.78	0.74	0.3254	16.17	2.10	52.319	2.00	16.24	-145.98
20.23	16,120	118.00	52.96	0.73	0.3285	16.07	2.10	52.356	2.30	16.14	-145.50
20.24	16,080	116.10	53.14	0.72	0.3305	16.03	2.10	52.392	2.30	16.10	-145.41
20.25	16,060	113.55	53.51	0.71	0.3332	16.01	2.10	52.429	2.00	16.08	-145.14
20.26	16,120	112.44	53.51	0.70	0.3319	16.07	2.10	52.466	2.00	16.14	-145.24
20.27	16,250	110.34	53.87	0.67	0.3422	16.11	2.10	52.502	2.00	16.19	-152.54
20.28	16,420	110.12	53.87	0.67	0.3281	16.37	2.10	52.539	2.00	16.44	-145.08
20.29	16,640	109.06	54.42	0.66	0.3270	16.59	2.10	52.576	2.00	16.66	-144.62
20.30	16,820	108.09	54.6	0.64	0.3246	16.77	2.10	52.612	2.00	16.84	-144.54
20.31	16,960	107.30	54.42	0.63	0.3209	16.91	2.10	52.649	2.00	16.98	-144.82
20.32	17,090	106.52	54.24	0.62	0.3174	17.04	2.10	52.685	2.00	17.06	-144.98
20.33	17,200	104.66	53.69	0.61	0.3122	17.15	2.10	52.722	1.80	17.22	-145.75
20.34	17,290	104.57	54.05	0.60	0.3126	17.24	2.10	52.759	1.80	17.31	-145.49
20.35	17,400	104.75	54.6	0.60	0.3138	17.35	2.10	52.795	1.80	17.42	-145.03
20.36	17,650	105.31	55.33	0.60	0.3135	17.59	2.10	52.832	2.00	17.67	-144.40
20.37	17,350	105.88	55.88	0.59	0.3126	18.29	2.10	52.869	2.00	17.83	-143.45
20.38	18,810	106.37	55.88	0.57	0.2971	18.75	2.10	52.905	1.80	18.83	-144.05
20.39	19,260	106.60	56.06	0.55	0.2911	19.20	2.10	52.942	1.80	19.28	-143.97

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
20.4	19,650	106.42	55.7	0.54	0.2835	19.59	2.10	52.979	1.80	19.67	-144.42
20.41	20,340	106.60	54.24	0.52	0.2667	20.29	2.10	53.015	1.80	20.36	-145.98
20.42	20,610	107.81	53.87	0.52	0.2614	20.56	2.10	53.052	1.80	20.63	-146.45
20.43	20,890	108.59	53.87	0.52	0.2585	20.79	2.10	53.089	1.80	20.86	-146.55
20.44	20,990	109.52	53.69	0.51	0.2545	20.94	2.10	53.125	1.80	21.01	-146.83
20.45	20,950	110.77	53.51	0.53	0.2554	20.90	2.10	53.162	1.50	20.97	-147.10
20.46	20,740	111.70	53.32	0.54	0.2571	20.69	2.10	53.199	2.00	20.76	-147.39
20.47	20,520	112.44	53.69	0.55	0.2616	20.47	2.10	53.235	2.00	20.54	-147.12
20.48	20,180	113.50	54.24	0.56	0.2690	20.11	2.10	53.272	1.50	20.18	-146.67
20.49	19,000	118.37	54.05	0.62	0.2845	18.67	2.10	53.308	1.50	18.74	-146.92
20.50	18,280	120.36	54.78	0.66	0.2997	18.23	2.10	53.345	2.00	18.30	-146.33
20.51	18,280	120.36	54.78	0.66	0.2997	18.23	2.10	53.382	4.00	18.30	-146.42
20.52	18,280	120.36	54.78	0.66	0.2997	18.23	2.10	53.418	4.00	18.30	-146.52
20.53	15,400	107.99	52.78	0.70	0.3427	15.35	2.20	53.457	2.00	15.42	-146.62
20.54	16,050	104.94	52.78	0.65	0.3268	16.05	2.20	53.495	2.00	16.07	-146.72
20.55	15,700	107.16	52.41	0.68	0.3338	15.65	2.20	53.534	2.00	15.72	-146.19
20.56	15,190	108.83	52.41	0.72	0.3450	15.14	2.20	53.572	2.00	15.21	-149.28
20.57	14,850	110.03	52.05	0.74	0.3505	14.80	2.10	53.609	2.30	14.87	-149.74
20.58	14,580	111.47	52.23	0.76	0.3582	14.53	2.10	53.645	2.30	14.60	-149.66
20.59	14,330	110.93	52.05	0.77	0.3632	14.29	2.10	53.682	2.00	14.35	-149.94
20.6	14,150	109.80	52.05	0.78	0.3678	14.10	2.10	53.718	2.00	14.17	-150.04
20.61	13,950	106.51	51.86	0.76	0.3716	13.90	2.10	53.755	2.30	13.97	-150.32
20.62	13,920	102.39	51.86	0.74	0.3726	13.87	2.10	53.792	2.30	13.94	-150.42
20.63	13,940	96.97	51.86	0.70	0.3707	13.89	2.10	53.828	2.00	13.96	-150.70
20.64	14,100	83.08	51.5	0.66	0.3678	13.86	2.10	53.865	2.00	13.99	-150.80
20.65	14,080	87.06	51.31	0.66	0.3644	14.03	2.10	53.902	2.30	14.10	-151.01
20.66	14,100	84.65	51.31	0.60	0.3639	14.05	2.10	53.938	2.30	14.12	-151.11
20.67	14,150	83.59	51.5	0.59	0.3640	14.10	2.10	53.975	2.00	14.17	-151.11
20.68	14,180	78.26	51.86	0.55	0.3657	14.13	2.10	54.012	2.00	14.20	-151.11
20.69	14,230	77.94	51.86	0.55	0.3644	14.18	2.10	54.048	1.80	14.25	-151.11
20.7	14,370	75.85	51.86	0.55	0.3640	14.32	2.10	54.085	1.80	14.31	-151.11
20.71	14,520	75.11	52.05	0.52	0.3585	14.47	2.10	54.122	2.00	14.54	-151.11
20.72	14,680	75.02	52.05	0.51	0.3543	14.64	2.10	54.158	2.00	14.71	-151.11
20.73	14,870	74.74	52.05	0.50	0.3500	14.82	2.10	54.195	2.00	14.89	-151.11
20.74	15,020	75.16	52.23	0.50	0.3477	14.97	2.10	54.232	2.00	15.04	-151.11
20.75	15,290	75.85	52.05	0.51	0.3404	15.24	2.10	54.268	2.00	15.11	-151.11
20.76	15,640	76.87	50.95	0.49	0.3258	15.59	2.10	54.305	2.00	15.66	-152.12
20.77	16,090	77.85	50.42	0.48	0.3121	16.04	2.10	54.341	2.00	16.11	-153.13
20.78	17,270	78.31	52.59	0.45	0.3045	17.22	2.10	54.378	2.00	17.29	-151.11
20.79	17,950	78.31	52.78	0.44	0.2990	17.90	2.10	54.415	1.80	17.97	-151.11
20.8	18,590	82.78	51.86	0.44	0.2878	18.54	2.10	54.451	1.80	18.61	-151.11
20.81	19,280	78.91	52.78	0.41	0.2738	19.23	2.10	54.488	2.00	19.30	-151.11
20.82	19,950	80.30	51.68	0.40	0.2590	19.90	2.10	54.525	1.80	19.97	-152.12
20.83	21,210	78.17	53.69	0.37	0.2531	21.16	2.10	54.561	1.80	21.23	-150.10
20.84	21,590	78.73	48.03	0.36	0.2225	21.54	2.10	54.598	1.80	21.61	-156.13
20.85	22,620	85.42	52.41	0.37	0.2405	22.45	2.10	54.635	1.80	22.52	-156.13
20.86	21,290	86.14	52.59	0.40	0.2421	21.67	2.10	54.671	1.80	21.74	-152.12
20.87	21,840	87.06	55.15	0.40	0.2525	21.78	2.10	54.708	1.80	21.86	-149.11
20.88	21,910	94.38	52.96	0.43	0.2417	21.86	2.10	54.745	1.80	21.93	-151.11
20.89	21,910	97.17	52.41	0.4	0.2409	21.86	2.10	54.781	1.80	21.93	-152.12
20.91	22,100	90.03	50.59	0.45	0.2359	22.19	2.10	54.818	1.80	22.19	-152.12
20.91	22,050	103.22	52.78	0.47	0.2394	22.20	2.10	54.854	2.00	22.07	-152.12
20.92	22,170	106.23	52.41	0.48	0.2364	22.12	2.10	54.891	2.00	22.19	-152.12
20.93	22,300	106.46	52.41	0.49	0.2350	22.25	2.10	54.928	2.00	22.32	-152.12
20.94	22,370	111.37	52.41	0.50	0.2343	22.32	2.10	54.964	1.80	22.39	-153.13
20.95	22,440	110.78	52.23	0.51	0.2336	22.39	2.10	55.001	2.00	22.46	-153.13
20.96	22,490	116.56	51.68	0.52	0.2298	22.44	2.10	55.038	2.30	22.51	-153.13
20.97	22,420	119.34	51.86	0.53	0.2313	22.37	2.10	55.074	2.30	22.44	-154.14
20.98	22,370	123.04	51.68	0.55	0.2310	22.32	2.10	55.111	2.00	22.39	-154.14
20.99	22,300	124.57	51.86	0.56	0.2326	22.22	2.10	55.148	2.00	22.32	-154.14
21.0	22,170	125.30	52.05	0.57	0.2348	22.12	2.10	55.184	2.10	22.19	-154.14
21.01	21,990	128.55	52.78	0.58	0.2400	21.94	2.10	55.221	2.00	22.01	-153.13
21.02	21,750	129.02	52.78	0.59	0.2427	21.70	2.10	55.258	2.30	21.77	-153.13
21.03	21,480	130.59	53.14	0.61	0.2474	21.43	2.10	55.294	2.30	21.50	-153.13
21.04	21,220	132.68	53.51	0.63	0.2522	21.17	2.10	55.331	2.30	21.24	-152.12
21.05	21,060	136.76	53.14	0.64	0.2577	20.91	2.10	55.368	2.30	21.07	-152.12
21.06	20,980	137.21	53.14	0.66	0.2544	20.84	2.10	55.404	2.00	20.91	-153.13
21.07	20,650	139.67	53.32	0.68	0.2582	20.60	2.10	55.441	2.00	20.64	-153.13
21.08	20,420	141.47	53.69	0.69	0.2629	20.37	2.10	55.477	2.00	20.47	-153.13

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
22.47	16,370	80,62	88,02	0.49	0.5377	16,26	1.90	60,567	2.00	16,41	-132,41
22.48	16,350	80,53	88,57	0.49	0.5417	16,26	1.90	60,601	2.00	16,39	-131,96
22.49	16,350	77,80	89,12	0.48	0.5451	16,26	1.90	60,634	2.00	16,39	-131,51
22.5	16,440	74,42	89,48	0.45	0.5443	16,35	1.90	60,607	2.00	16,48	-131,25
22.51	16,440	74,42	89,48	0.45	0.5443	16,35	1.90	60,700	4.30	16,42	-131,34
22.52	16,440	74,42	89,48	0.45	0.5443	16,35	1.90	60,733	4.30	16,48	-131,44
22.53	16,000	69,00	89,48	0.43	0.5593	15,91	2.00	60,768	4.30	16,04	-131,54
22.54	16,070	57,38	84,92	0.36	0.5284	15,99	2.00	60,803	2.00	16,11	-136,20
22.55	16,070	56,59	84,19	0.34	0.5020	16,09	2.00	60,838	2.00	16,81	-137,03
22.56	17,520	56,54	83,99	0.32	0.4743	17,44	2.00	60,873	2.00	17,55	-142,23
22.57	17,800	58,30	83,64	0.33	0.4699	17,72	2.00	60,908	2.00	17,84	-137,77
22.58	18,050	57,89	83,82	0.32	0.4644	17,97	2.00	60,943	2.00	18,09	-137,69
22.59	18,390	58,44	83,82	0.32	0.4558	18,31	2.00	60,977	2.00	18,43	-137,79
22.6	18,000	57,79	83,82	0.31	0.4506	18,52	2.00	61,012	2.30	18,64	-137,89
22.61	18,370	54,94	83,99	0.29	0.4403	18,79	2.00	61,047	2.00	18,80	-138,71
22.62	18,840	54,37	84,73	0.29	0.4497	18,76	2.00	61,082	2.00	18,88	-137,17
22.63	18,850	56,64	80,9	0.30	0.4292	18,77	2.00	61,117	2.00	18,88	-141,10
22.64	18,840	61,41	81,63	0.33	0.4379	18,56	2.00	61,152	2.00	18,67	-140,47
22.65	18,670	61,92	81,81	0.33	0.4335	18,79	2.00	61,187	2.00	18,90	-140,39
22.66	18,960	64,32	86,54	0.34	0.4353	18,88	2.00	61,222	2.00	18,99	-139,86
22.67	19,270	67,43	86,74	0.35	0.4501	19,18	2.00	61,257	2.00	19,31	-135,65
22.68	19,110	68,12	82,18	0.36	0.4300	19,03	2.00	61,292	2.00	19,14	-140,31
22.69	19,380	71,46	82,54	0.37	0.4259	19,30	2.00	61,326	2.00	19,41	-140,05
22.7	19,560	74,79	82,91	0.38	0.4299	19,48	2.00	61,361	2.00	19,59	-139,78
22.71	19,860	78,22	82,72	0.39	0.4305	19,78	2.00	61,396	2.00	19,75	-140,07
22.72	20,000	80,16	82,72	0.40	0.4136	19,92	2.00	61,431	2.00	20,03	-140,16
22.73	20,020	83,08	83,66	0.41	0.4169	19,94	2.00	61,466	2.00	20,06	-139,52
22.74	20,040	86,04	83,09	0.43	0.4146	19,96	2.00	61,501	2.00	20,07	-139,99
22.75	20,080	85,53	82,36	0.43	0.4102	20,00	2.00	61,536	2.00	20,11	-140,82
22.76	19,990	86,32	81,81	0.43	0.4093	19,91	2.00	61,571	2.00	20,02	-141,47
22.77	19,730	87,56	81,63	0.43	0.4137	19,65	2.00	61,606	2.00	19,76	-141,74
22.78	19,750	85,67	82,36	0.43	0.4170	19,67	2.00	61,641	2.00	19,78	-141,11
22.79	19,380	89,05	84,19	0.46	0.4344	19,30	2.00	61,675	2.30	19,42	-139,38
22.8	19,220	94,75	84,9	0.49	0.4370	19,14	2.00	61,710	2.30	19,26	-139,67
22.81	18,880	95,07	85,65	0.50	0.4537	18,79	2.00	61,745	2.30	18,92	-138,12
22.82	18,620	97,34	84	0.52	0.4511	18,54	2.00	61,780	2.30	18,66	-139,86
22.83	18,260	98,87	84,37	0.54	0.4620	18,18	2.00	61,815	2.30	18,30	-139,59
22.84	17,940	99,06	83,46	0.55	0.4652	17,86	2.00	61,850	2.30	17,98	-140,60
22.85	17,480	100,26	83,09	0.57	0.4753	17,40	2.00	61,885	2.30	17,51	-141,07
22.86	17,110	100,68	82,91	0.59	0.4846	17,03	2.00	61,920	2.00	17,14	-141,35
22.87	16,830	100,31	83,09	0.60	0.4937	16,75	2.10	61,956	2.00	16,86	-141,26
22.88	16,770	100,26	83,09	0.59	0.4925	16,79	2.10	61,993	2.30	16,90	-141,36
22.89	17,220	99,52	84	0.58	0.4878	17,14	2.00	62,028	2.30	17,26	-140,55
22.9	17,470	98,18	83,27	0.56	0.4766	17,39	2.00	62,063	2.00	17,50	-141,38
22.91	17,740	97,53	86,56	0.55	0.4879	17,65	2.00	62,098	2.00	17,78	-138,19
22.92	18,110	94,61	83,09	0.52	0.4808	17,92	2.00	62,133	2.00	17,90	-140,07
22.93	18,430	91,92	83,09	0.49	0.4508	18,26	2.00	62,168	2.00	18,02	-141,26
22.94	18,780	90,67	83,82	0.48	0.4463	18,60	2.00	62,202	1.80	18,82	-141,22
22.95	19,060	91,23	85,1	0.48	0.4465	18,97	2.00	62,237	1.80	19,10	-140,04
22.96	19,460	86,14	86,01	0.44	0.4420	19,37	2.00	62,272	2.00	19,50	-139,23
22.97	19,890	87,20	85,46	0.44	0.4287	19,80	2.00	62,307	2.00	19,63	-139,88
22.98	20,700	89,58	85,83	0.42	0.4146	20,68	2.00	62,342	2.00	20,74	-139,03
22.99	21,170	85,30	84,73	0.40	0.4002	21,09	2.00	62,379	2.00	21,21	-140,80
23	21,510	84,65	83,46	0.39	0.3880	21,43	2.10	62,415	1.80	21,55	-142,17
23.01	21,680	85,16	82,59	0.39	0.3833	21,60	2.10	62,452	1.80	21,71	-142,64
23.02	21,760	83,08	83,94	0.38	0.3793	21,68	2.10	62,489	1.80	21,79	-143,29
23.03	21,370	81,98	83,94	0.39	0.3814	21,29	2.10	62,525	1.80	21,87	-143,04
23.04	21,230	84,51	84,19	0.40	0.3966	21,15	2.10	62,562	2.00	21,27	-141,83
23.05	20,970	83,22	84	0.40	0.4006	20,89	2.10	62,599	1.80	21,01	-142,12
23.06	20,560	85,72	83,64	0.42	0.4008	20,48	2.10	62,635	1.80	20,60	-142,58
23.07	20,370	86,46	83,82	0.42	0.4115	20,29	2.10	62,672	1.80	20,41	-142,50
23.08	20,030	86,98	84,73	0.43	0.4203	19,95	2.10	62,708	1.80	20,17	-143,03
23.09	18,500	88,54	83,82	0.48	0.4531	18,42	2.10	62,745	1.80	18,54	-142,69
23.1	17,640	90,72	83,64	0.51	0.4741	17,56	2.10	62,782	1.80	17,68	-142,97
23.11	16,790	91,28	85,46	0.54	0.5090	16,70	2.10	62,818	2.00	16,83	-141,25
23.12	15,990	91,23	85,83	0.57	0.5368	15,90	2.10	62,855	2.00	16,03	-140,98
23.13	15,320	91,23	85,83	0.61	0.5621	15,21	2.10	62,890	2.00	15,22	-139,90
23.14	14,760	93,45	86,74	0.63	0.5877	14,67	2.00	62,925	2.30	14,80	-140,26
23.15	14,280	91,92	87,11	0.64	0.6100	14,19	2.00	62,960	2.30	14,32	-139,99

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
23.16	13,850	90.67	86.92	0.65	0.6276	13.76	2.00	62,995	2.30	13.89	-140.28
23.17	13,510	90.26	87.29	0.67	0.6461	13.42	2.00	63,030	2.30	13.55	-140.01
23.18	13,250	90.21	87.47	0.68	0.6602	13.16	2.00	63,064	2.30	13.29	-139.93
23.19	13,200	90.21	87.47	0.68	0.6602	13.16	2.00	63,099	2.30	13.29	-140.02
23.2	13,300	87.79	87.66	0.62	0.6728	12.94	2.00	63,134	2.50	13.07	-139.93
23.21	12,840	91.51	87.84	0.71	0.6841	12.75	2.00	63,169	2.50	12.88	-139.85
23.22	12,710	90.40	88.39	0.71	0.6954	12.62	2.00	63,204	2.50	12.75	-139.40
23.23	12,660	83.26	88.57	0.66	0.6996	12.57	2.00	63,239	2.50	12.70	-139.32
23.24	12,670	81.50	88.93	0.64	0.7019	12.58	2.00	63,274	2.50	12.71	-139.05
23.25	12,700	81.13	88.93	0.63	0.7003	12.65	2.00	63,310	2.50	12.74	-139.15
23.26	12,800	80.67	88.75	0.63	0.6934	12.71	2.00	63,344	2.50	12.84	-139.43
23.27	12,800	80.67	88.75	0.63	0.6934	12.71	2.00	63,379	2.50	12.84	-139.53
23.28	12,920	80.99	88.75	0.63	0.6889	12.83	2.00	63,413	2.50	12.96	-139.63
23.29	13,100	81.78	89.12	0.62	0.6803	13.01	2.00	63,448	2.30	13.14	-139.35
23.3	13,300	82.06	89.3	0.62	0.6714	13.21	2.00	63,483	2.30	13.34	-139.27
23.31	13,540	82.75	89.48	0.61	0.6609	13.45	2.00	63,518	2.30	13.58	-139.19
23.32	13,790	84.05	89.66	0.61	0.6502	13.70	2.00	63,553	2.30	13.83	-139.11
23.33	14,300	84.98	89.85	0.59	0.6283	14.21	2.00	63,588	2.30	14.34	-139.02
23.34	14,530	86.04	89.66	0.59	0.6171	14.44	2.00	63,623	1.80	14.57	-139.31
23.35	14,630	86.88	89.48	0.57	0.6166	14.65	2.00	63,658	1.80	14.67	-139.58
23.36	14,630	89.05	89.3	0.61	0.6104	14.54	2.00	63,693	1.80	14.67	-139.86
23.37	14,570	89.84	89.66	0.62	0.6154	14.48	2.00	63,728	1.80	14.61	-139.60
23.38	14,480	90.40	89.48	0.62	0.6180	14.39	2.00	63,762	1.80	14.52	-139.88
23.39	14,460	91.14	89.85	0.63	0.6214	14.37	2.00	63,797	1.80	14.50	-139.61
23.4	14,100	92.11	90.39	0.64	0.6473	14.32	2.00	63,832	1.50	14.45	-139.16
23.41	14,480	92.99	90.39	0.65	0.6502	14.39	2.00	63,867	1.50	14.44	-139.26
23.42	14,630	94.93	90.58	0.65	0.6491	14.54	2.00	63,902	1.50	14.67	-139.17
23.43	14,780	96.14	90.58	0.65	0.6129	14.69	2.00	63,937	1.50	14.82	-139.27
23.44	14,910	97.25	91.12	0.65	0.6111	14.82	2.00	63,972	1.50	14.98	-138.83
23.45	15,320	99.61	91.12	0.65	0.6108	15.23	2.00	64,007	1.50	15.38	-138.36
23.46	15,630	100.67	91.07	0.63	0.5938	15.62	2.00	64,043	1.50	15.69	-138.02
23.47	15,900	100.49	90.76	0.63	0.5708	15.81	2.10	64,080	1.80	15.94	-138.49
23.48	16,410	99.75	89.66	0.61	0.5464	16.32	2.10	64,117	1.80	16.45	-140.68
23.49	16,580	99.92	89.12	0.60	0.5375	16.49	2.00	64,152	1.80	16.62	-141.31
23.5	16,690	99.33	89.12	0.60	0.5340	16.60	2.00	64,186	1.50	16.73	-141.62
23.51	16,690	99.33	89.12	0.60	0.5340	16.60	2.00	64,221	1.50	16.73	-141.61
23.52	16,690	99.33	89.12	0.60	0.5340	16.60	2.00	64,256	2.30	16.73	-141.61
23.53	16,680	82.89	85.57	0.51	0.5440	16.19	2.10	64,293	2.30	16.32	-142.26
23.54	16,530	83.77	86.02	0.51	0.5325	16.48	2.10	64,330	1.80	16.57	-142.91
23.55	16,460	84.75	87.29	0.51	0.5303	16.37	2.10	64,366	1.80	16.50	-143.74
23.56	16,180	86.04	88.01	0.54	0.5211	16.69	2.10	64,403	1.80	16.37	-144.53
23.57	15,470	91.28	87.74	0.59	0.5607	15.38	2.00	64,438	1.80	15.51	-144.48
23.58	15,160	92.66	86.56	0.61	0.5710	15.07	2.00	64,473	2.00	15.20	-144.76
23.59	14,910	93.34	86.56	0.63	0.5805	14.82	2.00	64,508	2.00	14.95	-144.86
23.6	14,730	95.26	86.74	0.65	0.5889	14.64	2.10	64,544	2.00	14.77	-144.78
23.61	14,360	96.29	86.23	0.68	0.5823	14.67	2.10	64,581	2.00	14.44	-145.44
23.62	14,230	97.34	86.92	0.68	0.6108	14.14	2.10	64,617	2.00	14.27	-144.79
23.63	14,060	97.20	86.92	0.69	0.6182	13.97	2.10	64,654	1.80	14.10	-144.89
23.64	13,870	97.94	87.47	0.71	0.6306	13.78	2.10	64,691	1.80	13.91	-144.44
23.65	13,710	98.22	87.84	0.72	0.6407	13.62	2.00	64,726	2.00	13.75	-144.17
23.66	13,490	98.49	87.84	0.73	0.6462	13.40	2.00	64,762	2.00	13.52	-143.82
23.67	13,120	98.75	88.75	0.73	0.6618	13.32	2.10	64,799	2.00	13.45	-143.45
23.68	13,360	96.55	88.75	0.72	0.6643	13.27	2.10	64,836	2.00	13.40	-143.55
23.69	13,300	95.63	88.75	0.72	0.6673	13.21	2.10	64,872	2.00	13.34	-143.65
23.7	13,320	95.35	88.93	0.72	0.6676	13.23	2.10	64,909	2.00	13.36	-143.57
23.71	13,360	95.63	88.93	0.71	0.6688	13.27	2.10	64,946	2.00	13.37	-143.49
23.72	13,420	95.12	89.38	0.71	0.6586	13.33	2.10	64,982	2.00	13.40	-144.30
23.73	13,470	94.52	88.2	0.70	0.6548	13.38	2.10	65,019	2.00	13.51	-144.59
23.74	13,540	93.87	88.2	0.69	0.6514	13.45	2.10	65,055	2.00	13.58	-144.69
23.75	13,360	93.08	88.2	0.68	0.6485	13.51	2.10	65,092	2.00	13.64	-144.74
23.76	13,270	93.60	88.2	0.68	0.6488	13.58	2.10	65,129	2.00	13.71	-144.84
23.77	13,720	92.16	87.84	0.67	0.6402	13.63	2.10	65,165	2.00	13.76	-144.39
23.78	13,770	92.48	88.2	0.67	0.6405	13.68	2.10	65,202	2.00	13.81	-145.08
23.79	13,870	92.57	89.12	0.67	0.6425	13.78	2.10	65,239	2.30	13.91	-144.26
23.8	13,870	92.57	89.12	0.67	0.6425	13.78	2.10	65,275	2.30	13.91	-144.36
23.81	13,930	92.81	90.01	0.67	0.6438	13.84	2.10	65,312	2.30	14.01	-144.36
23.82	13,990	92.94	90.21	0.66	0.6448	13.90	2.10	65,349	2.30	14.03	-144.46
23.83	14,060	93.36	90.39	0.66	0.6429	13.97	2.10	65,385	2.30	14.10	-143.38
23.84	14,140	93.41	90.39	0.66	0.6393	14.05	2.10	65,422	2.30	14.18	-143.48

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
25.23	18,050	96.09	98.70	0.53	0.5473	17.95	2.10	70.494	2.00	18.09	-148.72
25.24	18,030	95.86	99.16	0.53	0.5500	17.93	2.10	70.531	1.80	18.07	-148.44
25.25	18,010	95.91	99.53	0.53	0.5526	17.91	2.00	70.568	1.80	18.05	-148.17
25.26	18,000	94.38	99.71	0.52	0.5539	17.90	2.00	70.601	1.80	18.04	-148.09
25.27	17,990	96.09	99.89	0.51	0.5556	17.88	2.00	70.636	1.80	18.02	-148.01
25.28	18,000	90.63	99.53	0.50	0.5529	17.90	2.00	70.671	1.80	18.04	-148.47
25.29	18,000	90.72	99.89	0.50	0.5549	17.90	2.00	70.706	1.80	18.04	-148.20
25.3	18,000	89.98	99.89	0.50	0.5531	17.96	2.00	70.740	1.80	18.10	-148.30
25.31	18,090	89.70	99.89	0.50	0.5522	17.99	2.00	70.775	1.80	18.13	-148.40
25.32	18,140	89.38	99.89	0.50	0.5517	18.04	2.00	70.810	1.80	18.16	-148.50
25.33	18,130	88.96	100.26	0.49	0.5530	18.03	2.00	70.845	1.80	18.17	-148.23
25.34	18,000	88.64	100.26	0.49	0.5570	17.90	2.00	70.880	1.80	18.04	-148.33
25.35	17,660	86.92	99.71	0.49	0.5646	17.56	2.00	70.915	1.50	17.70	-148.97
25.36	17,400	86.97	99.71	0.50	0.5730	17.30	2.00	70.950	1.80	17.44	-149.07
25.37	17,220	86.74	100.07	0.50	0.5822	17.12	2.00	70.985	1.80	17.36	-148.62
25.38	17,100	86.78	100.8	0.51	0.5895	17.00	2.00	71.020	1.80	17.14	-148.18
25.39	17,100	87.20	101.53	0.51	0.5937	17.00	2.00	71.055	1.80	17.14	-147.55
25.4	17,320	87.62	102.26	0.51	0.5904	17.22	2.00	71.089	1.80	17.36	-146.91
25.41	17,500	88.03	102.26	0.50	0.5843	17.40	2.00	71.124	1.80	17.54	-147.01
25.42	17,720	88.06	102.26	0.49	0.5781	17.62	2.00	71.159	1.80	17.76	-147.29
25.43	18,020	86.18	101.53	0.48	0.5634	17.92	2.00	71.194	1.80	18.06	-147.94
25.44	18,170	86.37	101.72	0.48	0.5598	18.07	2.00	71.229	1.80	18.21	-147.85
25.45	18,240	86.23	101.72	0.47	0.5577	18.14	2.00	71.264	1.80	18.28	-147.84
25.46	18,230	84.56	101.53	0.46	0.5569	18.13	2.00	71.299	1.80	18.27	-148.23
25.47	17,930	83.50	100.62	0.47	0.5612	17.83	2.00	71.334	1.80	18.16	-148.33
25.48	17,580	83.54	99.89	0.48	0.5682	17.48	2.00	71.369	1.80	18.17	-150.07
25.49	17,700	84.51	99.89	0.49	0.5808	17.10	2.00	71.404	2.00	17.24	-150.17
25.5	17,200	84.51	99.89	0.49	0.5808	17.10	2.00	71.438	4.50	17.24	-150.27
25.51	17,200	84.51	99.89	0.49	0.5808	17.10	2.00	71.473	4.50	17.24	-150.36
25.52	15,990	74.74	100.26	0.47	0.6270	15.89	2.00	71.508	2.00	16.03	-150.09
25.53	16,000	76.73	100.07	0.48	0.6254	15.93	2.00	71.543	2.00	16.04	-150.38
25.54	15,830	78.96	100.07	0.50	0.6322	15.73	2.00	71.578	1.80	15.87	-150.48
25.55	15,690	81.18	100.07	0.52	0.6378	15.59	2.00	71.613	1.80	15.73	-150.58
25.56	15,570	83.22	99.89	0.53	0.6416	15.47	2.00	71.648	2.00	15.61	-150.85
25.57	15,500	84.47	99.71	0.54	0.6433	15.40	2.00	71.683	2.00	15.54	-151.13
25.58	15,450	85.95	99.71	0.56	0.6454	15.35	2.00	71.718	2.00	15.49	-151.23
25.59	15,450	87.34	99.89	0.57	0.6465	15.35	2.00	71.753	2.00	15.49	-151.15
25.6	15,500	88.64	99.89	0.57	0.6445	15.40	2.00	71.787	2.00	15.54	-151.25
25.61	15,680	88.22	99.89	0.56	0.6371	15.58	2.00	71.822	1.50	15.72	-151.34
25.62	15,800	87.43	99.89	0.55	0.6322	15.70	2.00	71.857	1.50	15.84	-151.44
25.63	15,930	86.74	99.71	0.54	0.6259	15.83	2.00	71.892	1.80	15.97	-151.72
25.64	16,210	85.49	99.34	0.53	0.6128	16.11	2.00	71.927	1.80	16.25	-152.19
25.65	16,350	85.49	99.53	0.52	0.6087	16.25	2.00	71.962	1.80	16.39	-152.10
25.66	16,450	85.30	99.34	0.52	0.6039	16.35	2.00	71.997	1.80	16.49	-152.38
25.67	16,520	85.35	99.53	0.52	0.6025	16.42	2.00	72.032	1.80	16.56	-152.29
25.68	16,670	85.96	99.34	0.52	0.5969	16.57	2.00	72.067	1.80	16.66	-152.68
25.69	16,740	86.94	99.53	0.53	0.5946	16.64	2.00	72.102	1.80	16.78	-152.49
25.7	16,890	86.74	99.34	0.51	0.5882	16.79	2.00	72.136	1.80	16.93	-152.78
25.71	17,120	86.69	98.79	0.51	0.5770	17.02	2.00	72.171	1.80	17.16	-153.43
25.72	17,440	86.55	98.25	0.50	0.5634	17.34	2.00	72.206	2.00	17.48	-154.06
25.73	17,210	86.37	97.52	0.47	0.5565	18.11	2.00	72.241	2.00	17.48	-154.06
25.74	18,540	86.86	97.7	0.47	0.5678	18.44	2.00	72.276	1.80	18.58	-154.91
25.75	18,760	87.01	98.06	0.46	0.5227	18.66	2.00	72.311	1.80	18.80	-154.55
25.76	18,900	87.43	98.25	0.46	0.5198	18.80	2.00	72.346	2.00	18.94	-154.46
25.77	18,990	87.76	98.06	0.46	0.5164	18.89	2.00	72.381	2.00	19.03	-154.74
25.78	19,030	88.13	98.06	0.46	0.5153	18.93	2.00	72.416	2.30	19.07	-154.84
25.79	19,060	88.91	98.06	0.47	0.5145	18.96	2.00	72.451	2.30	19.10	-154.94
25.8	19,080	89.38	98.06	0.47	0.5139	18.98	2.00	72.485	2.00	19.12	-155.04
25.81	19,060	90.49	98.06	0.47	0.5145	18.96	2.00	72.520	2.00	19.10	-155.14
25.82	19,010	91.65	98.25	0.48	0.5168	18.91	2.00	72.555	2.30	19.05	-155.04
25.83	19,010	93.13	98.61	0.49	0.5215	18.81	2.00	72.590	2.30	18.95	-154.78
25.84	19,060	94.38	98.79	0.50	0.5264	18.66	2.00	72.625	2.30	18.95	-154.69
25.85	18,560	95.07	98.79	0.51	0.5323	18.46	2.00	72.660	2.50	18.80	-154.80
25.86	18,560	95.07	98.79	0.51	0.5323	18.46	2.00	72.695	2.50	18.80	-154.80
25.87	18,180	97.25	98.79	0.53	0.5434	18.08	2.00	72.730	2.30	18.22	-154.99
25.88	18,180	97.25	98.79	0.53	0.5434	18.08	2.00	72.765	2.30	18.22	-155.09
25.89	17,590	97.49	98.79	0.53	0.5607	17.49	2.00	72.800	2.30	17.58	-155.19
25.9	17,590	97.57	98.61	0.55	0.5606	17.49	2.00	72.834	2.30	17.63	-155.47
25.91	16,920	97.62	98.16	0.58	0.5861	16.82	2.00	72.869	2.30	16.96	-155.02

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
25.92	16,920	97.62	99.16	0.58	0.5861	16.82	2.00	72.904	2.30	16.96	-155.12
25.93	16,700	97.43	99.34	0.58	0.5849	16.80	2.00	72.939	2.00	16.74	-155.03
25.94	16,510	97.11	99.34	0.59	0.6017	16.41	2.00	72.974	2.00	16.55	-155.13
25.95	16,510	97.11	99.34	0.59	0.6017	16.41	2.00	73.009	2.00	16.55	-155.23
25.96	15,800	96.12	99.16	0.61	0.6311	15.84	2.00	73.044	2.30	15.84	-154.96
25.97	15,420	94.75	100.07	0.61	0.6490	15.32	2.00	73.079	2.30	15.46	-154.70
25.98	15,110	94.24	100.26	0.62	0.6635	15.01	2.00	73.114	2.00	15.15	-154.60
25.99	14,880	93.64	100.99	0.63	0.6787	14.78	2.00	73.149	2.00	14.92	-153.97
26	14,880	93.04	101.53	0.63	0.6907	14.60	1.90	73.182	2.30	14.74	-153.53
26.01	14,570	92.20	101.9	0.64	0.6984	14.41	1.90	73.215	2.30	14.49	-153.26
26.02	14,500	91.28	101.9	0.63	0.7028	14.40	1.90	73.248	2.00	14.54	-153.36
26.03	14,490	90.30	102.08	0.62	0.7045	14.39	1.90	73.281	2.00	14.53	-153.27
26.04	14,460	89.19	102.26	0.62	0.7072	14.36	2.00	73.316	2.00	14.50	-153.19
26.05	14,490	87.71	102.08	0.61	0.7045	14.39	2.00	73.351	2.00	14.53	-153.47
26.06	14,450	86.41	102.08	0.60	0.7054	14.35	2.00	73.386	2.00	14.49	-153.84
26.07	14,470	85.30	102.08	0.59	0.7055	14.37	2.00	73.421	2.00	14.51	-153.67
26.08	14,530	83.45	102.63	0.57	0.7063	14.43	1.90	73.454	2.00	14.57	-153.21
26.09	14,530	82.15	102.81	0.57	0.7076	14.43	1.90	73.487	2.00	14.57	-153.13
26.1	14,500	80.99	102.99	0.56	0.7093	14.42	1.90	73.520	2.00	14.58	-153.05
26.11	14,490	80.53	103.18	0.56	0.7121	14.38	1.90	73.553	2.00	14.53	-152.96
26.12	14,500	79.98	103.54	0.55	0.7141	14.40	1.90	73.586	1.80	14.54	-152.70
26.13	14,480	79.00	103.36	0.55	0.7138	14.38	1.90	73.620	1.80	14.52	-152.98
26.14	14,470	78.63	103.54	0.54	0.7155	14.37	1.90	73.653	2.00	14.51	-152.89
26.15	14,450	77.98	103.73	0.54	0.7179	14.35	1.90	73.686	2.00	14.49	-152.80
26.16	14,420	77.61	104.09	0.54	0.7219	14.32	1.90	73.719	2.00	14.47	-152.71
26.17	14,300	77.61	104.09	0.54	0.7279	14.20	1.90	73.752	2.00	14.34	-152.64
26.18	14,220	77.43	104.09	0.54	0.7320	14.12	1.90	73.785	2.00	14.26	-152.74
26.19	14,120	77.24	104.09	0.55	0.7372	14.02	1.90	73.819	2.00	14.16	-152.83
26.2	14,020	76.46	104.09	0.55	0.7424	13.92	1.90	73.852	2.00	14.06	-152.93
26.21	13,960	76.07	104.09	0.55	0.7486	13.86	1.90	73.885	2.00	13.97	-153.03
26.22	13,880	75.30	104.27	0.54	0.7512	13.78	1.90	73.918	2.30	13.92	-152.95
26.23	13,830	74.84	104.27	0.54	0.7539	13.73	1.90	73.951	2.30	13.87	-153.05
26.24	13,760	73.82	104.27	0.54	0.7578	13.66	1.90	73.984	2.00	13.80	-153.14
26.25	13,650	73.31	104.27	0.54	0.7639	13.55	1.90	74.018	2.00	13.69	-153.24
26.26	13,540	72.80	104.27	0.54	0.7700	13.44	1.90	74.051	2.00	13.58	-153.34
26.27	13,410	71.08	104.27	0.53	0.7776	13.31	1.90	74.084	2.30	13.45	-153.44
26.28	13,300	69.83	104.46	0.53	0.7854	13.20	1.90	74.117	2.30	13.34	-153.35
26.29	13,170	68.95	104.64	0.52	0.7945	13.07	1.90	74.150	2.30	13.21	-153.26
26.3	13,030	67.52	104.64	0.52	0.8031	12.93	1.90	74.183	2.30	13.07	-153.36
26.31	12,910	66.44	104.64	0.51	0.8105	12.81	1.90	74.216	2.30	12.94	-153.46
26.32	12,790	65.06	104.62	0.51	0.8185	12.69	1.90	74.249	2.30	12.83	-153.56
26.33	12,670	64.51	104.58	0.51	0.8273	12.57	1.90	74.283	2.30	12.71	-153.48
26.34	12,580	63.77	105	0.51	0.8347	12.48	1.90	74.316	2.30	12.62	-153.40
26.35	12,490	63.81	105.37	0.51	0.8436	12.38	1.90	74.349	2.30	12.53	-153.12
26.36	12,400	63.07	105.37	0.51	0.8498	12.29	1.90	74.382	2.30	12.44	-153.22
26.37	12,310	62.33	105.37	0.51	0.8566	12.20	1.90	74.415	2.50	12.35	-153.32
26.38	12,330	63.35	105.37	0.51	0.8546	12.22	1.90	74.449	2.50	12.37	-153.42
26.39	12,260	62.84	105.37	0.51	0.8595	12.15	1.90	74.482	2.50	12.30	-153.52
26.4	12,190	62.70	105.37	0.51	0.8644	12.08	1.90	74.515	2.30	12.23	-153.61
26.41	12,120	62.37	105.37	0.51	0.8694	12.01	2.00	74.550	2.30	12.16	-153.71
26.42	12,020	61.96	105.55	0.52	0.8771	11.91	2.00	74.585	2.00	12.06	-153.63
26.43	11,970	61.78	105.55	0.52	0.8818	11.86	2.00	74.620	2.00	12.01	-153.73
26.44	11,940	61.73	105.73	0.52	0.8855	11.83	2.00	74.654	2.30	11.98	-153.65
26.45	11,900	60.80	105.73	0.51	0.8885	11.79	2.00	74.689	2.30	11.94	-153.74
26.46	11,860	60.34	105.92	0.51	0.8916	11.77	2.00	74.724	2.30	11.92	-153.65
26.47	11,800	59.90	106.1	0.50	0.8947	11.73	1.90	74.757	2.30	11.88	-153.74
26.48	11,820	59.55	106.28	0.50	0.8916	11.81	1.90	74.791	2.30	11.96	-153.49
26.49	11,920	59.55	106.28	0.50	0.8916	11.81	1.90	74.824	4.00	11.96	-153.59
26.5	11,920	59.55	106.28	0.50	0.8916	11.81	1.90	74.857	3.80	11.96	-153.69
26.51	11,900	58.38	107.74	0.42	0.9054	11.79	1.90	74.890	3.80	11.95	-152.62
26.52	11,840	58.00	108.00	0.42	0.9113	11.73	1.90	74.923	3.80	11.93	-152.88
26.53	12,060	47.93	106.45	0.40	0.8843	11.95	1.90	74.956	3.20	12.10	-153.31
26.54	12,200	48.86	106.46	0.40	0.8726	12.09	1.90	74.989	2.30	12.24	-153.90
26.55	12,370	49.27	106.46	0.40	0.8606	12.28	2.00	75.024	2.30	12.41	-154.00
26.56	12,580	49.46	106.1	0.39	0.8434	12.47	2.00	75.059	2.30	12.62	-154.45
26.57	12,580	49.46	106.1	0.39	0.8434	12.47	2.00	75.092	2.30	12.62	-154.50
26.58	12,840	49.50	106.1	0.39	0.8263	12.73	1.90	75.127	2.50	12.88	-155.65
26.59	13,110	49.00	106.1	0.37	0.8093	13.00	1.90	75.160	2.30	13.15	-154.75
26.6	13,340	49.04	106.46	0.37	0.7881	13.23	2.00	75.194	2.30	13.38	-154.49

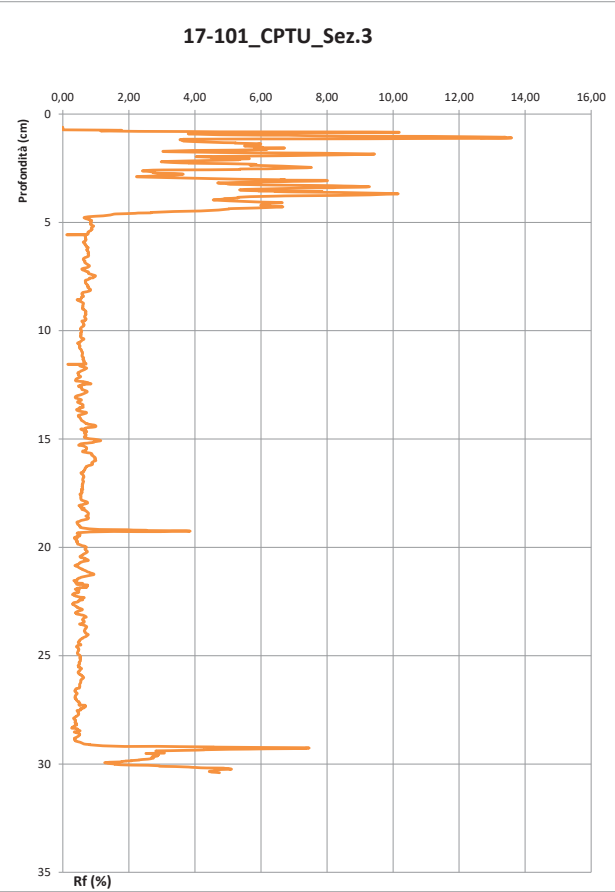
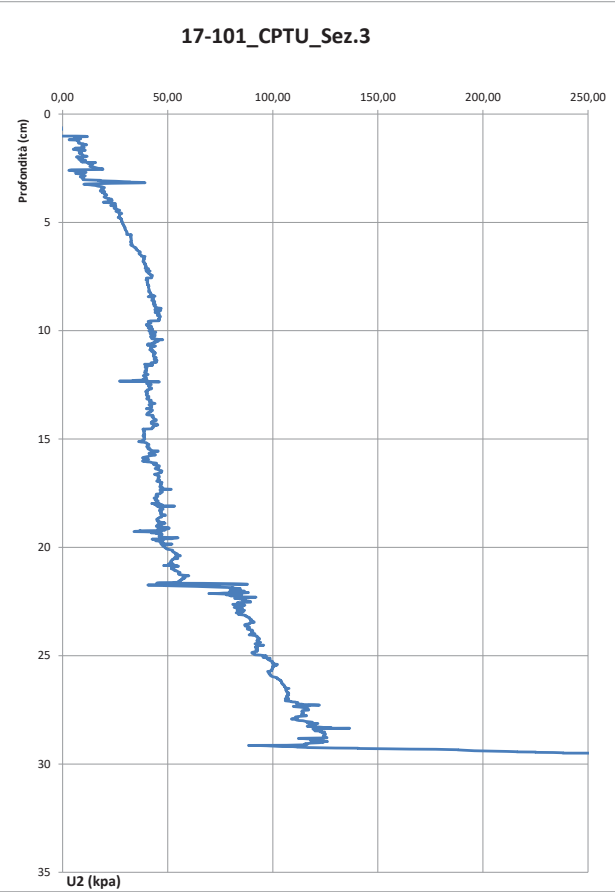
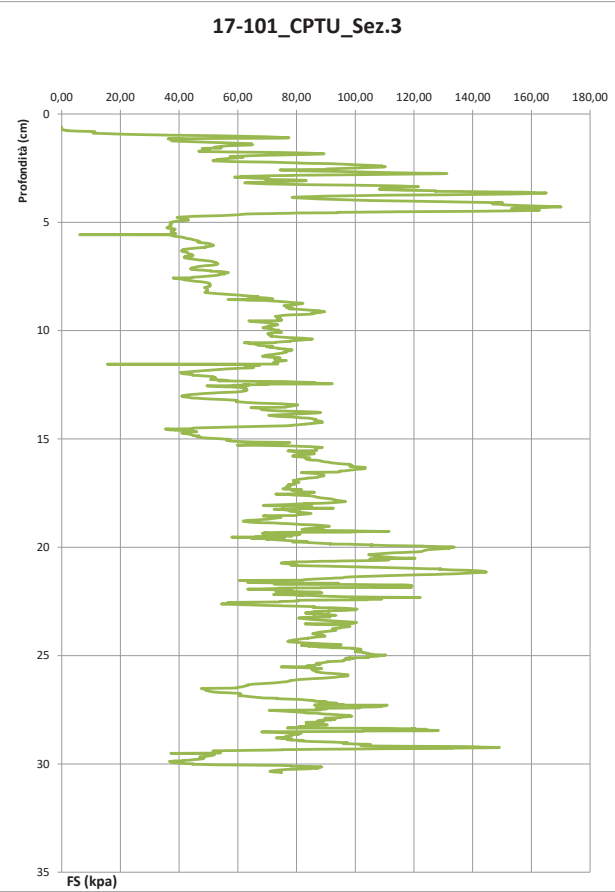
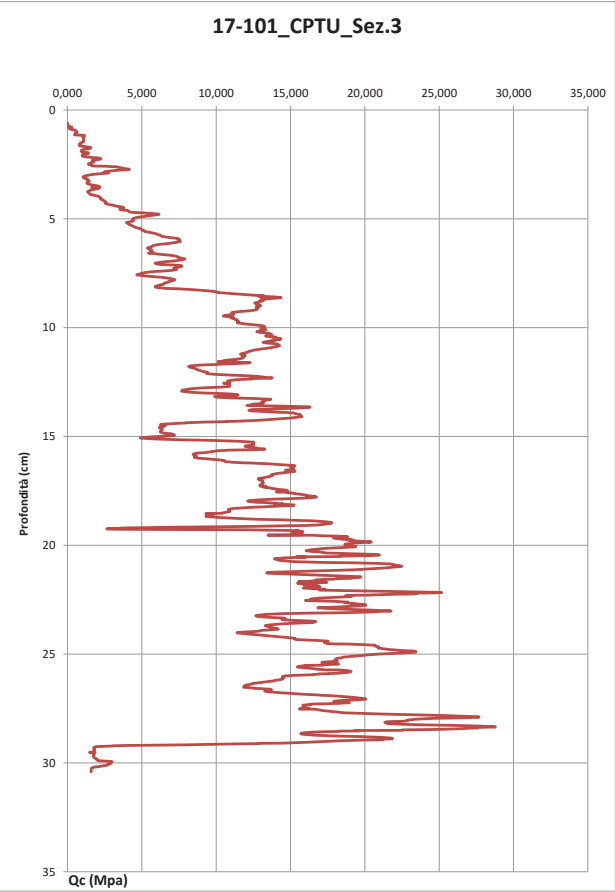
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
27.99	23.510	87.39	112.40	0.37	0.4785	23.40	2.50	80.383	2.00	23.58	-162.09
28.23	28.190	87.71	114.32	0.38	0.4930	23.08	2.50	80.427	2.00	23.24	-160.36
28.01	23.020	87.94	114.86	0.38	0.4990	22.91	2.50	80.470	2.00	23.07	-159.92
28.02	22.950	88.73	115.05	0.39	0.5013	22.83	2.50	80.514	2.00	23.00	-159.83
28.03	22.900	89.28	115.61	0.39	0.5048	22.78	2.50	80.557	2.00	22.92	-159.72
28.04	22.850	88.08	116.51	0.39	0.5099	22.73	2.50	80.601	2.30	22.90	-158.56
28.05	22.870	86.92	117.24	0.38	0.5126	22.75	2.50	80.645	2.30	22.92	-157.93
28.06	22.860	87.71	117.97	0.38	0.5161	22.74	2.50	80.688	2.00	22.91	-157.30
28.07	22.710	86.18	118.88	0.38	0.5235	22.59	2.50	80.732	2.00	22.76	-156.49
28.08	22.720	86.22	119.17	0.37	0.5274	22.60	2.50	80.778	2.00	22.77	-156.34
28.09	22.290	85.44	116.33	0.38	0.5219	22.17	2.50	80.819	2.00	22.34	-159.23
28.1	21.760	85.35	116.33	0.39	0.5346	21.64	2.50	80.863	2.30	21.81	-159.33
28.11	21.500	86.60	117.24	0.40	0.5453	21.38	2.50	80.906	2.30	21.55	-158.52
28.12	21.420	84.84	118.52	0.40	0.5533	21.30	2.50	80.950	2.00	21.47	-157.34
28.13	21.500	83.31	121.44	0.39	0.5608	21.28	2.50	80.994	2.00	21.55	-154.52
28.14	21.340	88.17	117.42	0.41	0.5502	21.22	2.50	81.037	2.00	21.39	-158.63
28.15	21.450	87.62	117.42	0.41	0.5451	21.22	2.50	81.081	2.30	21.59	-158.73
28.16	21.510	85.86	117.42	0.40	0.5459	21.39	2.50	81.126	2.30	21.56	-158.83
28.17	21.490	89.75	119.43	0.42	0.5557	21.37	2.60	81.172	2.30	21.54	-158.92
28.18	21.480	78.85	120.34	0.41	0.5602	21.36	2.60	81.217	2.30	21.57	-158.11
28.19	21.550	90.30	119.43	0.42	0.5542	21.43	2.60	81.262	2.00	21.60	-157.11
28.2	21.690	90.49	119.07	0.42	0.5490	21.57	2.60	81.308	2.00	21.74	-157.57
28.21	21.990	89.19	119.61	0.41	0.5439	21.87	2.60	81.353	2.30	22.04	-157.13
28.22	22.720	83.22	119.07	0.37	0.5241	22.60	2.60	81.398	2.30	22.77	-157.77
28.23	22.960	83.73	119.07	0.36	0.5284	22.81	2.60	81.444	2.00	22.84	-157.00
28.24	23.430	83.50	118.15	0.36	0.5043	23.31	2.60	81.489	2.00	23.48	-158.88
28.25	23.920	84.51	116.87	0.35	0.4886	23.80	2.60	81.535	1.80	23.97	-160.26
28.26	24.480	84.93	116.33	0.35	0.4752	24.36	2.60	81.580	1.80	24.53	-160.90
28.27	25.060	87.52	117.06	0.35	0.4671	24.94	2.60	81.625	1.80	25.11	-160.27
28.28	26.240	80.72	120.53	0.31	0.4593	26.12	2.60	81.671	1.80	26.29	-158.90
28.29	26.990	82.85	121.99	0.31	0.4520	26.87	2.60	81.716	1.80	27.04	-155.53
28.3	27.460	84.00	123.45	0.31	0.4496	27.34	2.60	81.761	1.50	27.51	-154.17
28.31	28.190	82.75	123.63	0.29	0.4386	28.07	2.60	81.807	1.50	28.24	-154.09
28.32	28.410	83.73	126.19	0.29	0.4442	28.28	2.60	81.852	1.80	28.46	-151.63
28.33	28.450	77.15	127.83	0.27	0.4493	28.32	2.60	81.897	1.80	28.50	-150.09
28.34	28.700	78.53	119.43	0.27	0.4161	28.58	2.60	81.943	1.80	28.75	-158.59
28.35	28.780	93.82	136.6	0.33	0.4746	28.64	2.60	81.988	2.00	28.84	-141.51
28.36	28.010	111.14	128.2	0.40	0.4577	27.88	2.60	82.034	2.00	28.06	-150.01
28.37	27.660	115.17	120.34	0.42	0.4351	27.54	2.60	82.079	1.80	27.71	-157.97
28.38	27.500	120.54	119.07	0.44	0.4330	27.38	2.60	82.124	1.80	27.55	-159.34
28.39	27.570	119.15	119.25	0.43	0.4325	27.45	2.60	82.170	1.80	27.62	-159.26
28.4	27.100	124.15	120.53	0.46	0.4448	26.98	2.70	82.217	1.80	27.15	-158.07
28.41	26.900	122.90	121.26	0.46	0.4508	26.78	2.70	82.264	2.00	26.95	-157.44
28.42	26.690	123.69	121.62	0.46	0.4557	26.57	2.70	82.311	2.00	26.74	-157.18
28.43	26.330	124.06	121.07	0.47	0.4598	26.21	2.60	82.356	1.80	26.38	-157.83
28.44	25.890	123.73	120.69	0.48	0.4669	25.77	2.60	82.402	1.80	25.77	-159.11
28.45	25.330	126.85	121.99	0.49	0.4809	25.25	2.60	82.447	1.80	25.38	-159.79
28.46	24.780	128.32	119.98	0.52	0.4842	24.66	2.60	82.492	2.00	24.83	-159.21
28.47	24.080	126.47	119.98	0.53	0.4983	23.96	2.70	82.540	2.00	24.13	-159.31
28.48	22.510	102.53	123.27	0.46	0.5476	22.39	2.70	82.587	2.00	22.56	-156.12
28.49	22.510	102.53	123.27	0.46	0.5476	22.39	2.70	82.587	2.00	22.56	-156.12
28.5	22.510	102.53	123.27	0.46	0.5476	22.39	2.70	82.587	2.00	22.56	-156.12
28.51	19.330	69.09	122.53	0.36	0.6339	19.21	2.60	82.726	2.30	19.38	-157.15
28.52	19.640	68.12	124.73	0.35	0.6351	19.52	2.60	82.772	2.30	19.69	-155.05
28.53	19.640	68.12	124.73	0.35	0.6351	19.52	2.60	82.817	2.30	19.69	-155.15
28.54	18.290	73.31	124.36	0.40	0.6822	18.11	2.60	82.862	2.30	18.28	-155.62
28.55	18.290	73.31	124.36	0.40	0.6822	18.11	2.60	82.908	2.30	18.28	-155.62
28.56	17.600	75.58	123.63	0.43	0.7024	17.48	2.60	82.953	2.30	17.65	-156.54
28.57	17.080	78.22	123.81	0.46	0.7249	16.96	2.60	82.998	2.50	17.13	-156.54
28.58	16.670	81.13	124.36	0.49	0.7460	16.55	2.60	83.044	2.50	16.72	-156.01
28.59	16.370	81.55	124.73	0.50	0.7419	16.25	2.60	83.089	2.50	16.42	-155.74
28.6	16.150	82.96	124.91	0.51	0.7354	16.03	2.60	83.134	2.50	16.29	-155.44
28.61	15.960	80.35	124.54	0.50	0.7803	15.84	2.60	83.180	2.50	16.01	-156.12
28.62	15.850	80.21	124.91	0.51	0.7881	15.73	2.70	83.227	2.50	15.90	-155.85
28.63	15.750	80.81	125.09	0.51	0.7942	15.62	2.70	83.274	2.50	15.80	-155.77
28.64	15.700	78.96	124.91	0.50	0.7956	15.58	2.70	83.321	2.50	15.75	-156.05
28.65	15.690	78.57	124.73	0.50	0.7956	15.57	2.70	83.368	2.50	15.74	-156.05
28.66	15.690	78.96	124.73	0.50	0.7950	15.57	2.70	83.415	2.50	15.74	-156.42
28.67	15.510	78.12	124.36	0.49	0.7866	15.69	2.70	83.462	2.50	15.86	-156.89


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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
28.68	15.810	78.12	124.36	0.49	0.7866	15.69	2.70	83.510	2.50	15.86	-156.99
28.69	15.940	78.17	124.18	0.49	0.7790	15.82	2.70	83.557	2.50	15.99	-157.27
28.7	16.090	77.85	124.18	0.48	0.7718	15.97	2.70	83.604	2.50	16.14	-157.37
28.71	16.230	76.97	124	0.47	0.7640	16.11	2.70	83.651	2.00	16.28	-157.65
28.72	16.420	76.50	124	0.47	0.7552	16.32	2.70	83.698	2.00	16.47	-157.74
28.73	16.630	76.50	124.73	0.46	0.7500	16.51	2.70	83.745	2.00	16.68	-157.11
28.74	17.230	76.09	124.91	0.44	0.7250	17.11	2.70	83.792	2.00	17.28	-157.03
28.75	17.660	76.50	125.09	0.43	0.7083	17.53	2.70	83.839	2.00	17.71	-156.95
28.76	18.080	76.18	125.27	0.42	0.6929	17.95	2.60	83.885	2.00	18.13	-156.87
28.77	18.560	76.18	125.64	0.41	0.6769	18.17	2.60	83.930	2.00	18.61	-156.69
28.78	19.150	75.67	125.64	0.40	0.6561	19.02	2.60	83.975	2.00	19.20	-156.69
28.79	19.640	74.88	125.82	0.38	0.6406	19.51	2.60	84.021	2.00	19.69	-156.61
28.8	20.350	73.12	122.53	0.36	0.6021	20.23	2.70	84.068	2.00	20.40	-160.00
28.81	20.700	76.27	112.86	0.37	0.5452	20.59	2.70	84.115	1.80	20.75	-169.77
28.82	20.960	74.53	112.13	0.36	0.5350	20.85	2.70	84.162	1.80	21.01	-170.59
28.83	21.180	76.97	114.5	0.36	0.5406	21.07	2.70	84.209	2.00	21.23	-168.32
28.84	21.390	77.98	117.24	0.36	0.5481	21.27	2.70	84.256	1.80	21.44	-165.68
28.85	21.570	78.49	119.25	0.36	0.5529	21.45	2.70	84.303	1.80	21.62	-163.77
28.86	21.790	77.85	119.98	0.36	0.5506	21.67	2.60	84.349	1.80	21.84	-163.14
28.87	21.870	76.69	118.88	0.35	0.5436	21.75	2.60	84.394	1.80	21.92	-164.33
28.88	21.730	76.64	119.43	0.35	0.5496	21.61	2.70	84.441	2.00	21.78	-163.88
28.89	21.690	77.85	118.33	0.36	0.5456	21.57	2.70	84.488	2.00	21.74	-165.08
28.9	21.650	77.89	119.43	0.36	0.5516	21.53	2.70	84.535	1.80	21.70	-164.08
28.91	21.030	82.38	117.97	0.39	0.5610	20.91	2.70	84.583	1.80	21.08	-165.64
28.92	21.150	80.35	119	0.38	0.5510	21.07	2.70	84.630	2.00	21.21	-165.00
28.93	21.210	80.35	119.8	0.38	0.5648	21.09	2.70	84.677	2.00	21.26	-164.00
28.94	20.820	81.23	124.73	0.39	0.5941	20.70	2.70	84.724	2.00	20.87	-159.17
28.95	20.260	81.60	120.89	0.40	0.5967	20.14	2.70	84.771	2.00	20.31	-163.11
28.96	19.880	85.49	128	0.44	0.6435	19.45	2.70	84.818	2.00	19.63	-158.10
28.97	19.880	86.27	123.45	0.46	0.6909	18.76	2.70	84.865	2.00	19.83	-160.75
28.98	18.250	90.87	123.63	0.50	0.6774	17.84	2.70	84.912	2.00	18.96	-160.70
28.99	17.800	90.81	124.18	0.51	0.6937	17.78	2.70	84.959	2.00	17.95	-160.21
29	17.610	93.87	123.81	0.53	0.7031	17.49	2.70	85.007	2.30	17.66	-160.68
29.01	17.400	95.72	123.27	0.55	0.7084	17.28	2.70	85.054	2.30	17.45	-161.32
29.02	17.170	96.68	120.71	0.56	0.7080	17.05	2.70	85.101	2.00	17.22	-163.98
29.03	16.830	97.93	119.25	0.58	0.7247	16.76	2.70	85.148	2.00	16.99	-166.65
29.04	16.430	96.51	117.79	0.59	0.7169	16.31	2.70	85.195	2.30	16.48	-167.07
29.05	16.010	95.77	117.24	0.60	0.7323	15.89	2.70	85.242	2.30	16.06	-167.74
29.06	15.610	96.42	116.14	0.62	0.7440	15.49	2.70	85.289	2.00	15.66	-168.94
29.07	15.280	97.34	115.23	0.64	0.7541	15.10	2.70	85.336	2.00	15.33	-169.85
29.08	14.920	101.18	114.18	0.68	0.7724	14.46	2.70	85.383	2.00	14.99	-171.00
29.09	14.420	104.38	116.51	0.72	0.8080	14.30	2.70	85.430	2.30	14.47	-168.66
29.1	12.860	105.21	115.05	0.82	0.8946	12.74	2.70	85.478	2.00	12.91	-170.42
29.11	12.860	105.21	115.05	0.82	0.8946	12.74	2.70	85.525	2.00	12.91	-170.52
29.12	11.780	103.83	112.31	0.88	0.9534	11.67	2.70	85.572	2.00	11.83	-173.36
29.13	10.850	102.57	109.85	0.93	0.9355	10.72	2.70	85.619	2.00	10.97	-174.67
29.14	9.950	101.83	88.39	1.02	0.8883	9.86	2.70	85.666	2.30	9.99	-177.47
29.15	9.310	102.34	89.48	1.12	0.9801	9.04	2.70	85.713	2.30	9.17	-196.48
29.16	8.370	102.48	89.52	1.22	1.1651	8.27	2.70	85.760	2.30	8.41	-188.54
29.17	7.530	105.45	100.07	1.40	1.3290	7.43	2.70	85.807	2.50	7.57	-196.89
29.18	6.340	110.28	101.8	1.61	1.7388	6.24	2.70	85.854	2.50	6.41	-197.86
29.19	5.500	126.84	104.09	2.54	2.0818	4.90	2.70	85.902	2.50	5.04	-182.26
29.2	3.890	137.45	109.57	3.53	2.8167	3.78	2.70	85.949	2.50	3.94	-176.88
29.21	3.110	141.84	111.76	4.56	3.5936	3.00	2.70	85.996	2.50	3.16	-179.79
29.22	3.110	141.84	111.76	4.56	3.5936	3.00	2.70	86.043	2.50	3.16	-179.89
29.23	2.560	147.49	114.49	5.19	4.3947	2.47	2.70	86.090	2.50	2.62	-179.87
29.24	2.270	149.12	116.33	6.57	5.1247	2.15	2.70	86.137	2.50	2.32	-170.51
29.25	2.030	148.70	121.07	7.33	5.9640	1.91	2.70	86.184	2.50	2.08	-165.87
29.26	1.890	141.01	129.84	7.46	6.8698	1.76	2.70	86.231	2.50	1.94	-157.20
29.27	1.880	133.05	140.61	7.35	7.7685	1.67	2.70	86.278	2.50	1.87	-146.53
29.28	1.810	133.45	145.74	7.24	8.0001	1.67	2.70	86.325	2.50	1.80	-139.59
29.29	1.780	122.21	107.46	6.87	8.3000	1.63	2.70	86.373	2.80	1.84	-139.59
29.3	1.780	110.40	154.49	6.20	8.6792	1.63	2.70	86.420	2.50	1.84	-132.94
29.31	1.780	99.70	165.27	5.60	9.2848	1.61	2.70	86.467	2.50	1.85	-122.26
29.32	1.770	89.47	177.5	5.05	10.0282	1.59	2.70	86.514	2.50	1.84	-110.13
29.33	1.770	80.33	188.09	4.61	10.6408	1.57	2.70	86.561	2.50	1.84	-99.74
29.34	1.760	75.39	188.09	4.28	10.6869	1.57	2.70	86.608	2.50	1.84	-90.73
29.35	1.760	75.39	188.09	4.28	10.6869	1.57	2.70	86.655	2.80	1.84	-99.83
29.36	1.760	70.34	190.65	4.00	10.8324	1.57	2.70	86.702	2.80	1.84	-97.97



Impresa esecutrice: 	
Committente: Nome: A.L.Po P. IVA / C.F.: Indirizzo: Ufficio di Piacenza Telefono: Tel. Fax: e-mail: PC-E-810	
Prova: Ubicazione: Soarza (PC) Quota assoluta [m]: Data: 20/02/2016 Q. inizio da Q. ass. [m]: Tipo prova: CPTU Preforo [m]: 1,50 Codice Prova: 17-101_CPTU_Sez.4-DX Q.ta falda [m]: -3,50 Note: Destra argine Il responsabile di sito: Dr. Geol. Stefano Verdini Il direttore tecnico: Dr. Geol. Enrico Fasani	

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
1,51	0,00	0,00	-0,55	0,00	0,00	0,00	1,30	0,023	0,00	0,00	-0,55
1,52	0,00	0,00	-0,55	0,00	-55,000	0,00	1,30	0,045	2,00	0,00	-0,55
1,53	0,00	0,00	-0,55	0,00	-55,000	0,00	1,30	0,068	2,00	0,00	-0,55
1,54	0,00	0,00	-0,55	0,00	-55,000	0,00	1,40	0,092	2,00	0,00	-0,55
1,55	0,00	0,00	-0,55	0,00	-55,000	0,00	1,40	0,117	2,00	0,00	-0,55
1,56	0,00	0,00	-0,55	0,00	-55,000	0,00	1,40	0,141	2,00	0,00	-0,55
1,57	0,00	0,00	-0,55	0,00	-55,000	0,00	1,40	0,166	2,00	0,00	-0,55
1,58	0,00	0,00	-0,55	0,00	-55,000	0,00	1,40	0,190	2,00	0,00	-0,55
1,59	0,00	0,00	-0,55	0,00	-55,000	0,00	1,40	0,215	2,00	0,00	-0,55
1,6	0,00	0,00	-0,55	0,00	-55,000	0,00	1,40	0,239	2,00	0,00	-0,55
1,61	0,00	0,00	-0,37	0,00	-3,700	0,01	1,40	0,264	2,00	0,01	-0,37
1,62	0,00	0,00	-0,37	0,00	-3,700	0,01	1,40	0,288	2,00	0,01	-0,37
1,63	0,00	0,00	-0,37	0,00	-3,700	0,01	1,40	0,312	2,00	0,01	-0,37
1,64	0,00	0,00	-0,37	0,00	-3,700	0,01	1,40	0,337	2,00	0,01	-0,37
1,65	0,00	0,00	-0,37	0,00	-3,700	0,01	1,40	0,361	2,00	0,01	-0,37
1,66	0,00	0,00	-0,37	0,00	-3,700	0,01	1,40	0,386	2,00	0,01	-0,37
1,67	0,00	0,00	-0,55	0,00	-5,500	0,01	1,40	0,410	2,00	0,01	-0,55
1,68	0,00	0,00	-0,55	0,00	-5,500	0,01	1,40	0,435	1,80	0,01	-0,55
1,69	0,00	0,00	-0,55	0,00	-5,500	0,01	1,40	0,459	1,80	0,01	-0,55
1,7	0,00	0,00	-0,55	0,00	-5,500	0,01	1,40	0,483	2,00	0,01	-0,55
1,71	0,00	0,00	-0,37	0,00	-3,700	0,01	1,40	0,508	1,80	0,01	-0,37
1,72	0,00	0,00	-0,37	0,00	-3,700	0,01	1,40	0,532	1,80	0,01	-0,37
1,73	0,00	0,00	-0,37	0,00	-3,700	0,01	1,40	0,557	1,50	0,01	-0,37
1,74	0,00	0,00	-0,37	0,00	-3,700	0,01	1,40	0,581	1,50	0,01	-0,37
1,75	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,606	1,80	0,01	-0,18
1,76	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,630	1,80	0,01	-0,18
1,77	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,654	1,80	0,01	-0,18
1,78	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,679	1,80	0,01	-0,18
1,79	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,703	1,80	0,01	-0,18
1,8	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,728	2,00	0,01	-0,18
1,81	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,752	2,00	0,01	-0,18
1,82	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,777	2,00	0,01	-0,18
1,83	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,801	1,80	0,01	-0,18
1,84	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,825	1,80	0,01	-0,18
1,85	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,850	2,00	0,01	-0,18
1,86	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,874	1,80	0,01	-0,18
1,87	0,00	0,00	-0,18	0,00	-1,800	0,01	1,40	0,899	1,80	0,01	-0,18
1,88	0,00	0,00	-0,37	0,00	-3,700	0,01	1,50	0,925	1,50	0,01	-0,37
1,89	0,00	0,00	-0,37	0,00	-3,700	0,01	1,50	0,951	1,50	0,01	-0,37
1,9	0,00	0,00	-0,37	0,00	-3,700	0,01	1,50	0,977	1,80	0,01	-0,37
1,91	0,00	0,00	-0,37	0,00	-3,700	0,01	1,50	1,003	1,80	0,01	-0,37
1,92	0,00	0,00	-0,37	0,00	-3,700	0,01	1,50	1,030	1,80	0,01	-0,37
1,93	0,00	0,00	0,37	0,00	3,700	0,01	1,50	1,056	1,80	0,01	0,37
1,94	0,00	0,00	0,37	0,00	3,700	0,01	1,50	1,082	1,80	0,01	0,37
1,95	0,00	0,00	0,37	0,00	3,700	0,01	1,50	1,108	2,00	0,01	0,37
1,96	0,00	0,00	0,37	0,00	3,700	0,01	1,50	1,134	2,00	0,01	0,37
1,97	0,00	0,00	0,37	0,00	3,700	0,01	1,50	1,161	1,80	0,01	0,37

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
1,98	0,010	0,00	1,10	0,00	11,0000	0,01	1,50	1,187	1,80	0,01	1,10
1,99	0,010	0,00	1,10	0,00	11,0000	0,01	1,50	1,213	2,00	0,01	1,10
2	0,010	0,00	1,10	0,00	11,0000	0,01	1,50	1,239	2,00	0,01	1,10
2,01	0,010	0,00	3,47	0,00	34,7000	0,01	1,50	1,265	2,00	0,01	3,47
2,02	0,010	0,00	3,47	0,00	34,7000	0,01	1,50	1,291	2,00	0,01	3,47
2,03	0,010	0,00	3,10	0,00	31,0000	0,01	1,50	1,318	2,00	0,01	3,10
2,04	0,010	0,00	3,10	0,00	31,0000	0,01	1,50	1,344	2,00	0,01	3,10
2,05	0,010	0,00	2,92	0,00	29,2000	0,01	1,50	1,370	1,80	0,01	2,92
2,06	0,010	0,00	1,46	0,00	14,6000	0,01	1,50	1,396	1,80	0,01	1,46
2,07	0,010	0,00	0,73	0,00	7,3000	0,01	1,50	1,422	1,80	0,01	0,73
2,08	0,010	0,00	0,37	0,00	3,7000	0,01	1,50	1,448	2,00	0,01	0,37
2,09	0,010	0,00	0,55	0,00	5,5000	0,01	1,50	1,475	1,80	0,01	0,55
2,1	0,010	0,00	0,55	0,00	5,5000	0,01	1,50	1,501	1,80	0,01	0,55
2,11	0,010	0,00	0,37	0,00	3,7000	0,01	1,50	1,527	2,00	0,01	0,37
2,12	0,080	0,69	1,10	0,88	1,3750	0,08	1,50	1,553	1,80	0,08	1,10
2,13	0,140	1,53	1,83	1,09	1,3071	0,14	1,50	1,579	1,80	0,14	1,83
2,14	0,170	2,59	2,19	1,52	1,2882	0,17	1,50	1,606	1,50	0,17	2,19
2,15	0,190	3,52	2,92	1,85	1,5388	0,19	1,50	1,632	1,50	0,19	2,92
2,16	0,220	4,63	3,47	2,10	1,5773	0,22	1,60	1,660	1,80	0,22	3,47
2,17	0,240	5,01	3,83	3,34	1,5958	0,24	1,60	1,686	1,80	0,24	3,83
2,18	0,250	10,10	4,20	4,04	1,6800	0,25	1,60	1,712	1,80	0,25	4,20
2,19	0,250	12,74	4,38	5,10	1,7520	0,25	1,60	1,740	1,80	0,25	4,38
2,2	0,250	14,59	4,38	5,84	1,7520	0,25	1,60	1,768	1,80	0,25	4,38
2,21	0,240	18,20	4,20	7,58	1,7500	0,24	1,50	1,794	2,00	0,24	4,20
2,22	0,230	19,45	4,02	8,46	1,7478	0,23	1,60	1,822	2,00	0,23	4,02
2,23	0,230	20,19	4,20	8,79	1,8281	0,23	1,60	1,850	1,80	0,23	4,20
2,24	0,230	21,81	4,57	9,48	1,9870	0,23	1,60	1,878	1,80	0,23	4,57
2,25	0,220	22,14	4,93	10,08	2,2409	0,22	1,60	1,906	2,00	0,22	4,93
2,26	0,220	22,18	5,30	10,06	2,4091	0,21	1,60	1,934	2,00	0,22	5,30
2,27	0,210	23,80	5,30	11,33	2,5238	0,20	1,60	1,962	2,00	0,21	5,30
2,28	0,180	23,94	4,93	13,30	1,7389	0,18	1,60	1,989	2,00	0,18	4,93
2,29	0,180	24,45	4,20	13,58	2,3333	0,18	1,60	2,017	1,80	0,18	4,20
2,3	0,160	23,71	4,93	14,82	3,0813	0,16	1,60	2,045	1,80	0,16	4,93
2,31	0,150	22,69	4,75	15,13	3,1667	0,15	1,60	2,073	2,00	0,15	4,75
2,32	0,140	22,46	4,57	16,04	3,2643	0,14	1,60	2,101	2,00	0,14	4,57
2,33	0,130	21,39	4,02	16,45	3,0923	0,13	1,60	2,129	1,80	0,13	4,02
2,34	0,120	20,56	3,10	17,13	2,5833	0,12	1,60	2,157	1,80	0,12	3,10
2,35	0,110	18,48	1,83	16,80	1,6636	0,11	1,60	2,185	2,00	0,11	1,83
2,36	0,110	17,92	1,46	16,29	1,3273	0,11	1,70	2,215	1,80	0,11	1,46
2,37	0,110	16,95	0,91	15,41	0,8273	0,11	1,70	2,244	1,80	0,11	0,91
2,38	0,090	16,35	0,91	18,17	1,0111	0,08	1,70	2,274	2,00	0,08	0,91
2,39	0,080	15,51	0,91	19,39	1,1375	0,08	1,70	2,304	2,00	0,08	0,91
2,4	0,080	15,28	1,10	19,10	1,3750	0,08	1,70	2,333	2,00	0,08	1,10
2,41	0,080	14,08	-0,37	23,47	-0,6167	0,06	1,70	2,363	2,00	0,06	-0,37
2,42	0,050	13,20	-0,55	26,40	-1,1000	0,05	1,70	2,393	1,80	0,05	-0,55
2,43	0,050	12,50	-0,55	25,00	-1,1000	0,05	1,70	2,422	1,80	0,05	-0,55
2,44	0,050	12,09	-0,55	24,18	-1,0000	0,05	1,70	2,452	1,80	0,05	-0,55
2,45	0,040	11,16	-0,55	27,90	-1,3750	0,04	1,70	2,482	1,80	0,04	-0,55
2,46	0,030	10,56	-0,37	35,20	-1,2333	0,03	1,70	2,511	2,00	0,03	-0,37
2,47	0,030	9,59	-0,18	31,97	-0,6000	0,03	1,70	2,541	2,00	0,03	-0,18
2,48	0,020	9,31	0,00	46,55	0,0000	0,02	1,70	2,571	2,00	0,02	0,00
2,49	0,020	8,91	0,00	43,55	0,0000	0,02	1,70	2,600	2,00	0,02	0,00
2,5	0,020	8,10	0,00	40,50	0,0000	0,02	1,80	2,632	1,80	0,02	0,00
2,51	0,010	7,69	0,00	76,90	0,0000	0,01	1,80	2,663	2,00	0,01	0,00
2,52	0,010	6,48	0,00	64,80	0,0000	0,01	1,80	2,694	2,00	0,01	0,00
2,53	0,030	10,25	0,18	33,83	0,0000	0,01	1,80	2,725	1,80	0,03	0,18
2,54	0,020	9,58	0,18	26,85	0,0000	0,02	1,80	2,757	1,80	0,02	0,18
2,55	0,020	5,79	0,00	28,95	0,0000	0,02	1,80	2,789	2,00	0,02	0,00
2,56	0,020	5,79	0,00	28,95	0,0000	0,02	1,80	2,820	2,00	0,02	0,00
2,57	0,010	5,60	0,00	56,00	0,0000	0,01	1,80	2,852	1,80	0,01	0,00
2,58	0,010	5,28	0,37	52,80	0,0000	0,01	1,80	2,883	1,80	0,01	0,37
2,59	0,010	3,98	0,00	39,80	0,0000	0,01	1,80	2,914	2,00	0,01	0,00
2,6	0,010	3,29	0,00	32,90	0,0000	0,01	1,80	2,946	2,00	0,01	0,00
2,61	0,010	2,82	0,00	28,20	0,0000	0,01	1,80	2,977	1,80	0,01	0,00
2,62	0,010	2,64	0,00	26,40	0,0000	0,01	1,80	3,009	1,80	0,01	0,00
2,63	0,010	2,36	0,00	23,60	0,0000	0,01	1,80	3,041	2,00	0,01	0,00
2,64	0,010	2,18	0,18	21,80	1,8000	0,01	1,80	3,071	2,00	0,01	0,18
2,65	0,010	1,81	0,18	18,10	1,8000	0,01	1,80	3,103	2,00	0,01	0,18
2,66	0,010	1,07	0,18	10,70	1,8000	0,01	1,80	3,134	2,00	0,01	0,18

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
4.05	1,410	54.32	11.50	3.85	0.8156	1.40	8.20	20.719	2.00	1.41	-28.23
4.06	1,400	54.14	11.50	3.87	0.8214	1.39	8.20	20.862	2.00	1.40	-28.33
4.07	1,390	53.90	11.50	3.88	0.8273	1.38	8.10	21.003	2.00	1.39	-28.43
4.08	1,380	54.18	11.69	3.98	0.8596	1.35	8.10	21.144	2.00	1.38	-28.33
4.09	1,320	54.08	10.96	4.14	0.8303	1.31	7.10	21.285	2.00	1.32	-29.16
4.1	1,270	54.69	10.23	4.31	0.8055	1.26	8.10	21.426	2.00	1.27	-29.99
4.11	1,240	54.23	9.86	4.37	0.7952	1.23	8.10	21.567	2.00	1.24	-30.46
4.12	1,210	53.26	9.31	4.40	0.7694	1.20	8.10	21.707	2.00	1.21	-31.11
4.13	1,180	52.42	9.13	4.44	0.7737	1.17	8.10	21.848	2.30	1.18	-31.39
4.14	1,200	53.26	13.70	4.70	1.1417	1.19	8.10	21.989	2.00	1.21	-29.00
4.15	1,200	52.42	15.52	4.37	1.2933	1.18	8.10	22.130	0.00	1.21	-25.19
4.16	1,200	48.90	14.97	4.08	1.2475	1.19	8.10	22.271	2.00	1.21	-25.84
4.17	1,190	49.41	14.61	4.15	1.2277	1.18	8.10	22.412	2.00	1.20	-26.30
4.18	1,170	50.34	14.61	4.10	1.2487	1.16	8.10	22.553	2.00	1.18	-26.40
4.19	1,150	50.52	15.36	4.38	1.3183	1.13	8.10	22.694	2.00	1.16	-25.94
4.2	1,120	49.50	14.61	4.42	1.3045	1.11	8.10	22.835	2.00	1.13	-26.59
4.21	1,090	48.81	13.88	4.48	1.2734	1.08	8.10	22.976	2.00	1.10	-27.42
4.22	1,070	48.62	13.70	4.54	1.2804	1.06	8.10	23.116	2.00	1.08	-27.70
4.23	1,070	48.58	13.70	4.54	1.2804	1.06	8.10	23.257	2.00	1.08	-27.80
4.24	1,070	48.44	13.51	4.46	1.2626	1.05	8.10	23.398	2.00	1.08	-28.08
4.25	1,100	48.96	14.43	4.44	1.3118	1.09	8.10	23.539	2.00	1.11	-27.26
4.26	1,120	48.30	14.79	4.31	1.3205	1.11	8.10	23.680	2.00	1.13	-27.00
4.27	1,140	47.10	14.97	4.13	1.3132	1.13	8.10	23.821	2.00	1.15	-26.92
4.28	1,190	46.54	15.52	3.91	1.3042	1.17	8.00	23.960	2.00	1.20	-26.47
4.29	1,200	46.45	15.89	3.78	1.2219	1.21	8.00	24.099	2.00	1.24	-26.19
4.3	1,250	47.10	16.25	3.74	1.2897	1.24	8.00	24.238	2.00	1.27	-25.93
4.31	1,270	47.14	16.44	3.71	1.2945	1.25	8.00	24.378	2.00	1.28	-25.84
4.32	1,270	45.71	15.89	3.60	1.2512	1.25	8.00	24.517	2.00	1.28	-26.49
4.33	1,270	44.92	15.70	3.54	1.2362	1.25	8.00	24.656	2.00	1.28	-26.78
4.34	1,260	44.69	15.52	3.55	1.2317	1.24	8.00	24.795	2.00	1.27	-27.06
4.35	1,250	44.73	15.34	3.58	1.2272	1.23	8.00	24.934	2.00	1.26	-27.33
4.36	1,250	44.60	15.34	3.57	1.2272	1.23	8.00	25.074	2.00	1.26	-27.43
4.37	1,240	44.18	15.52	3.56	1.2516	1.22	8.00	25.213	2.00	1.25	-27.35
4.38	1,250	44.41	15.89	3.55	1.2712	1.23	8.00	25.352	2.30	1.26	-27.08
4.39	1,250	45.43	16.07	3.63	1.2856	1.23	8.00	25.491	2.30	1.26	-27.00
4.4	1,240	45.85	16.62	3.70	1.3403	1.22	8.00	25.630	1.80	1.25	-26.54
4.41	1,240	45.61	17.17	3.68	1.3847	1.22	8.00	25.769	1.80	1.25	-26.09
4.42	1,240	45.38	17.71	3.66	1.4282	1.22	8.00	25.909	2.00	1.25	-26.65
4.43	1,230	45.57	17.90	3.70	1.4553	1.21	7.90	26.046	2.00	1.24	-25.56
4.44	1,210	45.43	17.90	3.75	1.4793	1.19	7.90	26.183	2.00	1.22	-25.66
4.45	1,200	45.52	17.90	3.79	1.4917	1.18	7.90	26.321	2.00	1.21	-25.75
4.46	1,190	45.57	18.08	3.83	1.5193	1.17	7.90	26.458	2.00	1.20	-25.67
4.47	1,180	45.34	18.26	3.84	1.5475	1.16	7.90	26.596	2.00	1.19	-25.59
4.48	1,180	45.98	17.17	3.90	1.4551	1.16	7.90	26.733	2.00	1.19	-26.78
4.49	1,170	46.68	17.17	3.99	1.4675	1.15	7.90	26.871	2.00	1.18	-26.88
4.5	1,170	47.70	17.17	4.08	1.4975	1.15	7.90	27.008	2.00	1.18	-26.98
4.51	1,170	47.70	17.17	4.12	1.4983	1.15	7.90	27.142	2.00	1.18	-26.98
4.52	1,160	49.64	17.71	4.28	1.5267	1.14	7.80	27.278	2.00	1.17	-26.63
4.53	1,150	49.69	17.71	4.32	1.5400	1.13	7.80	27.414	2.00	1.16	-26.63
4.54	1,140	49.74	17.90	4.36	1.5702	1.12	7.80	27.549	2.00	1.15	-26.64
4.55	1,130	50.15	17.71	4.44	1.5973	1.11	7.80	27.685	2.00	1.14	-26.93
4.56	1,100	50.15	17.90	4.52	1.5936	1.08	7.80	27.821	2.00	1.11	-27.80
4.57	1,080	52.51	17.71	4.86	1.6398	1.06	7.80	27.956	2.00	1.09	-27.12
4.58	1,070	52.42	17.90	4.90	1.6729	1.05	7.80	28.092	2.00	1.08	-27.03
4.59	1,060	52.10	18.08	4.92	1.7057	1.04	7.80	28.228	2.00	1.07	-26.95
4.6	1,040	52.01	18.81	5.00	1.8087	1.02	7.80	28.364	1.80	1.05	-26.32
4.61	1,020	52.19	19.36	5.00	1.8965	1.00	7.80	28.499	1.80	1.03	-26.32
4.62	1,000	50.57	19.72	5.06	1.9720	0.98	7.80	28.635	2.00	1.01	-25.60
4.63	980	49.04	19.72	5.00	2.0122	0.96	7.80	28.771	2.00	0.99	-25.70
4.64	960	48.53	19.72	5.06	2.0542	0.94	7.80	28.906	2.00	0.97	-25.80
4.65	930	48.76	19.72	5.24	2.1024	0.91	7.80	29.042	2.00	0.94	-25.90
4.66	900	48.62	19.72	5.44	2.1586	0.84	7.80	29.178	2.00	0.91	-25.90
4.67	880	44.46	20.27	5.23	2.3847	0.83	7.80	29.314	2.00	0.86	-25.54
4.68	850	42.60	20.27	5.01	2.3847	0.83	7.70	29.448	2.00	0.86	-25.64
4.69	860	42.00	20.27	4.88	2.3570	0.84	7.70	29.582	2.00	0.87	-25.74
4.7	870	40.94	20.64	4.71	2.3724	0.85	7.70	29.715	1.80	0.88	-25.47
4.71	880	38.73	21.78	4.46	2.3949	0.84	7.70	29.849	1.80	0.89	-25.47
4.72	900	38.81	21.73	4.31	2.4144	0.88	7.70	29.983	2.00	0.91	-24.57
4.73	920	36.40	21.73	3.96	2.3620	0.90	7.70	30.117	2.00	0.93	-24.67

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
4.74	0.940	35.24	22.10	3.75	2.3511	0.92	7.70	30.251	2.00	0.95	-24.40
4.75	0.950	34.41	22.28	3.62	2.3453	0.93	7.70	30.385	2.00	0.96	-24.32
4.76	0.950	33.94	22.46	3.57	2.3642	0.93	7.70	30.519	2.00	0.96	-24.24
4.77	0.930	34.04	22.83	3.66	2.4548	0.91	7.70	30.653	2.00	0.94	-23.96
4.78	0.910	34.08	22.64	3.71	2.4819	0.89	7.70	30.787	2.00	0.92	-24.25
4.79	0.870	35.19	22.46	4.04	2.5816	0.85	7.70	30.921	2.00	0.88	-24.53
4.8	0.860	35.98	22.28	4.18	2.5907	0.84	7.70	31.055	2.00	0.87	-24.81
4.81	0.850	37.00	22.46	4.35	2.6424	0.83	7.70	31.189	2.00	0.86	-24.73
4.82	0.860	36.39	22.64	4.26	2.6326	0.84	7.70	31.323	2.30	0.87	-24.64
4.83	0.850	37.70	23.37	4.38	2.7174	0.84	7.70	31.457	2.30	0.87	-24.01
4.84	0.870	36.35	23.92	4.18	2.7494	0.85	7.70	31.591	2.30	0.88	-23.56
4.85	0.870	35.98	24.29	4.14	2.7920	0.85	7.70	31.725	2.30	0.88	-23.29
4.86	0.870	35.98	24.29	4.14	2.7920	0.85	7.70	31.859	2.50	0.88	-23.39
4.87	0.870	35.98	24.29	4.14	2.7920	0.85	7.70	31.993	2.50	0.88	-23.48
4.88	1.000	38.95	36.71	3.90	3.6710	0.96	7.70	32.127	2.30	1.02	-8.16
4.89	1.050	39.27	38.17	3.74	3.6352	1.01	7.70	32.261	2.30	1.07	-8.80
4.9	1.120	39.92	37.98	3.56	3.3911	1.08	7.70	32.395	2.30	1.14	-10.09
4.91	1.190	40.75	37.98	3.42	3.1916	1.15	7.70	32.529	2.30	1.21	-10.19
4.92	1.230	42.10	38.17	3.42	3.1033	1.19	7.70	32.663	2.30	1.25	-10.10
4.93	1.200	41.12	38.80	3.43	3.1550	1.06	7.70	32.797	2.30	1.22	-10.56
4.94	1.190	40.10	34.15	3.40	2.8941	1.15	7.70	32.931	2.30	1.19	-14.31
4.95	1.090	43.21	32.87	3.96	3.0156	1.06	7.70	33.065	2.30	1.10	-15.69
4.96	0.940	44.78	32.52	3.76	3.4383	0.91	7.70	33.199	2.30	0.95	-16.34
4.97	0.850	46.31	32.81	5.45	3.8247	0.82	7.70	33.333	2.30	0.86	-16.25
4.98	0.820	44.60	33.05	4.46	4.0305	0.79	7.70	33.465	2.30	0.83	-15.60
4.99	0.820	44.60	33.05	4.46	4.0305	0.79	7.60	33.598	2.50	0.83	-15.90
5	0.800	42.33	33.60	5.29	4.2000	0.77	7.60	33.730	2.50	0.81	-15.45
5.01	0.770	41.86	33.97	5.44	4.4117	0.74	7.60	33.862	2.50	0.78	-15.18
5.02	0.780	41.26	34.51	5.43	4.5408	0.73	7.60	33.994	2.30	0.77	-14.74
5.03	0.730	39.08	34.88	5.35	4.7781	0.70	7.60	34.126	2.30	0.74	-14.46
5.04	0.710	37.70	35.43	5.18	4.9729	0.66	7.70	34.259	2.30	0.72	-14.17
5.05	0.690	35.78	35.83	5.18	5.1348	0.65	7.70	34.396	2.30	0.70	-14.11
5.06	0.670	33.76	35.61	5.04	5.3149	0.63	7.70	34.530	2.30	0.68	-14.04
5.07	0.660	33.71	35.43	5.11	5.3682	0.62	7.70	34.664	2.30	0.67	-14.03
5.08	0.630	34.04	35.24	5.40	5.5937	0.59	7.70	34.798	2.30	0.64	-14.58
5.09	0.590	35.24	35.24	5.69	5.9279	0.53	7.60	34.933	2.30	0.61	-14.93
5.1	0.570	31.98	35.43	5.54	6.2158	0.53	7.60	35.063	2.30	0.58	-14.66
5.11	0.550	30.52	35.43	5.55	6.4418	0.51	7.60	35.195	2.00	0.56	-14.44
5.12	0.510	29.82	35.79	5.85	6.9176	0.47	7.60	35.327	1.80	0.53	-14.44
5.13	0.490	29.68	35.98	6.06	7.3429	0.45	7.60	35.460	1.80	0.51	-14.38
5.14	0.470	28.16	36.12	6.22	7.6161	0.42	7.60	35.592	2.00	0.49	-14.27
5.15	0.450	28.11	36.34	6.25	8.0756	0.41	7.60	35.724	2.00	0.47	-14.11
5.16	0.430	26.77	36.52	6.23	8.4930	0.39	7.60	35.856	2.00	0.45	-14.04
5.17	0.400	26.17	36.89	6.26	8.7833	0.38	7.60	35.989	2.00	0.44	-13.83
5.18	0.400	26.16	36.89	6.54	9.2225	0.36	7.60	36.121	2.00	0.42	-13.93
5.19	0.390	27.92	37.25	6.67	9.5479	0.35	7.60	36.253	2.00	0.41	-13.68
5.2	0.370	23.20	37.98	6.27	10.2649	0.33	7.60	36.385	2.00	0.39	-13.03
5.21	0.360	21.77	38.17	6.05	10.6028	0.32	7.60	36.518	2.00	0.38	-12.96
5.22	0.360	20.65	38.63	5.74	10.7028	0.32	7.60	36.650	2.00	0.38	-12.60
5.23	0.350	19.91	38.90	5.69	11.1143	0.31	7.60	36.782	2.00	0.37	-12.47
5.24	0.350	19.81	39.08	5.55	11.5143	0.31	7.60	36.914	2.00	0.37	-12.34
5.25	0.340	18.94	39.44	5.57	11.6000	0.30	7.60	37.047	2.00	0.36	-12.04
5.26	0.340	18.62	39.63	5.48	11.6559	0.30	7.60	37.179	2.00	0.36	-11.91
5.27	0.330	18.38	39.81	5.57	12.0636	0.29	7.60	37.311	2.00	0.35	-11.87
5.28	0.330	18.01	40.18	5.46	12.1758	0.29	7.60	37.443	2.00	0.35	-11.63
5.29	0.330	17.74	40.36	5.43	12.2880	0.29	7.60	37.575	2.00	0.35	-11.53
5.3	0.320	17.37	40.54	5.43	12.6868	0.28	7.60	37.708	2.00	0.34	-11.45
5.31	0.320	17.09	40.91	5.34	12.7844	0.28	7.60	37.840	2.00	0.34	-11.11
5.32	0.310	16.76	41.09	5.41	13.2548	0.27	7.60	37.972	2.00	0.33	-11.10
5.33	0.310	15.79	41.64	5.09	13.4323	0.27	7.60	38.105	2.00	0.33	-10.69
5.34	0.300	15.33	41.82	5.13	13.8211	0.26	7.60	38.237	2.00	0.32	-10.57
5.35	0.300	15.00	42.18	5.00	14.0600	0.26	7.60	38.369	2.00	0.32	-10.30
5.36	0.290	14.91	42.37	5.14	14.6103	0.25	7.60	38.502	2.00	0.31	-10.20
5.37	0.290	14.87	42.55	5.13	14.6724	0.25	7.60	38.634	2.00	0.31	-10.10
5.38	0.280	14.59	42.73	5.21	15.2607	0.24	7.60	38.766	2.00	0.30	-10.05
5.39	0.280	14.36	43.10	5.13	15.5131	0.24	7.60	38.898	2.00	0.30	-9.78
5.4	0.280	14.03	43.46	5.01	15.5214	0.24	7.60	39.031	2.30	0.30	-9.57
5.41	0.280	13.80	43.83	4.93	15.6536	0.24	7.60	39.163	2.00	0.30	-9.26
5.42	0.270	13.57	44.01	5.03	16.3000	0.23	7.60	39.295	2.00	0.29	-9.18

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
6.81	4,680	28.06	18.81	0.60	0.4019	4.66	7.90	57.988	1.80	4.69	-48.00
6.82	4,800	28.53	18.63	0.58	0.3810	4.87	7.90	58.126	2.00	4.90	-48.27
6.83	5,110	28.99	18.26	0.57	0.3573	5.09	7.90	58.263	2.00	5.12	-48.74
6.84	5,340	29.17	18.26	0.55	0.3392	5.32	7.90	58.401	2.00	5.35	-48.84
6.85	5,600	29.41	18.44	0.53	0.3293	5.58	7.90	58.538	2.00	5.61	-48.76
6.86	5,600	29.41	18.44	0.53	0.3293	5.58	7.90	58.676	2.00	5.61	-48.86
6.87	5,600	29.41	18.44	0.53	0.3293	5.58	7.90	58.813	2.00	5.61	-48.95
6.88	5,110	25.89	15.34	0.41	0.2431	6.29	7.80	58.949	2.00	6.32	-52.15
6.89	6,990	26.72	15.34	0.41	0.2328	6.57	7.80	59.084	2.00	6.60	-52.25
6.9	6,770	27.30	15.52	0.40	0.2392	6.75	7.80	59.220	2.00	6.78	-52.07
6.91	6,880	27.65	15.89	0.40	0.2310	6.86	7.90	59.358	2.00	6.89	-51.90
6.92	6,880	28.34	15.70	0.41	0.2282	6.86	7.90	59.495	1.80	6.89	-52.19
6.93	6,660	30.61	15.70	0.46	0.2337	6.64	7.90	59.632	1.80	6.67	-52.28
6.94	6,470	32.00	15.52	0.45	0.2399	6.45	7.90	59.768	2.00	6.48	-52.56
6.95	6,300	33.30	15.52	0.53	0.2463	6.28	7.80	59.904	2.00	6.49	-52.68
6.96	6,100	34.55	15.70	0.56	0.2549	6.14	7.80	60.040	2.00	6.17	-52.58
6.97	6,050	35.98	15.52	0.59	0.2565	6.03	7.80	60.175	2.00	6.06	-52.86
6.98	5,980	37.23	15.70	0.62	0.2625	5.96	7.80	60.311	2.00	5.99	-52.77
6.99	5,930	38.30	15.52	0.65	0.2617	5.91	7.80	60.447	2.00	5.94	-53.05
7	5,910	39.22	15.52	0.67	0.2626	5.89	7.80	60.582	2.00	5.92	-53.15
7.01	5,900	40.34	15.70	0.68	0.2681	5.88	7.80	60.718	2.00	5.91	-53.07
7.02	5,930	41.22	15.52	0.70	0.2617	5.91	7.90	60.856	2.30	5.94	-53.35
7.03	6,060	42.00	14.97	0.69	0.2470	6.05	7.90	60.993	2.30	6.07	-53.99
7.04	6,180	42.23	14.61	0.68	0.2364	6.17	7.90	61.130	1.80	6.19	-54.45
7.05	6,330	42.28	14.61	0.67	0.2308	6.32	7.90	61.268	1.80	6.32	-54.61
7.06	6,500	42.19	14.61	0.65	0.2248	6.49	7.90	61.405	2.00	6.51	-54.65
7.07	6,680	41.86	14.61	0.63	0.2187	6.67	7.90	61.543	2.00	6.69	-54.75
7.08	6,800	41.35	14.43	0.60	0.2094	6.88	7.90	61.680	2.00	6.90	-55.02
7.09	7,100	41.08	14.61	0.58	0.2058	7.09	7.90	61.818	2.00	7.11	-54.94
7.1	7,290	40.47	15.16	0.56	0.2080	7.27	7.90	61.955	2.00	7.30	-54.49
7.11	7,470	40.24	16.07	0.54	0.2143	7.45	7.90	62.093	2.00	7.48	-53.68
7.12	7,480	40.29	16.25	0.54	0.2172	7.46	7.90	62.230	1.80	7.49	-53.60
7.13	7,460	40.20	16.25	0.54	0.2178	7.44	7.90	62.367	1.80	7.47	-53.70
7.14	7,410	40.57	16.25	0.55	0.2193	7.39	7.90	62.505	2.00	7.42	-53.79
7.15	7,360	41.03	16.25	0.56	0.2208	7.34	7.90	62.642	2.00	7.37	-53.89
7.16	7,330	41.26	15.89	0.56	0.2168	7.31	7.90	62.780	2.00	7.34	-54.35
7.17	7,290	41.82	14.97	0.57	0.2053	7.28	7.90	62.917	2.00	7.30	-55.37
7.18	7,300	42.23	14.97	0.58	0.2051	7.29	7.90	63.055	2.00	7.31	-55.47
7.19	7,360	43.76	14.06	0.59	0.1910	7.35	7.90	63.192	2.00	7.37	-56.47
7.2	7,400	44.50	13.88	0.60	0.1876	7.39	7.90	63.330	2.00	7.41	-56.75
7.21	7,440	44.87	13.70	0.60	0.1841	7.43	7.90	63.467	2.00	7.45	-57.03
7.22	7,500	44.97	13.70	0.60	0.1827	7.49	7.90	63.604	1.80	7.51	-57.13
7.23	7,520	45.11	13.15	0.60	0.1749	7.51	7.90	63.742	1.80	7.53	-57.78
7.24	7,440	44.36	14.06	0.60	0.1890	7.43	7.90	63.879	2.30	7.45	-56.96
7.25	7,310	46.68	16.07	0.64	0.2198	7.29	7.90	64.017	2.30	7.32	-55.05
7.26	7,200	45.24	17.35	0.63	0.2300	7.21	7.90	64.154	2.00	7.35	-54.92
7.27	7,090	44.52	17.35	0.63	0.2447	7.07	7.90	64.292	2.00	7.10	-53.97
7.28	6,950	44.09	17.35	0.63	0.2496	6.93	7.90	64.429	1.80	6.96	-54.07
7.29	6,870	43.58	17.35	0.63	0.2525	6.85	7.90	64.567	1.80	6.88	-54.16
7.3	6,850	41.82	16.62	0.61	0.2426	6.83	7.90	64.704	2.30	6.86	-54.99
7.31	6,850	41.96	17.17	0.61	0.2507	6.83	7.90	64.841	2.30	6.86	-54.54
7.32	6,850	42.17	17.17	0.61	0.2507	6.83	7.90	64.979	2.00	6.86	-54.64
7.33	6,920	41.12	17.17	0.59	0.2481	6.90	7.90	65.116	2.00	6.93	-54.74
7.34	6,960	40.57	17.71	0.58	0.2545	6.94	7.90	65.254	2.00	6.97	-54.30
7.35	7,020	39.87	17.53	0.57	0.2497	7.00	7.90	65.391	2.00	7.03	-54.57
7.36	7,090	39.67	17.90	0.55	0.2525	7.07	7.90	65.529	2.00	7.10	-54.30
7.37	7,220	39.23	18.08	0.56	0.2594	7.20	7.90	65.666	2.00	7.13	-53.96
7.38	7,330	37.05	18.44	0.51	0.2516	7.31	8.00	65.805	2.00	7.34	-53.96
7.39	7,430	36.82	18.44	0.50	0.2482	7.41	8.00	65.945	2.00	7.44	-54.06
7.4	7,490	35.89	18.81	0.48	0.2511	7.47	8.00	66.084	2.00	7.50	-53.78
7.41	7,570	34.78	18.44	0.46	0.2436	7.55	8.00	66.223	2.00	7.58	-54.25
7.42	7,660	33.92	18.44	0.46	0.2437	7.64	8.00	66.362	2.00	7.67	-53.87
7.43	7,640	34.55	17.35	0.45	0.2271	7.62	8.00	66.501	2.00	7.65	-55.54
7.44	7,700	33.62	19.36	0.44	0.2514	7.68	8.00	66.640	1.80	7.71	-53.63
7.45	7,600	29.64	20.09	0.39	0.2463	7.58	8.00	66.780	1.80	7.61	-52.99
7.46	7,620	31.86	20.64	0.42	0.2709	7.60	8.00	66.919	2.30	7.63	-52.54
7.47	7,680	31.26	21.71	0.41	0.2683	7.54	8.00	67.057	2.00	7.66	-52.33
7.48	7,780	29.87	22.27	0.38	0.2605	7.76	8.00	67.195	2.00	7.79	-53.11
7.49	8,050	30.15	20.10	0.37	0.2745	8.03	8.00	67.333	2.00	8.06	-51.38

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
7.5	7,840	29.27	21.00	0.37	0.2679	7.82	8.00	67.475	2.00	7.85	-52.58
7.51	7,670	32.18	18.63	0.42	0.2429	7.65	8.00	67.615	2.00	7.68	-55.04
7.52	7,500	31.40	20.27	0.42	0.2703	7.48	8.10	67.755	2.00	7.51	-53.50
7.53	7,450	30.52	20.64	0.41	0.2770	7.43	8.10	67.896	2.00	7.46	-53.23
7.54	7,180	30.94	19.54	0.42	0.2721	7.36	8.00	68.038	2.00	7.19	-54.43
7.55	7,050	29.31	20.82	0.42	0.2953	7.03	8.00	68.175	2.00	7.06	-53.25
7.56	6,870	28.99	21.37	0.42	0.3111	6.85	8.10	68.316	2.00	6.88	-52.79
7.57	6,720	29.31	21.37	0.44	0.3180	6.70	8.10	68.457	2.00	6.73	-52.89
7.58	6,610	29.99	21.00	0.44	0.3177	6.59	8.10	68.597	2.00	6.62	-53.36
7.59	6,590	30.05	21.18	0.46	0.3369	6.46	8.10	68.738	2.00	6.49	-53.28
7.6	6,660	31.91	21.37	0.48	0.3209	6.64	8.10	68.879	2.00	6.67	-53.19
7.61	6,860	35.61	21.18	0.52	0.3087	6.84	8.10	69.020	2.00	6.87	-53.47
7.62	7,280	49.04	20.82	0.67	0.2860	7.26	8.00	69.159	2.00	7.29	-53.93
7.63	7,330	43.48	19.98	0.59	0.2717	7.31	8.00	69.298	2.00	7.34	-53.87
7.64	7,450	46.17	17.35	0.52	0.2329	7.43	8.00	69.438	2.00	7.46	-57.80
7.65	7,760	43.16	18.63	0.56	0.2401	7.74	8.10	69.579	1.80	7.77	-56.42
7.66	8,170	44.18	19.54	0.54	0.2392	8.15	8.10	69.719	1.80	8.18	-55.60
7.67	8,150	44.23	20.45	0.52	0.2403	8.49	8.10	69.860	2.00	8.52	-54.79
7.68	8,880	45.20	21.73	0.51	0.2447	8.86	8.10	70.001	2.00	8.89	-53.61
7.69	9,280	45.80	22.28	0.49	0.2401	9.26	8.00	70.140	2.00	9.29	-53.16
7.7	9,840	46.82	22.28	0.48	0.2264	9.82	8.10	70.281	2.00	9.85	-53.25
7.71	10,100	44.55	21.18	0.44	0.2097	10.08	8.10	70.422	1.80	10.11	-54.46
7.72	10,280	44.92	20.82	0.44	0.2029	10.24	8.10	70.563	1.80	10.27	-54.91
7.73	10,460	44.04	20.82	0.42	0.1987	10.46	8.10	70.704	2.00	10.49	-55.01
7.74	10,460	45.34	20.64	0.43	0.1933	10.48	8.10	70.845	2.00	10.51	-54.66
7.75	10,900	45.24	21.37	0.42	0.1981	10.88	8.10	70.986	1.80	10.91	-54.66
7.76	11,350	44.83	22.64	0.39	0.1995	11.33	8.10	71.127	1.80	11.36	-53.49
7.77	11,490	43.39	23.19	0.38	0.2018	11.47	8.10	71.268	2.00	11.50	-53.03
7.78	11,580	40.47	22.64	0.35	0.1955	11.56	8.10	71.409	2.00	11.59	-53.68
7.79	11,710	40.26	23.64	0.34	0.1929	11.69	8.10	71.550	1.80	11.72	-53.68
7.8	12,000	40.84	22.64	0.34	0.1887	11.98	8.10	71.690	1.80	12.01	-53.88
7.81	12,000	43.11	22.64	0.36	0.1918	11.98	8.10	71.831	2.00	12.01	-53.61
7.82	11,760	46.86	21.18	0.40	0.1801	11.74	8.10	71.972	2.00	11.77	-55.53
7.83	11,740	54.88	21.18	0.47	0.1758	11.72	8.10	72.113	1.80	11.75	-56.17
7.84	11,710	54.39	20.82	0.47	0.1743	11.68	8.10	72.254	1.80	11.76	-56.17
7.85	11,750	51.45	22.10	0.44	0.1881	11.73	8.10	72.395	1.80	11.76	-54.91
7.86	11,750	51.45	22.10	0.44	0.1881	11.73	8.10	72.536	2.30	11.76	-55.01
7.87	11,750	51.45	22.10	0.44	0.1881	11.73	8.10	72.677	2.30	11.76	-55.10
7.88	11,270	50.89	16.62	0.45	0.1475	11.25	8.10	72.818	1.80	11.28	-60.08
7.89	11,250	49.87	16.62	0.45	0.1461	11.24	8.10	72.959	1.80	11.25	-60.18
7.9	11,240	48.72	11.69	0.43	0.1040	11.23	8.10	73.099	1.80	11.24	-65.81
7.91	10,850	53.12	10.77	0.49	0.0993	10.84	8.10	73.240	2.00	10.85	-66.83
7.92	10,600	56.64	12.42	0.53	0.1712	10.59	8.10	73.381	1.80	10.61	-65.28
7.93	10,250	59.14	10.41	0.58	0.1016	10.24	8.10	73.522	1.80	10.25	-67.37
7.94	10,250	59.14	10.41	0.58	0.1016	10.24	8.10	73.663	2.00	10.25	-68.05
7.95	9,930	61.96	10.23	0.62	0.1030	9.92	8.10	73.804	1.80	9.97	-67.76
7.96	9,320	53.58	9.50	0.57	0.1019	9.31	8.20	73.946	1.80	9.32	-68.59
7.97	8,980	54.88	9.58	0.61	0.0955	8.97	8.20	74.089	2.00	8.98	-69.61
7.98	8,670	54.37	9.13	0.63	0.1053	8.66	8.20	74.232	2.00	8.67	-69.15
7.99	8,300	54.23	8.77	0.63	0.1058	8.29	8.20	74.374	2.00	8.30	-69.84
8	7,840	54.83	9.50	0.70	0.1212	7.83	8.20	74.517	2.00	7.84	-69.88
8.01	7,400	54.74	9.68	0.74	0.1308	7.39	8.10	74.658	2.30	7.40	-68.90
8.02	7,050	55.20	8.40	0.78	0.1191	7.04	8.10	74.799	2.30	7.05	-70.28
8.03	6,780	56.73	8.04	0.84	0.1186	6.77	8.10	74.940	2.00	6.78	-70.73
8.04	6,570	55.85	8.22	0.86	0.1251	6.56	8.10	75.081	2.00	6.57	-70.65
8.05	6,450	50.06	8.13	0.78	0.1416	6.44	8.10	75.222	2.00	6.46	-69.84
8.06	6,410	47.70	9.85	0.74	0.1396	6.40	8.10	75.362	2.00	6.41	-70.12
8.07	6,420	45.01	9.86	0.70	0.1508	6.41	8.10	75.503	2.00	6.42	-69.40
8.08	6,490	45.24	9.88	0.70	0.1519	6.48	8.10	75.644	2.00	6.49	-69.49
8.09	6,510	44.97	23.64	0.68	0.1588	6.60	8.10	75.785	2.00	6.61	-69.13
8.1	6,810	38.90	10.41	0.57	0.1259	6.80	8.20	75.926	2.00	6.81	-69.90
8.11	6,940	39.08	9.86	0.56	0.1421	6.93	8.20	76.067	2.00	6.94	-69.70
8.12	7,070	38.90	9.86	0.55	0.1395	7.06	8.20	76.213	2.00	7.07	-69.80
8.13	7,160	38.90	9.87	0.54	0.1225	7.15	8.20	76.356	2.00	7.16	-70.89
8.14	7,280	38.90	8.57	0.53	0.1305	7.27	8.20	76.498	2.00	7.28	-70.35
8.15	7,410	38.58	10.04	0.53	0.1355	7.40	8.20	76.640	2.00	7.41	-69.82
8.16	7,550	39.27	10.23	0.52	0.1355	7.54	8.20	76.784	2.00	7.55	-69.85
8.17	7,720	39.92	10.77	0.52	0.1395	7.71	8.20	76.926	2.00	7.72	-69.36
8.18	7,840	40.10	10.59	0.51	0.1351	7.83	8.20	77.069	2.00	7.84	-69.68

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
9.57	6,500	45.94	18.08	0.71	0.2782	6.48	8.30	97.082	2.00	6.51	-75.80
9.58	6,520	45.71	18.08	0.70	0.2773	6.50	8.30	97.227	1.80	6.53	-75.90
9.59	6,600	45.81	18.26	0.69	0.2767	6.58	8.30	97.371	1.80	6.61	-75.82
9.6	6,710	45.43	18.26	0.68	0.2721	6.69	8.30	97.516	2.00	6.72	-75.92
9.61	6,890	46.14	18.44	0.65	0.2676	6.87	8.30	97.660	2.00	6.90	-75.83
9.62	7,150	44.32	18.63	0.62	0.2606	7.13	8.30	97.804	1.80	7.16	-75.74
9.63	7,440	43.76	18.81	0.59	0.2528	7.42	8.30	97.949	1.80	7.45	-75.66
9.64	8,000	42.74	19.17	0.53	0.2396	7.98	8.30	98.093	2.00	8.01	-75.40
9.65	8,240	42.19	19.36	0.51	0.2350	8.22	8.30	98.237	2.00	8.25	-75.31
9.66	8,490	42.19	19.36	0.50	0.2323	8.47	8.30	98.382	1.80	8.50	-75.22
9.67	8,720	40.98	19.72	0.47	0.2281	8.70	8.30	98.526	1.80	8.73	-75.14
9.68	8,930	40.94	20.09	0.46	0.2250	8.91	8.30	98.670	2.00	8.94	-74.87
9.69	9,140	41.17	20.09	0.45	0.2218	9.12	8.30	98.815	2.00	9.15	-74.97
9.7	9,080	41.82	20.09	0.46	0.2193	9.06	8.30	98.959	2.00	9.09	-75.07
9.71	9,010	42.70	19.86	0.47	0.2168	8.99	8.30	99.104	2.00	9.02	-75.21
9.72	8,830	44.97	19.54	0.51	0.2213	8.81	8.30	99.248	2.00	8.84	-75.81
9.73	8,520	47.84	20.45	0.56	0.2400	8.50	8.30	99.392	2.00	8.53	-75.00
9.74	8,330	48.67	21.00	0.58	0.2521	8.31	8.30	99.537	1.80	8.34	-74.55
9.75	8,170	49.55	21.00	0.61	0.2570	8.15	8.30	99.681	1.80	8.18	-74.65
9.76	8,030	50.43	21.00	0.62	0.2616	8.01	8.30	99.825	2.00	8.04	-74.75
9.77	7,930	50.99	21.18	0.64	0.2671	7.91	8.30	99.970	2.00	7.94	-74.86
9.78	7,900	51.82	21.37	0.66	0.2705	7.88	8.30	100.114	2.00	7.91	-74.57
9.79	7,830	52.65	21.37	0.67	0.2729	7.81	8.30	100.258	2.00	7.84	-74.67
9.8	7,650	53.53	21.55	0.70	0.2817	7.63	8.30	100.403	2.00	7.66	-74.59
9.81	7,490	53.95	21.91	0.72	0.2925	7.47	8.30	100.547	2.00	7.50	-74.30
9.82	7,340	53.49	21.91	0.73	0.2985	7.30	8.30	100.691	2.00	7.35	-74.22
9.83	7,160	53.30	21.73	0.74	0.3035	7.14	8.30	100.836	2.00	7.17	-74.40
9.84	6,990	53.07	21.37	0.76	0.3057	6.97	8.30	100.980	2.00	7.00	-75.16
9.85	6,900	53.07	21.37	0.76	0.3057	6.97	8.30	101.124	2.80	7.00	-75.26
9.86	6,990	53.07	21.37	0.76	0.3057	6.97	8.30	101.269	2.50	7.00	-75.36
9.87	6,480	42.42	22.83	0.67	0.4166	5.46	8.30	101.413	2.00	5.49	-73.99
9.88	6,050	42.70	23.19	0.71	0.3833	6.03	8.30	101.558	1.80	6.06	-73.73
9.89	5,870	43.72	23.19	0.74	0.3951	5.85	8.30	101.702	1.80	5.88	-73.83
9.9	5,710	43.48	23.19	0.76	0.4061	5.69	8.30	101.846	2.00	5.72	-73.93
9.91	5,430	42.74	23.37	0.79	0.4304	5.41	8.30	101.991	2.00	5.44	-73.85
9.92	5,360	42.80	23.96	0.79	0.4396	5.34	8.30	102.135	2.30	5.37	-73.76
9.93	5,340	42.14	23.56	0.79	0.4412	5.32	8.30	102.279	2.30	5.35	-73.85
9.94	5,330	41.59	23.92	0.78	0.4488	5.31	8.30	102.424	2.00	5.34	-73.59
9.95	5,360	41.31	24.11	0.77	0.4498	5.34	8.30	102.568	2.00	5.37	-73.50
9.96	5,440	40.61	24.11	0.75	0.4432	5.42	8.30	102.712	2.00	5.45	-73.60
9.97	5,550	40.01	24.29	0.72	0.4377	5.53	8.30	102.857	2.00	5.48	-73.52
9.98	5,710	39.46	24.47	0.69	0.4285	5.69	8.30	103.001	2.00	5.72	-73.43
9.99	5,900	38.85	24.84	0.66	0.4210	5.88	8.30	103.145	2.00	5.91	-73.16
10	6,140	38.30	25.02	0.62	0.4075	6.11	8.30	103.290	2.00	6.15	-73.08
10.01	6,390	37.93	25.57	0.59	0.4002	6.36	8.30	103.434	2.00	6.40	-72.63
10.02	6,960	36.91	25.57	0.53	0.3674	6.93	8.30	103.578	2.00	6.97	-72.73
10.03	7,250	36.49	25.93	0.52	0.3729	7.22	8.30	103.723	2.00	7.25	-72.72
10.04	7,490	36.12	25.93	0.48	0.3462	7.46	8.30	103.867	2.00	7.50	-72.56
10.05	7,680	35.38	25.93	0.46	0.3376	7.65	8.30	104.012	2.00	7.69	-72.66
10.06	7,810	35.29	25.93	0.45	0.3320	7.78	8.30	104.156	1.80	7.82	-72.76
10.07	7,930	35.47	26.30	0.47	0.3317	7.90	8.30	104.300	1.80	7.94	-72.49
10.08	8,030	36.07	26.48	0.45	0.3298	8.00	8.30	104.445	2.00	8.04	-72.40
10.09	8,330	37.09	27.03	0.45	0.3245	8.30	8.30	104.589	2.00	8.34	-71.95
10.1	8,540	37.19	27.03	0.44	0.3165	8.51	8.30	104.733	2.00	8.55	-72.05
10.11	8,740	38.25	27.03	0.44	0.3093	8.71	8.30	104.878	2.00	8.75	-72.15
10.12	8,980	38.76	27.21	0.43	0.3030	8.95	8.30	105.022	1.80	8.99	-72.07
10.13	9,180	38.81	27.46	0.42	0.2984	9.15	8.30	105.166	1.80	9.22	-71.94
10.14	9,410	39.96	27.76	0.42	0.2950	9.38	8.30	105.311	1.80	9.42	-71.71
10.15	9,220	40.75	27.94	0.42	0.2874	9.69	8.30	105.455	1.80	9.73	-71.63
10.16	9,840	41.17	28.49	0.42	0.2895	9.81	8.30	105.599	1.80	9.85	-71.18
10.17	9,880	41.82	28.49	0.42	0.2884	9.85	8.30	105.744	2.00	9.89	-71.28
10.18	9,840	42.81	28.67	0.43	0.2984	9.81	8.30	105.888	2.00	9.94	-71.27
10.19	9,790	44.69	28.49	0.46	0.2910	9.76	8.30	106.033	1.80	9.80	-71.47
10.2	9,820	45.61	28.49	0.46	0.2901	9.79	8.30	106.179	1.80	9.83	-71.57
10.21	9,860	46.12	28.67	0.47	0.2908	9.83	8.30	106.325	2.00	9.87	-71.49
10.22	9,900	46.68	28.67	0.47	0.2896	9.87	8.30	106.471	2.00	9.91	-71.59
10.23	9,960	47.34	29.11	0.47	0.2916	9.93	8.30	106.617	1.90	9.94	-71.67
10.24	10,010	48.16	28.49	0.48	0.2821	10.07	8.30	106.763	1.80	10.11	-71.96
10.25	10,180	48.72	29.04	0.48	0.2853	10.15	8.30	106.909	1.80	10.19	-71.51

17-101.G_CPTU_Soarza

17-101_CPTU.S4_DX

Pag. 13

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
10.26	10,260	48.81	29.58	0.48	0.2883	10.23	8.40	107.055	1.80	10.27	-71.07
10.27	10,270	48.86	29.77	0.48	0.2899	10.24	8.40	107.201	1.80	10.28	-70.98
10.28	10,260	49.09	29.77	0.48	0.2902	10.23	8.40	107.347	1.80	10.27	-71.08
10.29	10,290	49.18	29.95	0.48	0.2936	10.17	8.40	107.493	1.80	10.27	-70.99
10.3	10,030	49.29	29.77	0.49	0.2953	10.13	8.40	107.639	1.80	10.09	-71.27
10.31	9,950	48.44	29.58	0.49	0.2973	9.92	8.30	107.782	1.80	9.96	-71.56
10.32	9,550	49.50	29.40	0.52	0.3079	9.52	8.30	107.926	1.80	9.56	-71.84
10.33	9,270	49.87	29.58	0.54	0.3191	9.24	8.40	108.073	1.80	9.28	-71.76
10.34	8,930	50.52	29.40	0.57	0.3292	8.90	8.40	108.219	1.80	8.94	-72.04
10.35	8,590	50.99	29.40	0.59	0.3423	8.56	8.40	108.365	1.80	8.59	-72.13
10.36	7,950	51.96	29.40	0.65	0.3698	7.92	8.40	108.511	1.80	7.96	-72.23
10.37	7,660	52.28	29.40	0.68	0.3838	7.63	8.40	108.657	1.80	7.67	-72.33
10.38	7,430	52.65	29.40	0.71	0.3957	7.40	8.40	108.803	1.80	7.44	-72.43
10.39	7,260	53.02	29.40	0.73	0.4050	7.23	8.40	108.949	1.80	7.27	-72.53
10.4	7,120	52.65	29.40	0.74	0.4129	7.09	8.40	109.095	2.00	7.13	-72.62
10.41	7,010	53.12	29.40	0.76	0.4194	6.98	8.40	109.241	2.00	7.02	-72.72
10.42	6,910	52.79	29.58	0.76	0.4281	6.88	8.40	109.387	1.80	6.92	-72.64
10.43	6,900	52.42	29.77	0.76	0.4314	6.87	8.30	109.532	1.80	6.91	-72.55
10.44	6,870	52.33	29.58	0.76	0.4306	6.84	8.30	109.678	2.00	6.88	-72.84
10.45	6,860	38.53	30.31	0.78	0.6111	7.09	8.40	110.824	2.00	7.13	-72.82
10.46	6,800	49.46	30.13	0.73	0.4431	6.77	8.30	109.965	2.00	6.81	-72.48
10.47	6,690	47.93	30.13	0.72	0.4504	6.66	8.40	110.111	2.00	6.70	-72.58
10.48	6,490	46.40	30.13	0.71	0.4643	6.46	8.40	110.257	2.00	6.50	-72.68
10.49	6,240	45.43	29.95	0.73	0.4800	6.21	8.40	110.403	2.00	6.25	-72.96
10.5	6,150	44.96	29.95	0.75	0.5025	5.92	8.40	110.549	2.30	5.96	-73.06
10.51	5,610	43.44	29.95	0.77	0.5339	5.58	8.40	110.695	2.30	5.62	-73.15
10.52	5,360	42.10	29.95	0.79	0.5588	5.33	8.40	110.841	2.30	5.37	-73.25
10.53	5,150	41.40	29.95	0.80	0.5816	5.12	8.40	110.987	2.30	5.16	-73.35
10.54	5,050	40.43	30.13	0.80	0.5966	5.02	8.40	111.133	2.30	5.06	-73.27
10.55	4,970	39.83	30.31	0.80	0.6099	4.90	8.40	111.279	2.00	4.98	-73.19
10.56	4,960	39.83	30.31	0.79	0.6111	4.93	8.40	111.425	2.00	4.91	-73.29
10.57	5,000	38.48	30.00	0.77	0.6100	4.97	8.40	111.572	2.30	5.01	-73.19
10.58	5,080	38.11	30.50	0.75	0.6004	5.05	8.40	111.718	2.30	5.09	-73.29
10.59	5,190	37.56	30.68	0.72	0.5911	5.45	8.40	111.864	2.00	5.20	-73.21
10.6	5,330	38.31	30.86	0.69	0.5790	5.30	8.40	112.010	2.00	5.34	-73.13
10.61	5,480	39.98	30.66	0.65	0.5490	5.46	8.40	112.156	2.00	5.45	-73.05
10.62	5,630	35.33	30.86	0.63	0.5481	5.60	8.40	112.302	2.30	5.64	-73.32
10.63	5,770	34.96	31.04	0.61	0.5380	5.74	8.40	112.448	2.30	5.78	-73.24
10.64	5,900	35.29	31.23	0.60	0.5293	5.87	8.40	112.594	2.30	5.91	-73.15
10.65	6,050	35.33	31.23	0.58	0.5162	6.02	8.40	112.740	2.30	6.06	-73.25
10.66	6,150	36.04	31.04	0.58	0.5686	6.12	8.40	112.886	2.30	6.13	-73.16
10.67	6,230	35.31	31.04	0.58	0.4982	6.20	8.40	113.032	2.30	6.24	-73.33
10.68	6,300	36.58	31.04	0.58	0.4927	6.27	8.40	113.179	2.00	6.31	-73.73
10.69	6,320	36.86	31.04	0.58	0.4911	6.29	8.40	113.325	2.00	6.33	-73.83
10.7	6,390	37.33	31.04	0.58	0.4858	6.36	8.40	113.471	2.30	6.40	-73.93
10.71	6,540	38.04	31.04	0.59	0.4815	6.51	8.40	113.617	2.30	6.47	-74.03
10.72	6,540	38.81	31.23	0.59	0.4775	6.51	8.40	113.763	2.00	6.55	-73.93
10.73	6,790	40.20	31.23	0.59	0.4599	6.76	8.40	113.909	2.00	6.80	-74.03
10.74	6,950	40.98	31.23	0.59	0.4494	6.92	8.40	114.055	2.30	6.96	-74.14
10.75	7,110	41.31	31.41	0.58	0.4418	7.08	8.40	114.201	2.30	7.12	-74.05
10.76	7,280	41.68	31.41	0.57	0.4418	7.08	8.40	114.347	2.30	7.19	-74.06
10.77	7,450	41.68	31.59	0.56	0.4240	7.42	8.40	114.493	2.00	7.46	-74.06
10.78	7,630	41.22	31.59	0.55	0.4140	7.60	8.30	114.638	1.80	7.64	-74.16
10.79	7,800	42.33	31.78	0.54	0.4074	7.77	8.30	114.782	1.80	7.81	-74.07
10.8	7,950	42.62	31.78	0.54	0.3997	7.92	8.30	114.926	2.00	7.96	-74.17
10.81	8,050	43.39	31.78	0.54	0.3915	8.06	8.30	115.071	2.00	8.07	-74.27
10.82	8,150	44.41	31.96	0.54	0.3921	8.12	8.30	115.215	2.00	8.16	-74.18
10.83	8,130	44.73	31.96	0.55	0.3931	8.10	8.30	115.359	2.00	8.14	-74.28
10.84	8,120	45.20	31.96	0.56	0.3936	8.09	8.30	115.504	1.80	8.13	-74.38
10.85	8,120	45.20	31.96	0.56	0.3936	8.09	8.30	115.648	2.50	8.13	-74.48
10.86	8,120	45.20	31.96	0.56	0.3936	8.09	8.30	115.792	2.50	8.13	-74.58
10.87	7,520	39.22	33.42	0.52	0.4444	7.49	8.40	115.938	1.80	7.53	-73.21
10.88	7,270	40.34	33.60	0.55	0.4622	7.24	8.40	116.085	1.80	7.28	-73.13
10.89	6,970	40.98	34.53	0.59	0.4925	6.94	8.40	116.231	2.00	6.98	-72.50
10.9	6,640	41.72	34.88	0.63	0.5253	6.61	8.40	116.377	2.00	6.65	-72.05
10.91	6,320	42.30	34.88	0.63	0.5253	6.61	8.40	116.523	2.00	6.63	-72.05
10.92	6,040	43.30	33.97	0.72	0.5624	6.01	8.30	116.666	2.00	6.05	-71.66
10.93	6,040	43.30	36.52	0.72	0.6046	6.00	8.30	116.810	2.00	6.06	-70.70
10.94	5,450	41.45	36.54	0.76	0.6668	5.41	8.40	116.956	1.50	5.47	-70.70

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
12.33	4,160	32.60	47.48	0.76	1,1413	4.11	8.50	137,370	1.80	4.18	-73.48
12.34	4,060	33.48	47.48	0.82	1,1695	4.01	8.50	137,518	1.80	4.08	-73.58
12.35	3,970	34.32	47.3	0.86	1,1914	3.92	8.50	137,666	2.00	3.99	-73.85
12.36	3,930	35.38	47.66	0.93	1,2575	3.74	8.50	137,814	2.00	3.81	-73.59
12.37	3,720	36.57	47.85	0.96	1,2863	3.67	8.50	137,962	1.80	3.84	-73.50
12.38	3,630	35.98	47.85	0.99	1,3182	3.58	8.50	138,109	2.00	3.65	-73.60
12.39	3,550	36.07	48.21	1.02	1,3580	3.50	8.50	138,257	1.80	3.57	-73.54
12.4	3,460	36.17	48.03	1.05	1,3882	3.41	8.50	138,405	1.80	3.48	-73.61
12.41	3,400	36.12	48.21	1.06	1,4179	3.35	8.50	138,553	2.00	3.42	-73.53
12.42	3,290	34.94	48.58	1.05	1,4766	3.24	8.50	138,701	2.00	3.31	-73.28
12.43	3,240	33.99	48.58	1.05	1,4994	3.19	8.50	138,848	2.00	3.26	-73.36
12.44	3,210	33.02	48.94	1.03	1,5246	3.16	8.50	138,996	1.80	3.23	-73.10
12.45	3,160	32.23	49.12	1.02	1,5544	3.11	8.50	139,144	1.80	3.18	-73.01
12.46	3,130	31.35	49.12	1.00	1,5693	3.08	8.50	139,292	2.30	3.15	-73.11
12.47	3,100	30.61	49.31	0.99	1,5906	3.05	8.50	139,440	2.30	3.12	-72.92
12.48	3,070	30.01	49.49	0.98	1,6121	3.02	8.60	139,589	2.00	3.09	-72.94
12.49	3,050	29.41	49.49	0.96	1,6226	3.00	8.60	139,739	2.00	3.07	-73.04
12.5	3,020	28.71	49.67	0.95	1,6447	2.97	8.60	139,888	2.00	3.04	-72.96
12.51	3,000	28.25	49.65	0.94	1,6617	2.95	8.60	140,038	2.00	3.02	-72.87
12.52	2,980	27.83	50.04	0.93	1,6792	2.93	8.60	140,186	2.00	3.00	-72.98
12.53	2,980	27.65	50.22	0.93	1,6852	2.93	8.60	140,333	2.00	3.00	-72.70
12.54	3,020	27.18	50.58	0.90	1,6748	2.97	8.50	140,481	2.00	3.04	-72.44
12.55	3,100	27.04	50.77	0.87	1,6377	3.05	8.50	140,629	2.00	3.12	-72.35
12.56	3,200	26.95	51.13	0.84	1,5978	3.15	8.50	140,777	2.00	3.22	-72.08
12.57	3,330	26.77	51.5	0.80	1,5628	3.28	8.50	140,925	2.30	3.31	-71.78
12.58	3,510	26.86	51.5	0.77	1,4672	3.46	8.50	141,072	2.30	3.53	-71.91
12.59	3,740	27.09	51.86	0.72	1,3866	3.69	8.60	141,222	2.00	3.76	-71.65
12.6	3,990	27.51	52.05	0.69	1,3045	3.94	8.60	141,371	2.00	4.01	-71.56
12.61	4,240	28.11	52.23	0.66	1,2318	4.19	8.60	141,521	2.00	4.26	-71.47
12.62	4,460	28.99	52.41	0.65	1,1751	4.41	8.60	141,671	2.00	4.48	-71.39
12.64	4,650	29.08	52.23	0.63	1,1222	4.60	8.60	141,820	1.80	4.67	-71.67
12.64	4,760	29.41	52.05	0.62	1,0935	4.71	8.60	141,970	1.80	4.78	-71.95
12.65	4,800	30.10	51.5	0.63	1,0729	4.75	8.60	142,119	2.00	4.82	-72.60
12.66	4,760	30.75	51.13	0.65	1,0742	4.71	8.60	142,269	2.00	4.78	-73.06
12.67	4,710	31.35	51.13	0.67	1,0856	4.66	8.60	142,418	2.00	4.73	-73.16
12.68	4,660	31.81	51.5	0.68	1,1052	4.61	8.60	142,568	2.00	4.68	-72.89
12.69	4,620	32.56	51.68	0.70	1,1186	4.57	8.60	142,717	2.00	4.64	-72.81
12.7	4,610	33.11	51.86	0.72	1,1249	4.56	8.60	142,867	1.80	4.63	-72.73
12.71	4,600	33.62	52.05	0.73	1,1315	4.55	8.60	143,016	1.80	4.62	-72.64
12.72	4,670	35.19	52.59	0.75	1,1261	4.62	8.60	143,166	2.00	4.69	-72.19
12.73	4,720	35.80	52.59	0.76	1,1142	4.67	8.70	143,317	2.00	4.74	-72.29
12.74	4,750	35.89	52.41	0.76	1,1034	4.70	8.70	143,468	1.80	4.77	-72.57
12.75	4,770	35.66	51.86	0.75	1,0872	4.72	8.70	143,620	1.80	4.79	-73.22
12.76	4,740	35.89	51.5	0.76	1,0865	4.69	8.70	143,771	2.00	4.76	-73.68
12.77	4,700	35.84	51.68	0.76	1,0996	4.65	8.60	143,920	2.00	4.72	-73.59
12.78	4,620	36.21	51.66	0.76	1,1225	4.57	8.60	144,070	1.80	4.64	-73.52
12.79	4,600	36.23	52.05	0.75	1,1315	4.56	8.60	144,220	1.80	4.62	-73.07
12.8	4,590	36.21	52.41	0.79	1,1418	4.54	8.60	144,369	1.80	4.61	-73.16
12.81	4,620	35.89	52.59	0.78	1,1383	4.57	8.60	144,519	2.00	4.64	-73.08
12.82	4,700	35.15	53.19	0.75	1,1306	4.65	8.60	144,668	2.00	4.72	-72.62
12.83	4,770	34.82	53.64	0.73	1,1256	4.72	8.60	144,818	2.00	4.79	-72.17
12.84	4,850	34.78	53.87	0.72	1,1107	4.80	8.60	144,967	1.80	4.83	-72.47
12.85	4,850	34.78	53.87	0.72	1,1107	4.80	8.60	145,117	2.30	4.87	-72.19
12.86	4,850	34.78	53.87	0.72	1,1107	4.80	8.60	145,266	2.30	4.87	-72.29
12.87	5,030	29.45	58.8	0.59	1,1690	4.97	8.60	145,416	1.80	5.05	-67.45
12.88	5,120	29.62	58.62	0.58	1,1449	5.06	8.60	145,565	1.80	5.14	-67.73
12.89	5,160	30.13	58.8	0.6	1,1510	5.08	8.60	145,715	1.80	5.18	-67.84
12.9	5,130	31.26	58.8	0.61	1,1462	5.07	8.70	145,866	1.80	5.15	-67.75
12.91	5,040	31.72	58.8	0.63	1,1667	4.98	8.70	146,017	1.80	5.06	-67.85
12.92	4,920	32.14	58.8	0.65	1,1951	4.86	8.70	146,169	1.80	4.94	-67.95
12.93	4,800	32.65	58.8	0.68	1,2250	4.74	8.70	146,320	1.80	4.82	-68.04
12.94	4,680	33.32	58.8	0.71	1,2564	4.62	8.70	146,471	1.80	4.63	-68.14
12.95	4,590	33.39	58.8	0.73	1,2810	4.53	8.70	146,622	2.00	4.61	-68.24
12.96	4,440	34.18	59.17	0.77	1,3327	4.38	8.70	146,774	1.80	4.46	-67.97
12.97	4,370	34.50	59.17	0.79	1,3540	4.31	8.70	146,925	2.00	4.39	-68.07
12.98	4,330	34.73	59.35	0.80	1,3707	4.27	8.70	147,076	2.00	4.35	-67.98
12.99	4,280	34.96	59.35	0.80	1,3867	4.22	8.70	147,228	1.80	4.36	-68.08
13	4,240	35.15	59.53	0.83	1,4040	4.18	8.70	147,379	1.80	4.27	-68.00
13.01	4,220	35.15	59.72	0.83	1,4152	4.16	8.70	147,530	2.00	4.25	-67.91

17-101_G_CPTU_Soarza

17-101_CPTU.S4_DX

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
13.02	4.180	34.92	60.08	0.84	1.4373	4.12	8.70	147.681	2.00	4.21	-67.65
13.03	4.170	34.82	60.26	0.84	1.4451	4.11	8.70	147.833	2.00	4.20	-67.56
13.04	4.160	34.41	60.45	0.83	1.4531	4.10	8.70	147.984	2.00	4.19	-67.47
13.05	4.160	33.90	60.63	0.81	1.4575	4.10	8.70	148.135	2.00	4.19	-67.37
13.06	4.190	33.34	60.81	0.78	1.4513	4.16	8.70	148.286	2.00	4.22	-67.31
13.07	4.220	33.02	60.99	0.78	1.4453	4.16	8.70	148.438	2.00	4.25	-67.23
13.08	4.250	32.51	61.18	0.76	1.4395	4.19	8.70	148.589	2.00	4.28	-67.13
13.09	4.310	32.09	61.36	0.74	1.4237	4.25	8.70	148.740	2.00	4.34	-67.05
13.1	4.390	31.44	61.72	0.72	1.4059	4.33	8.70	148.891	2.00	4.42	-66.79
13.11	4.470	30.89	61.72	0.69	1.3866	4.41	8.70	149.042	2.00	4.50	-66.88
13.12	4.580	30.47	62.09	0.67	1.3557	4.52	8.70	149.194	2.00	4.61	-66.62
13.13	4.730	30.29	62.27	0.64	1.3165	4.67	8.70	149.345	2.30	4.76	-66.54
13.14	4.910	30.24	62.45	0.62	1.2719	4.85	8.70	149.496	2.30	4.94	-66.45
13.15	5.110	30.56	62.82	0.60	1.2294	5.05	8.70	149.648	2.30	5.14	-66.18
13.16	5.340	31.25	63.53	0.56	1.1230	5.55	8.70	149.799	2.00	5.64	-66.10
13.17	5.870	31.58	63.18	0.54	1.0763	5.81	8.70	149.950	2.00	5.90	-66.02
13.18	6.120	31.86	63.55	0.52	1.0384	6.06	8.70	150.101	2.00	6.15	-65.75
13.19	6.340	32.23	63.92	0.51	1.0082	6.28	8.70	150.253	2.00	6.37	-65.47
13.2	6.510	32.23	64.28	0.50	0.9874	6.45	8.70	150.404	2.00	6.54	-65.21
13.21	6.600	32.51	64.65	0.49	0.9751	6.57	8.70	150.555	2.00	6.60	-64.94
13.22	6.730	33.34	64.65	0.50	0.9606	6.67	8.70	150.707	2.30	6.76	-65.04
13.23	6.840	33.90	64.83	0.50	0.9478	6.78	8.70	150.858	2.30	6.87	-64.96
13.24	6.930	34.45	65.01	0.50	0.9381	6.86	8.70	151.009	2.00	6.96	-64.87
13.25	6.990	34.64	64.83	0.50	0.9275	6.93	8.70	151.160	2.00	7.02	-65.15
13.26	7.000	35.01	64.65	0.50	0.9196	6.97	8.70	151.312	2.00	7.08	-65.43
13.27	6.990	35.10	64.28	0.50	0.9296	6.90	8.70	151.463	2.00	6.99	-65.90
13.28	6.880	36.63	63.55	0.53	0.9237	6.82	8.70	151.614	2.00	6.91	-66.73
13.29	6.670	37.88	63.37	0.57	0.9501	6.61	8.70	151.765	2.00	6.70	-67.00
13.3	6.540	39.08	63.37	0.60	0.9860	6.48	8.70	151.918	2.00	6.57	-67.27
13.31	6.430	40.24	63.37	0.63	0.9855	6.37	8.70	152.071	2.00	6.46	-67.54
13.32	6.340	41.31	63.37	0.67	0.9541	6.32	8.70	152.222	2.00	6.35	-67.81
13.33	6.220	42.51	63.55	0.68	1.0184	6.18	8.70	152.377	2.00	6.27	-67.72
13.34	6.180	43.30	63.55	0.70	1.0283	6.12	8.70	152.530	2.00	6.21	-67.73
13.35	6.140	43.99	63.52	0.72	1.0410	6.08	8.70	152.683	2.00	6.17	-67.73
13.36	6.148	43.73	64.1	0.73	1.0491	6.05	8.80	152.836	2.00	6.14	-66.93
13.37	6.120	45.29	64.86	0.74	1.0581	6.04	8.80	152.989	2.00	6.10	-66.65
13.38	6.170	46.63	64.65	0.76	1.0478	6.11	8.80	153.142	2.00	6.20	-66.66
13.39	6.230	46.91	64.83	0.75	1.0406	6.17	8.80	153.295	2.00	6.26	-66.66
13.4	6.260	46.91	64.83	0.75	1.0356	6.20	8.80	153.448	2.00	6.29	-66.66
13.41	6.250	45.85	64.46	0.73	1.0314	6.19	8.80	153.601	2.00	6.28	-67.00
13.42	6.230	45.34	64.83	0.73	1.0403	6.16	8.80	153.754	2.00	6.27	-67.00
13.43	6.220	44.73	64.83	0.72	1.0423	6.16	8.80	153.907	1.80	6.25	-66.99
13.44	6.240	44.23	65.01	0.71	1.0418	6.17	8.80	154.060	1.80	6.27	-66.88
13.45	6.310	43.02	65.56	0.68	1.0390	6.24	8.80	154.213	2.00	6.34	-66.65
13.46	6.360	42.28	65.74	0.66	1.0336	6.29	8.80	154.366	2.00	6.39	-66.65
13.47	6.420	41.59	65.92	0.64	1.0261	6.35	8.80	154.519	2.00	6.46	-66.65
13.48	6.480	40.80	66.29	0.63	1.0230	6.41	8.80	154.672	2.00	6.51	-66.55
13.49	6.510	40.20	66.29	0.62	1.0183	6.44	8.80	154.825	1.80	6.54	-66.55
13.5	6.510	39.50	66.47	0.61	1.0210	6.44	8.80	154.978	1.80	6.54	-65.93
13.51	6.490	39.08	66.47	0.60	1.0242	6.42	8.80	155.131	2.00	6.52	-66.00
13.52	6.430	39.00	66.47	0.59	1.0285	6.44	8.80	155.284	2.00	6.48	-66.00
13.53	6.150	38.67	66.47	0.63	1.0808	6.08	8.80	155.437	2.00	6.18	-66.22
13.54	5.930	38.76	66.29	0.65	1.1179	5.88	8.80	155.590	2.00	5.96	-66.18
13.55	5.660	38.90	66.11	0.69	1.1680	5.59	8.80	155.743	2.00	5.69	-66.18
13.56	5.410	39.18	66.11	0.72	1.2220	5.34	8.80	155.896	2.00	5.44	-66.18
13.57	5.180	40.66	66.29	0.76	1.2401	5.09	8.80	156.049	2.30	5.20	-66.18
13.58	5.000	39.96	66.47	0.80	1.3294	4.93	8.80	156.202	2.30	5.03	-66.18
13.59	4.830	40.20	66.47	0.83	1.3762	4.74	8.80	156.355	2.00	4.86	-66.18
13.6	4.700	40.20	66.47	0.86	1.4143	4.63	8.80	156.508	2.00	4.73	-66.18
13.61	4.590	40.15	66.47	0.87	1.4481	4.52	8.80	156.661	2.00	4.62	-67.00
13.62	4.490	40.01	66.65	0.89	1.4861	4.40	8.80	156.814	2.00	4.52	-66.99
13.63	4.410	39.69	66.84	0.90	1.5156	4.34	8.80	156.967	2.00	4.44	-66.99
13.64	4.330	39.18	67.02	0.90	1.5478	4.26	8.80	157.120	2.00	4.36	-66.99
13.65	4.260	38.90	67.02	0.90	1.5732	4.19	8.80	157.273	2.30	4.29	-66.99
13.66	4.190	37.56	67.2	0.90	1.6038	4.12	8.80	157.426	2.30	4.22	-66.99
13.67	4.090	36.67	67.38	0.91	1.6359	4.01	8.80	157.579	2.30	4.14	-66.99
13.68	4.080	36.07	67.38	0.88	1.6515	4.01	8.80	157.732	2.00	4.11	-66.99
13.69	4.000	34.55	67.75	0.86	1.6938	3.93	8.80	157.885	2.00	4.03	-66.99
13.7	3.960	33.99	67.93	0.86	1.7154	3.89	8.80	158.038	2.00	3.99	-66.99

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
15.09	8,790	55.06	82.54	0.63	0.9390	8,71	9.00	179,675	1.80	8,82	-65.49
15.1	8,930	53.63	82.72	0.60	0.9263	8.85	9.00	179,832	2.00	8,96	-65.41
15.11	9,120	53.30	82.72	0.58	0.9070	9.04	9.00	179,988	2.00	9.15	-65.51
15.12	9,230	52.61	83.46	0.57	0.8584	9.21	9.00	180,145	1.80	9.33	-64.87
15.13	9,330	50.43	83.64	0.53	0.8776	9.45	9.00	180,301	1.80	9.57	-64.79
15.14	9,790	49.13	83.64	0.50	0.8543	9.71	9.00	180,457	2.00	9.83	-64.88
15.15	10,290	47.65	84.37	0.46	0.8199	10.21	9.00	180,614	2.00	10.33	-64.25
15.16	10,710	47.28	84.73	0.44	0.7911	10.63	9.00	180,770	2.00	10.75	-63.99
15.17	10,800	52.24	89.12	0.48	0.8252	10.71	9.00	180,927	2.00	10.84	-59.70
15.18	10,320	54.74	90.21	0.53	0.8141	10.23	9.00	181,083	1.80	10.37	-60.29
15.19	10,420	58.30	86.74	0.56	0.8324	10.33	9.00	181,240	1.80	10.46	-62.27
15.2	10,620	54.41	87.11	0.51	0.8202	10.53	9.00	181,396	1.80	10.66	-62.00
15.21	10,740	54.09	86.74	0.50	0.8076	10.65	9.00	181,552	1.80	10.78	-62.47
15.22	10,930	54.74	86.19	0.50	0.7886	10.84	9.00	181,709	1.80	10.97	-63.12
15.23	11,290	53.90	86.38	0.46	0.7651	11.20	9.00	181,865	1.80	11.32	-64.65
15.24	11,240	54.69	78.16	0.49	0.6954	11.16	9.00	182,022	1.80	11.27	-71.34
15.25	11,290	57.89	78.71	0.51	0.6972	11.21	9.00	182,178	1.80	11.32	-70.89
15.26	11,190	56.08	79.99	0.50	0.7148	11.11	9.00	182,335	1.50	11.22	-69.71
15.27	11,230	55.48	81.45	0.49	0.7253	11.15	9.00	182,491	1.50	11.26	-68.35
15.28	11,280	53.90	82.53	0.48	0.7051	11.20	9.00	182,648	1.80	11.31	-68.19
15.29	11,300	52.93	79.82	0.47	0.7046	11.22	9.00	182,804	1.50	11.33	-70.37
15.3	11,260	52.65	78.16	0.47	0.6941	11.18	9.00	182,960	1.50	11.29	-71.93
15.31	11,180	53.30	76.88	0.48	0.6877	11.10	9.00	183,117	1.80	11.21	-73.31
15.32	11,100	53.12	76.33	0.48	0.6877	11.02	9.00	183,273	1.80	11.13	-73.96
15.33	11,050	53.23	75.97	0.47	0.6807	10.97	9.00	183,430	1.80	11.05	-74.42
15.34	11,040	52.93	75.79	0.48	0.6865	10.96	9.00	183,586	1.50	11.07	-74.02
15.35	11,050	52.79	75.97	0.48	0.6875	10.97	9.00	183,743	1.50	11.08	-74.61
15.36	11,100	54.32	75.97	0.49	0.6906	10.92	9.00	183,899	1.80	11.03	-74.71
15.37	10,980	55.43	75.97	0.50	0.6919	10.90	9.00	184,057	1.80	11.01	-74.81
15.38	10,950	54.78	76.52	0.50	0.6988	10.87	9.00	184,215	1.50	10.98	-74.36
15.39	10,820	53.58	76.33	0.50	0.7055	10.74	9.00	184,373	1.80	10.85	-74.65
15.4	10,720	53.76	76.15	0.50	0.7104	10.64	9.00	184,530	1.80	10.75	-74.92
15.41	10,580	54.69	76.15	0.52	0.7198	10.50	9.00	184,686	1.80	10.61	-75.02
15.42	10,420	56.03	76.33	0.54	0.7325	10.34	9.00	184,843	1.80	10.45	-74.94
15.43	10,280	57.52	76.33	0.56	0.7425	10.20	9.00	184,999	2.30	10.31	-75.04
15.44	10,180	59.04	76.52	0.58	0.7517	10.10	9.00	185,157	2.30	10.21	-74.95
15.45	10,130	59.83	76.7	0.59	0.7572	10.05	9.00	185,316	2.30	10.16	-74.86
15.46	10,090	60.76	77.06	0.60	0.7637	10.01	9.00	185,474	2.30	10.12	-74.60
15.47	10,120	61.36	77.06	0.61	0.7615	10.04	9.00	185,632	2.30	10.15	-74.70
15.48	10,170	61.73	77.43	0.61	0.7614	10.09	9.00	185,790	2.00	10.20	-74.43
15.49	10,250	62.15	77.61	0.61	0.7572	10.17	9.00	185,948	2.00	10.28	-74.35
15.5	10,300	62.19	77.98	0.60	0.7534	10.27	9.00	186,106	2.30	10.38	-74.08
15.51	10,410	62.38	78.34	0.60	0.7525	10.33	9.00	186,264	2.30	10.44	-73.81
15.52	10,450	62.24	78.52	0.60	0.7514	10.37	9.00	186,423	2.00	10.48	-73.73
15.53	10,390	62.10	78.71	0.60	0.7576	10.31	9.00	186,581	2.00	10.42	-73.64
15.54	10,320	62.05	78.69	0.60	0.7564	10.24	9.00	186,739	2.00	10.35	-73.64
15.55	10,240	61.54	78.07	0.61	0.7722	10.16	9.00	186,897	2.00	10.27	-74.69
15.56	10,000	60.71	78.89	0.61	0.7889	9.92	9.00	187,055	2.00	10.03	-73.75
15.57	9,910	60.53	79.07	0.61	0.7979	9.83	9.00	187,213	2.00	9.94	-73.67
15.58	9,840	60.43	79.07	0.61	0.8036	9.76	9.00	187,372	2.00	9.87	-73.77
15.59	9,820	59.60	62.61	0.61	0.8108	9.74	9.00	187,530	2.00	9.87	-73.32
15.6	9,840	59.60	79.99	0.60	0.8129	9.76	9.00	187,688	2.00	9.87	-73.65
15.61	9,880	58.49	80.35	0.59	0.8133	9.80	9.00	187,846	2.00	9.91	-72.78
15.62	9,960	58.53	80.35	0.59	0.8085	9.88	9.00	188,004	2.00	9.99	-72.70
15.63	10,050	58.30	80.9	0.58	0.8050	9.97	9.00	188,162	2.00	10.08	-72.43
15.64	10,100	58.12	81.08	0.58	0.8028	10.02	9.00	188,321	2.00	10.13	-72.35
15.65	10,150	58.03	81.26	0.58	0.8005	10.07	9.00	188,479	2.00	10.14	-72.35
15.66	10,130	57.98	81.26	0.57	0.8022	10.05	9.00	188,637	2.00	10.16	-72.36
15.67	10,120	57.75	81.45	0.57	0.8048	10.04	9.00	188,795	2.00	10.15	-72.27
15.68	10,110	57.47	81.63	0.57	0.8074	10.03	9.00	188,953	2.00	10.14	-72.19
15.69	10,120	57.93	81.81	0.57	0.8084	10.04	9.00	189,111	2.00	10.15	-72.11
15.7	10,120	58.35	81.81	0.57	0.8084	10.04	9.00	189,269	2.00	10.16	-72.27
15.71	10,130	58.77	81.99	0.58	0.8094	10.05	9.00	189,428	2.00	10.16	-72.13
15.72	10,160	59.04	82.18	0.58	0.8089	10.08	9.00	189,586	2.00	10.19	-72.03
15.73	10,190	59.51	82.54	0.58	0.8100	10.11	9.00	189,744	2.00	10.22	-71.77
15.74	10,210	59.97	82.54	0.59	0.8084	10.13	9.00	189,902	2.30	10.24	-71.87
15.75	10,250	60.82	82.91	0.59	0.8117	10.17	9.00	190,060	2.30	10.28	-71.54
15.76	10,300	60.06	82.72	0.58	0.8031	10.22	9.00	190,218	2.00	10.33	-71.89
15.77	10,360	60.06	82.72	0.58	0.7985	10.28	9.00	190,377	2.00	10.39	-71.98

17-101_G_CPTU_Soarza

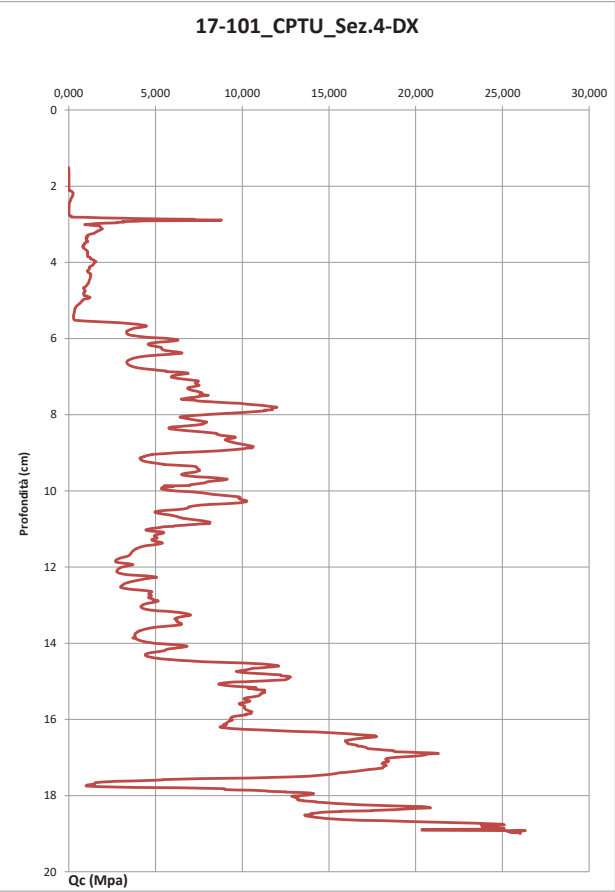
17-101_CPTU_S4_DX

Pag. 21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
15.78	10,410	60.06	82.91	0.58	0.7964	10.33	9.10	190,535	2.00	10.44	-71.89
15.79	10,490	60.20	83.27	0.57	0.7938	10.41	9.10	190,693	2.00	10.52	-71.63
15.8	10,560	59.92	83.09	0.57	0.7868	10.48	9.10	190,851	2.00	10.59	-71.91
15.81	10,550	60.16	83.46	0.57	0.7911	10.47	9.10	191,009	2.00	10.59	-71.64
15.82	10,520	59.88	83.94	0.56	0.7951	10.62	9.10	191,167	1.80	10.56	-71.55
15.83	10,500	59.74	83.46	0.57	0.7949	10.42	9.10	191,326	1.80	10.54	-71.83
15.84	10,500	59.74	83.46	0.57	0.7949	10.42	9.10	191,484	2.80	10.54	-71.93
15.85	10,500	59.74	83.46	0.57	0.7949	10.42	9.10	191,642	2.80	10.54	-72.03
15.86	10,200	51.45	84.55	0.50	0.8289	10.12	9.10	191,800	1.80	10.24	-71.04
15.87	10,250	52.89	85.1	0.57	0.8356	10.16	9.10	191,958	1.80	10.52	-70.58
15.88	10,170	53.67	85.1	0.53	0.8368	10.08	9.10	192,116	2.00	10.21	-70.88
15.89	10,030	54.00	84.92	0.54	0.8467	9.95	9.10	192,274	2.00	10.07	-70.96
15.9	9,870	54.37	85.1	0.55	0.8622	9.78	9.10	192,433	2.00	9.91	-70.88
15.91	9,730	54.14	85.1	0.56	0.8676	9.64	9.10	192,591	2.00	9.77	-70.98
15.92	9,580	53.72	85.1	0.56	0.8863	9.46	9.10	192,749	2.00	9.62	-71.08
15.93	9,440	53.07	85.28	0.56	0.9034	9.35	9.10	192,907	2.00	9.48	-70.99
15.94	9,390	52.51	85.28	0.56	0.9082	9.30	9.10	193,065	2.00	9.43	-71.09
15.95	9,370	51.96	85.28	0.55	0.9101	9.28	9.10	193,223	2.00	9.41	-71.19
15.96	9,380	50.38	85.83	0.54	0.9150	9.29	9.10	193,382	2.00	9.42	-70.74
15.97	9,350	49.69	86.01	0.53	0.9195	9.26	9.10	193,540	2.00	9.39	-70.67
15.98	9,310	48.95	86.38	0.53	0.9278	9.22	9.10	193,698	2.00	9.35	-70.38
15.99	9,310	48.49	86.38	0.52	0.9276	9.22	9.10	193,856	2.00	9.35	-70.48
16	9,350	48.07	86.01	0.51	0.9199	9.26	9.10	194,014	1.80	9.39	-70.95
16.01	9,370	47.93	86.92	0.51	0.9276	9.28	9.10	194,172	1.80	9.41	-70.14
16.02	9,390	47.51	84	0.50	0.9308	9.35	9.10	194,331	2.00	9.47	-73.16
16.03	9,390	48.07	85.1	0.51	0.9392	9.27	9.10	194,489	2.00	9.40	-72.16
16.04	9,290	48.16	85.46	0.52	0.9199	9.20	9.10	194,647	2.00	9.33	-71.16
16.05	9,250	47.56	85.28	0.51	0.9219	9.16	9.10	194,805	2.00	9.29	-72.16
16.06	9,190	47.28	84.73	0.51	0.9220	9.11	9.10	194,963	2.00	9.23	-72.22
16.07	9,170	46.59	83.82	0.52	0.9198	9.08	9.10	195,121	2.00	9.17	-72.28
16.08	9,140	46.22	83.82	0.51	0.9171	9.06	9.10	195,279	2.00	9.18	-73.28
16.09	9,120	45.86	82.91	0.50	0.9091	9.04	9.20	195,439	2.00	9.15	-74.28
16.1	9,070	45.34	82.72	0.50	0.9120	8.99	9.20	195,599	2.00	9.10	-75.28
16.11	9,060	45.80	82.54	0.51	0.9110	8.98	9.20	195,759	2.00	9.09	-75.23
16.12	9,040	45.00	83.27	0.51	0.9171	8.95	9.10	195,917	2.00	9.04	-76.23
16.13	8,970	46.16	84	0.54	0.9395	8.89	9.20	196,079	2.00	9.01	-74.23
16.14	8,910	48.07	83.64	0.54	0.9387	8.83	9.20	196,239	2.00	8.95	-74.28
16.15	9,080	47.61	85.46	0.52	0.9412	8.99	9.20	196,399	2.00	9.05	-73.23
16.16	9,010	47.05	85.28	0.52	0.9465	8.92	9.20	196,559	2.00	9.03	-72.23
16.17	8,950	46.58	86.01	0.51	0.9469	8.86	9.20	196,719	2.00	8.98	-73.23
16.18	8,810	52.89	86.01	0.60	0.9793	8.72	9.20	196,878	2.00	8.85	-72.23
16.19	8,760	52.47	86.56	0.60	0.9881	8.67	9.20	197,038	2.00	8.80	-72.23
16.2	8,710	52.98	87.29	0.61	1.0022	8.62	9.20	197,198	2.00	8.75	-71.23
16.21	8,760	52.70	88.02	0.60	1.0048	8.67	9.20	197,358	2.00	8.80	-71.23
16.22	8,970	53.63	87.47	0.60	0.9876	8.78	9.20	197,518	2.00	8.90	-70.23
16.23	8,970	53.76	87.84	0.60	0.9793	8.88	9.20	197,678	2.00	9.01	-71.23
16.24	9,170	52.64	88.39	0.58	0.9639	9.00	9.20	197,838	2.00	9.21	-70.23
16.25	9,810	51.77	89.48	0.53	0.9121	9.72	9.20	197,997	2.00	9.85	-69.23
16.26	10,200	51.36	90.21	0.50	0.8844	10.10	9.20	198,157	2.00	10.24	-69.23
16.27	10,680	52.10	90.76	0.48	0.8766	10.60	9.20	198,317	2.00	10.72	-68.23
16.28	11,190	52.65	91.48	0.47	0.8176	11.10	9.20	198,477	2.00	11.23	-68.23
16.29	11,710	53.44	92.22	0.46	0.7875	11.62	9.20	198,637	2.00	11.75	-67.23
16.3	12,260	54.27	92.77	0.44	0.7567	12.17	9.20	198,797	2.00	12.30	-66.23
16.31	12,820	50.85	93.13	0.40	0.7264	12.73	9.20	198,957	2.00	12.86	-67.23
16.32	13,380	52.05	93.68	0.38	0.7063	13.30	9.20	199,117	2.00	13.42	-66.23
16.33	13,900	52.79	93.5	0.38	0.6727	13.81	9.20	199,277	2.00	13.94	-65.23
16.34	14,840	54.14	93.5	0.36	0.6301	14.75	9.30	199,438	1.80	14.88	-66.23
16.35	15,200	54.83	92.95	0.36	0.6115	15.11	9.30	199,600	2.00	15.20	-67.23
16.36	15,560	56.45	92.95	0.36	0.5974	15.45	9.30	199,761	2.00	15.64	-67.23
16.37	15,790	58.77	93.32	0.37	0.5829	15.77	9.30	199,923	1.80	15.83	-67.23
16.38	16,140	62.47	91.31	0.39	0.5657	16.05	9.30	200,085	1.80	16.16	-66.23
16.39	16,380	66.04	93.68	0.40	0.5719	16.26	9.30	200,246	1.80	16.42	-67.23
16.4	16,690	70.07	96.24	0.42	0.5766	16.59	9.30	200,408	1.80	16.73	-64.23
16.41	16,960	72.15	97.15	0.43	0.5728	16.66	9.30	200,569	1.80	17.00	-63.23
16.42	17,470	74.47	96.6	0.43	0.5529	17.37	9.30	200,731	1.80	17.51	-64.23
16.43	17,680	76.64	96.6	0.43	0.5433	17.58	9.30	200,893	1.80	17.76	-63.23
16.44	17,650	80.11	95.87	0.45	0.5432	17.55	9.30	201,054	1.80	17.69	-65.23
16.45	17,750	82.57	96.6	0.47	0.5442	17.65	9.30	201,216	1.80	17.79	-64.23
16.46	17,680	83.87	96.6	0.47	0.5464	17.58	9.30	201,377	1.80	17.72	-64.23

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [Mpa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.85	9,510	32.00	124.54	0.34	1.3096	9.39	9.80	224.610	2.30	9.56	-50.57
17.86	10,620	29.59	124.36	0.28	1.1710	10.50	9.80	224.780	2.30	10.67	-50.85
17.87	11,160	31.81	121.99	0.29	1.0931	11.04	9.80	224.950	2.30	11.21	-53.31
17.88	11,500	42.14	127.83	0.37	1.1116	11.37	9.80	225.120	2.30	11.55	-47.57
17.89	11,510	48.44	123.27	0.42	1.0710	11.39	9.80	225.291	2.00	11.56	-52.23
17.9	12,490	47.74	122.72	0.38	0.9825	12.37	9.80	225.461	2.00	12.54	-52.88
17.91	12,490	47.74	122.72	0.38	0.9825	12.37	9.80	225.631	2.00	12.54	-52.98
17.92	13,470	46.22	121.99	0.34	0.9056	13.35	9.80	225.801	2.00	13.52	-53.81
17.93	13,850	46.31	121.8	0.33	0.8794	13.73	9.80	225.971	2.00	13.90	-54.09
17.94	14,050	46.17	121.44	0.33	0.8643	13.93	9.80	226.142	2.00	14.10	-54.55
17.95	14,120	45.85	121.8	0.32	0.8626	14.00	9.80	226.312	2.00	14.17	-54.29
17.96	14,030	47.14	120.16	0.34	0.8565	13.91	9.80	226.482	2.00	14.08	-56.03
17.97	13,950	47.65	119.43	0.34	0.8561	13.83	9.80	226.652	2.00	14.00	-56.86
17.98	13,750	47.33	122.35	0.34	0.8898	13.63	9.80	226.822	2.00	13.80	-54.03
17.99	13,720	54.53	123.45	0.40	0.8998	13.60	9.80	226.993	2.30	13.77	-53.03
18	13,380	54.04	123.63	0.40	0.9240	13.26	9.80	227.163	2.30	13.43	-52.95
18.01	12,930	74.88	120.34	0.58	0.9307	12.81	9.80	227.333	2.00	12.98	-56.34
18.02	12,850	68.31	123.08	0.53	0.9578	12.73	9.80	227.503	2.00	12.90	-53.70
18.03	12,940	66.41	122.17	0.51	0.9441	12.82	9.80	227.674	2.00	12.99	-54.70
18.04	13,060	65.62	122.9	0.50	0.9410	12.94	9.80	227.844	2.00	13.11	-54.07
18.05	13,060	65.62	122.9	0.50	0.9410	12.94	9.80	228.014	2.30	13.11	-54.17
18.06	13,170	67.89	122.35	0.52	0.9290	13.05	9.80	228.184	2.30	13.22	-54.41
18.07	13,220	68.54	123.08	0.52	0.9310	13.10	9.80	228.354	2.30	13.27	-54.19
18.08	13,240	70.20	123.45	0.53	0.9324	13.12	9.80	228.525	2.30	13.29	-53.91
18.09	13,210	71.08	123.63	0.54	0.9359	13.09	9.80	228.695	2.30	13.26	-53.83
18.1	13,180	71.13	123.63	0.54	0.9390	13.06	9.80	228.865	2.00	13.23	-53.93
18.11	13,220	73.54	123.27	0.56	0.9325	13.10	9.80	229.035	2.00	13.27	-54.39
18.12	13,220	73.54	123.27	0.56	0.9325	13.10	9.80	229.205	2.30	13.27	-54.49
18.13	13,520	70.11	123.45	0.52	0.9131	13.40	9.80	229.376	2.30	13.57	-54.41
18.14	13,520	70.11	123.45	0.52	0.9131	13.40	9.80	229.546	2.30	13.57	-54.50
18.15	14,010	57.56	124.73	0.41	0.8903	13.89	9.80	229.716	2.30	14.06	-53.32
18.16	14,240	58.21	124.73	0.41	0.8759	14.12	9.80	229.886	2.00	14.29	-53.42
18.17	14,240	58.21	124.73	0.41	0.8759	14.12	9.80	230.056	2.00	14.29	-53.52
18.18	14,620	61.04	124.73	0.42	0.8531	14.50	9.80	230.226	2.30	14.67	-53.63
18.19	14,820	61.96	124.73	0.42	0.8416	14.70	9.80	230.400	2.30	14.87	-53.71
18.2	15,050	63.26	125.99	0.42	0.8312	14.92	9.80	230.572	2.00	15.10	-53.45
18.21	15,350	64.32	125.46	0.42	0.8173	15.22	9.80	230.744	2.00	15.40	-53.18
18.22	15,770	65.48	126	0.42	0.7990	15.64	9.80	230.916	2.00	15.82	-52.74
18.23	16,270	66.41	126.55	0.41	0.7778	16.14	9.80	231.088	2.00	16.32	-52.29
18.24	16,940	69.79	128.38	0.41	0.7579	16.81	9.80	231.260	2.00	16.99	-50.55
18.25	17,650	69.88	131.67	0.40	0.7460	17.52	9.80	231.432	2.00	17.71	-47.36
18.26	18,060	71.46	132.4	0.40	0.7331	17.93	9.80	231.604	2.30	18.12	-46.73
18.27	18,430	71.78	129.11	0.39	0.7005	18.30	9.80	231.776	2.30	18.48	-50.12
18.28	19,120	72.01	128.74	0.38	0.6733	18.99	9.80	231.948	2.00	19.17	-50.59
18.29	20,450	71.55	129.47	0.35	0.6331	20.32	9.80	232.120	2.00	20.50	-49.95
18.3	20,670	67.33	124.54	0.33	0.6025	20.55	9.80	232.292	2.00	20.72	-54.98
18.31	20,670	67.33	124.54	0.33	0.6025	20.55	9.80	232.463	2.00	20.72	-55.08
18.32	20,860	69.83	124.36	0.33	0.5962	20.74	9.80	232.635	2.00	20.91	-55.36
18.33	20,460	79.79	134.22	0.39	0.6560	20.33	9.80	232.807	2.00	20.52	-45.60
18.34	19,690	83.36	127.65	0.42	0.6463	19.56	9.80	232.979	2.00	19.74	-52.27
18.35	19,630	83.54	125.62	0.43	0.6410	19.50	9.80	233.151	2.30	19.68	-54.19
18.36	19,120	85.35	125.82	0.45	0.6581	18.99	9.80	233.323	2.30	19.17	-54.29
18.37	18,770	86.74	125.64	0.46	0.6694	18.64	9.80	233.495	2.00	18.82	-54.57
18.38	18,220	83.96	125.46	0.46	0.6886	18.09	9.80	233.667	2.00	18.27	-54.85
18.39	17,500	87.66	125.27	0.50	0.7158	17.37	9.80	233.839	2.30	17.55	-55.14
18.4	17,500	87.66	125.27	0.50	0.7158	17.37	9.80	234.011	2.30	17.55	-55.23
18.41	15,690	90.07	120.16	0.57	0.7658	15.57	9.80	234.183	2.50	15.74	-60.44
18.42	15,690	90.07	120.16	0.57	0.7658	15.57	9.80	234.355	2.50	15.74	-60.54
18.43	14,880	81.46	120.89	0.55	0.8124	14.76	9.80	234.527	2.50	14.93	-59.91
18.44	14,560	79.65	123.08	0.55	0.8453	14.44	9.80	234.699	2.30	14.61	-57.82
18.45	14,400	81.18	125.46	0.56	0.8713	14.27	10.00	234.872	2.30	14.45	-55.53
18.46	14,230	79.37	124.73	0.56	0.8765	14.11	10.00	235.046	2.50	14.28	-56.36
18.47	13,960	74.51	124.54	0.53	0.8921	13.84	10.00	235.219	2.50	14.01	-56.65
18.48	13,960	71.55	124.54	0.51	0.8902	13.87	10.00	235.393	2.50	14.04	-56.75
18.49	14,030	70.76	122.72	0.50	0.8747	13.91	10.00	235.567	2.30	14.08	-56.67
18.5	13,860	69.56	118.15	0.50	0.8525	13.74	10.00	235.740	2.30	13.91	-63.34
18.51	13,600	84.10	120.34	0.62	0.8849	13.48	10.00	235.914	2.50	13.65	-61.24
18.52	13,630	83.59	123.27	0.61	0.9044	13.51	10.00	236.088	2.50	13.68	-58.41
18.53	13,630	83.59	123.27	0.61	0.9044	13.51	10.00	236.261	2.30	13.68	-58.51

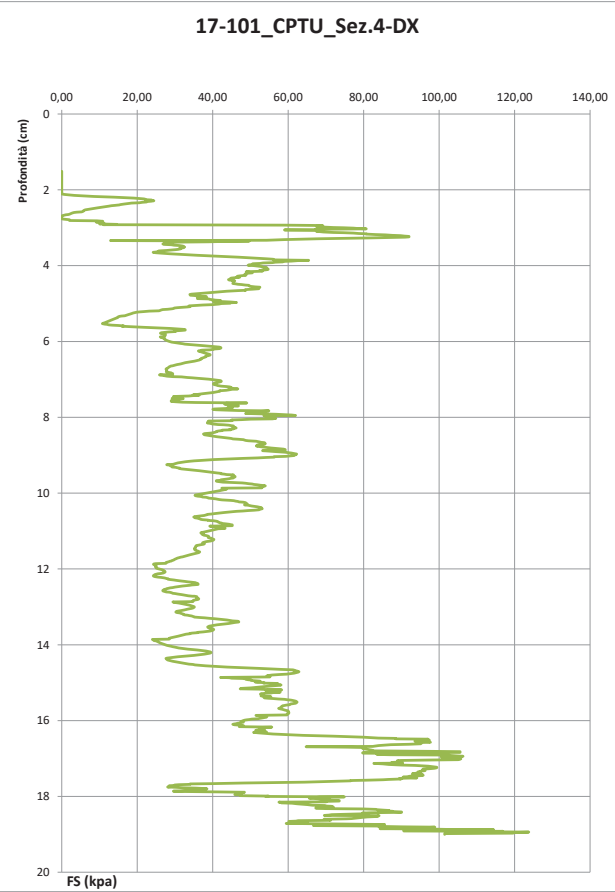
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
18.54	13,770	80.95	123.63	0.59	0.8976	13.65	9.90	236.433	2.30	13.82	-58.25
18.55	13,890	80.16	124	0.58	0.8927	13.77	9.90	236.605	2.30	13.94	-57.98
18.56	14,000	78.86	124.91	0.56	0.8922	13.88	9.90	236.777	2.30	14.05	-57.16
18.57	14,200	77.71	125.64	0.55	0.8848	14.07	9.90	236.949	2.30	14.25	-56.53
18.58	14,420	77.61	126.92	0.54	0.8802	14.29	9.90	237.121	2.00	14.47	-55.35
18.59	14,660	75.48	127.28	0.51	0.8682	14.53	9.90	237.293	2.00	14.71	-55.09
18.6	14,850	69.51	126.92	0.47	0.8547	14.72	9.90	237.465	2.00	14.90	-55.55
18.61	15,120	71.22	126.55	0.47	0.8370	14.99	9.90	237.637	2.00	15.17	-56.01
18.62	15,320	70.99	125.27	0.46	0.8177	15.19	9.90	237.809	2.00	15.37	-57.39
18.63	15,950	71.22	129.29	0.45	0.8106	15.82	9.90	237.981	1.80	16.00	-53.47
18.64	16,380	62.66	128.93	0.38	0.7871	16.25	9.90	238.153	1.80	16.43	-53.93
18.65	16,870	62.10	128.56	0.37	0.7621	16.74	9.90	238.325	1.50	16.92	-54.40
18.66	18,100	60.16	127.83	0.33	0.7062	17.97	10.00	238.498	1.50	18.15	-55.22
18.67	18,800	61.08	127.83	0.32	0.6799	18.67	9.90	238.670	1.80	18.85	-55.32
18.68	19,480	62.56	127.65	0.32	0.6553	19.35	9.90	238.842	1.80	19.53	-55.60
18.69	20,220	63.12	128.38	0.31	0.6349	20.09	9.90	239.014	1.80	20.27	-54.97
18.7	21,670	65.16	128.38	0.30	0.5924	21.54	9.90	239.186	1.50	21.72	-55.07
18.71	22,430	59.46	131.3	0.27	0.5854	22.30	9.90	239.358	1.50	22.49	-52.25
18.72	22,920	67.06	136.96	0.29	0.5976	22.78	9.90	239.530	1.80	22.98	-46.68
18.73	23,620	74.93	132.4	0.32	0.5605	23.46	9.90	239.702	1.80	23.68	-51.34
18.74	24,040	85.58	127.83	0.36	0.5317	23.91	10.00	239.875	1.80	24.09	-56.01
18.75	25,000	83.59	124.91	0.33	0.4996	24.88	9.90	240.047	1.50	25.05	-59.03
18.76	25,060	76.69	126.19	0.31	0.5036	24.93	9.90	240.219	1.50	25.11	-57.85
18.77	25,110	66.73	127.1	0.27	0.5062	24.98	9.90	240.391	1.50	25.16	-57.03
18.78	24,210	84.38	128.2	0.35	0.5391	23.65	9.90	240.563	1.80	23.83	-56.03
18.79	24,210	83.96	127.5	0.35	0.5401	24.08	10.00	240.737	1.80	24.26	-53.58
18.8	24,460	90.30	130.71	0.37	0.5514	24.38	10.00	240.910	1.50	24.51	-57.33
18.81	24,710	98.87	129.84	0.40	0.5255	24.68	10.00	241.084	1.50	24.76	-54.69
18.82	24,960	96.42	129.47	0.39	0.5167	24.97	10.00	241.257	1.50	24.99	-53.95
18.83	24,800	96.42	129.47	0.39	0.5221	24.67	10.00	241.431	3.00	24.85	-55.05
18.84	24,800	96.42	129.47	0.39	0.5221	24.67	10.00	241.605	2.50	24.85	-55.35
18.85	23,830	84.33	123.45	0.35	0.5180	23.71	10.00	241.779	2.50	23.88	-61.47
18.86	25,100	96.93	118.52	0.39	0.4722	24.88	10.00	241.952	1.80	25.15	-66.50
18.87	25,350	96.93	118.52	0.38	0.4634	25.21	10.00	242.126	1.80	25.39	-66.50
18.88	23,940	114.43	136.23	0.48	0.5690	23.80	10.00	242.300	3.00	24.00	-49.98
18.89	20,360	90.63	132.21	0.45	0.6494	20.23	10.00	242.473	3.00	20.42	-53.10
18.9	20,360	90.63	132.21	0.45	0.6494	20.23	10.00	242.647	0.80	20.42	-53.20
19.1	20,360	90.63	132.21	0.45	0.6494	20.23	10.00	242.820	1.50	20.42	-53.30
19.92	20,360	112.17	122.15	0.59	0.5996	26.21	10.00	243.994	1.50	20.37	-57.37
19.93	20,060	114.62	121.17	0.44	0.4688	26.94	10.00	243.168	1.50	20.21	-63.53
19.94	25,290	123.78	124.73	0.49	0.4932	25.10	10.00	243.343	1.50	25.34	-61.07
19.95	25,470	117.62	128.56	0.47	0.5048	25.34	10.00	243.518	1.50	25.52	-57.34
19.96	25,470	119.62	128.56	0.47	0.5048	25.34	10.00	243.694	1.00	25.52	-57.44
19.97	25,470	119.62	128.56	0.47	0.5048	25.34	10.00	243.869	1.00	25.52	-57.44
19.98	26,030	101.46	128.01	0.39	0.4918	25.90	10.00	244.043	1.50	26.08	-58.18
19.99	26,030	101.46	128.01	0.39	0.4918	25.90	10.00	244.217	0.50	26.08	-58.28
19.9	26,030	101.46	128.01	0.39	0.4918	25.90	10.00	244.390	1.50	26.08	-58.38



17-101.G_CPTU_Soarza

L'operatore

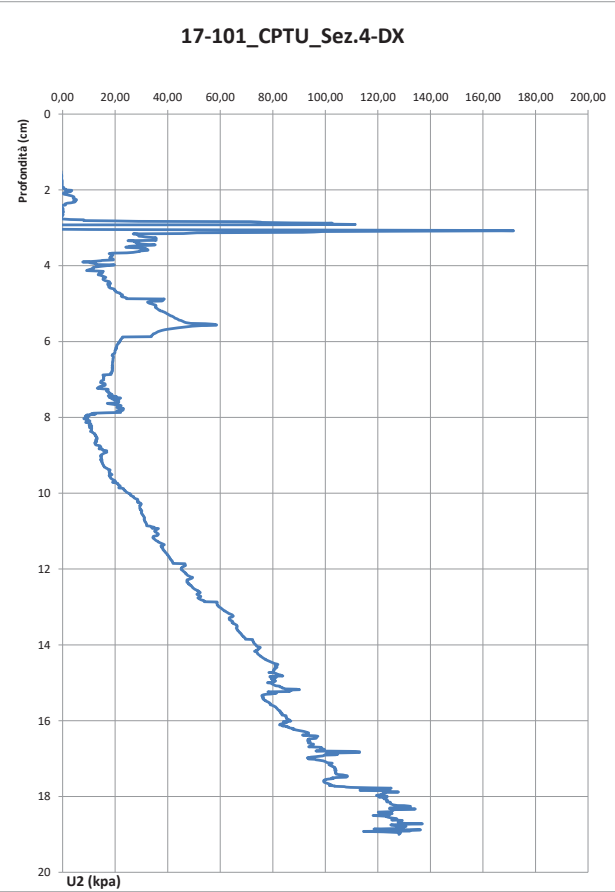
Il direttore



17-101.G_CPTU_Soarza

L'operatore

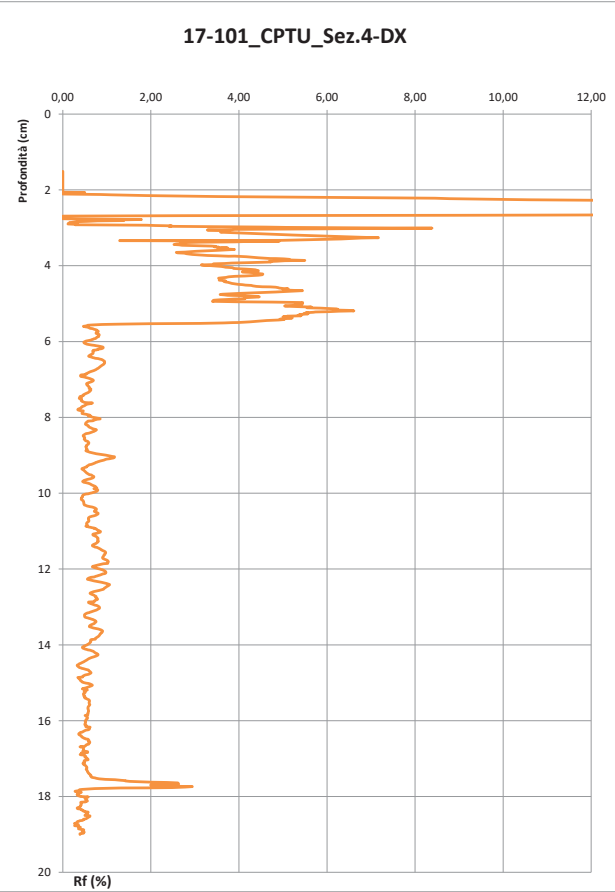
Il direttore



17-101.G_CPTU_Soarza

L'operatore


Il direttore



17-101.G_CPTU_Soarza

L'operatore

Il direttore

Impresa esecutrice: 	
Committente: Nome: A.L.Po P. IVA / C.F.: Indirizzo: Ufficio di Piacenza Telefono: Tel. Fax: e-mail:	
Cantiero: PC-E-810	
Prova: Ubicazione: Soarza (PC) Quota assoluta [m]: Data: 12/03/2016 Q. inizio da Q. ass. [m]: Tipo prova: CPTU Profondità [m]: Codice Prova: 17-101_SCPTU_Soz.4-SM Q.ta falda [m]: -9.50 Note: Destra argine	
Il responsabile di sito: Dr. Geol. Stefano Verdini Il direttore tecnico: Dr. Geol. Enrico Fasani	

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0.01	0.130	0.03	0.18	0.00	0.0000	0.13	1.63	0.028	0.00	0.13	0.18
0.02	0.320	0.03	0.83	0.01	0.2594	0.32	1.25	0.050	1.60	0.32	0.83
0.03	0.580	0.03	1.24	0.01	0.2138	0.58	1.30	0.073	1.60	0.58	1.24
0.04	0.580	0.03	1.60	0.01	0.2759	0.58	1.76	0.104	1.50	0.58	1.60
0.05	0.640	1.96	-0.35	0.24	-0.0547	0.64	1.20	0.125	1.50	0.64	-0.35
0.06	0.740	2.59	-0.47	0.35	-0.0635	0.74	0.98	0.142	1.50	0.74	-0.47
0.07	0.690	2.75	-0.30	0.40	-0.0435	0.69	1.63	0.170	1.50	0.69	-0.30
0.08	0.750	3.69	-0.53	0.49	-0.0507	0.75	1.30	0.193	1.50	0.75	-0.53
0.09	0.730	3.36	-0.41	0.46	-0.0562	0.73	1.41	0.217	1.50	0.73	-0.41
0.1	0.620	4.21	-0.71	0.62	-0.1145	0.62	1.63	0.246	1.60	0.62	-0.71
0.11	0.600	7.11	2.78	1.19	0.4633	0.60	1.41	0.270	1.60	0.60	2.78
0.12	0.610	8.24	0.77	1.35	0.1262	0.61	1.63	0.299	1.60	0.61	0.77
0.13	0.640	9.49	-4.85	1.48	-0.7578	0.64	1.52	0.325	1.80	0.64	-4.85
0.14	0.770	12.20	-11.30	1.58	-1.4875	0.77	1.52	0.352	1.70	0.77	-11.30
0.15	0.840	13.18	-7.22	1.57	-0.8595	0.85	1.30	0.375	1.80	0.84	-7.22
0.16	0.750	14.95	1.24	1.99	0.1653	0.75	1.20	0.396	1.70	0.75	1.24
0.17	0.760	17.30	-1.83	2.28	-0.2408	0.76	1.41	0.420	1.80	0.76	-1.83
0.18	0.810	18.40	-14.19	2.27	-1.7519	0.82	1.63	0.449	1.70	0.80	-14.19
0.19	0.840	21.97	-49.50	2.62	-5.8929	0.89	1.41	0.473	1.80	0.82	-49.50
0.2	0.820	23.73	-39.30	2.89	-4.8537	0.86	1.30	0.496	1.80	0.82	-39.30
0.21	0.850	25.94	-35.31	3.04	-4.1541	0.89	1.32	0.519	1.80	0.84	-35.31
0.22	0.890	29.68	-36.43	3.33	-4.0933	0.93	1.41	0.544	1.80	0.87	-36.43
0.23	0.910	31.64	-47.08	3.48	-5.1736	0.96	1.52	0.570	1.80	0.89	-47.08
0.24	0.900	34.53	-45.13	3.84	-5.0144	0.95	1.52	0.597	1.80	0.88	-45.13
0.25	0.910	37.77	-35.13	4.15	-3.9604	0.95	1.41	0.621	1.80	0.88	-35.13
0.26	0.910	40.27	-4.43	4.43	-0.7319	0.95	1.32	0.644	1.80	0.89	-4.43
0.27	0.900	42.01	-42.41	4.67	-4.7122	0.94	1.41	0.669	1.80	0.88	-42.41
0.28	0.890	43.78	-42.58	4.92	-4.7843	0.93	1.63	0.697	1.80	0.87	-42.58
0.29	0.850	50.09	-43.59	5.89	-5.1282	0.89	1.52	0.724	1.80	0.83	-43.59
0.3	0.820	51.80	-38.86	6.32	-4.7390	0.86	1.41	0.748	1.80	0.80	-38.86
0.31	0.820	53.77	-30.87	6.48	-3.7646	0.85	1.54	0.775	1.90	0.81	-30.87
0.32	0.820	56.07	-17.33	6.84	-2.1134	0.84	1.63	0.804	1.90	0.81	-17.33
0.33	0.810	57.05	-11.41	7.04	-1.4086	0.82	1.63	0.832	1.80	0.81	-11.41
0.34	0.820	58.48	1.42	7.13	0.1732	0.82	1.63	0.861	1.80	0.82	1.42
0.35	0.880	58.85	8.04	6.69	0.9136	0.87	1.54	0.888	1.80	0.88	8.04
0.36	0.900	72.09	-15.02	8.01	-1.6876	0.91	1.67	0.956	2.00	0.89	-15.02
0.37	0.920	61.84	28.15	6.72	3.0598	0.89	1.63	0.943	1.80	0.93	28.15
0.38	0.930	62.48	32.65	6.72	3.5108	0.90	1.63	0.971	1.90	0.94	32.65
0.39	0.970	64.68	43.63	6.67	4.4567	0.93	1.54	0.998	2.00	0.99	43.63
0.4	0.990	63.18	42.76	6.38	4.3192	0.95	1.63	1.027	2.00	1.01	42.76
0.41	1.020	69.82	42.69	6.08	3.9892	0.98	1.54	1.054	2.10	1.04	42.69
0.42	1.050	68.74	22.53	5.78	2.1457	1.03	1.54	1.080	2.00	1.06	22.53
0.43	1.080	58.02	-0.89	5.37	-0.0824	1.08	1.54	1.107	2.10	1.08	-0.89
0.44	1.090	57.14	-5.15	5.24	-0.4725	1.10	1.54	1.134	2.00	1.09	-5.15
0.45	1.090	56.74	-8.16	5.21	-0.7486	1.10	1.54	1.161	2.00	1.09	-8.16
0.46	1.100	57.05	-11.00	5.15	-1.0000	1.11	1.63	1.189	2.00	1.11	-11.00
0.47	1.100	56.05	-20.17	5.15	-1.8336	1.12	1.63	1.218	2.10	1.09	-20.17

17-101.G_CPTU_Soarza

17-101_SCPTU.S4_SM

Pag. 1

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0.48	1.100	57.17	-20.05	5.20	-1.8227	1.12	1.54	1.245	2.00	1.09	-20.05
0.49	1.080	57.54	-21.06	5.33	-1.9500	1.10	1.54	1.272	2.10	1.07	-21.06
0.5	1.080	58.79	-23.36	5.44	-2.1630	1.10	1.67	1.301	2.10	1.07	-23.36
0.51	1.070	59.34	-26.73	5.55	-2.4981	1.10	1.67	1.330	2.10	1.06	-26.73
0.52	1.090	60.07	-31.05	5.61	-2.8486	1.12	1.67	1.359	2.10	1.08	-31.05
0.53	1.090	62.88	-35.07	5.77	-3.2174	1.13	1.76	1.390	2.10	1.08	-35.07
0.54	1.090	66.23	-40.04	6.08	-3.6734	1.13	1.67	1.419	2.00	1.07	-40.04
0.55	1.060	69.40	-40.87	6.55	-3.8557	1.10	1.76	1.450	2.00	1.04	-40.87
0.56	1.050	69.74	-41.34	6.64	-3.9371	1.09	1.76	1.480	2.00	1.03	-41.34
0.57	1.050	71.37	-41.76	6.79	-3.9714	1.09	1.67	1.510	2.10	1.03	-41.76
0.58	1.060	72.55	-41.64	6.84	-3.9283	1.10	1.76	1.540	2.00	1.04	-41.64
0.59	1.090	74.01	-39.98	6.79	-3.6679	1.13	1.67	1.569	2.10	1.07	-39.98
0.6	1.090	74.01	-39.98	6.79	-3.6679	1.13	1.67	1.599	2.10	1.07	-39.98
0.61	1.090	74.01	-39.98	6.79	-3.6679	1.13	1.67	1.628	2.10	1.07	-39.98
0.62	1.090	76.10	-35.66	7.04	-3.2616	1.13	1.76	1.658	2.00	1.07	-35.66
0.63	1.080	75.96	-38.21	7.03	-3.5390	1.12	1.67	1.688	2.00	1.06	-38.21
0.64	1.070	75.90	-37.97	7.09	-3.5486	1.11	1.89	1.721	2.00	1.05	-37.97
0.65	1.050	76.85	-37.73	7.32	-3.5933	1.09	1.76	1.751	2.00	1.03	-37.73
0.66	1.040	75.20	-37.50	7.23	-3.6058	1.08	1.76	1.782	2.00	1.02	-37.50
0.67	1.040	74.85	-37.14	7.16	-3.5771	1.08	1.80	1.813	2.00	1.02	-37.14
0.68	1.040	72.52	-37.08	6.97	-3.5654	1.08	1.80	1.845	2.00	1.02	-37.08
0.69	1.040	72.52	-37.08	6.97	-3.5654	1.08	1.80	1.876	2.00	1.02	-37.08
0.7	1.040	72.52	-37.08	6.97	-3.5654	1.08	1.80	1.908	2.00	1.02	-37.08
0.71	0.990	70.11	-34.42	7.08	-3.4678	1.02	1.67	1.937	2.10	0.98	-34.42
0.72	0.990	70.11	-34.42	7.08	-3.4678	1.02	1.67	1.967	2.10	0.97	-34.42
0.73	1.000	70.75	-25.67	7.08	-2.5670	1.03	1.80	1.999	2.10	0.99	-25.67
0.74	1.000	70.65	-20.94	7.07	-2.0940	1.02	1.58	2.026	2.00	0.99	-20.94
0.75	0.990	70.90	-11.00	7.16	-1.1111	1.00	1.67	2.056	2.00	0.99	-11.00
0.76	0.980	71.17	-17.03	7.26	-1.7378	1.00	1.76	2.086	2.00	0.97	-17.03
0.77	0.980	71.45	-16.21	7.29	-1.6541	1.00	1.67	2.115	2.00	0.97	-16.21
0.78	0.980	72.49	-15.08	7.40	-1.5388	1.00	1.76	2.146	2.00	0.97	-15.08
0.79	0.960	72.55	-15.54	7.56	-1.6104	0.97	1.76	2.177	2.10	0.95	-15.54
0.8	0.950	72.24	-9.29	7.60	-0.9779	0.96	1.76	2.208	2.10	0.95	-9.29
0.81	0.960	70.99	-1.30	7.39	-0.1354	0.96	1.76	2.238	2.10	0.96	-1.30
0.82	0.960	71.17	2.78	7.41	0.2896	0.96	1.67	2.267	2.00	0.96	2.78
0.83	0.990	70.62	4.38	7.21	0.4469	0.98	1.67	2.297	2.00	0.98	4.38
0.84	0.980	70.29	5.50	7.17	0.5612	0.97	1.76	2.327	2.00	0.98	5.50
0.85	0.990	69.68	6.09	7.04	0.6152	0.98	1.67	2.356	2.00	0.99	6.09
0.86	1.030	69.40	5.15	6.74	0.5000	1.02	1.76	2.387	2.00	1.03	5.15
0.87	1.050	68.70	11.71	6.54	1.1152	1.04	1.67	2.416	2.00	1.05	11.71
0.88	1.070	68.82	17.33	6.43	1.6196	1.05	1.76	2.447	2.00	1.08	17.33
0.89	1.080	69.43	16.44	6.43	1.5222	1.06	1.67	2.476	2.00	1.09	16.44
0.9	1.150	68.06	8.58	5.92	0.7461	1.14	1.67	2.505	2.10	1.15	8.58
0.91	1.160	67.33	2.90	5.80	0.2500	1.16	1.76	2.536	2.10	1.16	2.90
0.92	1.160	67.63	3.08	5.83	0.2655	1.16	1.67	2.565	2.10	1.16	3.08
0.93	1.170	69.04	2.84	5.90	0.2427	1.17	1.76	2.596	2.10	1.17	2.84
0.94	1.180	69.59	12.42	6.01	1.0707	1.17	1.76	2.627	2.10	1.17	12.42
0.95	1.200	71.23	11.71	5.94	0.9758	1.19	1.67	2.656	2.00	1.20	11.71
0.96	1.220	71.23	6.27	5.84	0.5139	1.21	1.76	2.686	2.00	1.22	6.27
0.97	1.240	71.72	13.84	5.78	1.1611	1.23	1.76	2.717	2.00	1.25	13.84
0.98	1.270	71.98	27.02	5.72	1.2255	1.28	1.76	2.748	2.00	1.28	27.02
0.99	1.300	73.40	22.77	5.56	1.7515	1.26	1.76	2.779	2.00	1.31	22.77
1	1.350	76.42	6.56	5.66	0.4859	1.34	1.67	2.808	2.10	1.35	6.56
1.01	1.350	76.42	6.56	5.66	0.4859	1.34	1.67	2.837	2.00	1.35	6.56
1.02	1.400	77.52	1.36	5.57	0.0971	1.40	1.67	2.866	2.00	1.40	1.36
1.03	1.410	77.52	1.01	5.69	0.0717	1.41	1.67	2.895	2.00	1.41	1.01
1.04	1.420	81.88	0.71	5.77	0.0500	1.42	1.76	2.926	2.00	1.42	0.71
1.05	1.370	84.20	-0.18	6.15	-0.0131	1.37	1.67	2.955	2.00	1.37	-0.18
1.06	1.340	85.21	-1.24	6.36	-0.0925	1.34	1.67	2.984	1.90	1.34	-1.24
1.07	1.290	85.76	-15.08	6.65	-1.1690	1.31	1.67	3.013	2.00	1.28	-15.08
1.08	1.280	85.76	-15.08	6.80	-1.1690	1.31	1.67	3.042	2.00	1.27	-15.08
1.09	1.250	85.39	-20.64	7.15	-1.6512	1.27	1.67	3.072	2.00	1.24	-20.64
1.1	1.220	90.12	-24.37	7.39	-1.9975	1.24	1.67	3.101	2.00	1.21	-24.37
1.11	1.170	92.47	-22.71	7.90	-1.9410	1.19	1.67	3.130	2.00	1.16	-22.71
1.12	1.150	92.74	-22.59	8.06	-1.9643	1.17	1.67	3.159	2.00	1.14	-22.59
1.13	1.130	94.00	-22.59	8.56	-1.9112	1.12	1.67	3.188	2.00	1.12	-22.59
1.14	1.1070	96.10	-13.80	8.98	-1.2210	1.08	1.67	3.217	2.00	1.06	-13.80
1.15	1.040	97.68	-13.07	9.39	-1.2567	1.05	1.67	3.246	2.00	1.03	-13.07
1.16	1.090	97.62	-12.42	9.86	-1.2505	1.00	1.67	3.276	1.90	0.98	-12.42

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
2.55	2.660	55.22	7.45	2.08	0.2801	2.65	1.54	7.362	1.90	2.66	7.45
2.56	2.710	54.33	7.45	2.00	0.2749	2.70	1.54	7.389	1.90	2.71	7.45
2.57	2.690	53.91	6.86	2.00	0.2550	2.68	1.54	7.415	1.90	2.69	6.86
2.58	2.700	54.18	6.51	2.01	0.2411	2.69	1.54	7.442	1.90	2.70	6.51
2.59	2.640	54.15	6.21	2.16	0.2352	2.63	1.54	7.469	2.00	2.64	6.21
2.6	2.680	54.82	6.09	2.05	0.2272	2.67	1.54	7.496	2.00	2.68	6.09
2.61	2.670	55.95	6.86	2.10	0.2569	2.66	1.54	7.523	1.90	2.67	6.86
2.62	2.590	60.10	6.62	2.32	0.2556	2.58	1.54	7.550	1.90	2.59	6.62
2.63	2.520	64.95	5.97	2.58	0.2369	2.51	1.54	7.577	1.90	2.52	5.97
2.64	2.480	65.99	5.29	2.81	0.2150	2.47	1.54	7.604	1.90	2.48	5.29
2.65	2.620	71.48	5.74	2.73	0.2191	2.61	1.54	7.630	1.90	2.62	5.74
2.66	2.620	71.48	5.74	2.73	0.2191	2.61	1.54	7.657	1.90	2.62	5.74
2.67	2.680	74.56	5.68	2.78	0.2119	2.67	1.54	7.684	1.90	2.68	5.68
2.68	2.640	76.48	5.74	2.90	0.2174	2.63	1.41	7.709	2.10	2.64	5.74
2.69	2.640	76.48	5.74	2.90	0.2174	2.63	1.41	7.733	2.10	2.64	5.74
2.7	2.640	76.48	5.74	2.90	0.2174	2.63	1.41	7.758	2.10	2.64	5.74
2.71	2.630	73.64	6.15	2.80	0.2338	2.62	1.54	7.785	2.00	2.63	6.15
2.72	2.630	75.96	6.09	2.89	0.2316	2.62	1.54	7.812	1.90	2.63	6.09
2.73	2.520	76.33	6.80	3.02	0.2688	2.52	1.54	7.839	1.90	2.53	6.80
2.74	2.420	79.78	6.56	3.24	0.2711	2.41	1.54	7.865	1.90	2.42	6.56
2.75	2.430	81.82	5.91	3.37	0.2432	2.42	1.54	7.892	1.90	2.43	5.91
2.76	2.460	83.90	5.80	3.41	0.2358	2.45	1.54	7.919	1.80	2.46	5.80
2.77	2.530	86.82	5.91	3.43	0.2336	2.52	1.54	7.946	1.90	2.53	5.91
2.78	2.500	89.42	4.85	3.58	0.1940	2.50	1.54	7.973	1.90	2.50	4.85
2.79	2.430	92.10	3.37	3.79	0.1387	2.43	1.54	8.000	1.90	2.43	3.37
2.8	2.400	95.09	3.43	3.96	0.1429	2.40	1.54	8.027	1.90	2.40	3.43
2.81	2.400	96.13	3.37	4.01	0.1404	2.40	1.54	8.054	1.90	2.40	3.37
2.82	2.380	95.30	3.49	4.00	0.1466	2.38	1.54	8.080	1.90	2.38	3.49
2.83	2.270	100.92	3.08	4.45	0.1357	2.27	1.54	8.107	1.80	2.27	3.08
2.84	2.340	100.83	2.84	4.31	0.1214	2.34	1.54	8.134	1.80	2.34	2.84
2.85	2.400	99.03	2.90	4.13	0.1208	2.40	1.54	8.161	1.80	2.40	2.90
2.86	2.390	103.21	2.07	4.32	0.0866	2.39	1.54	8.188	1.80	2.39	2.07
2.87	2.290	105.46	2.25	4.61	0.0983	2.29	1.54	8.215	1.80	2.29	2.25
2.88	2.320	103.94	1.83	4.48	0.0789	2.32	1.54	8.242	1.90	2.32	1.83
2.89	2.160	108.06	0.12	5.00	0.0056	2.16	1.45	8.267	2.00	2.16	0.12
2.9	2.160	108.06	0.12	5.00	0.0056	2.16	1.45	8.292	2.00	2.16	0.12
2.91	2.080	106.59	-0.89	5.12	-0.0428	2.08	1.45	8.318	2.00	2.08	-0.89
2.92	1.990	103.05	-0.65	5.18	-0.0327	1.99	1.45	8.343	2.00	1.99	-0.65
2.93	1.960	98.90	-0.89	5.05	-0.0454	1.96	1.45	8.368	2.00	1.96	-0.89
2.94	2.040	93.29	-0.71	4.57	-0.0348	2.04	1.45	8.394	2.00	2.04	-0.71
2.95	2.030	92.13	-0.89	4.54	-0.0438	2.03	1.58	8.421	1.90	2.03	-0.89
2.96	2.120	87.77	-0.47	4.14	-0.0222	2.12	1.58	8.449	1.90	2.12	-0.47
2.97	2.280	83.50	0.83	3.66	0.0364	2.28	1.58	8.476	2.00	2.28	0.83
2.98	2.290	79.75	0.59	3.48	0.0258	2.29	1.58	8.504	2.00	2.29	0.59
2.99	2.360	75.99	1.06	3.22	0.0449	2.36	1.51	8.530	2.00	2.36	1.06
3	2.450	73.94	1.06	3.06	0.0333	2.45	1.58	8.558	2.00	2.45	1.06
3.01	2.290	78.19	0.87	3.13	0.0131	2.29	1.51	8.584	2.00	2.29	0.87
3.02	2.110	78.34	0.89	3.71	0.0422	2.11	1.51	8.610	2.00	2.11	0.89
3.03	2.160	78.53	0.83	3.64	0.0384	2.16	1.51	8.637	1.90	2.16	0.83
3.04	2.120	78.10	1.30	3.53	0.0588	2.21	1.58	8.664	1.90	2.21	1.30
3.05	2.150	79.34	1.60	3.52	0.0744	2.15	1.51	8.691	1.90	2.15	1.60
3.06	2.310	73.40	1.37	3.18	0.0592	2.31	1.68	8.720	1.90	2.31	1.37
3.07	2.390	75.96	2.37	3.18	0.0992	2.39	1.51	8.746	1.90	2.39	2.37
3.08	2.380	77.95	2.66	3.28	0.1118	2.38	1.51	8.772	1.90	2.38	2.66
3.09	2.320	81.30	3.19	3.50	0.1375	2.32	1.66	8.801	1.90	2.32	3.19
3.1	2.290	82.25	3.79	3.59	0.1655	2.29	1.66	8.830	2.00	2.29	3.79
3.11	2.290	82.25	3.79	3.59	0.1655	2.29	1.66	8.859	2.00	2.29	3.79
3.12	2.280	81.06	5.62	3.59	0.2467	2.25	1.66	8.888	2.00	2.26	5.62
3.13	2.410	78.13	5.91	3.24	0.2452	2.40	1.66	8.917	1.90	2.41	5.91
3.14	2.500	75.29	6.15	3.01	0.2460	2.49	1.66	8.946	1.90	2.50	6.15
3.15	2.610	72.55	6.21	2.78	0.2379	2.60	1.66	8.975	1.90	2.61	6.21
3.16	2.770	70.94	6.36	2.67	0.2287	2.75	1.66	9.004	1.90	2.77	6.36
3.17	2.770	76.70	8.16	2.77	0.2946	2.76	1.66	9.033	1.90	2.77	8.16
3.18	2.720	78.59	4.14	2.89	0.1522	2.72	1.66	9.062	2.00	2.72	4.14
3.19	2.800	81.30	3.49	2.90	0.1246	2.80	1.66	9.091	2.00	2.80	3.49
3.2	2.850	79.84	5.97	2.80	0.2095	2.84	1.66	9.120	2.00	2.85	5.97
3.21	2.940	80.14	5.97	2.80	0.2095	2.93	1.73	9.150	1.90	2.94	5.97
3.22	3.010	81.18	4.91	2.70	0.1631	3.01	1.66	9.179	1.90	3.01	4.91
3.23	3.040	86.55	3.19	2.85	0.1049	3.04	1.66	9.208	1.90	3.04	3.19

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
3.24	3.040	89.08	3.73	2.93	0.1227	3.04	1.66	9.237	1.90	3.04	3.73
3.25	3.000	95.12	2.01	3.17	0.0670	3.00	1.66	9.266	1.90	3.00	2.01
3.26	2.980	100.06	1.18	3.36	0.0396	2.98	1.66	9.295	1.90	2.98	1.18
3.27	2.900	101.13	1.48	3.49	0.0510	2.90	1.66	9.324	1.90	2.90	1.48
3.28	2.950	98.05	1.42	3.33	0.0491	2.95	1.66	9.350	1.90	2.95	1.42
3.29	3.030	91.77	1.72	3.03	0.0568	3.03	1.66	9.379	2.00	3.03	1.72
3.3	3.050	86.52	2.90	2.84	0.0951	3.05	1.66	9.408	2.00	3.05	2.90
3.31	3.080	79.90	4.08	2.59	0.1325	3.08	1.66	9.437	2.00	3.08	4.08
3.32	3.080	80.48	1.77	2.81	0.0575	3.08	1.66	9.466	1.90	3.08	1.77
3.33	2.430	85.12	0.24	2.81	-0.0079	2.43	1.66	9.495	1.90	2.43	0.24
3.34	2.940	91.55	-3.31	3.11	-0.1126	2.94	1.66	9.524	2.00	2.94	-3.31
3.35	2.690	97.53	-10.70	3.63	-0.3978	2.70	1.51	9.551	1.90	2.69	-10.70
3.36	2.620	99.73	-12.66	3.81	-0.4832	2.63	1.66	9.579	1.90	2.61	-12.66
3.37	2.500	102.87	-15.02	4.11	-0.6008	2.52	1.51	9.606	1.90	2.49	-15.02
3.38	2.530	104.90	-20.23	4.12	-0.7996	2.55	1.51	9.633	2.00	2.52	-20.23
3.39	2.600	101.77	-2.48	3.91	-0.0954	2.60	1.51	9.659	2.00	2.60	-2.48
3.4	2.610	100.06	-5.32	3.83	-0.2038	2.62	1.51	9.685	2.00	2.61	-5.32
3.41	2.610	96.80	-5.91	3.71	-0.2264	2.62	1.51	9.711	2.00	2.61	-5.91
3.42	2.640	96.09	-5.91	3.60	-0.2239	2.65	1.51	9.738	2.00	2.64	-5.91
3.43	2.600	91.49	-1.17	3.39	-0.3386	2.61	1.51	9.764	1.90	2.61	-1.17
3.44	2.740	86.92	-5.03	3.17	-0.1836	2.75	1.51	9.790	1.90	2.74	-5.03
3.45	2.820	85.45	2.37	3.03	0.0840	2.82	1.51	9.817	1.90	2.82	2.37
3.46	2.780	86.03	-1.95	3.09	-0.0701	2.78	1.37	9.841	1.90	2.78	-1.95
3.47	2.640	87.19	-12.18	3.30	-0.4614	2.65	1.37	9.864	1.90	2.63	-12.18
3.48	2.200	86.43	-17.27	3.46	-0.6998	2.52	1.37	9.888	2.00	2.49	-17.27
3.49	2.200	86.43	-17.27	3.46	-0.6998	2.52	1.37	9.912	2.00	2.51	-17.27
3.5	2.210	75.69	-0.47	3.42	-0.0213	2.21	1.30	9.935	2.00	2.21	-0.47
3.51	2.180	75.87	0.18	3.48	0.0083	2.18	1.30	9.958	2.00	2.18	0.18
3.52	2.130	75.90	-0.41	3.56	-0.0192	2.13	1.30	9.980	2.00	2.13	-0.41
3.53	2.130	77.67	-1.66	3.65	-0.0779	2.13	1.37	10.004	1.90	2.13	-1.66
3.54	2.130	77.67	-1.66	3.64	-0.0779	2.13	1.37	10.027	1.90	2.14	-1.66
3.55	2.190	77.82	-0.71	3.55	-0.0324	2.19	1.37	10.051	1.90	2.19	-0.71
3.56	2.280	78.80	-2.01	3.46	-0.0882	2.28	1.30	10.074	1.90	2.28	-2.01
3.57	2.280	86.79	-3.79	3.81	-0.1662	2.28	1.30	10.096	1.90	2.28	-3.79
3.58	2.210	88.17	-2.07	3.99	-0.0697	2.21	1.37	10.120	1.90	2.21	-2.07
3.59	2.210	88.17	-2.07	3.99	-0.0697	2.21	1.37	10.143	1.90	2.22	-2.07
3.6	2.220	88.26	-2.97	3.98	-0.2689	2.23	1.37	10.167	2.00	2.22	-2.97
3.61	2.190	86.69	-8.75	4.10	-0.3995	2.20	1.23	10.188	1.90	2.17	-8.75
3.62	2.170	90.64	-8.87	4.18	-0.4088	2.18	1.15	10.208	1.90	2.17	-8.87
3.63	2.250	92.44	-7.81	4.11	-0.3471	2.26	1.23	10.230	1.90	2.25	-7.81
3.64	2.310	94.64	-6.06	4.08	-0.2646	2.31	1.23	10.252	1.90	2.31	-6.06
3.65	2.330	92.53	-0.35	3.97	-0.0150	2.33	1.23	10.273	1.90	2.33	-0.35
3.66	2.350	93.81	-0.53	3.99	-0.0226	2.35	1.23	10.294	1.90	2.35	-0.53
3.67	2.340	93.54	-3.61	4.00	-0.1543	2.34	1.15	10.314	1.90	2.34	-3.61
3.68	2.340	93.54	-3.61	4.00	-0.1543	2.34	1.15	10.334	1.90	2.34	-3.61
3.69	2.340	93.54	-3.61	4.00	-0.1543	2.34	1.15	10.354	1.90	2.34	-3.61
3.7	2.240	87.01	-2.96	3.88	-0.1321	2.24	1.15	10.374	2.10	2.24	-2.96
3.71	2.190	85.73	-2.72	3.91	-0.1242	2.19	1.23	10.396	2.00	2.19	-2.72
3.72	2.170	84.02	-4.91	3.87	-0.2263	2.17	1.30	10.419	1.90	2.17	-4.91
3.73	2.170	84.93	-9.40	3.91	-0.4332	2.18	1.15	10.439	1.90	2.17	-9.40
3.74	2.160	86.03	-3.97	3.77	-0.1836	2.17	1.30	10.459	1.90	2.17	-3.97
3.75	2.160	90.03	-8.04	4.17	-0.3722	2.17	1.30	10.481	1.90	2.16	-8.04
3.76	2.120	92.47	-8.40	4.36	-0.3962	2.13	1.15	10.501	1.90	2.12	-8.40
3.77	2.100	95.92	-8.63	4.57	-0.4110	2.11	1.15	10.522	1.90	2.10	-8.63
3.78	2.030	101.10	-9.29	4.98	-0.4576	2.04	1.15	10.542	1.90	2.03	-9.29
3.79	2.050	101.10	-9.29	4.98	-0.4576	2.05	1.15	10.562	1.90	2.05	-9.29
3.8	2.060	102.72	-6.73	4.99	-0.3304	2.07	1.37	10.587	1.90	2.06	-6.73
3.81	2.090	102.57	-5.32	4.91	-0.2545	2.10	1.37	10.611	1.90	2.09	-5.32
3.82	2.060	105.34	-1.54	5.11	-0.0748	2.06	1.15	10.631	1.90	2.06	-1.54
3.83	2.030	106.31	-2.72	5.19	-0.1340	2.03	1.23	10.652	1.90	2.03	-2.72
3.84	2.010	108.34	-5.30	5.20	-0.2643	2.02	1.30	10.675	1.90	2.01	-5.30
3.85	1.970	104.51	-6.56	5.33	-0.3300	1.98	1.23	10.697	1.90	1.97	-6.56
3.86	1.970	105.16	-10.82	5.34	-0.5492	1.98	1.37	10.720	1.90	1.97	-10.82
3.87	1.960	103.11	-11.18	5.26	-0.5704	1.97	1.15	10.741	1.90	1.96	-11.18
3.88	1.950	104.18	-11.71	5.34	-0.6005	1.96	1.15	10.761	1.90	1.95	-11.71
3.89	1.970	104.18	-11.71	5.32	-0.6005	1.98	1.15	10.782	1.90	1.98	-11.71
3.9	1.990	102.72	-12.83	5.16	-0.6447	2.00	1.15	10.802	1.90	1.98	-12.83
3.91	1.990	99.42	-13.54	5.00	-0.6804	2.00	1.37	10.826	2.00	1.98	-13.54
3.92	1.990	100.28	-14.19	5.04	-0.7131	2.00	1.37	10.850	1.90	1.98	-14.19

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
5.31	4,250	206.72	1.54	4.86	0.0362	4.25	1.69	14.237	2.00	4.25	1.54
5.32	4,010	209.49	0.53	5.22	0.0132	4.01	1.72	14.267	2.00	4.01	0.53
5.33	3,760	212.24	-0.47	5.64	-0.0025	3.76	1.72	14.297	2.00	3.76	-0.47
5.34	3,410	208.27	0.00	6.11	0.0000	3.41	1.69	14.326	2.00	3.41	0.00
5.35	3,130	201.38	1.77	6.38	0.0565	3.13	1.72	14.356	2.00	3.13	1.77
5.36	2,970	197.81	2.25	6.66	0.0758	2.97	1.72	14.386	2.00	2.97	2.25
5.37	2,880	194.48	9.11	6.75	0.3163	2.87	1.69	14.416	2.00	2.88	9.11
5.38	3,210	190.34	7.64	5.93	0.2100	3.20	1.53	14.442	2.10	3.21	6.74
5.39	3,180	191.16	15.02	6.01	0.4723	3.16	1.53	14.469	2.10	3.19	15.02
5.4	2,680	190.24	68.73	6.73	2.5111	2.61	1.53	14.496	2.10	2.71	68.73
5.41	2,520	179.84	65.89	7.14	2.6147	2.45	1.53	14.522	2.10	2.55	65.89
5.42	2,410	175.63	41.52	7.29	1.7228	2.37	1.53	14.549	2.00	2.43	41.52
5.43	2,160	166.97	28.98	7.73	1.3417	2.13	1.53	14.576	2.00	2.17	28.98
5.44	1,990	160.80	28.84	8.08	1.1427	1.99	1.53	14.603	2.00	1.99	28.84
5.45	1,920	155.86	-0.06	8.1	-0.0031	1.92	1.69	14.632	2.00	1.92	-0.06
5.46	1,910	151.32	1.72	8.45	0.0961	1.79	1.53	14.659	2.00	1.79	1.72
5.47	1,910	137.50	6.51	7.20	0.3408	1.90	1.53	14.685	2.00	1.91	6.51
5.48	2,850	127.15	12.12	4.46	0.4253	2.84	1.53	14.712	2.00	2.86	12.12
5.49	3,400	119.38	12.20	3.51	0.4471	3.38	1.53	14.739	2.00	3.41	12.20
5.5	3,700	108.30	20.05	2.93	0.5619	3.68	1.69	14.768	2.00	3.7	20.05
5.51	3,720	89.17	22.77	2.40	0.6121	3.70	1.51	14.795	1.90	3.73	22.77
5.52	3,960	83.96	18.75	2.12	0.4735	3.94	1.51	14.821	1.90	3.97	18.75
5.53	3,970	77.89	13.01	1.96	0.3277	3.96	1.51	14.847	2.00	3.98	13.01
5.54	3,610	68.95	11.36	1.91	0.3147	3.60	1.51	14.874	1.90	3.61	11.36
5.55	3,190	77.85	18.45	2.77	0.584	3.18	1.51	14.900	1.90	3.19	18.45
5.56	3,370	67.32	23.80	2.42	0.7003	3.35	1.51	14.926	1.90	3.38	23.80
5.57	3,190	88.53	27.86	2.78	0.8734	3.16	1.51	14.953	1.90	3.20	27.86
5.58	3,190	92.44	27.44	2.90	0.8602	3.16	1.51	14.979	1.90	3.20	27.44
5.59	3,550	100.13	30.52	2.82	0.8597	3.52	1.51	15.008	1.90	3.56	30.52
5.6	3,550	97.90	27.80	2.80	0.7943	3.47	1.51	15.032	1.90	3.51	27.80
5.61	3,440	96.19	24.96	2.80	0.7256	3.42	1.51	15.058	1.90	3.45	24.96
5.62	3,450	101.25	23.83	2.93	0.6907	3.43	1.51	15.085	1.80	3.46	23.83
5.63	3,430	100.55	22.42	2.93	0.6536	3.41	1.50	15.111	1.80	3.44	22.42
5.64	3,340	100.46	23.36	2.93	0.6810	3.41	1.51	15.137	1.80	3.44	23.36
5.65	3,330	100.80	24.13	3.03	0.7246	3.31	1.50	15.163	1.90	3.34	24.13
5.66	3,310	101.13	23.24	3.06	0.7021	3.29	1.50	15.189	1.80	3.32	23.24
5.67	3,300	100.61	21.47	2.99	0.6390	3.34	1.51	15.216	2.00	3.37	21.47
5.68	3,360	100.61	21.47	2.99	0.6390	3.34	1.51	15.242	2.00	3.37	21.47
5.69	3,360	100.61	21.47	2.99	0.6390	3.34	1.51	15.269	2.00	3.37	21.47
5.7	3,530	70.87	8.63	2.01	0.2445	3.52	1.51	15.295	2.20	3.53	8.63
5.71	3,630	65.56	20.17	1.81	0.5556	3.61	1.50	15.321	2.00	3.64	20.17
5.72	3,730	63.76	19.52	1.71	0.5233	3.71	1.51	15.347	2.00	3.74	19.52
5.73	3,670	64.31	20.94	1.75	0.5706	3.65	1.51	15.374	2.10	3.68	20.94
5.74	3,690	68.28	19.75	1.85	0.5352	3.67	1.50	15.400	2.00	3.70	19.75
5.75	3,750	67.42	19.52	1.80	0.5205	3.73	1.50	15.426	2.00	3.76	19.52
5.76	3,520	62.94	19.40	1.65	0.5079	3.80	1.51	15.452	2.00	3.8	19.40
5.77	3,830	61.11	19.81	1.50	0.5172	3.81	1.50	15.479	2.10	3.84	19.81
5.78	3,860	61.14	21.82	1.58	0.5653	3.84	1.50	15.505	2.10	3.87	21.82
5.79	3,890	60.01	23.18	1.54	0.5959	3.87	1.51	15.531	2.10	3.90	23.18
5.8	3,890	58.82	23.89	1.51	0.6141	3.87	1.33	15.554	2.10	3.90	23.89
5.81	3,920	57.23	24.19	1.46	0.6171	3.90	1.33	15.580	2.10	3.93	24.19
5.82	3,950	54.79	24.96	1.47	0.6273	3.93	1.33	15.607	2.10	3.96	24.96
5.83	3,910	54.18	24.78	1.39	0.6338	3.89	1.50	15.633	2.10	3.92	24.78
5.84	3,870	51.13	24.78	1.32	0.6403	3.85	1.50	15.659	2.10	3.88	24.78
5.85	3,850	49.48	24.37	1.29	0.6330	3.83	1.50	15.685	2.10	3.86	24.37
5.86	3,860	48.45	24.13	1.26	0.6251	3.84	1.50	15.711	2.10	3.87	24.13
5.87	3,850	46.88	24.01	1.21	0.6236	3.83	1.50	15.738	2.10	3.86	24.01
5.88	3,820	42.53	24.13	1.11	0.6317	3.80	1.50	15.764	2.10	3.83	24.13
5.89	3,790	40.24	24.66	1.06	0.6507	3.77	1.50	15.790	2.20	3.80	24.66
5.9	3,730	39.11	24.60	1.05	0.6895	3.71	1.50	15.816	2.20	3.74	24.60
5.91	3,660	37.92	25.20	1.04	0.6885	3.63	1.50	15.842	2.20	3.67	25.20
5.92	3,630	36.98	26.20	1.04	0.7218	3.60	1.50	15.868	2.10	3.64	26.20
5.93	3,590	38.81	26.73	1.08	0.7446	3.56	1.50	15.895	2.10	3.60	26.73
5.94	3,620	39.72	27.68	1.10	0.7646	3.59	1.50	15.921	2.10	3.63	27.68
5.95	3,700	39.48	29.28	1.07	0.7914	3.67	1.50	15.947	2.10	3.71	29.28
5.96	3,730	40.09	29.87	1.07	0.8008	3.70	1.50	15.973	2.10	3.74	29.87
5.97	3,790	40.09	29.87	1.07	0.8008	3.70	1.50	15.999	2.20	3.78	29.87
5.98	3,820	40.61	30.40	1.06	0.7958	3.79	1.50	16.026	2.20	3.83	30.40
5.99	3,860	41.52	29.51	1.08	0.7645	3.83	1.50	16.052	2.20	3.87	29.51

17-101_G_CPTU_Soarza

17-101_SCPTU.S4_SM

Pag. 9

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
6	3,860	42.62	28.80	1.10	0.7461	3.83	1.50	16.078	2.10	3.87	28.80
6.01	3,870	43.44	28.03	1.12	0.7243	3.84	1.50	16.104	2.20	3.88	28.03
6.02	3,920	44.30	27.68	1.13	0.7061	3.89	1.67	16.133	2.10	3.93	27.68
6.03	3,660	44.94	27.44	1.13	0.6894	3.95	1.67	16.159	2.10	3.99	27.44
6.04	3,430	44.94	27.14	1.34	0.7916	3.57	1.50	16.186	2.10	3.58	27.14
6.05	4,120	42.59	27.97	1.03	0.6789	4.09	1.50	16.212	2.20	4.13	27.97
6.06	4,200	41.55	28.74	0.99	0.6843	4.17	1.50	16.238	2.50	4.21	28.74
6.07	4,300	40.09	30.28	0.93	0.7042	4.27	1.50	16.264	2.60	4.31	30.28
6.08	4,440	38.26	32.11	0.86	0.7232	4.41	1.50	16.290	2.50	4.45	32.11
6.09	4,460	38.26	32.11	0.86	0.7232	4.41	1.50	16.316	2.50	4.47	32.11
6.1	4,870	35.21	36.96	0.72	0.7589	4.83	1.50	16.343	2.60	4.89	36.96
6.11	5,210	34.26	38.92	0.66	0.7470	5.17	1.50	16.369	2.50	5.23	38.92
6.12	5,630	33.89	40.57	0.60	0.7206	5.59	1.50	16.395	2.50	5.65	40.57
6.13	6,070	33.99	42.11	0.56	0.6937	6.03	1.67	16.424	2.50	6.09	42.11
6.14	6,430	34.38	42.47	0.53	0.6605	6.36	1.50	16.450	2.40	6.45	42.47
6.15	6,590	34.81	43.71	0.53	0.6633	6.55	1.67	16.479	2.10	6.61	43.71
6.16	6,490	38.81	44.18	0.60	0.6007	6.45	1.67	16.509	1.50	6.51	44.18
6.17	6,460	39.96	45.01	0.62	0.6967	6.41	1.50	16.535	1.60	6.48	45.01
6.18	6,370	42.71	46.19	0.67	0.7251	6.32	1.50	16.561	1.60	6.39	46.19
6.19	6,370	42.71	46.19	0.67	0.7251	6.32	1.50	16.587	1.60	6.39	46.19
6.2	6,240	46.19	46.25	0.74	0.7412	6.19	1.67	16.616	1.60	6.26	46.25
6.21	6,060	49.60	45.60	0.82	0.7525	6.01	1.50	16.642	1.60	6.08	45.60
6.22	5,930	51.13	45.13	0.86	0.7610	5.88	1.67	16.672	1.60	5.95	45.13
6.23	5,740	54.03	44.36	0.94	0.7728	5.70	1.67	16.701	1.60	5.76	44.36
6.24	5,560	55.68	44.24	0.99	0.7884	5.48	1.67	16.730	1.60	5.56	44.24
6.25	5,480	57.96	44.48	1.06	0.8117	5.45	1.50	16.756	1.80	5.50	44.48
6.26	5,450	59.61	44.65	1.09	0.8193	5.41	1.50	16.782	2.00	5.47	44.65
6.27	5,410	61.26	44.24	1.13	0.8177	5.37	1.67	16.811	2.00	5.43	44.24
6.28	5,350	62.94	44.30	1.18	0.8280	5.31	1.67	16.841	2.10	5.37	44.30

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
8.07	10,040	72.73	33.59	0.72	0.3346	10.01	1.69	22.044	2.00	10.05	33.59
8.08	10,040	73.13	33.77	0.73	0.3364	10.01	1.69	22.073	2.00	10.05	33.77
8.09	10,080	73.71	33.48	0.73	0.3321	10.05	1.69	22.103	2.00	10.09	33.48
8.11	10,080	74.62	35.84	0.73	0.3584	10.16	1.69	22.132	2.00	10.22	35.84
8.11	10,240	74.93	36.42	0.73	0.3593	10.20	1.69	22.162	2.00	10.26	36.42
8.12	10,260	75.20	36.67	0.73	0.3574	10.22	1.67	22.191	2.00	10.28	36.67
8.13	10,110	75.05	36.73	0.74	0.3633	10.07	1.69	22.220	2.00	10.13	36.73
8.14	9,770	75.14	34.54	0.77	0.3535	9.74	1.69	22.250	2.00	9.78	34.54
8.15	9,510	75.38	34.13	0.79	0.3589	9.48	1.69	22.279	2.00	9.52	34.13
8.16	9,290	75.72	34.42	0.82	0.3705	9.26	1.69	22.308	2.00	9.56	34.42
8.17	9,090	75.90	34.01	0.83	0.3741	9.06	1.69	22.338	2.00	9.10	34.01
8.18	8,670	74.41	32.71	0.86	0.3773	8.64	1.67	22.368	2.00	8.68	32.71
8.19	8,420	74.22	32.35	0.88	0.3842	8.39	1.67	22.397	2.00	8.43	32.35
8.2	8,100	73.40	30.22	0.91	0.3731	8.07	1.69	22.426	2.00	8.11	30.22
8.21	7,700	72.36	29.04	0.94	0.3717	7.61	1.69	22.456	2.00	7.73	29.04
8.22	7,360	71.51	29.99	0.97	0.4075	7.33	1.69	22.485	2.00	7.37	29.99
8.23	7,030	70.47	30.04	1.00	0.4273	7.00	1.69	22.515	2.00	7.04	30.04
8.24	6,580	69.95	30.93	1.05	0.4701	6.55	1.67	22.544	2.00	6.59	30.93
8.25	6,430	67.97	31.11	1.06	0.4838	6.40	1.69	22.573	2.00	6.44	31.11
8.26	6,330	66.98	31.14	1.07	0.4907	6.26	1.69	22.602	2.00	6.48	31.14
8.27	6,290	63.94	34.48	1.02	0.5482	6.26	1.69	22.632	2.00	6.30	34.48
8.28	6,230	62.57	35.25	1.00	0.5658	6.19	1.69	22.662	2.00	6.24	35.25
8.29	6,220	59.86	34.36	0.96	0.5524	6.19	1.69	22.691	2.00	6.23	34.36
8.3	6,250	58.76	35.13	0.94	0.5621	6.21	1.69	22.721	2.00	6.26	35.13
8.31	6,280	57.96	35.84	0.92	0.5707	6.24	1.67	22.750	2.00	6.29	35.84
8.32	6,310	57.60	36.61	0.91	0.5802	6.27	1.69	22.779	2.00	6.33	36.61
8.33	6,400	57.23	37.02	0.89	0.5784	6.36	1.69	22.809	2.00	6.42	37.02
8.34	6,450	56.87	37.14	0.88	0.5758	6.41	1.69	22.838	1.90	6.47	37.14
8.35	6,490	57.08	37.44	0.88	0.5769	6.45	1.69	22.868	1.90	6.51	37.44
8.36	6,520	56.47	37.56	0.87	0.5761	6.48	1.67	22.897	1.90	6.54	37.56
8.37	6,600	56.38	38.21	0.85	0.5789	6.56	1.67	22.926	1.90	6.62	38.21
8.38	6,740	56.77	39.09	0.84	0.5800	6.70	1.69	22.956	1.90	6.76	39.09
8.39	6,980	57.20	40.81	0.82	0.5847	6.94	1.69	22.985	1.90	7.00	40.81
8.4	7,070	57.78	41.10	0.82	0.5813	7.03	1.69	23.015	2.00	7.09	41.10
8.41	7,090	58.91	41.81	0.83	0.5897	7.05	1.69	23.044	1.80	7.11	41.81
8.42	7,160	58.94	42.17	0.82	0.5890	7.12	1.69	23.074	1.80	7.18	42.17
8.43	7,140	59.49	41.64	0.83	0.5832	7.10	1.69	23.103	1.80	7.16	41.64
8.44	7,090	59.61	41.46	0.84	0.5848	7.05	1.69	23.133	1.80	7.11	41.46
8.45	6,980	60.71	40.28	0.87	0.5771	6.94	1.69	23.162	1.80	7.00	40.28
8.46	6,860	60.92	39.03	0.89	0.5690	6.82	1.69	23.192	1.70	6.88	39.03
8.47	6,840	61.62	38.15	0.90	0.5577	6.80	1.69	23.221	1.80	6.86	38.15
8.48	6,660	61.93	36.96	0.93	0.5550	6.62	1.69	23.251	1.80	6.68	36.96
8.49	6,620	62.20	36.08	0.94	0.5450	6.58	1.69	23.280	1.80	6.64	36.08
8.5	6,500	61.81	34.84	0.95	0.5360	6.47	1.69	23.310	1.80	6.51	34.84
8.51	6,360	61.23	35.19	0.96	0.5533	6.32	1.69	23.339	1.80	6.37	35.19
8.52	6,330	60.83	35.31	0.96	0.5578	6.29	1.67	23.368	1.80	6.36	35.31
8.53	6,300	59.83	36.37	0.94	0.5614	6.26	1.69	23.398	1.70	6.31	36.37
8.54	6,330	58.39	36.96	0.92	0.5839	6.29	1.69	23.427	1.70	6.35	36.96
8.55	6,350	57.29	36.67	0.90	0.5775	6.31	1.69	23.457	1.70	6.37	36.67
8.56	6,330	54.94	36.86	0.94	0.5660	6.49	1.67	23.486	1.70	6.55	36.86
8.57	6,700	53.57	36.33	0.90	0.5721	6.68	1.67	23.515	1.70	6.72	36.33
8.58	6,990	52.33	36.92	0.87	0.5711	6.95	1.69	23.544	1.70	6.77	36.92
8.59	7,210	50.37	41.05	0.70	0.5693	7.17	1.72	23.574	1.80	7.23	41.05
8.6	7,360	49.76	41.70	0.68	0.5666	7.32	1.67	23.604	1.80	7.38	41.70
8.61	7,680	49.30	41.70	0.64	0.5430	7.64	1.69	23.633	1.70	7.70	41.70
8.62	7,810	49.27	42.88	0.63	0.5490	7.77	1.72	23.663	1.70	7.83	42.88
8.63	7,960	49.33	43.47	0.62	0.5512	7.92	1.72	23.692	1.70	7.93	43.47
8.64	7,960	49.21	44.12	0.62	0.5543	7.92	1.72	23.723	1.70	7.98	44.12
8.65	7,950	49.51	42.88	0.62	0.5394	7.91	1.69	23.753	1.80	7.97	42.88
8.66	7,960	51.13	41.76	0.64	0.5246	7.92	1.72	23.783	1.80	7.98	41.76
8.67	7,960	52.26	42.41	0.66	0.5288	7.92	1.72	23.813	2.00	7.98	42.41
8.68	7,960	52.26	42.41	0.66	0.5288	7.92	1.72	23.843	2.00	7.98	42.41
8.69	7,960	52.26	42.41	0.66	0.5288	7.92	1.72	23.873	2.00	7.98	42.41
8.7	8,040	43.29	-11.41	0.54	-0.1419	8.05	1.69	23.902	1.80	8.04	-11.41
8.71	8,220	45.39	-9.70	0.55	-0.1180	8.23	1.69	23.935	2.10	8.22	-9.70
8.72	8,480	48.90	-6.21	0.58	-0.0731	8.50	1.69	23.964	1.80	8.49	-6.21
8.73	8,710	52.13	-0.76	0.61	-0.0345	8.71	1.86	23.992	1.80	8.72	-0.76
8.74	8,880	51.98	0.18	0.59	0.0020	8.88	1.86	24.029	1.80	8.88	0.18
8.75	9,300	54.21	6.68	0.58	0.0718	9.29	1.86	24.061	1.90	9.30	6.68

17-101_G_CPTU_Soarza

17-101_SCPTU.S4_SM

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Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
8.76	9,450	55.07	10.88	0.58	0.1151	9.44	1.86	24.094	1.90	9.45	10.88
8.77	9,630	55.92	14.25	0.58	0.1480	9.62	1.86	24.126	1.90	9.64	14.25
8.78	9,700	56.53	15.73	0.58	0.1622	9.68	1.86	24.159	1.90	9.71	15.73
8.79	9,820	57.63	17.15	0.59	0.1746	9.80	1.86	24.191	2.00	9.83	17.15
8.8	9,760	58.06	17.81	0.61	0.1810	9.74	1.86	24.224	2.00	9.77	17.81
8.81	9,660	59.18	15.55	0.61	0.1610	9.64	1.69	24.253	1.90	9.67	15.55
8.82	9,530	60.74	16.26	0.64	0.1706	9.51	1.86	24.286	1.90	9.54	16.26
8.83	9,310	62.20	16.50	0.67	0.1772	9.29	1.86	24.318	1.90	9.32	16.50
8.84	8,820	65.35	15.50	0.74	0.1757	8.80	1.69	24.348	1.90	8.83	15.50
8.85	8,550	65.74	13.72	0.78	0.1610	8.51	1.92	24.371	2.00	8.53	13.72
8.86	8,200	67.97	13.31	0.83	0.1623	8.19	1.86	24.410	1.90	8.21	13.31
8.87	7,820	69.22	12.95	0.89	0.1656	7.81	1.86	24.442	2.00	7.83	12.95
8.88	7,510	69.74	13.37	0.93	0.1870	7.50	1.86	24.475	2.10	7.52	13.37
8.89	7,020	70.72	13.13	1.01	0.1870	7.01	1.86	24.507	2.10	7.03	13.13
8.9	6,910	71.02	13.91	1.04	0.1954	6.80	1.86	24.539	2.10	6.92	13.91
8.91	6,680	71.05	14.19	1.06	0.2124	6.67	1.86	24.572	2.10	6.69	14.19
8.92	6,680	71.05	14.19	1.06	0.2124	6.67	1.86	24.604	2.00	6.69	14.19
8.93	6,510	70.17	14.61	1.08	0.2244	6.50	1.86	24.637	2.00	6.52	14.61
8.94	6,450	67.39	16.97	1.04	0.2631	6.43	1.86	24.669	2.00	6.46	16.97
8.95	6,500	65.74	17.27	1.01	0.2657	6.46	1.86	24.702	2.00	6.51	17.27
8.96	6,540	63.82	18.75	0.98	0.2867	6.52	1.86	24.734	2.00	6.55	18.75
8.97	6,670	61.84	19.58	0.93	0.2936	6.65	1.69	24.764	2.00	6.68	19.58
8.98	6,600	60.04	20.11	0.88	0.2957	6.78	1.86	24.796	2.00	6.81	20.11
8.99	7,050	59.92	21.65	0.79	0.3071	7.03	1.86	24.829	2.10	7.06	21.65
9	7,300	53.88	22.53	0.75	0.3147	7.14	1.86	24.861	2.00	7.17	22.53
9.01	7,240	52.14	22.30	0.72	0.3080	7.22	1.69	24.891	2.00	7.25	22.30
9.02	7,360	51.07	22.89	0.69	0.3110	7.34	1.86	24.923	1.90	7.37	22.89
9.03	7,460	49.27	22.95	0.66	0.3076	7.44	1.86	24.955	1.90	7.47	22.95
9.04	7,510	48.99	23.42	0.65	0.3119	7.49	1.86	24.988	1.90	7.52	23.42
9.05	7,520	48.99	23.42	0.65	0.3119	7.49	1.86	25.017	1.90	7.53	23.42
9.06	7,580	48.89	24.43	0.64	0.3223	7.56	1.69	25.050	1.90	7.59	24.43
9.07	7,550	45.84	24.31	0.64	0.3220	7.53	1.86	25.082	1.90	7.56	24.31
9.08	7,580	48.87	24.43	0.64	0.3223	7.56	1.69	25.114	1.90	7.59	24.43
9.09	7,570	48.84	25.73	0.65	0.3399	7.54	1.86	25.144	1.90	7.58	25.73
9.1	7,670	45.88	25.08	0.64	0.3418	7.64	1.86	25.174	1.90	7.67	25.08
9.11	7,720	48.96	25.51	0.63	0.3695	7.69	1.69	25.206	1.90	7.73	25.51
9.12	7,760	49.45	30.34	0.62	0.3812	7.93	1.69	25.236	1.90	7.97	30.34
9.13	8,060	49.39	30.81	0.61	0.3823	8.03	1.86	25.268	1.90	8.07	30.81
9.14	8,250	49.62	31.05	0.60	0.3784	8.22	1.86	25.301	1.80	8.26	31.05
9.15	8,480	49.38	32.41	0.58	0.3622	8.45	1.86	25.333	1.80	8.49	32.41
9.16	8,650	49.62	35.60	0.58	0.3622	8.62	1.86	25.366	1.80	8.66	35.60
9.17	8,710	49.24	33.30	0.57	0.3823	8.68	1.86	25.398	1.80	8.72	33.30
9.18	8,850	49.12	33.30	0.56	0.3783	8.82	1.86	25.430	1.90	8.86	33.30
9.19	9,070	48.32	33.77	0.53	0.3723	9.04	1.86	25.463	1.80	9.08	33.77
9.2	9,220	48.35	35.55	0.52	0.3656	9.18	1.86	25.495	1.80	9.23	35.55
9.21	9,320	47.34	35.55	0.52	0.3656	9.29	1.86	25.528	1.80	9.33	35.55
9.22	9,260	47.74	34.42	0.50	0.3578	9.59	1.86	25.560	1.80	9.63	34.42
9.23	9,730	48.08	34.78	0.49	0.3575	9.70	1.86	25.593	1.80	9.74	34.78
9.24	9,940	49.03	35.43	0.49	0.3564	9.90	1.86	25.625	1.70	9.95	35.43
9.25	9,860	49.15	33.24	0.49	0.3697	9.93	1.86	25.658	1.70	9.97	33.24
9.26	9,930	49.29	35.42	0.50	0.3699	9.96	1.86	25.690	1.70	9.95	35.42
9.27	9,890	51.77	34.66	0.52	0.3505	9.86	1.86	25.723	1.80	9.90	34.66
9.28	9,910	52.53	33.12	0.53	0.3342	9.88	1.69	25.752	1.80	9.92	33.12
9.29	9,860	53.17	33.71	0.54	0.3419	9.83	1.86	25.785	1.90	9.87	33.71
9.3	9,950	53.86	33.06	0.55	0.3356	9.82	1.86	25.817	2.00	9.86	33.06
9.31	9,870	54.87	33.42	0.54	0.3442	9.84	1.86	25.846	2.10	9.84	33.42
9.32	9,780	54.82	33.03	0.56	0.3519	9.76	1.86	25.879	2.10	9.80	33.03
9.33	9,750	57.14	31.76	0.59	0.3257	9.72	1.69	25.908	2.10	9.76	31.76
9.34	9,740	57.14	32.23	0.59	0.3209	9.71	1.69	25.938	2.00	9.75	32.23
9.35	9,500	57.72	28.51	0.61	0.3001	9.47	1.86	25.971	2.00	9.51	28.51
9.36	9,330	59.64	28.51	0.64	0.3442	9.30	1.86	26.004	2.10	9.34	28.51
9.37	9,030	59.64	28.57	0.66	0.3164	9.00	1.86	26.036	2.10	9.04	28.57
9.38	8,780	60.31	28.27	0.69	0.3220	8.75	1.86	26.068	2.20	8.79	28.27
9.39	8,100	60.04	25.67	0.74	0.3169	8.07	1.86	26.101	2.20	8.11	25.67
9.4	7,710	59.49	27.92	0.77	0.3621	7.68	1.86	26.134	2.20	7.72	27.92
9.41	7,340	59.49	28.27	0.82	0.3861	7.31	1.86	26.167	2.10	7.33	28.27
9.42	7,120	58.27	31.29	0.82	0.4395	6.99	1.86	26.199	2.10	7.13	31.29
9.43	6,920	57.26	27.80	0.83	0.4017	6.89	1.86	26.231	2.10	6.93	27.80
9.44	6,800	56.44	29.87	0.83	0.4393	6.77	1.88	26.264	2.10	6.81	29.87

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-Uq
[m]	[kPa]	[kPa]	[kPa]	[%]	[%]	[kPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
10.83	7,950	31.27	20.7	0.39	0.2604	7.93	1.72	30.650	2.00	7.96	-85.54
10.84	8,010	31.39	21.71	0.39	0.2710	7.99	1.72	30.680	2.10	8.02	-84.63
10.85	8,040	31.79	21.71	0.40	0.2700	8.02	1.72	30.710	2.10	8.05	-84.73
10.86	7,900	32.46	21.29	0.41	0.2695	7.88	1.72	30.740	2.10	7.91	-85.25
10.87	7,770	32.36	18.93	0.38	0.2436	7.75	1.72	30.770	2.10	7.78	-87.70
10.88	7,460	34.32	19.52	0.46	0.2617	7.44	1.72	30.800	2.10	7.47	-87.21
10.89	7,370	34.44	20.46	0.47	0.2776	7.35	1.72	30.830	2.20	7.38	-86.37
10.9	7,380	34.84	22.47	0.47	0.2981	7.36	1.72	30.860	2.20	7.39	-84.93
10.91	7,440	35.17	23.3	0.47	0.3132	7.42	1.72	30.890	2.10	7.45	-83.73
10.92	7,570	35.79	24.94	0.47	0.3481	7.56	1.72	30.920	2.10	7.59	-82.69
10.93	7,760	36.03	26.14	0.46	0.3369	7.73	1.72	30.950	2.10	7.77	-81.08
10.94	8,030	36.12	28.57	0.45	0.3558	8.00	1.72	30.980	2.10	8.04	-78.75
10.95	8,670	36.00	31.05	0.42	0.3581	8.64	1.72	31.010	2.00	8.68	-76.37
10.96	9,070	35.79	33.65	0.39	0.3710	9.04	1.72	31.040	2.10	9.08	-73.87
10.97	9,420	35.36	35.07	0.38	0.3725	9.38	1.72	31.070	2.10	9.43	-72.55
10.98	9,830	35.11	36.2	0.36	0.3683	9.79	1.72	31.100	2.10	9.85	-71.51
10.99	10,190	34.26	38.5	0.34	0.3778	10.15	1.76	31.131	2.10	10.21	-69.31
11	10,530	33.89	39.09	0.32	0.3712	10.49	1.72	31.161	2.00	10.55	-68.82
11.01	10,760	33.62	40.57	0.31	0.3770	10.72	1.72	31.191	2.00	10.78	-67.44
11.02	11,010	33.77	40.4	0.31	0.3469	10.97	1.72	31.221	2.00	11.03	-67.05
11.03	11,400	35.05	39.33	0.31	0.3450	11.36	1.72	31.251	2.00	11.42	-68.87
11.04	11,610	35.88	38.5	0.31	0.3316	11.57	1.72	31.281	2.00	11.63	-69.80
11.05	11,630	37.19	32.82	0.32	0.2822	11.60	1.72	31.311	2.00	11.64	-75.58
11.06	11,600	37.47	23.95	0.33	0.2665	11.58	1.76	31.342	2.00	11.61	-84.55
11.07	11,620	43.08	29.57	0.37	0.3132	11.59	1.72	31.372	2.00	11.62	-83.43
11.08	11,520	44.72	29.39	0.39	0.2592	11.49	1.76	31.403	2.10	11.53	-78.94
11.09	11,460	46.77	28.27	0.41	0.2467	11.43	1.72	31.433	2.00	11.47	-80.52
11.1	11,320	48.66	26.2	0.43	0.2314	11.29	1.72	31.463	2.10	11.33	-82.69
11.11	11,220	50.67	25.55	0.45	0.2277	11.19	1.72	31.493	2.00	11.23	-83.44
11.12	11,100	53.54	27.27	0.48	0.2457	11.07	1.72	31.523	2.00	11.11	-81.82
11.13	11,050	54.67	29.34	0.49	0.2655	11.02	1.72	31.553	2.00	11.06	-79.85
11.14	11,020	55.43	30.64	0.50	0.2780	10.99	1.72	31.583	2.00	11.03	-78.64
11.15	10,940	56.29	29.69	0.51	0.2714	10.91	1.72	31.613	1.90	10.95	-79.69
11.16	10,890	56.93	29.63	0.52	0.2721	10.86	1.72	31.643	2.00	10.90	-79.85
11.17	10,530	58.60	27.09	0.56	0.2573	10.50	1.72	31.673	2.00	10.54	-82.49
11.18	10,280	58.76	25.67	0.57	0.2497	10.25	1.72	31.703	2.10	10.29	-84.01
11.19	10,090	59.52	25.49	0.59	0.2526	10.06	1.72	31.733	2.00	10.10	-84.28
11.2	9,920	58.91	26.79	0.59	0.2701	9.89	1.72	31.763	2.00	9.93	-83.08
11.21	9,690	57.90	27.15	0.60	0.2802	9.66	1.72	31.793	2.00	9.70	-82.82
11.22	9,740	59.37	33.36	0.61	0.3425	9.71	1.88	31.826	2.00	9.75	-76.71
11.23	9,820	58.80	33.24	0.58	0.3385	9.79	2.05	31.861	1.90	9.83	-76.93
11.24	9,680	53.24	12.83	0.55	0.1325	9.67	1.72	31.891	1.90	9.69	-97.43
11.25	9,380	60.50	35.66	0.64	0.3798	9.35	1.72	31.921	1.90	9.40	-74.70
11.26	9,180	54.67	35.01	0.60	0.3814	9.14	1.72	31.952	1.90	9.19	-75.45
11.27	9,110	55.37	37.2	0.61	0.4083	9.07	1.72	31.982	1.90	9.13	-73.36
11.28	8,950	53.30	38.74	0.60	0.4353	8.86	1.72	32.012	2.00	8.92	-73.00
11.29	8,720	52.05	39.09	0.58	0.4463	8.68	1.72	32.042	2.00	8.77	-71.66
11.3	8,470	51.37	30.1	0.61	0.3554	8.44	1.72	32.072	1.90	8.48	-80.75
11.31	8,050	49.18	40.28	0.61	0.5004	8.01	1.72	32.102	1.90	8.07	-70.67
11.32	7,910	47.68	40.4	0.60	0.5100	7.87	1.72	32.132	2.00	7.93	-70.71
11.33	7,780	46.58	36.96	0.60	0.4751	7.74	1.72	32.162	1.90	7.80	-74.15
11.34	7,700	47.02	38.15	0.61	0.5084	7.64	1.72	32.192	1.90	7.72	-80.10
11.35	7,610	48.63	41.4	0.64	0.5440	7.57	1.72	32.222	1.90	7.63	-69.94
11.36	7,620	47.84	37.97	0.63	0.4983	7.58	1.72	32.252	2.00	7.64	-73.47
11.37	7,540	46.95	38.21	0.62	0.5068	7.50	1.72	32.282	2.00	7.56	-73.33
11.38	7,510	47.87	37.67	0.64	0.5016	7.47	1.72	32.312	2.00	7.53	-73.97
11.39	7,330	47.17	37.38	0.69	0.5100	7.29	1.72	32.342	2.00	7.59	-75.52
11.4	7,200	41.98	36.26	0.58	0.5036	7.16	1.72	32.372	2.00	7.22	-75.57
11.41	7,110	40.57	35.49	0.57	0.4992	7.07	1.72	32.402	1.90	7.12	-76.44
11.42	7,010	39.48	35.9	0.56	0.5121	6.97	1.72	32.432	1.90	7.03	-76.13
11.43	6,850	38.74	35.9	0.57	0.5241	6.81	1.72	32.462	1.90	6.87	-76.23
11.44	6,830	38.59	35.55	0.57	0.5265	6.79	1.72	32.492	1.90	6.83	-76.53
11.45	6,770	38.77	35.78	0.57	0.5285	6.73	1.72	32.522	1.90	6.79	-76.54
11.46	6,730	39.29	36.26	0.58	0.5388	6.69	1.72	32.552	1.90	6.75	-76.16
11.47	6,720	39.35	36.73	0.59	0.5466	6.68	1.76	32.583	1.90	6.74	-75.79
11.48	6,590	39.54	35.01	0.60	0.5313	6.55	1.72	32.613	1.90	6.60	-77.61
11.49	6,330	40.47	32.11	0.67	0.5344	6.30	1.72	32.643	1.90	6.34	-77.77
11.5	6,210	40.51	32.77	0.65	0.5267	6.18	1.72	32.673	1.90	6.22	-80.11
11.51	6,070	40.21	31.88	0.66	0.5252	6.04	1.72	32.703	1.90	6.08	-81.03

17-101_G_CPTU_Soarza

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Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-Uq
[m]	[kPa]	[kPa]	[kPa]	[%]	[%]	[kPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
11.52	5,980	40.54	32.06	0.68	0.5361	5.95	1.72	32.733	1.90	5.99	-80.95
11.53	5,780	40.51	30.93	0.70	0.5351	5.75	1.72	32.763	1.80	5.79	-82.18
11.54	5,680	40.00	30.52	0.70	0.5373	5.65	1.88	32.795	1.90	5.69	-82.69
11.55	5,640	39.96	30.93	0.71	0.5484	5.61	1.88	32.828	1.80	5.65	-82.38
11.56	5,580	39.72	30.93	0.71	0.5545	5.56	1.72	32.858	1.90	5.59	-82.47
11.57	5,540	39.69	31.46	0.72	0.5679	5.51	1.76	32.889	1.90	5.55	-82.04
11.58	5,500	39.63	31.64	0.72	0.5753	5.47	1.72	32.919	1.90	5.51	-81.96
11.59	5,540	39.32	31.64	0.71	0.5711	5.51	1.72	32.949	1.90	5.55	-82.06
11.6	5,550	39.11	32.06	0.70	0.5777	5.52	1.72	32.979	1.90	5.56	-81.74
11.61	5,650	38.41	33.06	0.68	0.5851	5.61	1.76	33.009	1.90	5.65	-80.83
11.62	5,740	38.07	33.83	0.66	0.5894	5.71	1.88	33.045	1.90	5.75	-80.16
11.63	5,840	37.43	34.95	0.64	0.5985	5.81	1.88	33.077	1.80	5.85	-79.14
11.64	5,970	37.19	36.2	0.62	0.6004	5.93	1.92	33.111	1.90	5.99	-77.99
11.65	6,190	36.82	37.79	0.59	0.6165	6.15	1.72	33.141	1.80	6.21	-76.50
11.66	6,250	36.40	38.33	0.58	0.6173	6.21	1.88	33.174	1.90	6.27	-76.05
11.67	6,270	36.46	37.82	0.58	0.6000	6.23	1.72	33.204	2.10	6.29	-76.86
11.68	6,270	36.46	37.62	0.58	0.6000	6.23	1.72	33.234	2.10	6.29	-76.96
11.69	6,270	36.46	37.62	0.58	0.6000	6.23	1.72	33.264	2.10	6.29	-77.06
11.7	5,970	28.37	-3.13	0.48	-0.0524	5.97	1.88	33.297	2.00	5.97	-117.91
11.71	5,970	22.30	-0.35	0.49	-0.0058	5.97	1.88	33.329	2.30	5.97	-115.58
11.72	6,010	30.93	4.08	0.51	0.0679	6.01	1.76	33.360	1.80	6.01	-110.89
11.73	6,050	31.64	6.45	0.52	0.1066	6.04	1.88	33.393	1.90	6.05	-108.62
11.74	6,120	32.67	8.75	0.53	0.1430	6.11	1.88	33.426	2.10	6.12	-106.42
11.75	6,160	33.41	10.65	0.54	0.1729	6.15	1.88	33.459	2.00	6.16	-104.62
11.76	6,160	33.42	13.43	0.54	0.1729	6.16	1.88	33.491	1.90	6.17	-101.94
11.77	6,510	35.72	16.68	0.55	0.2682	6.48	1.92	33.528	2.00	6.52	-98.78
11.78	6,510	36.27	18.1	0.55	0.2738	6.59	1.92	33.558	2.10	6.62	-97.46
11.79	6,800	36.94	20.35	0.54	0.2993	6.78	1.72	33.588	2.00	6.81	-95.31
11.8	6,960	37.19	22.36	0.53	0.3293	6.94	1.88	33.621	2.00	6.93	-93.35
11.81	7,380	37.55	26.38	0.51	0.3707	7.36	1.88	33.654	2.00	7.40	-89.90
11.82	7,640	37.92	28.8	0.50	0.3770	7.62	1.88	33.686	1.90	7.65	-87.07
11.83	7,880	38.29	30.75	0.49	0.3902	7.85	1.72	33.717	1.90	7.89	-85.55
11.84	8,130	38.65	32.29	0.48	0.3972	8.10	1.92	33.751	1.90	8.14	-83.43
11.85	8,370	39.17	33	0.47	0.3943	8.34	1.72	33.781	2.00	8.38	-81.33
11.86	8,560	39.51	34.01	0.46	0.3973	8.53	1.92	33.815	2.00	8.57	-82.42
11.87	8,820	40.54	34.36	0.45	0.3985	8.84	1.92	33.848	1.90	8.83	-80.83
11.88	8,920	41.34	37.41	0.46	0.3786	8.89	1.72	33.878	2.00	8.93	-82.82
11.89	8,940	42.07	34.42	0.47	0.3850	8.91	1.72	33.908	2.00	8.95	-82.42
11.9	9,020	42.83	36.08	0.47	0.4000	8.98	1.92	33.942	2.00	9.04	-80.80
11.91	9,070	43.66	37.48	0.48	0.4101	9.03	1.76	33.972	2.00	9.09	-79.79
11.92	9,220	43.52	38.09	0.49	0.4131	9.18	1.76	34.005	1.90	9.18	-78.82
11.93	9,270	43.65	37.26	0.50	0.4191	9.23	1.72	34.035	2.00	9.29	-77.93
11.94	9,270	42.76	35.37	0.51	0.3816	9.23	1.88	34.068	1.90	9.28	-81.1
11.95	9,240	44.51	34.54	0.53	0.3738	9.21	1.76	34.098	2.00	9.25	-82.82
11.96	9,170	50.70	34.89	0.55	0.3805	9.14	1.72	34.129	2.10	9.18	-82.82
11.97	9,190	51.86	35.72	0.56	0.3807	9.15	1.72	34.161	2.10	9.19	-82.82
11.98	9,160	52.56	36.73	0.57	0.4010	9.12	1.76	34.192	2.10	9.18	-80.80
11.99	9,150	53.66	37.85	0.59	0.4137	9.11	1.76	34.223	2.20	9.17	-79.79
12	9,080	54.76	37.62	0.60	0.4143	9.04	1.88	34.256	2.10	9.10	-80.80
12.01	8,990	55.63	36.31	0.62	0.4039	8.95	1.88	34.288	2.10	9.01	-81.81
12.02	8,840	56.19	30.89	0.63	0.3948	8.84	1.76	34.320	2.10	8.88	-82.82
12.03	8,530	55.51	32.11	0.70	0.3846	8.52	1.76	34.350	2.10	8.36	-85.85
12.04	8,100	58.97	31.23	0.73	0.3856	8.07	1.92	34.383	2.10	8.11	-86.86
12.05	7,880	59.34	32.71	0.75	0.4151	7.85	1.72	34.413	2.10	7.89	-85.85
12.06	7,710	59.49	33.18	0.77	0.4304	7.68	1.72	34.443	2.10	7.72	-85.85
12.07	7,640	59.43	34.19	0.78	0.4475	7.62	1.76	34.473	2.10	7.64	-84.84
12.08	7,550	58.91	34.95	0.78	0.4289	7.52	1.92	34.508	2.10	7.56	-83.83
12.09	7,490	57.81	36.91	0.77	0.4928	7.45	1.92	34.541	2.20	7.51	-81.81
12.1	7,550	57.23	38.33	0.76	0.5077	7.51	1.72	34.571	2.20	7.57	-80.80
12.11	7,540	56.16	39.03	0.74	0.5176	7.50	1.76	34.602	2.10	7.56	-79.79
12.12	7,620	55.68	39.92	0.73	0.5277	7.58	1.72	34.632	2.10	7.64	-78.78
12.13	7,670	54.43	40.63	0.71	0.5297	7.63	1.88	34.665	2.10	7.69	-77.77
12.14	7,680	53.36	40.99	0.69	0.5337	7.64	1.92	34.698	2.10	7.70	-77.77
12.15	7,650	52.35	40.69	0.68	0.5319	7.61	1.88	34.731	2.10	7.67	-78.78
12.16	7,380	49.09	37.48	0.67	0.5194	7.34	1.88	34.764	2.10	7.40	-80.80
12.17	7,150	44.02	37.14	0.74	0.4994	7.11	1.76	34.797	2.10	7.22	-82.82
12.18	6,990	47.47	37.34	0.68	0.5596	6.95	1.88	34.830	2.10	7.01	-82.82
12.19	6,860	46.44	37.62	0.68	0.5484	6.82	1.76	34.861	2.10	6.88	-81.81
12.2	6,780	46.40	38.33	0.68	0.5653	6.74	1.92	34.894	2.10	6.80	-81.81

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
13.59	7,870	40.91	59.85	0.52	0.7605	7.81	1.97	39.495	2.00	7.90	-73.47
13.6	7,540	45.88	59.08	0.61	0.7836	7.48	1.97	39.529	2.00	7.56	-74.34
13.61	7,710	44.08	57.49	0.60	0.7885	7.25	1.97	39.563	2.00	7.33	-76.02
13.62	7,070	43.99	55.48	0.62	0.7847	7.01	1.97	39.598	2.00	7.09	-78.13
13.63	6,900	43.96	53.76	0.62	0.7988	6.84	1.97	39.632	2.00	6.92	-79.59
13.64	6,720	42.86	55.06	0.64	0.8193	6.66	1.97	39.666	2.00	6.74	-78.75
13.65	6,300	41.31	53.7	0.63	0.8224	6.48	1.92	39.700	2.00	6.55	-80.21
13.66	6,320	40.24	53.94	0.64	0.8535	6.27	1.97	39.734	2.00	6.34	-80.06
13.67	6,260	38.65	53.76	0.62	0.8588	6.21	1.97	39.769	2.20	6.28	-80.34
13.68	6,260	38.65	53.76	0.62	0.8588	6.21	1.97	39.803	2.20	6.32	-80.34
13.69	6,260	38.65	53.76	0.62	0.8588	6.21	1.97	39.837	2.20	6.28	-80.54
13.7	6,030	32.34	1.54	0.54	0.0255	6.03	1.97	39.872	2.30	6.03	-132.86
13.71	6,070	30.45	11.71	0.50	0.1929	6.06	1.97	39.906	2.20	6.07	-122.79
13.72	6,080	30.02	15.02	0.49	0.2470	6.06	1.97	39.941	1.90	6.09	-119.57
13.73	6,060	26.52	46.78	0.47	0.3328	5.84	1.97	39.975	2.00	6.07	-114.52
13.74	6,040	25.35	22.06	0.42	0.3652	6.02	1.97	40.009	2.00	6.05	-112.73
13.75	5,980	24.62	25.9	0.41	0.4331	5.95	1.97	40.044	1.90	5.99	-108.99
13.76	5,970	23.64	29.93	0.40	0.5013	5.94	1.97	40.078	2.00	5.98	-105.06
13.77	5,920	23.00	31.29	0.39	0.5285	5.89	1.97	40.112	2.10	5.93	-103.79
13.78	5,900	23.30	38.44	0.40	0.6515	5.86	1.97	40.147	2.00	5.92	-98.24
13.79	5,810	23.46	32.35	0.40	0.5568	5.78	1.97	40.181	2.00	5.82	-102.93
13.8	5,850	23.83	34.78	0.41	0.5945	5.82	1.97	40.216	2.00	5.86	-100.60
13.81	5,850	24.31	36.31	0.42	0.6207	5.81	1.92	40.249	1.90	5.87	-99.17
13.82	5,890	24.59	36.62	0.42	0.6557	5.85	1.97	40.283	1.90	5.91	-96.95
13.83	5,890	24.58	39.33	0.43	0.6689	5.84	1.97	40.318	1.90	5.91	-96.95
13.84	5,870	25.02	41.34	0.43	0.7043	5.83	1.97	40.352	1.90	5.89	-94.43
13.85	5,920	25.29	43	0.43	0.7264	5.88	1.92	40.386	1.90	5.94	-92.87
13.86	5,880	25.14	43.53	0.43	0.7403	5.84	1.97	40.420	1.90	5.90	-92.44
13.87	5,920	25.47	44.83	0.43	0.7573	5.88	1.97	40.454	1.90	5.94	-91.23
13.88	5,930	25.72	45.6	0.43	0.7690	5.88	1.97	40.489	1.90	5.95	-90.56
13.89	5,960	25.72	46.78	0.43	0.7849	5.91	1.97	40.523	2.00	5.98	-89.48
13.9	6,050	25.90	48.38	0.43	0.7997	6.00	1.97	40.558	2.00	6.07	-87.98
13.91	6,100	25.84	48.97	0.42	0.8028	6.05	1.97	40.592	1.90	6.12	-87.49
13.92	6,150	25.41	49.68	0.41	0.8078	6.10	1.97	40.626	1.90	6.17	-86.88
13.93	6,220	25.57	50.8	0.41	0.8167	6.17	1.97	40.661	1.90	6.24	-85.85
13.94	6,340	25.33	53.52	0.41	0.8442	6.29	1.97	40.695	1.90	6.38	-83.23
13.95	6,430	25.87	54.12	0.40	0.8417	6.38	1.97	40.729	1.90	6.45	-82.73
13.96	6,550	26.08	55	0.40	0.8397	6.50	1.97	40.764	1.90	6.57	-81.95
13.97	6,810	26.57	56.01	0.39	0.8225	6.75	1.97	40.798	1.90	6.83	-81.04
13.98	6,940	26.66	57.96	0.38	0.8352	6.88	1.97	40.833	2.00	6.96	-79.18
13.99	7,120	26.91	58.79	0.38	0.8257	7.06	1.97	40.867	1.90	7.14	-78.45
14	7,330	27.37	60.56	0.37	0.8262	7.27	1.97	40.901	1.90	7.36	-76.78
14.01	7,740	27.73	61.81	0.36	0.7986	7.68	1.97	40.936	1.90	7.77	-75.63
14.02	7,890	27.73	62.28	0.35	0.7894	7.83	1.97	40.970	1.90	7.92	-75.26
14.03	8,100	27.91	64.47	0.34	0.7959	8.04	1.97	41.004	1.80	8.13	-73.16
14.04	8,400	28.16	63.28	0.34	0.7533	8.34	1.97	41.038	1.90	8.43	-74.50
14.05	8,550	28.81	65.53	0.34	0.7864	8.48	1.97	41.073	1.90	8.59	-74.50
14.06	8,730	29.90	64.29	0.34	0.7364	8.67	1.97	41.108	1.90	8.76	-73.64
14.07	8,800	30.26	63.4	0.34	0.7205	8.74	1.97	41.142	1.90	8.83	-74.63
14.08	8,890	30.81	63.17	0.35	0.7106	8.83	1.97	41.176	1.90	8.92	-74.95
14.09	8,920	31.09	64.17	0.35	0.7184	8.86	1.97	41.211	2.00	8.95	-74.05
14.1	8,860	32.31	63.99	0.36	0.7222	8.80	1.97	41.245	2.00	8.89	-73.43
14.11	8,740	32.98	61.69	0.38	0.7058	8.68	1.97	41.279	2.00	8.77	-76.73
14.12	8,590	34.66	61.15	0.40	0.7119	8.53	1.97	41.314	2.00	8.62	-77.37
14.13	8,320	35.91	59.56	0.43	0.7159	8.26	1.97	41.348	2.00	8.35	-79.06
14.14	8,060	37.19	58.67	0.46	0.7279	8.00	1.97	41.383	2.00	8.08	-80.04
14.15	7,460	38.94	55.06	0.51	0.7845	7.40	1.97	41.418	2.00	7.48	-85.18
14.16	7,160	39.29	51.51	0.55	0.7194	7.11	1.97	41.451	2.10	7.18	-87.40
14.17	6,810	40.54	52.7	0.60	0.7739	6.76	1.97	41.486	2.10	6.83	-86.31
14.18	6,590	41.43	49.8	0.63	0.7557	6.54	1.97	41.520	2.10	6.81	-89.31
14.19	6,390	41.28	49.69	0.65	0.7775	6.34	2.12	41.557	2.20	6.41	-89.52
14.2	6,240	41.40	49.92	0.66	0.7826	6.19	1.97	41.591	2.10	6.49	-88.42
14.21	6,150	41.52	50.51	0.68	0.8213	6.10	1.92	41.625	2.10	6.17	-88.89
14.22	5,990	40.45	51.45	0.68	0.8589	5.94	1.97	41.659	2.10	6.01	-88.05
14.23	5,970	40.06	53.17	0.67	0.8906	5.92	1.92	41.693	2.10	5.99	-86.43
14.24	5,980	39.48	50.06	0.66	0.9040	5.93	1.97	41.727	2.10	6.00	-85.63
14.25	5,000	38.96	62.03	0.62	0.8207	5.00	2.12	41.764	2.20	5.08	-84.27
14.26	6,120	37.80	58.85	0.62	0.9616	6.06	1.97	41.799	2.10	6.14	-81.04
14.27	6,230	36.67	60.44	0.59	0.9701	6.17	1.97	41.833	2.10	6.26	-79.55

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.28	6,400	35.69	62.93	0.56	0.9833	6.34	1.97	41.867	2.10	6.43	-77.16
14.29	6,530	34.93	65.29	0.53	0.9898	6.46	1.97	41.902	2.20	6.56	-74.89
14.3	6,760	34.32	68.13	0.51	1.0078	6.69	1.97	41.936	2.10	6.79	-72.15
14.31	6,970	33.41	71.15	0.48	1.0208	6.90	1.97	41.970	2.10	7.00	-69.23
14.32	7,180	32.28	70.93	0.47	0.9886	7.07	1.97	42.005	2.10	7.21	-70.45
14.33	7,110	32.80	69.32	0.46	0.9750	7.04	2.02	42.040	2.10	7.14	-71.26
14.34	7,110	33.34	67.31	0.47	0.9467	7.04	1.97	42.074	2.00	7.14	-73.37
14.35	7,120	34.05	68.02	0.48	0.9553	7.05	1.97	42.109	2.00	7.15	-72.72
14.36	7,160	34.00	69.85	0.48	0.9756	7.09	1.97	42.143	2.00	7.19	-71.05
14.37	7,160	34.00	69.85	0.49	0.9886	7.09	1.97	42.178	2.00	7.40	-68.86
14.38	7,370	36.09	72.86	0.49	0.9886	7.30	1.97	42.212	2.00	7.40	-68.21
14.39	7,730	37.83	77.95	0.49	1.0084	7.65	1.97	42.246	2.00	7.76	-63.22
14.4	7,880	38.65	79.78	0.49	1.0124	7.80	1.97	42.281	1.90	7.91	-61.48
14.41	8,090	40.27	78.31	0.50	0.9890	8.01	1.97	42.315	1.90	8.12	-63.05
14.42	8,100	41.15	76.71	0.51	0.9470	8.02	1.97	42.350	1.90	8.13	-64.75
14.43	7,970	42.13	71.56	0.53	0.8979	7.90	1.97	42.384	1.90	8.00	-70.00
14.44	7,830	43.26	66	0.55	0.8299	7.76	1.97	42.418	1.90	7.86	-75.66
14.45	7,310	46.13	56.96	0.63	0.7792	7.25	2.02	42.454	1.90	7.33	-84.79
14.46	7,030	47.07	55.36	0.67	0.7875	6.97	1.97	42.488	2.00	7.05	-86.49
14.47	6,800	47.68	55.77	0.70	0.8201	6.47	1.97	42.522	2.00	6.82	-86.18
14.48	6,580	48.17	55.36	0.73	0.8413	6.52	1.97	42.557	2.00	6.60	-86.69
14.49	6,250	49.42	54.83	0.79	0.8773	6.20	1.97	42.591	2.00	6.27	-87.32
14.5	6,000	50.06	53.76	0.82	0.8913	6.05	1.97	42.625	2.10	6.12	-88.49
14.51	6,000	50.83	54.85	0.85	0.9108	5.95	1.97	42.660	2.00	6.02	-87.69
14.52	5,910	51.31	54.18	0.87	0.9320	5.82	1.97	42.694	2.00	5.88	-89.25
14.53	5,800	51.92	54	0.91	0.9310	5.75	1.97	42.729	2.00	5.82	-88.54
14.54	5,700	52.14	54.35	0.91	0.9535	5.65	1.97	42.763	2.00	5.72	-88.29
14.55	5,620	52.44	54.35	0.93	0.9671	5.57	1.97	42.797	2.00	5.64	-88.39
14.56	5,500	51.98	54.77	0.95	0.9958	5.45	1.97	42.832	2.00	5.52	-88.06
14.57	5,420	51.47	54.53	0.95	1.0061	5.37	1.97	42.866	2.00	5.44	-88.08
14.58	5,350	50.73	54.35	0.95	1.0169	5.58	1.97	42.902	2.00	5.34	-88.36
14.59	5,320	49.88	55.06	0.94	1.0350	5.26	1.97	42.935	2.00	5.34	-88.85
14.6	5,240	49.06	54.83	0.94	1.0464	5.19	1.97	42.969	2.00	5.26	-88.87
14.61	5,180	47.47	56.07	0.92	1.0824	5.12	1.97	43.004	2.00	5.20	-87.87
14.62	5,140	46.74	55.89	0.91	1.0874	5.08	1.97	43.038	2.00	5.16	-87.87
14.63	5,140	46.13	56.66	0.91	1.0923	5.08	1.97	43.072	2.00	5.16	-87.87
14.64	5,120	45.39	56.9	0.89	1.1113	5.06	1.97	43.107	2.00	5.14	-86.86
14.65	5,120	44.54	58.02	0.87	1.1332	5.06	1.97	43.141	2.10	5.14	-85.85
14.66	5,190	42.98	59.74	0.83	1.1511	5.13	1.97	43.175	2.10	5.22	-84.84
14.67	5,210	42.07	61.1	0.81	1.1727	5.15	1.97	43.210	2.30	5.24	-82.82
14.68	5,210	42.07	61.1	0.81	1.1727	5.15	1.97	43.244	2.30	5.24	-82.82
14.69	5,210	42.07	61.1	0.81	1.1727	5.15	1.97	43.279	2.30	5.24	-83.83
14.7	5,350	38.07	33.55	0.58	0.5860	5.32	1.97	43.313	2.50	5.36	-112.11
14.71	5,480	31.03	31.55	0.57	0.6487	5.44	1.97	43.347	2.20	5.49	-108.88
14.72	5,610	31.36	40.45	0.56	0.7210	5.57	1.97	43.382	2.00	5.63	-103.03
14.73	5,690	31.64	43.94	0.56	0.7722	5.65	1.97	43.416	2.00	5.68	-101.80
14.74	5,840	32.58	49.86	0.56	0.8538	5.79	1.97	43.450	2.10	5.86	-94.4
14.75	5,840	33.28	50.21	0.57	0.8598	5.79	1.97	43.485	2.10	5.86	-94.4
14.76	5,810	34.05	50.75	0.59	0.8735	5.76	2.02	43.520	2.30	5.83	-94.4
14.77	5,710	34.87	51.22	0.61	0.8970	5.56	2.02	43.555	2.10	5.73	-93.43
14.78	5,660	35.57	51.81	0.62	0.9154	5.54	2.02	43.590	2.20	5.63	-92.42
14.79	5,590	36.40	52.64	0.65	0.9417	5.54	1.97	43.624	2.30	5.61	-92.42
14.8	5,500	36.88	53.25	0.67	0.9689	5.45	1.97	43.658	2.10	5.52	-91.41
14.81	5,450	37.53	53.35	0.69	0.9789	5.40	1.97	43.693	2.20	5.47	-91.41
14.82	5,380	38.38	53.58	0.71	0.9959	5.33	1.97	43.727	2.20	5.40	-91.41
14.83	5,260	39.14	54.71	0.71	1.0401	5.17	1.97	43.762	2.10	5.30	-90.40
14.84	5,200	40.85	55.18	0.79	1.0612	5.14	1.97	43.796	2.20	5.22	-90.40
14.85	5,160	41.22	55.3	0.80	1.0717	5.10	1.97	43.830	2.20	5.18	-90.40
14.86	5,130	41.73	56.25	0.81	1.0965	5.07	1.97	43.865	2.10	5.15	-89.39
14.87	5,070	42.22	56.36	0.83	1.1116	5.10	1.97	43.899	2.10	5.09	-89.39
14.88	5,030	42.53	56.54	0.85	1.1267	5.09	1.97	43.933	2.10	5.06	-89.39
14.89	5,030	42.74	57.01	0.85	1.1334	4.97	1.97	43.968	2.10	5.05	-89.39
14.9	4,960	42.80	58.08	0.86	1.1710	4.90	2.02	44.003	2.10	4.98	-88.38
14.91	4,960	42.80	58.08	0.86	1.1710	4.90	2.02	44.038	2.10	4.98	-88.38
14.92	4,970	42.92	59.08	0.86	1.1887	4.91	1.97	44.073	2.10	4.99	-87.37
14.93	4,940	43.86	59.74	0.87	1.2093	4.93	1.97	44.107	2.10	4.96	-86.36
14.94	4,930	42.77	59.74	0.87	1.2118	4.87	1.97	44.141	2.10	4.96	-86.36
14.95	4,900	42.53	60.42	0.87	1.2371	4.84	2.02	44.177	2.10	4.93	-85.35
14.96	4,860	42.13	60.64	0.87	1.2436	4.80	1.97	44.211	2.10	4.89	-86.36

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
16.35	8,310	39.42	115.57	0.47	1.3907	8.19	1.81	48.821	1.90	8.36	-44.82
16.36	8,700	40.27	115.15	0.46	1.3236	8.58	1.81	48.852	1.90	8.75	-45.34
16.37	8,840	41.00	113.44	0.46	1.2833	8.73	1.81	48.884	1.90	8.89	-47.15
16.38	8,890	41.83	110.95	0.47	1.2480	8.78	1.81	48.915	2.00	8.94	-47.74
16.39	8,920	42.95	109.12	0.48	1.2233	8.81	1.81	48.947	1.90	9.01	-47.87
16.4	8,840	45.36	105.63	0.51	1.1949	8.73	1.81	48.979	1.90	8.88	-55.25
16.41	8,790	46.52	103.21	0.53	1.1742	8.69	1.97	49.013	1.90	8.83	-57.77
16.42	8,790	46.52	103.21	0.53	1.1742	8.69	1.97	49.047	1.90	8.83	-57.87
16.43	8,450	49.45	95.81	0.59	1.1338	8.35	1.81	49.079	1.90	8.49	-65.37
16.44	8,290	50.31	92.88	0.61	1.1194	8.20	1.81	49.111	1.90	8.53	-68.49
16.45	8,130	51.53	92.56	0.63	1.1385	8.04	1.81	49.142	2.00	8.17	-68.81
16.46	7,860	53.75	91.5	0.68	1.1641	7.77	1.81	49.174	2.00	7.90	-69.97
16.47	7,710	54.82	90.25	0.71	1.1706	7.62	1.81	49.205	2.00	7.75	-71.32
16.48	7,640	56.19	88.72	0.74	1.1613	7.55	1.81	49.237	2.00	7.68	-72.95
16.49	7,520	56.84	86.36	0.76	1.1617	7.43	1.97	49.271	2.00	7.56	-74.41
16.5	7,250	56.84	84.63	0.78	1.1673	7.17	1.81	49.303	2.00	7.29	-77.04
16.51	7,080	56.10	81.91	0.79	1.1569	7.00	1.81	49.334	2.00	7.11	-80.25
16.52	6,840	56.38	84.34	0.82	1.2330	6.76	1.97	49.369	2.00	6.88	-77.72
16.53	6,700	56.74	80.67	0.85	1.2040	6.62	1.81	49.400	2.00	6.73	-81.49
16.54	6,620	55.94	81.44	0.86	1.2302	6.54	1.81	49.432	2.00	6.65	-80.58
16.55	6,480	54.70	82.09	0.94	1.2668	6.40	1.81	49.464	2.00	6.51	-80.27
16.56	6,420	53.85	83.98	0.84	1.3081	6.34	1.81	49.495	2.00	6.46	-78.47
16.57	6,410	53.02	84.93	0.83	1.3250	6.33	1.81	49.527	2.00	6.45	-77.62
16.58	6,430	51.92	86.65	0.81	1.3476	6.34	1.81	49.558	2.00	6.47	-76.00
16.59	6,460	49.24	89.37	0.76	1.4233	6.20	1.97	49.590	2.00	6.23	-84.23
16.6	6,480	47.93	90.25	0.74	1.3927	6.29	1.81	49.624	1.90	6.52	-72.60
16.61	6,560	46.68	93.03	0.71	1.4181	6.47	1.81	49.656	1.90	6.60	-69.91
16.62	6,570	45.61	95.46	0.69	1.4530	6.47	1.81	49.687	1.90	6.61	-67.58
16.63	6,670	44.66	97	0.67	1.4543	6.57	1.81	49.719	1.90	6.71	-66.14
16.64	6,840	43.66	102.79	0.64	1.5028	6.74	1.81	49.751	1.80	6.88	-60.45
16.65	6,960	42.65	103.21	0.61	1.4850	6.85	1.81	49.782	1.90	6.96	-60.13
16.66	6,990	40.51	103.15	0.58	1.4757	6.89	1.81	49.814	1.80	7.03	-60.28
16.67	7,040	40.15	108.71	0.57	1.5442	6.93	1.81	49.845	2.00	7.09	-54.82
16.68	7,040	40.15	108.71	0.57	1.5442	6.93	1.81	49.877	2.00	7.09	-54.92
16.69	7,040	40.15	108.71	0.57	1.5442	6.93	1.81	49.909	2.00	7.09	-55.02
16.7	7,340	30.78	77.3	0.42	1.0531	7.26	1.76	49.939	1.90	7.37	-86.33
16.71	7,480	30.81	79.02	0.41	1.0564	7.40	1.92	49.973	2.20	7.51	-84.91
16.72	7,590	31.36	80.91	0.41	1.0660	7.51	1.81	50.004	1.80	7.62	-83.11
16.73	7,830	32.37	83.69	0.41	1.0688	7.75	1.76	50.035	1.80	7.87	-80.43
16.74	7,960	32.95	84.93	0.41	1.0670	7.88	1.81	50.067	2.00	8.00	-79.29
16.75	8,060	33.38	85.23	0.41	1.0674	7.97	1.76	50.097	1.90	8.10	-79.09
16.76	8,290	34.41	86.94	0.42	1.0467	8.20	1.76	50.128	1.80	8.33	-77.47
16.77	8,380	35.11	88.72	0.42	1.0587	8.29	1.81	50.160	1.80	8.42	-75.79
16.78	8,410	35.82	87.47	0.43	1.0401	8.32	1.76	50.190	2.00	8.45	-77.14
16.79	8,390	36.18	84.63	0.43	1.0067	8.31	1.76	50.221	1.90	8.43	-80.08
16.8	8,900	37.25	76.06	0.40	0.9402	8.01	1.76	50.252	1.80	8.12	-80.75
16.81	8,770	38.41	76.69	0.49	0.9262	7.80	1.76	50.282	1.90	7.95	-82.33
16.82	7,650	40.91	75.41	0.53	0.9858	7.57	1.76	50.313	1.90	7.68	-89.59
16.83	7,480	43.05	76.41	0.58	1.0215	7.40	1.81	50.345	1.80	7.51	-88.69
16.84	7,540	43.90	81.15	0.58	1.0373	7.46	1.76	50.375	1.80	7.57	-84.05
16.85	7,740	44.67	81.12	0.58	1.0712	7.62	1.76	50.406	1.80	7.73	-81.10
16.86	8,260	50.15	93.92	0.61	1.1370	8.17	1.76	50.437	1.80	8.05	-71.29
16.87	8,640	50.70	94.81	0.59	1.0973	8.55	1.76	50.468	1.80	8.68	-70.68
16.88	8,560	50.52	90.9	0.59	1.0619	8.47	1.76	50.498	1.80	8.60	-74.99
16.89	8,730	55.00	88.12	0.63	1.0094	8.64	1.76	50.529	1.80	8.77	-77.57
16.9	8,890	55.90	101.19	0.63	1.1392	8.79	1.76	50.560	2.00	8.93	-64.60
16.91	8,890	51.74	100.25	0.61	1.0574	8.79	1.76	50.590	2.00	8.96	-60.16
16.92	8,790	51.04	92.91	0.58	1.0570	8.70	1.76	50.621	2.00	8.83	-73.08
16.93	8,790	53.33	89.9	0.61	1.0228	8.70	1.76	50.652	2.00	8.83	-76.18
16.94	8,740	50.49	77.77	0.58	0.8898	8.66	1.76	50.683	1.90	8.77	-88.41
16.95	8,630	49.39	76.95	0.57	0.8917	8.55	1.76	50.713	1.90	8.66	-89.33
16.96	8,570	47.77	86.54	0.56	1.0351	8.48	1.76	50.744	1.90	8.65	-80.64
16.97	8,050	43.38	81.2	0.54	1.0087	7.97	1.76	50.775	2.00	8.08	-85.28
16.98	7,750	41.83	79.37	0.54	1.0241	7.67	1.76	50.805	2.10	7.78	-87.27
16.99	7,350	39.69	76.12	0.54	1.0356	7.27	1.76	50.836	2.10	7.38	-90.55
17	7,020	37.89	74.99	0.54	1.0682	6.95	1.76	50.867	2.10	7.05	-91.78
17.01	6,530	36.01	68.68	0.54	1.2243	6.46	1.76	50.898	2.10	6.57	-100.20
17.02	6,090	36.49	69.32	0.60	1.1383	6.02	1.76	50.928	2.10	6.12	-97.65
17.03	5,600	35.24	65.24	0.63	1.1650	5.53	1.76	50.959	2.10	5.63	-101.82

17-101_G_CPTU_Soarza

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.04	5,100	33.59	63.11	0.66	1.2375	5.04	1.76	50.990	2.10	5.13	-104.05
17.05	4,710	35.39	63.82	0.75	1.5055	4.65	1.76	51.020	2.20	4.74	-103.44
17.06	4,360	38.29	65.95	0.88	1.5126	4.29	1.81	51.052	2.20	4.39	-101.41
17.07	4,210	42.40	68.25	0.96	1.6211	4.14	1.76	51.083	2.20	4.24	-99.21
17.08	4,000	43.3	74.82	1.14	1.8705	3.94	1.76	51.113	2.20	4.03	-102.73
17.09	3,940	47.44	45.9	1.20	1.1650	3.89	1.81	51.145	2.20	3.96	-121.75
17.1	3,910	54.58	61.92	1.40	1.5836	3.85	1.76	51.176	2.30	3.94	-105.83
17.11	3,760	61.78	102.02	1.64	2.7133	3.66	1.81	51.207	2.20	3.80	-65.83
17.12	3,930	65.90	102.91	1.68	2.6968	3.83	1.76	51.238	2.20	3.97	-65.04
17.13	4,110	63.82	103.32	1.48	2.3894	4.22	1.81	51.269	2.10	4.36	-65.73
17.14	4,710	68.73	101.31	1.46	1.510	4.61	1.81	51.300	2.10	4.75	-66.83
17.15	5,000	69.34	100.19	1.39	2.0038	4.90	1.81	51.332	2.10	5.04	-68.05
17.16	4,920	70.38	81.38	1.43	1.6541	4.84	1.76	51.364	2.10	4.95	-66.96
17.17	4,140	77.40	83.16	1.51	1.6719	5.06	1.81	51.394	2.10	5.17	-85.28
17.18	5,110	73.46	85.29	1.44	1.6691	5.02	1.81	51.426	2.20	5.15	-83.25
17.19	5,120	73.25	85.05	1.43	1.6611	5.03	1.81	51.457	2.10	5.16	-83.58
17.2	5,070	73.95	81.68	1.46	1.6110	4.99	1.76	51.488	2.10	5.10	-87.05
17.21	4,910	71.42	82.39	1.45	1.6770	4.83	1.81	51.520	2.10	4.94	-86.44
17.22	4,780	72.24	82.56	1.51	1.7272	4.70	1.81	51.551	2.10	4.81	-86.37
17.23	4,470	68.73	83.75	1.54	1.8736	4.58	1.81	51.583	2.10	4.51	-85.26
17.24	4,060	64.03	87.59	1.58	2.1574	3.97	1.81	51.614	2.10	4.10	-81.53
17.25	3,940	56.64	85.58	1.49	2.1721	3.85	1.81	51.646	2.10	3.98	-83.64
17.26	3,840	62.11	82.39	1.62	2.1456	3.76	1.76	51.677	2.10	3.87	-86.93
17.27	3,610	59.99	84.69	1.58	2.3460	3.53	1.81	51.708	2.10	3.65	-84.74
17.28	3,360	55.13	74.23	1.58	2.1330	3.41	1.76	51.739	2.10	3.55	-95.20
17.29	3,420	58.30	83.39	1.70	2.4383	3.39	1.81	51.771	2.10	3.46	-86.22
17.3	3,300	61.08	90.79	1.80	2.6782	3.30	1.81	51.802	2.10	3.43	-78.92
17.31	3,410	65.93	117.05	1.93	3.4326	3.29	1.76	51.833	2.10	3.46	-52.76
17.32	3,380	68.09	90.43	2.01	2.6754	3.29	1.81	51.865	2.10	3.42	-79.48

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
19.11	12,610	42.13	114.38	0.33	0.9071	12.50	2.40	58.656	2.00	12.66	-73.09
19.12	12,970	43.32	118.05	0.34	0.9230	12.67	2.40	58.698	2.00	12.84	-69.52
19.13	13,000	44.69	117.93	0.34	0.9072	12.88	2.24	58.737	2.00	13.05	-69.74
19.14	13,280	45.88	115.9	0.35	0.8720	13.16	2.40	58.779	2.00	13.33	-71.96
19.15	13,890	48.68	119.77	0.36	0.8623	13.77	2.28	58.819	2.00	13.94	-68.08
19.16	14,250	50.76	118.94	0.36	0.8347	14.13	2.24	58.858	2.00	14.30	-69.02
19.17	14,600	51.56	121.6	0.35	0.8329	14.48	2.40	58.900	2.00	14.65	-66.46
19.18	14,950	54.00	120.24	0.36	0.8043	14.83	2.40	58.942	2.00	15.00	-67.92
19.19	15,520	58.45	118.58	0.38	0.7640	15.40	2.24	58.981	2.00	15.57	-69.67
19.20	15,810	59.52	119.29	0.38	0.7545	15.69	2.40	59.023	2.00	15.86	-69.45
19.21	16,040	63.42	118.46	0.40	0.7385	15.92	2.40	59.065	2.00	16.09	-69.99
19.22	16,310	65.65	119.35	0.40	0.7318	16.19	2.40	59.106	1.90	16.36	-69.20
19.23	16,910	70.20	121.72	0.42	0.7198	16.79	2.44	59.149	1.90	16.96	-66.93
19.24	16,910	70.20	121.72	0.42	0.7198	16.79	2.44	59.192	2.00	16.96	-67.02
19.25	17,400	75.78	121.97	0.43	0.6794	17.28	2.40	59.233	1.90	17.45	-70.97
19.26	17,560	78.37	121.19	0.45	0.6901	17.44	2.40	59.275	1.90	17.61	-67.75
19.27	17,700	80.26	118.58	0.45	0.6699	17.58	2.40	59.317	1.90	17.75	-70.46
19.28	17,930	81.76	122.07	0.46	0.6808	17.81	2.40	59.359	2.00	17.98	-67.07
19.29	18,460	86.09	122.07	0.47	0.6813	18.34	2.40	59.401	1.90	18.51	-67.16
19.30	18,510	86.73	116.45	0.46	0.6291	18.34	2.40	59.443	1.90	18.51	-72.89
19.31	18,560	88.14	118.29	0.47	0.6373	18.44	2.40	59.485	1.90	18.61	-71.14
19.32	18,590	89.36	116.1	0.48	0.6245	18.47	2.40	59.527	1.90	18.64	-73.43
19.33	18,540	90.94	115.03	0.49	0.6204	18.42	2.40	59.568	1.90	18.59	-74.60
19.34	18,470	91.37	117.4	0.49	0.6356	18.35	2.40	59.610	1.90	18.52	-72.33
19.35	18,450	91.35	118.35	0.50	0.6333	18.35	2.40	59.652	1.90	18.50	-72.30
19.36	18,400	93.78	118.52	0.51	0.6441	18.28	2.44	59.695	2.00	18.45	-71.40
19.37	18,260	95.49	119.06	0.52	0.6200	18.14	2.40	59.737	2.00	18.31	-70.96
19.38	18,310	96.83	123.96	0.53	0.6770	18.19	2.40	59.779	2.00	18.36	-66.16
19.39	18,340	97.65	122.07	0.53	0.6656	18.22	2.40	59.820	2.00	18.39	-68.15
19.40	18,340	98.11	125.15	0.53	0.6791	18.30	2.44	59.863	2.00	18.48	-65.16
19.41	18,720	106.03	126.04	0.53	0.6733	18.59	2.40	59.905	1.90	18.77	-64.37
19.42	18,820	101.35	118.94	0.54	0.6320	18.70	2.28	59.945	1.90	18.87	-71.57
19.43	18,900	102.23	116.51	0.54	0.6165	18.78	2.24	59.984	1.90	18.95	-74.10
19.44	18,980	103.33	118.52	0.54	0.6244	18.86	2.40	60.026	1.90	19.03	-72.19
19.45	18,940	104.15	117.87	0.55	0.6223	18.82	2.40	60.067	1.80	18.99	-72.93
19.46	18,860	104.73	118.35	0.56	0.6275	18.74	2.44	60.110	1.80	18.91	-72.55
19.47	18,740	105.95	120.06	0.57	0.6407	18.62	2.40	60.152	1.70	18.79	-70.94
19.48	18,710	106.71	120.06	0.57	0.6417	18.59	2.44	60.194	1.70	18.76	-71.04
19.49	18,660	108.94	119.41	0.58	0.6399	18.54	2.40	60.236	1.60	18.71	-71.79
19.50	18,650	109.83	120.83	0.59	0.6479	18.53	2.40	60.278	1.60	18.70	-70.47
19.51	18,550	110.96	117.87	0.60	0.6354	18.43	2.44	60.321	1.50	18.60	-73.52
19.52	18,490	111.50	118.05	0.60	0.6385	18.37	2.40	60.363	1.60	18.54	-73.44
19.53	18,550	112.51	119.29	0.61	0.6431	18.43	2.28	60.402	1.60	18.60	-72.30
19.54	18,640	112.94	114.56	0.61	0.6416	18.53	2.44	60.445	1.50	18.69	-77.13
19.55	18,580	114.49	118.82	0.62	0.6395	18.46	2.44	60.488	1.50	18.63	-72.97
19.56	18,580	114.49	118.82	0.62	0.6395	18.46	2.44	60.530	1.50	18.63	-73.06
19.57	18,460	112.02	118.17	0.63	0.6401	18.34	2.28	60.570	1.40	18.56	-72.92
19.58	18,240	117.94	113.56	0.65	0.6226	18.13	2.40	60.612	1.40	18.29	-78.52
19.59	18,150	118.86	111.72	0.65	0.6155	18.04	2.44	60.654	1.30	18.20	-80.46
19.60	17,790	119.89	114.8	0.67	0.6453	17.68	2.44	60.697	1.30	17.84	-77.48
19.61	17,490	120.63	112.62	0.69	0.6313	17.38	2.28	60.737	1.20	17.54	-81.95
19.62	17,170	121.75	116.29	0.70	0.6115	17.06	2.44	60.777	1.20	17.22	-75.48
19.63	17,110	121.24	117.81	0.71	0.6885	16.99	2.44	60.819	1.10	17.16	-74.76
19.64	17,230	120.11	120.77	0.70	0.7009	17.11	2.28	60.859	1.10	17.28	-71.90
19.65	17,410	119.62	120.48	0.69	0.6920	17.29	2.44	60.901	1.00	17.46	-72.29
19.66	17,410	119.62	120.48	0.69	0.6920	17.29	2.44	60.944	1.00	17.46	-72.38
19.67	17,410	119.62	120.48	0.69	0.6920	17.29	2.44	60.986	1.00	17.46	-72.48
19.68	17,550	98.45	111.37	0.55	0.6204	17.84	2.44	61.029	1.20	18.00	-81.69
19.69	17,650	0.00	71.27	0.00	0.9316	7.58	2.44	61.072	2.20	7.68	-121.89
19.70	17,980	94.42	116.63	0.53	0.6487	17.86	2.44	61.114	1.80	18.03	-76.63
19.71	18,130	93.84	117.52	0.51	0.6418	18.19	2.40	61.156	1.60	18.36	-75.84
19.72	18,690	97.87	118.67	0.51	0.6098	18.58	2.49	61.200	1.60	18.62	-70.98
19.73	19,050	95.12	116.45	0.50	0.6113	18.93	2.44	61.242	1.40	19.10	-77.10
19.74	19,310	95.15	116.22	0.49	0.6019	19.19	2.44	61.285	1.40	19.36	-77.43
19.75	19,440	95.40	115.51	0.49	0.5942	19.32	2.44	61.327	1.30	19.49	-78.24
19.76	19,730	96.37	113.44	0.49	0.5750	19.62	2.44	61.370	1.30	19.78	-80.41
19.77	19,880	96.44	112.8	0.49	0.5742	19.76	2.44	61.413	1.20	19.83	-80.42
19.78	19,880	96.36	115.98	0.49	0.5804	19.76	2.44	61.455	1.20	19.93	-78.06
19.79	19,820	99.42	118.35	0.50	0.5971	19.70	2.44	61.498	1.20	19.87	-75.79

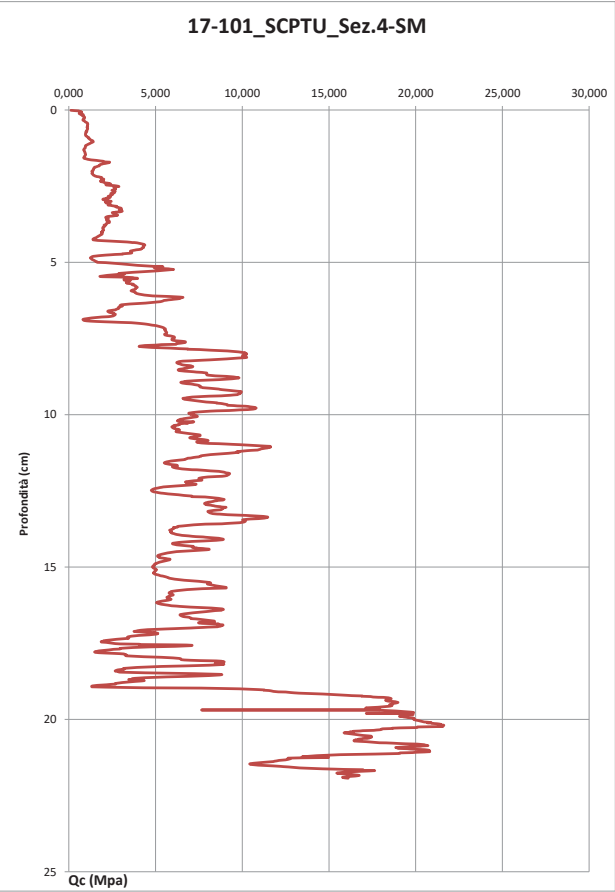
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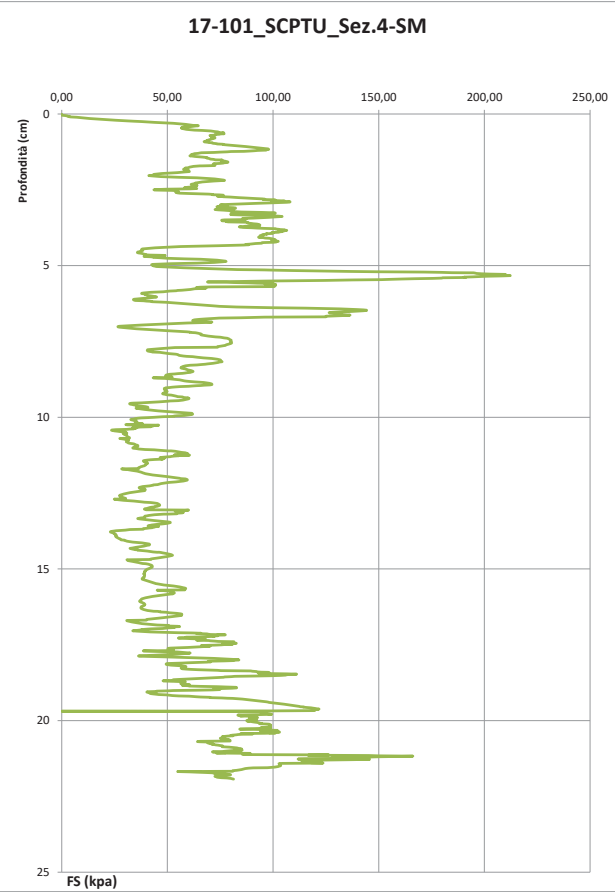
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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
19.8	17,150	93.41	131.83	0.54	0.7687	17.02	2.44	61,540	1.80	17.21	-62.41
19.81	18,680	83.41	120.65	0.42	0.6131	19.56	2.40	61,582	1.40	19.73	-73.69
19.82	18,680	83.38	117.81	0.42	0.5986	19.56	2.44	61,625	1.40	19.73	-76.62
19.83	19,740	87.13	113.26	0.44	0.5738	19.63	2.44	61,667	1.40	19.78	-81.27
19.84	19,850	86.35	113.97	0.46	0.5657	19.74	2.44	61,710	1.30	19.90	-80.96
19.85	19,480	84.41	114.68	0.43	0.5887	19.37	2.28	61,750	1.30	19.53	-80.05
19.86	19,270	91.31	108.06	0.47	0.5608	19.16	2.44	61,792	1.30	19.32	-86.77
19.87	19,270	89.69	117.17	0.47	0.5561	19.16	2.44	61,835	1.30	19.32	-87.75
19.88	19,250	90.36	119.17	0.47	0.6191	19.13	2.44	61,877	1.30	19.30	-75.85
19.89	19,120	92.10	114.92	0.48	0.6045	19.09	2.44	61,920	1.30	19.17	-80.20
19.90	19,080	92.68	117.05	0.49	0.6141	18.94	2.44	61,962	1.60	19.11	-78.17
19.91	19,250	91.86	125.8	0.48	0.6535	19.12	2.40	62,004	1.60	19.30	-69.52
19.92	19,310	90.64	121.95	0.47	0.6315	19.19	2.44	62,047	1.70	19.36	-73.47
19.93	19,450	88.72	134.67	0.46	0.6924	19.32	2.44	62,090	1.60	19.51	-60.84
19.94	19,540	89.78	128.52	0.46	0.5577	19.41	2.44	62,132	1.60	19.59	-67.85
19.95	19,810	88.59	131.59	0.45	0.6643	19.68	2.40	62,174	1.60	19.87	-84.12
19.96	19,880	90.18	123.79	0.45	0.6227	19.76	2.44	62,217	1.70	19.93	-72.02
19.97	19,840	90.94	124.32	0.46	0.6266	19.72	2.44	62,259	1.60	19.89	-71.59
19.98	19,870	92.35	119.29	0.46	0.6004	19.75	2.44	62,302	1.60	19.92	-76.71
19.99	19,920	92.13	123.32	0.46	0.6165	19.89	2.44	62,344	1.60	19.97	-72.90
20.00	19,980	87.53	124.2	0.44	0.6244	19.77	2.44	62,387	1.60	19.94	-72.00
20.01	19,950	88.75	124.02	0.44	0.6217	19.83	2.44	62,429	1.60	20.00	-72.28
20.02	19,980	89.89	123.55	0.44	0.6184	19.86	2.44	62,472	1.60	20.03	-72.85
20.03	20,110	89.66	120.18	0.45	0.5976	19.99	2.44	62,515	1.60	20.16	-76.31
20.04	20,120	90.42	121.73	0.45	0.6017	20.01	2.44	62,557	1.60	20.18	-75.46
20.05	20,270	91.46	117.93	0.46	0.5818	20.05	2.44	62,600	1	20.32	-78.70
20.06	20,300	92.62	122.78	0.46	0.6048	20.18	2.49	62,643	1.60	20.35	-74.42
20.07	20,360	93.32	121.07	0.46	0.5946	20.24	2.44	62,686	1.60	20.41	-75.82
20.08	20,490	93.44	124.5	0.46	0.6076	20.37	2.44	62,728	1.60	20.54	-72.82
20.09	20,670	94.60	126.45	0.46	0.5818	20.54	2.44	62,771	1.60	20.72	-70.07
20.10	20,770	93.07	119.97	0.47	0.5602	20.75	2.44	62,814	1.60	20.89	-69.80
20.11	20,680	97.04	104.47	0.47	0.6793	20.54	2.44	62,857	1.50	20.74	-56.81
20.12	20,940	98.20	118.76	0.47	0.5671	20.82	2.44	62,899	1.50	20.99	-68.76
20.13	20,950	98.26	124.97	0.47	0.5965	20.83	2.44	62,942	1.40	21.00	-72.51
20.14	21,220	98.75	123.31	0.47	0.5811	21.10	2.49	62,985	1.40	21.27	-74.40
20.15	21,170	98.87	117.86	0.47	0.5545	21.24	2.44	63,027	1.40	21.42	-76.47
20.16	21,440	98.54	124.2	0.46	0.5793	21.32	2.44	63,071	1.40	21.49	-73.57
20.17	21,560	98.81	126.46	0.46	0.5723	21.34	2.44	63,113	1.40	21.41	-75.62
20.18	21,500	98.51	123.67	0.46	0.5752	21.28	2.44	63,156	1.40	21.55	-74.40
20.19	21,620	98.51	119.65	0.46	0.5534	21.50	2.44	63,198	1.30	21.67	-78.14
20.20	21,660	98.63	119.65	0.46	0.5496	21.52	2.44	63,241	1.30	21.70	-78.14
20.21	21,320	98.75	117.16	0.46	0.5495	21.20	2.44	63,283	1.30	21.37	-81.01
20.22	21,560	98.39	130.59	0.45	0.6057	21.43	2.44	63,326	1.40	21.61	-67.77
20.23	21,570	94.33	113.55	0.44	0.5262	21.46	2.44	63,369	1.60	21.62	-84.96
20.24	20,560	96.60	122.31	0.48	0.5949	20.44	2.44	63,411	1.60	20.61	-76.68
20.25	20,590	96.94	122.31	0.48	0.5939	20.45	2.44	63,454	1.60	20.64	-76.68
20.26	20,900	92.71	111.9	0.46	0.5570	19.98	2.49	63,497	1.60	20.14	-86.85
20.27	20,030	87.50	123.85	0.44	0.6183	19.91	2.49	63,541	1.60	20.08	-75.95
20.28	19,900	84.26	83.57	0.44	0.4378	19.01	2.49	63,584	1.60	19.13	-115.36
20.29	18,640	91.98	120.42	0.49	0.6460	18.92	2.49	63,628	1.60	18.69	-76.68
20.30	18,550	98.26	117.86	0.47	0.6367	18.67	2.49	63,671	1.60	18.74	-81.67
20.31	18,100	95.82	115.27	0.53	0.6369	18.24	2.49	63,714	1.60	18.15	-83.97
20.32	18,020	102.02	124.38	0.57	0.6902	17.90	2.49	63,757	1.50	18.07	-74.96
20.33	18,020	97.41	137.92	0.54	0.7654	17.88	2.40	63,799	1.50	18.08	-61.92
20.34	17,950	97.07	107.35	0.54	0.5981	17.84	2.44	63,841	1.50	18.00	-82.19
20.35	17,950	94.02	107.75	0.49	0.5424	17.69	2.44	63,884	1.50	18.01	-82.19
20.36	17,580	94.69	125.33	0.54	0.7129	14.57	2.44	63,926	1.70	17.63	-74.40
20.37	16,950	103.02	117.81	0.61	0.6950	16.83	2.44	63,968	1.70	17.00	-82.02
20.38	16,790	103.08	120.53	0.61	0.7179	16.67	2.49	64,012	1.70	16.84	-79.40
20.39	16,400	98.94	116.16	0.60	0.7083	16.28	2.49	64,055	1.70	16.46	-83.98
20.40	16,110	98.20	116.22	0.60	0.7242	16.09	2.49	64,098	1.70	16.17	-83.98
20.41	16,210	101.16	131.24	0.62	0.8096	16.08	2.44	64,141	1.70	16.27	-68.97
20.42	16,240	96.01	111.01	0.59	0.6836	16.13	2.44	64,185	1.70	16.29	-89.31
20.43	15,970	84.75	104.8	0.53	0.6562	15.87	2.44	64,227	1.70	16.01	-93.62
20.44	15,870	90.42	116.39	0.57	0.7334	15.75	2.49	64,271	1.70	15.92	-84.14
20.45	15,930	89.45	116.39	0.57	0.7319	15.78	2.49	64,314	1.70	15.93	-84.14
20.46	16,170	83.53	122.25	0.52	0.7607	15.93	2.44	64,356	1.60	16.12	-78.16
20.47	16,180	82.52	124.62	0.51	0.7702	16.06	2.44	64,399	1.60	16.23	-76.15
20.48	16,440	80.78	121.54	0.49	0.7393	16.32	2.49	64,442	1.60	16.49	-79.37

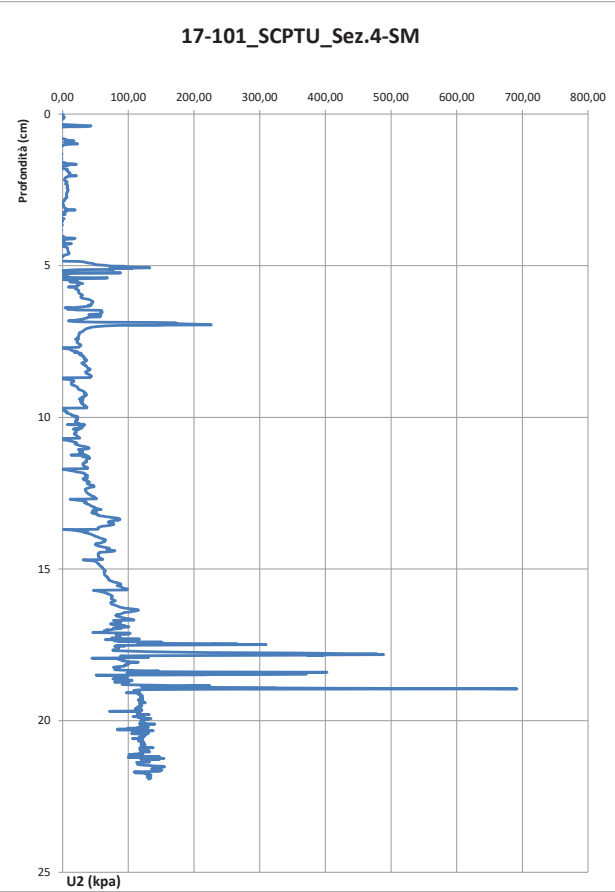
Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[Mpa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
21.87	16,250	73.74	128.93	0.45	0.7934	16.12	3.11	71,061	2.10	16.30	-85.61
21.88	16,050	75.35	134.79	0.47	0.8398	15.92	3.02	71,114	2.10	16.11	-79.85
21.89	15,950	76.97	131.36	0.48	0.8236	15.82	3.02	71,166	2.10	16.01	-83.38
21.9	15,780	79.65	133.66	0.50	0.8470	15.65	3.02	71,219	2.10	15.84	-81.18
21.91	15,810	79.96	132.94	0.51	0.8402	15.68	3.02	71,272	2.20	15.87	-82.10
21.92	15,920	80.75	131.48	0.51	0.8259	15.79	3.02	71,324	2.20	15.98	-83.56
21.93	16,110	81.30	130.94	0.50	0.8128	15.98	3.02	71,377	2.20	16.16	-84.19



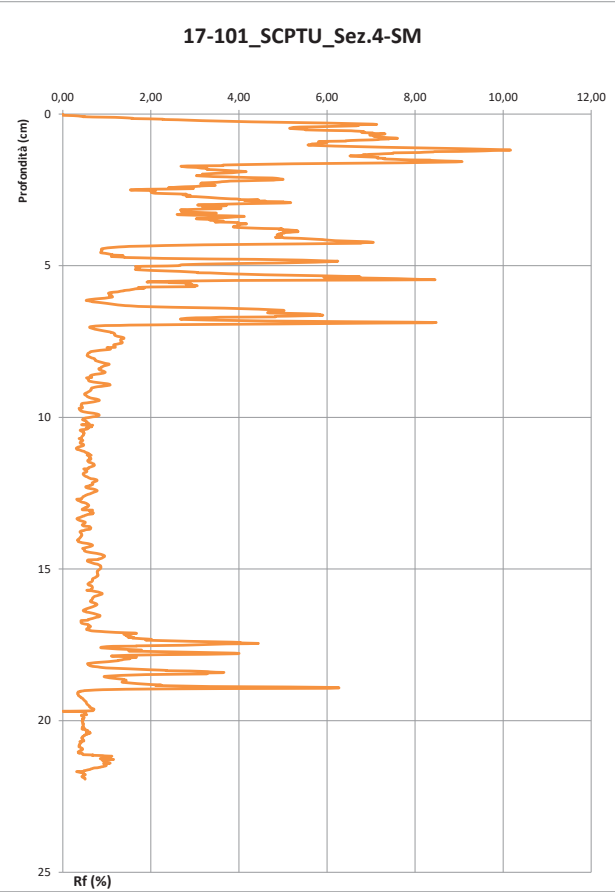
17-101.G_CPTU_Soarza L'operatore Il direttore




17-101.G_CPTU_Soarza L'operatore Il direttore



17-101.G_CPTU_Soarza L'operatore Il direttore



17-101.G_CPTU_Soarza L'operatore Il direttore

Impresa esecutrice: 	
Committente: Nome: A.L.Po P. IVA / C.F.: Indirizzo: Ufficio di Piacenza Telefono: PC-E-810 Tel. Fax: e-mail:	
Cantiero: Prova: Ubicazione: Soarza (PC) Quota assoluta [m]: Data: 20/02/2016 Q. inizio da Q. ass. [m]: Tipo prova: CPTU Preforo [m]: 1,60 Est. Codice Prova: 17-101_CPTU_Sez.4-SX Q.ta falda [m]: -2,9 Note: Sinistra argine Il responsabile di sito: Dr. Geol. Stefano Verdini Il direttore tecnico: Dr. Geol. Enrico Fasani	

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
1,61	0,000	0,05	-0,37	0,00	0,0000	0,00	1,10	0,019	0,50	0,00	-0,37
1,62	0,010	0,05	-0,18	0,50	1,8000	0,01	1,00	0,037	2,30	0,01	-0,18
1,63	0,010	0,05	-0,18	0,50	1,8000	0,01	1,00	0,054	2,30	0,01	-0,18
1,64	0,010	0,05	-0,18	0,50	1,8000	0,01	1,00	0,072	2,30	0,01	-0,18
1,65	0,010	0,05	-0,37	0,50	-3,7000	0,01	1,10	0,091	2,30	0,01	-0,37
1,66	0,010	0,05	-0,37	0,50	-3,7000	0,01	1,10	0,110	2,00	0,01	-0,37
1,67	0,010	0,00	-0,18	0,00	-1,8000	0,01	1,10	0,129	2,00	0,01	-0,18
1,68	0,010	0,00	-0,37	0,00	-3,7000	0,01	1,10	0,148	2,30	0,01	-0,37
1,69	0,010	0,00	0,37	0,00	3,7000	0,01	1,10	0,168	2,30	0,01	0,37
1,7	0,010	0,00	0,37	0,00	3,7000	0,01	1,10	0,187	2,00	0,01	0,37
1,71	0,010	0,05	-0,18	0,50	-1,8000	0,01	1,00	0,204	2,00	0,01	-0,18
1,72	0,010	0,05	0,00	0,00	0,0000	0,01	1,00	0,222	2,00	0,01	0,00
1,73	0,010	0,05	0,18	0,50	1,8000	0,01	1,00	0,239	2,00	0,01	0,18
1,74	0,010	0,00	0,37	0,00	3,7000	0,01	1,00	0,257	2,00	0,01	0,37
1,75	0,010	0,00	0,00	0,00	0,0000	0,01	0,90	0,272	2,00	0,01	0,00
1,76	0,010	0,00	0,00	0,00	0,0000	0,01	0,90	0,288	2,30	0,01	0,00
1,77	0,010	0,00	0,91	0,00	9,1000	0,01	0,90	0,304	2,30	0,01	0,91
1,78	0,010	0,00	0,37	0,00	3,7000	0,01	0,90	0,319	2,30	0,01	0,37
1,79	0,010	0,00	0,91	0,00	9,1000	0,01	0,90	0,335	2,30	0,01	0,91
1,8	0,010	0,05	0,83	0,50	18,3000	0,01	0,90	0,351	2,30	0,01	0,83
1,81	0,010	0,05	1,83	0,50	18,3000	0,01	0,90	0,367	2,30	0,01	1,83
1,82	0,010	0,00	0,18	0,00	1,8000	0,01	0,90	0,382	2,30	0,01	0,18
1,83	0,010	0,00	0,18	0,00	1,8000	0,01	0,90	0,398	2,30	0,01	0,18
1,84	0,010	0,00	0,18	0,00	1,8000	0,01	0,90	0,414	2,30	0,01	0,18
1,85	0,010	0,09	0,00	0,00	0,4290	0,01	0,90	0,429	2,00	0,01	0,00
1,86	0,010	0,09	-0,18	0,00	-1,8000	0,01	0,90	0,445	2,30	0,01	-0,18
1,87	0,030	0,05	0,00	0,17	0,0000	0,03	0,90	0,461	2,30	0,03	0,00
1,88	0,300	0,00	10,96	0,00	3,6533	0,29	0,90	0,476	2,00	0,30	10,96
1,89	0,300	0,00	10,96	0,00	3,6533	0,29	0,90	0,492	2,00	0,30	10,96
1,9	0,360	0,00	8,40	0,00	2,3533	0,35	0,90	0,508	2,00	0,36	8,40
1,91	0,140	0,00	0,37	0,00	0,5240	0,14	0,90	0,524	2,00	0,14	0,37
1,92	0,140	0,05	1,28	0,04	0,9143	0,14	1,10	0,543	2,00	0,14	1,28
1,93	0,070	0,00	-6,94	0,00	-9,9143	0,08	1,30	0,565	2,00	0,07	-6,94
1,94	0,060	0,00	-4,02	0,00	-6,7000	0,06	1,30	0,588	2,00	0,06	-4,02
1,95	0,170	0,00	2,92	0,00	1,7176	0,17	1,40	0,613	2,30	0,17	2,92
1,96	0,190	0,00	0,19	0,40	0,6370	0,19	1,40	0,637	2,30	0,19	0,19
1,97	0,210	0,05	-0,55	0,02	-0,2619	0,21	1,50	0,663	2,30	0,21	-0,55
1,98	0,050	0,00	-16,62	0,00	-33,2400	0,07	1,40	0,688	2,30	0,04	-16,62
1,99	0,220	0,00	-10,04	0,00	-4,5636	0,23	1,40	0,712	2,00	0,22	-10,04
2	0,270	0,00	-18,26	0,00	-6,7630	0,29	1,50	0,738	2,00	0,26	-18,26
2,01	0,280	0,00	-11,11	0,30	0,7640	0,28	1,50	0,764	2,00	0,27	-11,11
2,02	0,150	0,00	-17,17	0,00	-11,4467	0,17	1,60	0,792	2,30	0,14	-17,17
2,03	0,330	0,05	-29,40	0,02	-8,9091	0,36	1,60	0,820	2,00	0,32	-29,40
2,04	0,340	0,09	-5,48	0,03	-1,6118	0,35	1,60	0,848	2,00	0,34	-5,48
2,05	0,350	0,32	-5,11	0,09	-1,4600	0,36	1,70	0,878	2,30	0,35	-5,11
2,06	0,350	0,32	-5,11	0,09	-1,4600	0,36	1,70	0,908	2,30	0,35	-5,11
2,07	0,360	0,88	-5,48	0,24	-1,5222	0,37	1,70	0,937	2,00	0,36	-5,48

17-101.G_CPTU_Soarza

17-101_CPTU.S4_SX

Pag. 1

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
2.08	0.380	1.76	-4.02	0.46	-1.0579	0.38	1.70	0.967	2.00	0.38	-4.02
2.09	0.390	2.64	-2.37	0.68	-0.6077	0.39	1.80	0.998	2.30	0.39	-2.37
2.1	0.390	2.64	-2.37	0.68	-0.6077	0.39	1.80	1.030	2.30	0.39	-2.37
2.11	0.410	3.15	-0.73	0.77	-0.1780	0.41	1.70	1.059	2.00	0.41	-0.73
2.12	0.400	3.15	-1.46	0.79	-0.3650	0.40	1.70	1.089	2.00	0.40	-1.46
2.13	0.370	3.89	-5.11	1.05	-1.3811	0.38	1.80	1.120	2.00	0.37	-5.11
2.14	0.360	5.14	-8.04	1.43	-2.2333	0.37	1.80	1.152	2.00	0.36	-8.04
2.15	0.360	5.14	-8.04	1.43	-2.2333	0.37	1.80	1.183	2.00	0.36	-8.04
2.16	0.360	6.58	-12.24	1.88	-3.4971	0.36	1.80	1.215	2.30	0.34	-12.24
2.17	0.350	7.79	-16.88	2.22	-4.8514	0.37	1.80	1.246	2.30	0.34	-16.88
2.18	0.350	8.75	-20.09	2.50	-5.7400	0.37	1.80	1.277	2.30	0.34	-20.09
2.19	0.340	9.54	-24.29	2.81	-7.1441	0.36	1.80	1.309	2.10	0.33	-24.29
2.2	0.330	9.77	-27.21	2.96	-8.2455	0.36	1.80	1.340	2.20	0.32	-27.21
2.21	0.330	9.77	-27.21	2.96	-8.2455	0.36	1.80	1.372	2.00	0.32	-27.21
2.22	0.330	8.85	-29.22	2.68	-8.8545	0.36	1.80	1.403	2.20	0.32	-29.22
2.23	0.300	7.41	-31.23	2.47	-10.4100	0.33	1.80	1.435	2.20	0.29	-31.23
2.24	0.300	7.13	-32.32	2.38	-10.7733	0.33	1.80	1.466	1.80	0.29	-32.32
2.25	0.300	6.90	-33.24	2.30	-11.0800	0.33	1.80	1.497	1.80	0.29	-33.24
2.26	0.300	6.25	-32.69	2.08	-10.8967	0.33	1.90	1.530	2.30	0.29	-32.69
2.27	0.300	5.83	-31.04	1.94	-10.3467	0.33	1.90	1.564	2.30	0.29	-31.04
2.28	0.310	5.42	-31.59	1.75	-10.1903	0.34	1.90	1.597	2.30	0.30	-31.59
2.29	0.310	5.05	-31.78	1.63	-10.2516	0.34	1.90	1.630	2.30	0.30	-31.78
2.3	0.290	4.68	-32.87	1.61	-11.3345	0.32	1.90	1.663	2.00	0.28	-32.87
2.31	0.290	4.21	-32.32	1.45	-11.1448	0.32	1.90	1.696	2.00	0.28	-32.32
2.32	0.290	3.70	-31.96	1.28	-11.0207	0.32	1.90	1.729	2.30	0.28	-31.96
2.33	0.300	3.33	-31.04	1.11	-10.3467	0.33	2.00	1.764	2.30	0.29	-31.04
2.34	0.310	3.06	-30.13	0.99	-9.7194	0.34	1.90	1.797	2.00	0.30	-30.13
2.35	0.300	2.82	-29.95	0.94	-9.9833	0.33	1.90	1.831	2.00	0.29	-29.95
2.36	0.280	2.73	-30.86	0.98	-11.0214	0.31	2.00	1.866	2.00	0.27	-30.86
2.37	0.270	2.50	-31.96	0.93	-11.8370	0.30	2.00	1.900	2.30	0.26	-31.96
2.38	0.270	2.36	-31.96	0.86	-11.8370	0.30	2.00	1.935	2.30	0.26	-31.96
2.39	0.270	2.13	-31.96	0.79	-11.8370	0.30	2.00	1.970	2.00	0.26	-31.96
2.4	0.270	1.99	-32.51	0.74	-12.0407	0.30	2.00	2.005	2.00	0.26	-32.51
2.41	0.270	1.90	-33.42	0.70	-12.3778	0.30	2.10	2.042	2.30	0.26	-33.42
2.42	0.270	1.67	-34.51	0.62	-12.7815	0.30	2.10	2.078	2.30	0.26	-34.51
2.43	0.290	1.30	-35.06	0.45	-12.0897	0.33	2.10	2.115	2.30	0.28	-35.06
2.44	0.300	1.07	-35.98	0.36	-11.9933	0.34	2.10	2.152	2.30	0.28	-35.98
2.45	0.310	0.83	-36.71	0.27	-11.8419	0.35	2.10	2.188	2.00	0.29	-36.71
2.46	0.310	0.74	-37.07	0.24	-11.9581	0.35	2.10	2.225	2.00	0.29	-37.07
2.47	0.310	0.69	-37.80	0.22	-12.1935	0.35	2.10	2.262	2.30	0.29	-37.80
2.48	0.290	0.65	-39.63	0.22	-13.6655	0.33	2.10	2.298	2.30	0.27	-39.63
2.49	0.280	0.65	-41.82	0.23	-14.9357	0.32	2.10	2.335	2.00	0.26	-41.82
2.5	0.280	0.69	-42.91	0.25	-15.3250	0.32	2.10	2.372	2.00	0.26	-42.91
2.51	0.290	0.69	-43.10	0.24	-14.8621	0.33	2.10	2.408	2.30	0.27	-43.10
2.52	0.290	0.74	-43.10	0.26	-14.8621	0.33	2.20	2.447	2.30	0.27	-43.10
2.53	0.290	0.74	-43.10	0.26	-15.3929	0.32	2.20	2.485	2.00	0.26	-43.10
2.54	0.290	0.69	-42.91	0.27	-16.4346	0.30	2.20	2.523	2.00	0.27	-42.91
2.55	0.250	0.65	-42.00	0.26	-16.8000	0.29	2.20	2.562	2.00	0.23	-42.00
2.56	0.270	0.65	-41.27	0.24	-15.2852	0.31	2.30	2.602	2.30	0.25	-41.27
2.57	0.290	0.60	-39.63	0.21	-13.6655	0.33	2.30	2.642	2.30	0.27	-39.63
2.58	0.310	0.56	-37.62	0.18	-12.1355	0.35	2.30	2.682	2.30	0.29	-37.62
2.59	0.360	0.42	-35.43	0.12	-8.9417	0.40	2.30	2.722	2.30	0.35	-35.43
2.6	0.360	0.42	-35.43	0.12	-8.9417	0.40	2.30	2.762	2.00	0.35	-35.43
2.61	0.390	0.37	-29.40	0.09	-7.5385	0.42	2.30	2.803	2.00	0.38	-29.40
2.62	0.390	0.37	-29.40	0.09	-7.5385	0.42	2.30	2.843	2.30	0.38	-29.40
2.63	0.410	0.37	-28.12	0.09	-6.8571	0.43	2.40	2.883	2.30	0.40	-28.12
2.64	0.420	0.46	-29.04	0.11	-6.9143	0.45	2.40	2.926	2.00	0.41	-29.04
2.65	0.420	0.56	-29.95	0.13	-7.1310	0.45	2.40	2.968	2.00	0.41	-29.95
2.66	0.420	0.65	-29.58	0.15	-7.0429	0.45	2.40	3.010	2.00	0.41	-29.58
2.67	0.400	0.69	-28.85	0.17	-7.2125	0.43	2.50	3.054	2.00	0.39	-28.85
2.68	0.390	0.74	-28.67	0.19	-7.2513	0.43	2.50	3.094	2.00	0.38	-28.67
2.69	0.390	0.74	-27.94	0.19	-7.1641	0.42	2.50	3.141	2.00	0.38	-27.94
2.7	0.390	0.74	-27.94	0.19	-7.1641	0.42	2.50	3.185	2.30	0.38	-27.94
2.71	0.390	0.74	-27.94	0.19	-7.1641	0.42	2.50	3.228	2.30	0.38	-27.94
2.72	0.420	0.42	-3.10	0.10	-0.7381	0.42	2.50	3.272	2.30	0.42	-3.10
2.73	0.410	0.77	-0.93	0.18	-0.2254	0.41	2.50	3.315	2.30	0.42	-0.93
2.74	0.420	2.32	-4.75	0.55	-1.1310	0.42	2.50	3.359	2.30	0.42	-4.75
2.75	0.440	3.47	-2.74	0.79	-0.6227	0.44	2.50	3.403	2.00	0.44	-2.74
2.76	0.470	4.72	0.00	1.00	0.0000	0.47	2.60	3.448	2.00	0.47	0.00

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
4.15	4.210	16.81	38.53	0.40	0.9152	4.17	3.50	11.319	2.00	4.23	-2.18
4.16	4.200	17.60	38.71	0.42	0.9217	4.16	3.50	11.380	1.80	4.22	-2.10
4.17	4.230	18.34	39.08	0.43	0.9239	4.19	3.50	11.441	2.00	4.25	-1.83
4.18	4.250	18.99	39.44	0.45	0.9280	4.21	3.50	11.502	2.00	4.27	-1.57
4.19	4.290	19.81	39.81	0.46	0.9290	4.26	3.50	11.563	2.00	4.31	-1.29
4.2	4.310	20.84	40.18	0.48	0.9323	4.27	3.50	11.624	2.00	4.33	-1.02
4.21	4.340	21.26	40.54	0.49	0.9341	4.30	3.50	11.685	2.00	4.36	-0.76
4.22	4.340	21.53	40.72	0.50	0.9382	4.30	3.50	11.746	2.00	4.37	-0.88
4.23	4.350	21.63	40.91	0.50	0.9405	4.31	3.50	11.807	2.00	4.37	-0.59
4.24	4.340	21.81	41.27	0.51	0.9409	4.32	3.50	11.868	2.00	4.39	-0.50
4.25	4.340	22.00	41.45	0.51	0.9551	4.30	3.50	11.929	1.80	4.36	-0.24
4.26	4.380	22.04	41.82	0.50	0.9548	4.34	3.50	11.990	1.80	4.40	0.03
4.27	4.420	22.00	42.37	0.50	0.9586	4.38	3.50	12.051	2.00	4.44	0.48
4.28	4.420	22.23	42.55	0.50	0.9627	4.38	3.50	12.112	2.00	4.44	0.56
4.29	4.420	22.37	42.73	0.51	0.9667	4.38	3.50	12.173	2.00	4.48	0.65
4.3	4.450	22.46	42.73	0.50	0.9602	4.41	3.50	12.234	2.00	4.47	0.55
4.31	4.460	22.51	42.91	0.50	0.9621	4.42	3.50	12.296	1.80	4.48	0.63
4.32	4.490	22.69	43.28	0.51	0.9639	4.45	3.50	12.357	1.80	4.51	0.90
4.33	4.480	22.89	43.83	0.51	0.9783	4.44	3.50	12.418	2.00	4.50	1.35
4.34	4.490	23.02	44.19	0.51	0.9822	4.45	3.50	12.479	2.00	4.51	1.26
4.35	4.540	23.20	45.29	0.51	0.9976	4.49	3.60	12.541	2.00	4.56	2.62
4.36	4.580	23.34	45.47	0.51	0.9928	4.53	3.60	12.604	2.00	4.60	2.70
4.37	4.600	23.62	45.84	0.51	0.9965	4.55	3.50	12.665	2.00	4.62	2.97
4.38	4.660	23.80	46.20	0.51	0.9914	4.61	3.50	12.726	2.00	4.68	3.23
4.39	4.710	23.94	46.38	0.51	0.9847	4.62	3.50	12.787	2.00	4.73	3.31
4.4	4.730	24.13	46.75	0.51	0.9884	4.66	3.50	12.848	2.00	4.75	3.44
4.41	4.760	24.40	46.93	0.51	0.9859	4.71	3.50	12.909	2.00	4.78	3.67
4.42	4.740	24.45	47.11	0.52	0.9939	4.69	3.50	12.971	2.00	4.76	3.75
4.43	4.740	24.64	47.30	0.52	0.9979	4.69	3.50	13.033	1.80	4.76	3.84
4.44	4.760	25.01	48.21	0.53	1.0128	4.71	3.60	13.096	1.80	4.78	4.85
4.45	4.760	25.01	48.58	0.53	1.0206	4.71	3.60	13.159	2.00	4.78	4.93
4.46	4.750	25.33	48.94	0.53	1.0303	4.70	3.50	13.220	2.00	4.77	5.19
4.47	4.760	25.52	49.12	0.54	1.0319	4.71	3.50	13.281	1.80	4.78	5.27
4.48	4.760	25.75	49.49	0.54	1.0397	4.71	3.50	13.342	2.00	4.78	5.54
4.49	4.760	25.89	49.85	0.54	1.0473	4.71	3.50	13.403	2.00	4.78	5.80
4.5	4.730	26.83	50.40	0.56	1.0655	4.68	3.50	13.464	1.80	4.75	6.26
4.51	4.730	26.91	50.58	0.57	1.0693	4.68	3.50	13.529	1.80	4.75	6.34
4.52	4.710	27.09	50.77	0.58	1.0779	4.66	3.60	13.591	2.00	4.73	6.43
4.53	4.690	27.23	50.95	0.58	1.0864	4.64	3.60	13.654	2.00	4.71	6.51
4.54	4.650	27.37	51.31	0.59	1.1034	4.60	3.60	13.717	2.00	4.67	6.77
4.55	4.630	27.46	51.50	0.59	1.1123	4.58	3.60	13.780	2.00	4.65	6.86
4.56	4.620	27.51	51.98	0.60	1.1225	4.57	3.60	13.843	1.80	4.64	7.13
4.57	4.640	27.37	52.59	0.59	1.1334	4.59	3.60	13.905	1.80	4.66	7.76
4.58	4.640	27.55	52.96	0.59	1.1414	4.59	3.60	13.968	2.00	4.66	8.03
4.59	4.640	27.46	53.14	0.59	1.1453	4.59	3.60	14.031	2.00	4.66	8.11
4.6	4.630	27.69	53.32	0.60	1.1516	4.58	3.60	14.094	2.00	4.65	8.19
4.61	4.640	27.81	53.69	0.61	1.1571	4.59	3.60	14.157	2.00	4.66	8.77
4.62	4.620	27.74	53.87	0.60	1.1660	4.57	3.60	14.219	1.80	4.64	8.55
4.63	4.620	27.28	54.60	0.59	1.1818	4.57	3.60	14.282	1.80	4.64	9.18
4.64	4.600	27.18	54.97	0.59	1.1950	4.55	3.60	14.345	2.00	4.62	9.45
4.65	4.610	26.95	55.15	0.58	1.1983	4.55	3.60	14.408	1.80	4.62	9.53
4.66	4.610	26.95	55.70	0.58	1.2082	4.55	3.60	14.471	1.80	4.63	9.63
4.67	4.640	26.77	55.88	0.58	1.2043	4.58	3.60	14.533	1.80	4.66	10.07
4.68	4.670	26.77	56.06	0.57	1.2004	4.61	3.60	14.596	1.80	4.69	10.15
4.69	4.790	26.58	57.34	0.55	1.1971	4.73	3.60	14.659	2.00	4.81	11.33
4.7	4.790	26.58	57.34	0.55	1.1971	4.73	3.60	14.722	2.30	4.81	11.23
4.71	4.790	26.58	57.34	0.55	1.1971	4.73	3.60	14.784	2.30	4.81	11.33
4.72	4.910	19.17	59.90	0.39	1.2200	4.85	3.60	14.847	1.80	4.94	13.60
4.73	5.000	20.05	58.07	0.40	1.1614	4.94	3.60	14.910	1.80	5.02	11.67
4.74	5.120	20.56	56.79	0.40	1.1092	5.06	3.60	14.973	2.00	5.14	10.29
4.75	5.190	21.16	55.88	0.41	1.0767	5.13	3.60	15.036	1.80	5.21	9.28
4.76	5.310	21.67	55.15	0.41	1.0486	5.26	3.60	15.099	1.80	5.25	8.62
4.77	5.530	22.32	54.60	0.40	0.9873	5.48	3.60	15.161	1.80	5.55	7.81
4.78	5.600	22.78	54.42	0.41	0.9718	5.55	3.60	15.224	1.80	5.62	7.53
4.79	5.680	23.20	54.42	0.41	0.9581	5.63	3.60	15.287	2.00	5.70	7.43
4.8	5.730	23.62	54.42	0.41	0.9497	5.68	3.60	15.350	2.00	5.75	7.33
4.81	5.810	24.08	54.42	0.41	0.9384	5.76	3.60	15.412	2.30	5.81	7.14
4.82	5.850	24.59	54.42	0.42	0.9303	5.80	3.60	15.475	2.30	5.87	7.14
4.83	5.910	25.01	54.60	0.42	0.9239	5.86	3.60	15.538	2.30	5.93	7.22

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
4.84	5.960	25.56	54.97	0.43	0.9223	5.91	3.60	15.601	2.30	5.98	7.49
4.85	6.030	26.16	54.97	0.43	0.9116	5.98	3.60	15.664	2.30	6.05	7.39
4.86	6.050	26.86	55.15	0.44	0.9116	5.99	3.60	15.726	2.30	6.07	7.47
4.87	6.020	27.60	55.33	0.46	0.9191	5.96	3.60	15.789	2.30	6.04	7.56
4.88	5.970	28.09	55.51	0.47	0.9298	5.91	3.60	15.851	2.30	5.99	7.84
4.89	5.890	29.08	54.97	0.49	0.9333	5.84	3.60	15.915	2.30	5.91	7.00
4.9	5.890	29.08	54.97	0.49	0.9333	5.84	3.60	15.978	2.30	5.91	6.90
4.91	5.630	30.29	54.24	0.54	0.9634	5.58	3.70	16.042	2.50	5.65	6.07
4.92	5.630	30.29	54.24	0.54	0.9634	5.58	3.70	16.107	2.50	5.65	5.97
4.93	5.630	30.29	54.24	0.54	0.9634	5.58	3.70	16.171	2.50	5.65	5.89
4.94	5.370	30.89	54.42	0.58	1.0134	5.32	3.70	16.236	2.30	5.39	5.96
4.95	5.220	31.07	54.97	0.60	1.0531	5.17	3.70	16.300	2.30	5.24	6.41
4.96	5.110	30.84	55.33	0.60	1.0828	5.05	3.70	16.365	2.30	5.13	6.67
4.97	4.980	30.15	55.51	0.61	1.1471	4.92	3.70	16.429	2.30	5.00	6.75
4.98	4.860	29.04	55.88	0.57	1.1498	4.80	3.70	16.494	2.30	4.88	7.03
4.99	4.690	28.02	56.06	0.60	1.1953	4.63	3.70	16.558	2.30	4.71	7.11
5	4.560	26.81	56.25	0.59	1.2336	4.50	3.70	16.623	2.50	4.58	7.20
5.01	4.480	25.79	56.43	0.58	1.2596	4.42	3.70	16.687	2.50	4.50	7.28
5.02	4.490	24.78	56.79	0.55	1.2648	4.43	3.70	16.752	2.30	4.51	7.54
5.03	4.200	23.94	57.34	0.52	1.2602	4.49	3.70	16.816	2.30	4.57	8.02
5.04	4.660	22.74	57.52	0.49	1.2343	4.60	3.70	16.881	2.30	4.68	8.08
5.05	4.780	21.95	57.89	0.46	1.2111	4.72	3.70	16.945	2.30	4.80	8.35
5.06	4.920	21.26	58.25	0.43	1.1839	4.86	3.70	17.010	2.30	4.94	8.61
5.07	5.020	20.61	58.80	0.41	1.1713	4.96	3.70	17.075	2.30	5.04	9.06
5.08	5.120	20.28	59.35	0.39	1.1592	5.06	3.70	17.139	2.30	5.14	9.52
5.09	5.200	20.19	59.72	0.39	1.1585	5.14	3.70	17.204	2.30	5.23	9.75
5.1	5.290	20.24	60.08	0.38	1.1577	5.23	3.70	17.268	2.30	5.32	10.05
5.11	5.420	20.47	60.81	0.38	1.1220	5.36	3.70	17.333	2.30	5.45	10.68
5.12	5.560	20.84	61.18	0.37	1.1004	5.50	3.70	17.397	2.30	5.59	10.95
5.13	5.740	21.35	61.72	0.37		5.63	3.70	17.461	2.30	5.73	11.22
5.14	5.930	22.00	62.45	0.37	1.0531	5.87	3.70	17.526	2.00	5.96	12.03
5.15	6.160	22.51	63.18	0.37	1.0266	6.10	3.70	17.591	2.30	6.19	12.66
5.16	6.340	22.97	63.92	0.36	1.0082	6.28	3.70	17.655	2.30	6.37	13.30
5.17	6.550	23.39	64.65	0.36	0.9870	6.49	3.70	17.720	1.80	6.58	13.93
5.18	6.710	23.66	65.38	0.35	0.9634	6.70	3.70	17.784	1.80	6.76	14.56
5.19	6.890	24.31	65.19	0.35	0.9462	6.82	3.70	17.849	2.00	6.92	14.28
5.2	7.000	24.91	65.74	0.36	0.9391	6.93	3.70	17.913	2.00	7.03	14.73
5.21	7.160	25.79	66.11	0.36	0.9233	7.09	3.70	17.978	2.00	7.19	15.05
5.22	7.190	26.28	66.84	0.37	0.9296	7.12	3.70	18.043	2.00	7.22	15.63
5.23	7.140	26.95	67.57	0.37	0.9370	7.15	3.70	18.107	2.00	7.17	16.21
5.24	7.110	27.55	67.20	0.39	0.9451	7.04	3.70	18.172	2.00	7.14	16.80
5.25	7.010	28.67	68.38	0.41	0.9612	6.94	3.70	18.236	2.00	7.04	15.88
5.26	6.940	29.27	67.57	0.42	0.9736	6.87	3.80	18.300	2.00	6.97	15.97
5.27	6.850	30.10	67.93	0.44	0.9917	6.78	3.80	18.362	2.00	6.88	16.23
5.28	6.820	30.66	68.69	0.45	1.0035	6.75	3.80	18.425	2.00	6.85	16.50
5.29	6.890	31.35	69.21	0.46	1.0048	6.85	3.80	18.501	1.80	6.92	16.72
5.3	6.990	31.44	69.94	0.45	1.0006	6.92	3.70	18.566	1.80	7.02	17.95
5.31	7.150	31.44	70.49	0.44	0.9859	7.08	3.70	18.630	2.00	7.18	18.84
5.32	7.280	31.94	70.94	0.43	0.9758	7.21	3.70	18.695	2.00	7.31	18.85
5.33	7.450	32.12	71.22	0.43	0.9634	7.38	3.70	18.759	2.00	7.48	19.07
5.34	7.590	31.21	72.32	0.41	0.9528	7.52	3.80	18.826	2.00	7.62	19.93
5.35	7.740	31.07	72.68	0.40	0.9390	7.67	3.70	18.890	2.00	7.77	20.20
5.36	7.740	31.07	72.68	0.40	0.9390	7.67	3.70	18.955	1.80	7.77	20.00
5.37	7.740	31.07	72.68	0.40	0.9390	7.67	3.70	19.019	1.80	7.77	20.00
5.39	7.880	24.54	35.98	0.31	0.4566	7.84	3.80	19.150	2.00	7.90	-16.90
5.4	7.940	24.87	35.98	0.31	0.4531	7.90	3.80	19.216	2.00	7.96	-16.99
5.41	7.930	26.72	35.61	0.34	0.4491	7.89	3.90	19.284	2.00	7.94	-17.47
5.42	7.930	28.02	36.16	0.35	0.4560	7.89	3.80	19.351	1.80	7.95	-17.01
5.43	7.910	28.67	36.51	0.36	0.4617	7.87	3.80	19.417	1.80	7.93	-17.01
5.44	7.980	29.22	36.34	0.37	0.4612	7.84	3.80	19.483	2.00	7.90	-17.02
5.45	7.900	28.78	36.52	0.38	0.4623	7.86	3.80	19.549	2.00	7.92	-16.94
5.46	7.900	29.62	36.71	0.38	0.4647	7.86	3.80	19.616	1.80	7.92	-16.85
5.47	7.950	30.05	37.62	0.38	0.4732	7.91	3.80	19.682	1.80	7.97	-16.04
5.48	7.860	31.21	38.71	0.40	0.4935	7.82	3.90	19.750	1.80	7.88	-15.05
5.49	7.990	31.44	38.90	0.40	0.4885	7.93	3.90	19.818	2.00	7.91	-15.05
5.5	7.520	31.35	38.91	0.42	0.5148	7.48	3.90	19.886	2.00	7.54	-15.25
5.51	7.360	31.58	38.53	0.43	0.5235	7.32	3.80	19.952	2.00	7.38	-15.52
5.52	7.160	32.28	38.71	0.45	0.5406	7.12	3.80	20.019	2.00	7.18	-15.44

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
6.91	3,430	20.84	42.18	0.61	1.2297	3.39	4.10	29.694	2.00	3.45	-25.61
6.92	3,380	20.47	42.18	0.61	1.2479	3.34	4.10	29.765	2.00	3.40	-25.71
6.93	3,350	20.28	42.18	0.61	1.2591	3.31	4.10	29.837	2.00	3.37	-25.80
6.94	3,330	19.91	42.18	0.60	1.2697	3.29	4.10	29.908	2.00	3.35	-25.90
6.95	3,280	19.53	42.18	0.60	1.2860	3.24	4.10	29.980	2.00	3.30	-26.00
6.96	3,280	19.22	42.18	0.59	1.2860	3.24	4.10	30.051	2.00	3.30	-26.10
6.97	3,280	18.89	42.37	0.58	1.2918	3.24	4.10	30.123	2.00	3.30	-26.10
6.98	3,280	18.76	42.37	0.57	1.2918	3.24	4.10	30.194	2.00	3.30	-26.10
6.99	3,300	18.66	42.37	0.57	1.2839	3.26	4.10	30.266	2.00	3.32	-26.20
7.00	3,310	18.42	42.37	0.56	1.2801	3.27	4.10	30.337	2.00	3.34	-26.30
7.01	3,330	18.29	42.37	0.55	1.2724	3.29	4.10	30.409	2.00	3.35	-26.40
7.02	3,340	18.15	42.37	0.54	1.2686	3.30	4.10	30.480	2.00	3.36	-26.50
7.03	3,360	18.01	42.55	0.54	1.2664	3.32	4.10	30.552	2.00	3.38	-26.41
7.04	3,440	17.84	42.73	0.51	1.2422	3.40	4.10	30.623	2.00	3.46	-26.33
7.05	3,490	17.74	42.73	0.51	1.2444	3.45	4.10	30.695	2.00	3.51	-26.26
7.06	3,550	17.55	42.73	0.49	1.2037	3.51	4.10	30.766	2.00	3.57	-26.53
7.07	3,610	17.64	42.91	0.49	1.1886	3.57	4.10	30.838	1.80	3.63	-26.45
7.08	3,690	17.50	42.91	0.47	1.1629	3.65	4.10	30.909	1.80	3.71	-26.54
7.09	3,760	17.46	42.91	0.47	1.1443	3.71	4.10	30.981	2.00	3.77	-26.64
7.10	3,820	17.55	43.10	0.46	1.1200	3.78	4.10	31.052	2.00	3.84	-26.75
7.11	3,890	17.83	43.10	0.46	1.1080	3.85	4.10	31.124	2.00	3.91	-26.85
7.12	4,040	18.34	43.28	0.45	1.0713	4.00	4.10	31.195	2.00	4.06	-26.57
7.13	4,150	18.57	43.28	0.45	1.0429	4.11	4.10	31.267	2.00	4.17	-26.67
7.14	4,290	18.62	43.64	0.43	1.0172	4.25	4.10	31.338	2.00	4.31	-26.40
7.15	4,460	18.80	43.63	0.42	0.9947	4.42	4.10	31.410	2.00	4.42	-26.31
7.16	4,660	18.99	44.01	0.41	0.9444	4.62	4.10	31.481	2.00	4.68	-26.23
7.17	4,870	19.03	44.19	0.39	0.9074	4.83	4.10	31.553	2.00	4.89	-26.15
7.18	5,100	19.40	44.38	0.38	0.8702	5.06	4.10	31.624	2.00	5.12	-26.06
7.19	5,370	19.68	44.74	0.37	0.8331	5.33	4.10	31.696	1.80	5.39	-25.79
7.2	5,920	20.28	45.47	0.34	0.7681	5.87	4.10	31.769	1.80	5.94	-25.16
7.21	6,120	20.28	45.47	0.33	0.7430	6.07	4.20	31.842	2.00	6.14	-25.26
7.22	6,280	20.61	45.65	0.33	0.7269	6.23	4.20	31.915	2.00	6.30	-25.18
7.23	6,360	21.16	45.65	0.33	0.7178	6.31	4.20	31.989	2.00	6.38	-25.28
7.24	6,360	21.95	45.65	0.35	0.7178	6.31	4.20	32.062	2.00	6.38	-25.37
7.25	6,290	22.88	45.47	0.36	0.7229	6.24	4.20	32.135	1.80	6.31	-25.65
7.26	6,160	23.80	45.29	0.39	0.7352	6.11	4.20	32.208	1.80	6.18	-25.93
7.27	5,470	25.75	44.74	0.45	0.7794	5.70	4.20	32.282	1.80	5.76	-26.58
7.28	5,470	26.54	44.56	0.49	0.8146	5.43	4.20	32.355	2.00	5.49	-26.86
7.29	5,210	27.32	44.19	0.52	0.8482	5.17	4.20	32.428	2.00	5.23	-27.32
7.3	4,970	27.97	44.19	0.56	0.8891	4.93	4.20	32.501	2.00	4.99	-27.42
7.31	4,790	27.97	44.56	0.58	0.9303	4.75	4.20	32.575	2.00	4.81	-27.15
7.32	4,980	28.62	45.05	0.61	0.9733	4.64	4.20	32.648	1.80	4.71	-26.16
7.33	4,450	30.05	45.11	0.68	1.0137	4.40	4.20	32.721	1.80	4.47	-26.80
7.34	4,260	34.32	45.11	0.81	1.0589	4.21	4.20	32.794	2.00	4.28	-26.90
7.35	4,290	33.62	42.37	0.78	0.9876	4.25	4.20	32.868	2.00	4.31	-29.73
7.36	4,290	33.34	44.01	0.78	1.0531	4.22	4.20	32.941	1.80	4.28	-29.19
7.37	4,240	32.23	44.20	0.78	1.0467	4.20	4.20	33.014	1.80	4.30	-29.12
7.38	4,230	31.35	43.64	0.74	1.0317	4.19	4.20	33.087	2.00	4.25	-28.76
7.39	4,250	30.84	43.28	0.73	1.0184	4.21	4.20	33.161	2.00	4.27	-29.22
7.4	4,310	29.27	44.56	0.68	1.0399	4.27	4.20	33.234	2.00	4.33	-28.03
7.41	4,350	28.67	44.66	0.66	1.0244	4.31	4.20	33.307	2.00	4.37	-28.13
7.42	4,420	28.33	44.74	0.64	1.0122	4.38	4.20	33.380	2.00	4.43	-28.14
7.43	4,510	27.32	45.11	0.61	1.0002	4.46	4.20	33.453	2.00	4.53	-27.78
7.44	4,430	26.63	45.29	0.58	0.9782	4.58	4.20	33.527	1.80	4.65	-27.07
7.45	4,980	25.84	46.02	0.52	0.9424	4.93	4.30	33.602	1.80	5.00	-27.06
7.46	5,120	25.10	46.57	0.48	0.8939	5.16	4.30	33.677	1.80	5.23	-26.61
7.47	5,490	22.92	47.11	0.44	0.8558	5.44	4.30	33.752	1.80	5.46	-26.06
7.48	5,790	23.57	47.30	0.41	0.8169	5.74	4.20	33.825	1.80	5.81	-26.08
7.49	6,100	23.29	47.66	0.38	0.7813	6.05	4.20	33.898	2.00	6.12	-25.82
7.5	6,400	23.48	48.21	0.37	0.7533	6.35	4.20	33.971	2.00	6.42	-25.37
7.51	7,010	24.22	48.94	0.35	0.6981	6.96	4.30	34.046	1.80	7.03	-24.73
7.52	7,290	24.63	49.21	0.34	0.6764	7.24	4.30	34.121	1.80	7.31	-24.61
7.53	7,560	24.50	50.04	0.32	0.6619	7.51	4.30	34.196	1.80	7.58	-23.83
7.54	7,790	24.87	50.77	0.32	0.6517	7.74	4.30	34.271	1.80	7.81	-23.20
7.55	8,080	25.66	51.50	0.32	0.6374	8.03	4.30	34.346	2.00	8.10	-22.57
7.56	8,080	30.15	51.50	0.37	0.6374	8.03	4.20	34.419	1.80	8.10	-22.66
7.57	8,130	30.15	50.77	0.36	0.6374	8.08	4.20	34.493	1.80	8.10	-22.66
7.58	8,180	29.64	52.41	0.36	0.6407	8.13	4.20	34.566	1.80	8.20	-21.95
7.59	8,180	30.93	51.13	0.38	0.6251	8.13	4.20	34.639	1.80	8.20	-23.33

17-101_G_CPTU_Soarza

17-101_CPTU_S4_SX

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
7.6	8,240	31.63	50.40	0.38	0.6117	8.19	4.30	34.714	2.00	8.26	-24.16
7.61	8,420	31.77	52.05	0.38	0.6182	8.37	4.30	34.789	2.00	8.44	-22.60
7.62	8,580	31.68	53.14	0.37	0.6193	8.53	4.30	34.864	1.80	8.60	-21.61
7.63	8,770	33.06	55.51	0.38	0.6330	8.71	4.30	34.939	1.80	8.79	-19.34
7.64	8,870	32.65	54.97	0.36	0.6197	8.82	4.30	35.014	1.80	8.89	-19.34
7.65	8,950	31.91	55.70	0.36	0.6223	8.89	4.30	35.089	1.80	8.97	-19.35
7.66	8,790	31.26	53.87	0.36	0.6129	8.74	4.30	35.164	1.80	8.81	-21.27
7.67	8,840	30.24	52.05	0.34	0.5888	8.79	4.30	35.239	1.80	8.86	-23.19
7.68	8,680	30.75	50.95	0.35	0.5870	8.63	4.30	35.314	1.80	8.70	-24.39
7.69	8,680	30.75	50.95	0.35	0.5870	8.63	4.30	35.389	1.80	8.70	-24.40
7.7	8,880	30.75	50.95	0.35	0.5870	8.63	4.30	35.464	2.50	8.70	-24.59
7.71	8,870	19.50	63.92	0.22	0.7206	8.81	4.30	35.539	1.80	8.90	-11.72
7.72	8,800	21.16	51.31	0.24	0.5888	8.65	4.30	35.614	1.80	8.72	-24.42
7.73	8,750	29.96	54.97	0.34	0.6282	8.70	4.30	35.689	1.80	8.77	-20.86
7.74	8,760	27.79	53.51	0.31	0.6095	8.73	4.30	35.764	1.80	8.80	-22.42
7.75	8,750	27.28	55.15	0.31	0.6303	8.69	4.30	35.839	1.80	8.77	-20.88
7.76	8,680	30.10	54.42	0.35	0.6270	8.63	4.30	35.914	2.00	8.70	-21.71
7.77	8,650	32.05	54.05	0.37	0.6249	8.60	4.30	35.989	2.00	8.67	-22.17
7.78	8,580	33.44	53.87	0.39	0.6279	8.53	4.30	36.064	1.80	8.60	-22.45
7.79	8,510	35.15	53.69	0.41	0.6309	8.46	4.30	36.139	1.80	8.53	-22.73
7.8	8,390	34.92	54.00	0.42	0.6508	8.34	4.30	36.214	2.00	8.41	-21.92
7.81	8,390	36.21	55.15	0.43	0.6573	8.33	4.30	36.289	2.00	8.41	-21.47
7.82	8,360	38.34	55.70	0.46	0.6663	8.30	4.40	36.365	2.00	8.38	-21.01
7.83	8,410	39.92	55.70	0.47	0.6623	8.35	4.40	36.442	2.00	8.43	-21.11
7.84	8,400	41.77	55.88	0.46	0.6574	8.44	4.40	36.519	2.00	8.52	-20.03
7.85	8,640	43.07	56.43	0.50	0.6531	8.58	4.40	36.596	2.00	8.66	-20.58
7.86	8,800	42.42	56.98	0.48	0.6475	8.74	4.40	36.672	2.00	8.82	-20.13
7.87	9,020	37.46	58.07	0.42	0.6438	8.96	4.40	36.749	2.00	9.04	-19.13
7.88	9,200	38.95	58.80	0.42	0.6391	9.14	4.40	36.826	1.80	9.22	-18.50
7.89	9,410	35.98	59.72	0.38	0.6346	9.35	4.40	36.902	1.80	9.37	-17.50
7.9	9,440	35.52	60.08	0.38	0.6364	9.38	4.40	36.979	2.00	9.47	-17.17
7.91	9,360	36.35	59.72	0.39	0.6380	9.30	4.40	37.056	2.00	9.39	-17.77
7.92	9,290	35.52	59.72	0.38	0.6428	9.23	4.40	37.133	2.00	9.32	-17.77
7.93	9,060	35.94	48.76	0.40	0.5382	9.01	4.40	37.209	1.80	8.90	-28.99
7.94	8,760	35.89	54.24	0.41	0.6248	8.73	4.40	37.286	1.80	8.67	-29.07
7.95	8,590	35.43	55.70	0.41	0.6484	8.53	4.40	37.363	2.00	8.61	-22.22
7.96	8,480	35.19	56.25	0.41	0.6633	8.42	4.40	37.440	2.00	8.50	-22.11
7.97	8,340	34.82	57.71	0.42	0.6920	8.28	4.40	37.516	2.00	8.36	-20.20
7.98	8,210	34.41	58.62	0.42	0.7140	8.15	4.40	37.593	2.00	8.23	-19.93
7.99	8,050	34.41	59.35	0.43	0.7318	7.99	4.40	37.670	2.00	8.07	-19.66
8	7,790	34.59	59.72	0.44	0.7666	7.73	4.40	37.746	1.80	7.82	-18.18
8.01	7,510	35.15	59.72	0.47	0.7952	7.45	4.40	37.823	2.00	7.54	-18.88
8.02	7,210	36.17	59.72	0.50	0.8283	7.15	4.40	37.900	2.00	7.24	-18.98
8.03	6,930	37.00	59.35	0.53	0.8564	6.87	4.40	37.977	2.00	6.95	-19.49
8.04	6,670	37.70	59.17	0.57	0.8870	6.61	4.40	38.054	2.00	6.67	-20.00
8.05	6,280	38.62	59.17	0.61	0.9422	6.22	4.50	38.133	2.00	6.30	-19.99
8.06	6,180	39.22	59.17	0.63	0.9574	6.12	4.50	38.212	2.00	6.20	-19.99
8.07	6,120	37.37	59.35	0.61	0.9688	6.06	4.40	38.289	2.00	6.14	-19.99
8.08	6,110	37.70	59.53	0.62	0.9743	6.05	4.40	38.365	2.00	6.14	-19.99
8.09	6,120	38.30	59.80	0.63	0.9788	6.06	4.40	38.442	2.00	6.15	-19.99
8.1	6,140	38.25	59.90	0.62	0.9756	6.08	4.40	38.519	2.30	6.17	-19.97
8.11	6,100	38.72	59.90	0.60	0.9820	6.04	4.50	38.597	2.00	6.13	-19.99
8.12	6,080	36.77	59.61	0.61	0.9884	6.00	4.50	38.676	2.00	6.09	-19.99
8.13	6,020	36.12	59.90	0.60	0.9950	5.96	4.50	38.754	2.00	6.05	-19.99
8.14	5,990	35.89	59.90	0.60	1.0000	5.93	4.50	38.831	2.00	6.00	-19.99
8.15	5,980	35.15	60.26	0.59	1.0077	5.92	4.50	38.911	2.00	6.01	-19.99
8.16	6,020	34.59	60.26	0.57	1.0010	5.96	4.50	38.990	2.00	6.05	-19.99
8.17	6,030	33.78	60.43	0.56	1.0025	5.97	4.50	39.068	2.00	6.06	-19.99
8.18	6,100	32.66	60.63	0.54	0.9939	6.04	4.50	39.146	2.00	6.13	-19.99
8.19	6,190	32.05	61.18	0.52	0.9846	6.13	4.50	39.225	2.00	6.19	-19.99
8.21	6,400	30.55	61.72	0.47	0.9644	6.34	4.40	39.302	2.00	6.43	-18.88
8.21	6,500	29.19	61.91	0.46	0.9525	6.44	4.40	39.378	2.00	6.53	-18.88
8.22	6,640	29.41	62.82	0.44	0.9461	6.58	4.50	39.457	2.00	6.67	-17.77
8.23	6,840	28.94	63.37	0.42	0.9265	6.78	4.50	39.535	2.00	6.87	-17.77
8.24	7,090	28.14	63.73	0.40	0.9078	6.78	4.50	39.614	2.30	7.12	-17.77
8.25	7,340	28.20	64.28	0.38	0.8737	7.28	4.50	39.692	2.30	7.37	-17.77
8.26	7,620	28.11	65.01	0.37	0.8531	7.55	4.50	39.771	2.00	7.65	-17.77
8.27	7,900	28.02	65.19	0.35	0.8252	7.83	4.50	39.849	2.00	7.93	-16.66
8.28	8,130	27.51	65.19	0.34	0.8018	8.06	4.50	39.928	2.00	8.16	-16.66

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-Uq
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
9.67	5,680	36.95	64.10	0.65	1,1285	5.62	4.90	51,336	2.00	5.71	-30.76
9.68	5,670	36.68	64.10	0.65	1,1305	5.61	4.90	51,422	2.00	5.70	-30.86
9.69	5,670	36.68	64.10	0.65	1,1305	5.61	4.90	51,507	2.50	5.70	-30.96
9.7	5,670	36.68	64.10	0.65	1,1305	5.61	4.90	51,592	2.30	5.70	-31.06
9.71	5,470	28.41	61.91	0.51	1,1318	5.41	5.90	51,578	2.30	5.57	-33.35
9.72	5,460	28.90	59.72	0.53	1,0938	5.40	4.90	51,763	2.00	5.49	-35.63
9.73	5,390	29.41	58.44	0.55	1,0842	5.33	4.90	51,849	2.00	5.41	-37.01
9.74	5,340	30.19	57.52	0.57	1,0772	5.24	4.90	51,934	2.30	5.36	-38.03
9.75	5,330	31.21	57.89	0.59	1,0861	5.27	4.90	52,019	2.30	5.35	-37.76
9.76	5,370	30.75	57.96	0.57	1,0780	5.31	5.20	52,105	2.90	5.30	-37.68
9.77	5,420	31.68	57.34	0.58	1,0579	5.36	4.90	52,190	2.30	5.44	-38.50
9.78	5,450	31.17	56.43	0.57	1,0354	5.39	4.90	52,276	2.00	5.47	-39.51
9.79	5,440	31.07	55.88	0.57	1,0272	5.38	4.90	52,361	2.00	5.46	-40.14
9.8	5,400	31.03	55.70	0.57	1,0315	5.34	5.00	52,448	2.00	5.42	-40.46
9.81	5,350	30.99	55.51	0.58	1,0376	5.29	5.00	52,535	2.00	5.37	-40.3
9.82	5,280	30.84	55.33	0.58	1,0479	5.22	5.00	52,623	2.00	5.30	-41.00
9.83	5,190	31.07	54.97	0.60	1,0592	5.14	5.00	52,710	2.30	5.21	-41.46
9.84	5,100	31.12	54.78	0.61	1,0741	5.05	4.90	52,795	2.30	5.12	-41.75
9.85	4,910	30.75	54.42	0.63	1,1084	4.86	4.90	52,881	2.00	4.93	-42.21
9.86	4,910	30.75	54.42	0.63	1,1084	4.86	4.90	52,965	2.00	4.92	-42.39
9.87	4,810	30.66	54.24	0.64	1,1277	4.76	4.90	53,051	2.30	4.83	-42.58
9.88	4,630	30.38	53.87	0.66	1,1635	4.58	5.00	53,139	2.30	4.65	-43.05
9.89	4,570	30.15	53.87	0.66	1,1788	4.52	5.00	53,226	2.00	4.59	-43.15
9.9	4,520	30.05	53.67	0.66	1,1918	4.47	5.00	53,313	2.00	4.54	-43.25
9.91	4,470	29.73	53.69	0.67	1,2011	4.42	5.00	53,400	2.00	4.49	-43.35
9.92	4,420	29.36	53.89	0.66	1,2147	4.37	5.00	53,487	2.00	4.44	-43.63
9.93	4,410	29.31	54.05	0.66	1,2256	4.36	5.00	53,574	2.30	4.43	-43.36
9.94	4,410	28.62	54.05	0.65	1,2256	4.36	5.00	53,662	2.30	4.43	-43.46
9.95	4,440	28.16	54.24	0.63	1,2216	4.39	5.00	53,749	2.00	4.46	-43.37
9.96	4,480	27.65	54.24	0.62	1,2107	4.43	5.00	53,836	2.00	4.50	-43.47
9.97	4,540	26.91	54.24	0.59	1,1947	4.49	5.00	53,923	2.00	4.56	-43.57
9.98	4,630	26.35	54.42	0.57	1,1754	4.58	5.00	54,010	2.00	4.65	-43.48
9.99	4,730	26.03	54.78	0.55	1,1581	4.68	5.00	54,097	2.00	4.75	-43.22
10	4,860	25.47	54.97	0.52	1,1311	4.81	5.00	54,184	2.00	4.88	-43.13
10.01	5,210	24.45	55.51	0.47	1,0655	5.15	5.00	54,272	2.00	5.23	-42.69
10.02	5,210	24.45	55.51	0.47	1,0655	5.15	5.00	54,359	2.00	5.23	-42.79
10.03	5,860	23.90	55.88	0.42	0,9838	5.62	5.00	54,446	2.00	5.70	-42.51
10.04	5,990	23.66	56.06	0.39	0,9359	5.93	5.00	54,533	2.00	6.01	-42.43
10.05	6,130	23.71	56.61	0.38	0,8871	6.25	5.00	54,620	2.30	6.33	-41.98
10.06	6,360	23.53	56.98	0.35	0,8594	6.57	5.10	54,709	2.30	6.65	-41.71
10.07	6,940	23.71	57.52	0.34	0,8288	6.88	5.10	54,796	1.80	6.96	-41.27
10.08	7,250	23.94	57.89	0.33	0,7985	7.19	5.10	54,887	1.80	7.27	-40.99
10.09	7,510	24.17	58.25	0.32	0,7756	7.45	5.10	54,976	2.00	7.53	-40.73
10.1	7,700	24.36	58.44	0.32	0,7590	7.64	5.10	55,065	2.00	7.72	-40.64
10.11	7,770	24.50	58.25	0.32	0,7497	7.71	5.10	55,154	2.00	7.79	-40.93
10.12	7,660	25.05	58.07	0.33	0,7581	7.60	5.10	55,243	2.00	7.68	-41.21
10.13	7,530	25.29	57.89	0.34	0,7688	7.47	5.10	55,331	1.80	7.56	-41.62
10.14	7,390	25.93	58.07	0.35	0,7858	7.33	5.10	55,420	1.80	7.41	-41.40
10.15	7,220	26.30	58.25	0.36	0,8068	7.16	5.10	55,509	2.00	7.24	-41.32
10.16	6,980	27.55	57.89	0.39	0,8294	6.92	5.10	55,598	2.00	7.00	-41.78
10.17	6,710	28.71	57.16	0.43	0,8519	6.65	5.10	55,687	2.00	6.73	-42.61
10.18	6,250	29.37	56.79	0.49	0,9072	6.20	5.20	55,775	2.00	6.28	-43.08
10.19	6,070	31.54	56.79	0.52	0,9356	6.01	5.10	55,865	1.80	6.09	-43.1
10.2	5,940	32.00	57.16	0.54	0,9623	5.88	5.10	55,954	1.80	5.96	-42.90
10.21	5,860	32.32	57.16	0.55	0,9754	5.80	5.10	56,043	1.80	5.88	-43.00
10.22	5,800	32.74	57.52	0.56	0,9917	5.74	5.10	56,131	2.00	5.82	-42.74
10.23	5,800	32.97	58.07	0.54	1,0012	5.74	5.10	56,220	1.80	5.82	-42.92
10.24	5,840	33.57	58.25	0.57	0,9974	5.78	5.10	56,309	1.80	5.86	-42.20
10.25	5,910	33.57	58.62	0.57	0,9919	5.85	5.10	56,398	1.80	5.93	-41.93
10.26	6,000	33.30	58.80	0.56	0,9800	5.94	5.10	56,487	2.00	6.02	-41.85
10.27	6,120	33.02	58.80	0.54	0,9608	6.06	5.20	56,578	2.00	6.14	-41.95
10.28	6,210	32.93	58.62	0.53	0,9440	6.15	5.20	56,668	2.00	6.23	-42.04
10.29	6,330	32.93	58.44	0.52	0,9232	6.27	5.20	56,759	2.00	6.35	-42.50
10.3	6,430	32.74	58.62	0.51	0,9117	6.37	5.20	56,850	2.00	6.45	-42.42
10.31	6,580	32.32	58.80	0.49	0,8936	6.52	5.10	56,938	2.00	6.60	-42.34
10.32	6,720	31.95	59.17	0.48	0,8805	6.66	5.10	57,027	2.00	6.74	-42.07
10.33	6,720	31.72	59.17	0.48	0,8831	6.64	5.10	57,116	2.00	6.74	-42.07
10.34	7,090	31.17	59.72	0.44	0,8435	7.02	5.20	57,207	2.00	7.11	-41.72
10.35	7,090	31.40	59.72	0.44	0,8423	7.03	5.20	57,298	2.00	7.12	-41.81

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-Uq
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
10.36	6.980	31.95	59.72	0.46	0.8556	6.92	5.20	57.388	2.00	7.01	-41.91
10.37	6.800	32.65	59.72	0.48	0.8782	6.74	5.20	57.479	2.00	6.83	-42.01
10.38	6.630	33.16	59.53	0.50	0.8979	6.57	5.20	57.569	2.00	6.66	-42.30
10.39	6.470	33.57	59.53	0.52	0.9201	6.41	5.20	57.660	2.00	6.50	-42.40
10.4	6.360	34.08	59.35	0.51	0.8932	6.30	5.20	57.751	2.00	6.38	-42.67
10.41	6.300	34.18	59.53	0.54	0.9449	6.24	5.20	57.841	2.00	6.33	-42.59
10.42	6.300	34.45	59.53	0.55	0.9449	6.24	5.20	57.932	2.00	6.33	-42.69
10.43	6.350	34.92	59.72	0.55	0.9405	6.29	5.20	58.023	2.00	6.38	-42.60
10.44	6.620	34.96	60.81	0.53	0.9186	6.56	5.20	58.113	2.00	6.65	-41.81
10.45	6.850	34.92	61.54	0.51	0.8932	6.83	5.20	58.204	2.00	6.92	-40.92
10.46	7.200	34.82	62.27	0.48	0.8649	7.14	5.20	58.294	2.00	7.23	-40.34
10.47	7.620	34.82	63.37	0.46	0.8136	7.56	5.20	58.385	2.00	7.65	-39.34
10.48	8.090	34.78	63.92	0.43	0.7901	8.03	5.20	58.476	2.00	8.12	-38.89
10.49	8.650	34.32	64.46	0.40	0.7452	8.59	5.20	58.566	2.00	8.68	-38.45
10.5	9.190	33.76	65.01	0.37	0.7074	9.12	5.20	58.657	2.00	9.22	-38.00
10.51	9.690	33.11	65.38	0.34	0.6747	9.62	5.20	58.748	2.00	9.72	-37.72
10.52	10.070	32.46	65.74	0.32	0.6528	10.00	5.20	58.838	1.80	10.10	-37.46
10.53	10.490	33.53	65.92	0.32	0.6224	10.42	5.20	58.929	1.80	10.52	-37.38
10.54	10.540	34.62	66.11	0.33	0.6272	10.47	5.20	59.020	2.00	10.57	-37.29
10.55	10.360	35.94	66.11	0.34	0.6278	10.46	5.20	59.110	2.00	10.56	-37.39
10.56	10.390	37.42	66.11	0.36	0.6363	10.32	5.30	59.203	2.00	10.42	-37.48
10.57	10.150	38.85	65.92	0.38	0.6495	10.08	5.30	59.295	2.00	10.18	-37.77
10.58	9.830	40.38	65.74	0.41	0.6688	9.76	5.20	59.386	2.00	9.86	-38.05
10.59	9.490	41.82	65.64	0.44	0.6908	9.42	5.20	59.476	2.00	9.52	-38.33
10.6	9.190	43.39	65.56	0.47	0.7173	9.07	5.20	59.567	2.00	9.47	-38.43
10.61	8.540	47.28	65.74	0.55	0.7698	8.47	5.20	59.657	2.00	8.57	-38.34
10.62	8.540	47.28	64.74	0.55	0.7698	8.47	5.20	59.748	2.00	8.57	-38.44
10.63	8.290	48.62	66.11	0.59	0.7975	8.22	5.20	59.839	2.00	8.32	-38.17
10.64	7.920	50.38	66.65	0.64	0.8415	7.85	5.20	59.931	2.00	7.93	-38.06
10.65	7.770	50.85	66.11	0.65	0.8597	7.68	5.20	60.022	2.00	7.76	-38.28
10.66	7.680	51.38	65.92	0.67	0.8606	7.59	5.20	60.116	2.00	7.69	-38.38
10.67	7.600	51.08	66.11	0.67	0.8699	7.53	5.30	60.208	2.00	7.63	-38.49
10.68	7.600	51.08	66.11	0.67	0.8699	7.53	5.30	60.301	2.80	7.63	-38.49
10.69	7.600	51.08	66.11	0.67	0.8699	7.53	5.30	60.393	2.30	7.63	-38.49
10.7	7.370	71.04	65.04	0.25	0.8699	7.37	5.07	60.485	2.00	7.43	-38.73
10.71	7.590	40.15	67.38	0.37	0.8877	7.52	5.30	60.578	2.00	7.72	-37.97
10.72	7.720	40.01	65.56	0.52	0.8492	7.65	5.30	60.670	2.00	7.65	-37.97
10.73	7.920	39.73	64.28	0.50	0.8116	7.86	5.30	60.762	2.00	7.95	-40.00
10.74	8.150	39.41	64.10	0.48	0.7865	8.09	5.30	60.855	2.00	8.18	-41.01
10.75	8.450	37.22	64.28	0.46	0.7607	8.39	5.30	60.947	2.00	8.48	-41.01
10.76	8.770	38.85	64.46	0.43	0.7350	8.71	5.30	61.040	2.00	8.80	-41.01
10.77	9.020	38.48	64.10	0.43	0.7106	8.96	5.30	61.132	2.30	9.05	-41.01
10.78	9.180	37.23	63.37	0.41	0.6903	9.12	5.30	61.224	2.30	9.21	-42.02
10.79	9.130	36.91	60.81	0.40	0.6860	9.07	5.30	61.317	2.00	9.16	-42.02
10.8	9.130	36.91	60.81	0.40	0.6860	9.07	5.30	61.409	2.00	9.16	-42.02
10.81	8.700	38.03	60.63	0.43	0.6969	8.64	5.30	61.501	2.00	8.88	-42.02
10.82	8.420	39.64	60.81	0.47	0.7222	8.36	5.30	61.594	2.00	8.45	-42.02
10.83	8.160	40.15	60.08	0.49	0.7363	8.10	5.30	61.686	2.00	8.19	-42.02
10.84	7.860	40.47	59.53	0.51	0.7574	7.80	5.30	61.778	2.00	7.89	-42.02
10.85	7.620	40.43	59.17	0.53	0.7665	7.56	5.30	61.871	2.00	7.64	-42.02
10.86	7.410	40.58	58.98	0.53	0.7590	7.35	5.30	61.963	2.00	7.47	-42.02
10.87	7.250	40.80	58.00	0.56	0.8110	7.19	5.30	62.056	2.00	7.27	-42.02
10.88	7.100	41.17	58.80	0.58	0.8262	7.04	5.30	62.148	2.00	7.12	-42.02
10.89	7.000	41.40	58.98	0.59	0.8426	6.94	5.30	62.240	2.00	7.02	-42.02
10.9	6.930	41.22	58.98	0.59	0.8511	6.87	5.30	62.333	2.00	6.95	-42.02
10.91	6.870	40.98	58.98	0.59	0.8596	6.80	5.30	62.425	2.00	6.87	-42.02
10.92	6.820	40.66	59.17	0.60	0.8676	6.73	5.30	62.517	2.00	6.84	-42.02
10.93	6.800	40.10	59.17	0.59	0.8701	6.74	5.30	62.610	2.00	6.82	-42.02
10.94	6.830	38.90	59.53	0.57	0.8716	6.77	5.30	62.702	2.00	6.86	-42.02
10.95	6.840	38.34	59.72	0.56	0.8731	6.78	5.40	62.796	2.00	6.87	-42.02
10.96	6.800	39.93	59.72	0.56	0.8802	6.84	5.40	62.890	2.00	6.89	-42.02
10.97	6.710	37.56	59.72	0.56	0.8900	6.65	5.40	62.985	2.00	6.74	-42.02
10.98	6.620	36.72	59.53	0.55	0.8992	6.56	5.40	63.079	2.00	6.65	-42.02
10.99	6.500	36.12	59.72	0.56	0.9188	6.44	5.40	63.173	2.00	6.53	-42.02
11	6.400	35.47	59.72	0.55	0.9331	6.34	5.40	63.267	2.00	6.43	-42.02
11.01	6.240	34.96	59.72	0.55	0.9478	6.24	5.40	63.361	2.00	6.28	-42.02
11.02	6.240	34.59	59.90	0.55	0.9599	6.18	5.40	63.455	2.00	6.27	-42.02
11.03	6.190	34.36	60.08	0.56	0.9706	6.13	5.40	63.549	2.00	6.22	-42.02
11.04	6.170	34.18	60.26	0.55	0.9767	6.11	5.40	63.643	2.00	6.20	-42.02

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
12.43	5,250	34.32	64.28	0.65	1,2244	5.19	5.90	77.212	2.30	5.28	-57.66
12.44	5,100	34.73	64.1	0.68	1,2569	5.04	5.90	77.315	2.00	5.13	-57.94
12.45	5,000	35.10	64.1	0.70	1,2820	4.94	5.90	77.418	2.00	5.03	-58.03
12.46	4,900	35.38	64.1	0.72	1,3062	4.84	5.90	77.521	2.00	4.93	-58.13
12.47	4,830	35.80	64.28	0.74	1,3308	4.77	5.90	77.624	2.00	4.86	-58.05
12.48	4,770	36.17	64.1	0.76	1,3438	4.71	5.90	77.726	2.30	4.80	-58.33
12.49	4,710	36.40	63.92	0.77	1,3571	4.65	5.90	77.829	2.30	4.74	-58.60
12.5	4,660	36.86	63.55	0.79	1,3637	4.60	5.90	77.932	2.00	4.69	-59.08
12.51	4,610	36.91	63.37	0.80	1,3746	4.55	5.90	78.035	2.00	4.64	-59.35
12.52	4,560	36.86	63.55	0.81	1,3806	4.50	5.90	78.138	2.00	4.59	-59.62
12.53	4,520	37.00	63.37	0.82	1,4020	4.46	5.90	78.240	2.30	4.55	-59.55
12.54	4,490	36.86	63.37	0.82	1,4114	4.43	5.90	78.343	2.30	4.52	-59.55
12.55	4,460	36.35	63.55	0.82	1,4249	4.40	5.90	78.446	2.30	4.49	-59.57
12.56	4,450	35.84	63.55	0.81	1,4291	4.39	5.90	78.549	2.30	4.48	-59.66
12.57	4,440	35.24	63.97	0.78	1,4273	4.38	5.90	78.652	2.30	4.47	-59.94
12.58	4,430	35.10	63.37	0.79	1,4305	4.37	5.90	78.754	2.30	4.46	-60.04
12.59	4,420	34.78	63.18	0.79	1,4294	4.36	5.90	78.857	2.00	4.45	-60.33
12.6	4,410	34.45	63.18	0.78	1,4327	4.35	5.90	78.960	2.00	4.44	-60.43
12.61	4,400	34.27	63.3	0.78	1,4318	4.34	5.90	79.063	2.30	4.43	-60.70
12.62	4,400	34.04	63.3	0.78	1,4309	4.34	5.90	79.166	2.30	4.43	-60.99
12.63	4,390	33.81	63	0.77	1,4351	4.33	5.90	79.268	2.00	4.42	-60.90
12.64	4,390	33.53	62.82	0.76	1,4310	4.33	5.90	79.371	2.00	4.42	-61.18
12.65	4,400	33.02	63	0.75	1,4318	4.34	5.90	79.474	2.00	4.43	-61.10
12.66	4,420	32.79	63	0.74	1,4253	4.36	5.90	79.577	2.00	4.45	-61.19
12.67	4,440	32.46	63	0.73	1,4189	4.38	5.90	79.679	2.00	4.48	-61.30
12.68	4,440	32.46	63	0.73	1,4189	4.38	5.90	79.782	2.80	4.47	-61.39
12.69	4,440	32.46	63	0.73	1,4189	4.38	5.90	79.885	2.50	4.47	-61.49
12.7	4,450	24.50	63.18	0.55	1,4198	4.39	6.00	79.990	2.50	4.48	-61.41
12.71	4,590	25.10	61.36	0.55	1,3368	4.53	6.00	80.094	2.00	4.62	-63.33
12.72	4,670	25.70	60.26	0.55	1,2904	4.61	6.00	80.199	2.00	4.70	-64.52
12.73	4,770	26.20	59.53	0.55	1,2480	4.71	6.00	80.303	2.00	4.80	-65.35
12.74	4,880	26.77	59.17	0.55	1,2125	4.82	6.00	80.408	2.00	4.90	-65.81
12.75	4,990	27.14	59.17	0.54	1,1858	4.93	6.00	80.512	2.30	5.01	-65.91
12.76	5,120	27.69	59.17	0.54	1,1557	5.06	6.00	80.617	2.30	5.14	-66.01
12.77	5,260	27.97	58.98	0.53	1,1213	5.20	6.00	80.721	2.00	5.28	-66.29
12.78	5,420	28.29	58.98	0.52	1,0882	5.36	6.00	80.826	2.00	5.44	-66.39
12.79	5,580	28.57	58.98	0.51	1,0570	5.52	6.00	80.930	2.00	5.60	-66.49
12.8	5,740	28.85	59.17	0.50	1,0308	5.68	6.00	81.035	2.00	5.76	-66.40
12.81	5,900	29.13	59.35	0.49	1,0059	5.84	6.00	81.139	2.30	5.92	-66.32
12.82	6,020	29.45	59.53	0.49	9,9899	5.96	6.00	81.244	2.30	6.05	-66.23
12.83	6,110	29.87	59.72	0.49	9,9774	6.05	6.00	81.348	2.00	6.14	-66.14
12.84	6,140	30.47	60.08	0.50	9,9785	6.08	6.00	81.453	2.00	6.17	-65.88
12.85	6,100	31.07	60.26	0.51	9,9879	6.04	6.00	81.558	2.00	6.13	-65.80
12.86	5,980	31.86	60.08	0.53	1,0047	5.92	6.00	81.662	2.30	6.01	-66.08
12.87	5,740	33.25	59.72	0.58	1,0410	5.68	6.00	81.767	2.30	5.77	-66.53
12.88	5,490	34.55	59.35	0.63	1,0634	5.43	6.00	81.871	2.00	5.77	-67.01
12.89	5,260	34.92	58.98	0.68	1,1213	5.20	6.00	81.976	2.00	5.28	-67.17
12.9	5,080	35.24	58.98	0.69	1,1610	5.02	6.00	82.080	2.30	5.10	-67.57
12.91	4,960	35.38	59.17	0.71	1,1929	4.90	6.00	82.185	2.30	4.98	-67.48
12.92	4,890	35.33	59.35	0.72	1,2137	4.83	6.00	82.289	2.30	4.91	-67.47
12.93	4,830	35.47	59.53	0.73	1,2325	4.77	6.00	82.394	2.30	4.89	-67.31
12.94	4,810	35.52	59.72	0.74	1,2576	4.74	6.00	82.498	2.00	4.84	-67.11
12.95	4,800	35.57	59.72	0.74	1,2442	4.74	6.00	82.603	2.00	4.83	-67.32
12.96	4,820	35.57	59.72	0.74	1,2390	4.76	6.00	82.707	2.00	4.85	-67.42
12.97	4,870	35.01	60.08	0.72	1,2337	4.81	6.00	82.812	2.00	4.90	-67.16
12.98	4,950	34.32	60.45	0.69	1,2212	4.89	6.00	82.916	2.30	4.98	-66.88
12.99	5,050	34.04	60.08	0.69	1,2077	4.99	6.00	83.021	2.00	5.08	-66.66
13	5,200	33.48	61.36	0.64	1,1800	5.14	6.00	83.125	2.00	5.23	-66.17
13.01	5,350	33.48	61.91	0.63	1,1572	5.29	6.00	83.230	2.00	5.38	-65.72
13.02	5,540	33.25	62.09	0.60	1,1208	5.48	6.00	83.336	2.30	5.57	-65.64
13.03	5,740	33.34	62.45	0.58	1,0880	5.68	6.00	83.442	2.30	5.77	-65.37
13.04	5,970	33.67	63.3	0.53	1,0413	5.91	6.00	83.549	2.30	5.93	-64.93
13.05	6,220	33.71	63.55	0.54	1,0217	6.16	6.00	83.655	2.00	6.25	-64.47
13.06	6,490	33.99	64.1	0.52	9,9877	6.43	6.00	83.761	2.00	6.52	-64.02
13.07	6,780	34.36	64.46	0.51	9,9507	6.72	6.00	83.868	2.00	6.81	-63.76
13.08	7,090	34.87	65.01	0.49	9,9169	7.02	6.00	83.974	2.00	7.12	-63.30
13.09	7,400	35.47	65.38	0.46	9,8642	7.33	6.00	84.080	2.00	7.43	-62.68
13.1	7,730	36.26	65.92	0.47	9,8528	7.66	6.00	84.186	2.00	7.76	-62.59
13.11	8,420	38.25	67.38	0.45	9,8002	8.35	6.00	84.293	2.00	8.45	-61.23

17-101_G_CPTU_Soarza

17-101_CPTU_S4_SX

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
13.12	8,810	39.18	68.66	0.44	0.7793	8.74	6.10	84.399	2.00	8.84	-60.05
13.13	9,200	40.24	69.58	0.44	0.7793	9.13	6.10	84.505	2.00	9.23	-59.23
13.14	9,590	41.40	69.94	0.43	0.7293	9.52	6.10	84.611	1.80	9.62	-58.96
13.15	9,980	41.96	70.87	0.42	0.7073	9.92	6.10	84.718	1.80	10.02	-58.33
13.16	10,330	42.81	71.22	0.42	0.6894	10.26	6.10	84.824	2.00	10.36	-57.88
13.17	11,010	45.06	72.68	0.41	0.6601	10.94	6.10	84.930	2.00	11.04	-56.52
13.18	11,400	46.96	74.14	0.41	0.6504	11.33	6.10	85.036	1.80	11.43	-55.16
13.19	11,750	48.30	75.24	0.41	0.6403	11.67	6.10	85.143	1.80	11.78	-54.15
13.2	12,340	51.82	76.52	0.42	0.6201	12.26	6.20	85.251	1.80	12.37	-52.97
13.21	12,570	53.21	76.7	0.42	0.6102	12.49	6.20	85.359	1.80	12.60	-52.80
13.22	12,750	54.97	77.06	0.43	0.6044	12.67	6.20	85.467	1.80	12.78	-52.63
13.23	12,930	56.87	77.25	0.44	0.5974	12.85	6.20	85.575	1.80	12.96	-52.54
13.24	13,040	58.67	77.79	0.45	0.5965	12.96	6.20	85.683	1.80	13.07	-52.09
13.25	13,110	63.26	78.34	0.48	0.5976	13.03	6.20	85.791	1.80	13.14	-51.64
13.26	13,040	65.99	78.71	0.51	0.6036	12.96	6.20	85.899	1.80	13.07	-51.37
13.27	12,960	68.31	79.07	0.53	0.6101	12.88	6.20	86.007	1.80	12.99	-51.11
13.28	12,800	70.99	79.25	0.55	0.6191	12.72	6.20	86.115	1.80	12.83	-51.03
13.29	12,580	73.54	79.44	0.58	0.6315	12.50	6.20	86.223	1.80	12.61	-50.93
13.3	12,090	77.52	79.07	0.64	0.6540	12.01	6.20	86.331	1.80	12.12	-51.40
13.31	11,840	78.91	79.25	0.67	0.6963	11.76	6.20	86.439	2.00	11.87	-51.32
13.32	11,640	80.58	79.62	0.69	0.6840	11.56	6.20	86.547	2.00	11.67	-51.05
13.33	11,500	81.97	80.35	0.71	0.6987	11.42	6.20	86.655	2.00	11.53	-50.42
13.34	11,380	82.71	80.9	0.73	0.7109	11.30	6.20	86.763	2.00	11.41	-49.97
13.35	11,340	83.36	81.63	0.74	0.7198	11.26	6.20	86.871	2.00	11.37	-49.33
13.36	11,310	83.31	82.72	0.73	0.7313	11.23	6.20	86.979	2.00	11.34	-49.34
13.37	11,310	82.99	84	0.73	0.7427	11.23	6.30	87.088	2.00	11.37	-47.16
13.38	11,310	82.48	85.1	0.73	0.7524	11.22	6.30	87.198	2.00	11.35	-46.16
13.39	11,340	82.29	85.83	0.73	0.7569	11.25	6.30	87.308	2.00	11.38	-45.53
13.4	11,330	79.70	85.28	0.70	0.7527	11.24	6.30	87.418	2.00	11.37	-46.17
13.41	11,210	80.49	82.18	0.72	0.7331	11.13	6.30	87.527	2.00	11.24	-49.37
13.42	11,060	79.05	84	0.71	0.7395	10.99	6.30	87.636	2.00	11.09	-48.92
13.43	10,920	77.57	84	0.71	0.7692	10.84	6.30	87.747	2.00	10.96	-47.75
13.44	10,830	76.73	84.37	0.71	0.7790	10.75	6.30	87.857	2.00	10.87	-47.48
13.45	10,820	75.62	84.92	0.70	0.7848	10.74	6.30	87.966	2.00	10.86	-47.02
13.46	10,870	73.96	85.65	0.68	0.7878	10.78	6.30	88.076	2.00	10.91	-46.39
13.47	10,990	72.87	86.38	0.66	0.8066	10.82	6.30	88.186	2.00	10.96	-45.62
13.48	11,160	70.62	87.29	0.63	0.8272	11.07	6.30	88.296	2.00	11.20	-44.95
13.49	11,470	68.12	88.93	0.59	0.7753	11.38	6.30	88.405	2.00	11.51	-43.41
13.5	11,600	67.33	89.85	0.58	0.7746	11.51	6.30	88.515	2.00	11.64	-42.59
13.51	11,680	66.95	90.39	0.57	0.7738	11.59	6.30	88.625	2.00	11.72	-42.14
13.52	11,750	65.82	91.54	0.56	0.7649	11.69	6.30	88.735	2.00	11.81	-41.69
13.53	11,790	65.02	91.31	0.55	0.7745	11.70	6.30	88.844	2.00	11.83	-41.42
13.54	11,740	64.55	92.04	0.55	0.7840	11.65	6.30	88.954	2.00	11.78	-40.79
13.55	11,670	64.00	92.59	0.55	0.7934	11.58	6.30	89.064	2.00	11.71	-40.34
13.56	11,610	64.48	92.77	0.56	0.7991	11.52	6.30	89.173	2.00	11.65	-40.25
13.57	11,580	65.01	93.05	0.56	0.8059	11.46	6.30	89.283	2.00	11.58	-39.82
13.58	11,550	65.39	93.42	0.57	0.8143	11.46	6.30	89.393	2.00	11.59	-39.17
13.59	11,580	65.71	94.96	0.57	0.8200	11.49	6.30	89.503	2.00	11.62	-38.36
13.6	11,450	65.76	93.82	0.57	0.7321	11.37	6.30	89.612	2.00	11.49	-39.99
13.61	11,240	67.61	93.13	0.60	0.8286	11.15	6.30	89.722	2.00	11.28	-40.38
13.62	11,030	69.67	92.44	0.64	0.8377	10.91	6.40	89.832	2.00	11.06	-41.82
13.63	10,860	68.31	91.41	0.64	0.8566	10.59	6.40	89.945	2.00	10.72	-42.22
13.64	10,240	69.42	90.76	0.68	0.8863	10.15	6.40	90.056	2.00	10.28	-43.05
13.65	9,840	70.48	90.58	0.72	0.9205	9.75	6.40	90.168	2.00	9.88	-43.33
13.66	9,410	70.99	90.03	0.75	0.9567	9.32	6.40	90.279	2.00	9.45	-43.97
13.67	9,070	71.14	89.66	0.78	0.9885	8.98	6.40	90.390	2.00	9.08	-44.61
13.68	9,070	71.14	89.66	0.78	0.9885	8.98	6.40	90.502	2.80	9.11	-44.54
13.69	9,070	71.14	89.66	0.78	0.9885	8.98	6.40	90.614	2.80	9.11	-44.64
13.7	8,410	59.55	80.9	0.71	0.9620	8.33	6.40	90.725	2.00	8.44	-53.50
13.71	8,440	59.23	78.89	0.70	0.9303	8.40	6.40	90.837	2.80	8.51	-55.61
13.72	8,590	59.74	77.79	0.69	0.9085	8.46	6.40	90.948	2.80	8.62	-56.22
13.73	8,740	59.09	77.43	0.68	0.8859	8.66	6.40	91.060	2.30	8.77	-56.26
13.74	8,910	59.79	77.43	0.67	0.8690	8.83	6.40	91.171	2.00	8.94	-57.38
13.75	9,070	58.49	77.61	0.64	0.8557	8.99	6.40	91.283	2.00	9.10	-57.26
13.76	9,270	57.98	78.16	0.63	0.8431	9.19	6.40	91.394	2.30	9.30	-56.83
13.77	9,490	58.12	78.52	0.61	0.8474	9.41	6.40	91.506	2.30	9.56	-56.65
13.78	9,690	58.12	78.52	0.60	0.8103	9.61	6.40	91.617	2.00	9.72	-56.66
13.79	9,860	57.93	79.07	0.59	0.8019	9.78	6.40	91.729	2.00	9.89	-56.21
13.8	10,040	57.24	79.62	0.57	0.7930	9.96	6.50	91.842	2.00	10.07	-55.75

Depth [m]	Qc [kPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [kPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
15.19	2,500	80.90	122.35	3.24	4.8940	2.38	6.70	107.764	2.30	2.55	-26.66
15.2	2,500	83.59	124.54	3.34	4.9816	2.38	6.70	107.881	2.30	2.55	-24.57
15.21	2,460	84.10	130.57	3.42	5.3077	2.33	6.70	107.998	2.30	2.51	-18.64
15.22	2,620	83.45	138.06	3.19	5.2695	2.48	6.70	108.114	2.30	2.68	-11.25
15.23	2,620	80.53	147.19	3.07	5.6179	2.87	6.70	108.32	2.30	2.88	-2.22
15.24	2,770	82.38	152.12	2.97	5.4917	2.62	6.70	108.348	2.30	2.83	2.62
15.25	2,980	83.59	150.84	2.81	5.0617	2.83	6.70	108.464	2.30	3.04	1.24
15.26	3,070	87.43	142.62	2.85	4.6456	2.93	6.70	108.581	2.30	3.13	-7.08
15.27	3,080	91.09	136.78	2.96	4.4409	2.94	6.70	108.698	2.30	3.14	-13.02
15.28	2,980	90.15	137.15	3.07	4.7151	2.85	6.70	108.817	2.30	3.07	-10.57
15.29	2,870	91.46	126	3.19	4.3902	2.74	6.70	108.931	2.50	2.92	-23.99
15.3	2,780	91.51	123.45	3.29	4.4406	2.66	6.70	109.048	2.50	2.83	-26.92
15.31	2,680	89.79	121.44	3.35	4.5313	2.56	6.70	109.164	2.50	2.73	-28.75
15.32	2,430	87.76	120.34	3.61	4.9523	2.31	6.70	109.281	2.30	2.48	-29.95
15.33	2,230	86.22	120.76	3.96	5.4049	2.11	6.70	109.398	2.30	2.28	-29.29
15.34	2,060	89.24	121.07	4.33	5.8772	1.94	6.70	109.514	2.50	2.11	-29.42
15.35	2,060	89.24	121.07	4.33	5.8772	1.94	6.70	109.631	2.50	2.11	-29.51
15.36	1,830	91.37	123.63	4.99	6.7557	1.71	6.70	109.748	2.30	1.88	-27.07
15.37	1,740	92.94	124.91	5.34	7.1787	1.62	6.70	109.864	2.30	1.79	-25.87
15.38	1,710	95.59	124.54	5.57	7.2832	1.59	6.70	109.981	2.30	1.76	-26.34
15.39	1,670	96.93	125.46	5.80	7.5126	1.54	6.70	110.098	2.50	1.72	-25.52
15.4	1,650	96.23	126	5.83	7.6364	1.52	6.70	110.214	2.50	1.70	-25.07
15.41	1,620	93.64	127.28	5.78	7.8568	1.49	6.70	110.331	2.30	1.67	-23.89
15.42	1,610	91.28	129.11	5.67	8.0193	1.48	6.70	110.448	2.30	1.66	-22.16
15.43	1,980	84.92	133.13	4.52	6.7327	1.85	6.70	110.564	2.20	1.85	-18.24
15.44	2,570	91.46	139.88	3.56	4.4428	2.63	6.70	110.681	2.00	2.63	-11.19
15.45	3,190	92.34	147.19	2.89	4.6141	3.04	6.70	110.798	2.30	3.25	-4.37
15.46	3,740	93.36	149.38	2.50	3.9941	3.59	6.70	110.914	2.30	3.80	-2.28
15.47	4,060	93.59	143.35	2.31	3.5308	3.92	6.70	111.031	2.00	4.12	-8.41
15.48	4,130	90.40	137.87	2.19	3.3383	3.99	6.70	111.148	2.00	4.19	-13.99
15.49	4,060	86.18	132.76	2.12	3.2700	3.93	6.70	111.264	2.00	4.12	-19.20
15.5	4,000	82.52	129.84	2.06	3.2460	3.87	6.70	111.381	2.00	4.05	-22.22
15.51	3,890	79.10	127.83	2.03	3.2861	3.76	6.80	111.499	2.30	3.94	-24.32
15.52	3,810	75.67	125.82	1.99	3.3024	3.68	6.80	111.618	2.30	3.86	-26.43
15.53	3,820	73.12	126.19	1.91	3.3034	3.69	6.80	111.736	2.30	3.87	-26.16
15.54	3,940	72.33	126.74	1.88	3.3526	3.71	6.80	111.855	2.30	3.89	-23.71
15.55	3,880	70.76	128.38	1.82	3.3088	3.75	6.80	111.973	2.30	3.93	-24.17
15.56	3,790	70.25	128.01	1.85	3.3776	3.66	6.80	112.091	2.30	3.84	-24.63
15.57	3,780	72.57	118.52	1.92	3.1354	3.66	6.80	112.210	2.30	3.83	-34.22
15.58	3,660	76.36	120.53	2.09	3.2932	3.54	6.80	112.328	2.00	3.71	-32.31
15.59	3,600	76.22	119.8	2.12	3.3278	3.48	6.80	112.447	2.00	3.65	-33.14
15.6	3,500	80.11	120.34	2.29	3.4583	3.38	6.80	112.565	2.00	3.55	-32.70
15.61	3,440	83.82	123.27	2.44	3.5834	3.32	6.80	112.683	2.30	3.49	-29.86
15.62	3,390	85.76	126.55	2.53	3.7330	3.26	6.80	112.802	2.30	3.44	-26.68
15.63	3,040	89.19	128.93	2.93	4.2411	2.91	6.80	112.920	2.30	3.09	-24.40
15.64	2,620	96.37	137.51	3.44	4.8762	2.68	6.80	113.039	2.30	2.82	-15.92
15.65	2,770	106.26	145.18	3.62	5.2412	2.62	6.80	113.157	2.30	3.62	-8.22
15.66	2,870	101.97	145.36	3.55	5.0648	2.72	6.80	113.275	2.30	3.93	-8.26
15.67	2,980	102.99	139.34	3.46	4.6758	2.84	6.80	113.394	2.00	3.04	-14.38
15.68	2,980	102.99	139.34	3.46	4.6758	2.84	6.80	113.512	2.80	3.04	-14.48
15.69	2,980	102.99	139.34	3.46	4.6758	2.84	6.80	113.631	2.80	3.04	-14.58
15.7	2,980	93.87	106.46	3.14	5.5725	2.80	6.80	113.749	2.80	3.02	-7.56
15.71	2,820	99.15	113.95	3.52	4.0408	2.71	6.80	113.867	1.80	2.87	-40.17
15.72	2,760	102.11	113.4	3.70	4.1087	2.65	6.80	113.986	2.00	2.81	-40.81
15.73	2,640	104.71	111.76	3.97	4.2333	2.53	6.80	114.104	2.00	2.69	-42.55
15.74	2,780	108.59	111.76	3.91	4.2021	2.67	6.80	114.223	2.00	2.83	-42.65
15.75	2,990	114.06	111.73	3.87	4.3955	2.87	6.80	114.341	2.00	3.87	-39.33
15.76	3,380	120.50	124.36	3.57	3.6793	3.26	6.80	114.460	2.00	3.43	-30.25
15.77	4,340	114.75	134.95	2.64	3.1094	4.21	6.80	114.578	2.00	4.40	-19.75
15.78	4,680	111.37	134.04	2.38	2.8641	4.55	6.80	114.696	1.80	4.74	-20.76
15.79	4,920	106.60	130.93	2.17	2.8612	4.79	6.80	114.815	2.00	4.97	-23.97
15.8	5,000	108.77	145.73	2.06	2.5346	4.87	6.80	114.933	2.00	5.00	-26.12
15.81	5,020	100.91	121.99	2.01	2.4301	4.90	6.80	115.052	1.80	5.07	-33.11
15.82	4,790	98.04	117.6	2.05	2.4551	4.67	6.80	115.170	1.80	4.84	-37.59
15.83	4,630	94.56	116.51	2.04	2.5164	4.51	6.80	115.288	2.00	4.88	-38.78
15.84	4,500	84.93	116.14	1.89	2.5809	4.38	6.80	115.407	2.00	4.55	-39.25
15.85	4,390	81.27	116.81	1.82	2.6186	4.34	6.80	115.524	1.80	4.34	-40.58
15.86	4,240	75.53	115.41	1.78	2.7219	4.12	6.80	115.645	1.80	4.29	-40.18
15.87	4,070	70.62	114.68	1.74	2.8777	3.96	6.80	115.765	2.00	4.12	-41.00

17-101.G_CPTU_Soarza

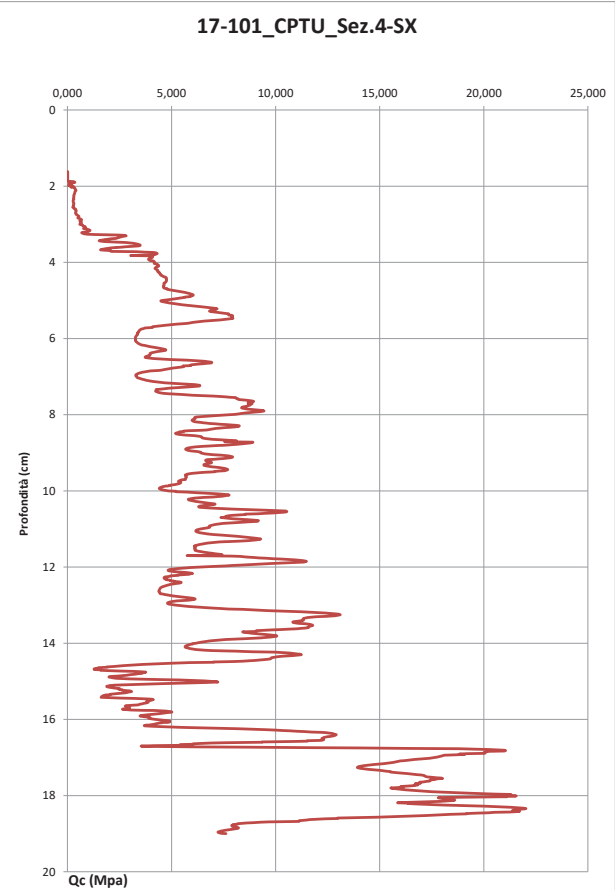
17-101_CPTU_S4_SX

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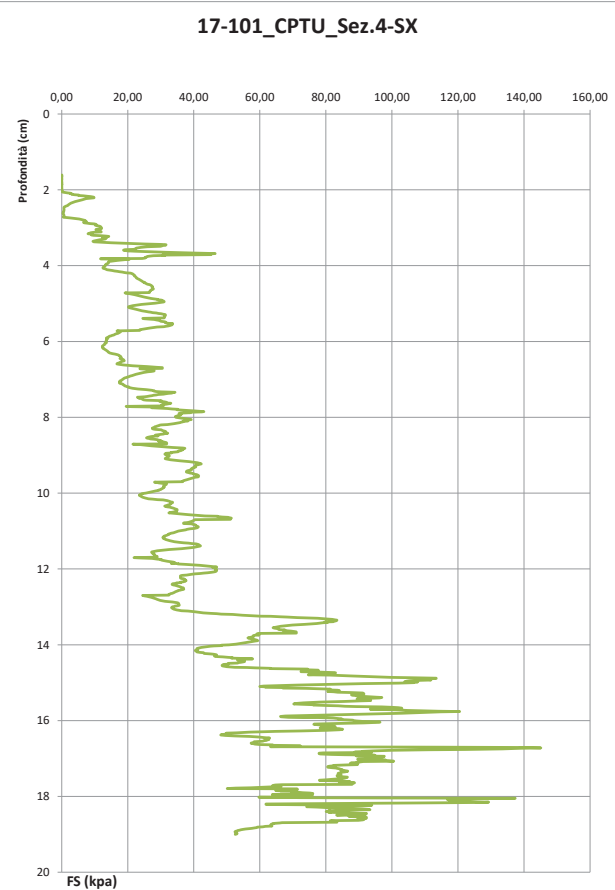
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
15.88	3,730	67.70	114.68	1.82	3.0745	3.62	6.80	115.886	2.00	3.78	-41.10
15.89	3,600	66.22	113.59	1.84	3.1553	3.49	6.80	116.004	1.80	3.65	-42.29
15.9	3,520	66.45	112.31	1.89	3.1906	3.41	6.80	116.122	1.80	3.57	-43.67
15.91	3,480	66.82	112.86	1.98	3.2431	3.37	6.80	116.241	1.80	3.53	-43.87
15.92	3,530	70.35	116.51	2.14	3.3627	3.16	6.80	116.359	1.80	3.58	-39.67
15.93	3,710	81.97	134.4	2.21	3.6226	3.58	6.80	116.478	1.80	3.77	-21.87
15.94	3,850	82.94	144.81	2.15	3.7613	3.71	6.80	116.596	2.00	3.91	-11.56
15.95	3,960	84.42	146.27	2.13	3.6937	3.81	6.80	116.714	2.00	4.02	-10.20
15.96	3,960	84.88	138.42	2.15	3.5043	3.81	6.80	116.835	1.80	4.01	-18.15
15.97	3,910	86.46	125.09	2.18	3.1588	3.78	6.80	116.952	1.80	3.99	-25.19
15.98	3,960	86.46	125.09	2.18	3.1588	3.83	6.90	117.075	2.00	4.01	-31.67
15.99	4,110	88.17	126.92	2.15	3.0881	3.98	6.90	117.195	2.00	4.16	-29.94
16	4,220	88.50	132.4	2.10	3.1374	4.09	6.90	117.315	1.80	4.28	-24.56
16.01	4,430	89.19	135.32	2.01	3.0546	4.29	6.90	117.435	1.80	4.49	-21.74
16.02	4,540	91.04	139.7	2.02	3.0771	4.46	6.90	117.555	2.00	4.60	-17.46
16.03	4,830	96.18	151.02	1.99	3.1267	4.68	6.90	117.675	1.80	4.89	-6.23
16.04	4,910	96.37	145.36	1.96	2.9605	4.76	6.90	117.796	1.80	4.97	-11.99
16.05	4,900	94.89	140.43	1.94	2.8659	4.76	6.90	117.916	1.80	4.96	-17.02
16.06	4,900	91.28	135.14	1.86	2.7059	4.76	6.90	118.036	1.80	4.98	-22.41
16.07	4,910	86.46	132.76	1.76	2.5099	4.76	6.90	118.156	2.00	4.97	-24.88
16.08	4,790	80.35	130.02	1.68	2.7444	4.66	6.90	118.276	2.00	4.84	-27.72
16.09	4,510	76.50	124.91	1.70	2.7696	4.39	6.90	118.396	2.00	4.56	-32.93
16.1	4,380	76.32	126.73	1.74	2.8934	4.25	6.90	118.516	2.00	4.43	-31.21
16.11	4,290	77.80	126.19	1.83	2.9692	4.12	6.90	118.637	1.80	4.30	-31.81
16.12	4,420	80.35	129.84	1.91	3.0841	4.08	6.90	118.757	1.80	4.26	-28.30
16.13	4,510	78.54	127.1	1.89	3.0627	4.02	6.90	118.877	2.00	4.20	-31.14
16.14	4,020	79.05	127.83	1.97	3.1799	3.89	6.90	118.997	2.00	4.07	-30.50
16.15	3,780	80.16	126.55	2.12	3.3749	3.65	6.90	119.117	1.80	3.83	-31.88
16.16	3,680	82.85	136.23	2.25	3.7019	3.54	6.90	119.237	1.80	3.74	-22.30
16.17	3,710	78.59	136.7	2.12	3.7655	3.57	6.90	119.357	1.80	3.77	-18.83
16.18	3,710	78.59	136.7	1.92	3.4870	3.89	6.90	119.478	2.00	3.77	-14.42
16.19	4,520	78.78	144.27	1.73	3.2361	4.37	6.90	119.598	2.00	4.58	-15.55
16.2	4,940	80.58	145.54	1.63	2.9462	4.79	6.90	119.718	2.00	5.00	-13.38
16.21	5,490	84.05	142.99	1.53	2.6046	5.35	6.90	119.838	1.80	5.55	-16.03
16.22	6,130	84.47	152.26	1.38	2.3207	5.99	6.90	119.958	2.00	6.19	-16.86
16.23	7,320	85.07	160.29	1.20	2.0633	7.10	6.90	120.078	2.00	7.30	-17.54
16.24	7,900	84.24	158.05	1.07	1.9348	7.75	6.90	120.198	1.80	7.96	-4.66
16.25	8,390	81.74	153.4	0.97	1.8284	8.24	6.90	120.318	1.80	8.45	-0.41
16.26	8,830	79.23	156.14	0.90	1.7683	8.67	6.90	120.439	1.80	8.90	-3.37
16.27	9,610	73.31	158.69	0.76	1.6513	9.45	6.90	120.559	1.80	9.68	-0.82
16.28	9,950	69.80	160.52	0.67	1.5934	9.83	6.90	120.679	1.80	9.99	-3.37
16.29	10,310	60.67	162.53	0.59	1.5764	10.15	6.90	120.799	2.00	10.38	-2.73
16.3	10,690	58.21	168.08	0.54	1.5442	10.52	6.90	120.919	1.80	10.76	5.18
16.31	11,040	56.27	165.01	0.51	1.5218	10.87	6.90	121.039	1.80	11.11	8.01
16.32	11,400	52.98	171.29	0.46	1.5025	11.23	6.90	121.159	2.00	11.47	11.19
16.33	11,720	49.73	173.85	0.43	1.4843	11.53	6.90	121.279	2.00	11.82	14.14
16.34	12,220	49.78	177.75	0.41	1.4525	12.04	6.90	121.400	1.80	12.29	17.07
16.35	12,430	50.43	179.15	0.41	1.4413	12.25	6.90	121.520	2.00	12.51	18.76
16.36	12,590	49.37	180.24	0.39	1.4316	12.41	6.90	121.640	2.00	12.67	19.75
16.37	12,720	48.30	181.38	0.38	1.4270	12.54	6.90	121.760	1.80	12.80	20.93
16.38	12,780	46.82	182.62	0.37	1.4186	12.65	6.90	121.880	1.80	12.91	21.87
16.39	12,830	45.90	183.35	0.36	1.4291	12.65	6.90	122.000	2.00	12.91	22.56
16.4	12,910	51.54	184.08	0.40	1.4259	12.73	6.90	122.121	2.00	12.99	23.20
16.41	12,890	54.92	184.62	0.43	1.4323	12.71	6.90	122.241	2.00	12.97	23.64
16.42	12,850	57.72	184.81	0.45	1.4382	12.67	6.90	122.361	2.00	12.93	23.73
16.43	12,760	59.44	184.74	0.47	1.4505	12.62	6.90	122.481	2.00	12.88	23.82
16.44	12,730	60.34	183.53	0.47	1.4417	12.55	6.90	122.601	1.80	12.81	22.25
16.45	12,590	61.31	182.98	0.49	1.4534	12.41	6.90	122.721	1.80	12.67	21.61
16.46	12,410	62.98	185.17	0.51	1.4921	12.22	6.90	122.841	1.80	12.49	23.70
16.47	12,340	62.10	185.35	0.50	1.5020	12.15	6.90	122.961	2.00	12.42	23.78
16.48	12,290	60.93	183.53	0.50	1.4933	12.15	6.90	123.081	2.00	12.37	23.85
16.49	12,270	62.24	187.73	0.51	1.5000	12.08	6.90	123.202	2.00	12.35	25.96
16.5	12,220	62.75	190.83	0.51	1.5616	12.03	6.90	123.322	2.00	12.30	28.97
16.51	12,250	62.15	190.47	0.51	1.5549	12.06	6.90	123.442	2.00	12.33	28.51
16.52	12,280	62.05	191.93	0.51	1.5629	12.09	6.90	123.562	1.80	12.36	29.87
16.53	12,310	62.32	193.57	0.50	1.5951	12.06	6.90	123.682	1.80	12.39	30.57
16.54	12,290	60.90	193.67	0.50	1.5750	12.10	6.90	123.802	2.00	12.37	31.31
16.55	12,190	59.69	191.75	0.49	1.5730	12.00	6.90	123.923	2.30	12.27	29.39
16.56	11,530	58.26	184.26	0.51	1.5981	11.35	6.90	124.043	2.30	11.61	21.81

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.95	20,140	63.77	125.82	0.32	0.6247	20.01	7.00	140.955	2.00	20.19	-50.27
17.96	20,560	64.18	129.29	0.31	0.6288	20.43	7.00	141,077	2.00	20.61	-46.90
17.97	21,310	75.90	136.96	0.36	0.6427	21.17	7.00	141,199	1.80	21.37	-39.33
17.98	21,280	71.69	126.73	0.34	0.5955	21.15	7.10	141,322	1.80	21.33	-49.65
17.99	20,720	73.82	132.4	0.36	0.6390	20.59	7.10	141,446	2.00	20.78	-44.08
18	20,970	64.51	138.97	0.31	0.6627	20.83	7.10	141,569	2.00	21.03	-37.61
18.01	21,560	71.73	163.99	0.33	0.7606	21.40	7.10	141,693	1.80	21.63	-12.69
18.02	20,850	59.69	148.1	0.29	0.7103	20.70	7.00	141,815	1.80	20.91	-28.68
18.03	21,100	72.29	138.06	0.34	0.6543	20.96	7.00	141,937	2.00	21.16	-38.81
18.04	19,820	96.18	71.94	0.49	0.3584	19.75	7.00	142,059	2.00	19.85	-105.93
18.05	17,840	137.35	81.08	0.77	0.4545	17.76	7.10	142,182	2.00	17.87	-95.99
18.06	17,810	118.37	81.81	0.66	0.4593	17.73	7.10	142,306	2.00	17.84	-95.36
18.07	17,930	117.35	87.29	0.65	0.4868	17.84	7.10	142,429	2.00	17.97	-89.98
18.08	18,050	116.79	87.66	0.65	0.4857	17.96	7.10	142,553	2.00	18.09	-89.70
18.09	18,220	117.76	94.78	0.65	0.5202	18.13	7.10	142,677	2.00	18.26	-82.68
18.1	18,400	118.88	97.52	0.65	0.5300	18.30	7.10	142,800	2.00	18.44	-80.04
18.11	18,540	117.44	102.26	0.63	0.5516	18.44	7.10	142,924	2.00	18.58	-75.40
18.12	18,610	118.69	105.37	0.64	0.5662	18.50	7.10	143,047	2.00	18.65	-72.39
18.13	18,490	123.65	108.47	0.67	0.5866	18.38	7.10	143,171	2.00	18.54	-69.39
18.14	18,370	125.96	112.31	0.69	0.6114	18.26	7.10	143,295	2.00	18.42	-65.64
18.15	17,910	129.30	111.03	0.72	0.6199	17.80	7.00	143,416	2.00	17.96	-67.02
18.16	17,320	127.86	119.98	0.74	0.6927	17.20	7.00	143,538	2.00	17.37	-58.17
18.17	16,890	110.12	110.12	0.65	0.6520	16.78	7.00	143,660	2.30	16.94	-68.13
18.18	16,230	96.55	106.28	0.59	0.6548	16.12	7.00	143,782	2.30	16.27	-72.07
18.19	15,860	74.74	109.57	0.47	0.6909	15.75	7.00	143,904	2.00	15.91	-68.87
18.2	16,360	61.87	112.67	0.38	0.6887	16.25	7.00	144,026	2.00	16.41	-65.87
18.21	16,360	61.87	112.67	0.38	0.6887	16.25	7.00	144,148	2.00	16.41	-65.97
18.22	16,780	72.61	91.31	0.43	0.5442	16.69	7.00	144,270	2.00	16.82	-87.43
18.23	16,980	93.91	100.8	0.55	0.5936	16.88	7.00	144,391	2.30	17.02	-79.04
18.24	17,750	79.93	107.2	0.45	0.6039	17.64	7.00	144,513	2.30	17.80	-71.73
18.25	18,340	77.80	107.36	0.42	0.5855	18.23	7.00	144,635	1.80	18.39	-71.65
18.26	18,960	74.74	124	0.39	0.6540	18.84	7.00	144,757	1.80	19.01	-55.13
18.27	19,500	74.19	129.66	0.38	0.6649	19.37	7.00	144,879	2.00	19.55	-49.57
18.28	19,970	77.15	132.94	0.39	0.6657	19.84	7.00	145,001	2.00	20.03	-46.28
18.29	20,450	78.22	135.14	0.38	0.6608	20.31	7.00	145,123	2.00	20.51	-44.28
18.3	21,230	83.73	134.22	0.39	0.6322	21.10	7.00	145,245	2.00	21.29	-45.30
18.31	21,530	86.23	138.6	0.40	0.6438	21.39	7.00	145,366	2.00	21.59	-41.02
18.32	21,690	89.38	136.78	0.41	0.6306	21.55	7.00	145,488	2.00	21.75	-42.94
18.33	21,910	92.02	138.97	0.42	0.6343	21.77	7.00	145,610	2.00	21.97	-40.85
18.34	22,030	93.04	133.86	0.42	0.6076	21.90	7.00	145,732	2.00	22.09	-46.06
18.35	21,950	93.36	127.83	0.43	0.5824	21.82	7.10	145,856	2.00	22.00	-52.18
18.36	21,700	88.40	104.27	0.41	0.4805	21.60	7.10	145,979	2.00	21.74	-75.84
18.37	21,560	84.42	108.47	0.39	0.5031	21.45	7.10	146,103	2.00	21.61	-71.74
18.38	21,570	80.62	111.03	0.37	0.5147	21.46	7.10	146,226	2.00	21.62	-69.28
18.39	21,380	81.55	112.67	0.38	0.5270	21.27	7.10	146,350	2.00	21.43	-67.74
18.4	21,450	80.07	113.95	0.37	0.5312	21.34	7.10	146,474	2.00	21.50	-69.55
18.41	21,720	81.60	116.33	0.38	0.5356	21.60	7.10	146,597	1.80	21.77	-64.27
18.42	21,630	80.86	90.76	0.37	0.4196	21.54	7.10	146,721	1.80	21.67	-89.94
18.43	21,270	86.46	101.35	0.41	0.4765	21.17	7.10	146,844	2.00	21.31	-79.45
18.44	20,500	87.29	98.06	0.43	0.4783	20.40	7.10	146,968	2.00	20.54	-82.84
18.45	20,230	92.34	119.98	0.46	0.5931	20.11	7.10	147,092	2.00	20.26	-61.01
18.46	19,700	88.82	113.4	0.45	0.5756	19.59	7.10	147,215	2.00	19.75	-67.69
18.47	19,180	85.58	110.85	0.45	0.5779	19.07	7.10	147,339	2.00	19.23	-70.34
18.48	19,180	85.58	110.85	0.45	0.5779	19.07	7.10	147,462	2.00	19.23	-70.44
18.49	18,410	83.26	93.86	0.45	0.5098	18.32	7.10	147,586	2.00	18.45	-87.53
18.5	17,940	90.58	125.46	0.50	0.6993	17.81	7.10	147,710	2.00	17.99	-56.03
18.51	17,680	90.21	124.36	0.51	0.7034	17.56	7.10	147,833	2.00	17.73	-57.22
18.52	17,440	91.88	121.99	0.53	0.6995	17.32	7.10	147,957	2.00	17.49	-59.69
18.53	16,990	87.01	120.16	0.51	0.7072	16.87	7.10	148,080	2.30	17.04	-61.62
18.54	16,530	90.35	119.25	0.55	0.7214	16.41	7.10	148,204	2.30	16.58	-62.63
18.55	15,890	92.29	105.92	0.58	0.6666	15.78	7.10	148,328	2.30	15.93	-76.06
18.56	15,380	92.25	112.67	0.60	0.7326	15.27	7.10	148,451	2.30	15.43	-69.40
18.57	14,500	92.02	107.74	0.63	0.7430	14.39	7.10	148,575	2.30	14.55	-74.43
18.58	13,680	92.16	106.83	0.67	0.7809	13.57	7.10	148,698	2.30	13.72	-75.44
18.59	12,970	89.65	105.37	0.69	0.8124	12.86	7.10	148,822	2.30	13.01	-77.00
18.6	12,970	89.65	105.37	0.69	0.8124	12.86	7.10	148,946	2.30	13.01	-77.10
18.61	12,370	91.55	103.18	0.74	0.8341	12.27	7.10	149,069	2.30	12.41	-79.38
18.62	11,950	91.14	101.9	0.76	0.8527	11.85	7.10	149,193	2.30	11.99	-80.76
18.63	11,640	89.84	103.73	0.77	0.8912	11.54	7.10	149,316	2.30	11.68	-79.03

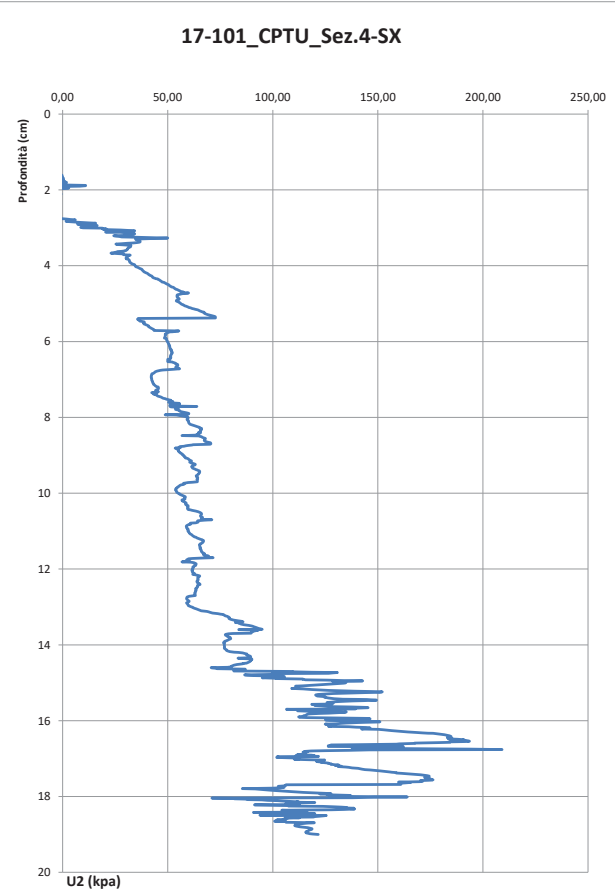
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
18.64	11,490	81.32	105.37	0.71	0.9171	11.38	7.00	149,438	2.30	11.53	-77.49
18.65	11,330	81.50	100.8	0.72	0.8897	11.23	7.00	149,560	2.50	11.37	-82.16
18.66	11,130	83.36	106.28	0.75	0.9549	11.02	7.10	149,684	2.50	11.17	-76.77
18.67	11,130	83.36	106.28	0.75	0.9549	11.02	7.10	149,807	2.50	11.17	-76.77
18.68	11,130	83.36	106.28	0.75	0.9549	11.02	7.10	149,931	2.50	11.17	-76.77
18.69	9,650	66.73	119.8	0.69	1.2415	9.53	7.10	150,055	2.50	9.70	-63.55
18.7	9,280	66.04	116.69	0.71	1.2574	9.16	7.10	150,178	2.50	9.33	-66.76
18.71	8,930	64.14	114.5	0.72	1.2822	8.82	7.10	150,302	2.30	8.98	-69.05
18.72	8,600	64.14	113.04	0.75	1.3144	8.49	7.10	150,425	2.30	8.65	-70.60
18.73	8,340	63.58	111.94	0.76	1.3422	8.23	7.10	150,549	2.30	8.39	-71.80
18.74	8,170	63.35	110.85	0.78	1.3568	8.06	7.10	150,673	2.30	8.22	-72.99
18.75	8,170	63.35	110.85	0.78	1.3568	8.06	7.10	150,796	2.30	8.22	-73.09
18.76	7,960	63.30	110.48	0.80	1.3879	7.85	7.10	150,920	2.30	8.01	-73.56
18.77	7,960	63.30	110.48	0.80	1.3879	7.85	7.10	151,043	2.30	8.01	-73.65
18.78	7,890	63.68	111.21	0.81	1.4095	7.76	7.10	151,167	2.50	7.94	-73.02
18.79	7,890	61.68	111.94	0.78	1.4188	7.78	7.10	151,291	2.50	7.94	-72.38
18.8	7,890	60.90	113.59	0.77	1.4397	7.78	7.10	151,414	2.30	7.94	-70.84
18.81	7,940	59.23	114.5	0.75	1.4421	7.83	7.10	151,538	2.30	7.99	-70.03
18.82	8,030	59.04	116.33	0.74	1.4487	7.91	7.10	151,661	2.30	8.08	-68.29
18.83	8,110	58.40	117.6	0.72	1.4501	7.98	7.10	151,785	2.50	8.16	-67.12
18.84	8,190	57.56	118.15	0.70	1.4426	8.07	7.10	151,909	2.50	8.24	-66.67
18.85	8,220	56.68	118.7	0.69	1.4440	8.10	7.10	152,032	2.50	8.27	-66.22
18.86	8,180	55.66	118.7	0.68	1.4511	8.06	7.10	152,156	2.50	8.23	-66.32
18.87	8,080	54.78	118.33	0.68	1.4645	7.96	7.10	152,279	2.30	8.13	-66.78
18.88	7,960	54.27	117.79	0.68	1.4798	7.84	7.10	152,403	2.30	8.01	-67.42
18.89	7,830	53.61	117.24	0.69	1.4973	7.71	7.10	152,527	2.30	7.88	-68.07
18.9	7,710	53.31	116.87	0.69	1.5158	7.59	7.10	152,650	2.30	7.76	-68.54
18.91	7,590	53.07	116.69	0.70	1.5374	7.47	7.10	152,774	2.30	7.64	-68.82
18.92	7,480	52.70	116.14	0.70	1.5605	7.35	7.10	152,897	2.30	7.52	-69.24
18.93	7,360	52.33	115.78	0.71	1.5710	7.25	7.10	153,021	2.00	7.44	-69.82
18.94	7,300	52.84	115.96	0.72	1.5885	7.18	7.10	153,145	2.30	7.35	-69.84
18.95	7,260	52.54	115.78	0.73	1.5948	7.14	7.10	153,268	2.30	7.31	-70.12
18.96	7,230	52.79	115.69	0.73	1.6039	7.11	7.10	153,392	2.30	7.28	-70.40
18.97	7,200	53.01	115.96	0.73	1.6133	7.13	7.10	153,515	2.30	7.24	-70.68
18.98	7,170	53.00	116.27	0.74	1.6217	7.17	7.10	153,638	2.30	7.20	-70.95
18.99	7,380	53.02	118.88	0.72	1.6108	7.26	7.10	153,763	1.80	7.43	-67.47
19	7,710	52.56	121.62	0.69	1.5982	7.49	7.10	153,886	1.80	7.66	-64.71



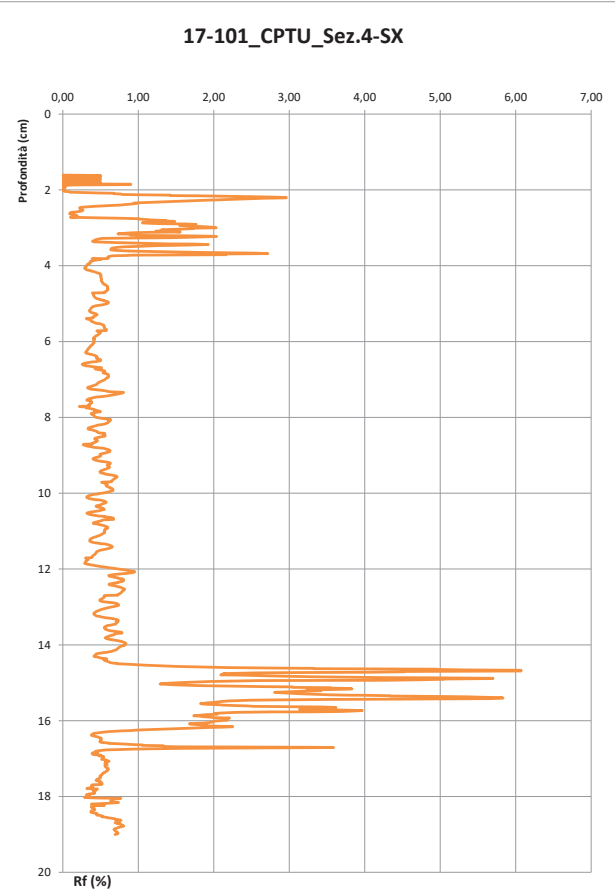
17-101.G_CPTU_Soarza L'operatore Il direttore




17-101.G_CPTU_Soarza L'operatore Il direttore



17-101.G_CPTU_Soarza L'operatore Il direttore



17-101.G_CPTU_Soarza L'operatore Il direttore

Impresa esecutrice: 		Cantiero: Nome: A.L.Po P. IVA / C.F.: Indirizzo: Ufficio di Piacenza Telefono: Tel. Fax: e-mail:	
Committente: Nome: A.L.Po P. IVA / C.F.: Indirizzo: Ufficio di Piacenza Telefono: Tel. Fax: e-mail:		PC-E-810	
Prova: Ubicazione: Soarza (PC) Quota assoluta [m]: Data: 21/02/2016 Q. inizio da Q. ass. [m]: Tipo prova: CPTU Preforo [m]: 0,8 Codice Prova: 17-101_CPTU_Seiz.5 Q.ta falda [m]: -9,00 Note: Sommità argine		Coordinate: Nord: Est:	
Il responsabile di sito: Dr. Geol. Stefano Verdini		Il direttore tecnico: Dr. Geol. Enrico Fasani	

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0,81	0,000	0,00	-0,37	0,00	0,0000	0,00	1,30	0,023	0,00	0,00	-0,37
0,82	0,010	0,00	-0,55	0,00	-5,5000	0,01	1,30	0,045	1,80	0,01	-0,55
0,83	0,010	0,00	-0,73	0,00	-7,3000	0,01	1,30	0,068	1,80	0,01	-0,73
0,84	0,010	0,00	-1,00	0,00	-10,0000	0,01	1,40	0,092	1,80	0,01	-1,00
0,85	0,010	0,00	-1,28	0,00	-12,8000	0,01	1,40	0,117	1,80	0,01	-1,28
0,86	0,010	0,00	-1,46	0,00	-14,6000	0,01	1,40	0,141	2,00	0,01	-1,46
0,87	0,010	0,00	-1,46	0,00	-14,6000	0,01	1,30	0,164	2,00	0,01	-1,46
0,88	0,010	0,00	-1,46	0,00	-14,6000	0,01	1,30	0,187	2,00	0,01	-1,46
0,89	0,010	0,00	-1,46	0,00	-14,6000	0,01	1,50	0,213	2,00	0,01	-1,46
0,9	0,010	0,00	-1,28	0,00	-12,8000	0,01	1,50	0,239	1,80	0,01	-1,28
0,91	0,010	0,00	-1,46	0,00	-14,6000	0,01	1,50	0,265	1,80	0,01	-1,46
0,92	0,010	0,00	-1,46	0,00	-14,6000	0,01	1,40	0,290	1,80	0,01	-1,46
0,93	0,010	0,00	-1,28	0,00	-12,8000	0,01	1,40	0,314	1,80	0,01	-1,28
0,94	0,010	0,00	-1,10	0,00	-11,0000	0,01	1,40	0,339	2,00	0,01	-1,10
0,95	0,010	0,00	-0,91	0,00	-9,1000	0,01	1,40	0,363	2,00	0,01	-0,91
0,96	0,010	0,00	-0,73	0,00	-7,3000	0,01	1,40	0,387	2,00	0,01	-0,73
0,97	0,010	0,00	-0,91	0,00	-9,1000	0,01	1,40	0,412	2,00	0,01	-0,91
0,98	0,010	0,00	-0,91	0,00	-9,1000	0,01	1,40	0,436	2,00	0,01	-0,91
0,99	0,010	0,00	-0,73	0,00	-7,3000	0,01	1,40	0,461	2,30	0,01	-0,73
1	0,010	0,00	-1,10	0,00	-11,0000	0,01	1,40	0,485	2,30	0,01	-1,10
1,01	0,020	0,00	-0,37	0,00	-1,8500	0,02	1,40	0,510	1,80	0,02	-0,37
1,02	0,030	0,00	-0,37	0,00	-1,2333	0,03	1,40	0,534	1,80	0,03	-0,37
1,03	0,040	0,00	-0,37	0,00	-0,9250	0,04	1,40	0,558	2,00	0,04	-0,37
1,04	0,030	0,00	-1,64	0,00	-5,4667	0,03	1,40	0,583	2,00	0,03	-1,64
1,05	0,010	0,00	-0,73	0,00	-7,3000	0,01	1,50	0,609	2,00	0,01	-0,73
1,06	0,010	0,00	-1,10	0,00	-11,0000	0,01	1,50	0,635	2,00	0,01	-1,10
1,07	0,010	0,00	-1,10	0,00	-11,0000	0,01	1,50	0,661	2,30	0,01	-1,10
1,08	0,010	0,00	-1,10	0,00	-11,0000	0,01	1,50	0,688	2,00	0,01	-1,10
1,09	0,010	0,00	-1,10	0,00	-11,0000	0,01	1,50	0,714	2,00	0,01	-1,10
1,1	0,010	0,00	-1,28	0,00	-12,8000	0,01	1,50	0,740	2,00	0,01	-1,28
1,11	0,010	0,00	-1,46	0,00	-14,6000	0,01	1,50	0,766	2,00	0,01	-1,46
1,12	0,010	1,44	-1,64	14,40	-16,4000	0,01	1,50	0,792	2,30	0,01	-1,64
1,13	0,080	0,00	-2,74	0,00	-3,4250	0,08	1,50	0,818	2,00	0,08	-2,74
1,14	0,030	0,00	-1,64	0,00	-5,4667	0,03	1,50	0,845	2,00	0,03	-1,64
1,15	0,230	0,00	-12,78	0,00	-5,5956	0,24	1,50	0,871	2,00	0,22	-12,78
1,16	0,240	0,00	-11,00	0,00	-5,8333	0,24	1,50	0,896	2,00	0,24	-11,00
1,17	0,160	0,00	1,64	0,00	1,0250	0,16	1,50	0,923	0,30	1,16	1,64
1,18	0,240	0,00	3,47	0,00	1,4458	0,24	1,50	0,949	0,30	2,47	3,47
1,19	0,250	0,19	3,83	0,08	1,5320	0,25	1,50	0,976	0,30	2,25	3,83
1,2	0,250	0,00	3,65	0,00	1,4600	0,25	1,50	1,002	0,30	2,25	3,65
1,21	0,270	0,00	3,47	0,00	1,0282	0,27	1,50	1,028	0,30	2,27	3,47
1,22	0,300	0,23	1,28	0,08	0,4267	0,30	1,50	1,054	0,30	3,00	1,28
1,23	0,310	0,88	-1,28	0,28	-0,4129	0,31	1,50	1,080	0,30	3,10	-1,28
1,24	0,270	1,16	-2,01	0,43	-0,7444	0,27	1,50	1,106	0,30	2,27	-2,01
1,25	0,280	1,85	1,46	0,66	0,5214	0,28	1,50	1,133	0,30	2,28	1,46
1,26	0,310	2,96	4,38	0,61	1,4126	0,31	1,50	1,159	0,30	3,10	4,38
1,27	0,360	3,90	5,46	1,06	1,5222	0,35	1,50	1,185	0,30	3,36	5,46

17-101.G_CPTU_Soarza

17-101_CPTU.S5

Pag. 1

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
1,28	0,400	4,82	6,57	1,21	1,6425	0,39	1,40	1,209	2,00	0,40	6,57
1,29	0,440	5,97	6,94	1,36	1,5773	0,43	1,40	1,234	2,00	0,44	6,94
1,3	0,450	7,09	7,12	1,58	1,5822	0,44	1,50	1,260	2,30	0,45	7,12
1,31	0,450	8,43	6,94	1,87	1,5422	0,44	1,50	1,286	2,30	0,45	6,94
1,32	0,430	10,00	7,49	2,33	1,7419	0,49	1,50	1,312	2,00	0,43	7,49
1,33	0,420	11,86	8,04	2,82	1,9143	0,41	1,50	1,339	2,00	0,42	8,04
1,34	0,420	13,85	9,50	3,30	2,2619	0,41	1,40	1,363	2,30	0,42	9,50
1,35	0,420	15,19	10,77	3,62	2,5643	0,41	1,40	1,387	2,30	0,42	10,77
1,36	0,410	16,16	10,96	3,94	2,6732	0,40	1,40	1,412	2,00	0,41	10,96
1,37	0,420	16,44	9,86	3,17	2,3476	0,41	1,40	1,436	2,00	0,42	9,86
1,38	0,420	16,21	8,77	3,96	2,0881	0,41	1,40	1,461	2,30	0,42	8,77
1,39	0,410	16,30	8,22	3,98	2,0049	0,40	1,40	1,485	2,30	0,41	8,22
1,4	0,380	17,50	5,48	4,61	1,4421	0,37	1,40	1,510	2,00	0,38	5,48
1,41	0,380	19,26	6,03	5,84	-1,8273	0,34	1,40	1,534	2,00	0,33	-6,03
1,42	0,180	20,24	-14,79	-1,19	-8,2167	0,19	1,40	1,558	2,00	0,17	-14,79
1,43	0,160	18,38	-12,60	-11,49	-7,8750	0,17	1,40	1,583	2,30	0,15	-12,60
1,44	0,210	17,32	-7,67	8,25	-3,6524	0,22	1,40	1,607	2,30	0,21	-7,67
1,45	0,320	15,79	-4,02	4,93	-1,2563	0,32	1,40	1,632	2,00	0,32	-4,02
1,46	0,400	13,94	-1,84	3,49	-0,1000	0,40	1,40	1,656	2,00	0,40	-1,84
1,47	0,490	12,09	1,46	2,47	0,2980	0,49	1,40	1,681	2,00	0,49	1,46
1,48	0,620	10,88	3,65	1,75	0,5887	0,62	1,40	1,705	2,00	0,62	3,65
1,49	0,780	10,79	2,74	1,38	0,3513	0,78	1,40	1,729	2,00	0,78	2,74
1,5	0,970	11,90	1,18	1,23	0,1086	0,97	1,40	1,754	2,00	0,97	1,18
1,51	1,190	13,57	-3,29	1,14	-0,2765	1,19	1,30	1,777	2,00	1,19	-3,29
1,52	1,410	15,05	-4,02	1,07	-0,2851	1,41	1,30	1,799	2,00	1,41	-4,02
1,53	1,630	19,17	-5,10	1,71	-0,3130	1,63	1,30	1,822	2,00	1,71	-5,10
1,54	1,820	20,89	-5,84	1,15	-0,3209	1,83	1,30	1,845	1,80	1,82	-5,84
1,55	1,790	22,60	-8,04	1,26	-0,4492	1,80	1,30	1,867	1,80	1,79	-8,04
1,56	1,710	23,71	-8,22	1,39	-0,4807	1,72	1,30	1,890	2,00	1,71	-8,22
1,57	1,640	26,16	-4,57	1,80	-0,2787	1,64	1,30	1,913	2,00	1,64	-4,57
1,58	1,470	29,27	-3,29	1,99	-0,2267	1,47	1,30	1,935	2,00	1,47	-3,29
1,59	1,380	30,43	-4,02	2,21	-0,2913	1,38	1,30	1,958	2,00	1,38	-4,02
1,6	1,190	33,30	-3,47	2,80	-0,2916	1,19	1,30	1,981	2,00	1,19	-3,47
1,61	1,130	33,99	-3,65	3,01	-0,3230	1,13	1,30	2,003	2,00	1,13	-3,65
1,62	1,070	34,69	-2,92	3,24	-0,2729	1,07	1,30	2,026	1,80	1,07	-2,92
1,63	1,000	34,45	-2,74	3,45	-0,2740	1,00	1,30	2,049	1,80	1,00	-2,74
1,64	0,950	34,32	-2,56	3,61	-0,2695	0,95	1,30	2,071	2,00	0,95	-2,56
1,65	0,900	32,97	-2,92	3,66	-0,3244	0,90	1,30	2,094	2,00	0,90	-2,92
1,66	0,830	32,60	-3,10	3,93	-0,3735	0,83	1,30	2,117	1,80	0,83	-3,10
1,67	0,790	33,85	-3,47	4,28	-0,4392	0,79	1,30	2,140	1,80	0,79	-3,47
1,68	0,770	34,69	-3,65	4,51	-0,4740	0,77	1,30	2,162	2,00	0,77	-3,65
1,69	0,760	36,26	-4,02	4,77	-0,5289	0,76	1,30	2,185	2,00	0,76	-4,02
1,7	0,750	35,01	-4,20	4,67	-0,5600	0,75	1,30	2,208	1,80	0,75	-4,20
1,71	0,750	33,90	-5,11	4,52	-0,6813	0,75	1,30	2,230	2,00	0,75	-5,11
1,72	0,700	36,17	-6,21	5,17	-0,8871	0,71	1,30	2,253	2,00	0,70	-6,21
1,73	0,680	36,21	-5,66	5,33	-0,8264	0,69	1,30	2,276	1,80	0,68	-5,66
1,74	0,680	36,31	-5,66	5,34	-0,8324	0,69	1,30	2,299	1,80	0,68	-5,66
1,75	0,680	36,31	-5,30	5,34	-0,7794	0,69	1,30	2,321	1,80	0,68	-5,30
1,76	0,700	35,24	-4,20	5,03	-0,6000	0,70	1,30	2,344	1,80	0,70	-4,20
1,77	0,710	34,69	-4,02	4,89	-0,5662	0,71	1,30	2,366	1,80	0,71	-4,02
1,78	0,720	33,39	-3,83	4,72	-0,5297	0,72	1,30	2,389	1,80	0,72	-3,83
1,79	0,750	32,74	-3,83	4,37	-0,5107	0,75	1,30	2,412	1,80	0,75	-3,83
1,8	0,770	31,72	-3,83	4,12	-0,4944	0,77	1,20	2,433	1,80	0,77	-3,83
1,81	0,810	30,33	-3,83	3,74	-0,4728	0,81	1,20	2,454	2,00	0,81	-3,83
1,82	0,830	30,30	-3,83	3,66	-0,4614	0,83	1,20	2,475	2,00	0,83	-3,83
1,83	0,870	30,15	-3,83	3,47	-0,4411	0,87	1,20	2,496	2,00	0,87	-3,83
1,84	0,910	29,78	-3,65	3,27	-0,4011	0,91	1,20	2,517	2,50	0,91	-3,65
1,85	0,940	29,36	-3,65	3,12	-0,3883	0,94	1,20	2,537	2,50	0,94	-3,65
1,86	0,940	27,69	-3,65	2,95	-0,3804	0,94	1,20	2,558	2,50	0,94	-3,65
1,87	0,940	27,69	-3,65	2,95	-0,3883	0,94	1,20	2,579	2,50	0,94	-3,65
1,88	0,930	26,66	-3,65	2,83	-0,3815	0,93	1,20	2,600	2,50	0,93	-3,65
1,89	0,920	24,50	-3,83	2,66	-0,4163	0,92	1,20	2,621	2,50	0,92	-3,83
1,9	0,920	24,50	-3,83	2,66	-0,4163	0,92	1,20	2,642	3,00	0,92	-3,83
1,91	0,920	24,50	-3,83	2,66	-0,4163	0,92	1,20	2,663	3,00	0,92	-3,83
1,92	0,885	23,53	-4,20	2,77	-0,4941	0,88	1,20	2,684	3,00	0,88	-4,20
1,93	0,850	23,53	-4,20	2,77	-0,4941	0,85	1,20	2,705	2,80	0,85	-4,20
1,94	0,850	20,89	-4,57	2,47	-0,5376	0,85	1,20	2,726	2,80	0,85	-4,57
1,95	0,810	19,96	-4,93	2,46	-0,6086	0,81	1,20	2,747	2,80	0,81	-4,93
1,96	0,760	20,89	-4,93	2,75	-0,6487	0,76	1,20	2,768	2,80	0,76	-4,93

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
3.35	2,020	30.93	-1.28	1.53	-0.0634	2.02	1.40	5.932	2.30	2.02	-1.28
3.36	1,980	31.26	-1.10	1.58	-0.0556	1.98	1.40	5,956	2.00	1.98	-1.10
3.37	1,980	32.37	-0.91	1.63	-0.0460	1.98	1.40	5,981	2.00	1.98	-0.91
3.38	1,980	31.95	-0.73	1.63	-0.0372	1.98	1.40	6,005	2.30	1.97	-0.73
3.39	1,970	32.14	-1.00	1.50	-0.0462	1.97	1.40	6,030	2.30	1.97	-1.00
3.4	1,970	31.54	-1.10	1.60	-0.0558	1.97	1.40	6,054	2.00	1.97	-1.10
3.41	1,990	30.56	-0.91	1.54	-0.0457	1.99	1.40	6,078	2.00	1.99	-0.91
3.42	2,020	30.38	-0.91	1.50	-0.0450	2.02	1.40	6,103	2.30	2.02	-0.91
3.43	2,050	30.43	-0.91	1.48	-0.0444	2.05	1.40	6,127	2.30	2.05	-0.91
3.44	2,080	30.27	-0.73	1.49	-0.0351	2.08	1.40	6,152	2.00	2.08	-0.73
3.45	2,130	32.14	-0.37	1.51	-0.0174	2.13	1.40	6,176	2.00	2.13	-0.37
3.46	2,180	33.90	-0.37	1.56	-0.0170	2.18	1.40	6,201	2.30	2.18	-0.37
3.47	2,190	36.35	-0.18	1.66	-0.0082	2.19	1.40	6,225	2.30	2.19	-0.18
3.48	2,230	38.21	-0.18	1.71	-0.0081	2.23	1.40	6,249	2.00	2.23	-0.18
3.49	2,250	37.28	-0.18	1.66	-0.0080	2.25	1.40	6,274	2.00	2.25	-0.18
3.5	2,290	36.45	-0.37	1.59	-0.0162	2.29	1.40	6,298	2.00	2.29	-0.37
3.51	2,320	35.94	-0.37	1.55	-0.0159	2.32	1.40	6,323	2.00	2.32	-0.37
3.52	2,370	35.89	-0.37	1.51	-0.0156	2.37	1.40	6,347	2.00	2.37	-0.37
3.53	2,430	36.21	-0.37	1.49	-0.0152	2.43	1.40	6,372	2.00	2.43	-0.37
3.54	2,540	38.93	-0.18	1.54	-0.0054	2.54	1.50	6,396	2.00	2.54	-0.18
3.55	2,630	40.00	0.00	1.55	0.0000	2.63	1.50	6,424	2.00	2.63	0.00
3.56	2,720	42.56	0.18	1.56	0.0066	2.72	1.50	6,450	2.00	2.72	0.18
3.57	2,790	43.72	0.18	1.57	0.0065	2.79	1.50	6,476	2.00	2.79	0.18
3.58	2,900	44.50	0.37	1.53	0.0126	2.90	1.40	6,501	1.80	2.90	0.37
3.59	3,010	44.13	0.37	1.47	0.0103	3.01	1.40	6,525	1.80	3.01	0.37
3.6	3,160	43.31	0.00	1.31	0.0000	3.16	1.40	6,550	1.80	3.16	0.00
3.61	3,190	39.55	0.00	1.24	0.0000	3.19	1.40	6,574	1.80	3.19	0.00
3.62	3,240	39.64	-0.18	1.22	-0.0056	3.24	1.40	6,598	1.80	3.24	-0.18
3.63	3,310	39.69	-0.18	1.20	-0.0054	3.31	1.40	6,623	1.80	3.31	-0.18
3.64	3,330	39.36	-0.18	1.18	-0.0054	3.33	1.40	6,647	1.80	3.33	-0.18
3.65	3,330	38.85	-0.18	1.17	-0.0054	3.33	1.40	6,672	1.50	3.33	-0.18
3.66	3,370	37.46	-0.18	1.11	-0.0053	3.37	1.40	6,696	1.30	3.37	-0.18
3.67	3,350	36.82	-0.18	1.10	-0.0054	3.35	1.40	6,721	1.30	3.35	-0.18
3.68	3,360	36.72	0.00	1.09	0.0000	3.36	1.40	6,745	1.30	3.36	0.00
3.69	3,350	38.02	0.00	1.13	0.0000	3.35	1.40	6,770	1.50	3.35	0.00
3.7	3,370	38.99	0.37	1.16	0.0110	3.37	1.50	6,796	1.50	3.37	0.37
3.71	3,340	39.83	0.55	1.19	0.0165	3.34	1.50	6,822	1.50	3.34	0.55
3.72	3,340	41.08	0.55	1.23	0.0165	3.34	1.50	6,848	1.50	3.34	0.55
3.73	3,300	43.44	0.37	1.32	0.0112	3.30	1.40	6,872	1.50	3.30	0.37
3.74	3,300	44.73	0.55	1.36	0.0167	3.30	1.40	6,897	1.80	3.30	0.55
3.75	3,240	45.86	0.55	1.41	0.0170	3.24	1.40	6,921	1.80	3.24	0.55
3.76	3,250	47.47	0.55	1.46	0.0169	3.25	1.40	6,946	1.80	3.25	0.55
3.77	3,260	49.09	0.37	1.51	0.0113	3.26	1.40	6,970	1.80	3.26	0.37
3.78	3,250	50.11	0.55	1.54	0.0169	3.25	1.40	6,995	2.30	3.25	0.55
3.79	3,270	51.22	0.37	1.57	0.0113	3.27	1.50	7,021	2.30	3.27	0.37
3.8	3,320	52.19	0.55	1.57	0.0165	3.32	1.50	7,047	2.50	3.32	0.55
3.81	3,390	52.91	0.55	1.53	0.0162	3.39	1.50	7,073	2.30	3.39	0.55
3.82	3,450	52.38	0.55	1.52	0.0159	3.45	1.50	7,099	2.30	3.45	0.55
3.83	3,500	52.61	0.73	1.50	0.0209	3.50	1.50	7,126	2.30	3.50	0.73
3.84	3,500	52.61	0.73	1.50	0.0209	3.50	1.50	7,152	2.30	3.50	0.73
3.85	3,520	53.02	0.73	1.51	0.0207	3.52	1.50	7,178	2.50	3.52	0.73
3.86	3,530	53.12	0.91	1.52	0.0258	3.53	1.50	7,204	2.50	3.53	0.91
3.87	3,500	53.26	0.91	1.52	0.0260	3.50	1.50	7,230	2.50	3.50	0.91
3.88	3,480	54.04	0.73	1.55	0.0210	3.48	1.50	7,256	2.50	3.48	0.73
3.89	3,460	55.02	0.91	1.59	0.0263	3.46	1.50	7,283	2.50	3.46	0.91
3.9	3,460	55.02	0.91	1.59	0.0263	3.46	1.50	7,309	3.00	3.46	0.91
3.91	3,460	55.02	0.91	1.59	0.0263	3.46	1.50	7,335	3.00	3.46	0.91
3.92	3,400	55.06	3.29	1.62	0.0968	3.40	1.50	7,361	2.30	3.40	3.29
3.93	3,490	54.09	3.29	1.55	0.0943	3.49	1.50	7,387	2.30	3.49	3.29
3.94	3,470	54.97	3.47	1.58	0.1000	3.47	1.50	7,413	2.30	3.47	3.47
3.95	3,450	59.91	3.83	1.65	0.1110	3.45	1.50	7,440	2.30	3.45	3.83
3.96	3,410	59.46	3.47	1.74	0.1118	3.41	1.50	7,466	2.50	3.41	3.47
3.97	3,400	63.17	3.47	1.86	0.1021	3.40	1.50	7,492	2.50	3.40	3.47
3.98	3,400	67.38	3.10	1.98	0.0912	3.40	1.50	7,518	2.50	3.40	3.10
3.99	3,380	72.94	2.74	2.16	0.0811	3.38	1.50	7,544	2.50	3.38	2.74
4	3,330	78.03	2.56	2.34	0.0769	3.33	1.40	7,569	2.30	3.33	2.56
4.01	3,290	80.95	2.56	2.40	0.0753	3.29	1.40	7,593	2.30	3.29	2.56
4.02	3,290	80.95	2.56	2.46	0.0778	3.29	1.40	7,618	3.30	3.29	2.56
4.03	3,270	81.60	2.56	2.50	0.0783	3.27	1.50	7,644	2.50	3.27	2.56

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
4.04	3,220	81.50	2.74	2.53	0.0851	3.22	1.50	7,670	2.50	3.22	2.74
4.05	3,180	80.21	2.92	2.52	0.0918	3.18	1.50	7,696	2.30	3.18	2.92
4.06	3,140	80.25	3.10	2.56	0.0987	3.14	1.50	7,722	2.30	3.14	3.10
4.07	3,140	79.93	3.29	2.55	0.1048	3.14	1.50	7,748	2.00	3.14	3.29
4.08	3,120	80.16	3.29	2.54	0.1054	3.12	1.50	7,773	2.00	3.12	3.29
4.09	3,030	72.06	3.65	2.38	0.1205	3.03	1.50	7,801	2.00	3.03	3.65
4.1	3,030	72.06	3.65	2.38	0.1205	3.03	1.50	7,827	2.00	3.03	3.65
4.11	2,910	64.37	3.65	2.21	0.1254	2.91	1.50	7,853	2.30	2.91	3.65
4.12	2,900	60.94	3.47	2.10	0.1197	2.90	1.50	7,879	2.30	2.90	3.47
4.13	2,880	57.56	3.10	2.06	0.1076	2.88	1.50	7,906	2.30	2.88	3.10
4.14	2,870	54.60	2.56	1.90	0.0892	2.87	1.50	7,932	2.00	2.87	2.56
4.15	2,840	52.70	2.92	1.86	0.1028	2.84	1.50	7,958	2.00	2.84	2.92
4.16	2,880	53.67	3.29	1.86	0.1142	2.88	1.50	7,984	2.30	2.88	3.29
4.17	2,970	56.50	3.47	1.90	0.1168	2.97	1.50	8,010	2.30	2.97	3.47
4.18	3,130	58.58	3.29	1.87	0.1054	3.13	1.50	8,036	2.00	3.13	3.29
4.19	3,280	59.92	3.47	1.83	0.1058	3.28	1.50	8,063	2.00	3.28	3.47
4.2	3,420	60.90	3.47	1.78	0.1015	3.42	1.50	8,089	2.00	3.42	3.47
4.21	3,560	61.87	2.92	1.74	0.0820	3.56	1.50	8,115	2.00	3.56	2.92
4.22	3,630	62.29	2.99	1.72	0.0806	3.63	1.50	8,141	2.00	3.63	2.99
4.23	3,650	63.95	3.65	1.75	0.1000	3.65	1.50	8,167	2.00	3.65	3.65
4.24	3,590	64.55	3.65	1.80	0.1017	3.59	1.50	8,194	2.30	3.59	3.65
4.25	3,510	65.62	3.47	1.87	0.0989	3.51	1.50	8,220	2.30	3.51	3.47
4.26	3,460	67.66	3.10	1.96	0.0896	3.46	1.50	8,246	2.00	3.46	3.10
4.27	3,430	70.90	2.92	2.07	0.0851	3.43	1.50	8,272	2.00	3.43	2.92
4.28	3,370	74.37	2.92	2.11	0.0866	3.37	1.50	8,298	2.00	3.37	2.92
4.29	3,170	80.67	3.65	2.54	0.1151	3.17	1.50	8,324	2.00	3.17	3.65
4.3	3,170	80.67	3.65	2.54	0.1151	3.17	1.50	8,351	2.30	3.17	3.65
4.31	3,090	83.77	4.57	2.71	0.1479	3.09	1.50	8,377	2.30	3.09	4.57
4.32	2,990	91.46	3.83	3.06	0.1281	2.99	1.50	8,403	2.00	2.99	3.83
4.33	2,920	94.47	4.02	3.24	0.1377	2.92	1.50	8,429	2.00	2.92	4.02
4.34	2,870	97.76	4.02	3.41	0.1401	2.87	1.50	8,455	2.00	2.87	4.02
4.35	2,810	101.23	4.02	3.60	0.1431	2.81	1.60	8,483	2.00	2.81	4.02
4.36	2,780	104.20	3.83	3.75	0.1378	2.78	1.60	8,511	2.30	2.78	3.83
4.37	2,740	105.82	3.83	3.86	0.1398	2.74	1.60	8,539	2.30	2.74	3.83
4.38	2,730	102.02	3.83	3.92	0.1415	2.73	1.60	8,566	2.00	2.73	3.92
4.39	2,720	108.09	3.47	3.97	0.1276	2.72	1.60	8,595	2.00	2.72	3.47
4.4	2,770	109.24	3.65	3.94	0.1318	2.77	1.60	8,623	2.00	2.77	3.65
4.41	2,840	109.38	4.02	3.85	0.1415	2.84	1.60	8,651	2.00	2.84	4.02
4.42	2,960	108.13	4.38	3.65	0.1480	2.96	1.60	8,679	2.00	2.96	4.38
4.43	3,050	109.28	4.38	3.65	0.1480	3.05	1.60	8,707	2.00	3.05	4.38
4.44	3,170	103.78	4.02	3.27	0.1268	3.17	1.60	8,735	2.00	3.17	4.02
4.45	3,460	102.95	3.47	2.98	0.1003	3.46	1.60	8,762	2.00	3.46	3.47
4.46	3,610	104.17	3.65	2.90	0.1011	3.61	1.60	8,790	2.00	3.61	3.65
4.47	3,700	104.50	3.47	2.81	0.0938	3.70	1.60	8,818	2.00	3.70	3.47
4.48	3,700	104.50	3.47	2.81	0.0938	3.70	1.60	8,846	2.00	3.70	3.47
4.49	3,640	103.64	3.29	2.85	0.0904	3.64	1.60	8,874	1.80	3.64	3.29
4.5	3,500	101.51	3.83	2.90	0.1094	3.50	1.60	8,902	2.00	3.50	3.83
4.51	3,390	100.17	4.20	2.95	0.1239	3.39	1.60	8,930	2.00	3.39	4.20
4.52	3,290	98.92	5.11	3.01	0.1553	3.28	1.60	8,958	2.00	3.28	5.11
4.53	3,090	90.51	5.21	3.02	0.1654	3.09	1.60	8,986	2.00	3.09	5.21
4.54	2,980	91.86	6.76	3.08	0.2268	2.97	1.60	9,014	2.00	2.98	6.76
4.55	2,850	90.16	7.12	3.16	0.2498	2.84	1.60	9,042	2.00	2.85	7.12
4.56	2,730	88.87	7.67	3.26	0.2810	2.72	1.60	9,070	2.00	2.73	7.67
4.57	2,610	87.20	6.94	3.34	0.2659	2.60	1.60	9,098	2.00	2.61	6.94
4.58	2,550	84.79	6.65	3.40	0.2570	2.54	1.60	9,126	2.00	2.55	6.65
4.59	2,480	82.66	4.02	3.33	0.1621	2.48	1.60	9,153	2.00	2.48	4.02
4.6	2,400	82.52	3.83	3.44	0.1596	2.40	1.60	9,181	2.00	2.40	3.83
4.61	2,340	83.85	3.47	3.57	0.1483	2.34	1.60	9,209	2.00	2.34	3.47
4.62	2,310	82.49	3.47	3.59	0.1502	2.31	1.60	9,237	2.00	2.31	3.47
4.63	2,290	80.62	3.65	3.62	0.1592	2.28	1.60	9,265	2.00	2.28	3.65
4.64	2,270	78.08	6.21	3.44	0.2736	2.26	1.60	9,293	2.00	2.27	6.21
4.65	2,260	75.90	6.39	3.36	0.2827	2.25	1.60	9,321	2.00	2.26	6.39
4.66	2,250	73.63	6.57	3.27	0.2920	2.24	1.60	9,349	2.00	2.25	6.57
4.67	2,280	71.18	6.39	3.12	0.2803	2.27	1.60	9,377	2.00	2.28	6.39
4.68	2,330	68.92	6.39	2.95	0.1252	2.32	1.50	9,405	2.00	2.33	6.39
4.69	2,400	65.76	6.03	2.74	0.2513	2.39	1.50	9,429	2.00	2.40	6.03
4.7	2,500	62.42	5.66	2.50	0.2264	2.49	1.50	9,455	2.00	2.50	5.66
4.71	2,600	59.60	5.30	2.29	0.2038	2.59	1.50	9,481	2.00	2.60	5.30
4.72	2,730	55.94	5.11	2.05	0.1872	2.72	1.60	9,509	2.00	2.73	5.11

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
6.11	5,680	45.71	12.05	0.80	0.2121	5.67	1.70	13.432	2.00	5.69	12.05
6.12	5,680	45.80	11.87	0.81	0.2090	5.67	1.70	13.462	2.00	5.68	11.87
6.13	5,670	46.03	12.05	0.81	0.2125	5.66	1.70	13.492	2.30	5.68	12.05
6.14	5,700	45.85	12.05	0.80	0.2114	5.69	1.70	13.521	2.30	5.71	12.05
6.15	5,680	45.80	12.05	0.81	0.2121	5.67	1.70	13.551	2.30	5.69	12.05
6.16	5,640	45.61	12.05	0.81	0.2137	5.63	1.70	13.581	2.00	5.65	12.05
6.17	5,510	45.48	12.05	0.83	0.2187	5.50	1.60	13.609	2.00	5.52	12.05
6.18	5,420	45.57	12.05	0.84	0.2223	5.41	1.60	13.636	2.00	5.43	12.05
6.19	5,380	45.71	12.24	0.85	0.2275	5.37	1.60	13.664	2.00	5.39	12.24
6.2	5,370	45.39	12.24	0.86	0.2344	5.36	1.60	13.692	2.00	5.38	12.24
6.21	5,340	46.12	12.24	0.86	0.2292	5.33	1.60	13.720	2.00	5.35	12.24
6.22	5,320	46.54	12.24	0.87	0.2301	5.31	1.60	13.748	2.00	5.33	12.24
6.23	5,300	47.05	12.24	0.89	0.2309	5.29	1.60	13.776	2.00	5.31	12.24
6.24	5,260	47.65	12.24	0.91	0.2327	5.25	1.60	13.804	2.00	5.27	12.24
6.25	5,200	48.30	12.42	0.93	0.2388	5.19	1.60	13.832	2.00	5.21	12.42
6.26	5,030	49.64	12.42	0.99	0.2469	5.02	1.60	13.860	2.00	5.04	12.42
6.27	4,940	50.06	12.42	1.01	0.2514	4.93	1.60	13.888	2.00	4.95	12.42
6.28	4,840	50.52	12.42	1.04	0.2566	4.83	1.60	13.916	2.00	4.85	12.42
6.29	4,750	50.52	12.42	1.06	0.2585	4.74	1.70	13.945	2.00	4.76	12.42
6.3	4,680	50.34	12.60	1.07	0.2610	4.72	1.70	13.975	2.00	4.78	12.60
6.31	4,630	49.97	12.60	1.08	0.2721	4.62	1.70	14.003	2.00	4.64	12.60
6.32	4,630	49.50	12.60	1.07	0.2721	4.62	1.60	14.031	2.00	4.64	12.60
6.33	4,640	49.27	12.60	1.06	0.2716	4.63	1.60	14.059	2.00	4.65	12.60
6.34	4,640	49.83	12.60	1.07	0.2716	4.63	1.60	14.087	2.00	4.65	12.60
6.35	4,630	50.15	12.78	1.07	0.2708	4.62	1.70	14.115	2.00	4.67	12.78
6.36	4,600	50.15	12.78	1.09	0.2718	4.59	1.60	14.143	2.00	4.61	12.78
6.37	4,570	50.25	12.97	1.10	0.2838	4.56	1.60	14.171	2.00	4.58	12.97
6.38	4,570	50.38	12.78	1.10	0.2796	4.56	1.60	14.198	2.00	4.58	12.78
6.39	4,600	50.62	12.78	1.10	0.2778	4.59	1.60	14.226	2.00	4.61	12.78
6.4	4,650	50.57	12.97	1.09	0.2789	4.64	1.70	14.255	2.00	4.66	12.97
6.41	4,730	50.66	12.97	1.07	0.2742	4.72	1.70	14.286	2.00	4.74	12.97
6.42	4,810	50.66	12.97	1.05	0.2696	4.80	1.70	14.315	2.00	4.82	12.97
6.43	4,870	50.85	12.97	1.04	0.2663	4.86	1.70	14.345	2.00	4.88	12.97
6.44	4,930	51.08	12.97	1.04	0.2631	4.92	1.60	14.373	2.00	4.94	12.97
6.45	4,960	51.03	12.97	1.03	0.2615	4.95	1.60	14.401	2.00	4.97	12.97
6.46	4,970	50.75	12.97	1.02	0.2610	4.96	1.60	14.429	2.00	4.98	12.97
6.47	4,970	50.99	13.15	1.03	0.2646	4.96	1.60	14.457	2.00	4.98	13.15
6.48	4,990	50.89	13.15	1.02	0.2635	4.98	1.60	14.485	2.00	5.00	13.15
6.49	5,000	51.03	13.15	1.02	0.2630	4.99	1.60	14.513	1.80	5.01	13.15
6.5	5,000	51.40	13.15	1.03	0.2630	4.99	1.60	14.540	1.80	5.01	13.15
6.51	4,980	51.91	13.33	1.04	0.2677	4.97	1.60	14.568	2.00	4.99	13.33
6.52	4,900	52.24	13.15	1.05	0.2635	4.98	1.60	14.596	2.00	5.00	13.15
6.53	5,030	52.10	13.33	1.04	0.2650	5.02	1.60	14.624	2.00	5.04	13.33
6.54	5,230	50.85	13.33	0.97	0.2549	5.22	1.60	14.652	2.00	5.24	13.33
6.55	5,380	50.29	13.51	0.93	0.2511	5.37	1.60	14.680	2.00	5.39	13.51
6.56	5,580	50.01	13.51	0.90	0.2421	5.57	1.60	14.708	2.00	5.59	13.51
6.57	5,750	49.87	13.51	0.87	0.2350	5.74	1.60	14.736	1.80	5.76	13.51
6.58	5,900	50.38	13.51	0.85	0.2290	5.89	1.60	14.764	1.80	5.91	13.51
6.59	6,030	51.13	13.51	0.85	0.2240	6.02	1.60	14.792	2.00	6.04	13.51
6.6	6,170	51.31	13.51	0.83	0.2190	6.16	1.60	14.820	2.00	6.18	13.51
6.61	6,310	51.40	13.51	0.81	0.2141	6.30	1.60	14.848	2.00	6.32	13.51
6.62	6,520	51.33	13.51	0.81	0.2072	6.51	1.60	14.876	2.00	6.53	13.51
6.63	6,550	52.28	13.51	0.80	0.2063	6.54	1.60	14.903	1.80	6.56	13.51
6.64	6,510	52.47	13.51	0.81	0.2075	6.50	1.60	14.931	1.80	6.52	13.51
6.65	6,430	52.75	13.51	0.82	0.2101	6.42	1.70	14.961	2.00	6.44	13.51
6.66	6,330	53.21	13.51	0.84	0.2175	6.29	1.70	14.991	2.00	6.31	13.70
6.67	6,160	53.39	13.88	0.87	0.2253	6.15	1.70	15.020	2.00	6.17	13.88
6.68	6,040	53.67	13.88	0.89	0.2298	6.03	1.70	15.050	1.80	6.05	13.88
6.69	5,820	54.41	14.06	0.93	0.2416	5.81	1.60	15.078	2.00	5.83	14.06
6.7	5,760	54.51	14.06	0.95	0.2441	5.75	1.60	15.106	2.00	5.77	14.06
6.71	5,740	54.51	14.24	0.95	0.2441	5.73	1.60	15.134	2.00	5.75	14.24
6.72	5,790	54.67	14.06	0.96	0.2478	5.78	1.60	15.162	1.80	5.79	14.06
6.73	5,900	54.04	14.24	0.92	0.2414	5.89	1.60	15.190	1.80	5.91	14.24
6.74	6,050	53.76	14.06	0.89	0.2324	6.04	1.60	15.218	2.00	6.06	14.06
6.75	6,200	53.30	14.06	0.86	0.2268	6.19	1.60	15.245	2.00	6.21	14.06
6.76	6,450	52.24	14.24	0.81	0.2208	6.44	1.60	15.273	2.00	6.46	14.24
6.77	6,590	52.68	14.06	0.81	0.2161	6.58	1.60	15.301	2.00	6.60	14.06
6.78	6,760	52.05	14.24	0.77	0.2107	6.75	1.60	15.329	1.80	6.77	14.24
6.79	6,930	51.91	14.43	0.75	0.2082	6.92	1.60	15.357	1.80	6.94	14.43

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
6.8	7,060	51.63	14.24	0.73	0.2017	7.05	1.60	15.385	1.80	7.07	14.24
6.81	7,290	51.77	14.43	0.71	0.1979	7.28	1.60	15.413	1.80	7.30	14.43
6.82	7,300	51.91	14.43	0.70	0.1942	7.42	1.60	15.441	2.00	7.44	14.43
6.83	7,580	52.14	14.43	0.69	0.1904	7.57	1.60	15.469	2.00	7.59	14.43
6.84	7,710	52.79	14.43	0.68	0.1872	7.68	1.60	15.497	1.80	7.72	14.43
6.85	7,860	54.55	14.43	0.69	0.1836	7.85	1.60	15.525	1.80	7.87	14.43
6.86	7,880	54.83	14.61	0.70	0.1854	7.87	1.60	15.553	1.80	7.89	14.61
6.87	7,870	55.11	14.43	0.70	0.1834	7.86	1.60	15.581	1.80	7.88	14.43
6.88	7,860	56.03	14.79	0.71	0.1882	7.85	1.70	15.610	1.80	7.87	14.79
6.89	7,850	57.38	14.79	0.73	0.1884	7.84	1.70	15.638	1.80	7.86	14.79
6.9	7,850	57.38	14.79	0.73	0.1884	7.84	1.70	15.670	2.80	7.86	14.79
6.91	7,850	57.38	14.79	0.73	0.1884	7.84	1.70	15.699	2.00	7.86	14.79
6.92	7,790	52.65	16.44	0.68	0.2110	7.77	1.60	15.727	2.00	7.80	16.44
6.93	7,910	52.84	16.44	0.67	0.2078	7.89	1.60	15.755	2.00	7.92	16.44
6.94	7,940	52.70	16.07	0.68	0.2056	7.95	1.60	15.783	2.00	7.98	16.07
6.95	7,960	51.73	16.07	0.65	0.2011	7.97	1.60	15.811	2.00	8.00	16.07
6.96	7,960	51.36	16.25	0.65	0.2041	7.94	1.60	15.839	2.00	7.97	16.25
6.97	7,840	51.73	16.07	0.66	0.2050	7.82	1.60	15.867	2.30	7.85	16.07
6.98	7,780	52.66	16.07	0.68	0.2079	7.71	1.60	15.895	2.30	7.74	16.07
6.99	7,580	53.16	16.44	0.74	0.2144	7.56	1.60	15.923	1.80	7.59	16.44
7	7,430	53.58	16.07	0.72	0.2163	7.41	1.60	15.950	1.80	7.44	16.07
7.01	7,280	53.39	16.07	0.73	0.2207	7.26	1.60	15.978	2.30	7.29	16.07
7.02	6,960	52.70	16.25	0.76	0.2335	6.94	1.60	16.006	2.30	6.97	16.25
7.03	6,960	52.70	16.25	0.76	0.2335	6.94	1.60	16.034	2.30	6.97	16.25
7.04	6,960	52.70	16.25	0.76	0.2335	6.94	1.60	16.062	2.30	6.97	16.25
7.05	6,260	52.19	16.44	0.83	0.2626	6.24	1.60	16.090	2.00	6.27	16.44
7.06	6,260	52.19	16.44	0.83	0.2626	6.24	1.60	16.118	2.30	6.27	16.44
7.07	5,620	52.47	16.62	0.93	0.2957	5.60	1.60	16.146	2.30	5.63	16.62
7.08	5,240	52.65	16.44	1.00	0.3137	5.22	1.60	16.174	2.00	5.25	16.44
7.09	4,790	52.79	16.62	1.10	0.3470	4.77	1.60	16.202	2.00	4.80	16.62
7.1	4,270	53.16	16.44	1.24	0.3850	4.25	1.60	16.230	2.30	4.28	16.44
7.11	4,270	53.16	16.44	1.24	0.3850	4.25	1.60	16.258	2.30	4.28	16.44
7.12	3,320	59.32	16.25	1.84	0.5031	3.21	1.60	16.286	2.30	3.24	16.25
7.13	3,230	59.32	16.25	1.84	0.5031	3.21	1.60	16.313	2.30	3.24	16.25
7.14	2,840	64.74	16.07	2.29	0.6569	2.82	1.60	16.341	2.30	2.85	16.07
7.15	2,570	71.59	15.89	2.79	0.6183	2.53	1.60	16.369	2.30	2.56	15.89
7.16	2,350	88.13	15.52	3.75	0.6604	2.33	1.50	16.396	2.30	2.36	15.52
7.17	2,350	88.13	15.52	3.75	0.6604	2.33	1.50	16.422	2.30	2.36	15.52
7.18	2,340	100.77	15.16	4.38	0.6663	2.29	1.50	16.448	2.30	2.32	15.16
7.19	2,340	116.28	15.16	4.38	0.6663	2.29	1.50	16.476	2.30	2.35	15.16
7.2	2,790	122.30	13.88	4.38	0.4875	2.78	1.50	16.500	2.80	2.80	13.88
7.21	3,680	119.18	16.44	3.25	0.4120	3.66	1.50	16.526	2.30	3.69	16.44
7.22	4,850	109.89	15.70	2.27	0.3327	4.83	1.50	16.553	2.30	4.86	15.70
7.23	6,490	98.18	15.52	1.51	0.2391	6.47	1.50	16.579	2.00	6.50	15.52
7.24	6,940	97.67	15.52	1.51	0.2392	6.82	1.50	16.605	2.00	6.85	15.52
7.25	7,110	87.94	15.70	1.24	0.2028	6.97	1.50	16.633	2.00	7.12	15.70
7.26	7,340	84.65	15.52	1.15	0.2114	7.32	1.50	16.657	2.00	7.35	15.52
7.27	7,500	82.80	15.70	1.01	0.2093	7.48	1.50	16.683	2.00	7.51	15.70
7.28	7,600	81.81	15.70	1.07	0.2068	7.58	1.50	16.710	2.00	7.61	15.70
7.29	7,590	80.61	15.89	1.06	0.2094	7.59	1.50	16.736	2.30	7.65	15.89
7.3	7,520	79.74	15.70	1.06	0.2088	7.50	1.60	16.764	2.30	7.53	15.70
7.31	7,450	78.08	15.89	1.05	0.2133	7.43	1.50	16.790	2.00	7.46	15.89
7.32	7,340	75.99	15.89	1.04	0.2165	7.32	1.60	16.818	2.30	7.35	15.89
7.33	7,250	73.21	15.89	1.01	0.2192	7.23	1.60	16.846	2.00	7.26	15.89
7.34	7,170	74.38	15.89	1.02	0.2206	7.15	1.60	16.874	2.00	7.18	15.89
7.35	7,070	64.57	16.07	0.91	0.2273	7.05	1.60	16.902	2.00	7.08	16.07
7.36	7,040	59.31	16.07	0.84	0.2283	7.02	1.60	16.930	2.00	7.05	16.07
7.37	6,990	53.90	16.07	0.77	0.2299	6.97	1.60	16.957	2.00	7.00	16.07
7.38	6,920	52.47	16.25	0.76	0.2348	6.90	1.50	16.984	2.30	6.93	16.25
7.39	6,880	57.75	16.25	0.77	0.2362	6.86	1.50	17.012	2.30	6.89	16.25
7.4	6,790	53.53	16.25	0.79	0.2393	6.77	1.60	17.039	2.00	6.80	16.25
7.41	6,770	54.23	16.25	0.80	0.2400	6.75	1.60	17.067	2.00	6.78	16.25
7.42	6,740	55.02	16.44	0.82	0.2439	6.72	1.60	17.095	2.00	6.75	16.44
7.43	6,750	55.02	16.44	0.82	0.2436	6.73	1.60	17.123	2.00	6.76	16.44
7.44	6,780	55.65	16.44	0.83	0.2432	6.74	1.60	17.151	1.80	6.77	16.44
7.45	6,770	56.45	16.44	0.83	0.2428	6.75	1.60	17.179	1.80	6.78	16.44
7.46	6,780	56.82	16.44	0.84	0.2425	6.76	1.60	17.207	2.00	6.79	16.44
7.47	6,800	56.78	16.44	0.84	0.2418	6.78	1.60	17.235	1.80	6.81	16.44
7.48	6,790	56.36	16.62	0.83	0.2448	6.77	1.60	17.263	1.80	6.80	16.62

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.87	4,440	58.58	18.44	1.32	0.4153	4.42	1.50	20,950	2.00	4.45	18.44
8.88	4,470	58.40	18.44	1.31	0.4125	4.45	1.50	20,976	2.00	4.48	18.44
8.89	4,470	58.40	18.44	1.31	0.4125	4.45	1.50	21,003	2.80	4.48	18.44
8.9	4,470	58.40	18.44	1.31	0.4125	4.45	1.50	21,029	2.30	4.48	18.44
8.91	4,500	58.40	17.71	1.15	0.3896	4.48	1.40	21,053	2.30	4.51	17.71
8.92	4,500	52.10	17.53	1.14	0.3844	4.54	1.40	21,078	1.80	4.57	17.53
8.93	4,620	51.96	17.17	1.12	0.3716	4.60	1.40	21,102	1.80	4.63	17.17
8.94	4,680	53.02	16.98	1.13	0.3628	4.66	1.50	21,128	2.00	4.69	16.98
8.95	4,470	53.35	16.98	1.13	0.3582	4.72	1.50	21,154	2.00	4.75	16.98
8.96	4,910	53.35	16.98	1.11	0.3530	4.79	1.50	21,185	2.00	4.82	16.98
8.97	4,900	53.39	16.98	1.09	0.3472	4.87	1.50	21,207	2.00	4.90	16.98
8.98	4,990	53.07	16.98	1.06	0.3403	4.97	1.40	21,231	2.00	5.00	16.98
8.99	5,150	52.47	16.98	1.02	0.3297	5.13	1.40	21,256	2.00	5.16	16.98
9	5,240	52.75	17.17	1.01	0.3277	5.22	1.40	21,280	2.00	5.25	17.17
9.01	5,350	53.16	17.17	0.98	0.3208	5.33	1.40	21,305	2.00	5.36	17.17
9.02	5,450	52.89	17.17	0.97	0.3150	5.43	1.40	21,329	1.80	5.46	-11.32
9.03	5,520	53.21	17.17	0.96	0.3111	5.50	1.40	21,353	1.80	5.53	-11.41
9.04	5,610	53.81	17.17	0.96	0.3061	5.59	1.40	21,378	2.00	5.62	-11.51
9.05	5,700	54.46	17.17	0.96	0.3012	5.68	1.40	21,402	2.00	5.71	-11.61
9.06	5,860	55.48	17.35	0.95	0.2945	5.84	1.40	21,427	2.00	5.84	-11.73
9.07	5,890	56.08	17.17	0.95	0.2915	5.87	1.40	21,451	2.00	5.90	-11.81
9.08	5,910	56.54	17.35	0.96	0.2936	5.89	1.50	21,477	2.00	5.92	-11.72
9.09	5,880	57.10	17.17	0.97	0.2920	5.86	1.50	21,503	1.80	5.89	-12.00
9.1	5,850	57.15	17.17	0.98	0.2935	5.83	1.50	21,530	1.80	5.86	-12.10
9.11	5,820	57.19	17.35	0.98	0.2901	5.80	1.50	21,556	2.00	5.89	-12.20
9.12	5,800	57.19	17.17	0.99	0.2960	5.78	1.40	21,580	2.00	5.81	-12.30
9.13	5,800	57.33	17.17	0.99	0.2960	5.78	1.40	21,605	2.00	5.81	-12.40
9.14	5,800	57.52	17.35	0.99	0.2991	5.78	1.40	21,629	2.00	5.81	-12.31
9.15	5,830	58.35	17.53	1.00	0.3007	5.81	1.40	21,654	2.00	5.84	-12.23
9.16	5,830	58.21	17.53	1.00	0.3007	5.81	1.40	21,678	2.00	5.84	-12.33
9.17	5,830	58.16	17.17	1.00	0.2945	5.81	1.40	21,702	1.80	5.84	-12.78
9.18	5,810	58.16	17.17	1.00	0.2955	5.79	1.40	21,727	1.80	5.82	-12.89
9.19	5,790	58.03	17.17	1.00	0.2965	5.77	1.50	21,753	2.00	5.80	-12.98
9.2	5,750	57.38	17.17	1.00	0.2986	5.73	1.50	21,779	2.00	5.76	-13.08
9.21	5,680	56.45	17.17	0.99	0.3023	5.66	1.40	21,804	1.80	5.69	-13.18
9.22	5,630	55.90	17.17	0.99	0.3050	5.61	1.40	21,828	1.80	5.64	-13.28
9.23	5,580	55.52	17.17	0.99	0.3077	5.56	1.40	21,853	2.00	5.59	-13.38
9.24	5,530	55.43	17.17	1.00	0.3105	5.51	1.40	21,877	2.00	5.54	-13.47
9.25	5,510	55.02	17.35	1.00	0.3149	5.49	1.40	21,901	1.80	5.52	-13.39
9.26	5,480	54.64	17.17	1.00	0.3133	5.46	1.40	21,926	2.00	5.49	-13.67
9.27	5,350	54.32	17.17	1.02	0.3209	5.33	1.40	21,950	2.00	5.36	-13.77
9.28	5,260	54.51	17.17	1.04	0.3264	5.24	1.40	21,975	2.00	5.27	-13.87
9.29	5,160	54.32	17.17	1.05	0.3328	5.14	1.40	21,999	2.00	5.17	-13.96
9.3	5,070	54.04	16.98	1.07	0.3349	5.05	1.40	22,024	2.00	5.08	-14.25
9.31	4,980	53.86	16.98	1.08	0.3410	4.96	1.40	22,048	2.00	4.99	-14.35
9.32	4,930	53.44	17.17	1.08	0.3428	4.91	1.40	22,072	2.00	4.94	-14.26
9.33	4,930	53.35	17.35	1.09	0.3524	4.89	1.40	22,097	2.00	4.92	-14.17
9.34	4,920	53.26	17.17	1.08	0.3600	4.90	1.40	22,121	2.00	4.93	-13.92
9.35	4,960	53.21	18.08	1.07	0.3645	4.94	1.40	22,146	2.00	4.97	-13.64
9.36	5,000	53.21	18.08	1.06	0.3616	4.98	1.40	22,170	2.00	5.01	-13.74
9.37	5,070	53.72	18.08	1.06	0.3666	4.95	1.40	22,195	2.00	5.05	-13.84
9.38	5,180	54.09	17.17	1.04	0.3719	4.94	1.40	22,219	2.30	5.19	-14.11
9.39	5,320	55.15	17.17	1.04	0.3329	5.30	1.40	22,243	2.00	5.33	-14.41
9.4	5,410	55.76	17.90	1.03	0.3309	5.39	1.40	22,268	2.00	5.42	-14.31
9.41	5,510	56.62	18.44	1.01	0.3347	5.49	1.40	22,292	2.00	5.52	-13.87
9.42	5,810	55.20	18.99	0.95	0.3269	5.79	1.40	22,317	2.00	5.62	-13.42
9.43	5,950	56.86	18.63	0.94	0.3131	5.93	1.40	22,341	2.00	5.67	-13.03
9.44	6,060	56.40	18.26	0.93	0.3013	6.04	1.40	22,366	2.00	6.07	-14.35
9.45	6,130	57.28	18.26	0.93	0.2979	6.11	1.40	22,390	2.00	6.14	-14.44
9.46	6,140	58.67	18.44	0.96	0.3003	6.12	1.40	22,414	2.00	6.15	-14.36
9.47	6,140	59.41	18.44	0.97	0.3033	6.12	1.40	22,438	2.00	6.15	-14.46
9.48	6,140	59.41	18.44	0.98	0.3063	6.12	1.40	22,463	2.00	6.17	-14.56
9.49	6,130	60.71	18.44	0.99	0.3008	6.11	1.40	22,488	2.00	6.14	-14.66
9.5	6,050	62.38	17.90	1.03	0.2959	6.03	1.40	22,512	2.00	6.06	-15.30
9.51	6,010	62.61	17.17	1.04	0.2947	5.99	1.40	22,537	1.80	6.02	-15.58
9.52	5,950	62.61	17.90	1.05	0.3008	5.93	1.40	22,561	1.80	5.96	-15.49
9.53	5,910	62.38	18.08	1.06	0.3045	5.89	1.40	22,585	2.00	5.92	-15.39
9.54	5,880	62.19	18.08	1.06	0.3075	5.86	1.40	22,610	2.30	5.89	-15.51
9.55	5,870	62.42	19.00	1.06	0.3049	5.85	1.40	22,634	2.00	5.88	-15.79

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
9.56	5,880	62.10	17.71	1.06	0.3012	5.86	1.40	22,659	2.00	5.89	-16.07
9.57	5,940	61.68	17.90	1.04	0.3013	5.92	1.40	22,683	2.00	5.95	-15.98
9.58	6,020	61.22	17.90	1.02	0.2973	6.00	1.40	22,708	2.00	6.03	-16.08
9.59	6,150	60.80	17.90	0.99	0.2911	6.13	1.40	22,732	2.00	6.16	-16.18
9.6	6,300	60.48	17.90	0.96	0.2832	6.36	1.40	22,757	2.00	6.33	-16.28
9.61	6,570	60.53	17.90	0.92	0.2725	6.55	1.40	22,781	2.00	6.58	-16.37
9.62	7,150	59.92	18.08	0.84	0.2529	7.13	1.40	22,805	2.00	7.16	-16.29
9.63	7,410	59.88	18.08	0.81	0.2440	7.39	1.40	22,830	2.00	7.42	-16.39
9.64	7,660	59.55	18.26	0.78	0.2384	7.64	1.40	22,854	2.00	7.67	-16.31
9.65	7,830	59.28	18.44	0.75	0.2340	7.86	1.40	22,878	2.00	7.89	-16.23
9.66	8,050	58.86	18.63	0.73	0.2314	8.03	1.40	22,903	1.80	8.06	-16.13
9.67	8,130	58.35	18.81	0.72	0.2314	8.11	1.40	22,928	2.00	8.14	-16.05
9.68	8,170	57.98	18.99	0.71	0.2324	8.15	1.30	22,950	2.00	8.18	-15.97
9.69	8,250	58.12	18.81	0.70	0.2280	8.23	1.30	22,973	2.00	8.26	-16.25
9.7	8,340	58.49	18.63	0.70	0.2254	8.32	1.30	22,996	2.00	8.35	-16.53
9.71	8,570	59.88	18.63	0.70	0.2174	8.55	1.40	23,020	2.00	8.58	-16.63
9.72	8,720	60.53	18.63	0.69	0.2136	8.70	1.40	23,044	2.00	8.73	-16.72
9.73	8,860	61.04	18.63	0.69	0.2103	8.84	1.40	23,069	2.00	8.87	-16.82
9.74	8,960	60.25	18.63	0.67	0.2079	8.94	1.40	23,093	2.00	8.97	-16.92
9.75	9,090	59.28	18.63	0.66	0.2063	9.05	1.40	23,118	2.30	9.04	-17.02
9.76	9,090	58.35	18.81	0.64	0.2069	9.07	1.30	23,139	2.30	9.10	-16.94
9.77	9,140	57.84	18.63	0.63	0.2038	9.12	1.30	23,161	2.00	9.15	-17.21
9.78	9,160	57.61	18.63	0.63	0.2034	9.14	1.30	23,184	2.00	9.17	-17.31
9.79	9,110	57.19	18.63	0.63	0.2045	9.09	1.30	23,207	2.30	9.12	-17.47
9.8	9,090	56.91	18.81	0.63	0.2075	9.04	1.30	23,229	2.30	9.07	-17.33
9.81	9,030	56.68	18.99	0.63	0.2103	9.01	1.30	23,252	2.00	9.04	-17.25
9.82	9,010	57.10	19.17	0.63	0.2128	8.99	1.30	23,275	2.00	9.02	-17.16
9.83	9,050	57.79	19.17	0.64	0.2118	9.03	1.40	23,299	2.30	9.06	-17.26
9.84	9,150	58.21	18.99	0.64	0.2075	9.13	1.40	23,324	2.30	9.16	-17.54
9.85	9,250	58.35	18.99	0.63	0.2053	9.23	1.40	23,348	2.30	9.26	-17.82
9.86	9,330	58.49	19.17	0.63	0.2055	9.31	1.40	23,373	2.00	9.34	-17.56
9.87	9,600	58.53	19.17	0.61	0.1997	9.58	1.40	23,397	2.00	9.61	-17.65
9.88	9,600	58.53	19.17	0.61	0.1997	9.58	1.40	23,421	3.00	9.61	-17.75
9.89	9,600	58.53	19.17	0.61	0.1997	9.58	1.40	23,446	3.00	9.61	-17.85
9.9	9,610	59.38	20.27	0.54	0.1993	9.58	1.40	23,470	3.00	9.61	-18.16
9.91	9,940	51.63	20.09	0.52	0.2021	9.92	1.30	23,491	1.80	9.95	-17.73
9.92	10,060	53.72	19.54	0.53	0.1942	10.04	1.30	23,514	2.00	10.07	-17.78
9.93	9,940	56.50	19.36	0.57	0.1948	9.92	1.30	23,537	2.00	9.95	-18.05
9.94	9,740	57.42	19.36	0.59	0.1988	9.72	1.30	23,559	1.80	9.75	-17.85
9.95	9,500	55.35	19.99	0.61	0.1943	9.40	1.30	23,582	1.80	9.51	-17.61
9.96	9,240	55.97	19.36	0.64	0.2095	9.22	1.30	23,605	2.00	9.29	-17.35
9.97	9,010	60.76	19.99	0.67	0.2088	8.99	1.30	23,627	2.00	9.02	-17.82
9.98	8,750	61.64	18.63	0.70	0.2129	8.73	1.30	23,650	2.00	8.76	-17.97
9.99	8,590	62.38	18.81	0.73	0.2190	8.57	1.30	23,673	1.80	8.60	-17.19
10	8,320	63.21	18.81	0.76	0.2261	8.30	1.30	23,695	1.80	8.33	-17.29
10.01	8,220	62.81	18.81	0.77	0.2280	8.20	1.30	23,718	1.80	8.23	-17.39
10.02	8,120	63.12	18.81	0.78	0.2317	8.10	1.30	23,741	2.00	8.13	-17.49
10.03	8,010	62.70	18.63	0.78	0.2326	7.99	1.30	23,763	2.00	8.02	-17.96
10.04	7,920	62.50	18.81	0.79	0.2375	7.90	1.30	23,786	2.00	7.93	-17.68
10.05	7,870	62.24	18.63	0.79	0.2367	7.85	1.30	23,809	2.00	7.88	-17.56
10.06	7,820	61.82	18.81	0.79	0.2375	7.80	1.30	23,832	2.00	7.89	-17.99
10.07	7,780	61.61	18.63	0.79	0.2395	7.76	1.40	23,856	2.00	7.79	-18.06
10.08	7,760	60.80	18.81	0.78	0.2424	7.74	1.40	23,880	2.00	7.77	-18.07
10.09	7,710	59.32	18.81	0.77	0.2440	7.69	1.40	23,905	2.00	7.72	-18.17
10.1	7,720	58.49	19.17	0.76	0.2437	7.70	1.30	23,928	2.00	7.73	-18.27
10.11	7,700	57.75	18.81	0.76	0.2440	7.68	1.40	23,951	2.00	7.72	-18.37
10.12	7,630	57.01	19.17	0.75	0.2512	7.61	1.30	23,973	2.00	7.64	-18.01
10.13	7,500	56.64	19.36	0.76	0.2581	7.48	1.30	23,996	2.00	7.51	-18.02
10.14	7,370	56.31	19.36	0.76	0.2627	7.35	1.40	24,020	2.00	7.38	-18.11
10.15	7,250	55.94	19.72	0.77	0.2720	7.23	1.40	24,044	2.00	7.26	-17.85
10.16	7,090	55.62	19.72	0.78	0.2770	7.09	1.40	24,068	2.00	7.10	-17.10
10.17	6,950	55.02	19.72	0.79	0.2837	6.93	1.40	24,093	2.00	6.96	-18.05
10.18	6,830	54.83	19.54	0.80	0.2861	6.81	1.40	24,118	2.00	6.84	-18.33
10.19	6,760	54.83	19.36	0.81	0.2864	6.74	1.40	24,142	2.00	6.77	-18.00
10.2	6,820	54.32	19.99	0.80	0.2784	6.80	1.40	24,167	2.00	6.83	-18.17
10.21	6,820	54.32	19.99	0.80	0.2784	6.80	1.40	24,191	2.00	6.83	-18.17
10.22	7,090	53.35	19.17	0.75	0.2704	7.07	1.40	24,215	2.00	7.10	-18.09
10.23	7,330	52.89	19.36	0.72	0.2641	7.31	1.40	24,240	2.00	7.30	-18.17
10.24	7,590	52.33	19.54	0.69	0.2574	7.57	1.40	24,264	2.00	7.60	-18.01

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
11.63	6,890	54.69	16.8	0.79	0.2438	6.87	1.20	27.399	2.30	6.90	-97.29
11.64	6,790	51.13	17.53	0.75	0.2582	6.77	1.20	27.420	2.00	6.80	-96.66
11.65	6,690	51.77	17.17	0.77	0.2567	6.67	1.20	27.441	2.00	6.70	-97.17
11.66	6,630	47.98	17.53	0.72	0.2644	6.61	1.20	27.461	2.00	6.64	-96.85
11.67	6,610	42.70	17.36	0.91	0.2626	6.59	1.20	27.482	2.00	6.62	-97.13
11.68	6,560	47.00	17.53	0.72	0.2672	6.54	1.20	27.503	2.00	6.57	-97.05
11.69	6,500	46.08	17.71	0.71	0.2725	6.48	1.20	27.524	2.00	6.51	-96.97
11.7	6,420	44.87	18.44	0.70	0.2872	6.40	1.20	27.545	2.00	6.43	-96.34
11.71	6,320	43.58	19.17	0.69	0.3033	6.30	1.20	27.566	2.00	6.33	-95.71
11.72	6,150	42.70	19.36	0.67	0.3148	6.13	1.20	27.587	2.00	6.16	-95.01
11.73	5,960	42.10	19.36	0.71	0.3248	5.94	1.20	27.608	2.30	5.97	-95.71
11.74	5,790	41.82	19.17	0.72	0.3311	5.77	1.20	27.629	2.30	5.80	-96.00
11.75	5,660	41.82	18.81	0.74	0.3323	5.64	1.20	27.650	2.00	5.67	-96.46
11.76	5,580	41.82	18.63	0.75	0.3339	5.56	1.20	27.671	2.00	5.59	-96.74
11.77	5,570	41.68	18.63	0.75	0.3345	5.56	1.20	27.692	2.00	5.58	-96.92
11.78	5,500	41.82	18.63	0.75	0.3327	5.58	1.20	27.713	2.30	5.61	-96.93
11.79	5,690	41.96	18.44	0.74	0.3241	5.67	1.20	27.734	2.00	5.70	-97.22
11.8	6,110	42.70	18.44	0.70	0.3018	6.09	1.20	27.755	2.00	6.12	-97.32
11.81	6,390	43.07	18.81	0.67	0.2944	6.37	1.20	27.776	2.30	6.40	-97.05
11.82	6,670	43.66	18.99	0.64	0.2847	6.66	1.20	27.797	2.30	6.69	-96.66
11.83	6,910	42.97	19.36	0.62	0.2802	6.89	1.20	27.818	2.00	6.92	-96.69
11.84	7,120	42.79	19.36	0.60	0.2719	7.10	1.20	27.838	2.00	7.13	-96.79
11.85	7,270	42.33	19.54	0.58	0.2688	7.25	1.20	27.859	2.00	7.28	-96.71
11.86	7,380	41.82	19.72	0.57	0.2672	7.36	1.20	27.880	2.00	7.39	-96.63
11.87	7,440	41.49	19.72	0.56	0.2651	7.42	1.20	27.901	2.00	7.45	-96.72
11.88	7,440	41.49	19.72	0.56	0.2651	7.42	1.20	27.922	3.00	7.47	-96.80
11.89	7,440	41.49	19.72	0.56	0.2651	7.42	1.20	27.943	3.00	7.45	-96.92
11.9	7,330	31.86	18.81	0.45	0.2638	7.11	1.20	27.964	2.00	7.14	-97.93
11.91	7,320	33.71	18.81	0.46	0.2570	7.30	1.20	27.985	2.00	7.33	-98.03
11.92	7,290	35.24	18.63	0.48	0.2556	7.27	1.20	28.008	2.30	7.30	-98.31
11.93	7,230	36.58	18.44	0.51	0.2565	7.21	1.20	28.030	2.30	7.24	-98.59
11.94	7,130	38.53	18.44	0.54	0.2586	7.11	1.20	28.051	2.00	7.14	-98.69
11.95	7,000	40.15	18.26	0.57	0.2609	6.98	1.20	28.072	2.00	7.01	-98.97
11.96	6,920	41.82	18.08	0.60	0.2613	6.90	1.20	28.093	2.00	6.93	-99.25
11.97	6,900	43.30	18.08	0.63	0.2620	6.88	1.20	28.114	2.30	6.91	-99.35
11.98	6,950	44.46	18.26	0.64	0.2627	6.93	1.20	28.135	2.30	6.96	-99.26
11.99	7,110	45.57	18.26	0.64	0.2568	7.09	1.20	28.156	2.00	7.12	-99.36
12	7,370	46.45	18.44	0.63	0.2502	7.35	1.30	28.179	2.00	7.38	-99.28
12.01	7,620	47.24	18.63	0.62	0.2445	7.60	1.30	28.201	2.00	7.63	-99.19
12.02	7,790	47.51	18.63	0.61	0.2392	7.77	1.30	28.224	2.00	7.80	-99.29
12.03	7,840	47.10	18.81	0.60	0.2399	7.82	1.30	28.247	2.30	7.85	-99.20
12.04	7,650	47.10	18.81	0.62	0.2459	7.63	1.30	28.270	2.30	7.66	-99.30
12.05	7,410	46.91	18.81	0.63	0.2538	7.39	1.30	28.292	2.00	7.42	-99.40
12.06	7,160	47.10	18.63	0.66	0.2602	7.14	1.30	28.315	2.00	7.17	-99.68
12.07	6,910	47.56	18.26	0.69	0.2643	6.89	1.30	28.338	2.00	6.92	-100.15
12.08	6,620	47.74	18.26	0.72	0.2658	6.60	1.30	28.360	2.00	6.95	-100.46
12.09	6,320	48.02	18.08	0.75	0.2681	6.30	1.30	28.383	2.30	6.93	-100.82
12.1	6,030	47.14	18.08	0.76	0.2998	6.01	1.30	28.406	2.30	6.04	-100.62
12.11	5,800	47.14	17.9	0.81	0.3086	5.78	1.30	28.428	2.00	5.81	-100.90
12.12	5,590	47.51	17.9	0.85	0.3202	5.57	1.30	28.451	2.00	5.60	-101.00
12.13	5,400	47.65	17.9	0.88	0.3315	5.38	1.30	28.474	2.30	5.41	-101.10
12.14	5,270	47.79	17.9	0.91	0.3425	5.25	1.30	28.496	2.30	5.28	-101.19
12.15	5,190	47.79	17.9	0.92	0.3449	5.17	1.30	28.519	2.00	5.20	-101.29
12.16	5,120	46.91	17.9	0.92	0.3496	5.10	1.30	28.542	2.00	5.13	-101.39
12.17	5,060	46.73	17.9	0.92	0.3538	5.04	1.30	28.564	2.00	5.07	-101.49
12.18	5,040	46.12	18.08	0.92	0.3587	5.02	1.30	28.587	2.00	5.05	-101.41
12.19	5,030	46.92	18.08	0.91	0.3594	5.01	1.20	28.608	2.00	5.08	-101.66
12.2	5,030	44.60	18.08	0.89	0.3594	5.01	1.20	28.629	2.00	5.04	-101.60
12.21	5,050	43.16	18.44	0.85	0.3651	5.03	1.20	28.650	2.00	5.06	-101.34
12.22	5,110	42.19	18.44	0.83	0.3609	5.08	1.20	28.671	2.30	5.12	-101.44
12.23	5,280	40.15	18.44	0.76	0.3492	5.26	1.20	28.692	2.30	5.29	-101.54
12.24	5,390	38.92	18.44	0.72	0.3421	5.37	1.20	28.713	2.30	5.32	-101.64
12.25	5,520	37.83	18.63	0.69	0.3375	5.50	1.20	28.734	2.00	5.53	-101.54
12.26	5,690	36.54	18.81	0.64	0.3306	5.67	1.30	28.756	2.00	5.70	-101.46
12.27	5,900	35.70	18.99	0.61	0.3219	5.88	1.30	28.779	2.00	5.91	-101.38
12.28	6,140	34.73	19.54	0.57	0.3162	6.12	1.30	28.802	2.00	6.15	-100.93
12.29	6,410	33.66	19.81	0.53	0.3084	6.39	1.30	28.824	2.00	6.32	-100.48
12.3	6,710	33.99	20.09	0.51	0.2994	6.69	1.30	28.847	1.80	6.72	-100.57
12.31	6,950	34.04	20.09	0.49	0.2891	6.93	1.30	28.870	1.80	6.96	-100.67

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Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/sec]	[MPa]	[kPa]
12.32	7,260	35.15	19.72	0.48	0.2716	7.24	1.30	28.893	2.00	7.27	-101.14
12.33	7,370	35.24	19.72	0.48	0.2762	7.35	1.30	28.915	2.00	7.38	-101.24
12.34	7,440	35.75	19.72	0.48	0.2651	7.42	1.30	28.938	2.00	7.45	-101.34
12.35	7,500	36.31	19.91	0.48	0.2655	7.48	1.30	28.961	2.00	7.51	-101.24
12.36	7,530	34.19	19.91	0.47	0.2644	7.51	1.30	28.983	2.00	7.54	-101.34
12.37	7,500	37.83	19.91	0.50	0.2655	7.48	1.20	29.004	1.80	7.51	-101.44
12.38	7,280	39.87	19.54	0.55	0.2684	7.26	1.20	29.025	1.80	7.29	-101.91
12.39	7,110	40.80	19.36	0.57	0.2723	7.09	1.20	29.046	2.00	7.12	-102.19
12.4	6,900	41.31	19.17	0.60	0.2778	6.88	1.20	29.067	2.00	6.91	-102.47
12.41	6,570	42.23	19.54	0.63	0.2903	6.54	1.20	29.088	2.00	6.57	-102.20
12.42	6,480	43.02	19.91	0.65	0.3026	6.56	1.20	29.109	2.00	6.59	-101.93
12.43	6,460	43.39	20.09	0.67	0.3110	6.44	1.20	29.130	1.80	6.47	-101.85
12.44	6,220	44.46	19.72	0.71	0.3170	6.20	1.30	29.153	1.80	6.23	-102.32
12.45	6,090	45.57	19.96	0.75	0.3179	6.07	1.30	29.175	1.80	6.10	-102.77
12.46	5,920	45.75	19.17	0.78	0.3258	5.96	1.30	29.198	1.80	5.93	-103.06
12.47	5,750	45.66	18.99	0.79	0.3303	5.73	1.30	29.221	2.00	5.76	-103.34
12.48	5,590	45.52	18.99	0.81	0.3397	5.57	1.30	29.243	2.00	5.60	-103.44
12.49	5,430	45.06	18.81	0.83	0.3464	5.41	1.30	29.266	1.80	5.44	-103.72
12.5	5,190	44.23	18.81	0.85	0.3624	5.17	1.20	29.287	2.00	5.20	-103.82
12.51	5,100	43.99	18.63	0.86	0.3653	5.08	1.20	29.308	2.00	5.11	-104.09
12.52	5,020	43.53	18.81	0.87	0.3747	5.00	1.20	29.329	2.00	5.03	-104.01
12.53	4,960	43.07	18.81	0.87	0.3792	4.94	1.20	29.350	2.00	4.97	-104.11
12.54	4,910	42.70	18.99	0.87	0.3868	4.89	1.20	29.371	2.00	4.92	-104.03
12.55	4,870	42.37	18.99	0.87	0.3899	4.85	1.20	29.392	2.00	4.88	-104.10
12.56	4,840	41.86	19.99	0.87	0.3832	4.81	1.20	29.414	1.80	4.84	-104.22
12.57	4,800	41.35	19.17	0.86	0.3904	4.78	1.30	29.437	1.80	4.81	-104.14
12.58	4,750	39.87	19.17	0.84	0.4036	4.73	1.30	29.460	2.00	4.76	-104.24
12.59	4,750	38.99	19.17	0.82	0.4036	4.73	1.30	29.482	2.00	4.76	-104.34
12.6	4,760	38.34	19.17	0.81	0.4027	4.74	1.30	29.505	2.00	4.77	-104.44
12.61	4,710	37.65	19.17	0.79	0.4132	4.73	1.30	29.527	2.00	4.77	-104.54
12.62	4,790	37.23	19.36	0.78	0.4042	4.77	1.30	29.550	2.00	4.80	-104.44
12.63	4,820	36.68	19.36	0.76	0.4017	4.80	1.30	29.573	2.00	4.83	-104.54
12.64	4,880	36.31	19.36	0.74	0.3967	4.86	1.30	29.596	2.00	4.89	-104.64
12.65	4,840	35.94	19.36	0.73	0.3989	4.92	1.20	29.617	2.00	4.95	-104.74
12.66	4,810	35.61	19.17	0.71	0.4055	5.48	1.30	29.751	1.80	5.51	-104.84
12.67	5,090	35.29	19.54	0.69	0.3839	5.07	1.30	29.660	1.80	5.10	-104.75
12.68	5,280	34.59	19.72	0.66	0.3735	5.26	1.30	29.683	2.00	5.29	-104.67
12.69	5,360	34.50	19.72	0.64	0.3679	5.34	1.30	29.706	2.00	5.37	-104.77
12.7	5,430	34.41	19.72	0.63	0.3632	5.41	1.30	29.728	2.00	5.44	-104.87
12.71	5,500	34.22	19.72	0.62	0.3585	5.48	1.30	29.751	2.00	5.51	-104.97
12.72	5,580	34.16	19.54	0.61	0.3528	5.56	1.30	29.774	1.80	5.59	-105.06
12.73	5,670	34.08	19.91	0.60	0.3511	5.65	1.30	29.797	1.80	5.68	-104.97
12.74	5,730	34.13	19.91	0.60	0.3475	5.71	1.30	29.819	2.30	5.74	-105.07
12.75	5,800	34.13	19.91	0.59	0.3433	5.78	1.30	29.842	2.30	5.81	-105.17
12.76	5,850	34.14	19.91	0.57	0.3366	5.83	1.30	29.865	1.80	5.86	-105.27
12.77	5,910	33.99	19.54	0.57	0.3313	5.93	1.30	29.887	1.80	5.90	-105.37
12.78	6,080	34.18	20.09	0.56	0.3304	6.06	1.30	29.910	2.00	6.09	-105.28
12.79	6,150	34.18	20.09	0.56	0.3267	6.13	1.30	29.933	2.00	6.16	-105.38
12.8	6,230	34.32	20.09	0.55	0.3225	6.21	1.30	29.955	2.00	6.24	-105.48
12.81	6,280	34.20	20.27	0.55	0.3189	6.26	1.30	29.978	2.00	6.29	-105.58
12.82	6,330	34.69	20.45	0.54	0.3217	6.28	1.30	29.999	2.00	6.32	-105.68
12.83	6,400	34.50	20.55	0.53	0.3267	6.30	1.30	30.023	2.00	6.27	-105.41
12.84	6,160	34.69	20.64	0.56	0.3351	6.14	1.30	30.046	2.00	6.17	-105.32
12.85	5,960	34.73	20.64	0.58	0.3463	5.94	1.30	30.069	2.00	5.97	-105.42
12.86	5,850	35.06	21	0.60	0.3590	5.83	1.30	30.091	2.00	5.86	-105.16
12.87	5,760	35.10	21	0.61	0.3646	5.74	1.30	30.114	2.00	5.77	-105.26
12.88	5,760	35.10	21	0.61	0.3646	5.74	1.30	30.137	2.50	5.77	-105.35
12.89	5,760	35.10	21	0.61	0.3646	5.74	1.30	30.160	2.50	5.77	-105.45
12.9	5,410	27.04	19.72	0.50	0.3645	5.39	1.30	30.182	2.00	5.42	-106.83
12.91	5,480	28.20	19.36	0.51	0.3533	5.46	1.30	30.205	2.00	5.49	-107.29
12.92	5,490	28.20	19.36	0.54	0.3466	5.47	1.30	30.228	2.00	5.50	-107.39
12.93	5,520	31.40	18.81	0.57	0.3408	5.50	1.30	30.250	2.00	5.53	-108.03
12.94	5,560	32.00	18.81	0.58	0.3383	5.54	1.30	30.273	2.00	5.57	-108.13
12.95	5,600	32.56	19.99	0.58	0.3391	5.58	1.30	30.296	2.00	5.61	-108.05
12.96	5,640	33.34	18.99	0.59	0.3367	5.62	1.30	30.318	1.80	5.65	-108.15
12.97	5,710	33.79	19.99	0.58	0.3369	5.69	1.30	30.341	1.80	5.69	-108.25
12.98	5,810	34.08	19.36	0.59	0.3332	5.79	1.30	30.364	2.00	5.82	-107.97
12.99	5,930	34.69	19.54	0.58	0.3295	5.91	1.30	30.386	2.00	5.94	-107.89
13	6,090	35.33	19.54	0.58	0.3209	6.07	1.30	30.409	2.00	6.10	-107.99

Depth [m]	Qc [kPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [kPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.39	5,810	35.70	24.47	0.61	0.4212	5.79	1.50	33.906	2.30	5.82	-116.70
14.4	5,830	35.57	24.47	0.61	0.4197	5.81	1.50	33.933	2.30	5.84	-116.79
14.41	5,820	35.75	24.47	0.61	0.4204	5.80	1.60	33.960	2.30	5.83	-116.89
14.42	5,800	35.70	24.47	0.62	0.4219	5.78	1.60	33.988	2.00	5.81	-116.99
14.43	5,770	35.94	24.47	0.62	0.4241	5.63	1.60	34.016	2.00	5.78	-117.09
14.44	5,750	35.98	24.65	0.63	0.4287	5.73	1.60	34.044	2.30	5.76	-117.01
14.45	5,730	36.12	24.65	0.63	0.4302	5.71	1.60	34.072	2.30	5.74	-117.01
14.46	5,710	36.26	24.64	0.64	0.4350	5.69	1.60	34.100	2.00	5.72	-117.01
14.47	5,680	36.21	24.85	0.64	0.4340	5.66	1.60	34.128	2.00	5.69	-117.30
14.48	5,670	36.17	24.84	0.64	0.4381	5.65	1.60	34.156	2.00	5.67	-117.31
14.49	5,680	36.35	24.84	0.64	0.4373	5.66	1.60	34.184	2.00	5.69	-117.31
14.5	5,710	36.58	24.84	0.64	0.4350	5.69	1.60	34.212	2.00	5.72	-117.41
14.51	5,730	37.23	24.84	0.65	0.4320	5.73	1.60	34.240	2.00	5.76	-117.50
14.52	5,830	37.51	24.84	0.64	0.4261	5.81	1.60	34.268	2.00	5.84	-117.60
14.53	5,950	37.53	25.38	0.64	0.4205	5.92	1.60	34.296	2.00	5.96	-117.69
14.54	6,190	38.02	25.02	0.61	0.4042	6.16	1.60	34.323	2.30	6.20	-117.62
14.55	6,350	37.79	25.02	0.60	0.3940	6.32	1.60	34.351	2.30	6.36	-117.72
14.56	6,540	37.88	25.2	0.58	0.3853	6.51	1.60	34.379	2.00	6.55	-117.63
14.57	6,740	38.07	25.38	0.56	0.3766	6.71	1.60	34.407	2.00	6.75	-117.55
14.58	6,980	38.25	25.38	0.54	0.3696	6.95	1.60	34.435	2.00	6.99	-117.45
14.59	7,250	38.39	25.57	0.53	0.3527	7.22	1.60	34.463	2.00	7.26	-117.56
14.6	7,530	38.48	25.57	0.51	0.3396	7.50	1.70	34.493	2.00	7.54	-117.66
14.61	7,760	38.30	25.57	0.49	0.3295	7.73	1.70	34.522	2.00	7.77	-117.75
14.62	8,080	38.39	25.57	0.47	0.3161	8.06	1.70	34.552	1.80	8.10	-117.85
14.63	8,200	38.85	25.57	0.46	0.3088	8.17	1.60	34.580	1.80	8.17	-117.90
14.64	8,250	39.27	25.57	0.48	0.3099	8.22	1.60	34.608	1.80	8.26	-118.05
14.65	8,260	39.73	25.57	0.48	0.3086	8.23	1.60	34.636	1.80	8.27	-118.15
14.66	8,210	40.34	25.38	0.49	0.3091	8.18	1.60	34.664	1.80	8.22	-118.43
14.67	8,110	40.89	25.38	0.50	0.3129	8.08	1.60	34.692	2.00	8.12	-118.53
14.68	7,830	41.86	25.38	0.53	0.3241	7.80	1.70	34.721	2.00	7.84	-118.63
14.69	7,700	42.37	25.38	0.54	0.3296	7.67	1.70	34.751	1.80	7.71	-118.73
14.7	7,590	43.02	25.38	0.57	0.3344	7.56	1.70	34.781	1.80	7.60	-118.83
14.71	7,510	43.72	25.57	0.58	0.3405	7.48	1.70	34.810	2.00	7.52	-118.74
14.72	7,430	44.36	25.75	0.60	0.3466	7.40	1.70	34.840	2.00	7.44	-118.65
14.73	7,360	45.15	25.93	0.61	0.3523	7.33	1.70	34.870	2.00	7.37	-118.57
14.74	7,240	45.75	26.11	0.63	0.3606	7.21	1.70	34.899	2.00	7.25	-118.49
14.75	7,110	45.85	26.11	0.64	0.3672	7.08	1.70	34.929	2.00	7.12	-118.59
14.76	6,960	46.40	25.75	0.67	0.3700	6.93	1.70	34.959	2.30	6.97	-119.05
14.77	6,750	46.68	25.38	0.69	0.3760	6.72	1.70	34.988	2.00	6.76	-119.51
14.78	6,560	46.54	24.84	0.72	0.3822	6.48	1.70	35.018	2.00	6.51	-120.15
14.79	6,230	46.45	24.84	0.75	0.3987	6.21	1.70	35.048	2.00	6.24	-120.25
14.8	5,950	46.08	25.02	0.77	0.4205	5.92	1.70	35.077	2.30	5.96	-120.17
14.81	5,710	46.12	25.38	0.81	0.4445	5.68	1.70	35.107	2.30	5.72	-119.91
14.82	5,510	45.75	25.38	0.83	0.4606	5.48	1.70	35.137	2.00	5.52	-120.00
14.83	5,360	45.52	25.75	0.85	0.4804	5.33	1.70	35.166	2.00	5.37	-119.73
14.84	5,230	45.43	25.57	0.87	0.4989	5.20	1.70	35.196	2.00	5.32	-119.50
14.85	5,130	45.11	25.75	0.88	0.4984	5.10	1.70	35.226	2.30	5.14	-119.37
14.86	5,050	44.83	25.75	0.89	0.5099	5.02	1.70	35.255	2.00	5.06	-120.03
14.87	5,050	44.83	25.75	0.89	0.5099	5.02	1.70	35.285	2.80	5.06	-120.22
14.88	5,050	44.83	25.75	0.89	0.5099	5.02	1.70	35.315	2.80	5.06	-120.22
14.89	4,960	43.68	25.12	0.79	0.4634	4.63	1.70	35.344	2.30	4.67	-119.77
14.9	4,710	43.98	27.94	0.78	0.5032	4.68	1.70	35.374	2.30	4.67	-119.23
14.91	4,690	36.91	27.94	0.79	0.5957	4.66	1.70	35.404	2.00	4.70	-118.33
14.92	4,660	36.58	27.94	0.78	0.5996	4.63	1.70	35.433	2.00	4.67	-118.43
14.93	4,640	36.26	27.76	0.78	0.5983	4.61	1.70	35.463	2.00	4.65	-118.70
14.94	4,630	35.66	27.76	0.77	0.5996	4.60	1.70	35.493	2.30	4.64	-118.80
14.95	4,610	35.10	27.76	0.76	0.6022	4.58	1.70	35.522	2.00	4.62	-119.00
14.96	4,590	34.27	27.76	0.75	0.6048	4.56	1.70	35.552	2.00	4.60	-119.00
14.97	4,610	33.99	27.57	0.74	0.5980	4.58	1.70	35.582	2.00	4.62	-119.29
14.98	4,610	33.20	27.76	0.72	0.6022	4.58	1.70	35.611	2.30	4.62	-119.19
14.99	4,630	32.93	27.76	0.71	0.5996	4.60	1.70	35.641	2.30	4.64	-119.29
15	4,670	32.46	27.76	0.70	0.6044	4.64	1.70	35.670	2.30	4.67	-119.49
15.01	4,720	32.05	27.76	0.68	0.5881	4.69	1.70	35.700	2.00	4.73	-119.49
15.02	4,810	31.58	27.94	0.66	0.5809	4.78	1.70	35.730	2.30	4.82	-119.41
15.03	4,910	31.49	27.94	0.64	0.5690	4.88	1.70	35.760	2.30	4.92	-119.50
15.04	5,040	31.26	28.12	0.62	0.5579	5.01	1.70	35.789	2.00	5.05	-119.42
15.05	5,210	31.49	28.12	0.61	0.5819	5.03	1.70	35.819	2.00	5.08	-119.42
15.06	5,410	31.68	28.31	0.59	0.5233	5.38	1.80	35.850	2.30	5.42	-119.43
15.07	5,660	31.63	28.49	0.56	0.5034	5.63	1.80	35.882	2.30	5.67	-119.35

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
15.08	5,970	31.68	28.67	0.53	0.4802	5.94	1.80	35.913	2.00	5.98	-119.26
15.09	6,290	31.81	29.04	0.51	0.4617	6.26	1.80	35.945	2.00	6.30	-116.99
15.1	6,610	32.05	29.4	0.48	0.4448	6.58	1.80	35.976	2.00	6.62	-118.73
15.11	6,860	32.28	29.58	0.46	0.4250	6.93	1.80	36.007	2.00	6.97	-118.65
15.12	7,310	32.51	29.95	0.45	0.4057	7.28	1.80	36.039	2.00	7.32	-118.36
15.13	7,570	32.93	30.13	0.44	0.3980	7.54	1.80	36.070	2.30	7.58	-118.30
15.14	7,770	33.30	30.13	0.43	0.3878	7.74	1.80	36.102	2.30	7.78	-118.39
15.15	8,050	34.22	29.58	0.43	0.3675	8.02	1.80	36.133	2.00	8.06	-119.04
15.16	8,080	34.22	29.58	0.43	0.3675	8.02	1.80	36.165	2.00	8.06	-119.14
15.17	8,090	36.07	29.4	0.41	0.3654	8.04	1.80	36.196	2.30	8.10	-119.43
15.18	8,100	37.00	29.58	0.46	0.3652	8.07	1.80	36.227	2.30	8.11	-119.34
15.19	8,110	37.74	29.77	0.47	0.3671	8.08	1.80	36.259	2.00	8.12	-119.24
15.2	8,160	37.97	30.13	0.47	0.3682	8.13	1.80	36.290	2.00	8.17	-118.98
15.21	8,280	39.13	30.86	0.47	0.3727	8.25	1.80	36.322	2.30	8.29	-118.35
15.22	8,430	40.37	31.78	0.48	0.4007	8.40	1.80	36.353	2.30	8.44	-117.53
15.23	8,570	41.22	32.32	0.48	0.3771	8.59	1.80	36.384	2.00	8.58	-117.09
15.24	8,620	42.37	32.32	0.49	0.3749	8.59	1.80	36.416	2.00	8.63	-117.18
15.25	8,760	43.58	32.87	0.50	0.3752	8.73	1.80	36.447	2.00	8.77	-116.73
15.26	8,910	43.35	32.87	0.49	0.3689	8.88	1.80	36.479	2.00	8.92	-116.83
15.27	9,080	42.93	32.69	0.47	0.3600	9.07	1.80	36.510	2.00	9.09	-117.13
15.28	9,150	42.79	31.96	0.47	0.3493	9.12	1.80	36.541	2.00	9.16	-117.94
15.29	9,220	42.47	31.78	0.46	0.3447	9.19	1.80	36.573	2.00	9.23	-118.21
15.3	9,210	40.47	31.23	0.44	0.3391	9.18	1.80	36.604	2.00	9.22	-118.86
15.31	9,140	40.89	30.86	0.45	0.3376	9.11	1.80	36.636	2.00	9.15	-119.33
15.32	9,160	40.89	30.86	0.45	0.3376	9.11	1.80	36.667	2.00	9.15	-119.43
15.33	9,170	40.98	30.5	0.45	0.3326	9.14	1.80	36.699	2.00	9.18	-119.89
15.34	9,200	40.15	30.5	0.44	0.3315	9.17	1.80	36.730	2.00	9.21	-119.99
15.35	9,230	39.59	30.31	0.43	0.3284	9.20	1.80	36.761	2.00	9.24	-120.27
15.36	9,360	37.88	31.04	0.40	0.3316	9.33	1.80	36.793	2.00	9.37	-120.41
15.37	9,440	36.91	31.23	0.43	0.3281	9.40	1.80	36.824	2.00	9.41	-120.51
15.38	9,620	38.62	29.77	0.40	0.3095	9.59	1.80	36.856	2.00	9.63	-121.21
15.39	9,800	36.03	29.95	0.37	0.3056	9.77	1.80	36.887	2.00	9.81	-121.21
15.4	10,020	34.27	29.95	0.34	0.2989	9.99	1.80	36.918	2.00	10.03	-121.21
15.41	9,690	35.15	31.96	0.36	0.3298	9.66	1.80	36.950	1.80	9.70	-121.21
15.42	9,590	33.63	31.24	0.34	0.3481	9.61	1.80	36.981	1.80	9.69	-121.21
15.43	9,190	34.64	31.04	0.38	0.3378	9.16	1.80	37.013	2.00	9.20	-120.27
15.44	9,060	34.64	31.04	0.38	0.3426	9.03	1.80	37.044	2.00	9.07	-120.27
15.45	8,850	34.50	30.13	0.39	0.3405	8.82	1.80	37.075	2.00	8.86	-121.21
15.46	8,550	33.02	29.95	0.39	0.3503	8.82	1.80	37.107	2.00	8.86	-121.21
15.47	8,170	32.65	30.68	0.40	0.3755	8.14	1.80	37.138	2.00	8.18	-121.21
15.48	7,760	33.25	31.04	0.47	0.4267	7.73	1.80	37.169	2.00	7.76	-121.21
15.49	7,740	32.83	31.78	0.49	0.4715	6.71	1.80	37.201	2.00	6.75	-120.27
15.5	6,120	32.97	32.14	0.54	0.5252	6.09	1.70	37.231	2.00	6.13	-120.27
15.51	6,120	32.97	32.14	0.54	0.5252	6.09	1.70	37.260	2.00	6.13	-120.27
15.52	5,150	32.83	32.14	0.64	0.6241	5.12	1.70	37.290	2.00	5.16	-120.27
15.53	5,150	32.83	32.14	0.64	0.6241	5.12	1.70	37.320	2.00	5.16	-120.27
15.54	4,270	31.91	32.87	0.75	0.7698	4.24	1.80	37.351	2.30	4.28	-119.43
15.55	4,270	31.91	32.87	0.75	0.7698	4.24	1.80	37.383	2.30	4.28	-119.43
15.56	3,310	28.34	33.24	0.86	1.0042	3.28	1.80	37.414	2.30	3.32	-119.43
15.57	3,310	28.34	33.24	0.86	1.0042	3.28	1.80	37.445	2.30	3.32	-119.43
15.58	2,890	27.83	33.42	1.02	1.2468	2.86	1.80	37.476	2.30	2.92	-119.43
15.59	2,470	26.30	33.6	1.06	1.3603	2.44	1.80	37.508	2.30	2.48	-119.43
15.6	2,080	26.95	33.78	1.30	1.6240	2.05	1.80	37.540	2.30	2.09	-119.43
15.61	1,800	28.96	33.97	1.56	1.8872	1.77	1.80	37.571	2.30	1.81	-119.43
15.62	1,500	30.75	33.6	2.05	2.2440	1.47	1.80	37.602	2.50	1.51	-119.43
15.63	1,240	40.40	33.97	2.92	3.2739	1.21	1.80	37.633	2.50	1.25	-119.43
15.64	1,120	32.83	34.15	2.93	3.0491	1.09	1.80	37.665	2.00	1.13	-119.43
15.65	1,030	32.69	34.51	3.17	3.3505	1.00	1.80	37.697	2.00	1.04	-119.43
15.66	0,950	34.96	35.00	3.68	3.6905	0.91	1.80	37.728	2.00	0.96	-118.86
15.67	0,880	38.21	35.61	4.34	4.0466	0.84	1.80	37.759	2.30	0.89	-118.86
15.68	0,820	38.16	36.10	4.90	4.6404	0.79	1.80	37.791	2.30	0.84	-118.86
15.69	0,770	37.37	36.52	5.06	5.7429	0.73	1.80	37.822	2.30	0.79	-117.89
15.7	0,730	43.16	37.25	5.91	5.1027	0.69	1.80	37.854	2.30	0.75	-116.86
15.71	0,700	42.00	69.94	6.00	9.9914	0.63	1.80	37.885	2.30	0.73	-84.4
15.72	0,680	40.84	111.21	6.01	16.3544	0.57	1.80	37.917	2.00	0.73	-43.86
15.73	0,670	37.71	140.88	5.78	21.6041	0.51	1.80	37.949	2.00	0.73	-12.50
15.74	0,630	34.78	174.4	5.62	27.6825	0.46	1.80	37.979	2.00	0.70	-19.91
15.75	0,600	32.16	192.84	5.36	32.1400	0.41	1.80	38.011	1.80	0.68	-38.38
15.76	0,590	27.65	197.59	4.69	33.4888	0.39	1.80	38.042	1.80	0.67	-42.91

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.15	12,680	65.76	87.11	0.52	0.6881	12.57	1.80	42.427	2.00	12.70	-81.13
17.16	12,680	65.76	85.1	0.51	0.6659	12.69	1.80	42.459	2.00	12.82	-83.24
17.17	12,830	65.16	85.1	0.51	0.6633	12.74	1.80	42.490	2.00	12.87	-83.34
17.18	12,890	66.41	85.05	0.52	0.6655	12.80	1.80	42.522	2.00	12.93	-82.89
17.19	12,940	66.75	86.74	0.52	0.6703	12.85	1.80	42.553	2.00	12.98	-81.89
17.2	12,770	64.69	85.83	0.51	0.6721	12.68	1.80	42.585	2.00	12.81	-82.90
17.21	12,960	63.26	86.19	0.50	0.6846	12.50	1.80	42.618	2.00	12.63	-82.64
17.22	12,310	62.61	86.74	0.51	0.7046	12.22	1.90	42.651	2.00	12.35	-82.19
17.23	11,690	60.02	86.92	0.51	0.7435	11.60	1.90	42.684	2.00	11.73	-82.11
17.24	11,330	59.92	87.11	0.51	0.7688	11.24	1.90	42.715	2.00	11.37	-82.01
17.25	11,080	58.95	87.11	0.53	0.7862	10.99	1.90	42.750	2.00	11.12	-82.11
17.26	10,900	58.30	87.11	0.53	0.7992	10.81	1.90	42.783	2.00	10.94	-82.21
17.27	10,670	57.75	86.92	0.54	0.8146	10.58	1.90	42.817	1.80	10.71	-82.50
17.28	10,520	57.28	87.11	0.54	0.8280	10.43	1.90	42.850	1.80	10.56	-82.41
17.29	10,340	57.15	86.92	0.55	0.8406	10.25	1.90	42.883	2.00	10.38	-82.69
17.3	10,220	54.60	86.56	0.53	0.8470	10.13	1.80	42.914	2.00	10.26	-83.15
17.31	10,030	51.91	86.92	0.52	0.8666	9.94	1.80	42.946	2.00	10.07	-82.89
17.32	9,990	50.71	87.47	0.51	0.8756	9.90	1.80	42.977	2.00	10.03	-82.44
17.33	9,950	48.21	88.02	0.48	0.8846	9.86	1.80	43.009	2.00	9.99	-81.99
17.34	9,900	46.22	89.36	0.46	0.8928	9.81	1.80	43.040	2.00	9.94	-81.72
17.35	9,920	43.62	88.75	0.44	0.8947	9.83	1.80	43.071	2.00	9.96	-81.45
17.36	9,930	42.37	88.93	0.43	0.8956	9.84	1.80	43.103	2.00	9.97	-81.37
17.37	9,960	42.33	88.93	0.43	0.8929	9.87	1.80	43.134	2.00	10.00	-81.47
17.38	9,950	41.31	88.57	0.42	0.8902	9.86	1.80	43.166	2.00	9.99	-81.93
17.39	9,920	41.77	89.48	0.42	0.9133	1.90	1.90	43.199	2.00	10.06	-81.12
17.4	10,020	42.72	89.33	0.42	0.8912	9.93	1.90	43.232	2.00	10.06	-81.31
17.41	10,220	41.86	89.48	0.41	0.8755	10.13	1.90	43.265	1.80	10.21	-81.31
17.42	10,370	42.33	89.66	0.41	0.8646	10.28	1.90	43.298	1.80	10.41	-81.23
17.43	10,500	43.25	89.3	0.41	0.8505	10.41	1.90	43.331	2.00	10.54	-81.69
17.44	10,680	43.53	89.48	0.41	0.8378	10.59	1.90	43.365	2.00	10.72	-81.61
17.45	10,850	43.62	89.48	0.40	0.8247	10.76	1.90	43.398	1.80	10.89	-81.70
17.46	11,170	44.46	89.85	0.40	0.8044	11.08	1.90	43.431	1.80	11.21	-81.43
17.47	11,310	44.60	89.66	0.39	0.7927	11.22	1.90	43.464	2.00	11.35	-81.72
17.48	11,470	45.34	89.85	0.40	0.7833	11.38	1.90	43.497	2.00	11.51	-81.63
17.49	11,620	46.17	89.66	0.40	0.7716	11.53	1.90	43.530	1.80	11.66	-81.92
17.5	11,790	46.36	89.66	0.39	0.7605	11.70	1.90	43.563	1.80	11.83	-82.02
17.51	11,990	47.24	89.48	0.39	0.7463	11.90	1.90	43.597	2.00	12.03	-82.29
17.52	12,480	47.10	88.93	0.38	0.7126	12.39	1.90	43.630	2.00	12.52	-82.94
17.53	12,800	48.12	88.75	0.38	0.6934	12.71	1.90	43.663	2.00	12.84	-83.22
17.54	13,160	49.09	88.75	0.37	0.6744	13.07	1.90	43.696	1.80	13.20	-83.32
17.55	13,550	49.81	89.3	0.36	0.6590	13.46	1.90	43.729	1.80	13.59	-82.67
17.56	13,900	49.04	89.85	0.35	0.6469	13.80	1.90	43.762	1.80	13.93	-82.41
17.57	14,170	48.81	90.21	0.34	0.6366	14.08	1.90	43.796	1.80	14.21	-82.15
17.58	14,650	49.60	90.21	0.34	0.6158	14.56	1.90	43.829	1.80	14.69	-82.25
17.59	14,850	49.50	92.04	0.33	0.6198	14.76	1.90	43.862	1.80	14.89	-80.52
17.6	15,190	49.92	90.21	0.33	0.5939	15.10	1.90	43.895	1.80	15.09	-80.59
17.61	15,540	50.96	89.85	0.32	0.5857	15.25	1.90	43.928	2.00	15.38	-82.90
17.62	15,800	52.33	90.58	0.33	0.5733	15.71	1.90	43.961	2.00	15.84	-82.27
17.63	15,980	53.12	90.21	0.33	0.5645	15.99	1.90	43.994	1.80	16.02	-82.74
17.64	16,190	53.58	90.39	0.33	0.5583	16.10	2.00	44.029	1.80	16.23	-82.66
17.65	16,430	54.32	90.39	0.33	0.5494	16.34	2.00	44.064	1.80	16.47	-82.67
17.66	16,690	55.06	90.39	0.33	0.5390	16.71	2.00	44.099	1.50	16.84	-82.85
17.67	16,930	57.65	90.58	0.34	0.5350	16.84	2.00	44.134	1.80	16.97	-82.76
17.68	17,040	58.72	90.39	0.34	0.5305	16.95	2.00	44.169	1.80	17.08	-80.35
17.69	17,380	59.65	90.39	0.34	0.5190	17.29	2.00	44.204	1.80	17.42	-83.33
17.7	17,510	61.41	89.66	0.35	0.5121	17.42	2.00	44.239	1.80	17.55	-83.98
17.71	17,600	62.90	89.48	0.36	0.5084	17.51	2.00	44.274	1.80	17.64	-84.26
17.72	17,670	63.72	89.3	0.36	0.5054	17.58	2.00	44.309	1.80	17.71	-84.53
17.73	17,730	64.05	89.66	0.36	0.5057	17.64	2.00	44.343	1.80	17.77	-84.27
17.74	17,730	65.20	89.66	0.37	0.5057	17.64	2.00	44.378	1.80	17.77	-84.37
17.75	17,740	65.39	89.66	0.37	0.5054	17.65	2.00	44.413	1.50	17.78	-84.47
17.76	17,740	65.39	89.66	0.37	0.5054	17.65	2.00	44.448	1.50	17.84	-84.26
17.77	17,720	68.82	89.48	0.39	0.5050	17.63	2.00	44.483	1.80	17.76	-84.84
17.78	17,690	69.19	89.85	0.39	0.5079	17.60	2.00	44.518	1.80	17.73	-84.57
17.79	17,560	70.11	89.85	0.40	0.5117	17.47	2.00	44.553	2.00	17.60	-84.67
17.8	17,440	70.95	90.58	0.41	0.5194	17.35	2.00	44.588	2.00	17.48	-84.04
17.81	17,230	72.15	90.58	0.41	0.5102	17.14	2.00	44.623	1.80	17.37	-84.33
17.82	17,180	73.72	90.03	0.43	0.5240	17.09	2.00	44.658	1.80	17.22	-84.78
17.83	17,150	73.86	89.85	0.43	0.5239	17.06	2.00	44.692	1.80	17.19	-85.06

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.84	17,040	74.51	90.39	0.44	0.5305	16.95	2.00	44.727	2.00	17.08	-84.62
17.85	16,900	75.35	90.94	0.45	0.5381	16.81	2.00	44.762	2.00	16.94	-84.17
17.86	16,750	75.30	90.76	0.45	0.5419	16.66	2.00	44.797	1.80	16.79	-84.45
17.87	16,750	75.30	90.76	0.45	0.5419	16.66	2.00	44.832	1.50	16.79	-84.45
17.88	16,750	75.30	90.76	0.45	0.5419	16.66	2.00	44.867	2.00	16.79	-84.45
17.89	16,280	61.68	90.03	0.38	0.5530	16.19	2.00	44.902	2.00	16.32	-85.47
17.9	16,420	64.37	90.39	0.39	0.5505	16.33	2.00	44.937	2.00	16.46	-85.21
17.91	16,470	65.99	90.21	0.40	0.5477	16.38	2.00	44.972	2.00	16.51	-85.49
17.92	16,480	66.41	89.48	0.40	0.5430	16.39	2.00	45.007	2.00	16.52	-86.32
17.93	16,500	67.53	89.12	0.41	0.5424	16.35	2.00	45.042	2.00	16.47	-86.71
17.94	16,340	67.43	89.12	0.41	0.5454	16.25	2.00	45.076	2.00	16.38	-86.87
17.95	16,160	67.94	87.84	0.42	0.5436	16.07	2.00	45.111	2.00	16.20	-88.25
17.96	15,840	68.12	86.38	0.43	0.5453	15.75	2.00	45.146	2.00	15.88	-89.81
17.97	15,590	68.82	84.73	0.44	0.5435	15.51	2.00	45.181	2.30	15.63	-91.56
17.98	15,290	69.97	82.72	0.46	0.5410	15.21	2.00	45.216	2.30	15.32	-93.66
17.99	15,290	69.97	83.27	0.46	0.5446	15.21	2.00	45.251	2.00	15.32	-93.21
18	14,200	59.37	81.26	0.42	0.5723	14.12	2.00	45.286	1.80	14.23	-95.32
18.01	14,590	63.54	83.64	0.44	0.5733	14.51	2.00	45.321	1.80	14.63	-93.04
18.02	14,390	60.29	88.57	0.42	0.6155	14.30	2.00	45.356	2.00	14.43	-88.21
18.03	14,190	63.25	92.4	0.42	0.6512	14.10	2.00	45.390	2.00	14.23	-84.47
18.04	13,730	64.88	90.94	0.47	0.6623	13.64	2.00	45.425	2.30	13.77	-86.03
18.05	13,490	69.28	86.56	0.51	0.6417	13.40	2.00	45.460	2.30	13.53	-90.51
18.06	13,250	70.30	86.19	0.53	0.6505	13.16	2.00	45.495	2.30	13.29	-90.98
18.07	12,990	69.93	86.01	0.54	0.6621	12.90	2.00	45.530	2.00	13.03	-91.26
18.08	12,620	69.98	86.19	0.55	0.6723	12.73	2.00	45.565	2.00	12.86	-91.17
18.09	12,490	69.79	86.56	0.56	0.6809	12.55	2.00	45.600	2.00	12.86	-90.98
18.1	12,570	69.05	86.92	0.55	0.6915	12.48	2.00	45.635	2.50	12.61	-90.98
18.11	12,570	66.78	86.92	0.53	0.6915	12.48	2.00	45.670	2.30	12.61	-90.98
18.12	12,650	66.67	86.92	0.52	0.6871	12.56	2.00	45.705	2.30	12.69	-90.98
18.13	12,760	66.45	86.92	0.52	0.6812	12.67	2.00	45.739	2.30	12.80	-90.98
18.14	12,760	66.45	86.92	0.52	0.6812	12.67	2.00	45.774	2.30	12.81	-90.98
18.15	12,860	66.64	87.11	0.52	0.6774	12.77	2.00	45.809	2.50	12.90	-90.98
18.16	12,930	55.71	87.11	0.43	0.6737	12.84	2.00	45.844	2.50	12.97	-91.26
18.17	12,970	57.24	87.11	0.44	0.6716	12.88	2.00	45.881	2.50	13.01	-91.26
18.18	13,010	55.39	87.29	0.43	0.6709	13.02	2.00	45.917	2.50	13.05	-91.26
18.19	13,220	55.39	87.29	0.42	0.6833	13.04	2.00	45.954	2.50	13.10	-91.26
18.2	13,360	56.54	87.11	0.42	0.6520	13.27	2.00	45.991	2.50	13.40	-91.26
18.21	13,360	56.54	87.11	0.42	0.6520	13.27	2.00	46.027	2.80	13.40	-91.26
18.22	13,620	57.05	87.47	0.42	0.6422	13.53	2.00	46.064	2.80	13.66	-91.26
18.23	13,840	56.45	87.29	0.41	0.6307	13.75	2.00	46.101	2.80	13.88	-91.26
18.24	13,630	56.08	87.29	0.41	0.6307	13.94	2.00	46.137	2.80	13.88	-91.26
18.25	14,040	55.15	87.29	0.39	0.6217	13.95	2.00	46.174	2.30	14.08	-91.26
18.26	13,840	54.64	87.47	0.39	0.6320	13.75	2.00	46.211	2.50	13.88	-91.26
18.27	13,540	53.81	87.66	0.40	0.6474	13.45	2.00	46.247	2.50	13.58	-91.26
18.28	13,220	54.46	87.66	0.41	0.6631	13.13	2.00	46.284	2.30	13.26	-91.26
18.29	12,940	55.43	87.66	0.43	0.6827	12.75	2.00	46.320	2.30	12.96	-91.26
18.3	12,350	56.22	87.66	0.46	0.7098	12.26	2.00	46.357	2.30	12.39	-91.26
18.31	11,810	57.21	87.84	0.49	0.7438	11.72	2.00	46.394	2.50	11.85	-91.26
18.32	11,300	58.21	87.84	0.52	0.7773	11.21	2.00	46.430	2.50	11.34	-91.26
18.33	10,840	58.86	87.84	0.54	0.8103	10.75	2.00	46.467	2.30	10.88	-91.26
18.34	10,550	59.05	88.02	0.56	0.8423	10.36	2.00	46.504	2.30	10.49	-91.26
18.35	10,450	58.95	88.02	0.56	0.8423	10.36	2.00	46.540	2.30	10.49	-91.26
18.36	9,930	58.95	88.2	0.59	0.8882	9.84	2.00	46.577	2.30	9.97	-91.26
18.37	9,930	58.95	88.2	0.59	0.8882	9.84	2.00	46.614	2.30	9.97	-92.26
18.38	9,780	58.30	88.39	0.60	0.9038	9.69	2.00	46.650	2.30	9.82	-91.26
18.39	9,640	57.61	88.39	0.60	0.9195	9.55	2.00	46.687	2.30	9.69	-92.26
18.4	9,550	56.39	88.39	0.59	0.9255	9.46	2.00	46.724	2.30	9.59	-92.26
18.41	9,600	54.64	88.57	0.57	0.9226	9.51	2.00	46.760	2.30	9.64	-92.26
18.42	9,600	54.64	88.57	0.57	0.9226	9.51	2.00	46.797	2.30	9.64	-92.26
18.43	9,970	52.24	88.93	0.52	0.8920	9.98	2.00	46.832	2.30	10.01	-91.26
18.44	9,970	51.13	89.12	0.50	0.9280	9.82	2.00	46.867	2.30	10.01	-91.26
18.45	10,670	50.25	89.48	0.47	0.8386	10.58	2.00	46.902	2.00	10.71	-91.26
18.46	11,140	49.69	89.48	0.45	0.8032	11.05	2.00	46.937	2.30	11.18	-91.26
18.47	11,570	48.62	89.48	0.42	0.7734	11.48	2.00	46.971	2.30	11.61	-91.26
18.48	11,930	48.02	89.48	0.40	0.7500	11.40	2.00	47.006	2.00	11.97	-91.26
18.49	12,660	46.19	89.3	0.36	0.7230	12.26	2.00	47.040	2.00	12.43	-91.26
18.5	12,300	46.73	89.3	0.38	0.7260	12.21	2.00	47.076	2.00	12.34	-92.26
18.51	12,260	46.40	89.48	0.38	0.7299	12.17	2.00	47.111	2.00	12.30	-92.26
18.52	12,060	46.68	89.12	0.39	0.7390	11.97	2.00	47.148	2.00	12.10	-92.26

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
19.91	14,870	80.11	79.99	0.54	0.5379	14.79	2.10	52.189	2.30	14.90	-115.33
19.92	14,940	88.08	78.16	0.59	0.5232	14.86	2.10	52.225	2.30	14.97	-117.26
19.93	15,510	89.84	78.71	0.59	0.5175	15.13	2.10	52.262	2.30	15.24	-116.80
19.94	15,660	83.54	80.53	0.53	0.5142	15.58	2.10	52.299	2.30	15.69	-115.08
19.95	15,050	91.42	82.72	0.56	0.5154	15.97	2.10	52.335	1.02	16.06	-112.99
19.96	16,320	78.77	84.37	0.48	0.5170	16.24	2.10	52.372	2.00	16.36	-111.44
19.97	16,590	78.26	84.92	0.47	0.5119	16.51	2.10	52.409	2.30	16.63	-110.99
19.98	16,850	78.40	85.1	0.47	0.5050	16.76	2.10	52.445	2.30	16.89	-110.90
19.99	17,070	77.94	84.92	0.46	0.4992	16.93	2.10	52.482	2.30	17.05	-111.18
20.00	17,210	76.59	85.1	0.45	0.4945	17.12	2.10	52.519	2.30	17.22	-111.30
20.01	17,460	75.67	85.1	0.43	0.4874	17.37	2.10	52.555	2.00	17.50	-111.20
20.02	17,730	73.45	85.28	0.42	0.4865	17.44	2.10	52.592	2.00	17.57	-111.12
20.03	17,750	70.90	85.1	0.40	0.4794	17.66	2.10	52.629	2.00	17.79	-111.39
20.04	17,820	68.91	86.19	0.39	0.4837	17.73	2.10	52.665	2.00	17.86	-110.40
20.05	18,390	69.14	86.9	0.38	0.4650	18.30	2.10	52.702	1.80	18.43	-110.69
20.06	18,060	73.54	86.92	0.41	0.4813	17.97	2.10	52.738	1.80	18.10	-109.87
20.07	18,040	74.09	87.11	0.41	0.4829	17.95	2.10	52.775	2.00	18.08	-109.78
20.08	17,960	74.70	86.74	0.42	0.4830	17.87	2.10	52.812	2.00	18.00	-110.24
20.09	17,840	75.76	86.38	0.42	0.4842	17.75	2.10	52.848	2.00	17.88	-110.70
20.10	17,950	75.96	86.74	0.42	0.4832	17.98	2.10	52.885	2.00	17.99	-110.44
20.11	17,940	77.06	86.92	0.43	0.4845	17.85	2.10	52.922	2.00	17.98	-110.36
20.12	18,010	78.36	86.74	0.44	0.4816	17.92	2.10	52.958	2.00	18.05	-110.64
20.13	18,260	80.53	86.56	0.44	0.4740	18.17	2.10	52.995	1.80	18.30	-110.92
20.14	18,480	81.46	86.53	0.44	0.4657	18.34	2.10	53.032	1.80	18.47	-111.74
20.15	18,690	83.31	84.92	0.40	0.4544	18.61	2.10	53.068	2.00	18.64	-112.01
20.16	18,950	84.30	86.37	0.45	0.4452	18.87	2.10	53.105	2.00	18.89	-113.40
20.17	19,140	89.19	84.37	0.47	0.4408	19.06	2.10	53.142	1.80	19.18	-113.50
20.18	19,280	91.04	84.55	0.47	0.4385	19.20	2.10	53.178	2.00	19.32	-113.42
20.19	19,430	88.31	86.92	0.45	0.4473	19.34	2.10	53.215	2.00	19.47	-111.14
20.20	19,410	92.16	87.84	0.47	0.4526	19.32	2.20	53.253	1.80	19.45	-110.32
20.21	19,430	93.91	88.02	0.48	0.4539	19.34	2.20	53.292	1.80	19.47	-110.24
20.22	19,510	94.98	88.57	0.49	0.4540	19.42	2.10	53.328	1.50	19.55	-109.79
20.23	19,600	98.96	88.75	0.50	0.4528	19.51	2.10	53.365	1.50	19.64	-109.71
20.24	19,680	101.56	88.93	0.52	0.4519	19.59	2.10	53.402	1.80	19.72	-109.62
20.25	19,790	105.96	89.3	0.54	0.4512	19.70	2.10	53.438	1.50	19.83	-109.35
20.26	19,870	107.90	89.3	0.54	0.4494	19.78	2.10	53.475	1.50	19.91	-109.45
20.27	19,910	110.40	88.93	0.56	0.4535	19.52	2.10	53.511	1.80	19.65	-109.92
20.28	20,000	112.25	89.12	0.56	0.4456	19.91	2.20	53.550	1.50	20.04	-109.83
20.29	19,970	113.55	89.3	0.57	0.4472	19.88	2.20	53.588	1.50	20.01	-109.74
20.30	19,860	117.72	89.12	0.59	0.4487	19.77	2.20	53.627	1.30	19.90	-110.02
20.31	19,820	119.71	88.75	0.60	0.4478	19.73	2.20	53.665	1.80	19.86	-110.49
20.32	19,930	121.52	88.75	0.62	0.4521	19.54	2.20	53.703	1.80	19.67	-110.59
20.33	19,980	122.63	88.93	0.63	0.4542	19.49	2.20	53.742	1.30	19.62	-110.51
20.34	19,930	123.88	89.3	0.63	0.4572	19.44	2.20	53.780	1.50	19.57	-110.24
20.35	19,470	124.29	89.3	0.64	0.4587	19.38	2.20	53.819	1.50	19.51	-110.33
20.36	19,440	123.60	89.48	0.64	0.4533	19.35	2.20	53.857	1.50	19.34	-110.63
20.37	19,300	123.90	89.48	0.64	0.4636	19.21	2.20	53.895	1.80	19.36	-110.69
20.38	19,270	125.59	89.85	0.65	0.4663	19.18	2.20	53.934	1.80	19.31	-110.08
20.39	18,930	123.55	90.21	0.65	0.4765	18.84	2.30	53.974	1.50	18.97	-109.82
20.40	18,680	123.23	90.36	0.66	0.4839	18.59	2.30	54.014	1.80	18.72	-109.73
20.41	18,690	122.72	90.79	0.66	0.4809	18.40	2.30	54.054	1.80	18.53	-109.46
20.42	18,930	121.75	91.31	0.61	0.5093	17.85	2.30	54.093	1.50	17.97	-109.67
20.43	17,650	121.28	91.49	0.69	0.5184	17.56	2.20	54.131	1.50	17.69	-109.93
20.44	17,390	120.64	92.04	0.69	0.5293	17.30	2.20	54.169	1.80	17.43	-108.48
20.45	17,160	120.22	91.86	0.70	0.5353	17.07	2.20	54.208	1.80	17.20	-108.75
20.46	16,650	118.69	91.86	0.71	0.5517	16.56	2.20	54.246	1.80	16.69	-108.85
20.47	16,360	117.63	91.86	0.72	0.5649	16.27	2.20	54.284	1.80	16.40	-108.95
20.48	16,060	117.53	92.04	0.73	0.5731	15.97	2.20	54.323	1.80	16.10	-108.87
20.49	15,760	116.84	92.4	0.74	0.5863	15.67	2.20	54.361	2.00	15.80	-108.61
20.50	15,410	116.93	92.4	0.76	0.5996	15.32	2.20	54.400	2.00	15.45	-108.71
20.51	15,060	116.88	92.59	0.78	0.6148	14.97	2.20	54.438	2.30	15.10	-108.61
20.52	14,690	116.83	92.77	0.79	0.6219	14.59	2.20	54.476	2.30	14.74	-108.61
20.53	14,310	115.08	92.95	0.80	0.6495	14.22	2.20	54.515	2.30	14.35	-108.45
20.54	13,960	113.32	92.95	0.81	0.6658	13.87	2.20	54.553	2.00	14.00	-108.55
20.55	13,670	111.70	92.95	0.82	0.6800	13.58	2.20	54.592	2.00	13.71	-108.65
20.56	13,430	109.61	93.13	0.82	0.6934	13.34	2.30	54.632	2.00	13.47	-108.56
20.57	13,210	107.91	93.13	0.82	0.7034	13.12	2.30	54.672	2.00	13.26	-108.46
20.58	13,040	105.26	92.95	0.81	0.7128	12.95	2.30	54.712	2.30	13.08	-108.94
20.59	12,940	103.36	93.13	0.80	0.7197	12.85	2.30	54.752	2.30	12.98	-108.86

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
20.6	12,850	101.83	93.32	0.79	0.7262	12.76	2.30	54.792	2.30	12.89	-108.77
20.61	12,830	99.75	93.13	0.78	0.7259	12.74	2.30	54.832	2.30	12.87	-109.05
20.62	12,840	97.57	92.77	0.76	0.7225	12.75	2.30	54.872	2.30	12.88	-109.61
20.63	12,890	95.58	92.77	0.74	0.7197	12.80	2.30	54.913	2.30	12.93	-109.61
20.64	13,060	93.36	92.59	0.71	0.7079	12.99	2.30	54.953	2.30	13.12	-108.89
20.65	13,290	91.97	92.59	0.69	0.6967	13.20	2.30	54.993	2.00	13.33	-109.99
20.66	13,590	90.21	92.4	0.66	0.6799	13.50	2.30	55.033	2.30	13.63	-110.27
20.67	13,970	88.68	92.95	0.63	0.6654	13.88	2.30	55.073	2.30	14.01	-109.82
20.68	14,420	86.92	93.68	0.60	0.6497	14.33	2.20	55.112	2.30	14.46	-109.19
20.69	14,300	85.72	94.41	0.61	0.6366	14.74	2.20	55.150	2.30	14.37	-108.56
20.70	15,330	85.12	95.14	0.56	0.6206	15.23	2.20	55.188	2.30	15.37	-107.93
20.71	15,720	85.16	95.87	0.54	0.6099	15.62	2.20	55.227	2.30	15.76	-107.30
20.72	16,090	85.72	96.24	0.53	0.5981	15.99	2.30	55.267	2.30	16.13	-107.02
20.73	16,450	86.69	96.6	0.53	0.5872	16.35	2.30	55.307	2.30	16.49	-106.76
20.74	16,870	86.92	96.6	0.52	0.5767	16.77	2.30	55.347	2.30	16.91	-106.86
20.75	17,400	86.74	96.79	0.50	0.5563	17.30	2.30	55.387	2.00	17.44	-106.77
20.76	18,530	86.23	96.6	0.47	0.5213	18.43	2.30	55.427	2.00	18.57	-107.06
20.77	18,530	86.23	96.6	0.47	0.5213	18.43	2.30	55.467	2.30	18.57	-107.15
20.78	18,920	85.88	96.79	0.45	0.5116	18.82	2.30	55.508	2.30	18.96	-107.06
20.79	19,440	84.51	96.6	0.43	0.4994	19.34	2.30	55.548	2.00	19.48	-107.35
20.8	19,590	86.14	96.06	0.44	0.4904	19.49	2.30	55.588	2.00	19.63	-107.99
20.81	19,730	86.74	95.87	0.44	0.4859	19.63	2.30	55.628	1.80	19.77	-108.28
20.82	19,920	88.22	95.51	0.44	0.4795	19.82	2.30	55.668	1.80	19.96	-108.73
20.83	20,120	90.63	95.51	0.45	0.4747	20.02	2.30	55.708	2.00	20.16	-108.83
20.84	20,120	94.33	93.68	0.46	0.4656	20.03	2.30	55.748	2.00	20.16	-109.05
20.85	19,790	99.43	95.87	0.50	0.4848	19.68	2.30	55.786	2.00	19.86	-108.65
20.86	19,790	99.43	95.87	0.50	0.4847	19.68	2.30	55.829	2.30	19.82	-108.77
20.87	19,790	99.43	95.87	0.50	0.4847	19.68	2.30	55.869	2.00	19.82	-108.88
20.88	19,170	82.71	94.41	0.43	0.4925	19.08	2.30	55.909	2.00	19.21	-110.44
20.89	16,240	85.49	94.78	0.44	0.4926	19.15	2.30	55.949	2.00	19.28	-111.17
20.9	16,240	86.27	94.78	0.47	0.5032	19.23	2.30	55.989	2.00	19.33	-111.90
20.91	18,850	80.91	93.32	0.43	0.5163	18.37	2.30	56.029	2.00	19.87	-107.88
20.92	18,430	99.17	93.86	0.54	0.5093	18.25	2.30	56.069	2.00	18.47	-111.21
20.93	18,340	100.15	93.32	0.55	0.5088	18.34	2.30	56.110	2.00	18.38	-112.03
20.94	16,190	100.54	93.68	0.55	0.5150	18.10	2.30	56.150	2.00	18.23	-111.77
20.95	16,190	99.08	95.87	0.59	0.5899	16.61	2.30	56.190	2.00	18.14	-112.59
20.96	18,160	104.61	92.22	0.58	0.5078	18.07	2.30	56.230	2.00	18.20	-113.44
20.97	18,000	106.60	92.59	0.59	0.5144	17.91	2.30	56.270	2.30	18.04	-113.14
20.98	18,020	101.65	92.59	0.56	0.5138	17.93	2.30	56.310	2.30	18.06	-113.31
20.99	17,990	98.08	92.22	0.55	0.5126	17.97	2.30	56.352	2.00	18.03	-113.67
21	17,990	98.45	92.22	0.55	0.5127	17.97	2.30	56.392	2.00	17.99	-113.97
21.01	17,700	100.95	92.4	0.57	0.5220	17.61	2.30	56.434	2.00	17.74	-113.71
21.02	17,660	100.70	92.22	0.57	0.5222	17.57	2.30	56.474	2.00	17.70	-113.93
21.03	17,660	99.33	92.22	0.56	0.5222	17.57	2.30	56.514	2.00	17.70	-114.14
21.04	17,640	101.74	91.88	0.58	0.5207	17.55	2.30	56.555	2.30	17.68	-114.44
21.05	17,690	97.62	91.87	0.57	0.5177	17.67	2.30	56.595	2.30	17.69	-114.74
21.06	17,750	90.16	91.31	0.51	0.5144	17.66	2.40	56.638	2.00	17.79	-115.27
21.07	17,790	91.69	91.12	0.52	0.5122	17.70	2.30	56.678	2.00	17.83	-115.55
21.08	17,900	93.96	90.94	0.52	0.5080	17.81	2.30	56.719	2.00	17.94	-115.84
21.09	18,000	95.07	91.12	0.53	0.5062	17.91	2.40	56.760	2.00	18.04	-115.78
21.1	18,120	92.29	90.94	0.51	0.5037	18.03	2.40	56.800	2.00	18.14	-116.07
21.11	18,480	90.77	92.22	0.49	0.4990	18.39	2.40	56.844	2.30	18.52	-114.84
21.12	18,720	91.32	92.4	0.49	0.4936	18.63	2.40	56.886	2.00	18.76	-114.74
21.13	18,990	91.18	91.86	0.48	0.4937	18.90	2.40	56.928	2.00	19.03	-115.45
21.14	19,210	88.90	91.67	0.46	0.4772	19.12	2.40	56.970	2.00	19.25	-115.75
21.15	19,230	89.13	92.65	0.47	0.4772	19.13	2.40	57.012	2.00	19.27	-116.05
21.16	19,330	88.27	93.88	0.46	0.4846	19.24	2.40	57.054	2.00	19.37	-113.99
21.17	19,260	86.96	93.86	0.46	0.4873	19.17	2.40	57.095	2.00	19.30	-113.83
21.18	19,120	89.28	93.86	0.47	0.4909	19.03	2.40	57.139	2.00	19.16	-113.90
21.19	18,940	89.75	94.23	0.47	0.4975	18.85	2.50	57.183	2.00	18.98	-113.86
21.2	18,770	90.63	94.41	0.48	0.4975	18.68	2.50	57.225	2.00	18.81	-113.81
21.21	18,960	91.32	94.49	0.49	0.5071	18.60	2.40	57.266	2.00	18.73	-113.32
21.22	18,620	91.83	94.96	0.49	0.5100	18.53	2.40	57.308	2.30	18.66	-113.32
21.23	18,560	92.66	94.96	0.50	0.5116	18.47	2.40	57.350	2.30	18.60	-113.31
21.24	18,410	93.22	94.78	0.51	0.5148	18.32	2.50	57.394	2.30	18.45	-113.85
21.25	18,320	93.54	95.14	0.52	0.5182	18.17	2.50	57.432	2.30	18.37	-114.15
21.26	18,230	93.41	95.87	0.51	0.5259	18.13	2.50	57.481	2.30	18.27	-112.62
21.27	18,110	93.41	97.33	0.52	0.5374	18.01	2.50	57.525	2.30	18.15	-111.41
21.28	18,080	93.13	98.25	0.52	0.5434	17.98	2.40	57.567	2.30	18.12	-110.05

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
22.67	16.880	87.34	105.73	0.47	0.5721	18.37	2.80	63.940	1.50	18.52	-116.66
22.68	18.450	89.01	106.1	0.48	0.5751	18.34	2.80	63.989	1.50	18.49	-116.39
22.69	18.410	89.65	106.46	0.49	0.5783	18.30	2.80	64.038	1.50	18.45	-116.13
22.7	18.350	90.81	106.28	0.49	0.5792	18.24	2.90	64.088	1.50	18.39	-116.41
22.71	18.220	90.35	105.92	0.50	0.5813	18.11	3.00	64.139	1.50	18.34	-116.67
22.72	18.230	91.51	105.73	0.50	0.5800	18.12	2.90	64.189	1.80	18.27	-117.15
22.73	18.100	92.48	105.92	0.51	0.5881	17.90	2.90	64.240	1.50	18.05	-117.06
22.74	17.880	93.04	106.1	0.52	0.5934	17.77	2.90	64.291	1.50	17.92	-116.98
22.75	17.690	93.59	105.92	0.53	0.5988	17.58	2.90	64.341	1.50	17.73	-117.26
22.76	17.190	92.85	105.92	0.54	0.6162	17.08	2.90	64.392	1.50	17.29	-118.02
22.77	16.970	93.54	105.55	0.55	0.6220	16.86	2.90	64.442	1.80	17.01	-117.82
22.78	16.820	93.68	105.55	0.56	0.6275	16.71	2.90	64.493	1.80	16.86	-117.82
22.79	16.530	93.87	104.82	0.57	0.6341	16.43	2.90	64.544	1.80	16.57	-118.75
22.8	16.430	93.73	105	0.57	0.6391	16.33	2.90	64.594	1.50	16.47	-118.67
22.81	16.310	93.45	105.37	0.57	0.6468	16.20	2.90	64.645	1.50	16.35	-118.40
22.82	16.220	93.31	105.37	0.58	0.6496	16.11	2.90	64.695	1.50	16.26	-118.49
22.83	16.180	93.45	105.37	0.58	0.6512	16.07	2.90	64.746	1.50	16.22	-118.59
22.84	16.070	93.41	105	0.58	0.6534	15.97	2.90	64.797	1.80	16.11	-119.06
22.85	16.070	93.41	105	0.58	0.6534	15.97	2.90	64.797	1.80	16.11	-119.06
22.86	16.070	93.41	105	0.58	0.6534	15.97	2.90	64.797	1.80	16.11	-119.06
22.87	15.710	79.47	101.72	0.51	0.6475	15.61	2.90	64.948	1.80	15.75	-122.63
22.88	15.770	79.98	101.35	0.51	0.6427	15.67	2.90	64.999	1.80	15.81	-123.10
22.89	15.830	80.72	99.89	0.51	0.6310	15.73	2.90	65.050	1.80	15.87	-124.62
22.9	15.570	80.49	99.53	0.51	0.6272	15.77	2.90	65.100	1.80	15.91	-125.12
22.91	15.900	80.30	99.99	0.51	0.6282	15.80	2.90	65.151	1.80	15.94	-125.88
22.92	15.930	79.81	99.71	0.50	0.6259	15.83	2.90	65.201	1.80	15.97	-125.14
22.93	15.990	79.33	98.98	0.50	0.6190	15.89	2.90	65.252	1.80	16.03	-125.96
22.94	15.990	79.14	97.52	0.49	0.6099	15.89	2.90	65.302	1.80	16.03	-127.52
22.95	15.930	79.14	100.07	0.50	0.6282	15.83	2.90	65.353	1.80	15.97	-125.07
22.96	15.890	77.80	100.62	0.49	0.6332	15.79	2.90	65.404	2.00	15.93	-124.62
22.97	15.900	75.90	100.62	0.48	0.6328	15.80	2.90	65.454	2.00	15.94	-124.72
22.98	15.920	75.39	100.07	0.47	0.6286	15.82	2.90	65.505	1.80	15.96	-125.36
22.99	15.950	75.35	100.26	0.47	0.6286	15.85	2.90	65.555	1.80	15.99	-125.27
23	15.990	75.44	100.44	0.47	0.6281	15.89	3.00	65.608	2.00	16.03	-125.19
23.01	16.020	75.76	100.99	0.47	0.6304	15.92	3.00	65.660	2.00	16.06	-124.74
23.02	16.040	75.95	101.17	0.47	0.6307	15.94	3.00	65.712	1.80	16.08	-124.66
23.03	16.080	76.27	100.99	0.47	0.6280	15.98	3.00	65.765	1.80	16.12	-124.93
23.04	16.080	76.46	100.8	0.48	0.6269	15.98	3.00	65.817	2.00	16.12	-125.22
23.05	16.060	76.04	101.35	0.47	0.6311	15.96	3.00	65.869	2.00	16.10	-124.77
23.06	15.980	76.04	101.35	0.48	0.6342	15.88	3.00	65.922	2.00	16.02	-124.87
23.07	15.880	75.48	101.17	0.48	0.6371	15.78	3.00	65.974	2.00	15.92	-125.15
23.08	15.710	73.08	101.72	0.47	0.6475	15.61	3.00	66.022	2.00	15.75	-124.69
23.09	15.490	73.12	101.53	0.47	0.6555	15.39	3.00	66.079	2.00	15.53	-124.98
23.1	15.280	73.45	101.53	0.48	0.6645	15.18	3.00	66.131	2.30	15.32	-125.08
23.11	15.080	73.86	100.99	0.49	0.6697	14.98	3.00	66.183	2.30	15.12	-125.72
23.12	14.890	74.09	100.62	0.50	0.6758	14.79	3.00	66.236	2.30	14.91	-126.19
23.13	14.830	74.09	101.17	0.50	0.6815	14.53	3.00	66.288	2.30	14.67	-126.82
23.14	14.630	74.09	101.17	0.51	0.6915	14.53	3.00	66.340	2.30	14.67	-126.83
23.15	14.420	74.56	101.35	0.52	0.7028	14.32	3.00	66.393	2.30	14.46	-125.75
23.16	14.210	73.91	101.53	0.52	0.7145	14.11	3.00	66.445	2.30	14.25	-125.67
23.17	13.980	74.00	101.72	0.53	0.7263	13.88	3.00	66.497	2.50	14.02	-125.88
23.18	13.820	73.98	101.17	0.54	0.7321	13.72	3.00	66.550	2.50	13.87	-125.93
23.19	13.770	73.72	100.26	0.54	0.7281	13.67	3.00	66.602	2.30	13.81	-127.23
23.2	13.830	73.26	100.62	0.53	0.7275	13.73	3.00	66.654	2.30	13.87	-126.97
23.21	13.980	73.03	100.8	0.52	0.7210	13.88	3.00	66.707	2.50	14.02	-126.89
23.22	14.230	72.84	100.99	0.51	0.7097	14.13	3.00	66.759	2.50	14.27	-126.80
23.23	14.580	72.38	101.17	0.50	0.6938	14.48	3.00	66.811	2.50	14.52	-127.30
23.24	15.020	71.73	100.99	0.48	0.6724	14.92	3.00	66.864	2.30	15.06	-126.99
23.25	15.450	71.27	101.35	0.46	0.6560	15.35	3.00	66.916	2.30	15.49	-126.73
23.26	15.860	70.53	101.9	0.44	0.6425	15.76	3.00	66.969	2.30	15.90	-126.28
23.27	16.220	70.16	102.26	0.43	0.6305	16.12	3.00	67.021	2.30	16.26	-126.02
23.28	16.460	69.99	101.99	0.42	0.6157	16.36	3.00	67.073	2.30	16.51	-125.69
23.29	16.580	70.20	103.36	0.42	0.6234	16.48	3.00	67.126	2.30	16.62	-125.11
23.3	16.490	71.46	104.09	0.43	0.6312	16.39	3.00	67.178	2.00	16.53	-124.48
23.31	16.370	73.68	104.27	0.45	0.6370	16.27	3.00	67.230	2.00	16.41	-124.40
23.32	16.190	76.64	105	0.47	0.6485	16.09	3.00	67.283	1.80	16.23	-123.77
23.33	16.950	75.84	103.19	0.41	0.6257	16.81	3.00	67.335	1.80	16.42	-123.62
23.34	15.990	85.35	105.37	0.55	0.6759	15.48	3.00	67.387	2.00	15.63	-123.60
23.35	15.510	88.40	105	0.57	0.6770	15.41	3.00	67.440	2.00	15.55	-124.06

17-101_G_CPTU_Soarza

17-101_CPTU.S5

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
23.36	15.420	91.65	104.82	0.59	0.6798	15.32	3.00	67.492	1.80	15.46	-124.34
23.37	15.350	94.93	104.64	0.62	0.6817	15.25	3.00	67.544	1.80	15.39	-124.62
23.38	15.330	100.58	104.27	0.66	0.6802	15.23	3.10	67.598	1.80	15.37	-125.09
23.39	15.310	103.45	104.27	0.68	0.6811	15.21	3.10	67.652	1.80	15.35	-125.19
23.4	15.300	105.73	104.09	0.69	0.6803	15.20	3.10	67.706	1.80	15.34	-125.46
23.41	15.280	108.59	104.09	0.71	0.6812	15.18	3.10	67.761	1.50	15.32	-125.56
23.42	15.310	109.29	104.09	0.71	0.6799	15.21	3.10	67.815	1.50	15.35	-125.66
23.43	15.350	109.20	104.09	0.71	0.6781	15.25	3.10	67.869	1.50	15.39	-125.76
23.44	15.370	108.89	104.07	0.71	0.6784	15.27	3.10	67.923	1.80	15.41	-125.68
23.45	15.460	107.57	104.46	0.70	0.6757	15.36	3.10	67.977	1.50	15.50	-125.58
23.46	15.570	105.21	105.55	0.68	0.6779	15.46	3.10	68.031	1.50	15.61	-124.59
23.47	15.630	104.10	106.1	0.67	0.6788	15.52	3.10	68.085	1.50	15.67	-124.14
23.48	15.810	101.74	106.28	0.64	0.6722	15.70	3.10	68.139	1.50	15.85	-124.06
23.49	15.910	100.49	106.28	0.63	0.6680	15.80	3.10	68.193	1.50	15.95	-124.16
23.5	16.040	98.58	105.92	0.62	0.6603	15.93	3.10	68.247	1.80	16.08	-124.62
23.51	16.310	96.00	105.73	0.59	0.6483	16.20	3.10	68.301	1.80	16.35	-124.90
23.52	16.410	94.89	106.46	0.58	0.6488	16.30	3.10	68.355	1.80	16.45	-124.27
23.53	16.460	93.96	107.01	0.57	0.6501	16.35	3.10	68.409	1.80	16.50	-123.82
23.54	16.440	93.41	107.02	0.57	0.6537	16.29	3.10	68.464	1.80	16.45	-123.73
23.55	16.360	92.85	106.98	0.57	0.6564	16.25	3.10	68.518	1.80	16.41	-123.36
23.56	16.200	92.06	107.38	0.57	0.6628	16.09	3.10	68.572	1.80	16.25	-123.74
23.57	16.100	91.92	107.38	0.57	0.6670	15.99	3.10	68.626	2.00	16.15	-123.84
23.58	15.980	92.76	107.38	0.58	0.6720	15.87	3.10	68.680	2.00	16.03	-123.94
23.59	15.870	93.82	107.2	0.59	0.6755	15.76	3.10	68.734	1.80	15.92	-124.22
23.6	15.860	93.62	107.56	0.59	0.6768	15.73	3.10	68.788	1.80	15.89	-124.50
23.61	15.740	94.24	107.38	0.60	0.6822	15.63	3.10	68.842	2.00	15.85	-124.23
23.62	15.740	94.93	107.56	0.60	0.6834	15.63	3.10	68.896	2.00	15.91	-124.15
23.63	15.680	96.65	107.2	0.61	0.6759	15.75	3.10	68.950	2.00	15.91	-124.61
23.64	16.000	97.48	106.65	0.61	0.6666	15.89	3.10	69.004	2.00	16.04	-125.26
23.65	16.210	96.78	106.65	0.60	0.6556	16.10	3.10	69.058	1.80	16.16	-125.73
23.66	16.440	96.50	107.3	0.60	0.6473	16.44	3.10	69.112	1.80	16.40	-125.81
23.67	17.070	98.64	106.28	0.58	0.6226	16.96	3.10	69.167	1.80	17.11	-125.92
23.68	17.410	98.36	105.73	0.56	0.6073	17.30	3.10	69.221	1.80	17.45	-126.57
23.69	17.760	98.22	105.37	0.55	0.5933	17.65	3.10	69.275	1.80	17.60	-127.03
23.7	18.170	98.59	105	0.54	0.5779	18.07	3.10	69.329	1.80	18.21	-126.11
23.71	18.560	98.31	105.55	0.53	0.5687	18.44	3.10	69.383	1.80	18.57	-126.68
23.72	19.180	97.53	107.01	0.51	0.5579	19.07	3.20	69.439	2.00	19.22	-125.68
23.73	19.410	97.16	107.56	0.50	0.5541	19.30	3.20	69.495	2.00	19.46	-125.23
23.74	19.550	96.65	107.93	0.49	0.5521	19.44	3.20	69.550	1.80	19.60	-124.96
23.75	19.560	96.88	108.66	0.49	0.5550	19.47	3.20	69.606	1.80	19.63	-124.34
23.76	19.310	98.10	110.12	0.51	0.5703	19.27	3.20	69.660	1.80	19.63	-124.34
23.77	19.080	99.84	110.85	0.52	0.5810	18.97	3.20	69.718	1.80	19.13	-122.33
23.78	18.900	101.05	111.4	0.53	0.5894	18.79	3.20	69.774	1.80	18.95	-121.88
23.79	18.800	102.67	111.4	0.55	0.5926	18.69	3.20	69.829	1.80	18.85	-121.98
23.8	18.810	104.20	111.4	0.55	0.5922	18.70	3.20	69.885	1.80	18.86	-122.08
23.81	18.950	106.18	110.3	0.56	0.5821	18.85	3.20	69.940	1.80	18.96	-122.18
23.82	18.960	107.11	109.93	0.56	0.5789	18.88	3.20	69.997	1.80	19.04	-123.74
23.83	19.010	107.62	109.93	0.57	0.5783	18.90	3.20	70.053	1.80	19.06	-123.84
23.84	19.900	108.69	110.12	0.58	0.5826	18.79	3.20	70.109	1.80	19.95	-123.75
23.85	19.900	108.69	110.12	0.58	0.5826	18.79	3.20	70.164	4.30	19.95	-123.85
23.86	19.900	108.69	110.12	0.58	0.5826	18.79	3.20	70.219	4.30	19.95	-123.85
23.87	18.590	102.25	100.99	0.55	0.5432	18.49	3.30	70.278	2.30	18.63	-133.17
23.88	18.290	102.16	107.74	0.56	0.5891	18.10	3.30	70.335	2.00	18.34	-126.52
23.89	18.110	100.63	112.86	0.56	0.6232	18.00	3.20	70.391	2.00	18.16	-121.50
23.9	17.760	104.61	111.4	0.59	0.6273	17.65	3.20	70.447	2.00	17.81	-123.06
23.91	17.620	105.68	110.48	0.61	0.6340	17.53	3.20	70.502	2.00	17.67	-123.17
23.92	17.360	105.26	110.12	0.61	0.6343	17.25	3.30	70.560	2.00	17.41	-124.54
23.93	17.360	105.26	110.12	0.61	0.6343	17.25	3.30	70.618	2.00	17.41	-124.63
23.94	17.240	105.40	109.75	0.61	0.6346	17.13	3.30	70.675	2.00	17.29	-125.10
23.95	17.120	105.26	110.3	0.61	0.6443	17.01	3.20	70.731	2.00	17.17	-124.85
23.96	17.120	105.26	110.3	0.61	0.6443	17.01	3.20	70.787	2.00	17.17	-124.85
23.97	17.030	104.10	110.12	0.59	0.6466	16.92	3.20	70.843	2.30	17.08	-125.03
23.98	16.960	98.59	110.3	0.58	0.6504	16.85	3.20	70.899	2.30	17.01	-124.94
23.99	16.900	97.25	109.93	0.58	0.6505	16.79	3.20	70.955	2.00	16.95	-125.41
24	16.930	97.48	109.57	0.58	0.6472	16.82	3.20	71.010	2.00	16.98	-125.87
24.01	16.950	96.65	109.39	0.58	0.6472	16.82	3.20	71.065	2.00	16.98	-125.87
24.02	17.060	90.63	109.39	0.53	0.6412	16.95	3.30	71.124	2.00	17.11	-126.25
24.03	17.250	86.92	109.39	0.50	0.6341	17.14	3.30	71.181	2.00	17.30	-126.34
24.04	17.530	85.63	109.2	0.49	0.6229	17.42	3.30	71.239	2.00	17.58	-126.63

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
25.43	2,520	30.93	489.59	1.23	19.4282	2.03	3.60	79.735	2.30	2.73	240.12
25.44	2,220	36.49	480.64	1.64	21.6505	1.74	3.60	79.798	2.30	2.42	231.07
25.45	1,860	41.82	478.09	2.25	25.7038	1.38	3.60	79.861	2.30	2.06	228.43
25.46	1,860	41.82	478.09	2.25	25.7038	1.38	3.60	79.923	2.30	2.06	228.33
25.47	1,570	54.29	481.50	3.47	30.6376	0.98	3.60	79.986	2.30	1.71	231.15
25.48	1,430	55.80	488.31	3.90	34.1476	0.94	3.60	80.049	2.30	1.64	238.35
25.49	1,460	57.38	492.51	3.93	33.7336	0.97	3.60	80.112	2.50	1.67	242.45
25.5	1,460	63.35	496.35	4.28	33.5372	0.98	3.60	80.175	2.50	1.69	246.20
25.51	1,520	64.18	501.46	4.22	32.9908	1.02	3.60	80.237	2.50	1.73	251.21
25.52	1,540	65.09	504.47	4.12	32.6929	1.04	3.60	80.301	2.50	1.75	253.83
25.53	1,550	60.53	504.38	3.91	32.5406	1.05	3.60	80.363	2.80	1.76	253.93
25.54	1,550	60.53	504.38	3.91	32.5406	1.05	3.60	80.426	2.80	1.76	253.93
25.55	1,540	57.28	504.75	3.72	32.7760	1.04	3.60	80.489	2.50	1.75	254.10
25.56	1,540	51.40	504.57	3.34	32.7643	1.04	3.60	80.551	2.50	1.75	253.83
25.57	1,550	52.93	502.36	3.41	32.5406	1.05	3.60	80.614	2.80	1.76	253.54
25.58	1,580	50.89	504.57	3.22	31.9348	1.08	3.60	80.677	2.80	1.79	253.83
25.59	1,580	50.89	504.57	3.22	31.9348	1.08	3.60	80.740	2.80	1.79	253.53
25.6	1,560	45.34	503.83	2.83	31.4894	1.10	3.60	80.803	2.80	1.81	252.29
25.61	1,580	46.12	503.47	2.92	31.8652	1.08	3.70	80.867	2.80	1.79	252.24
25.62	1,570	49.27	503.26	3.17	32.0367	1.07	3.70	80.931	2.70	1.78	251.96
25.63	1,560	50.48	502.74	3.24	32.2269	1.06	3.70	80.996	2.50	1.77	251.31
25.64	1,540	53.21	502.56	3.46	32.6338	1.04	3.70	81.061	2.50	1.75	251.03
25.65	1,550	55.34	502.19	3.57	32.3994	1.05	3.60	81.123	2.50	1.76	250.56
25.66	1,550	57.65	502.01	3.72	32.3877	1.05	3.60	81.186	2.50	1.76	250.29
25.67	1,530	59.95	501.83	3.86	32.1601	1.03	3.60	81.249	2.30	1.74	250.11
25.68	1,530	59.04	501.63	3.86	32.7393	1.03	3.60	81.312	2.30	1.74	249.91
25.69	1,510	60.53	502.19	4.01	33.2576	1.01	3.60	81.375	2.30	1.72	250.17
25.7	1,500	60.67	502.56	4.04	33.5040	1.00	3.70	81.439	2.50	1.71	250.44
25.71	1,490	60.39	502.74	4.05	33.7409	0.99	3.70	81.504	2.50	1.70	250.52
25.72	1,490	59.69	502.74	4.01	33.7409	0.99	3.70	81.568	2.30	1.70	250.43
25.73	1,490	59.04	502.74	3.96	33.7409	0.99	3.70	81.633	2.30	1.70	250.33
25.74	1,490	58.53	502.74	3.93	33.7409	0.99	3.70	81.697	2.30	1.70	250.23
25.75	1,490	57.98	502.37	3.89	33.7161	0.99	3.70	81.762	2.50	1.70	249.76
25.76	1,490	57.65	502.19	3.87	33.7040	0.99	3.70	81.826	2.50	1.70	249.48
25.77	1,490	57.65	502.19	3.87	33.7040	0.99	3.70	81.891	2.50	1.70	249.39
25.78	1,480	57.33	502.01	3.87	33.9196	0.98	3.70	81.955	2.50	1.69	249.11
25.79	1,470	56.82	501.83	3.87	34.1381	0.97	3.70	82.020	2.50	1.68	248.83
25.8	1,460	56.36	501.64	3.86	34.3589	0.96	3.70	82.084	2.50	1.67	248.54
25.81	1,440	56.13	501.64	3.90	34.8361	0.94	3.70	82.149	2.50	1.65	248.44
25.82	1,440	54.83	501.64	3.81	34.8361	0.94	3.70	82.214	2.50	1.65	248.35
25.83	1,440	54.83	501.64	3.81	34.8361	0.94	3.70	82.278	2.50	1.65	248.25
25.84	1,440	54.83	501.64	3.81	34.8361	0.94	3.70	82.343	2.50	1.65	248.15
25.85	1,230	42.79	490.87	3.48	39.0981	0.74	3.70	82.407	2.30	1.44	237.28
25.86	1,460	47.56	492.51	3.26	33.7336	0.97	3.70	82.472	2.30	1.67	238.82
25.87	1,460	47.56	492.51	3.26	33.7336	0.97	3.70	82.536	2.30	1.67	238.73
25.88	1,460	46.91	493.06	3.21	33.7712	0.97	3.70	82.601	2.30	1.67	238.64
25.89	1,460	46.91	493.06	3.21	33.7712	0.97	3.70	82.665	2.30	1.67	238.55
25.9	1,460	46.31	494.52	3.17	33.8712	0.97	3.70	82.730	2.30	1.67	240.44
25.91	1,480	45.89	495.43	3.10	33.4750	0.98	3.70	82.794	2.30	1.69	241.25
25.92	1,470	45.89	496.35	3.13	33.7653	0.97	3.70	82.859	2.30	1.68	242.07
25.93	1,460	45.89	497.26	3.10	33.5586	0.98	3.70	82.923	2.30	1.69	242.99
25.94	1,500	45.89	497.81	3.02	33.1783	1.00	3.70	82.988	2.30	1.71	243.74
25.95	1,520	45.24	497.81	2.98	32.7507	1.02	3.70	83.052	2.30	1.73	243.24
25.96	1,530	45.89	497.81	3.00	32.5366	1.03	3.70	83.117	2.30	1.74	243.14
25.97	1,530	46.91	497.99	3.07	32.5484	1.03	3.70	83.182	2.30	1.74	243.22
25.98	1,520	47.14	498.36	3.14	32.7968	1.02	3.70	83.246	2.50	1.73	243.50
25.99	1,520	48.53	498.72	3.16	32.8105	1.02	3.70	83.311	2.30	1.73	243.72
26	1,530	49.27	499.82	3.22	32.6680	1.03	3.70	83.375	2.00	1.74	244.76
26.01	1,530	49.92	500.55	3.26	32.7157	1.03	3.70	83.440	2.00	1.74	245.39
26.02	1,540	49.87	501.1	3.24	32.5390	1.04	3.70	83.504	2.00	1.75	245.84
26.03	1,550	49.90	501.46	3.19	32.3523	1.05	3.70	83.569	2.00	1.76	246.11
26.04	1,540	49.92	501.46	3.20	32.6214	1.04	3.70	83.633	2.00	1.76	246.18
26.05	1,540	48.76	502.74	3.17	32.6455	1.04	3.70	83.698	2.30	1.75	247.19
26.06	1,530	48.95	503.1	3.20	32.8824	1.03	3.70	83.762	2.30	1.74	247.45
26.07	1,520	49.64	503.47	3.27	33.1230	1.02	3.70	83.827	2.00	1.73	247.72
26.08	1,510	50.01	503.47	3.31	33.3424	1.01	3.70	83.891	2.00	1.72	247.63
26.09	1,500	50.89	503.47	3.34	33.5618	1.00	3.70	83.956	2.00	1.71	247.53
26.1	1,480	50.89	504.75	3.44	34.1047	0.98	3.70	84.020	2.00	1.69	248.71
26.11	1,470	50.66	505.48	3.45	34.3864	0.96	3.70	84.085	2.00	1.68	249.34

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
26.12	1,470	50.06	505.84	3.41	34.1409	0.96	3.70	84.150	2.00	1.68	249.60
26.13	1,470	50.01	506.03	3.40	34.4238	0.96	3.70	84.214	2.00	1.68	249.69
26.14	1,460	50.80	506.39	3.48	34.8842	0.95	3.70	84.279	2.00	1.67	249.96
26.15	1,430	53.49	507.85	3.74	35.5140	0.92	3.70	84.343	2.00	1.64	251.32
26.16	1,430	53.49	507.85	3.74	35.5140	0.92	3.70	84.408	2.00	1.64	252.32
26.17	1,450	53.35	510.04	3.68	35.1752	0.94	3.70	84.472	2.00	1.66	253.31
26.18	1,500	50.48	510.77	3.37	34.0513	0.99	3.70	84.537	2.00	1.71	253.94
26.19	1,510	50.38	511.5	3.34	33.8742	1.00	3.70	84.601	2.00	1.72	254.58
26.2	1,520	49.87	512.05	3.28	33.6875	1.01	3.70	84.666	2.00	1.74	255.03
26.21	1,530	48.81	512.78	3.19	33.5150	1.01	3.70	84.731	2.00	1.75	255.66
26.22	1,550	47.74	513.15	3.08	33.1065	1.04	3.70	84.795	2.00	1.77	255.93
26.23	1,550	48.72	513.51	3.14	33.1297	1.04	3.70	84.859	2.00	1.77	256.19
26.24	1,540	49.50	513.33	3.21	33.3331	1.03	3.70	84.924	2.00	1.76	255.92
26.25	1,520	49.92	513.51	3.28	33.7836	1.01	3.80	84.990	2.00	1.74	256.00
26.26	1,460	52.94	514.24	3.50	36.1928	0.98	3.80	85.056	2.00	1.71	256.63
26.27	1,490	52.10	515.16	3.50	34.5745	0.97	3.80	85.123	2.00	1.71	257.45
26.28	1,510	50.11	515.7	3.32	34.1523	0.99	3.80	85.189	1.80	1.73	257.89
26.29	1,530	49.46	516.8	3.23	33.7778	1.01	3.80	85.255	1.75	1.75	258.90
26.3	1,540	49.89	518.26	3.23	33.6532	1.02	3.80	85.322	2.00	1.76	260.26
26.31	1,570	50.80	520.27	3.24	33.1982	1.05	3.80	85.388	2.00	1.79	262.17
26.32	1,590	51.13	521.37	3.22	32.7906	1.07	3.80	85.454	2.00	1.81	263.17
26.33	1,590	51.22	522.28	3.22	32.8476	1.07	3.80	85.520	2.00	1.81	263.98
26.34	1,600	51.45	523.19	3.22	32.6994	1.08	3.80	85.587	1.80	1.82	264.79
26.35	1,620	51.73	523.74	3.19	32.3926	1.10	3.80	85.653	1.80	1.84	265.25
26.36	1,620	53.39	525.02	3.28	32.598	1.10	3.80	85.719	1.80	1.85	266.43
26.37	1,620	54.51	525.75	3.36	32.4537	1.09	3.80	85.785	1.80	1.84	267.06
26.38	1,620	55.15	526.66	3.40	32.5099	1.09	3.80	85.852	1.80	1.84	267.89
26.39	1,630	55.11	527.21	3.38	32.3442	1.10	3.70	85.918	1.85	1.86	268.90
26.4	1,650	55.03	528.49	3.40	32.0297	1.12	3.70	85.981	1.80	1.87	269.96
26.41	1,650	57.38	528.85	3.45	31.5115	1.12	3.70	86.045	1.80	1.88	271.07
26.42	1,660	58.86	529.5	3.51	31.8916	1.13	3.80	86.112	1.80	1.88	272.07
26.43	1,680	60.94	529.95	3.63	31.5446	1.15	3.80	86.178	1.80	1.90	273.07
26.44	1,690	63.58	530.31	3.76	31.3793	1.16	3.80	86.244	1.80	1.91	274.07
26.45	1,690	65.71	530.86	3.89	31.4118	1.16	3.80	86.310	2.00	1.91	275.07
26.46	1,700	67.47	531.04	3.97	31.3776	1.17	3.80	86.377	2.00	1.92	276.07
26.47	1,700	69.00	531.23	4.06	31.2488	1.17	3.70	86.441	1.80	1.92	277.07
26.48	1,690	70.62	531.59	4.18	31.4550	1.16	3.70	86.506	1.80	1.91	278.07
26.49	1,670	72.20	531.96	4.32	31.8539	1.14	3.80	86.572	2.00	1.89	279.07
26.5	1,670	74.79	532.69	4.48	31.8978	1.14	3.80	86.638	2.00	1.89	279.96
26.51	1,670	76.09	533.05	4.56	31.9192	1.14	3.80	86.704	2.00	1.88	280.96
26.52	1,660	77.66	533.42	4.65	32.0337	1.13	3.80	86.771	2.00	1.88	281.96
26.53	1,660	79.19	533.78	4.72	32.1554	1.13	3.80	86.837	2.00	1.88	282.96
26.54	1,660	79.70	533.97	4.80	32.1969	1.13	3.80	86.903	2.00	1.88	283.96
26.55	1,660	80.30	534.51	4.84	32.1994	1.13	3.80	86.970	2.00	1.88	284.96
26.56	1,640	81.60	534.7	4.98	32.6037	1.11	3.80	87.036	1.80	1.87	285.96
26.57	1,640	83.75	535.06	5.05	32.5926	1.10	3.80	87.102	1.80	1.87	286.96
26.58	1,610	83.91	535.98	5.21	33.2907	1.07	3.80	87.169	2.00	1.84	287.96
26.59	1,610	84.47	536.16	5.25	33.3019	1.07	3.80	87.235	2.00	1.84	288.96
26.6	1,620	84.61	536.89	5.28	33.1414	1.08	3.80	87.301	2.00	1.85	279.96
26.61	1,620	84.47	537.44	5.21	33.7153	1.08	3.80	87.367	2.00	1.85	280.96
26.62	1,620	85.38	538.9	5.21	33.2638	1.08	3.80	87.433	2.00	1.85	281.96
26.63	1,620	83.77	538.35	5.17	33.2315	1.08	3.80	87.500	1.80	1.85	282.96
26.64	1,620	82.57	539.08	5.10	33.2765	1.08	3.80	87.566	2.00	1.85	283.96
26.65	1,630	80.11	540.18	4.91	33.1399	1.09	3.80	87.632	2.00	1.86	284.96
26.66	1,650	77.94	540.54	4.72	32.7600	1.11	3.80	87.699	1.80	1.87	285.96
26.67	1,660	79.44	540.72	4.84	32.7324	1.12	3.80	87.765	1.80	1.87	286.96
26.68	1,650	76.18	540.91	4.62	32.7824	1.11	3.80	87.831	1.80	1.85	287.96
26.69	1,650	78.54	540.72	4.54	32.7709	1.11	3.80	87.898	1.80	1.88	288.96
26.7	1,590	75.85	542.18	4.77	34.0994	1.05	3.80	87.964	1.80	1.82	289.96
26.71	1,560	76.18	543.28	4.88	34.8256	1.02	3.80	88.030	1.80	1.79	289.96
26.72	1,540	78.30	543.38	4.89	34.9414	1.01	3.80	88.096	1.80	1.78	290.96
26.73	1,540	72.94	545.47	4.74	35.4201	0.99	3.80	88.163	1.80	1.78	291.96
26.74	1,540	68.63	547.66	4.36	35.5623	0.99	3.80	88.229	1.80	1.77	289.96
26.75	1,550	67.38	548.94	4.35	35.4155	1.00	3.80	88.295	1.80	1.78	289.96
26.76	1,550	65.94	550.4	4.25	35.5097	1.00	3.80	88.361	2.00	1.78	289.96
26.77	1,560	66.51	551.68	4.23	35.6481	1.01	3.80	88.427	2.00	1.78	290.96
26.78	1,580	62.80	552.78	3.97	34.9681	1.03	3.80	88.494	1.80	1.81	291.96
26.79	1,580	61.50	554.05	3.89	35.0658	1.03	3.80	88.560	1.80	1.81	291.96
26.8	1,590	59.92	557.34	3.77	35.0528	1.03	3.80	88.627	1.80	1.82	290.96

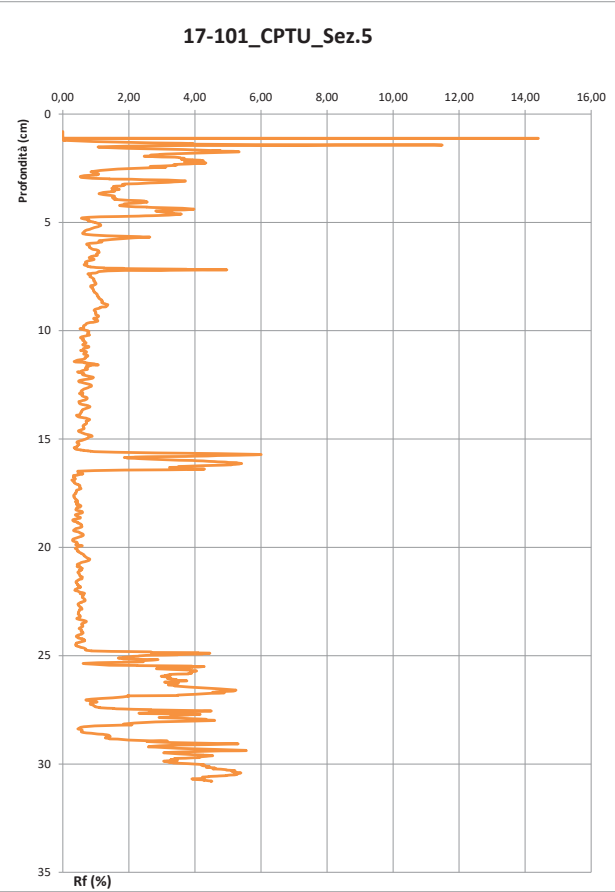
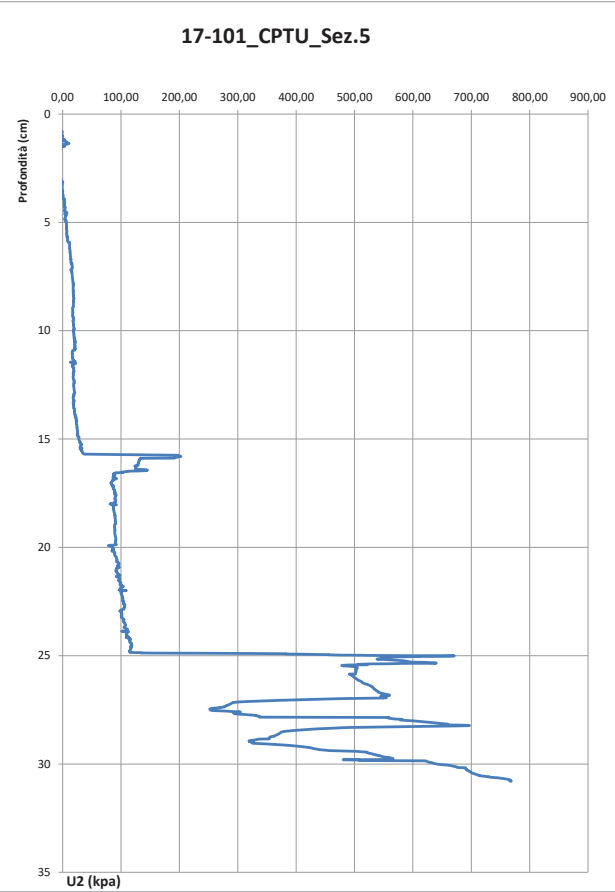
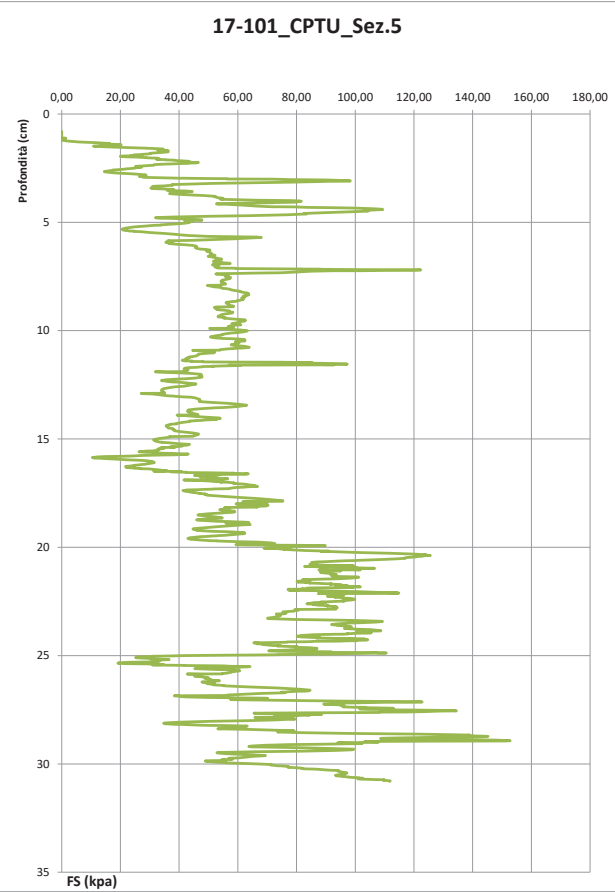
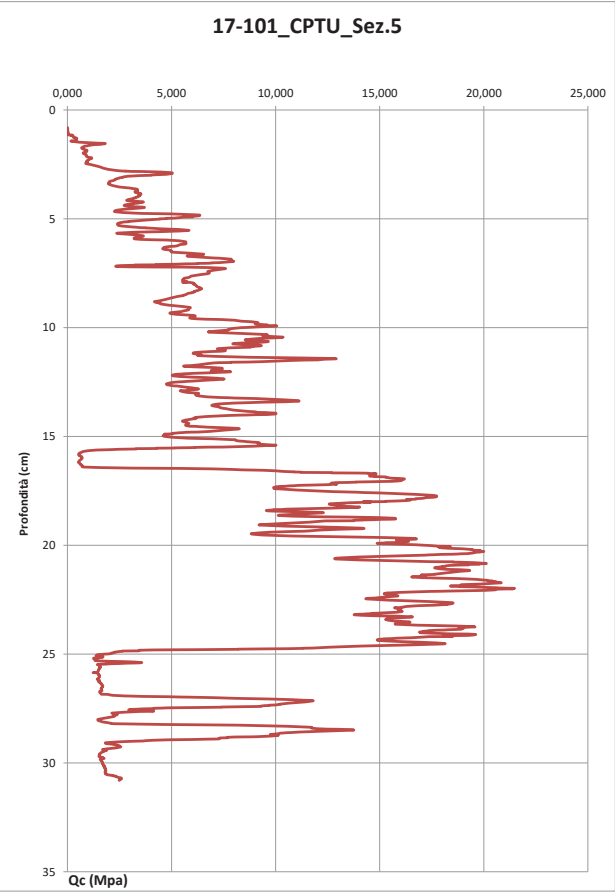
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
28.19	2,090	43.76	661.8	2.09	31.6651	1.43	4.00	98.112	2.30	2.37	385.26
28.2	2,250	45.34	672.75	2.02	29.9000	1.58	4.00	98.182	2.30	2.53	396.11
28.21	2,230	46.63	687.55	1.71	25.1850	2.04	4.00	98.252	2.30	3.02	410.81
28.22	3,620	50.38	696.98	1.39	19.2503	2.92	4.00	98.321	2.30	3.91	420.02
28.23	4,840	54.54	696.98	1.42	14.3042	4.14	3.90	98.392	2.30	5.13	419.74
28.24	6,080	60.80	673.67	1.00	11.0801	5.41	3.90	98.457	2.30	6.36	396.64
28.25	7,090	63.07	634.59	0.89	8.9505	6.46	3.90	98.525	2.30	7.36	357.46
28.26	7,850	63.21	604.82	0.81	7.7047	7.25	3.90	98.593	2.30	8.10	327.59
28.27	8,490	61.13	580.9	0.72	6.8432	7.91	4.00	98.663	2.00	8.73	303.57
28.28	8,970	59.45	558.08	0.64	6.2439	8.41	4.00	98.737	2.00	9.21	285.61
28.29	9,440	55.57	542.91	0.59	5.7512	8.90	4.00	98.803	2.00	9.67	265.39
28.3	9,860	55.06	526.84	0.56	5.3432	9.33	4.00	98.872	2.00	10.08	249.22
28.31	10,290	55.39	512.05	0.54	4.9762	9.78	3.90	98.940	2.00	10.51	234.33
28.32	10,650	56.17	497.81	0.53	4.6743	10.15	3.90	99.008	2.00	10.86	219.99
28.33	11,250	57.42	482.21	0.51	4.1928	10.78	3.90	99.076	2.00	11.45	193.77
28.34	11,460	57.65	461.1	0.50	4.0236	11.00	3.90	99.144	2.00	11.65	183.08
28.35	11,600	57.70	452.15	0.50	3.8978	11.15	3.90	99.212	2.00	11.79	174.04
28.36	11,700	56.91	444.49	0.49	3.7991	11.26	3.90	99.280	2.00	11.89	166.28
28.37	11,740	54.74	437.73	0.47	3.7285	11.30	3.90	99.348	2.00	11.92	159.42
28.38	11,750	53.35	432.43	0.46	3.6803	11.32	3.90	99.416	2.00	11.93	154.02
28.39	11,720	58.35	423.85	0.50	5.1655	11.30	3.90	99.484	1.80	11.90	145.34
28.4	11,750	60.94	419.83	0.52	5.3730	11.33	3.90	99.553	1.80	11.93	141.23
28.41	11,780	63.77	416.5	0.54	5.3314	11.36	3.90	99.621	2.00	11.95	137.30
28.42	11,900	67.19	412.53	0.56	4.5666	11.49	3.90	99.689	2.00	12.07	133.73
28.43	12,080	69.44	406.06	0.58	3.3602	11.67	3.90	99.757	1.80	12.16	129.16
28.44	12,360	72.24	405.41	0.59	3.2800	11.95	3.90	99.825	2.00	12.53	128.14
28.45	12,690	74.47	401.75	0.59	3.1659	12.29	4.00	99.894	2.00	12.86	122.66
28.46	13,330	78.68	393.17	0.59	2.9495	12.94	4.00	99.964	1.80	13.50	113.98
28.47	13,560	79.19	388.6	0.58	2.8658	13.17	4.00	100.034	1.80	13.72	109.31
28.48	13,710	78.98	384.59	0.58	2.8052	13.33	4.00	100.104	1.80	13.87	105.20
28.49	13,760	78.45	382.21	0.57	2.7777	13.38	4.00	100.173	1.80	13.92	102.72
28.5	13,470	75.21	377.47	0.56	2.8023	13.09	4.00	100.243	2.00	13.63	97.89
28.51	13,210	74.05	376.37	0.56	2.8491	12.83	3.90	100.311	2.00	13.37	96.69
28.52	12,940	73.54	375.27	0.57	2.9001	12.56	3.90	100.379	1.80	13.10	95.49
28.53	12,670	73.91	374.18	0.58	2.9533	12.30	3.90	100.447	1.80	12.83	94.30
28.54	12,330	75.35	373.63	0.61	3.0303	11.96	3.90	100.515	2.00	12.49	93.65
28.55	12,000	77.24	373.45	0.64	3.1121	11.63	3.90	100.583	2.00	12.16	93.37
28.56	11,710	80.99	372.9	0.69	3.1845	11.34	3.90	100.651	1.80	11.87	92.73
28.57	11,320	89.93	372.35	0.79	3.2893	10.95	3.90	100.719	2.00	11.48	92.08
28.58	11,120	94.93	371.99	0.85	3.3452	10.75	3.90	100.787	2.00	11.28	91.62
28.59	10,990	100.40	371.44	0.91	3.3798	10.62	3.90	100.855	2.00	11.15	90.97
28.6	10,760	104.24	370.53	0.97	3.4436	10.39	3.90	100.923	2.00	10.92	89.96
28.61	10,550	109.75	369.98	1.04	3.5069	10.18	3.90	100.991	1.80	10.71	89.32
28.62	10,370	114.11	369.61	1.10	3.5642	10.00	3.90	101.059	1.80	10.53	88.85
28.63	10,220	124.15	368.7	1.21	3.6076	9.85	3.90	101.127	2.00	10.37	87.84
28.64	10,200	129.85	367.97	1.27	3.6337	9.63	3.90	101.195	2.00	10.37	87.84
28.65	10,170	134.62	366.51	1.32	3.6508	9.80	4.00	101.263	2.00	10.32	85.05
28.66	10,100	138.00	365.23	1.37	3.6161	9.73	4.00	101.335	1.80	10.25	84.08
28.67	9,970	139.07	364.86	1.39	3.6596	9.61	4.00	101.405	2.00	10.12	83.61
28.68	9,880	138.14	364.5	1.40	3.6893	9.52	4.00	101.474	2.00	10.03	83.15
28.69	9,740	137.17	364.32	1.41	3.7405	9.38	4.00	101.544	1.80	9.89	82.67
28.7	9,440	139.34	363.4	1.42	3.6968	9.48	4.00	101.614	1.80	9.89	82.02
28.71	9,950	141.98	363.22	1.43	3.6505	9.59	4.00	101.684	2.00	10.10	81.57
28.72	10,080	144.11	361.21	1.43	3.5834	9.72	4.00	101.753	1.80	10.23	79.47
28.73	10,130	145.23	359.57	1.43	3.5496	9.77	4.00	101.823	1.80	10.28	77.73
28.74	10,140	144.21	356.28	1.43	3.5240	9.75	4.00	101.893	1.80	10.26	74.34
28.75	10,040	140.32	355	1.45	3.5359	9.69	4.00	101.963	1.80	10.14	72.96
28.76	9,840	133.09	354.46	1.35	3.6022	9.49	4.00	102.032	2.00	9.99	72.32
28.77	9,650	126.56	354.46	1.31	3.6732	9.30	3.90	102.100	2.00	9.80	72.23
28.78	9,450	122.07	354.46	1.29	3.7509	9.10	3.90	102.168	2.00	9.60	72.13
28.79	9,180	118.04	354.64	1.29	3.8583	8.83	3.90	102.236	2.00	9.33	72.21
28.8	8,850	114.11	353.27	1.21	4.0031	8.50	3.90	102.304	1.80	9.19	70.63
28.81	8,400	109.38	354.09	1.36	4.4041	7.69	3.90	102.372	1.80	8.19	71.46
28.82	7,690	108.64	353.73	1.41	4.5999	7.34	3.90	102.440	2.00	7.84	71.01
28.83	7,690	108.64	353.73	1.41	4.5999	7.34	3.90	102.509	2.00	7.84	70.91
28.84	7,690	108.64	353.73	1.41	4.5999	7.34	3.90	102.577	2.50	7.84	70.81
28.85	7,380	106.32	353.56	1.46	4.5048	7.04	4.00	102.646	1.80	7.78	69.84
28.86	7,210	127.21	334.19	1.74	4.5717	6.98	4.00	102.716	1.80	7.45	51.07
28.87	7,390	133.09	332.36	1.83	4.5591	6.96	4.00	102.786	2.00	7.43	49.15


17-101_G_CPTU_Soarza

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
28.88	7,270	138.05	331.08	1.90	4.5541	6.94	4.00	102.856	2.00	7.41	47.77
28.89	7,290	143.14	328.89	1.96	4.5115	6.96	4.00	102.925	2.00	7.43	45.48
28.9	7,160	147.73	326.52	2.06	4.5603	6.83	4.00	102.995	2.00	7.30	43.01
28.91	6,720	150.89	323.05	2.24	4.8073	6.40	3.90	103.063	1.80	6.86	39.44
28.92	5,140	148.84	321.07	2.42	6.2287	1.82	3.90	103.131	1.80	6.27	37.74
28.93	5,160	152.77	319.21	2.96	6.1862	4.94	4.00	103.201	2.00	5.29	35.41
28.94	4,760	150.92	319.39	3.17	6.7099	4.44	4.00	103.271	2.00	4.89	35.49
28.95	4,340	126.52	320.31	2.92	7.3804	4.02	4.00	103.340	1.80	4.47	36.31
28.96	4,090	104.06	319.58	2.54	7.8137	3.77	4.00	103.410	1.80	4.22	35.48
28.97	3,900	103.18	319.94	2.65	8.2036	3.58	4.00	103.480	2.00	4.03	35.74
28.98	3,740	104.84	321.4	2.80	8.5936	3.42	4.00	103.550	2.00	3.87	37.11
28.99	3,630	107.90	324.14	2.97	8.9295	3.31	4.00	103.619	1.80	3.77	39.75
29	3,290	105.45	327.61	3.21	9.9578	2.96	4.00	103.689	2.00	3.43	43.12
29.01	3,000	101.65	326.33	3.39	10.8777	2.67	4.00	103.759	2.00	3.14	41.74
29.02	2,740	94.84	324.87	3.17	11.8556	2.42	4.00	103.829	1.80	2.88	40.18
29.03	2,490	94.05	324.32	3.78	13.0249	2.17	4.00	103.898	1.80	2.63	39.54
29.04	2,260	96.32	325.6	4.26	14.0711	1.93	4.00	103.968	2.00	2.40	40.72
29.05	2,100	98.78	329.8	4.70	15.7048	1.77	4.00	104.038	2.00	2.24	44.82
29.06	1,980	102.34	338.2	5.17	17.0808	1.64	4.00	104.108	1.80	2.12	53.12
29.07	1,830	97.20	350.62	5.31	19.1596	1.48	4.00	104.177	1.80	1.98	65.44
29.08	1,820	90.72	354.64	4.98	19.8557	1.47	4.00	104.247	2.00	1.97	69.37
29.09	1,810	85.95	359.39	4.75	18.4858	1.45	4.00	104.317	2.00	1.96	74.02
29.1	1,830	81.55	364.86	4.46	19.9377	1.47	4.00	104.387	1.80	1.98	79.39
29.11	1,860	78.03	370.53	4.20	19.9210	1.49	4.00	104.456	1.80	2.02	84.96
29.12	1,860	72.73	380.93	3.67	18.9899	1.80	4.00	104.526	2.00	2.14	95.26
29.13	2,000	70.25	385.14	3.41	18.9114	1.67	4.00	104.596	2.00	2.22	99.37
29.14	2,160	69.32	395.15	3.24	18.1846	1.75	4.00	104.666	1.80	2.30	103.24
29.15	2,220	67.24	392.44	3.03	16.7775	1.83	4.00	104.735	2.00	2.38	106.06
29.16	2,270	66.18	395.91	2.92	17.4410	1.87	4.00	104.805	2.00	2.44	109.08
29.17	2,320	65.02	400.83	2.82	18.1045	1.92	4.00	104.875	2.00	2.50	112.10
29.18	2,400	64.05	405.04	2.67	18.6787	1.99	4.00	104.945	1.80	2.57	115.13
29.19	2,440	64.05	408.14	2.63	16.7270	2.03	4.00	105.015	1.80	2.61	121.16
29.2	2,460	63.77	410.7	2.59	16.6951	2.05	4.00	105.084	1.80	2.63	124.24
29.21	2,490	64.51	413.08	2.59	16.5896	2.08	4.00	105.154	1.80	2.68	126.92
29.22	2,500	64.93	414.74	2.60	16.4733	2.11	4.00	105.233	1.80	2.72	130.00
29.23	2,520	73.08	420.93	2.90	16.7036	2.10	4.00	105.284	1.80	2.70	134.44
29.24	2,530	76.22	423.3	3.01	16.7312	2.12	4.00	105.363	1.80	2.71	136.46
29.25	2,540	78.73	424.58	3.10	16.7157	2.12	4.00	105.433	1.80	2.72	137.76
29.26	2,560	84.19	425.86	3.29	16.6352	2.13	4.00	105.503	1.80	2.74	138.67
29.27	2,540	87.48	426.59	3.44	16.7949	2.11	4.00	105.573	1.80	2.72	139.47
29.28	2,490	90.53	431.01	3.66	17.2811	2.05	4.00	105.643	1.80	2.69	140.27
29.29	2,420	93.48	430.06	3.86	17.7111	1.99	4.00	105.716	2.00	2.60	142.42
29.3	2,360	95.77	431.88	4.06	18.3006	1.93	4.00	105.787	2.00	2.54	144.44
29.31	2,280	98.41	434.08	4.32	19.0386	1.85	4.00	105.859	2.00	2.46	146.45
29.32	2,200	99.52	436.63	4.52	19.8469	1.76	4.00	105.930	2.00	2.38	149.00
29.33	2,130	99.01	438.28	4.68	20.6439	1.69	4.00	106.001	2.00	2.30	151.55
29.34	2,040	99.15	440.47	4.86	21.5917	1.60	4.00	106.073	2.00	2.22	152.62
29.35	1,960	98.96	441.93	5.05	22.5474	1.52	4.00	106.145	2.00	2.15	154.54
29.36	1,810	97.71	448.14	5.40	24.7991	1.36	4.00	106.216	2.00	2.00	160.40
29.37	1,740	96.42	456.54	5.54	26.2579	1.28	4.00	106.288	2.00	1.93	166.88
29.38	1,660	94.86	466.76	5.75	28.1630	1.22	4.00	106.359	2.00	1.89	173.36
29.39	1,680	89.47	477.17	5.35	28.4039	1.20	4.00	106.431	2.00	1.88	180.88
29.4	1,760	84.38	486.12	4.79	27.6205	1.27	4.00	106.502	2.00	1.95	190.77
29.41	1,840	79.10	493.43	4.30	26.8168	1.35	4.00	106.574	2.00	2.04	204.45
29.42	1,880	74.65	499.82	3.97	26.5862	1.38	4.00	106.645	2.00	2.09	211.41
29.43	1,870	68.48	506.04	3.77	26.8419	1.36	4.00	106.716	2.00	2.14	220.48
29.44	1,810	66.64	514.43	3.68	28.4215	1.30	4.00	106.788	2.00	2.03	225.67
29.45	1,760	62.24	519.72	3.54	29.5295	1.24	4.00	106.860	2.00	1.98	230.03
29.46	1,750	58.03	522.1	3.32	29.8343	1.23	4.00	106.931	2.00	1.97	233.37
29.47	1,750	54.24	522.1	3.10	29.8343	1.23	4.00	107.003	2.00	1.97	233.37
29.48	1,730	54.84	522.28	3.17	30.5228	1.21	4.00	107.074	2.00	1.96	236.71
29.49	1,700	52.98	522.64	3.12	30.7435	1.18	4.00	107.146	2.00	1.92	233.37
29.5	1,670	53.49	524.29	3.20	31.3946	1.15	4.00	107.217	2.00	1.89	234.65
29.51	1,650	54.55	526.11	3.31	31.8855	1.12	4.00	107.289	2.00	1.87	236.61
29.52	1,630	55.20	526.12	3.39	32.4000	1.10	4.00	107.360	2.00	1.85	238.57
29.53	1,610	56.45	526.95	3.50	32.5880	1.08	4.00	107.431	2.00	1.84	240.53
29.54	1,600	57.89	531.77	3.62	33.2356	1.07	4.00	107.503	2.00	1.82	241.44
29.55	1,590	59.18	533.42	3.72	33.5484	1.06	4.00	107.575	2.00	1.81	243.40
29.56	1,580	60.90	534.15	3.85	33.8070	1.05	4.00	107.646	2.00	1.81	244.41



Impresa esecutrice: 	
Committente: Nome: A.L.Po P. IVA / C.F.: Indirizzo: Ufficio di Piacenza E-mail: PC-E-810 Tel. Fax: e-telefono:	
Cantiero: Quota assoluta [m]: Data: 27/02/2016 Q. inizio da Q. ass. [m]: Tipo prova: CPTU Preforo [m]: 0,6 Codice Prova: 17-101_CPTU_Sez.6-DX Q.ta falda [m]: -3,90 Note: Destra argine	
Il responsabile di sito: Dr. Geol. Stefano Verdini Il direttore tecnico: Dr. Geol. Enrico Fasani	

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0,61	0,000	0,00	-0,37	0,00	0,000	0,00	1,10	0,019	0,00	0,00	-0,37
0,62	0,010	0,00	-0,18	0,00	1,000	0,01	1,10	0,038	1,50	0,01	-0,18
0,63	0,010	0,00	-0,91	0,00	-9,100	0,01	1,10	0,058	1,50	0,01	-0,91
0,64	0,010	0,00	-0,37	0,00	1,100	0,01	1,10	0,077	1,50	0,01	-0,37
0,65	0,010	0,28	-2,92	2,80	-29,200	0,01	1,00	0,094	1,30	0,01	-2,92
0,66	0,010	0,28	-2,37	2,80	-23,700	0,01	1,00	0,112	1,50	0,01	-2,37
0,67	0,110	2,82	-13,51	2,56	-12,2818	0,12	1,00	0,129	1,50	0,10	-13,51
0,68	0,140	4,58	-15,89	3,27	-11,3600	0,16	1,00	0,147	1,30	0,13	-15,89
0,69	0,150	5,56	-15,16	3,71	-10,1067	0,17	1,00	0,164	1,50	0,14	-15,16
0,7	0,160	7,17	-12,42	4,72	-7,7625	0,23	1,00	0,182	1,30	0,15	-12,42
0,71	0,170	9,91	-10,59	5,83	-6,2294	0,18	1,00	0,199	1,30	0,17	-10,59
0,72	0,180	10,33	-10,04	5,74	-5,5778	0,19	1,00	0,216	1,30	0,18	-10,04
0,73	0,190	11,48	-8,58	6,04	-4,5158	0,20	0,90	0,232	1,30	0,19	-8,58
0,74	0,210	13,11	-9,31	6,24	-4,4333	0,22	1,00	0,250	1,50	0,21	-9,31
0,75	0,220	13,94	-9,50	6,34	-4,1382	0,23	1,00	0,267	1,30	0,22	-9,50
0,76	0,210	15,61	-11,32	7,43	-5,3905	0,22	1,00	0,284	1,30	0,21	-11,32
0,77	0,190	16,25	-13,51	8,55	-7,1105	0,20	1,10	0,304	1,30	0,18	-13,51
0,78	0,190	16,35	-13,88	8,61	-7,3053	0,20	1,10	0,323	1,50	0,18	-13,88
0,79	0,180	16,62	-15,70	9,23	-8,7222	0,20	1,00	0,340	1,30	0,17	-15,70
0,8	0,200	18,44	-17,53	8,22	-8,7650	0,22	1,00	0,358	1,30	0,19	-17,53
0,81	0,220	16,67	-21,18	7,58	-9,6273	0,24	1,00	0,375	1,30	0,21	-21,18
0,82	0,230	17,37	-25,93	7,55	-11,2739	0,26	1,10	0,394	1,50	0,22	-25,93
0,83	0,230	17,04	-25,93	7,41	-11,2739	0,26	1,10	0,414	1,50	0,22	-25,93
0,84	0,250	17,64	-26,66	7,06	-10,6640	0,28	1,00	0,431	1,30	0,24	-26,66
0,85	0,260	18,29	-25,75	7,28	-9,9338	0,29	1,10	0,450	1,50	0,24	-25,75
0,86	0,260	18,94	-25,93	7,28	-9,9731	0,29	1,00	0,468	1,30	0,25	-25,93
0,87	0,280	19,87	-25,20	7,64	-9,6923	0,29	1,00	0,485	1,30	0,25	-25,20
0,88	0,270	19,82	-24,11	7,34	-9,9296	0,29	1,00	0,503	1,50	0,26	-24,11
0,89	0,280	20,24	-22,46	7,23	-8,0214	0,30	1,00	0,520	1,50	0,27	-22,46
0,9	0,280	21,07	-20,09	7,53	-7,1750	0,30	1,00	0,538	1,50	0,27	-20,09
0,91	0,290	21,31	-18,90	7,80	-6,6759	0,31	1,00	0,555	1,80	0,28	-18,90
0,92	0,300	21,67	-16,80	7,22	-5,6000	0,32	1,00	0,572	1,80	0,29	-16,80
0,93	0,320	22,04	-12,97	6,89	-4,0531	0,33	1,00	0,590	1,80	0,31	-12,97
0,94	0,350	22,41	-8,04	6,40	-2,2971	0,36	1,00	0,607	1,80	0,35	-8,04
0,95	0,340	22,97	-3,10	6,76	-0,9118	0,34	1,00	0,625	1,80	0,34	-3,10
0,96	0,340	23,43	4,93	6,89	1,4824	0,34	1,00	0,641	1,80	0,34	4,93
0,97	0,340	23,43	4,93	6,89	1,4500	0,34	0,90	0,658	1,80	0,34	4,93
0,98	0,370	23,94	9,13	6,47	2,4676	0,36	0,90	0,672	1,80	0,37	9,13
0,99	0,400	24,13	7,85	6,03	1,9625	0,39	1,00	0,689	1,80	0,40	7,85
1	0,430	24,64	9,31	5,73	2,1651	0,42	1,00	0,707	1,80	0,43	9,31
1,01	0,470	24,73	28,49	5,26	6,0617	0,44	1,00	0,724	1,80	0,48	28,49
1,02	0,490	24,50	31,04	5,00	6,3347	0,46	1,00	0,742	2,00	0,50	31,04
1,03	0,490	24,31	51,13	4,96	10,4347	0,44	0,90	0,757	2,00	0,51	51,13
1,04	0,420	25,70	90,39	6,12	12,5214	0,33	0,90	0,773	1,80	0,46	90,39
1,05	0,520	26,91	188,82	5,18	36,3115	0,33	0,90	0,789	2,00	0,60	188,82
1,06	0,650	27,18	241,96	4,18	37,2446	0,30	0,90	0,805	2,00	0,75	241,96
1,07	0,900	26,44	218,41	2,75	22,7510	0,74	0,90	0,820	2,00	1,05	218,41

17-101.G_CPTU_Soarza

17-101_CPTU.S6_DX

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
1,08	1,620	24,87	208,36	1,54	12,8617	1,41	0,90	0,836	2,50	1,71	208,36
1,09	1,690	26,72	241,05	1,58	14,2633	1,45	0,90	0,852	2,50	1,79	241,05
1,1	1,690	26,72	241,05	1,58	14,2633	1,45	0,90	0,867	2,30	1,79	241,05
1,11	1,650	30,29	343,32	1,84	20,8073	1,31	0,80	0,881	2,30	1,79	343,32
1,12	1,590	33,45	348,79	2,14	21,9395	1,24	0,80	0,896	2,30	1,74	348,79
1,13	1,490	32,56	279,22	2,19	18,7396	1,21	0,80	0,909	2,50	1,61	279,22
1,14	1,420	29,59	215,30	2,08	15,1620	1,20	0,80	0,923	2,50	1,51	215,30
1,15	1,380	27,46	189,37	1,99	13,7225	1,19	0,80	0,937	2,30	1,46	189,37
1,16	1,370	25,89	159,81	1,89	11,6504	1,21	0,80	0,951	2,30	1,44	159,81
1,17	1,360	24,54	128,74	1,81	9,4662	1,23	0,80	0,964	2,30	1,41	128,74
1,18	1,310	23,80	102,45	1,82	8,2006	1,21	0,80	0,979	2,30	1,35	102,45
1,19	1,260	24,78	88,20	1,97	7,0000	1,17	0,80	0,993	2,00	1,30	88,20
1,2	1,160	27,14	69,39	2,34	5,9819	1,09	0,80	1,007	2,00	1,19	69,39
1,21	1,130	27,09	59,72	2,40	5,2850	1,07	0,80	1,021	2,00	1,16	59,72
1,22	1,110	25,99	54,78	2,33	4,9351	1,06	0,80	1,035	2,00	1,13	54,78
1,23	1,080	24,87	52,41	2,30	4,8528	1,03	0,80	1,049	2,00	1,10	52,41
1,24	1,060	24,31	51,50	2,29	4,8585	1,01	0,80	1,063	2,00	1,08	51,50
1,25	1,060	24,17	49,85	2,28	4,7028	1,01	0,80	1,077	2,00	1,08	49,85
1,26	1,060	25,38	46,93	2,39	4,4274	1,01	0,80	1,091	2,00	1,08	46,93
1,27	1,050	26,25	43,64	2,36	4,1564	1,01	0,80	1,105	2,00	1,07	43,64
1,28	1,030	31,12	39,63	3,02	3,8476	0,99	0,80	1,119	2,00	1,05	39,63
1,29	1,030	32,88	34,88	3,19	3,3864	1,00	0,80	1,133	2,00	1,04	34,88
1,3	1,020	36,49	31,04	3,58	3,0431	0,99	0,80	1,147	2,00	1,03	31,04
1,31	1,030	38,81	27,57	3,77	2,6977	1,00	0,80	1,161	2,00	1,04	27,57
1,32	0,990	39,55	23,19	3,99	2,3694	0,97	0,80	1,175	2,00	1,00	23,19
1,33	0,990	39,55	23,19	3,99	2,3474	0,97	0,80	1,189	2,00	1,00	23,19
1,34	1,040	40,29	23,37	3,87	2,2421	1,02	0,70	1,201	2,00	1,05	23,37
1,35	1,090	41,22	22,83	3,78	2,0945	1,07	0,70	1,213	2,00	1,10	22,83
1,36	1,130	41,26	21,55	3,65	1,9071	1,11	0,70	1,225	2,00	1,14	21,55
1,37	1,190	41,03	21,55	3,45	1,8109	1,17	0,80	1,239	2,00	1,20	21,55
1,38	1,290	40,34	22,64	3,13	1,7561	1,27	0,80	1,253	2,00	1,30	22,64
1,39	1,450	40,06	20,31	2,76	1,5869	1,43	0,80	1,267	2,00	1,46	20,31
1,4	1,680	39,92	23,92	2,38	1,4238	1,66	0,80	1,281	2,00	1,69	23,92
1,41	2,110	39,22	25,75	1,86	1,2204	2,08	0,80	1,295	2,00	2,12	25,75
1,42	3,010	41,40	25,57	1,38	0,8495	2,98	0,80	1,309	2,00	3,02	25,57
1,43	3,250	41,77	26,11	1,29	0,8034	3,22	0,80	1,323	2,00	3,26	26,11
1,44	3,430	41,72	26,84	1,22	0,7825	3,40	0,70	1,335	2,00	3,44	26,84
1,45	5,590	42,28	25,20	1,18	0,7019	3,56	0,70	1,347	1,80	3,60	25,20
1,46	3,680	44,09	23,92	1,20	0,6500	3,66	0,70	1,360	1,80	3,69	23,92
1,47	3,660	46,03	24,84	1,26	0,6787	3,64	0,70	1,372	2,00	3,67	24,84
1,48	3,580	49,32	24,84	1,38	0,6939	3,56	0,70	1,384	2,00	3,59	24,84
1,49	3,460	51,82	23,92	1,50	0,6913	3,44	0,70	1,396	2,00	3,47	23,92
1,5	3,380	54,27	23,92	1,61	0,7077	3,36	0,70	1,408	2,00	3,39	23,92
1,51	3,310	54,92	23,74	1,66	0,7172	3,29	0,70	1,421	2,00	3,32	23,74
1,52	3,220	56,17	23,19	1,74	0,7202	3,20	0,70	1,433	2,00	3,23	23,19
1,53	3,190	55,25	22,84	1,73	0,7097	3,20	0,70	1,445	2,00	3,22	22,84
1,54	3,160	55,48	21,91	1,76	0,6934	3,14	0,70	1,457	2,00	3,17	21,91
1,55	3,150	55,39	22,28	1,76	0,7073	3,13	0,70	1,470	2,00	3,16	22,28
1,56	3,130	54,32	22,28	1,74	0,7118	3,11	0,70	1,482	2,00	3,14	22,28
1,57	3,150	51,91	22,28	1,65	0,7073	3,13	0,70	1,494	2,00	3,16	22,28
1,58	3,140	49,32	22,28	1,65	0,7073	3,12	0,70	1,506	2,00	3,15	22,28
1,59	3,140	46,45	21,48	1,64	0,6978	3,14	0,70	1,518	2,00	3,15	21,91
1,6	3,220	42,00	21,73	1,30	0,6748	3,20	0,70	1,531	2,00	3,23	21,73
1,61	3,270	40,38	21,55	1,23	0,6590	3,25	0,70	1,543	1,80	3,28	21,55
1,62	3,270	40,38	21,55	1,23	0,6590	3,25	0,70	1,555	2,30	3,28	21,55
1,63	3,270	40,38	21,55	1,23	0,6590	3,25	0,70	1,567	2,30	3,28	21,55
1,64	3,310	31,26	19,98	0,94	0,3180	3,32	0,70	1,579	2,00	3,33	10,59
1,65	3,460	31,49	9,86	0,91	0,2850	3,45	0,70	1,592	1,80	3,46	9,86
1,66	3,540	31,54	9,31	0,89	0,2630	3,53	0,70	1,604	1,80	3,54	9,31
1,67	3,590	31,75	8,95	0,88	0,2493	3,58	0,70	1,616	2,00	3,59	8,95
1,68	3,710	32,46	8,08	0,87	0,2177	3,70	0,70	1,628	2,00	3,71	8,08
1,69	3,660	33,25	7,07	0,91	0,2043	3,65	0,70	1,641	2,00	3,66	7,07
1,7	3,630	32,79	10,96	0,90	0,3019	3,62	0,70	1,653	2,00	3,63	10,96
1,71	3,620	30,70	8,58	0,85	0,2370	3,61	0,70	1,665	2,00	3,62	8,58
1,72	3,580	28,53	6,76	0,80	0,1888	3,57	0,70	1,677	2,00	3,58	6,76
1,73	3,710	28,53	6,76	0,77	0,1888	3,57	0,70	1,689	2,00	3,71	6,76
1,74	4,000	28,48	8,22	0,71	0,2055	3,99	0,70	1,702	2,00	4,00	8,22
1,75	4,460	28,55	7,49	0,65	0,1679	4,45	0,70	1,714	2,00	4,46	7,49
1,76	4,950	28,56	1,83	0,66	0,0370	4,95	0,70	1,726	2,00	4,95	1,83

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
3.15	2,900	32.79	14.24	1.13	0.4910	2.89	0.90	3.927	2.00	2.91	14.24
3.16	2,930	33.34	13.88	1.14	0.4737	2.92	0.90	3.943	2.00	2.94	13.88
3.17	2,960	34.27	14.06	1.16	0.4766	2.94	0.90	3.958	2.00	2.96	14.06
3.18	2,980	36.26	12.78	1.22	0.4299	2.97	1.00	3.976	2.00	2.92	12.78
3.19	3,010	37.89	12.42	1.26	0.4126	3.00	1.00	3.993	2.00	3.02	12.42
3.2	3,050	39.78	11.32	1.30	0.3711	3.04	1.00	4.011	2.00	3.05	11.32
3.21	3,060	41.49	10.59	1.36	0.3472	3.04	0.90	4.026	2.00	3.05	10.59
3.22	3,080	42.93	10.77	1.39	0.3497	3.07	0.90	4.042	1.80	3.08	10.77
3.23	3,100	44.83	10.41	1.45	0.3358	3.08	0.90	4.058	1.80	3.10	10.41
3.24	3,150	46.31	9.96	1.47	0.3130	3.06	0.90	4.073	1.80	3.13	9.96
3.25	3,190	48.35	9.31	1.52	0.2918	3.18	1.00	4.091	2.00	3.19	9.31
3.26	3,220	50.85	8.40	1.58	0.2609	3.21	1.00	4.108	2.00	3.22	8.40
3.27	3,220	58.03	8.04	1.80	0.2497	3.21	1.00	4.126	2.00	3.22	8.04
3.28	3,220	60.94	7.85	1.89	0.2438	3.21	0.90	4.141	2.00	3.22	7.85
3.29	3,200	53.49	7.30	1.98	0.2281	3.19	0.90	4.157	2.00	3.20	7.30
3.3	3,180	66.31	6.39	2.09	0.2009	3.17	0.90	4.173	2.00	3.18	6.39
3.31	3,180	69.46	7.49	2.18	0.2355	3.17	0.90	4.189	2.00	3.18	7.49
3.32	3,180	72.38	7.85	2.28	0.2469	3.17	1.00	4.206	1.80	3.18	7.85
3.33	3,150	74.65	9.13	2.37	0.2898	3.14	1.00	4.224	1.80	3.15	9.13
3.34	3,100	78.78	9.88	2.49	0.3123	3.08	1.00	4.241	2.00	3.10	9.88
3.35	3,060	78.45	9.31	2.56	0.3042	3.05	1.00	4.258	2.00	3.06	9.31
3.36	3,000	81.83	10.23	2.73	0.3410	2.99	1.00	4.276	2.00	3.00	10.23
3.37	3,000	82.85	10.96	2.76	0.3653	2.99	1.00	4.293	2.00	3.00	10.96
3.38	2,990	81.50	10.96	2.73	0.3666	2.98	1.00	4.311	2.00	2.99	10.96
3.39	2,960	78.31	11.87	2.65	0.3268	2.95	1.00	4.328	2.00	2.96	11.87
3.4	2,990	73.35	11.87	2.65	0.3070	2.96	1.00	4.346	1.80	2.99	11.87
3.41	3,030	72.38	12.78	2.39	0.4218	3.02	1.00	4.363	1.80	3.04	12.78
3.42	3,120	69.05	13.70	2.21	0.4391	3.11	1.00	4.381	2.00	3.13	13.70
3.43	3,440	62.05	14.24	1.80	0.4140	3.43	1.00	4.398	2.00	3.45	14.24
3.44	3,640	58.58	14.79	1.61	0.4063	3.63	1.00	4.415	2.00	3.65	14.79
3.45	3,830	55.02	14.79	1.44	0.3862	3.82	1.00	4.433	2.00	3.84	14.79
3.46	4,200	51.50	14.79	1.28	0.3679	4.01	1.00	4.450	2.00	4.03	14.79
3.47	4,200	48.07	14.79	1.14	0.3521	4.19	1.00	4.468	1.80	4.21	14.79
3.48	4,440	44.55	15.34	1.03	0.3535	4.32	1.00	4.485	1.80	4.35	15.34
3.49	4,460	40.34	15.52	0.90	0.3480	4.44	1.00	4.503	2.00	4.47	15.52
3.5	4,500	36.49	15.34	0.81	0.3409	4.48	1.00	4.520	2.00	4.51	15.34
3.51	4,480	34.78	15.52	0.78	0.3464	4.46	1.00	4.538	2.00	4.49	15.52
3.52	4,400	33.16	15.52	0.77	0.3609	4.28	1.00	4.555	2.00	4.31	15.52
3.53	4,160	32.32	15.16	0.78	0.3644	4.14	1.00	4.573	2.00	4.17	15.16
3.54	4,000	32.42	15.16	0.81	0.3790	3.98	1.00	4.590	2.00	4.01	15.16
3.55	3,870	33.34	14.79	0.86	0.3822	3.86	1.00	4.607	2.00	3.88	14.79
3.56	3,750	34.08	14.61	0.91	0.3896	3.74	1.00	4.625	2.00	3.76	14.61
3.57	3,660	34.45	14.43	0.94	0.3943	3.65	1.00	4.642	2.00	3.67	14.43
3.58	3,590	33.99	14.61	0.95	0.4070	3.58	1.00	4.660	2.00	3.60	14.61
3.59	3,530	33.30	14.61	0.94	0.4139	3.52	1.00	4.677	2.00	3.54	14.61
3.6	3,500	31.17	14.90	0.93	0.4092	3.35	1.00	4.695	2.00	3.36	14.90
3.61	3,300	30.56	14.79	0.92	0.4482	3.29	1.00	4.712	1.80	3.31	14.79
3.62	3,300	30.56	14.79	0.93	0.4482	3.29	1.00	4.730	2.30	3.31	14.79
3.63	3,300	30.56	14.79	0.93	0.4482	3.29	1.00	4.747	2.00	3.31	14.79
3.64	3,100	25.33	18.26	0.82	0.5890	3.08	1.00	4.765	2.00	3.11	18.26
3.65	3,080	25.01	18.08	0.81	0.5870	3.08	1.00	4.782	1.80	3.09	18.08
3.66	3,040	25.39	18.08	0.82	0.5947	3.02	1.00	4.799	1.80	3.05	18.08
3.67	2,940	24.17	17.71	0.82	0.6024	2.92	1.00	4.817	2.00	2.95	17.71
3.68	2,880	23.53	17.35	0.82	0.6024	2.86	1.00	4.834	2.00	2.89	17.35
3.69	2,880	23.25	17.17	0.83	0.6132	2.78	1.00	4.852	2.00	2.81	17.17
3.7	2,710	23.29	16.98	0.86	0.6266	2.69	1.00	4.869	2.00	2.72	16.98
3.71	2,630	23.15	16.98	0.86	0.6466	2.61	1.00	4.887	2.00	2.74	16.98
3.72	2,550	22.92	16.80	0.90	0.6588	2.53	1.00	4.904	2.00	2.56	16.80
3.73	2,470	22.69	16.62	0.92	0.6729	2.45	1.00	4.922	2.00	2.48	16.62
3.74	2,430	22.41	16.62	0.92	0.6840	2.41	1.00	4.939	2.00	2.44	16.62
3.75	2,390	22.14	16.44	0.93	0.6879	2.37	1.00	4.957	2.00	2.40	16.44
3.76	2,370	21.92	16.62	0.93	0.6712	2.35	1.00	4.974	2.00	2.38	16.62
3.77	2,360	21.81	16.80	0.92	0.7119	2.34	1.00	4.991	2.00	2.37	16.80
3.78	2,380	21.63	16.98	0.91	0.7134	2.36	1.00	5.009	2.00	2.39	16.98
3.79	2,410	21.67	17.17	0.90	0.7124	2.39	1.00	5.026	2.00	2.42	17.17
3.8	2,440	21.77	17.17	0.89	0.7037	2.42	1.00	5.044	2.00	2.45	17.17
3.81	2,480	21.75	17.35	0.91	0.6986	2.46	1.00	5.061	2.00	2.48	17.35
3.82	2,500	21.86	17.35	0.87	0.7012	2.48	1.00	5.079	2.00	2.51	17.35
3.83	2,520	21.63	17.35	0.86	0.6885	2.50	1.00	5.096	1.80	2.53	17.35

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
3.84	2,510	21.53	17.35	0.86	0.6912	2.49	1.00	5.114	1.80	2.52	17.35
3.85	2,480	21.44	17.35	0.86	0.6996	2.46	1.00	5.131	2.00	2.49	17.35
3.86	2,470	21.35	17.33	0.86	0.7097	2.45	0.90	5.147	2.00	2.48	17.33
3.87	2,460	20.89	17.53	0.85	0.7126	2.44	0.90	5.162	2.00	2.47	17.53
3.88	2,440	20.56	17.71	0.84	0.7165	2.46	0.90	5.178	2.00	2.49	17.71
3.89	2,510	20.98	17.53	0.84	0.6984	2.49	0.90	5.194	2.00	2.52	17.53
3.9	2,550	21.07	17.71	0.83	0.6945	2.53	0.90	5.210	2.00	2.56	17.71
3.91	2,580	20.93	17.90	0.81	0.6938	2.56	0.90	5.225	2.00	2.59	20.46
3.92	2,620	20.70	17.90	0.79	0.6852	2.60	0.90	5.243	2.00	2.63	20.56
3.93	2,650	20.56	17.90	0.77	0.6716	2.63	0.90	5.260	2.00	2.66	20.56
3.94	2,690	19.96	17.90	0.74	0.6654	2.67	1.00	5.278	2.30	2.70	20.75
3.95	2,740	19.50	18.08	0.71	0.6599	2.72	1.00	5.295	2.00	2.75	20.75
3.96	2,790	18.99	18.26	0.68	0.6545	2.77	1.00	5.313	2.00	2.80	20.99
3.97	2,900	18.34	18.44	0.63	0.6359	2.88	1.00	5.330	1.80	2.91	20.51
3.98	2,940	18.06	18.44	0.62	0.6274	2.92	1.00	5.347	1.80	2.95	20.63
3.99	2,960	18.25	18.63	0.62	0.6294	2.94	1.00	5.365	2.00	2.97	20.51
4	2,970	18.57	18.63	0.63	0.6273	2.95	1.00	5.382	2.00	2.98	20.61
4.01	2,980	18.89	18.63	0.63	0.6252	2.96	1.00	5.400	2.00	2.99	20.71
4.02	2,980	19.13	18.81	0.64	0.6312	2.96	1.00	5.417	2.00	2.99	20.63
4.03	2,970	19.36	18.93	0.65	0.6273	2.95	1.00	5.435	2.00	2.98	20.93
4.04	2,970	19.91	18.44	0.67	0.6209	2.95	1.00	5.452	2.00	2.98	21.19
4.05	2,950	20.51	18.44	0.70	0.6251	2.93	1.00	5.470	2.00	2.96	21.29
4.06	2,930	21.53	18.26	0.73	0.6232	2.91	1.00	5.487	2.00	2.94	21.57
4.07	2,910	21.86	18.44	0.75	0.6337	2.89	1.00	5.505	2.00	2.92	21.49
4.08	2,890	22.32	18.44	0.78	0.6353	2.86	1.00	5.522	2.00	2.89	21.58
4.09	2,850	22.74	18.44	0.80	0.6370	2.83	1.00	5.539	2.00	2.86	21.88
4.1	2,800	23.06	18.44	0.82	0.6586	2.78	1.00	5.557	2.00	2.81	21.78
4.11	2,710	23.29	18.44	0.86	0.6804	2.69	1.00	5.574	2.00	2.72	21.88
4.12	2,580	23.66	18.08	0.92	0.7008	2.56	1.00	5.592	2.00	2.59	22.34
4.13	2,400	24.27	17.53	1.01	0.7304	2.38	1.00	5.609	2.00	2.41	22.99
4.14	2,190	25.33	17.53	1.16	0.8005	2.17	1.00	5.627	2.00	2.20	23.33
4.15	1,980	27.40	17.53	1.37	0.8854	1.96	1.00	5.644	2.00	1.99	23.33
4.16	1,810	29.50	17.17	1.63	0.9486	1.79	1.00	5.662	2.00	1.82	23.33
4.17	1,550	38.48	12.78	2.48	0.8245	1.54	1.00	5.679	2.00	1.56	28.78
4.18	1,440	45.15	8.77	3.14	0.6102	1.41	1.00	5.697	2.00	1.44	38.48
4.19	1,350	53.44	7.85	3.96	0.5815	1.34	1.00	5.714	2.00	1.35	53.33
4.2	1,260	61.50	9.13	4.88	0.7246	1.25	1.00	5.731	2.00	1.26	62.22
4.21	1,380	64.28	14.61	4.66	0.10587	1.37	1.00	5.749	2.00	1.39	68.61
4.22	1,610	63.21	21.55	3.93	1.3385	1.99	1.00	5.766	2.00	1.62	18.91
4.23	1,900	60.80	26.48	3.48	1.3837	1.97	1.00	5.783	2.00	1.91	60.80
4.24	2,160	59.09	30.86	2.74	1.4287	2.13	1.00	5.801	2.00	2.17	59.09
4.25	2,510	51.31	29.22	2.04	1.1641	2.48	1.00	5.819	2.00	2.52	10.72
4.26	2,460	47.10	27.76	1.91	1.1285	2.43	0.83	5.836	2.00	2.47	14.54
4.27	2,320	44.09	26.66	1.93	1.4191	2.29	1.00	5.854	2.00	2.33	15.15
4.28	2,150	43.48	25.20	2.12	1.121	2.12	1.00	5.871	2.00	2.16	43.48
4.29	1,990	44.09	24.47	2.22	1.2296	1.97	1.00	5.888	2.00	2.00	44.09
4.3	1,880	46.31	23.74	2.46	1.2628	1.86	1.00	5.906	2.00	1.89	46.31
4.31	1,840	49.70	21.73	2.69	1.1810	1.82	1.00	5.923	2.00	1.85	49.70
4.32	1,840	52.70	18.08	2.68	0.9826	1.82	1.00	5.941	2.00	1.85	52.43
4.33	1,800	54.23	18.63	3.01	1.0363	1.78	1.00	5.958	2.00	1.81	54.23
4.34	1,600	52.42	20.82	3.28	1.3013	1.58	1.00	5.976	2.00	1.81	52.42
4.35	1,510	52.56	22.28	3.48	1.4755	1.49	1.00	5.993	2.00	1.52	52.56
4.36	1,460	54.14	21.73	3.71	1.4884	1.44	1.00	6.011	1.80	1.47	54.14
4.37	1,370	57.70	20.45	4.21	1.4927	1.35	1.00	6.028	1.80	1.38	57.70
4.38	1,250	61.22	19.72	4.84	1.5383	1.23	1.00	6.045	2.00	1.26	61.22
4.39	1,150	64.00	19.91	5.57	1.7313	1.13	1.00	6.063	2.00	1.16	64.00
4.4	1,060	65.02	23.56	6.13	2.2226	1.04	1.00	6.080	2.00	1.07	19.91
4.41	1,060	56.87	32.14	5.37	3.0321	1.03	1.00	6.098	2.00	1.07	1.11
4.42	1,000	51.45	33.61	5.72	3.0826	1.06	1.00	6.115	1.80	1.10	51.45
4.43	1,120	50.25	34.51	4.49	3.3313	1.09	1.00	6.133	1.80	1.12	50.25
4.44	1,100	52.38	36.89	4.76	3.5336	1.06	1.00	6.150	2.00	1.12	52.38
4.45	1,030	52.70	36.63	5.12	3.8476	0.99	1.00	6.168	2.00	1.05	44.09
4.46	0,980	47.24	35.53	4.82	3.9314	0.94	1.00	6.185	2.00	1.00	5.33
4.47	0,950	43.78	37.07	4.61	3.9021	0.91	1.00	6.203	2.00	0.97	43.78
4.48	0,900	43.72	35.79	4.86	3.9767	0.86	1.00	6.220	2.00	0.92	43.72
4.49	0,860	42.86	37.72	4.39	4.7349	0.82	1.00	6.238	2.00	0.88	42.86
4.5	0,870	41.68	43.28	4.81	4.9747	0.83	1.00	6.257	2.00	0.89	41.68
4.51	0,890	41.08	45.47	4.62	5.1090	0.84	1.10	6.276	2.00	0.91	41.08
4.52	0,910	40.61	48.03	4.46	5.2780	0.86	1.10	6.295	2.00	0.93	40.61

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
5.91	0,870	33.81	41.09	3.89	4,7230	0.83	1.10	8.855	2.00	0.89	-16.89
5.92	0,890	32.74	42.91	3.68	4,8213	0.85	1.10	8.875	2.00	0.91	-15.17
5.93	0,900	31.72	44.19	3.52	4,9100	0.86	1.10	8.894	2.00	0.92	-13.98
5.94	0,910	30.80	45.11	3.38	4,9571	0.86	1.10	8.913	2.00	0.93	-13.16
5.95	0,910	29.73	46.38	3.20	4,9967	0.86	1.10	8.932	2.00	0.93	-12.90
5.96	0,900	29.73	44.74	3.30	4,9711	0.86	1.10	8.951	2.00	0.92	-13.73
5.97	0,870	28.62	44.92	3.29	5,1632	0.83	1.10	8.971	2.00	0.89	-13.65
5.98	0,830	26.03	44.92	3.14	5,4120	0.79	1.10	8.990	2.00	0.85	-13.74
5.99	0,830	22.60	45.47	2.90	5,8295	0.73	1.10	9.009	2.30	0.80	-13.29
6.00	0,720	19.57	46.38	2.74	6,4417	0.67	1.10	9.028	2.30	0.69	-13.40
6.01	0,600	15.93	48.76	2.66	8,1267	0.55	1.10	9.047	2.00	0.62	-10.20
6.02	0,600	15.93	48.76	2.66	8,1267	0.55	1.10	9.067	2.00	0.62	-10.30
6.03	0,540	14.26	49.85	2.64	9,2315	0.49	1.10	9.086	2.00	0.56	-9.30
6.04	0,430	11.95	52.78	2.78	12,2744	0.38	1.10	9.105	2.00	0.45	-4.47
6.05	0,390	11.21	54.62	2.74	14,0000	0.34	1.10	9.124	2.00	0.41	-4.75
6.06	0,370	10.93	57.34	2.95	15,4973	0.31	1.10	9.143	2.00	0.39	-2.11
6.07	0,360	10.88	60.45	3.02	16,7917	0.30	1.10	9.163	2.00	0.39	0.90
6.08	0,360	10.74	64.28	2.98	17,8556	0.30	1.10	9.182	2.00	0.39	4.64
6.09	0,380	10.84	67.57	2.85	17,7816	0.31	1.10	9.201	2.00	0.41	7.83
6.10	0,460	12.91	72.96	2.78	15,3431	0.38	1.10	9.220	2.30	0.49	13.02
6.11	0,850	10.47	79.62	1.23	9,3671	0.77	1.10	9.239	2.30	0.88	19.68
6.12	1,450	10.93	85.46	0.75	5,8938	1.36	1.10	9.259	2.00	1.49	25.42
6.13	2,120	12.36	87.47	0.58	4,1259	2.03	1.10	9.278	2.00	2.16	27.33
6.14	2,690	13.85	80.35	0.51	2,9870	2.61	1.10	9.297	2.00	2.72	20.12
6.15	3,030	15.56	65.19	0.51	2,1015	2.96	1.10	9.316	2.00	3.04	13.60
6.16	3,120	15.05	53.87	0.48	1,7296	3.07	1.10	9.335	2.00	3.14	-4.56
6.17	2,910	11.86	49.49	0.41	1,7007	2.86	1.10	9.355	2.00	2.93	-11.04
6.18	2,910	11.86	49.49	0.41	1,7007	2.86	1.10	9.374	2.00	2.93	-11.14
6.19	2,630	13.38	45.47	0.51	1,7289	2.58	1.10	9.393	2.00	2.65	-15.25
6.20	2,420	14.63	44.19	0.60	1,8260	2.38	1.10	9.412	2.00	2.44	-16.63
6.21	2,210	16.39	43.28	0.74	1,9584	2.17	1.10	9.431	2.00	2.23	-17.64
6.22	2,020	18.52	42.37	0.92	2,0975	1.98	1.10	9.450	2.00	2.04	-18.65
6.23	1,900	21.07	41.64	1.11	2,1916	1.86	1.10	9.470	2.00	1.92	-19.48
6.24	1,850	23.66	41.27	1.28	2,2308	1.81	1.10	9.489	2.30	1.87	-19.94
6.25	1,830	25.89	40.91	1.41	2,2355	1.79	1.10	9.508	2.30	1.85	-20.40
6.26	1,800	28.20	40.36	1.57	2,2422	1.76	1.10	9.527	2.00	1.82	-21.05
6.27	1,730	30.19	38.90	1.75	2,2486	1.69	1.10	9.546	2.00	1.75	-22.61
6.28	1,610	33.34	37.80	2.07	2,3478	1.57	1.10	9.566	2.30	1.63	-23.81
6.29	1,490	38.39	35.24	2.58	2,3651	1.45	1.10	9.585	2.30	1.50	-26.46
6.3	1,420	43.11	35.61	3.04	2,5077	1.38	1.10	9.604	2.00	1.43	-26.19
6.31	1,480	47.47	34.88	3.21	2,3588	1.45	1.10	9.623	2.00	1.49	-27.02
6.32	1,890	50.43	35.79	2.98	2,1178	1.65	1.10	9.642	2.00	1.71	-26.21
6.33	2,060	50.48	39.99	2.45	1,9413	2.02	1.10	9.662	2.00	2.08	-22.11
6.34	2,550	47.70	42.73	1.87	1,6757	2.51	1.10	9.681	2.30	2.57	-19.47
6.35	3,040	40.38	40.91	1.33	1,3457	3.00	1.10	9.700	2.30	3.06	-21.38
6.36	3,040	37.51	40.36	1.23	1,3076	3.00	1.10	9.719	2.30	3.02	-22.69
6.37	3,000	36.12	39.63	1.20	1,3210	2.96	1.10	9.738	2.00	3.02	-22.69
6.38	2,950	35.19	39.08	1.19	1,3247	2.91	1.10	9.758	2.00	2.97	-23.51
6.39	2,920	34.45	38.90	1.18	1,3322	2.88	1.10	9.777	2.00	2.94	-23.79
6.4	2,890	33.76	38.71	1.17	1,3394	2.85	1.10	9.796	2.00	2.91	-24.07
6.41	2,890	32.83	38.53	1.14	1,3352	2.85	1.10	9.815	2.00	2.91	-24.35
6.42	2,880	31.38	38.35	1.09	1,3378	2.84	1.10	9.834	2.00	2.90	-24.63
6.43	2,880	30.52	38.35	1.06	1,3316	2.84	1.10	9.854	2.00	2.90	-24.73
6.44	2,880	30.47	38.35	1.06	1,3316	2.84	1.10	9.873	2.00	2.90	-24.83
6.45	2,850	30.47	38.17	1.07	1,3393	2.81	1.10	9.892	2.30	2.87	-25.10
6.46	2,800	29.17	37.98	1.04	1,3564	2.76	1.10	9.910	2.30	2.82	-25.39
6.47	2,710	27.55	37.98	1.02	1,4015	2.67	1.10	9.929	2.00	2.76	-26.05
6.48	2,590	26.67	37.80	1.03	1,4595	2.55	1.10	9.950	2.00	2.61	-25.77
6.49	2,460	27.09	37.62	1.10	1,5293	2.42	1.10	9.969	2.00	2.48	-26.05
6.5	2,340	27.37	37.62	1.17	1,6077	2.30	1.10	9.988	2.00	2.36	-26.15
6.51	2,250	27.60	37.62	1.23	1,6707	2.17	1.10	10.007	2.30	2.27	-26.24
6.52	2,210	26.16	37.62	1.27	1,7023	2.12	1.10	10.026	2.30	2.21	-26.49
6.53	2,260	30.01	37.25	1.33	1,6482	2.22	1.10	10.046	2.00	2.28	-26.81
6.54	2,300	30.61	37.07	1.33	1,6117	2.26	1.10	10.065	2.00	2.32	-27.00
6.55	2,310	30.93	36.89	1.34	1,5870	2.27	1.10	10.084	2.30	2.33	-27.37
6.56	2,290	31.03	36.62	1.36	1,5948	2.25	1.10	10.103	2.30	2.31	-27.83
6.57	2,260	30.70	36.16	1.40	1,6280	2.22	1.10	10.122	2.00	2.29	-28.10
6.58	2,210	30.24	35.79	1.37	1,6195	2.17	1.10	10.142	2.00	2.23	-28.76
6.59	2,120	30.10	35.43	1.42	1,6712	2.08	1.10	10.161	2.00	2.13	-29.22

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
6.6	2,000	29.73	35.06	1.49	1,7530	1.96	1.10	10.180	2.00	2.01	-29.69
6.61	2,000	29.73	35.06	1.49	1,7530	1.96	1.10	10.199	2.00	2.01	-29.78
6.62	2,000	29.73	35.06	1.49	1,7530	1.96	1.10	10.218	2.00	2.01	-29.88
6.63	1,710	22.27	37.07	1.30	2,1678	1.67	1.10	10.238	2.00	1.73	-27.97
6.64	1,600	23.34	35.24	1.49	2,2025	1.56	1.10	10.255	2.00	1.61	-29.90
6.65	1,410	24.54	33.60	1.74	2,3830	1.38	1.00	10.272	2.30	1.42	-31.64
6.66	1,230	25.75	31.96	2.09	2,5984	1.20	1.10	10.292	2.30	1.24	-33.37
6.67	1,080	27.09	30.86	2.51	2,8574	1.05	1.10	10.309	2.00	1.09	-34.57
6.68	0,950	27.00	29.95	2.91	3,1526	0.92	1.10	10.328	2.00	0.96	-35.58
6.69	0,840	25.33	28.30	3.36	3,5655	0.81	1.10	10.345	2.00	0.85	-36.68
6.7	0,740	29.22	29.95	3.95	4,0473	0.71	1.10	10.365	2.30	0.75	-35.78
6.71	0,640	30.01	30.86	4.69	4,8219	0.61	1.10	10.384	2.00	0.65	-34.97
6.72	0,520	31.17	33.97	5.99	6,5327	0.49	1.10	10.403	2.00	0.53	-31.95
6.73	0,480	29.78	36.34	6.20	7,5708	0.44	1.10	10.423	2.00	0.50	-29.68
6.74	0,480	29.78	36.34	6.20	7,5708	0.44	1.10	10.442	2.00	0.50	-29.78
6.75	0,450	24.03	41.64	5.34	9,2533	0.41	1.10	10.461	2.30	0.47	-24.58
6.76	0,450	23.34	44.01	5.19	9,7800	0.41	1.10	10.480	2.30	0.47	-22.31
6.77	0,420	21.49	46.57	5.12	11,0881	0.37	1.10	10.499	2.00	0.44	-19.84
6.78	0,420	18.89	49.49	4.50	11,7833	0.37	1.10	10.519	2.00	0.44	-17.02
6.79	0,460	17.23	52.05	4.25	12,6951	0.36	1.10	10.538	2.30	0.47	-14.58
6.8	0,390	15.51	54.42	3.98	13,9538	0.34	1.10	10.557	2.30	0.41	-12.29
6.81	0,360	13.15	57.71	3.65	16,0306	0.30	1.10	10.576	2.30	0.38	-9.10
6.82	0,370	11.11	61.72	3.00	16,6811	0.31	1.10	10.595	2.00	0.40	-5.18
6.83	0,400	9.96	67.02	2.49	16,7550	0.33	1.10	10.615	2.00	0.43	-0.02
6.84	0,370	9.85	69.23	1.90	10,9299	0.35	1.10	10.634	2.30	0.40	6.13
6.85	0,320	9.40	78.89	0.92	7,7343	0.45	1.10	10.653	2.00	0.55	11.69
6.86	1,020	10.23	81.99	0.78	6,2114	1.24	1.10	10.672	2.00	1.35	14.69
6.87	1,480	11.44	82.91	0.77	5,6020	1.40	1.10	10.691	2.00	1.51	15.52
6.88	1,360	10.51	71.04	0.77	5,2235	1.29	1.10	10.711	2.30	1.39	3.55
6.89	1,180	10.10	63.35	0.86	5,5897	1.12	1.10	10.730	2.30	1.20	-0.27
6.9	1,090	11.39	49.85	1.12	7,7028	1.01	1.10	10.749	2.30	1.07	-17.52
6.91	0,920	17.83	40.36	1.94	4,3870	0.88	1.10	10.768	2.30	0.94	-27.74
6.92	1,180	25.56	40.29	1.27	3,4203	1.14	1.10	10.787	2.00	1.20	-27.55
6.93	1,790	30.05	41.99	1.68	2,4827	1.75	1.10	10.807	2.00	1.81	-23.37
6.94	2,730	28.43	47.11	1.14	1,7256	2.68	1.10	10.826	2.00	2.75	-20.31
6.95	3,690	27.32	50.04	0.74	1,3414	3.44	1.10	10.845	2.00	3.70	-17.32
6.96	4,310	26.30	47.11	0.61	1,0930	4.26	1.10	10.864	2.00	4.33	-21.11
6.97	4,580	23.48	47.66	0.51	1,0406	4.53	1.10	10.883	2.00	4.60	-20.77
6.98	4,820	25.05	44.67	0.52	0,9434	4.77	1.10	10.903	2.00	4.84	-23.03
6.99	4,880	26.16	44.01	0.54	0,9018	4.84	1.10	10.922	2.00	4.90	-24.54
7	4,880	26.16	44.01	0.54	0,9018	4.84	1.10	10.941	2.00	4.90	-24.64
7.01	4,990	27.83	42.55	0.56	0,8527	4.95	1.10	10.960	2.30	5.01	-26.24
7.02	5,030	28.76	42.55	0.57	0,8459	4.99	1.10	10.979	2.30	5.05	-26.34
7.03	5,040	28.85	42.55	0.57	0,8462	5.00	1.10	10.999	2.30	5.06	-26.44
7.04	5,060	28.71	42.55	0.57	0,8469	5.02	1.10	11.018	2.00	5.08	-26.54
7.05	5,090	28.11	42.55	0.58	0,8503	5.04	1.10	11.037	2.00	5.10	-26.64
7.06	5,100	27.28	42.37	0.53	0,8308	5.06	1.10	11.056	2.00	5.12	-26.88
7.07	5,120	26.91	42.18	0.53	0,8238	5.08	1.10	11.075	2.00	5.14	-27.14
7.08	5,120	26.86	42.00	0.52	0,8203	5.08	1.10	11.094	2.00	5.14	-27.24
7.09	5,100	25.56	41.60	0.50	0,8200	5.06	1.10	11.114	2.30	5.12	-27.77
7.1	5,100	25.56	41.64	0.50	0,8195	5.06	1.10	11.133	2.30	5.12	-27.87
7.11	5,080	25.93	41.64	0.51	0,8197	5.04	1.10	11.152	2.00	5.10	-28.11
7.12	5,050	26.21	41.54	0.52	0,8208	5.01	1.20	11.173	2.00	5.07	-28.24
7.13	4,990	26.72	41.27	0.54	0,8271	4.95	1.20	11.194	2.00	5.01	-28.65
7.14	4,910	27.28	41.27	0.56	0,8405	4.87	1.20	11.215	2.00	4.93	-28.71
7.15	4,840	27.97	41.27	0.57	0,8527	4.80	1.20	11.236	2.00	4.86	-28.87
7.16	4,750	28.57	41.09	0.60	0,8651	4.71	1.20	11.257	2.30	4.77	-29.01
7.17	4,690	28.85	41.09	0.62	0,8761	4.65	1.20	11.278	2.00	4.71	-29.20
7.18	4,570	29.08	40.91	0.64	0,8952	4.53	1.20	11.299	2.00	4.59	-29.39
7.19	4,530	29.13	40.91	0.64	0,9031	4.49	1.20	11.320	2.30	4.55	-29.68
7.2	4,510	29.04	40.72	0.64	0,9091	4.46	1.20	11.341	2.00	4.53	-29.87
7.21	4,500	28.91	40.91	0.65	0,9091	4.46	1.20	11.362	2.00	4.52	-29.88
7.22	4,490	28.90	40.91	0.64	0,9111	4.45	1.20	11.382	2.00	4.51	-29.90
7.23	4,500	28.76	40.91	0.64	0,9091	4.45	1.20	11.403	2.00	4.52	-30.00
7.24	4,520	28.83	41.09	0.63	0,9091	4.48	1.20	11.424	2.00	4.54	-29.94
7.25	4,540	28.06	41.27	0.61	0,9149	4.45	1.20	11.445	2.30	4.56	-29.99
7.26	4,570	27.55	41.45	0.60	0,9070	4.53	1.20	11.466	2.00	4.59	-29.77
7.27	4,610	26.81	41.64	0.58	0,9033	4.57	1.20	11.487	2.30	4.63	-29.96
7.28	4,670	26.49	41.64	0.57	0,8916	4.63	1.20	11.508	2.30	4.69	-29.77

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.67	7,650	40.15	46.38	0.52	0.6063	7.60	1.20	14.428	2.00	7.67	-38.67
8.68	7,480	40.75	46.20	0.54	0.6095	7.53	1.20	14.449	2.00	7.60	-38.95
8.69	7,480	41.86	46.38	0.56	0.6201	7.43	1.20	14.470	2.00	7.50	-38.87
8.7	7,480	41.86	46.38	0.56	0.6201	7.43	1.20	14.491	2.00	7.50	-38.87
8.71	7,430	42.19	45.84	0.57	0.6169	7.38	1.20	14.512	2.00	7.47	-39.25
8.72	7,450	42.19	45.84	0.57	0.6163	7.40	1.20	14.533	2.00	7.47	-39.70
8.73	7,460	42.05	45.84	0.56	0.6145	7.41	1.20	14.553	2.00	7.48	-39.80
8.74	7,490	41.77	45.65	0.56	0.6095	7.44	1.20	14.574	2.00	7.51	-40.09
8.75	7,480	41.59	45.65	0.56	0.6103	7.43	1.20	14.595	2.00	7.50	-40.19
8.76	7,460	41.59	45.65	0.56	0.6119	7.41	1.20	14.616	2.00	7.49	-40.29
8.77	7,430	40.94	45.65	0.55	0.6144	7.38	1.20	14.637	2.00	7.45	-40.38
8.78	7,400	40.84	45.65	0.55	0.6169	7.35	1.20	14.658	2.00	7.42	-40.48
8.79	7,420	40.75	45.84	0.55	0.6178	7.37	1.20	14.679	2.00	7.44	-40.39
8.8	7,500	39.22	45.47	0.52	0.6063	7.45	1.20	14.700	2.00	7.52	-40.86
8.81	7,500	39.71	45.47	0.51	0.6047	7.47	1.20	14.721	2.00	7.51	-40.96
8.82	7,540	38.34	44.92	0.51	0.5958	7.50	1.20	14.742	2.00	7.56	-41.60
8.83	7,490	38.34	44.92	0.51	0.5997	7.45	1.20	14.763	2.00	7.51	-41.70
8.84	7,390	38.48	44.92	0.52	0.6078	7.35	1.20	14.784	2.00	7.41	-41.80
8.85	7,240	38.95	44.74	0.54	0.6180	7.20	1.20	14.805	2.00	7.26	-42.08
8.86	7,130	39.51	44.38	0.55	0.6210	7.09	1.20	14.826	2.00	7.15	-42.54
8.87	7,040	39.96	44.38	0.57	0.6304	7.00	1.20	14.847	2.00	7.06	-42.63
8.88	6,970	40.52	44.19	0.58	0.6340	6.93	1.20	14.868	2.00	6.99	-42.92
8.89	6,900	41.77	44.19	0.61	0.6404	6.86	1.20	14.889	2.00	6.92	-43.02
8.9	6,870	42.33	44.38	0.62	0.6460	6.83	1.20	14.910	2.00	6.89	-42.93
8.91	6,850	42.74	44.56	0.62	0.6505	6.81	1.20	14.930	2.00	6.87	-42.93
8.92	6,830	42.74	44.56	0.62	0.6470	6.79	1.20	14.951	2.00	6.85	-43.32
8.93	6,820	42.79	43.83	0.63	0.6427	6.78	1.20	14.972	2.00	6.84	-43.77
8.94	6,780	42.56	43.64	0.63	0.6437	6.74	1.20	14.993	2.00	6.80	-44.06
8.95	6,770	42.47	43.46	0.63	0.6419	6.73	1.20	15.014	2.00	6.79	-44.34
8.96	6,770	42.23	43.46	0.62	0.6419	6.73	1.20	15.035	2.00	6.79	-44.44
8.97	6,830	41.68	43.63	0.61	0.6417	6.79	1.20	15.056	1.80	6.85	-44.17
8.98	6,870	41.49	44.19	0.60	0.6432	6.83	1.20	15.077	1.80	6.89	-43.90
8.99	6,920	41.40	44.19	0.60	0.6386	6.88	1.20	15.098	2.00	6.94	-44.00
9	6,980	41.03	44.38	0.59	0.6358	6.94	1.30	15.121	2.00	7.00	-43.91
9.01	7,030	40.89	44.19	0.58	0.6296	6.99	1.30	15.143	2.00	7.05	-44.20
9.02	7,070	40.61	44.38	0.57	0.6277	7.03	1.20	15.164	2.00	7.09	-44.11
9.03	7,090	40.43	44.19	0.57	0.6233	7.05	1.20	15.185	1.80	7.11	-44.39
9.04	7,120	40.20	43.64	0.56	0.6129	7.08	1.20	15.206	1.80	7.14	-45.04
9.05	7,080	40.10	43.28	0.57	0.6113	7.04	1.20	15.227	2.00	7.10	-45.50
9.06	7,010	40.29	43.10	0.57	0.6148	6.97	1.30	15.250	2.00	7.03	-45.78
9.07	6,940	40.43	43.10	0.58	0.6210	6.90	1.20	15.271	2.00	6.96	-45.88
9.08	6,840	40.61	43.10	0.59	0.6301	6.80	1.30	15.293	2.00	6.86	-45.97
9.09	6,750	40.98	43.10	0.61	0.6385	6.71	1.30	15.316	2.00	6.77	-46.07
9.1	6,660	41.59	43.28	0.62	0.6498	6.62	1.20	15.337	2.00	6.68	-45.99
9.11	6,580	42.05	43.28	0.64	0.6578	6.54	1.20	15.358	2.00	6.60	-46.09
9.12	6,490	41.68	43.10	0.64	0.6504	6.45	1.20	15.379	2.00	6.52	-46.19
9.13	6,400	41.68	43.10	0.66	0.6648	6.36	1.20	15.400	2.00	6.42	-47.02
9.14	6,260	41.77	42.18	0.67	0.6738	6.22	1.30	15.423	2.00	6.28	-47.48
9.15	6,010	41.91	42.00	0.70	0.6988	5.97	1.30	15.445	2.00	6.03	-47.76
9.16	5,930	41.68	41.82	0.70	0.7052	5.89	1.30	15.468	2.00	5.95	-48.04
9.17	5,870	41.45	41.82	0.71	0.7124	5.83	1.30	15.491	2.00	5.89	-48.14
9.18	5,800	41.68	41.82	0.71	0.7178	5.76	1.30	15.513	2.00	5.82	-48.42
9.19	5,720	40.66	41.64	0.71	0.7280	5.68	1.30	15.536	1.80	5.74	-48.51
9.2	5,660	40.06	41.64	0.71	0.7357	5.62	1.30	15.559	1.80	5.68	-48.61
9.21	5,620	39.59	41.45	0.70	0.7375	5.58	1.30	15.581	2.00	5.64	-48.90
9.22	5,580	39.27	41.64	0.70	0.7462	5.54	1.30	15.604	2.00	5.60	-48.81
9.23	5,540	39.43	41.45	0.70	0.7482	5.50	1.30	15.626	2.00	5.56	-49.10
9.24	5,500	38.53	41.64	0.70	0.7571	5.46	1.30	15.649	2.00	5.52	-49.00
9.25	5,500	37.56	41.45	0.68	0.7536	5.46	1.30	15.672	2.00	5.52	-49.29
9.26	5,570	37.00	41.64	0.66	0.7476	5.53	1.30	15.695	2.00	5.59	-49.20
9.27	5,660	36.45	41.64	0.64	0.7357	5.62	1.30	15.718	2.00	5.68	-49.30
9.28	5,750	35.87	41.64	0.63	0.7204	5.71	1.30	15.740	2.00	5.77	-49.40
9.29	5,830	35.80	42.00	0.61	0.7204	5.79	1.30	15.763	2.00	5.85	-49.13
9.3	5,860	35.38	42.00	0.60	0.7167	5.82	1.30	15.786	2.00	5.88	-49.23
9.31	5,850	35.24	41.82	0.60	0.7149	5.81	1.30	15.808	2.00	5.87	-49.51
9.32	5,800	35.06	41.82	0.60	0.7210	5.76	1.30	15.831	2.30	5.82	-49.61
9.33	5,750	35.73	41.64	0.62	0.7284	5.71	1.30	15.854	2.00	5.82	-49.49
9.34	5,700	34.59	41.64	0.61	0.7305	5.66	1.30	15.876	2.00	5.72	-49.99
9.35	5,630	34.73	41.64	0.62	0.7396	5.59	1.30	15.899	2.00	5.65	-50.08

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
9.36	5,550	34.78	41.45	0.62	0.7415	5.55	1.30	15.922	2.00	5.61	-50.37
9.37	5,690	34.69	41.27	0.61	0.7304	5.61	1.30	15.944	2.00	5.67	-50.65
9.38	5,750	34.50	41.09	0.60	0.7146	5.71	1.30	15.967	2.00	5.77	-50.93
9.39	5,910	34.32	41.09	0.58	0.6953	5.87	1.30	15.990	2.00	5.93	-51.03
9.4	6,070	34.36	41.27	0.58	0.6918	6.03	1.30	16.012	2.00	6.09	-50.94
9.41	6,270	34.50	41.45	0.55	0.6611	6.23	1.30	16.035	2.00	6.29	-50.86
9.42	6,470	34.64	41.64	0.54	0.6436	6.43	1.30	16.058	2.00	6.49	-50.77
9.43	6,660	35.01	41.82	0.53	0.6279	6.62	1.30	16.081	2.00	6.68	-50.69
9.44	6,850	35.24	42.18	0.51	0.6158	6.81	1.30	16.103	2.00	6.87	-50.43
9.45	7,050	35.37	42.18	0.49	0.5983	7.01	1.30	16.126	2.00	7.07	-50.52
9.46	7,260	35.80	42.37	0.49	0.5836	7.22	1.30	16.149	2.00	7.28	-50.43
9.47	7,470	35.98	42.37	0.48	0.5672	7.43	1.30	16.171	2.00	7.49	-50.53
9.48	7,660	35.84	42.55	0.47	0.5555	7.62	1.30	16.194	2.00	7.68	-50.45
9.49	7,750	36.95	42.18	0.48	0.5443	7.71	1.30	16.217	2.00	7.77	-50.92
9.5	7,810	38.07	41.09	0.49	0.5261	7.77	1.30	16.239	2.00	7.83	-52.11
9.51	7,950	37.60	42.00	0.47	0.5283	7.91	1.30	16.262	2.00	7.97	-51.29
9.52	7,790	39.22	42.73	0.50	0.5485	7.75	1.30	16.285	2.00	7.81	-50.66
9.53	7,850	42.88	41.64	0.55	0.5304	7.81	1.30	16.307	2.00	7.87	-51.85
9.54	7,850	41.03	39.99	0.52	0.5094	7.81	1.30	16.330	2.00	7.87	-53.60
9.55	7,860	39.13	36.99	0.47	0.4610	7.44	1.30	16.353	2.00	7.50	-51.71
9.56	7,800	50.01	43.64	0.56	0.5742	7.56	1.30	16.375	2.00	7.62	-50.14
9.57	7,360	49.41	39.99	0.67	0.5433	7.32	1.30	16.398	2.00	7.38	-53.89
9.58	7,190	49.50	42.73	0.69	0.5943	7.15	1.30	16.421	2.00	7.21	-51.25
9.59	7,190	49.50	42.73	0.69	0.5943	7.15	1.30	16.444	2.00	7.21	-51.35
9.6	7,190	49.50	42.73	0.69	0.5943	7.15	1.30	16.466	2.00	7.21	-51.45
9.61	6,950	38.58	40.59	0.56	0.5819	6.91	1.30	16.489	2.00	6.56	-53.73
9.62	6,450	39.50	39.26	0.61	0.6087	6.41	1.30	16.512	2.00	6.47	-55.11
9.63	6,240	39.36	38.35	0.63	0.6146	6.20	1.30	16.534	2.00	6.26	-56.12
9.64	6,000	39.13	37.62	0.65	0.6270	5.96	1.20	16.555	2.00	6.02	-56.95
9.65	5,770	38.85	37.25	0.67	0.6456	5.73	1.20	16.576	1.80	5.78	-57.4

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
11.43	3,610	23.15	43.46	0.64	1.2039	3.57	1.50	21.023	2.00	3.63	-68.67
11.44	4,040	22.41	44.01	0.55	1.0894	4.00	1.50	21.049	2.00	4.06	-68.22
11.45	4,360	22.14	44.38	0.51	1.0179	4.32	1.50	21.075	1.80	4.38	-67.94
11.46	4,750	22.04	44.56	0.46	0.9381	4.71	1.50	21.101	1.80	4.77	-67.86
11.47	5,200	22.04	44.56	0.42	0.8038	5.16	1.50	21.127	2.30	5.22	-67.67
11.48	5,650	22.14	45.65	0.39	0.8080	5.60	1.50	21.154	2.30	5.67	-66.97
11.49	6,080	22.18	45.65	0.36	0.7508	6.03	1.50	21.180	1.80	6.10	-67.07
11.5	6,420	22.51	45.84	0.35	0.7140	6.37	1.50	21.206	1.80	6.44	-66.98
11.51	6,700	22.97	45.84	0.34	0.6842	6.05	1.50	21.232	2.00	6.72	-67.07
11.52	6,930	23.04	45.84	0.34	0.6615	6.06	1.50	21.258	2.00	6.91	-67.07
11.53	7,130	24.45	45.84	0.34	0.6429	7.08	1.50	21.285	2.00	7.15	-67.27
11.54	7,290	25.47	45.84	0.35	0.6288	7.24	1.50	21.311	2.00	7.31	-67.37
11.55	7,470	27.74	45.65	0.37	0.6111	7.42	1.50	21.337	2.00	7.49	-67.66
11.56	7,470	28.94	45.29	0.39	0.6063	7.42	1.50	21.363	2.00	7.49	-68.11
11.57	7,450	30.24	45.11	0.41	0.6065	7.40	1.50	21.389	1.80	7.47	-68.39
11.58	7,390	31.63	45.11	0.43	0.6104	7.34	1.60	21.417	1.80	7.41	-68.49
11.59	7,390	31.63	45.11	0.43	0.6104	7.34	1.60	21.445	2.30	7.41	-68.59
11.6	7,390	31.63	45.11	0.43	0.6104	7.34	1.60	21.473	2.30	7.41	-68.69
11.61	6,830	27.18	44.56	0.40	0.6524	6.79	1.60	21.501	1.80	6.85	-69.33
11.62	6,660	26.31	44.56	0.41	0.6498	6.62	1.60	21.529	2.00	6.89	-70.71
11.63	6,460	31.49	42.55	0.49	0.6587	6.42	1.60	21.557	2.00	6.48	-71.54
11.64	6,220	33.34	42.37	0.54	0.6812	6.18	1.60	21.585	2.00	6.24	-71.82
11.65	6,000	34.92	42	0.58	0.7000	5.96	1.60	21.613	2.00	6.02	-72.29
11.66	5,790	36.07	41.82	0.62	0.7223	5.75	1.60	21.641	2.00	5.81	-72.56
11.67	5,580	37.28	42	0.67	0.7527	5.54	1.60	21.668	2.00	5.86	-72.48
11.68	5,210	38.44	42.37	0.74	0.8132	5.17	1.60	21.696	2.00	5.23	-72.31
11.69	5,070	38.67	42.37	0.76	0.8357	5.03	1.60	21.724	2.00	5.09	-72.31
11.7	4,950	38.58	42.55	0.78	0.8596	4.91	1.60	21.752	2.00	4.97	-72.23
11.71	4,860	38.34	42.18	0.79	0.8679	4.82	1.60	21.780	2.00	4.88	-72.70
11.72	4,790	37.93	41.82	0.79	0.8731	4.75	1.60	21.808	2.00	4.81	-73.15
11.73	4,740	37.33	42	0.79	0.8861	4.70	1.60	21.836	2.00	4.76	-73.07
11.74	4,670	36.91	42	0.79	0.8944	4.63	1.60	21.864	2.00	4.69	-73.17
11.75	4,620	36.40	42.18	0.79	0.9130	4.58	1.60	21.892	2.00	4.64	-73.09
11.76	4,580	35.84	42.37	0.78	0.9251	4.54	1.60	21.920	1.80	4.60	-73.00
11.77	4,530	35.19	42.55	0.78	0.9393	4.49	1.60	21.948	1.80	4.55	-72.91
11.78	4,470	33.39	42.73	0.75	0.9559	4.43	1.60	21.976	2.00	4.49	-72.83
11.79	4,450	32.28	42.73	0.73	0.9602	4.41	1.60	22.004	2.00	4.47	-72.93
11.8	4,430	31.49	42.73	0.71	0.9646	4.39	1.60	22.031	2.00	4.45	-73.03
11.81	4,410	30.61	42.55	0.69	0.9649	4.37	1.60	22.059	2.00	4.43	-73.11
11.82	4,380	29.96	42.73	0.68	0.9756	4.34	1.60	22.087	2.00	4.40	-73.22
11.83	4,330	29.17	42.55	0.67	0.9827	4.29	1.60	22.115	2.00	4.35	-73.50
11.84	4,290	28.43	42.55	0.66	0.9818	4.25	1.60	22.143	2.30	4.31	-73.60
11.85	4,250	27.88	42.55	0.66	1.0012	4.21	1.60	22.171	2.30	4.27	-73.70
11.86	4,200	27.69	42.91	0.66	1.0217	4.16	1.60	22.199	2.00	4.22	-73.44
11.87	4,150	27.51	43.1	0.66	1.0366	4.11	1.60	22.227	2.00	4.17	-73.34
11.88	4,080	27.46	43.06	0.67	1.0552	4.04	1.60	22.255	2.00	4.14	-73.06
11.89	4,020	27.42	43.06	0.67	1.0856	3.98	1.60	22.283	2.00	4.07	-73.04
11.9	3,940	26.81	43.64	0.68	1.1076	3.90	1.60	22.311	2.00	3.96	-73.1
11.91	3,920	26.35	43.64	0.67	1.1133	3.88	1.60	22.339	2.00	3.94	-73.20
11.92	3,900	26.03	43.67	0.67	1.1144	3.86	1.60	22.367	2.30	3.92	-73.48
11.93	3,880	25.93	43.28	0.67	1.126	3.85	1.60	22.394	2.30	3.91	-73.75
11.94	3,860	25.93	43.46	0.67	1.1201	3.84	1.60	22.422	2.00	3.90	-73.82
11.95	3,870	25.98	43.64	0.67	1.1276	3.83	1.60	22.450	2.00	3.89	-73.59
11.96	3,880	25.79	43.83	0.66	1.1296	3.84	1.60	22.478	2.00	3.90	-73.50
11.97	3,870	25.47	44.19	0.66	1.1419	3.83	1.60	22.506	2.00	3.89	-73.24
11.98	3,840	25.28	44.19	0.66	1.1508	3.80	1.60	22.534	2.00	3.86	-73.33
11.99	3,780	25.24	44.36	0.64	1.1741	3.74	1.60	22.562	2.00	3.78	-73.08
12	3,720	25.10	44.36	0.67	1.1930	3.68	1.60	22.590	2.00	3.74	-73.34
12.01	3,650	24.96	44.56	0.68	1.2208	3.61	1.60	22.618	2.00	3.67	-73.24
12.02	3,590	24.64	44.39	0.69	1.2362	3.55	1.60	22.646	2.30	3.61	-73.54
12.03	3,530	24.40	44.19	0.69	1.2518	3.49	1.60	22.674	2.30	3.55	-73.82
12.04	3,470	24.01	44.01	0.69	1.2683	3.43	1.60	22.702	2.00	3.49	-74.01
12.05	3,470	24.03	44.01	0.69	1.2683	3.43	1.60	22.730	2.00	3.49	-74.20
12.06	3,440	23.71	44.01	0.69	1.2794	3.40	1.60	22.757	2.00	3.46	-74.30
12.07	3,430	23.66	44.38	0.69	1.2939	3.39	1.60	22.785	2.00	3.45	-74.03
12.08	3,390	23.71	44.92	0.70	1.3251	3.35	1.60	22.813	2.00	3.41	-73.58
12.09	3,330	23.90	45.67	0.71	1.3685	3.28	1.60	22.841	2.00	3.37	-73.06
12.1	3,270	24.03	45.84	0.73	1.4018	3.22	1.60	22.869	2.00	3.29	-72.86
12.11	3,200	23.90	45.65	0.75	1.4266	3.15	1.60	22.897	2.30	3.22	-73.15

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
12.12	3,120	23.34	45.29	0.75	1.4516	3.07	1.60	22.925	2.30	3.14	-73.61
12.13	3,030	22.60	44.74	0.75	1.4766	2.99	1.60	22.953	2.00	3.05	-74.26
12.14	2,940	22.14	44.19	0.75	1.5031	2.90	1.60	22.981	2.00	2.96	-74.90
12.15	2,850	21.77	44.01	0.76	1.5442	2.81	1.60	23.009	2.00	2.87	-75.18
12.16	2,770	21.44	43.83	0.79	1.5823	2.73	1.60	23.037	2.00	2.79	-75.46
12.17	2,670	21.02	43.83	0.79	1.6416	2.63	1.60	23.065	2.00	2.69	-75.56
12.18	2,590	20.42	43.83	0.79	1.6923	2.55	1.60	23.092	2.00	2.61	-75.66
12.19	2,530	20.01	43.83	0.79	1.7324	2.49	1.60	23.120	2.30	2.55	-75.75
12.2	2,500	19.64	44.01	0.79	1.7604	2.46	1.60	23.148	2.30	2.52	-75.67
12.21	2,410	18.52	44.19	0.77	1.8336	2.37	1.60	23.176	2.00	2.43	-75.90
12.22	2,410	18.52	44.19	0.77	1.8336	2.37	1.60	23.204	2.00	2.43	-75.69
12.23	2,170	17.88	44.92	0.82	2.0700	2.13	1.60	23.232	2.00	2.19	-75.06
12.24	2,040	17.74	44.92	0.87	2.2020	2.00	1.70	23.262	2.00	2.06	-75.15
12.25	1,930	17.55	44.92	0.91	2.3275	1.89	1.70	23.291	2.30	1.95	-75.25
12.26	1,820	17.52	44.74	0.95	2.4582	1.76	1.70	23.321	2.30	1.84	-75.53
12.27	1,730	17.23	44.38	1.00	2.5653	1.69	1.70	23.351	2.00	1.75	-75.99
12.28	1,640	16.81	44.19	1.03	2.6945	1.60	1.60	23.379	2.00	1.66	-76.28
12.29	1,570	16.21	44.01	1.03	2.8032	1.53	1.60	23.407	2.00	1.59	-76.55
12.3	1,510	15.86	44.01	1.03	2.9146	1.47	1.60	23.435	2.00	1.53	-76.65
12.31	1,460	15.33	44.01	1.03	3.0444	1.42	1.60	23.462	2.00	1.49	-76.75
12.32	1,390	14.68	44.01	1.06	3.1891	1.34	1.60	23.490	2.30	1.40	-76.85
12.33	1,290	14.26	43.83	1.11	3.3977	1.25	1.60	23.518	2.30	1.31	-77.13
12.34	1,190	13.75	43.46	1.17	3.6831	1.14	1.70	23.548	2.30	1.20	-77.67
12.35	1,080	13.29	43.46	1.22	3.9872	1.05	1.70	23.578	2.30	1.11	-77.69
12.36	0,990	12.96	43.84	1.31	4.0481	0.95	1.70	23.602	2.00	1.01	-77.61
12.37	0,920	12.60	43.83	1.37	4.7641	0.88	1.70	23.637	2.00	0.94	-77.52
12.38	0,860	12.27	44.19	1.43	5.1384	0.82	1.60	23.665	2.30	0.88	-77.26
12.39	0,810	12.13	44.56	1.50	5.5012	0.77	1.60	23.693	2.30	0.83	-76.99
12.4	0,780	11.86	44.92	1.52	5.7594	0.74	1.70	23.722	2.30	0.80	-76.72
12.41	0,760	11.73	45.11	1.53	5.9111	0.72	1.70	23.751	2.30	0.77	-76.63
12.42	0,750	11.62	45.29	1.55	6.0387	0.70	1.70	23.782	2.00	0.77	-76.65
12.43	0,740	11.48	45.29	1.55	6.1203	0.69	1.70	23.811	2.00	0.76	-76.55
12.44	0,730	11.30	45.29	1.55	6.2041	0.68	1.70	23.841	2.00	0.75	-76.45
12.45	0,700	11.11	44.92	1.59	6.4171	0.68	1.70	23.871	2.30	0.72	-77.17
12.46	0,670	10.70	44.56	1.62	6.6301	0.65	1.70	23.903	2.30	0.69	-77.25
12.47	0,640	10.23	44.19	1.66	6.9047	0.60	1.70	23.930	2.30	0.66	-77.34
12.48	0,590	9.82	44.19	1.66	7.4898	0.55	1.70	23.960	2.30	0.61	-78.24
12.49	0,560	9.45	44.19	1.69	7.8911	0.52	1.70	23.989	2.30	0.58	-78.35
12.5	0,550	9.03	44.38	1.64	8.0691	0.51	1.70	24.019	2.30	0.57	-78.25
12.51	0,570	8.85	44.38	1.55	7.7890	0.63	1.70	24.045	2.30	0.58	-78.37
12.52	0,640	8.96	44.19	1.55	8.9906	0.60	1.70	24.078	2.00	0.60	-78.08
12.53	0,790	8.75	45.84	1.11	8.5025	0.74	1.70	24.108	2.00	0.81	-77.08
12.54	1,050	9.17	47.3	0.87	4.5048	1.00	1.70	24.138	2.00	1.07	-74.73
12.55	1,360	9.27	48.39	0.75	3.5581	1.31	1.70	24.167	2.00	1.38	-75.72
12.56	1,710	12.87	48.21	0.75	2.6193	1.66	1.60	24.195	2.30	1.73	-75.09
12.57	2,070	17.08	48.39	0.75	2.6193	1.66	1.60	24.222	2.30	2.07	-75.09
12.58	2,500	23.57	45.85	0.54	1.8260	2.45	1.60	24.251	2.00	2.52	-77.76
12.59	2,500	23.57	45.85	0.54	1.8260	2.45	1.60	24.279	2.30	2.52	-77.86
12.6	2,500	23.57	45.85	0.54	1.8260	2.45	1.60	24.307	2.50	2.52	-77.96
12.61	3,050	11.72	67.35	0.38	2.2213	2.98	1.60	24.335	2.00	3.08	-55.95
12.62	3,310	11.81	68.65	0.35	2.2686	3.26	1.60	24.363	2.00	3.34	-57.42
12.63	3,580	12.13	65.92	0.34	1.6413	3.51	1.60	24.391	2.00	3.61	-57.98
12.64	3,790	12.60	65.56	0.33	1.7298	3.72	1.60	24.419	2.00	3.82	-58.44
12.65	3,910	12.74	65.38	0.33	1.6721	3.84	1.60	24.447	2.30	3.94	-58.72
12.66	3,970	12.87	64.85	0.32	1.6285	3.91	1.60	24.475	2.30	4.00	-59.54
12.67	3,980	13.43	64.46	0.32	1.5966	4.02	1.60	24.503	2.30	4.01	-59.47
12.68	4,060	13.99	64.28	0.34	1.5833	4.00	1.60	24.530	2.00	4.09	-61.11
12.69	4,140	13.94	64.28	0.33	1.5378	4.12	1.60	24.558	2.00	4.21	-60.31
12.7	4,380	13.89	64.28	0.32	1.4811	4.28	1.60	24.586	2.30	4.27	-60.20
12.71	4,660	13.89	64.46	0.30	1.3833	4.60	1.60	24.614	2.30	4.69	-60.02
12.72	4,990	13.89	64.05	0.29	1.2966	4.90	1.60	24.642	2.30	4.90	-60.42
12.73	5,410	14.17	64.01	0.26	1.2077	5.34	1.60	24.670	2.00	5.44	-59.87
12.74	5,920	14.49	65.56	0.24	1.1074	5.85	1.60	24.698	2.30	5.95	-59.42
12.75	7,110	13.71	68.84	0.19	0.9401	7.04	1.60	24.726	2.30	7.19	-58.28
12.76	7,770	14.59	67.2	0.19	0.8649	7.70	1.60	24.754	2.00	7.80	-57.92
12.77	8,370	15.01	67.67	0.17	0.8360	8.30	1.60	24.782	2.00	8.40	-57.46
12.78	8,950	15.61	67.75	0.17	0.7570	8.88	1.60	24.810	2.00	8.98	-57.68
12.79	9,470	16.44	68.3	0.17	0.7212	9.40	1.60	24.838	2.00	9.50	-57.17
12.8	9,970	16.16	68.12	0.16	0.6832	9.90	1.60	24.865	2.00	10.00	-57.45

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.19	16,100	59.55	89.12	0.37	0.5535	16.01	1.60	29,123	1.80	16.14	-50.08
14.22	15,510	57.10	97.33	0.37	0.6275	15.41	1.60	29,151	1.80	15.55	-41.97
14.21	15,560	53.90	99.53	0.35	0.6397	15.46	1.60	29,179	1.80	15.60	-39.87
14.22	15,760	52.38	102.08	0.33	0.6777	15.68	1.60	29,207	1.80	15.80	-37.42
14.23	15,880	59.28	105.92	0.29	0.6670	15.72	1.60	29,235	1.80	15.92	-38.00
14.24	15,810	43.76	100.99	0.28	0.6388	15.71	1.60	29,263	1.80	15.85	-38.70
14.25	16,060	47.51	89.3	0.32	0.5930	14.97	1.60	29,291	2.00	15.10	-50.49
14.26	14,770	50.20	78.71	0.34	0.5329	14.69	1.60	29,319	2.00	14.80	-61.18
14.27	13,260	113.13	50.58	0.85	0.3814	13.21	1.60	29,347	1.80	13.28	-89.41
14.28	13,170	112.07	52.41	0.81	0.3979	13.12	1.60	29,375	1.80	13.19	-89.51
14.29	13,030	104.98	59.35	0.81	0.4555	12.97	1.60	29,403	2.00	13.05	-80.83
14.3	13,080	90.90	59.17	0.69	0.4524	13.02	1.60	29,431	2.00	13.10	-81.11
14.31	12,700	91.14	58.98	0.72	0.4644	12.64	1.60	29,458	2.00	12.72	-81.40
14.32	12,480	94.15	64.46	0.75	0.5165	12.42	1.50	29,485	2.00	12.51	-76.02
14.33	12,390	96.50	96.96	0.1	0.5557	12.32	1.50	29,511	2.00	12.42	-71.73
14.34	12,130	99.52	73.23	0.82	0.6037	12.06	1.60	29,539	2.00	12.16	-67.45
14.35	12,380	90.81	80.35	0.73	0.6490	12.30	1.60	29,567	2.00	12.41	-60.42
14.36	12,440	88.87	85.65	0.72	0.6907	12.31	1.60	29,595	2.00	12.44	-55.22
14.37	12,440	84.19	86.38	0.68	0.6944	12.35	1.60	29,623	1.80	12.48	-54.59
14.38	12,780	82.29	89.75	0.1	0.6994	12.69	1.60	29,650	1.80	12.92	-52.32
14.39	13,020	79.65	89.85	0.61	0.6901	12.93	1.60	29,678	2.00	13.06	-51.32
14.4	13,010	51.22	90.94	0.39	0.6990	12.92	1.60	29,706	2.00	13.05	-50.32
14.41	12,960	53.81	96.42	0.42	0.7440	12.86	1.60	29,734	2.00	13.00	-44.94
14.42	13,050	45.94	93.13	0.35	0.7136	12.96	1.60	29,762	2.00	13.09	-48.33
14.43	13,210	44.36	91.67	0.34	0.6938	13.12	1.60	29,790	2.00	13.12	-48.30
14.44	13,320	52.98	94.96	0.40	0.7129	13.26	1.60	29,818	2.00	13.36	-48.70
14.45	13,620	43.72	94.96	0.32	0.6972	13.53	1.60	29,846	1.80	13.66	-48.79
14.46	13,740	40.66	89.66	0.30	0.6525	13.65	1.60	29,874	1.80	13.78	-52.19
14.47	13,800	42.56	93.68	0.31	0.6788	13.71	1.60	29,902	2.00	13.84	-48.27
14.48	13,930	43.48	93.13	0.31	0.6686	13.84	1.60	29,930	2.00	13.97	-48.92
14.49	14,030	42.88	91.86	0.31	0.6547	13.94	1.60	29,958	2.00	14.07	-50.29
14.5	13,970	43.72	91.67	0.31	0.6562	13.88	1.60	29,986	2.00	14.01	-50.58
14.51	13,650	46.86	88.93	0.34	0.6515	13.56	1.60	30,013	2.00	13.69	-53.41
14.52	13,400	48.39	91.12	0.36	0.6800	13.31	1.60	30,041	2.00	13.44	-51.32
14.53	13,110	49.92	89.85	0.38	0.6854	13.02	1.60	30,069	2.00	13.15	-52.69
14.54	12,920	49.23	92.77	0.38	0.7180	12.83	1.60	30,097	2.00	12.96	-49.87
14.55	12,760	50.57	93.13	0.40	0.7299	12.67	1.60	30,125	2.00	12.80	-49.61
14.56	12,580	52.79	94.05	0.42	0.7476	12.49	1.60	30,153	2.00	12.82	-48.78
14.57	12,500	53.12	93.32	0.42	0.7466	12.41	1.60	30,181	2.00	12.54	-49.61
14.58	12,500	53.12	93.32	0.42	0.7466	12.41	1.60	30,209	2.50	12.54	-49.71
14.59	12,500	53.12	93.32	0.42	0.7466	12.41	1.60	30,237	2.50	12.54	-49.81
14.6	11,160	45.80	81.99	0.41	0.7347	11.08	1.60	30,265	2.00	11.19	-61.24
14.61	10,880	48.72	77.43	0.45	0.7117	10.80	1.50	30,291	2.00	10.91	-65.89
14.62	10,450	50.06	77.43	0.48	0.7410	10.37	1.50	30,317	2.00	10.48	-65.99
14.63	10,070	52.79	75.79	0.52	0.7526	9.99	1.50	30,343	2.00	10.10	-67.73
14.64	9,650	55.20	75.79	0.57	0.7654	9.57	1.50	30,369	2.00	9.68	-69.51
14.65	9,420	54.97	76.15	0.58	0.8094	9.45	1.50	30,396	2.00	9.45	-69.17
14.66	8,880	54.46	70.67	0.61	0.7958	8.81	1.50	30,422	2.00	8.91	-73.14
14.67	8,340	53.76	74.32	0.64	0.8911	8.27	1.50	30,448	2.30	8.37	-69.59
14.68	8,090	57.75	73.05	0.71	0.9030	8.02	1.50	30,474	2.30	8.12	-70.96
14.69	7,910	61.64	75.16	0.76	0.9585	7.83	1.50	30,500	2.30	7.94	-69.51
14.7	7,800	59.46	75.42	0.78	0.9669	7.69	1.50	30,526	2.30	7.83	-69.29
14.71	7,750	58.77	74.87	0.76	0.9661	7.68	1.50	30,553	2.00	7.78	-69.44
14.72	7,680	57.42	75.42	0.75	0.9820	7.60	1.50	30,579	2.00	7.71	-69.98
14.73	7,660	55.99	75.79	0.73	0.9894	7.58	1.50	30,605	2.00	7.69	-68.71
14.74	7,640	51.45	76.33	0.67	0.9991	7.56	1.50	30,631	2.00	7.67	-68.27
14.75	7,610	49.35	76.33	0.63	0.9901	7.53	1.50	30,658	2.00	7.64	-68.38
14.76	7,600	49.41	76.33	0.65	1.0043	7.52	1.50	30,684	2.30	7.63	-68.47
14.77	7,560	48.49	76.7	0.64	1.0146	7.48	1.50	30,710	2.30	7.59	-68.19
14.78	7,550	48.30	77.25	0.64	1.0232	7.47	1.50	30,736	2.00	7.58	-67.74
14.79	7,530	47.33	77.79	0.63	1.0331	7.45	1.50	30,762	2.00	7.56	-67.30
14.8	7,540	46.22	78.54	0.61	1.0390	7.46	1.50	30,788	2.00	7.49	-67.99
14.81	7,560	42.60	78.89	0.56	1.0435	7.48	1.50	30,814	2.00	7.59	-68.40
14.82	7,600	43.07	79.07	0.57	1.0404	7.52	1.50	30,841	2.30	7.63	-68.31
14.83	7,670	42.65	79.8	0.56	1.0404	7.59	1.50	30,867	2.30	7.70	-68.68
14.84	7,790	42.79	79.99	0.55	1.0268	7.71	1.50	30,893	2.30	7.82	-65.59
14.85	7,960	43.93	88.57	0.49	0.9724	7.88	1.50	30,919	2.30	7.94	-64.56
14.86	8,150	43.48	80.9	0.53	0.9926	8.07	1.50	30,945	2.00	8.18	-64.88
14.87	8,340	43.35	81.08	0.52	0.9722	8.26	1.50	30,972	2.00	8.37	-64.79

17-101_G_CPTU_Soarza

17-101_CPTU_S6_DX

Pag. 21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.88	8,570	43.53	81.45	0.51	0.9504	8.49	1.50	30,998	2.00	8.60	-64.52
14.89	8,810	43.53	81.81	0.49	0.9286	8.73	1.50	31,024	2.00	8.84	-64.26
14.9	9,120	43.67	82.18	0.48	0.9011	9.04	1.50	31,050	2.30	9.15	-63.99
14.91	9,440	43.62	82.72	0.46	0.8763	9.36	1.50	31,076	2.30	9.47	-63.55
14.92	9,800	43.58	83.27	0.44	0.8497	9.72	1.50	31,102	2.00	9.83	-63.10
14.93	10,150	43.21	83.64	0.43	0.8240	10.07	1.50	31,129	2.00	10.19	-62.82
14.94	10,480	43.58	83.27	0.42	0.7946	10.40	1.50	31,155	2.00	10.51	-62.29
14.95	10,950	44.04	83.27	0.40	0.7605	10.87	1.50	31,181	2.00	10.98	-63.39
14.96	11,130	44.64	83.46	0.40	0.7499	11.05	1.50	31,207	2.00	11.17	-63.30
14.97	11,500	44.57	83.46	0.40	0.7402	11.61	1.50	31,233	2.00	11.50	-63.40
14.98	11,030	45.34	82.54	0.41	0.7483	10.95	1.50	31,259	2.00	11.06	-64.41
14.99	10,840	46.26	82.54	0.43	0.7614	10.76	1.50	31,286	2.00	10.87	-64.51
15	10,410	48.35	79.8	0.46	0.7666	10.33	1.50	31,312	2.00	10.44	-67.35
15.01	10,010	51.99	82.18	0.52	0.8210	9.93	1.50	31,338	2.00	10.04	-65.07
15.02	9,790	51.77	82.36	0.53	0.8413	9.71	1.50	31,364	2.00	9.82	-64.95
15.03	9,650	52.84	81.99	0.55	0.8496	9.57	1.50	31,390	2.00	9.68	-65.45
15.04	9,570	54.04	83.09	0.56	0.8692	9.49	1.50	31,417	2.30	9.60	-64.45
15.05	9,650	55.06	83.27	0.57	0.8629	9.57	1.50	31,443	2.30	9.68	-64.37
15.06	9,820	55.57	83.82	0.57	0.8536	9.74	1.50	31,469	2.00	9.88	-63.92
15.07	10,080	56.15	84.19	0.56	0.8352	10.00	1.50	31,495	2.00	10.12	-63.65
15.08	10,390	56.59	84.55	0.54	0.8138	10.31	1.50	31,521	2.00	10.43	-63.38
15.09	10,730	56.68	84.92	0.53	0.7914	10.65	1.50	31,547	2.30	10.77	-63.11
15.1	11,040	56.73	84.92	0.51	0.7692	10.96	1.50	31,574	2.30	11.08	-63.21
15.11	11,220	58.80	84.73	0.50	0.7552	11.14	1.50	31,600	2.00	11.26	-63.50
15.12	11,320	55.48	84.37	0.49	0.7653	11.24	1.50	31,626	2.00	11.36	-63.96
15.13	11,280	55.25	84.73	0.49	0.7525	11.18	1.50	31,652	2.00	11.30	-63.70
15.14	11,180	53.63	84.92	0.48	0.7596	11.10	1.50	31,678	2.00	11.22	-63.60
15.15	11,130	53.81	85.1	0.48	0.7646	11.04	1.50	31,704	2.30	11.17	-63.73
15.16	11,030	54.46	85.1	0.49	0.7715	10.94	1.50	31,731	2.30	11.07	-63.83
15.17	11,040	54.83	84.92	0.50	0.7692	10.96	1.50	31,757	2.00	11.08	-63.83
15.18	11,100	55.20	84.55	0.50	0.7715	11.02	1.50	31,783	2.00	11.18	-63.93
15.19	11,200	55.06	84.19	0.49	0.7517	11.12	1.50	31,809	2.00	11.24	-64.04
15.2	11,240	55.02	84.55	0.49	0.7522	11.16	1.50	31,835	2.00	11.28	-64.14
15.21	11,200	54.83	84.73	0.49	0.7565	11.12	1.50	31,862	1.80	11.24	-64.24
15.22	11,020	55.20	84.92	0.50	0.7706	10.94	1.50	31,888	1.80	11.06	-64.34
15.23	11,150	55.87	84.73	0.53	0.7813	10.81	1.50	31,914	2.00	11.16	-64.44
15.24	10,240	58.63	84.92	0.57	0.8293	10.16	1.50	31,940	2.00	10.28	-64.44
15.25	10,090	60.02	85.65	0.59	0.8489	10.00	1.50	31,966	2.00	10.13	-63.93
15.26	10,020	62.10	86.92	0.62	0.8675	9.93	1.50	31,992	2.00	10.06	-63.26
15.27	9,910	63.88	84.92	0.64	0.8569	9.83	1.50	32,019	2.00	9.98	-62.59
15.28	9,740	76.50	82.54	0.76	0.8774	9.68	1.50	32,045	2.00	9.80	-61.82
15.29	9,770	74.09	82.54	0.76	0.8448	9.69	1.50	32,071	2.00	9.80	-61.77
15.3	9,750	72.94	82.72	0.75	0.8484	9.67	1.50	32,097	2.00	9.78	-61.77
15.31	9,720	71.96	83.09	0.74	0.8548	9.64	1.50	32,123	2.30	9.75	-61.77
15.32	9,680	71.22	83.46	0.74	0.8622	9.60	1.50	32,149	2.30	9.72	-61.66
15.33	9,640	70.90	84.37	0.74	0.8652	9.56	1.50	32,176	2.30	9.68	-61.66
15.34	9,570	69.73	85.1	0.73	0.8892	9.48	1.50	32,202	2.00	9.61	-61.56
15.35	9,590	67.98	85.46	0.71	0.8911	9.50	1.50	32,228	2.00	9.63	-61.55
15.36	9,610	66.64	86.38	0.69	0.8889	9.52	1.50	32,254	2.00	9.65	-61.54
15.37	9,670	65.06	86.92	0.67	0.8951	9.58	1.50	32,280	2.00	9.71	-61.64
15.38	9,760	63.35	86.92	0.65	0.8606	9.87	1.50	32,307	2.00	9.80	-61.80
15.39	9,880	61.78	87.29	0.63	0.8593	9.79	1.50	32,333	2.00	9.92	-61.83
15.4	9,980	58.91	87.66	0.59	0.8784	9.89	1.50	32,359	2.00	10.02	-61.83
15.41	9,840	51.96	88.39	0.53	0.8983	9.75	1.50	32,385	2.00	9.88	-62.21
15.42	9,650	51.73	87.29	0.54	0.9046	9.56	1.50	32,411	1.80	9.69	-63.31
15.43	9,330	51.77	86.56	0.55	0.9278	9.24	1.50	32,437	1.80	9.37	-64.41
15.44	8,670	52.47	86.38	0.60	0.8963	8.58	1.50	32,464	1.80	8.65	-65.41
15.45	8,400	52.56	86.56	0.63	0.1305	8.31	1.50	32,490	1.80	8.44	-65.45
15.46	8,180	52.56	86.56	0.64	0.1582	8.09	1.50	32,516	2.00	8.22	-65.55
15.47	8,010	52.01	86.56	0.65	0.1806	7.92	1.50	32,544	2.00	8.05	-65.65
15.48	7,890	51.96	86.92	0.66	0.1105	7.90	1.50	32,572	1.80	7.93	-64.4
15.49	7,790	52.42	87.29	0.65	0.1015	7.70	1.50	32,598	1.80	7.84	-64.4
15.5	7,720	52.14	87.47	0.68	0.1330	7.63	1.50	32,624	2.00	7.76	-64.4
15.51	7,650	51.50	87.66	0.67	0.1459	7.56	1.50	32,650	2.00	7.69	-64.4
15.52	7,630	51.31	87.66	0.67	0.1489	7.54	1.50	32,678	1.80	7.68	-64.4
15.53	7,640	50.80	87.84	0.66	0.1497	7.55	1.50	32,706	1.80	7.67	-64.4
15.54	7,710	49.83	88.02	0.65	0.1762	7.62	1.50	32,734	1.80	7.65	-64.4
15.55	7,760	48.86	88.2	0.63	0.1366	7.67	1.50	32,762	2.00	7.80	-64.4
15.56	8,040	47.51	88.93	0.59	0.1061	7.95	1.50	32,790	2.00	8.08	-63.3

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
16.95	13.710	70.48	105.73	0.51	0.7712	13.60	2.00	36.994	2.00	13.75	-60.55
16.96	14.220	68.63	106.46	0.48	0.7487	14.11	2.00	37.029	2.00	14.26	-59.92
16.97	14.570	67.47	105.92	0.46	0.7270	14.46	2.00	37.064	1.80	14.61	-60.56
16.98	14.830	67.19	106.28	0.45	0.7167	14.72	2.00	37.098	1.80	14.87	-60.29
16.99	15.070	67.10	106.46	0.47	0.7064	14.96	2.00	37.133	1.40	15.13	-60.21
17	15.250	66.27	106.65	0.43	0.6993	15.14	2.00	37.168	2.00	15.29	-60.10
17.01	15.370	66.13	106.28	0.43	0.6915	15.26	2.00	37.203	2.00	15.41	-60.59
17.02	15.460	65.71	106.28	0.43	0.6875	15.35	2.00	37.238	2.00	15.50	-60.69
17.03	15.450	65.62	106.28	0.42	0.6879	15.34	2.00	37.273	2.00	15.49	-60.78
17.04	15.300	65.82	105.92	0.44	0.6953	15.19	2.00	37.308	1.90	15.34	-60.92
17.05	14.670	66.59	105.37	0.45	0.7183	14.56	2.00	37.343	2.00	14.71	-61.89
17.06	14.110	67.70	105	0.48	0.7442	14.01	2.00	37.378	2.00	14.15	-62.89
17.07	13.580	67.80	104.64	0.50	0.7705	13.48	2.00	37.413	2.00	13.62	-62.82
17.08	13.140	67.89	105.37	0.52	0.8019	13.03	2.00	37.447	2.00	13.18	-62.18
17.09	12.690	69.88	105.92	0.55	0.8349	12.58	2.00	37.482	2.00	12.73	-61.78
17.1	12.410	69.97	106.83	0.56	0.8608	12.30	2.00	37.517	2.00	12.45	-60.92
17.11	12.250	71.55	106.65	0.58	0.8706	12.14	2.00	37.552	2.00	12.29	-61.20
17.12	12.070	71.59	106.46	0.59	0.8820	11.96	2.00	37.587	2.00	12.11	-61.49
17.13	11.840	71.22	105.55	0.60	0.8915	11.73	2.00	37.622	2.30	11.88	-62.32
17.14	11.530	71.46	105.92	0.61	0.9031	11.46	2.00	37.657	2.30	11.57	-62.68
17.15	11.080	71.41	104.09	0.64	0.9394	10.98	2.00	37.692	2.00	11.12	-64.15
17.16	10.750	70.95	103.73	0.67	0.9814	10.47	2.00	37.727	2.00	10.61	-64.61
17.17	10.120	71.08	104.27	0.70	1.0303	10.02	2.00	37.762	2.00	10.16	-64.17
17.18	9.790	70.39	104.46	0.72	1.0670	9.69	2.00	37.796	2.00	9.83	-64.08
17.19	9.520	68.95	105.19	0.72	1.1049	9.41	2.00	37.831	1.90	9.56	-64.09
17.2	9.260	68.64	105.92	0.71	1.1390	9.28	2.00	37.866	2.30	9.43	-62.81
17.21	9.310	66.18	106.65	0.71	1.1455	9.20	2.00	37.901	2.30	9.35	-62.18
17.22	9.320	64.51	107.2	0.69	1.1502	9.21	2.00	37.936	2.30	9.37	-61.73
17.23	9.370	63.07	107.93	0.67	1.1519	9.26	2.00	37.971	2.30	9.42	-61.10
17.24	9.470	61.54	108.66	0.65	1.1474	9.36	2.00	38.006	2.30	9.52	-60.46
17.25	9.640	60.29	109.2	0.63	1.1328	9.53	2.00	38.041	2.30	9.69	-60.02
17.26	9.800	58.44	109.39	0.60	1.1162	9.69	2.00	38.076	2.30	9.85	-59.93
17.27	9.940	57.89	110.3	0.58	1.1097	9.83	2.00	38.111	2.30	9.99	-59.12
17.28	10.050	56.73	111.21	0.57	1.1121	9.89	2.00	38.145	2.30	10.05	-58.31
17.29	10.050	56.59	111.58	0.56	1.1102	9.94	2.00	38.180	2.30	10.10	-58.03
17.3	10.120	55.02	111.03	0.54	1.0971	10.01	2.00	38.215	2.30	10.17	-58.68
17.31	10.260	53.30	111.03	0.52	1.0822	10.15	2.00	38.250	2.50	10.31	-58.78
17.32	10.450	52.42	111.21	0.50	1.0642	10.34	2.00	38.285	2.50	10.50	-58.70
17.33	10.670	51.82	111.03	0.49	1.0406	10.56	2.00	38.320	2.30	10.72	-58.98
17.34	10.940	52.24	111.58	0.48	1.0199	10.83	2.10	38.357	2.30	10.99	-58.53
17.35	11.310	52.10	111.76	0.46	0.9882	11.20	2.10	38.393	2.30	11.36	-58.44
17.36	11.710	51.91	112.49	0.44	0.9606	11.60	2.10	38.430	2.30	11.76	-57.81
17.37	12.080	51.59	112.31	0.43	0.9297	11.97	2.10	38.467	2.30	12.13	-58.09
17.38	12.330	51.59	112.49	0.42	0.9123	12.22	2.10	38.503	2.30	12.38	-58.01
17.39	12.430	51.68	111.94	0.42	0.9006	12.32	2.10	38.540	2.30	12.48	-58.66
17.4	12.370	52.28	111.76	0.42	0.9035	12.26	2.10	38.576	2.00	12.42	-59.93
17.41	12.220	53.21	111.4	0.41	0.9116	12.11	2.10	38.613	2.00	12.27	-60.14
17.42	12.070	53.95	111.4	0.45	0.9229	11.96	2.10	38.650	2.00	12.12	-59.49
17.43	11.920	54.64	112.13	0.46	0.9407	11.81	2.10	38.686	2.00	11.97	-58.86
17.44	11.890	55.25	112.31	0.46	0.9446	11.78	2.10	38.723	2.00	11.94	-58.78
17.45	11.880	55.82	112.13	0.47	0.9411	11.77	2.10	38.760	2.00	11.93	-59.05
17.46	11.860	56.76	111.4	0.46	0.9441	11.76	2.10	38.796	1.80	11.93	-59.65
17.47	11.330	57.15	109.75	0.50	0.9687	11.22	2.10	38.833	1.80	11.38	-61.63
17.48	11.030	56.59	109.2	0.51	0.9900	10.92	2.10	38.870	2.00	11.08	-62.28
17.49	10.780	57.24	109.75	0.53	1.0181	10.67	2.10	38.906	2.00	10.83	-61.83
17.5	10.720	58.26	111.21	0.54	1.0374	10.61	2.10	38.943	2.00	10.77	-60.47
17.51	10.640	60.48	110.12	0.53	1.0650	10.53	2.10	38.980	2.00	10.62	-60.22
17.52	10.370	61.22	97.52	0.59	1.0404	10.27	2.10	39.016	2.00	10.41	-74.35
17.53	9.960	74.97	107.2	0.75	1.0763	9.85	2.10	39.053	1.80	10.01	-64.77
17.54	9.980	70.44	105.73	0.71	1.0594	9.97	2.10	39.089	1.80	10.02	-66.34
17.55	10.040	70.16	106.1	0.70	1.0568	9.93	2.20	39.128	2.00	10.08	-66.07
17.56	10.140	69.42	106.28	0.68	1.0442	10.03	2.20	39.166	2.00	10.16	-66.08
17.57	10.140	69.42	106.28	0.68	1.0481	10.03	2.20	39.205	1.80	10.18	-66.08
17.58	10.140	69.42	106.28	0.68	1.0481	10.03	2.20	39.243	1.80	10.18	-66.18
17.59	10.200	56.36	91.31	0.55	0.8952	10.11	2.20	39.281	1.80	10.24	-81.25
17.6	10.260	55.02	92.95	0.54	0.9059	10.17	2.20	39.320	1.80	10.30	-79.71
17.61	10.390	56.06	92.95	0.54	0.9188	10.28	2.20	39.358	2.00	10.43	-80.52
17.62	11.310	56.54	96.79	0.50	0.8558	11.21	2.20	39.397	2.00	11.35	-76.06
17.63	11.610	57.24	92.04	0.49	0.7928	11.52	2.20	39.435	2.00	11.65	-80.91

17-101_G_CPTU_Soarza

17-101_CPTU_S6_DX

Pag. 25

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.64	12.240	58.03	102.08	0.47	0.8340	12.14	2.20	39.473	1.80	12.28	-70.97
17.65	12.540	58.95	102.99	0.47	0.8213	12.44	2.20	39.512	1.80	12.58	-70.16
17.66	12.820	59.18	104.27	0.46	0.8133	12.72	2.20	39.550	1.80	12.86	-68.87
17.67	13.050	53.81	104.46	0.41	0.8005	12.95	2.20	39.589	1.80	13.09	-68.98
17.68	13.440	52.38	103.73	0.39	0.7840	13.33	2.20	39.627	1.80	13.47	-67.71
17.69	13.650	52.89	105.37	0.39	0.7719	13.54	2.20	39.665	1.80	13.69	-68.17
17.7	13.920	54.60	107.2	0.39	0.7701	13.81	2.20	39.704	2.00	13.97	-66.44
17.71	14.180	53.02	107.74	0.37	0.7598	14.07	2.20	39.742	1.50	14.23	-66.01
17.72	14.600	55.66	109.02	0.38	0.7467	14.49	2.20	39.780	1.50	14.65	-64.81
17.73	14.670	56.96	110.3	0.39	0.7519	14.56	2.20	39.819	1.50	14.72	-63.19
17.74	14.800	58.58	108.66	0.40	0.7342	14.69	2.20	39.857	1.80	14.85	-65.37
17.75	15.850	61.04	113.22	0.39	0.7143	15.74	2.20	39.896	1.80	15.90	-60.91
17.76	15.630	66.08	107.56	0.42	0.6882	15.52	2.20	39.934	1.80	15.68	-66.67
17.77	15.190	65.95	96.42	0.45	0.6348	15.09	2.20	39.972	1.80	15.23	-77.90
17.78	15.220	73.65	116.69	0.52	0.7897	15.28	2.20	40.011	1.80	15.27	-57.73
17.79	15.100	84.70	106.28	0.56	0.7038	14.99	2.20	40.049	1.80	15.14	-88.24
17.8	14.820	93.45	110.85	0.63	0.7480	14.71	2.20	40.088	1.50	14.87	-63.77
17.81	14.620	90.21	108.11	0.62	0.7395	14.51	2.20	40.128	1.50	14.67	-66.61
17.82	14.540	92.06	105.19	0.63	0.7235	14.43	2.20	40.166	1.80	14.58	-69.62
17.83	14.350	96.18	108.47	0.67	0.7559	14.24	2.20	40.206	1.80	14.40	-66.44
17.84	14.070	93.45	105.92	0.66	0.7528	13.96	2.20	40.246	1.80	14.11	-69.09
17.85	13.700	94.93	113.22	0.69	0.8264	13.59	2.20	40.285	1.80	13.75	-61.89
17.86	13.480	96.05	116.33	0.71	0.8630	13.36	2.20	40.325	1.80	13.53	-58.88
17.87	13.340	100.95	119.25	0.76	0.8399	13.22	2.20	40.363	2.00	13.39	-56.05
17.88	13.460	97.06	112.86	0.72	0.8385	13.35	2.20	40.403	2.00	13.51	-62.54
17.89	13.240	96.23	102.45	0.73	0.7738	13.14	2.20	40.442	2.30	13.38	-73.05
17.9	12.870	94.10	103.18	0.73	0.8017	12.77	2.20	40.480	2.30	12.91	-72.42
17.91	12.420	97.25	93.86	0.78	0.7557	12.33	2.20	40.520	2.30	12.46	-81.84
17.92	12.150	101.65	114.32	0.84	0.9409	12.04	2.20	40.560	2.30	12.20	-41.48
17.93	12.100	97.76	114.32	0.81	0.8188	11.99	2.30	40.601	2.30	12.15	-61.57
17.94	12.030	97.06	114.32	0.79	0.9487	11.92	2.30	40.642	2.30	12.10	-61.57
17.95	12.020	95.03	113.4	0.79	0.9434	11.91	2.30	40.681	2.50	12.07	-62.69
17.96	12.020	94.79	113.77	0.79	0.9465	11.91	2.30	40.721	2.30	12.07	-62.42
17.97	11.900	92.48	113.4	0.78	0.9829	11.79	2.30	40.761	2.30	11.95	-82.69
17.98	11.630	91.78	113.04	0.79	0.9370	11.52	2.30	40.801	2.30	11.68	-83.34
17.99	11.280	96.05	113.4	0.84	0.8433	11.13	2.30	40.842	2.30	11.33	-63.34
18	11.010	89.61	113.59	0.81	0.9320	11.00	2.30	40.881	2.30	11.06	-92.99
18.01	10.870	89.65	114.32	0.82	0.9517	10.76	2.30	40.922	2.50	10.92	-62.36
18.02	10.890	92.16	115.05	0.85	0.9585	10.77	2.30	40.962	2.50	10.94	-61.73
18.03	11.020	84.28	115.41	0.76	0.9473	10.90	2.30	41.002	2.30	11.07	-61.46
18.04	11.320	89.65	115.05	0.68	0.8433	11.13	2.30	41.043	2.30	11.21	-61.46
18.05	11.680	67.89	116.51	0.58	0.9975	11.56	2.30	41.082	2.00	11.73	-60.56
18.06	12.050	66.73	116.51	0.55	0.9669	11.93	2.30	41.122	2.00	12.10	-60.66
18.07	12.480	66.59	116.69	0.53	0.9350	12.36	2.30	41.162	1.80	12.53	-60.68
18.08	12.860	65.62	116.69	0.51	0.9074	12.74	2.30	41.203	1.80	12.91	-60.67
18.09	13.170	64.93	116.69	0.49	0.8545	13.05	2.30	41.244	1.80	13.21	-60.67
18.1	13.240	63.03	115.6	0.47	0.8614	13.30	2.30	41.283	2.00	13.47	-61.96
18.11	13.540	62.47	115.78	0.46	0.8551	13.42	2.40	41.325	2.00	13.59	-61.88
18.12	13.530	62.29	114.68	0.46	0.8676	13.42	2.40	41.367	2.00	13.58	-63.08
18.13	12.970	63.26	114.68	0.49	0.8942	12.86	2.30	41.407	2.00	13.02	-63.18
18.14	12.580	64.93	114.68	0.51	0.8747	12.47	2.30	41.447	2.00	12.62	-63.18
18.15	12.160	64.28	113.95	0.53	0.9371	12.05	2.30	41.487	2.00	12.21	-64.14
18.16	11.760	64.65	114.5	0.55	0.9736	11.65	2.40	41.529	2.00	11.81	-63.65
18.17	11.390	64.14	114.13	0.56	0.9956	11.28	2.30	41.569	2.30	11.44	-85.85
18.18	11.100	65.57	115.05	0.60	1.0450	10.89	2.30	41.609	2.30	11.06	-83.30
18.19	10.800	65.57	115.05	0.62	1.0477	10.49	2.30	41.650	2.30	10.68	-83.30
18.2	10.220	66.36	104.34	0.65	1.0651	10.11	2.30	41.689	2.00	10.27	-85.05
18.21	9.780	66.69	113.95	0.68	1.1651	9.67	2.30	41.729	2.00	9.83	-64.69
18.22	9.400	66.59	113.22	0.71	1.2045	9.29	2.40	41.771	2.00	9.45	-65.52
18.23	9.020	65.90	113.4	0.73	1.2572	8.91	2.30	41.811	2.00	9.07	-65.44
18.24	8.710	64.93	113.4	0.74	1.2477	8.60	2.30	41.852	2.00	8.78	-65.44
18.25	8.490	63.40	114.13	0.75	1.3443	8.38	2.40	41.895	2.00	8.54	-60.94
18.26	8.350	62.24	114.5	0.75	1.3713	8.24	2.40	41.937	2.30	8.40	-64.63
18.27	8.250	60.34	114.13	0.73	1.3834	8.14	2.40	41.979	2.30	8.30	-65.15
18.28	8.150	61.08	116.69	0.75	1.4318	8.03	2.40	42.021	2.00	8.20	-62.64
18.29	8.170	61.08	116.69	0.74	1.4318	8.03	2.40	42.063	2.00	8.20	-62.64
18.3	8.200	55.20	118.52	0.67	1.4554	8.08	2.40	42.105	2.30	8.25	-61.00
18.31	8.160	52.98	118.88	0.65	1.4569	8.04	2.40	42.146	2.30	8.21	-60.74
18.32	8.150	50.85	118.88	0.62	1.4587	8.03	2.40	42.188	2.00	8.20	-60.84

Depth [m]	Qc [kPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [kPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
19.71	16,290	58.40	122.35	0.36	0.7511	16.17	2.80	48.508	1.50	16.34	-71.01
19.72	16,480	64.32	138.06	0.39	0.8377	16.34	2.80	48.557	1.80	16.54	-55.39
19.73	16,780	63.77	134.59	0.38	0.8021	16.65	2.80	48.605	1.80	16.84	-58.96
19.74	17,010	63.63	134.77	0.37	0.7923	16.88	2.90	48.656	1.80	17.07	-58.88
19.75	17,430	63.59	134.96	0.36	0.7742	17.30	3.90	49.707	1.80	17.49	-58.80
19.76	17,630	68.49	133.67	0.39	0.7582	17.50	2.90	48.757	1.80	17.69	-60.18
19.77	17,720	69.88	134.4	0.39	0.7585	17.59	2.90	48.808	1.80	17.78	-59.54
19.78	17,860	68.26	133.13	0.38	0.7454	17.73	2.90	48.858	1.80	17.92	-60.91
19.79	17,970	69.70	132.4	0.39	0.7368	17.84	2.90	48.909	2.00	18.03	-61.74
19.80	18,090	73.14	130.85	0.40	0.7299	17.96	2.90	48.960	1.80	18.15	-62.57
19.81	18,150	75.25	132.03	0.41	0.7274	18.02	2.90	49.010	1.80	18.21	-62.31
19.82	18,260	78.45	132.03	0.43	0.7231	18.13	2.90	49.061	1.80	18.32	-62.40
19.83	18,340	81.13	131.85	0.44	0.7189	18.21	2.90	49.111	1.80	18.40	-62.68
19.84	18,220	84.33	131.67	0.46	0.7227	18.09	2.90	49.162	2.00	18.28	-62.96
19.85	17,790	87.64	130.39	0.49	0.7329	17.66	2.90	49.213	2.00	17.84	-64.34
19.86	17,790	87.94	130.39	0.49	0.7329	17.66	2.90	49.263	2.00	17.84	-64.44
19.87	17,300	94.66	130.57	0.55	0.7547	17.17	2.90	49.314	2.00	17.35	-64.35
19.88	17,060	96.65	129.66	0.57	0.7600	16.93	3.00	49.364	2.00	17.11	-65.36
19.89	16,780	99.38	131.12	0.59	0.7814	16.65	3.00	49.417	2.00	16.84	-64.00
19.9	16,530	100.49	129.96	0.61	0.7889	16.40	3.00	49.469	1.80	16.58	-65.96
19.91	16,310	101.32	130.2	0.62	0.7983	16.18	3.00	49.521	1.80	16.36	-65.12
19.92	16,190	101.69	130.57	0.63	0.8065	16.06	3.00	49.574	2.00	16.24	-64.85
19.93	16,050	101.69	132.21	0.63	0.8237	15.92	3.00	49.626	2.00	16.11	-63.30
19.94	15,930	100.95	132.76	0.63	0.8334	15.80	3.00	49.678	2.00	15.99	-62.85
19.95	15,740	100.35	133.13	0.64	0.8458	15.61	3.00	49.731	2.00	15.80	-62.08
19.96	15,430	100.17	130.31	0.65	0.8640	15.30	3.00	49.781	2.00	15.49	-62.50
19.97	15,000	99.66	132.03	0.66	0.8802	14.87	2.90	49.832	2.00	15.06	-63.88
19.98	14,520	99.15	131.85	0.68	0.9081	14.39	2.90	49.882	2.00	14.58	-64.15
19.99	14,030	98.31	132.03	0.70	0.9411	13.90	2.90	49.933	2.00	14.09	-64.07
20.0	13,640	97.62	132.21	0.72	0.9693	13.51	2.90	49.984	2.00	13.70	-63.99
20.01	13,400	96.65	132.58	0.72	0.9804	13.27	3.00	50.034	2.00	13.46	-63.72
20.02	13,240	95.54	133.31	0.72	1.0069	13.11	3.00	50.087	2.00	13.30	-63.09
20.03	13,290	92.39	135.87	0.70	1.0223	13.15	3.00	50.139	2.00	13.35	-60.62
20.04	13,420	90.90	136.6	0.68	1.0179	13.28	3.00	50.191	2.00	13.48	-59.99
20.05	13,650	88.77	137.51	0.65	1.0074	13.51	3.00	50.244	2.00	13.71	-59.18
20.06	13,900	86.78	138.42	0.62	0.9958	13.76	3.00	50.296	2.00	13.96	-58.37
20.07	14,110	85.44	138.06	0.61	0.9785	13.97	3.00	50.348	2.00	14.17	-58.83
20.08	14,220	83.96	138.6	0.59	0.9747	14.08	3.00	50.401	2.00	14.28	-58.38
20.09	14,310	82.15	138.06	0.57	0.9648	14.17	3.00	50.453	2.00	14.37	-59.02
20.1	14,330	81.87	138.97	0.57	0.9698	14.19	3.00	50.505	2.00	14.39	-58.21
20.11	14,350	81.32	139.34	0.57	0.9710	14.21	3.00	50.558	2.00	14.41	-57.94
20.12	14,390	81.23	140.25	0.56	0.9746	14.25	3.00	50.610	1.80	14.45	-57.13
20.13	14,410	80.62	140.07	0.56	0.9720	14.27	3.00	50.662	1.80	14.47	-57.41
20.14	14,490	80.49	140.61	0.56	0.9704	14.35	3.00	50.715	2.00	14.55	-56.96
20.15	14,520	80.67	140.07	0.56	0.9647	14.38	3.00	50.767	2.00	14.58	-57.60
20.16	14,500	80.25	140.07	0.55	0.9609	14.36	3.00	50.819	2.00	14.56	-57.60
20.17	14,390	80.64	139.34	0.54	0.9690	14.24	3.00	50.872	1.80	14.44	-58.93
20.18	14,190	80.72	138.24	0.57	0.9742	14.05	3.00	50.924	1.80	14.25	-59.73
20.19	13,650	82.34	140.61	0.60	1.0301	13.51	3.00	50.976	1.80	13.71	-57.45
20.2	13,310	82.89	137.69	0.62	1.0345	13.17	3.00	51.029	1.80	13.37	-60.47
20.21	13,030	83.48	138.06	0.64	1.0581	12.69	3.00	51.081	2.00	12.89	-60.23
20.22	12,780	83.63	138.06	0.67	1.0788	12.64	3.00	51.133	2.00	12.84	-60.59
20.23	12,540	83.63	138.24	0.67	1.1024	12.40	3.00	51.186	2.00	12.60	-60.22
20.24	12,380	82.43	138.79	0.67	1.1211	12.24	3.00	51.238	2.00	12.44	-59.76
20.25	12,300	81.46	140.07	0.66	1.1305	12.25	3.00	51.290	1.80	12.45	-58.58
20.26	12,460	80.53	140.07	0.65	1.1242	12.32	3.00	51.343	1.80	12.52	-58.68
20.27	12,580	79.14	140.8	0.61	1.1192	12.44	3.00	51.395	1.80	12.56	-58.42
20.28	12,700	77.98	141.34	0.61	1.1129	12.56	3.00	51.449	1.80	12.76	-57.61
20.29	12,830	77.20	141.53	0.60	1.1031	12.69	3.00	51.503	2.00	12.89	-57.51
20.3	13,070	75.53	142.07	0.58	1.0870	12.93	3.00	51.557	1.50	13.13	-57.07
20.31	13,200	74.70	142.26	0.57	1.0777	13.06	3.00	51.611	1.50	13.26	-56.98
20.32	13,260	74.14	142.44	0.56	1.0712	13.12	3.00	51.665	1.50	13.32	-56.82
20.33	13,300	73.35	142.44	0.55	1.0710	13.16	3.00	51.719	1.80	13.36	-57.00
20.34	13,320	72.38	141.71	0.55	1.0711	13.09	3.00	51.774	1.80	13.29	-57.83
20.35	13,110	72.52	141.71	0.55	1.0809	12.97	3.00	51.828	1.80	13.17	-57.92
20.36	12,930	72.80	140.98	0.56	1.0903	12.79	3.00	51.882	1.80	12.99	-58.75
20.37	12,470	72.33	140.61	0.61	1.1116	12.33	3.00	51.936	1.80	12.51	-60.11
20.38	12,250	73.86	140.61	0.60	1.1478	12.11	3.00	51.990	1.80	12.31	-59.32
20.39	12,100	74.42	140.61	0.62	1.1621	11.96	3.00	52.044	1.80	12.16	-59.42

17-101_G_CPTU_Soarza

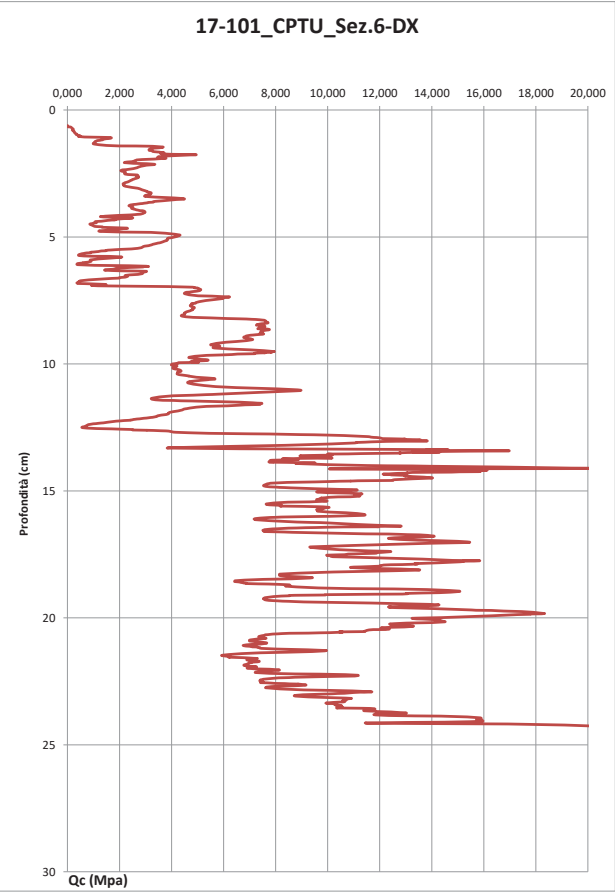
17-101_CPTU_S6_DX

Pag. 29

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
20.4	12,040	74.28	140.61	0.62	1.1679	11.90	3.10	52.098	1.80	12.10	-59.51
20.41	12,160	74.97	141.89	0.62	1.1689	12.02	3.10	52.152	1.80	12.22	-58.33
20.42	12,280	75.16	142.26	0.61	1.1585	12.14	3.10	52.206	1.80	12.34	-58.06
20.43	12,360	75.30	142.26	0.61	1.1510	12.22	3.10	52.260	2.00	12.42	-58.16
20.44	12,370	75.21	142.44	0.61	1.1515	12.23	3.10	52.314	2.00	12.43	-58.08
20.45	12,310	75.02	142.26	0.61	1.1556	12.17	3.10	52.368	1.80	12.37	-58.35
20.46	12,120	74.14	141.71	0.61	1.1692	11.98	3.10	52.422	2.00	12.18	-59.00
20.47	11,700	74.00	141.34	0.63	1.2080	11.56	3.10	52.477	2.00	11.76	-59.47
20.48	11,570	74.14	141.53	0.64	1.2232	11.43	3.10	52.531	1.80	11.63	-59.38
20.49	11,510	74.33	141.34	0.65	1.2280	11.39	3.10	52.585	1.80	11.57	-59.67
20.5	11,490	74.05	141.89	0.64	1.2349	11.35	3.10	52.639	1.80	11.55	-59.22
20.51	11,470	73.86	141.34	0.64	1.2323	11.33	3.10	52.693	1.80	11.53	-59.86
20.52	11,430	73.54	141.16	0.64	1.2350	11.29	3.10	52.747	2.00	11.49	-60.14
20.53	11,430	73.54	141.16	0.64	1.2350	11.29	3.10	52.801	3.00	11.49	-60.24
20.54	11,500	73.54	141.16	0.64	1.2350	11.29	3.10	52.855	2.50	11.49	-60.34
20.55	10,440	62.70	141.89	0.60	1.3591	10.30	3.20	52.911	2.50	10.50	-59.71
20.56	10,580	63.17	141.89	0.60	1.3411	10.44	3.20	52.967	1.80	10.64	-59.90
20.57	10,390	63.72	141.89	0.61	1.3656	10.25	3.20	53.023	1.80	10.45	-59.91
20.58	10,100	63.63	140.98	0.63	1.3958	9.96	3.20	53.078	2.00	10.16	-60.90
20.59	9,710	64.93	140.07	0.67	1.4425	9.57	3.20	53.134	2.00	9.77	-61.34
20.6	9,260	66.27	139.34	0.72	1.5048	9.12	3.20	53.190	2.00	9.32	-62.75
20.61	8,530	66.82	139.52	0.78	1.6356	8.39	3.20	53.246	2.30	8.59	-62.66
20.62	8,250	66.92	140.43	0.81	1.7022	8.11	3.20	53.302	2.30	8.31	-61.85
20.63	8,060	66.27	140.98	0.82	1.7491	7.92	3.20	53.358	2.00	8.12	-61.40
20.64	7,890	65.99	141.89	0.84	1.7854	7.75	3.20	53.413	2.00	7.85	-60.58
20.65	7,790	65.99	142.07	0.84	1.8237	7.65	3.20	53.469	2.00	7.85	-60.51
20.66	7,700	64.74	142.07	0.84	1.8451	7.56	3.20	53.525	2.00	7.76	-60.40
20.67	7,600	62.38	142.8	0.82	1.8789	7.46	3.20	53.581	2.00	7.66	-59.99
20.68	7,580	61.13	143.54	0.81	1.8937	7.44	3.20	53.637	2.00	7.69	-59.94
20.69	7,560	59.79	143.9	0.79	1.9334	7.42	3.20	53.693	2.00	7.62	-59.99
20.7	7,510	58.12	144.27	0.77	1.9210	7.39	3.20	53.748	2.00	7.65	-59.77
20.71	7,440	56.64	144.25	0.76	1.9415	7.30	3.20	53.804	2.30	7.50	-58.58
20.72	7,400	55.20	144.5	0.75	1.9520	7.26	3.20	53.860	2.30	7.46	-58.46
20.73	7,370	54.14	145	0.73	1.9674	7.23	3.20	53.916	2.00	7.43	-58.48
20.74	7,350	53.21	145.18	0.72	1.9752	7.20	3.20	53.972	2.00	7.41	-58.48
20.75	7,360	51.55	145.54	0.71	1.9774	7.21	3.20	54.027	2.00	7.44	-58.47
20.76	7,380	51.87	145.73	0.70	1.9747	7.23	3.20	54.083	2.30	7.44	-57.77
20.77	7,420	51.04	146.09	0.69	1.9689	7.27	3.20	54.139	2.30	7.48	-57.77
20.78	7,470	50.94	146.48	0.68	1.9608	7.32	3.20	54.195	2.00	7.53	-57.77
20.79	7,550	50.71	146.62	0.67	1.9448	7.30	3.20	54.251	2.00	7.61	-57.77
20.8	7,630	50.80	147.01	0.67	1.9287	7.37	3.20	54.307	2.00	7.68	-57.77
20.81	7,630	50.85	146.64	0.67	1.9219	7.48	3.20	54.362	2.30	7.69	-57.77
20.82	7,530	50.34	146.64	0.67	1.9474	7.38	3.20	54.418	2.30	7.59	-57.77
20.83	7,380	50.06	146.48	0.68	1.9846	7.23	3.20	54.474	2.30	7.44	-57.77
20.84	7,260	49.74	146.64	0.69	2.0198	7.11	3.20	54.531	2.30	7.32	-57.77
20.85	7,140	49.50	147.01	0.69	2.0550	6.99	3.20	54.587	2.00	7.20	-57.77
20.86	7,090	49.95	147.01	0.69	2.0735	6.94	3.20	54.647	2.50	7.15	-57.77
20.87	7,030	49.04	147.19	0.70	2.0937	6.88	3.20	54.704	2.30	7.09	-57.77
20.88	6,990	49.95	147.37	0.70	2.1083	6.84	3.20	54.762	2.30	7.05	-57.77
20.89	6,990	49.95	147.37	0.70	2.1083	6.84	3.20	54.819	2.30	7.05	-57.77
20.9	6,990	48.72	148.28	0.69	2.1313	6.84	3.20	54.875	2.30	7.05	-58.06
20.91	6,990	48.72	148.28	0.70	2.1263	6.84	3.20	54.934	2.30	7.05	-58.06
20.92	7,050	48.58	148.65	0.69	2.1085	6.90	3.20	54.992	2.30	7.11	-58.06
20.93	7,150	48.35	148.65	0.68	2.0790	7.00	3.20	55.050	2.30	7.21	-58.06
20.94	7,280	48.07	148.83	0.66	2.0444	7.13	3.20	55.107	2.30	7.34	-58.06
20.95	7,390	48.02	148.83	0.65	2.0213	7.24	3.20	55.165	2.30	7.41	-58.06
20.96	7,480	47.70	149.2	0.64	1.9947	7.33	3.20	55.222	2.30	7.54	-58.06
20.97	7,560	47.56	148.83	0.63	1.9687	7.41	3.20	55.280	2.30	7.62	-58.06
20.98	7,620	47.33	149.01	0.62	1.9555	7.47	3.20	55.337	2.30	7.68	-58.06
20.99	7,660	47.24	149.01	0.62	1.9453	7.51	3.20	55.395	2.30	7.72	-58.06
21.0	7,750	47.37	149.06	0.62	1.9650	7.50	3.20	55.452	2.30	7.71	-58.06
21.01	7,820	47.00	149.01	0.62	1.9555	7.47	3.20	55.510	2.30	7.68	-58.06
21.02	7,520	46.77	148.83	0.62	1.9791	7.37	3.20	55.568	2.30	7.58	-57.77
21.03	7,360	46.77	148.65	0.64	2.0197	7.21	3.20	55.625	2.30	7.42	-57.77
21.04	7,180	46.91	148.47	0.65	2.0678	7.03	3.20	55.683	2.30	7.27	-57.77
21.05	7,030	47.33	148.47	0.64	2.1119	6.88	3.20	55.741	2.30	7.14	-57.77
21.06	6,900	47.51	148.65	0.69	2.1543	6.75	3.20	55.798	2.50	6.98	-57.77
21.07	6,810	47.74	148.83	0.70	2.1855	6.66	3.20	55.855	2.50	6.87	-57.77
21.08	6,770	47.98	149.01	0.71	2.2010	6.62	3.20	55.913	2.30	6.83	-57.77

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
22.47	7,400	48.16	162.89	0.65	2,2012	7.24	3.70	64.406	1.50	7.47	-57.54
22.48	7,390	47.74	163.26	0.65	2,2092	7.23	3.70	64.470	1.50	7.46	-57.27
22.49	7,400	47.70	163.08	0.64	2,2038	7.24	3.70	64.535	1.80	7.47	-57.55
22.5	7,420	47.61	163.26	0.64	2,2003	7.26	3.70	64.599	1.80	7.49	-57.47
22.51	7,450	47.70	163.26	0.64	2,1914	7.29	3.70	64.664	1.80	7.52	-57.07
22.52	7,520	47.93	163.26	0.64	2,1710	7.36	3.70	64.728	1.80	7.59	-57.66
22.53	7,520	47.93	163.26	0.64	2,1710	7.36	3.70	64.793	2.80	7.59	-57.76
22.54	7,520	47.93	163.26	0.64	2,1710	7.36	3.70	64.857	2.30	7.59	-57.86
22.55	7,420	38.25	163.62	0.52	2,2051	7.26	3.80	64.924	1.80	7.49	-57.60
22.56	7,860	46.59	163.62	0.52	2,1360	7.50	3.80	64.990	1.80	7.89	-57.69
22.57	7,840	40.89	163.99	0.52	2,0917	7.68	3.80	65.056	1.80	7.91	-57.42
22.58	7,990	41.49	163.99	0.52	2,0524	7.83	3.80	65.123	1.80	8.06	-57.72
22.59	8,350	42.60	163.81	0.51	1,9618	8.19	3.70	65.187	1.80	8.42	-57.80
22.6	8,540	42.74	163.62	0.50	1,9159	8.38	3.70	65.252	1.80	8.61	-58.09
22.61	8,860	43.62	163.44	0.49	1,8447	8.70	3.80	65.318	2.00	8.93	-58.36
22.62	8,980	44.13	163.44	0.49	1,8200	8.82	3.80	65.384	1.80	9.05	-58.46
22.63	9,090	44.78	163.44	0.49	1,7980	8.93	3.80	65.450	1.80	9.16	-58.56
22.64	9,160	45.34	163.62	0.49	1,7862	9.00	3.80	65.517	1.80	9.23	-58.48
22.65	9,170	46.12	163.26	0.50	1,7804	9.01	3.80	65.583	1.80	9.24	-58.94
22.66	9,010	46.59	163.26	0.52	1,8100	8.85	3.80	65.649	2.00	9.08	-58.71
22.67	8,780	47.05	162.53	0.54	1,8511	8.62	3.80	65.716	2.00	8.85	-59.86
22.68	8,510	47.61	162.53	0.56	1,9099	8.35	3.80	65.782	2.00	8.58	-59.96
22.69	8,270	47.93	162.53	0.58	1,9653	8.11	3.80	65.848	1.80	8.34	-60.06
22.7	7,890	48.39	163.44	0.61	2,0715	7.73	3.80	65.914	1.80	7.96	-59.25
22.71	7,770	48.34	163.44	0.62	2,1365	7.61	3.80	65.981	1.80	7.96	-59.33
22.72	7,690	48.62	163.99	0.63	2,1325	7.53	3.80	66.047	1.80	7.76	-58.89
22.73	7,640	48.76	164.54	0.64	2,1537	7.48	3.80	66.113	2.00	7.71	-58.44
22.74	7,630	48.90	164.54	0.64	2,1565	7.47	3.80	66.179	2.00	7.70	-58.54
22.75	7,610	48.95	164.9	0.64	2,1669	7.45	3.80	66.246	1.80	7.68	-58.28
22.76	7,780	48.76	165.08	0.63	2,1439	7.53	3.80	66.312	1.80	7.77	-58.20
22.77	7,780	48.62	164.9	0.62	2,1180	7.62	3.80	66.378	2.00	7.85	-58.47
22.78	7,880	48.35	164.9	0.61	2,0926	7.72	3.80	66.445	2.00	7.95	-58.57
22.79	8,010	47.88	165.27	0.60	2,0633	7.84	3.80	66.511	1.80	8.08	-58.30
22.8	8,120	47.61	165.08	0.59	2,0330	7.95	3.80	66.577	1.80	8.19	-58.59
22.81	8,430	46.82	165.08	0.56	1,9582	8.26	3.80	66.643	2.00	8.50	-58.69
22.82	8,660	46.45	165.08	0.54	1,9062	8.49	3.80	66.710	1.80	8.73	-58.78
22.83	8,940	45.98	165.27	0.51	1,8487	8.77	3.80	66.776	1.80	9.01	-58.69
22.84	9,270	45.85	165.45	0.49	1,7848	9.10	3.80	66.842	1.80	9.34	-58.61
22.85	9,640	45.66	165.27	0.47	1,7144	9.47	3.80	66.908	1.80	9.71	-58.89
22.86	10,010	45.38	164.72	0.45	1,6456	9.85	3.80	66.975	1.80	10.08	-59.54
22.87	10,730	45.81	164.9	0.43	1,5368	10.57	3.80	67.041	1.80	10.80	-59.45
22.88	11,040	46.59	166	0.42	1,5036	10.87	3.80	67.109	2.00	11.11	-58.45
22.89	11,270	47.61	166.73	0.42	1,4794	11.10	3.90	67.177	2.00	11.34	-57.82
22.9	11,410	49.41	167.28	0.43	1,4661	11.24	3.90	67.245	1.80	11.48	-57.37
22.91	11,700	50.99	168.37	0.44	1,4391	11.53	3.90	67.311	1.80	11.77	-56.38
22.92	11,690	52.79	169.28	0.45	1,4461	11.52	3.90	67.379	1.80	11.76	-55.57
22.93	11,400	54.04	169.86	0.47	1,374	11.27	3.90	67.447	2.00	11.45	-56.29
22.94	10,940	54.04	169.86	0.47	1,374	11.27	3.90	67.447	2.00	11.45	-56.29
22.95	10,910	70.02	147.01	0.64	1,3475	10.76	3.90	67.583	1.80	10.97	-78.13
22.96	10,830	69.79	151.94	0.64	1,4030	10.68	3.90	67.651	1.80	10.89	-73.30
22.97	10,550	69.79	151.94	0.69	1,4627	10.40	3.90	67.719	1.80	10.61	-71.03
22.98	10,370	74.51	163.26	0.62	1,4915	10.22	3.90	67.787	1.80	10.43	-70.76
22.99	10,190	76.83	154.49	0.75	1,5161	10.04	3.90	67.855	2.00	10.25	-71.04
23	9,860	77.57	154.13	0.79	1,5632	9.71	3.90	67.923	2.00	9.92	-71.50
23.01	9,590	79.74	160.7	0.83	1,6757	9.43	3.90	67.991	2.00	9.66	-65.03
23.02	9,360	78.77	161.25	0.84	1,7228	9.20	3.90	68.060	2.00	9.43	-64.58
23.03	9,000	75.25	163.99	0.84	1,8221	8.84	3.90	68.128	1.80	9.07	-61.93
23.04	8,890	73.12	165.08	0.82	1,8569	8.72	3.90	68.196	1.80	8.96	-60.94
23.05	8,780	70.39	166.36	0.80	1,8948	8.61	3.90	68.264	2.00	8.85	-59.76
23.06	8,720	67.47	166.73	0.77	1,9120	8.55	3.90	68.332	2.00	8.79	-59.49
23.07	8,710	66.27	168.92	0.65	1,9394	8.54	3.90	68.400	2.00	8.78	-57.40
23.08	8,760	66.27	168.92	0.65	1,9394	8.54	3.90	68.468	2.00	8.80	-57.40
23.09	8,870	57.10	168.37	0.64	1,8982	8.70	3.90	68.536	2.00	8.94	-58.14
23.1	9,010	56.36	169.1	0.63	1,8768	8.84	3.90	68.604	2.00	9.08	-57.51
23.11	9,220	54.55	168.37	0.59	1,8261	9.05	3.90	68.672	2.00	9.29	-58.34
23.12	9,450	54.18	167.64	0.57	1,7740	9.28	4.00	68.741	2.00	9.52	-59.17
23.13	9,650	53.81	169.01	0.62	1,7400	9.48	4.00	68.811	2.00	9.72	-60.00
23.14	10,080	52.61	170.2	0.52	1,6895	9.91	4.00	68.881	2.00	10.15	-56.80
23.15	10,330	52.66	170.93	0.51	1,6547	10.16	4.00	68.951	2.00	10.40	-56.17

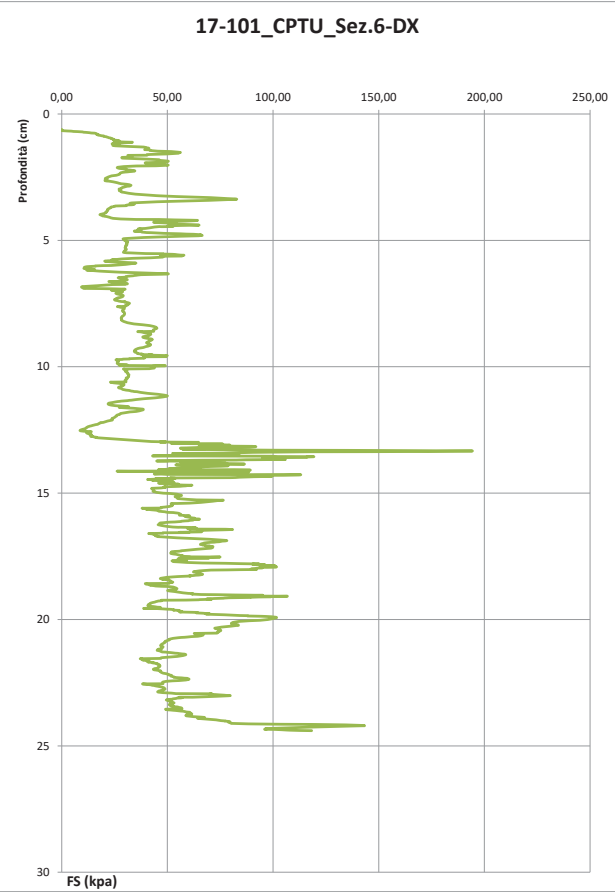
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
23.16	10,710	51.17	170.38	0.48	1,5908	10.54	4.00	69.020	2.00	10.78	-56.82
23.17	10,920	50.75	168.37	0.46	1,5418	10.75	4.00	69.090	2.00	10.99	-58.93
23.18	10,860	49.50	166.36	0.46	1,5319	10.69	4.00	69.160	2.00	10.93	-61.04
23.19	10,780	50.80	170.56	0.47	1,5822	10.61	4.00	69.230	2.00	10.85	-56.93
23.2	10,680	50.75	160.52	0.48	1,5030	10.52	4.00	69.299	2.00	10.75	-67.07
23.21	10,640	51.40	167.64	0.48	1,5756	10.47	4.00	69.369	2.30	10.71	-60.05
23.22	10,660	50.57	168.74	0.47	1,5829	10.49	4.00	69.439	2.30	10.73	-59.05
23.23	10,690	51.91	172.75	0.49	1,6160	10.52	4.00	69.509	2.00	10.76	-55.14
23.24	10,710	51.87	167.28	0.48	1,5619	10.54	3.90	69.577	2.00	10.78	-60.70
23.25	10,690	51.87	168.74	0.49	1,5785	10.52	3.90	69.645	2.00	10.76	-59.34
23.26	10,620	51.59	168.01	0.49	1,5820	10.45	4.00	69.715	2.00	10.69	-60.17
23.27	10,560	51.50	169.28	0.49	1,6030	10.39	3.90	69.783	2.30	10.63	-59.00
23.28	10,570	51.45	170.38	0.49	1,6119	10.40	4.00	69.852	2.30	10.64	-58.00
23.29	10,620	52.05	170.75	0.49	1,6078	10.45	4.00	69.922	2.30	10.69	-57.72
23.3	10,660	53.16	171.29	0.50	1,6068	10.46	4.00	69.992	2.30	10.73	-57.28
23.31	10,590	52.56	170.56	0.50	1,6106	10.42	4.00	70.062	2.30	10.66	-58.11
23.32	10,420	52.65	169.47	0.51	1,6264	10.25	4.00	70.131	2.30	10.49	-59.30
23.33	10,220	52.05	169.28	0.51	1,6564	10.05	4.00	70.201	2.30	10.29	-59.59
23.34	10,070	51.22	169.47	0.51	1,6829	9.90	4.00	70.271	2.00	10.14	-59.50
23.35	9,960	51.68	172.02	0.52	1,7069	9.79	4.00	70.341	2.00	10.03	-59.05
23.36	9,930	52.38	170.56	0.53	1,7176	9.76	4.00	70.410	2.00	10.00	-58.60
23.37	9,980	50.89	170.93	0.51	1,7127	9.81	4.00	70.480	2.00	10.05	-58.33
23.38	10,230	51.87	171.48	0.51	1,6762	10.06	4.00	70.550	2.30	10.30	-57.88
23.39	10,320	51.59	172.02	0.50	1,6669	10.15	4.10	70.621	2.30	10.39	-57.44
23.4	10,320	51.59	172.02	0.50	1,6669	10.15	4.10	70.693	2.30	10.38	-57.53
23.41	10,300	51.50	170.75	0.50	1,6578	10.13	4.10	70.764	2.30	10.37	-58.90
23.42	10,270	51.68	170.56	0.50	1,6608	10.10	4.10	70.836	2.00	10.34	-59.19
23.43	10,350	52.33	171.66	0.51	1,6886	10.18	4.10	70.907	2.00	10.42	-58.18
23.44	10,440	53.07	172.57	0.51	1,6930	10.27	4.10	70.979	2.30	10.51	-57.39
23.45	10,440	53.07	172.57	0.51	1,6930	10.27	4.10	71.050	2.30	10.51	-57.39
23.46	10,530	54.64	172.02	0.52	1,6336	10.36	4.10	71.122	2.30	10.60	-58.12
23.47	10,470	55.25	171.48	0.53	1,6378	10.30	4.10	71.193	2.30	10.54	-58.76
23.48	10,410	55.52	170.38	0.53	1,6367	10.24	4.10	71.265	2.30	10.48	-59.42
23.49	10,350	56.27	172.02	0.54	1,6620	10.18	4.10	71.336	2.00	10.42	-59.98
23.5	10,350	56.27	172.02	0.54	1,6620	10.18	4.10	71.407	2.00	10.42	-59.98
23.51	10,570	56.91	173.12	0.54	1,6378	10.40	4.10	71.479	2.30	10.64	-57.57
23.52	10,570	56.91	173.12	0.54	1,6378	10.40	4.10	71.551	3.00	10.64	-57.57
23.53	10,570	56.91	173.12	0.54	1,6378	10.40	4.10	71.622	3.00	10.64	-57.57
23.54	10,410	51.70	145.91	0.50	1,4016	10.26	4.10	71.694	2.30	10.47	-85.02
23.55	10,340	51.64	145.91	0.50	1,4016	10.26	4.10	71.765	2.30	10.47	-85.02
23.56	11,350	49.32	175.49	0.43	1,5462	11.17	4.10	71.837	2.30	11.42	-55.63
23.57	11,650	50.20	174.03	0.43	1,4938	11.48	4.10	71.908	2.30	11.72	-57.17
23.58	11,790	51.36	173.12	0.44	1,4684	11.62	4.10	71.980	2.30	11.86	-58.20
23.59	11,820	52.84	172.57	0.45	1,4600	11.65	4.10	72.051	2.30	11.89	-58.25
23.6	11,810	52.84	172.57	0.45	1,4600	11.65	4.10	72.122	2.30	11.89	-58.25
23.61	11,730	55.51	170.75	0.47	1,4557	11.56	4.10	72.194	2.00	11.80	-80.86
23.62	11,620	56.31	170.75	0.48	1,4694	11.45	4.10	72.266	2.00	11.69	-96.06
23.63	11,500	57.47	170.01	0.50	1,4833	11.23	4.20	72.339	2.00	11.57	-81.30
23.64	11,420	58.16	170.56	0.51	1,4795	11.35	4.20	72.412	2.30	11.49	-61.98
23.65	11,380	58.77	170.38	0.51	1,4777	11.40	4.20	72.484	2.30	11.41	-62.65
23.66	11,400	59.04	170.38	0.52	1,4946	11.23	4.20	72.559	2.00	11.47	-72.72
23.67	11,630	60.67	171.11	0.52	1,4713	11.46	4.20	72.632	2.00	11.70	-61.09
23.68	11,850	60.76	171.66	0.51	1,4486	11.68	4.20	72.705	2.30	11.92	-60.64
23.69	11,850	60.76	171.66	0.51	1,4486	11.68	4.20	72.778	2.30	11.92	-60.64
23.7	11,850	60.76	171.66	0.51	1,4486	11.68	4.20	72.850	2.30	11.92	-60.64
23.71	12,450	60.86	173.3	0.48	1,3820	12.28	4.20	72.925	2.00	12.52	-59.30
23.72	12,610	60.65	174.21	0.48	1,3815	12.44	4.20	72.998	2.30	12.68	-58.48
23.73	12,790	61.54	174.95	0.48	1,3679	12.62	4.20	73.071	2.30	12.86	-57.84
23.74	12,950	61.59	175.68	0.48	1,3666	12.77	4.20	73.145	2.30	13.02	-57.21
23.75	13,030	61.76	176.76	0.50	1,3472	13.01	4.20	73.218	2.30	13.18	-56.80
23.76	12,950	59.41	173.48	0.46	1,3930	12.78	4.20	73.291	2.00	13.02	-59.61
23.77	12,680	59.09	172.75	0.47	1,3624	12.51	4.20	73.364	2.30	12.75	-60.43
23.78	12,720	58.86	173.85	0.48	1,4054	12.20	4.20	73.438	2.30	12.44	-59.43
23.79	12,070	58.95	174.95	0.49	1,4495	11.90	4.20	73.511	2.00	12.14	-48.43
23.8	11,980	58.77	175.68	0.49	1,4471	11.70	4.20	73.584	2.00	11.98	-58.03
23.81	11,980	58.77	175.68	0.49	1,4471	11.70	4.20	73.657	2.00	11.98	-58.03
23.82	11,840	59.60	176.59	0.50	1,4915	11.66	4.20	73.731	2.30	11.91	-57.08
23.83	11,990	60.76	177.14	0.51	1,4774	11.81	4.20	73.804	2.00	12.06	-56.63
23.84	12,220	62.05	179.15	0.51	1,4660	12.04	4.20	73.877	2.00	12.30	-54.72



17-101.G_CPTU_Soarza

L'operatore

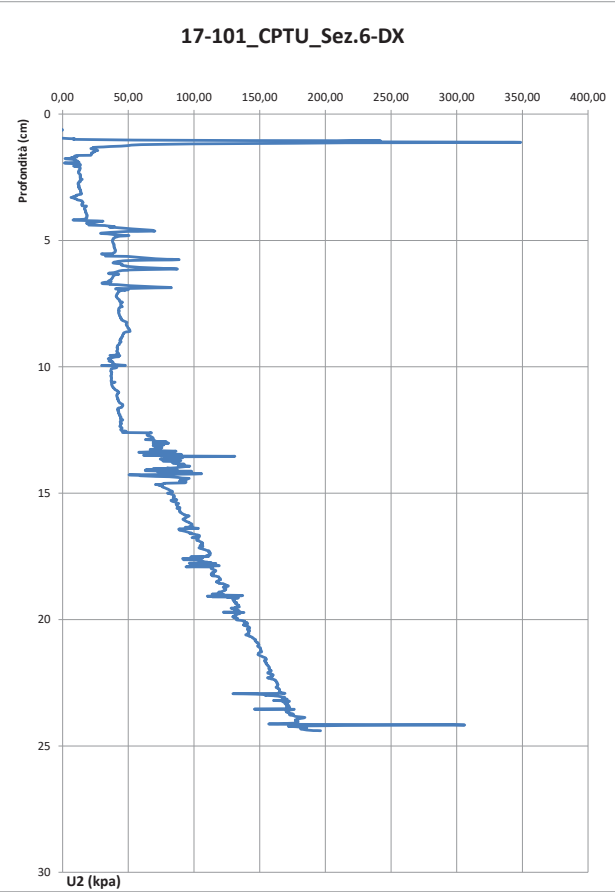
Il direttore



17-101.G_CPTU_Soarza

L'operatore

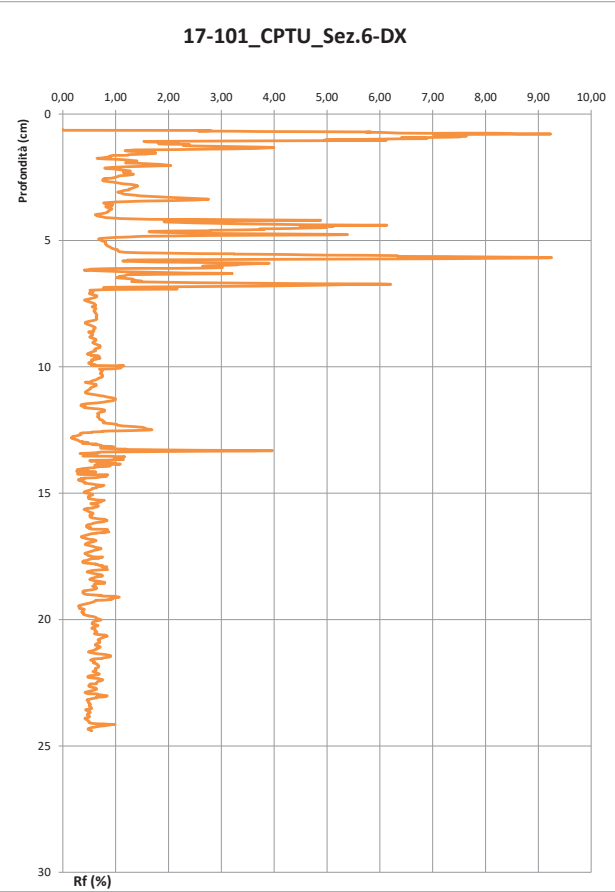
Il direttore



17-101.G_CPTU_Soarza

L'operatore



Il direttore



17-101.G_CPTU_Soarza

L'operatore

Il direttore

Impresa esecutrice:  	
Committente: Nome: A.L.Po P. IVA / C.F.: Indirizzo: Ufficio di Piacenza e-mail: Tel. Fax:	
Cantiero: PC-E-810	
Prova: Ubicazione: Soarza (PC) Quota assoluta [m]: Data: 26/02/2016 Q. inizio da Q. ass. [m]: Tipo prova: CPTU Preforo [m]: 0,6 Codice Prova: 17-101_CPTU_Sez.6-SM Q.ia falda [m]: -10,10 Note: Sommità argine Il responsabile di sito: Dr. Geol. Stefano Verdini Il direttore tecnico: Dr. Geol. Enrico Fasani	

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0,61	0,000	0,00	0,18	0,00	0,000	0,00	1,30	0,023	0,00	0,00	0,18
0,62	0,010	0,37	0,18	3,70	1,800	0,01	1,30	0,045	1,80	0,01	0,18
0,63	0,010	0,58	-0,91	2,80	-9,100	0,01	1,30	0,088	1,80	0,01	-0,91
0,64	0,010	0,56	-0,55	5,60	-5,500	0,01	1,30	0,091	1,50	0,01	-0,55
0,65	0,080	5,83	7,12	7,20	8,900	0,07	1,30	0,113	1,80	0,08	7,12
0,66	0,170	5,00	8,04	2,94	4,7294	0,16	1,30	0,136	1,80	0,17	8,04
0,67	0,200	5,05	8,95	2,53	4,4750	0,19	1,30	0,159	1,30	0,20	8,95
0,68	0,210	5,09	9,13	2,42	4,3476	0,20	1,30	0,181	1,80	0,21	9,13
0,69	0,250	6,16	11,87	2,46	4,7480	0,24	1,30	0,204	1,80	0,25	11,87
0,7	0,240	7,36	10,77	3,07	4,4875	0,34	1,30	0,227	1,30	0,24	10,77
0,71	0,250	8,38	10,41	3,35	4,1640	0,24	1,30	0,250	1,50	0,25	10,41
0,72	0,280	10,33	14,43	3,69	5,1536	0,27	1,30	0,272	1,50	0,28	14,43
0,73	0,300	11,90	17,17	3,97	5,7233	0,28	1,30	0,295	1,50	0,31	17,17
0,74	0,380	16,49	19,54	4,34	5,1421	0,36	1,30	0,318	1,30	0,39	19,54
0,75	0,360	17,46	20,99	4,85	5,5806	0,34	1,30	0,340	1,30	0,37	20,99
0,76	0,320	20,05	20,64	6,27	6,4500	0,30	1,40	0,365	1,50	0,33	20,64
0,77	0,360	22,74	24,65	6,32	6,8472	0,34	1,40	0,389	1,50	0,37	24,65
0,78	0,390	25,01	24,11	6,41	6,1821	0,37	1,40	0,414	1,50	0,40	24,11
0,79	0,380	27,04	26,11	6,93	6,6949	0,36	1,40	0,438	1,50	0,40	26,11
0,8	0,500	29,55	30,50	5,91	6,1000	0,47	1,40	0,462	1,50	0,51	30,50
0,81	0,530	32,18	35,98	6,07	6,7887	0,49	1,50	0,489	1,50	0,55	35,98
0,82	0,500	33,85	39,99	6,77	7,9980	0,46	1,50	0,515	1,50	0,52	39,99
0,83	0,540	36,26	47,48	6,71	8,7926	0,49	1,50	0,541	1,50	0,56	47,48
0,84	0,580	38,30	53,32	6,60	9,1931	0,53	1,50	0,567	1,50	0,60	53,32
0,85	0,600	40,20	57,72	6,70	9,5183	0,54	1,50	0,593	1,80	0,60	57,72
0,86	0,610	43,21	7,08	11,1672	0,54	0,60	1,610	0,618	1,50	0,64	68,12
0,87	1,060	47,51	72,32	4,48	6,8226	0,99	1,50	0,644	1,50	0,99	72,32
0,88	0,670	64,18	79,07	9,58	11,0155	0,59	1,50	0,670	1,50	0,70	79,07
0,89	0,730	62,93	80,72	8,62	11,0575	0,65	1,50	0,696	1,80	0,76	80,72
0,9	0,760	63,68	80,90	8,38	10,6447	0,68	1,50	0,722	1,80	0,79	80,90
0,91	0,900	67,29	82,16	7,48	9,3111	0,70	1,50	0,749	1,50	0,93	82,16
0,92	0,900	70,20	82,91	7,80	9,2122	0,82	1,50	0,775	1,50	0,93	82,91
0,93	0,920	72,29	82,54	7,86	8,9177	0,84	1,50	0,801	1,80	0,95	82,54
0,94	0,940	76,55	78,89	8,14	8,3926	0,86	1,50	0,827	1,80	0,97	78,89
0,95	0,880	79,56	71,04	9,04	8,0727	0,81	1,50	0,853	2,00	0,91	71,04
0,96	0,870	85,87	82,16	9,14	7,6989	0,80	1,50	0,880	2,00	0,91	82,16
0,97	0,850	86,88	59,90	10,22	7,0471	0,79	1,50	0,908	1,80	0,88	59,90
0,98	0,870	89,33	60,99	10,27	7,0103	0,81	1,50	0,932	2,00	0,90	60,99
0,99	0,870	90,90	63,73	10,45	7,3253	0,81	1,50	0,958	2,00	0,90	63,73
1	0,890	91,04	65,38	10,23	7,3461	0,82	1,50	0,986	2,00	0,92	65,38
1,01	0,870	93,17	62,27	10,71	7,1576	0,81	1,60	1,014	2,00	0,90	62,27
1,02	0,880	87,66	59,72	9,85	6,7101	0,83	1,60	1,042	1,80	0,92	59,72
1,03	0,860	89,47	62,27	10,40	7,2407	0,80	1,60	1,070	1,80	0,89	62,27
1,04	0,850	88,68	65,38	10,43	6,9818	0,78	1,60	1,098	2,00	0,88	65,38
1,05	0,870	88,50	66,84	10,17	7,6828	0,80	1,60	1,126	2,00	0,90	66,84
1,06	0,850	87,43	66,65	10,26	7,8412	0,78	1,60	1,154	1,80	0,90	66,65
1,07	0,870	87,39	66,47	10,79	8,2062	0,74	1,60	1,181	1,80	0,84	66,47

17-101.G_CPTU_Soarza

17-101_CPTU.S6_SM

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
1.08	0.770	84.51	66.47	10.98	8.6325	0.70	1.60	1.209	2.00	0.80	66.47
1.09	0.780	79.70	62.45	10.22	8.0064	0.72	1.60	1.237	2.00	0.81	62.45
1.1	0.790	75.81	60.08	9.80	7.6051	0.73	1.60	1.265	2.00	0.82	60.08
1.11	0.830	72.86	59.90	8.75	7.2169	0.77	1.60	1.293	2.00	0.86	59.90
1.12	0.850	69.88	61.18	7.12	7.1976	0.75	1.70	1.323	1.80	0.88	61.18
1.13	0.960	68.54	64.46	7.14	6.7146	0.90	1.70	1.352	1.80	0.99	64.46
1.14	1.160	65.71	64.46	5.66	5.5569	1.10	1.70	1.382	2.00	1.19	64.46
1.15	1.390	63.26	62.64	4.55	4.5056	1.33	1.70	1.412	2.00	1.42	62.64
1.16	1.510	60.43	62.82	4.00	4.1603	1.45	1.70	1.441	2.00	1.54	62.82
1.17	1.580	59.92	65.19	3.77	4.1259	1.51	1.70	1.472	2.00	1.61	65.19
1.18	1.570	61.41	69.76	3.91	4.4433	1.50	1.70	1.501	2.00	1.60	69.76
1.19	1.580	62.05	71.95	3.93	4.5538	1.51	1.70	1.530	2.00	1.61	71.95
1.2	1.600	62.56	72.50	3.91	4.5313	1.53	1.70	1.560	2.00	1.63	72.50
1.21	1.660	65.43	73.05	3.94	4.4066	1.59	1.70	1.590	2.00	1.69	73.05
1.22	1.720	67.99	74.59	3.94	4.3424	1.65	1.70	1.619	2.00	1.75	74.59
1.23	1.810	71.36	73.41	3.94	4.0558	1.74	1.70	1.649	2.00	1.84	73.41
1.24	1.930	70.67	69.58	3.66	3.6052	1.86	1.70	1.679	2.30	1.96	69.58
1.25	2.090	70.25	68.85	3.36	3.2943	2.02	1.70	1.708	2.30	2.12	68.85
1.26	2.260	69.00	69.21	3.05	3.0264	2.19	1.70	1.738	2.00	2.29	69.21
1.27	2.430	69.00	68.66	2.84	2.8255	2.36	1.70	1.768	2.00	2.46	68.66
1.28	2.540	72.47	67.20	2.85	2.6457	2.47	1.70	1.797	2.00	2.57	67.20
1.29	2.610	76.97	65.74	2.95	2.5188	2.54	1.70	1.827	2.00	2.64	65.74
1.3	2.670	82.15	64.83	3.08	2.4281	2.61	1.70	1.857	2.30	2.70	64.83
1.31	2.690	86.51	63.92	3.22	2.3762	2.63	1.70	1.886	2.30	2.72	63.92
1.32	2.680	86.64	63.55	3.31	2.3713	2.62	1.70	1.916	2.30	2.71	86.64
1.33	2.690	87.94	63.37	3.32	2.3913	2.59	1.70	1.946	2.00	2.68	63.37
1.34	2.500	83.31	63.18	3.33	2.5272	2.44	1.70	1.975	2.30	2.53	63.18
1.35	2.500	83.31	63.18	3.33	2.5272	2.44	1.70	2.005	2.30	2.53	63.18
1.36	2.440	81.46	63.37	3.34	2.5971	2.38	1.70	2.035	2.00	2.47	63.37
1.37	2.340	80.35	62.09	3.43	2.6534	2.28	1.70	2.064	2.00	2.37	62.09
1.38	2.290	79.10	60.81	3.45	2.6555	2.23	1.80	2.096	2.00	2.32	60.81
1.39	2.320	77.43	60.26	3.47	2.7022	2.17	1.70	2.126	2.00	2.26	60.26
1.4	2.180	76.04	59.53	3.49	2.7307	2.12	1.70	2.155	2.00	2.21	59.53
1.41	2.120	71.59	58.80	3.38	2.7736	2.06	1.70	2.185	2.30	2.14	58.80
1.42	2.080	66.82	58.62	3.21	2.8183	2.02	1.70	2.215	2.30	2.10	66.82
1.43	2.060	61.36	58.98	2.98	2.8631	2.00	1.70	2.244	2.00	2.08	58.98
1.44	2.040	57.10	59.35	2.80	2.9093	1.98	1.70	2.274	2.00	2.06	59.35
1.45	2.010	54.37	58.98	2.70	2.9343	1.95	1.70	2.304	2.30	2.03	58.98
1.46	2.000	51.91	58.44	2.60	2.9220	1.94	1.70	2.333	2.30	2.02	58.44
1.47	2.010	49.37	57.89	2.46	2.8801	1.95	1.80	2.365	2.00	2.03	57.89
1.48	1.990	47.42	57.71	2.38	2.9000	1.93	1.80	2.396	2.00	2.01	57.71
1.49	2.000	45.24	57.71	2.26	2.8551	1.94	1.70	2.426	1.80	2.02	57.71
1.5	2.000	45.24	57.71	2.26	2.8551	1.94	1.70	2.455	2.50	2.02	57.71
1.51	2.000	45.24	57.71	2.26	2.8551	1.94	1.70	2.485	2.50	2.02	57.71
1.52	2.100	45.00	54.24	2.14	2.5829	2.05	1.80	2.516	2.50	2.12	54.24
1.53	2.190	40.61	53.14	1.85	2.4565	2.14	1.80	2.548	2.50	2.21	53.14
1.54	2.420	36.49	52.96	1.44	2.1884	2.37	1.80	2.579	2.50	2.44	52.96
1.55	2.690	34.69	52.96	1.29	1.9688	2.64	1.80	2.611	2.30	2.71	52.96
1.56	2.690	34.69	52.96	1.29	1.9688	2.64	1.80	2.642	2.30	2.71	52.96
1.57	2.870	35.01	52.23	1.22	1.8199	2.82	1.80	2.673	2.30	2.88	52.23
1.58	2.850	37.97	51.31	1.33	1.8775	2.80	1.80	2.703	2.30	2.87	51.31
1.59	2.800	40.57	53.51	1.45	1.9111	2.75	1.80	2.736	2.50	2.82	53.51
1.6	2.760	41.40	53.69	1.50	1.9453	2.71	1.80	2.768	2.30	2.78	53.69
1.61	2.700	45.01	54.24	1.67	2.0089	2.65	1.80	2.799	2.50	2.72	54.24
1.62	2.730	45.71	54.42	1.67	1.9934	2.68	1.80	2.831	2.50	2.75	54.42
1.63	2.750	47.36	55.05	1.73	2.0059	2.70	1.80	2.863	2.50	2.77	55.05
1.64	2.780	49.13	53.51	1.77	1.9248	2.73	1.90	2.895	2.30	2.80	53.51
1.65	2.850	51.13	52.96	1.79	1.8582	2.80	1.90	2.928	2.30	2.87	52.96
1.66	2.890	53.12	53.32	1.84	1.8450	2.84	1.90	2.961	2.30	2.91	53.32
1.67	3.060	53.02	53.32	1.73	1.7425	3.01	1.90	2.995	2.30	3.08	53.32
1.68	3.180	51.13	52.78	1.61	1.6897	2.97	1.90	3.028	2.30	3.20	52.78
1.69	3.310	47.51	52.78	1.44	1.5946	3.26	1.90	3.061	2.00	3.33	52.78
1.7	3.380	43.81	52.96	1.30	1.5669	3.33	1.90	3.094	2.00	3.40	52.96
1.71	3.450	42.23	53.14	1.22	1.5403	3.40	1.90	3.127	2.00	3.47	53.14
1.72	3.410	43.35	53.14	1.27	1.5584	3.36	1.90	3.160	2.00	3.43	53.14
1.73	3.390	45.45	53.38	1.34	1.5652	3.30	1.90	3.193	2.00	3.39	53.38
1.74	3.250	48.48	50.58	1.49	1.5563	3.20	1.80	3.225	2.30	3.27	50.58
1.75	3.140	51.10	48.76	1.64	1.5529	3.09	1.80	3.256	2.30	3.16	48.76
1.76	2.980	55.49	47.30	1.86	1.5872	2.93	1.80	3.288	2.30	3.00	47.30

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
3.15	1,510	42.42	56.43	2.81	3.7371	1.45	1.80	7.846	2.00	1.53	56.43
3.16	1,510	42.14	56.43	2.79	3.7371	1.45	1.80	7.877	2.30	1.53	56.43
3.17	1,540	42.28	56.61	2.75	3.6760	1.48	1.80	7.909	2.30	1.56	56.61
3.18	1,550	42.19	56.98	2.72	3.6761	1.49	1.80	7.940	2.00	1.57	56.98
3.19	1,550	42.16	57.34	2.72	3.6894	1.49	1.80	7.971	2.00	1.57	57.34
3.2	1,530	42.23	57.71	2.76	3.7719	1.47	1.90	8.005	2.30	1.55	57.71
3.21	1,490	42.37	57.89	2.84	3.8852	1.43	1.90	8.038	2.30	1.51	57.89
3.22	1,480	43.85	58.07	2.96	3.9236	1.42	1.90	8.071	2.30	1.50	58.07
3.23	1,460	45.24	58.07	3.10	3.9774	1.40	1.90	8.104	2.00	1.48	58.07
3.24	1,490	46.47	58.44	3.12	3.9321	1.40	1.90	8.135	2.00	1.51	58.44
3.25	1,540	48.49	58.25	3.15	3.7825	1.48	1.80	8.167	2.00	1.56	58.25
3.26	1,640	49.78	58.07	3.04	3.5409	1.58	1.80	8.198	2.00	1.66	58.07
3.27	1,830	53.72	58.25	2.94	3.1831	1.77	1.80	8.230	2.00	1.85	58.25
3.28	1,880	55.43	58.98	2.95	3.1372	1.82	1.80	8.261	2.00	1.90	58.98
3.29	1,900	55.52	58.98	2.92	3.1092	1.84	1.90	8.294	2.00	1.92	58.98
3.3	1,870	54.23	59.17	2.90	3.1642	1.81	1.90	8.327	2.00	1.89	59.17
3.31	1,830	53.12	58.98	2.90	3.2230	1.77	1.90	8.361	2.00	1.85	58.98
3.32	1,800	51.17	58.98	2.84	3.2767	1.74	1.90	8.394	2.00	1.82	58.98
3.33	1,760	49.13	58.98	2.79	3.3511	1.70	1.90	8.427	2.00	1.78	58.98
3.34	1,740	48.43	58.98	2.76	3.3887	1.68	1.90	8.460	2.00	1.76	58.98
3.35	1,740	41.08	58.98	2.40	3.3897	1.68	1.90	8.493	2.00	1.76	58.98
3.36	1,740	38.90	59.17	2.24	3.4006	1.68	1.90	8.526	2.00	1.76	59.17
3.37	1,740	36.45	59.72	2.09	3.4322	1.68	1.90	8.559	2.00	1.77	59.72
3.38	1,740	34.36	60.08	1.97	3.4529	1.68	1.90	8.593	2.00	1.77	60.08
3.39	1,740	32.05	60.26	1.84	3.4632	1.68	1.90	8.626	2.00	1.77	60.26
3.4	1,750	29.78	60.26	1.70	3.4434	1.69	1.90	8.659	2.00	1.79	60.26
3.41	1,760	28.06	60.45	1.59	3.4347	1.70	1.90	8.692	2.00	1.79	60.45
3.42	1,770	26.67	60.45	1.51	3.4153	1.71	1.90	8.725	2.00	1.80	60.45
3.43	1,780	25.79	60.45	1.45	3.3961	1.72	1.90	8.758	2.00	1.81	60.45
3.44	1,800	25.84	60.26	1.44	3.3478	1.74	1.90	8.792	1.80	1.83	60.26
3.45	1,810	25.66	60.45	1.42	3.3398	1.75	1.90	8.825	1.80	1.84	60.45
3.46	1,830	25.61	60.45	1.40	3.3033	1.77	1.90	8.858	2.00	1.86	60.45
3.47	1,820	25.24	60.63	1.39	3.3313	1.76	1.90	8.891	2.00	1.85	60.63
3.48	1,810	24.68	60.81	1.36	3.3597	1.75	1.90	8.924	2.00	1.84	60.81
3.49	1,780	24.45	60.99	1.37	3.4264	1.72	1.90	8.957	2.00	1.81	60.99
3.5	1,780	24.45	60.99	1.37	3.4264	1.72	1.90	8.990	2.00	1.81	60.99
3.51	1,780	24.45	60.99	1.37	3.4264	1.72	1.90	9.024	2.00	1.81	60.99
3.52	1,750	22.83	63.37	1.30	3.6211	1.69	1.90	9.057	2.30	1.78	63.37
3.53	1,710	21.81	63.18	1.28	3.6947	1.65	1.90	9.090	2.00	1.74	63.18
3.54	1,690	21.39	63.18	1.27	3.7385	1.63	1.90	9.123	2.00	1.72	63.18
3.55	1,660	21.77	62.82	1.31	3.7843	1.60	1.90	9.156	2.00	1.69	62.82
3.56	1,600	22.46	62.82	1.40	3.9263	1.54	1.90	9.189	1.80	1.63	62.82
3.57	1,560	23.25	63.18	1.49	4.0500	1.50	1.90	9.223	1.80	1.59	63.18
3.58	1,520	24.36	63.55	1.60	4.1809	1.46	1.90	9.256	2.00	1.55	63.55
3.59	1,490	26.58	63.18	1.78	4.2403	1.43	1.90	9.289	2.00	1.52	63.18
3.6	1,480	28.76	63.18	1.94	4.2689	1.42	1.90	9.322	2.00	1.52	63.18
3.61	1,480	32.48	63.00	2.26	4.2598	1.40	1.90	9.355	2.00	1.51	63.00
3.62	1,470	35.15	63.00	2.39	4.2857	1.41	1.90	9.388	2.00	1.50	63.00
3.63	1,490	36.68	63.18	2.46	4.2403	1.43	1.90	9.421	2.00	1.52	63.18
3.64	1,500	38.30	63.00	2.55	4.2000	1.44	1.90	9.455	2.00	1.53	63.00
3.65	1,520	40.43	63.00	2.66	4.1447	1.46	1.90	9.488	1.90	1.54	63.00
3.66	1,540	42.63	63.00	2.78	4.0909	1.48	1.80	9.517	1.80	1.57	63.00
3.67	1,580	45.11	63.00	2.86	3.9873	1.52	1.90	9.551	0.50	1.61	63.00
3.68	1,630	46.12	62.82	2.83	3.8540	1.57	1.90	9.584	0.50	1.66	62.82
3.69	1,670	45.94	63.00	2.75	3.7725	1.61	1.90	9.617	2.00	1.70	63.00
3.7	1,670	45.52	63.00	2.73	3.7725	1.61	1.90	9.650	2.00	1.70	63.00
3.71	1,690	44.27	63.18	2.62	3.7385	1.63	1.90	9.683	2.00	1.72	63.18
3.72	1,720	42.84	63.18	2.49	3.6733	1.66	1.90	9.716	1.80	1.75	63.18
3.73	1,730	41.26	63.37	2.38	3.6630	1.67	1.90	9.750	2.00	1.76	63.37
3.74	1,740	39.59	63.37	2.28	3.6420	1.68	1.90	9.783	2.00	1.77	63.37
3.75	1,750	38.25	63.37	2.19	3.6211	1.69	1.90	9.816	2.00	1.78	63.37
3.76	1,760	36.47	63.37	2.10	3.6006	1.70	1.90	9.849	2.00	1.79	63.37
3.77	1,760	35.01	63.37	1.99	3.6006	1.70	1.90	9.882	2.00	1.79	63.37
3.78	1,750	33.11	63.55	1.89	3.6314	1.69	1.90	9.915	2.00	1.78	63.55
3.79	1,740	29.87	63.55	1.72	3.6523	1.68	1.90	9.948	2.00	1.77	63.55
3.8	1,740	29.08	63.55	1.67	3.6523	1.68	1.90	9.982	2.00	1.77	63.55
3.81	1,740	28.43	63.55	1.63	3.6420	1.68	1.90	10.015	2.00	1.77	63.55
3.82	1,740	28.43	63.55	1.63	3.6523	1.68	1.90	10.048	2.00	1.77	63.55
3.83	1,750	28.43	63.55	1.62	3.6314	1.69	1.90	10.081	2.00	1.78	63.55

17-101_G_CPTU_Soarza

17-101_CPTU.S6_SM

Pag. 5

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
3.84	1,760	28.29	63.73	1.61	3.6210	1.70	1.90	10.114	2.00	1.79	63.73
3.85	1,770	28.25	63.73	1.60	3.6006	1.71	1.90	10.147	2.00	1.80	63.73
3.86	1,790	28.16	63.92	1.57	3.5709	1.73	1.90	10.181	2.00	1.82	63.92
3.87	1,790	28.06	63.92	1.57	3.5709	1.73	1.90	10.214	2.00	1.82	63.92
3.88	1,800	27.88	63.73	1.55	3.5406	1.74	1.90	10.247	2.00	1.83	63.73
3.89	1,820	28.25	63.92	1.55	3.5121	1.76	1.90	10.280	1.80	1.85	63.92
3.9	1,840	28.80	63.92	1.57	3.4739	1.78	1.90	10.313	1.80	1.87	63.92
3.91	1,860	28.85	63.92	1.55	3.4366	1.80	1.90	10.346	2.00	1.89	63.92
3.92	1,890	28.85	64.10	1.53	3.3915	1.83	1.90	10.379	2.00	1.92	64.10
3.93	1,910	28.85	64.10	1.51	3.3560	1.85	1.90	10.413	2.00	1.94	64.10
3.94	1,940	28.39	64.10	1.46	3.3041	1.88	1.90	10.446	2.00	1.97	64.10
3.95	1,960	28.62	64.10	1.46	3.2704	1.90	1.90	10.479	2.00	1.99	64.10
3.96	1,960	28.62	64.10	1.46	3.2704	1.90	1.90	10.512	2.00	1.99	64.10
3.97	1,970	28.62	64.10	1.45	3.2538	1.91	1.90	10.545	2.00	2.00	64.10
3.98	1,970	28.65	64.10	1.46	3.2538	1.91	1.90	10.578	2.00	2.00	64.10
3.99	1,990	29.45	63.92	1.48	3.2121	1.93	1.90	10.612	2.00	2.02	63.92
4	2,010	29.45	64.10	1.47	3.1891	1.95	1.90	10.645	2.00	2.04	64.10
4.01	2,030	29.45	64.28	1.45	3.1665	1.97	1.90	10.678	2.00	2.06	64.28
4.02	2,040	29.64	64.46	1.45	3.1598	1.98	1.90	10.711	2.00	2.07	64.46
4.03	2,050	29.68	64.46	1.45	3.1444	1.99	1.90	10.744	2.00	2.08	64.46
4.04	2,060	29.73	64.65	1.44	3.1383	2.00	1.90	10.777	2.00	2.09	64.65
4.05	2,070	29.82	64.65	1.44	3.1232	2.01	1.90	10.811	2.00	2.10	64.65
4.06	2,070	29.82	64.83	1.44	3.1139	2.01	1.80	10.842	2.00	2.10	64.83
4.07	2,080	30.38	64.83	1.46	3.1168	2.02	1.90	10.875	2.00	2.11	64.83
4.08	2,090	30.56	64.83	1.46	3.1075	2.03	1.90	10.908	2.00	2.12	64.83
4.09	2,100	30.75	65.01	1.48	3.1255	2.01	1.90	10.941	2.00	2.11	65.01
4.1	2,090	31.21	65.19	1.49	3.1191	2.02	1.90	10.975	1.80	2.12	65.19
4.11	2,130	31.40	65.19	1.47	3.0806	2.06	1.80	11.008	1.80	2.16	65.19
4.12	2,170	31.49	65.19	1.45	3.0041	2.10	1.80	11.037	2.00	2.20	65.19
4.13	2,230	31.81	65.19	1.43	2.9233	2.1	1.90	11.071	2.00	2.26	65.19
4.14	2,290	32.45	65.19	1.42	2.8425	2.16	1.90	11.104	2.00	2.32	65.19
4.15	2,370	33.53	65.01	1.41	2.7430	2.30	1.90	11.137	2.00	2.40	65.01
4.16	2,740	37.19	64.28	1.36	2.3460	2.68	1.90	11.170	1.80	2.77	64.28
4.17	3,020	40.34	64.28	1.34	2.1285	2.96	1.90	11.203	1.80	3.05	64.28
4.18	3,270	42.51	65.01	1.30	1.9881	3.20	1.90	11.236	2.00	3.30	65.01
4.19	3,410	44.58	65.01	1.29	1.8693	3.41	1.90	11.269	2.00	3.59	65.01
4.2	3,480	44.87	65.38	1.29	1.8787	3.41	1.90	11.303	1.80	3.51	65.38
4.21	3,470	45.52	65.38	1.31	1.8841	3.40	1.90	11.336	1.80	3.50	65.38
4.22	3,360	47.47	65.56	1.41	1.9512	3.29	1.90	11.369	2.00	3.39	65.56
4.23	3,280	48.21	65.56	1.47	1.9988	3.21	1.90	11.402	2.00	3.31	65.56
4.24	3,190	49.22	65.56	1.52	2.0525	3.12	1.90	11.435	2.00	3.23	65.56
4.25	3,100	50.11	65.56	1.62	2.1148	3.03	1.90	11.468	2.00	3.13	65.56
4.26	3,030	50.89	65.56	1.68	2.1637	2.96	1.90	11.502	2.00	3.06	65.56
4.27	2,950	51.45	65.74	1.74	2.2285	2.88	1.90	11.535	2.00	2.98	65.74
4.28	2,780	52.28	65.74	1.88	2.3647	2.71	1.90	11.568	1.80	2.81	65.74
4.29	2,660	53.49	65.74	2.01	2.5019	2.59	1.90	11.601	1.80	2.69	65.74
4.3	2,490	50.48	66.11	2.03	2.6550	2.42	1.90	11.634	2.00	2.52	66.11
4.31	2,310	49.69	66.11	2.15	2.8619	2.24	1.90	11.667	1.80	2.34	66.11
4.32	2,150	50.80	66.11	2.36	3.0749	2.08	1.90	11.700	1.80	2.18	66.11
4.33	2,010	51.77	66.29	2.58	3.2980	1.94	1.90	11.734	2.00	2.04	66.29
4.34	1,930	52.75	66.29	2.79	3.5212	1.81	1.90	11.767	2.00	1.95	66.29
4.35	1,690	55.15	66.11	3.26	3.9118	1.62	1.90	11.800	1.80	1.72	66.11
4.36	1,620	57.70	65.92	3.56	4.0691	1.55	1.90	11.833	1.80	1.65	65.92
4.37	1,560	60.57	65.92	3.88	4.2266	1.49	1.90	11.866	2.00	1.59	65.92
4.38	1,600	62.24	66.11	3.89	4.1319	1.53	1.90	11.899	2.00	1.63	66.11
4.39	1,640	63.44	66.11	3.91	4.0372	1.57	1.90	11.932	2.00	1.67	66.11
4.4	1,670	65.20	66.29	3.90	3.9695	1.60	1.90	11.966	2.00	1.70	66.29
4.41	1,700	65.43	66.11	3.85	3.8888	1.63	1.90	11.999	2.00	1.73	66.11
4.42	1,690	64.97	66.11	3.84	3.9118	1.62	1.90	12.032	2.00	1.72	66.11
4.43	1,560	62.80	65.92	4.03	4.2266	1.49	1.90	12.065	2.00	1.59	65.92
4.44	1,450	60.49	66.11	4.17	4.5262	1.36	1.90	12.098	2.00	1.43	66.11
4.45	1,380	58.63	66.11	4.31	4.8610	1.29	1.90	12.131	1.80	1.39	66.11
4.46	1,280	57.56	66.11	4.50	5.1648	1.21	1.90	12.165	1.80	1.31	66.11
4.47	1,200	57.52	66.11	4.79	5.5092	1.13	1.90	12.198	2.00	1.23	66.11
4.48	1,140	57.70	66.29	5.06	5.8149	1.07	1.90	12.231	2.00	1.17	66.29
4.49	1,100	57.93	66.29	5.27	6.0591	1.03	1.90	12.264	2.00	1.13	66.29
4.5	1,100	57.93	66.29	5.27	6.0591	1.03	1.90	12.297	2.30	1.13	66.29
4.51	1,100	57.93	66.65	5.27	6.0591	1.03	1.90	12.330	2.30	1.13	66.65
4.52	1,140	47.98	69.21	4.21	6.0711	1.07	1.90	12.364	2.00	1.17	69.21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
5.91	1,330	56.08	80.53	4.22	6,0549	1.25	2.00	17,178	2.00	1.36	80.53
5.92	1,330	51.26	80.53	3.85	6,0549	1.25	2.00	17,213	2.00	1.36	80.53
5.93	1,230	50.66	80.17	4.12	6,5179	1.15	2.00	17,248	2.00	1.26	80.17
5.94	1,120	50.01	80.17	4.47	7,1580	1.04	2.00	17,283	2.00	1.15	80.17
5.95	1,000	51.45	79.99	5.15	7,9990	0.92	2.00	17,318	2.30	1.03	79.99
5.96	0,880	54.18	80.17	6.16	9,1102	0.80	2.00	17,352	2.00	0.91	80.17
5.97	0,810	48.90	80.53	6.04	9,9420	0.73	2.00	17,387	2.00	0.84	80.53
5.98	0,810	46.31	80.53	5.72	9,9420	0.73	2.00	17,422	2.00	0.84	80.53
5.99	0,810	42.28	80.53	5.22	9,9420	0.73	2.00	17,457	2.30	0.84	80.53
6.00	0,840	38.89	80.53	4.64	9,5869	0.76	2.00	17,492	2.30	0.87	80.53
6.01	0,880	38.39	80.72	4.36	9,1727	0.80	2.00	17,527	2.00	0.91	80.72
6.02	0,920	38.71	80.72	4.21	8,7739	0.84	2.00	17,562	2.00	0.95	80.72
6.03	0,990	37.23	80.90	3.76	8,1717	0.91	2.00	17,597	2.00	1.02	80.90
6.04	1,130	35.89	80.90	3.18	7,1593	1.05	2.00	17,632	2.00	1.16	80.90
6.05	1,330	37.00	81.08	2.78	6,0962	1.25	2.00	17,667	2.00	1.36	81.08
6.06	1,620	38.44	81.08	2.37	5,0049	1.54	2.00	17,701	2.00	1.65	81.08
6.07	1,950	37.70	81.08	1.93	4,1579	1.87	2.00	17,736	2.00	1.98	81.08
6.08	2,310	36.17	80.90	1.57	3,5022	2.23	2.00	17,771	2.00	2.34	80.90
6.09	2,610	34.96	80.72	1.34	3,0927	2.53	2.00	17,806	2.00	2.64	80.72
6.1	2,730	34.32	80.53	1.26	2,9498	2.65	2.00	17,841	2.00	2.68	80.53
6.11	2,390	32.60	80.72	1.36	3,3774	2.31	2.00	17,876	2.00	2.42	80.72
6.12	2,130	33.30	80.53	1.56	3,7808	2.05	2.10	17,913	2.00	2.16	80.53
6.13	1,880	35.29	80.53	1.88	4,2835	1.80	2.10	17,949	2.30	1.91	80.53
6.14	1,700	38.95	80.53	2.29	4,7371	1.62	2.00	17,984	2.30	1.73	80.53
6.15	1,580	43.30	80.35	2.74	5,0854	1.50	2.00	18,019	2.30	1.61	80.35
6.16	1,500	43.30	80.17	3.22	5,3447	1.42	2.00	18,054	2.00	1.53	80.17
6.17	1,410	53.58	80.17	3.80	6,6858	1.33	2.00	18,089	2.00	1.44	80.17
6.18	1,300	58.30	80.17	4.48	8,1669	1.22	2.00	18,124	2.00	1.33	80.17
6.19	1,230	61.82	79.99	5.03	8,5033	1.15	2.00	18,159	2.00	1.26	79.99
6.2	1,070	70.02	79.99	6.54	7,4757	0.99	2.00	18,194	2.00	1.10	79.99
6.21	0,980	74.70	80.35	7.62	6,1990	0.90	2.00	18,228	2.00	1.01	80.35
6.22	1,030	76.36	80.53	7.41	7,8184	0.95	2.00	18,263	2.30	1.06	80.53
6.23	1,230	77.29	80.72	6.28	6,5626	1.15	2.00	18,298	2.30	1.26	80.72
6.24	1,610	75.44	80.72	4.69	5,0137	1.53	2.10	18,335	2.00	1.64	80.72
6.25	2,070	71.32	81.26	3.45	3,9296	1.99	2.10	18,372	2.00	2.10	81.26
6.26	2,570	68.03	81.45	2.65	3,1693	2.49	2.10	18,408	2.00	2.60	81.45
6.27	3,400	61.17	81.45	1.80	2,3956	3.32	2.00	18,443	2.00	3.43	81.45
6.28	3,630	57.79	81.45	1.59	2,2438	3.55	2.00	18,478	2.00	3.66	81.45
6.29	3,790	55.85	81.63	1.47	2,1538	3.71	2.00	18,513	2.00	3.82	81.63
6.3	3,940	54.27	81.63	1.38	2,0718	3.86	2.00	18,548	2.00	3.97	81.63
6.31	4,060	53.21	81.63	1.31	2,0106	3.98	2.00	18,583	2.00	4.09	81.63
6.32	4,100	52.14	81.81	1.25	1,9696	4.08	2.00	18,618	2.00	4.19	81.81
6.33	4,260	51.08	81.63	1.20	1,9162	4.18	2.00	18,652	2.00	4.29	81.63
6.34	4,320	50.52	81.63	1.17	1,8896	4.24	2.00	18,687	2.00	4.35	81.63
6.35	4,370	50.71	81.63	1.16	1,8680	4.29	2.00	18,722	2.00	4.40	81.63
6.36	4,390	51.36	81.45	1.17	1,8554	4.31	2.00	18,757	2.00	4.42	81.45
6.37	4,380	49.39	81.63	1.10	1,8596	4.30	2.00	18,792	2.00	4.41	81.63
6.38	4,370	48.39	81.45	1.11	1,8638	4.29	2.00	18,827	2.00	4.40	81.45
6.39	4,340	44.83	81.26	1.04	1,8767	4.25	2.00	18,862	2.00	4.36	81.26
6.4	4,230	41.31	81.26	0.98	1,9210	4.15	2.00	18,897	2.30	4.26	81.26
6.41	4,160	40.98	81.08	0.99	1,9436	4.08	2.00	18,932	2.30	4.19	81.08
6.42	4,090	41.54	80.35	1.02	1,9868	4.01	2.00	18,967	2.00	4.12	80.35
6.43	4,010	41.96	81.26	1.05	2,0264	3.93	2.00	19,001	2.00	4.04	81.26
6.44	3,930	42.51	81.63	1.08	2,0771	3.85	2.00	19,036	2.00	3.96	81.63
6.45	3,850	42.65	81.63	1.11	2,1203	3.77	2.00	19,071	2.00	3.88	81.63
6.46	3,770	43.02	81.45	1.14	2,1605	3.69	2.00	19,106	2.00	3.80	81.45
6.47	3,680	43.44	81.45	1.17	2,2037	3.61	2.00	19,141	2.00	3.72	81.45
6.48	3,620	43.76	81.45	1.21	2,2500	3.54	2.00	19,176	2.00	3.65	81.45
6.49	3,620	43.76	81.45	1.21	2,2500	3.54	2.00	19,211	2.30	3.65	81.45
6.5	3,620	43.76	81.45	1.21	2,2500	3.54	2.00	19,246	2.50	3.65	81.45
6.51	1,800	40.10	82.72	2.23	4,5956	1.72	2.00	19,281	2.50	1.83	82.72
6.52	1,440	38.99	82.72	1.14	4,4047	1.36	2.00	19,316	2.00	1.43	82.72
6.53	1,450	39.55	82.72	1.15	3,9777	3.37	2.00	19,350	2.00	3.48	82.72
6.54	3,410	39.96	82.72	1.17	2,4258	3.33	2.00	19,385	2.00	3.44	82.72
6.55	3,360	40.29	82.72	1.20	2,4619	3.28	2.00	19,420	2.00	3.39	82.72
6.56	3,310	40.61	82.72	1.23	2,4991	3.23	2.00	19,455	2.00	3.34	82.72
6.57	3,270	40.82	82.72	1.26	2,5367	3.19	2.00	19,490	2.00	3.30	82.72
6.58	3,220	41.26	82.72	1.28	2,5698	3.14	2.00	19,525	2.00	3.25	82.72
6.59	3,170	41.49	82.54	1.31	2,6038	3.09	2.00	19,560	2.00	3.20	82.54

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Pag. 9

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
6.6	3,130	41.72	82.54	1.33	2,6371	3.05	2.00	19,595	2.00	3.16	82.54
6.61	3,000	42.14	82.54	1.40	2,7513	2.92	2.00	19,630	2.30	3.03	82.54
6.62	2,910	42.28	82.36	1.45	2,8302	2.83	2.00	19,665	2.30	2.94	82.36
6.63	2,800	42.23	82.36	1.51	2,9414	2.72	2.00	19,699	2.00	2.83	82.36
6.64	2,680	42.19	82.36	1.57	3,0526	2.60	2.00	19,734	2.00	2.71	82.36
6.65	2,530	42.56	82.36	1.68	3,2553	2.45	2.00	19,769	2.00	2.56	82.36
6.66	2,100	44.69	82.18	2.13	3,9133	2.02	2.00	19,804	2.00	2.13	82.18
6.67	1,840	47.19	81.99	2.56	4,5060	1.76	2.00	19,839	2.00	1.87	81.99
6.68	1,610	50.48	81.99	3.14	5,0925	1.53	2.00	19,874	2.00	1.64	81.99
6.69	1,300	54.78	81.81	3.81	5,8436	1.32	2.00	19,909	2.00	1.31	81.81
6.7	1,250	59.60	81.99	4.77	6,5592	1.17	2.00	19,944	2.00	1.28	81.99
6.71	1,140	64.60	81.99	5.67	7,1921	1.06	2.00	19,979	2.00	1.17	81.99
6.72	1,030	69.65	81.81	6.76	7,9427	0.95	2.00	20,014	2.00	1.06	81.81
6.73	0,910	73.31	81.63	8.06	8,9703	0.83	2.00	20,048	2.00	0.94	81.63
6.74	0,790	75.49	81.81	9.56	10,3557	0.71	2.00	20,083	2.30	0.81	81.81
6.75	0,690	76.18	82.18	11,04	11,9101	0.61	2.00	20,118	2.30	0.72	82.18
6.76	0,650	73.08	82.18	11,24	12,6431	0.57	2.00	20,153	2.00	0.68	82.18
6.77	0,670	68.77	82.36	10,26	12,2925	0.59	2.00	20,188	2.00	0.70	82.36
6.78	0,780	62.01	82.36	7,95	10,5590	0.70	2.00	20,223	2.00	0.81	82.36
6.79	0,790	55.98	82.72	5,30	7,8781	0.97	2.00	20,258	2.00	1.08	82.72
6.8	1,460	51.36	83.09	3,52	5,6911	1.38	2.00	20,293	2.00	1.49	83.09
6.81	1,960	47.74	83.27	2,44	4,2485	1.88	2.00	20,328	2.00	1.99	83.27
6.82	2,930	37.70	83.09	1,29	2,8358	2.85	2.00	20,363	2.30	2.96	83.09
6.83	3,130	34.36	82.91	1,09	2,6321	3.07	2.00	20,397	2.30	3.18	82.91
6.84	3,360	33.09	83.09	1,01	2,6129	3.10	2.00	20,432	1.80	3.21	83.09
6.85	3,170	30.47	83.09	0,96	2,6211	3.09	2.00	20,467	1.80	3.20	83.09
6.86	3,150	28.71	83.27	0,91	2,6435	3.07	2.00	20,502	2.00	3.18	83.27
6.87	3,100	27.51	83.27	0,89	2,6861	3.02	2.00	20,537	2.00	3.13	83.27
6.88	3,020	26.49	83.09	0,88	2,7513	2.94	2.10	20,574	2.00	3.05	83.09
6.89	2,880	26.54	83.27	0,92	2,8913	2.80	2.10	20,610	2.00	2.91	83.27

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.67	4,860	42.88	87.29	0.88	1.7961	4.77	2.20	27.367	2.00	4.90	87.29
8.68	4,800	42.79	87.11	0.87	1.7778	4.81	2.30	27.407	2.00	4.94	87.11
8.69	4,970	42.88	87.11	0.86	1.7527	4.88	2.30	27.447	2.00	5.01	87.11
8.7	5,070	42.74	87.11	0.84	1.7181	4.98	2.30	27.487	2.00	5.11	87.11
8.71	5,220	42.74	87.11	0.82	1.6722	5.13	2.30	27.527	2.00	5.24	87.11
8.72	5,470	42.74	87.47	0.78	1.5991	5.38	2.30	27.567	2.00	5.51	87.47
8.73	5,770	42.33	87.66	0.73	1.5192	5.68	2.30	27.607	2.00	5.81	87.66
8.74	6,120	41.86	87.84	0.68	1.4353	6.03	2.30	27.648	2.00	6.16	87.84
8.75	6,840	41.35	88.02	0.60	1.2868	6.75	2.30	27.688	2.00	6.88	88.02
8.76	7,200	40.58	88.02	0.56	1.2225	7.11	2.30	27.728	2.00	7.45	88.02
8.77	7,570	41.63	87.84	0.55	1.1604	7.48	2.30	27.768	2.00	7.61	87.84
8.78	7,910	42.00	87.84	0.53	1.1105	7.82	2.30	27.808	2.00	7.95	87.84
8.79	8,230	42.60	87.66	0.52	1.0651	8.14	2.30	27.848	2.00	8.27	87.66
8.8	8,480	43.44	87.47	0.51	1.0315	8.39	2.30	27.888	2.00	8.52	87.47
8.81	8,690	44.09	87.11	0.51	1.0024	8.60	2.30	27.928	1.80	8.73	87.11
8.82	8,810	44.87	86.56	0.51	0.9825	8.72	2.30	27.969	1.80	8.85	86.56
8.83	8,900	45.38	86.56	0.51	0.9726	8.81	2.30	28.009	2.00	8.94	86.56
8.84	8,930	47.00	86.92	0.53	0.9733	8.84	2.30	28.049	2.00	8.97	86.92
8.85	8,910	47.84	87.29	0.54	0.9797	8.82	2.30	28.089	2.00	8.95	87.29
8.86	8,960	48.32	87.66	0.54	0.9894	8.77	2.30	28.129	2.00	8.99	87.66
8.87	8,760	49.50	87.84	0.57	1.0027	8.67	2.30	28.169	2.00	8.80	87.84
8.88	8,620	50.57	88.02	0.59	1.0211	8.53	2.30	28.209	1.80	8.66	88.02
8.89	8,500	51.45	88.02	0.61	1.0355	8.41	2.30	28.250	1.80	8.54	88.02
8.9	8,380	53.35	87.84	0.64	1.0482	8.29	2.30	28.290	2.00	8.42	87.84
8.91	8,330	53.72	87.84	0.64	1.0445	8.24	2.30	28.330	2.00	8.39	87.84
8.92	8,270	54.78	88.02	0.67	1.0643	8.18	2.30	28.370	1.80	8.31	88.02
8.93	8,200	55.20	88.02	0.67	1.0734	8.11	2.30	28.410	1.80	8.24	88.02
8.94	8,080	55.66	88.02	0.69	1.0880	8.00	2.30	28.450	2.00	8.13	88.02
8.95	7,980	55.80	88.02	0.70	1.1030	7.89	2.30	28.490	2.00	8.02	88.02
8.96	7,850	55.62	88.02	0.71	1.1213	7.76	2.30	28.530	2.00	7.89	88.02
8.97	7,710	55.11	87.84	0.71	1.1393	7.62	2.30	28.571	2.00	7.75	87.84
8.98	7,490	55.15	88.02	0.74	1.1752	7.40	2.30	28.611	1.80	7.53	88.02
8.99	7,460	55.29	88.20	0.74	1.1823	7.37	2.30	28.651	1.80	7.50	88.20
9	7,490	55.48	88.39	0.74	1.1801	7.40	2.30	28.691	2.00	7.53	88.39
9.01	7,540	55.66	88.39	0.74	1.1723	7.45	2.30	28.731	2.00	7.58	88.39
9.02	7,650	55.29	88.75	0.72	1.1601	7.56	2.30	28.771	2.00	7.69	88.75
9.03	7,800	54.60	89.12	0.69	1.1338	7.77	2.30	28.813	1.80	7.90	89.12
9.04	7,940	53.53	89.30	0.67	1.1247	7.85	2.30	28.855	1.80	7.98	89.30
9.05	8,030	53.12	89.48	0.66	1.1143	7.94	2.30	28.897	1.80	8.07	89.48
9.06	8,150	53.07	89.48	0.65	1.0979	8.06	2.30	28.937	1.80	8.19	89.48
9.07	8,270	52.79	89.69	0.64	1.0842	8.18	2.40	28.979	2.00	8.31	89.69
9.08	8,370	52.56	89.66	0.63	1.0712	8.28	2.40	29.021	2.00	8.41	89.66
9.09	8,540	51.82	89.66	0.61	1.0499	8.45	2.40	29.063	1.80	8.58	89.66
9.1	8,630	51.54	89.66	0.60	1.0389	8.54	2.40	29.104	1.80	8.67	89.66
9.11	8,730	51.31	89.85	0.59	1.0292	8.64	2.40	29.146	1.80	8.77	89.85
9.12	8,800	51.59	89.85	0.59	1.0210	8.71	2.40	29.188	1.80	8.86	89.85
9.13	8,860	52.01	89.86	0.61	1.0120	8.77	2.40	29.230	2.00	8.90	89.86
9.14	8,920	52.47	89.85	0.59	1.0073	8.83	2.40	29.272	2.00	8.96	89.85
9.15	8,980	52.98	90.03	0.60	1.0116	8.81	2.40	29.314	1.80	8.94	90.03
9.16	8,850	53.72	90.39	0.61	1.0214	8.76	2.40	29.356	2.00	8.89	90.39
9.17	8,740	54.18	90.58	0.62	1.0384	8.65	2.40	29.398	2.00	8.79	90.58
9.18	8,580	54.78	90.58	0.63	1.0557	8.49	2.40	29.439	1.80	8.52	90.58
9.19	8,380	54.83	90.39	0.65	1.0786	8.29	2.40	29.481	1.80	8.42	90.39
9.2	8,020	56.13	90.76	0.70	1.1317	7.93	2.40	29.523	2.00	8.06	90.76
9.21	7,910	56.96	90.94	0.72	1.1497	7.82	2.40	29.565	2.00	7.95	90.94
9.22	7,830	57.15	91.12	0.73	1.1637	7.74	2.40	29.607	1.80	7.87	91.12
9.23	7,800	57.52	91.31	0.74	1.1768	7.61	2.40	29.649	2.00	7.92	91.31
9.24	7,790	57.61	91.67	0.74	1.1768	7.70	2.40	29.691	2.00	7.83	91.67
9.25	7,840	57.75	91.86	0.74	1.1717	7.75	2.40	29.733	2.00	7.88	91.86
9.26	7,880	57.65	91.67	0.73	1.1663	7.74	2.40	29.774	1.80	7.90	91.67
9.27	7,860	57.05	92.04	0.72	1.1665	7.80	2.40	29.816	1.80	7.93	92.04
9.28	7,850	56.78	92.04	0.72	1.1625	7.76	2.40	29.858	2.00	7.93	92.04
9.29	7,750	56.36	92.22	0.73	1.1899	7.68	2.40	29.900	2.00	7.79	92.22
9.3	7,640	56.80	92.22	0.73	1.2071	7.55	2.40	29.942	2.00	7.68	92.22
9.31	7,480	55.25	92.22	0.74	1.2329	7.39	2.40	29.984	2.00	7.52	92.22
9.32	7,360	54.51	92.40	0.74	1.2564	7.27	2.40	30.026	1.80	7.40	92.40
9.33	7,240	53.62	92.58	0.75	1.2768	7.15	2.40	30.068	2.00	7.29	92.58
9.34	7,130	54.18	92.77	0.76	1.3011	7.04	2.40	30.109	2.00	7.17	92.77
9.35	6,960	53.63	93.13	0.77	1.3381	6.87	2.40	30.151	2.00	7.00	93.13

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Pag. 13

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
9.36	6,940	53.35	93.32	0.77	1.3447	6.85	2.40	30.193	2.00	6.98	93.32
9.37	6,890	53.12	93.50	0.77	1.3570	6.80	2.40	30.235	2.00	6.93	93.50
9.38	6,890	52.84	93.50	0.77	1.3570	6.80	2.40	30.277	2.00	6.93	93.50
9.39	6,870	52.47	93.68	0.76	1.3636	6.78	2.40	30.319	2.00	6.91	93.68
9.4	6,880	52.33	93.86	0.76	1.3642	6.76	2.40	30.361	2.00	6.92	93.86
9.41	6,900	52.19	94.05	0.76	1.3630	6.81	2.40	30.403	2.00	6.94	94.05
9.42	6,920	52.01	94.05	0.75	1.3591	6.83	2.40	30.445	2.00	6.96	94.05
9.43	6,900	51.40	94.05	0.74	1.3513	6.87	2.40	30.486	2.00	7.00	94.05
9.44	7,080	50.71	94.23	0.72	1.3309	6.95	2.40	30.528	2.00	7.12	94.23
9.45	7,000	49.93	94.23	0.72	1.3338	6.99	2.40	30.570	2.00	7.12	94.23
9.46	7,150	50.29	94.23	0.70	1.3179	7.06	2.40	30.612	2.30	7.19	94.23
9.47	7,360	49.55	94.23	0.67	1.2803	7.27	2.40	30.654	2.30	7.40	94.23
9.48	7,360	49.55	94.23	0.67	1.2803	7.27	2.40	30.696	2.50	7.40	94.23
9.49	7,360	49.55	94.23	0.67	1.2803	7.27	2.40	30.738	2.50	7.40	94.23
9.5	7,090	40.38	90.31	0.57	1.2889	6.98	2.40	30.780	2.00	7.12	90.31
9.51	7,420	40.81	91.12	0.55	1.2280	7.33	2.40	30.821	2.00	7.46	91.12
9.52	7,520	41.54	90.94	0.55	1.2093	7.43	2.40	30.863	2.00	7.56	90.94
9.53	7,620	42.56	90.76	0.56	1.1911	7.53	2.40	30.905	2.00	7.66	90.76
9.54	7,730	43.25	90.94	0.56	1.1765	7.64	2.40	30.947	2.00	7.77	90.94
9.55	7,910	43.53	91.12	0.55	1.1520	7.82	2.40	30.989	2.00	7.95	91.12
9.56	8,120	44.32	91.12	0.55	1.1222	8.03	2.40	31.031	2.00	8.16	91.12
9.57	8,340	44.97	91.49	0.54	1.0970	8.25	2.40	31.073	2.00	8.38	91.49
9.58	8,560	45.52	91.67	0.53	1.0709	8.47	2.40	31.115	2.00	8.60	91.67
9.59	8,890	46.12	91.49	0.52	1.0291	8.80	2.40	31.156	2.00	8.93	91.49
9.6	8,890	45.94	91.67	0.52	1.0265	8.69	2.40	31.198	2.00	8.97	91.67
9.61	8,930	47.93	91.49	0.54	1.0397	8.71	2.40	31.240	2.00	8.84	91.49
9.62	8,740	48.58	91.31	0.56	1.0447	8.65	2.40	31.282	2.00	8.78	91.31
9.63	8,690	49.78	91.31	0.57	1.0507	8.60	2.40	31.324	2.00	8.73	91.31
9.64	8,720	50.66	91.12	0.58	1.0450	8.63	2.40	31.366	2.00	8.76	91.12

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
11.43	4.710	28.06	93.5	0.60	1.9851	4.62	2.50	38.868	1.80	4.75	-18.63
11.44	4.740	27.92	93.68	0.59	1.9764	4.65	2.50	38.912	2.00	4.78	-18.55
11.45	4.770	27.92	93.5	0.59	1.9602	4.68	2.50	38.956	2.00	4.81	-18.82
11.46	4.800	28.29	93.5	0.59	1.9479	4.71	2.50	38.999	1.80	4.84	-18.92
11.47	4.810	28.43	93.32	0.59	1.9401	4.72	2.50	39.043	1.80	4.85	-19.20
11.48	4.810	28.43	93.32	0.59	1.9401	4.72	2.50	39.087	2.50	4.85	-19.30
11.49	4.810	28.43	93.32	0.59	1.9401	4.72	2.50	39.130	2.50	4.85	-19.30
11.5	4.800	19.96	87.47	0.42	1.8223	4.71	2.50	39.174	1.80	4.84	-23.35
11.51	4.780	20.84	87.47	0.44	1.8299	4.69	2.50	39.217	1.80	4.82	-24.44
11.52	4.960	22.76	86.92	0.45	1.7524	4.87	2.50	39.251	1.000	4.91	-14.35
11.53	5.020	22.46	87.11	0.45	1.7353	4.93	2.50	39.305	2.00	5.06	-26.00
11.54	5.070	22.37	87.11	0.44	1.7181	4.98	2.50	39.348	1.80	5.11	-26.10
11.55	5.140	22.88	87.11	0.45	1.6947	5.05	2.50	39.392	1.80	5.18	-26.20
11.56	5.210	23.43	86.56	0.45	1.6614	5.12	2.50	39.436	2.00	5.25	-26.84
11.57	5.330	23.76	86.74	0.45	1.6274	5.24	2.50	39.479	2.00	5.37	-28.42
11.58	5.470	23.85	86.56	0.44	1.5824	5.38	2.50	39.523	2.00	5.51	-27.04
11.59	5.620	24.36	86.56	0.43	1.5402	5.53	2.50	39.566	2.00	5.66	-27.14
11.6	6.030	24.64	86.74	0.41	1.4385	5.94	2.50	39.610	2.00	6.07	-27.06
11.61	6.450	25.19	86.38	0.39	1.3392	6.36	2.50	39.655	1.80	6.49	-27.51
11.62	6.630	25.28	86.56	0.38	1.3056	6.54	2.50	39.701	2.00	6.59	-27.19
11.63	6.830	25.66	88.02	0.38	1.2887	6.74	2.50	39.746	2.00	6.87	-26.07
11.64	6.780	26.30	86.01	0.39	1.2686	6.69	2.50	39.791	1.80	6.82	-26.18
11.65	6.790	26.81	86.01	0.39	1.2667	6.70	2.50	39.835	1.80	6.83	-26.28
11.66	6.520	27.65	85.46	0.42	1.3107	6.43	2.50	39.879	2.00	6.56	-28.92
11.67	6.320	27.97	84.55	0.46	1.3227	6.24	2.50	39.922	2.00	6.24	-30.03
11.68	6.140	28.43	84.55	0.46	1.3770	6.06	2.50	39.968	1.80	6.18	-30.03
11.69	5.900	28.90	84.19	0.49	1.4269	5.82	2.60	40.013	1.80	5.94	-30.49
11.7	5.700	30.19	84.55	0.53	1.4833	5.62	2.60	40.058	2.00	5.74	-30.23
11.71	5.530	31.26	85.28	0.57	1.5421	5.44	2.60	40.104	2.00	5.57	-29.60
11.72	5.400	32.56	85.65	0.60	1.5861	5.31	2.50	40.147	2.00	5.44	-29.32
11.73	5.370	32.56	85.65	0.61	1.5850	5.28	2.50	40.191	2.00	5.41	-29.42
11.74	5.180	33.53	86.01	0.65	1.6604	5.09	2.50	40.235	2.00	5.22	-29.16
11.75	5.090	34.64	85.46	0.68	1.6790	5.00	2.60	40.280	2.00	5.13	-29.81
11.76	5.020	34.64	85.63	0.69	1.7098	4.93	2.60	40.325	2.00	5.06	-29.54
11.77	5.000	33.67	85.46	0.67	1.7092	4.91	2.60	40.371	2.00	5.04	-30.00
11.78	5.000	33.94	85.46	0.68	1.7092	4.91	2.60	40.416	1.80	5.04	-30.10
11.79	5.000	34.08	85.46	0.68	1.7092	4.91	2.60	40.461	1.80	5.04	-30.20
11.8	5.000	34.59	85.28	0.69	1.7056	4.91	2.60	40.507	2.00	5.04	-30.48
11.81	4.970	33.81	85.1	0.68	1.7123	4.88	2.60	40.552	2.00	5.01	-30.76
11.82	4.960	33.99	84.92	0.69	1.7121	4.88	2.60	40.598	2.00	5.00	-31.03
11.83	4.940	34.27	84.92	0.69	1.7100	4.86	2.60	40.643	2.00	4.98	-31.13
11.84	4.980	33.71	84.73	0.69	1.7327	4.81	2.60	40.688	2.00	4.93	-31.42
11.85	4.790	35.43	85.1	0.74	1.7766	4.70	2.60	40.734	2.00	4.83	-31.15
11.86	4.740	36.63	85.65	0.77	1.8070	4.65	2.60	40.779	2.00	4.78	-30.70
11.87	4.680	37.56	86.01	0.80	1.8378	4.59	2.60	40.824	2.00	4.72	-30.43
11.88	4.620	37.83	86.38	0.82	1.8697	4.53	2.60	40.870	2.00	4.65	-30.49
11.89	4.570	38.63	86.56	0.84	1.8941	4.48	2.60	40.915	2.00	4.61	-30.66
11.9	4.540	39.32	86.38	0.87	1.9026	4.45	2.60	40.960	2.00	4.58	-30.36
11.91	4.530	39.50	86.19	0.87	1.9026	4.44	2.60	41.006	2.00	4.57	-30.65
11.92	4.540	40.06	85.83	0.88	1.8905	4.45	2.60	41.051	2.30	4.58	-31.11
11.93	4.550	40.38	85.46	0.89	1.8822	4.46	2.60	41.097	2.30	4.59	-31.57
11.94	4.580	40.75	85.65	0.89	1.8701	4.49	2.60	41.142	2.00	4.62	-31.48
11.95	4.620	40.89	85.46	0.89	1.8498	4.53	2.60	41.187	2.00	4.66	-31.77
11.96	4.680	40.80	85.65	0.87	1.8301	4.59	2.60	41.233	2.00	4.72	-31.68
11.97	4.740	41.03	85.83	0.87	1.8108	4.65	2.60	41.278	2.00	4.78	-31.60
11.98	4.790	41.31	85.83	0.86	1.7916	4.70	2.60	41.323	2.30	4.83	-31.69
11.99	4.790	41.31	85.83	0.86	1.7916	4.70	2.60	41.368	2.00	4.83	-31.79
12	4.860	40.29	85.46	0.83	1.7584	4.77	2.60	41.414	2.00	4.90	-32.26
12.01	4.920	40.24	85.46	0.82	1.7370	4.83	2.60	41.459	2.00	4.96	-32.36
12.02	4.970	40.20	85.46	0.81	1.7195	4.88	2.60	41.505	2.00	5.01	-32.46
12.03	5.030	40.20	85.65	0.80	1.7028	4.94	2.60	41.550	2.00	5.07	-32.36
12.04	5.110	40.15	86.01	0.79	1.6832	5.02	2.60	41.596	2.30	5.13	-32.03
12.05	5.190	40.01	86.19	0.77	1.6607	5.10	2.60	41.641	2.30	5.23	-32.02
12.06	5.260	39.83	86.38	0.76	1.6453	5.16	2.60	41.686	2.30	5.29	-31.93
12.07	5.330	39.69	86.56	0.74	1.6240	5.24	2.60	41.732	2.00	5.37	-31.85
12.08	5.410	39.59	86.74	0.73	1.6033	5.32	2.60	41.777	2.00	5.45	-31.76
12.09	5.500	39.27	86.56	0.71	1.5788	5.41	2.60	41.822	2.30	5.51	-31.69
12.1	5.580	39.08	86.56	0.70	1.5513	5.49	2.60	41.868	2.00	5.62	-32.14
12.11	5.670	38.67	86.38	0.68	1.5235	5.58	2.60	41.913	2.00	5.71	-32.42

17-101_G_CPTU_Soarza

17-101_CPTU.S6_SM

Pag. 17

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
12.12	5.750	38.48	86.01	0.67	1.4958	5.66	2.60	41.958	2.00	5.79	-32.89
12.13	5.890	38.95	85.83	0.66	1.4572	5.80	2.60	42.004	2.00	5.93	-33.17
12.14	5.940	39.32	85.65	0.66	1.4419	5.85	2.60	42.049	2.00	5.98	-33.44
12.15	5.980	39.78	85.65	0.67	1.4323	5.89	2.60	42.095	2.00	6.02	-33.54
12.16	6.000	39.96	85.65	0.67	1.4275	5.91	2.60	42.140	2.00	6.04	-33.64
12.17	6.020	39.83	85.83	0.66	1.4257	5.93	2.60	42.185	2.00	6.06	-33.56
12.18	6.020	40.06	86.19	0.67	1.4317	5.93	2.60	42.231	2.00	6.06	-33.30
12.19	6.020	40.84	86.38	0.68	1.4349	5.93	2.60	42.276	2.00	6.06	-33.20
12.2	6.020	41.40	86.19	0.69	1.4317	5.93	2.60	42.321	2.00	6.06	-33.49
12.21	6.000	41.91	86.01	0.70	1.4335	5.91	2.60	42.367	2.00	6.04	-33.71
12.22	6.010	42.05	86.19	0.70	1.4341	5.92	2.60	42.412	2.00	6.05	-33.69
12.23	5.990	42.33	86.19	0.71	1.4389	5.90	2.60	42.457	2.00	6.03	-33.79
12.24	5.960	42.74	86.19	0.72	1.4461	5.87	2.60	42.503	2.00	6.00	-33.88
12.25	5.930	43.11	86.38	0.73	1.4567	5.84	2.60	42.548	2.00	5.97	-33.79
12.26	5.960	43.39	86.01	0.73	1.4431	5.87	2.60	42.594	2.00	6.00	-34.26
12.27	6.030	43.53	85.83	0.72	1.4234	5.94	2.70	42.641	2.00	6.07	-34.54
12.28	6.140	43.35	85.46	0.71	1.3919	6.05	2.70	42.688	2.00	6.18	-35.01
12.29	6.260	43.07	85.28	0.69	1.3623	6.17	2.70	42.735	2.00	6.30	-35.28
12.3	6.340	42.70	85.1	0.67	1.3423	6.25	2.70	42.782	2.00	6.38	-35.56
12.31	6.390	42.14	85.85	0.66	1.3464	6.30	2.70	42.829	2.00	6.43	-35.11
12.32	6.440	41.77	86.01	0.65	1.3356	6.35	2.70	42.876	2.00	6.48	-34.85
12.33	6.520	41.31	86.56	0.63	1.3276	6.43	2.70	42.923	2.00	6.56	-34.40
12.34	6.590	40.98	86.74	0.62	1.3162	6.50	2.70	42.970	1.80	6.63	-34.32
12.35	6.630	40.61	86.92	0.61	1.3110	6.54	2.70	43.017	1.80	6.67	-34.23
12.36	6.630	40.15	86.92	0.61	1.3150	6.52	2.70	43.063	2.00	6.65	-34.33
12.37	6.510	39.69	86.92	0.61	1.3362	6.42	2.60	43.108	2.00	6.55	-34.43
12.38	6.340	38.99	86.92	0.61	1.3710	6.25	2.60	43.154	2.00	6.38	-34.53
12.39	6.100	38.53	86.74	0.63	1.4220	6.01	2.60	43.199	2.00	6.14	-34.81
12.4	5.820	37.88	86.56	0.65	1.4873	5.73	2.70	43.246	2.00	5.86	-35.08
12.41	5.580	37.46	86.38	0.67	1.5480	5.49	2.70	43.293	2.00	5.62	-35.35
12.42	5.310	36.82	86.56	0.69	1.6301	5.22	2.70	43.340	2.00	5.35	-35.62
12.43	4.980	36.03	86.19	0.72	1.7037	4.89	2.60	43.384	2.00	5.02	-35.89
12.44	4.860	35.52	86.38	0.73	1.7774	4.77	2.60	43.429	2.00	4.90	-35.95
12.45	4.820	35.33	86.56	0.73	1.7959	4.73	2.60	43.475	2.00	4.86	-35.95
12.46	4.840	34.69	86.56	0.72	1.7884	4.75	2.60	43.520	2.00	4.88	-35.35
12.47	4.900	34.18	86.74	0.70	1.7702	4.81	2.60	43.565	2.00	4.94	-35.08
12.48	4.900	34.18	86.74	0.70	1.7702	4.81	2.60	43.611	2.50	4.94	-35.08
12.49	4.900	34.18	86.74	0.70	1.7702	4.81	2.60	43.656	2.30	4.94	-35.08
12.5	5.020	23.15	83.64	0.46	1.6661	4.94	2.70	43.703	2.30	5.06	-38.88
12.51	5.320	24.17	83.64	0.45	1.5722	5.24	2.70	43.750	2.50	5.36	-39.99
12.52	5.850	24.82	83.27	0.41	1.5004	5.85	2.70	43.797	2.50	5.86	-40.84
12.53	5.720	25.10	83.09	0.44	1.5526	5.64	2.70	43.844	2.00	5.75	-39.99
12.54	5.830	25.19	82.91	0.43	1.4221	5.75	2.70	43.892	2.00	5.86	-40.00
12.55	5.840	25.19	82.91	0.43	1.4197	5.76	2.60	43.937	2.00	5.87	-40.00
12.56	5.790	25.38	82.91	0.44	1.4381	5.61	2.60	43.982	2.00	5.82	-40.00
12.57	5.700	25.56	82.36	0.45	1.4449	5.62	2.60	44.028	2.00	5.79	-40.00
12.58	5.610	25.84	82.36	0.46	1.4931	5.53	2.60	44.073	2.00	5.64	-41.11
12.59	5.540	26.40	82.36	0.48	1.4866	5.46	2.70	44.120	2.00	5.57	-41.11
12.6	5.520	26.63	82.36	0.48	1.4920	5.44	2.70	44.167	2.30	5.55	-41.11
12.61	5.680	27.14	81.81	0.48	1.4863	5.53	2.60	44.213	2.00	5.64	-41.11
12.62	5.480	29.98	81.45	0.45	1.5493	5.25	2.60	44.258	2.00	5.49	-42.22
12.63	5.200	29.22	81.45	0.56	1.5693	5.12	2.60	44.303	2.00	5.24	-42.22
12.64	4.890	31.54	82.54	0.64	1.6879	4.87	2.70	44.350	2.00	4.92	-41.11
12.65	4.690	33.25	82.72	0.71	1.7638	4.61	2.60	44.396	2.00	4.72	-41.11
12.66	4.490	33.71	82.72	0.75	1.8423	4.41	2.70	44.443	2.00	4.52	-41.11
12.67	4.240	34.08	82.91	0.80	1.9554	4.16	2.60	44.488	2.00	4.27	-41.11
12.68	4.190	33.81	82.72	0.81	1.9544	4.16	2.60	44.535	2.00	4.24	-41.11
12.69	4.160	32.83	83.09	0.79	1.9974	4.08	2.70	44.582	2.30	4.21	-41.11
12.7	4.180	32.00	82.91	0.77	1.9835	4.10	2.60	44.628	2.30	4.19	-41.11
12.71	4.230	30.61	82.72	0.72	1.9556	4.15	2.60	44.673	2.00	4.26	-41.11
12.72	4.260	29.73	82.72	0.69	1.9327	4.20	2.60	44.719	2.00	4.26	-41.11
12.73	4.400	28.99	82.72	0.66	1.8900	4.32	2.70	44.764	2.00	4.43	-41.11
12.74	4.560	28.48	82.54	0.62	1.8101	4.48	2.70	44.813	2.00	4.59	-42.22
12.75	4.760	27.28	82.72	0.57	1.7378	4.68	2.70	44.860	2.30	4.79	-42.22
12.76	4.980	26.39	82.36	0.53	1.6538	4.90	2.60	44.905	2.30	5.02	-42.22
12.77	5.190	21.40	82.72	0.41	1.5938	5.11	2.70	44.952	2.00	5.22	-42.22
12.78	5.430	21.29	82.91	0.39	1.5938	5.21	2.70	44.998	2.00	5.49	-42.22
12.79	5.660	20.61	82.54	0.36	1.4583	5.58	2.60	45.043	2.00	5.69	-42.22
12.8	6.220	21.49	82.36	0.35	1.3241	6.14	2.60	45.088	2.00	6.25	-43.33

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.19	10,100	46.40	91.67	0.46	0.9076	10.01	2.60	51.389	2.00	10.14	-47.53
14.2	10,330	45.38	91.12	0.43	0.8572	10.54	2.60	51.434	2.30	10.67	-48.18
14.21	11,170	44.41	91.12	0.40	0.8158	11.08	2.60	51.479	2.30	11.21	-48.28
14.22	11,140	44.04	90.58	0.38	0.7716	11.65	2.60	51.525	2.00	11.78	-48.92
14.23	12,280	42.92	90.39	0.36	0.7461	12.19	2.60	51.570	2.00	12.32	-49.21
14.24	12,330	42.97	91.86	0.33	0.7160	12.74	2.60	51.615	2.00	12.87	-47.83
14.25	12,850	43.21	90.21	0.33	0.6808	13.16	2.60	51.661	2.00	13.29	-49.58
14.26	13,940	44.50	87.66	0.32	0.6228	13.85	2.60	51.706	2.00	13.98	-52.23
14.27	14,190	43.39	88.39	0.31	0.6289	14.10	2.60	51.752	2.00	14.23	-51.60
14.28	14,260	46.25	86.56	0.34	0.6070	14.17	2.60	51.797	2.00	14.39	-50.39
14.29	14,810	48.95	86.38	0.34	0.5912	14.52	2.60	51.842	1.80	14.65	-53.80
14.3	14,480	52.93	86.19	0.37	0.5952	14.39	2.60	51.888	2.00	14.52	-54.09
14.31	14,030	49.37	88.39	0.35	0.6300	13.94	2.60	51.933	2.00	14.07	-51.46
14.32	13,140	57.70	88.02	0.42	0.6406	13.65	2.60	51.978	2.00	13.78	-52.99
14.33	13,540	55.25	89.66	0.41	0.6622	13.45	2.60	52.024	2.00	13.58	-50.92
14.34	13,280	56.27	88.75	0.42	0.6683	13.19	2.60	52.069	2.00	13.32	-51.93
14.35	12,200	60.71	88.75	0.50	0.7275	12.11	2.60	52.114	2.00	12.24	-52.02
14.36	11,860	68.72	90.39	0.58	0.7621	11.77	2.60	52.160	2.00	11.90	-50.48
14.37	11,510	75.76	95.33	0.66	0.8282	11.41	2.60	52.205	2.00	11.55	-49.64
14.38	11,130	89.04	102.99	0.81	0.9253	11.03	2.60	52.251	2.00	11.17	-38.08
14.39	11,060	101.88	106.83	0.92	0.9659	10.95	2.60	52.296	2.00	11.10	-34.34
14.4	11,670	90.26	104.27	0.77	0.8935	11.57	2.60	52.341	2.00	11.71	-36.99
14.41	12,450	88.91	98.43	0.71	0.7906	12.35	2.60	52.387	2.00	12.49	-42.93
14.42	12,860	101.88	98.78	0.79	0.7307	12.77	2.60	52.432	2.00	12.90	-46.68
14.43	13,390	83.03	97.79	0.62	0.7078	13.29	2.60	52.477	2.00	13.43	-49.69
14.44	13,700	72.52	90.80	0.53	0.7345	13.60	2.60	52.523	2.00	13.74	-41.04
14.45	13,830	56.68	99.89	0.41	0.7223	13.73	2.60	52.568	2.00	13.87	-41.86
14.46	13,550	48.07	97.52	0.35	0.7197	13.45	2.60	52.613	2.00	13.59	-44.33
14.47	13,550	48.07	97.52	0.35	0.7197	13.45	2.60	52.659	2.50	13.59	-44.43
14.48	13,550	48.07	97.52	0.35	0.7197	13.45	2.60	52.704	2.50	13.59	-44.53
14.49	10,440	42.10	93.68	0.40	0.8973	10.35	2.60	52.748	2.00	10.48	-48.47
14.5	12,040	41.26	94.59	0.34	0.7856	11.95	2.50	52.791	2.00	12.08	-47.66
14.51	12,230	40.75	98.43	0.33	0.8048	12.13	2.50	52.835	2.30	12.27	-43.91
14.52	11,400	39.69	100.07	0.35	0.8778	11.30	2.50	52.879	2.30	11.44	-42.37
14.53	10,780	42.84	94.96	0.40	0.8809	10.69	2.50	52.922	1.80	10.82	-47.58
14.54	9,960	46.17	98.98	0.46	0.9938	9.86	2.50	52.966	1.80	10.00	-43.66
14.55	9,230	47.65	93.13	0.52	1.0090	9.14	2.50	53.010	1.80	9.27	-49.61
14.56	8,800	53.16	94.59	0.60	1.0749	8.71	2.50	53.053	2.30	8.84	-48.24
14.57	8,370	55.85	94.41	0.67	1.1280	8.28	2.50	53.097	2.00	8.41	-48.52
14.58	7,930	52.19	93.32	0.66	1.1768	7.84	2.50	53.140	2.00	7.97	-49.71
14.59	7,930	52.19	93.32	0.66	1.1768	7.84	2.50	53.184	2.30	7.97	-49.81
14.6	7,500	46.12	91.31	0.64	1.2175	7.41	2.50	53.228	2.30	7.54	-51.92
14.61	7,270	52.98	94.59	0.73	1.3011	7.18	2.50	53.271	2.00	7.31	-48.73
14.62	7,080	48.72	95.87	0.69	1.3579	6.96	2.50	53.315	2.00	7.10	-47.55
14.63	6,970	48.25	95.87	0.69	1.3755	6.87	2.50	53.358	2.30	7.01	-47.65
14.64	6,880	49.92	96.24	0.73	1.3988	6.78	2.50	53.402	2.30	6.82	-47.98
14.65	6,780	44.55	95.14	0.68	1.4140	6.68	2.50	53.446	2.00	6.82	-47.85
14.66	6,760	39.32	95.69	0.58	1.4155	6.66	2.50	53.489	2.00	6.80	-48.12
14.67	6,720	36.45	95.69	0.54	1.4240	6.62	2.50	53.533	2.00	6.76	-48.22
14.68	6,720	35.89	95.69	0.53	1.4240	6.62	2.50	53.577	2.00	6.76	-48.22
14.69	6,760	35.89	95.69	0.53	1.4240	6.62	2.50	53.620	2.00	6.80	-48.25
14.7	6,730	36.72	97.53	0.53	1.4462	6.73	2.50	53.664	2.00	6.77	-48.69
14.71	6,780	36.26	96.42	0.53	1.4221	6.68	2.50	53.707	2.30	6.82	-47.89
14.72	6,870	35.84	96.24	0.52	1.4009	6.77	2.50	53.751	2.30	6.91	-48.16
14.73	6,980	35.61	96.06	0.51	1.3762	6.88	2.50	53.795	2.00	7.02	-48.44
14.74	7,070	32.28	95.69	0.46	1.3535	6.97	2.50	53.838	2.00	7.11	-48.91
14.75	7,140	33.02	96.24	0.46	1.3479	7.04	2.50	53.882	2.00	7.14	-48.46
14.76	7,270	33.16	95.69	0.46	1.3162	7.17	2.50	53.926	2.30	7.31	-49.11
14.77	7,490	33.71	95.51	0.45	1.2752	7.39	2.50	53.969	2.00	7.53	-49.38
14.78	7,580	33.39	93.86	0.44	1.2383	7.49	2.50	54.013	2.00	7.62	-51.13
14.79	7,800	35.19	95.51	0.45	1.2245	7.70	2.50	54.056	2.30	7.84	-49.58
14.8	8,000	34.82	95.51	0.44	1.2042	7.90	2.50	54.100	2.30	7.97	-50.51
14.81	8,180	34.64	95.51	0.42	1.1676	8.08	2.50	54.144	2.00	8.22	-49.78
14.82	8,300	34.04	96.06	0.41	1.1573	8.20	2.50	54.187	2.00	8.34	-49.37
14.83	8,480	34.04	95.87	0.40	1.1305	8.38	2.50	54.231	2.00	8.52	-49.61
14.84	8,640	34.18	95.87	0.40	1.1096	8.54	2.50	54.274	2.00	8.68	-49.71
14.85	8,260	36.45	95.69	0.46	1.2803	9.16	2.50	54.318	2.00	8.87	-49.32
14.86	8,650	37.19	95.51	0.39	0.9897	9.55	2.50	54.362	2.00	8.69	-50.27
14.87	10,060	37.83	95.33	0.38	0.9476	9.96	2.50	54.405	2.00	10.10	-50.54

17-101_G_CPTU_Soarza

17-101_CPTU.S6_SM

Pag. 21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
14.88	10,510	38.48	95.33	0.37	0.9070	10.41	2.50	54.449	2.00	10.55	-50.64
14.89	10,940	39.08	95.14	0.36	0.8697	10.84	2.50	54.493	2.00	10.98	-50.93
14.9	11,400	39.41	94.96	0.35	0.8330	11.31	2.50	54.536	2.00	11.44	-51.21
14.91	11,830	40.94	95.14	0.35	0.8042	11.73	2.50	54.580	2.00	11.87	-51.13
14.92	12,230	39.59	97.33	0.33	0.7706	12.24	2.40	54.622	2.00	12.27	-51.04
14.93	12,460	41.26	95.14	0.33	0.7636	12.36	2.40	54.664	2.00	12.50	-51.32
14.94	12,730	41.86	94.78	0.33	0.7455	12.64	2.40	54.705	2.00	12.77	-51.78
14.95	12,820	41.77	94.96	0.33	0.7407	12.73	2.40	54.747	2.00	12.86	-51.70
14.96	12,900	42.60	95.33	0.33	0.7390	12.80	2.40	54.789	2.00	12.94	-51.43
14.97	13,000	42.42	95.33	0.33	0.7465	12.67	2.40	54.831	2.00	13.01	-51.53
14.98	12,760	42.79	95.14	0.34	0.7456	12.66	2.40	54.873	2.00	12.80	-51.81
14.99	12,670	45.71	94.59	0.36	0.7466	12.58	2.40	54.915	2.00	12.71	-52.46
15	12,710	47.74	94.59	0.38	0.7442	12.62	2.40	54.957	2.00	12.75	-52.56
15.01	12,840	49.27	94.59	0.38	0.7367	12.75	2.40	54.999	2.00	12.88	-52.66
15.02	13,000	50.71	94.41	0.39	0.7246	12.94	2.40	55.040	2.00	13.07	-52.94
15.03	13,500	52.24	94.23	0.39	0.6980	13.41	2.40	55.082	1.80	13.54	-53.21
15.04	13,680	52.89	94.41	0.39	0.6901	13.59	2.40	55.124	1.80	13.72	-53.13
15.05	13,780	52.47	94.78	0.38	0.6878	13.69	2.40	55.166	2.00	13.82	-52.86
15.06	13,780	53.26	94.96	0.39	0.6901	13.67	2.40	55.208	2.00	13.80	-52.78
15.07	13,650	53.86	94.96	0.39	0.6986	13.56	2.40	55.250	2.00	13.69	-52.88
15.08	13,570	54.37	95.51	0.40	0.7038	13.47	2.40	55.292	2.00	13.61	-52.42
15.09	13,570	55.34	93.68	0.41	0.6903	13.48	2.40	55.334	2.00	13.61	-54.35
15.11	12,990	55.11	96.79	0.42	0.7451	12.89	2.40	55.375	2.00	13.03	-51.34
15.12	12,630	58.21	93.32	0.46	0.7399	12.54	2.40	55.417	2.00	12.67	-54.91
15.13	12,670	65.94	94.59	0.56	0.9899	11.75	2.40	55.459	2.00	12.74	-54.74
15.14	10,770	68.68	92.77	0.64	0.8614	10.68	2.40	55.501	2.00	10.81	-55.66
15.14	10,770	68.68	92.77	0.64	0.8614	10.68	2.40	55.543	2.00	10.81	-55.75
15.15	10,110	72.06	88.75	0.71	0.8778	10.02	2.40	55.585	2.00	10.15	-59.87
15.16	9,220	79.51	90.03	0.86	0.9785	9.13	2.40	55.627	2.30	9.26	-68.99
15.17	9,220	79.51	90.03	0.86	0.9785	9.13	2.40	55.669	2.30	9.26	-68.79
15.18	8,530	85.51	95.14	1.02	1.1140	8.43	2.40	55.610	2.30	8.53	-63.34
15.19	8,280	84.19	95.14	1.02	1.1495	8.18	2.40	55.752	2.30	8.32	-58.87
15.2	8,120	83.50	95.51	1.03	1.1762	8.02	2.40	55.794	2.06	8.16	-53.60
15.21	7,750	80.50	95.61	1.03	1.2347	7.65	2.40	55.836	2.00	7.79	-53.52
15.22	7,590	79.10	95.51	1.04	1.2584	7.49	2.40	55.878	2.00	7.63	-53.80
15.23	7,310	77.34	95.69	1.06	1.3222	7.24	2.40	55.920	2.00	7.32	-54.04
15.24	7,140	56.96	95.69	0.80	1.2450	6.50	2.40	55.962	2.30	7.18	-53.81
15.25	7,030	57.52	95.87	0.82	1.3637	6.93	2.40	56.004	2.30	7.07	-53.73
15.26	6,930	49.87	95.87	0.72	1.3834	6.83	2.40	56.045	2.00	6.97	-53.83
15.27	6,850	47.98	96.42	0.70	1.4076	6.75	2.40	56.087	2.00	6.89	-53.93
15.28	6,760	47.98	96.42	0.70	1.4076	6.75	2.40	56.129	2.00	6.89	-53.93
15.29	6,700	38.67	96.97	0.58	1.4473	6.60	2.40	56.171	2.30	6.74	-53.02
15.3	6,630	36.31	97.15	0.54	1.4565	6.57	2.40	56.213	2.30	6.71	-52.94
15.31	6,630	33.11	97.50	0.50	1.4709	6.53	2.40	56.255	2.30	6.67	-52.04
15.32	6,610	32.05	97.52	0.48	1.4753	6.51	2.40	56.297	2.30	6.65	-52.77
15.33	6,600	34.16	97.52	0.51	1.4753	6.50	2.40	56.339	2.30	6.66	-52.77
15.34	6,600	33.16	97.15	0.50	1.4720	6.50	2.40	56.380	2.30	6.64	-53.34
15.35	6,600	32.28	97.15	0.49	1.4720	6.50	2.40	56.422	2.00	6.64	-53.43
15.36	6,730	30.38	96.97	0.45	1.4409	6.63	2.40	56.464	2.00	6.77	-53.71
15.37	6,810	30.33	96.97	0.45	1.4239	6.71	2.40	56.506	2.30	6.85	-53.81
15.38	6,870	38.67	97.07	0.49	1.4239	6.77	2.40	56.548	2.30	6.92	-53.81
15.39	6,980	32.65	97.33	0.47	1.3944	6.88	2.40	56.590	2.30	7.02	-53.65
15.4	7,080	32.56	97.33	0.46	1.3747	6.98	2.40	56.632	2.30	7.12	-53.74
15.41	7,210	32.69	97.7	0.45	1.3551	7.11	2.40	56.674	2.30	7.25	-53.47
15.42	7,280	32.65	97.7	0.45	1.3420	7.18	2.40	56.715	2.30	7.32	-53.57
15.43	7,320	32.65	97.7	0.45	1.3420	7.18	2.40	56.757	2.30	7.32	-53.57
15.44	7,370	32.83	97.33	0.45	1.3206	7.27	2.40	56.799	2.00	7.41	-54.14
15.45	7,360	32.48	97.52	0.44	1.3250	7.26	2.40	56.841	2.00	7.40	-54.04
15.46	7,380	31.81	97.44	0.43	1.3214	7.28	2.40	56.883	2.00	7.42	-54.14
15.47	7,380	31.81	97.44	0.43	1.3214	7.28	2.40	56.925	2.50	7.42	-54.24
15.48	7,380	31.81	97.44	0.43	1.3214	7.28	2.40	56.967	2.50	7.42	-54.24
15.49	7,070	25.47	95.61	0.36	1.3534	6.98	2.40	57.009	2.00	7.11	-57.55
15.5	7,190	25.47	93.68	0.35	1.3029	7.10	2.40	57.050	2.00	7.23	-58.38
15.51	7,250	27.23	93.53	0.38	1.2897	7.16	2.40	57.092	2.30	7.29	-58.65
15.52	7,200	27.86	93.68	0.39	1.3036	7.11	2.40	57.134	2.30	7.24	-58.39
15.53	7,170	27.86	93.68	0.40	1.3036	7.11	2.40	57.176	2.30	7.25	-58.39
15.54	7,110	28.20	93.32	0.40	1.3125	7.02	2.40	57.218	2.00	7.15	-59.13
15.55	7,200	29.17	92.77	0.41	1.3029	7.03	2.40	57.260	2.30	7.16	-59.76
15.56	7,200	29.45	92.22	0.41	1.2808	7.11	2.40	57.302	2.30	7.24	-60.42

Depth	Qc	Fs	U2	Rf	U2/Qc	Qc-U2	Tilt	Dist	Speed	Qt	U2-U0
[m]	[MPa]	[kPa]	[kPa]	[%]	[%]	[MPa]	[°]	[cm]	[cm/s]	[MPa]	[kPa]
16.95	13,520	69.83	102.81	0.52	0.7604	13.42	2.50	62.979	1.80	13.58	-63.47
16.96	13,480	70.11	102.99	0.50	0.7640	13.38	2.50	63.023	1.80	13.52	-63.39
16.97	13,160	69.65	102.99	0.53	0.7826	13.06	2.50	63.067	1.80	13.20	-63.49
16.98	12,880	69.88	102.81	0.54	0.7995	12.76	2.50	63.110	2.00	12.90	-63.76
16.99	12,400	69.88	102.81	0.56	0.8231	12.39	2.50	63.154	2.00	12.39	-63.86
17	12,070	68.82	103.18	0.57	0.8548	11.97	2.50	63.198	2.00	12.11	-63.59
17.01	11,670	69.51	103.36	0.60	0.8857	11.57	2.50	63.241	2.00	11.71	-63.51
17.02	11,220	69.60	103.73	0.62	0.9245	11.12	2.50	63.285	2.00	11.26	-63.24
17.03	10,760	69.91	103.91	0.64	0.9668	10.65	2.50	63.328	2.00	10.79	-63.15
17.04	10,340	69.64	104.27	0.67	1.0084	10.24	2.50	63.372	2.00	10.33	-62.86
17.05	10,040	69.79	104.64	0.70	1.0422	9.94	2.60	63.417	2.00	10.08	-62.62
17.06	9,830	69.60	104.82	0.71	1.0663	9.73	2.60	63.463	2.00	9.87	-62.54
17.07	9,640	69.56	105	0.72	1.0892	9.54	2.50	63.506	2.00	9.68	-62.46
17.08	9,560	68.54	105.19	0.72	1.1033	9.45	2.50	63.550	2.30	9.60	-62.36
17.09	9,500	67.98	105.37	0.72	1.1092	9.39	2.50	63.594	2.30	9.54	-62.28
17.1	9,550	65.20	105.73	0.68	1.1071	9.44	2.50	63.637	2.00	9.59	-62.02
17.11	9,580	64.88	105.73	0.68	1.1037	9.47	2.50	63.681	2.00	9.62	-62.12
17.12	9,630	63.21	106.1	0.66	1.1018	9.52	2.50	63.724	2.30	9.67	-61.85
17.13	9,660	61.13	106.1	0.63	1.0983	9.55	2.50	63.768	2.30	9.70	-61.95
17.14	9,660	61.13	106.1	0.63	1.0983	9.55	2.50	63.812	2.00	9.66	-62.04
17.15	9,840	58.26	106.65	0.59	1.0838	9.73	2.50	63.855	2.00	9.88	-61.59
17.16	9,840	58.26	106.65	0.59	1.0838	9.73	2.50	63.899	2.00	9.88	-61.69
17.17	10,030	56.82	107.01	0.57	1.0669	9.92	2.50	63.943	2.30	10.07	-61.43
17.18	10,030	56.82	107.01	0.57	1.0669	9.92	2.50	63.986	2.30	10.07	-61.53
17.19	10,240	55.76	107.2	0.54	1.0469	10.13	2.50	64.030	2.30	10.29	-61.33
17.2	10,240	55.76	107.2	0.54	1.0469	10.13	2.50	64.073	2.30	10.29	-61.43
17.21	10,290	55.25	107.74	0.54	1.0470	10.18	2.50	64.117	2.30	10.34	-61.09
17.22	10,330	55.48	108.29	0.54	1.0483	10.22	2.50	64.161	2.30	10.38	-60.64
17.23	10,340	55.94	108.29	0.54	1.0473	10.25	2.50	64.204	2.30	10.39	-60.74
17.24	10,290	55.43	107.93	0.54	1.0469	10.18	2.50	64.248	2.30	10.31	-61.19
17.25	10,140	55.57	107.01	0.55	1.0553	10.03	2.50	64.292	2.30	10.18	-62.21
17.26	9,940	55.62	107.01	0.56	1.0766	9.83	2.50	64.335	2.50	9.98	-62.31
17.27	9,630	56.36	107.01	0.59	1.1112	9.52	2.50	64.379	2.50	9.67	-62.41
17.28	9,300	57.28	107.2	0.62	1.1527	9.19	2.50	64.422	2.00	9.35	-62.32
17.29	9,000	57.19	107.74	0.64	1.1971	8.89	2.50	64.466	2.00	9.05	-61.87
17.3	8,610	57.94	107.36	0.67	1.2472	8.50	2.50	64.510	2.50	8.66	-62.33
17.31	8,400	58.16	107.56	0.69	1.2714	8.35	2.60	64.555	2.50	8.51	-62.25
17.32	8,370	58.26	107.74	0.70	1.2872	8.26	2.60	64.600	2.50	8.42	-62.17
17.33	8,340	57.93	108.29	0.69	1.2984	8.23	2.60	64.646	2.30	8.39	-61.72
17.34	8,360	58.16	108.29	0.70	1.2953	8.25	2.60	64.691	2.30	8.41	-61.82
17.35	8,470	57.24	108.11	0.68	1.2764	8.36	2.60	64.736	2.30	8.52	-62.09
17.36	8,660	57.33	108.29	0.66	1.2505	8.55	2.60	64.782	2.30	8.71	-62.01
17.37	8,950	56.78	108.47	0.63	1.2120	8.84	2.60	64.827	2.30	9.00	-61.93
17.38	9,330	57.33	108.66	0.61	1.1646	9.22	2.60	64.873	2.30	9.38	-61.84
17.39	9,810	56.73	108.66	0.58	1.1076	9.70	2.50	64.916	2.30	9.86	-61.94
17.4	10,360	55.85	109.02	0.54	1.0523	10.26	2.50	64.960	2.30	10.32	-61.66
17.41	10,920	53.81	109.84	0.46	0.9967	10.81	2.50	65.005	2.30	10.97	-61.95
17.42	11,440	51.45	107.74	0.45	0.9418	11.33	2.60	65.050	2.30	11.49	-63.15
17.43	11,810	48.90	107.56	0.41	0.9108	11.70	2.60	65.096	2.00	11.86	-63.43
17.44	12,160	50.25	107.2	0.41	0.8816	12.05	2.60	65.141	2.00	12.21	-63.89
17.45	12,580	50.85	106.5	0.40	0.8476	12.47	2.60	65.185	2.00	12.62	-64.56
17.46	13,060	50.83	106.83	0.39	0.8180	12.95	2.60	65.228	2.00	13.10	-65.17
17.47	13,060	51.40	106.83	0.39	0.8180	12.95	2.60	65.272	2.00	13.10	-64.55
17.48	13,060	51.40	106.83	0.39	0.8180	12.95	2.60	65.316	2.00	13.10	-64.65
17.49	13,890	43.35	102.45	0.31	0.7376	13.79	2.60	65.361	2.00	13.93	-69.13
17.5	14,400	45.01	104.65	0.31	0.7254	14.30	2.60	65.406	2.00	14.44	-67.22
17.51	14,610	45.01	104.65	0.31	0.7254	14.30	2.60	65.450	2.00	14.52	-67.03
17.52	14,620	48.86	100.44	0.33	0.6870	14.52	2.60	65.497	2.00	14.66	-71.43
17.53	14,700	53.86	100.44	0.37	0.6833	14.60	2.60	65.543	2.00	14.74	-71.53
17.54	14,760	55.57	100.26	0.38	0.6893	14.66	2.60	65.588	2.00	14.80	-71.81
17.55	14,720	58.40	100.26	0.40	0.6811	14.62	2.60	65.633	2.00	14.76	-71.91
17.56	14,470	60.41	101.35	0.46	0.6729	14.37	2.60	65.678	1.50	14.51	-71.89
17.57	14,470	66.41	101.35	0.46	0.7004	14.37	2.60	65.724	1.30	14.51	-71.01
17.58	14,470	66.41	101.35	0.46	0.7004	14.37	2.60	65.769	1.30	14.51	-71.11
17.59	13,650	69.19	102.63	0.51	0.7519	13.55	2.60	65.815	1.80	13.69	-69.93
17.6	13,340	71.04	102.81	0.53	0.7707	13.24	2.60	65.860	1.80	13.38	-69.85
17.61	12,590	72.91	102.81	0.56	0.8018	12.49	2.60	65.905	1.80	12.57	-69.83
17.62	12,150	75.02	102.63	0.62	0.8447	12.05	2.60	65.951	2.00	12.19	-70.22
17.63	11,630	76.36	102.26	0.66	0.8793	11.53	2.60	65.996	2.00	11.67	-70.69

17-101_G_CPTU_Soarza

17-101_CPTU.S6_SM

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.64	10,460	69.88	101.72	0.67	0.9725	10.36	2.60	66.041	2.00	10.50	-71.33
17.65	10,000	68.82	101.9	0.69	1.0190	9.90	2.60	66.087	2.00	10.04	-71.25
17.66	9,630	67.52	102.08	0.70	1.0600	9.53	2.60	66.132	2.00	9.67	-71.16
17.67	9,380	66.31	102.26	0.71	1.0902	9.28	2.60	66.178	2.00	9.42	-71.08
17.68	9,190	65.97	102.45	0.72	1.1148	9.08	2.60	66.223	2.00	9.23	-70.98
17.69	9,080	65.06	102.45	0.72	1.1283	8.98	2.60	66.268	2.00	9.12	-71.09
17.7	9,010	64.79	102.63	0.72	1.1391	8.91	2.60	66.314	2.00	9.05	-71.01
17.71	9,000	63.49	102.45	0.71	1.1383	8.90	2.60	66.359	2.00	9.04	-71.29
17.72	8,970	61.22	102.08	0.68	1.1380	8.87	2.60	66.404	2.00	9.01	-71.75
17.73	8,910	59.46	102.38	0.67	1.1457	8.81	2.60	66.449	2.00	8.95	-71.85
17.74	8,830	58.35	102.08	0.66	1.1561	8.73	2.60	66.495	2.00	8.87	-71.95
17.75	8,760	56.68	102.08	0.65	1.1653	8.66	2.60	66.540	2.30	8.80	-72.05
17.76	8,740	55.11	102.45	0.63	1.1722	8.64	2.60	66.586	2.30	8.78	-71.78
17.77	8,660	53.21	102.45	0.61	1.1830	8.56	2.60	66.631	2.30	8.70	-71.87
17.78	8,540	50.57	102.45	0.59	1.1996	8.44	2.60	66.677	2.30	8.58	-71.97
17.79	8,330	48.81	102.99	0.59	1.2364	8.23	2.60	66.722	2.30	8.37	-71.53
17.8	8,140	46.68	103.18	0.57	1.2676	8.04	2.60	66.767	2.30	8.18	-71.44
17.81	7,950	45.52	103.18	0.57	1.2979	7.85	2.60	66.813	2.30	7.99	-71.54
17.82	7,790	44.50	103.36	0.57	1.3268	7.69	2.60	66.858	2.30	7.83	-71.45
17.83	7,630	43.85	103.36	0.57	1.3547	7.53	2.60	66.903	2.30	7.67	-71.55
17.84	7,550	42.74	103.36	0.57	1.3690	7.45	2.60	66.949	2.30	7.59	-71.65
17.85	7,450	42.51	103.36	0.57	1.3874	7.35	2.60	66.994	2.30	7.49	-71.75
17.86	7,450	42.51	103.36	0.57	1.3874	7.35	2.60	67.039	2.30	7.49	-71.85
17.87	7,280	41.17	103.36	0.57	1.4198	7.18	2.60	67.085	2.30	7.32	-71.94
17.88	7,280	41.17	103.36	0.57	1.4198	7.18	2.60	67.130	2.30	7.32	-72.04
17.89	7,100	40.13	103.54	0.56	1.4598	7.00	2.60	67.176	2.30	7.32	-72.14
17.9	7,100	40.13	103.54	0.56	1.4583	7.00	2.60	67.221	2.50	7.14	-72.06
17.91	7,040	40.15	103.54	0.57	1.4707	6.94	2.60	67.266	2.30	7.08	-72.16
17.92	7,000	40.29	103.73	0.58	1.4819	6.90	2.60	67.312	2.30	7.04	-72.07
17.93	6,980	40.66	103.54	0.58	1.4834	6.88	2.70	67.359	2.30	7.02	-72.35
17.94	6,980	40.94	103.73	0.59	1.4946	6.86	2.70	67.405	2.30	7.00	-72.45
17.95	6,970	40.84	103.73	0.59	1.4882	6.87	2.60	67.451	2.30	7.01	-72.36
17.96	7,010	40.71	103.91	0.58	1.4823	6.91	2.60	67.497	2.30	7.05	-72.28
17.97	7,090	40.61	103.91	0.57	1.4656	6.99	2.60	67.542	2.30	7.13	-72.38
17.98	7,220	40.94	103.91	0.57	1.4302	7.12	2.60	67.587	2.30	7.26	-72.47
17.99	7,430	41.82	103.91	0.56	1.3932	7.33	2.60	67.633	2.30	7.41	-72.57
18	7,710	42.14	104.09	0.55	1.3591	7.61	2.60	67.678	2.30	7.75	-72.45
18.01	8,070	42.65	103.91	0.53	1.2876	7.97	2.60	67.723	2.30	8.11	-72.77
18.02	8,470	43.11	104.09	0.51	1.2289	8.37	2.60	67.769	2.30	8.51	-72.69
18.03	8,950	43.30	104.09	0.48	1.1630	8.85	2.70	67.816	2.30	8.99	-72.72
18.04	9,480	43.62	104.09	0.46	1.0933	9.36	2.60	67.862	2.30	9.47	-72.85
18.05	9,940	43.85	103.54	0.44	1.0416	9.84	2.70	67.908	2.30	9.96	-73.53
18.06	10,280	44.32	103.36	0.43	1.0054	10.18	2.70	67.955	2.30	10.32	-73.81
18.07	10,240	44.60	103.36	0.42	0.9842	10.42	2.70	68.003	2.30	10.56	-73.87
18.08	10,670	44.23	103.73	0.41	0.9722	10.70	2.70	68.050	2.30	10.71	-73.63
18.09	10,780	44.18	103.73	0.41	0.9622	10.68	2.70	68.095	2.00	10.82	-73.73
18.1	10,870	44.76	103.73	0.40	0.9545	10.77	2.60	68.142	2.00	10.94	-73.84
18.11	10,850	43.62	104.09	0.40	0.9594	10.75	2.70	68.188	2.00	10.89	-73.57
18.12	10,930	44.27	103.73	0.41	0.9490	10.83	2.70	68.235	2.00	10.97	-74.03
18.13	10,850	45.98	103.73	0.42	0.9560	10.73	2.70	68.282	2.00	10.89	-74.13
18.14	10,860	47.24	103.64	0.43	0.9535	10.76	2.70	68.329	2.00	10.90	-74.24
18.15	10,800	48.12	105	0.44	0.9722	10.70	2.70	68.376	2.00	10.82	-74.35
18.16	10,810	51.08	104.64	0.47	0.9680	10.71	2.60	68.420	2.30	10.85	-73.91
18.17	10,880	52.33	104.27	0.48	0.9584	10.78	2.60	68.465	2.00	10.92	-73.58
18.18	10,930	53.53	104.09	0.49	0.9523	10.83	2.60	68.510	2.00	10.97	-74.26
18.19	11,030	54.97	104.09	0.50	0.9437	10.83	2.60	68.556	2.00	11.07	-74.39
18.21	11,170	56.36	103.73	0.51	0.9345	10.85	2.60	68.602	2.00	11.21	-74.52
18.22	11,350	58.74	103.81	0.51	0.9139	11.25	2.60	68.646	2.00	11.39	-74.91
18.23	11,590	59.74	102.83	0.52	0.8871	11.49	2.70	68.693	2.00	11.63	-75.93
18.24	11,810	61.42	101.9	0.54	0.8721	11.71	2.70	68.741	1.80	11.85	-75.85
18.25	12,150	62.92	101.9	0.54	0.8593	11.86	2.70	68.786	1.80	11.94	-77.03
18.26	12,550	64.78	104.65	0.53	0.8465	12.19	2.70	68.834	2.00	12.13	-77.13
18.26	11,940	59.05	103.54	0.50	0.8672	11.84	2.70	68.880	2.00	11.98	-75.55
18.27	12,360	60.02	103.91	0.49	0.8407	12.26	2.70	68.927	2.00	12.40	-75.32
18.28	12,340	61.04	103.44	0.49	0.8139	12.24	2.70	68.974	1.80	12.38	-76.84
18.29	12,390	60.57	100.18	0.49	0.8328	12.29	2.60	69.020	1.80	12.43	-76.29
18.3	12,300	60.89	98.61	0.49	0.8463	12.60	2.60	69.066	1.80	12.44	-76.80
18.31	12,410	66.69	98.98	0.54	0.7976	12.31	2.60	69.110	2.00	12.45	-80.64
18.32	12,510	70.95	101.72	0.57	0.8131	12.41	2.60	69.156	1.80	12.55	-78.00

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
19.71	8,750	49.50	107.74	0.57	1,2313	8.64	2.90	75.864	2.30	8.80	-85.62
19.72	8,830	44.50	105.55	0.52	1,2374	8.42	2.90	75.915	2.30	8.57	-87.90
19.73	8,440	43.85	99.53	0.52	1,1793	8.34	2.90	75.965	2.00	8.48	-94.02
19.74	8,440	43.85	99.53	0.52	1,1793	8.34	2.90	76.016	2.00	8.48	-94.12
19.75	7,880	41.04	107.07	0.62	1,2899	7.78	3.90	76.066	2.00	7.94	-93.68
19.76	7,850	52.01	105.37	0.66	1,3423	7.74	2.90	76.117	2.50	7.89	-88.48
19.77	7,850	53.21	105.73	0.68	1,3469	7.74	2.90	76.168	2.50	7.89	-88.21
19.78	7,850	52.24	106.46	0.67	1,3562	7.74	2.90	76.218	2.00	7.89	-87.58
19.79	7,870	52.01	107.22	0.66	1,3621	7.76	2.90	76.269	2.00	7.92	-86.94
19.80	7,860	53.26	106.56	0.61	1,3684	7.76	2.90	76.319	2.30	7.91	-87.69
19.81	7,840	54.00	107.56	0.69	1,3719	7.73	2.90	76.370	2.30	7.89	-86.78
19.82	7,820	54.83	107.2	0.70	1,3708	7.71	2.90	76.421	2.30	7.87	-87.23
19.83	7,800	55.20	107.01	0.71	1,3719	7.69	2.90	76.471	2.30	7.84	-87.52
19.84	7,770	56.68	106.83	0.73	1,3749	7.66	2.90	76.522	2.30	7.81	-87.80
19.85	7,760	57.56	106.65	0.74	1,3744	7.65	2.90	76.572	2.30	7.79	-88.08
19.86	7,740	53.07	106.65	0.69	1,3779	7.63	2.90	76.623	2.00	7.78	-88.18
19.87	7,680	46.31	106.65	0.60	1,3887	7.57	2.90	76.673	2.00	7.72	-88.27
19.88	7,640	43.35	106.83	0.57	1,3983	7.53	2.90	76.724	2.00	7.68	-88.19
19.89	7,590	38.95	106.83	0.51	1,4075	7.48	2.90	76.775	2.30	7.63	-88.29
19.90	7,520	39.73	106.83	0.55	1,4201	7.41	2.90	76.825	2.30	7.58	-88.39
19.91	7,470	40.52	106.83	0.54	1,4301	7.36	2.90	76.876	2.30	7.51	-88.49
19.92	7,400	40.75	106.83	0.55	1,4436	7.29	2.90	76.926	2.30	7.44	-88.59
19.93	7,360	40.47	106.83	0.55	1,4515	7.25	2.90	76.977	2.00	7.40	-88.68
19.94	7,300	40.47	107.01	0.55	1,4659	7.19	2.90	77.028	2.00	7.34	-88.60
19.95	7,260	40.47	107.01	0.56	1,4760	7.15	2.90	77.078	2.30	7.30	-88.63
19.96	7,240	40.57	107.01	0.56	1,4780	7.13	3.00	77.131	2.30	7.28	-88.80
19.97	7,210	40.10	107.01	0.56	1,4842	7.10	3.00	77.183	2.30	7.25	-88.90
19.98	7,200	39.96	107.01	0.56	1,4863	7.09	3.00	77.235	2.30	7.24	-88.99
19.99	7,200	39.87	107.2	0.55	1,4889	7.09	3.00	77.288	2.30	7.25	-88.90
20.00	7,200	40.01	107.2	0.56	1,4889	7.00	3.00	77.340	2.30	7.25	-89.00
20.01	7,210	39.78	107.38	0.55	1,4893	7.10	3.00	77.392	2.30	7.26	-88.92
20.02	7,240	39.73	107.38	0.55	1,4831	7.13	3.00	77.445	2.30	7.29	-89.02
20.03	7,240	39.73	107.38	0.55	1,4831	7.13	3.00	77.497	2.30	7.29	-89.11
20.04	7,290	39.46	107.2	0.54	1,4705	7.18	3.00	77.549	2.00	7.34	-89.39
20.05	7,320	39.32	107.2	0.54	1,4645	7.21	3.00	77.602	2.00	7.37	-89.49
20.06	7,350	39.13	107.38	0.53	1,4610	7.24	3.00	77.654	2.00	7.40	-89.41
20.07	7,390	38.95	107.01	0.53	1,4480	7.28	3.00	77.706	2.00	7.43	-89.88
20.08	7,410	39.36	106.28	0.53	1,4343	7.30	3.00	77.759	2.30	7.45	-90.70
20.09	7,480	39.59	107.01	0.53	1,4306	7.37	3.00	77.811	2.30	7.52	-90.07
20.10	7,560	39.55	107.93	0.52	1,4276	7.45	3.00	77.863	2.00	7.61	-89.25
20.11	7,670	39.46	106.47	0.51	1,4142	7.56	3.00	77.916	2.00	7.72	-88.81
20.12	7,730	39.08	108.47	0.51	1,4032	7.62	3.00	77.968	2.00	7.76	-89.91
20.13	7,840	38.81	108.29	0.50	1,3813	7.73	3.00	78.020	2.00	7.89	-89.19
20.14	7,910	38.99	107.93	0.49	1,3645	7.80	3.00	78.073	2.30	7.96	-89.64
20.15	8,000	38.81	107.74	0.49	1,3468	7.89	3.00	78.125	2.30	8.05	-89.93
20.16	8,140	39.22	107.93	0.48	1,3259	8.03	3.00	78.177	2.30	8.19	-89.34
20.17	8,160	38.46	108.29	0.48	1,3271	8.05	3.00	78.230	2.30	8.16	-89.02
20.18	8,220	38.21	107.01	0.46	1,3018	8.11	3.00	78.282	2.30	8.26	-90.96
20.19	8,230	40.80	107.2	0.50	1,3026	8.12	3.00	78.334	2.00	8.28	-90.86
20.20	8,340	41.03	107.38	0.49	1,2875	8.23	3.00	78.387	2.00	8.39	-90.78
20.21	8,570	41.22	107.74	0.48	1,2672	8.46	3.00	78.439	2.00	8.62	-90.12
20.22	8,790	40.08	107.74	0.47	1,2257	8.68	3.00	78.491	2.00	8.90	-90.62
20.23	9,030	41.54	107.56	0.46	1,1911	8.92	3.00	78.544	2.30	9.08	-90.90
20.24	9,280	42.19	107.38	0.45	1,1571	9.17	3.00	78.596	2.30	9.33	-91.17
20.25	9,600	42.65	107.56	0.44	1,1204	9.49	3.00	78.648	2.00	9.65	-91.09
20.26	9,950	43.02	107.56	0.43	1,0810	9.84	3.00	78.701	2.00	10.01	-91.19
20.27	10,330	43.39	107.56	0.42	1,0412	10.22	3.00	78.753	2.00	10.36	-91.22
20.28	10,730	43.95	107.38	0.41	1,0007	10.62	3.00	78.805	2.30	10.78	-91.57
20.29	11,110	44.27	107.56	0.40	0,9681	11.00	3.00	78.858	2.30	11.16	-91.48
20.30	11,510	44.83	107.38	0.39	0,9329	11.40	3.00	78.910	2.30	11.56	-91.76
20.31	11,880	45.48	106.83	0.38	0,8992	11.77	3.10	78.964	2.30	11.92	-92.41
20.32	12,210	46.31	106.65	0.36	0,8735	12.10	3.10	79.018	2.30	12.28	-92.94
20.33	12,530	44.64	106.46	0.36	0,8496	12.42	3.10	79.072	2.30	12.57	-92.98
20.34	12,890	45.20	105.92	0.35	0,8217	12.78	3.10	79.126	2.00	12.93	-93.62
20.35	13,180	45.85	105.92	0.35	0,8036	13.07	3.10	79.180	2.00	13.22	-93.71
20.36	13,520	46.49	106.46	0.34	0,7874	13.41	3.10	79.234	2.30	13.56	-93.27
20.37	13,930	46.83	107.01	0.34	0,7706	13.82	3.10	79.286	2.30	13.91	-93.67
20.38	14,250	47.56	107.2	0.33	0,7523	14.14	3.10	79.343	2.30	14.30	-92.73
20.39	14,460	48.49	107.01	0.34	0,7400	14.35	3.10	79.397	2.30	14.50	-93.02

17-101_G_CPTU_Soarza

17-101_CPTU.S6_SM

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
20.4	14,600	49.13	107.2	0.34	0.7342	14.49	3.10	79.451	2.30	14.65	-92.92
20.41	14,630	50.11	106.65	0.34	0.7290	14.52	3.10	79.505	2.30	14.67	-93.57
20.42	14,610	51.59	105.92	0.35	0.7220	14.50	3.10	79.559	2.30	14.65	-94.40
20.43	14,480	53.86	105.37	0.37	0.7277	14.37	3.10	79.613	2.30	14.52	-95.05
20.44	14,400	57.19	106.65	0.39	0.7406	14.29	3.10	79.667	2.30	14.44	-93.87
20.45	14,080	54.69	107.38	0.39	0.7626	13.97	3.10	79.721	2.00	14.13	-93.23
20.46	14,080	54.69	107.38	0.39	0.7626	13.97	3.10	79.775	2.80	14.13	-93.33
20.47	14,080	54.69	107.38	0.39	0.7626	13.97	3.10	79.829	2.50	14.13	-93.43
20.48	13,420	52.01	102.81	0.39	0.7681	13.32	3.10	79.883	2.50	13.46	-98.10
20.49	13,590	52.79	102.99	0.39	0.7578	13.49	3.10	79.937	2.30	13.53	-98.02
20.5	13,530	54.74	103.36	0.40	0.7639	13.43	3.10	79.992	2.00	13.57	-97.75
20.51	13,380	57.28	103.91	0.43	0.7666	13.28	3.10	80.046	2.30	13.42	-97.29
20.52	13,190	60.06	104.09	0.46	0.7892	13.09	3.10	80.100	2.30	13.23	-97.21
20.53	12,990	62.66	104.27	0.48	0.8027	12.89	3.10	80.154	2.30	13.03	-97.13
20.54	12,830	65.71	104.27	0.51	0.8153	12.72	3.10	80.208	2.30	12.86	-97.02
20.55	12,710	68.68	104.46	0.54	0.8219	12.61	3.10	80.262	2.30	12.75	-97.14
20.56	12,710	68.68	104.46	0.54	0.8219	12.61	3.10	80.316	2.30	12.75	-97.23
20.57	12,530	71.83	104.64	0.57	0.8351	12.43	3.10	80.370	2.30	12.57	-97.15
20.58	12,500	72.61	104.64	0.58	0.8371	12.40	3.10	80.424	2.30	12.54	-97.25
20.59	12,450	72.87	104.64	0.58	0.8405	12.35	3.10	80.478	2.30	12.49	-97.35
20.6	12,340	67.61	104.82	0.55	0.8494	12.24	3.10	80.532	2.00	12.38	-97.27
20.61	12,200	69.32	105	0.57	0.8607	12.10	3.10	80.586	2.30	12.24	-97.18
20.62	12,060	70.39	105.55	0.58	0.8752	11.95	3.20	80.642	2.30	12.10	-96.73
20.63	11,750	71.64	105.55	0.61	0.8983	11.64	3.20	80.698	2.00	11.79	-96.83
20.64	11,630	73.10	105.37	0.63	0.9163	11.39	3.20	80.752	2.00	11.87	-97.11
20.65	11,190	73.03	105.92	0.69	0.9409	11.07	3.10	80.806	2.00	11.22	-96.39
20.66	10,330	73.17	105.73	0.68	0.9763	10.72	3.20	80.862	2.00	10.67	-96.94
20.67	10,550	73.12	105.73	0.69	1.0022	10.44	3.20	80.918	2.00	10.59	-97.04
20.68	10,290	72.66	105.73	0.71	1.0275	10.18	3.20	80.974	2.00	10.33	-97.14
20.69	10,10	72.80	105.92	0.72	1.0487	9.99	3.20	81.030	2.00	10.14	-97.27
20.7	9,960	72.87	105.92	0.73	1.0699	9.85	3.20	81.085	2.00	10.15	-97.15
20.71	9,860	70.62	105.92	0.72	1.0742	9.79	3.20	81.141	2.30	9.90	-97.25
20.72	9,860	69.42	106.65	0.70	1.0816	9.75	3.20	81.197	2.30	9.90	-96.61
20.73	9,920	67.94	107.01	0.68	1.0787	9.30	3.20	81.253	2.00	9.96	-96.35
20.74	9,890	66.96	106.46	0.68	1.0764	9.78	3.20	81.309	2.00	9.93	-97.07
20.75	10,020	66.96	106.46	0.68	1.0764	9.78	3.20	81.364	2.00	10.00	-96.85
20.76	10,040	62.93	106.83	0.61	1.0272	10.29	3.20	81.420	2.00	10.44	-96.83
20.77	10,630	61.08	107.2	0.55	1.0085	10.30	3.20	81.476	2.00	10.68	-96.55
20.78	10,920	60.39	106.83	0.55	0.9783	10.81	3.20	81.532	2.00	10.96	-97.02
20.79	11,320	59.65	107.01	0.53	0.9453	11.21	3.30	81.589	1.80	11.36	-96.94
20.8	11,740	58.65	107.01	0.51	0.9133	11.61	3.30	81.647	1.80	11.66	-97.04
20.81	11,220	57.61	107.38	0.47	0.8787	12.11	3.30	81.705	2.00	11.27	-96.67
20.82	12,660	56.87	107.38	0.45	0.8842	12.55	3.20	81.760	2.00	12.71	-96.86
20.83	13,370	54.88	107.01	0.41	0.8024	13.26	3.30	81.818	2.00	13.41	-97.37
20.84	13,630	54.46	106.28	0.40	0.7798	13.20	3.30	81.874	2.00	13.67	-96.88
20.85	13,820	55.00	106.28	0.40	0.7912	13.11	3.30	81.930	2.00	13.86	-96.86
20.86	14,030	54.37	106.81	0.39	0.7562	13.92	3.20	81.985	1.80	14.07	-98.54
20.87	14,140	53.44	105.92	0.38	0.7491	14.03	3.20	82.041	2.00	14.18	-98.81
20.88	14,160	54,00	106.1	0.38	0.7493	14.05	3.20	82.097	2.00	14.20	-97.83
20.89	14,120	55.15	106.1	0.39	0.7514	14.01	3.30	82.155	1.80	14.18	-98.83
20.9	14,100	55.15	106.1	0.40	0.7535	13.99	3.30	82.212	1.80	14.18	-98.83
20.91	14,130	57.19	106.65	0.40	0.7548	14.02	3.30	82.270	1.80	14.17	-98.86
20.92	14,120	57.24	106.65	0.41	0.7553	14.01	3.20	82.326	1.80	14.16	-98.58
20.93	13,860	60.11	106.83	0.43	0.7708	13.75	3.20	82.381	1.80	13.90	-98.49
20.94	13,520	61.17	107.01	0.45	0.7915	13.41	3.30	82.438	2.00	13.58	-98.41
20.95	13,200	62.66	107.01	0.49	0.8137	13.11	3.30	82.497	2.00	13.26	-98.56
20.96	12,810	63.86	107.2	0.50	0.8368	12.70	3.30	82.554	2.00	12.86	-98.42
20.97	12,290	65.16	107.2	0.53	0.8723	12.18	3.30	82.612	2.00	12.34	-98.52
20.98	11,800	65.90	107.38	0.56	0.9100	11.69	3.30	82.669	2.00	11.85	-98.43
20.99	11,260	66.96	107.74	0.59	0.9688	11.15	3.30	82.727	2.00	11.31	-98.17
21	10,700	68.08	108.01	0.62	1.0111	10.62	3.30	82.784	2.00	10.75	-97.75
21.01	10,230	67.15	107.47	0.66	1.0303	10.12	3.30	82.842	2.00	10.28	-97.64
21.02	9,810	67.19	108.84	0.68	1.095	9.70	3.30	82.900	2.00	9.86	-97.37
21.03	9,450	66.78	109.2	0.71	1.1556	9.34	3.30	82.957	2.00	9.50	-97.10
21.04	9,150	66.55	109.39	0.73	1.1955	9.04	3.20	83.013	2.30	9.20	-97.01
21.05	8,900	66.55	109.39	0.74	1.2154	8.74	3.30	83.070	2.30	8.96	-96.96
21.06	8,530	63.83	109.63	0.75	1.2887	8.42	3.20	83.125	2.00	8.58	-96.67
21.07	8,390	62.24	110.12	0.74	1.3125	8.28	3.20	83.180	2.00	8.46	-96.58
21.08	8,290	60.90	110.3	0.73	1.3305	8.18	3.20	83.236	2.00	8.34	-96.49

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
22.47	9,200	50,50	109,93	0,55	1,1949	9,09	3,60	91,509	2,50	9,25	-110,50
22.48	9,320	47,74	109,2	0,51	1,1717	9,21	3,60	91,572	2,00	9,37	-111,33
22.49	9,470	48,81	108,84	0,52	1,1493	9,36	3,60	91,635	2,00	9,52	-111,79
22.5	9,530	49,48	108,66	0,52	1,1402	9,42	3,60	91,698	2,00	9,58	-112,07
22.51	9,510	50,20	108,67	0,52	1,1286	9,40	3,60	91,701	2,00	9,67	-112,33
22.52	9,360	50,43	107,93	0,54	1,1531	9,25	3,60	91,823	2,00	9,41	-112,99
22.53	9,170	50,94	107,93	0,56	1,1770	9,06	3,60	91,886	2,00	9,22	-113,09
22.54	9,020	51,26	107,74	0,57	1,1945	8,91	3,60	91,949	2,30	9,07	-113,38
22.55	8,890	51,36	107,74	0,58	1,2119	8,78	3,60	92,012	2,30	8,94	-113,48
22.56	8,940	49,52	108,74	0,54	1,1788	8,73	3,60	92,075	2,20	8,95	-113,59
22.57	8,770	50,99	107,93	0,58	1,2307	8,66	3,60	92,137	2,00	8,82	-113,48
22.58	8,700	50,75	108,11	0,58	1,2426	8,59	3,60	92,200	2,00	8,75	-113,40
22.59	8,600	50,66	108,11	0,59	1,2571	8,49	3,60	92,263	2,00	8,65	-113,50
22.6	8,520	50,29	108,29	0,59	1,2710	8,41	3,60	92,326	2,30	8,57	-113,42
22.61	8,500	50,20	108,47	0,58	1,2781	8,39	3,60	92,388	2,00	8,53	-113,39
22.62	8,580	49,97	108,66	0,58	1,2664	8,47	3,60	92,451	2,00	8,63	-113,24
22.63	8,690	49,87	108,66	0,57	1,2504	8,58	3,60	92,514	2,00	8,74	-113,34
22.64	8,870	49,69	108,84	0,56	1,2271	8,76	3,50	92,575	2,00	8,92	-113,26
22.65	9,030	49,50	109,02	0,55	1,2073	8,92	3,50	92,638	2,00	9,08	-113,18
22.66	9,140	48,95	109,84	0,54	1,1908	9,03	3,50	92,697	2,00	9,19	-113,45
22.67	9,190	48,35	108,84	0,53	1,1843	9,08	3,50	92,758	2,00	9,24	-113,55
22.68	9,240	47,93	108,66	0,52	1,1760	9,13	3,60	92,821	2,00	9,29	-113,83
22.69	9,260	47,88	108,47	0,52	1,1714	9,15	3,60	92,884	2,00	9,31	-114,12
22.7	9,140	47,79	108,84	0,52	1,1908	9,03	3,50	92,945	2,30	9,19	-113,85
22.71	9,140	47,79	108,84	0,52	1,1908	9,03	3,50	93,006	2,30	9,03	-113,86
22.72	9,010	48,98	108,66	0,53	1,2060	8,90	3,60	93,069	2,00	9,06	-114,22
22.73	8,950	48,49	108,66	0,54	1,2141	8,84	3,60	93,131	2,00	9,00	-114,32
22.74	8,880	48,95	108,84	0,55	1,2257	8,77	3,60	93,194	2,00	8,93	-114,24
22.75	8,840	49,41	108,84	0,56	1,2312	8,73	3,60	93,257	2,00	8,89	-114,34
22.76	8,830	49,69	108,84	0,56	1,2326	8,72	3,60	93,320	2,00	8,88	-114,44
22.77	8,860	49,67	108,84	0,56	1,2284	8,75	3,60	93,383	2,00	8,91	-114,53
22.78	8,890	50,15	109,02	0,56	1,2263	8,78	3,60	93,445	2,00	8,94	-114,45
22.79	8,880	50,75	109,02	0,57	1,2263	8,78	3,60	93,508	2,00	8,94	-114,55
22.8	8,820	51,50	109,39	0,58	1,2402	8,71	3,60	93,571	2,00	8,87	-114,28
22.81	8,800	51,82	109,57	0,59	1,2451	8,69	3,60	93,634	2,00	8,85	-114,20
22.82	8,820	52,19	109,75	0,59	1,2443	8,71	3,60	93,697	2,00	8,87	-114,11
22.83	8,870	52,24	109,75	0,59	1,2373	8,76	3,60	93,759	2,00	8,92	-114,21
22.84	8,950	51,87	109,93	0,58	1,2283	8,84	3,60	93,822	2,00	9,00	-114,13
22.85	8,940	51,73	109,93	0,58	1,2296	8,83	3,60	93,885	2,00	8,99	-114,23
22.86	8,810	51,73	109,93	0,59	1,2478	8,70	3,60	93,948	2,00	8,86	-114,33
22.87	8,670	51,45	110,3	0,59	1,2722	8,56	3,60	94,011	2,00	8,72	-114,44
22.88	8,480	51,17	110,3	0,60	1,3007	8,37	3,60	94,073	2,00	8,53	-114,15
22.89	8,290	51,17	110,48	0,62	1,3327	8,18	3,60	94,136	2,00	8,34	-114,07
22.9	8,100	50,85	110,66	0,63	1,3662	7,99	3,60	94,199	2,00	8,15	-113,99
22.91	7,910	50,75	110,66	0,64	1,3990	7,80	3,60	94,262	2,00	7,96	-114,09
22.92	7,730	50,66	110,85	0,66	1,4340	7,62	3,60	94,324	2,00	7,76	-114,00
22.93	7,600	50,49	111,21	0,67	1,4633	7,49	3,60	94,387	2,00	7,62	-113,93
22.94	7,390	49,50	111,4	0,67	1,5074	7,28	3,60	94,450	2,00	7,44	-113,64
22.95	7,360	49,23	111,58	0,67	1,5160	7,25	3,60	94,513	2,00	7,41	-113,56
22.96	7,340	48,95	111,76	0,67	1,5226	7,23	3,60	94,576	2,00	7,39	-113,48
22.97	7,360	48,86	111,94	0,66	1,5209	7,25	3,60	94,638	2,00	7,41	-113,40
22.98	7,360	48,67	112,13	0,67	1,5173	7,28	3,60	94,701	2,00	7,37	-113,30
22.99	7,500	48,39	112,31	0,65	1,4975	7,39	3,60	94,764	2,00	7,55	-113,22
23	7,800	47,51	112,49	0,61	1,4422	7,69	3,60	94,827	2,00	7,85	-113,14
23.01	7,930	46,77	112,31	0,59	1,4163	7,82	3,60	94,890	1,80	7,98	-113,42
23.02	8,010	46,12	112,31	0,58	1,4021	7,90	3,60	94,952	1,80	8,06	-113,52
23.03	8,040	45,48	112,49	0,59	1,3903	7,93	3,60	95,015	1,80	8,09	-113,43
23.04	8,020	44,69	112,67	0,56	1,4049	7,91	3,70	95,080	1,80	8,07	-113,35
23.05	8,010	44,23	112,86	0,55	1,4090	7,90	3,70	95,144	1,80	8,06	-113,35
23.06	8,030	44,27	113,04	0,55	1,4077	7,92	3,70	95,209	1,80	8,08	-113,18
23.07	8,060	44,46	113,04	0,55	1,4025	7,95	3,70	95,273	1,80	8,11	-113,28
23.08	8,240	44,54	113,04	0,54	1,3718	8,13	3,70	95,338	1,80	8,27	-113,54
23.09	8,330	44,27	113,22	0,53	1,3592	8,22	3,70	95,402	1,80	8,38	-113,29
23.1	8,360	44,36	113,04	0,53	1,3522	8,25	3,70	95,467	1,80	8,41	-113,57
23.11	8,390	44,46	113,22	0,53	1,3495	8,28	3,70	95,531	1,80	8,44	-113,49
23.12	8,490	44,73	113,59	0,53	1,3379	8,38	3,70	95,596	1,80	8,54	-113,22
23.13	8,560	44,53	113,74	0,54	1,3261	8,45	3,70	95,661	1,80	8,62	-113,06
23.14	8,650	45,11	113,59	0,52	1,3132	8,54	3,70	95,725	2,00	8,70	-113,41
23.15	8,770	45,48	113,4	0,52	1,2930	8,66	3,70	95,790	2,00	8,82	-113,70

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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
23.16	8,890	46,03	113,4	0,52	1,2756	8,78	3,70	95,854	1,80	8,94	-113,80
23.17	8,060	46,77	113,4	0,52	1,2717	8,95	3,70	95,919	1,80	9,11	-113,90
23.18	9,040	47,24	113,59	0,52	1,2565	8,93	3,70	95,983	1,80	9,09	-113,81
23.19	8,970	47,65	113,59	0,53	1,2653	8,86	3,70	96,048	1,80	9,02	-113,90
23.2	8,910	48,36	113,59	0,53	1,2379	8,95	3,70	96,112	1,80	9,36	-114,00
23.21	8,870	48,86	113,77	0,55	1,2826	8,76	3,70	96,177	2,00	8,92	-113,92
23.22	8,880	49,41	113,77	0,56	1,2812	8,77	3,70	96,241	2,00	8,93	-114,02
23.23	9,020	50,57	113,95	0,56	1,2633	8,91	3,70	96,306	2,00	9,07	-114,03
23.24	9,020	50,57	113,95	0,56	1,2633	8,91	3,70	96,370	2,00	9,07	-113,94
23.25	9,050	51,03	114,13	0,55	1,2379	9,05	3,70	96,435	2,00	9,27	-113,95
23.26	9,220	51,03	114,13	0,55	1,2379	9,11	3,70	96,499	2,00	9,27	-114,05
23.27	9,180	51,40	114,13	0,56	1,2432	9,07	3,70	96,564	2,30	9,23	-114,15
23.28	9,110	51,82	114,13	0,57	1,2528	9,00	3,70	96,629	2,30	9,16	-114,25
23.29	9,060	52,19	114,5	0,58	1,2638	8,95	3,70	96,693	2,30	9,11	-113,97
23.3	9,060	52,58	114,5	0,58	1,2638	8,95	3,70	96,758	2,30	9,11	-114,07
23.31	9,050	52,98	114,5	0,59	1,2652	8,94	3,70	96,822	2,30	9,10	-114,17
23.32	9,050	53,30	114,68	0,59	1,2672	8,94	3,70	96,887	2,30	9,10	-114,09
23.33	9,050	53,44	114,68	0,59	1,2672	8,94	3,70	96,951	2,30	9,10	-114,19
23.34	9,010	53,49	114,68	0,59	1,2728	8,90	3,70	97,016	2,30	9,08	-114,29
23.35	8,930	53,67	114,68	0,58	1,2842	8,82	3,70	97,080	2,30	9,08	-114,38
23.36	8,930	53,76	114,68	0,61	1,2988	8,72	3,80	97,147	2,30	8,88	-114,48
23.37	8,720	53,76	114,86	0,62	1,3172	8,61	3,80	97,213	2,30	8,77	-114,40
23.38	8,560	53,76	115,05	0,63	1,3440	8,44	3,80	97,279	2,30	8,61	-114,31
23.39	8,420	53,53	115,05	0,64	1,3664	8,30	3,80	97,345	2,30	8,47	-114,41
23.4	8,300	53,35	115,23	0,64	1,3833	8,16	3,80	97,412	2,30	8,38	-114,35
23.41	8,290	52,79	115,41	0,64	1,3938	8,16	3,80	97,478	2,30	8,33	-114,24
23.42	8,280	52,42	115,63	0,63	1,3995	8,14	3,70	97,542	2,30	8,31	-114,15
23.43	8,290	52,14	115,78	0,63	1,3966	8,17	3,70	97,607	2,00	8,34	-114,07
23.44	8,300	52,01	115,96	0,62	1,3921	8,21	3,70	97,671	2,00	8,38	-113,99
23.45	8,330	52,01	115,96	0,62	1,3921	8,21	3,70	97,736	3,00	8,38	-114,09
23.46	8,330	52,01	115,96	0,61	1,3921	8,21	3,70	97,800	3,00	8,38	-114,18
23.47	7,510	43,16	115,81	0,57	1,5732	7,39	3,80	97,867	3,30	7,56	-112,09
23.48	8,400	43,16	117,6	0,51	1,4000	8,28	3,80	97,933	2,30	8,45	-112,74
23.49	8,400	43,16	117,6	0,51	1,4000	8,28	3,80	97,999	2,30	8,45	-112,84
23.5	8,380	43,16	117,6	0,51	1,3864	8,36	3,70	98,064	2,30	8,53	-113,48
23.51	8,380	43,16	117,6	0,51	1,3864	8,36	3,70	98,129	2,30	8,53	-113,58
23.52	8,330	44,09	116,33	0,53	1,3965	8,21	3,70	98,193	2,30	8,38	-114,40
23.53	8,280	44,83	116,51	0,54	1,4071	8,16	3,70	98,257	2,30	8,33	-114,32
23.54	8,270	45,24	116,33	0,55	1,4067	8,15	3,70	98,322	2,30	8,32	-114,60
23.55	8,250	45,35	116,33	0,55	1,4101	8,13	3,70	98,387	2,50	8,30	-114,70
23.56	8,220	45,34	116,14	0,55	1,4101	8,13	3,70	98,452	2,50	8,30	-114,80
23.57	8,200	45,74	116,33	0,56	1,4163	8,08	3,70	98,516	2,30	8,25	-115,08
23.58	8,200	45,85	116,14	0,56	1,4163	8,08	3,70	98,580	2,30	8,25	-115,18
23.59	8,230	45,85	116,14	0,56	1,4157	8,11	3,70	98,645	2,30	8,28	-114,91
23.6	8,290	45,88	116,69	0,55	1,4076	8,17	3,70	98,709	2,50	8,34	-114,83
23.61	8,360	46,09	116,69	0,55	1,4076	8,17	3,70	98,774	2,50	8,34	-114,93
23.62	8,430	45,80	116,87	0,54	1,3864	8,31	3,70	98,838	2,50	8,48	-114,84
23.63	8,410	45,71	116,33	0,54	1,3832	8,29	3,70	98,903	2,50	8,46	-115,48
23.64	8,400	45,52	116,14	0,55	1,3993	8,18	3,80	98,969	2,50	8,35	-115,77
23.65	8,200	45,58	115,96	0,56	1,4141	8,08	3,80	99,035	2,50	8,25	-116,05
23.66	8,200	45,58	115,96	0,56	1,4141	8,08	3,80	99,100	2,50	8,25	-116,15
23.67	8,080	46,26	116,14	0,57	1,4374	7,96	3,80	99,162	2,80	8,13	-116,06
23.68	8,000	46,31	116,14	0,58	1,4518	7,88	3,80	99,234	2,80	8,05	-116,16
23.69	7,950	46,73	116,33	0,59	1,4633	7,83	3,90	99,302	2,80	8,00	-116,07
23.7	7,930	47,05	116,69	0,59	1,4715	7,81	3,90	99,370	2,80	7,98	-115,81
23.71	7,930	47,05	116,69	0,59	1,4715	7,81	3,90	99,435	2,80	7,98	-115,91
23.72	7,920	47,00	116,87	0,59	1,4756	7,80	3,80	99,504	2,80	7,97	-115,82
23.73	7,820	46,82	117,06	0,60	1,4969	7,70	3,80	99,571	2,80	7,87	-115,73
23.74	7,700	46,83	117,06	0,61	1,5203	7,58	3,80	99,637	2,80	7,75	-115,83
23.75	7,700	46,83	117,06	0,61	1,5203	7,58	3,80	99,703	3,00	7,75	-115,93
23.76	7,620	46,86	117,06	0,62	1,5432	7,50	3,80	99,769	3,00	7,67	-115,93
23.77	7,650	47,14	117,24	0,62	1,5325	7,53	3,80	99,836	3,00	7,70	-115,94
23.78	7,730	47,42	117,6	0,61	1,5213	7,61	3,80	99,902	2,80	7,78	-115,68
23.79	7,730	47,42	117,6	0,61	1,5213	7,61	3,80	99,968	2,80	7,78	-115,78
23.8	7,880	46,98	117,42	0,60	1,4901	7,76	3,80	100,035	2,80	7,83	-116,06
23.81	8,040	46,98	117,42	0,60	1,4901	7,76	3,80	100,100	2,80	7,83	-116,16
23.82	8,100	45,48	117,06	0,58	1,4452	7,98	3,80	100,167	3,00	8,15	-116,61
23.83	8,100	44,78	116,87	0,55	1,4428	7,98	3,80	100,234	3,00	8,15	-116,90
23.84	8,100	44,78	116,87	0,55	1,4428	7,98	3,80	100,300	2,80	8,15	-117,07

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
25.23	8,840	54.69	127.28	0.62	1,4398	8.71	4.10	109.891	2.00	8.89	-120.23
25.24	8,940	54.60	127.28	0.62	1,4480	8.66	4.10	109.963	2.00	8.84	-120.32
25.25	8,880	54.37	126.92	0.63	1,4793	8.45	4.10	110.034	2.00	8.63	-120.78
25.26	8,440	54.46	126.92	0.65	1,5038	8.31	4.10	110.106	2.00	8.49	-120.88
25.27	8,330	54.63	126.73	0.65	1,5214	8.20	4.10	110.176	2.00	8.10	-121.17
25.28	8,260	54.18	126.92	0.66	1,5366	8.13	4.10	110.249	2.00	8.31	-121.08
25.29	8,190	54.04	126.92	0.66	1,5497	8.06	4.10	110.320	1.80	8.24	-121.17
25.3	8,130	53.76	127.1	0.66	1,5633	8.00	4.10	110.392	1.80	8.18	-121.09
25.31	8,100	53.58	127.28	0.66	1,5714	7.97	4.10	110.463	2.00	8.15	-121.01
25.32	8,080	53.12	127.47	0.67	1,5776	7.95	4.10	110.535	2.00	8.13	-121.00
25.33	8,140	53.30	127.65	0.65	1,5682	8.01	4.10	110.606	2.00	8.19	-120.84
25.34	8,200	53.30	127.83	0.65	1,5589	8.07	4.20	110.680	2.00	8.25	-120.76
25.35	8,290	53.44	128.01	0.64	1,5441	8.16	4.20	110.753	2.00	8.34	-120.67
25.36	8,370	53.39	128.01	0.64	1,5294	8.24	4.20	110.826	2.00	8.42	-120.77
25.37	8,470	53.21	128.07	0.63	1,5118	8.34	4.20	110.899	2.00	8.70	-121.17
25.38	8,580	53.44	128.2	0.62	1,4942	8.45	4.20	110.973	2.00	8.63	-120.78
25.39	8,700	53.30	128.38	0.61	1,4756	8.57	4.20	111.046	2.00	8.75	-120.70
25.4	8,800	53.12	128.74	0.60	1,4630	8.67	4.10	111.117	2.00	8.85	-120.43
25.41	8,850	52.75	128.38	0.60	1,4506	8.72	4.10	111.189	2.00	8.90	-120.89
25.42	8,810	52.38	128.2	0.61	1,4552	8.68	4.10	111.260	2.00	8.86	-121.17
25.43	8,880	52.38	128.2	0.60	1,4770	8.55	4.10	111.332	2.00	8.73	-121.27
25.44	8,420	52.14	128.38	0.62	1,5247	8.29	4.20	111.405	2.00	8.47	-121.19
25.45	8,420	52.14	128.38	0.62	1,5247	8.29	4.20	111.478	2.00	8.47	-121.28
25.46	8,420	52.14	128.38	0.62	1,5247	8.29	4.20	111.552	2.80	8.47	-121.38
25.47	8,200	45.29	130.13	0.65	1,6012	8.07	4.20	111.625	2.00	8.07	-122.01
25.48	8,040	43.21	130.93	0.64	1,6305	7.90	4.20	111.698	2.00	8.08	-119.03
25.49	8,040	44.04	130.57	0.55	1,6240	7.91	4.20	111.771	2.00	8.09	-119.49
25.5	7,980	44.87	130.57	0.56	1,6362	7.85	4.20	111.845	2.00	8.03	-119.59
25.51	7,920	45.57	130.39	0.58	1,6463	7.79	4.20	111.918	2.30	7.97	-119.86
25.52	7,870	46.12	130.39	0.59	1,6568	7.74	4.20	111.991	2.30	7.92	-119.96
25.53	7,820	46.82	130.2	0.60	1,6650	7.69	4.20	112.064	2.30	7.87	-120.25
25.54	7,790	47.37	130.2	0.61	1,6714	7.66	4.20	112.137	2.30	7.84	-120.35
25.55	7,760	48.02	130.02	0.62	1,6755	7.63	4.20	112.211	2.30	7.81	-120.63
25.56	7,730	48.35	130.02	0.63	1,6820	7.60	4.20	112.284	2.00	7.78	-120.72
25.57	7,710	48.58	130.02	0.63	1,6864	7.58	4.20	112.357	2.00	7.76	-120.82
25.58	7,660	48.86	129.94	0.64	1,6950	7.53	4.20	112.430	2.30	7.71	-121.10
25.59	7,620	48.72	130.02	0.64	1,7063	7.49	4.20	112.504	2.30	7.67	-121.02
25.6	7,590	48.44	130.02	0.64	1,7130	7.46	4.20	112.577	2.30	7.64	-121.12
25.61	7,490	48.16	130.02	0.64	1,7359	7.36	4.20	112.650	2.30	7.54	-121.21
25.62	7,460	48.12	130.2	0.65	1,7453	7.33	4.20	112.723	2.30	7.51	-121.13
25.63	7,450	47.98	130.02	0.64	1,7452	7.32	4.20	112.797	2.00	7.50	-121.41
25.64	7,460	47.79	130.2	0.64	1,7453	7.33	4.20	112.870	2.30	7.51	-121.33
25.65	7,490	47.51	130.39	0.63	1,7409	7.36	4.20	112.943	2.30	7.54	-121.24
25.66	7,570	47.61	130.39	0.63	1,7225	7.44	4.20	113.016	2.00	7.62	-121.33
25.67	7,700	47.47	130.57	0.62	1,6957	7.57	4.20	113.090	2.00	7.75	-121.25
25.68	7,660	47.37	130.75	0.60	1,6556	7.72	4.20	113.163	2.30	7.65	-121.17
25.69	8,000	47.33	130.57	0.57	1,6321	8.27	4.20	113.236	2.30	8.07	-121.89
25.7	8,160	47.05	130.39	0.58	1,5979	8.03	4.20	113.309	2.00	8.21	-121.73
25.71	8,450	47.00	130.39	0.56	1,5431	8.32	4.20	113.383	2.00	8.50	-121.83
25.72	8,580	46.63	130.75	0.54	1,5239	8.45	4.20	113.456	2.00	8.63	-121.56
25.73	8,670	46.36	130.75	0.53	1,5081	8.54	4.20	113.529	2.00	8.72	-121.68
25.74	8,650	46.57	130.57	0.54	1,5095	8.52	4.20	113.602	2.30	8.71	-121.94
25.75	8,580	47.14	130.57	0.55	1,5218	8.45	4.20	113.675	2.30	8.63	-122.04
25.76	8,520	47.65	130.57	0.56	1,5325	8.39	4.20	113.749	2.00	8.57	-122.14
25.77	8,480	48.12	130.57	0.57	1,5397	8.35	4.20	113.822	2.00	8.53	-122.23
25.78	8,500	48.44	130.57	0.57	1,5361	8.37	4.20	113.895	2.00	8.55	-122.33
25.79	8,510	48.37	130.57	0.57	1,5343	8.38	4.20	113.968	2.00	8.56	-122.43
25.8	8,550	48.76	130.57	0.57	1,5271	8.42	4.20	114.042	2.00	8.60	-122.53
25.81	8,580	49.09	130.57	0.57	1,5218	8.45	4.20	114.115	2.00	8.63	-122.63
25.82	8,650	49.00	130.39	0.57	1,5074	8.52	4.20	114.188	2.00	8.70	-122.90
25.83	8,700	50.11	130.2	0.58	1,4966	8.57	4.20	114.261	2.00	8.75	-123.19
25.84	8,640	50.66	130.57	0.56	1,5112	8.51	4.20	114.335	2.00	8.67	-123.48
25.85	8,480	51.08	131.12	0.60	1,5462	8.35	4.20	114.408	1.80	8.54	-122.47
25.86	8,300	51.91	131.3	0.63	1,5819	8.17	4.20	114.481	2.00	8.36	-122.39
25.87	8,140	52.05	131.12	0.64	1,6108	8.01	4.20	114.554	2.00	8.20	-122.66
25.88	8,010	51.59	131.12	0.64	1,6370	7.88	4.20	114.628	2.00	8.07	-122.76
25.89	7,930	51.30	130.46	0.65	1,6611	7.80	4.20	114.701	2.00	7.81	-122.86
25.9	7,900	51.82	131.48	0.66	1,6643	7.77	4.20	114.774	2.00	7.96	-122.60
25.91	7,930	51.87	131.85	0.65	1,6627	7.80	4.20	114.847	2.00	7.99	-122.33

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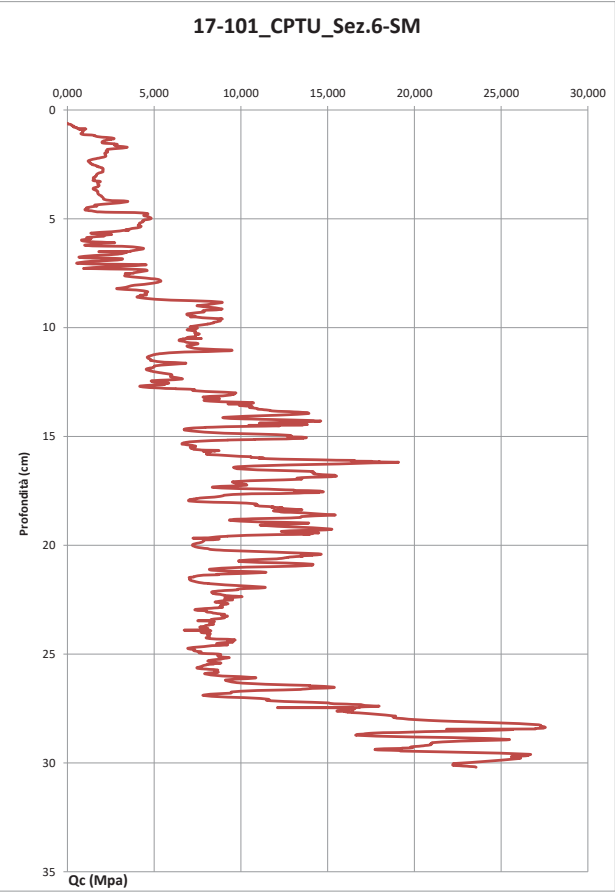
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Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [kPa]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
25.92	8,000	51.73	131.85	0.65	1,6481	7.87	4.30	114.922	2.00	8.06	-122.43
25.93	8,080	51.40	131.85	0.64	1,6318	7.95	4.30	114.997	2.00	8.14	-122.52
25.94	8,170	50.75	132.03	0.62	1,6160	8.04	4.30	115.072	2.00	8.23	-122.44
25.95	8,260	50.20	132.21	0.61	1,6006	8.13	4.30	115.147	2.00	8.32	-122.36
25.96	8,340	49.60	132.58	0.61	1,5857	8.21	4.30	115.222	2.00	8.40	-122.08
25.97	8,430	49.13	132.58	0.58	1,5727	8.30	4.30	115.297	2.00	8.49	-122.19
25.98	8,540	48.81	132.58	0.57	1,5525	8.41	4.30	115.372	2.00	8.60	-122.28
25.99	8,670	48.53	132.76	0.56	1,5333	8.54	4.30	115.447	2.00	8.73	-122.20
26	8,840	48.53	132.94	0.55	1,5038	8.71	4.30	115.522	2.00	8.90	-122.12
26.01	9,040	48.67	132.94	0.54	1,4706	8.81	4.30	115.597	2.00	9.10	-122.22
26.02	9,500	49.60	133.13	0.52	1,4014	9.37	4.30	115.672	2.00	9.56	-122.13
26.03	9,770	49.60	133.31	0.51	1,3645	9.64	4.30	115.747	2.00	9.83	-122.04
26.04	10,010	50.38	133.31	0.50	1,3318	9.88	4.30	115.822	1.80	10.07	-122.14
26.05	10,230	51.22	133.49	0.50	1,3049	10.10	4.30	115.897	1.80	10.29	-122.06
26.06	10,420	52.24	133.49	0.50	1,2611	10.29	4.30	115.972	2.00	10.48	-122.16
26.07	10,600	53.44	133.86	0.50	1,2628	10.47	4.20	116.045	2.00	10.66	-121.89
26.08	10,860	55.02	134.22	0.51	1,2359	10.73	4.20	116.118	2.00	10.92	-121.62
26.09	10,860	55.02	134.22	0.51	1,2359	10.73	4.20	116.192	2.00	10.92	-121.72
26.1	10,860	55.85	134.04	0.52	1,2377	10.70	4.30	116.267	2.00	10.89	-122.00
26.11	10,690	56.08	134.04	0.52	1,2539	10.56	4.30	116.342	2.00	10.75	-122.10
26.12	10,490	57.75	133.86	0.55	1,2761	10.36	4.30	116.417	1.80	10.55	-122.38
26.13	10,240	59.69	133.86	0.58	1,3072	10.11	4.30	116.492	1.80	10.30	-122.48
26.14	9,960	61.13	133.86	0.61	1,3440	9.83	4.30	116.567	2.00	10.02	-122.57
26.15	9,710	61.92	133.86	0.64	1,3786	9.58	4.30	116.642	2.00	9.77	-122.67
26.16	9,520	62.70	134.04	0.66	1,4080	9.39	4.30	116.717	2.00	9.58	-122.76
26.17	9,350	62.70	134.04	0.67	1,4355	9.22	4.30	116.792	2.00	9.40	-122.86
26.18	9,170	63.12	134.59	0.69	1,4677	9.04	4.30	116.866	2.00	9.23	-122.96
26.19	9,100	62.93	134.77	0.69	1,4810	8.97	4.30	116.941	2.00	9.16	-122.99
26.2	9,100	62.75	134.95	0.69	1,4830	8.97	4.30	117.016	2.00	9.16	-122.99
26.21	9,130	62.66	134.95	0.69	1,4781	9.00	4.30	117.091	2.00	9.19	-122.99
26.22	9,150	62.56	135.14	0.68	1,4769	9.01	4.30	117.166	2.00	9.21	-122.99
26.23	9,200	61.78	135.32	0.68	1,4719	9.06	4.30	117.241	2.00	9.24	-122.99
26.24	9,250	60.90	135.5	0.66	1,4649	9.11	4.30	117.316	2.00	9.31	-122.99
26.25	9,300	59.74	135.5	0.64	1,4570	9.16	4.30	117.391	2.00	9.36	-122.99
26.26	9,370	58.58	135.68	0.63	1,4480	9.23	4.30	117.466	2.00	9.43	-122.99
26.27	9,470	55.80	135.67	0.59	1,4342	9.33	4.30	117.541	2.00	9.53	-122.99
26.28	9,520	54.23	135.05	0.57	1,4201	9.38	4.30	117.616	2.00	9.60	-122.99
26.29	9,560	52.89	135.05	0.55	1,4231	9.42	4.30	117.695	2.00	9.62	-122.99
26.3	9,640	51.87	135.87	0.54	1,4094	9.50	4.30	117.771	2.00	9.70	-122.99
26.31	9,770	50.89	135.87	0.52	1,3907	9.63	4.30	117.848	2.00	9.83	-122.99
26.32	9,900	50.11	135.87	0.51	1,3724	9.76	4.30	117.925	2.00	9.96	-122.99
26.33	10,070	49.83	135.87	0.50	1,3461	10.25	4.30	118.001	2.00	10.11	-122.99
26.34	10,250	49.50	135.87	0.48	1,3256	10.41	4.30	118.078	2.00	10.31	-122.99
26.35	10,450	49.69	135.87	0.48	1,3002	10.31	4.30	118.155	2.00	10.51	-122.99
26.36	10,650	49.74	136.05	0.47	1,2775	10.51	4.30	118.232	2.00	10.71	-122.99
26.37	11,110	49.97	136.05	0.45	1,2246	10.97	4.30	118.307	2.00	11.17	-122.99
26.38	11,990	50.71	136.23	0.43	1,1600	12.25	4.30	118.382	2.00	12.16	-122.99
26.39	11,700	51.17	136.23	0.44	1,1644	11.66	4.30	118.457	2.00	11.78	-122.99
26.4	12,020	51.68	136.41	0.43	1,1302	11.93	4.30	118.532	2.00	12.13	-122.99
26.41	12,430	52.33	136.6	0.42	1,0990	12.29	4.30	118.608	1.80	12.48	-122.99
26.42	12,800	52.79	136.41	0.41	1,0657	12.66	4.30	118.685	1.80	12.86	-122.99
26.43	13,550	53.72	136.78	0.39	1,0133	13.41	4.30	118.762	2.00	13.55	-122.99
26.44	13,970	53.67	136.6	0.38	9,9778	13.83	4.30	118.837	2.00	14.03	-122.99
26.45	13,970	53.67	136.6	0.38	9,9778	13.83	4.30	118.912	2.80	14.03	-122.99
26.46	13,970	53.67	136.6	0.38	9,9778	13.83	4.30	118.987	2.30	14.03	-122.99
26.47	14,330	45.06	141.34	0.31	9,9863	14.19	4.30	119.063	2.30	14.39	-118.13
26.48	14,730	47.24	140.98	0.32	9,9571	14.59	4.30	119.140	1.50	14.79	-118.13
26.49	14,940	48.90	140.07	0.33	9,9219	14.81	4.30	119.215	2.50	15.00	-118.13
26.5	15,080	50.06	139.7	0.33	9,9264	14.94	4.30	119.294	2.00	15.14	-120.00
26.51	15,190	51.77	139.15	0.34	9,9161	15.05	4.30	119.370	2.00	15.25	-120.00
26.52	15,360	54.55	138.42	0.36	9,9012	15.22	4.30	119.447	1.80	15.42	-121.12
26.53	15,390	56.22	138.24	0.37	9,8992	15.26	4.30	119.524	2.00	15.45	-122.22
26.54	15,370	57.38	138.24	0.37	9,8988	15.29	4.30	119.601	2.00	15.48	-122.22
26.55	15,180	59.28	138.42	0.39	9,8199	15.04	4.30	119.677	1.80	15.42	-122.22
26.56	14,640	64.60	138.97	0.44	9,9492	14.50	4.30	119.754	1.80	14.70	-121.12
26.57	14,330	66.59	139.15	0.46	9,9710	14.19	4.30	119.831	2.00	14.39	-121.12
26.58	14,070	68.31	139.52	0.49	9,9916	13.93	4.30	119.907	2.00	14.13	-121.12
26.59	13,940	69.46	140.07	0.51	9,9778	13.76	4.30	119.982	1.80	13.96	-121.12
26.6	13,720	70.51	140.98	0.51	1,0276	13.58	4.30	120.061	1.80	13.78	-121.12

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
27.99	19,670	107.21	168.37	0.55	0.8560	19.50	4.90	131.245	2.00	19.74	-106.21
28	19,820	110.31	168.74	0.56	0.8514	19.65	4.90	131.330	2.00	19.89	-105.94
28.01	20,130	114.94	168.74	0.57	0.8383	19.96	4.90	131.416	1.80	20.20	-106.04
28.02	20,300	118.00	168.92	0.58	0.8321	20.13	4.90	131.501	1.80	20.37	-105.96
28.03	20,470	121.92	169.06	0.59	0.8268	20.30	5.90	131.587	1.80	20.54	-105.32
28.04	20,640	123.83	170.38	0.60	0.8255	20.47	4.90	131.672	1.80	20.71	-104.69
28.05	21,070	129.02	172.39	0.61	0.8182	20.90	4.90	131.752	1.80	21.14	-102.78
28.06	21,310	130.96	172.94	0.61	0.8115	21.14	4.90	131.843	1.80	21.38	-102.33
28.07	21,550	132.03	172.75	0.61	0.8016	21.38	4.90	131.928	1.80	21.62	-102.62
28.08	21,800	133.63	173.13	0.61	0.7951	21.63	5.90	132.014	1.80	21.87	-102.99
28.09	22,300	136.01	174.03	0.61	0.7804	22.13	4.90	132.099	1.80	22.37	-101.53
28.1	22,620	136.98	174.21	0.61	0.7702	22.45	4.90	132.185	1.80	22.69	-101.45
28.11	22,910	138.33	174.58	0.60	0.7620	22.74	4.90	132.270	1.50	22.98	-101.18
28.12	23,500	140.22	175.49	0.60	0.7468	23.32	4.90	132.355	1.50	23.57	-100.37
28.13	23,770	141.20	175.68	0.59	0.7391	23.59	4.90	132.441	1.80	23.84	-100.29
28.14	24,050	141.94	175.49	0.59	0.7297	23.87	4.90	132.526	1.80	24.12	-100.56
28.15	24,680	144.11	175.49	0.58	0.7111	24.50	5.00	132.613	1.80	24.75	-100.66
28.16	25,090	144.16	175.31	0.57	0.6987	24.91	5.00	132.701	1.80	25.16	-100.94
28.17	25,380	145.23	175.13	0.57	0.6900	25.20	5.00	132.788	1.80	25.45	-101.22
28.18	25,670	146.97	174.58	0.57	0.6801	25.50	5.00	132.875	2.00	25.74	-101.87
28.19	25,940	149.12	174.21	0.57	0.6716	25.77	5.00	132.962	2.00	26.01	-102.33
28.2	26,180	152.59	174.4	0.58	0.6662	26.01	5.00	133.049	2.00	26.25	-102.24
28.21	26,390	155.88	175.13	0.59	0.6636	26.21	5.00	133.136	2.00	26.46	-101.61
28.22	26,590	158.47	175.86	0.60	0.6614	26.41	5.00	133.223	2.00	26.66	-100.98
28.23	26,810	161.06	176.41	0.60	0.6586	26.63	5.00	133.311	2.00	26.86	-100.36
28.24	27,080	167.13	176.96	0.62	0.6534	26.90	5.00	133.398	2.00	27.15	-100.08
28.25	27,180	169.03	177.32	0.62	0.6524	27.00	5.00	133.485	2.00	27.25	-99.81
28.26	27,220	170.00	177.87	0.62	0.6535	27.04	5.00	133.572	1.80	27.29	-99.36
28.27	27,290	171.44	178.05	0.63	0.6524	27.11	5.00	133.659	1.80	27.36	-99.28
28.28	27,280	173.20	178.23	0.63	0.6533	27.10	5.00	133.746	2.00	27.35	-99.20
28.29	27,280	173.80	178.41	0.64	0.6540	27.10	5.00	133.834	2.00	27.35	-99.11
28.3	27,280	174.72	179.33	0.64	0.6574	27.10	5.00	133.921	2.00	27.36	-98.29
28.31	27,310	178.29	180.06	0.65	0.6593	27.13	5.00	134.008	1.80	27.39	-97.66
28.32	27,340	179.73	180.79	0.66	0.6613	27.16	5.00	134.097	1.80	27.42	-97.03
28.33	27,440	180.84	181.15	0.66	0.6602	27.26	5.00	134.186	2.00	27.52	-96.77
28.34	27,500	181.30	180.97	0.66	0.6581	27.32	5.00	134.275	2.00	27.58	-97.05
28.35	27,510	181.62	180.81	0.66	0.6565	27.33	5.00	134.363	1.80	27.59	-97.50
28.36	27,530	183.25	181.15	0.67	0.6580	27.35	5.00	134.452	1.80	27.61	-97.06
28.37	27,550	184.03	182.07	0.67	0.6609	27.37	5.00	134.541	1.80	27.63	-96.24
28.38	27,520	184.08	182.25	0.67	0.6622	27.34	5.00	134.630	1.80	27.60	-96.16
28.39	27,470	183.52	182.8	0.67	0.6655	27.28	5.20	134.721	1.80	27.55	-95.71
28.4	27,440	183.20	182.98	0.67	0.6668	27.26	5.20	134.811	1.80	27.52	-95.62
28.41	27,220	185.61	183.35	0.68	0.6736	27.04	5.20	134.902	2.00	27.30	-95.35
28.42	26,980	186.63	183.35	0.69	0.6796	26.80	5.00	134.991	2.00	27.06	-95.45
28.43	26,980	186.63	183.35	0.69	0.6796	26.80	5.00	135.080	3.50	27.06	-95.55
28.44	26,980	186.63	183.35	0.69	0.6796	26.80	5.00	135.169	3.50	27.06	-95.65
28.45	27,850	178.30	178.41	0.68	0.8207	27.87	5.00	135.258	3.50	27.93	-96.94
28.46	25,570	172.87	177.32	0.68	0.6935	25.39	5.00	135.347	2.30	25.64	-101.87
28.47	25,680	171.44	176.04	0.67	0.6855	25.50	5.00	135.435	1.80	25.75	-103.25
28.48	25,260	171.95	175.13	0.68	0.6933	25.08	5.00	135.521	1.80	25.33	-104.26
28.49	24,950	172.96	175.13	0.69	0.7018	24.77	5.00	135.610	1.80	25.02	-104.36
28.5	24,540	173.06	174.4	0.71	0.7107	24.37	5.00	135.702	2.00	24.62	-105.19
28.51	24,120	174.17	174.21	0.72	0.7223	23.95	5.00	135.791	2.00	24.19	-105.47
28.52	23,550	175.37	174.4	0.74	0.7406	23.38	5.00	135.880	2.00	23.62	-105.38
28.53	23,050	175.33	174.21	0.76	0.7558	22.88	5.00	135.969	2.00	23.12	-105.67
28.54	22,440	176.81	174.58	0.79	0.7794	22.23	5.20	136.059	2.00	22.47	-105.40
28.55	21,240	175.23	175.49	0.82	0.8262	21.06	5.20	136.150	2.00	21.31	-104.98
28.56	20,770	172.83	174.76	0.83	0.8414	20.60	5.20	136.241	1.80	20.84	-105.41
28.57	20,310	171.48	174.03	0.84	0.8569	20.14	5.20	136.331	1.80	20.38	-106.24
28.58	20,010	168.94	174.21	0.84	0.8706	19.84	5.20	136.422	2.00	20.08	-106.16
28.59	19,590	166.30	173.85	0.85	0.8874	19.42	5.20	136.513	2.00	19.66	-106.62
28.6	19,090	163.49	173.48	0.86	0.9087	18.92	5.20	136.603	1.80	19.16	-107.36
28.61	18,190	163.61	175.31	0.90	0.9638	18.01	5.30	136.696	2.00	18.26	-105.35
28.62	17,780	162.45	175.13	0.91	0.9850	17.60	5.30	136.788	2.00	17.85	-105.63
28.63	17,580	159.77	176.04	0.91	1.0014	17.40	5.30	136.880	2.00	17.65	-104.82
28.64	17,440	156.48	175.68	0.91	1.0073	17.26	5.20	136.971	2.00	17.51	-105.28
28.65	17,220	150.74	175.49	0.92	1.0344	17.04	5.20	137.062	2.00	17.24	-106.08
28.66	17,140	147.03	177.5	0.96	1.0356	16.96	5.20	137.152	2.00	17.21	-103.65
28.67	17,060	141.71	176.95	0.83	1.0372	16.88	5.20	137.243	2.00	17.13	-104.30

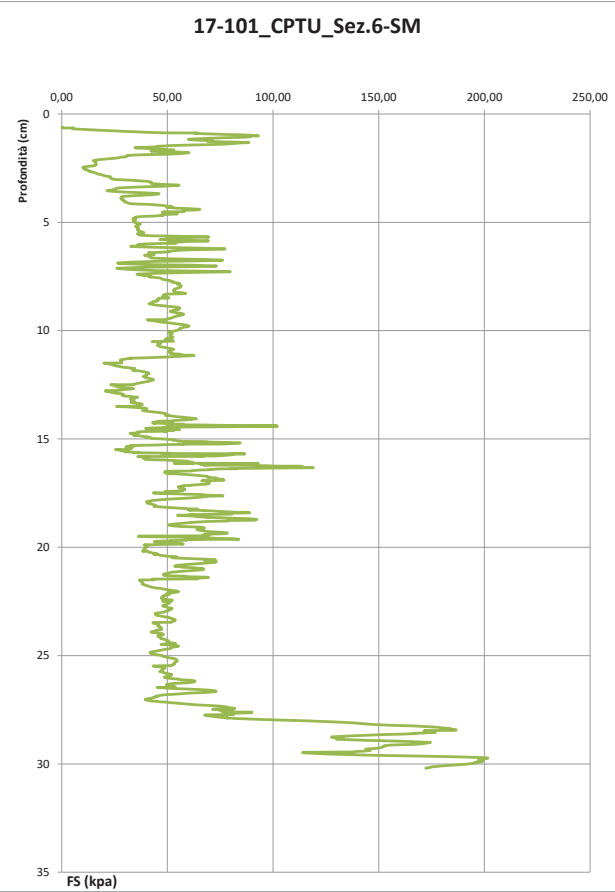
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
28.68	16,880	141.24	176.22	0.84	1.0440	16.70	5.20	137.333	2.00	16.95	-105.13
28.69	16,730	140.18	176.22	0.84	1.0533	16.55	5.20	137.424	1.80	16.80	-105.23
28.7	16,680	138.37	176.04	0.83	1.0554	16.50	5.20	137.515	1.80	16.75	-105.51
28.71	16,670	137.35	176.22	0.82	1.0571	16.49	5.30	137.607	2.00	16.74	-105.43
28.72	16,610	135.59	176.41	0.82	1.0621	16.45	5.30	137.699	2.00	16.68	-105.33
28.73	16,720	132.03	177.14	0.79	1.0594	16.54	5.30	137.792	1.80	16.79	-104.70
28.74	16,840	130.04	177.5	0.77	1.0540	16.66	5.30	137.884	1.80	16.91	-104.44
28.75	17,010	128.18	177.87	0.75	1.0457	16.83	5.30	137.977	2.00	17.08	-104.17
28.76	17,250	127.58	178.05	0.74	1.0322	17.07	5.30	138.069	2.00	17.32	-104.09
28.77	17,600	128.65	178.41	0.73	1.0157	17.47	5.30	138.161	2.00	17.67	-103.82
28.78	18,080	128.92	178.78	0.71	0.9888	17.90	5.30	138.254	1.80	18.16	-103.55
28.79	19,320	129.99	179.33	0.67	0.9282	19.14	5.30	138.346	1.80	19.40	-103.10
28.8	19,960	131.89	179.69	0.66	0.9003	19.78	5.30	138.438	1.50	20.04	-102.84
28.81	20,540	133.42	180.79	0.65	0.8902	20.36	5.30	138.531	1.50	20.62	-101.84
28.82	21,410	130.08	181.88	0.61	0.8495	21.25	5.30	138.623	1.80	21.49	-100.84
28.83	21,790	130.13	182.25	0.60	0.8364	21.61	5.30	138.716	1.80	21.87	-100.57
28.84	22,580	129.90	182.43	0.58	0.8079	22.40	5.30	138.808	1.80	22.66	-100.49
28.85	22,960	130.27	182.25	0.57	0.7938	22.78	5.30	138.900	1.50	23.04	-100.77
28.86	23,260	130.31	182.07	0.56	0.7828	23.08	5.30	138.993	1.50	23.34	-101.05
28.87	23,680	132.68	182.07	0.56	0.7624	23.70	5.30	139.085	1.50	23.96	-101.14
28.88	24,300	135.55	181.88	0.56	0.7460	24.20	5.30	139.177	1.50	24.46	-101.43
28.89	24,580	137.03	181.88	0.56	0.7349	24.40	5.30	139.270	1.50	24.66	-101.53
28.9	24,790	138.81	181.88	0.56	0.7237	24.61	5.30	139.362	1.50	24.87	-101.63
28.91	25,140	145.09	182.25	0.58	0.7249	24.96	5.30	139.455	1	25.22	-101.63
28.92	25,520	145.09	182.25	0.58	0.7249	25.22	5.30	139.455	1	25.48	-101.63
28.93	25,400	151.85	182.43	0.60	0.7157	25.31	5.30	139.639	1.50	25.57	-101.77
28.94	25,590	155.88	181.7	0.62	0.7182	25.12	5.30	139.732	1.50	25.38	-102.22
28.95	25,130	158.24	181.88	0.63	0.7208	24.95	5.30	139.824	1.50	25.21	-102.12
28.96	24,550	162.55	181.7	0.66	0.7401	24.37	5.30	139.916	1.50	24.63	-102.42
28.97	24,840	160.40	181.88	0.67	0.7237	24.61	5.30	140.008	1.50	24.92	-102.42
28.98	23,500	167.82	182.98	0.71	0.7786	23.32	5.30	140.101	1.50	23.58	-101.77
28.99	22,870	170.88	183.53	0.75	0.8025	22.69	5.30	140.193	1.30	22.95	-100.86
29	22,640	174.46	184.26	0.76	0.8153	22.42	5.30	140.286	1.50	22.68	-100.60
29.01	22,600	174.46	184.99	0.79	0.8393	21.86	5.30	140.378	1.50	22.12	-99.60
29.02	22,600	175.11	185.17	0.81	0.8411	21.52	5.30	140.470	1.50	22.12	-99.60
29.03	21,750	173.38	185.35	0.80	0.8522	21.56	5.30	140.563	1.50	21.83	-99.43
29.04	21,530	172.83	185.10	0.80	0.8626	21.34	5.30	140.655	2.00	21.61	-99.19
29.05	21,360	172.73	186.08	0.81	0.8712	21.17	5.30	140.748	2.00	21.44	-98.98
29.06	21,110	171.77	186.63	0.81	0.8841	20.92	5.30	140.840	1.80	21.19	-98.45
29.07	20,870	170.93	187.19	0.82	0.8935	20.68	5.30	140.932	1.80	21.19	-98.45
29.08	21,020	168.70	187.18	0.80	0.8905	20.83	5.30	141.025	2.00	21.10	-98.89
29.09	20,960	166.06	187.55	0.79	0.8935	20.50	5.30	141.117	2.00	21.07	-97.82
29.1	20,130	163.33	187.73	0.78	0.8927	20.84	5.30	141.210	1.80	21.17	-97.74
29.11	20,990	161.11	187.91	0.77	0.8952	20.80	5.30	141.302	1.80	21.07	-96.67
29.12	20,640	160.40	188.47	0.78	0.8947	20.68	5.30	141.394	1.80	21.07	-96.67
29.13	20,950	156.02	188.64	0.74	0.8996	20.76	5.30	141.487	1.80	21.03	-97.17
29.14	20,930	154.72	188.64	0.74	0.9013	20.74	5.30	141.579	2.00	21.01	-97.22
29.15	20,930	153.93	188.82	0.74	0.9022	20.74	5.30	141.671	2.00	21.01	-97.14
29.16	20,960	152.59	188.82	0.73	0.9009	20.77	5.40	141.760	2.00	21.04	-97.24
29.17	20,910	151.90	189.01	0.73	0.9017	20.74	5.40	141.852	2.00	21.04	-97.24
29.18	20,830	152.77	189.37	0.73	0.9031	20.64	5.40	141.954	2.00	20.91	-96.89
29.19	20,740	152.26	189.37	0.73	0.9019	20.55	5.40	142.048	2.00	20.82	-96.89
29.2	20,610	152.13	189.37	0.74	0.9188	20.42	5.30	142.140	2.00	20.69	-97.08
29.21	20,520	151.94	189.55	0.74	0.9237	20.33	5.30	142.233	2.00	20.60	-97.07
29.22	20,430	151.75	189.73	0.74	0.9286	20.24	5.30	142.325	2.00	20.51	-96.99
29.23	20,270	151.48	189.92	0.75	0.9370	20.08	5.30	142.417	2.00	20.35	-96.83
29.24	20,110	151.38	189.92	0.75	0.9444	19.92	5.30	142.510	2.00	20.19	-96.92
29.25	19,950	150.83	190.1	0.76	0.9529	19.76	5.30	142.602	2.00	20.03	-96.84
29.26	19,810	149.81	190.28	0.76	0.9605	19.62	5.30	142.694	2.00	19.89	-96.51
29.27	19,790	149.81	190.47	0.76	0.9619	19.54	5.30	142.786	2.00	19.89	-96.51
29.28	19,780	148.86	190.83	0.76	0.9649	19.59	5.40	142.881	2.50	19.86	-96.46
29.29	19,880	147.54	191.02	0.74	0.9609	19.69	5.40	142.975	2.50	19.96	-96.31
29.3	19,910	146.01	191.2	0.73	0.9603	19.72	5.40	143.069	2.50	19.99	-96.25
29.31	19,730	143.93	191.02	0.73	0.9682	19.54	5.40	143.163	2.50	19.81	-95.51
29.32	19,280	143.93	190.83	0.75	0.9888	19.56	5.30	143.256	2.50	19.36	-95.51
29.33	19,280	143.93	190.83	0.75	0.9888	19.09	5.30	143.348	2.50	19.36	-96.00
29.34	18,740	144.11	190.83	0.77	1.0156	18.60	5.30	143.440	2.50	18.87	-97.00
29.35	18,260	144.76	191.02	0.79	1.0461	18.07	5.30	143.533	2.50	18.34	-96.90
29.36	17,910	145.69	191.02	0.81	1.0686	17.72	5.30	143.625	2.80	17.99	-97.07



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L'operatore

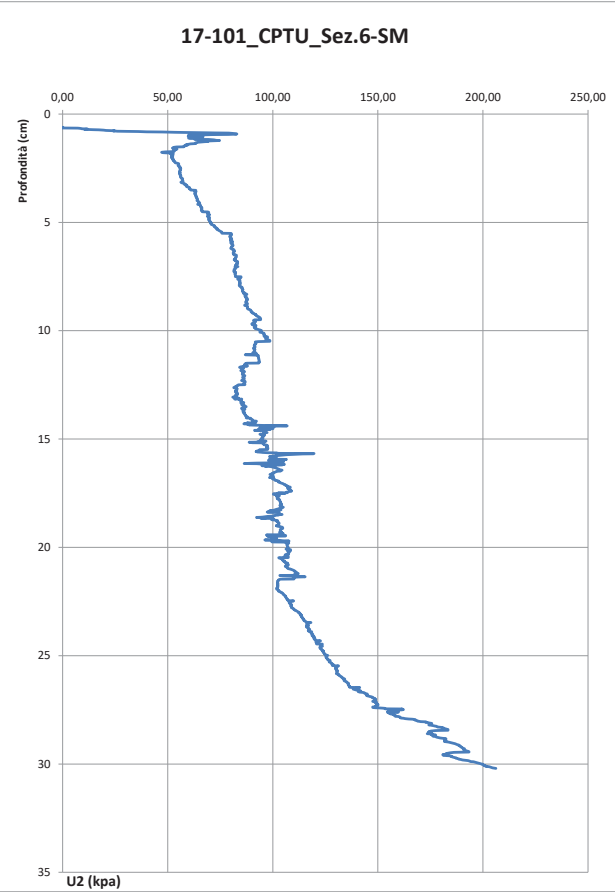
Il direttore



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L'operatore

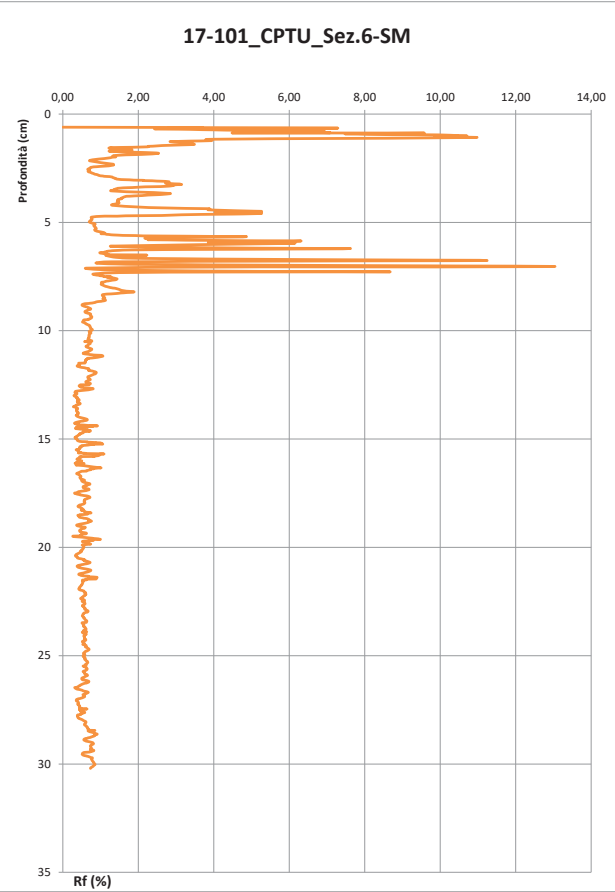
Il direttore



17-101.G_CPTU_Soarza

L'operatore


Il direttore



17-101.G_CPTU_Soarza

L'operatore

Il direttore

Impresa esecutrice:  PARMAGEO S.r.l. Via Tel. Fax		Cantiere: Nome: A.L.Po Indirizzo: Ufficio di Piacenza Tel. Fax P. IVA / C.F. : Telefono: PC-E-810 e-mail:	
Prova: Ubicazione: Soarza (PC) Data: 27/02/2016 Tipo prova: CPTU Codice Prova: 17-101_CPTU_Sez.6-SX Note: Sinistra argine		Quota assoluta [m]: Q. inizio da Q. ass. [m]: Preforo [m]: 0,6 Q.ta falda [m]: -3,30 Coordinate: Nord: Est:	
Il responsabile di sito: Dr. Geol. Stefano Verdini		Il direttore tecnico: Dr. Geol. Enrico Fasani	

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
0,61	0,000	0,00	-1,64	0,00	0,0000	0,00	0,50	0,009	0,00	0,00	-1,64
0,62	0,010	0,00	-1,64	0,00	-16,4000	0,01	0,50	0,017	1,50	0,01	-0,64
0,63	0,010	0,00	-1,64	0,00	-16,4000	0,01	0,50	0,026	1,50	0,01	-1,64
0,64	0,010	0,00	-1,64	0,00	-16,4000	0,01	0,50	0,035	1,50	0,01	-1,64
0,65	0,030	0,00	-2,74	0,00	-9,1333	0,03	0,50	0,044	1,30	0,03	-2,74
0,66	0,120	0,00	-2,01	0,00	-1,6750	0,12	0,50	0,052	1,50	0,12	-2,01
0,67	0,120	0,00	-2,01	0,00	-1,6750	0,12	0,50	0,061	1,50	0,12	-2,01
0,68	0,120	0,00	-2,01	0,00	-1,6750	0,12	0,50	0,070	1,30	0,12	-2,01
0,69	0,190	0,28	-3,47	0,15	-1,8263	0,19	0,50	0,079	1,50	0,19	-3,47
0,7	0,190	0,28	-3,47	0,15	-1,8263	0,19	0,50	0,087	1,30	0,19	-3,47
0,71	0,260	1,20	-9,13	0,46	-3,5115	0,27	0,60	0,098	1,30	0,26	-9,13
0,72	0,260	1,20	-9,13	0,46	-3,5115	0,27	0,60	0,108	1,30	0,26	-9,13
0,73	0,320	3,15	-15,52	0,98	-4,8500	0,34	0,60	0,119	1,30	0,31	-15,52
0,74	0,320	3,15	-15,52	0,98	-4,8500	0,34	0,60	0,129	1,50	0,31	-15,52
0,75	0,380	7,50	-20,82	1,97	-5,4789	0,40	0,60	0,140	1,30	0,37	-20,82
0,76	0,380	7,50	-20,82	1,97	-5,4789	0,40	0,60	0,150	1,30	0,37	-20,82
0,77	0,410	13,24	-26,11	3,23	-6,3683	0,44	0,60	0,161	1,30	0,40	-26,11
0,78	0,410	13,24	-26,11	3,23	-6,3683	0,44	0,60	0,171	1,50	0,40	-26,11
0,79	0,410	13,24	-26,11	3,23	-6,3683	0,44	0,60	0,182	1,30	0,40	-26,11
0,8	0,400	15,70	-26,30	3,93	-6,5750	0,43	0,60	0,192	1,30	0,39	-26,30
0,81	0,470	18,80	-20,82	4,00	-4,4298	0,49	0,60	0,202	1,30	0,46	-20,82
0,82	0,470	18,80	-20,82	4,00	-4,4298	0,49	0,60	0,213	1,50	0,46	-20,82
0,83	0,510	21,30	-17,53	4,18	-3,4373	0,53	0,70	0,225	1,50	0,50	-17,53
0,84	0,510	21,30	-17,53	4,18	-3,4373	0,53	0,70	0,237	1,30	0,50	-17,53
0,85	0,510	21,30	-17,53	4,18	-3,4373	0,53	0,70	0,250	1,50	0,50	-17,53
0,86	0,530	23,25	-11,87	4,39	-2,2396	0,56	0,70	0,262	1,30	0,53	-11,87
0,87	0,530	23,25	-11,87	4,39	-2,2396	0,56	0,70	0,274	1,30	0,53	-11,87
0,88	0,600	24,82	-5,11	4,14	-0,8517	0,61	0,70	0,286	1,50	0,60	-5,11
0,89	0,600	24,82	-5,11	4,14	-0,8517	0,61	0,70	0,298	1,50	0,60	-5,11
0,9	0,660	24,54	0,18	3,72	0,0273	0,66	0,70	0,311	1,50	0,66	0,18
0,91	0,660	24,54	0,18	3,72	0,0273	0,66	0,70	0,323	1,50	0,66	0,18
0,92	0,660	24,54	0,18	3,72	0,0273	0,66	0,70	0,335	1,80	0,66	0,18
0,93	0,730	24,91	2,92	3,41	0,4000	0,73	0,80	0,349	1,80	0,73	2,92
0,94	0,800	25,70	4,57	3,21	0,5713	0,80	0,80	0,363	1,80	0,80	4,57
0,95	0,800	25,70	4,57	3,21	0,5713	0,80	0,80	0,377	1,80	0,80	4,57
0,96	0,800	25,70	4,57	3,21	0,5713	0,80	0,80	0,391	1,80	0,80	4,57
0,97	0,860	27,23	0,91	3,17	0,1058	0,86	0,80	0,405	1,80	0,86	0,91
0,98	0,860	27,23	0,91	3,17	0,1058	0,86	0,80	0,419	1,80	0,86	0,91
0,99	0,210	0,00	1,64	0,00	0,7810	0,21	1,10	0,438	1,80	0,21	1,64
1	0,160	1,16	4,57	0,73	2,8563	0,16	1,10	0,457	1,80	0,16	4,57
1,01	0,160	1,16	4,57	0,73	2,8563	0,16	1,10	0,478	1,80	0,16	4,57
1,02	0,760	31,95	4,57	4,20	0,6013	0,76	1,10	0,496	2,00	0,76	4,57
1,03	0,760	31,95	0,91	4,20	0,1197	0,76	1,10	0,515	2,00	0,76	0,91
1,04	0,670	34,92	0,91	5,21	0,1358	0,67	1,10	0,534	1,80	0,67	0,91
1,05	0,670	34,92	3,50	5,21	0,5224	0,67	1,10	0,553	2,00	0,67	3,50
1,06	0,680	33,62	16,62	5,09	2,5182	0,64	1,10	0,572	2,00	0,67	16,62
1,07	0,660	33,62	16,62	5,09	2,5182	0,64	1,10	0,592	2,00	0,67	16,62

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17-101_CPTU.S6_SX

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
1,08	0,720	31,12	18,99	4,32	2,6375	0,70	1,20	0,613	2,50	0,73	18,99
1,09	0,720	31,12	18,99	4,32	2,6375	0,70	1,20	0,634	2,50	0,73	18,99
1,1	0,880	27,00	19,54	3,07	2,2205	0,86	1,20	0,654	2,30	0,89	19,54
1,11	0,880	27,00	19,54	3,07	2,2205	0,86	1,20	0,675	2,30	0,89	19,54
1,12	0,880	27,00	19,54	3,07	2,2205	0,86	1,20	0,696	2,30	0,89	19,54
1,13	1,090	24,40	40,54	2,24	3,7193	1,05	1,30	0,719	2,50	1,11	40,54
1,14	1,090	24,40	40,54	2,24	3,7193	1,05	1,30	0,742	2,50	1,11	40,54
1,15	1,470	24,96	39,26	1,70	2,6707	1,43	1,30	0,764	2,30	1,49	39,26
1,16	1,470	24,96	39,26	1,70	2,6707	1,43	1,30	0,787	2,30	1,49	39,26
1,17	1,580	28,76	38,53	1,82	2,4386	1,54	1,40	0,810	2,30	1,60	38,53
1,18	1,580	28,76	38,53	1,82	2,4386	1,54	1,40	0,836	2,30	1,60	38,53
1,19	1,660	33,81	49,67	2,04	2,9922	1,61	1,40	0,860	2,00	1,68	49,67
1,2	1,660	33,81	49,67	2,04	2,9922	1,61	1,40	0,885	2,00	1,68	49,67
1,21	1,920	37,46	47,03	1,95	2,4495	1,87	1,40	0,909	2,00	1,94	47,03
1,22	1,920	37,46	47,03	1,95	2,4495	1,87	1,40	0,934	2,00	1,94	47,03
1,23	1,920	37,46	45,27	1,95	2,3578	1,87	1,40	0,958	2,00	1,94	45,27
1,24	2,250	37,60	41,82	1,67	1,8587	2,21	1,40	0,983	2,00	2,27	41,82
1,25	2,300	33,81	23,74	1,47	1,0322	2,28	1,40	1,007	2,00	2,31	23,74
1,26	2,300	33,81	23,74	1,47	1,0322	2,28	1,40	1,031	2,00	2,31	23,74
1,27	2,300	33,81	23,74	1,47	1,0322	2,28	1,40	1,056	2,00	2,31	23,74
1,28	2,150	30,15	15,34	1,40	0,7135	2,13	1,40	1,080	2,00	2,16	15,34
1,29	2,150	30,15	15,34	1,40	0,7135	2,13	1,40	1,105	2,00	2,16	15,34
1,3	1,900	25,75	9,31	1,36	0,4900	1,89	1,40	1,129	2,00	1,90	9,31
1,31	1,900	25,75	9,31	1,36	0,4900	1,89	1,40	1,154	2,00	1,90	9,31
1,32	1,690	22,69	4,20	1,34	0,2485	1,89	1,30	1,178	2,00	1,69	4,20
1,33	1,690	22,69	4,20	1,34	0,2485	1,89	1,30	1,199	2,00	1,69	4,20
1,34	1,510	22,18	3,10	1,47	0,2053	1,51	1,40	1,223	2,00	1,51	3,10
1,35	1,510	22,18	2,10	1,47	0,1391	1,51	1,40	1,248	2,00	1,51	2,10
1,36	1,320	24,96	1,64	1,89	0,1242	1,32	1,40	1,272	2,00	1,32	1,64
1,37	1,320	24,96	1,64	1,89	0,1242	1,32	1,40	1,297	2,00	1,32	1,64
1,38	1,200	32,00	7,40	2,67	0,6167	1,18	1,40	1,321	2,00	1,20	7,40
1,39	1,120	37,42	4,75	3,34	0,4241	1,12	1,40	1,346	2,00	1,12	4,75
1,4	1,120	37,42	4,75	3,34	0,4241	1,12	1,40	1,370	2,00	1,12	4,75
1,41	1,140	35,80	18,26	3,14	1,6018	1,12	1,40	1,394	2,00	1,15	18,26
1,42	1,140	35,80	18,26	3,14	1,6018	1,12	1,40	1,419	2,00	1,15	18,26
1,43	1,230	34,04	21,00	2,77	1,7073	1,21	1,40	1,443	2,00	1,24	21,00
1,44	1,230	34,04	21,00	2,77	1,7073	1,21	1,40	1,468	2,00	1,24	21,00
1,45	1,220	33,62	10,41	2,76	0,8533	1,21	1,50	1,494	1,80	1,22	10,41
1,46	1,220	33,62	10,41	2,76	0,8533	1,21	1,50	1,520	1,80	1,22	10,41
1,47	1,050	31,95	1,64	3,04	0,1562	1,05	1,50	1,546	2,00	1,05	1,64
1,48	1,050	31,95	1,64	3,04	0,1562	1,05	1,50	1,572	2,00	1,05	1,64
1,49	0,920	31,26	6,20	3,40	0,6739	0,91	1,50	1,599	2,00	0,92	6,20
1,5	0,920	31,26	6,20	3,40	0,6739	0,91	1,50	1,625	2,00	0,92	6,20
1,51	0,840	30,33	14,97	3,61	1,7821	0,83	1,50	1,651	2,00	0,85	14,97
1,52	0,840	30,33	14,97	3,61	1,7821	0,83	1,50	1,677	2,00	0,85	14,97
1,53	0,890	26,63	27,39	2,99	3,0775	0,86	1,50	1,703	2,00	0,90	27,39
1,54	0,890	26,63	27,39	2,99	3,0775	0,86	1,50	1,729	2,00	0,90	27,39
1,55	0,890	26,63	27,39	2,99	3,0775	0,86	1,50	1,756	2,00	0,90	27,39
1,56	0,700	25,00	25,00	3,57	3,5714	0,68	1,50	1,782	2,00	0,71	25,00
1,57	0,550	25,01	14,61	4,55	2,6564	0,54	1,50	1,808	2,00	0,56	14,61
1,58	0,550	25,01	14,61	4,55	2,6564	0,54	1,50	1,834	2,00	0,56	14,61
1,59	1,230	28,16	5,84	2,29	0,4748	1,22	1,50	1,860	2,00	1,23	5,84
1,6	1,230	28,16	5,84	2,29	0,4748	1,22	1,50	1,887	2,00	1,23	5,84
1,61	1,170	30,89	10,23	2,64	0,8744	1,16	1,50	1,913	1,80	1,17	10,23
1,62	1,240	35,10	14,24	2,63	1,1484	1,23	1,50	1,939	2,30	1,25	14,24
1,63	0,590	6,90	3,16	1,68	0,5363	0,75	1,50	1,965	2,00	0,61	3,16
1,64	0,780	36,40	31,23	4,67	4,0038	0,75	1,50	1,991	2,00	0,79	31,23
1,65	1,730	35,70	3,50	2,06	0,3064	1,72	1,50	2,017	1,80	1,73	5,30
1,66	1,850	33,34	2,56	1,80	0,1384	1,85	1,50	2,044	1,80	1,85	2,56
1,67	1,910	31,07	4,57	1,63	0,2393	1,91	1,50	2,070	2,00	1,91	4,57
1,68	1,850	27,42	3,30	1,48	0,2855	1,85	1,50	2,097	2,00	1,85	3,30
1,69	1,700	25,75	1,51	1,44	0,2855	1,78	1,50	2,122	2,00	1,79	1,51
1,7	1,740	24,50	4,75	1,41	0,2730	1,74	1,50	2,148	2,00	1,74	4,75
1,71	1,680	23,53	1,30	1,40	0,1845	1,68	1,50	2,174	2,00	1,68	1,30
1,72	1,640	22,88	1,28	1,40	0,0780	1,64	1,50	2,201	2,00	1,64	1,28
1,73	1,610	22,37	1,27	1,40	0,0780	1,61	1,50	2,227	2,00	1,61	1,27
1,74	1,590	22,60	-0,37	1,42	-0,0233	1,59	1,50	2,253	2,00	1,59	-0,37
1,75	1,560	22,78	0,55	1,46	0,0353	1,56	1,50	2,279	2,00	1,56	0,55
1,76	1,600	25,33	10,59	1,58	0,6619	1,59	1,50	2,305	2,00	1,60	10,59

Depth [m]	Qc [kPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [kPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
3.15	2,580	26.58	6.39	1.03	0.2477	2,57	1.70	6,157	2.00	2,58	6.39
3.16	2,540	25.61	6.57	1.01	0.2587	2,53	1.70	6,186	2.00	2,54	6.57
3.17	2,500	24.68	6.76	0.99	0.2704	2,49	1.70	6,216	2.00	2,50	6.76
3.18	2,480	23.62	6.76	0.95	0.2726	2,47	1.70	6,246	2.00	2,48	6.76
3.19	2,470	23.61	7.30	0.86	0.2955	2,46	1.70	6,275	2.00	2,47	7.30
3.2	2,490	21.12	7.49	0.85	0.3008	2,48	1.70	6,305	2.00	2,49	7.49
3.21	2,520	20.51	7.67	0.81	0.3044	2,51	1.80	6,337	2.00	2,52	7.67
3.22	2,560	20.10	7.49	0.79	0.2926	2,55	1.80	6,368	1.80	2,56	7.49
3.23	2,600	19.54	7.67	0.75	0.2950	2,59	1.70	6,398	1.80	2,60	7.67
3.24	2,640	18.94	8.04	0.72	0.3045	2,63	1.70	6,427	1.80	2,64	8.04
3.25	2,720	18.34	8.40	0.67	0.3088	2,71	1.70	6,457	2.00	2,72	8.40
3.26	2,780	17.92	8.95	0.64	0.3219	2,77	1.70	6,487	2.00	2,78	8.95
3.27	2,880	17.46	8.95	0.61	0.3108	2,87	1.70	6,516	2.00	2,88	8.95
3.28	2,980	17.37	9.13	0.58	0.3064	2,97	1.70	6,546	2.00	2,98	9.13
3.29	3,170	17.41	9.35	0.55	0.2952	3,16	1.70	6,576	2.00	3,17	9.35
3.3	3,270	17.78	8.95	0.54	0.2737	3,26	1.80	6,607	2.00	3,27	8.95
3.31	3,350	18.06	8.95	0.54	0.2672	3,34	1.80	6,638	2.00	3,35	-23.52
3.32	3,440	18.06	8.77	0.53	0.2549	3,43	1.80	6,670	1.80	3,44	-23.40
3.33	3,500	18.11	8.77	0.52	0.2506	3,49	1.80	6,701	1.80	3,50	-23.90
3.34	3,560	18.15	7.58	0.51	0.2409	3,55	1.80	6,733	2.00	3,56	-24.19
3.35	3,620	18.52	8.40	0.51	0.2320	3,61	1.80	6,764	2.00	3,62	-24.46
3.36	3,680	19.50	8.22	0.53	0.2234	3,67	1.80	6,796	2.00	3,68	-24.74
3.37	3,710	19.82	8.04	0.53	0.2167	3,70	1.80	6,827	2.00	3,71	-25.02
3.38	3,740	19.96	7.85	0.53	0.2099	3,73	1.80	6,858	2.00	3,74	-25.31
3.39	3,760	20.05	7.49	0.53	0.1992	3,75	1.80	6,890	2.00	3,76	-25.77
3.4	3,790	20.10	7.49	0.53	0.1992	3,75	1.80	6,921	1.80	3,79	-26.86
3.41	3,750	20.01	7.30	0.53	0.1947	3,74	1.80	6,953	1.80	3,75	-26.15
3.42	3,750	19.82	7.12	0.53	0.1899	3,74	1.80	6,984	2.00	3,75	-26.43
3.43	3,750	19.73	7.12	0.53	0.1899	3,74	1.80	7,015	2.00	3,75	-26.53
3.44	3,740	19.73	7.30	0.53	0.1952	3,78	1.80	7,047	2.00	3,74	-26.45
3.45	3,740	19.68	7.30	0.53	0.1952	3,73	1.80	7,078	2.00	3,74	-26.54
3.46	3,750	19.73	7.12	0.53	0.1899	3,74	1.80	7,110	2.00	3,75	-26.82
3.47	3,760	19.68	7.49	0.52	0.1992	3,75	1.80	7,141	1.80	3,76	-26.55
3.48	3,760	19.50	7.49	0.52	0.1992	3,75	1.80	7,172	1.80	3,76	-26.65
3.49	3,760	19.40	7.30	0.52	0.1941	3,75	1.80	7,204	2.00	3,76	-26.94
3.5	3,740	19.68	6.94	0.51	0.1856	3,73	1.80	7,235	2.00	3,74	-27.40
3.51	3,700	19.31	6.76	0.52	0.1827	3,69	1.80	7,267	2.00	3,70	-27.67
3.52	3,660	19.31	6.76	0.53	0.1847	3,65	1.80	7,298	2.00	3,66	-27.77
3.53	3,570	19.22	6.57	0.54	0.1840	3,56	1.80	7,330	2.00	3,57	-28.06
3.54	3,520	19.22	6.21	0.55	0.1764	3,51	1.80	7,361	2.00	3,52	-28.52
3.55	3,520	19.22	6.21	0.55	0.1764	3,51	1.80	7,392	2.00	3,52	-28.62
3.56	3,520	19.22	6.21	0.55	0.1764	3,51	1.80	7,424	2.00	3,52	-28.71
3.57	3,300	13.57	10.33	0.41	0.4003	3,32	1.80	7,455	2.00	3,34	-21.69
3.58	3,300	14.22	10.23	0.43	0.3100	3,29	1.90	7,488	2.00	3,30	-24.89
3.59	3,320	14.73	8.95	0.46	0.2780	3,21	1.80	7,520	2.00	3,32	-26.27
3.6	3,310	15.19	7.85	0.49	0.2508	3,12	1.90	7,553	2.00	3,33	-27.47
3.61	3,260	15.68	6.94	0.52	0.2345	3,06	1.90	7,586	1.80	3,34	-28.79
3.62	2,870	16.16	7.12	0.56	0.2481	2,86	1.90	7,619	2.30	2,87	-28.39
3.63	2,770	16.21	7.12	0.59	0.2570	2,76	1.80	7,651	2.00	2,77	-28.49
3.64	2,610	16.16	7.30	0.62	0.2797	2,60	1.80	7,682	2.00	2,61	-28.49
3.65	2,540	16.12	7.12	0.63	0.2603	2,53	1.80	7,713	1.80	2,54	-28.61
3.66	2,470	16.07	7.30	0.62	0.2395	2,46	1.80	7,745	1.80	2,47	-28.67
3.67	2,410	15.88	7.30	0.66	0.3029	2,40	1.80	7,776	2.00	2,41	-28.70
3.68	2,370	15.75	7.30	0.66	0.3080	2,36	1.80	7,808	2.00	2,37	-28.80
3.69	2,350	15.56	7.67	0.66	0.3264	2,34	1.80	7,839	2.00	2,35	-28.53
3.7	2,340	15.47	8.04	0.66	0.3436	2,33	1.90	7,872	2.00	2,34	-28.26
3.71	2,330	15.35	8.22	0.66	0.3598	2,32	1.90	7,905	2.00	2,34	-28.32
3.72	2,360	16.02	7.67	0.68	0.3250	2,35	1.90	7,939	2.00	2,36	-28.82
3.73	2,350	16.02	7.12	0.68	0.3030	2,34	1.90	7,972	2.00	2,35	-29.47
3.74	2,230	16.02	7.12	0.68	0.3030	2,34	1.90	8,005	2.00	2,35	-29.57
3.75	2,250	16.35	5.48	0.78	0.2457	2,22	1.90	8,038	2.00	2,23	-31.31
3.76	2,140	16.35	5.48	0.76	0.2447	2,16	1.90	8,071	2.00	2,23	-31.46
3.77	2,040	16.39	4.20	0.80	0.2059	2,04	1.90	8,104	2.00	2,04	-32.78
3.78	1,930	16.81	4.93	0.87	0.2554	1,93	1.90	8,137	2.00	1,93	-32.15
3.79	1,840	17.69	5.11	0.96	0.2777	1,83	1.90	8,171	2.00	1,84	-32.07
3.8	1,810	18.08	5.66	1.04	0.3127	1,80	1.90	8,204	2.00	1,81	-31.62
3.81	1,870	18.39	6.16	1.06	0.3237	1,86	1.90	8,237	2.00	1,87	-31.66
3.82	2,010	20.38	6.03	1.01	0.3000	2,00	1.90	8,270	2.00	2,01	-31.44
3.83	2,220	21.02	6.21	0.95	0.2797	2,21	1.90	8,303	1.80	2,22	-31.36

17-101_G_CPTU_Soarza

17-101_CPTU_S6_SX

Pag. 5

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
3.84	2,440	21.12	4.57	0.87	0.1873	2,44	1.90	8,336	1.80	2,44	-33.10
3.85	2,630	21.26	2.56	0.81	0.0973	2,63	1.90	8,370	2.00	2,63	-35.21
3.86	2,790	21.35	1.83	0.77	0.0656	2,79	1.90	8,403	2.00	2,79	-36.04
3.87	2,900	20.93	0.55	0.72	0.0190	2,90	1.90	8,436	2.00	2,90	-37.41
3.88	3,010	20.65	0.37	0.62	0.0123	3,01	1.90	8,469	2.00	3,01	-38.43
3.89	3,090	18.85	2.19	0.61	0.0709	3,09	1.90	8,502	2.00	3,09	-35.97
3.9	3,190	17.88	3.47	0.56	0.1088	3,19	1.90	8,535	2.00	3,19	-34.79
3.91	3,270	17.09	4.38	0.52	0.1339	3,27	1.90	8,568	2.00	3,27	-33.98
3.92	3,330	16.81	5.30	0.50	0.1592	3,32	1.90	8,602	2.00	3,33	-33.16
3.93	3,370	16.58	5.48	0.49	0.1626	3,36	1.90	8,635	2.00	3,37	-33.07
3.94	3,420	16.67	5.66	0.49	0.1655	3,41	1.90	8,668	2.30	3,42	-32.99
3.95	3,460	16.81	5.84	0.49	0.1688	3,45	1.90	8,701	2.00	3,46	-32.91
3.96	3,490	17.50	6.21	0.50	0.1779	3,48	1.90	8,734	2.00	3,49	-32.64
3.97	3,500	17.55	6.21	0.50	0.1774	3,49	1.90	8,767	1.80	3,50	-32.74
3.98	3,530	17.18	6.57	0.49	0.1961	3,52	1.90	8,801	1.80	3,53	-32.47
3.99	3,560	17.27	6.57	0.49	0.1846	3,55	1.90	8,834	2.00	3,56	-32.57
4	3,570	17.55	6.39	0.49	0.1790	3,56	1.90	8,867	2.00	3,57	-32.85
4.01	3,580	17.64	6.57	0.49	0.1835	3,57	1.90	8,900	2.00	3,58	-32.77
4.02	3,590	17.83	6.39	0.50	0.1780	3,58	1.90	8,933	2.00	3,59	-33.05
4.03	3,630	18.15	6.98	0.50	0.1936	3,62	1.90	8,966	2.00	3,63	-33.14
4.04	3,640	18.48	6.39	0.51	0.1755	3,63	1.90	8,999	2.00	3,64	-33.24
4.05	3,660	19.59	6.76	0.54	0.1847	3,65	1.90	9,033	2.00	3,66	-32.97
4.06	3,700	19.87	6.94	0.54	0.1876	3,69	1.90	9,066	2.00	3,70	-32.89
4.07	3,760	20.24	7.49	0.54	0.1992	3,75	1.90	9,099	2.00	3,76	-32.44
4.08	3,760	20.38	7.85	0.53	0.2044	3,83	1.90	9,132	2.00	3,84	-32.04
4.09	3,820	20.42	8.04	0.52	0.2051	3,91	2.00	9,167	2.00	3,92	-32.08
4.1	3,990	20.51	8.40	0.51	0.2105	3,98	2.00	9,202	2.00	3,99	-31.82
4.11	4,080	20.38	8.58	0.50	0.2103	4,07	2.00	9,237	2.00	4,08	-31.74
4.12	4,190	20.33	8.58	0.49	0.2048	4,18	2.00	9,272	2.00	4,19	-31.84
4.13	4,290	20.47	8.58	0.48	0.2000	4,28	1.90	9,305	2.00	4,29	-31.94
4.14	4,370	20.75	8.58	0.47	0.1983	4,36	1.90	9,338	2.00	4,37	-32.03
4.15	4,380	20.84	8.04	0.48	0.1836	4,37	1.90	9,371	2.00	4,38	-32.12
4.16	4,370	20.79	7.85	0.48	0.1796	4,36	1.90	9,404	2.00	4,37	-32.30
4.17	4,370	20.89	7.85	0.48	0.1796	4,36	1.90	9,437	2.00	4,37	-32.33
4.18	4,370	20.89	8.04	0.48	0.1840	4,36	1.90	9,470	2.00	4,37	-32.35
4.19	4,410	20.75	8.58	0.47	0.1923	4,40	2.00	9,504	2.00	4,41	-32.44
4.2	4,450	20.70	8.04	0.47	0.1807	4,40	1.90	9,537	2.00	4,45	-33.33
4.21	4,490	20.70	7.85	0.46	0.1748	4,48	1.90	9,570	2.00	4,49	-33.34
4.22	4,470	21.35	8.40	0.48	0.1879	4,46	1.90	9,603	1.80	4,47	-33.04
4.23	4,470	21.58	8.77	0.48	0.1962	4,46	1.90	9,638	1.80	4,47	-32.74
4.24	4,490	21.53	8.40	0.47	0.1879	4,47	1.90	9,673	2.00	4,49	-32.75
4.25	4,530	21.35	8.58	0.47	0.1894	4,52	2.00	9,708	2.00	4,53	-33.33
4.26	4,580	21.21	9.13	0.46	0.1993	4,57	2.00	9,743	2.00	4,58	-32.62
4.27	4,670	21.12	9.86	0.45	0.2111	4,66	2.00	9,778	2.00	4,67	-32.20
4.28	4,830	21.02	10.59	0.44	0.2193	4,82	2.00	9,811	2.00	4,83	-31.75
4.29	4,890	22.98	12.97	0.43	0.2645	5,27	2.00	9,848	2.00	4,89	-31.24
4.3	4,590	20.79	14.24	0.37	0.2547	5,58	1.90	9,881	2.00	4,60	-27.55
4.31	6,000	20.51	14.79	0.34	0.2465	5.99	1.90	9,914	2.00	6.01	-27.07
4.32	6,430	19.96	15.34	0.31	0.2386	6.41	1.90	9,947	2.00	6.44	-27.07
4.33	6,890	19.40	16.25	0.28	0.2358	6.87	1.90	9,980	2.00	6.90	-26.64
4.34	7,350	19.89	16.44	0.22	0.2237	7.32	1.90	10,013	2.00	7.37	-26.64
4.35	8,200	17.88	15.52	0.22	0.1893	8.18	2.00	10,050	2.00	8.21	-27.77
4.36	8,510	17.64	14.43	0.21	0.1696	8.50	2.00	10,085	1.80	8.52	-28.28
4.37	8,740	18.06	14.06	0.21	0.1609	8.73	2.00	10,120	1.80	8.75	-28.84
4.38	8,880	18.62	12.97	0.21	0.1461	8.87	2.00	10,155	2.00	8.89	-30.00
4.39	8,920	19.15	11.87	0.21	0.1331	8.92	2.00	10,190	2.00	8.92	-30.59
4.4	8,870	20.51	11.87	0.23	0.1338	8.86	2.00	10,224	2.00	8.87	-31.12
4.41	8,770	21.58	10.96	0.25	0.1250	8.75	2.00	10,259	2.00	8.77	-32.23
4.42	8,530	23.15	10.41	0.27	0.1220	8.52	2.00	10,294	1.80	8.53	-32.93
4.43	8,420	24.17	10.23	0.29	0.1215	8.41	2.00	10,329	1.80	8.42	-33.34
4.44	8,410	23.15	10.59	0.29	0.1258	8.40	2.00	10,364	2.00	8.44	-33.41
4.45	8,402	26.07	11.69	0.31	0.1388	8.41	2.00	10,399	2.00	8.42	-31.15
4.46	8,500	26.91	12.42	0.32	0.1461	8.49	2.00	10,434	2.00	8.51	-31.34
4.47	8,570	27.69	12.42	0.32	0.1449	8.56	2.00	10,469	2.00	8.58	-31.31
4.48	8,630	29.27	12.24	0.34	0.1418	8.62	2.00	10,504	2.00	8.64	-31.31
4.49	8,510	30.38	12.24	0.34	0.1438	8.59	2.00	10,539	2.00	8.51	-31.31
4.5	8,330	31.07	9.86	0.37	0.1184	8.32	2.00	10,573	2.00	8.33	-34.22
4.51	8,110	31.26	10.59	0.39	0.1306	8.10	2.10	10,610	2.00	8.11	-32.33
4.52	7,810	31.68	11.50	0.41	0.1472	7.80	2.10	10,647	2.00	7.81	-32.61

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
5.91	6,790	30.10	17.90	0.44	0.2636	6.77	2.20	15.838	2.00	6.80	-40.08
5.92	6,740	29.78	17.53	0.44	0.2601	6.72	2.20	15.876	2.00	6.75	-40.55
5.93	6,610	29.41	16.98	0.44	0.2569	6.59	2.20	15.915	2.00	6.62	-41.19
5.94	6,640	29.13	17.17	0.45	0.2658	6.44	2.20	15.953	2.00	6.47	-41.10
5.95	6,330	29.17	16.80	0.46	0.2654	6.31	2.20	15.941	2.00	6.34	-41.57
5.96	6,220	29.13	16.80	0.47	0.2701	6.20	2.20	16.030	2.00	6.23	-41.67
5.97	6,120	29.08	16.62	0.48	0.2716	6.10	2.20	16.068	2.00	6.13	-41.95
5.98	5,990	28.80	16.62	0.48	0.2775	5.97	2.20	16.107	2.00	6.00	-42.04
5.99	5,870	28.43	16.44	0.48	0.2801	5.85	2.20	16.145	2.00	5.88	-42.32
6.00	5,750	28.15	16.26	0.48	0.2869	5.73	2.30	16.183	2.00	5.76	-42.60
6.01	5,650	27.37	14.97	0.48	0.2650	5.64	2.30	16.225	2.00	5.66	-43.99
6.02	5,560	26.81	14.97	0.48	0.2692	5.55	2.30	16.265	2.00	5.57	-44.09
6.03	5,520	26.12	14.97	0.47	0.2712	5.51	2.30	16.306	2.00	5.53	-44.18
6.04	5,510	25.66	15.16	0.47	0.2751	5.49	2.30	16.346	2.00	5.52	-44.09
6.05	5,510	25.24	15.02	0.46	0.2817	5.49	2.30	16.386	2.00	5.54	-43.83
6.06	5,530	24.64	15.70	0.45	0.2839	5.51	2.30	16.426	2.00	5.54	-43.75
6.07	5,530	24.17	15.70	0.44	0.2839	5.51	2.30	16.466	2.00	5.54	-43.85
6.08	5,510	23.76	15.70	0.43	0.2849	5.49	2.30	16.506	2.00	5.52	-43.94
6.09	5,510	23.48	15.70	0.43	0.2849	5.49	2.30	16.546	2.00	5.52	-44.04
6.10	5,530	23.57	15.70	0.44	0.2869	5.49	2.30	16.586	2.00	5.54	-44.14
6.11	5,550	23.99	16.07	0.43	0.2895	5.53	2.30	16.627	2.30	5.56	-43.87
6.12	5,600	24.27	16.44	0.43	0.2936	5.58	2.30	16.667	2.00	5.61	-43.60
6.13	5,680	24.40	16.80	0.43	0.2958	5.66	2.30	16.707	2.00	5.69	-43.34
6.14	5,640	24.54	16.44	0.42	0.2815	5.62	2.30	16.747	2.00	5.65	-43.79
6.15	5,860	24.45	16.25	0.42	0.2773	5.84	2.30	16.787	2.00	5.87	-44.18
6.16	5,860	24.45	16.25	0.42	0.2773	5.84	2.30	16.827	2.00	5.87	-44.18
6.17	5,830	24.54	15.52	0.42	0.2662	5.81	2.30	16.867	2.00	5.84	-45.01
6.18	5,830	24.73	15.34	0.42	0.2631	5.81	2.30	16.908	2.00	5.84	-45.29
6.19	5,820	24.87	15.52	0.43	0.2667	5.80	2.30	16.948	2.00	5.83	-45.20
6.20	5,850	25.05	15.70	0.43	0.2684	5.83	2.30	16.988	2.00	5.86	-45.12
6.21	5,900	25.05	16.07	0.42	0.2710	5.91	2.30	17.028	2.00	5.94	-44.85
6.22	6,070	25.01	16.07	0.41	0.2647	6.05	2.30	17.068	2.00	6.08	-44.95
6.23	6,210	25.05	16.07	0.40	0.2588	6.19	2.30	17.108	2.00	6.22	-45.05
6.24	6,270	24.87	16.07	0.40	0.2563	6.25	2.30	17.148	2.30	6.28	-45.14
6.25	6,250	24.96	15.70	0.40	0.2512	6.23	2.30	17.188	2.30	6.26	-45.61
6.26	6,250	25.10	15.34	0.40	0.2454	6.23	2.30	17.229	2.00	6.26	-46.07
6.27	6,270	25.28	15.34	0.40	0.2447	6.25	2.30	17.269	2.00	6.28	-46.17
6.28	6,260	25.56	14.97	0.41	0.2391	6.25	2.30	17.309	2.30	6.27	-46.64
6.29	6,220	25.79	14.61	0.41	0.2349	6.21	2.30	17.349	2.30	6.23	-47.09
6.30	6,160	26.26	13.88	0.43	0.2253	6.15	2.30	17.389	2.00	6.17	-47.92
6.31	6,120	26.35	13.51	0.43	0.2208	6.11	2.30	17.429	2.00	6.13	-48.39
6.32	6,110	26.77	13.88	0.44	0.2272	6.10	2.30	17.469	2.00	6.12	-48.12
6.33	6,130	26.95	14.43	0.44	0.2354	6.12	2.30	17.509	2.00	6.14	-47.67
6.34	6,190	27.18	15.16	0.44	0.2449	6.17	2.30	17.550	2.30	6.20	-47.04
6.35	6,280	27.46	15.52	0.44	0.2471	6.26	2.30	17.590	2.30	6.29	-46.77
6.36	6,360	27.83	16.07	0.44	0.2509	6.34	2.30	17.630	2.30	6.32	-46.99
6.37	6,420	27.98	15.52	0.43	0.2417	6.40	2.30	17.670	2.00	6.43	-47.07
6.38	6,450	27.88	15.34	0.43	0.2378	6.43	2.30	17.710	2.00	6.46	-47.25
6.39	6,430	27.79	14.79	0.43	0.2300	6.42	2.30	17.750	2.00	6.44	-47.90
6.40	6,380	27.83	14.43	0.44	0.2262	6.37	2.30	17.790	2.00	6.39	-48.35
6.41	6,300	27.74	13.88	0.44	0.2203	6.29	2.30	17.831	2.00	6.31	-49.03
6.42	6,230	27.83	13.70	0.45	0.2198	6.22	2.30	17.871	2.00	6.24	-49.28
6.43	6,180	27.88	13.70	0.45	0.2217	6.17	2.30	17.911	2.00	6.19	-49.38
6.44	6,140	27.97	14.06	0.46	0.2290	6.13	2.30	17.951	2.00	6.15	-49.12
6.45	6,100	28.11	14.06	0.46	0.2305	6.09	2.30	17.991	2.30	6.11	-49.21
6.46	6,070	28.16	13.88	0.46	0.2287	6.06	2.30	18.031	2.30	6.08	-49.49
6.47	6,040	28.33	13.88	0.46	0.2268	6.03	2.30	18.071	2.00	6.05	-49.87
6.48	5,980	28.43	13.88	0.48	0.2321	5.97	2.30	18.111	2.00	5.99	-49.69
6.49	5,950	28.48	13.88	0.48	0.2333	5.94	2.30	18.152	2.00	5.96	-49.79
6.50	5,940	28.62	14.06	0.48	0.2367	5.93	2.30	18.192	2.00	5.95	-49.71
6.51	5,980	28.76	14.79	0.48	0.2473	5.97	2.30	18.232	2.30	5.99	-49.07
6.52	6,080	28.85	15.52	0.46	0.2553	6.06	2.30	18.272	2.30	6.04	-48.79
6.53	6,250	28.71	16.25	0.46	0.2600	6.23	2.30	18.312	2.00	6.26	-47.81
6.54	6,250	28.71	16.25	0.46	0.2600	6.23	2.30	18.352	2.00	6.26	-47.91
6.55	6,250	28.71	16.25	0.46	0.2600	6.23	2.30	18.392	2.00	6.26	-48.01
6.56	6,480	20.10	22.83	0.31	0.3523	6.46	2.30	18.433	2.30	6.49	-41.52
6.57	6,740	21.63	23.29	0.32	0.3412	6.73	2.30	18.473	2.30	6.76	-40.78
6.58	6,690	21.90	11.14	0.33	0.1665	6.68	2.30	18.513	2.00	6.69	-53.41
6.59	6,600	22.46	11.50	0.34	0.1742	6.59	2.30	18.553	2.00	6.60	-53.15

17-101_G_CPTU_Soarza

17-101_CPTU_S6_SX

Pag. 9

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
6.6	6,630	22.69	11.69	0.34	0.1763	6.62	2.30	18.593	2.00	6.63	-53.06
6.61	6,950	20.47	-16.80	0.29	-0.2417	6.97	2.30	18.633	2.00	6.94	-81.64
6.62	6,710	21.39	9.68	0.32	0.1443	6.70	2.30	18.673	2.00	6.71	-55.26
6.63	6,390	23.39	22.83	0.37	0.3573	6.37	2.30	18.713	2.00	6.40	-42.21
6.64	6,120	24.08	18.04	0.34	0.2934	6.11	2.30	18.754	2.00	6.12	-57.10
6.65	5,980	27.74	46.75	0.46	0.7818	5.93	2.30	18.794	2.30	6.00	-18.49
6.66	5,970	25.28	14.24	0.42	0.2385	5.96	2.30	18.834	2.30	5.98	-51.09
6.67	5,760	25.15	24.65	0.44	0.4280	5.74	2.30	18.874	2.00	5.77	-40.78
6.68	5,490	28.25	29.22	0.51	0.5322	5.46	2.30	18.914	2.00	5.50	-36.31
6.69	5,370	30.75	30.75	0.57	0.5699	5.34	2.30	18.954	2.30	5.36	-35.86
6.7	5,180	30.43	23.01	0.59	0.4442	5.16	2.30	18.994	2.30	5.19	-42.72
6.71	5,100	29.55	23.19	0.58	0.4547	5.08	2.30	19.034	2.00	5.11	-42.64
6.72	5,040	29.22	20.27	0.58	0.4022	5.02	2.30	19.075	2.00	5.05	-45.65
6.73	5,000	30.10	18.08	0.60	0.3616	4.98	2.30	19.115	2.00	5.01	-47.94
6.74	4,930	31.12	11.90	0.33	0.2429	4.91	2.30	19.157	2.00	4.94	-46.14
6.75	4,870	32.69	17.35	0.67	0.3563	4.85	2.30	19.195	2.30	4.88	-48.87
6.76	4,860	31.91	17.17	0.66	0.3533	4.84	2.30	19.235	2.30	4.87	-49.15
6.77	4,850	30.80	16.98	0.64	0.3501	4.83	2.30	19.275	2.00	4.86	-49.43
6.78	4,840	28.02	17.17	0.58	0.3548	4.82	2.30	19.315	2.00	4.85	-49.34
6.79	4,820	28.02	17.17	0.58	0.3548	4.80	2.30	19.355	2.00	4.83	-49.68
6.8	4,820	23.76	17.44	0.49	0.3562	4.80	2.30	19.396	2.30	4.83	-49.54
6.81	4,830	14.96	18.44	0.31	0.3816	4.81	2.30	19.436	2.30	4.84	-48.37
6.82	4,830	14.96	18.44	0.31	0.3816	4.81	2.30	19.476	2.00	4.84	-48.46
6.83	4,890	15.28	18.26	0.31	0.3734	4.87	2.30	19.516	2.00	4.90	-48.74
6.84	4,420	14.49	15.70	0.30	0.3530	4.84	2.30	19.556	2.30	4.87	-51.40
6.85	4,390	15.42	25.75	0.31	0.5723	4.30	2.30	19.596	2.30	4.84	-41.45
6.86	4,980	15.10	23.37	0.30	0.4693	4.96	2.30	19.636	2.00	4.99	-43.93
6.87	4,980	14.68	20.27	0.29	0.4070	4.96	2.30	19.677	2.00	4.99	-47.12
6.88	5,010	15.24	21.73	0.30	0.4337	4.99	2.30	19.717	2.30	5.02	-45

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
8.67	6,300	18.48	37.62	0.29	0.5971	6.26	2.40	27.064	2.00	6.32	-47.43
8.68	6,400	18.57	37.98	0.29	0.5879	6.42	2.40	27.106	2.00	6.48	-47.17
8.69	6,590	18.76	37.98	0.28	0.5763	6.55	2.40	27.148	2.00	6.61	-47.27
8.7	6,710	18.66	38.17	0.28	0.5689	6.67	2.40	27.190	2.00	6.73	-47.18
8.71	6,820	18.76	37.98	0.27	0.5569	6.78	2.40	27.232	2.00	6.84	-47.47
8.72	6,930	18.57	37.62	0.27	0.5429	6.89	2.40	27.274	2.00	6.95	-47.92
8.73	6,980	18.34	37.98	0.26	0.5441	6.94	2.40	27.315	2.00	7.00	-47.66
8.74	6,980	18.29	37.62	0.26	0.5390	6.94	2.40	27.357	2.00	7.00	-48.12
8.75	6,980	18.48	37.62	0.27	0.5451	6.92	2.40	27.399	2.00	6.98	-48.22
8.76	6,910	18.62	37.62	0.28	0.5444	6.87	2.40	27.441	2.00	6.93	-48.31
8.77	6,900	19.82	38.17	0.29	0.5532	6.86	2.40	27.483	2.00	6.92	-47.86
8.78	6,940	20.38	39.77	0.29	0.4290	6.91	2.40	27.525	2.00	6.95	-56.36
8.79	7,020	21.79	39.99	0.30	0.5697	6.98	2.40	27.567	2.00	7.04	-46.24
8.8	7,110	21.39	39.44	0.30	0.5547	7.07	2.40	27.609	2.00	7.13	-46.89
8.81	7,250	21.98	39.44	0.30	0.5440	7.21	2.40	27.650	2.00	7.27	-46.99
8.82	7,300	21.95	39.63	0.30	0.5363	7.35	2.40	27.692	2.00	7.41	-46.89
8.83	7,390	21.90	40.18	0.28	0.5198	7.69	2.40	27.734	2.00	7.75	-46.44
8.84	7,900	21.67	40.54	0.27	0.5132	7.86	2.40	27.776	2.00	7.92	-46.18
8.85	8,090	21.90	40.54	0.27	0.5011	8.05	2.40	27.818	2.00	8.11	-46.28
8.86	8,310	21.98	39.99	0.26	0.4912	8.27	2.40	27.860	2.00	8.35	-46.65
8.87	8,540	21.30	41.27	0.25	0.4833	8.50	2.40	27.902	2.00	8.56	-45.74
8.88	8,740	21.86	41.09	0.25	0.4701	8.70	2.40	27.944	2.00	8.76	-46.02
8.89	8,950	21.72	41.27	0.24	0.4611	8.91	2.40	27.986	2.00	8.97	-45.94
8.9	9,150	22.09	41.64	0.24	0.4551	9.11	2.40	28.027	2.00	9.17	-45.67
8.91	9,350	22.46	41.45	0.23	0.4433	9.31	2.40	28.069	2.00	9.37	-45.77
8.92	9,490	22.83	41.45	0.24	0.4398	9.45	2.40	28.111	2.00	9.51	-46.06
8.93	9,540	23.62	39.99	0.25	0.4192	9.50	2.40	28.153	2.00	9.56	-47.61
8.94	9,400	25.05	39.81	0.27	0.4235	9.36	2.40	28.195	2.00	9.42	-47.89
8.95	9,170	26.67	39.08	0.29	0.4262	9.13	2.40	28.237	2.00	9.19	-48.72
8.96	8,910	27.88	39.81	0.31	0.4468	8.87	2.40	28.279	2.00	8.93	-48.09
8.97	8,610	28.98	38.90	0.34	0.4518	8.57	2.40	28.321	1.80	8.63	-49.10
8.98	8,290	30.15	38.71	0.36	0.4669	8.25	2.40	28.362	1.80	8.31	-49.38
8.99	7,940	30.84	38.17	0.39	0.4807	7.90	2.40	28.404	2.00	7.96	-50.02
9	7,630	31.91	38.53	0.42	0.5050	7.59	2.40	28.446	2.00	7.65	-49.76
9.01	7,390	32.65	38.90	0.44	0.5264	7.35	2.40	28.488	2.00	7.41	-49.49
9.02	7,190	33.25	39.63	0.46	0.5512	7.15	2.40	28.530	2.00	7.47	-48.86
9.03	7,000	33.57	39.99	0.48	0.5664	7.02	2.40	28.572	1.80	7.08	-48.59
9.04	6,980	33.30	41.27	0.48	0.5913	6.94	2.40	28.614	1.80	7.00	-47.41
9.05	6,980	33.30	41.27	0.48	0.5913	6.94	2.40	28.656	2.00	7.00	-47.51
9.06	6,980	32.05	42.00	0.46	0.6017	6.94	2.40	28.697	2.00	7.00	-46.88
9.07	6,940	31.17	42.00	0.45	0.6052	6.90	2.40	28.739	2.00	6.96	-46.98
9.08	6,870	30.43	41.82	0.44	0.6087	6.83	2.40	28.781	2.00	6.89	-47.25
9.09	6,740	29.59	41.64	0.44	0.6178	6.70	2.40	28.823	2.00	6.76	-47.53
9.1	6,580	28.80	41.27	0.44	0.6272	6.54	2.40	28.865	2.00	6.60	-48.00
9.11	6,400	28.29	41.27	0.44	0.6448	6.36	2.40	28.907	2.00	6.42	-48.10
9.12	6,250	27.79	41.27	0.44	0.6624	6.21	2.40	28.949	2.00	6.27	-48.20
9.13	6,120	27.37	41.27	0.45	0.6773	6.08	2.40	28.991	2.00	6.32	-48.32
9.14	6,020	27.18	41.64	0.45	0.6917	5.98	2.40	29.032	2.00	6.04	-48.02
9.15	5,910	26.72	42.00	0.45	0.7107	5.87	2.50	29.076	2.00	5.93	-47.76
9.16	5,840	26.30	42.37	0.45	0.7255	5.80	2.40	29.118	2.00	5.86	-47.49
9.17	5,770	26.12	42.37	0.47	0.7343	5.73	2.40	29.160	2.00	5.79	-47.49
9.18	5,730	26.22	42.55	0.45	0.7426	5.69	2.40	29.202	2.00	5.87	-47.51
9.19	5,690	25.33	42.73	0.45	0.7510	5.65	2.40	29.244	1.80	5.71	-47.42
9.2	5,670	25.01	42.91	0.44	0.7568	5.63	2.40	29.285	1.80	5.69	-47.42
9.21	5,670	24.87	43.28	0.44	0.7633	5.63	2.40	29.327	2.00	5.69	-47.07
9.22	5,670	24.45	43.46	0.43	0.7665	5.63	2.40	29.369	2.00	5.69	-46.99
9.23	5,660	24.17	43.46	0.43	0.7678	5.62	2.40	29.411	2.00	5.69	-46.96
9.24	5,660	23.99	43.64	0.42	0.7710	5.62	2.40	29.453	2.00	5.68	-47.00
9.25	5,670	23.71	43.83	0.42	0.7730	5.63	2.50	29.497	2.00	5.69	-46.91
9.26	5,660	23.20	43.83	0.41	0.7744	5.62	2.40	29.538	2.00	5.68	-47.01
9.27	5,650	23.02	43.83	0.41	0.7758	5.61	2.40	29.580	2.00	5.67	-47.11
9.28	5,670	22.83	43.83	0.41	0.7763	5.63	2.40	29.622	2.00	5.67	-47.21
9.29	5,670	23.20	44.19	0.41	0.7794	5.63	2.40	29.664	2.00	5.69	-46.94
9.3	5,680	23.25	44.38	0.41	0.7813	5.64	2.40	29.706	2.00	5.70	-46.85
9.31	5,720	23.15	44.56	0.40	0.7790	5.68	2.40	29.748	2.30	5.74	-46.77
9.32	5,790	23.39	44.92	0.40	0.7758	5.75	2.40	29.790	2.30	5.81	-46.51
9.33	5,880	23.61	45.11	0.39	0.7632	5.83	2.40	29.832	2.30	5.84	-46.38
9.34	5,980	23.20	45.47	0.39	0.7604	5.93	2.40	29.873	2.00	6.00	-46.16
9.35	6,110	23.29	45.84	0.38	0.7502	6.06	2.40	29.915	2.00	6.13	-45.88

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Pag. 13

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
9.36	6,260	23.34	46.20	0.37	0.7380	6.21	2.40	29.957	2.00	6.28	-45.62
9.37	6,480	23.53	46.20	0.36	0.7152	6.41	2.40	29.999	2.00	6.48	-45.72
9.38	6,680	23.43	46.57	0.35	0.6972	6.63	2.40	30.041	2.00	6.70	-45.45
9.39	6,980	23.85	47.11	0.34	0.6749	6.93	2.40	30.083	2.00	7.00	-45.01
9.4	7,320	24.28	48.03	0.32	0.6561	7.27	2.40	30.125	2.00	7.34	-44.18
9.41	7,710	24.13	48.58	0.31	0.6301	7.66	2.40	30.167	2.00	7.73	-43.73
9.42	8,110	24.27	48.94	0.30	0.6035	8.06	2.40	30.208	2.00	8.13	-43.47
9.43	8,480	24.27	48.76	0.29	0.5750	8.43	2.40	30.250	2.00	8.50	-43.75
9.44	8,820	24.17	48.94	0.27	0.5549	8.77	2.40	30.292	2.00	8.84	-43.67
9.45	9,120	24.31	49.34	0.27	0.5366	9.05	2.40	30.334	2.00	9.14	-43.76
9.46	9,350	24.27	48.39	0.26	0.5175	9.30	2.50	30.378	2.00	9.37	-44.41
9.47	9,600	25.24	47.66	0.26	0.4965	9.55	2.40	30.420	2.00	9.62	-45.24
9.48	9,800	25.24	47.66	0.26	0.4965	9.55	2.40	30.461	2.00	9.62	-45.34
9.49	9,630	26.07	46.20	0.27	0.4798	9.58	2.40	30.503	2.00	9.65	-46.90
9.5	9,650	26.86	46.21	0.28	0.4996	9.60	2.50	30.545	2.00	9.67	-44.99
9.51	9,650	28.43	47.11	0.29	0.4882	9.60	2.50	30.591	2.00	9.67	-46.18
9.52	9,620	28.62	47.66	0.30	0.4954	9.57	2.40	30.632	2.00	9.64	-45.73
9.53	9,620	28.62	47.66	0.30	0.4954	9.57	2.40	30.674	2.00	9.64	-45.83
9.54	9,620	28.62	47.66	0.30	0.4954	9.57	2.40	30.716	2.00	9.64	-45.93
9.55	9,620	28.62	47.66	0.30	0.4954	9.57	2.40	30.758	2.00	9.63	-46.34
9.56	9,130	22.76	24.11	0.25	0.2641	9.11	2.50	30.803	2.00	9.14	-89.67
9.57	8,870	25.01	46.75	0.28	0.5271	8.82	2.50	30.847	2.00	8.89	-47.13
9.58	8,480	26.12	46.72	0.31	0.4802	8.44	2.50	30.891	2.00	8.50	-53.26
9.59	8,100	27.51	46.38	0.34	0.5726	8.05	2.50	30.934	2.00	8.12	-47.07
9.6	7,770	28.02	45.47	0.37	0.5828	7.62	2.40	30.978	2.00	7.69	-46.71
9.61	7,490	30.05	31.78	0.42	0.4489	8.05	2.50	31.021	2.00	7.09	-82.49
9.62	6,860	30.15	49.12	0.44	0.7160	6.81	2.50	31.065	2.00	6.88	-45.25
9.63	6,720	29.92	46.75	0.45	0.6957	6.67	2.50	31.109	2.00	6.74	-47.72
9.64	6,640	29.64	45.84	0.45	0.6904	6.59	2.50	31.152	2.00	6.66	-48.73

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
11.43	5,100	20.14	65.19	0.39	1.2782	5.03	2.40	38.732	2.00	5.13	-46.94
11.44	5,220	20.01	65.01	0.38	1.2454	5.15	2.40	38.774	2.00	5.25	-47.22
11.45	5,290	20.01	65.19	0.38	1.2023	5.22	2.40	38.816	1.80	5.32	-47.13
11.46	5,370	20.01	64.83	0.37	1.2373	5.31	2.40	38.857	1.80	5.40	-47.59
11.47	5,430	19.96	64.65	0.37	1.1906	5.37	2.40	38.899	2.30	5.46	-47.87
11.48	5,590	20.14	64.83	0.37	1.1809	5.43	2.40	38.941	2.30	5.52	-47.79
11.49	5,560	20.38	65.01	0.37	1.1714	5.48	2.40	38.983	1.80	5.58	-47.71
11.5	5,610	20.42	65.74	0.36	1.1718	5.54	2.40	39.025	1.80	5.64	-47.08
11.51	5,650	20.79	65.56	0.37	1.1604	5.58	2.40	39.067	2.00	5.68	-47.35
11.52	5,700	21.02	65.74	0.37	1.1533	5.63	2.40	39.129	1.300	5.73	-47.37
11.53	5,700	21.02	65.74	0.37	1.1533	5.63	2.40	39.151	2.00	5.73	-47.37
11.54	5,700	21.02	65.74	0.37	1.1533	5.63	2.40	39.192	2.00	5.73	-47.47
11.55	5,620	13.66	66.29	0.24	1.1199	5.55	2.40	39.234	2.00	5.65	-47.02
11.56	5,690	14.87	63.55	0.26	1.1795	5.63	2.40	39.276	2.00	5.72	-49.85
11.57	5,700	16.02	63	0.26	1.1053	5.64	2.40	39.318	1.80	5.73	-50.50
11.58	5,700	16.67	62.82	0.29	1.1021	5.64	2.40	39.360	1.80	5.73	-50.78
11.59	5,690	17.41	62.64	0.31	1.1009	5.63	2.40	39.402	2.30	5.72	-51.06
11.6	5,690	18.20	63.18	0.32	1.1104	5.63	2.40	39.444	2.30	5.72	-50.62
11.61	5,600	20.19	63.73	0.36	1.1380	5.54	2.40	39.486	1.80	5.63	-50.16
11.62	5,540	20.31	63.72	0.36	1.2130	5.47	2.40	39.527	2.00	5.57	-47.44
11.63	5,540	20.33	65.96	0.37	1.1834	5.47	2.40	39.569	2.00	5.57	-48.53
11.64	5,550	20.51	64.83	0.37	1.1681	5.49	2.40	39.611	2.00	5.58	-49.36
11.65	5,590	20.79	64.83	0.37	1.1597	5.53	2.40	39.653	2.00	5.62	-49.46
11.66	5,630	20.93	65.19	0.37	1.1579	5.56	2.40	39.695	2.00	5.66	-49.19
11.67	5,690	21.16	65.92	0.37	1.1685	5.62	2.40	39.737	2.00	5.72	-49.03
11.68	5,760	21.21	66.11	0.37	1.1777	5.69	2.40	39.779	2.00	5.77	-48.47
11.69	5,800	21.21	66.11	0.37	1.1398	5.73	2.40	39.821	2.00	5.83	-48.57
11.7	5,850	21.30	66.29	0.36	1.1332	5.78	2.40	39.862	2.00	5.88	-48.49
11.71	5,910	21.49	65.92	0.36	1.1154	5.84	2.40	39.904	2.00	5.94	-48.96
11.72	5,960	21.30	66.84	0.37	1.1177	5.91	2.40	39.946	2.00	6.01	-48.13
11.73	6,000	21.86	66.84	0.36	1.1140	5.93	2.40	39.988	2.00	6.03	-48.23
11.74	6,050	21.67	67.38	0.36	1.1137	5.98	2.40	40.030	2.00	6.08	-47.79
11.75	6,110	21.39	67.02	0.35	1.0969	6.04	2.40	40.072	2.00	6.14	-48.25
11.76	6,150	21.49	67.02	0.35	1.0898	6.08	2.40	40.114	1.80	6.18	-48.35
11.77	6,190	21.86	67.57	0.35	1.0916	6.12	2.40	40.156	1.80	6.22	-47.89
11.78	6,230	22.18	68.12	0.36	1.0934	6.16	2.40	40.197	2.00	6.26	-47.44
11.79	6,280	22.32	68.48	0.36	1.0904	6.21	2.40	40.239	2.00	6.31	-47.18
11.8	6,350	22.41	68.85	0.35	1.0843	6.28	2.40	40.281	2.00	6.38	-46.91
11.81	6,460	22.69	69.39	0.35	1.0741	6.39	2.40	40.323	2.00	6.49	-46.47
11.82	6,620	22.97	70.31	0.35	1.0621	6.55	2.40	40.365	2.00	6.65	-45.64
11.83	6,770	23.20	70.85	0.34	1.0465	6.70	2.40	40.407	2.00	6.80	-45.20
11.84	6,950	23.34	71.59	0.34	1.0301	6.88	2.40	40.449	2.30	6.98	-44.56
11.85	7,160	23.20	71.77	0.32	1.0024	7.09	2.40	40.491	2.30	7.19	-44.48
11.86	7,640	23.80	73.23	0.31	0.9585	7.57	2.40	40.532	2.00	7.67	-43.12
11.87	7,980	24.22	74.51	0.30	0.9337	7.91	2.40	40.574	2.00	8.01	-41.93
11.88	8,330	24.82	74.87	0.30	0.8988	8.26	2.40	40.616	2.00	8.37	-41.93
11.89	8,640	25.05	74.87	0.28	0.8666	8.57	2.40	40.658	2.00	8.67	-41.77
11.9	8,940	24.78	74.69	0.28	0.8355	8.87	2.40	40.700	2.00	8.97	-42.05
11.91	9,240	24.87	74.32	0.27	0.8052	9.16	2.40	40.742	2.00	9.26	-42.52
11.92	9,470	25.15	73.96	0.27	0.7810	9.40	2.40	40.784	2.30	9.50	-42.98
11.93	9,720	25.84	74.32	0.27	0.7646	9.65	2.40	40.824	2.30	9.75	-42.91
11.94	10,090	26.49	74.69	0.27	0.7390	10.12	2.40	40.866	2.00	10.22	-44.42
11.95	10,370	27.32	74.69	0.26	0.7203	10.30	2.40	40.908	2.00	10.40	-42.54
11.96	10,660	28.43	75.05	0.27	0.7040	10.58	2.40	40.949	2.00	10.69	-42.28
11.97	10,890	29.59	75.52	0.27	0.5282	10.83	2.40	40.991	2.00	10.91	-59.91
11.98	11,080	30.66	76.52	0.28	0.7087	11.00	2.40	41.033	2.00	11.11	-39.00
11.99	11,330	32.00	76.15	0.28	0.6817	11.25	2.40	41.075	2.00	11.36	-41.47
12	11,650	32.42	76.15	0.28	0.6536	11.57	2.40	41.117	2.00	11.68	-41.57
12.01	12,290	33.90	76.52	0.28	0.6226	12.21	2.40	41.159	2.00	12.32	-41.30
12.02	12,290	33.90	76.52	0.28	0.6226	12.21	2.40	41.201	2.30	12.32	-41.40
12.03	12,890	35.38	75.79	0.27	0.5880	12.81	2.40	41.243	2.30	12.92	-42.22
12.04	13,110	36.45	76.7	0.28	0.5613	13.03	2.40	41.284	2.30	13.14	-43.01
12.05	13,250	37.14	76.7	0.28	0.5789	13.17	2.40	41.326	2.00	13.28	-41.51
12.06	13,300	37.46	75.42	0.28	0.5671	13.22	2.40	41.368	2.00	13.33	-42.89
12.07	13,320	37.97	74.51	0.29	0.5594	13.25	2.40	41.410	2.00	13.35	-43.90
12.08	13,240	38.21	76.52	0.29	0.5779	13.16	2.40	41.452	2.00	13.27	-41.98
12.09	13,170	39.32	76.97	0.28	0.4924	13.08	2.40	41.494	2.00	13.29	-42.70
12.1	13,080	40.61	75.05	0.31	0.5738	13.00	2.40	41.536	2.00	13.11	-43.65
12.11	12,920	41.26	75.24	0.32	0.5824	12.84	2.40	41.578	2.30	12.95	-43.56

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Pag. 17

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
12.12	12,850	42.65	71.22	0.33	0.5542	12.78	2.40	41,619	2.30	12,88	-47.68
12.13	12,760	43.35	73.41	0.34	0.5753	12,69	2.40	41,661	2.00	12,79	-45.59
12.14	12,780	44.55	79.07	0.35	0.6187	12,70	2.40	41,703	2.00	12,81	-40.02
12.15	12,770	43.99	67.93	0.34	0.5319	12,70	2.40	41,745	2.00	12,80	-51.26
12.16	12,830	40.29	78.52	0.32	0.6137	12,76	2.40	41,787	2.00	12,86	-40.77
12.17	12,890	46.36	78.34	0.36	0.6078	12,81	2.40	41,829	2.00	12,92	-41.05
12.18	12,970	45.43	77.43	0.35	0.5970	12,89	2.40	41,871	2.00	13,00	-42.06
12.19	13,200	44.55	76.52	0.34	0.5797	13,12	2.40	41,913	2.30	13,23	-43.06
12.2	13,240	43.02	78.34	0.32	0.5917	13,16	2.40	41,954	2.30	13,27	-41.34
12.21	13,300	42.19	78.16	0.32	0.5837	13,31	2.40	42,006	2.30	13,42	-41.62
12.22	13,420	41.03	38.17	0.31	0.2844	13,38	2.40	42,038	2.00	13,44	-81.71
12.23	13,590	43.62	63	0.32	0.4636	13,53	2.40	42,080	2.00	13,62	-56.98
12.24	13,800	43.62	79.07	0.32	0.5730	13,72	2.40	42,122	2.00	13,83	-41.00
12.25	14,130	43.30	77.98	0.30	0.5449	14,23	2.40	42,164	2.30	14,34	-42.19
12.26	12,900	45.43	68.66	0.32	0.4911	13,91	2.40	42,208	2.30	14,01	-51.61
12.27	13,350	43.58	81.99	0.33	0.6142	13,27	2.40	42,248	2.00	13,38	-38.38
12.28	13,080	60.62	61.54	0.46	0.4705	13,02	2.40	42,289	2.00	13,11	-58.93
12.29	12,910	65.25	76.88	0.51	0.5955	12,83	2.40	42,331	2.00	12,94	-43.68
12.3	12,890	73.63	92.04	0.57	0.7157	12,77	2.40	42,373	2.00	12,90	-28.62
12.31	12,070	74.90	81.08	0.59	0.6399	12,58	2.40	42,415	2.00	12,70	-39.68
12.32	12,490	73.40	79.25	0.59	0.6345	12,41	2.40	42,457	2.30	12,52	-41.61
12.33	12,200	71.22	80.35	0.58	0.6586	12,12	2.40	42,499	2.30	12,23	-40.61
12.34	12,050	70.07	100.07	0.59	0.8305	11,95	2.40	42,541	2.30	12,09	-20.99
12.35	11,810	73.68	74.14	0.62	0.6278	11,74	2.40	42,583	2.30	11,84	-47.01
12.36	11,890	70.81	81.08	0.61	0.6978	11,54	2.50	42,626	2.00	11,65	-40.17
12.37	11,920	71.87	47.66	0.63	0.4210	11,27	2.40	42,670	2.00	11,34	-73.89
12.38	10,980	67.38	53.14	0.61	0.4840	10,93	2.50	42,713	2.30	11,00	-68.31
12.39	10,960	65.57	83.39	0.60	0.8065	10,87	2.50	42,757	2.30	11,00	-33.16
12.4	11,050	72.94	79.59	0.66	0.6660	10,98	2.50	42,801	2.30	11,08	-40.85
12.41	11,100	49.97	78.52	0.44	0.6888	11,32	2.50	42,844	2.30	11,14	-43.22
12.42	11,100	49.64	64.46	0.46	0.6000	11,32	2.50	42,886	2.30	11,23	-42.93
12.43	10,730	49.97	59.53	0.56	0.5458	10,67	2.50	42,932	2.00	10,76	-62.41
12.44	10,070	74.79	54.12	0.74	0.5404	10,02	2.50	42,975	2.00	10,09	-67.02
12.45	10,100	68.95	66.11	0.68	0.6546	10,03	2.50	43,019	2.30	10,13	-56.82
12.46	10,200	68.03	68.3	0.67	0.6696	10,13	2.50	43,062	2.30	10,23	-53.93
12.47	10,250	72.50	70.07	0.69	0.6212	10,17	2.50	43,106	2.30	10,28	-38.38
12.48	10,100	58.49	52.86	0.56	0.7214	10,09	2.50	43,150	2.30	10,13	-61.36
12.49	9,970	58.30	56.51	0.58	0.5768	9,91	2.50	43,193	2.30	9,99	-65.92
12.5	9,720	53.76	72.65	0.55	0.7459	9,65	2.50	43,237	2.30	9,75	-50.13
12.51	9,440	57.38	65.19	0.61	0.6906	9,37	2.50	43,281	2.30	9,47	-57.53
12.52	9,440	57.38	65.19	0.61	0.6906	9,37	2.50	43,324	2.30	9,47	-57.53
12.53	9,440	57.38	65.19	0.61	0.6906	9,37	2.50	43,367	2.30	9,47	-57.53
12.54	9,440	45.00	107.93	0.48	1.1433	9,33	2.50	43,411	2.00	9,49	-15.09
12.55	9,050	39.41	78.34	0.44	0.8656	8,97	2.50	43,455	2.00	9,08	-47.78
12.56	8,890	39.08	59.72	0.44	0.6718	8,83	2.50	43,499	2.30	8,92	-63.43
12.57	8,710	43.16	70.76	0.50	0.8268	8,63	2.50	43,542	2.30	8,74	-42.59
12.58	8,640	40.29	64.46	0.38	0.7459	8,58	2.50	43,586	2.30	8,67	-47.01
12.59	8,560	26.77	75.79	0.31	0.8854	8,48	2.50	43,629	2.30	8,59	-47.72
12.6	8,530	27.18	68.3	0.32	0.8007	8,46	2.50	43,673	2.50	8,56	-55.31
12.61	8,440	24.64	69.45	0.30	0.8124	8,39	2.40	43,715	2.00	8,16	-73.85
12.62	7,140	25.61	40.5	0.34	0.7912	7,58	2.40	43,757	2.00	7,67	-63.85
12.63	7,040	26.49	54.4	0.40	0.7739	7,49	2.40	43,799	2.00	7,67	-69.69
12.64	6,970	32.37	81	0.46	1.2052	6,89	2.40	43,841	2.00	7,01	-40.00
12.65	8,010	41.31	80.08	0.52	1.0122	7,93	2.40	43,882	2.30	8,04	-43.02
12.66	8,760	35.55	97.7	0.45	1.1153	8,66	2.40	43,924	2.30	8,80	-26.49
12.67	9,240	39.10	72.86	0.38	0.7885	9,17	2.40	43,966	2.00	9,27	-51.43
12.68	9,090	39.10	64.46	0.34	0.7089	8,92	2.40	44,008	2.00	9,15	-47.01
12.69	9,320	31.68	80.35	0.34	0.8621	9,24	2.40	44,050	2.00	9,35	-44.14
12.7	9,370	33.76	39.63	0.36	0.4229	9,33	2.40	44,092	2.30	9,39	-84.96
12.71	9,170	46.54	70.07	0.51	0.7707	9,10	2.40	44,134	2.30	9,20	-54.02
12.72	9,510	36.45	67.2	0.38	0.7096	9,44	2.40	44,176	2.00	9,54	-57.58
12.73	9,380	37.37	82.18	0.40	0.8687	9,30	2.40	44,218	2.00	9,47	-47.01
12.74	9,460	37.37	82.18	0.40	0.8687	9,30	2.40	44,259	2.30	9,49	-42.80
12.75	9,530	37.42	79.62	0.39	0.8355	9,45	2.40	44,301	2.30	9,56	-45.46
12.76	9,760	38.90	81.63	0.40	0.8442	9,59	2.40	44,343	2.00	9,70	-43.55
12.77	9,290	37.51	85.1	0.40	0.9180	9,20	2.30	44,383	2.00	9,33	-40.17
12.78	9,770	32.18	78.73	0.33	0.8056	9,69	2.30	44,423	2.00	9,80	-46.66
12.79	9,530	33.50	80.35	0.35	0.8438	9,48	2.30	44,465	2.00	9,64	-47.01
12.8	9,150	33.16	83.09	0.38	0.9081	9,07	2.30	44,504	2.00	9,18	-42.48

Depth [m]	Qc [kPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [kPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-Uq [kPa]
14.19	9,990	46.45	79.99	0.46	8.007	9.91	2.60	50.490	1.80	10.02	-59.21
14.2	10,040	46.82	84.92	0.47	0.8458	9.96	2.60	50.535	1.80	10.08	-54.38
14.21	10,090	48.25	85.83	0.47	0.8341	10.20	2.60	50.581	1.80	10.33	-53.57
14.22	10,290	45.06	89.12	0.41	0.8169	10.82	2.60	50.626	1.80	10.95	-50.38
14.23	11,170	42.34	88.57	0.41	0.7929	11.08	2.60	50.671	1.80	11.21	-51.03
14.24	11,380	46.12	89.48	0.41	0.7863	11.29	2.60	50.717	1.80	11.42	-50.21
14.25	11,480	45.66	88.75	0.40	0.7731	11.39	2.60	50.762	2.00	11.52	-51.04
14.26	11,540	45.48	87.66	0.39	0.7596	11.45	2.60	50.808	2.00	11.58	-52.23
14.27	11,470	45.20	87.11	0.39	0.7595	11.38	2.60	50.853	1.80	11.51	-52.88
14.28	10,970	45.67	87.66	0.42	0.7961	10.88	2.60	50.898	1.80	11.07	-51.01
14.29	10,680	46.54	85.83	0.44	0.8037	10.59	2.70	50.945	2.00	10.72	-54.35
14.3	10,540	47.05	81.63	0.45	0.7745	10.46	2.70	50.992	2.00	10.57	-58.65
14.31	10,390	45.89	82.72	0.44	0.7962	10.31	2.70	51.040	2.00	10.42	-57.09
14.32	10,430	45.71	88.39	0.44	0.8475	10.34	2.70	51.087	2.00	10.47	-52.09
14.33	10,460	43.39	89.66	0.40	0.8380	10.37	2.70	51.134	2.00	10.50	-52.02
14.34	10,350	42.42	84.97	0.41	0.8311	10.30	2.70	51.181	2.00	10.37	-85.71
14.35	10,290	43.72	94.78	0.42	0.9211	10.20	2.70	51.228	2.00	10.33	-45.99
14.36	10,210	43.07	86.92	0.42	0.8513	10.12	2.70	51.275	2.00	10.25	-53.95
14.37	10,040	42.14	89.3	0.42	0.8894	9.95	2.70	51.322	1.80	10.08	-51.67
14.38	9,930	41.54	89.74	0.42	0.8737	9.84	2.70	51.369	1.80	9.97	-54.33
14.39	9,810	41.31	85.65	0.42	0.8731	9.72	2.70	51.416	2.00	9.85	-55.52
14.4	9,660	42.97	91.49	0.44	0.9471	9.57	2.70	51.464	2.00	9.70	-49.77
14.41	9,550	44.60	89.12	0.47	0.9332	9.46	2.70	51.511	2.00	9.59	-52.24
14.42	9,510	43.16	88.02	0.45	0.9256	9.42	2.70	51.558	2.00	9.55	-53.44
14.43	9,460	44.23	88.93	0.46	0.9302	9.37	2.70	51.605	2.00	9.50	-53.68
14.44	9,420	43.76	88.2	0.46	0.9363	9.33	2.70	51.652	2.00	9.46	-53.46
14.45	9,410	44.78	88.2	0.48	0.9373	9.32	2.70	51.699	1.80	9.45	-53.55
14.46	9,390	46.22	88.2	0.49	0.9393	9.30	2.70	51.746	1.80	9.43	-53.65
14.47	9,370	46.82	88.93	0.50	0.9491	9.28	2.70	51.793	2.00	9.41	-53.02
14.48	9,370	47.65	88.57	0.51	0.9453	9.28	2.70	51.840	2.00	9.41	-53.48
14.49	9,380	47.19	89.3	0.50	0.9520	9.29	2.70	51.887	2.00	9.42	-52.85
14.5	9,380	47.65	89.48	0.51	0.9539	9.29	2.70	51.935	2.00	9.42	-52.77
14.51	9,380	47.74	88.93	0.51	0.9481	9.29	2.80	51.983	2.00	9.42	-53.41
14.52	9,380	47.74	88.93	0.51	0.9481	9.29	2.80	52.032	2.00	9.42	-53.51
14.53	9,380	47.74	88.93	0.51	0.9481	9.29	2.80	52.081	2.00	9.42	-53.61
14.54	9,900	37.70	107.38	0.42	1.2065	8.79	2.70	52.128	2.00	9.95	-35.26
14.55	9,120	36.86	90.21	0.40	0.9891	9.03	2.70	52.175	2.00	9.16	-52.53
14.56	9,200	37.83	88.93	0.41	0.9666	9.11	2.70	52.222	2.00	9.24	-53.90
14.57	9,220	38.39	89.12	0.42	0.9666	9.13	2.70	52.270	2.00	9.26	-53.81
14.58	9,250	38.99	89.12	0.42	0.9635	9.16	2.70	52.317	2.50	9.29	-53.91
14.59	9,360	39.78	88.93	0.43	0.9579	9.27	2.70	52.364	2.50	9.40	-53.47
14.6	9,220	39.96	90.39	0.42	0.9596	9.33	2.70	52.411	2.00	9.46	-52.84
14.61	9,610	40.29	91.12	0.42	0.9482	9.52	2.70	52.458	2.00	9.65	-52.20
14.62	9,740	40.01	91.31	0.41	0.9375	9.65	2.70	52.505	2.00	9.78	-52.11
14.63	9,960	40.29	93.86	0.41	0.9519	9.77	2.70	52.552	2.00	9.90	-49.66
14.64	9,950	40.47	91.31	0.41	0.9577	9.86	2.70	52.599	2.00	9.99	-52.31
14.65	9,970	40.75	91.31	0.41	0.9158	9.95	2.70	52.646	2.00	10.01	-52.62
14.66	9,930	41.03	91.31	0.41	0.9195	9.84	2.70	52.694	2.00	9.97	-52.50
14.67	9,860	41.59	91.49	0.42	0.9279	9.77	2.70	52.741	2.30	9.90	-52.42
14.68	9,820	41.59	92.04	0.42	0.9373	9.73	2.70	52.788	2.30	9.86	-51.97
14.69	9,910	42.14	93.05	0.43	0.9435	9.82	2.70	52.835	2.30	9.95	-50.81
14.7	10,010	42.47	94.05	0.42	0.9396	9.82	2.70	52.884	2.30	10.05	-50.26
14.71	10,180	42.23	95.33	0.41	0.9364	10.08	2.70	52.931	2.00	10.22	-48.98
14.72	10,400	42.47	96.06	0.41	0.9237	10.30	2.70	52.978	2.00	10.44	-48.34
14.73	10,700	42.37	96.97	0.40	0.9063	10.60	2.80	53.027	2.00	10.74	-47.53
14.74	11,030	42.47	98.79	0.39	0.8956	10.93	2.80	53.076	2.00	11.07	-45.81
14.75	11,860	41.72	96.43	0.47	1.010	10.84	2.80	53.124	1.80	11.80	-46.99
14.76	12,370	42.05	101.35	0.34	0.8193	12.27	2.80	53.173	2.00	12.41	-43.45
14.77	12,920	42.00	101.53	0.33	0.7858	12.82	2.80	53.222	2.30	12.96	-43.36
14.78	13,540	42.05	102.26	0.31	0.7552	13.44	2.80	53.271	2.00	13.58	-42.73
14.79	14,710	42.37	102.81	0.31	0.6989	14.61	2.80	53.320	2.00	14.75	-42.28
14.8	15,220	43.96	102.62	0.29	0.6511	15.12	2.80	53.369	2.00	15.15	-41.82
14.81	15,640	44.83	101.17	0.29	0.6469	15.54	2.80	53.418	2.00	15.68	-44.12
14.82	16,180	45.24	102.08	0.28	0.6309	16.08	2.80	53.466	2.30	16.22	-43.30
14.83	16,540	48.72	103.73	0.29	0.6271	16.44	2.80	53.515	2.30	16.58	-41.75
14.84	16,690	46.68	104.27	0.28	0.6247	16.59	2.80	53.564	2.30	16.73	-41.31
14.85	16,950	45.93	103.13	0.28	0.6184	16.86	2.80	53.614	2.30	16.94	-40.84
14.86	17,240	50.43	102.18	0.29	0.4767	17.16	2.80	53.662	2.00	17.27	-43.60
14.87	17,270	54.00	72.68	0.31	0.4208	17.20	2.80	53.711	2.00	17.30	-73.19

17-101.G_CPTU_Soarza

17-101_CPTU_S6_SX

Pag. 21

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-Uq [kPa]
14.88	14,910	82.89	42.91	0.56	0.2878	14.87	2.80	53.759	2.00	14.93	-103.06
14.89	13,830	89.75	73.05	0.65	0.5282	13.76	2.80	53.808	2.00	13.86	-73.02
14.9	13,090	111.33	70.87	0.85	0.5399	13.02	2.80	53.857	2.30	13.12	-75.50
14.91	12,670	119.94	68.85	0.85	0.5434	12.60	2.80	53.906	2.30	12.70	-77.42
14.92	12,460	116.75	77.43	0.62	0.6214	12.38	2.80	53.955	2.00	12.49	-88.94
14.93	12,320	112.95	80.17	0.62	0.6555	12.15	2.80	54.004	2.00	12.26	-86.29
14.94	12,050	112.07	79.44	0.63	0.6593	11.97	2.80	54.053	2.00	12.08	-87.12
14.95	11,930	111.28	81.63	0.93	0.6842	11.85	2.80	54.101	2.00	11.96	-85.03
14.96	11,660	113.18	82.91	0.97	0.7111	11.58	2.90	54.152	2.00	11.69	-83.85
14.97	11,500	113.74	83.27	0.99	0.7241	11.42	2.90	54.203	2.00	11.53	-83.59
14.98	11,390	114.99	84.55	1.01	0.7423	11.31	2.90	54.253	2.00	11.43	-82.40
14.99	11,300	115.63	85.83	1.02	0.7596	11.21	2.90	54.304	2.00	11.34	-81.22
15	11,280	114.99	86.92	1.02	0.7706	11.19	2.90	54.354	2.00	11.32	-80.23
15.01	11,230	112.21	88.2	1.00	0.7854	11.14	2.90	54.405	2.00	11.27	-80.05
15.02	11,280	100.12	90.21	0.82	0.7991	11.1	2.90	54.456	2.00	11.32	-57.14
15.03	11,310	72.06	91.49	0.64	0.8089	11.22	2.90	54.506	2.00	11.35	-55.95
15.04	11,450	62.98	91.31	0.55	0.7795	11.36	3.00	54.559	2.30	11.49	-56.23
15.05	11,580	51.63	92.4	0.45	0.7979	11.49	3.00	54.611	2.30	11.62	-55.24
15.06	11,800	46.63	92.77	0.40	0.7862	11.71	3.00	54.663	2.00	11.84	-54.71
15.07	11,900	45.80	94.05	0.38	0.7903	11.81	3.00	54.716	2.00	11.94	-53.75
15.08	12,040	45.29	95.33	0.38	0.7918	11.94	3.00	54.768	2.00	12.08	-52.60
15.09	12,230	45.24	96.06	0.37	0.7854	12.13	3.00	54.820	2.30	12.27	-51.97
15.1	12,440	45.11	97.33	0.36	0.7824	12.34	3.00	54.873	2.30	12.48	-50.80
15.11	12,730	45.43	100.26	0.36	0.7876	12.63	3.00	54.925	2.00	12.77	-47.97
15.12	12,960	43.95	100.26	0.34	0.7284	12.78	3.00	54.977	2.00	12.92	-46.07
15.13	13,290	43.32	97.7	0.34	0.7539	12.86	3.00	55.030	2.00	13.00	-50.73
15.14	13,330	43.67	100.44	0.33	0.7535	13.23	3.00	55.082	2.00	13.37	-48.08
15.15	13,410	43.67	100.07	0.33	0.7462	13.31	3.00	55.134	2.30	13.45	-48.05
15.16	13,530	43.16	101.72	0.32	0.7518	13.43	3.00	55.187	2.30	13.57	-47.00
15.17	13,950	43.58	103.91	0.31	0.7449	13.85	3.00	55.239	2.30	13.99	-44.91
15.18	14,380	43.84	105.84	0.30	0.7288	14.27	3.00	55.291	2.30	14.11	-42.82
15.19	14,930	45.71	103.36	0.34	0.7696	13.33	3.10	55.345	2.00	14.37	-45.65
15.2	12,990	50.06	98.79	0.39	0.7605	12.89	3.10	55.399	2.00	13.03	-50.32
15.21	12,790	48.58	98.98	0.38	0.7739	12.69	3.10	55.453	1.80	12.83	-50.07
15.22	12,420	48.86	96.64	0.39	0.7778	12.32	3.10	55.508	1.80	12.46	-52.71
15.23	12,110	48.81	100.40	0.40	0.8284	12.11	3.00	55.561	1.90	12.15	-54.97
15.24	11,790	48.16	99.79	0.41	0.8362	11.84	3.00	55.616	2.00	11.82	-55.92
15.25	11,450	48.12	96.42	0.42	0.8421	11.35	3.10	55.670	2.00	11.49	-53.18
15.26	11,000	47.93	96.79	0.44	0.8799	10.90	3.10	55.724	2.00	11.04	-52.91
15.27	10,460	48.76	96.44	0.47	0.9201	10.33	3.10	55.778	2.00	10.50	-53.56
15.28	9,920	49.64	95.14	0.50	0.9591	9.82	3.10	55.832	2.00	9.96	-54.47
15.29	9,420	48.81	94.29	0.52	0.9435	9.33	3.10	55.886	2.00	9.48	-55.33
15.3	9,040	48.07	94.78	0.53	1.0485	8.95	3.10	55.940	2.00	9.08	-55.31
15.31	8,690	47.61	94.59	0.55	1.0885	8.60	3.10	55.994	2.30	8.73	-55.63
15.32	8,420	47.98	94.94	0.57	1.1234	8.33	3.10	56.048	2.30	8.46	-55.70
15.33	8,170	42.00	95.51	0.51	1.1690	8.07	3.10	56.102	1.80	8.21	-54.88
15.34	7,960	43.54	95.14	0.54	1.2156	7.56	3.10	56.156	1.80	7.90	-54.03
15.35	7,740	44.32	95.51	0.57	1.2340	7.64	3.10	56.211	2.00	7.76	-55.07
15.36	7,590	43.85	95.87	0.58	1.2631	7.49	3.10	56.265	2.00	7.63	-54.84
15.37	7,450	43.76	95.51	0.59	1.2820	7.35	3.10	56.319	1.90	7.39	-54.82
15.38	7,320	43.90	96.06	0.60	1.3123	7.22	3.10	56.373	1.90	7.36	-54.82
15.39	7,240	44.32	96.24	0.61	1.3426	7.14	3.10	56.427	1.90	7.28	-54.82
15.4	7,180	43.85	96.42	0.61	1.3429	7.08	3.10	56.481	2.00	7.22	-54.84
15.41	7,150	43.35	96.97	0.61	1.3562	7.05	3.10	56.535	2.10	7.19	-54.20
15.42	7,140	42.70	97.15	0.60	1.3606	7.04	3.10	56.589	1.80	7.18	-54.18
15.43	7,130	42.97	97.52	0.60	1.3677	7.03	3.20	56.645	1.80	7.17	-53.85
15.44	7,180	42.97	98.06	0.60	1.3708	7.02	3.20	56.699	1.80	7.22	-53.85
15.45	7,230	42.88	98.43	0.58	1.3814	7.13	3.20	56.757	1.80	7.27	-53.13
15.46	7,320	41.86	98.98	0.57	1.3522	7.22	3.10	56.811	2.00	7.36	-52.62
15.47	7,550	40.75	100.26	0.54	1.3198	7.43	3.10	56.865	2.00	7.56	-51.60
15.48	7,720	40.38	98.26	0.52	1.2897	7.62	3.10	56.919	1.90	7.79	-52.42
15.49	7,870	40.15	99.89	0.51	1.2433	7.77	3.10	56.973	1.90	7.93	-52.07
15.5	8,020	39.92	101.7	0.50	1.2433	7.92	3.10	57.027	2.00	8.06	-52.02
15.51	8,160	39.46	100.8	0.48	1.2353	8.06	3.20	57.083	2.00	8.20	-51.35
15.52	8,160	39.46	100.8	0.48	1.2353	8.06	3.20	57.139	1.80	8.20	-51.45
15.53	8,160	39.46	100.8	0.48	1.2353	8.06	3.20	57.194	1.80	8.20	-51.51
15.54	8,380	31.30	100.44	0.37	1.1986	8.26	3.20	57.250	1.80	8.42	-52.52
15.55	8,690	31.1	98.61	0.35	1.1986	8.59	3.20	57.305	1.80	8.73	-52.52
15.56	8,990	32.51	99.06	0.36	1.0908	8.89	3.20	57.362	2.00	9.03	-54.08

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
16.95	16,070	55.25	133.49	0.34	0.8307	15.94	3.60	65.490	2.00	16.13	-32.79
16.96	16,060	56.03	133.13	0.35	0.8290	15.93	3.60	65.553	2.00	16.12	-33.25
16.97	16,030	57.65	132.03	0.36	0.8236	15.90	3.60	65.616	1.80	16.09	-34.45
16.98	15,930	62.66	132.58	0.39	0.8323	15.80	3.60	65.679	1.80	15.99	-33.90
16.99	15,880	64.34	131.85	0.41	0.8303	15.75	3.70	65.743	1.00	15.94	-34.42
17	15,760	67.10	130.02	0.43	0.8250	15.63	3.70	65.808	2.00	15.81	-36.75
17.01	15,620	68.31	130.93	0.44	0.8382	15.49	3.60	65.871	2.00	15.67	-35.94
17.02	15,450	69.23	129.11	0.45	0.8357	15.32	3.60	65.934	2.00	15.50	-37.86
17.03	15,250	69.97	128.74	0.46	0.8442	15.12	3.60	65.996	2.00	15.30	-38.32
17.04	15,000	70.71	127.47	0.47	0.8498	14.87	3.60	66.059	2.00	15.07	-40.47
17.05	14,760	70.85	126.37	0.48	0.8562	14.63	3.60	66.122	2.00	14.81	-40.89
17.06	14,480	71.46	127.1	0.49	0.8778	14.35	3.60	66.185	2.00	14.53	-40.26
17.07	14,280	71.73	127.28	0.50	0.8913	14.15	3.60	66.247	2.00	14.33	-40.18
17.08	14,180	71.69	128.01	0.51	0.9028	14.05	3.60	66.310	2.00	14.23	-39.54
17.09	14,140	71.46	128.93	0.51	0.9178	13.80	3.60	66.373	2.00	14.19	-39.20
17.1	13,760	68.95	126.19	0.50	0.9171	13.63	3.60	66.436	2.00	13.81	-41.56
17.11	13,400	68.54	125.64	0.51	0.9376	13.27	3.60	66.499	2.00	13.45	-42.21
17.12	12,940	66.41	122.17	0.51	0.9441	12.82	3.60	66.561	2.00	12.99	-45.78
17.13	12,290	65.48	122.17	0.53	0.9800	12.27	3.60	66.624	2.30	12.44	-45.88
17.14	11,830	64.86	119.96	0.54	1.0124	11.71	3.60	66.687	2.30	11.82	-48.16
17.15	11,340	63.03	119.61	0.56	1.0548	11.22	3.60	66.750	2.00	11.39	-48.63
17.16	11,000	61.87	120.71	0.56	1.0974	10.88	3.70	66.814	2.00	11.05	-47.63
17.17	10,720	60.48	121.62	0.56	1.1345	10.60	3.70	66.879	2.00	10.77	-46.82
17.18	10,570	59.91	122.35	0.56	1.1575	10.45	3.60	66.942	2.00	10.62	-46.19
17.19	10,440	57.38	125.19	0.55	1.1033	10.33	3.60	67.004	2.00	10.38	-50.47
17.2	10,360	56.87	123.46	0.55	1.2110	10.23	3.60	67.067	2.30	10.41	-51.87
17.21	10,380	55.20	124.91	0.53	1.2034	10.26	3.60	67.130	2.30	10.43	-53.92
17.22	10,450	54.37	126.55	0.52	1.2110	10.32	3.70	67.195	2.30	10.50	-42.38
17.23	10,570	52.56	127.28	0.50	1.2042	10.44	3.70	67.259	2.30	10.62	-41.75
17.24	10,780	51.31	129.29	0.48	1.1994	10.65	3.70	67.324	2.30	10.83	-39.83
17.25	11,020	50.01	130.02	0.45	1.1799	10.89	3.70	67.388	2.30	11.07	-39.20
17.26	11,330	49.27	132.76	0.43	1.1718	11.20	3.70	67.453	2.30	11.39	-36.56
17.27	11,710	48.76	132.76	0.42	1.1337	11.58	3.70	67.517	2.30	11.77	-36.66
17.28	12,610	46.73	138.79	0.37	1.1006	12.47	3.70	67.582	2.30	12.67	-30.73
17.29	13,200	47.10	141.71	0.36	1.0736	13.06	3.70	67.646	2.30	13.26	-27.90
17.3	13,790	46.82	140.43	0.34	1.0183	13.65	3.70	67.711	2.30	13.85	-29.28
17.31	14,400	47.24	141.53	0.33	0.9828	14.26	3.70	67.775	2.50	14.46	-28.28
17.32	14,890	46.31	141.53	0.31	0.9505	14.75	3.70	67.840	2.50	14.95	-28.38
17.33	15,250	45.24	142.8	0.30	0.9364	15.11	3.70	67.904	2.30	15.31	-27.21
17.34	15,720	45.38	143.54	0.29	0.9131	15.58	3.70	67.969	2.30	15.78	-26.57
17.35	15,770	45.29	140.25	0.29	0.8893	15.63	3.70	68.033	2.30	15.83	-29.95
17.36	15,670	44.97	137.51	0.29	0.8775	15.53	3.70	68.098	2.30	15.73	-32.79
17.37	15,470	45.75	130.93	0.30	0.8463	15.34	3.70	68.163	2.30	15.52	-39.47
17.38	15,190	44.92	133.86	0.30	0.8812	15.06	3.70	68.227	2.30	15.25	-36.64
17.39	15,410	47.93	121.99	0.34	0.8885	14.09	3.70	68.292	2.30	14.26	-48.61
17.4	13,210	48.25	132.4	0.35	0.9567	13.68	3.70	68.356	2.30	13.87	-52.29
17.41	11,890	48.69	138.6	0.38	1.0124	13.01	3.70	68.421	2.30	13.02	-53.29
17.42	13,290	48.86	104.82	0.37	0.7887	13.19	3.70	68.485	2.00	13.33	-60.07
17.43	13,240	51.82	99.16	0.39	0.7489	13.14	3.70	68.550	2.00	13.28	-71.83
17.44	12,940	51.13	109.74	0.40	0.8481	12.83	3.70	68.614	2.00	12.99	-61.34
17.45	12,640	52.94	83.62	0.41	0.9528	12.76	3.70	68.679	2.00	12.86	-67.38
17.46	12,960	54.82	108.94	0.42	0.8398	12.66	3.70	68.743	1.80	13.01	-62.44
17.47	13,130	54.74	109.93	0.42	0.8372	13.02	3.70	68.808	1.80	13.18	-61.45
17.48	13,540	54.64	115.05	0.40	0.8497	13.42	3.70	68.872	2.00	13.59	-56.43
17.49	13,820	53.58	115.6	0.39	0.8365	13.70	3.70	68.937	2.00	13.87	-55.98
17.5	13,910	53.63	109.93	0.39	0.7903	13.80	3.70	69.001	2.00	13.96	-61.75
17.51	13,910	53.63	109.93	0.39	0.7903	13.80	3.70	69.065	2.00	13.96	-61.84
17.52	13,910	53.63	109.93	0.39	0.7903	13.80	3.70	69.131	2.00	13.96	-61.94
17.53	13,400	43.62	125.82	0.33	0.9390	13.27	3.80	69.197	1.80	13.45	-46.15
17.54	13,340	45.43	121.8	0.34	0.9130	13.22	3.80	69.263	1.80	13.39	-50.27
17.55	13,020	46.82	120.16	0.36	0.9229	12.90	3.80	69.329	2.00	13.07	-52.01
17.56	12,660	46.82	120.16	0.38	0.9229	12.90	3.80	69.396	2.00	12.95	-52.54
17.57	12,520	49.13	115.23	0.40	0.9445	12.08	3.80	69.462	1.80	12.25	-57.13
17.58	11,790	50.15	117.42	0.43	0.9959	11.67	3.80	69.528	1.80	11.84	-55.04
17.59	11,450	53.02	117.42	0.46	1.0255	11.33	3.80	69.594	1.80	11.50	-55.14
17.6	11,010	52.19	117.97	0.47	1.0715	10.89	3.80	69.661	1.80	11.06	-54.69
17.61	11,010	52.19	117.97	0.47	1.0715	10.89	3.80	69.677	1.80	11.06	-54.69
17.62	10,900	42.79	117.96	0.39	1.5749	10.73	3.80	69.793	2.00	10.97	-1.19
17.63	10,440	53.02	127.28	0.50	1.1962	10.51	3.80	69.860	2.00	10.69	-45.67

17-101_G_CPTU_Soarza

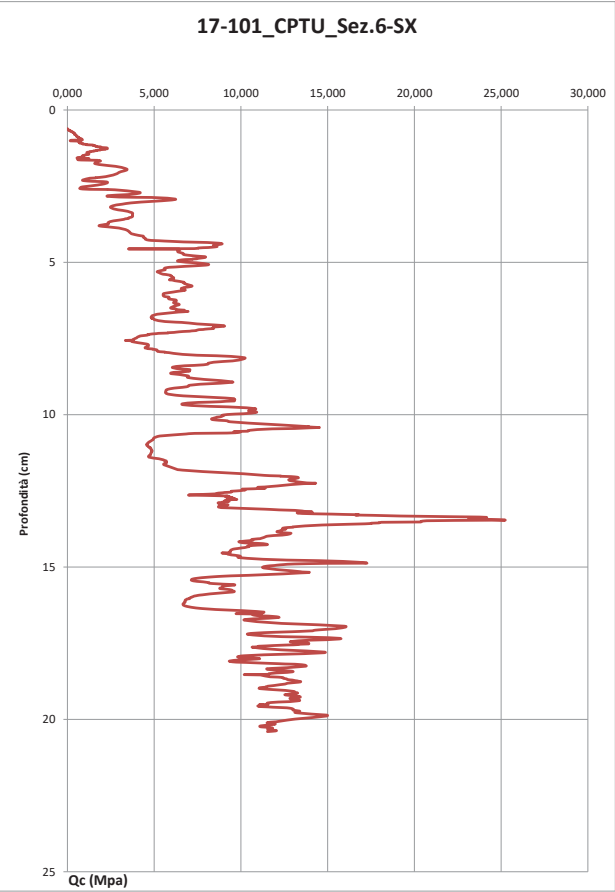
17-101_CPTU_S6_SX

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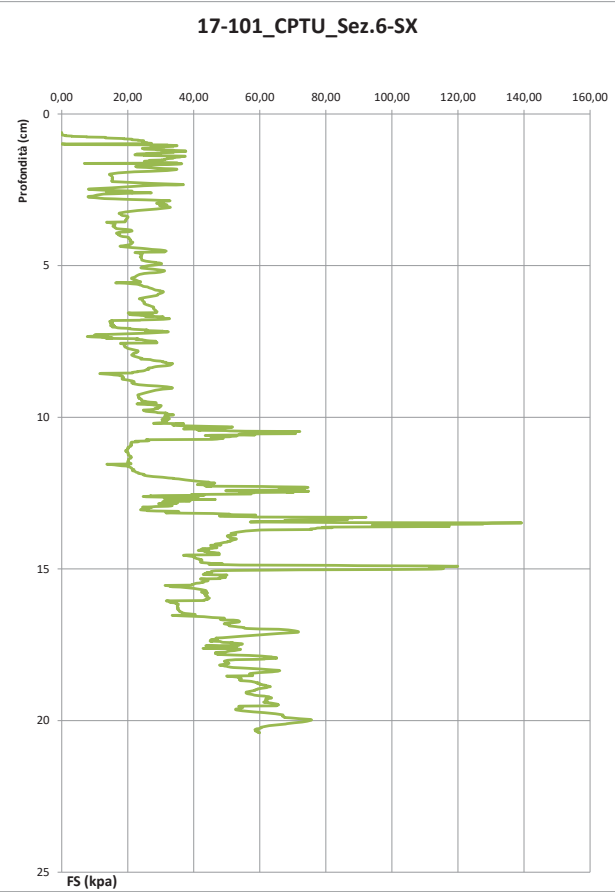
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	Tilt [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
17.64	10,770	53.12	129.66	0.49	1.2039	10.64	3.80	69.926	1.80	10.82	-43.39
17.65	10,940	54.18	131.67	0.50	1.2036	10.81	3.80	69.992	1.80	11.00	-41.48
17.66	11,130	54.14	130.39	0.49	1.1715	11.00	3.80	70.058	1.80	11.18	-42.85
17.67	11,310	53.35	130.39	0.47	1.1529	11.18	3.80	70.125	1.80	11.36	-42.95
17.68	11,450	52.86	130.02	0.46	1.1345	11.33	3.80	70.191	1.80	11.51	-43.42
17.69	11,620	52.61	130.57	0.45	1.1237	11.49	3.80	70.257	1.80	11.67	-42.97
17.7	11,820	51.08	131.48	0.43	1.1214	11.69	3.80	70.323	2.00	11.88	-42.16
17.71	12,010	50.57	135.68	0.42	1.1097	11.87	3.80	70.390	1.50	12.07	-38.06
17.72	12,230	50.25	134.95	0.41	1.1294	12.10	3.80	70.456	1.50	12.29	-38.88
17.73	12,810	49.83	115.41	0.39	0.9099	12.63	3.80	70.523	1.50	12.86	-58.53
17.74	13,200	49.60	136.96	0.38	1.0376	13.06	3.90	70.590	1.80	13.26	-37.07
17.75	13,600	46.63	137.87	0.34	1.0138	13.46	3.90	70.658	1.80	13.66	-36.26
17.76	13,980	46.73	138.6	0.33	0.9914	13.84	3.90	70.726	1.80	14.04	-35.63
17.77	14,300	46.88	138.06	0.33	0.9655	14.16	3.90	70.794	1.80	14.36	-36.26
17.78	14,640	46.59	138.24	0.32	0.9443	14.56	3.90	70.861	1.80	14.70	-36.18
17.79	14,840	46.54	138.24	0.31	0.9315	14.70	3.80	70.927	1.80	14.90	-36.28
17.8	14,870	46.67	136.05	0.33	0.9149	14.73	3.80	70.993	1.50	14.93	-35.57
17.81	14,810	47.10	131.3	0.32	0.8868	14.68	3.90	71.061	1.50	14.87	-43.42
17.82	14,540	48.02	138.97	0.33	0.9558	14.40	3.90	71.129	1.80	14.60	-35.84
17.83	14,200	50.48	140.03	0.36	0.9288	14.07	3.90	71.197	1.80	14.26	-42.58
17.84	13,990	51.54	82.54	0.38	0.6078	13.50	3.90	71.265	1.80	13.61	-92.47
17.85	12,990	57.42	145.36	0.44	1.1190	12.84	3.90	71.333	1.80	13.05	-29.75
17.86	12,360	58.03	123.63	0.47	1.0002	12.24	3.90	71.401	1.80	12.41	-51.58
17.87	11,820	59.79	123.81	0.51	1.0475	11.70	3.90	71.469	2.00	11.87	-51.49
17.88	11,340	60.58	121.44	0.53	1.1009	11.22	3.90	71.537	2.00	11.38	-53.96
17.89	10,860	62.24	123.63	0.57	1.1984	10.74	3.90	71.605	2.30	10.91	-51.87
17.9	10,480	63.54	123.63	0.61	1.1657	10.36	3.90	71.673	2.30	10.53	-53.43
17.91	10,140	63.54	123.63	0.63	1.2175	10.02	3.90	71.741	2.30	10.19	-52.25
17.92	9,940	65.02	123.63	0.65	1.2438	9.82	3.90	71.809	2.30	9.99	-52.17
17.93	9,940	65.02	123.63	0.65	1.2438	9.82	3.90	71.877	2.30	9.99	-52.26
17.94	9,820	64.93	126.19	0.66	1.2580	9.67	3.90	71.945	2.50	9.85	-52.50
17.95	9,800	65.06	128.2	0.66	1.3082	9.30	3.90	72.013	2.50	9.85	-49.87
17.96	9,880	61.45	129.66	0.62	1.3123	9.75	3.90	72.081	2.30	9.93	-46.53
17.97	10,070	61.41	131.85	0.61	1.3093	9.94	3.90	72.149	2.30	10.13	-44.44
17.98	10,360	59.04	132.94	0.57	1.2807	10.25	3.90	72.217	2.30	10.44	-43.44
17.99	10,760	52.61	133.69	0.52	1.0632	10.62	3.90	72.285	2.30	10.74	-43.44
18	11,020	51.08	134.59	0.47	1.2213	10.89	3.90	72.353	2.30	11.08	-41.99
18.01	11,080	50.25	133.13	0.45	1.2015	10.95	3.90	72.421	2.50	11.14	-43.55
18.02	10,890	49.83	130.93	0.46	1.2023	10.76	4.00	72.491	2.50	10.94	-45.85
18.03	10,590	49.60	129.66	0.47	1.2295	10.43	4.00	72.561	2.30	10.61	-47.03
18.04	10,200	49.23	129.66	0.48	1.2619	10.02	4.00	72.630	2.30	10.23	-48.43
18.05	9,900	49.60	128.93	0.50	1.3023	9.77	4.00	72.700	2.00	9.95	-48.14
18.06	9,640	49.46	129.47	0.51	1.3430	9.51	4.00	72.770	2.00	9.69	-47.70
18.07	9,470	49.78	130.93	0.53	1.3788	9.34	4.00	72.840	1.80	9.52	-46.70
18.08	9,390	49.92	130.93	0.53	1.3624	9.26	3.90	72.908	1.80	9.44	-46.81
18.09	9,320	50.14	131.85	0.54	1.3458	9.10	3.90	72.976	1.80	9.36	-46.93
18.1	9,390	50.29	132.58	0.54	1.4119	9.26	3.90	73.044	2.00	9.45	-49.88
18.11	9,510	50.66	134.59	0.53	1.4152	9.38	3.90	73.112	2.00	9.57	-43.07
18.12	9,720	50.29	135.14	0.52	1.3903	9.58	3.90	73.180	2.00	9.78	-42.62
18.13	10,320	49.83	138.24	0.48	1.3395	10.18	3.90	73.248	2.00	10.38	-39.62
18.14	10,720	49.60	136.96	0.46	1.2720	10.57	3.90	73.316	2.00	10.78	-38.62
18.15	11,170	48.86	141.71	0.44	1.2887	11.03	3.90	73.384	2.00	11.23	-36.34
18.16	11,650	48.25	142.44	0.41	1.2277	11.51	3.90	73.452	2.00	11.71	-35.71
18.17	12,150	47.79	143.35	0.39	1.1798	12.01	4.00	73.522	2.30	12.21	-34.90
18.18	12,580	47.93	145.72	0.38	1.1424	12.44	4.00	73.592	2.30	12.64	-34.63
18.19	13,180	48.09	145.73	0.36	1.0947	13.07	4.00	73.662	2.30	13.26	-34.35
18.2	13,420	49.18	145.18	0.37	1.0818	13.27	4.00	73.731	2.00	13.48	-33.36
18.21	13,600	50.00	144.81	0.37	1.0648	13.46	4.00	73.801	2.00	13.66	-33.83
18.22	13,710	50.20	143.35	0.37	1.0456	13.57	4.00	73.871	2.00	13.77	-35.39
18.23	13,730	50.75	142.88	0.37	1.0401	13.59	4.00	73.940	2.00	13.79	-36.04
18.24	13,770	51.13	140.83	0.37	1.0229	13.64	4.00	74.010	2.00	13.83	-37.05
18.25	13,760	51.96	141.53	0.38	1.0286	13.82	4.00	74.080	2.00	13.82	-37.50
18.26	13,570	53.95	139.34	0.40	1.0268	13.43	4.00	74.150	2.30	13.63	-39.79
18.27	13,330	55.66	138.06	0.42	1.0357	13.19	4.00	74.219	2.30	13.39	-41.17
18.28	13,090	57.05	136.23	0.44	1.0407	12.95	4.00	74.289	2.00	13.15	-43.10
18.29	12,850	58.88	134.44	0.46	1.0571	12.67	4.00	74.359	2.00	12.91	-45.19
18.3	12,610	60.53	132.12	0.48	1.0644	12.48	4.00	74.429	2.30	12.67	-45.30
18.31	12,300	61.92	132.4	0.50	1.0764	12.17	4.00	74.498	2.30	12.36	-47.22
18.32	11,980	62.66	132.21	0.52	1.1036	11.85	4.00	74.568	2.00	12.04	-47.51

Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	TiH [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
19,71	13,180	57,89	149,38	0,44	1,1334	13,03	4,30	84,693	1,50	13,24	-43,98
19,72	13,310	59,18	151,21	0,44	1,1361	13,16	4,40	84,769	1,80	13,37	-42,24
19,73	13,400	60,11	150,84	0,45	1,1257	13,25	4,30	84,844	1,80	13,46	-42,71
19,74	13,320	62,01	149,56	0,47	1,1228	13,17	4,40	84,921	1,80	13,38	-44,09
19,75	13,240	62,84	149,74	0,47	1,1310	13,09	4,30	84,996	1,80	13,30	-44,01
19,76	13,150	63,58	148,83	0,48	1,1318	13,00	4,40	85,073	1,80	13,21	-45,02
19,77	13,100	64,60	151,39	0,49	1,1556	12,95	4,30	85,148	1,80	13,16	-42,55
19,78	13,200	65,30	152,67	0,49	1,1566	13,05	4,30	85,223	1,80	13,26	-41,37
19,79	13,340	65,71	153,58	0,49	1,1513	13,19	4,40	85,299	2,00	13,40	-40,56
19,8	13,540	66,41	153,76	0,49	1,1356	13,39	4,40	85,376	1,80	13,60	-40,48
19,81	13,800	67,01	155,22	0,49	1,1248	13,64	4,40	85,453	1,80	13,87	-39,12
19,82	14,050	66,92	156,14	0,48	1,1113	13,89	4,40	85,530	1,80	14,12	-38,29
19,83	14,270	67,06	155,95	0,47	1,0929	14,11	4,40	85,606	1,80	14,34	-38,58
19,84	14,640	66,87	156,32	0,46	1,0678	14,48	4,40	85,683	2,00	14,71	-38,31
19,85	14,770	66,82	156,32	0,45	1,0584	14,61	4,40	85,760	2,00	14,84	-38,41
19,86	14,940	66,96	155,22	0,45	1,0390	14,78	4,40	85,836	2,00	15,01	-39,61
19,87	15,000	67,10	155,41	0,45	1,0361	14,84	4,40	85,913	2,00	15,07	-39,51
19,88	14,990	67,33	156,14	0,45	1,0416	14,83	4,40	85,990	2,00	15,06	-38,88
19,89	14,950	67,57	153,94	0,45	1,0297	14,80	4,40	86,067	2,00	15,01	-41,18
19,9	14,830	67,52	155,04	0,46	1,0454	14,67	4,40	86,143	1,80	14,90	-40,18
19,91	14,520	69,14	153,4	0,48	1,0565	14,37	4,40	86,220	1,80	14,58	-41,92
19,92	14,440	70,20	154,31	0,49	1,0686	14,29	4,40	86,297	2,00	14,50	-41,11
19,93	14,370	71,08	153,58	0,49	1,0688	14,22	4,40	86,373	2,00	14,43	-41,93
19,94	14,280	72,01	152,67	0,50	1,0691	14,13	4,40	86,450	2,00	14,34	-42,94
19,95	13,870	74,23	152,3	0,54	1,0981	13,72	4,40	86,527	2,00	13,93	-43,41
19,96	13,630	75,07	151,94	0,55	1,1147	13,48	4,40	86,604	2,00	13,69	-43,87
19,97	13,460	75,62	152,3	0,56	1,1315	13,31	4,40	86,680	2,00	13,52	-43,61
19,98	13,310	75,67	153,4	0,57	1,1525	13,16	4,50	86,759	2,00	13,37	-42,60
19,99	13,120	75,39	152,85	0,57	1,1650	12,97	4,50	86,837	2,00	13,18	-43,25
20	12,970	75,02	151,39	0,58	1,1672	12,82	4,50	86,916	2,00	13,03	-44,81
20,01	12,860	74,42	150,47	0,58	1,1701	12,71	4,50	86,994	2,00	12,92	-45,83
20,02	12,710	74,33	150,47	0,58	1,1839	12,56	4,50	87,073	2,00	12,77	-45,93
20,03	12,570	73,96	149,74	0,59	1,1912	12,42	4,50	87,151	2,00	12,63	-46,75
20,04	12,460	73,35	149,93	0,59	1,2033	12,31	4,50	87,230	2,00	12,52	-46,66
20,05	12,320	72,06	151,57	0,58	1,2303	12,17	4,50	87,308	2,00	12,38	-45,12
20,06	12,270	71,50	151,57	0,58	1,2353	12,12	4,50	87,387	2,00	12,33	-45,22
20,07	12,150	70,67	152,3	0,58	1,2535	12,00	4,50	87,465	2,00	12,21	-44,59
20,08	11,930	69,56	150,47	0,58	1,2613	11,78	4,50	87,543	2,00	11,99	-46,51
20,09	11,700	68,86	149,93	0,59	1,2815	11,55	4,50	87,622	2,00	11,76	-47,15
20,1	11,560	68,17	151,75	0,59	1,3127	11,41	4,50	87,700	2,00	11,62	-45,43
20,11	11,500	67,84	151,75	0,59	1,3196	11,35	4,50	87,779	2,00	11,56	-45,33
20,12	11,660	67,33	155,04	0,58	1,3297	11,50	4,50	87,857	1,80	11,73	-42,34
20,13	11,820	66,31	155,41	0,56	1,3148	11,66	4,50	87,936	1,80	11,89	-42,07
20,14	11,930	65,25	155,22	0,55	1,3011	11,77	4,50	88,014	2,00	12,00	-42,35
20,15	11,980	64,42	154,67	0,54	1,2911	11,83	4,50	88,093	2,00	12,04	-43,00
20,16	11,940	63,77	153,76	0,53	1,2876	11,79	4,50	88,171	2,00	12,00	-44,01
20,17	11,810	62,66	153,21	0,53	1,2973	11,66	4,50	88,250	1,80	11,87	-44,66
20,18	11,630	62,15	152,3	0,53	1,3095	11,48	4,50	88,328	1,80	11,69	-45,67
20,19	11,440	61,73	151,57	0,54	1,3249	11,29	4,50	88,406	1,80	11,50	-46,49
20,2	11,260	61,31	152,48	0,54	1,3542	11,11	4,50	88,485	1,80	11,32	-45,68
20,21	11,140	60,85	151,94	0,55	1,3639	10,99	4,50	88,563	2,00	11,20	-46,32
20,22	11,080	60,34	152,85	0,54	1,3795	10,93	4,50	88,642	2,00	11,14	-45,51
20,23	11,080	60,43	153,76	0,55	1,3877	10,93	4,50	88,720	2,00	11,14	-44,70
20,24	11,140	60,39	154,13	0,54	1,3836	10,99	4,50	88,799	2,00	11,20	-44,42
20,25	11,220	60,16	155,04	0,54	1,3818	11,06	4,50	88,877	1,80	11,29	-43,61
20,26	11,500	59,92	155,95	0,52	1,3561	11,34	4,50	88,956	1,80	11,57	-42,80
20,27	11,670	59,14	157,23	0,51	1,3473	11,51	4,50	89,034	1,80	11,74	-41,62
20,28	11,800	58,81	155,95	0,50	1,3216	11,64	4,50	89,113	1,80	11,87	-43,00
20,29	11,830	58,63	156,14	0,50	1,3199	11,67	4,50	89,191	2,00	11,90	-42,90
20,3	11,780	58,49	156,68	0,50	1,3301	11,62	4,50	89,270	1,50	11,85	-42,46
20,31	11,670	58,58	156,5	0,50	1,3410	11,51	4,50	89,348	1,50	11,74	-42,74
20,32	11,590	58,81	155,77	0,51	1,3440	11,43	4,50	89,426	1,80	11,66	-43,57
20,33	11,540	58,81	156,14	0,51	1,3530	11,38	4,50	89,505	1,80	11,61	-43,30
20,34	11,580	58,67	157,05	0,51	1,3562	11,42	4,50	89,583	1,80	11,65	-42,49
20,35	11,690	58,86	157,05	0,50	1,3435	11,53	4,50	89,662	1,80	11,76	-42,58
20,36	11,970	59,60	158,51	0,50	1,3242	11,81	4,50	89,740	1,80	12,04	-41,22
20,37	12,050	59,74	158,33	0,50	1,3139	11,89	4,50	89,819	1,80	12,12	-41,50
20,38	11,980	59,55	156,5	0,50	1,3063	11,82	4,50	89,897	1,80	12,05	-43,43
20,39	11,780	59,41	154,67	0,50	1,3130	11,63	4,50	89,976	1,80	11,84	-45,36

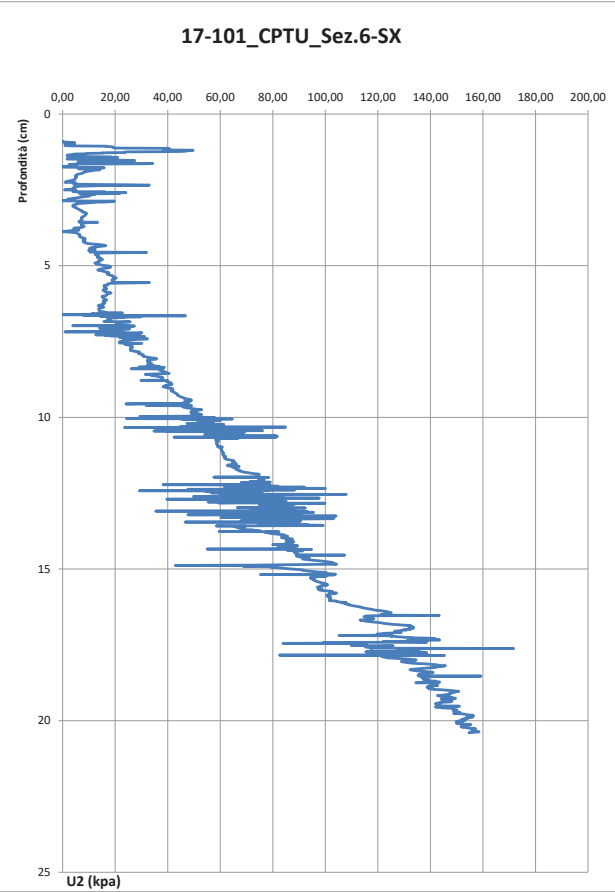
Depth [m]	Qc [MPa]	Fs [kPa]	U2 [kPa]	Rf [%]	U2/Qc [%]	Qc-U2 [MPa]	TiH [°]	Dist [cm]	Speed [cm/sec]	Qt [MPa]	U2-U0 [kPa]
20,4	11,530	59,92	154,67	0,52	1,3415	11,38	4,50	90,054	1,80	11,59	-45,45



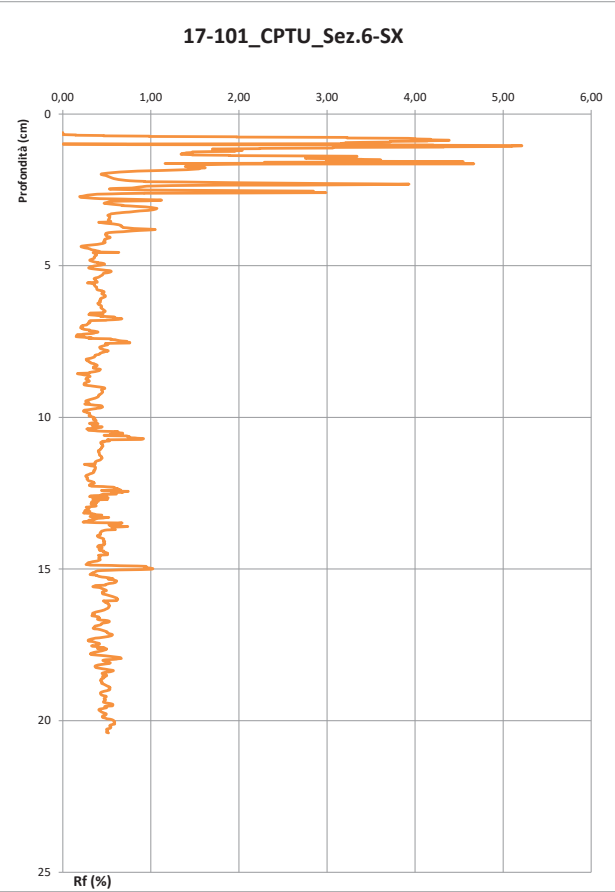
17-101.G_CPTU_Soarza L'operatore Il direttore



17-101.G_CPTU_Soarza L'operatore Il direttore



17-101.G_CPTU_Soarza L'operatore Il direttore



17-101.G_CPTU_Soarza L'operatore Il direttore

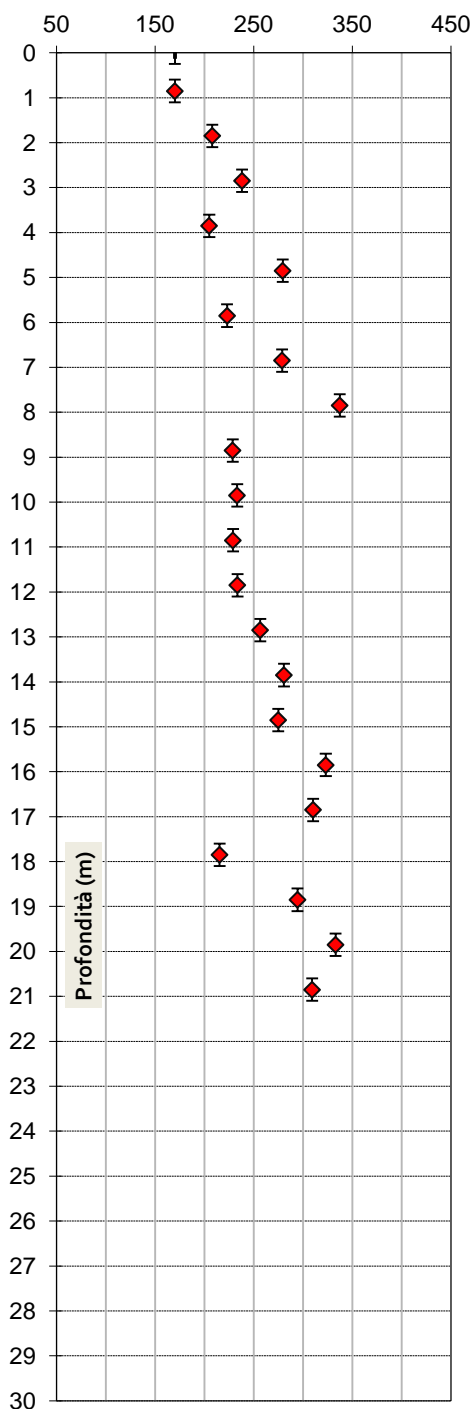
PROVA SCPTU

doc.	data emiss.	sperimentatore	responsabile
	15/03/2018	S.Verduri	E.Faccini

Committente: **A.I.Po - Ufficio di Piacenza**
 Cantiere: **PC-E-810 Soarza - Villanova d'Arda (PC)**
 Prova: **17-101.G_SCPTU_Sez.4 - Sommità argine**
 Data prova: **12 marzo 2018**

Distanza sorgente da verticale misura: **0.70 metri**
 Profondità sorgente da piano campagna: **0.00 metri**

Velocità onde di taglio V_{SVH} (m/s)



Prof. misura da	Prof. dato a	Prof. dato m	Velocità m/s	Time Shift msec	Accuratezza
		0,00		61,770	
0,6	1,1	0,85	170,11	2,245	0,894
1,6	2,1	1,85	207,96	2,265	0,951
2,6	3,1	2,85	238,18	2,065	0,893
3,6	4,1	3,85	204,96	2,400	0,743
4,6	5,1	4,85	279,50	1,830	0,684
5,6	6,1	5,85	223,10	2,550	0,807
6,6	7,1	6,85	278,86	1,900	0,966
7,6	8,1	7,85	337,34	1,585	0,953
8,6	9,1	8,85	228,66	2,180	0,966
9,6	10,1	9,85	233,30	2,200	0,975
10,6	11,1	10,85	228,99	2,185	0,966
11,6	12,1	11,85	233,54	2,215	0,937
12,6	13,1	12,85	256,70	1,945	0,947
13,6	14,1	13,85	280,67	1,815	0,986
14,6	15,1	14,85	274,95	1,820	0,985
15,6	16,1	15,85	323,13	1,550	0,929
16,6	17,1	16,85	310,19	1,615	0,970
17,6	18,1	17,85	215,41	2,380	0,964
18,6	19,1	18,85	294,41	1,700	0,974
19,6	20,1	19,85	333,13	1,500	0,884
20,6	21,1	20,85	309,22	1,620	0,955

PROVA PENETROMETRICA STATICA
CPTm 1
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

2.010496-053

- committente :	A.I.Po	- data :	09/03/2018
- lavoro :	PC-E-810	- quota inizio :	Sommità arginale
- località :	Villanova d'Arda (PC)	- prof. falda :	9,30 m da quota inizio
- note :	Prelevato campione indisturbato da 2,20 a 2,80 m da p.c.		
		- pagina :	1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-	m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-
0,20	----	----	--	-----	----	9,20	121,0	154,0	121,0	3,20	38,0
0,40	----	----	--	0,80	----	9,40	109,0	157,0	109,0	2,53	43,0
0,60	20,0	32,0	20,0	0,47	43,0	9,60	103,0	141,0	103,0	2,93	35,0
0,80	23,0	30,0	23,0	0,60	38,0	9,80	85,0	129,0	85,0	1,67	51,0
1,00	22,0	31,0	22,0	0,60	37,0	10,00	78,0	103,0	78,0	1,80	43,0
1,20	11,0	20,0	11,0	1,07	10,0	10,20	85,0	112,0	85,0	2,20	39,0
1,40	22,0	38,0	22,0	0,87	25,0	10,40	76,0	109,0	76,0	1,67	46,0
1,60	19,0	32,0	19,0	0,80	24,0	10,60	110,0	135,0	110,0	2,53	43,0
1,80	17,0	29,0	17,0	0,67	25,0	10,80	111,0	149,0	111,0	5,47	20,0
2,00	19,0	29,0	19,0	0,47	41,0	11,00	109,0	191,0	109,0	1,73	63,0
2,20	17,0	24,0	17,0	0,53	32,0	11,20	100,0	126,0	100,0	2,13	47,0
2,40	7,0	15,0	7,0	0,47	15,0	11,40	94,0	126,0	94,0	2,07	45,0
2,60	8,0	15,0	8,0	0,53	15,0	11,60	89,0	120,0	89,0	2,00	44,0
2,80	14,0	22,0	14,0	0,40	35,0	11,80	66,0	96,0	66,0	1,60	41,0
3,00	17,0	23,0	17,0	1,00	17,0	12,00	64,0	88,0	64,0	1,53	42,0
3,20	19,0	34,0	19,0	1,07	18,0	12,20	61,0	84,0	61,0	2,20	28,0
3,40	16,0	32,0	16,0	1,47	11,0	12,40	84,0	117,0	84,0	1,40	60,0
3,60	16,0	38,0	16,0	1,53	10,0	12,60	115,0	136,0	115,0	1,93	59,0
3,80	20,0	43,0	20,0	1,47	14,0	12,80	109,0	138,0	109,0	2,13	51,0
4,00	19,0	41,0	19,0	1,40	14,0	13,00	140,0	172,0	140,0	2,27	62,0
4,20	18,0	39,0	18,0	1,40	13,0	13,20	123,0	157,0	123,0	1,73	71,0
4,40	17,0	38,0	17,0	1,40	12,0	13,40	120,0	146,0	120,0	3,00	40,0
4,60	20,0	41,0	20,0	1,53	13,0	13,60	129,0	174,0	129,0	0,93	138,0
4,80	29,0	52,0	29,0	2,20	13,0	13,80	175,0	189,0	175,0	1,33	131,0
5,00	48,0	81,0	48,0	1,27	38,0	14,00	154,0	174,0	154,0	2,27	68,0
5,20	27,0	46,0	27,0	1,47	18,0	14,20	138,0	172,0	138,0	2,13	65,0
5,40	36,0	58,0	36,0	1,80	20,0	14,40	128,0	160,0	128,0	1,67	77,0
5,60	39,0	66,0	39,0	1,93	20,0	14,60	135,0	160,0	135,0	2,67	51,0
5,80	39,0	68,0	39,0	2,07	19,0	14,80	130,0	170,0	130,0	1,27	103,0
6,00	44,0	75,0	44,0	1,67	26,0	15,00	134,0	153,0	134,0	2,07	65,0
6,20	41,0	66,0	41,0	1,53	27,0	15,20	124,0	155,0	124,0	1,87	66,0
6,40	30,0	53,0	30,0	1,20	25,0	15,40	140,0	168,0	140,0	1,00	140,0
6,60	41,0	59,0	41,0	1,27	32,0	15,60	187,0	202,0	187,0	1,53	122,0
6,80	54,0	73,0	54,0	1,13	48,0	15,80	175,0	198,0	175,0	0,80	219,0
7,00	32,0	49,0	32,0	0,60	53,0	16,00	159,0	171,0	159,0	1,53	104,0
7,20	17,0	26,0	17,0	1,73	10,0	16,20	149,0	172,0	149,0	2,40	62,0
7,40	26,0	52,0	26,0	1,07	24,0	16,40	81,0	117,0	81,0	2,00	40,0
7,60	86,0	102,0	86,0	1,60	54,0	16,60	71,0	101,0	71,0	1,33	53,0
7,80	104,0	128,0	104,0	2,67	39,0	16,80	115,0	135,0	115,0	1,33	86,0
8,00	97,0	137,0	97,0	2,13	45,0	17,00	124,0	144,0	124,0	1,93	64,0
8,20	136,0	168,0	136,0	3,00	45,0	17,20	139,0	168,0	139,0	0,40	347,0
8,40	132,0	177,0	132,0	3,13	42,0	17,40	187,0	193,0	187,0	0,93	200,0
8,60	124,0	171,0	124,0	2,33	53,0	17,60	157,0	171,0	157,0	1,80	87,0
8,80	137,0	172,0	137,0	2,60	53,0	17,80	143,0	170,0	143,0	1,13	126,0
9,00	123,0	162,0	123,0	2,20	56,0	18,00	153,0	170,0	153,0	-----	----

- PENETROMETRO STATICO tipo GOUDA da 10 t - (con anello allargatore) -
- COSTANTE DI TRASFORMAZIONE Ct = 10 - Velocità Avanzamento punta 2 cm/s
- punta meccanica tipo Begemann \varnothing = 35.7 mm (area punta 10 cm² - apertura 60°)
- manicotto laterale (superficie 150 cm²)

LEGENDA VALORI DI RESISTENZA

Strumento utilizzato:

PENETROMETRO STATICO OLANDESE tipo GOUDA (tipo meccanico).

Caratteristiche:

- punta conica meccanica $\varnothing 35.7$ mm, angolo di apertura $\alpha = 60^\circ$ - (area punta $A_p = 10 \text{ cm}^2$)
- manicotto laterale di attrito tipo 'Begemann' ($\varnothing 35.7$ mm - h 133 mm - sup. lat. Am. = 150 cm^2)
- velocità di avanzamento costante $V = 2 \text{ cm / sec}$ ($\pm 0,5 \text{ cm / sec}$)
- spinta max nominale dello strumento S_{max} variabile a seconda del tipo
- costante di trasformazione (lett. \Rightarrow Spinta) $C_t = \text{SPINTA (Kg)} / \text{LETTURA DI CAMPAGNA}$

fase 1 - resistenza alla punta $R_p \text{ (Kg / cm}^2 \text{)} = (\text{L. punta}) C_t / 10$

fase 2 - resistenza laterale locale $R_L \text{ (Kg / cm}^2 \text{)} = [(\text{L. laterale}) - (\text{L. punta})] C_t / 150$

fase 3 - resistenza totale $R_t \text{ (Kg)} = (\text{L. totale}) C_t$

$R_p / R_L = \text{'rapporto Begemann'}$

- L. punta = lettura di campagna durante l' infissione della sola punta (fase 1)
- L. laterale = lettura di campagna relativa all'infissione di punta e manicotto (fase 2)
- L. totale = lettura di campagna relativa all'infissione delle aste esterne (fase 3)

N.B. : la spinta $S \text{ (Kg)}$, corrispondente a ciascuna fase, si ottiene moltiplicando la corrispondente lettura di campagna L per la costante di trasformazione C_t .

N.B. : causa la distanza intercorrente (20 cm circa) fra il manicotto laterale e la punta conica del penetrometro, la resistenza laterale locale R_L viene computata 20 cm sopra la punta.

CONVERSIONI

$1 \text{ kN (kiloNewton)} = 1000 \text{ N} \approx 100 \text{ kg} = 0,1 \text{ t}$ - $1 \text{ MN (megaNewton)} = 1000 \text{ kN} = 1000000 \text{ N} \approx 100 \text{ t}$

$1 \text{ kPa (kiloPascal)} = 1 \text{ kN/m}^2 = 0,001 \text{ MN/m}^2 = 0,001 \text{ MPa} \approx 0,1 \text{ t/m}^2 = 0,01 \text{ kg/cm}^2$

$1 \text{ MPa (MegaPascal)} = 1 \text{ MN/m}^2 = 1000 \text{ kN/m}^2 = 1000 \text{ kPa} \approx 100 \text{ t / m}^2 = 10 \text{ kg/cm}^2$

$\text{kg/cm}^2 = 10 \text{ t/m}^2 \approx 100 \text{ kN/m}^2 = 100 \text{ kPa} = 0,1 \text{ MN/m}^2 = 0,1 \text{ Mpa}$

$1 \text{ t} = 1000 \text{ kg} \approx 10 \text{ kN}$

LEGENDA VALUTAZIONI LITOLOGICHE

Valutazioni in base al rapporto: **$F = (R_p / R_L)$**

(Begemann 1965 - Raccomandazioni A.G.I. 1977)

valide in via approssimata per terreni immersi in falda :

$F = R_p / R_L$	NATURA LITOLOGICA	PROPRIETA'
$F < 15$	TORBE ED ARGILLE ORGANICHE	COESIVE
$15 < F \leq 30$	LIMI ED ARGILLE	COESIVE
$30 < F \leq 60$	LIMI SABBIOSI E SABBIE LIMOSE	GRANULARI
$F > 60$	SABBIE E SABBIE CON GHIAIA	GRANULARI

Vengono inoltre riportate le valutazioni stratigrafiche fornite da Schmertmann (1978), ricavabili in base ai valori di R_p e di $FR = (R_L / R_p) \% :$

- AO = argilla organica e terreni misti
- Att = argilla (inorganica) molto tenera
- At = argilla (inorganica) tenera
- Am = argilla (inorganica) di media consistenza
- Ac = argilla (inorganica) consistente
- Acc = argilla (inorganica) molto consistente
- ASL = argilla sabbiosa e limosa
- SAL = sabbia e limo / sabbia e limo argilloso
- Ss = sabbia sciolta
- Sm = sabbia mediamente addensata
- Sd = sabbia densa o cementata
- SC = sabbia con molti fossili, calcareniti

Secondo Schmertmann il valore della resistenza laterale da usarsi, dovrebbe essere pari a:

- $1/3 \pm 1/2$ di quello misurato , per depositi sabbiosi
- quello misurato (inalterato) , per depositi coesivi.

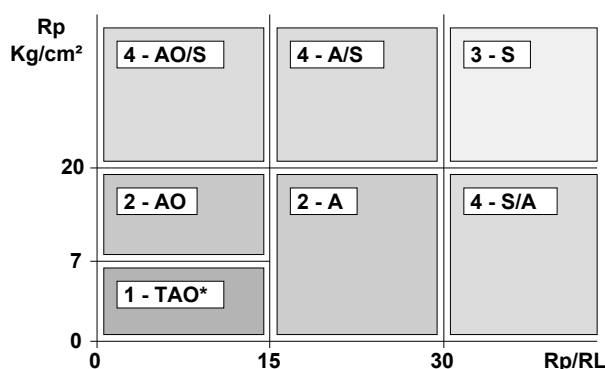
LEGENDA PARAMETRI GEOTECNICI

SCELTE LITOLOGICHE (validità orientativa)

Le scelte litologiche vengono effettuate in base al rapporto R_p / R_L
(Begemann 1965 -Raccomandazioni A.G.I. 1977), prevedendo altresì la possibilità di casi dubbi :

$R_p \leq 20 \text{ kg/cm}^2$: possibili terreni COESIVI anche se $(R_p / R_L) > 30$

$R_p \geq 20 \text{ kg/cm}^2$: possibili terreni GRANULARI anche se $(R_p / R_L) < 30$



NATURA LITOLOGICA

- 1 - COESIVA (TORBOSA) ALTA COMPRIMIBILITA'
- 2 - COESIVA IN GENERE
- 3 - GRANULARE
- 4 - COESIVA / GRANULARE

PARAMETRI GEOTECNICI (validità orientativa) - simboli - correlazioni - bibliografia

- γ' = peso dell' unità di volume (efficace) del terreno [correlazioni : γ' - R_p - natura]
(Terzaghi & Peck 1967 -Bowles 1982)
- σ'_{vo} = tensione verticale geostatica (efficace) del terreno (valutata in base ai valori di γ')
- C_u = coesione non drenata (terreni coesivi) [correlazioni : C_u - R_p]
- OCR = grado di sovra consolidazione (terreni coesivi) [correlazioni : OCR - C_u - σ'_{vo}]
(Ladd et al. 1972 / 1974 / 1977 - Lancellotta 1983)
- E_u = modulo di deformazione non drenato (terr.coes.) [correl. : E_u - C_u - OCR - I_p I_p = ind.plast.]
 E_{u50} - E_{u25} corrispondono rispettivamente ad un grado di mobilitazione dello sforzo deviatorico pari al 50-25% (Duncan & Buchigani 1976)
- E' = modulo di deformazione drenato (terreni granulari) [correlazioni : E' - R_p]
 E'_{50} - E'_{25} corrispondono rispettivamente ad un grado di mobilitazione dello sforzo deviatorico pari al 50-25% (coeff. di sicurezza $F = 2 - 4$ rispettivamente)
(Schmertmann 1970 / 1978 - Jamiolkowski et al. 1983)
- M_o = modulo di deformazione edometrico (terreni coesivi e granulari) [correl. : M_o - R_p - natura]
(Sanglerat 1972 - Mitchell & Gardner 1975 - Ricceri et al. 1974 - Holden 1973)
- D_r = densità relativa (terreni gran. N. C. - normalmente consolidati)
[correlazioni : D_r - R_p - σ'_{vo}] (Schmertmann 1976)
- ϕ' = angolo di attrito interno efficace (terreni granulari N.C.) [correl. : ϕ' - D_r - R_p - σ'_{vo}]
(Schmertmann 1978 - Durgunoglu & Mitchell 1975 - Meyerhof 1956 / 1976)
 ϕ'_{1s} - (Schmertmann) sabbia fine uniforme ϕ'_{2s} - sabbia media unif./ fine ben gradata
 ϕ'_{3s} - sabbia grossa unif./ media ben gradata ϕ'_{4s} - sabbia-ghiaia poco lim./ ghiaietto unif.
 ϕ'_{dm} - (Durgunoglu & Mitchell) sabbie N.C. ϕ'_{my} - (Meyerhof) sabbie limose
- A_{max} = accelerazione al suolo che può causare liquefazione (terreni granulari)
(g = acc.gravità)(Seed & Idriss 1971 - Sirio 1976) [correlazioni : (A_{max}/g) - D_r]

PROVA PENETROMETRICA STATICA
CPTm 2
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)
- note :

- data : 08/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,50 m da quota inizio
- pagina : 1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-	m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-
0,20	----	----	--	-----	----	9,40	174,0	222,0	174,0	3,47	50,0
0,40	----	----	--	1,00	----	9,60	139,0	191,0	139,0	2,40	58,0
0,60	28,0	43,0	28,0	1,47	19,0	9,80	122,0	158,0	122,0	3,67	33,0
0,80	21,0	43,0	21,0	1,33	16,0	10,00	126,0	181,0	126,0	2,13	59,0
1,00	15,0	35,0	15,0	1,33	11,0	10,20	147,0	179,0	147,0	2,13	69,0
1,20	20,0	40,0	20,0	0,40	50,0	10,40	155,0	187,0	155,0	2,07	75,0
1,40	25,0	31,0	25,0	1,60	16,0	10,60	178,0	209,0	178,0	1,40	127,0
1,60	23,0	47,0	23,0	0,93	25,0	10,80	178,0	199,0	178,0	3,73	48,0
1,80	15,0	29,0	15,0	0,93	16,0	11,00	104,0	160,0	104,0	1,87	56,0
2,00	15,0	29,0	15,0	0,73	20,0	11,20	110,0	138,0	110,0	2,40	46,0
2,20	20,0	31,0	20,0	0,93	21,0	11,40	126,0	162,0	126,0	3,07	41,0
2,40	25,0	39,0	25,0	1,80	14,0	11,60	102,0	148,0	102,0	2,80	36,0
2,60	21,0	48,0	21,0	1,67	13,0	11,80	160,0	202,0	160,0	0,93	171,0
2,80	20,0	45,0	20,0	1,60	12,0	12,00	184,0	198,0	184,0	1,13	162,0
3,00	20,0	44,0	20,0	1,40	14,0	12,20	153,0	170,0	153,0	2,33	66,0
3,20	17,0	38,0	17,0	1,67	10,0	12,40	146,0	181,0	146,0	3,00	49,0
3,40	19,0	44,0	19,0	1,73	11,0	12,60	127,0	172,0	127,0	0,87	147,0
3,60	24,0	50,0	24,0	1,80	13,0	12,80	178,0	191,0	178,0	1,07	167,0
3,80	25,0	52,0	25,0	2,13	12,0	13,00	158,0	174,0	158,0	1,20	132,0
4,00	28,0	60,0	28,0	2,13	13,0	13,20	177,0	195,0	177,0	2,53	70,0
4,20	26,0	58,0	26,0	3,00	9,0	13,40	137,0	175,0	137,0	3,13	44,0
4,40	30,0	75,0	30,0	2,07	15,0	13,60	119,0	166,0	119,0	1,93	62,0
4,60	31,0	62,0	31,0	2,13	15,0	13,80	133,0	162,0	133,0	0,93	142,0
4,80	122,0	154,0	122,0	2,40	51,0	14,00	178,0	192,0	178,0	1,53	116,0
5,00	64,0	100,0	64,0	2,73	23,0	14,20	168,0	191,0	168,0	1,53	110,0
5,20	67,0	108,0	67,0	3,67	18,0	14,40	156,0	179,0	156,0	2,27	69,0
5,40	73,0	128,0	73,0	4,53	16,0	14,60	242,0	276,0	242,0	2,27	107,0
5,60	58,0	126,0	58,0	3,60	16,0	14,80	244,0	278,0	244,0	1,40	174,0
5,80	65,0	119,0	65,0	1,93	34,0	15,00	222,0	243,0	222,0	1,40	159,0
6,00	80,0	109,0	80,0	1,93	41,0	15,20	218,0	239,0	218,0	3,47	63,0
6,20	68,0	97,0	68,0	1,73	39,0	15,40	116,0	168,0	116,0	3,93	29,0
6,40	76,0	102,0	76,0	1,67	46,0	15,60	92,0	151,0	92,0	2,73	34,0
6,60	55,0	80,0	55,0	2,47	22,0	15,80	98,0	139,0	98,0	2,80	35,0
6,80	101,0	138,0	101,0	2,80	36,0	16,00	101,0	143,0	101,0	2,73	37,0
7,00	116,0	158,0	116,0	2,73	42,0	16,20	108,0	149,0	108,0	2,87	38,0
7,20	118,0	159,0	118,0	2,60	45,0	16,40	119,0	162,0	119,0	1,33	89,0
7,40	129,0	168,0	129,0	2,87	45,0	16,60	148,0	168,0	148,0	1,60	92,0
7,60	145,0	188,0	145,0	2,40	60,0	16,80	154,0	178,0	154,0	1,07	144,0
7,80	169,0	205,0	169,0	3,00	56,0	17,00	165,0	181,0	165,0	1,27	130,0
8,00	153,0	198,0	153,0	4,00	38,0	17,20	164,0	183,0	164,0	0,87	189,0
8,20	129,0	189,0	129,0	2,00	64,0	17,40	205,0	218,0	205,0	0,67	307,0
8,40	195,0	225,0	195,0	1,73	112,0	17,60	225,0	235,0	225,0	0,80	281,0
8,60	189,0	215,0	189,0	3,87	49,0	17,80	184,0	196,0	184,0	1,07	172,0
8,80	155,0	213,0	155,0	0,33	465,0	18,00	182,0	198,0	182,0	1,40	130,0
9,00	188,0	193,0	188,0	0,53	352,0	18,20	246,0	267,0	246,0	2,33	105,0
9,20	200,0	208,0	200,0	3,20	62,0	18,40	200,0	235,0	200,0	-----	----

- PENETROMETRO STATICO tipo GOUDA da 10 t - (con anello allargatore) -
- COSTANTE DI TRASFORMAZIONE Ct = 10 - Velocità Avanzamento punta 2 cm/s
- punta meccanica tipo Begemann ø = 35.7 mm (area punta 10 cm² - apertura 60°)
- manicotto laterale (superficie 150 cm²)

PROVA PENETROMETRICA STATICA
CPTm 3
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)
- note :

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,80 m da quota inizio
- pagina : 1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-	m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-
0,20	----	----	--	-----	----	9,20	158,0	210,0	158,0	2,53	62,0
0,40	----	----	--	0,80	----	9,40	145,0	183,0	145,0	1,47	99,0
0,60	41,0	53,0	41,0	0,93	44,0	9,60	172,0	194,0	172,0	1,07	161,0
0,80	27,0	41,0	27,0	1,13	24,0	9,80	173,0	189,0	173,0	1,73	100,0
1,00	15,0	32,0	15,0	0,53	28,0	10,00	168,0	194,0	168,0	1,47	115,0
1,20	8,0	16,0	8,0	0,47	17,0	10,20	180,0	202,0	180,0	1,93	93,0
1,40	7,0	14,0	7,0	0,53	13,0	10,40	126,0	155,0	126,0	1,47	86,0
1,60	18,0	26,0	18,0	2,07	9,0	10,60	148,0	170,0	148,0	0,33	444,0
1,80	67,0	98,0	67,0	1,93	35,0	10,80	178,0	183,0	178,0	1,93	92,0
2,00	49,0	78,0	49,0	3,00	16,0	11,00	128,0	157,0	128,0	2,27	56,0
2,20	30,0	75,0	30,0	1,20	25,0	11,20	146,0	180,0	146,0	0,67	219,0
2,40	33,0	51,0	33,0	1,73	19,0	11,40	180,0	190,0	180,0	0,67	270,0
2,60	41,0	67,0	41,0	1,47	28,0	11,60	192,0	202,0	192,0	0,80	240,0
2,80	59,0	81,0	59,0	1,73	34,0	11,80	186,0	198,0	186,0	0,53	349,0
3,00	58,0	84,0	58,0	1,53	38,0	12,00	179,0	187,0	179,0	2,53	71,0
3,20	46,0	69,0	46,0	2,87	16,0	12,20	119,0	157,0	119,0	2,53	47,0
3,40	59,0	102,0	59,0	3,80	16,0	12,40	150,0	188,0	150,0	2,00	75,0
3,60	56,0	113,0	56,0	4,27	13,0	12,60	122,0	152,0	122,0	1,07	114,0
3,80	55,0	119,0	55,0	4,13	13,0	12,80	149,0	165,0	149,0	1,67	89,0
4,00	78,0	140,0	78,0	5,60	14,0	13,00	155,0	180,0	155,0	2,87	54,0
4,20	61,0	145,0	61,0	4,00	15,0	13,20	131,0	174,0	131,0	1,80	73,0
4,40	109,0	169,0	109,0	2,87	38,0	13,40	158,0	185,0	158,0	2,73	58,0
4,60	101,0	144,0	101,0	1,67	61,0	13,60	122,0	163,0	122,0	2,53	48,0
4,80	69,0	94,0	69,0	2,40	29,0	13,80	120,0	158,0	120,0	2,13	56,0
5,00	76,0	112,0	76,0	1,60	47,0	14,00	108,0	140,0	108,0	1,87	58,0
5,20	66,0	90,0	66,0	1,60	41,0	14,20	112,0	140,0	112,0	2,40	47,0
5,40	78,0	102,0	78,0	1,67	47,0	14,40	104,0	140,0	104,0	2,33	45,0
5,60	75,0	100,0	75,0	1,47	51,0	14,60	103,0	138,0	103,0	1,80	57,0
5,80	73,0	95,0	73,0	1,60	46,0	14,80	111,0	138,0	111,0	1,67	67,0
6,00	67,0	91,0	67,0	1,40	48,0	15,00	119,0	144,0	119,0	1,27	94,0
6,20	94,0	115,0	94,0	1,93	49,0	15,20	154,0	173,0	154,0	1,93	80,0
6,40	76,0	105,0	76,0	1,73	44,0	15,40	138,0	167,0	138,0	1,80	77,0
6,60	64,0	90,0	64,0	1,47	44,0	15,60	132,0	159,0	132,0	1,73	76,0
6,80	67,0	89,0	67,0	1,87	36,0	15,80	132,0	158,0	132,0	2,47	54,0
7,00	98,0	126,0	98,0	1,73	57,0	16,00	113,0	150,0	113,0	1,53	74,0
7,20	91,0	117,0	91,0	1,93	47,0	16,20	120,0	143,0	120,0	0,67	180,0
7,40	96,0	125,0	96,0	2,47	39,0	16,40	168,0	178,0	168,0	2,47	68,0
7,60	101,0	138,0	101,0	2,33	43,0	16,60	143,0	180,0	143,0	0,13	1072,0
7,80	117,0	152,0	117,0	1,67	70,0	16,80	178,0	180,0	178,0	0,47	381,0
8,00	122,0	147,0	122,0	2,20	55,0	17,00	195,0	202,0	195,0	1,33	146,0
8,20	152,0	185,0	152,0	2,40	63,0	17,20	220,0	240,0	220,0	1,47	150,0
8,40	175,0	211,0	175,0	2,53	69,0	17,40	180,0	202,0	180,0	1,27	142,0
8,60	177,0	215,0	177,0	0,80	221,0	17,60	178,0	197,0	178,0	1,33	133,0
8,80	194,0	206,0	194,0	1,67	116,0	17,80	180,0	200,0	180,0	1,87	96,0
9,00	184,0	209,0	184,0	3,47	53,0	18,00	179,0	207,0	179,0	-----	----

- PENETROMETRO STATICO tipo GOUDA da 10 t - (con anello allargatore) -
- COSTANTE DI TRASFORMAZIONE Ct = 10 - Velocità Avanzamento punta 2 cm/s
- punta meccanica tipo Begemann ø = 35.7 mm (area punta 10 cm² - apertura 60°)
- manicotto laterale (superficie 150 cm²)

PROVA PENETROMETRICA STATICA
CPTm 4
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,60 m da quota inizio
- pagina : 1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-	m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-
0,20	----	----	--	-----	----	9,40	144,0	184,0	144,0	2,47	58,0
0,40	----	----	--	0,93	----	9,60	160,0	197,0	160,0	2,07	77,0
0,60	21,0	35,0	21,0	1,33	16,0	9,80	148,0	179,0	148,0	2,33	63,0
0,80	13,0	33,0	13,0	1,07	12,0	10,00	163,0	198,0	163,0	1,40	116,0
1,00	10,0	26,0	10,0	0,47	21,0	10,20	189,0	210,0	189,0	1,93	98,0
1,20	14,0	21,0	14,0	0,47	30,0	10,40	163,0	192,0	163,0	2,67	61,0
1,40	12,0	19,0	12,0	0,60	20,0	10,60	135,0	175,0	135,0	2,00	68,0
1,60	13,0	22,0	13,0	0,73	18,0	10,80	150,0	180,0	150,0	1,80	83,0
1,80	15,0	26,0	15,0	1,20	12,0	11,00	123,0	150,0	123,0	1,93	64,0
2,00	17,0	35,0	17,0	1,47	12,0	11,20	104,0	133,0	104,0	1,27	82,0
2,20	59,0	81,0	59,0	1,73	34,0	11,40	143,0	162,0	143,0	2,27	63,0
2,40	62,0	88,0	62,0	2,13	29,0	11,60	145,0	179,0	145,0	2,00	72,0
2,60	54,0	86,0	54,0	2,87	19,0	11,80	138,0	168,0	138,0	1,87	74,0
2,80	51,0	94,0	51,0	3,13	16,0	12,00	120,0	148,0	120,0	1,80	67,0
3,00	56,0	103,0	56,0	3,27	17,0	12,20	123,0	150,0	123,0	1,73	71,0
3,20	53,0	102,0	53,0	3,13	17,0	12,40	107,0	133,0	107,0	1,73	62,0
3,40	63,0	110,0	63,0	3,73	17,0	12,60	103,0	129,0	103,0	2,00	52,0
3,60	52,0	108,0	52,0	4,00	13,0	12,80	118,0	148,0	118,0	1,40	84,0
3,80	49,0	109,0	49,0	3,80	13,0	13,00	138,0	159,0	138,0	1,80	77,0
4,00	43,0	100,0	43,0	3,40	13,0	13,20	133,0	160,0	133,0	1,53	87,0
4,20	43,0	94,0	43,0	3,53	12,0	13,40	170,0	193,0	170,0	1,13	150,0
4,40	44,0	97,0	44,0	2,60	17,0	13,60	180,0	197,0	180,0	1,13	159,0
4,60	57,0	96,0	57,0	1,53	37,0	13,80	170,0	187,0	170,0	1,60	106,0
4,80	64,0	87,0	64,0	2,60	25,0	14,00	163,0	187,0	163,0	1,33	122,0
5,00	65,0	104,0	65,0	1,47	44,0	14,20	166,0	186,0	166,0	1,53	108,0
5,20	116,0	138,0	116,0	2,00	58,0	14,40	149,0	172,0	149,0	0,80	186,0
5,40	84,0	114,0	84,0	2,80	30,0	14,60	186,0	198,0	186,0	0,93	199,0
5,60	78,0	120,0	78,0	1,93	40,0	14,80	175,0	189,0	175,0	1,40	125,0
5,80	85,0	114,0	85,0	1,87	46,0	15,00	138,0	159,0	138,0	2,73	50,0
6,00	84,0	112,0	84,0	2,07	41,0	15,20	107,0	148,0	107,0	1,53	70,0
6,20	104,0	135,0	104,0	2,07	50,0	15,40	132,0	155,0	132,0	2,00	66,0
6,40	81,0	112,0	81,0	1,87	43,0	15,60	109,0	139,0	109,0	1,33	82,0
6,60	75,0	103,0	75,0	1,33	56,0	15,80	93,0	113,0	93,0	1,87	50,0
6,80	60,0	80,0	60,0	1,47	41,0	16,00	114,0	142,0	114,0	1,53	74,0
7,00	83,0	105,0	83,0	1,53	54,0	16,20	137,0	160,0	137,0	1,00	137,0
7,20	77,0	100,0	77,0	1,47	52,0	16,40	180,0	195,0	180,0	1,73	104,0
7,40	84,0	106,0	84,0	2,40	35,0	16,60	148,0	174,0	148,0	1,53	97,0
7,60	92,0	128,0	92,0	1,93	48,0	16,80	112,0	135,0	112,0	1,73	65,0
7,80	109,0	138,0	109,0	1,87	58,0	17,00	118,0	144,0	118,0	1,53	77,0
8,00	130,0	158,0	130,0	2,00	65,0	17,20	116,0	139,0	116,0	1,67	70,0
8,20	118,0	148,0	118,0	1,87	63,0	17,40	139,0	164,0	139,0	1,93	72,0
8,40	125,0	153,0	125,0	2,53	49,0	17,60	130,0	159,0	130,0	2,07	63,0
8,60	140,0	178,0	140,0	1,73	81,0	17,80	124,0	155,0	124,0	1,53	81,0
8,80	165,0	191,0	165,0	2,33	71,0	18,00	95,0	118,0	95,0	1,13	84,0
9,00	154,0	189,0	154,0	2,60	59,0	18,20	85,0	102,0	85,0	1,40	61,0
9,20	163,0	202,0	163,0	2,67	61,0	18,40	80,0	101,0	80,0	-----	-----

- PENETROMETRO STATICO tipo GOUDA da 10 t - (con anello allargatore) -
- COSTANTE DI TRASFORMAZIONE Ct = 10 - Velocità Avanzamento punta 2 cm/s
- punta meccanica tipo Begemann ø = 35.7 mm (area punta 10 cm² - apertura 60°)
- manicotto laterale (superficie 150 cm²)

PROVA PENETROMETRICA STATICA
CPTm 5
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,20 m da quota inizio
- pagina : 1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-	m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-
0,20	----	----	--	-----	----	9,40	69,0	116,0	69,0	2,53	27,0
0,40	----	----	--	0,93	----	9,60	98,0	136,0	98,0	2,07	47,0
0,60	16,0	30,0	16,0	0,87	18,0	9,80	132,0	163,0	132,0	1,40	94,0
0,80	14,0	27,0	14,0	1,40	10,0	10,00	128,0	149,0	128,0	2,13	60,0
1,00	28,0	49,0	28,0	1,27	22,0	10,20	108,0	140,0	108,0	2,13	51,0
1,20	89,0	108,0	89,0	2,20	40,0	10,40	124,0	156,0	124,0	2,33	53,0
1,40	72,0	105,0	72,0	3,33	22,0	10,60	130,0	165,0	130,0	2,27	57,0
1,60	70,0	120,0	70,0	2,13	33,0	10,80	135,0	169,0	135,0	2,80	48,0
1,80	50,0	82,0	50,0	1,93	26,0	11,00	90,0	132,0	90,0	3,00	30,0
2,00	56,0	85,0	56,0	3,13	18,0	11,20	88,0	133,0	88,0	2,20	40,0
2,20	57,0	104,0	57,0	2,60	22,0	11,40	116,0	149,0	116,0	1,47	79,0
2,40	60,0	99,0	60,0	2,80	21,0	11,60	98,0	120,0	98,0	2,67	37,0
2,60	59,0	101,0	59,0	2,00	30,0	11,80	95,0	135,0	95,0	3,13	30,0
2,80	54,0	84,0	54,0	2,60	21,0	12,00	78,0	125,0	78,0	2,67	29,0
3,00	43,0	82,0	43,0	2,07	21,0	12,20	84,0	124,0	84,0	1,60	52,0
3,20	43,0	74,0	43,0	2,60	17,0	12,40	172,0	196,0	172,0	2,67	64,0
3,40	45,0	84,0	45,0	3,33	14,0	12,60	152,0	192,0	152,0	0,93	163,0
3,60	58,0	108,0	58,0	4,87	12,0	12,80	146,0	160,0	146,0	2,87	51,0
3,80	45,0	118,0	45,0	4,53	10,0	13,00	99,0	142,0	99,0	2,47	40,0
4,00	53,0	121,0	53,0	4,93	11,0	13,20	119,0	156,0	119,0	2,87	42,0
4,20	44,0	118,0	44,0	4,93	9,0	13,40	107,0	150,0	107,0	3,00	36,0
4,40	82,0	156,0	82,0	4,27	19,0	13,60	110,0	155,0	110,0	2,80	39,0
4,60	70,0	134,0	70,0	2,73	26,0	13,80	104,0	146,0	104,0	2,87	36,0
4,80	64,0	105,0	64,0	2,47	26,0	14,00	85,0	128,0	85,0	2,73	31,0
5,00	61,0	98,0	61,0	1,60	38,0	14,20	84,0	125,0	84,0	2,67	31,0
5,20	48,0	72,0	48,0	1,67	29,0	14,40	86,0	126,0	86,0	2,73	31,0
5,40	49,0	74,0	49,0	1,53	32,0	14,60	80,0	121,0	80,0	2,73	29,0
5,60	52,0	75,0	52,0	1,47	35,0	14,80	74,0	115,0	74,0	2,67	28,0
5,80	76,0	98,0	76,0	2,00	38,0	15,00	74,0	114,0	74,0	2,07	36,0
6,00	68,0	98,0	68,0	1,87	36,0	15,20	89,0	120,0	89,0	1,73	51,0
6,20	52,0	80,0	52,0	1,27	41,0	15,40	122,0	148,0	122,0	2,73	45,0
6,40	77,0	96,0	77,0	2,00	38,0	15,60	98,0	139,0	98,0	2,60	38,0
6,60	60,0	90,0	60,0	1,87	32,0	15,80	96,0	135,0	96,0	1,60	60,0
6,80	61,0	89,0	61,0	1,20	51,0	16,00	116,0	140,0	116,0	2,27	51,0
7,00	88,0	106,0	88,0	2,13	41,0	16,20	116,0	150,0	116,0	2,73	42,0
7,20	94,0	126,0	94,0	2,33	40,0	16,40	104,0	145,0	104,0	2,73	38,0
7,40	100,0	135,0	100,0	2,40	42,0	16,60	93,0	134,0	93,0	2,93	32,0
7,60	109,0	145,0	109,0	2,07	53,0	16,80	79,0	123,0	79,0	1,93	41,0
7,80	99,0	130,0	99,0	2,40	41,0	17,00	85,0	114,0	85,0	2,87	30,0
8,00	60,0	96,0	60,0	1,33	45,0	17,20	41,0	84,0	41,0	1,53	27,0
8,20	50,0	70,0	50,0	0,73	68,0	17,40	148,0	171,0	148,0	1,20	123,0
8,40	69,0	80,0	69,0	1,53	45,0	17,60	150,0	168,0	150,0	2,20	68,0
8,60	74,0	97,0	74,0	2,00	37,0	17,80	140,0	173,0	140,0	1,73	81,0
8,80	80,0	110,0	80,0	1,87	43,0	18,00	129,0	155,0	129,0	0,73	176,0
9,00	68,0	96,0	68,0	1,73	39,0	18,20	136,0	147,0	136,0	-----	----
9,20	64,0	90,0	64,0	3,13	20,0						

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

PROVA PENETROMETRICA STATICA
CPTm 6
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,30 m da quota inizio
- pagina : 1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-	m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-
0,20	----	----	--	-----	----	9,20	117,0	156,0	117,0	2,87	41,0
0,40	----	----	--	1,67	----	9,40	129,0	172,0	129,0	3,00	43,0
0,60	18,0	43,0	18,0	1,53	12,0	9,60	125,0	170,0	125,0	3,20	39,0
0,80	19,0	42,0	19,0	1,13	17,0	9,80	117,0	165,0	117,0	2,53	46,0
1,00	13,0	30,0	13,0	0,80	16,0	10,00	110,0	148,0	110,0	2,27	49,0
1,20	14,0	26,0	14,0	0,67	21,0	10,20	119,0	153,0	119,0	2,40	50,0
1,40	13,0	23,0	13,0	0,60	22,0	10,40	127,0	163,0	127,0	2,07	61,0
1,60	14,0	23,0	14,0	1,00	14,0	10,60	114,0	145,0	114,0	2,53	45,0
1,80	16,0	31,0	16,0	0,93	17,0	10,80	118,0	156,0	118,0	2,60	45,0
2,00	15,0	29,0	15,0	0,73	20,0	11,00	85,0	124,0	85,0	1,93	44,0
2,20	14,0	25,0	14,0	0,67	21,0	11,20	106,0	135,0	106,0	2,13	50,0
2,40	13,0	23,0	13,0	0,67	19,0	11,40	108,0	140,0	108,0	2,60	42,0
2,60	17,0	27,0	17,0	0,53	32,0	11,60	86,0	125,0	86,0	3,40	25,0
2,80	18,0	26,0	18,0	0,87	21,0	11,80	68,0	119,0	68,0	2,20	31,0
3,00	17,0	30,0	17,0	1,27	13,0	12,00	135,0	168,0	135,0	2,20	61,0
3,20	14,0	33,0	14,0	1,07	13,0	12,20	117,0	150,0	117,0	1,00	117,0
3,40	22,0	38,0	22,0	1,33	16,0	12,40	166,0	181,0	166,0	2,40	69,0
3,60	16,0	36,0	16,0	1,07	15,0	12,60	99,0	135,0	99,0	1,40	71,0
3,80	23,0	39,0	23,0	1,27	18,0	12,80	132,0	153,0	132,0	2,20	60,0
4,00	27,0	46,0	27,0	1,27	21,0	13,00	96,0	129,0	96,0	2,93	33,0
4,20	20,0	39,0	20,0	1,47	14,0	13,20	79,0	123,0	79,0	1,80	44,0
4,40	20,0	42,0	20,0	1,00	20,0	13,40	116,0	143,0	116,0	2,40	48,0
4,60	23,0	38,0	23,0	1,07	22,0	13,60	80,0	116,0	80,0	2,53	32,0
4,80	25,0	41,0	25,0	0,87	29,0	13,80	71,0	109,0	71,0	1,87	38,0
5,00	18,0	31,0	18,0	0,80	22,0	14,00	67,0	95,0	67,0	1,67	40,0
5,20	17,0	29,0	17,0	0,67	25,0	14,20	70,0	95,0	70,0	2,60	27,0
5,40	23,0	33,0	23,0	1,47	16,0	14,40	99,0	138,0	99,0	0,93	106,0
5,60	16,0	38,0	16,0	0,73	22,0	14,60	98,0	112,0	98,0	2,07	47,0
5,80	14,0	25,0	14,0	0,73	19,0	14,80	101,0	132,0	101,0	1,47	69,0
6,00	14,0	25,0	14,0	2,47	6,0	15,00	112,0	134,0	112,0	2,47	45,0
6,20	39,0	76,0	39,0	1,00	39,0	15,20	100,0	137,0	100,0	1,87	54,0
6,40	15,0	30,0	15,0	1,20	12,0	15,40	97,0	125,0	97,0	1,80	54,0
6,60	14,0	32,0	14,0	0,93	15,0	15,60	87,0	114,0	87,0	1,87	47,0
6,80	12,0	26,0	12,0	1,27	9,0	15,80	87,0	115,0	87,0	2,07	42,0
7,00	24,0	43,0	24,0	0,80	30,0	16,00	88,0	119,0	88,0	1,87	47,0
7,20	35,0	47,0	35,0	1,73	20,0	16,20	88,0	116,0	88,0	2,13	41,0
7,40	68,0	94,0	68,0	1,73	39,0	16,40	117,0	149,0	117,0	2,07	57,0
7,60	49,0	75,0	49,0	1,93	25,0	16,60	147,0	178,0	147,0	2,40	61,0
7,80	65,0	94,0	65,0	1,40	46,0	16,80	198,0	234,0	198,0	1,27	156,0
8,00	38,0	59,0	38,0	2,60	15,0	17,00	213,0	232,0	213,0	2,53	84,0
8,20	48,0	87,0	48,0	1,53	31,0	17,20	172,0	210,0	172,0	3,27	53,0
8,40	82,0	105,0	82,0	2,00	41,0	17,40	165,0	214,0	165,0	1,13	146,0
8,60	72,0	102,0	72,0	2,20	33,0	17,60	187,0	204,0	187,0	3,13	60,0
8,80	84,0	117,0	84,0	2,40	35,0	17,80	132,0	179,0	132,0	3,40	39,0
9,00	89,0	125,0	89,0	2,60	34,0	18,00	127,0	178,0	127,0	-----	----

- PENETROMETRO STATICO tipo GOUDA da 10 t - (con anello allargatore) -
- COSTANTE DI TRASFORMAZIONE Ct = 10 - Velocità Avanzamento punta 2 cm/s
- punta meccanica tipo Begemann ϕ = 35.7 mm (area punta 10 cm² - apertura 60°)
- manicotto laterale (superficie 150 cm²)

PROVA PENETROMETRICA STATICA
CPTm 7
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,50 m da quota inizio
- pagina : 1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-	m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-
0,20	----	----	--	-----	----	9,20	89,0	106,0	89,0	2,33	38,0
0,40	----	----	--	2,93	----	9,40	68,0	103,0	68,0	1,47	46,0
0,60	159,0	203,0	159,0	1,33	119,0	9,60	66,0	88,0	66,0	1,73	38,0
0,80	116,0	136,0	116,0	3,60	32,0	9,80	63,0	89,0	63,0	0,93	67,0
1,00	44,0	98,0	44,0	1,87	24,0	10,00	159,0	173,0	159,0	2,47	64,0
1,20	22,0	50,0	22,0	1,40	16,0	10,20	109,0	146,0	109,0	2,93	37,0
1,40	38,0	59,0	38,0	1,07	36,0	10,40	96,0	140,0	96,0	1,13	85,0
1,60	28,0	44,0	28,0	0,73	38,0	10,60	137,0	154,0	137,0	1,87	73,0
1,80	17,0	28,0	17,0	0,87	20,0	10,80	168,0	196,0	168,0	2,13	79,0
2,00	26,0	39,0	26,0	0,47	56,0	11,00	132,0	164,0	132,0	2,00	66,0
2,20	38,0	45,0	38,0	1,53	25,0	11,20	115,0	145,0	115,0	1,67	69,0
2,40	35,0	58,0	35,0	1,67	21,0	11,40	129,0	154,0	129,0	2,07	62,0
2,60	37,0	62,0	37,0	0,73	50,0	11,60	130,0	161,0	130,0	1,53	85,0
2,80	35,0	46,0	35,0	1,33	26,0	11,80	113,0	136,0	113,0	1,53	74,0
3,00	38,0	58,0	38,0	1,53	25,0	12,00	117,0	140,0	117,0	2,27	52,0
3,20	35,0	58,0	35,0	2,07	17,0	12,20	78,0	112,0	78,0	2,67	29,0
3,40	39,0	70,0	39,0	1,67	23,0	12,40	61,0	101,0	61,0	1,60	38,0
3,60	32,0	57,0	32,0	1,60	20,0	12,60	84,0	108,0	84,0	2,27	37,0
3,80	38,0	62,0	38,0	1,53	25,0	12,80	70,0	104,0	70,0	1,40	50,0
4,00	44,0	67,0	44,0	1,13	39,0	13,00	60,0	81,0	60,0	1,67	36,0
4,20	49,0	66,0	49,0	2,60	19,0	13,20	59,0	84,0	59,0	1,47	40,0
4,40	64,0	103,0	64,0	4,87	13,0	13,40	94,0	116,0	94,0	1,00	94,0
4,60	45,0	118,0	45,0	4,20	11,0	13,60	135,0	150,0	135,0	1,00	135,0
4,80	99,0	162,0	99,0	4,40	22,0	13,80	118,0	133,0	118,0	2,93	40,0
5,00	53,0	119,0	53,0	3,33	16,0	14,00	70,0	114,0	70,0	2,40	29,0
5,20	45,0	95,0	45,0	3,33	14,0	14,20	65,0	101,0	65,0	1,93	34,0
5,40	38,0	88,0	38,0	2,00	19,0	14,40	102,0	131,0	102,0	3,07	33,0
5,60	33,0	63,0	33,0	1,87	18,0	14,60	124,0	170,0	124,0	2,20	56,0
5,80	31,0	59,0	31,0	1,80	17,0	14,80	135,0	168,0	135,0	2,20	61,0
6,00	28,0	55,0	28,0	1,87	15,0	15,00	131,0	164,0	131,0	2,33	56,0
6,20	42,0	70,0	42,0	2,13	20,0	15,20	122,0	157,0	122,0	2,73	45,0
6,40	45,0	77,0	45,0	2,20	20,0	15,40	60,0	101,0	60,0	2,40	25,0
6,60	48,0	81,0	48,0	1,80	27,0	15,60	75,0	111,0	75,0	2,07	36,0
6,80	55,0	82,0	55,0	1,00	55,0	15,80	108,0	139,0	108,0	2,53	43,0
7,00	62,0	77,0	62,0	1,60	39,0	16,00	92,0	130,0	92,0	2,07	45,0
7,20	72,0	96,0	72,0	1,87	39,0	16,20	131,0	162,0	131,0	0,53	246,0
7,40	65,0	93,0	65,0	1,93	34,0	16,40	189,0	197,0	189,0	0,87	218,0
7,60	67,0	96,0	67,0	1,87	36,0	16,60	189,0	202,0	189,0	1,80	105,0
7,80	68,0	96,0	68,0	2,20	31,0	16,80	125,0	152,0	125,0	2,73	46,0
8,00	79,0	112,0	79,0	2,13	37,0	17,00	90,0	131,0	90,0	2,80	32,0
8,20	116,0	148,0	116,0	1,60	72,0	17,20	48,0	90,0	48,0	1,53	31,0
8,40	85,0	109,0	85,0	2,47	34,0	17,40	69,0	92,0	69,0	2,40	29,0
8,60	58,0	95,0	58,0	1,07	54,0	17,60	124,0	160,0	124,0	1,13	109,0
8,80	83,0	99,0	83,0	2,07	40,0	17,80	113,0	130,0	113,0	2,60	43,0
9,00	96,0	127,0	96,0	1,13	85,0	18,00	57,0	96,0	57,0	-----	----

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

PROVA PENETROMETRICA STATICA
CPTm 8
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,50 m da quota inizio
- pagina : 1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-	m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-
0,20	----	----	--	-----	----	9,20	52,0	81,0	52,0	1,47	35,0
0,40	----	----	--	1,00	----	9,40	92,0	114,0	92,0	2,27	41,0
0,60	20,0	35,0	20,0	0,60	33,0	9,60	47,0	81,0	47,0	1,87	25,0
0,80	12,0	21,0	12,0	0,47	26,0	9,80	69,0	97,0	69,0	2,40	29,0
1,00	10,0	17,0	10,0	0,33	30,0	10,00	84,0	120,0	84,0	1,80	47,0
1,20	9,0	14,0	9,0	0,60	15,0	10,20	86,0	113,0	86,0	2,93	29,0
1,40	13,0	22,0	13,0	0,53	24,0	10,40	54,0	98,0	54,0	1,67	32,0
1,60	14,0	22,0	14,0	0,73	19,0	10,60	91,0	116,0	91,0	1,87	49,0
1,80	25,0	36,0	25,0	1,00	25,0	10,80	63,0	91,0	63,0	3,33	19,0
2,00	16,0	31,0	16,0	0,87	18,0	11,00	75,0	125,0	75,0	0,33	225,0
2,20	18,0	31,0	18,0	1,20	15,0	11,20	126,0	131,0	126,0	1,53	82,0
2,40	18,0	36,0	18,0	0,67	27,0	11,40	72,0	95,0	72,0	2,67	27,0
2,60	35,0	45,0	35,0	0,87	40,0	11,60	69,0	109,0	69,0	1,60	43,0
2,80	20,0	33,0	20,0	1,20	17,0	11,80	68,0	92,0	68,0	1,87	36,0
3,00	31,0	49,0	31,0	1,47	21,0	12,00	63,0	91,0	63,0	1,67	38,0
3,20	40,0	62,0	40,0	1,80	22,0	12,20	120,0	145,0	120,0	1,60	75,0
3,40	42,0	69,0	42,0	1,13	37,0	12,40	127,0	151,0	127,0	3,00	42,0
3,60	32,0	49,0	32,0	2,07	15,0	12,60	75,0	120,0	75,0	2,27	33,0
3,80	30,0	61,0	30,0	1,20	25,0	12,80	107,0	141,0	107,0	2,47	43,0
4,00	24,0	42,0	24,0	1,40	17,0	13,00	69,0	106,0	69,0	2,27	30,0
4,20	18,0	39,0	18,0	1,07	17,0	13,20	48,0	82,0	48,0	2,13	22,0
4,40	16,0	32,0	16,0	0,93	17,0	13,40	47,0	79,0	47,0	1,67	28,0
4,60	16,0	30,0	16,0	0,93	17,0	13,60	49,0	74,0	49,0	1,20	41,0
4,80	16,0	30,0	16,0	0,87	18,0	13,80	78,0	96,0	78,0	2,47	32,0
5,00	15,0	28,0	15,0	0,73	20,0	14,00	51,0	88,0	51,0	4,67	11,0
5,20	21,0	32,0	21,0	1,13	19,0	14,20	41,0	111,0	41,0	1,87	22,0
5,40	19,0	36,0	19,0	0,80	24,0	14,40	110,0	138,0	110,0	2,80	39,0
5,60	22,0	34,0	22,0	0,80	27,0	14,60	68,0	110,0	68,0	2,93	23,0
5,80	12,0	24,0	12,0	0,60	20,0	14,80	65,0	109,0	65,0	1,60	41,0
6,00	9,0	18,0	9,0	0,60	15,0	15,00	106,0	130,0	106,0	2,20	48,0
6,20	9,0	18,0	9,0	0,73	12,0	15,20	65,0	98,0	65,0	1,80	36,0
6,40	10,0	21,0	10,0	1,80	6,0	15,40	71,0	98,0	71,0	1,73	41,0
6,60	35,0	62,0	35,0	1,47	24,0	15,60	76,0	102,0	76,0	2,07	37,0
6,80	78,0	100,0	78,0	1,73	45,0	15,80	107,0	138,0	107,0	2,07	52,0
7,00	74,0	100,0	74,0	2,47	30,0	16,00	77,0	108,0	77,0	2,20	35,0
7,20	51,0	88,0	51,0	1,73	29,0	16,20	69,0	102,0	69,0	2,00	34,0
7,40	56,0	82,0	56,0	2,33	24,0	16,40	103,0	133,0	103,0	2,33	44,0
7,60	60,0	95,0	60,0	1,93	31,0	16,60	98,0	133,0	98,0	3,07	32,0
7,80	65,0	94,0	65,0	2,07	31,0	16,80	76,0	122,0	76,0	1,60	47,0
8,00	66,0	97,0	66,0	1,87	35,0	17,00	139,0	163,0	139,0	1,60	87,0
8,20	61,0	89,0	61,0	2,00	30,0	17,20	102,0	126,0	102,0	3,27	31,0
8,40	70,0	100,0	70,0	1,93	36,0	17,40	75,0	124,0	75,0	3,20	23,0
8,60	64,0	93,0	64,0	1,93	33,0	17,60	183,0	231,0	183,0	3,93	47,0
8,80	52,0	81,0	52,0	1,73	30,0	17,80	179,0	238,0	179,0	7,33	24,0
9,00	63,0	89,0	63,0	1,93	33,0	18,00	190,0	300,0	190,0	-----	----

- PENETROMETRO STATICO tipo GOUDA da 10 t - (con anello allargatore) -
- COSTANTE DI TRASFORMAZIONE Ct = 10 - Velocità Avanzamento punta 2 cm/s
- punta meccanica tipo Begemann ø = 35.7 mm (area punta 10 cm² - apertura 60°)
- manicotto laterale (superficie 150 cm²)

PROVA PENETROMETRICA STATICA
CPTm 9
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 10,00 m da quota inizio
- pagina : 1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-	m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-
0,20	----	----	--	-----	----	9,40	105,0	134,0	105,0	2,07	51,0
0,40	----	----	--	0,80	----	9,60	85,0	116,0	85,0	2,13	40,0
0,60	22,0	34,0	22,0	0,87	25,0	9,80	66,0	98,0	66,0	1,47	45,0
0,80	13,0	26,0	13,0	0,40	32,0	10,00	82,0	104,0	82,0	1,93	42,0
1,00	15,0	21,0	15,0	1,73	9,0	10,20	72,0	101,0	72,0	1,73	42,0
1,20	80,0	106,0	80,0	1,80	44,0	10,40	82,0	108,0	82,0	2,53	32,0
1,40	23,0	50,0	23,0	0,93	25,0	10,60	68,0	106,0	68,0	2,27	30,0
1,60	15,0	29,0	15,0	0,53	28,0	10,80	96,0	130,0	96,0	2,40	40,0
1,80	11,0	19,0	11,0	0,33	33,0	11,00	87,0	123,0	87,0	2,33	37,0
2,00	8,0	13,0	8,0	0,47	17,0	11,20	95,0	130,0	95,0	2,07	46,0
2,20	11,0	18,0	11,0	0,60	18,0	11,40	69,0	100,0	69,0	0,93	74,0
2,40	13,0	22,0	13,0	0,87	15,0	11,60	104,0	118,0	104,0	1,80	58,0
2,60	14,0	27,0	14,0	0,67	21,0	11,80	118,0	145,0	118,0	1,33	88,0
2,80	14,0	24,0	14,0	0,53	26,0	12,00	132,0	152,0	132,0	2,40	55,0
3,00	12,0	20,0	12,0	0,73	16,0	12,20	60,0	96,0	60,0	2,87	21,0
3,20	14,0	25,0	14,0	0,60	23,0	12,40	65,0	108,0	65,0	1,80	36,0
3,40	14,0	23,0	14,0	1,13	12,0	12,60	109,0	136,0	109,0	1,53	71,0
3,60	23,0	40,0	23,0	1,07	22,0	12,80	70,0	93,0	70,0	4,20	17,0
3,80	23,0	39,0	23,0	1,80	13,0	13,00	95,0	158,0	95,0	0,93	102,0
4,00	18,0	45,0	18,0	1,40	13,0	13,20	126,0	140,0	126,0	2,40	52,0
4,20	23,0	44,0	23,0	1,40	16,0	13,40	136,0	172,0	136,0	2,73	50,0
4,40	152,0	173,0	152,0	3,40	45,0	13,60	131,0	172,0	131,0	2,60	50,0
4,60	58,0	109,0	58,0	5,93	10,0	13,80	70,0	109,0	70,0	2,20	32,0
4,80	35,0	124,0	35,0	1,73	20,0	14,00	98,0	131,0	98,0	2,67	37,0
5,00	42,0	68,0	42,0	1,47	29,0	14,20	95,0	135,0	95,0	2,33	41,0
5,20	20,0	42,0	20,0	0,80	25,0	14,40	85,0	120,0	85,0	2,73	31,0
5,40	30,0	42,0	30,0	1,93	16,0	14,60	59,0	100,0	59,0	2,00	30,0
5,60	37,0	66,0	37,0	1,20	31,0	14,80	120,0	150,0	120,0	2,20	55,0
5,80	28,0	46,0	28,0	1,60	17,0	15,00	99,0	132,0	99,0	1,53	65,0
6,00	24,0	48,0	24,0	1,00	24,0	15,20	98,0	121,0	98,0	2,47	40,0
6,20	48,0	63,0	48,0	1,67	29,0	15,40	33,0	70,0	33,0	2,27	15,0
6,40	72,0	97,0	72,0	1,73	42,0	15,60	26,0	60,0	26,0	1,73	15,0
6,60	65,0	91,0	65,0	1,47	44,0	15,80	30,0	56,0	30,0	1,40	21,0
6,80	50,0	72,0	50,0	1,93	26,0	16,00	19,0	40,0	19,0	1,53	12,0
7,00	53,0	82,0	53,0	1,67	32,0	16,20	25,0	48,0	25,0	1,47	17,0
7,20	73,0	98,0	73,0	1,60	46,0	16,40	16,0	38,0	16,0	1,47	11,0
7,40	50,0	74,0	50,0	1,47	34,0	16,60	17,0	39,0	17,0	0,93	18,0
7,60	41,0	63,0	41,0	1,07	38,0	16,80	13,0	27,0	13,0	2,07	6,0
7,80	61,0	77,0	61,0	1,20	51,0	17,00	82,0	113,0	82,0	1,53	53,0
8,00	40,0	58,0	40,0	1,27	32,0	17,20	103,0	126,0	103,0	1,80	57,0
8,20	31,0	50,0	31,0	1,67	19,0	17,40	89,0	116,0	89,0	1,80	49,0
8,40	59,0	84,0	59,0	1,60	37,0	17,60	85,0	112,0	85,0	1,53	55,0
8,60	64,0	88,0	64,0	1,47	44,0	17,80	105,0	128,0	105,0	1,80	58,0
8,80	58,0	80,0	58,0	1,67	35,0	18,00	118,0	145,0	118,0	2,40	49,0
9,00	63,0	88,0	63,0	1,47	43,0	18,20	83,0	119,0	83,0	1,87	44,0
9,20	82,0	104,0	82,0	1,93	42,0	18,40	122,0	150,0	122,0	-----	----

- PENETROMETRO STATICO tipo GOUDA da 10 t - (con anello allargatore) -
- COSTANTE DI TRASFORMAZIONE Ct = 10 - Velocità Avanzamento punta 2 cm/s
- punta meccanica tipo Begemann ø = 35.7 mm (area punta 10 cm² - apertura 60°)
- manicotto laterale (superficie 150 cm²)

PROVA PENETROMETRICA STATICA
CPTm 10
LETTURE DI CAMPAGNA / VALORI DI RESISTENZA

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 10,20 m da quota inizio
- pagina : 1

prf	LP	LL	Rp	RL	Rp/RI	prf	LP	LL	Rp	RL	Rp/RI
m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-	m	Kg/cm ²	Kg/cm ²	Kg/cm ²	Kg/cm ²	-
0,20	----	----	--	-----	----	9,20	75,0	98,0	75,0	1,47	51,0
0,40	----	----	--	0,47	----	9,40	65,0	87,0	65,0	2,60	25,0
0,60	8,0	15,0	8,0	0,40	20,0	9,60	74,0	113,0	74,0	7,40	10,0
0,80	9,0	15,0	9,0	0,33	27,0	9,80	119,0	230,0	119,0	3,80	31,0
1,00	13,0	18,0	13,0	0,27	49,0	10,00	93,0	150,0	93,0	2,27	41,0
1,20	14,0	18,0	14,0	0,93	15,0	10,20	104,0	138,0	104,0	1,53	68,0
1,40	14,0	28,0	14,0	1,00	14,0	10,40	143,0	166,0	143,0	2,47	58,0
1,60	29,0	44,0	29,0	1,20	24,0	10,60	150,0	187,0	150,0	2,27	66,0
1,80	55,0	73,0	55,0	1,93	28,0	10,80	79,0	113,0	79,0	2,13	37,0
2,00	34,0	63,0	34,0	1,27	27,0	11,00	34,0	66,0	34,0	0,87	39,0
2,20	42,0	61,0	42,0	1,53	27,0	11,20	59,0	72,0	59,0	1,53	38,0
2,40	36,0	59,0	36,0	1,33	27,0	11,40	49,0	72,0	49,0	1,67	29,0
2,60	44,0	64,0	44,0	2,13	21,0	11,60	49,0	74,0	49,0	1,60	31,0
2,80	40,0	72,0	40,0	1,13	35,0	11,80	54,0	78,0	54,0	1,60	34,0
3,00	35,0	52,0	35,0	1,40	25,0	12,00	56,0	80,0	56,0	1,33	42,0
3,20	42,0	63,0	42,0	1,00	42,0	12,20	78,0	98,0	78,0	1,93	40,0
3,40	29,0	44,0	29,0	0,40	72,0	12,40	59,0	88,0	59,0	1,80	33,0
3,60	26,0	32,0	26,0	0,47	56,0	12,60	73,0	100,0	73,0	1,73	42,0
3,80	35,0	42,0	35,0	0,87	40,0	12,80	98,0	124,0	98,0	2,27	43,0
4,00	30,0	43,0	30,0	1,00	30,0	13,00	69,0	103,0	69,0	1,60	43,0
4,20	33,0	48,0	33,0	1,27	26,0	13,20	67,0	91,0	67,0	2,00	34,0
4,40	29,0	48,0	29,0	1,60	18,0	13,40	97,0	127,0	97,0	1,33	73,0
4,60	37,0	61,0	37,0	0,87	43,0	13,60	146,0	166,0	146,0	2,33	63,0
4,80	34,0	47,0	34,0	1,07	32,0	13,80	143,0	178,0	143,0	3,07	47,0
5,00	39,0	55,0	39,0	1,27	31,0	14,00	96,0	142,0	96,0	2,73	35,0
5,20	49,0	68,0	49,0	1,13	43,0	14,20	140,0	181,0	140,0	1,60	87,0
5,40	43,0	60,0	43,0	1,00	43,0	14,40	100,0	124,0	100,0	2,53	39,0
5,60	39,0	54,0	39,0	1,13	34,0	14,60	64,0	102,0	64,0	1,53	42,0
5,80	27,0	44,0	27,0	1,07	25,0	14,80	75,0	98,0	75,0	1,93	39,0
6,00	29,0	45,0	29,0	0,27	109,0	15,00	77,0	106,0	77,0	1,73	44,0
6,20	27,0	31,0	27,0	0,80	34,0	15,20	70,0	96,0	70,0	2,67	26,0
6,40	14,0	26,0	14,0	0,47	30,0	15,40	72,0	112,0	72,0	1,67	43,0
6,60	8,0	15,0	8,0	0,27	30,0	15,60	88,0	113,0	88,0	2,47	36,0
6,80	9,0	13,0	9,0	0,27	34,0	15,80	94,0	131,0	94,0	1,67	56,0
7,00	9,0	13,0	9,0	0,40	22,0	16,00	96,0	121,0	96,0	1,87	51,0
7,20	20,0	26,0	20,0	1,33	15,0	16,20	114,0	142,0	114,0	2,20	52,0
7,40	18,0	38,0	18,0	0,93	19,0	16,40	39,0	72,0	39,0	2,47	16,0
7,60	39,0	53,0	39,0	1,20	32,0	16,60	25,0	62,0	25,0	1,33	19,0
7,80	38,0	56,0	38,0	1,27	30,0	16,80	23,0	43,0	23,0	2,53	9,0
8,00	38,0	57,0	38,0	1,33	28,0	17,00	60,0	98,0	60,0	1,20	50,0
8,20	35,0	55,0	35,0	1,40	25,0	17,20	107,0	125,0	107,0	1,60	67,0
8,40	50,0	71,0	50,0	1,47	34,0	17,40	107,0	131,0	107,0	1,93	55,0
8,60	43,0	65,0	43,0	1,73	25,0	17,60	116,0	145,0	116,0	1,93	60,0
8,80	45,0	71,0	45,0	1,60	28,0	17,80	113,0	142,0	113,0	1,87	61,0
9,00	65,0	89,0	65,0	1,53	42,0	18,00	134,0	162,0	134,0	-----	----

- PENETROMETRO STATICO tipo GOUDA da 10 t - (con anello allargatore) -
- COSTANTE DI TRASFORMAZIONE Ct = 10 - Velocità Avanzamento punta 2 cm/s
- punta meccanica tipo Begemann ø = 35.7 mm (area punta 10 cm² - apertura 60°)
- manicotto laterale (superficie 150 cm²)

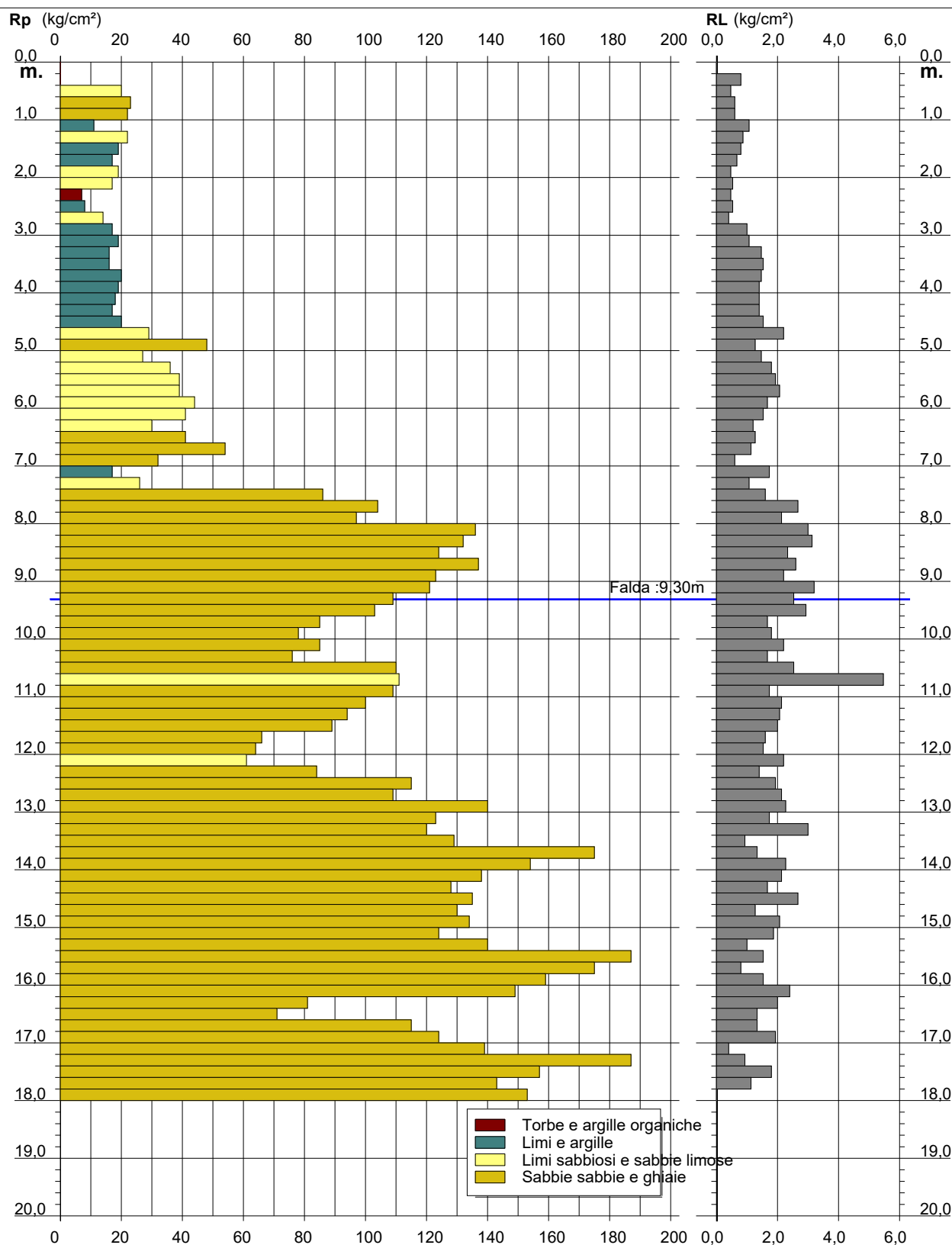
PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

CPTm 1

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)

- data : 09/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,30 m da quota inizio
- scala vert.: 1 : 100



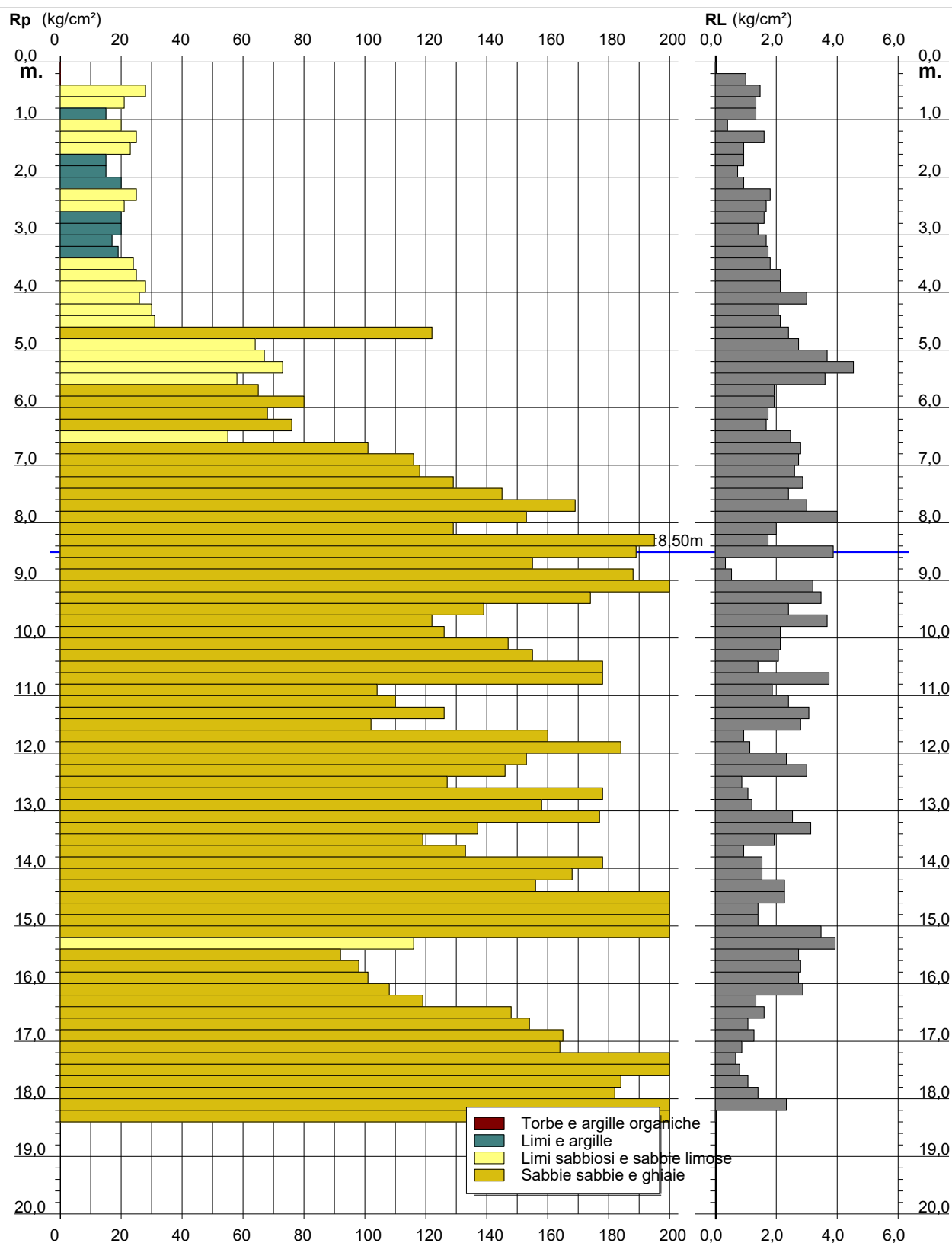
PROVA PENETROMETRICA STATICA **DIAGRAMMA DI RESISTENZA**

CPTm 2

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)

- data : 08/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,50 m da quota inizio
- scala vert.: 1 : 100



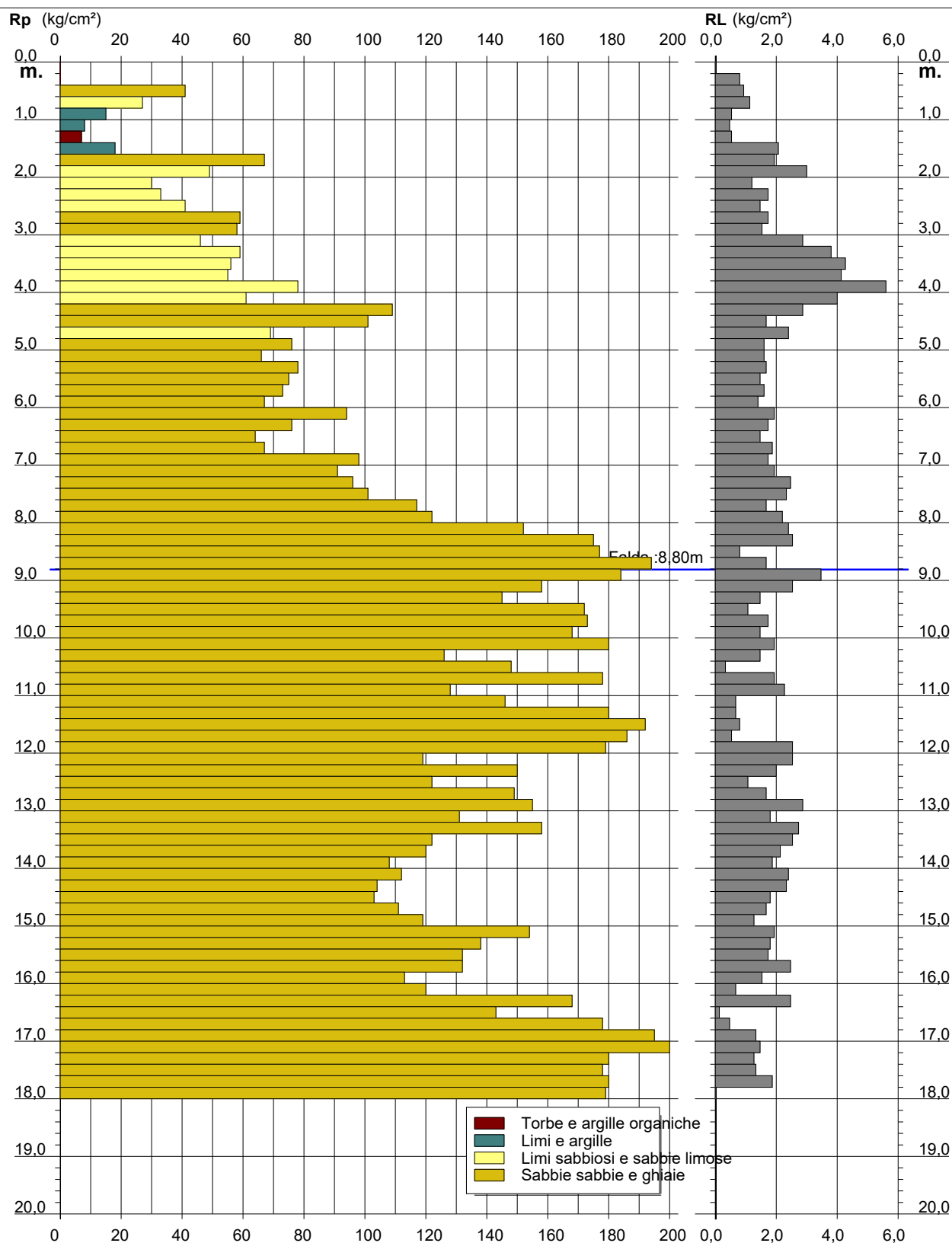
PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

CPTm 3

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,80 m da quota inizio
- scala vert.: 1 : 100



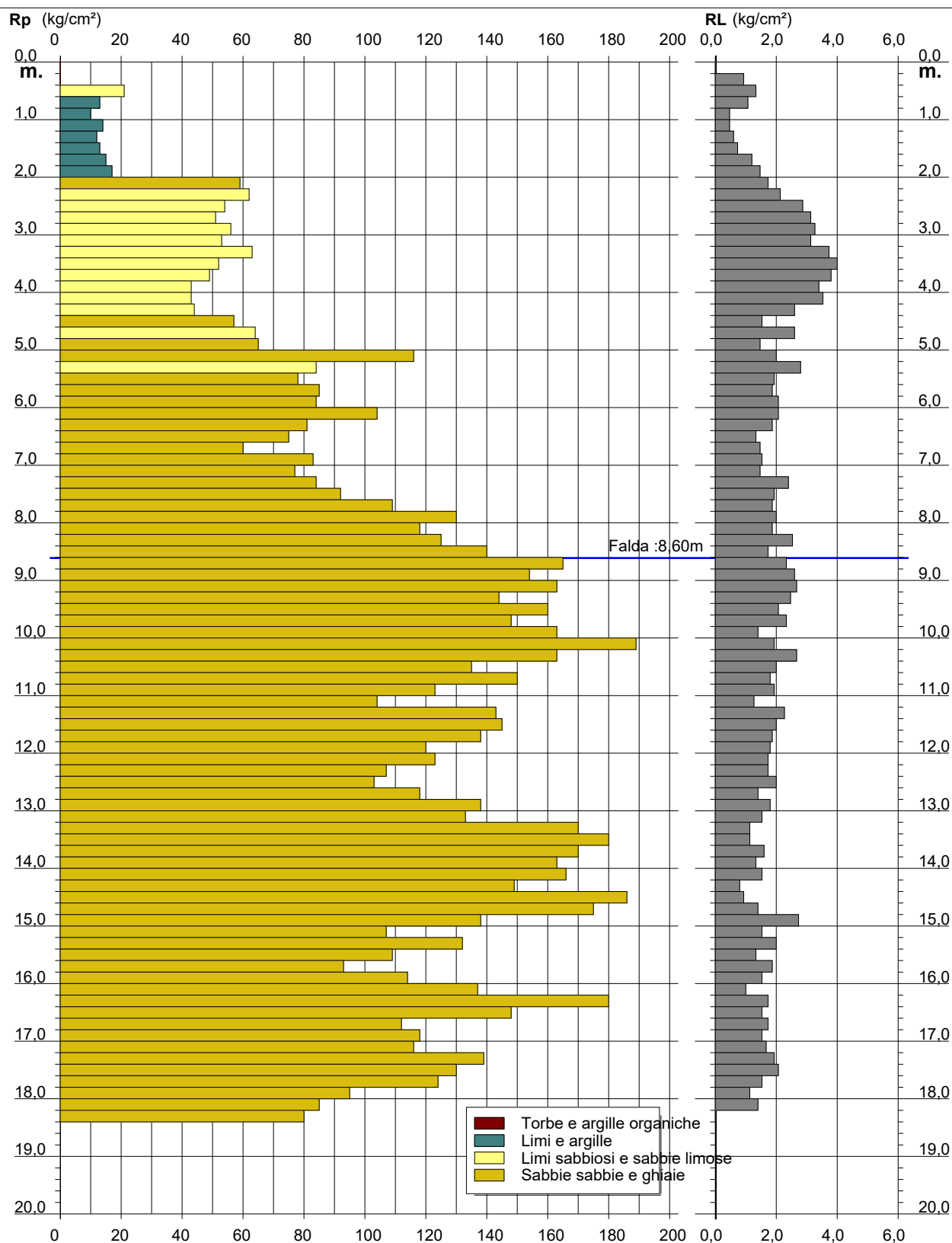
PROVA PENETROMETRICA STATICA **DIAGRAMMA DI RESISTENZA**

CPTm 4

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,60 m da quota inizio
- scala vert.: 1 : 100



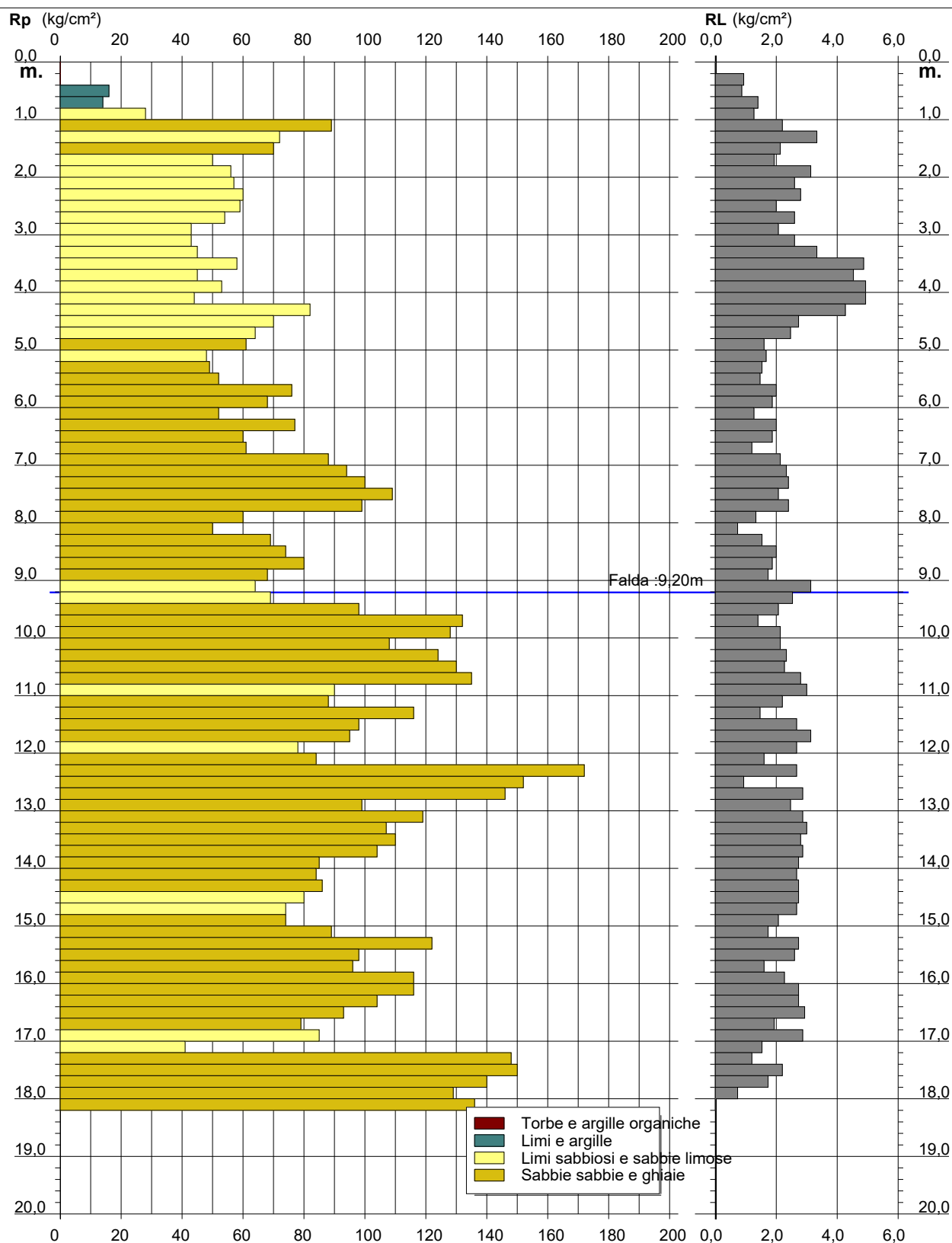
PROVA PENETROMETRICA STATICA **DIAGRAMMA DI RESISTENZA**

CPTm 5

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,20 m da quota inizio
- scala vert.: 1 : 100



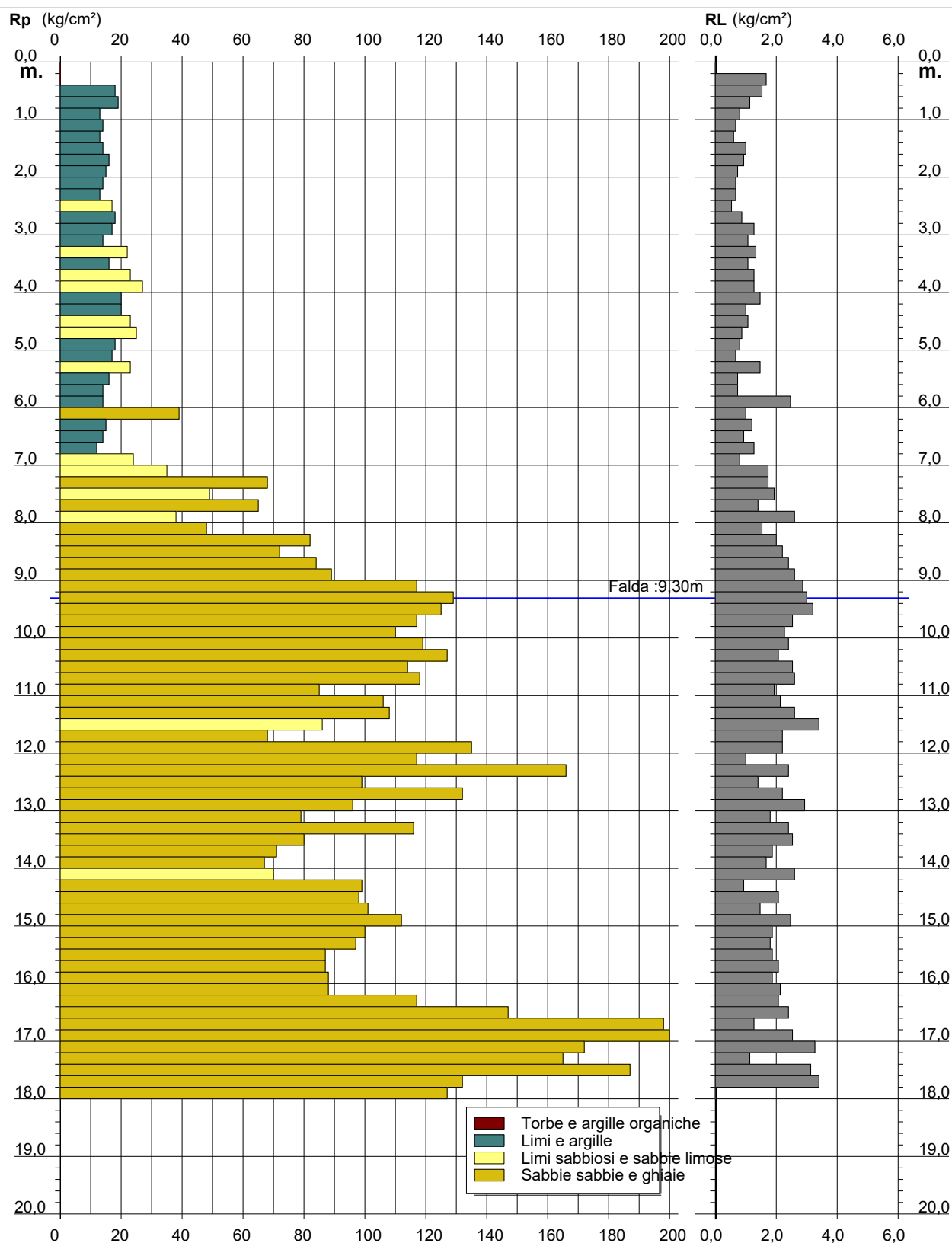
PROVA PENETROMETRICA STATICA **DIAGRAMMA DI RESISTENZA**

CPTm 6

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,30 m da quota inizio
- scala vert.: 1 : 100



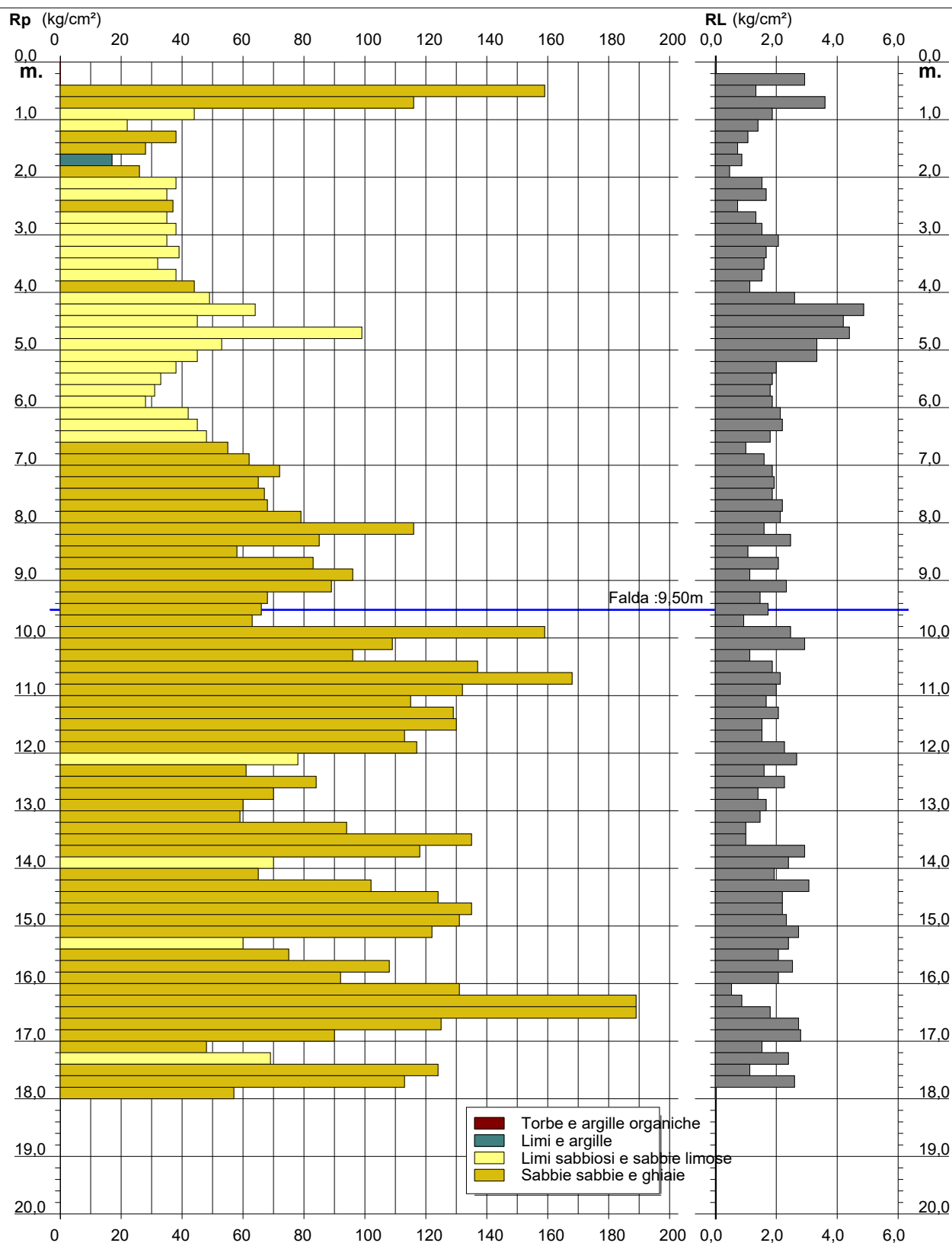
PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

CPTm 7

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,50 m da quota inizio
- scala vert.: 1 : 100



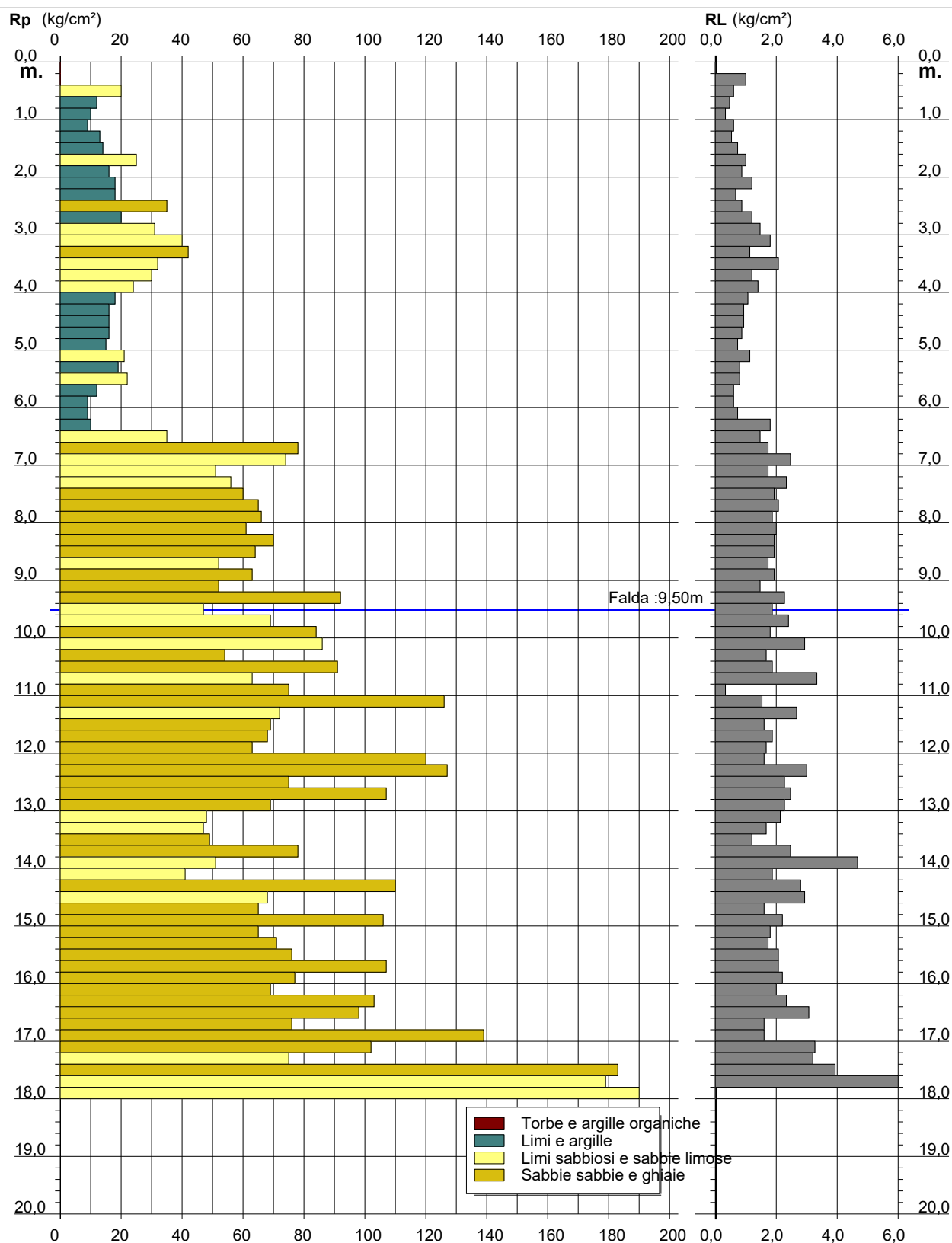
PROVA PENETROMETRICA STATICA **DIAGRAMMA DI RESISTENZA**

CPTm 8

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,50 m da quota inizio
- scala vert.: 1 : 100



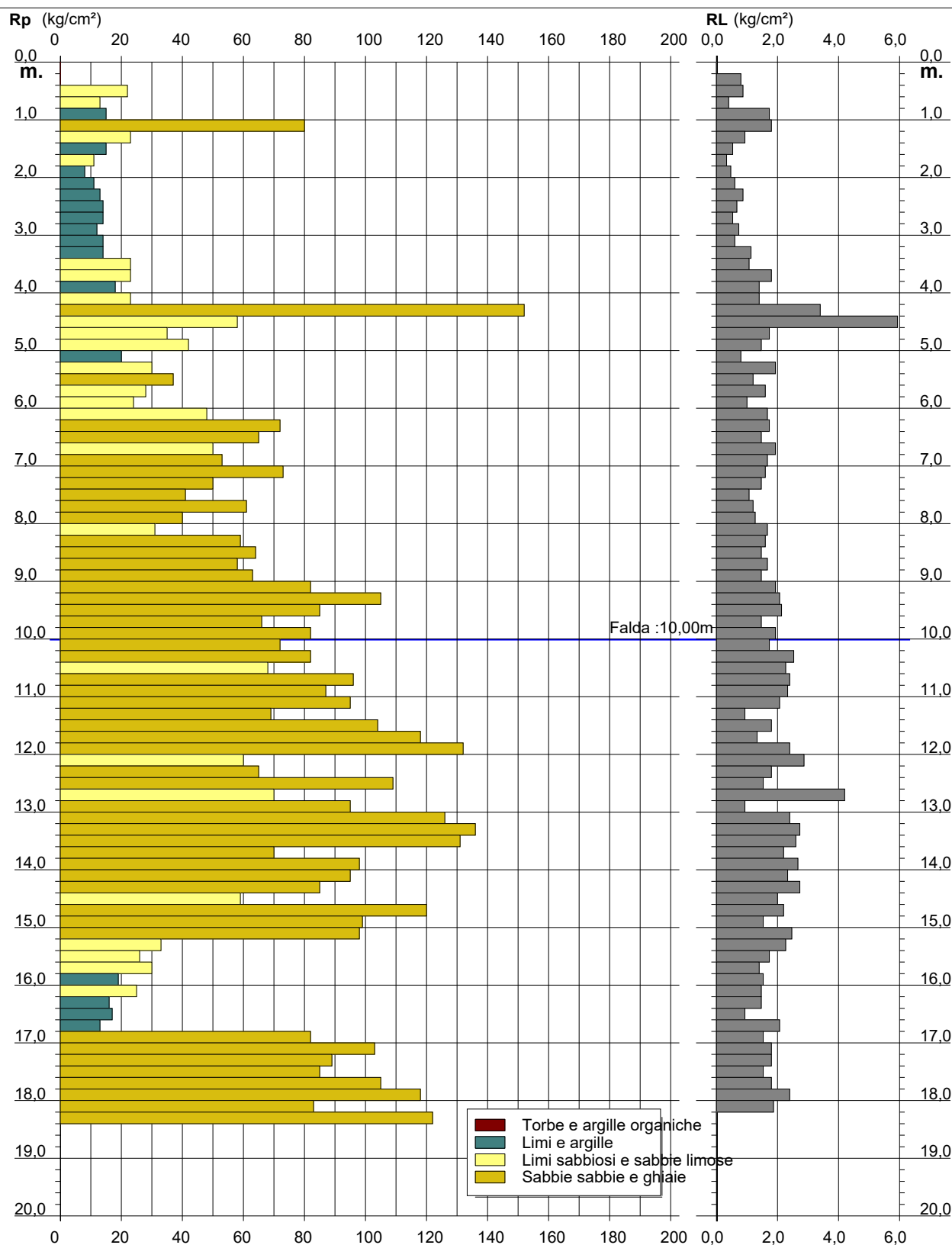
PROVA PENETROMETRICA STATICA **DIAGRAMMA DI RESISTENZA**

CPTm 9

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 10,00 m da quota inizio
- scala vert.: 1 : 100



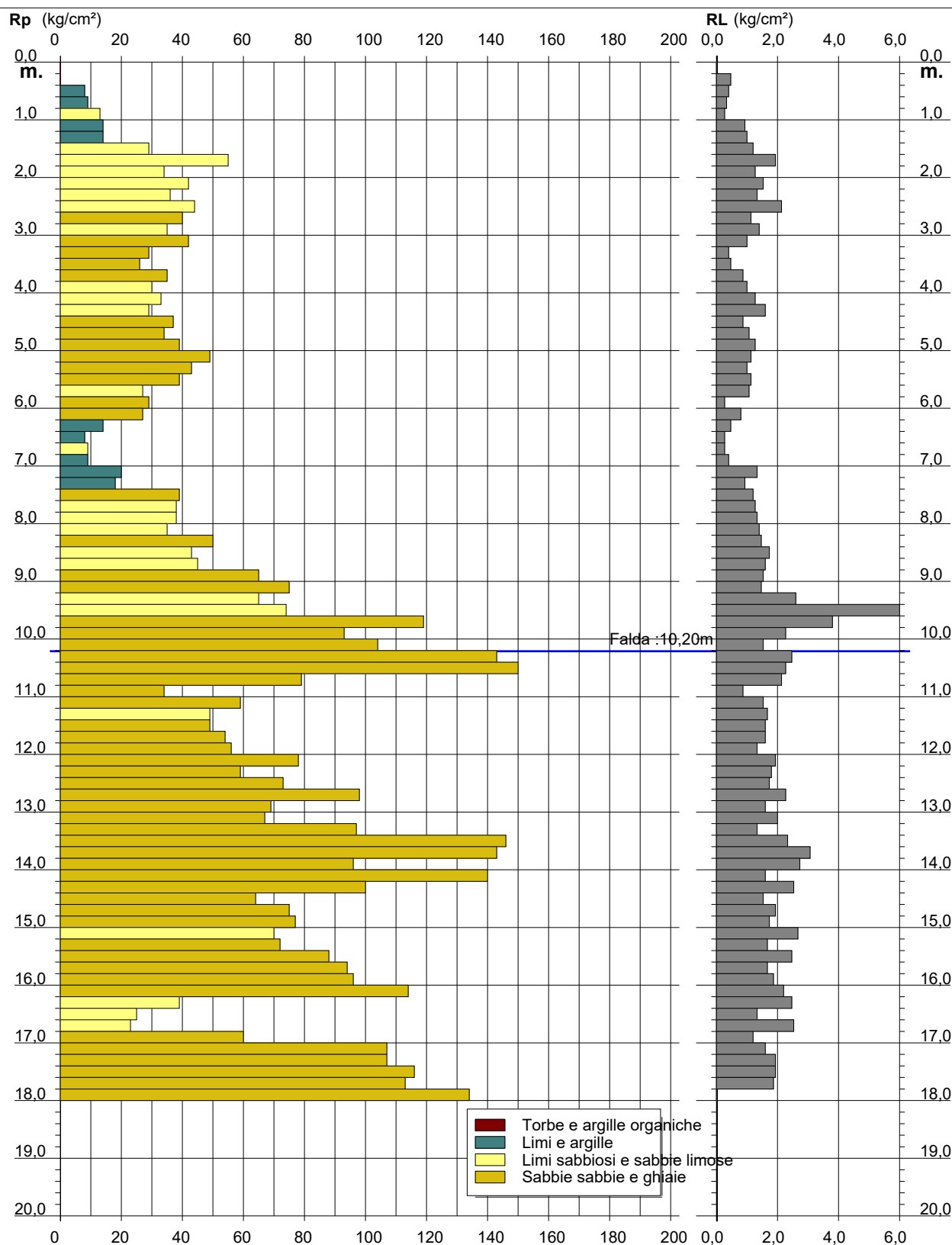
PROVA PENETROMETRICA STATICA DIAGRAMMA DI RESISTENZA

CPTm 10

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 10,20 m da quota inizio
- scala vert.: 1 : 100



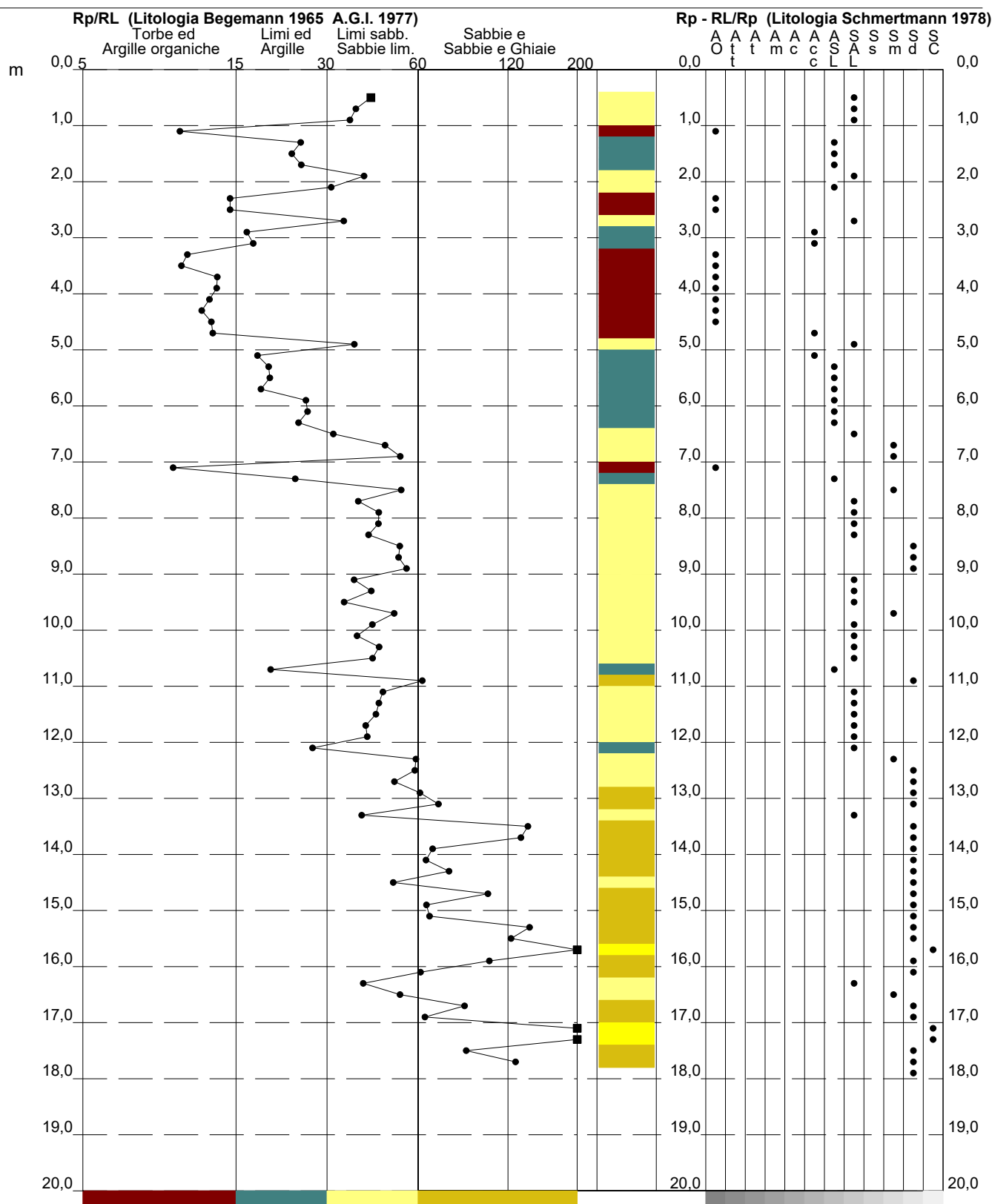
PROVA PENETROMETRICA STATICA VALUTAZIONI LITOLOGICHE

CPTm 1

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)
- note :

- data : 09/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,30 m da quota inizio
- scala vert.: 1 : 100



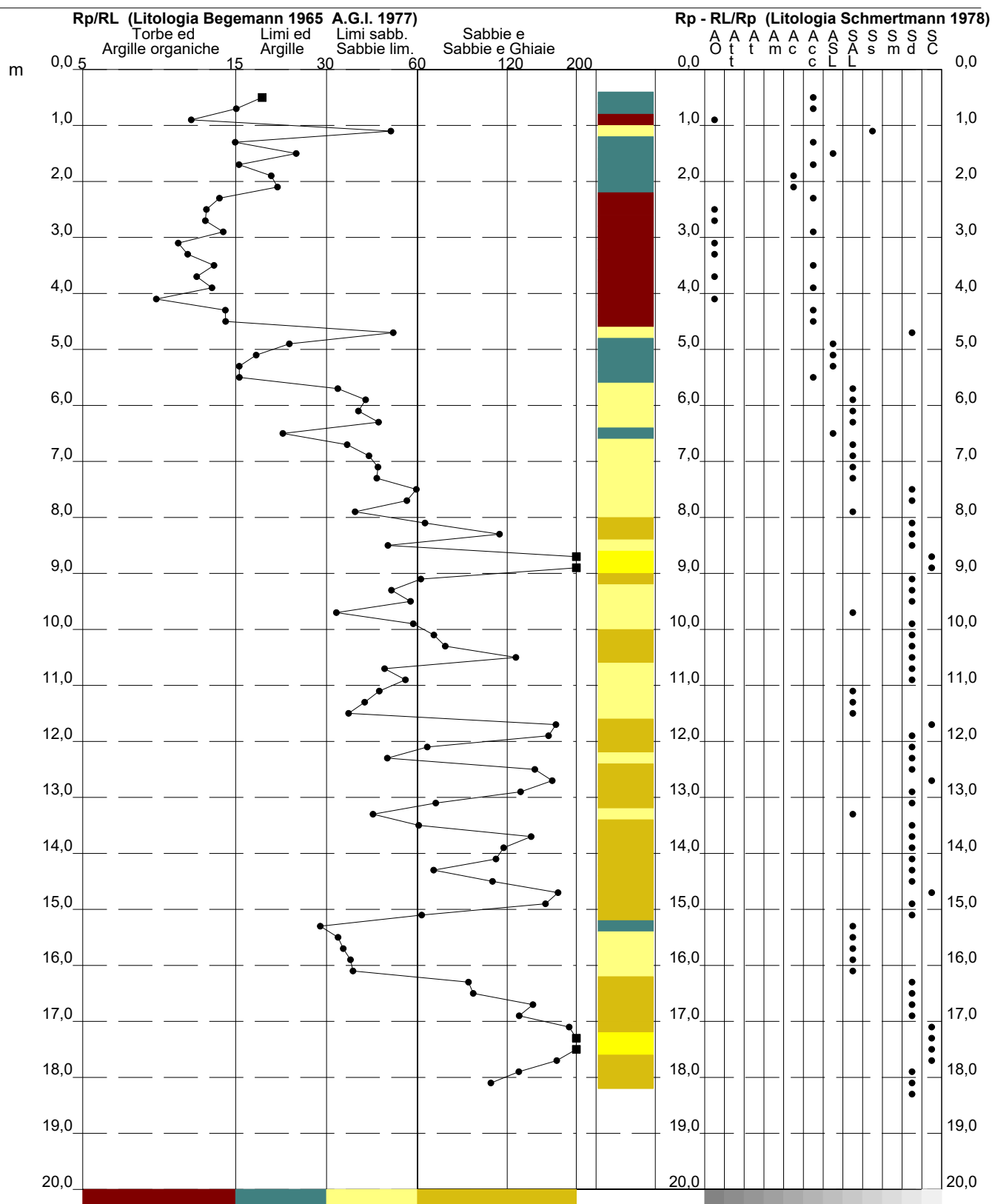
PROVA PENETROMETRICA STATICA VALUTAZIONI LITOLOGICHE

CPTm 2

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)
- note :

- data : 08/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,50 m da quota inizio
- scala vert.: 1 : 100



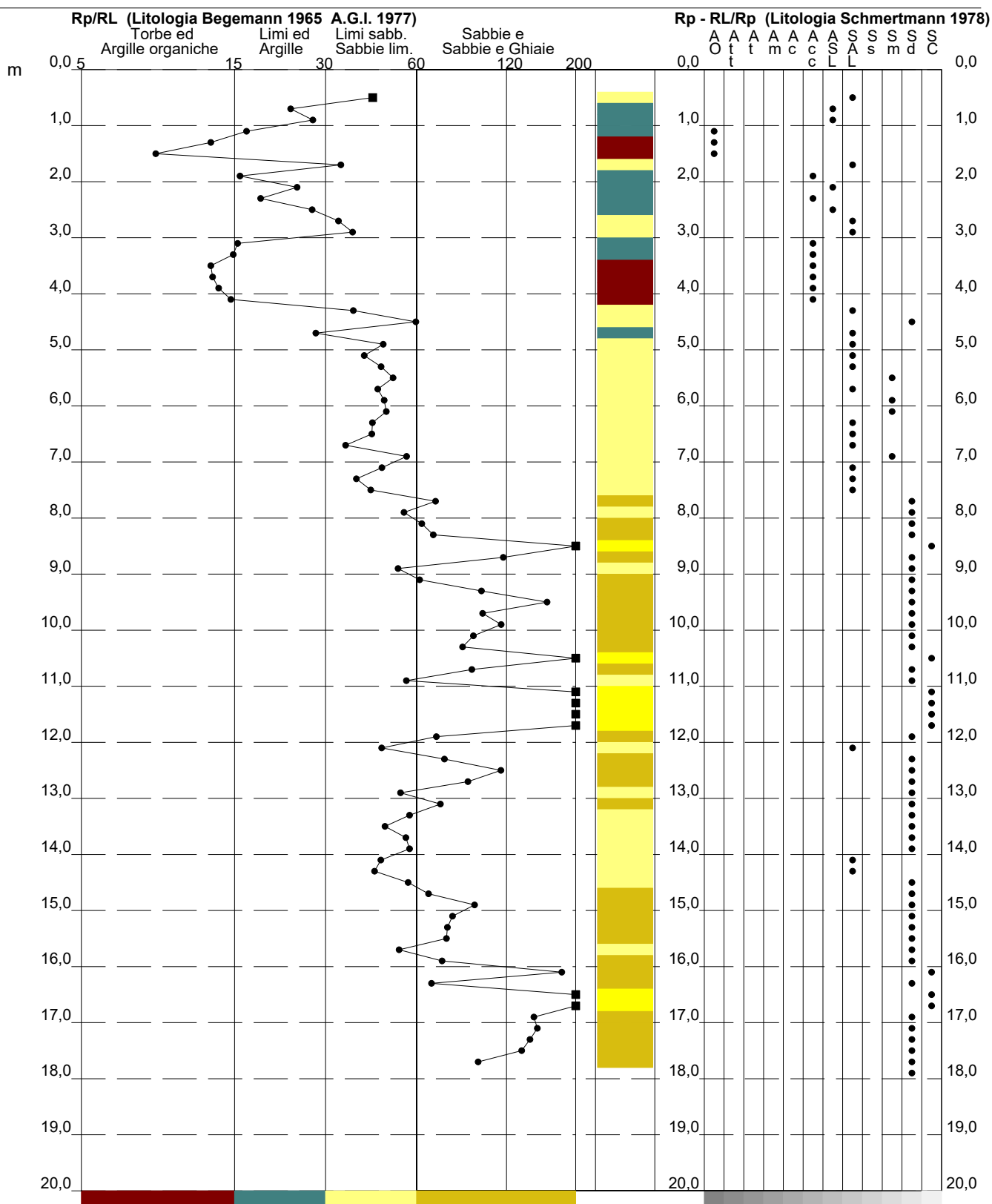
PROVA PENETROMETRICA STATICA VALUTAZIONI LITOLOGICHE

CPTm 3

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)
- note :

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,80 m da quota inizio
- scala vert.: 1 : 100



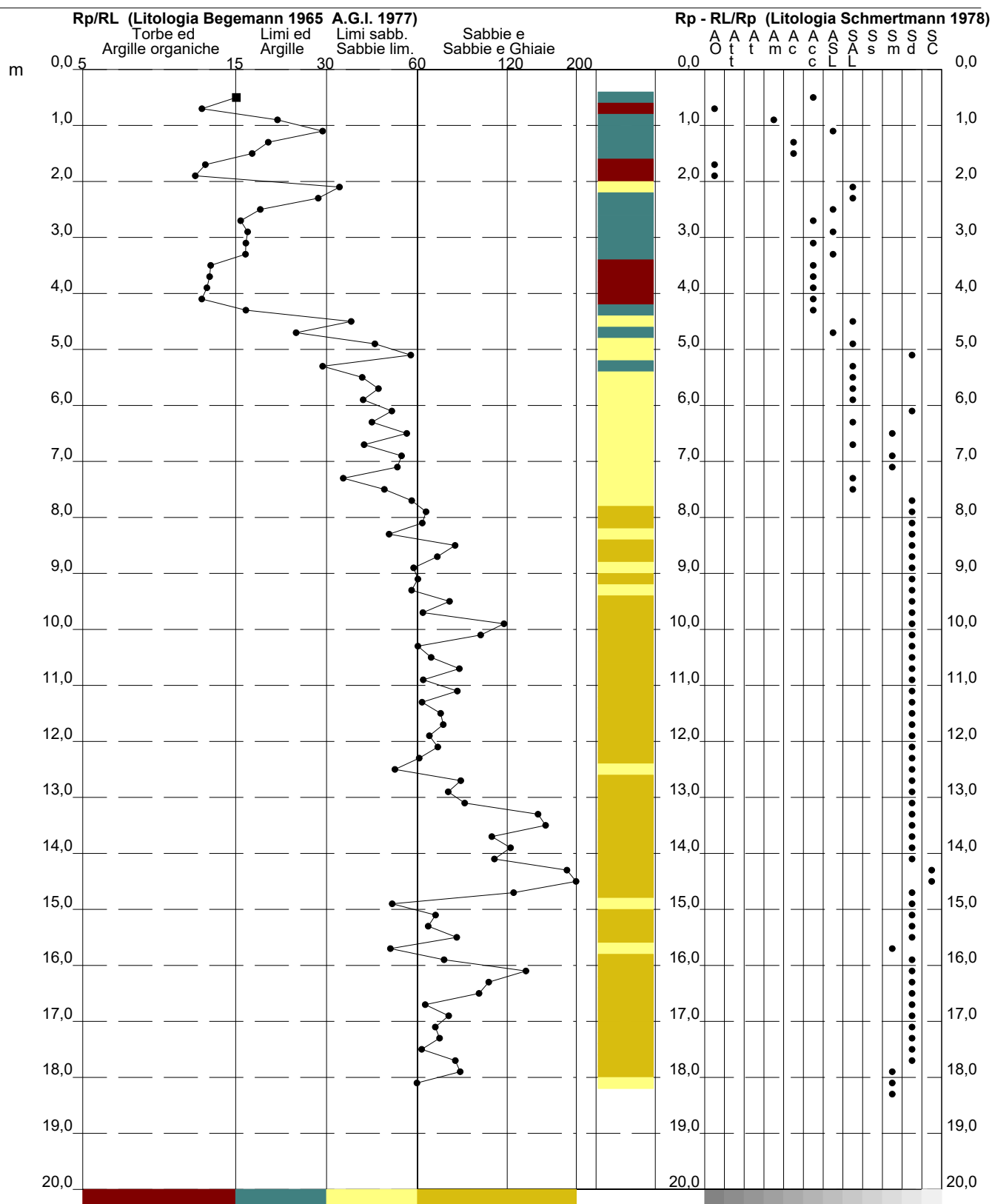
PROVA PENETROMETRICA STATICA VALUTAZIONI LITOLOGICHE

CPTm 4

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,60 m da quota inizio
- scala vert.: 1 : 100



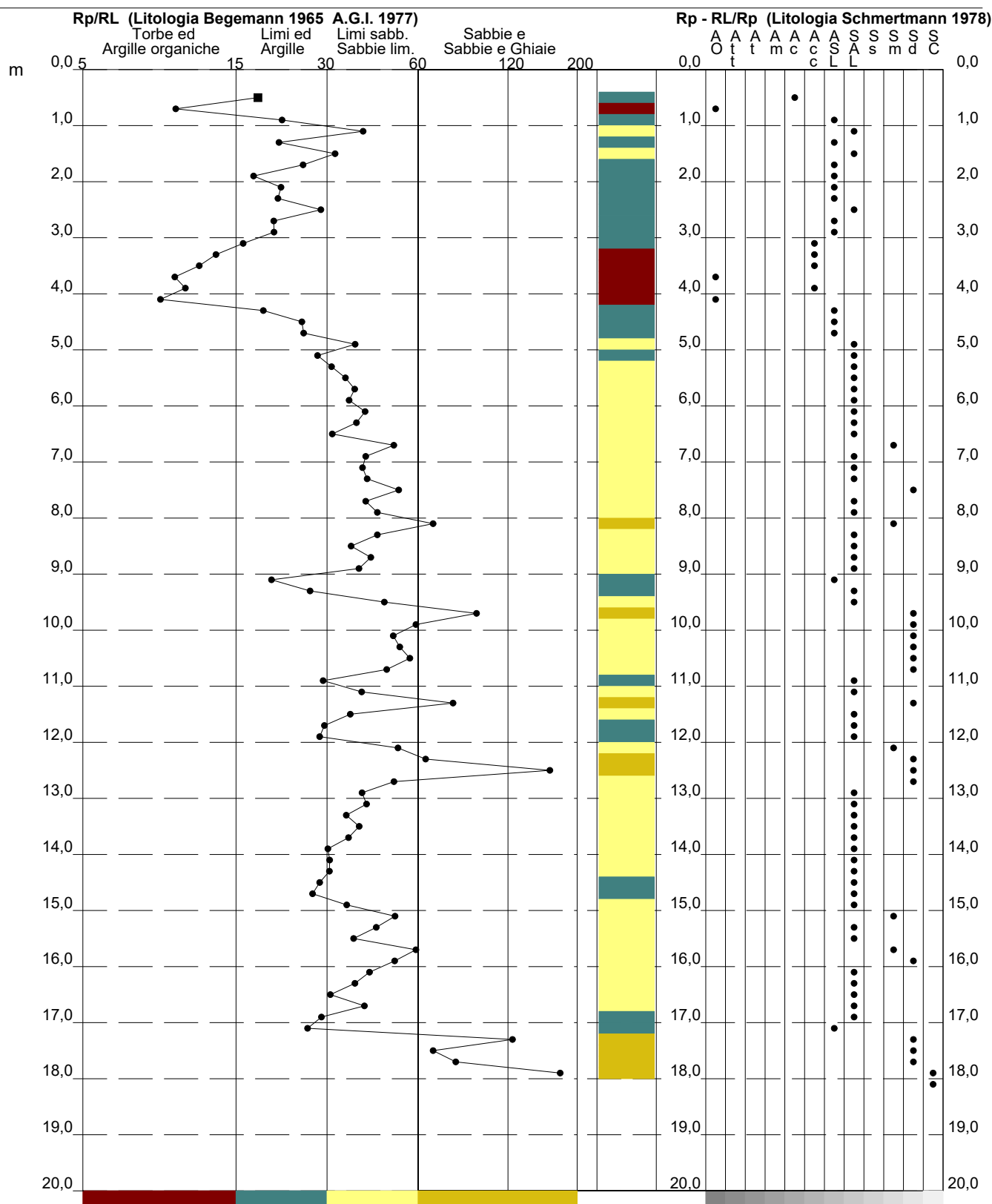
PROVA PENETROMETRICA STATICA VALUTAZIONI LITOLOGICHE

CPTm 5

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,20 m da quota inizio
- scala vert.: 1 : 100



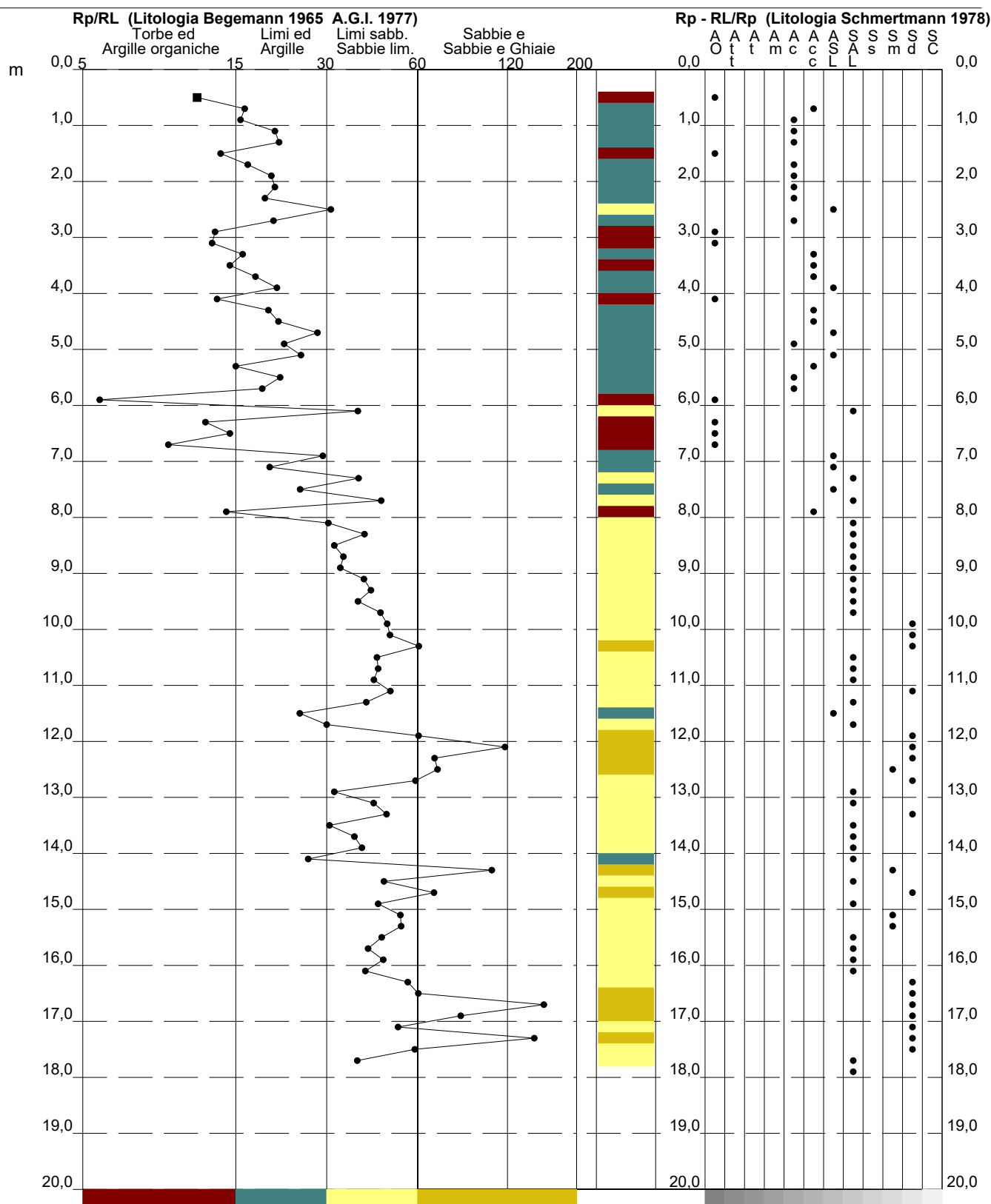
PROVA PENETROMETRICA STATICA VALUTAZIONI LITOLOGICHE

CPTm 6

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,30 m da quota inizio
- scala vert.: 1 : 100

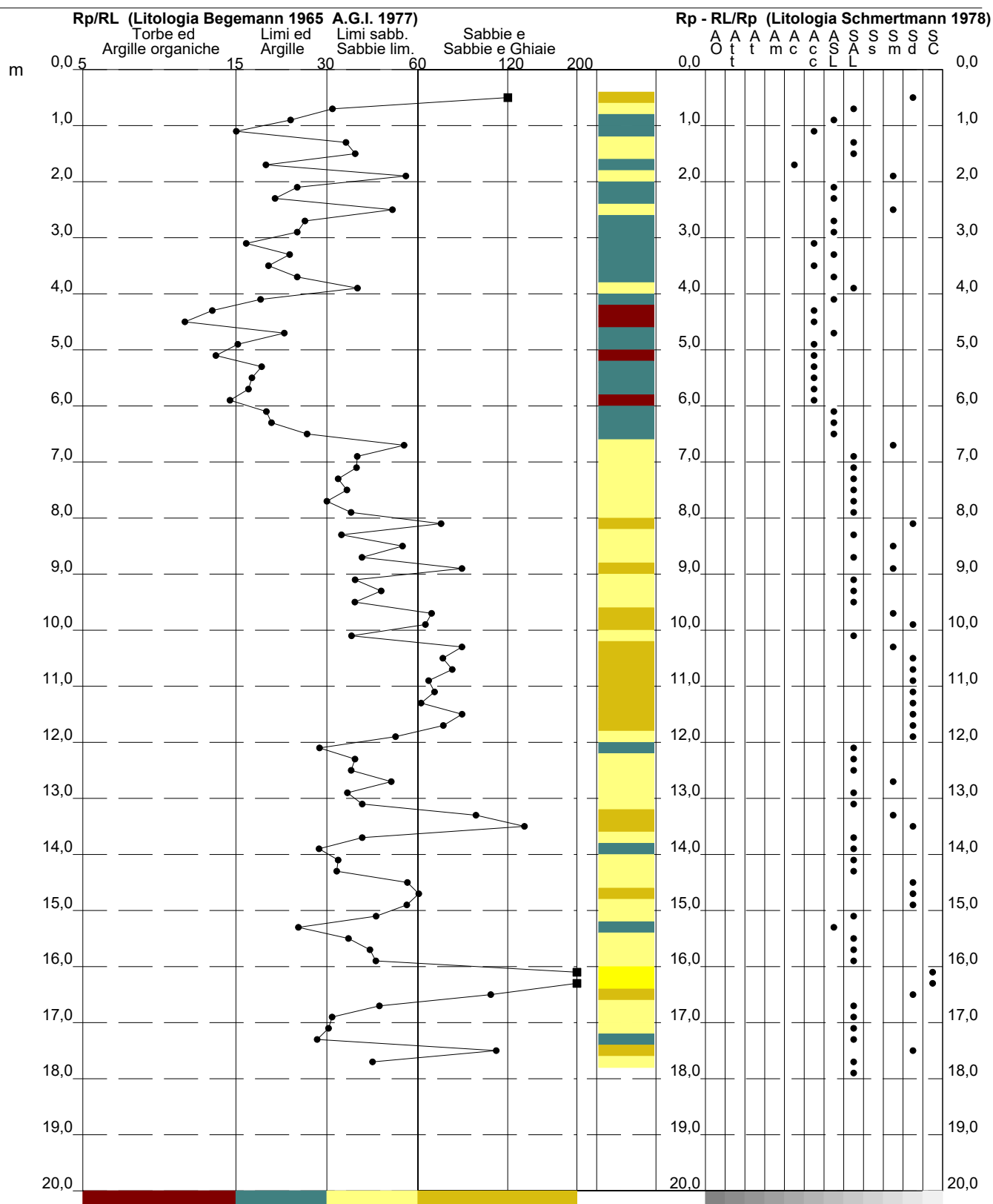


**PROVA PENETROMETRICA STATICA
VALUTAZIONI LITOLOGICHE****CPTm 7**

2.010496-053

- committente : A.I.Po
 - lavoro : PC-E-810
 - località : Soarza (PC)
 - note :

- data : 05/03/2018
 - quota inizio : Sommità arginale
 - prof. falda : 9,50 m da quota inizio
 - scala vert.: 1 : 100

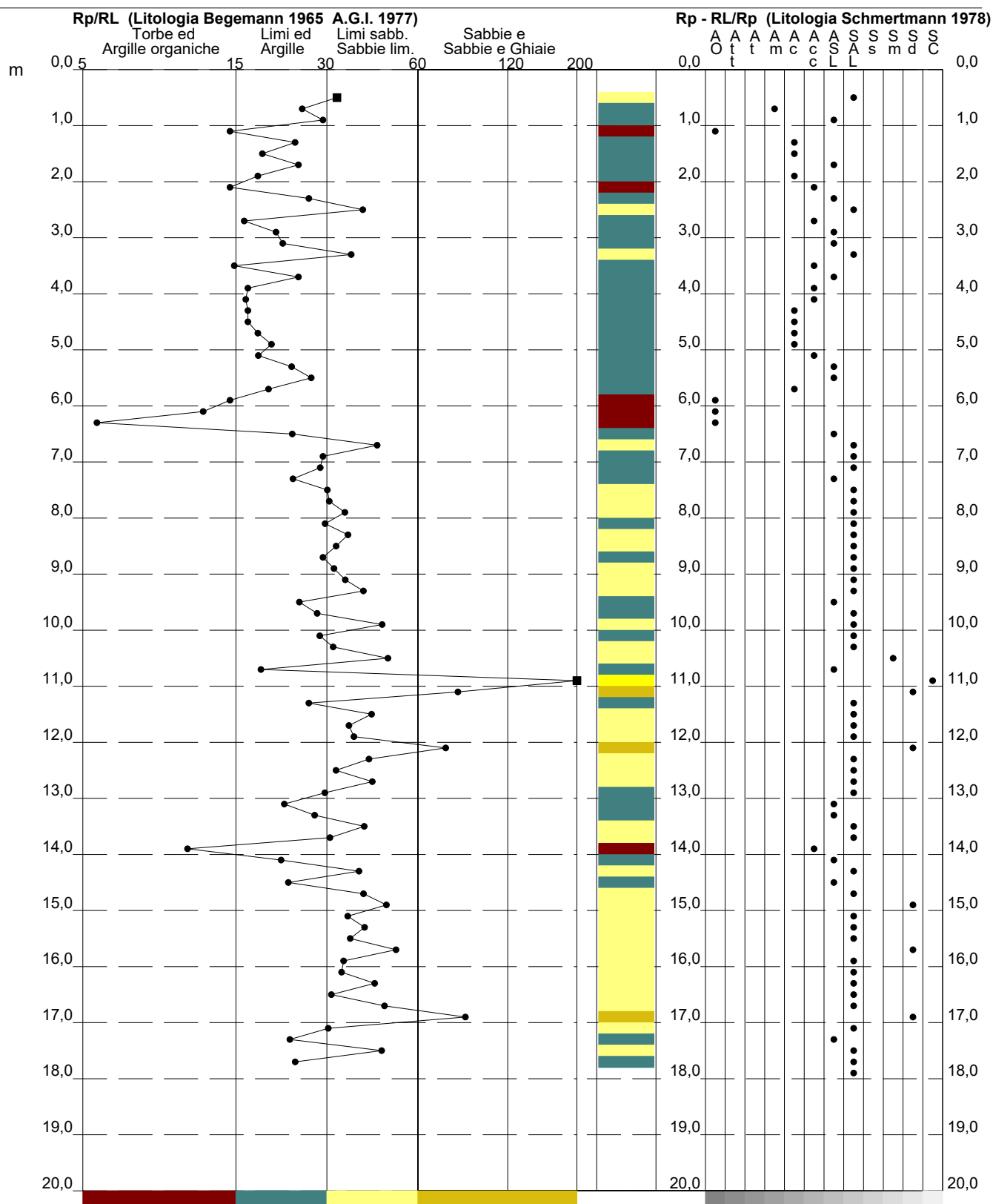


**PROVA PENETROMETRICA STATICA
VALUTAZIONI LITOLOGICHE****CPTm 8**

2.010496-053

- committente : A.I.Po
 - lavoro : PC-E-810
 - località : Soarza (PC)
 - note :

- data : 06/03/2018
 - quota inizio : Sommità arginale
 - prof. falda : 9,50 m da quota inizio
 - scala vert.: 1 : 100

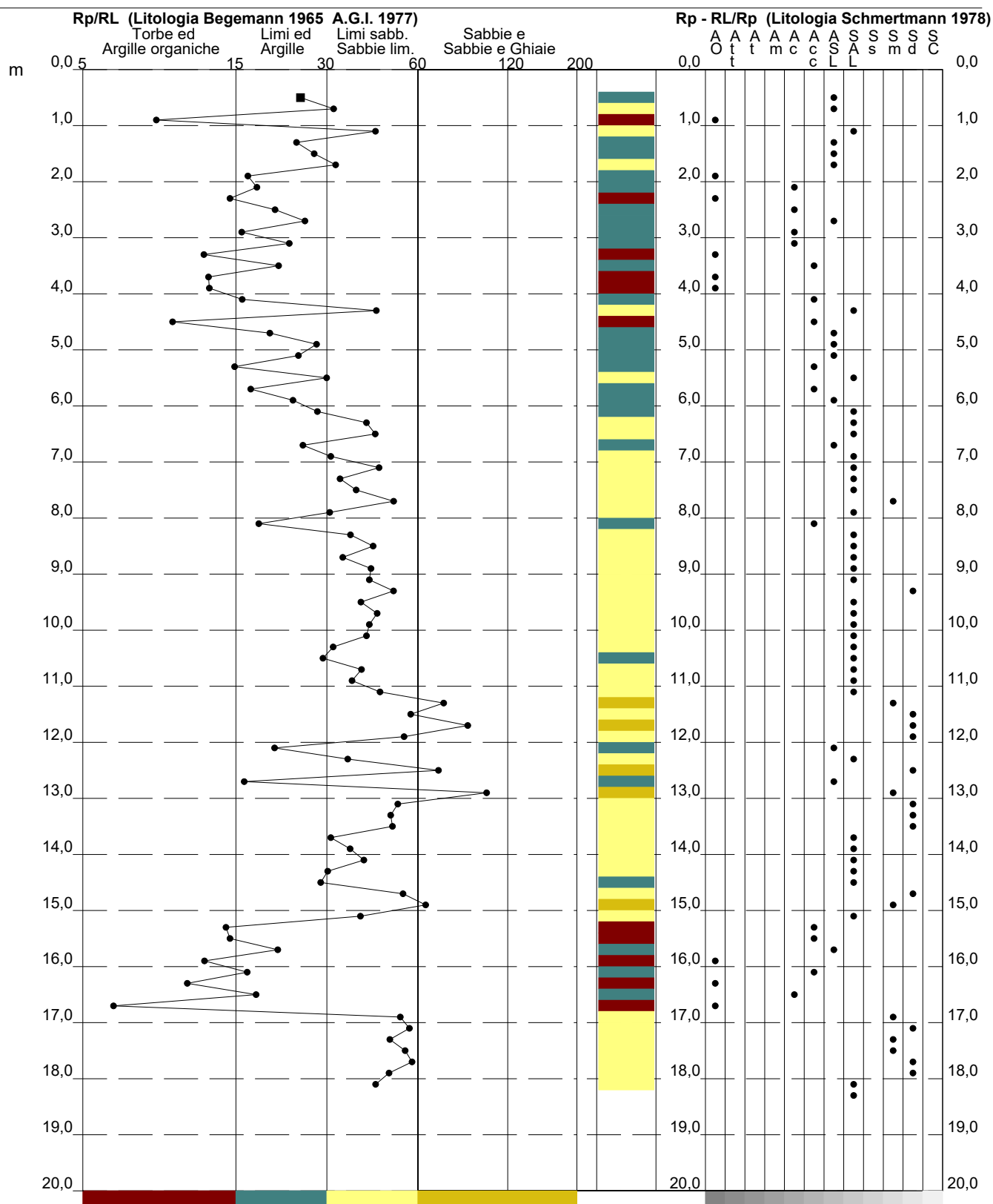


**PROVA PENETROMETRICA STATICA
VALUTAZIONI LITOLOGICHE****CPTm 9**

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 10,00 m da quota inizio
- scala vert.: 1 : 100

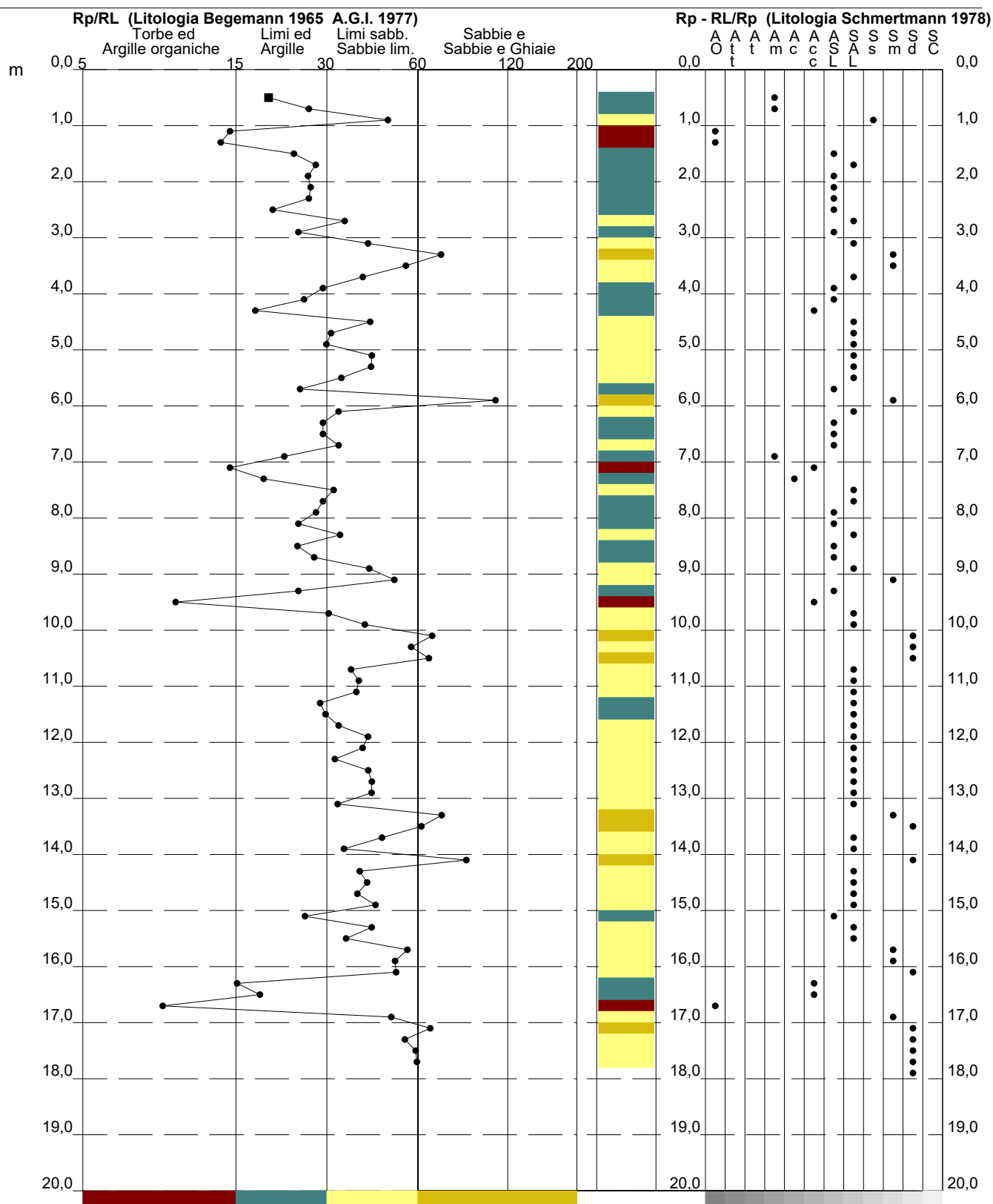


**PROVA PENETROMETRICA STATICA
VALUTAZIONI LITOLOGICHE****CPTm 10**

2.010496-053

- committente : A.I.Po
 - lavoro : PC-E-810
 - località : Soarza (PC)
 - note :

- data : 06/03/2018
 - quota inizio : Sommità arginale
 - prof. falda : 10,20 m da quota inizio
 - scala vert.: 1 : 100



PROVA PENETROMETRICA STATICA

TABELLA PARAMETRI GEOTECNICI

CPTm 1

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)
- note :

- data : 09/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,30 m da quota inizio
- pagina : 1

NATURA COESIVA											NATURA GRANULARE										
Prof. m	Rp kg/cm ²	Rp/Rl (-)	Natura Litol.	Y' t/m ³	p'vo kg/cm ²	Cu kg/cm ²	OCR (-)	Eu50 kg/cm ²	Eu25 kg/cm ²	Mo kg/cm ²	Dr %	ø1s (°)	ø2s (°)	ø3s (°)	ø4s (°)	ødm (°)	ømy (°)	Amax/g (-)	E'50 kg/cm ²	E'25 kg/cm ²	Mo kg/cm ²
0,20	--	--	???	1,85	0,04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,40	--	--	???	1,85	0,07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,60	20	43	4/1	1,85	0,11	0,80	74,1	136	204	60	70	38	40	42	44	40	27	0,160	33	50	60
0,80	23	38	3/1	1,85	0,15	--	--	--	--	--	68	38	39	41	43	39	28	0,153	38	58	69
1,00	22	37	3/1	1,85	0,19	--	--	--	--	--	61	37	39	41	43	38	28	0,134	37	55	66
1,20	11	10	2/1	1,85	0,22	0,54	18,9	91	137	42	--	--	--	--	--	--	--	--	--	--	--
1,40	22	25	4/1	1,85	0,26	0,85	27,6	144	216	66	53	35	38	40	42	36	28	0,111	37	55	66
1,60	19	24	2/1	1,85	0,30	0,78	20,9	132	198	58	--	--	--	--	--	--	--	--	--	--	--
1,80	17	25	2/1	1,85	0,33	0,72	16,6	123	184	54	--	--	--	--	--	--	--	--	--	--	--
2,00	19	41	4/1	1,85	0,37	0,78	15,8	132	198	58	39	33	36	38	41	33	27	0,078	32	48	57
2,20	17	32	4/1	1,85	0,41	0,72	12,9	123	184	54	33	33	35	38	41	32	27	0,064	28	43	51
2,40	7	15	1/1	1,85	0,44	0,35	4,7	23	34	11	--	--	--	--	--	--	--	--	--	--	--
2,60	8	15	2/1	1,85	0,48	0,40	5,0	133	199	35	--	--	--	--	--	--	--	--	--	--	--
2,80	14	35	4/1	1,85	0,52	0,64	8,1	124	186	48	20	31	34	37	40	30	26	0,039	23	35	42
3,00	17	17	2/1	1,85	0,55	0,72	8,7	131	197	54	--	--	--	--	--	--	--	--	--	--	--
3,20	19	18	2/1	1,85	0,59	0,78	8,8	140	210	58	--	--	--	--	--	--	--	--	--	--	--
3,40	16	11	2/1	1,85	0,63	0,70	7,1	157	235	52	--	--	--	--	--	--	--	--	--	--	--
3,60	16	10	2/1	1,85	0,67	0,70	6,6	170	256	52	--	--	--	--	--	--	--	--	--	--	--
3,80	20	14	4/1	1,85	0,70	0,80	7,4	173	260	60	25	32	34	37	40	30	27	0,048	33	50	60
4,00	19	14	2/1	1,85	0,74	0,78	6,7	189	284	58	--	--	--	--	--	--	--	--	--	--	--
4,20	18	13	2/1	1,85	0,78	0,75	6,0	206	308	56	--	--	--	--	--	--	--	--	--	--	--
4,40	17	12	2/1	1,85	0,81	0,72	5,4	221	332	54	--	--	--	--	--	--	--	--	--	--	--
4,60	20	13	4/1	1,85	0,85	0,80	5,8	227	341	60	21	31	34	37	40	29	27	0,039	33	50	60
4,80	29	13	4/1	1,85	0,89	0,98	7,1	221	332	87	32	33	35	38	41	31	29	0,063	48	73	87
5,00	48	38	3/1	1,85	0,93	--	--	--	--	--	49	35	37	39	42	33	31	0,101	80	120	144
5,20	27	18	4/1	1,85	0,96	0,95	6,2	253	379	81	28	32	35	37	40	30	28	0,054	45	68	81
5,40	36	20	4/1	1,85	1,00	1,20	7,9	241	361	108	37	33	36	38	41	31	30	0,073	60	90	108
5,60	39	20	4/1	1,85	1,04	1,30	8,3	247	370	117	39	33	36	38	41	32	30	0,077	65	98	117
5,80	39	19	4/1	1,85	1,07	1,30	8,0	258	387	117	38	33	36	38	41	31	30	0,075	65	98	117
6,00	44	26	4/1	1,85	1,11	1,47	8,9	263	394	132	41	34	36	39	41	32	31	0,083	73	110	132
6,20	41	27	4/1	1,85	1,15	1,37	7,8	277	416	123	38	33	36	38	41	31	30	0,075	68	103	123
6,40	30	25	4/1	1,85	1,18	1,00	5,1	326	489	90	26	32	34	37	40	29	29	0,051	50	75	90
6,60	41	32	3/1	1,85	1,22	--	--	--	--	--	36	33	36	38	41	31	30	0,072	68	103	123
6,80	54	48	3/1	1,85	1,26	--	--	--	--	--	45	34	37	39	42	32	31	0,092	90	135	162
7,00	32	53	3/1	1,85	1,30	--	--	--	--	--	27	32	34	37	40	29	29	0,051	53	80	96
7,20	17	10	2/1	1,85	1,33	0,72	2,9	361	542	54	--	--	--	--	--	--	--	--	--	--	--
7,40	26	24	4/1	1,85	1,37	0,93	3,9	385	577	78	18	31	33	36	39	28	28	0,034	43	65	78
7,60	86	54	3/1	1,85	1,41	--	--	--	--	--	58	36	38	40	43	34	33	0,126	143	215	258
7,80	104	39	3/1	1,85	1,44	--	--	--	--	--	64	37	39	41	43	35	34	0,143	173	260	312
8,00	97	45	3/1	1,85	1,48	--	--	--	--	--	61	37	39	41	43	35	34	0,134	162	243	291
8,20	136	45	3/1	1,85	1,52	--	--	--	--	--	72	38	40	42	44	36	35	0,166	227	340	408
8,40	132	42	3/1	1,85	1,55	--	--	--	--	--	71	38	40	42	44	36	35	0,161	220	330	396
8,60	124	53	3/1	1,85	1,59	--	--	--	--	--	68	38	39	41	43	36	35	0,153	207	310	372
8,80	137	53	3/1	1,85	1,63	--	--	--	--	--	71	38	40	42	44	36	35	0,162	228	343	411
9,00	123	56	3/1	1,85	1,66	--	--	--	--	--	67	37	39	41	43	35	35	0,149	205	308	369
9,20	121	38	3/1	1,85	1,70	--	--	--	--	--	66	37	39	41	43	35	35	0,146	202	303	363
9,40	109	43	3/1	1,01	1,72	--	--	--	--	--	62	37	39	41	43	34	34	0,135	182	273	327
9,60	103	35	3/1	1,00	1,74	--	--	--	--	--	59	36	38	41	43	34	34	0,129	172	258	309
9,80	85	51	3/1	0,98	1,76	--	--	--	--	--	53	35	38	40	42	33	33	0,111	142	213	255
10,00	78	43	3/1	0,96	1,78	--	--	--	--	--	49	35	37	39	42	32	33	0,102	130	195	234
10,20	85	39	3/1	0,98	1,80	--	--	--	--	--	52	35	37	40	42	33	33	0,109	142	213	255
10,40	76	46	3/1	0,96	1,82	--	--	--	--	--	48	35	37	39	42	32	33	0,099	127	190	228
10,60	110	43	3/1	1,02	1,84	--	--	--	--	--	60	36	38	41	43	34	34	0,131	183	275	330
10,80	111	20	4/1	1,06	1,86	3,70	14,8	629	944	333	60	36	38	41	43	34	34	0,132	185	278	333
11,00	109	63	3/1	1,01	1,88	--	--	--	--	--	60	36	38	41	43	34	34	0,129	182	273	327
11,20	100	47	3/1	1,00	1,90	--	--	--	--	--	56	36	38	40	43	33	34	0,120	167	250	300
11,40	94	45	3/1	0,99	1,92	--	--	--	--	--	54	36	38	40	42	33	34	0,114	157	235	282
11,60	89	44	3/1	0,98	1,94	--	--	--	--	--	52	35	37	40	42	33	33	0,109	148	223	267
11,80	66	41	3/1	0,94	1,96	--	--	--	--	--	41	34	36	39	41	31	32	0,083	110	165	198
12,00	64	42	3/1	0,94	1,98	--	--	--	--	--	40	34	36	39	41	31	32	0,080	107	160	192
12,20	61	28	4/1	1,02	2,00	2,03	6,4	518	777	183	38	33	36	38	41	30	32	0,075	102	153	183
12,40	84	60	3/1	0,97	2,02	--	--	--	--	--	49	35	37	39	42	32	33	0,101	140	210	252
12,60	115	59	3/1	1,02	2,04	--	--	--	--	--	59	36	38	40	43	34	35	0,129	192	288	345
12,80	109	51	3/1	1,01	2,06	--	--	--	--	--	57	36	38	40	43	33	34	0,123	182	273	327
13,00	140	62	3/1	1,06	2,08	--	--	--	--	--	66	37	39	41	43	35	36	0,146	233	350	420
13,20	123	71	3/1	1,03	2,10	--	--	--	--	--	61	37	39	41	43	34</					

PROVA PENETROMETRICA STATICA

TABELLA PARAMETRI GEOTECNICI

CPTm 2

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)
- note :

- data : 08/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,50 m da quota inizio
- pagina : 1

NATURA COESIVA											NATURA GRANULARE										
Prof. m	Rp kg/cm²	Rp/RI (-)	Natura Litol.	Y' t/m³	p'vo kg/cm²	Cu kg/cm²	OCR (-)	Eu50 kg/cm²	Eu25 kg/cm²	Mo kg/cm²	Dr %	ø1s (°)	ø2s (°)	ø3s (°)	ø4s (°)	ødm (°)	ømy (°)	Amax/g (-)	E'50 kg/cm²	E'25 kg/cm²	Mo kg/cm²
0,20	--	--	???	1,85	0,04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,40	--	--	???	1,85	0,07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,60	28	19	4/1	1,85	0,11	0,97	93,8	164	246	84	82	39	41	43	45	41	28	0,196	47	70	84
0,80	21	16	4/1	1,85	0,15	0,82	53,7	140	210	63	65	37	39	41	43	39	27	0,144	35	53	63
1,00	15	11	2/III	1,85	0,19	0,67	31,2	113	170	50	--	--	--	--	--	--	--	--	--	--	--
1,20	20	50	4/1	1,85	0,22	0,80	31,2	136	204	60	53	35	38	40	42	36	27	0,113	33	50	60
1,40	25	16	4/1	1,85	0,26	0,91	30,2	155	232	75	57	36	38	40	43	37	28	0,123	42	63	75
1,60	15	16	2/III	1,85	0,30	0,87	24,1	148	221	69	51	35	37	40	42	36	28	0,107	38	58	69
1,80	15	20	2/III	1,85	0,33	0,67	15,0	113	170	50	--	--	--	--	--	--	--	--	--	--	--
2,00	20	21	4/1	1,85	0,41	0,80	14,6	136	204	60	39	33	36	38	41	33	27	0,077	33	50	60
2,40	25	14	4/1	1,85	0,44	0,91	15,4	155	232	75	44	34	37	39	42	34	28	0,090	42	63	75
2,60	21	13	4/1	1,85	0,48	0,82	12,3	140	210	63	36	33	36	38	41	32	27	0,071	35	53	63
2,80	20	12	4/1	1,85	0,52	0,80	10,8	136	204	60	33	33	35	38	41	32	27	0,064	33	50	60
3,00	20	14	4/1	1,85	0,55	0,80	9,9	136	204	60	31	32	35	38	40	31	27	0,060	33	50	60
3,20	17	10	2/III	1,85	0,59	0,72	8,1	142	213	54	--	--	--	--	--	--	--	--	--	--	--
3,40	19	11	2/III	1,85	0,63	0,78	8,2	150	225	58	--	--	--	--	--	--	--	--	--	--	--
3,60	24	13	4/1	1,85	0,67	0,89	9,0	158	237	72	33	33	35	38	41	31	28	0,064	40	60	72
3,80	25	12	4/1	1,85	0,70	0,91	8,7	167	250	75	33	33	35	38	41	31	28	0,064	42	63	75
4,00	28	13	4/1	1,85	0,74	0,97	8,8	175	263	84	36	33	36	38	41	32	28	0,070	47	70	84
4,20	26	9	4/1	1,85	0,78	0,93	7,8	188	281	78	32	32	35	38	41	31	28	0,062	43	65	78
4,40	30	15	4/1	1,85	0,81	1,00	8,1	195	292	90	36	33	36	38	41	31	29	0,070	50	75	90
4,60	31	15	4/1	1,85	0,85	1,03	8,0	204	306	93	36	33	36	38	41	31	29	0,070	52	78	93
4,80	122	51	3/III	1,85	0,89	--	--	--	--	--	82	39	41	43	45	39	35	0,196	203	305	366
5,00	64	23	4/1	1,85	0,93	2,13	17,8	363	544	192	59	36	38	40	43	35	32	0,126	107	160	192
5,20	67	18	4/1	1,85	0,96	2,23	18,0	380	570	201	59	36	38	40	43	35	32	0,128	112	168	201
5,40	73	16	4/1	1,85	1,00	2,43	19,1	414	621	219	61	37	39	41	43	35	32	0,134	122	183	219
5,60	58	16	4/1	1,85	1,04	1,93	13,7	329	493	174	52	35	38	40	42	34	31	0,110	97	145	174
5,80	65	34	3/III	1,85	1,07	--	--	--	--	--	55	36	38	40	42	34	32	0,118	108	163	195
6,00	80	41	3/III	1,85	1,11	--	--	--	--	--	62	37	39	41	43	35	33	0,135	133	200	240
6,20	68	39	3/III	1,85	1,15	--	--	--	--	--	55	36	38	40	42	34	32	0,118	113	170	204
6,40	76	46	3/III	1,85	1,18	--	--	--	--	--	58	36	38	40	43	35	33	0,126	127	190	228
6,60	55	22	4/1	1,85	1,22	1,83	10,4	312	467	165	47	35	37	39	42	33	31	0,095	92	138	165
6,80	101	36	3/III	1,85	1,26	--	--	--	--	--	67	37	39	41	43	36	34	0,149	168	253	303
7,00	116	42	3/III	1,85	1,30	--	--	--	--	--	71	38	40	42	44	36	35	0,161	193	290	348
7,20	118	45	3/III	1,85	1,33	--	--	--	--	--	71	38	40	42	44	36	35	0,161	197	295	354
7,40	129	45	3/III	1,85	1,37	--	--	--	--	--	73	38	40	42	44	37	35	0,168	215	323	387
7,60	145	60	3/III	1,85	1,41	--	--	--	--	--	76	39	40	42	44	37	36	0,179	242	363	435
7,80	169	56	3/III	1,85	1,44	--	--	--	--	--	81	39	41	43	44	38	37	0,193	282	423	507
8,00	153	38	3/III	1,85	1,48	--	--	--	--	--	77	39	40	42	44	37	36	0,181	255	383	459
8,20	129	64	3/III	1,85	1,52	--	--	--	--	--	71	38	40	42	44	36	35	0,161	215	323	387
8,40	195	112	3/III	1,85	1,55	--	--	--	--	--	84	40	41	43	45	38	38	0,204	325	488	585
8,60	189	49	3/III	1,13	1,58	--	--	--	--	--	83	40	41	43	45	38	37	0,199	315	473	567
8,80	155	465	3/III	1,08	1,60	--	--	--	--	--	76	39	40	42	44	37	36	0,176	258	388	465
9,00	188	352	3/III	1,13	1,62	--	--	--	--	--	82	39	41	43	45	38	37	0,196	313	470	564
9,20	200	62	3/III	1,15	1,64	--	--	--	--	--	84	40	41	43	45	38	38	0,202	333	500	600
9,40	174	50	3/III	1,11	1,67	--	--	--	--	--	79	39	41	42	44	37	37	0,185	290	435	522
9,60	139	58	3/III	1,06	1,69	--	--	--	--	--	71	38	40	42	44	36	36	0,161	232	348	417
9,80	122	33	3/III	1,03	1,71	--	--	--	--	--	66	37	39	41	43	35	35	0,147	203	305	366
10,00	126	59	3/III	1,04	1,73	--	--	--	--	--	67	37	39	41	43	35	35	0,149	210	315	378
10,20	147	69	3/III	1,07	1,75	--	--	--	--	--	72	38	40	42	44	36	36	0,164	245	368	441
10,40	155	75	3/III	1,08	1,77	--	--	--	--	--	73	38	40	42	44	36	36	0,168	258	388	465
10,60	178	127	3/III	1,12	1,79	--	--	--	--	--	78	39	41	42	44	37	37	0,182	297	445	534
10,80	178	48	3/III	1,12	1,82	--	--	--	--	--	77	39	41	42	44	37	37	0,181	297	445	534
11,00	104	56	3/III	1,01	1,84	--	--	--	--	--	58	36	38	40	43	34	34	0,126	173	260	312
11,20	110	46	3/III	1,02	1,86	--	--	--	--	--	60	36	38	41	43	34	34	0,131	183	275	330
11,40	126	41	3/III	1,04	1,88	--	--	--	--	--	65	37	39	41	43	35	35	0,143	210	315	378
11,60	102	36	3/III	1,00	1,90	--	--	--	--	--	57	36	38	40	43	34	34	0,122	170	255	306
11,80	160	171	3/III	1,09	1,92	--	--	--	--	--	72	38	40	42	44	36	36	0,166	267	400	480
12,00	184	162	3/III	1,13	1,94	--	--	--	--	--	77	39	40	42	44	37	37	0,180	307	460	552
12,20	153	66	3/III	1,08	1,96	--	--	--	--	--	70	38	40	42	44	36	36	0,160	255	383	459
12,40	146	49	3/III	1,07	1,99	--	--	--	--	--	68	38	39	41	43	35	36	0,154	243	365	438
12,60	127	147	3/III	1,04	2,01	--	--	--	--	--	63	37	39	41	43	34	35	0,139	212	318	381
12,80	178	167	3/III	1,12	2,03	--	--	--	--	--	75	38	40	42	44	36	37	0,173	297	445	534
13,00	158	132	3/III	1,09	2,05	--	--	--	--	--	70	38	40	42	44	36	36	0,160	263	395	474
13,20	177	70	3/III	1,12	2,07	--	--	--	--	--	74	38	40	4							

PROVA PENETROMETRICA STATICA

TABELLA PARAMETRI GEOTECNICI

CPTm 3

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Villanova d'Arda (PC)
- note :

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,80 m da quota inizio
- pagina : 1

NATURA COESIVA											NATURA GRANULARE										
Prof. m	Rp kg/cm²	Rp/RI (-)	Natura Litol.	Y' t/m³	p'vo kg/cm²	Cu kg/cm²	OCR (-)	Eu50 kg/cm²	Eu25 kg/cm²	Mo kg/cm²	Dr %	ø1s (°)	ø2s (°)	ø3s (°)	ø4s (°)	ødm (°)	ømy (°)	Amax/g (-)	E'50 kg/cm²	E'25 kg/cm²	Mo kg/cm²
0,20	--	--	???	1,85	0,04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,40	--	--	???	1,85	0,07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,60	41	44	3:~	1,85	0,11	--	--	--	--	--	95	41	43	44	46	43	30	0,240	68	103	123
0,80	27	24	4:/:	1,85	0,15	0,95	63,9	161	242	81	74	38	40	42	44	40	28	0,170	45	68	81
1,00	15	28	2:~	1,85	0,19	0,67	31,2	113	170	50	--	--	--	--	--	--	--	--	--	--	--
1,20	8	17	2:~	1,85	0,22	0,40	13,1	68	102	35	--	--	--	--	--	--	--	--	--	--	--
1,40	7	13	1:~	1,85	0,26	0,35	9,1	15	22	11	--	--	--	--	--	--	--	--	--	--	--
1,60	18	9	2:~	1,85	0,30	0,75	20,1	128	191	56	--	--	--	--	--	--	--	--	--	--	--
1,80	67	35	3:~	1,85	0,33	--	--	--	--	--	85	40	41	43	45	40	32	0,206	112	168	201
2,00	49	16	4:/:	1,85	0,37	1,63	40,2	278	417	147	72	38	40	42	44	38	31	0,164	82	123	147
2,20	30	25	4:/:	1,85	0,41	1,00	19,3	170	255	90	53	35	38	40	42	35	29	0,111	50	75	90
2,40	33	19	4:/:	1,85	0,44	1,10	19,5	187	281	99	54	36	38	40	42	35	29	0,114	55	83	99
2,60	41	28	4:/:	1,85	0,48	1,37	23,2	232	349	123	59	36	38	40	43	36	30	0,128	68	103	123
2,80	59	34	3:~	1,85	0,52	--	--	--	--	--	70	38	40	42	44	38	32	0,159	98	148	177
3,00	58	38	3:~	1,85	0,55	--	--	--	--	--	68	37	39	41	43	37	31	0,152	97	145	174
3,20	46	16	4:/:	1,85	0,59	1,53	20,6	261	391	138	58	36	38	40	43	36	31	0,125	77	115	138
3,40	59	16	4:/:	1,85	0,63	1,97	26,1	334	502	177	65	37	39	41	43	37	32	0,145	98	148	177
3,60	56	13	4:/:	1,85	0,67	1,87	22,8	317	476	168	62	37	39	41	43	36	31	0,136	93	140	168
3,80	55	13	4:/:	1,85	0,70	1,83	20,8	312	467	165	60	36	38	41	43	36	31	0,131	92	138	165
4,00	78	14	4:/:	1,85	0,74	2,60	30,2	442	663	234	71	38	40	42	44	37	33	0,161	130	195	234
4,20	61	15	4:/:	1,85	0,78	2,03	20,9	346	519	183	61	37	39	41	43	36	32	0,134	102	153	183
4,40	109	38	3:~	1,85	0,81	--	--	--	--	--	80	39	41	43	44	38	34	0,190	182	273	327
4,60	101	61	3:~	1,85	0,85	--	--	--	--	--	76	39	40	42	44	38	34	0,178	168	253	303
4,80	69	29	4:/:	1,85	0,89	2,30	20,6	391	586	207	62	37	39	41	43	36	32	0,136	115	173	207
5,00	76	47	3:~	1,85	0,93	--	--	--	--	--	64	37	39	41	43	36	33	0,143	127	190	228
5,20	66	41	3:~	1,85	0,96	--	--	--	--	--	59	36	38	40	43	35	32	0,127	110	165	198
5,40	78	47	3:~	1,85	1,00	--	--	--	--	--	63	37	39	41	43	36	33	0,140	130	195	234
5,60	75	51	3:~	1,85	1,04	--	--	--	--	--	61	37	39	41	43	35	32	0,134	125	188	225
5,80	73	46	3:~	1,85	1,07	--	--	--	--	--	59	36	38	41	43	35	32	0,129	122	183	219
6,00	67	48	3:~	1,85	1,11	--	--	--	--	--	56	36	38	40	42	34	32	0,119	112	168	201
6,20	94	49	3:~	1,85	1,15	--	--	--	--	--	67	37	39	41	43	36	34	0,149	157	235	282
6,40	76	44	3:~	1,85	1,18	--	--	--	--	--	58	36	38	40	43	35	33	0,126	127	190	228
6,60	64	44	3:~	1,85	1,22	--	--	--	--	--	52	35	37	40	42	33	32	0,109	107	160	192
6,80	67	36	3:~	1,85	1,26	--	--	--	--	--	53	35	38	40	42	33	32	0,111	112	168	201
7,00	98	57	3:~	1,85	1,30	--	--	--	--	--	65	37	39	41	43	35	34	0,144	163	245	294
7,20	91	47	3:~	1,85	1,33	--	--	--	--	--	62	37	39	41	43	35	33	0,135	152	228	273
7,40	96	39	3:~	1,85	1,37	--	--	--	--	--	63	37	39	41	43	35	34	0,139	160	240	288
7,60	101	43	3:~	1,85	1,41	--	--	--	--	--	64	37	39	41	43	35	34	0,142	168	253	303
7,80	117	70	3:~	1,85	1,44	--	--	--	--	--	68	38	39	41	43	36	35	0,154	195	293	351
8,00	122	55	3:~	1,85	1,48	--	--	--	--	--	69	38	40	41	44	36	35	0,157	203	305	366
8,20	152	63	3:~	1,85	1,52	--	--	--	--	--	76	39	40	42	44	37	36	0,178	253	380	456
8,40	175	69	3:~	1,85	1,55	--	--	--	--	--	80	39	41	43	44	38	37	0,191	292	438	525
8,60	177	221	3:~	1,85	1,59	--	--	--	--	--	80	39	41	43	44	38	37	0,191	295	443	531
8,80	194	116	3:~	1,14	1,61	--	--	--	--	--	83	40	41	43	45	38	38	0,200	323	485	582
9,00	184	53	3:~	1,13	1,64	--	--	--	--	--	81	39	41	43	44	38	37	0,193	307	460	552
9,20	158	62	3:~	1,09	1,66	--	--	--	--	--	75	39	40	42	44	37	36	0,175	263	395	474
9,40	145	99	3:~	1,07	1,68	--	--	--	--	--	72	38	40	42	44	36	36	0,165	242	363	435
9,60	172	161	3:~	1,11	1,70	--	--	--	--	--	78	39	41	42	44	37	37	0,183	287	430	516
9,80	173	100	3:~	1,11	1,72	--	--	--	--	--	78	39	41	42	44	37	37	0,182	288	433	519
10,00	168	115	3:~	1,10	1,75	--	--	--	--	--	76	39	40	42	44	37	37	0,178	280	420	504
10,20	180	93	3:~	1,12	1,77	--	--	--	--	--	78	39	41	42	44	37	37	0,185	300	450	540
10,40	126	86	3:~	1,04	1,79	--	--	--	--	--	66	37	39	41	43	35	35	0,147	210	315	378
10,60	148	444	3:~	1,07	1,81	--	--	--	--	--	71	38	40	42	44	36	36	0,162	247	370	444
10,80	178	92	3:~	1,12	1,83	--	--	--	--	--	77	39	40	42	44	37	37	0,181	297	445	534
11,00	128	56	3:~	1,04	1,85	--	--	--	--	--	65	37	39	41	43	35	35	0,146	213	320	384
11,20	146	219	3:~	1,07	1,87	--	--	--	--	--	70	38	40	42	44	36	36	0,158	243	365	438
11,40	180	270	3:~	1,12	1,90	--	--	--	--	--	77	39	40	42	44	37	37	0,179	300	450	540
11,60	192	240	3:~	1,14	1,92	--	--	--	--	--	78	39	41	42	44	37	37	0,185	320	480	576
11,80	186	349	3:~	1,13	1,94	--	--	--	--	--	77	39	41	42	44	37	37	0,181	310	465	558
12,00	179	71	3:~	1,12	1,97	--	--	--	--	--	76	39	40	42	44	36	37	0,176	298	448	537
12,20	119	47	3:~	1,03	1,99	--	--	--	--	--	61	37	39	41	43	34	35	0,134	198	298	357
12,40	150	75	3:~	1,08	2,01	--	--	--	--	--	69	38	40	41	44	35	36	0,156	250	375	450
12,60	122	114	3:~	1,03	2,03	--	--	--	--	--	62	37	39	41	43	34	35	0,135	203	305	366
12,80	149	89	3:~	1,07	2,05	--	--	--	--	--	68	38	39	41	43	35	36	0,154	248	373	447
13,00	155	54	3:~	1,08	2,07	--	--	--	--	--	69	38	40	41	44	35	36	0,157	258	388	465
13,20	131	73	3:~	1,05	2,09	--	--	--	--	--											

PROVA PENETROMETRICA STATICA

TABELLA PARAMETRI GEOTECNICI

CPTm 4

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 8,60 m da quota inizio
- pagina : 1

NATURA COESIVA											NATURA GRANULARE										
Prof. m	Rp kg/cm²	Rp/RI (-)	Natura	Y' t/m³	p'vo kg/cm²	Cu kg/cm²	OCR (-)	Eu50 kg/cm²	Eu25 kg/cm²	Mo kg/cm²	Dr %	ø1s (°)	ø2s (°)	ø3s (°)	ø4s (°)	ødm (°)	ømy (°)	Amax/g (-)	E'50 kg/cm²	E'25 kg/cm²	Mo kg/cm²
0,20	--	--	???	1,85	0,04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,40	--	--	???	1,85	0,07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,60	21	16	4/1/	1,85	0,11	0,82	76,9	140	210	63	72	38	40	42	44	40	27	0,165	35	53	63
0,80	13	12	2/III/	1,85	0,15	0,60	36,5	103	154	47	--	--	--	--	--	--	--	--	--	--	--
1,00	10	21	2/III/	1,85	0,19	0,50	21,8	85	128	40	--	--	--	--	--	--	--	--	--	--	--
1,20	14	30	4/1/	1,85	0,22	0,64	23,4	108	162	48	41	34	36	39	41	34	26	0,082	23	35	42
1,40	12	20	2/III/	1,85	0,26	0,57	16,9	97	146	45	--	--	--	--	--	--	--	--	--	--	--
1,60	13	18	2/III/	1,85	0,30	0,60	15,3	103	154	47	--	--	--	--	--	--	--	--	--	--	--
1,80	15	12	2/III/	1,85	0,33	0,67	15,0	113	170	50	--	--	--	--	--	--	--	--	--	--	--
2,00	17	12	2/III/	1,85	0,37	0,72	14,5	123	184	54	--	--	--	--	--	--	--	--	--	--	--
2,20	59	34	3/III/	1,85	0,41	--	--	--	--	--	76	39	40	42	44	39	32	0,177	98	148	177
2,40	62	29	4/1/	1,85	0,44	2,07	42,9	351	527	186	75	39	40	42	44	39	32	0,175	103	155	186
2,60	54	19	4/1/	1,85	0,48	1,80	32,7	306	459	162	69	38	39	41	43	38	31	0,155	90	135	162
2,80	51	16	4/1/	1,85	0,52	1,70	27,7	289	434	153	65	37	39	41	43	37	31	0,144	85	128	153
3,00	56	17	4/1/	1,85	0,55	1,87	28,6	317	476	168	66	37	39	41	43	37	31	0,149	93	140	168
3,20	53	17	4/1/	1,85	0,59	1,77	24,6	300	451	159	63	37	39	41	43	36	31	0,139	88	133	159
3,40	63	17	4/1/	1,85	0,63	2,10	28,3	357	536	189	67	37	39	41	43	37	32	0,151	105	158	189
3,60	52	13	4/1/	1,85	0,67	1,73	20,8	295	442	156	59	36	38	41	43	36	31	0,129	87	130	156
3,80	49	13	4/1/	1,85	0,70	1,63	18,0	278	417	147	56	36	38	40	42	35	31	0,120	82	123	147
4,00	43	13	4/1/	1,85	0,74	1,43	14,3	244	366	129	50	35	37	40	42	34	30	0,105	72	108	129
4,20	43	12	4/1/	1,85	0,78	1,43	13,5	244	366	129	49	35	37	39	42	34	30	0,102	72	108	129
4,40	44	17	4/1/	1,85	0,81	1,47	13,1	249	374	132	49	35	37	39	42	34	31	0,101	73	110	132
4,60	57	37	3/III/	1,85	0,85	--	--	--	--	--	57	36	38	40	43	35	31	0,121	95	143	171
4,80	64	25	4/1/	1,85	0,89	2,13	18,8	363	544	192	60	36	38	41	43	35	32	0,129	107	160	192
5,00	65	44	3/III/	1,85	0,93	--	--	--	--	--	59	36	38	40	43	35	32	0,128	108	163	195
5,20	116	58	3/III/	1,85	0,96	--	--	--	--	--	78	39	41	42	44	38	35	0,184	193	290	348
5,40	84	30	4/1/	1,85	1,00	2,80	22,8	476	714	252	66	37	39	41	43	36	33	0,147	140	210	252
5,60	78	40	3/III/	1,85	1,04	--	--	--	--	--	63	37	39	41	43	35	33	0,138	130	195	234
5,80	85	46	3/III/	1,85	1,07	--	--	--	--	--	65	37	39	41	43	36	33	0,144	142	213	255
6,00	84	41	3/III/	1,85	1,11	--	--	--	--	--	63	37	39	41	43	35	33	0,140	140	210	252
6,20	104	50	3/III/	1,85	1,15	--	--	--	--	--	70	38	40	42	44	36	34	0,159	173	260	312
6,40	81	43	3/III/	1,85	1,18	--	--	--	--	--	61	36	39	41	43	35	33	0,132	135	203	243
6,60	75	56	3/III/	1,85	1,22	--	--	--	--	--	57	36	38	40	43	34	32	0,123	125	188	225
6,80	60	41	3/III/	1,85	1,26	--	--	--	--	--	49	35	37	39	42	33	32	0,101	100	150	180
7,00	83	54	3/III/	1,85	1,30	--	--	--	--	--	59	36	38	40	43	34	33	0,128	138	208	249
7,20	77	52	3/III/	1,85	1,33	--	--	--	--	--	56	36	38	40	42	34	33	0,120	128	193	231
7,40	84	35	3/III/	1,85	1,37	--	--	--	--	--	58	36	38	40	43	34	33	0,126	140	210	252
7,60	92	48	3/III/	1,85	1,41	--	--	--	--	--	61	37	39	41	43	35	33	0,133	153	230	276
7,80	109	58	3/III/	1,85	1,44	--	--	--	--	--	66	37	39	41	43	35	34	0,147	182	273	327
8,00	130	65	3/III/	1,85	1,48	--	--	--	--	--	71	38	40	42	44	36	35	0,163	217	325	390
8,20	118	63	3/III/	1,85	1,52	--	--	--	--	--	68	37	39	41	43	36	35	0,152	197	295	354
8,40	125	49	3/III/	1,85	1,55	--	--	--	--	--	69	38	40	41	44	36	35	0,156	208	313	375
8,60	140	81	3/III/	1,06	1,58	--	--	--	--	--	72	38	40	42	44	36	36	0,167	233	350	420
8,80	165	71	3/III/	1,10	1,60	--	--	--	--	--	78	39	41	42	44	37	37	0,183	275	413	495
9,00	154	59	3/III/	1,08	1,62	--	--	--	--	--	75	39	40	42	44	37	36	0,174	257	385	462
9,20	163	61	3/III/	1,09	1,64	--	--	--	--	--	77	39	40	42	44	37	36	0,180	272	408	489
9,40	144	58	3/III/	1,07	1,66	--	--	--	--	--	72	38	40	42	44	36	36	0,165	240	360	432
9,60	160	77	3/III/	1,09	1,68	--	--	--	--	--	75	39	40	42	44	37	36	0,176	267	400	480
9,80	148	63	3/III/	1,07	1,71	--	--	--	--	--	72	38	40	42	44	36	36	0,166	247	370	444
10,00	163	116	3/III/	1,09	1,73	--	--	--	--	--	75	39	40	42	44	37	36	0,176	272	408	489
10,20	189	98	3/III/	1,13	1,75	--	--	--	--	--	80	39	41	43	44	37	37	0,191	315	473	567
10,40	163	61	3/III/	1,09	1,77	--	--	--	--	--	75	38	40	42	44	37	36	0,174	272	408	489
10,60	135	68	3/III/	1,05	1,79	--	--	--	--	--	68	38	39	41	43	35	35	0,153	225	338	405
10,80	150	83	3/III/	1,08	1,81	--	--	--	--	--	71	38	40	42	44	36	36	0,163	250	375	450
11,00	123	64	3/III/	1,03	1,83	--	--	--	--	--	64	37	39	41	43	35	35	0,142	205	308	369
11,20	104	82	3/III/	1,01	1,86	--	--	--	--	--	58	36	38	40	43	34	34	0,126	173	260	312
11,40	143	63	3/III/	1,06	1,88	--	--	--	--	--	69	38	40	41	44	35	36	0,156	238	358	429
11,60	145	72	3/III/	1,07	1,90	--	--	--	--	--	69	38	40	41	44	35	36	0,157	242	363	435
11,80	138	74	3/III/	1,06	1,92	--	--	--	--	--	67	37	39	41	43	35	36	0,151	230	345	414
12,00	120	67	3/III/	1,03	1,94	--	--	--	--	--	62	37	39	41	43	34	35	0,136	200	300	360
12,20	123	71	3/III/	1,03	1,96	--	--	--	--	--	63	37	39	41	43	34	35	0,138	205	308	369
12,40	107	62	3/III/	1,01	1,98	--	--	--	--	--	58	36	38	40	43	34	34	0,124	178	268	321
12,60	103	52	3/III/	1,00	2,00	--	--	--	--	--	56	36	38	40	42	33	34	0,120	172	258	309
12,80	118	84	3/III/	1,03	2,02	--	--	--	--	--	61	36	39	41	43	34	35	0,132	197	295	354
13,00	138	77	3/III/	1,06	2,04	--	--	--	--	--	66	37	39	41	43	3					

PROVA PENETROMETRICA STATICA

TABELLA PARAMETRI GEOTECNICI

CPTm 5

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,20 m da quota inizio
- pagina : 1

NATURA COESIVA											NATURA GRANULARE										
Prof. m	Rp kg/cm²	Rp/RI (-)	Natura Litol.	Y' t/m³	p'vo kg/cm²	Cu kg/cm²	OCR (-)	Eu50 kg/cm²	Eu25 kg/cm²	Mo kg/cm²	Dr %	ø1s (°)	ø2s (°)	ø3s (°)	ø4s (°)	ødm (°)	ømy (°)	Amax/g (-)	E'50 kg/cm²	E'25 kg/cm²	Mo kg/cm²
0,20	--	--	???	1,85	0,04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,40	--	--	???	1,85	0,07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,60	16	18	2////	1,85	0,11	0,70	62,3	118	177	52	--	--	--	--	--	--	--	--	--	--	--
0,80	14	10	2////	1,85	0,15	0,64	38,9	108	162	48	--	--	--	--	--	--	--	--	--	--	--
1,00	28	22	4//:	1,85	0,19	0,97	49,5	164	246	84	69	38	40	42	44	39	28	0,157	47	70	84
1,20	89	40	3:::	1,85	0,22	--	--	--	--	--	100	42	43	45	46	43	33	0,258	148	223	267
1,40	72	22	4//:	1,85	0,26	2,40	99,9	408	612	216	94	41	42	44	45	41	32	0,236	120	180	216
1,60	70	33	3:::	1,85	0,30	--	--	--	--	--	89	41	42	44	45	41	32	0,221	117	175	210
1,80	50	26	4//:	1,85	0,33	1,67	47,0	283	425	150	75	38	40	42	44	39	31	0,174	83	125	150
2,00	56	18	4//:	1,85	0,37	1,87	47,5	317	476	168	76	39	40	42	44	39	31	0,178	93	140	168
2,20	57	22	4//:	1,85	0,41	1,90	43,1	323	485	171	75	38	40	42	44	39	31	0,173	95	143	171
2,40	60	21	4//:	1,85	0,44	2,00	41,2	340	510	180	74	38	40	42	44	38	32	0,172	100	150	180
2,60	59	30	4//:	1,85	0,48	1,97	36,5	334	502	177	72	38	40	42	44	39	32	0,164	98	148	177
2,80	54	21	4//:	1,85	0,52	1,80	29,8	306	459	162	67	37	39	41	43	37	31	0,150	90	135	162
3,00	43	21	4//:	1,85	0,55	1,43	20,6	244	366	129	57	36	38	40	43	36	30	0,123	72	108	129
3,20	43	17	4//:	1,85	0,59	1,43	19,0	244	366	129	56	36	38	40	42	35	30	0,119	72	108	129
3,40	45	14	4//:	1,85	0,63	1,50	18,6	255	383	135	56	36	38	40	42	35	31	0,119	75	113	135
3,60	58	12	4//:	1,85	0,67	1,93	23,8	329	493	174	63	37	39	41	43	36	31	0,139	97	145	174
3,80	45	10	4//:	1,85	0,70	1,50	16,2	255	383	135	53	35	38	40	42	34	31	0,112	75	113	135
4,00	53	11	4//:	1,85	0,74	1,77	18,6	300	451	159	58	36	38	40	43	35	31	0,124	88	133	159
4,20	44	9	4//:	1,85	0,78	1,47	13,9	249	374	132	50	35	37	40	42	34	31	0,104	73	110	132
4,40	82	19	4//:	1,85	0,81	2,73	28,5	465	697	246	70	38	40	42	44	37	33	0,160	137	205	246
4,60	70	26	4//:	1,85	0,85	2,33	22,2	397	595	210	64	37	39	41	43	36	32	0,141	117	175	210
4,80	64	26	4//:	1,85	0,89	2,13	18,8	363	544	192	60	36	38	41	43	35	32	0,129	107	160	192
5,00	61	38	3:::	1,85	0,93	--	--	--	--	--	57	36	38	40	43	35	32	0,122	102	153	183
5,20	48	29	4//:	1,85	0,96	1,60	11,9	272	408	144	48	35	37	39	42	33	31	0,098	80	120	144
5,40	49	32	3:::	1,85	1,00	--	--	--	--	--	47	35	37	39	42	33	31	0,098	82	123	147
5,60	52	35	3:::	1,85	1,04	--	--	--	--	--	49	35	37	39	42	33	31	0,101	87	130	156
5,80	76	38	3:::	1,85	1,07	--	--	--	--	--	61	37	39	41	43	35	33	0,133	127	190	228
6,00	68	36	3:::	1,85	1,11	--	--	--	--	--	56	36	38	40	42	34	32	0,120	113	170	204
6,20	52	41	3:::	1,85	1,15	--	--	--	--	--	46	34	37	39	42	33	31	0,094	87	130	156
6,40	77	38	3:::	1,85	1,18	--	--	--	--	--	59	36	38	40	43	35	33	0,127	128	193	231
6,60	60	32	3:::	1,85	1,22	--	--	--	--	--	50	35	37	40	42	33	32	0,103	100	150	180
6,80	61	51	3:::	1,85	1,26	--	--	--	--	--	49	35	37	39	42	33	32	0,102	102	153	183
7,00	88	41	3:::	1,85	1,30	--	--	--	--	--	61	37	39	41	43	35	33	0,134	147	220	264
7,20	94	40	3:::	1,85	1,33	--	--	--	--	--	63	37	39	41	43	35	34	0,138	157	235	282
7,40	100	42	3:::	1,85	1,37	--	--	--	--	--	64	37	39	41	43	35	34	0,143	167	250	300
7,60	109	53	3:::	1,85	1,41	--	--	--	--	--	67	37	39	41	43	36	34	0,149	182	273	327
7,80	99	41	3:::	1,85	1,44	--	--	--	--	--	63	37	39	41	43	35	34	0,138	165	248	297
8,00	60	45	3:::	1,85	1,48	--	--	--	--	--	45	34	37	39	42	32	32	0,091	100	150	180
8,20	50	68	3:::	1,85	1,52	--	--	--	--	--	38	33	36	38	41	31	31	0,075	83	125	150
8,40	69	45	3:::	1,85	1,55	--	--	--	--	--	48	35	37	39	42	32	32	0,100	115	173	207
8,60	74	37	3:::	1,85	1,59	--	--	--	--	--	50	35	37	40	42	33	32	0,105	123	185	222
8,80	80	43	3:::	1,85	1,63	--	--	--	--	--	52	35	38	40	42	33	33	0,110	133	200	240
9,00	68	39	3:::	1,85	1,66	--	--	--	--	--	46	34	37	39	42	32	32	0,095	113	170	204
9,20	64	20	4//:	1,02	1,69	2,13	8,4	400	601	192	44	34	37	39	42	32	32	0,089	107	160	192
9,40	69	27	4//:	1,02	1,71	2,30	9,1	405	608	207	46	34	37	39	42	32	32	0,095	115	173	207
9,60	98	47	3:::	1,00	1,73	--	--	--	--	--	58	36	38	40	43	34	34	0,125	163	245	294
9,80	132	94	3:::	1,05	1,75	--	--	--	--	--	68	38	39	41	43	35	35	0,153	220	330	396
10,00	128	60	3:::	1,04	1,77	--	--	--	--	--	67	37	39	41	43	35	35	0,149	213	320	384
10,20	108	51	3:::	1,01	1,79	--	--	--	--	--	60	36	39	41	43	34	34	0,132	180	270	324
10,40	124	53	3:::	1,04	1,81	--	--	--	--	--	65	37	39	41	43	35	35	0,144	207	310	372
10,60	130	57	3:::	1,05	1,83	--	--	--	--	--	66	37	39	41	43	35	35	0,148	217	325	390
10,80	135	48	3:::	1,05	1,85	--	--	--	--	--	67	37	39	41	43	35	35	0,151	225	338	405
11,00	90	30	4//:	1,04	1,87	3,00	11,3	510	765	270	53	35	38	40	42	33	33	0,112	150	225	270
11,20	88	40	3:::	0,98	1,89	--	--	--	--	--	52	35	37	40	42	33	33	0,109	147	220	264
11,40	116	79	3:::	1,02	1,91	--	--	--	--	--	61	37	39	41	43	34	35	0,134	193	290	348
11,60	98	37	3:::	1,00	1,93	--	--	--	--	--	55	36	38	40	42	33	34	0,118	163	245	294
11,80	95	30	4//:	1,05	1,95	3,17	11,5	538	807	285	54	36	38	40	42	33	34	0,114	158	238	285
12,00	78	29	4//:	1,03	1,97	2,60	8,9	467	701	234	47	35	37	39	42	32	33	0,096	130	195	234
12,20	84	52	3:::	0,97	1,99	--	--	--	--	--	49	35	37	39	42	32	33	0,102	140	210	252
12,40	172	64	3:::	1,11	2,01	--	--	--	--	--	74	38	40	42	44	36	37	0,170	287	430	516
12,60	152	163	3:::	1,08	2,04	--	--	--	--	--	69	38	40	41	44	35	36	0,156	253	380	456
12,80	146	51	3:::	1,07	2,06	--	--	--	--	--	67	37	39	41	43	35	36	0,151	243	365	438
13,00	99	40	3:::	1,00	2,0																

PROVA PENETROMETRICA STATICA

TABELLA PARAMETRI GEOTECNICI

CPTm 6

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,30 m da quota inizio
- pagina : 1

NATURA COESIVA											NATURA GRANULARE										
Prof. m	Rp kg/cm²	Rp/RI (-)	Natura Litol.	Y' t/m³	p'vo kg/cm²	Cu kg/cm²	OCR (-)	Eu50 kg/cm²	Eu25 kg/cm²	Mo kg/cm²	Dr %	ø1s (°)	ø2s (°)	ø3s (°)	ø4s (°)	ødm (°)	ømy (°)	Amax/g (-)	E'50 kg/cm²	E'25 kg/cm²	Mo kg/cm²
0,20	--	--	???	1,85	0,04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,40	--	--	???	1,85	0,07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,60	18	12	2////	1,85	0,11	0,75	68,4	128	191	56	--	--	--	--	--	--	--	--	--	--	--
0,80	19	17	2////	1,85	0,15	0,78	49,8	132	198	58	--	--	--	--	--	--	--	--	--	--	--
1,00	13	16	2////	1,85	0,19	0,60	27,6	103	154	47	--	--	--	--	--	--	--	--	--	--	--
1,20	14	21	2////	1,85	0,22	0,64	23,4	108	162	48	--	--	--	--	--	--	--	--	--	--	--
1,40	13	22	2////	1,85	0,26	0,60	18,1	103	154	47	--	--	--	--	--	--	--	--	--	--	--
1,60	14	14	2////	1,85	0,30	0,64	16,3	108	162	48	--	--	--	--	--	--	--	--	--	--	--
1,80	16	17	2////	1,85	0,33	0,70	15,8	118	177	52	--	--	--	--	--	--	--	--	--	--	--
2,00	15	20	2////	1,85	0,37	0,67	13,1	113	170	50	--	--	--	--	--	--	--	--	--	--	--
2,20	14	21	2////	1,85	0,41	0,64	11,0	108	162	48	--	--	--	--	--	--	--	--	--	--	--
2,40	13	19	2////	1,85	0,44	0,60	9,2	106	159	47	--	--	--	--	--	--	--	--	--	--	--
2,60	17	32	4/-/-	1,85	0,48	0,72	10,5	123	184	54	29	32	35	37	40	31	27	0,056	28	43	51
2,80	18	21	2////	1,85	0,52	0,75	10,0	128	191	56	--	--	--	--	--	--	--	--	--	--	--
3,00	17	13	2////	1,85	0,55	0,72	8,7	131	197	54	--	--	--	--	--	--	--	--	--	--	--
3,20	14	13	2////	1,85	0,59	0,64	6,9	150	224	48	--	--	--	--	--	--	--	--	--	--	--
3,40	22	16	4/-/-	1,85	0,63	0,85	9,1	149	224	66	31	32	35	38	41	31	28	0,060	37	55	66
3,60	16	15	2////	1,85	0,67	0,70	6,6	170	256	52	--	--	--	--	--	--	--	--	--	--	--
3,80	23	18	4/-/-	1,85	0,70	0,87	8,2	168	252	69	30	32	35	38	40	31	28	0,058	38	58	69
4,00	27	21	4/-/-	1,85	0,74	0,95	8,5	176	263	81	34	33	35	38	41	31	28	0,067	45	68	81
4,20	20	14	4/-/-	1,85	0,78	0,80	6,5	200	300	60	23	31	34	37	40	29	27	0,043	33	50	60
4,40	20	20	4/-/-	1,85	0,81	0,80	6,1	214	321	60	22	31	34	37	40	29	27	0,041	33	50	60
4,60	23	22	4/-/-	1,85	0,85	0,87	6,4	220	330	69	25	32	34	37	40	30	28	0,048	38	58	69
4,80	25	29	4/-/-	1,85	0,89	0,91	6,5	229	344	75	27	32	35	37	40	30	28	0,052	42	63	75
5,00	18	22	2////	1,85	0,93	0,75	4,8	256	385	56	--	--	--	--	--	--	--	--	--	--	--
5,20	17	25	2////	1,85	0,96	0,72	4,4	269	403	54	--	--	--	--	--	--	--	--	--	--	--
5,40	23	16	4/-/-	1,85	1,00	0,87	5,3	273	410	69	22	31	34	37	40	29	28	0,041	38	58	69
5,60	16	22	2////	1,85	1,04	0,70	3,8	292	437	52	--	--	--	--	--	--	--	--	--	--	--
5,80	14	19	2////	1,85	1,07	0,64	3,3	300	450	48	--	--	--	--	--	--	--	--	--	--	--
6,00	14	6	2////	1,85	1,11	0,64	3,1	307	461	48	--	--	--	--	--	--	--	--	--	--	--
6,20	39	39	3////	1,85	1,15	--	--	--	--	--	36	33	36	38	41	31	30	0,071	65	98	117
6,40	15	12	2////	1,85	1,18	0,67	3,1	326	488	50	--	--	--	--	--	--	--	--	--	--	--
6,60	14	15	2////	1,85	1,22	0,64	2,8	325	487	48	--	--	--	--	--	--	--	--	--	--	--
6,80	12	9	2////	1,85	1,26	0,57	2,3	309	463	45	--	--	--	--	--	--	--	--	--	--	--
7,00	24	30	4/-/-	1,85	1,30	0,89	3,9	363	544	72	17	30	33	36	39	28	28	0,032	40	60	72
7,20	35	20	4/-/-	1,85	1,33	1,17	5,3	364	545	105	29	32	35	37	40	30	29	0,056	58	88	105
7,40	68	39	3////	1,85	1,37	--	--	--	--	--	51	35	37	40	42	33	32	0,107	113	170	204
7,60	49	25	4/-/-	1,85	1,41	1,63	7,6	343	515	147	39	33	36	38	41	31	31	0,078	82	123	147
7,80	65	46	3////	1,85	1,44	--	--	--	--	--	48	35	37	39	42	33	32	0,100	108	163	195
8,00	38	15	4/-/-	1,85	1,48	1,27	5,2	406	609	114	29	32	35	37	40	29	30	0,056	63	95	114
8,20	48	31	3////	1,85	1,52	--	--	--	--	--	37	33	36	38	41	31	31	0,072	80	120	144
8,40	82	41	3////	1,85	1,55	--	--	--	--	--	54	36	38	40	42	33	33	0,115	137	205	246
8,60	72	33	3////	1,85	1,59	--	--	--	--	--	49	35	37	39	42	33	32	0,102	120	180	216
8,80	84	35	3////	1,85	1,63	--	--	--	--	--	54	36	38	40	42	33	33	0,115	140	210	252
9,00	89	34	3////	1,85	1,66	--	--	--	--	--	56	36	38	40	42	33	33	0,118	148	223	267
9,20	117	41	3////	1,85	1,70	--	--	--	--	--	64	37	39	41	43	35	35	0,143	195	293	351
9,40	129	43	3////	1,04	1,72	--	--	--	--	--	67	37	39	41	43	35	35	0,152	215	323	387
9,60	125	39	3////	1,04	1,74	--	--	--	--	--	66	37	39	41	43	35	35	0,148	208	313	375
9,80	117	46	3////	1,03	1,76	--	--	--	--	--	64	37	39	41	43	35	35	0,140	195	293	351
10,00	110	49	3////	1,02	1,78	--	--	--	--	--	61	37	39	41	43	34	34	0,134	183	275	330
10,20	119	50	3////	1,03	1,80	--	--	--	--	--	64	37	39	41	43	35	35	0,140	198	298	357
10,40	127	61	3////	1,04	1,83	--	--	--	--	--	66	37	39	41	43	35	35	0,146	212	318	381
10,60	114	45	3////	1,02	1,85	--	--	--	--	--	62	37	39	41	43	34	34	0,135	190	285	342
10,80	118	45	3////	1,03	1,87	--	--	--	--	--	62	37	39	41	43	34	35	0,137	197	295	354
11,00	85	44	3////	0,98	1,89	--	--	--	--	--	51	35	37	40	42	33	33	0,106	142	213	255
11,20	106	50	3////	1,01	1,91	--	--	--	--	--	58	36	38	40	43	34	34	0,126	177	265	318
11,40	108	42	3////	1,01	1,93	--	--	--	--	--	59	36	38	40	43	34	34	0,127	180	270	324
11,60	86	25	4/-/-	1,04	1,95	2,87	10,2	487	731	258	51	35	37	40	42	32	33	0,105	143	215	258
11,80	68	31	3////	0,95	1,97	--	--	--	--	--	42	34	36	39	41	31	32	0,085	113	170	204
12,00	135	61	3////	1,05	1,99	--	--	--	--	--	66	37	39	41	43	35	35	0,146	225	338	405
12,20	117	117	3////	1,03	2,01	--	--	--	--	--	60	36	38	41	43	34	35	0,131	195	293	351
12,40	166	69	3////	1,10	2,03	--	--	--	--	--	72	38	40	42	44	36	37	0,165	277	415	498
12,60	99	71	3////	1,00	2,05	--	--	--	--	--	54	36	38	40	42	33	34	0,115	165	248	297
12,80	132	60	3////	1,05	2,07	--	--	--	--	--	64	37	39	41	43	34	35	0,141	220	330	396
13,00	96	33	3////	0,99	2,09	--	--	--	--	--	53	35	38	40	42	33	34	0,111	160	240	288
13,20	79	44	3////	0,97	2,11	--	--	--	--	--	46	34	37	39	42	31	33	0,093	132	198	237
13,40	116	48	3////	1,02	2,13	--	--	--	--	--	59	36	38	40	43	34	35	0,127	193	290	348
13,60	80	32	3////	0,97																	

PROVA PENETROMETRICA STATICA

TABELLA PARAMETRI GEOTECNICI

CPTm 7

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 05/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,50 m da quota inizio
- pagina : 1

NATURA COESIVA											NATURA GRANULARE										
Prof. m	Rp kg/cm ²	Rp/RI (-)	Natura Litol.	Y' t/m ³	p'vo kg/cm ²	Cu kg/cm ²	OCR (-)	Eu50 kg/cm ²	Eu25 kg/cm ²	Mo kg/cm ²	Dr %	ø1s (°)	ø2s (°)	ø3s (°)	ø4s (°)	ødm (°)	ømy (°)	Amax/g (-)	E'50 kg/cm ²	E'25 kg/cm ²	Mo kg/cm ²
0,20	--	--	???	1,85	0,04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,40	--	--	???	1,85	0,07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,60	159	119	3:~:~	1,85	0,11	--	--	--	--	--	100	42	43	45	46	45	36	0,258	265	398	477
0,80	116	32	3:~:~	1,85	0,15	--	--	--	--	--	100	42	43	45	46	45	35	0,258	193	290	348
1,00	44	24	4:/:~	1,85	0,19	1,47	83,5	249	374	132	85	40	41	43	45	41	31	0,206	73	110	132
1,20	22	16	4:/:~	1,85	0,22	0,85	33,4	144	216	66	57	36	38	40	43	37	28	0,121	37	55	66
1,40	38	36	3:~:~	1,85	0,26	--	--	--	--	--	72	38	40	42	44	39	30	0,164	63	95	114
1,60	28	38	3:~:~	1,85	0,30	--	--	--	--	--	58	36	38	40	43	37	28	0,125	47	70	84
1,80	17	20	2:~:~:~	1,85	0,33	0,72	16,6	123	184	54	--	--	--	--	--	--	--	--	--	--	--
2,00	26	56	3:~:~	1,85	0,37	--	--	--	--	--	50	35	37	40	42	35	28	0,104	43	65	78
2,20	38	25	4:/:~	1,85	0,41	1,27	26,0	215	323	114	61	36	39	41	43	37	30	0,132	63	95	114
2,40	35	21	4:/:~	1,85	0,44	1,17	21,0	198	298	105	56	36	38	40	42	36	29	0,119	58	88	105
2,60	37	50	3:~:~	1,85	0,48	--	--	--	--	--	56	36	38	40	42	36	30	0,119	62	93	111
2,80	35	26	4:/:~	1,85	0,52	1,17	17,3	198	298	105	52	35	37	40	42	35	29	0,109	58	88	105
3,00	38	25	4:/:~	1,85	0,55	1,27	17,6	215	323	114	53	35	38	40	42	35	30	0,112	63	95	114
3,20	35	17	4:/:~	1,85	0,59	1,17	14,7	198	298	105	49	35	37	39	42	34	29	0,101	58	88	105
3,40	39	23	4:/:~	1,85	0,63	1,30	15,6	221	332	117	51	35	37	40	42	34	30	0,106	65	98	117
3,60	32	20	4:/:~	1,85	0,67	1,07	11,3	181	272	96	43	34	36	39	41	33	29	0,086	53	80	96
3,80	38	25	4:/:~	1,85	0,70	1,27	13,1	215	323	114	47	35	37	39	42	34	30	0,097	63	95	114
4,00	44	39	3:~:~	1,85	0,74	--	--	--	--	--	51	35	37	40	42	34	31	0,107	73	110	132
4,20	49	19	4:/:~	1,85	0,78	1,63	15,9	278	417	147	54	36	38	40	42	34	31	0,113	82	123	147
4,40	64	13	4:/:~	1,85	0,81	2,13	20,9	363	544	192	62	37	39	41	43	36	32	0,135	107	160	192
4,60	45	11	4:/:~	1,85	0,85	1,50	12,8	255	383	135	48	35	37	39	42	33	31	0,100	75	113	135
4,80	99	22	4:/:~	1,85	0,89	3,30	32,4	561	842	297	75	38	40	42	44	38	34	0,173	165	248	297
5,00	53	16	4:/:~	1,85	0,93	1,77	14,1	300	451	159	52	35	37	40	42	34	31	0,109	88	133	159
5,20	45	14	4:/:~	1,85	0,96	1,50	10,9	255	383	135	45	34	37	39	42	33	31	0,093	75	113	135
5,40	38	19	4:/:~	1,85	1,00	1,27	8,4	237	356	114	39	33	36	38	41	32	30	0,077	63	95	114
5,60	33	18	4:/:~	1,85	1,04	1,10	6,8	263	395	99	33	33	35	38	41	31	29	0,064	55	83	99
5,80	31	17	4:/:~	1,85	1,07	1,03	6,0	284	426	93	30	32	35	38	40	30	29	0,058	52	78	93
6,00	28	15	4:/:~	1,85	1,11	0,97	5,3	304	455	84	26	32	34	37	40	29	28	0,049	47	70	84
6,20	42	20	4:/:~	1,85	1,15	1,40	8,1	275	412	126	39	33	36	38	41	31	30	0,077	70	105	126
6,40	45	20	4:/:~	1,85	1,18	1,50	8,4	281	422	135	40	34	36	39	41	32	31	0,081	75	113	135
6,60	48	27	4:/:~	1,85	1,22	1,60	8,8	289	434	144	42	34	36	39	41	32	31	0,084	80	120	144
6,80	55	55	3:~:~	1,85	1,26	--	--	--	--	--	46	34	37	39	42	32	31	0,094	92	138	165
7,00	62	39	3:~:~	1,85	1,30	--	--	--	--	--	49	35	37	39	42	33	32	0,102	103	155	186
7,20	72	39	3:~:~	1,85	1,33	--	--	--	--	--	54	36	38	40	42	34	32	0,114	120	180	216
7,40	65	34	3:~:~	1,85	1,37	--	--	--	--	--	50	35	37	40	42	33	32	0,103	108	163	195
7,60	67	36	3:~:~	1,85	1,41	--	--	--	--	--	50	35	37	40	42	33	32	0,104	112	168	201
7,80	68	31	3:~:~	1,85	1,44	--	--	--	--	--	50	35	37	40	42	33	32	0,103	113	170	204
8,00	79	37	3:~:~	1,85	1,48	--	--	--	--	--	54	36	38	40	42	33	33	0,115	132	198	237
8,20	116	72	3:~:~	1,85	1,52	--	--	--	--	--	67	37	39	41	43	35	35	0,150	193	290	348
8,40	85	34	3:~:~	1,85	1,55	--	--	--	--	--	56	36	38	40	42	34	33	0,119	142	213	255
8,60	58	54	3:~:~	1,85	1,59	--	--	--	--	--	42	34	36	39	41	31	31	0,084	97	145	174
8,80	83	40	3:~:~	1,85	1,63	--	--	--	--	--	54	36	38	40	42	33	33	0,114	138	208	249
9,00	96	85	3:~:~	1,85	1,66	--	--	--	--	--	58	36	38	40	43	34	34	0,125	160	240	288
9,20	89	38	3:~:~	1,85	1,70	--	--	--	--	--	55	36	38	40	42	33	33	0,117	148	223	267
9,40	68	46	3:~:~	1,85	1,74	--	--	--	--	--	45	34	37	39	42	32	32	0,092	113	170	204
9,60	66	38	3:~:~	0,94	1,76	--	--	--	--	--	44	34	37	39	42	32	32	0,089	110	165	198
9,80	63	67	3:~:~	0,94	1,78	--	--	--	--	--	42	34	36	39	41	31	32	0,085	105	158	189
10,00	159	64	3:~:~	1,09	1,80	--	--	--	--	--	74	38	40	42	44	36	36	0,170	265	398	477
10,20	109	37	3:~:~	1,01	1,82	--	--	--	--	--	60	36	38	41	43	34	34	0,131	182	273	327
10,40	96	85	3:~:~	0,99	1,84	--	--	--	--	--	56	36	38	40	42	33	34	0,119	160	240	288
10,60	137	73	3:~:~	1,06	1,86	--	--	--	--	--	68	37	39	41	43	35	35	0,152	228	343	411
10,80	168	79	3:~:~	1,10	1,88	--	--	--	--	--	74	38	40	42	44	36	37	0,172	280	420	504
11,00	132	66	3:~:~	1,05	1,90	--	--	--	--	--	66	37	39	41	43	35	35	0,147	220	330	396
11,20	115	69	3:~:~	1,02	1,92	--	--	--	--	--	61	37	39	41	43	34	35	0,133	192	288	345
11,40	129	62	3:~:~	1,04	1,94	--	--	--	--	--	65	37	39	41	43	35	35	0,143	215	323	387
11,60	130	85	3:~:~	1,05	1,96	--	--	--	--	--	65	37	39	41	43	35	35	0,143	217	325	390
11,80	113	74	3:~:~	1,02	1,99	--	--	--	--	--	59	36	38	41	43	34	34	0,129	188	283	339
12,00	117	52	3:~:~	1,03	2,01	--	--	--	--	--	60	36	38	41	43	34	35	0,132	195	293	351
12,20	78	29	4:/:~	1,03	2,03	2,60	8,6	481	721	234	46	34	37	39	42	32	33	0,095	130	195	234
12,40	61	38	3:~:~	0,94	2,05	--	--	--	--	--	38	33	36	38	41	30	32	0,074	102	153	183
12,60	84	37	3:~:~	0,97	2,06	--	--	--	--	--	48	35	37	39	42	32	33	0,100	140	210	252
12,80	70	50	3:~:~	0,95	2,08	--	--														

PROVA PENETROMETRICA STATICA **TABELLA PARAMETRI GEOTECNICI**

CPTm 8

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 9,50 m da quota inizio
- pagina : 1

NATURA COESIVA											NATURA GRANULARE										
Prof. m	Rp kg/cm²	Rp/RI (-)	Natura Litol.	Y' t/m³	p'vo kg/cm²	Cu kg/cm²	OCR (-)	Eu50 kg/cm²	Eu25 kg/cm²	Mo kg/cm²	Dr %	ø1s (°)	ø2s (°)	ø3s (°)	ø4s (°)	ødm (°)	ømy (°)	Amax/g (-)	E'50 kg/cm²	E'25 kg/cm²	Mo kg/cm²
0,20	--	--	???	1,85	0,04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,40	--	--	???	1,85	0,07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,60	20	33	4/1:	1,85	0,11	0,80	74,1	136	204	60	70	38	40	42	44	40	27	0,160	33	50	60
0,80	12	26	2/III:	1,85	0,15	0,57	34,0	97	146	45	--	--	--	--	--	--	--	--	--	--	--
1,00	10	30	4/1:	1,85	0,19	0,50	21,8	85	128	40	34	33	35	38	41	34	26	0,066	17	25	30
1,20	9	15	2/III:	1,85	0,22	0,45	15,2	77	115	38	--	--	--	--	--	--	--	--	--	--	--
1,40	13	24	2/III:	1,85	0,26	0,60	18,1	103	154	47	--	--	--	--	--	--	--	--	--	--	--
1,60	14	19	2/III:	1,85	0,30	0,64	16,3	108	162	48	--	--	--	--	--	--	--	--	--	--	--
1,80	25	25	4/1:	1,85	0,33	0,91	22,0	155	232	75	51	35	37	40	42	35	28	0,107	42	63	75
2,00	16	18	2/III:	1,85	0,37	0,70	13,8	118	177	52	--	--	--	--	--	--	--	--	--	--	--
2,20	18	15	2/III:	1,85	0,41	0,75	13,5	128	191	56	--	--	--	--	--	--	--	--	--	--	--
2,40	18	27	2/III:	1,85	0,44	0,75	12,1	128	191	56	--	--	--	--	--	--	--	--	--	--	--
2,60	35	40	3:::	1,85	0,48	--	--	--	--	--	54	36	38	40	42	35	29	0,114	58	88	105
2,80	20	17	4/1:	1,85	0,52	0,80	10,8	136	204	60	33	33	35	38	41	32	27	0,064	33	50	60
3,00	31	21	4/1:	1,85	0,55	1,03	13,7	176	264	93	46	34	37	39	42	34	29	0,094	52	78	93
3,20	40	22	4/1:	1,85	0,59	1,33	17,3	227	340	120	53	35	38	40	42	35	30	0,112	67	100	120
3,40	42	37	3:::	1,85	0,63	--	--	--	--	--	53	35	38	40	42	35	30	0,113	70	105	126
3,60	32	15	4/1:	1,85	0,67	1,07	11,3	181	272	96	43	34	36	39	41	33	29	0,086	53	80	96
3,80	30	25	4/1:	1,85	0,70	1,00	9,8	171	256	90	39	33	36	38	41	32	29	0,078	50	75	90
4,00	24	17	4/1:	1,85	0,74	0,89	7,9	178	267	72	30	32	35	38	40	31	28	0,058	40	60	72
4,20	18	17	2/III:	1,85	0,78	0,75	6,0	206	308	56	--	--	--	--	--	--	--	--	--	--	--
4,40	16	17	2/III:	1,85	0,81	0,70	5,2	224	335	52	--	--	--	--	--	--	--	--	--	--	--
4,60	16	17	2/III:	1,85	0,85	0,70	4,9	236	353	52	--	--	--	--	--	--	--	--	--	--	--
4,80	16	18	2/III:	1,85	0,89	0,70	4,6	247	371	52	--	--	--	--	--	--	--	--	--	--	--
5,00	15	20	2/III:	1,85	0,93	0,67	4,2	258	387	50	--	--	--	--	--	--	--	--	--	--	--
5,20	21	19	4/1:	1,85	0,96	0,82	5,2	264	396	63	19	31	34	36	40	28	27	0,037	35	53	63
5,40	19	24	2/III:	1,85	1,00	0,78	4,6	278	418	58	--	--	--	--	--	--	--	--	--	--	--
5,60	22	27	4/1:	1,85	1,04	0,85	4,9	287	430	66	19	31	34	36	40	28	28	0,036	37	55	66
5,80	12	20	2/III:	1,85	1,07	0,57	2,9	288	432	45	--	--	--	--	--	--	--	--	--	--	--
6,00	9	15	2/III:	1,85	1,11	0,45	2,0	251	377	38	--	--	--	--	--	--	--	--	--	--	--
6,20	9	12	2/III:	1,85	1,15	0,45	1,9	253	380	38	--	--	--	--	--	--	--	--	--	--	--
6,40	10	6	2/III:	1,85	1,18	0,50	2,1	276	414	40	--	--	--	--	--	--	--	--	--	--	--
6,60	35	24	4/1:	1,85	1,22	1,17	5,9	324	486	105	--	--	--	--	--	--	--	--	--	--	--
6,80	78	45	3:::	1,85	1,26	--	--	--	--	--	58	36	38	40	43	34	33	0,125	130	195	234
7,00	74	30	4/1:	1,85	1,30	2,47	14,0	419	629	222	55	36	38	40	42	34	32	0,118	123	185	222
7,20	51	29	4/1:	1,85	1,33	1,70	8,5	316	474	153	42	34	36	39	41	32	31	0,084	85	128	153
7,40	56	24	4/1:	1,85	1,37	1,87	9,3	326	489	168	44	34	37	39	42	32	31	0,090	93	140	168
7,60	60	31	3:::	1,85	1,41	--	--	--	--	--	46	34	37	39	42	32	32	0,094	100	150	180
7,80	65	31	3:::	1,85	1,44	--	--	--	--	--	48	35	37	39	42	33	32	0,100	108	163	195
8,00	66	35	3:::	1,85	1,48	--	--	--	--	--	48	35	37	39	42	32	32	0,099	110	165	198
8,20	61	30	4/1:	1,85	1,52	2,03	9,1	360	540	183	45	34	37	39	42	32	32	0,091	102	153	183
8,40	70	36	3:::	1,85	1,55	--	--	--	--	--	49	35	37	39	42	33	32	0,101	117	175	210
8,60	64	33	3:::	1,85	1,59	--	--	--	--	--	45	34	37	39	42	32	32	0,092	107	160	192
8,80	52	30	4/1:	1,85	1,63	1,73	6,8	413	620	156	38	33	36	38	41	31	31	0,074	87	130	156
9,00	63	33	3:::	1,85	1,66	--	--	--	--	--	44	34	36	39	41	32	32	0,088	105	158	189
9,20	52	35	3:::	1,85	1,70	--	--	--	--	--	37	33	36	38	41	30	31	0,072	87	130	156
9,40	92	41	3:::	1,85	1,74	--	--	--	--	--	56	36	38	40	42	33	33	0,119	153	230	276
9,60	47	25	4/1:	1,01	1,76	1,57	5,4	478	717	141	32	33	35	38	41	30	31	0,063	78	118	141
9,80	69	29	4/1:	1,02	1,78	2,30	8,7	422	633	207	45	34	37	39	42	32	32	0,092	115	173	207
10,00	84	47	3:::	0,97	1,80	--	--	--	--	--	52	35	37	40	42	33	33	0,108	140	210	252
10,20	86	29	4/1:	1,04	1,82	2,87	11,1	487	731	258	52	35	38	40	42	33	33	0,110	143	215	258
10,40	54	32	3:::	0,92	1,84	--	--	--	--	--	36	33	36	38	41	30	31	0,071	90	135	162
10,60	91	49	3:::	0,99	1,86	--	--	--	--	--	54	36	38	40	42	33	33	0,113	152	228	273
10,80	63	19	4/1:	1,02	1,88	2,10	7,2	466	699	189	41	34	36	39	41	31	32	0,081	105	158	189
11,00	75	225	3:::	0,96	1,90	--	--	--	--	--	46	35	37	39	42	32	32	0,095	125	188	225
11,20	126	82	3:::	1,04	1,92	--	--	--	--	--	64	37	39	41	43	35	35	0,142	210	315	378
11,40	72	27	4/1:	1,03	1,94	2,40	8,2	463	694	216	45	34	37	39	42	31	32	0,091	120	180	216
11,60	69	43	3:::	0,95	1,96	--	--	--	--	--	43	34	36	39	41	31	32	0,086	115	173	207
11,80	68	36	3:::	0,95	1,98	--	--	--	--	--	42	34	36	39	41	31	32	0,085	113	170	204
12,00	63	38	3:::	0,94	2,00	--	--	--	--	--	39	33	36	38	41	31	32	0,078	105	158	189
12,20	120	75	3:::	1,03	2,02	--	--	--	--	--	61	37	39	41	43	34	35	0,134	200	300	360
12,40	127	42	3:::	1,04	2,04	--	--	--	--	--	63	37	39	41	43	34	35	0,138	212	318	381
12,60	75	33	3:::	0,96	2,06	--	--	--	--	--	45	34	37	39	42	31	32	0,090	125	188	225
12,80	107	43	3:::	1,01	2,08	--	--	--	--	--	56	36	38	40	43	33	34	0,121	178	268	321
13,00	69	30	4/1:	1,02	2,10	2,30	7,0	525	787	207	41	34	36	39	41	31	32	0,082	115	173	207
13,20	48	22	4/1:	1,01	2,12	1,60	4,4	591	886	144	28	32	35	37	40	29	31	0,055	80	120	144
13,40	47	282																			

PROVA PENETROMETRICA STATICA **TABELLA PARAMETRI GEOTECNICI**

CPTm 9

2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 10,00 m da quota inizio
- pagina : 1

NATURA COESIVA											NATURA GRANULARE										
Prof. m	Rp kg/cm²	Rp/RI (-)	Natura Litol.	Y' t/m³	p'vo kg/cm²	Cu kg/cm²	OCR (-)	Eu50 kg/cm²	Eu25 kg/cm²	Mo kg/cm²	Dr %	ø1s (°)	ø2s (°)	ø3s (°)	ø4s (°)	ødm (°)	ømy (°)	Amax/g (-)	E'50 kg/cm²	E'25 kg/cm²	Mo kg/cm²
0,20	--	--	???	1,85	0,04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,40	--	--	???	1,85	0,07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0,60	22	25	4/./	1,85	0,11	0,85	79,5	144	216	66	74	38	40	42	44	40	28	0,170	37	55	66
0,80	13	32	4/./	1,85	0,15	0,60	36,5	103	154	47	48	35	37	39	42	36	26	0,100	22	33	39
1,00	15	9	2////	1,85	0,19	0,67	31,2	113	170	50	--	--	--	--	--	--	--	--	--	--	--
1,20	80	44	3....	1,85	0,22	--	--	--	--	--	100	42	43	45	46	43	33	0,258	133	200	240
1,40	23	25	4/./	1,85	0,26	0,87	28,5	148	221	69	54	36	38	40	42	36	28	0,115	38	58	69
1,60	15	28	2////	1,85	0,30	0,67	17,3	113	170	50	--	--	--	--	--	--	--	--	--	--	--
1,80	11	33	4/./	1,85	0,33	0,54	11,4	91	137	42	23	31	34	37	40	31	26	0,044	18	28	33
2,00	8	17	2////	1,85	0,37	0,40	6,9	93	140	35	--	--	--	--	--	--	--	--	--	--	--
2,20	11	18	2////	1,85	0,41	0,54	8,9	96	145	42	--	--	--	--	--	--	--	--	--	--	--
2,40	13	15	2////	1,85	0,44	0,60	9,2	106	159	47	--	--	--	--	--	--	--	--	--	--	--
2,60	14	21	2////	1,85	0,48	0,64	8,9	114	171	48	--	--	--	--	--	--	--	--	--	--	--
2,80	14	26	2////	1,85	0,52	0,64	8,1	124	186	48	--	--	--	--	--	--	--	--	--	--	--
3,00	12	16	2////	1,85	0,55	0,57	6,5	143	214	45	--	--	--	--	--	--	--	--	--	--	--
3,20	14	23	2////	1,85	0,59	0,64	6,9	150	224	48	--	--	--	--	--	--	--	--	--	--	--
3,40	14	12	2////	1,85	0,63	0,64	6,4	163	245	48	--	--	--	--	--	--	--	--	--	--	--
3,60	23	22	4/./	1,85	0,67	0,87	8,7	158	237	69	31	32	35	38	41	31	28	0,061	38	58	69
3,80	23	13	4/./	1,85	0,70	0,87	8,2	168	252	69	30	32	35	38	40	31	28	0,058	38	58	69
4,00	18	13	2////	1,85	0,74	0,75	6,4	192	288	56	--	--	--	--	--	--	--	--	--	--	--
4,20	23	16	4/./	1,85	0,78	0,87	7,2	193	289	69	28	32	35	37	40	30	28	0,053	38	58	69
4,40	152	45	3....	1,85	0,81	--	--	--	--	--	91	41	42	44	45	40	36	0,228	253	380	456
4,60	58	10	4/./	1,85	0,85	1,93	17,5	329	493	174	57	36	38	40	43	35	31	0,123	97	145	174
4,80	35	20	4/./	1,85	0,89	1,17	8,8	210	316	105	39	33	36	38	41	32	29	0,077	58	88	105
5,00	42	29	4/./	1,85	0,93	1,40	10,5	238	357	126	44	34	37	39	42	33	30	0,089	70	105	126
5,20	20	25	4/./	1,85	0,96	0,80	5,0	266	398	60	18	30	33	36	39	28	27	0,034	33	50	60
5,40	30	16	4/./	1,85	1,00	1,00	6,3	260	391	90	31	32	35	38	40	30	29	0,059	50	75	90
5,60	37	31	3....	1,85	1,04	--	--	--	--	--	37	33	36	38	41	31	30	0,073	62	93	111
5,80	28	17	4/./	1,85	1,07	0,97	5,5	291	436	84	27	32	34	37	40	29	28	0,051	47	70	84
6,00	24	24	4/./	1,85	1,11	0,89	4,8	308	462	72	20	31	34	37	40	28	28	0,039	40	60	72
6,20	48	29	4/./	1,85	1,15	1,60	9,5	276	413	144	43	34	36	39	41	32	31	0,088	80	120	144
6,40	72	42	3....	1,85	1,18	--	--	--	--	--	57	36	38	40	43	34	32	0,121	120	180	216
6,60	65	44	3....	1,85	1,22	--	--	--	--	--	52	35	38	40	42	33	32	0,110	108	163	195
6,80	50	26	4/./	1,85	1,26	1,67	8,9	298	447	150	43	34	36	39	41	32	31	0,086	83	125	150
7,00	53	32	3....	1,85	1,30	--	--	--	--	--	44	34	37	39	42	32	31	0,089	88	133	159
7,20	73	46	3....	1,85	1,33	--	--	--	--	--	54	36	38	40	42	34	32	0,115	122	183	219
7,40	50	34	3....	1,85	1,37	--	--	--	--	--	41	34	36	39	41	31	31	0,081	83	125	150
7,60	41	38	3....	1,85	1,41	--	--	--	--	--	33	33	35	38	41	30	30	0,064	68	103	123
7,80	61	51	3....	1,85	1,44	--	--	--	--	--	46	34	37	39	42	32	32	0,094	102	153	183
8,00	40	32	3....	1,85	1,48	--	--	--	--	--	31	32	35	38	40	30	30	0,060	67	100	120
8,20	31	19	4/./	1,85	1,52	1,03	3,9	426	639	93	22	31	34	37	40	28	29	0,041	52	78	93
8,40	59	37	3....	1,85	1,55	--	--	--	--	--	43	34	36	39	41	32	32	0,087	98	148	177
8,60	64	44	3....	1,85	1,59	--	--	--	--	--	45	34	37	39	42	32	32	0,092	107	160	192
8,80	58	35	3....	1,85	1,63	--	--	--	--	--	41	34	36	39	41	31	31	0,083	97	145	174
9,00	63	43	3....	1,85	1,66	--	--	--	--	--	44	34	36	39	41	32	32	0,088	105	158	189
9,20	82	42	3....	1,85	1,70	--	--	--	--	--	52	35	38	40	42	33	33	0,110	137	205	246
9,40	105	51	3....	1,85	1,74	--	--	--	--	--	60	36	38	41	43	34	34	0,131	175	263	315
9,60	85	40	3....	1,85	1,78	--	--	--	--	--	52	35	38	40	42	33	33	0,110	142	213	255
9,80	66	45	3....	1,85	1,81	--	--	--	--	--	43	34	36	39	41	31	32	0,087	110	165	198
10,00	82	42	3....	0,97	1,83	--	--	--	--	--	50	35	37	40	42	32	33	0,105	137	205	246
10,20	72	42	3....	0,95	1,85	--	--	--	--	--	46	34	37	39	42	32	32	0,093	120	180	216
10,40	82	32	3....	0,97	1,87	--	--	--	--	--	50	35	37	40	42	32	33	0,104	137	205	246
10,60	68	30	4/./	1,02	1,89	2,27	7,9	456	684	204	43	34	36	39	41	31	32	0,087	113	170	204
10,80	96	40	3....	0,99	1,91	--	--	--	--	--	55	36	38	40	42	33	34	0,116	160	240	288
11,00	87	37	3....	0,98	1,93	--	--	--	--	--	51	35	37	40	42	33	33	0,107	145	218	261
11,20	95	46	3....	0,99	1,95	--	--	--	--	--	54	36	38	40	42	33	34	0,114	158	238	285
11,40	69	74	3....	0,95	1,97	--	--	--	--	--	43	34	36	39	41	31	32	0,086	115	173	207
11,60	104	58	3....	1,01	1,99	--	--	--	--	--	57	36	38	40	43	33	34	0,121	173	260	312
11,80	118	88	3....	1,03	2,01	--	--	--	--	--	61	36	39	41	43	34	35	0,132	197	295	354
12,00	132	55	3....	1,05	2,03	--	--	--	--	--	64	37	39	41	43	35	35	0,142	220	330	396
12,20	60	21	4/./	1,02	2,05	2,00	6,1	541	811	180	37	33	36	38	41	30	32	0,073	100	150	180
12,40	65	36	3....	0,94	2,07	--	--	--	--	--	39	34	36	38	41	31	32	0,078	108	163	195
12,60	109	71	3....	1,01	2,09	--	--	--	--	--	57	36	38	40	43	33	34	0,122	182	273	327
12,80	70	17	4/./	1,03	2,11	2,33	7,1	527	790	210	41	34	36	39	41	31	32	0,083	117	175	210
13,00	95	102	3....	0,99	2,13	--	--	--	--	--	52	35	37	40	42	32	34	0,109	158	238	285
13,20	126	52	3....	1,04	2,15	--	--	--	--	--	61	37	39	41	43	34	35	0,134	210	315	378
13,40																					

PROVA PENETROMETRICA STATICA

TABELLA PARAMETRI GEOTECNICI

CPTm 10

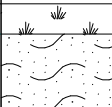
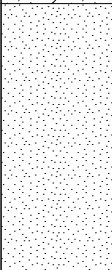


2.010496-053

- committente : A.I.Po
- lavoro : PC-E-810
- località : Soarza (PC)
- note :

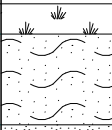
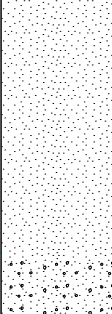
- data : 06/03/2018
- quota inizio : Sommità arginale
- prof. falda : 10,20 m da quota inizio
- pagina : 1

NATURA COESIVA												NATURA GRANULARE											
Prof. m	Rp kg/cm²	Rp/RI (-)	Natura Litol.	Y' t/m³	p'vo kg/cm²	Cu kg/cm²	OCR (-)	Eu50 kg/cm²	Eu25 kg/cm²	Mo kg/cm²	Dr %	ø1s (°)	ø2s (°)	ø3s (°)	ø4s (°)	ødm (°)	ømy (°)	Amax/g (-)	E'50 kg/cm²	E'25 kg/cm²	Mo kg/cm²		
0,20	--	--	???	1,85	0,04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
0,40	--	--	???	1,85	0,07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
0,60	8	20	2/III	1,85	0,11	0,40	31,2	68	102	35	--	--	--	--	--	--	--	--	--	--	--		
0,80	9	27	2/III	1,85	0,15	0,45	25,2	77	115	38	--	--	--	--	--	--	--	--	--	--	--		
1,00	13	49	4/1	1,85	0,19	0,60	27,6	103	154	47	43	34	36	39	41	35	26	0,087	22	33	39		
1,20	14	15	2/III	1,85	0,22	0,64	23,4	108	162	48	--	--	--	--	--	--	--	--	--	--	--		
1,40	14	14	2/III	1,85	0,26	0,64	19,3	108	162	48	--	--	--	--	--	--	--	--	--	--	--		
1,60	29	24	4/1	1,85	0,30	0,98	28,1	167	251	87	59	36	38	40	43	37	29	0,128	48	73	87		
1,80	55	28	4/1	1,85	0,33	1,83	52,9	317	467	165	78	39	41	42	44	39	31	0,184	92	138	165		
2,00	34	27	4/1	1,85	0,37	1,13	25,4	193	289	102	59	36	38	40	43	37	29	0,128	57	85	102		
2,20	42	27	4/1	1,85	0,41	1,40	29,4	238	357	126	64	37	39	41	43	37	30	0,142	70	105	126		
2,40	36	27	4/1	1,85	0,44	1,20	21,8	204	306	108	57	36	38	40	43	36	30	0,121	60	90	108		
2,60	44	21	4/1	1,85	0,48	1,47	25,3	249	374	132	62	37	39	41	43	36	31	0,135	73	110	132		
2,80	40	35	3	1,85	0,52	--	--	--	--	--	57	36	38	40	43	36	30	0,121	67	100	120		
3,00	35	25	4/1	1,85	0,55	1,17	15,9	198	298	105	50	35	37	40	42	34	29	0,105	58	88	105		
3,20	42	42	3	1,85	0,59	--	--	--	--	--	55	36	38	40	42	35	30	0,117	70	105	126		
3,40	29	72	3	1,85	0,63	--	--	--	--	--	41	34	36	39	41	33	29	0,082	48	73	87		
3,60	26	56	3	1,85	0,67	--	--	--	--	--	36	33	36	38	41	32	28	0,070	43	65	78		
3,80	35	40	3	1,85	0,70	--	--	--	--	--	45	34	37	39	42	33	29	0,090	58	88	105		
4,00	30	30	4/1	1,85	0,74	1,00	9,1	176	264	90	38	33	36	38	41	32	29	0,075	50	75	90		
4,20	33	26	4/1	1,85	0,78	1,10	9,7	188	282	99	40	34	36	39	41	32	29	0,080	55	83	99		
4,40	29	18	4/1	1,85	0,81	0,98	7,9	196	294	87	34	33	35	38	41	31	29	0,067	48	73	87		
4,60	37	43	3	1,85	0,85	--	--	--	--	--	42	34	36	39	41	32	30	0,084	62	93	111		
4,80	34	32	3	1,85	0,89	--	--	--	--	--	38	33	36	38	41	32	29	0,075	57	85	102		
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5,40	43	43	3	1,85	1,00	--	--	--	--	--	43	34	36	39	41	32	30	0,087	72	108	129		
5,60	39	34	3	1,85	1,04	--	--	--	--	--	39	33	36	38	41	32	30	0,077	65	98	117		
5,80	27	25	4/1	1,85	1,07	0,95	5,4	292	438	81	25	32	34	37	40	29	28	0,048	45	68	81		
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6,20	27	34	3	1,85	1,15	--	--	--	--	--	24	31	34	37	40	29	28	0,045	45	68	81		
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6,60	8	30	4/1	1,85	1,22	0,40	1,6	232	349	35	--	28	31	35	38	25	26	--	13	20	24		
6,80	9	34	4/1	1,85	1,26	0,45	1,7	258	387	38	--	28	31	35	38	25	26	--	15	23	27		
7,00	9	22	2/III	1,85	1,30	0,45	1,7	259	389	38	--	--	--	--	--	--	--	--	--	--	--		
7,20	20	15	4/1	1,85	1,33	0,80	3,3	373	560	60	10	29	32	35	39	26	27	0,020	33	50	60		
7,40	18	19	2/III	1,85	1,37	0,75	3,0	372	559	56	--	--	--	--	--	--	--	--	--	--	--		
7,60	39	32	3	1,85	1,41	--	--	--	--	--	31	32	35	38	41	30	30	0,061	65	98	117		
7,80	38	30	4/1	1,85	1,44	1,27	5,3	394	591	114	30	32	35	38	40	30	30	0,057	63	95	114		
8,00	38	28	4/1	1,85	1,48	1,27	5,2	406	609	114	29	32	35	37	40	29	30	0,056	63	95	114		
8,20	35	25	4/1	1,85	1,52	1,17	4,5	423	634	105	26	32	34	37	40	29	29	0,049	58	88	105		
8,40	50	34	3	1,85	1,55	--	--	--	--	--	37	33	36	38	41	31	31	0,074	83	125	150		
8,60	43	25	4/1	1,85	1,59	1,43	5,5	431	646	129	32	32	35	38	41	30	30	0,061	72	108	129		
8,80	45	28	4/1	1,85	1,63	1,50	5,7	438	657	135	33	33	35	38	41	30	31	0,063	75	113	135		
9,00	65	42	3	1,85	1,66	--	--	--	--	--	45	34	37	39	42	32	32	0,091	108	163	195		
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9,60	74	10	4/1	1,85	1,78	2,47	9,5	426	639	222	48	35	37	39	42	32	32	0,098	123	185	222		
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10,00	93	41	3	1,85	1,85	--	--	--	--	--	54	36	38	40	42	33	33	0,116	155	233	279		
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11,20	59	38	3	0,93	1,97	--	--	--	--	--	37	33	36	38	41	30	32	0,074	98	148	177		
11,40	49	29	4/1	1,01	1,99	1,63	4,9	550	825	147	31	32	35	38	40	29	31	0,059	82	123	147		
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12,40	59	33	3	0,93	2,08	--	--	--	--	--	36	33	36	38	41	30	32	0,071	98	148	177		
12,60	73	42	3	0,96	2,10	--	--	--	--	--	43	34	36	39	41	31	32	0,087	122	183	219		
12,80	98	43	3	1,00	2,12	--	--	--	--	--	53	35	38	40	42	33	34	0,112	163	245	294		
13,00	69	43	3	0,95	2,14	--	--	--	--	--	41	34	36	39	41	31	32	0,081	115	173	207		
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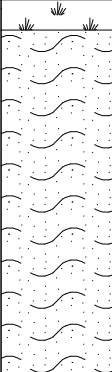
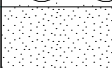
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	A.I.Po		traccia 1	1/1
	Località:		Certificato di prova N°:	
	AREA 1		17-101.G_A1-Tr.1	
Cantiere:		Data inizio:	Data fine:	
PC-E-810		13/03/2018	13/03/2018	
Il geologo di cantiere:	Fluido perf.:	Metodo:	Quota inizio:	
Dr. S. Verduri	secco	pala meccanica	p.c.	
Il direttore del laboratorio:	Perforatrice:	Coordinate:		
Dr. E. Faccini	escavatore KOMATSU			

Profondità'	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale. Sabbie fini limose/debolmente limose marroni.	
0.70		Sabbie di prevalente granulometria media e colore grigio. Qualche piccolo clasto di ghiaia.	
2.50			1.50 C1 1.50
3.00			2.80 C2 2.80

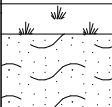
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	A.I.Po		traccia 2	1/1
	Località:		Certificato di prova N°:	
	AREA 1		17-101.G_A1-Tr.2	
Cantiere:		Data inizio:	Data fine:	
PC-E-810		13/03/2018	13/03/2018	
Il geologo di cantiere:	Fluido perf.:	Metodo:	Quota inizio:	
Dr. S. Verduri	secco	pala meccanica	p.c.	
Il direttore del laboratorio:	Perforatrice:	Coordinate:		
Dr. E. Faccini	escavatore KOMATSU			

Profondità'	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale. Sabbie fini limose/debolmente limose marroni.	0.50 C1 0.50
0.80		Sabbie di prevalente granulometria media e colore grigio. Qualche piccolo clasto di ghiaia.	2.00 C2 2.00
2.50			
3.00			

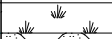






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	A.I.Po		traccia 3	1/1
	Località:		Certificato di prova N°:	
	AREA 1		17-101.G_A1-Tr.3	
Cantiere:			Data inizio:	Data fine:
PC-E-810			14/03/2018	14/03/2018
Il geologo di cantiere:		Fluido perf.:	Metodo:	Quota inizio:
Dr. S. Verduri		secco	pala meccanica	p.c.
Il direttore del laboratorio:		Perforatrice:	Coordinate:	
Dr. E. Faccini		escavatore KOMATSU		

Profondità'	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale. Sabbie fini limose/debolmente limose marroni.	1.00 C1 1.00
2.50			2.00 C2 2.00
3.00		Sabbie fini di colore marrone.	

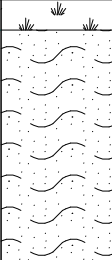
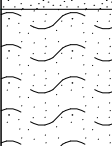
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	A.I.PO		traccia 4	1/1
	Località:		Certificato di prova N°:	
	AREA 1		17-101.G_A1-Tr.4	
Cantiere:		Data inizio:	Data fine:	
PC-E-810		14/03/2018	14/03/2018	
Il geologo di cantiere:	Fluido perf.:	Metodo:	Quota inizio:	
Dr. S. Verduri	secco	pala meccanica	p.c.	
Il direttore del laboratorio:	Perforatrice:	Coordinate:		
Dr. E. Faccini	escavatore KOMATSU			

Profondità'	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale. Sabbie fini limose/debolmente limose marroni.	
0.70		Sabbie di colore grigio in granulometrie medie e fini con passate limose centimetriche di colore marrone.	
1.20			
1.50			
2.00			1.80 C1
2.20			1.80
3.00			2.90 C2 2.90

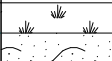
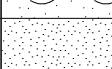

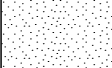
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	Località: AREA 2		Certificato di prova N°: 17-101.G_A2-Tr.5	
	Cantiere: PC-E-810		Data inizio: 20/03/2018	Data fine: 20/03/2018
	Il geologo di cantiere: Dr. S. Verduri	Fluido perf.: secco	Metodo: pala meccanica	Quota inizio: p.c.
Il direttore del laboratorio: Dr. E. Faccini		Perforatrice: escavatore KOMATSU	Coordinate:	

Profondità	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale.	
0.50		Sabbia fine con limo/limosa di colore marrone.	0.40 C1
0.80		Sabbie di prevalente granulometria fina limose/debolmente limose di colore marrone con passate irregolari di sabbie medie grigie.	0.40
1.20			
1.50			
1.80			
2.00			2.00 C2
			2.00

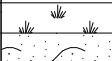
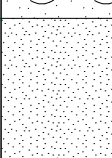
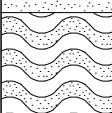
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	Località: AREA 1		Certificato di prova N°: 17-101.G_A1-Tr.6	
	Cantiere: PC-E-810		Data inizio: 14/03/2018	Data fine: 14/03/2018
	Il geologo di cantiere: Dr. S. Verduri	Fluido perf.: secco	Metodo: pala meccanica	Quota inizio: p.c.
Il direttore del laboratorio: Dr. E. Faccini		Perforatrice: escavatore KOMATSU	Coordinate:	

Profondità'	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale. Sabbie fini limose/debolmente limose marroni.	
1.80			1.20
2.00		Sabbie di grana prevalentemente media e colore grigio.	C1
		Sabbie fini limose/debolmente limose marroni.	1.20
			2.00
3.00			C2
			2.00

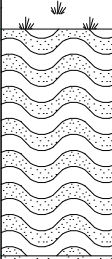

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	A.I.Po		traccia 1	1/1
	Località:		Certificato di prova N°:	
	AREA 2		17-101.G_A2-Tr.1	
Cantiere:		Data inizio:	Data fine:	
PC-E-810		20/03/2018	20/03/2018	
Il geologo di cantiere:	Fluido perf.:	Metodo:	Quota inizio:	
Dr. S. Verduri	secco	pala meccanica	p.c.	
Il direttore del laboratorio:	Perforatrice:	Coordinate:		
Dr. E. Faccini	escavatore KOMATSU			

Profondità'	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale.	
0.50		Sabbie fini limose/debolmente limose marroni.	0.50 C1
1.90		Sabbie di prevalente granulometria media e colore grigio. Qualche piccolo clasto di ghiaia.	0.50
2.00			1.90 C2
			1.90

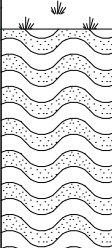

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	Località: AREA 2		Certificato di prova N°: 17-101.G_A2-Tr.2	
	Cantiere: PC-E-810		Data inizio: 20/03/2018	Data fine: 20/03/2018
	Il geologo di cantiere: Dr. S. Verduri	Fluido perf.: secco	Metodo: pala meccanica	Quota inizio: p.c.
Il direttore del laboratorio: Dr. E. Faccini		Perforatrice: escavatore KOMATSU	Coordinate:	

Profondità'	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale.	
0.50		Sabbie fini limose/debolmente limose marroni.	
		Sabbie di prevalente granulometria media e colore grigio.	0.50 C1 0.50
1.50		Limo con sabbia/sabbioso marrone	
2.30			2.10 C2 2.10

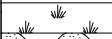






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	A.I.Po		traccia 3	1/1
	Località:		Certificato di prova N°:	
	AREA 2		17-101.G_A2-Tr.3	
Cantiere:		Data inizio:	Data fine:	
PC-E-810		20/03/2018	20/03/2018	
Il geologo di cantiere:	Fluido perf.:	Metodo:	Quota inizio:	
Dr. S. Verduri	secco	pala meccanica	p.c.	
Il direttore del laboratorio:	Perforatrice:	Coordinate:		
Dr. E. Faccini	escavatore KOMATSU			

Profondità'	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale. Limi con sabbie/sabbiosi di colore marrone.	
1.70 1.80 2.00		Sabbie di prevalente granulometria media e colore grigio. Qualche piccolo clasto di ghiaia.	1.40 C1 1.40

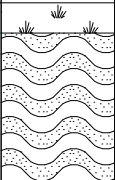




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	A.I.PO		traccia 4	1/1
	Località:		Certificato di prova N°:	
	AREA 2		17-101.G_A2-Tr.4	
Cantiere:		Data inizio:	Data fine:	
PC-E-810		20/03/2018	20/03/2018	
Il geologo di cantiere:	Fluido perf.:	Metodo:	Quota inizio:	
Dr. S. Verduri	secco	pala meccanica	p.c.	
Il direttore del laboratorio:	Perforatrice:	Coordinate:		
Dr. E. Faccini	escavatore KOMATSU			

Profondità'	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale. Limi con sabbie/sabbiosi di colore marrone.	1.20 C1 1.20
1.70 1.80 2.00		Sabbie di prevalente granulometria media e colore grigio. Qualche piccolo clasto di ghiaia.	

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	Località: AREA 2		Certificato di prova N°: 17-101.G_A2-Tr.5	
	Cantiere: PC-E-810		Data inizio: 20/03/2018	Data fine: 20/03/2018
	Il geologo di cantiere: Dr. S. Verduri	Fluido perf.: secco	Metodo: pala meccanica	Quota inizio: p.c.
Il direttore del laboratorio: Dr. E. Faccini		Perforatrice: escavatore KOMATSU	Coordinate:	

Profondità	Stratigrafia	Descrizione	Campioni
0.20		Cotico vegetale.	
0.50		Sabbia fine con limo/limosa di colore marrone.	0.40 C1
0.80		Sabbie di prevalente granulometria fina limose/debolmente limose di colore marrone con passate irregolari di sabbie medie grigie.	0.40
1.20			
1.50			
1.80			
2.00			2.00 C2
			2.00

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	Località: AREA 2		Certificato di prova N°: 17-101.G_A2-Tr.6	
	Cantiere: PC-E-810	Data inizio: 20/03/2018	Data fine: 20/03/2018	
	Il geologo di cantiere: Dr. S. Verduri	Fluido perf.: secco	Metodo: pala meccanica	Quota inizio: p.c.
Il direttore del laboratorio: Dr. E. Faccini		Perforatrice: escavatore KOMATSU	Coordinate:	

Perforazione	Potenza	Profondita'	Stratigrafia	Descrizione	Scala 1:50	Cassetta	Campioni
100	0.20	0.20		Cotico vegetale.	 0.2	1	
	1.00			Sabbia fine con limo/limosa di colore marrone.	0.4		
					0.6		
					0.8		
	0.40	1.20		Sabbie di grana media e colore grigio.	1.0		0.80
					1.2		C1
					1.4		0.80
	0.20	1.60		Sabbie fini con limo/limose di colore marrone.	1.6		1.60
	0.50	1.80		Sabbie di prevalente granulometria media e colore grigio.	1.8		C2
					2.0		1.60
		2.30			2.2		



Studio MM S.r.l.

Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Mamiano di Traversetolo (PR)
Tel. 0521/844092 - Fax. 0521/344744 - www.studio-mm.it - E-mail. info@studio-mm.it



Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

Committente:

A.I.P.O. - UFFICIO OPERATIVO PIACENZA

Prove geotecniche di laboratorio

Materiali:

*Terra – Campione indisturbato
S1CI1 (3,00m – 3,60m)*

*Terra – Campione indisturbato
S1CI2 (7,40m – 8,00m)*

*Terra – Campione indisturbato
CPT.M01 (2,20m – 2,80m)*

Cantiere:

PC-E-810

Località:

Soarza (PC)

Verbale di Accettazione N° *271 del 22/02/2018*

APERTURA CAMPIONE INDISTURBATO (Racc. A.G.I. 1977)

		Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1Cl1 (3,00m – 3,60m) – Intervallo stratigrafico 1		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	21/02/2018	05/04/2018

DESCRIZIONE

Carota di lunghezza complessiva 60cm, suddivisa in 4 distinte facies sedimentarie:

- 1) Da tetto carota a 27cm: Argilla limosa grigio-azzurra (Intervallo stratigrafico 1)
- 2) Da 26cm a 35cm da tetto carota: Sabbia medio-fine gialla, incoerente (Intervallo stratigrafico 2)
- 3) Da 35cm a 47cm da tetto carota: Limo argilloso grigio-azzurro (Intervallo stratigrafico 3)
- 4) Da 47cm da tetto carota fino a base carota: Sabbia medio-grossa incoerente (Intervallo stratigrafico 4)

Classificazione del campione (Racc.A.G.I. 1977): Q5 nell'Intervallo stratigrafico 1

Resistenza alla penetrazione (pocket penetrometer)				Resistenza al taglio non drenata c_u (vane test)			
Valori (daN/cm ²)	1,0	0,7	0,7	Valori (daN/cm ²)	0,50	0,35	0,30
Posizione (cm da tetto carota)	3-7	12-15-23	41	Posizione (cm da tetto carota)	5	18	44



Particolari del campione e delle fasi analitiche

Lo Sperimentatore

Dott. Alex Orlandini

La Direzione Tecnica

Strumentazione utilizzata per la prova

Scissometro da Laboratorio - Tecnotest (Codice interno SC01)
Penetrometro da Laboratorio - Eurolab (Codice interno PP01)

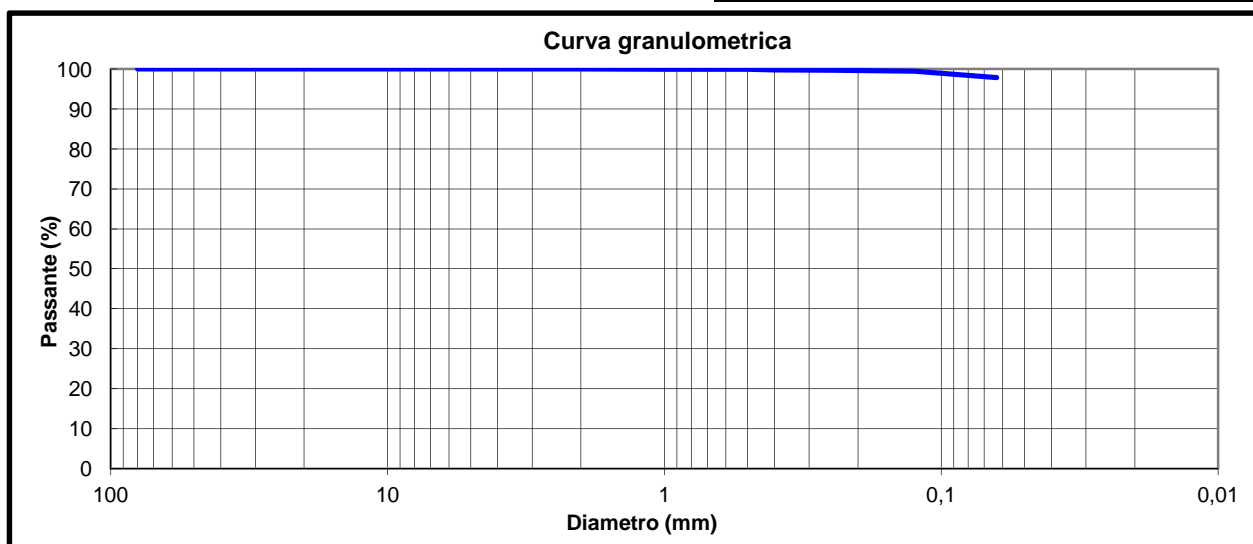
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	271.1	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione indisturbato		
Identificazione campione	S1C11 (3,00m - 3,60m) - Intervallo stratigrafico 1		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 - 28/02/2018	05/04/2018

Massa totale essicata M1 (g)	500,1
Massa totale essicata M2 (g)	10,9
Massa essicata dei fini rimossi con il lavaggio	489,2
M1-M2 (g)	
Materiale nel recipiente di fondo P (g)	0,1

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,2	0,0	100,0
0,500	0,3	0,1	99,9
0,400	0,5	0,2	99,8
0,250	0,6	0,3	99,7
0,125	1,1	0,5	99,5
0,063	8,1	2,2	97,8

% Fini passanti allo staccio 0,063 mm	97,8
--	------



Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
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Strumentazione utilizzata per la prova	Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm (Codice interno SL4-C fino a SL80-C) e stacci a rete Tecnotest da 2 mm a 0,063 mm (Codice interno SR63-C fino a SR2000-C).
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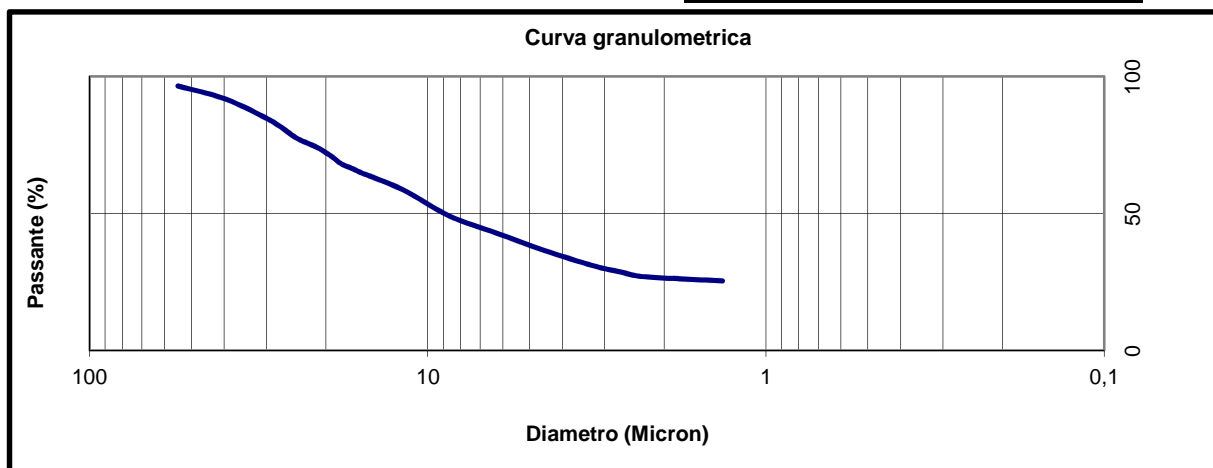
Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SEDIMENTAZIONE (UNI CEN ISO/TS 17892-4:2004)**

Certificato N°	271.2	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C11 (3,00m – 3,60m) – Intervallo stratigrafico 1		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Massa iniziale secca	50,007
Massa trattenuta al vaglio 0,063m secca	1,124
Passante %	97,8

Diametro equivalente dei grani (Micron)	Passante (%)
54,78	96,45
39,67	91,71
29,12	83,80
24,46	77,48
21,47	74,32
19,45	71,15
17,99	67,99
16,76	66,41
15,77	64,83
11,80	58,51
8,63	49,02
6,24	42,69
4,50	36,37
3,24	30,83
2,66	28,46
2,32	26,88
1,34	25,30



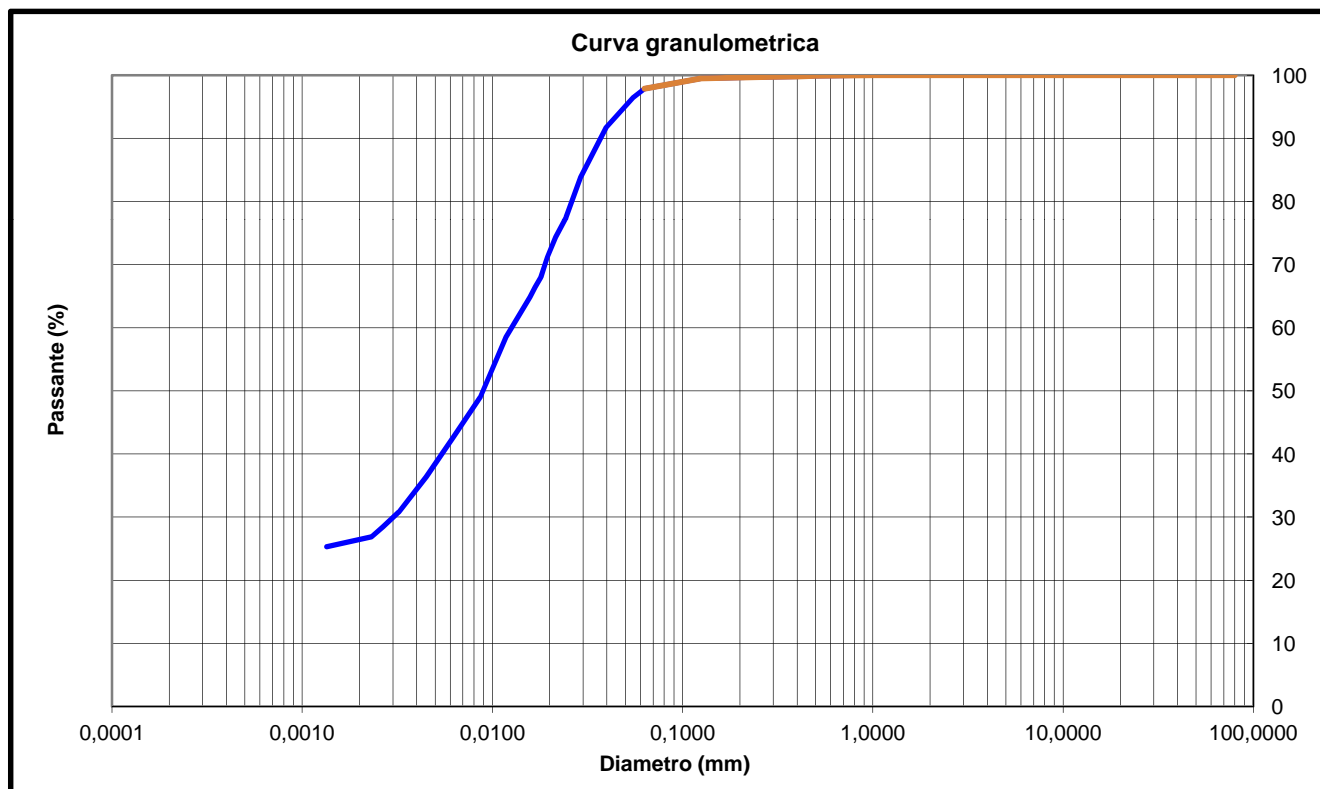
Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova	Setaccio a rete - Tecnotest 0,063 mm (Codice interno SR63-C) Vasca termostatica (Codice interno DT01-C) Densimetro (Codice interno DT02) Agitatore (Codice interno AG03)

NOTA TECNICA A COMMENTO DEI CERTIFICATI:

Cerificato N°	271.1	Data emissione	05/04/2018
Cerificato N°	271.2	Data emissione	05/04/2018

In ottemperanza alle disposizioni della Circolare Ministeriale n° 7618 Vi trasmettiamo i dati desumibili dai risultati di laboratorio.

Curva granulometrica composta (UNI CEN ISO/TS 17892-4:2005)



Note:

% Argilla (Racc. AGI 1990): 26,37

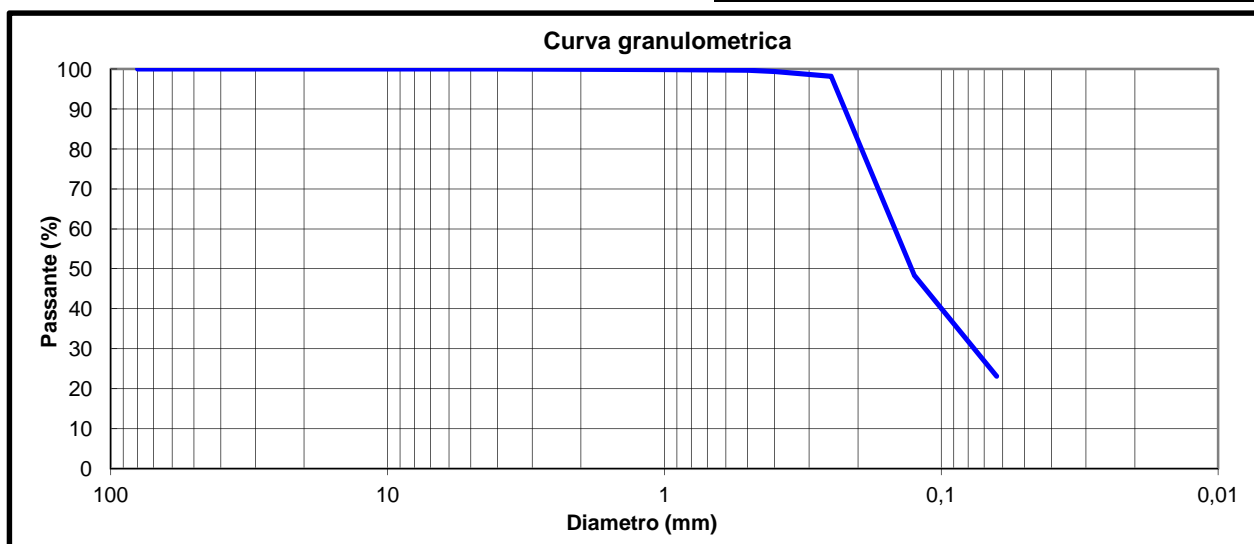
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	271.3	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione indisturbato		
Identificazione campione	S1C11 (3,00m - 3,60m) - Intervallo stratigrafico 2		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 - 28/02/2018	05/04/2018

Massa totale essicata M1 (g)	500,2
Massa totale essicata M2 (g)	386,5
Massa essicata dei fini rimossi con il lavaggio	113,7
M1-M2 (g)	
Materiale nel recipiente di fondo P (g)	1,9

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,3	0,1	99,9
1	0,5	0,2	99,8
0,500	0,8	0,3	99,7
0,400	1,4	0,6	99,4
0,250	6,4	1,9	98,1
0,125	248,9	51,6	48,4
0,063	126,3	76,9	23,1

% Fini passanti allo staccio 0,063 mm	23,1
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Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova	Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm (Codice interno SL4-C fino a SL80-C) e stacci a rete Tecnotest da 2 mm a 0,063 mm (Codice interno SR63-C fino a SR2000-C).



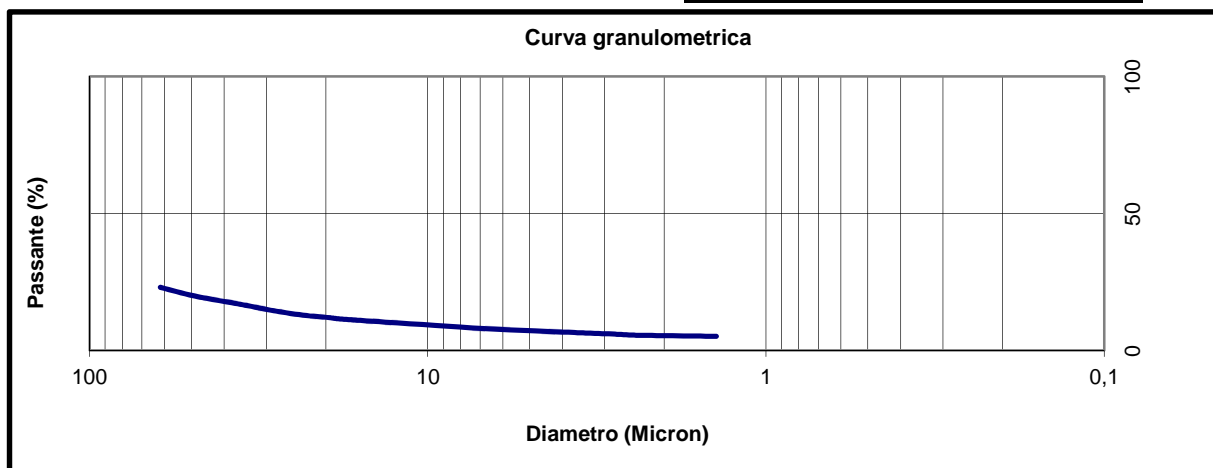
Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SEDIMENTAZIONE (UNI CEN ISO/TS 17892-4:2004)**

Certificato N°	271.4	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C11 (3,00m – 3,60m) – Intervallo stratigrafico 2		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Massa iniziale secca	101,547
Massa trattenuta al vaglio 0,063m secca	78,061
Passante %	23,1

Diametro equivalente dei grani (Micron)	Passante (%)
61,70	22,93
48,81	19,77
35,22	16,61
29,11	14,63
25,39	13,44
22,82	12,65
20,88	12,26
19,37	11,86
18,16	11,47
13,36	10,28
9,51	9,10
6,77	7,91
4,81	7,12
3,41	6,33
2,79	5,93
2,43	5,54
1,40	5,14



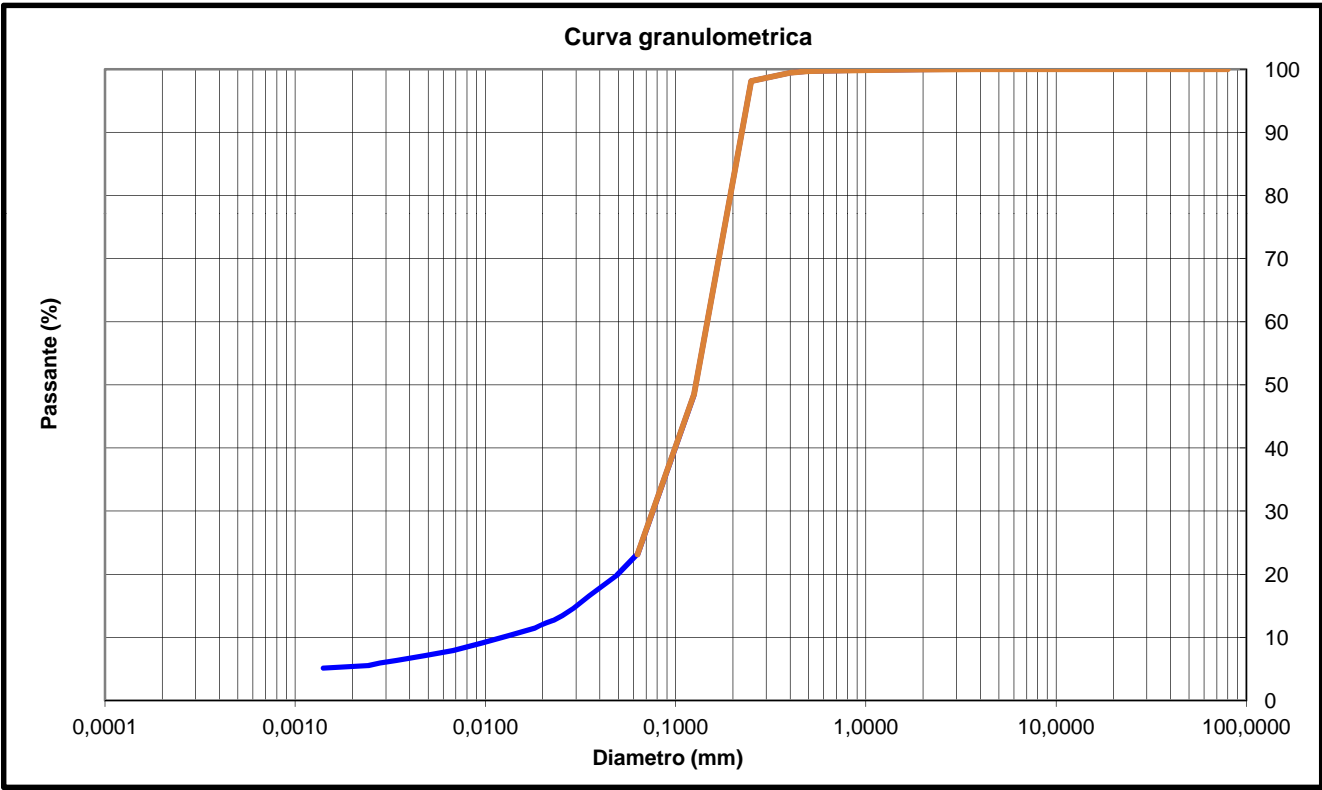
Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova	Setaccio a rete - Tecnotest 0,063 mm (Codice interno SR63-C) Vasca termostatica (Codice interno DT01-C) Densimetro (Codice interno DT02) Agitatore (Codice interno AG03)

NOTA TECNICA A COMMENTO DEI CERTIFICATI:

Cerificato N°	271.3	Data emissione	05/04/2018
Cerificato N°	271.4	Data emissione	05/04/2018

In ottemperanza alle disposizioni della Circolare Ministeriale n° 7618 Vi trasmettiamo i dati desumibili dai risultati di laboratorio.

Curva granulometrica composta (UNI CEN ISO/TS 17892-4:2005)



Note: % Argilla (Racc. AGI 1990): 5,37

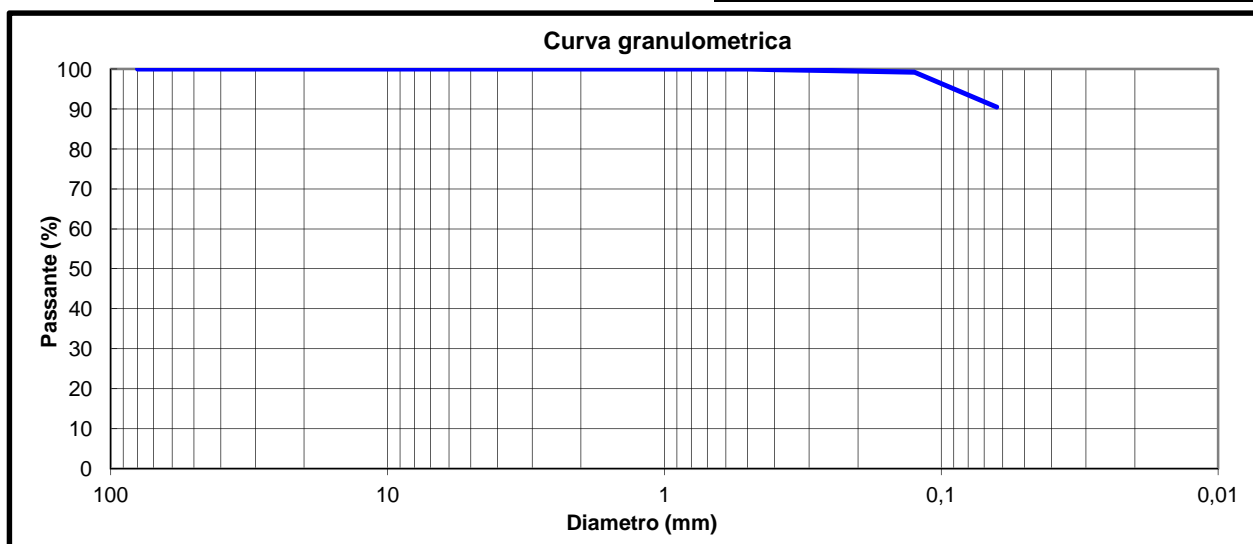
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	271.5	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione indisturbato		
Identificazione campione	S1C11 (3,00m - 3,60m) - Intervallo stratigrafico 3		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 - 28/02/2018	05/04/2018

Massa totale essicata M1 (g)	498,9
Massa totale essicata M2 (g)	47,8
Massa essicata dei fini rimossi con il lavaggio	451,1
M1-M2 (g)	
Materiale nel recipiente di fondo P (g)	0,1

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,0	0,0	100,0
0,500	0,0	0,0	100,0
0,400	0,8	0,2	99,8
0,250	1,3	0,4	99,6
0,125	1,9	0,8	99,2
0,063	43,7	9,6	90,4

% Fini passanti allo staccio 0,063 mm	90,4
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Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
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Strumentazione utilizzata per la prova	Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm (Codice interno SL4-C fino a SL80-C) e stacci a rete Tecnotest da 2 mm a 0,063 mm (Codice interno SR63-C fino a SR2000-C).
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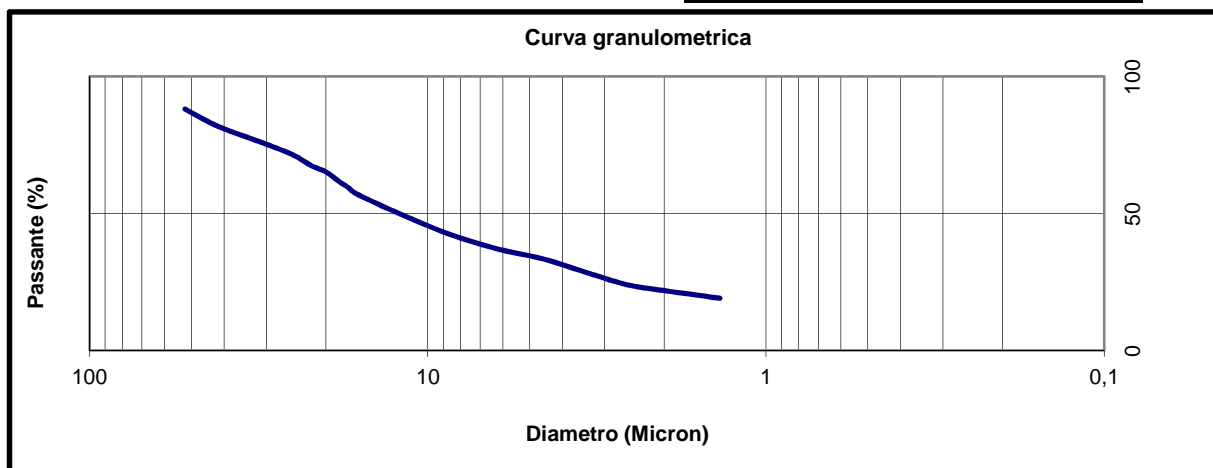
Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SEDIMENTAZIONE (UNI CEN ISO/TS 17892-4:2004)**

Certificato N°	271.6	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C11 (3,00m – 3,60m) – Intervallo stratigrafico 3		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Massa iniziale secca	50,042
Massa trattenuta al vaglio 0,063m secca	4,821
Passante %	90,4

Diametro equivalente dei grani (Micron)	Passante (%)
52,20	88,07
41,63	81,73
30,26	75,38
25,11	71,41
22,10	67,45
19,95	65,06
18,44	61,89
17,22	59,51
16,25	57,13
12,17	49,99
8,82	42,85
6,35	37,29
4,55	33,33
3,27	27,77
2,70	24,60
2,34	23,01
1,37	19,04



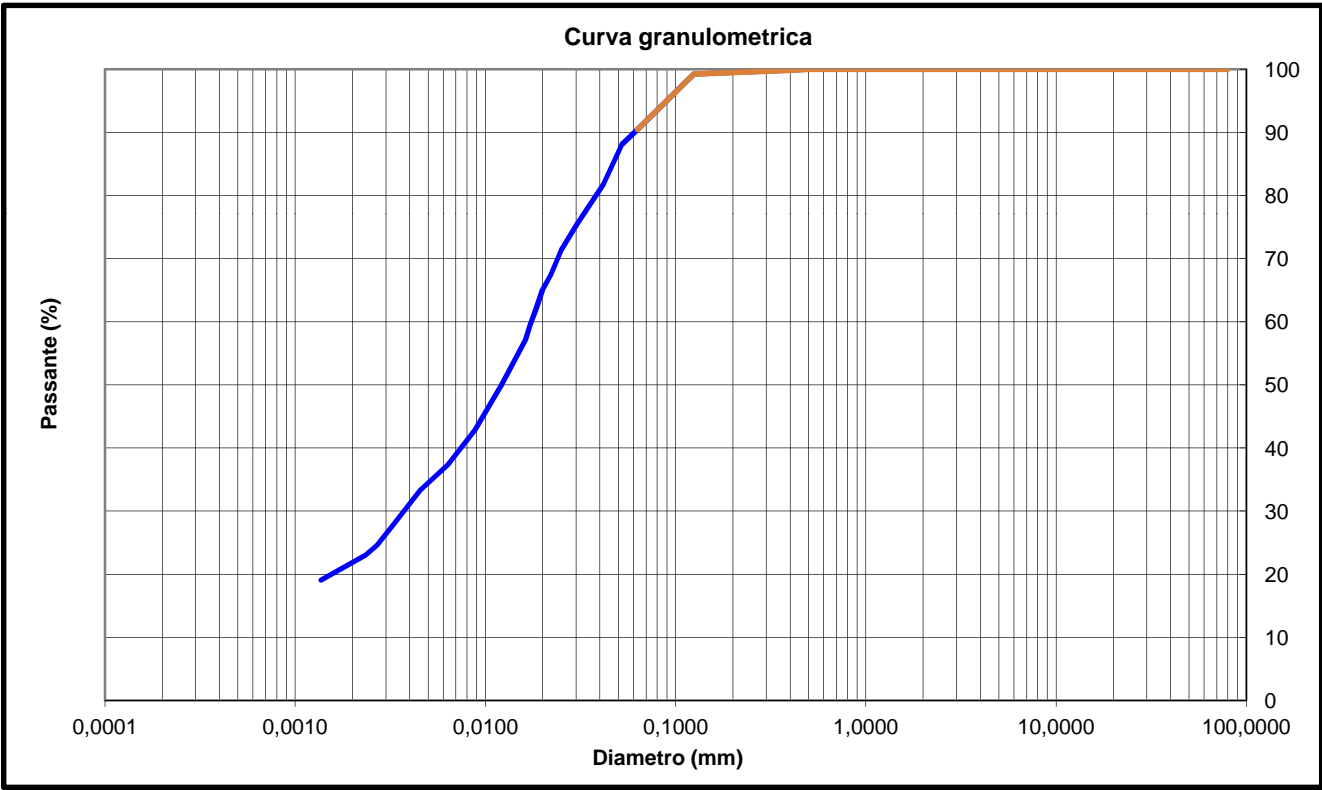
Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova	Setaccio a rete - Tecnotest 0,063 mm (Codice interno SR63-C) Vasca termostatica (Codice interno DT01-C) Densimetro (Codice interno DT02) Agitatore (Codice interno AG03)

NOTA TECNICA A COMMENTO DEI CERTIFICATI:

Cerificato N°	271.5	Data emissione	05/04/2018
Cerificato N°	271.6	Data emissione	05/04/2018

In ottemperanza alle disposizioni della Circolare Ministeriale n° 7618 Vi trasmettiamo i dati desumibili dai risultati di laboratorio.

Curva granulometrica composta (UNI CEN ISO/TS 17892-4:2005)



Note:

% Argilla (Racc. AGI 1990): 21,61

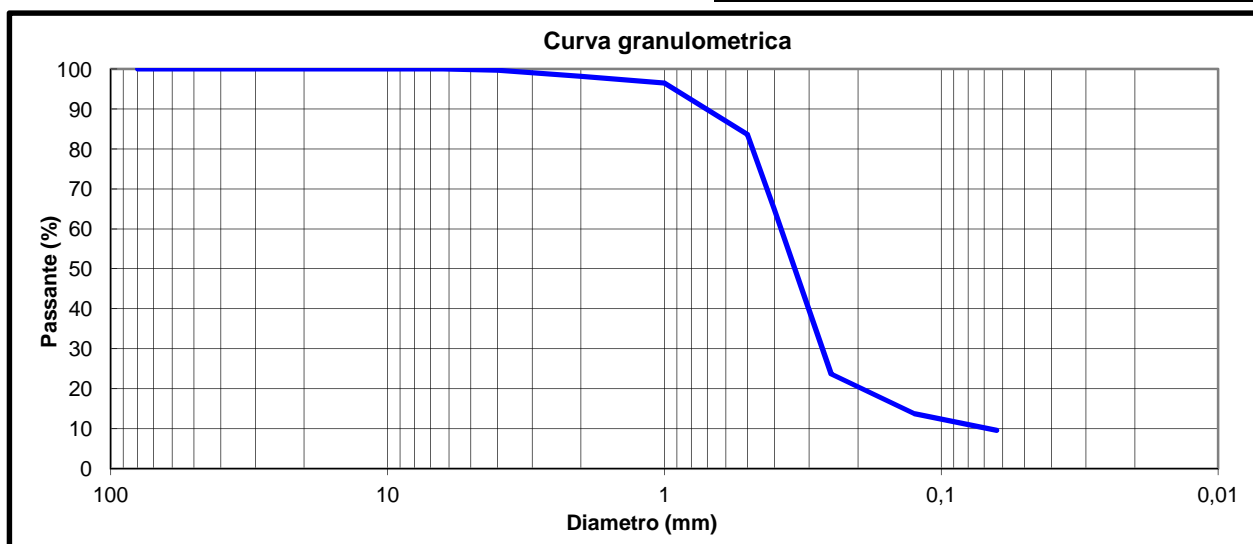
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	271.7	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione indisturbato		
Identificazione campione	S1C11 (3,00m - 3,60m) - Intervallo stratigrafico 4		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 - 28/02/2018	05/04/2018

Massa totale essicata M1 (g)	499,7
Massa totale essicata M2 (g)	452,5
Massa essicata dei fini rimossi con il lavaggio	47,2
M1-M2 (g)	
Materiale nel recipiente di fondo P (g)	0,6

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	1,5	0,3	99,7
2	7,8	1,9	98,1
1	8,2	3,5	96,5
0,500	64,5	16,4	83,6
0,400	93,5	35,1	64,9
0,250	206,0	76,3	23,7
0,125	49,5	86,3	13,7
0,063	20,9	90,4	9,6

% Fini passanti allo staccio 0,063 mm	9,6
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Lo Sperimentatore
Dott. Alex Orlandini

La Direzione Tecnica

Strumentazione utilizzata per la prova

Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C).

Note



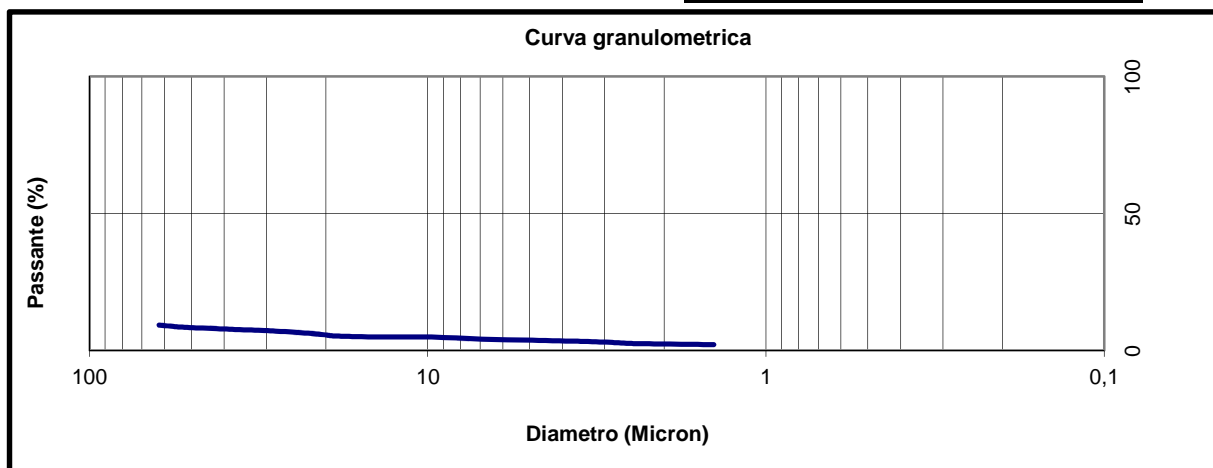
Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SEDIMENTAZIONE (UNI CEN ISO/TS 17892-4:2004)**

Certificato N°	271.8	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C11 (3,00m – 3,60m) – Intervallo stratigrafico 4		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Massa iniziale secca	100,325
Massa trattenuta al vaglio 0,063m secca	90,727
Passante %	9,6

Diametro equivalente dei grani (Micron)	Passante (%)
62,26	9,21
52,32	8,41
37,16	7,61
30,41	7,20
26,39	6,80
23,66	6,40
21,64	6,00
20,08	5,60
18,83	5,20
13,78	4,80
9,74	4,80
6,92	4,00
4,90	3,60
3,47	3,20
2,84	2,80
2,47	2,40
1,43	2,00



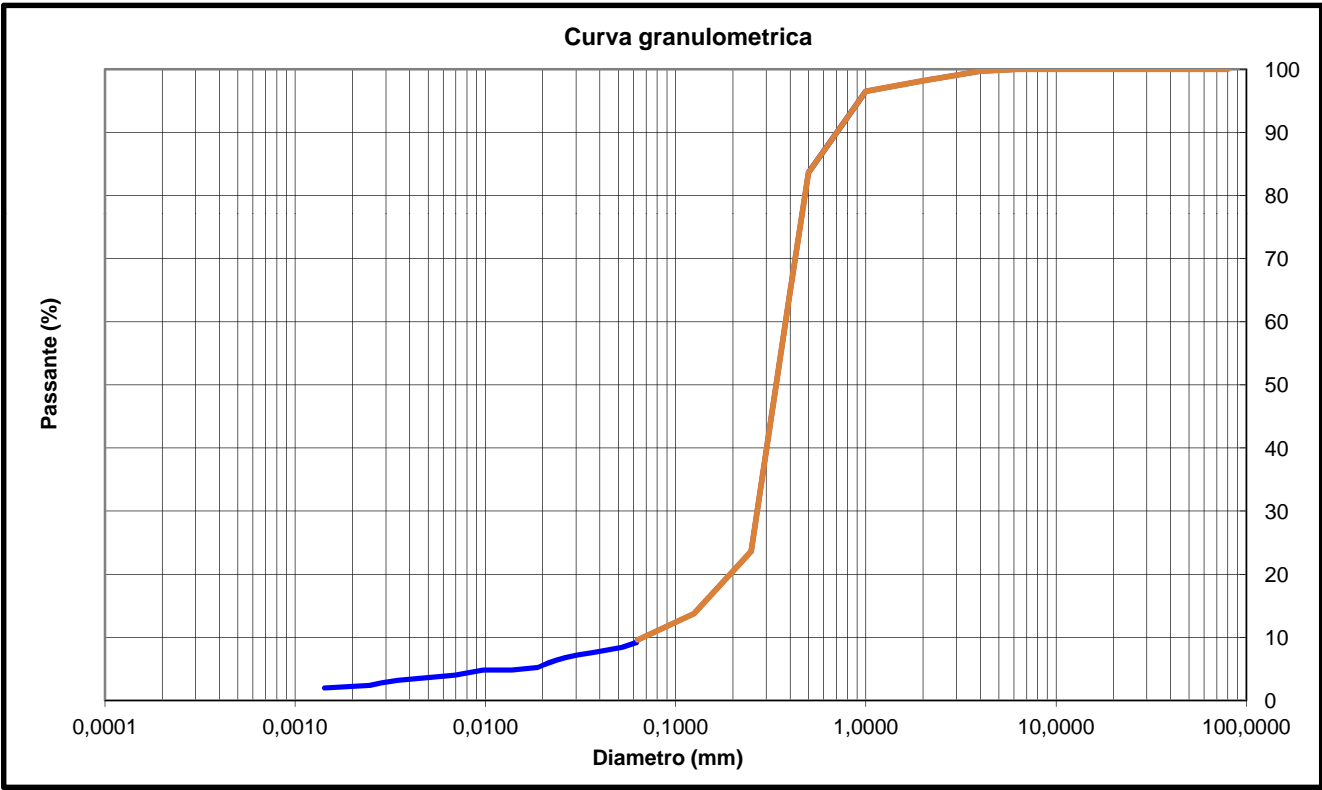
Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova	Setaccio a rete - Tecnotest 0,063 mm (Codice interno SR63-C) Vasca termostatica (Codice interno DT01-C) Densimetro (Codice interno DT02) Agitatore (Codice interno AG03)

NOTA TECNICA A COMMENTO DEI CERTIFICATI:

Cerificato N°	271.7	Data emissione	05/04/2018
Cerificato N°	271.8	Data emissione	05/04/2018

In ottemperanza alle disposizioni della Circolare Ministeriale n° 7618 Vi trasmettiamo i dati desumibili dai risultati di laboratorio.

Curva granulometrica composta (UNI CEN ISO/TS 17892-4:2005)



Note:

% Argilla (Racc. AGI 1990): 2,22



Studio MM S.r.l.
Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Mamiano di Traversetolo (PR)
Tel. 0521/844092 - Fax: 0521/344744 - www.studio-mm.it - E-mail: info@studio-mm.it

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Mod Gt 414 - Rev 6 del 27/02/2017

Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

PESO DELL'UNITA' DI VOLUME DEI GRANULI SOLIDI (CNR UNI 10013:1964)

Certificato N°	271.11	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1CI1 (3,00m – 3,60m) – Intervallo stratigrafico 1		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Peso dell'unità di volume dell'acqua γ_w (daN/dm ³)	0,9795
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Campione	Identificazione campione	Metodo utilizzato	Massa del cestello/picnometro contenenti il campione di aggregato satturo	Massa del cestello immerso/picnometro satturo d'acqua, privi del campione	Massa secca	Peso dell'unità di volume dei granuli solidi
			P1	P2		
			(g)	(g)		γ_s (daN/dm ³)
S1CI1/1	A	picnometro	1732,7	1542,3	301,4	2,66
	B	picnometro	1772,6	1603,7	266,3	2,68

Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova:	Apparecchiature per massa volumica Picnometro Tecnotest (Codice interno MP01-2)

Note



Studio MM S.r.l.
Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Mamiano di Traversetolo (PR)
Tel. 0521/844092 - Fax: 0521/344744 - www.studio-mm.it - E-mail: info@studio-mm.it

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Mod Gt 414 - Rev 4 del 31/08/2011

Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

PESO DELL'UNITA' DI VOLUME DEI GRANULI SOLIDI (CNR UNI 10013)

Certificato N°	271.12	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C11 (3,00m – 3,60m) – Intervallo stratigrafico 2		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Peso dell'unità di volume dell'acqua γ_w (daN/dm ³)	0,9795
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Campione	Identificazione campione	Metodo utilizzato	Massa del cestello/picnometro contenenti il campione di aggregato satturo	Massa del cestello immerso/picnometro satturo d'acqua, privi del campione	Massa secca	Peso dell'unità di volume dei granuli solidi
			P1	P2		
			(g)	(g)		γ_s (daN/dm ³)
S1C11/2	A	picnometro	1713,1	1543,8	272,4	2,59
	B	picnometro	1786,7	1604,7	291,5	2,61

Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova:	Apparecchiature per massa volumica Picnometro Tecnotest (Codice interno MP01-2)

Note



Studio MM S.r.l.
Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Mamiano di Traversetolo (PR)
Tel. 0521/844092 - Fax: 0521/344744 - www.studio-mm.it - E-mail: info@studio-mm.it

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Mod Gt 414 - Rev 4 del 31/08/2011

Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

PESO DELL'UNITA' DI VOLUME DEI GRANULI SOLIDI (CNR UNI 10013)

Certificato N°	271.13	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C11 (3,00m – 3,60m) – Intervallo stratigrafico 3		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Peso dell'unità di volume dell'acqua γ_w (daN/dm ³)	0,9795
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Campione	Identificazione campione	Metodo utilizzato	Massa del cestello/picnometro contenenti il campione di aggregato satturo	Massa del cestello immerso/picnometro satturo d'acqua, privi del campione	Massa secca	Peso dell'unità di volume dei granuli solidi
			P1	P2		
			(g)	(g)		γ_s (daN/dm ³)
S1C11/3	A	picnometro	1731,1	1542,0	299,4	2,66
	B	picnometro	1793,3	1603,4	301,5	2,64

Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova:	Apparecchiature per massa volumica Picnometro Tecnotest (Codice interno MP01-2)

Note



Studio MM S.r.l.
Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Mamiano di Traversetolo (PR)
Tel. 0521/844092 - Fax: 0521/344744 - www.studio-mm.it - E-mail: info@studio-mm.it

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Mod Gt 414 - Rev 4 del 31/08/2011

Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

PESO DELL'UNITA' DI VOLUME DEI GRANULI SOLIDI (CNR UNI 10013)

Certificato N°	271.14	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C11 (3,00m – 3,60m) – Intervallo stratigrafico 4		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Peso dell'unità di volume dell'acqua γ_w (daN/dm ³)	0,9795
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Campione	Identificazione campione	Metodo utilizzato	Massa del cestello/picnometro contenenti il campione di aggregato saturato	Massa del cestello immerso/picnometro saturato d'acqua, privi del campione	Massa secca	Peso dell'unità di volume dei granuli solidi
			P1	P2		
			(g)	(g)		γ_s (daN/dm ³)
S1C11/4	A	picnometro	1721,9	1544,3	284,5	2,61
	B	picnometro	1771,0	1605,5	265,9	2,59

Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova:	Apparecchiature per massa volumica Picnometro Tecnotest (Codice interno MP01-2)

Note

Studio MM S.r.l. Soc. unipersonale - P.IVA 02417780349 Iscr. C.C.I.A.A. n. 236371 Cap. soc. € 10.000,00 i.v.



Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

PESO DELL'UNITA' DI VOLUME (ASTM D 2937-94)

Certificato N°	271.16	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C11 (3,00m – 3,60m) – Intervallo stratigrafico 1		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Massa volumica dell'acqua	g/cm ³	0,9987
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Identificazione Campione	Volume Campione	Massa Campione Umido	Massa Campione Secco	Peso di Volume Umido	Peso di Volume Secco
	(cm ³)	(g)	(g)	(daN/dm ³)	(daN/dm ³)
S1C11/1	40,00	75,04	55,39	1,84	1,36

Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
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Strumentazione utilizzata per la prova:	Bilancia - Bell Engineering (Codice interno BL014-C)
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Note



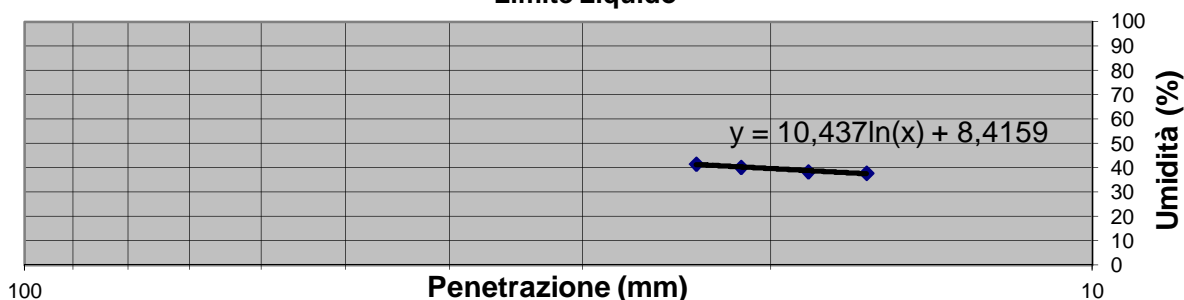
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	271.18	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione indisturbato		
Identificazione campione	S1C11 (3,00m - 3,60m) - Intervallo stratigrafico 1		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 - 28/02/2018	05/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	44,59	39,29	26,54	12,75	41,6	23,49
2	46,82	41,05	26,69	14,36	40,2	21,33
3	45,37	39,59	24,55	15,04	38,4	18,45
4	47,62	41,77	26,30	15,47	37,8	16,27

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	34,78	33,10	26,12	6,98	24,1
5	35,25	33,46	25,97	7,49	23,8

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
40	24	16

Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
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Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 80g con angolo della punta di 30°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	100
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**PROVA DI TAGLIO DIRETTO CON DETERMINAZIONE PERAMETRI RESIDUI
 (BS 1377/7:1990)**

Certificato N°	271.20	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C11 (3,00m – 3,60m) – Intervallo stratigrafico 1		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 16/03/2018	09/04/2018

CONDIZIONI INIZIALI

Campione	Peso dell'unità di volume	Peso dell'unità di volume dei granuli solidi	Contenuto in acqua
	(daN/dm ³)	(daN/dm ³)	(%)
Provino1	1,84	2,67	35,5
Provino2	1,84	2,67	35,6
Provino3	1,84	2,67	35,4

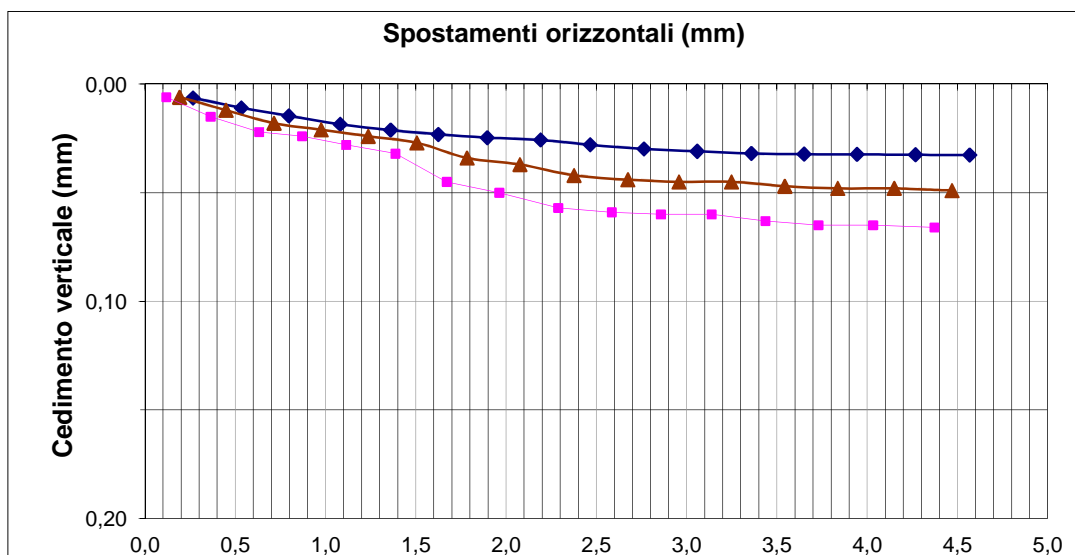
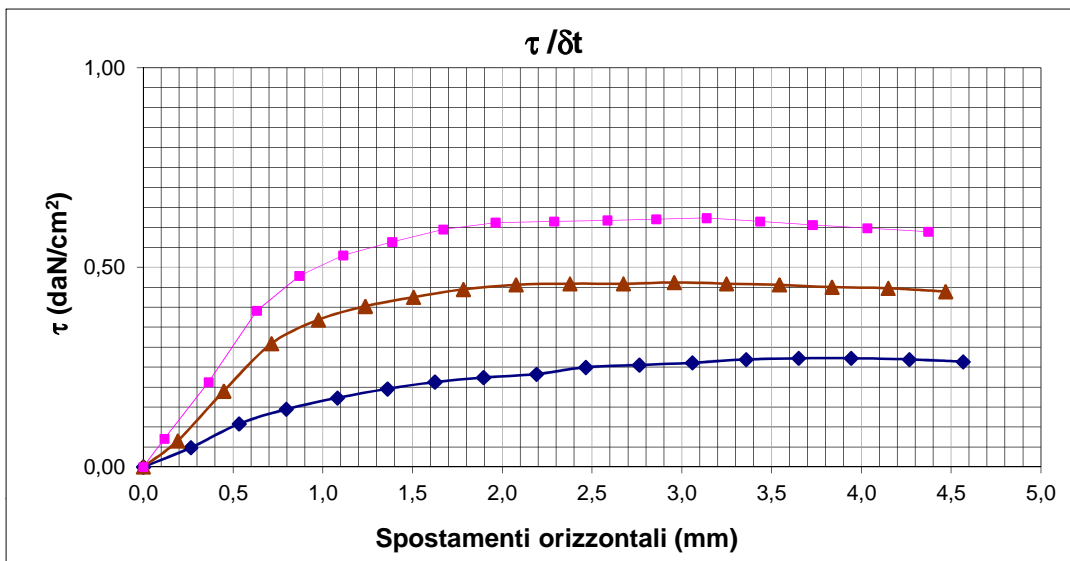
CONSOLIDAZIONE

Provino	Tensione Verticale	Tempo di Consolidazione	Cedimento Finale
	(daN/cm ²)	(h)	(mm)
1	0,490	24	1,70
2	0,981	24	1,83
3	1,471	24	1,95



Certificato N°	271.20	Data emissione	09/04/2018
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TAGLIO DI PICCO



NOTE:

Velocità di deformazione: 0,005 mm/min

Strumentazione utilizzata per la prova

Taglio diretto - Tecnotest (Codice interno CC05-T)
Potenziometri - Leane (Codice interno PZ03-T, PZ04-T)
Apparecchiatura per prove di taglio diretto e mat. Accessorio
(Codice interno TD02)

**Studio MM S.r.l.**

Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Mamiano di Traversetolo (PR)
Tel. 0521/844092 - Fax. 0521/344744 - www.studio-mm.it - E-mail: info@studio-mm.it

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Mod GT 412B - rev 0 del 04/03/2018

Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

Certificato N°

271.20

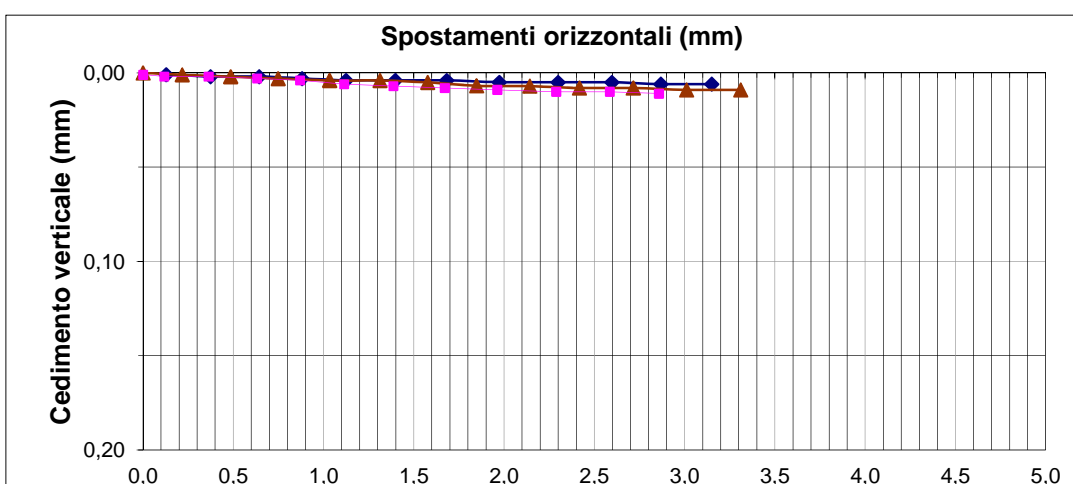
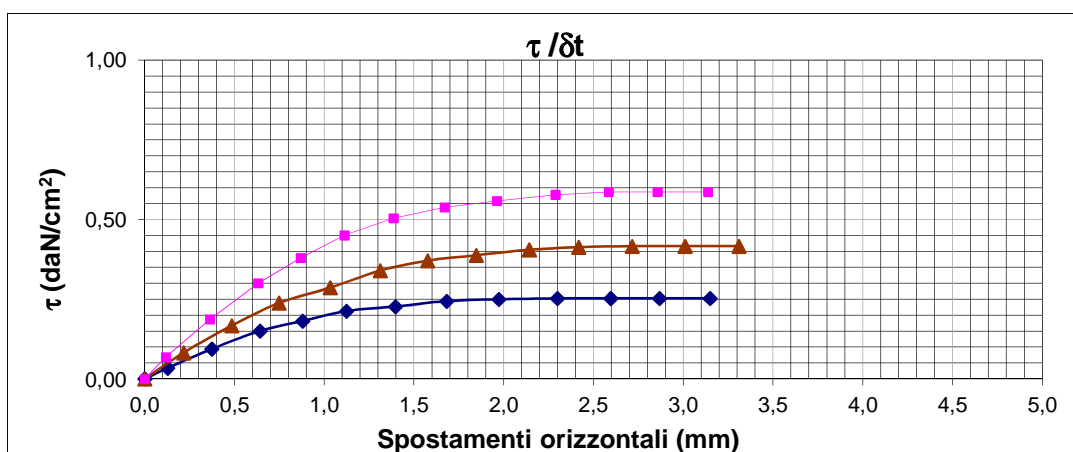
Data emissione

09/04/2018

TAGLIO RESIDUO

CONSOLIDAZIONE

Provino	Tensione Verticale	Ciclo A/R di prova	Cedimento Finale
	(daN/cm ²)	n°	(mm)
1	0,490	6	0,06
2	0,981	6	0,06
3	1,471	6	0,07



Lo Sperimentatore

Dot. Alex Orlandini

La Direzione Tecnica

Studio tecnologico M & M
Consulenza materie prime e prove materiali
Dot. Geol. Mazzoni Michele

NOTA TECNICA A COMMENTO DEL CERTIFICATO:

Certificato N°	271.20	Data emissione	09/04/2018
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In ottemperanza alle disposizioni della Circolare Ministeriale n°7618 Vi trasmettiamo i dati desumibili dai risultati di laboratorio.

TAGLIO DI PICCO

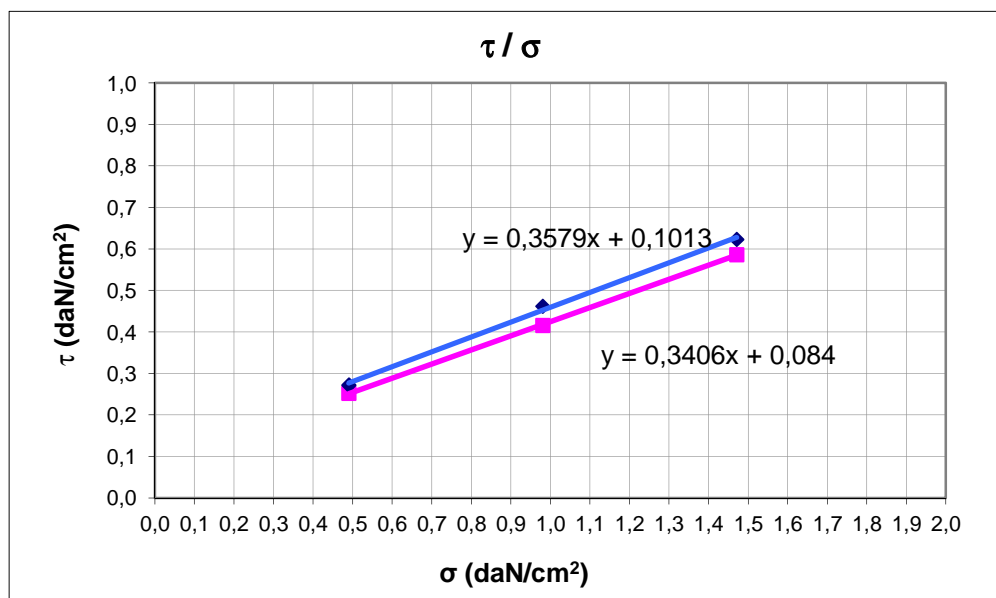
Provino	Sforzo di Taglio	Sforzo normale	Deformazione trasversale	Deformazione normale
	(daN/cm ²)	(daN/cm ²)	(mm)	(mm)
1	0,272	0,490	1,11	0,032
2	0,462	0,981	1,20	0,045
3	0,623	1,471	1,28	0,060

ANGOLO DI ATTRITO ϕ'	(gradi)	19,7
COESIONE C'	(daN/cm ²)	0,10

ROTTURA DOPO 6 CICLI ANDATA/RITORNO

Provino	Sforzo di Taglio	Sforzo normale	Deformazione trasversale	Deformazione normale
	(daN/cm ²)	(daN/cm ²)	(mm)	(mm)
1	0,252	0,490	2,30	0,01
2	0,416	0,981	2,72	0,01
3	0,586	1,471	2,59	0,01

ANGOLO DI ATTRITO ϕ'_r	(gradi)	18,9
COESIONE C'_r	(daN/cm ²)	0,08



NOTE: I valori dello sforzo di taglio di picco residuo riportati in tabella sono diagrammati in funzione dello sforzo di taglio normale applicato per la determinazione dei parametri geotecnici C' , ϕ' , C'_r e ϕ'_r .

La retta blu nel grafico σ/τ rappresenta l'andamento dell'involuppo di rottura lineare nelle condizioni di taglio di picco. La retta rosa nel grafico σ/τ rappresenta l'andamento dell'involuppo di rottura lineare nelle condizioni di taglio residuo.

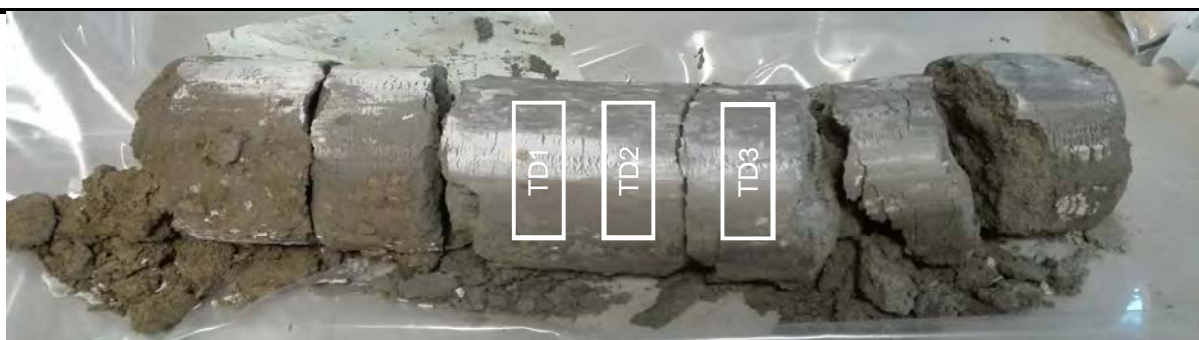
APERTURA CAMPIONE INDISTURBATO (Racc. A.G.I. 1977)

		Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1Cl2 (7,40m – 8,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	21/02/2018	05/04/2018

DESCRIZIONE

Campione sabbioso poco coerente, dislocato in 6 spezzoni.
 Classificazione del campione (Racc.A.G.I. 1977): Q5 negli spezzoni centrali.
 Lunghezza totale carota: 47cm

Resistenza alla penetrazione (pocket penetrometer)		Resistenza al taglio non drenata c_u (vane test)	
Valori (daN/cm ²)	0,8	Valori (daN/cm ²)	0,15
Posizione (cm da tetto carota)	Da tetto a base	Posizione (cm da tetto carota)	Da tetto a base



Particolari del campione e delle fasi analitiche

Lo Sperimentatore

Dott. Alex Orlandini

La Direzione Tecnica

Strumentazione utilizzata per la prova

Scissometro da Laboratorio - Tecnotest (Codice interno SC01)
 Penetrometro da Laboratorio - Eurolab (Codice interno PP01)

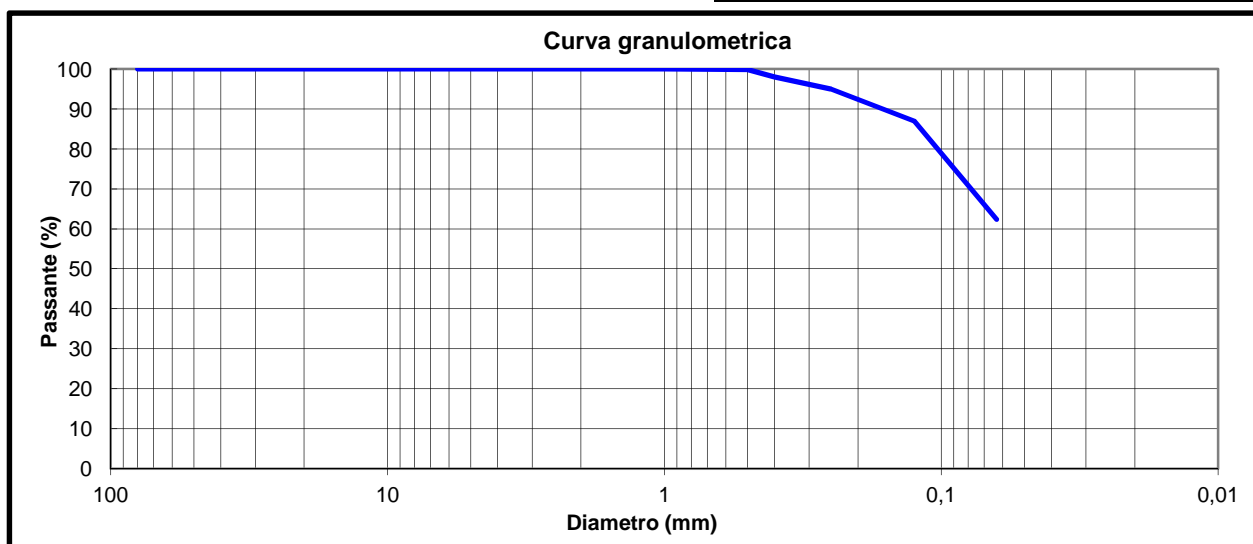
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	271.9	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione indisturbato		
Identificazione campione	S1C12 (7,40m - 8,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 - 28/02/2018	05/04/2018

Massa totale essicata M1 (g)	499,8
Massa totale essicata M2 (g)	190,7
Massa essicata dei fini rimossi con il lavaggio	309,1
M1-M2 (g)	
Materiale nel recipiente di fondo P (g)	2,8

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,0	0,0	100,0
0,500	0,9	0,2	99,8
0,400	9,1	2,0	98,0
0,250	15,1	5,0	95,0
0,125	40,1	13,0	87,0
0,063	122,7	37,6	62,4

% Fini passanti allo staccio 0,063 mm	62,4
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Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
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Strumentazione utilizzata per la prova	Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm (Codice interno SL4-C fino a SL80-C) e stacci a rete Tecnotest da 2 mm a 0,063 mm (Codice interno SR63-C fino a SR2000-C).
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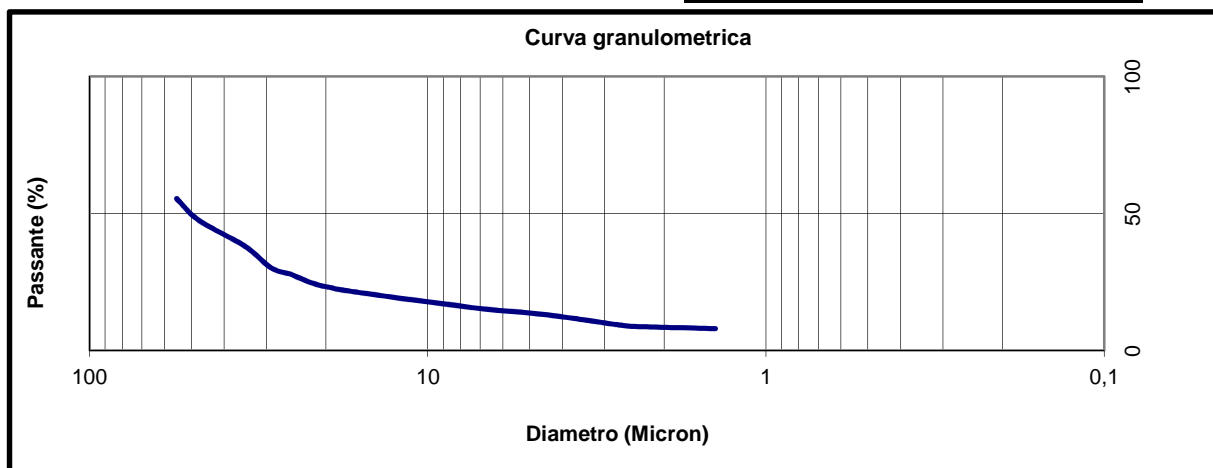
Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SEDIMENTAZIONE (UNI CEN ISO/TS 17892-4:2004)**

Certificato N°	271.10	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C12 (7,40m – 8,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Massa iniziale secca	50,283
Massa trattenuta al vaglio 0,063m secca	18,928
Passante %	62,4

Diametro equivalente dei grani (Micron)	Passante (%)
55,26	55,40
47,54	47,48
34,69	37,99
29,04	30,07
25,33	27,70
22,82	25,33
20,93	23,74
19,42	22,95
18,21	22,16
13,39	19,79
9,53	17,41
6,78	15,04
4,82	13,46
3,43	11,08
2,81	9,50
2,44	8,71
1,41	7,92



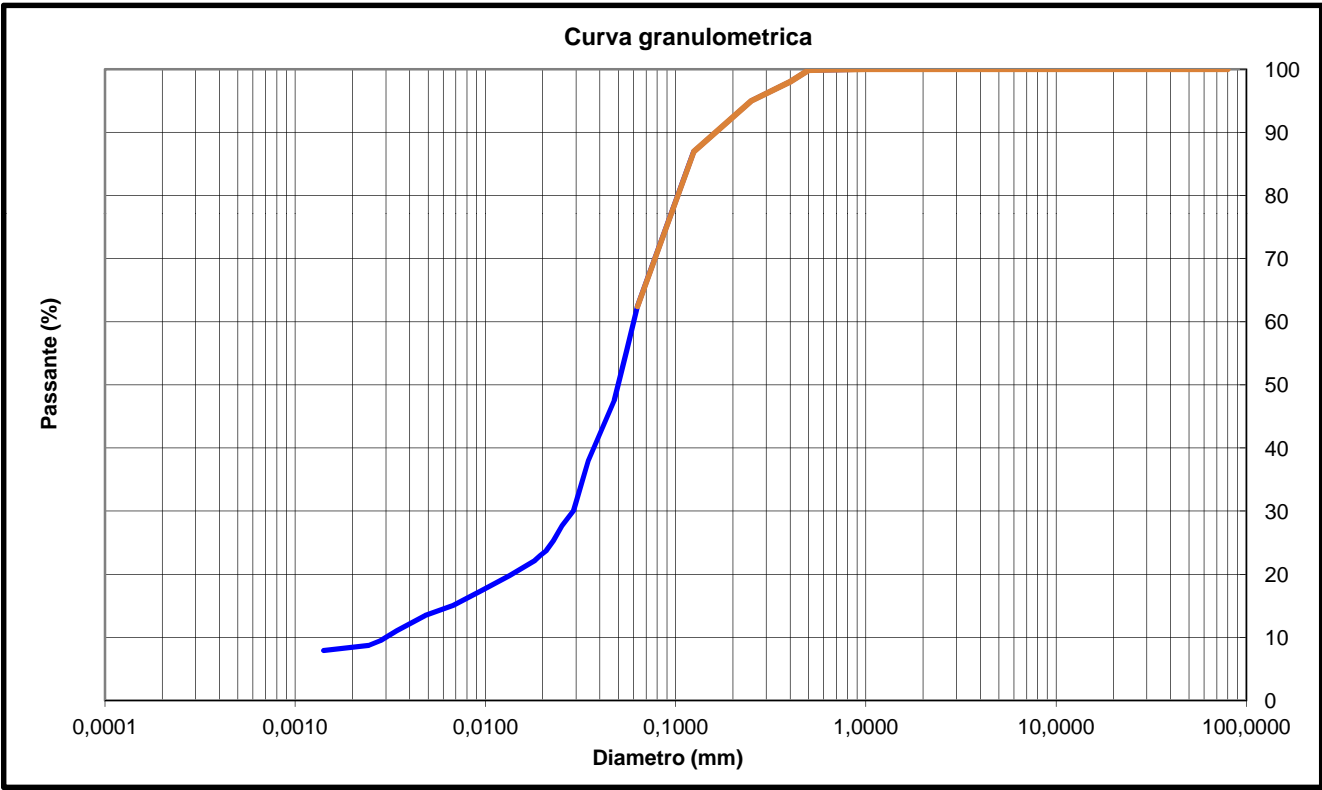
Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova	Setaccio a rete - Tecnotest 0,063 mm (Codice interno SR63-C) Vasca termostatica (Codice interno DT01-C) Densimetro (Codice interno DT02) Agitatore (Codice interno AG03)

NOTA TECNICA A COMMENTO DEI CERTIFICATI:

Cerificato N°	271.9	Data emissione	05/04/2018
Cerificato N°	271.10	Data emissione	05/04/2018

In ottemperanza alle disposizioni della Circolare Ministeriale n° 7618 Vi trasmettiamo i dati desumibili dai risultati di laboratorio.

Curva granulometrica composta (UNI CEN ISO/TS 17892-4:2005)



Note:

% Argilla (Racc. AGI 1990): 8,37



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Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Mamiano di Traversetolo (PR)
Tel. 0521/844092 - Fax: 0521/344744 - www.studio-mm.it - E-mail: info@studio-mm.it

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Mod Gt 414 - Rev 4 del 31/08/2011

Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

PESO DELL'UNITA' DI VOLUME DEI GRANULI SOLIDI (CNR UNI 10013)

Certificato N°	271.15	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C12 (7,40m – 8,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 28/02/2018	05/04/2018

Peso dell'unità di volume dell'acqua γ_w (daN/dm ³)	0,9795
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Campione	Identificazione campione	Metodo utilizzato	Massa del cestello/picnometro contenenti il campione di aggregato satturo	Massa del cestello immerso/picnometro satturo d'acqua, privi del campione	Massa secca	Peso dell'unità di volume dei granuli solidi
			P1	P2		
			(g)	(g)		γ_s (daN/dm ³)
S1C12	A	picnometro	1705,0	1541,3	259,8	2,65
	B	picnometro	1793,1	1603,5	301,8	2,63

Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova:	Apparecchiature per massa volumica Picnometro Tecnotest (Codice interno MP01-2)

Note

Studio MM S.r.l. Soc. unipersonale - P.IVA 02417780349 Iscr. C.C.I.A.A. n. 236371 Cap. soc. € 10.000,00 i.v.



Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

PESO DELL'UNITA' DI VOLUME (ASTM D 2937-94)

Certificato N°	271.17	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione indisturbato		
Identificazione campione	S1Cl2 (7,40m - 8,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 - 28/02/2018	05/04/2018

Massa volumica dell'acqua	g/cm ³	0,9987
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Identificazione Campione	Volume Campione	Massa Campione Umido	Massa Campione Secco	Peso di Volume Umido	Peso di Volume Secco
	(cm ³)	(g)	(g)	(daN/dm ³)	(daN/dm ³)
S1Cl2	40,00	81,87	70,56	2,01	1,73

Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
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Strumentazione utilizzata per la prova:	Bilancia - Bell Engineering (Codice interno BL014-C)
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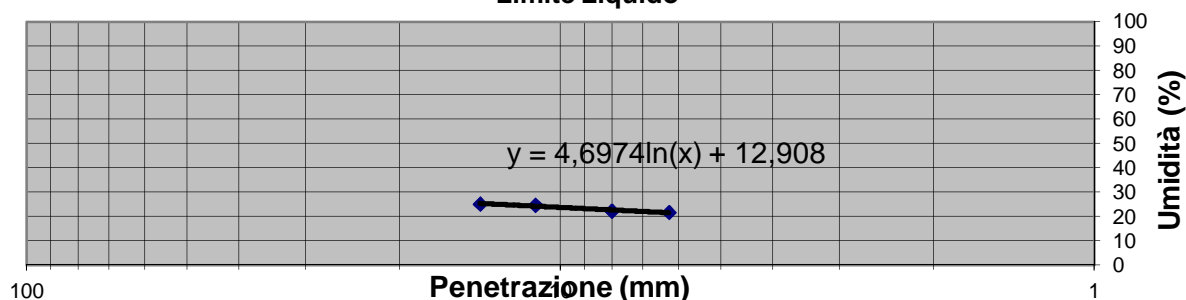
Note

**Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)**

Certificato N°	271.19	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione indisturbato		
Identificazione campione	S1Cl2 (7,40m - 8,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 - 28/02/2018	05/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	52,70	47,38	26,24	21,14	25,2	14,14
2	54,33	48,71	25,92	22,79	24,7	11,13
3	44,13	40,89	26,34	14,55	22,3	8,01
4	47,97	43,97	25,49	18,48	21,7	6,26

Limite Liquido**Limite Plastico**

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
24	n.d.	N.P.

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 80g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	98
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**PROVA DI TAGLIO DIRETTO CON DETERMINAZIONE PERAMETRI RESIDUI
 (BS 1377/7:1990)**

Certificato N°	271.21	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	S1C12 (7,40m – 8,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
20/02/2018	21/02/2018	22/02/2018 – 16/03/2018	05/04/2018

CONDIZIONI INIZIALI

Campione	Peso dell'unità di volume	Peso dell'unità di volume dei granuli solidi	Contenuto in acqua
	(daN/dm ³)	(daN/dm ³)	(%)
Provino1	2,02	2,60	16,0
Provino2	2,01	2,60	16,1
Provino3	2,01	2,60	16,0

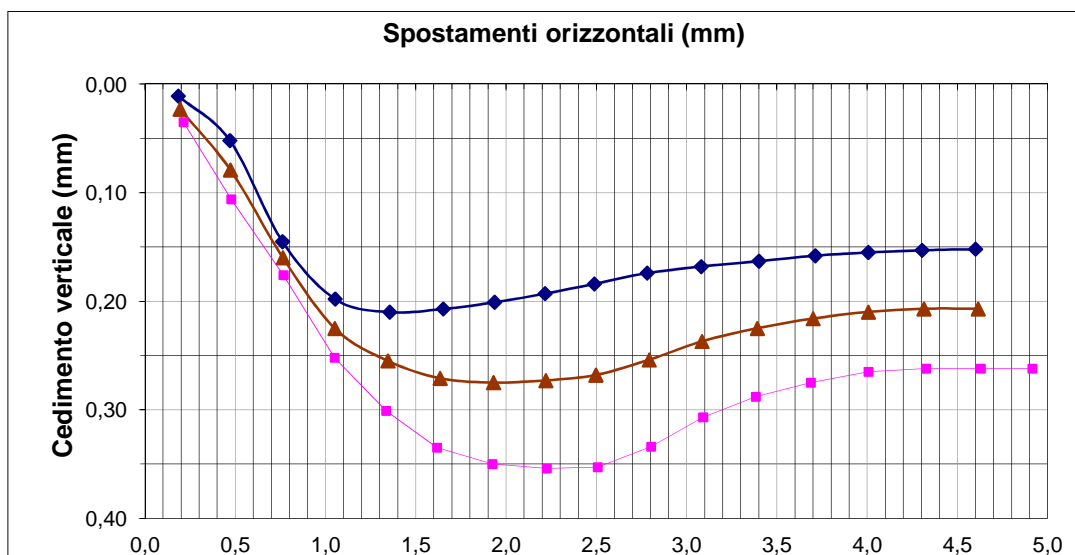
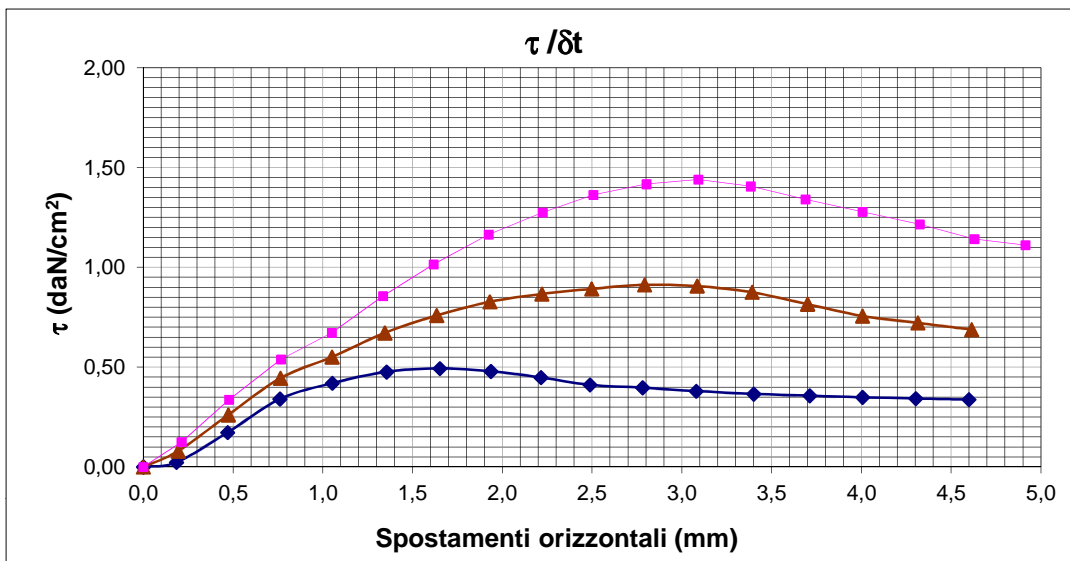
CONSOLIDAZIONE

Provino	Tensione Verticale	Tempo di Consolidazione	Cedimento Finale
	(daN/cm ²)	(h)	(mm)
1	0,490	24	0,84
2	0,981	24	1,06
3	1,471	24	1,28



Certificato N°	271.21	Data emissione	09/04/2018
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TAGLIO DI PICCO



NOTE:

Velocità di deformazione: 0,01 mm/min

Strumentazione utilizzata per la prova

Taglio diretto - Landi/Tecnotest (Codice interno CC01-T)
Potenziometri - Leane (Codice interno PZ01-T, PZ02-T)
Apparecchiatura per prove di taglio diretto e mat. Accessorio
(Codice interno TD01)

**Studio MM S.r.l.**

Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Mamiano di Traversetolo (PR)
Tel. 0521/844092 - Fax. 0521/344744 - www.studio-mm.it - E-mail: info@studio-mm.it

Pagina 3 di 3

Mod GT 412B - rev 0 del 04/03/2018

Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

Certificato N°

271.21

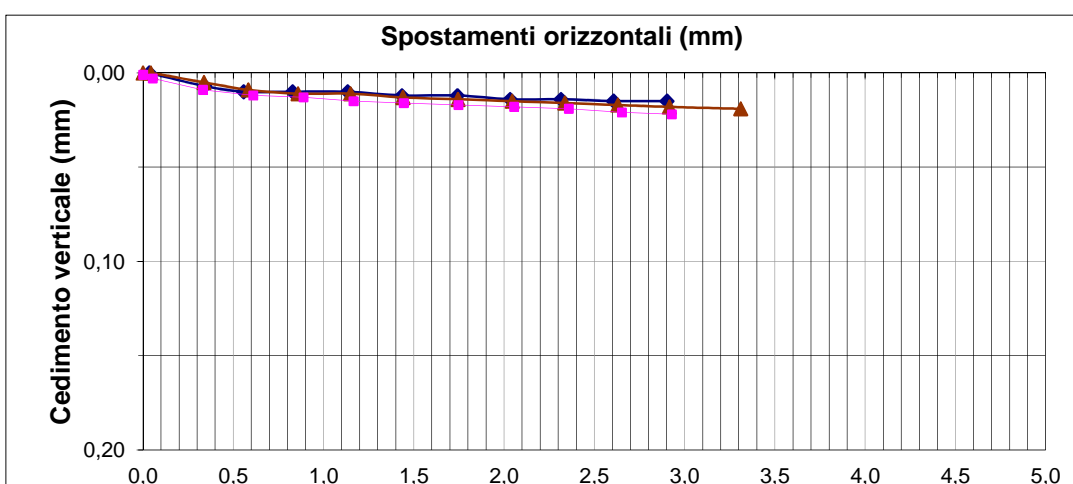
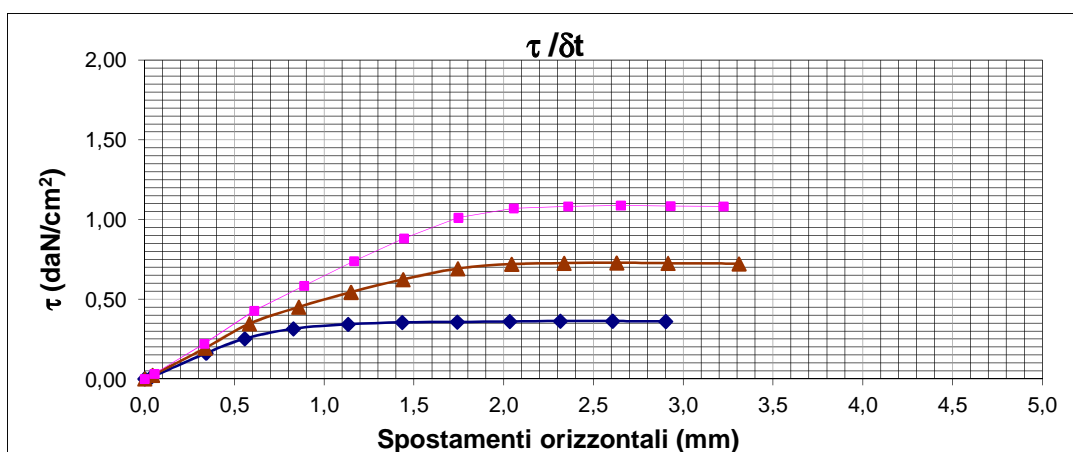
Data emissione

09/04/2018

TAGLIO RESIDUO

CONSOLIDAZIONE

Provino	Tensione Verticale	Ciclo A/R di prova	Cedimento Finale
	(daN/cm ²)	n°	(mm)
1	0,490	6	0,55
2	0,981	6	0,60
3	1,471	6	0,66



Lo Sperimentatore

Dot. Alex Orlandini

La Direzione Tecnica

Studio tecnologico M & M
Consulenza materie prime e prove materiali
Dot. Geol. Mazzoni Michele

NOTA TECNICA A COMMENTO DEL CERTIFICATO:

Certificato N°	271.21	Data emissione	09/04/2018
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In ottemperanza alle disposizioni della Circolare Ministeriale n°7618 Vi trasmettiamo i dati desumibili dai risultati di laboratorio.

TAGLIO DI PICCO

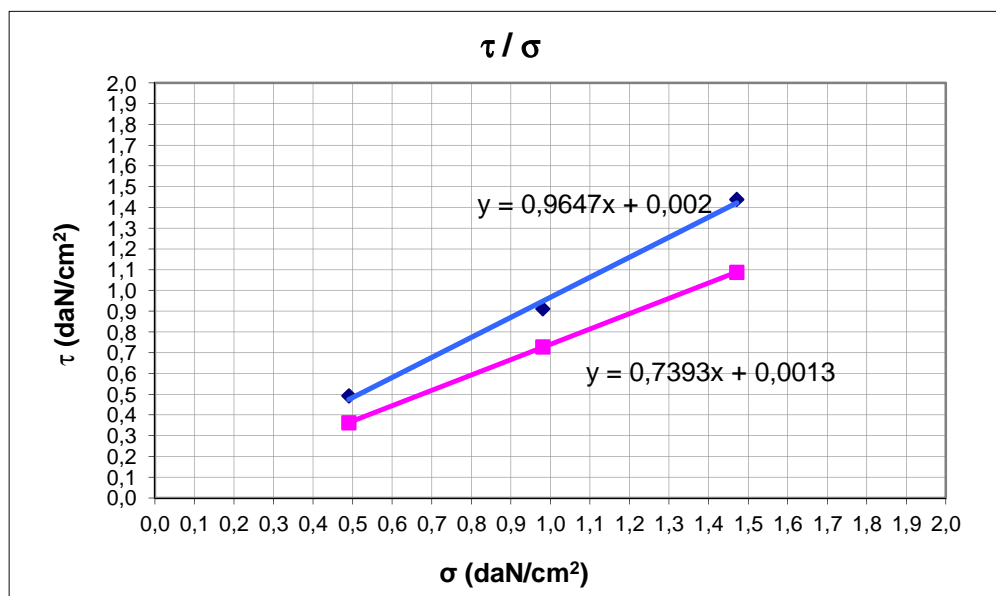
Provino	Sforzo di Taglio	Sforzo normale	Deformazione trasversale	Deformazione normale
	(daN/cm ²)	(daN/cm ²)	(mm)	(mm)
1	0,493	0,490	1,65	0,207
2	0,912	0,981	2,79	0,254
3	1,439	1,471	3,09	0,307

ANGOLO DI ATTRITO ϕ'	(gradi)	44,0
COESIONE C'	(daN/cm ²)	0,00

ROTTURA DOPO 6 CICLI ANDATA/RITORNO

Provino	Sforzo di Taglio	Sforzo normale	Deformazione trasversale	Deformazione normale
	(daN/cm ²)	(daN/cm ²)	(mm)	(mm)
1	0,363	0,490	2,32	0,01
2	0,728	0,981	2,63	0,02
3	1,088	1,471	2,65	0,02

ANGOLO DI ATTRITO ϕ'_r	(gradi)	36,5
COESIONE C'_r	(daN/cm ²)	0,00



NOTE: I valori dello sforzo di taglio di picco e residuo riportati in tabella sono diagrammati in funzione dello sforzo di taglio normale applicato per la determinazione dei parametri geotecnici C' , ϕ' , C'_r e ϕ'_r .

La retta blu nel grafico σ/τ rappresenta l'andamento dell'involuppo di rottura lineare nelle condizioni di taglio di picco. La retta rosa nel grafico σ/τ rappresenta l'andamento dell'involuppo di rottura lineare nelle condizioni di taglio residuo.

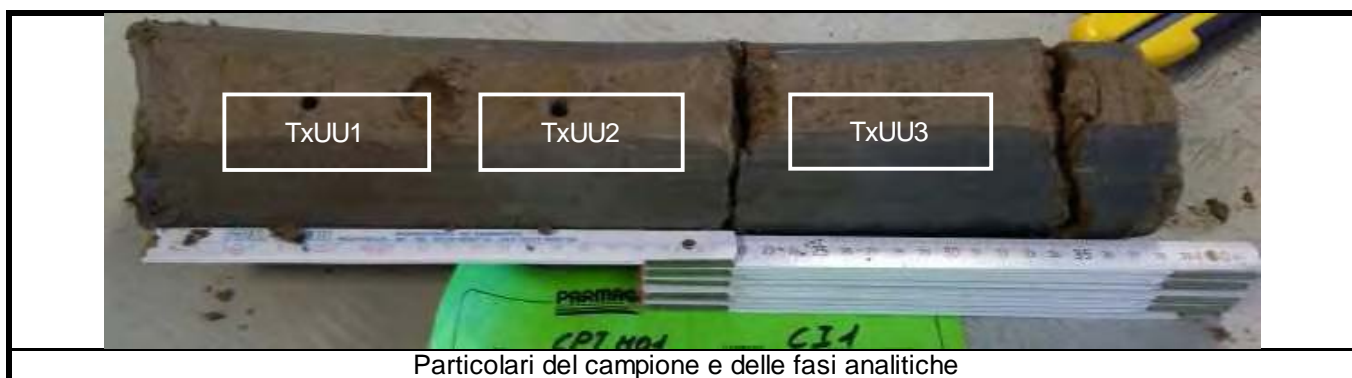
APERTURA CAMPIONE INDISTURBATO (Racc. A.G.I. 1977)

		Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	CPT.M01 (2,20m – 2,80m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
09/03/2018	14/03/2018	14/03/2018	05/04/2018

DESCRIZIONE

Alternanza di discontinue lenti sabbiose e limose ocracee in matrice limo-argillosa grigia prevalente.
 A 21cm e 34cm dal tetto sottili strati sabbiosi continui su tutta l'area del campione.
 Classificazione del campione (Racc.A.G.I. 1977): Q5.
 Lunghezza totale carota: 39cm

Resistenza alla penetrazione (pocket penetrometer)				Resistenza al taglio non drenata c_u (vane test)			
Valori (daN/cm ²)	3,2	3,4	3,6	Valori (daN/cm ²)	1,50	1,50	1,75
Posizione (cm da tetto carota)	6	15	28	Posizione (cm da tetto carota)	9	18	31



Lo Sperimentatore

Dott. Alex Orlandini

La Direzione Tecnica

Strumentazione utilizzata per la prova

Scissometro da Laboratorio - Tecnotest (Codice interno SC01)
 Penetrometro da Laboratorio - Eurolab (Codice interno PP01)



Studio MM S.r.l.
Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Mamiano di Traversetolo (PR)
Tel. 0521/844092 - Fax. 0521/344744 - www.studio-mm.it - E-mail: info@studio-mm.it

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Mod Gt 414 - Rev 4 del 31/08/2011

Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

PESO DELL'UNITA' DI VOLUME DEI GRANULI SOLIDI (CNR UNI 10013)

Certificato N°	271.22	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	CPT.M01 (2,20m – 2,80m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
09/03/2018	14/03/2018	14/03/2018 – 20/03/2018	05/04/2018

Peso dell'unità di volume dell'acqua γ_w (daN/dm ³)	0,9795
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Campione	Identificazione campione	Metodo utilizzato	Massa del cestello/picnometro contenenti il campione di aggregato satturo	Massa del cestello immerso/picnometro satturo d'acqua, privi del campione	Massa secca	Peso dell'unità di volume dei granuli solidi
			P1	P2		
			(g)	(g)		γ_s (daN/dm ³)
CPT.M01	A	picnometro	1718,7	1544,4	278,5	2,62
	B	picnometro	1788,9	1605,4	291,9	2,64

Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova:	Apparecchiature per massa volumica Picnometro Tecnotest (Codice interno MP01-2)

Note

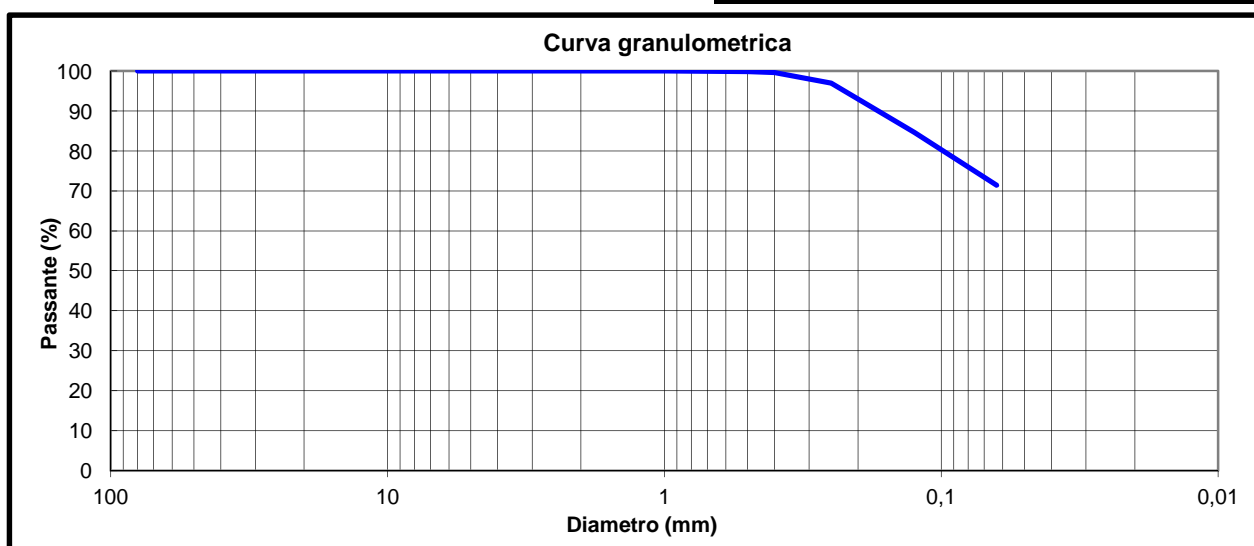
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	271.23	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione indisturbato		
Identificazione campione	CPT.M01 (2,20m - 2,80m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
09/03/2018	14/03/2018	14/03/2018 - 20/03/2018	05/04/2018

Massa totale essicata M1 (g)	500,3
Massa totale essicata M2 (g)	144,9
Massa essicata dei fini rimossi con il lavaggio	355,4
M1-M2 (g)	
Materiale nel recipiente di fondo P (g)	1,9

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,0	0,0	100,0
0,500	0,9	0,2	99,8
0,400	1,1	0,4	99,6
0,250	13,1	3,0	97,0
0,125	61,8	15,4	84,6
0,063	66,0	28,6	71,4

% Fini passanti allo staccio 0,063 mm	71,4
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**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C).**Note**

Studio MM S.r.l. Soc. unipersonale - P.IVA 02417780349 Iscr. C.C.I.A.A. n. 236371 Cap. soc. € 10.000,00 i.v.



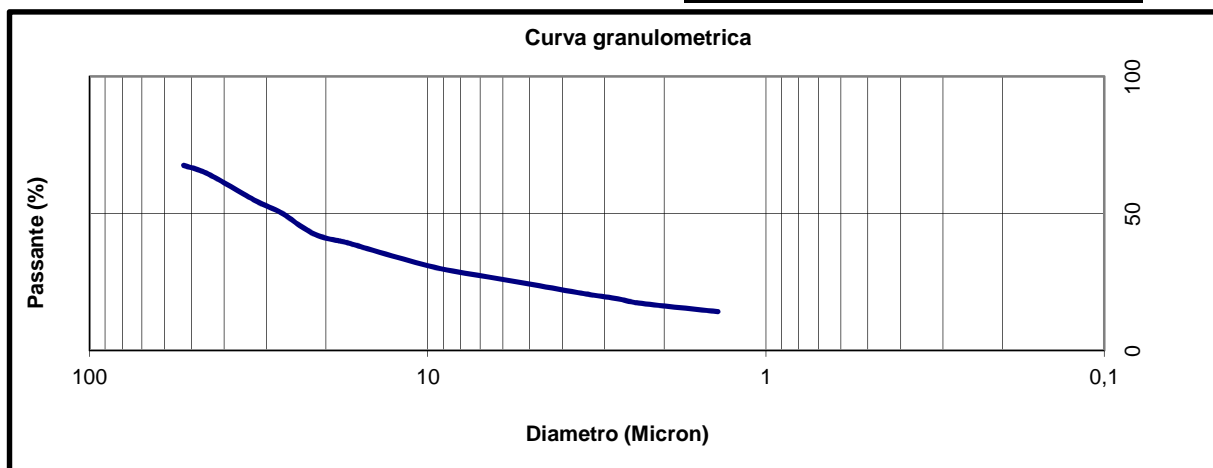
Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SEDIMENTAZIONE (UNI CEN ISO/TS 17892-4:2004)**

Certificato N°	271.24	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione indisturbato		
Identificazione campione	CPT.M01 (2,20m – 2,80m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
09/03/2018	14/03/2018	14/03/2018 – 20/03/2018	05/04/2018

Massa iniziale secca	50,826
Massa trattenuta al vaglio 0,063m secca	14,529
Passante %	71,4

Diametro equivalente dei grani (Micron)	Passante (%)
52,66	67,48
44,61	64,34
32,69	54,93
27,15	50,22
23,90	45,51
21,60	42,37
19,82	40,80
18,40	40,02
17,26	39,23
12,80	34,53
9,18	29,82
6,56	26,68
4,68	23,54
3,34	20,40
2,74	18,83
2,38	17,26
1,39	14,13



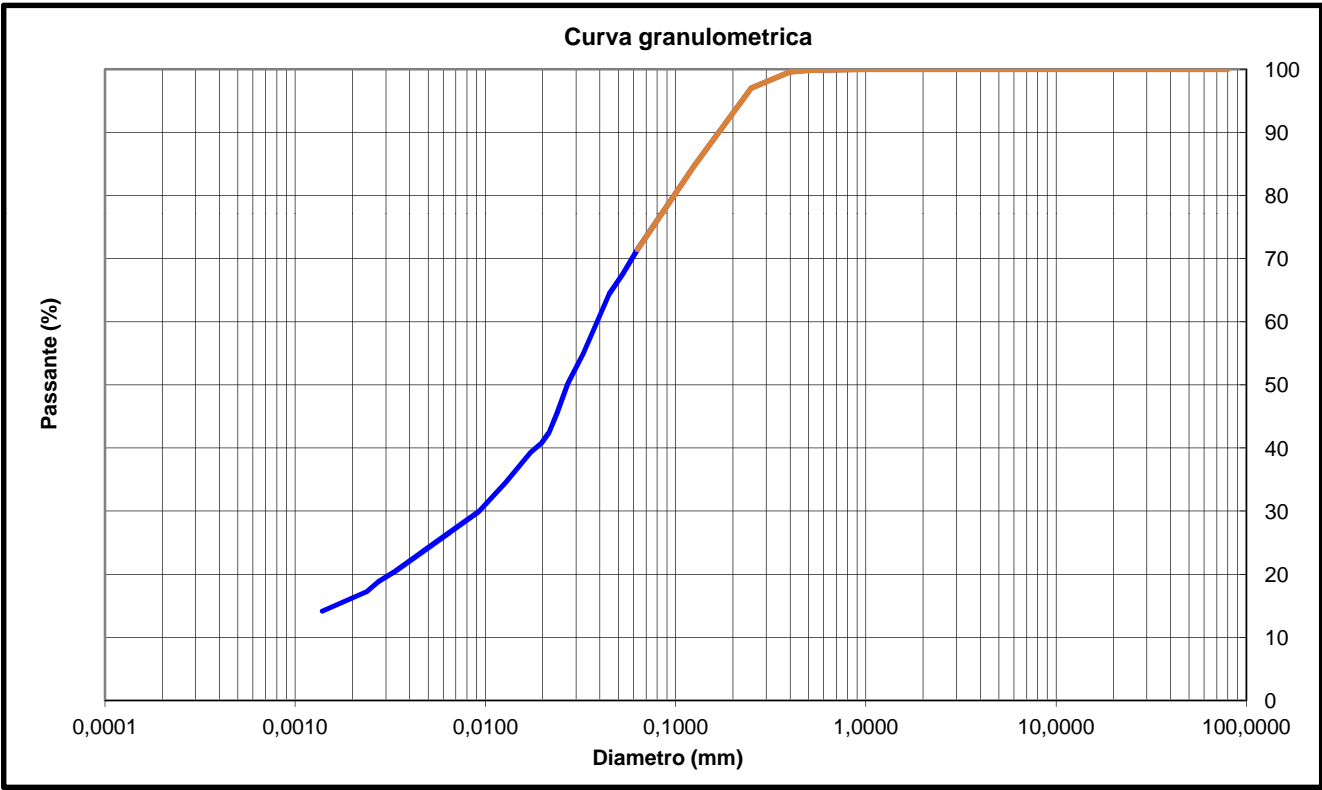
Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova	Setaccio a rete - Tecnotest 0,063 mm (Codice interno SR63-C) Vasca termostatica (Codice interno DT01-C) Densimetro (Codice interno DT02) Agitatore (Codice interno AG03)

NOTA TECNICA A COMMENTO DEI CERTIFICATI:

Cerificato N°	271.23	Data emissione	05/04/2018
Cerificato N°	271.24	Data emissione	05/04/2018

In ottemperanza alle disposizioni della Circolare Ministeriale n° 7618 Vi trasmettiamo i dati desumibili dai risultati di laboratorio.

Curva granulometrica composta (UNI CEN ISO/TS 17892-4:2005)



Note:

% Argilla (Racc. AGI 1990): 16,06

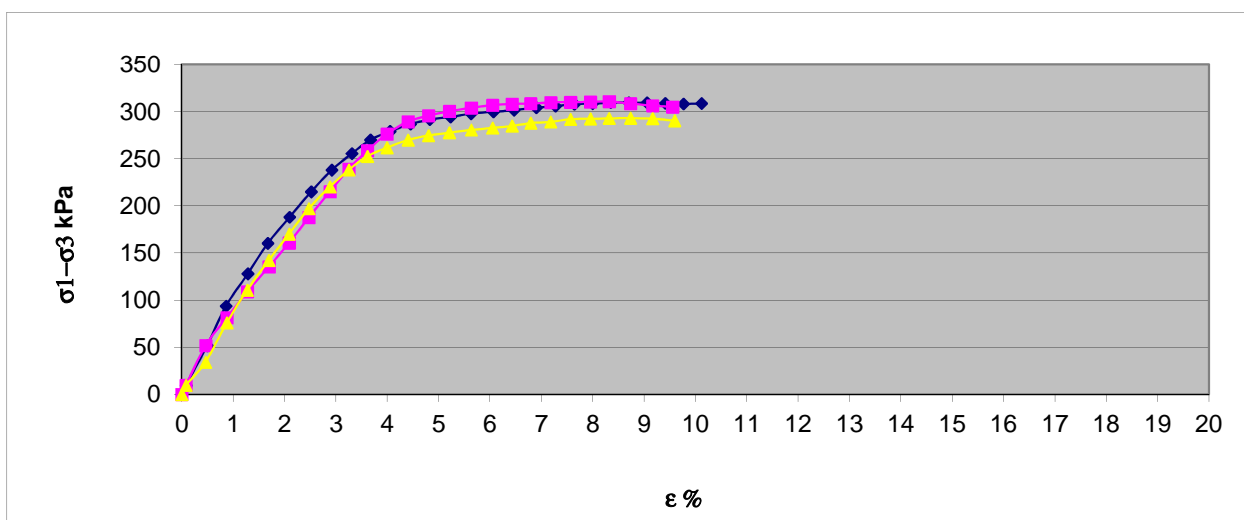


Prova Triassiale UU (Racc. AGI 1994)

Certificato N°	271.25	Verbale di Accettazione N°	271 del 22/02/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione indisturbato		
Identificazione campione	CPT.M01 (2,20m - 2,80m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
09/03/2018	14/03/2018	27/03/2018	09/04/2018

CONDIZIONI INIZIALI

Peso dell'unità di volume	Peso specifico dei grani (ρ_g)	Contenuto in acqua	Indice dei vuoti	Porosità	Grado di saturazione
(daN/dm ³)	(daN/dm ³)	(%)		%	%
1,97	2,63	19,2	0,59	37,3	87
1,96	2,63	19,0	0,60	37,4	85
1,95	2,63	19,2	0,61	37,9	84



Lo Sperimentatore

Dott. Alex Orlandini

La Direzione Tecnica

Strumentazione utilizzata per la prova

Apparecchiatura triassiale (CTX02; PX01; CC06-T; PTX01-C; SP01; MA03-T; MA01-T; AQ01)

NOTE:

**Studio MM S.r.l.**

Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Mamiano di Traversetolo (PR)
Tel. 0521/844092 - Fax. 0521/344744 - www.studio-mm.it - E-mail: info@studio-mm.it

Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

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Mod.GT_418.1 - rev 3 del 03/11/2015

Certificato N°	271.25	Verbale Acc. N°	271 del 22/02/2018
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Provino n°	1	σ_3 (kPa)	100
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Forza (kN)	misure (mm)	ϵ	A' mmq	$\sigma_1 - \sigma_3$	$\epsilon \%$
0	0	0,0000	1133,54	0,00	0,00
0,011	0,065	0,0009	1134,51	9,70	0,09
0,059	0,377	0,0050	1139,19	51,79	0,50
0,107	0,655	0,0086	1143,39	93,67	0,86
0,147	0,979	0,0129	1148,33	128,01	1,29
0,185	1,274	0,0168	1152,87	160,30	1,68
0,218	1,596	0,0210	1157,85	188,02	2,10
0,250	1,916	0,0252	1162,86	214,90	2,52
0,278	2,221	0,0292	1167,66	238,00	2,92
0,300	2,517	0,0331	1172,37	255,55	3,31
0,318	2,793	0,0368	1176,79	270,06	3,68
0,330	3,081	0,0405	1181,43	279,07	4,05
0,340	3,386	0,0446	1186,40	286,75	4,46
0,347	3,67	0,0483	1191,06	291,51	4,83
0,352	3,976	0,0523	1196,12	294,37	5,23
0,358	4,281	0,0563	1201,20	297,78	5,63
0,362	4,611	0,0607	1206,76	299,90	6,07
0,365	4,916	0,0647	1211,93	301,50	6,47
0,370	5,245	0,0690	1217,57	304,13	6,90
0,374	5,53	0,0728	1222,49	305,77	7,28
0,378	5,808	0,0764	1227,33	307,98	7,64
0,380	6,077	0,0800	1232,06	308,51	8,00
0,383	6,346	0,0835	1236,81	309,59	8,35
0,384	6,615	0,0870	1241,61	309,52	8,70
0,386	6,884	0,0906	1246,44	309,44	9,06
0,386	7,153	0,0941	1251,31	308,80	9,41
0,387	7,422	0,0977	1256,22	308,15	9,77
0,389	7,691	0,1012	1261,17	308,60	10,12



Certificato N°	271.25	Verbale Acc. N°	271 del 22/02/2018
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Provino n°	2	σ_3 (kPa)	200
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Forza (kN)	misure (mm)	ϵ	A' mmq	$\sigma_1 - \sigma_3$	$\epsilon \%$
0	0	0,0000	1133,54	0,00	0,00
0,011	0,064	0,0008	1134,50	9,70	0,08
0,059	0,355	0,0047	1138,86	51,81	0,47
0,093	0,668	0,0088	1143,59	81,32	0,88
0,125	0,971	0,0128	1148,21	108,87	1,28
0,156	1,291	0,0170	1153,13	135,28	1,70
0,186	1,59	0,0209	1157,76	160,65	2,09
0,218	1,88	0,0247	1162,29	187,56	2,47
0,251	2,194	0,0289	1167,24	215,04	2,89
0,28	2,472	0,0325	1171,65	238,98	3,25
0,304	2,749	0,0362	1176,08	258,49	3,62
0,326	3,036	0,0399	1180,71	276,11	3,99
0,343	3,35	0,0441	1185,81	289,25	4,41
0,352	3,651	0,0480	1190,74	295,61	4,80
0,359	3,961	0,0521	1195,87	300,20	5,21
0,365	4,284	0,0564	1201,25	303,85	5,64
0,37	4,599	0,0605	1206,55	306,66	6,05
0,373	4,888	0,0643	1211,46	307,89	6,43
0,375	5,164	0,0679	1216,18	308,34	6,79
0,378	5,459	0,0718	1221,26	309,52	7,18
0,38	5,752	0,0757	1226,36	309,86	7,57
0,382	6,046	0,0796	1231,51	310,19	7,96
0,384	6,325	0,0832	1236,44	310,57	8,32
0,383	6,64	0,0874	1242,06	308,36	8,74
0,382	6,967	0,0917	1247,94	306,10	9,17
0,382	7,262	0,0956	1253,30	304,80	9,56



Certificato N°	271.25	Verbale Acc. N°	271 del 22/02/2018
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Provino n°	3	σ_3 (kPa)	300
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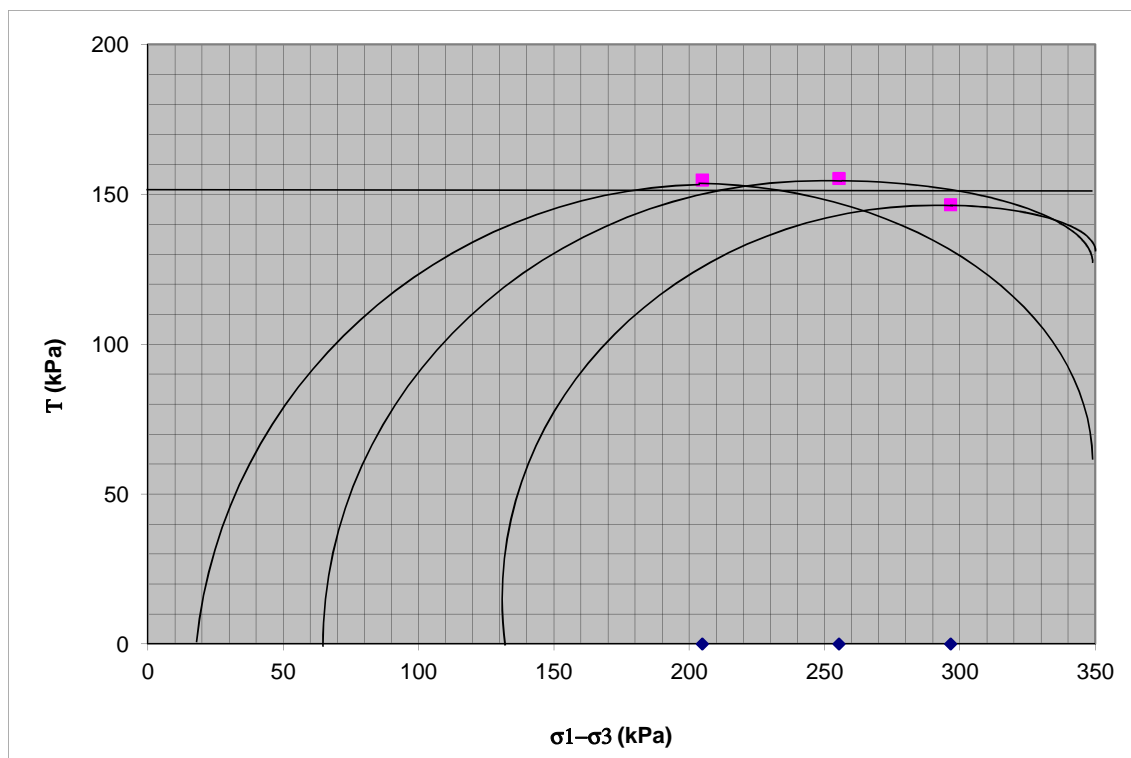
Forza (kN)	misure (mm)	ϵ	A' mmq	$\sigma_1 - \sigma_3$	ϵ %
0,00	0,00	0,0000	1133,54	0,00	0,00
0,011	0,064	0,0008	1134,50	9,70	0,08
0,039	0,354	0,0047	1138,84	34,25	0,47
0,087	0,668	0,0088	1143,59	76,08	0,88
0,127	0,97	0,0128	1148,19	110,61	1,28
0,164	1,29	0,0170	1153,11	142,22	1,70
0,197	1,59	0,0209	1157,76	170,16	2,09
0,229	1,88	0,0247	1162,29	197,02	2,47
0,257	2,194	0,0289	1167,24	220,18	2,89
0,279	2,472	0,0325	1171,65	238,13	3,25
0,297	2,748	0,0362	1176,06	252,54	3,62
0,309	3,036	0,0399	1180,71	261,71	3,99
0,32	3,35	0,0441	1185,81	269,86	4,41
0,327	3,65	0,0480	1190,73	274,62	4,80
0,332	3,96	0,0521	1195,85	277,63	5,21
0,337	4,284	0,0564	1201,25	280,54	5,64
0,341	4,598	0,0605	1206,54	282,63	6,05
0,345	4,888	0,0643	1211,46	284,78	6,43
0,35	5,164	0,0679	1216,18	287,79	6,79
0,353	5,458	0,0718	1221,24	289,05	7,18
0,358	5,752	0,0757	1226,36	291,92	7,57
0,36	6,046	0,0796	1231,51	292,32	7,96
0,362	6,324	0,0832	1236,42	292,78	8,32
0,364	6,64	0,0874	1242,06	293,06	8,74
0,365	6,966	0,0917	1247,92	292,49	9,17
0,364	7,292	0,0959	1253,84	290,31	9,59

NOTA TECNICA A COMMENTO DEL CERTIFICATO:

Certificato N°	271.25	Data emissione	09/04/2018
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CONDIZIONI DI ROTTURA

Provino	σ_3 (kPa)	$\sigma_1 - \sigma_3$ (kPa)	Deformazione normale %
1	100	309,59	8,35
2	200	310,57	8,32
3	300	293,06	8,74



Coesione non drenata (kPa)

150

NOTE:

**Studio MM S.r.l.**

Consulenza materie prime - Prove materiali

di Michele Mazzoni

Strada Pedemontana 40/s - 43029 Marnano di Traversetolo (PR)
Tel. 0521/844092 - Fax. 0521/344744 - www.studio-mm.it - E-mail. info@studio-mm.it

Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

Committente: **A.I.P.O. - UFFICIO OPERATIVO PIACENZA****Prove geotecniche di laboratorio su campioni rimaneggiati**

Materiali:	Terra - Campione rimaneggiato Area 1 -Tracce 1-2 C1 (-0,50m)
	Terra - Campione rimaneggiato Area 1 -Tracce 1-2 C2 (-2,00m)
	Terra - Campione rimaneggiato Area 1 -Traccia 3 C1 (-1,00m)
	Terra - Campione rimaneggiato Area 1 -Traccia 3 C2 (-2,00m)
	Terra - Campione rimaneggiato Area 1 -Traccia 4 C1 (-1,80m)
	Terra - Campione rimaneggiato Area 1 -Traccia 4 C2 (-2,90m)
	Terra - Campione rimaneggiato Area 1 -Traccia 5 C1 (-1,00m)
	Terra - Campione rimaneggiato Area 1 -Traccia 5 C2 (-2,70m)
	Terra - Campione rimaneggiato Area 1 -Traccia 6 C1 (-1,20m)
	Terra - Campione rimaneggiato Area 1 -Traccia 6 C2 (-2,00m)
	Terra - Campione rimaneggiato Area 2 -Traccia 1 C1 (-0,50m)
	Terra - Campione rimaneggiato Area 2 -Traccia 1 C2 (-1,90m)
	Terra - Campione rimaneggiato Area 2 -Traccia 2 C1 (-0,50m)
	Terra - Campione rimaneggiato Area 2 -Traccia 2 C2 (-2,10m)
	Terra - Campione rimaneggiato Area 2 -Traccia 3 C1 (-1,40m)
	Terra - Campione rimaneggiato Area 2 -Traccia 4 C1 (-1,20m)
	Terra - Campione rimaneggiato Area 2 -Traccia 5 C1 (-0,40m)
	Terra - Campione rimaneggiato Area 2 -Traccia 5 C2 (-2,00m)
	Terra - Campione rimaneggiato Area 2 -Traccia 6 C1 (-0,80m)
	Terra - Campione rimaneggiato Area 2 -Traccia 6 C2 (-1,60m)

Cantiere: PC-E-810**Località:** Soarza (PC)**Verbale di Accettazione N°** 277 del 16/03/2018

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

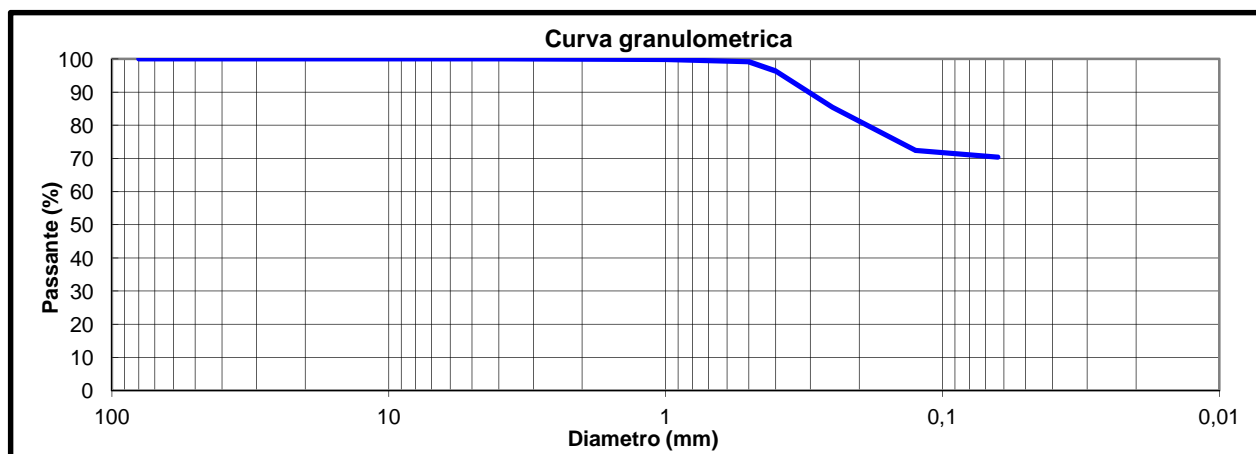
Certificato N°	277.1	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 1 - Tracce 1-2 - C1 (-0,50m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	279,8
Massa totale essicata M2 (g)	82,9
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	196,9
Materiale nel recipiente di fondo P (g)	0,1

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,2	0,1	99,9
1	0,2	0,1	99,9
0,500	2,1	0,9	99,1
0,400	7,7	3,6	96,4
0,250	30,4	14,5	85,5
0,125	36,7	27,6	72,4
0,063	5,5	29,6	70,4

% Fini passanti allo staccio 0,063 mm

70,4

**Lo Sperimentatore**

Dott. Alex Orlandini

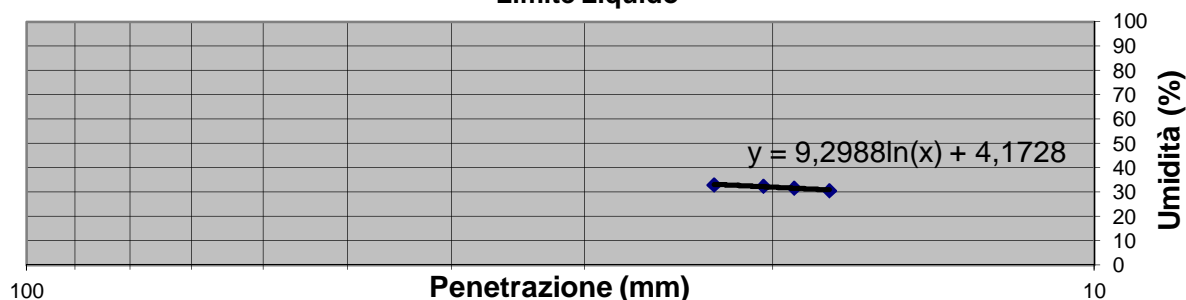
La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

**Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)**

Certificato N°	277.2	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 1 - Tracce 1-2 - C1 (-0,50m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	47,87	42,50	26,24	16,27	33,0	22,71
2	48,96	43,45	26,06	17,39	31,7	19,11
3	49,10	43,71	26,13	17,58	30,7	17,71
4	45,86	41,07	26,35	14,72	32,5	20,41

Limite Liquido**Limite Plastico**

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	30,82	29,73	25,29	4,44	24,7
5	35,55	33,69	26,32	7,38	25,1

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
32	25	7

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 80g con angolo della punta di 30°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	96
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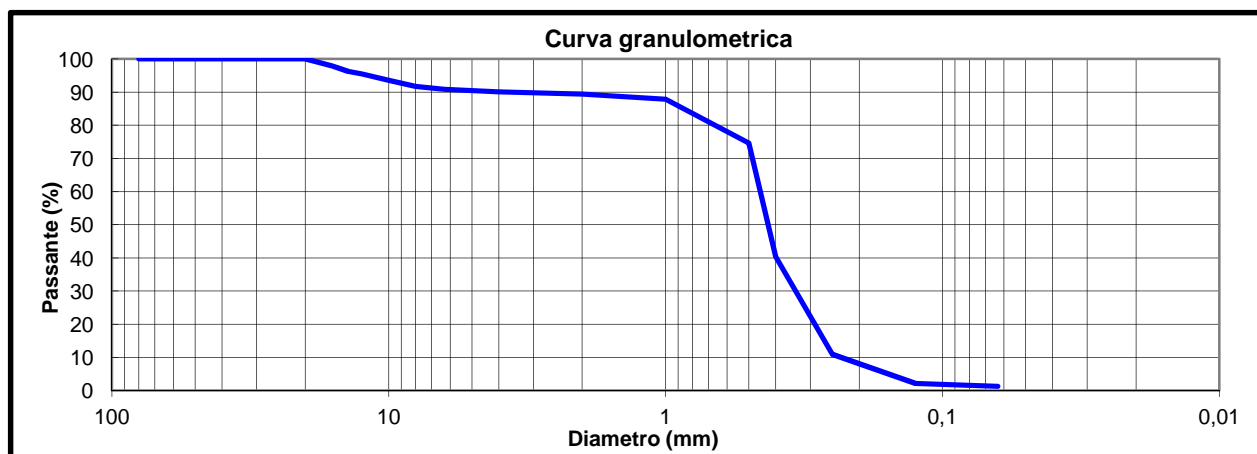
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	277.3	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 1 - Tracce 1-2 - C2 (-2,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	642,8
Massa totale essicata M2 (g)	635,0
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	7,8
Materiale nel recipiente di fondo P (g)	0,4

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	13,4	2,1	97,9
14	10,4	3,7	96,3
12,5	5,0	4,5	95,5
10	12,6	6,4	93,6
8	11,8	8,3	91,7
6,3	5,4	9,1	90,9
4	5,2	9,9	90,1
2	4,6	10,6	89,4
1	9,4	12,1	87,9
0,500	85,2	25,4	74,6
0,400	220,6	59,7	40,3
0,250	189,2	89,1	10,9
0,125	56,4	97,9	2,1
0,063	5,4	98,7	1,3

% Fini passanti allo staccio 0,063 mm	1,3
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**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**



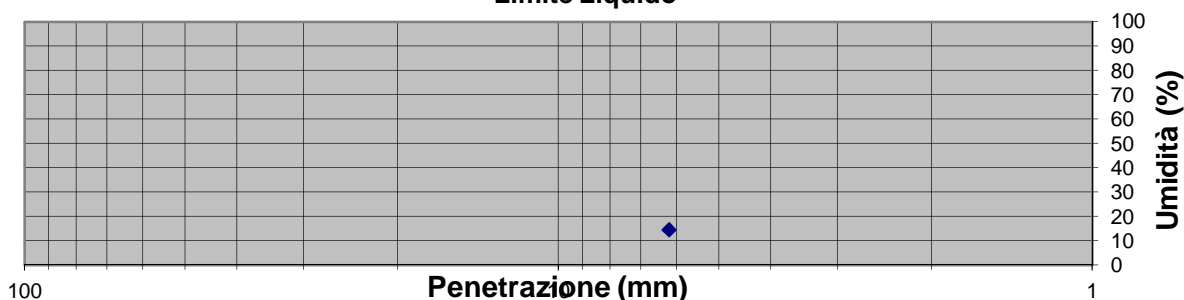
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.4	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 1 - Tracce 1-2 - C2 (-2,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	44,36	42,06	26,35	15,71	14,6	6,21
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
n.d.	n.d.	N.P

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	40
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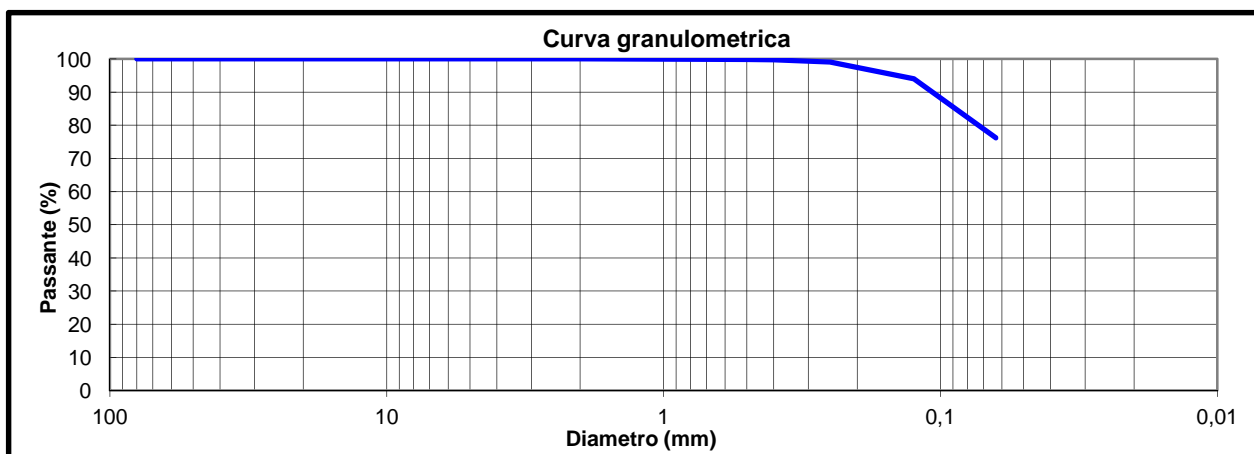
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	277.5	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Aera 1 - Traccia 3 - C1 (-1,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	322,6
Massa totale essicata M2 (g)	90,4
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	232,2
Materiale nel recipiente di fondo P (g)	13,7

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,1	0,0	100,0
0,500	0,4	0,2	99,8
0,400	0,4	0,3	99,7
0,250	2,2	1,0	99,0
0,125	16,1	6,0	94,0
0,063	57,5	23,8	76,2

% Fini passanti allo staccio 0,063 mm	76,2
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**Lo Sperimentatore**

Dott. Alex Orlandini

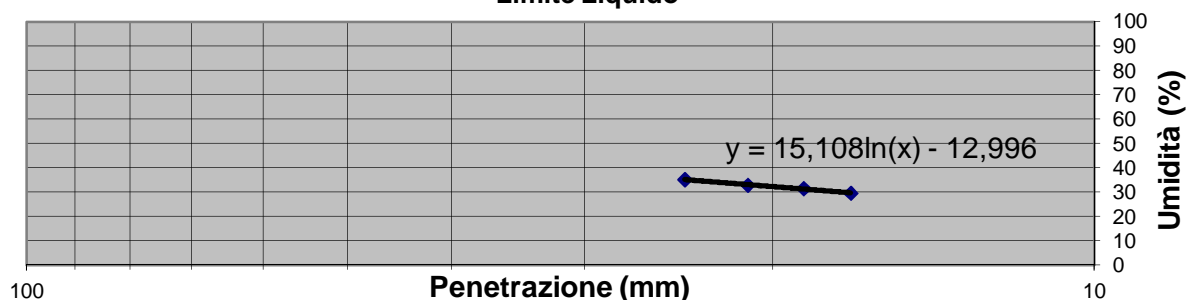
La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

**Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)**

Certificato N°	277.6	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Aera 1 - Traccia 3 - C1 (-1,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	47,56	42,04	26,33	15,71	35,2	24,18
2	47,52	42,13	25,76	16,37	32,9	21,11
3	51,15	45,24	26,48	18,76	31,5	18,71
4	52,37	46,43	26,39	20,04	29,6	16,91

Limite Liquido**Limite Plastico**

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	35,63	33,56	26,14	7,41	28,0
5	34,55	32,74	26,36	6,39	28,2

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
32	28	4

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 80g con angolo della punta di 30°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	100
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

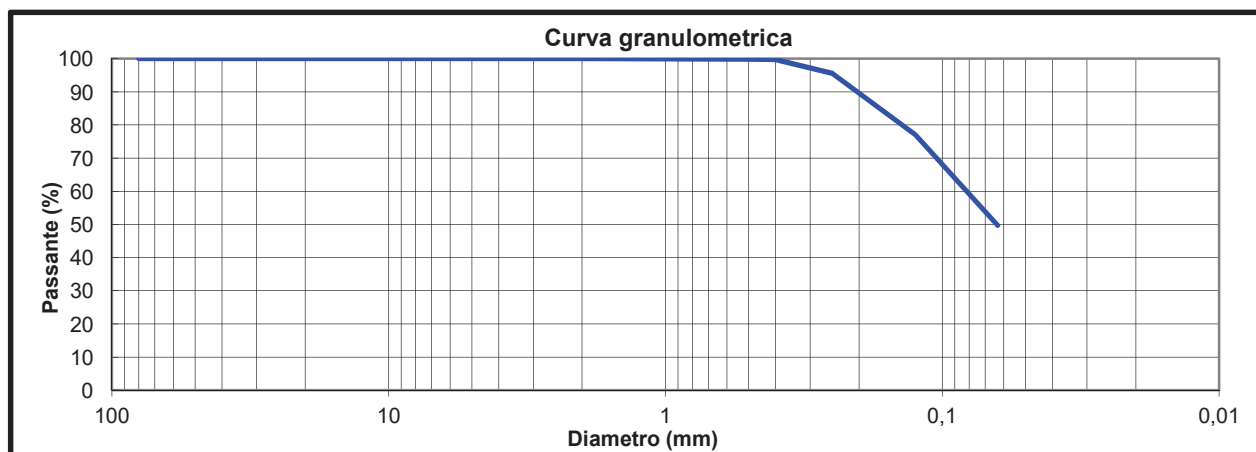
Certificato N°	277.7	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 1 - Traccia 3 - C2 (-2,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	313,8
Massa totale essicata M2 (g)	636,2
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	-322,4
Materiale nel recipiente di fondo P (g)	12,0

Setacci	Trattenuto g	Trattenuto %	Passante %
mm			
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,1	0,0	100,0
0,500	0,3	0,1	99,9
0,400	0,5	0,3	99,7
0,250	13,0	4,4	95,6
0,125	58,1	22,9	77,1
0,063	85,7	50,3	49,7

% Fini passanti allo staccio 0,063 mm

49,7

**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

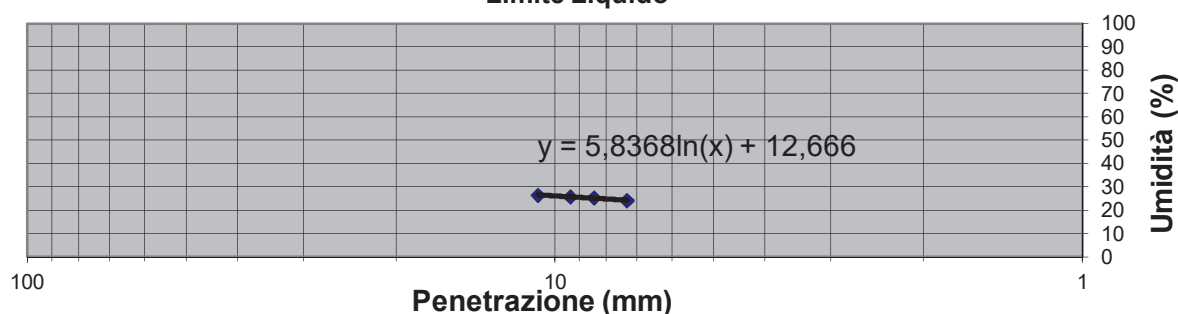
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.8	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 1 – Traccia 3 - C2 (-2,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	46,03	42,20	26,35	15,85	24,2	7,31
2	46,45	42,39	26,35	16,04	25,3	8,44
3	47,95	43,54	26,41	17,13	25,7	9,36
4	47,35	42,77	25,47	17,30	26,5	10,78

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
26	n.d.	N.P

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	100
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

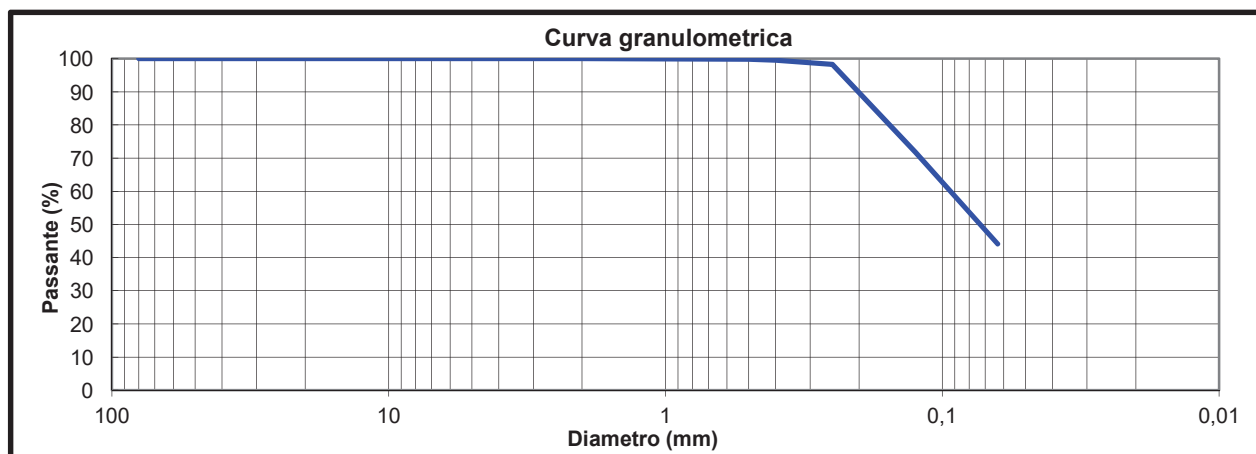
Certificato N°	277.9	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 1 - Traccia 4 - C1 (-1,80m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	228,2
Massa totale essicata M2 (g)	134,8
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	93,4
Materiale nel recipiente di fondo P (g)	7,4

Setacci	Trattenuto g	Trattenuto %	Passante %
mm			
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,2	0,1	99,9
0,500	0,2	0,2	99,8
0,400	0,6	0,4	99,6
0,250	2,9	1,7	98,3
0,125	60,6	28,3	71,7
0,063	62,9	55,8	44,2

% Fini passanti allo staccio 0,063 mm

44,2

**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

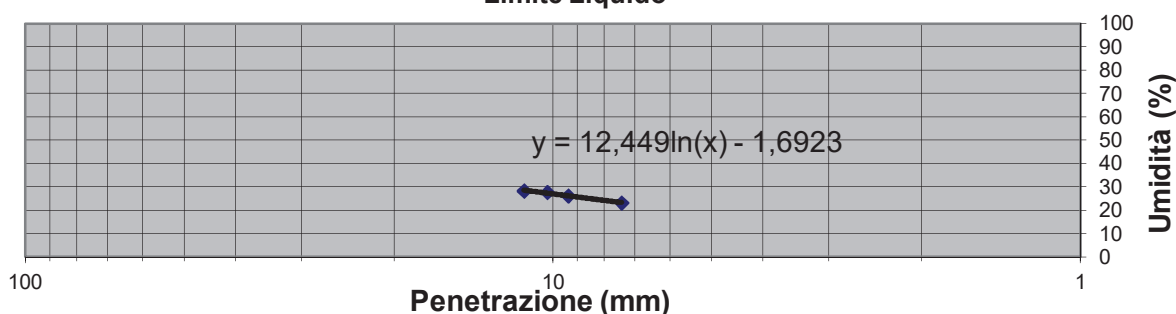
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.10	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 1 – Traccia 4 - C1 (-1,80m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	51,13	45,66	26,33	19,34	28,3	11,34
2	47,56	42,58	24,55	18,03	27,6	10,25
3	71,31	61,88	25,82	36,06	26,2	9,36
4	47,14	43,27	26,55	16,72	23,2	7,41

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
27	n.d.	N.P

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	100
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 – Concessione n° 5953

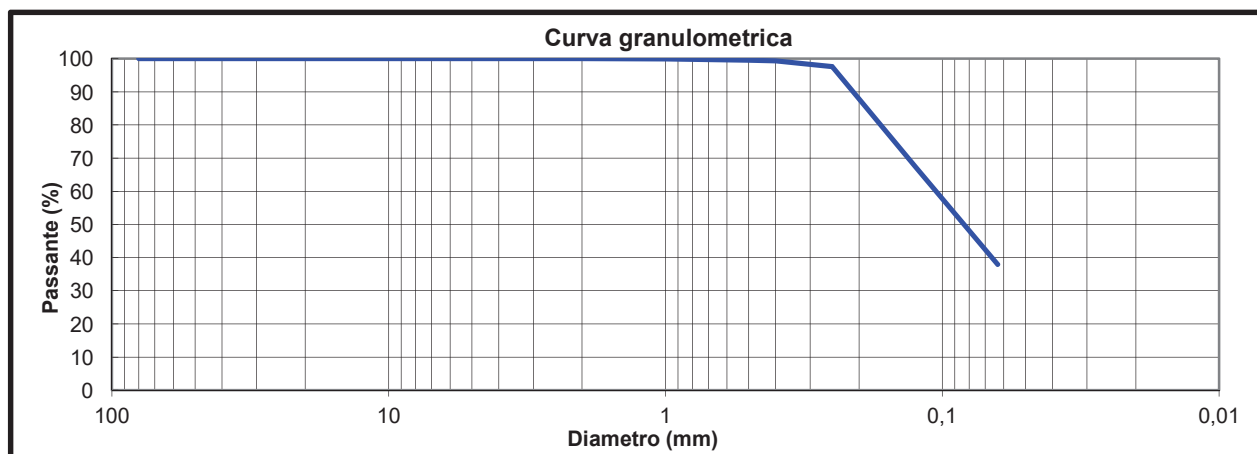
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	277.11	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 1 – Traccia 4 - C2 (-2,90m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	370,7
Massa totale essicata M2 (g)	239,8
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	130,9
Materiale nel recipiente di fondo P (g)	9,9

Setacci	Trattenuto g	Trattenuto %	Passante %
mm			
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,2	0,1	99,9
0,500	1,5	0,5	99,5
0,400	0,9	0,7	99,3
0,250	6,1	2,3	97,7
0,125	112,1	32,6	67,4
0,063	109,1	62,0	38,0

% Fini passanti allo staccio 0,063 mm	38,0
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**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

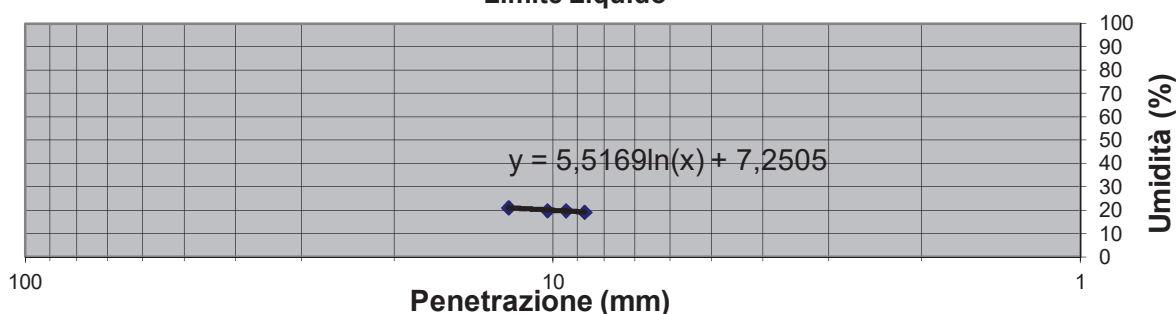
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.12	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 1 – Traccia 4 - C2 (-2,90m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	47,26	43,61	26,36	17,26	21,1	12,14
2	48,85	45,16	26,55	18,61	19,8	10,25
3	44,66	41,55	25,89	15,67	19,8	9,45
4	45,29	42,27	26,55	15,72	19,2	8,71

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
20	n.d.	N.P

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	99
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

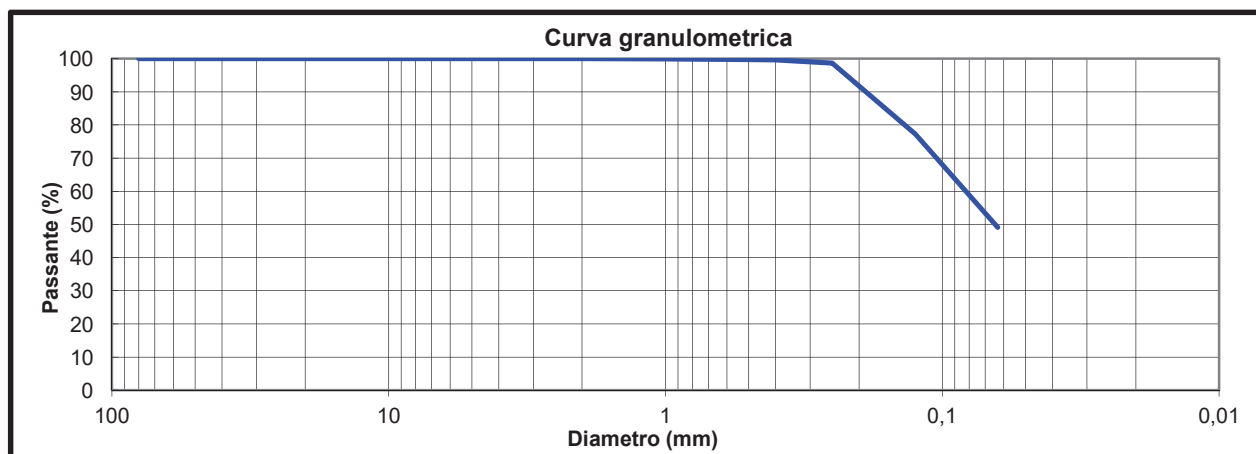
Certificato N°	277.13	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 1 - Traccia 5 - C1 (-1,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	334,1
Massa totale essicata M2 (g)	191,3
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	142,8
Materiale nel recipiente di fondo P (g)	21,5

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,2	0,1	99,9
0,500	0,6	0,2	99,8
0,400	0,4	0,4	99,6
0,250	3,4	1,4	98,6
0,125	71,5	22,8	77,2
0,063	93,7	50,8	49,2

% Fini passanti allo staccio 0,063 mm

49,2

**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

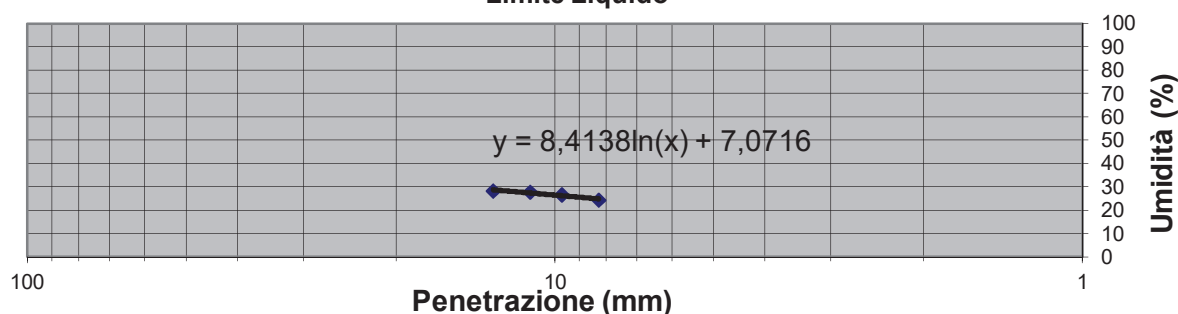
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.14	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 1 – Traccia 5 - C1 (-1,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	47,36	42,77	26,55	16,22	28,3	13,11
2	43,36	39,66	26,36	13,31	27,8	11,15
3	50,15	45,19	26,55	18,64	26,6	9,71
4	49,96	45,16	25,48	19,68	24,4	8,26

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
26	n.d.	N.P

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	100
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**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

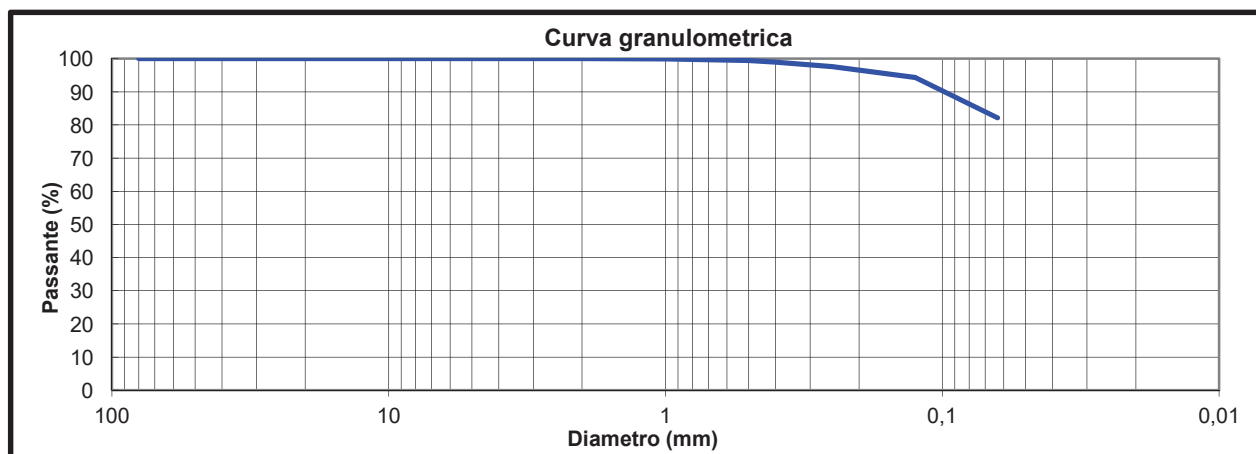
Certificato N°	277.15	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 1 - Traccia 5 - C2 (-2,70m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	212,8
Massa totale essicata M2 (g)	40,4
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	172,4
Materiale nel recipiente di fondo P (g)	2,4

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,2	0,1	99,9
0,500	1,0	0,6	99,4
0,400	1,1	1,1	98,9
0,250	2,8	2,4	97,6
0,125	6,9	5,6	94,4
0,063	26,0	17,9	82,1

% Fini passanti allo staccio 0,063 mm

82,1

**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

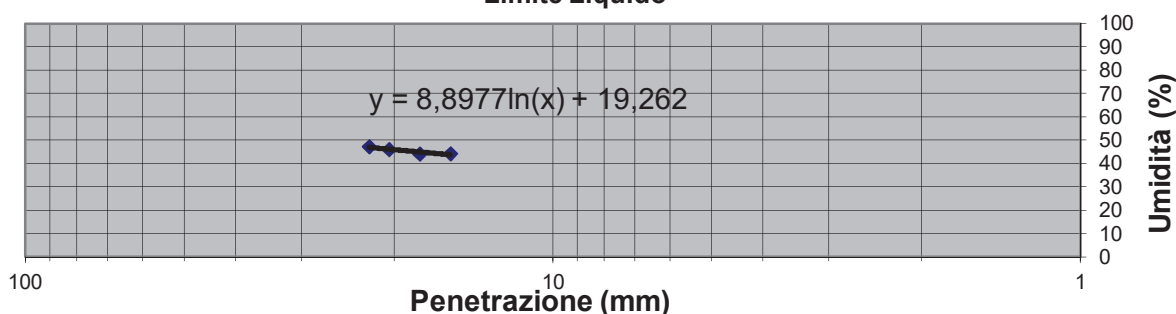
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.16	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 1 – Traccia 5 – C2 (-2,70m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	45,10	39,05	26,25	12,80	47,3	22,31
2	43,42	37,97	26,12	11,85	46,0	20,45
3	45,85	39,98	26,69	13,29	44,1	17,89
4	44,57	38,95	26,25	12,70	44,2	15,64

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	32,15	30,84	26,25	4,60	28,4
5	35,71	33,63	26,55	7,08	29,3

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
46	29	17

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm: 99
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

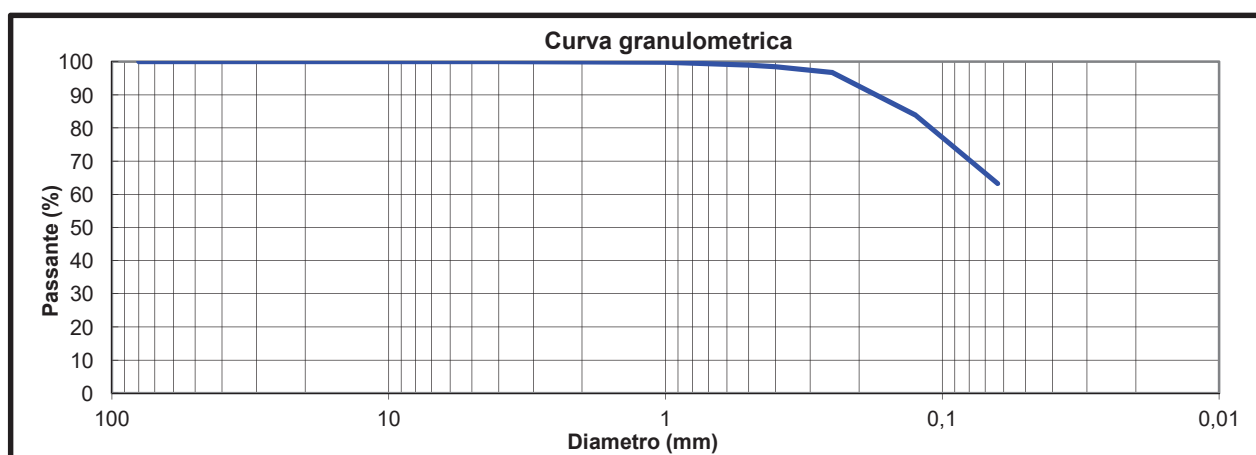
Certificato N°	277.17	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 1 - Traccia 6 - C1 (-1,20m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	300,6
Massa totale essicata M2 (g)	122,0
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	178,6
Materiale nel recipiente di fondo P (g)	11,5

Setacci	Trattenuto g	Trattenuto %	Passante %
mm			
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,1	0,0	100,0
1	0,3	0,1	99,9
0,500	2,6	1,0	99,0
0,400	1,6	1,5	98,5
0,250	5,1	3,2	96,8
0,125	38,6	16,1	83,9
0,063	62,2	36,8	63,2

% Fini passanti allo staccio 0,063 mm

63,2

**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

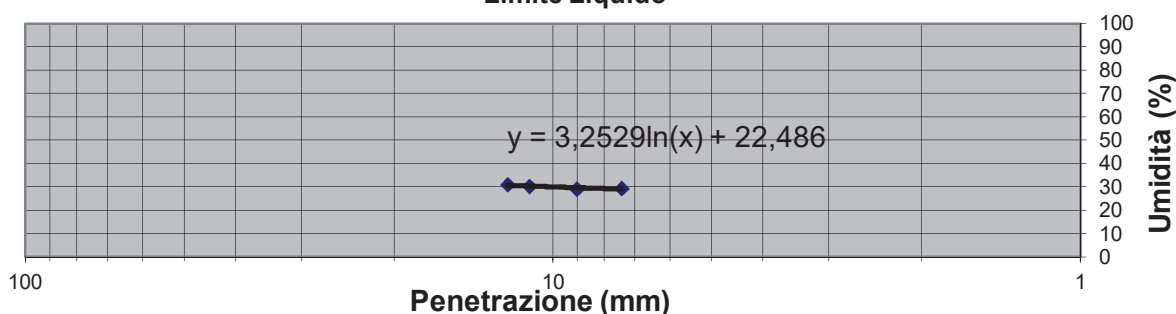
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.18	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 1 – Traccia 6 - C1 (-1,20m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	51,51	45,57	26,33	19,24	30,9	12,19
2	55,15	48,46	26,33	22,13	30,2	11,08
3	50,61	45,05	25,92	19,13	29,1	9,01
4	48,36	43,36	26,32	17,04	29,3	7,41

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	34,56	32,70	25,89	6,81	27,3
5	35,65	33,70	26,35	7,35	26,5

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
30	27	3

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	98
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

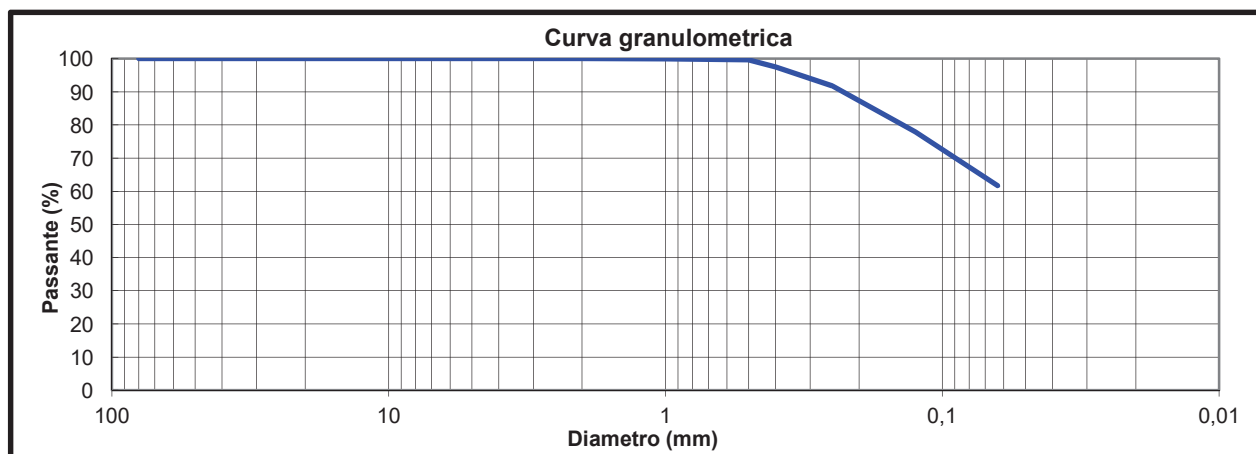
Certificato N°	277.19	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 1 - Traccia 6 - C2 (-2,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	246,2
Massa totale essicata M2 (g)	122,8
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	123,4
Materiale nel recipiente di fondo P (g)	5,0

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,2	0,1	99,9
0,500	0,8	0,4	99,6
0,400	5,2	2,5	97,5
0,250	14,0	8,2	91,8
0,125	34,2	22,1	77,9
0,063	39,9	38,3	61,7

% Fini passanti allo staccio 0,063 mm

61,7

**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

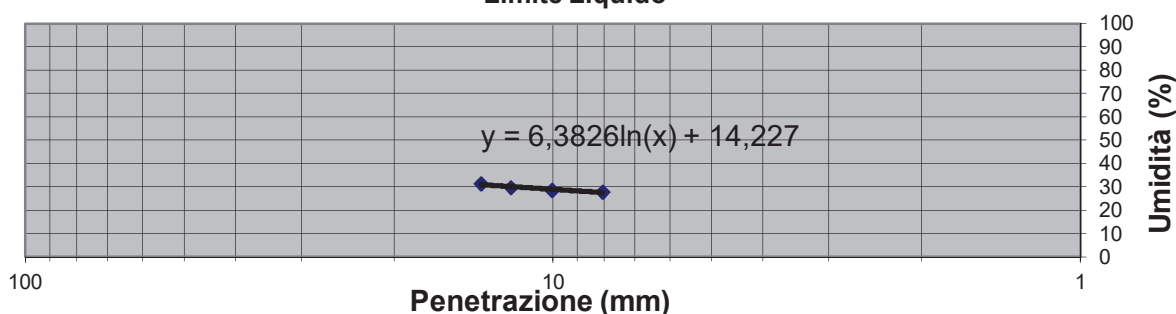
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.20	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 1 – Traccia 6 - C2 (-2,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
16/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	54,16	47,57	26,55	21,02	31,3	13,69
2	42,49	38,79	26,36	12,43	29,8	12,01
3	44,15	40,09	25,88	14,21	28,6	10,04
4	43,40	39,69	26,35	13,34	27,8	8,05

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
29	n.d.	N.P.

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm: 97
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

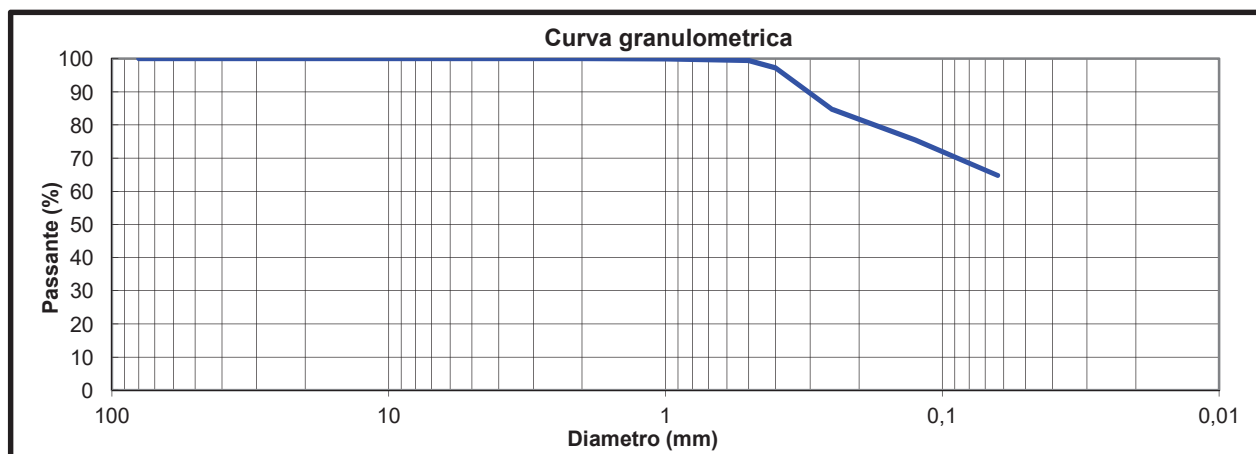
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	277.21	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 2 - Traccia 1 - C1 (-0,50m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	254,8
Massa totale essicata M2 (g)	101,3
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	153,5
Materiale nel recipiente di fondo P (g)	11,5

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,1	0,0	100,0
0,500	1,4	0,6	99,4
0,400	5,7	2,8	97,2
0,250	31,9	15,3	84,7
0,125	23,5	24,6	75,4
0,063	27,2	35,2	64,8

% Fini passanti allo staccio 0,063 mm	64,8
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**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

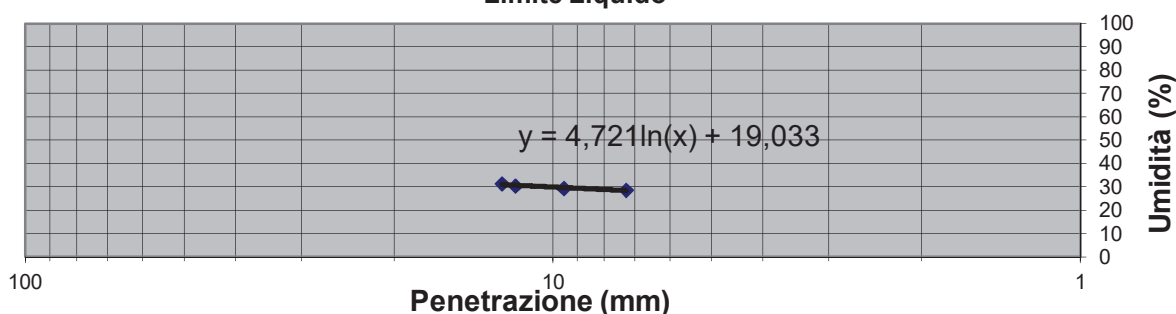
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.22	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 2 – Traccia 1 – C1 (-0,50m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	48,57	43,27	26,36	16,91	31,3	12,49
2	47,96	42,96	26,51	16,44	30,4	11,78
3	47,00	42,37	26,58	15,78	29,4	9,54
4	45,87	41,57	26,52	15,05	28,6	7,27

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
30	n.d.	N.P.

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	97
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

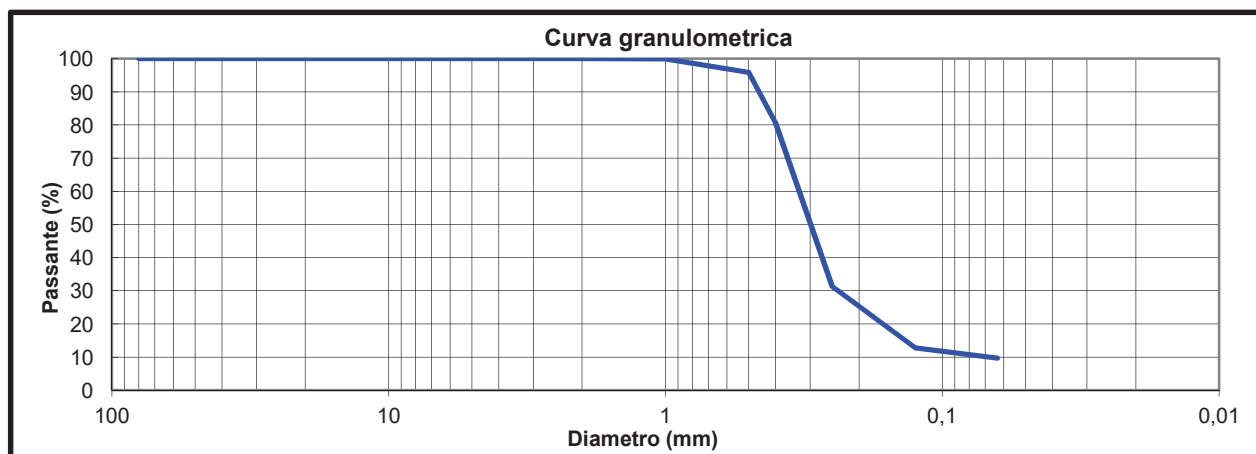
Certificato N°	277.23	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 2 - Traccia 1 - C2 (-1,90m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	267,0
Massa totale essicata M2 (g)	242,1
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	24,9
Materiale nel recipiente di fondo P (g)	0,9

Setacci	Trattenuto g	Trattenuto %	Passante %
mm			
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,2	0,1	99,9
0,500	10,9	4,2	95,8
0,400	40,7	19,4	80,6
0,250	131,7	68,7	31,3
0,125	49,5	87,3	12,7
0,063	8,2	90,3	9,7

% Fini passanti allo staccio 0,063 mm

9,7

**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

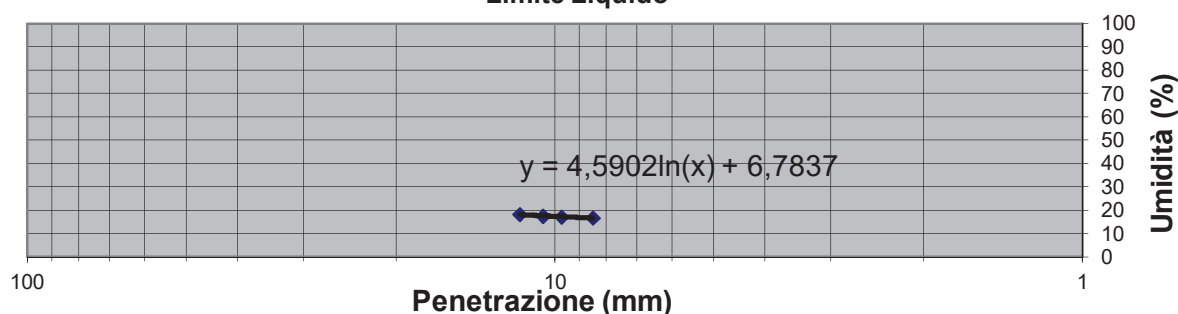
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.24	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 2 – Traccia 1 – C2 (-1,90m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	48,33	44,97	26,53	18,44	18,2	11,66
2	47,59	44,44	26,36	18,08	17,4	10,54
3	48,12	44,97	26,55	18,42	17,1	9,72
4	47,32	44,32	26,42	17,91	16,7	8,47

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
17	n.d.	N.P.

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	81
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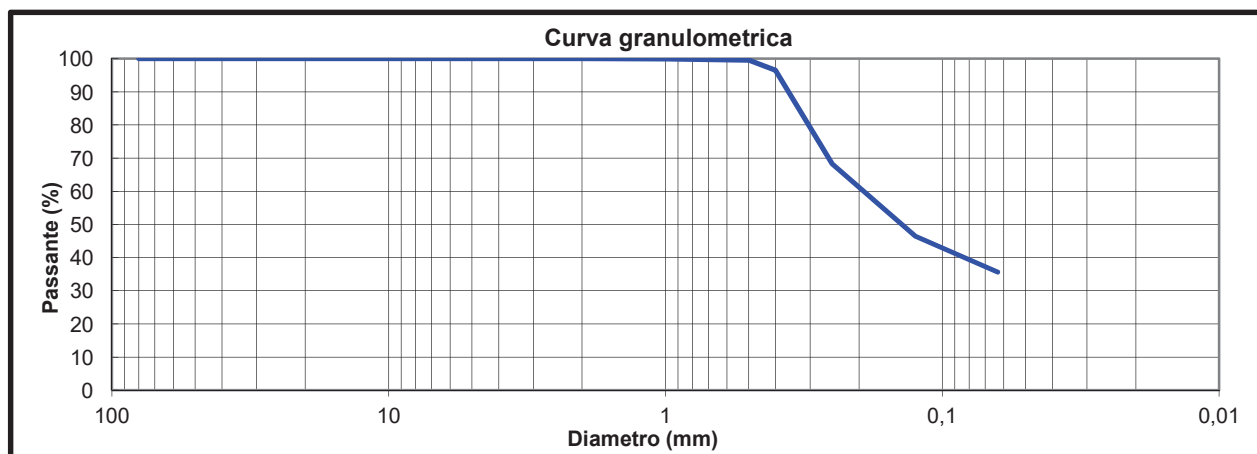
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	277.25	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 2 - Traccia 2 - C1 (-0,50m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	264,0
Massa totale essicata M2 (g)	174,4
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	89,6
Materiale nel recipiente di fondo P (g)	4,6

Setacci	Trattenuto g	Trattenuto %	Passante %
mm			
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,3	0,1	99,9
0,500	1,0	0,5	99,5
0,400	8,1	3,6	96,4
0,250	74,3	31,7	68,3
0,125	57,7	53,6	46,4
0,063	28,4	64,3	35,7

% Fini passanti allo staccio 0,063 mm	35,7
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**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**

Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)

Note

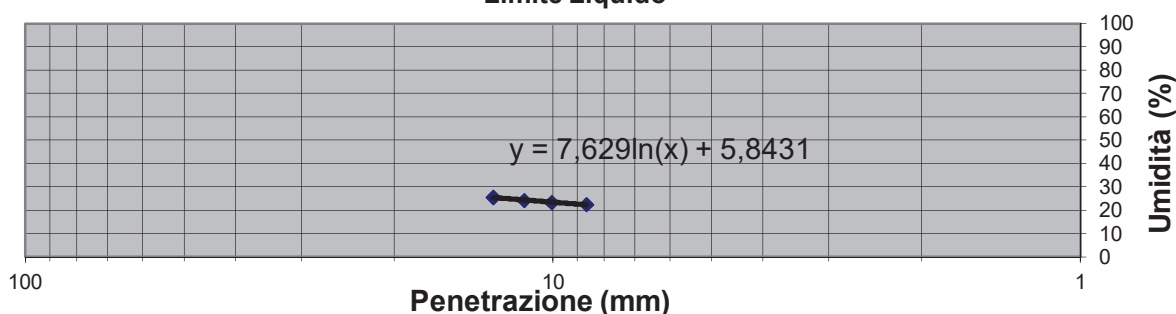
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.26	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 2 – Traccia 2 – C1 (-0,50m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	47,21	42,97	26,36	16,61	25,5	12,98
2	47,26	43,21	26,53	16,69	24,2	11,34
3	45,33	41,77	26,55	15,23	23,3	10,06
4	45,66	42,04	25,90	16,14	22,4	8,64

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
23	n.d.	N.P.

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	96
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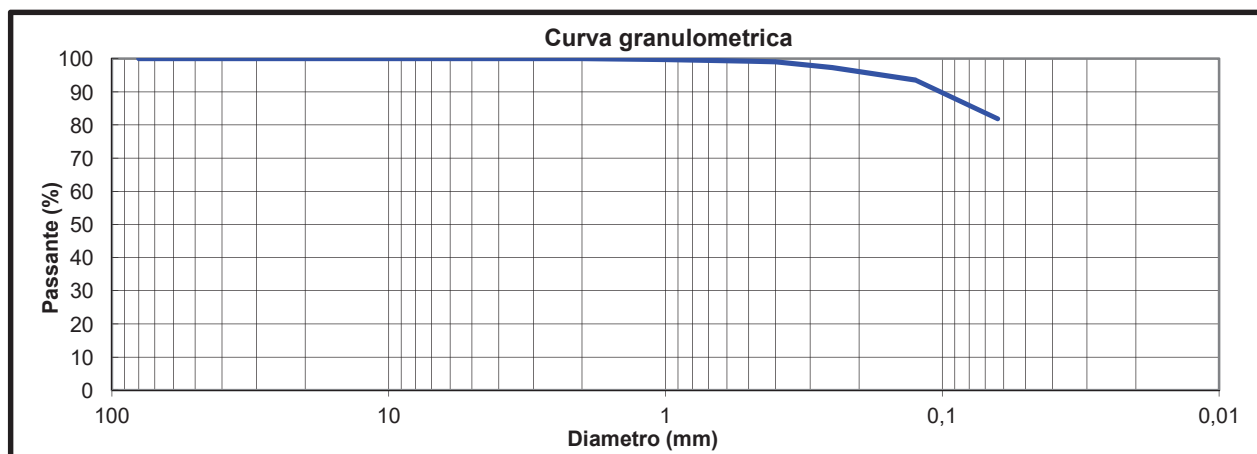
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	277.27	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 2 - Traccia 2 - C2 (-2,10m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	267,6
Massa totale essicata M2 (g)	52,5
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	215,1
Materiale nel recipiente di fondo P (g)	3,9

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,7	0,3	99,7
0,500	1,2	0,7	99,3
0,400	0,7	1,0	99,0
0,250	4,6	2,7	97,3
0,125	10,1	6,5	93,5
0,063	31,3	18,2	81,8

% Fini passanti allo staccio 0,063 mm	81,8
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**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**

Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)

Note

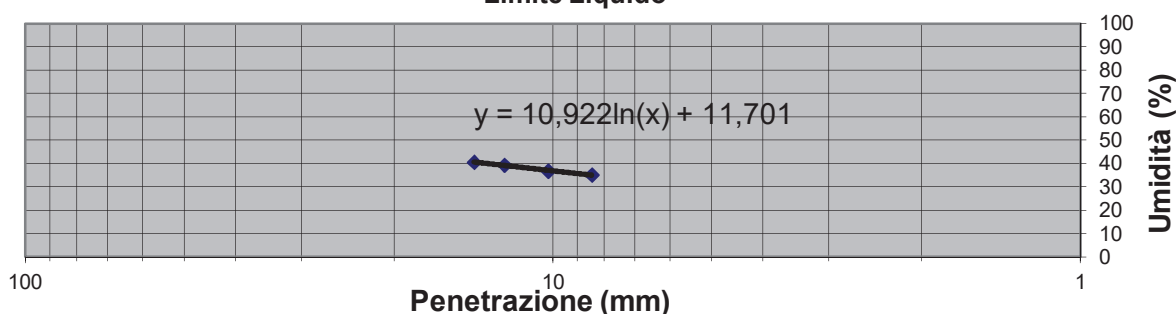
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.28	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 2 – Traccia 2 – C2 (-2,10m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	50,13	43,26	26,36	16,91	40,6	14,11
2	48,66	42,41	26,53	15,88	39,3	12,36
3	53,26	46,07	26,55	19,53	36,8	10,21
4	44,58	39,64	25,59	14,05	35,1	8,44

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	34,57	32,83	26,59	6,24	27,9
5	35,99	33,88	26,55	7,33	28,7

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
37	28	9

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	99
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

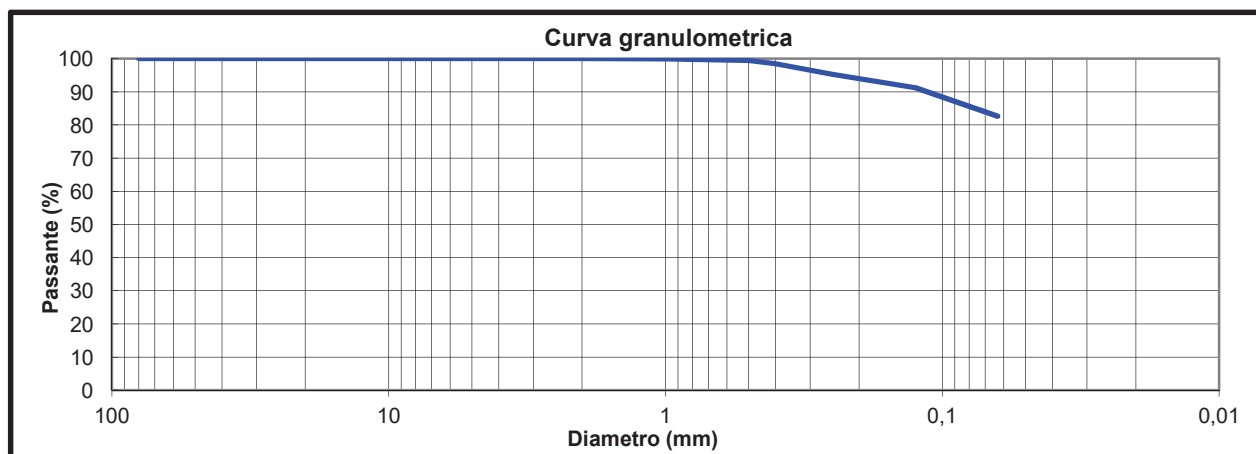
Certificato N°	277.29	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 2 - Traccia 3 - C1 (-1,40m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	233,8
Massa totale essicata M2 (g)	44,8
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	189,0
Materiale nel recipiente di fondo P (g)	4,2

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,2	0,1	99,9
0,500	1,0	0,5	99,5
0,400	2,4	1,5	98,5
0,250	7,4	4,7	95,3
0,125	9,6	8,8	91,2
0,063	20,0	17,4	82,6

% Fini passanti allo staccio 0,063 mm

82,6

**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

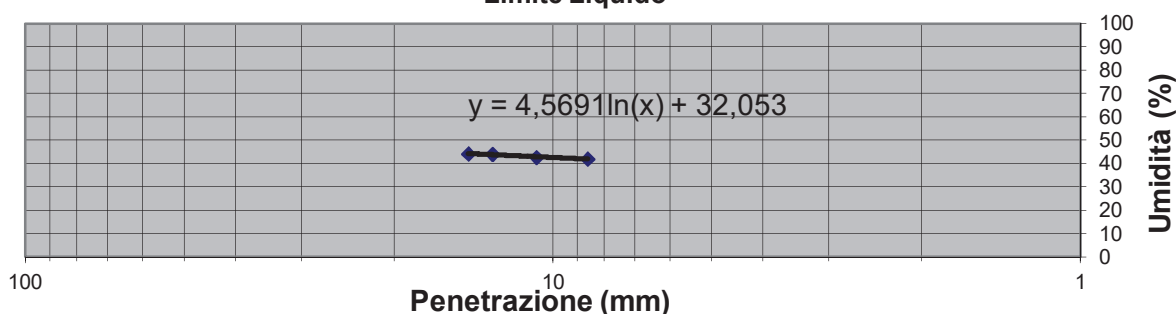
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.30	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 2 – Traccia 3 – C1 (-1,40m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	51,65	43,95	26,51	17,44	44,2	14,47
2	49,07	42,13	26,36	15,77	44,0	13,02
3	54,00	45,47	25,49	19,98	42,7	10,74
4	51,18	43,84	26,35	17,49	42,0	8,59

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	36,25	34,12	26,46	7,66	27,8
5	34,88	33,08	26,55	6,53	27,5

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
43	28	15

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	98
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

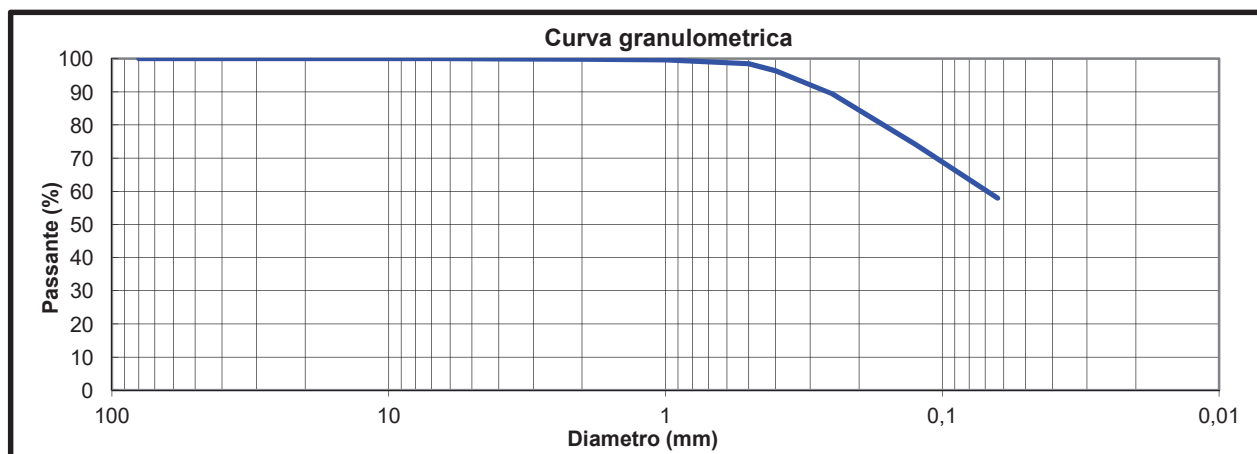
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	277.31	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 2 - Traccia 4 - C1 (-1,20m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	305,8
Massa totale essicata M2 (g)	138,0
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	167,8
Materiale nel recipiente di fondo P (g)	9,5

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,2	0,1	99,9
2	0,2	0,1	99,9
1	0,7	0,4	99,6
0,500	3,6	1,5	98,5
0,400	6,5	3,7	96,3
0,250	21,1	10,6	89,4
0,125	46,8	25,9	74,1
0,063	49,6	42,1	57,9

% Fini passanti allo staccio 0,063 mm	57,9
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**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

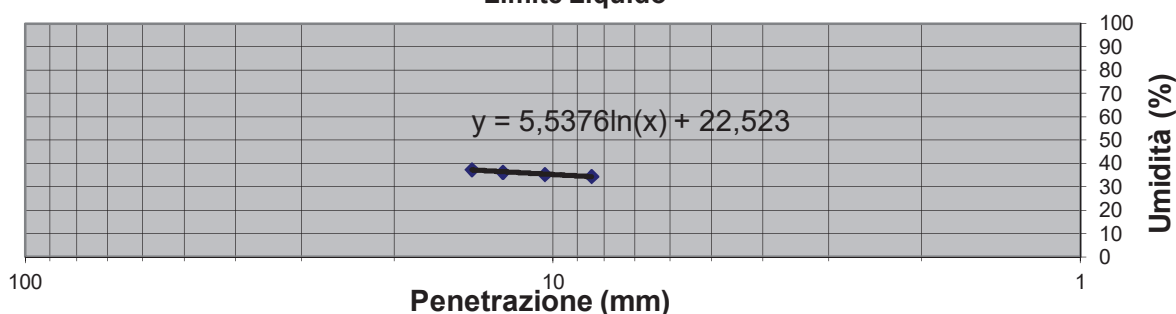
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.32	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 2 – Traccia 4 – C1 (-1,20m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	52,15	45,17	26,55	18,63	37,4	14,25
2	53,15	46,01	26,36	19,65	36,3	12,45
3	54,28	46,99	26,35	20,64	35,3	10,36
4	45,89	40,83	26,15	14,68	34,5	8,45

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	35,15	33,29	26,55	6,74	27,6
5	36,51	34,27	26,36	7,92	28,3

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
35	28	7

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	96
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

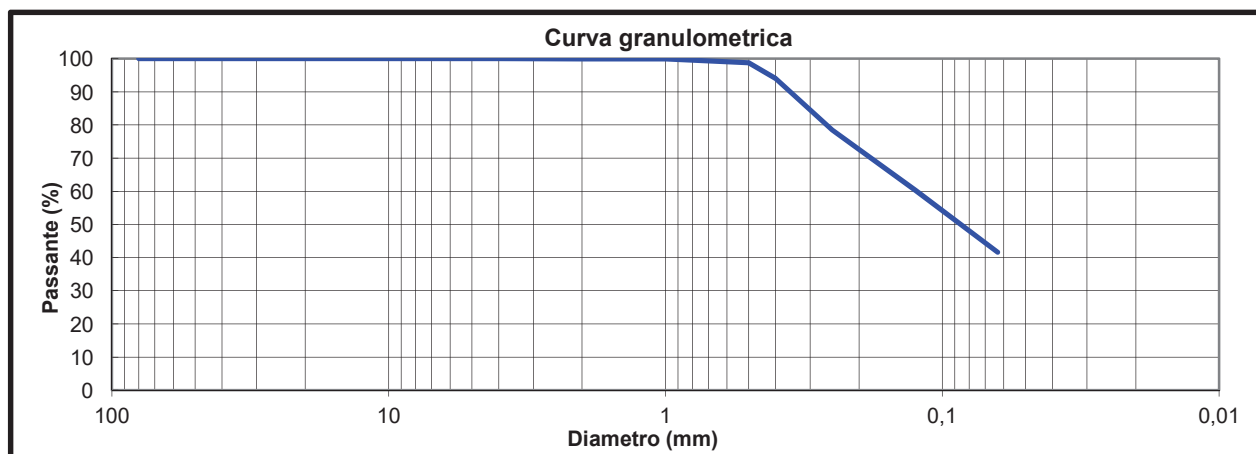
Certificato N°	277.33	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 2 - Traccia 5 - C1 (-0,40m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	320,8
Massa totale essicata M2 (g)	195,0
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	125,8
Materiale nel recipiente di fondo P (g)	7,8

Setacci	Trattenuto g	Trattenuto %	Passante %
mm			
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,1	0,0	100,0
1	0,3	0,1	99,9
0,500	3,6	1,2	98,8
0,400	15,2	6,0	94,0
0,250	49,9	21,5	78,5
0,125	58,4	39,7	60,3
0,063	59,7	58,4	41,6

% Fini passanti allo staccio 0,063 mm

41,6

**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

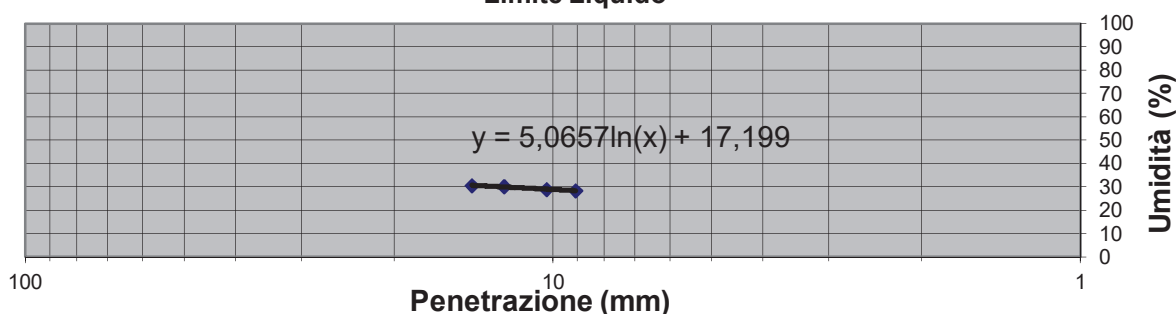
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.34	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 2 – Traccia 5 – C1 (-0,40m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	47,59	42,60	26,26	16,34	30,5	14,25
2	45,66	41,23	26,53	14,70	30,2	12,38
3	47,83	43,01	26,36	16,65	28,9	10,29
4	49,55	44,47	26,55	17,92	28,3	9,06

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	-	-	-	-	-
5	-	-	-	-	-

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
29	n.d	N.P.

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	94
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**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

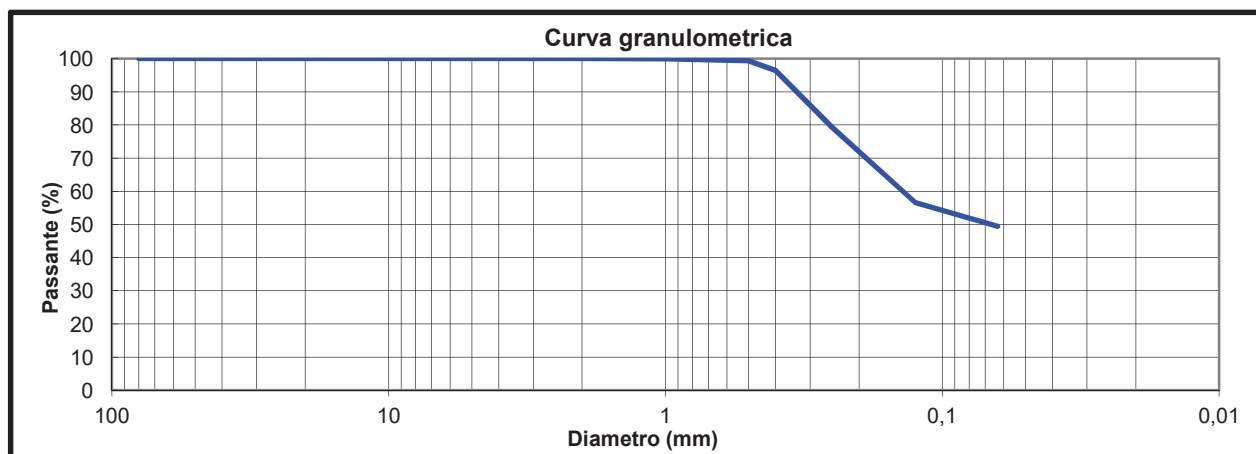
Certificato N°	277.35	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 2 - Traccia 5 - C2 (-2,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	285,1
Massa totale essicata M2 (g)	146,0
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	139,1
Materiale nel recipiente di fondo P (g)	1,8

Setacci	Trattenuto g	Trattenuto %	Passante %
mm			
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,1	0,0	100,0
0,500	1,7	0,6	99,4
0,400	8,4	3,6	96,4
0,250	48,9	20,7	79,3
0,125	64,7	43,4	56,6
0,063	20,4	50,6	49,4

% Fini passanti allo staccio 0,063 mm

49,4

**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenammer sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

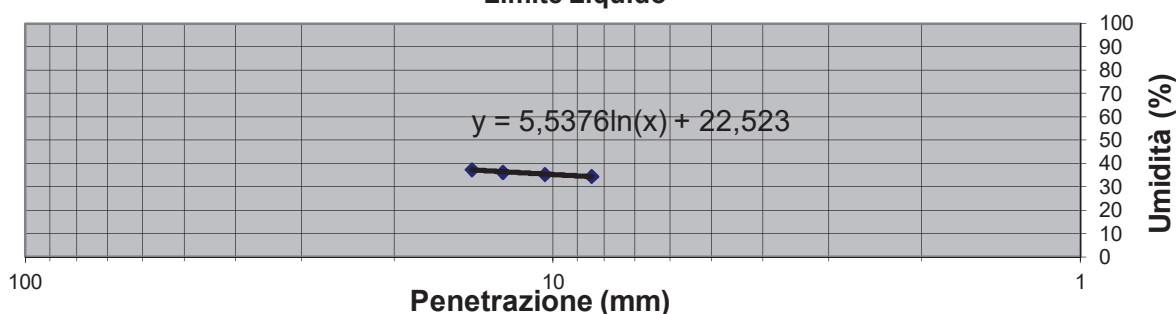
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.36	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 2 – Traccia 5 – C2 (-2,00m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	52,15	45,17	26,55	18,63	37,4	14,25
2	53,15	46,01	26,36	19,65	36,3	12,45
3	54,28	46,99	26,35	20,64	35,3	10,36
4	45,89	40,83	26,15	14,68	34,5	8,45

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	34,58	32,86	26,55	6,32	27,2
5	36,01	33,95	26,36	7,59	27,2

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
35	27	8

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	96
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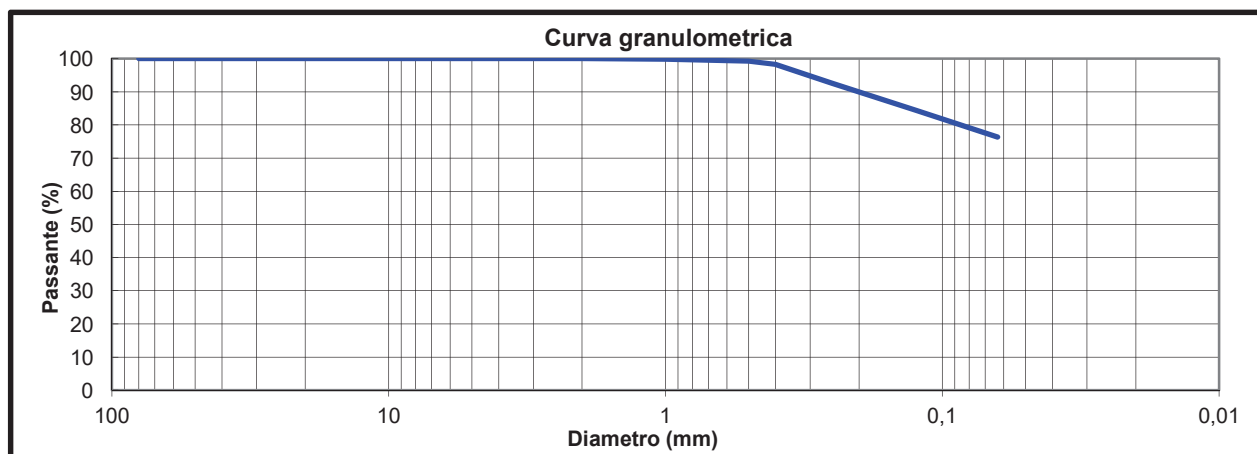
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	277.37	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 2 - Traccia 6 - C1 (-0,80m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	258,9
Massa totale essicata M2 (g)	64,0
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	194,9
Materiale nel recipiente di fondo P (g)	2,7

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,4	0,2	99,8
0,500	1,5	0,7	99,3
0,400	2,5	1,7	98,3
0,250	14,7	7,4	92,6
0,125	21,0	15,5	84,5
0,063	21,2	23,7	76,3

% Fini passanti allo staccio 0,063 mm	76,3
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**Lo Sperimentatore**

Dott. Alex Orlandini

La Direzione Tecnica**Strumentazione utilizzata per la prova**Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm
(Codice interno SL4-C fino a SL80-C)
e stacci a rete Tecnotest da 2 mm a 0,063 mm
(Codice interno SR63-C fino a SR2000-C)**Note**

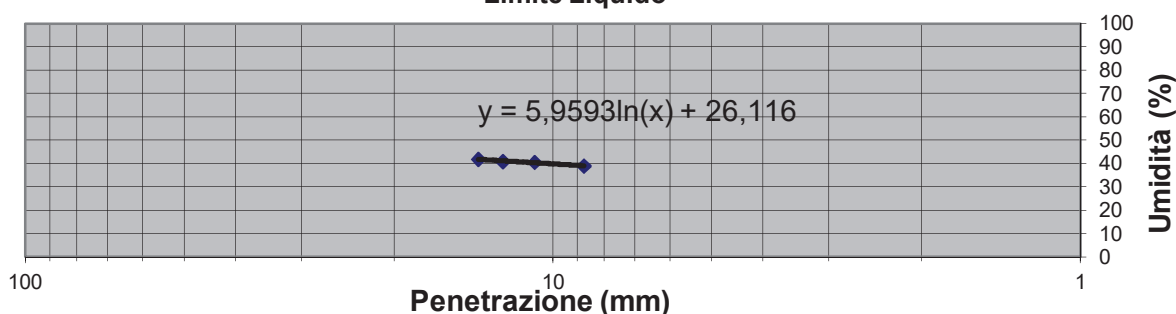
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.38	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 2 – Traccia 6 – C1 (-0,80m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	48,73	42,13	26,35	15,78	41,9	13,86
2	48,76	42,31	26,55	15,76	40,9	12,45
3	47,36	41,29	26,34	14,95	40,6	10,84
4	46,27	40,73	26,51	14,21	39,0	8,74

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	35,01	33,11	26,35	6,77	28,1
5	34,26	32,59	26,51	6,07	27,5

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
40	28	12

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm:	98
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Laboratorio autorizzato dal Ministero Infrastrutture e Trasporti secondo la Circolare n° 7618/2010 - Concessione n° 5953

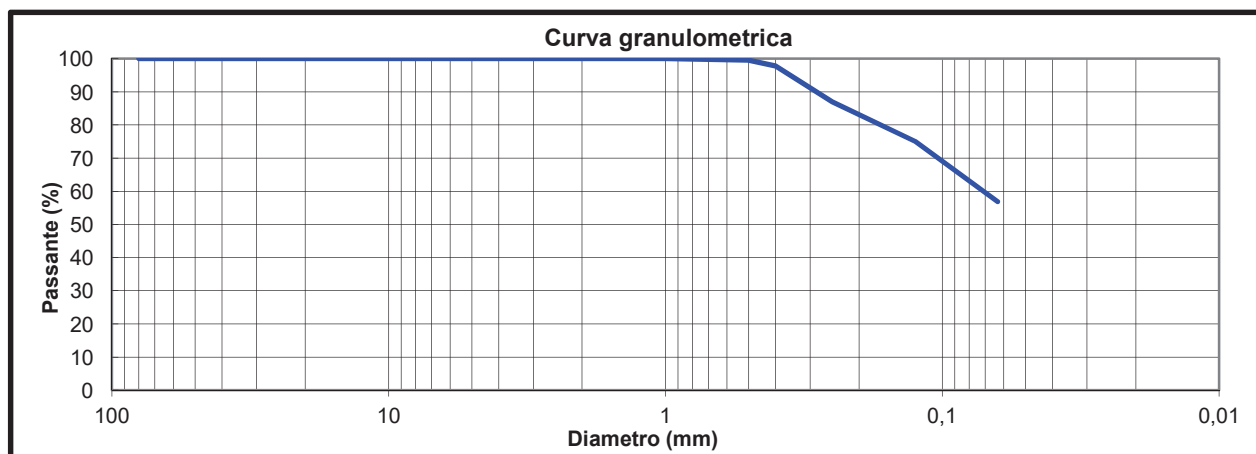
**DETERMINAZIONE DELLA DISTRIBUZIONE GRANULOMETRICA
PER SETACCIATURA (UNI EN 933-1:2012)**

Certificato N°	277.39	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra - Campione rimaneggiato		
Identificazione campione	Area 2 - Traccia 6 - C2 (-1,60m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 - 06/04/2018	17/04/2018

Massa totale essicata M1 (g)	399,2
Massa totale essicata M2 (g)	189,5
Massa essicata dei fini rimossi con il lavaggio M1-M2 (g)	209,7
Materiale nel recipiente di fondo P (g)	17,4

Setacci	Trattenuto	Trattenuto	Passante
mm	g	%	%
80	0,0	0,0	100,0
63	0,0	0,0	100,0
40	0,0	0,0	100,0
31,5	0,0	0,0	100,0
20	0,0	0,0	100,0
16	0,0	0,0	100,0
14	0,0	0,0	100,0
12,5	0,0	0,0	100,0
10	0,0	0,0	100,0
8	0,0	0,0	100,0
6,3	0,0	0,0	100,0
4	0,0	0,0	100,0
2	0,0	0,0	100,0
1	0,1	0,0	100,0
0,500	1,9	0,5	99,5
0,400	6,8	2,2	97,8
0,250	43,3	13,1	86,9
0,125	47,7	25,0	75,0
0,063	72,3	43,1	56,9

% Fini passanti allo staccio 0,063 mm	56,9
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Lo Sperimentatore Dott. Alex Orlandini	La Direzione Tecnica
Strumentazione utilizzata per la prova	Stacci a lamiera perforata Glenamner sieves da 80 mm a 4 mm (Codice interno SL4-C fino a SL80-C) e stacci a rete Tecnotest da 2 mm a 0,063 mm (Codice interno SR63-C fino a SR2000-C)

Note

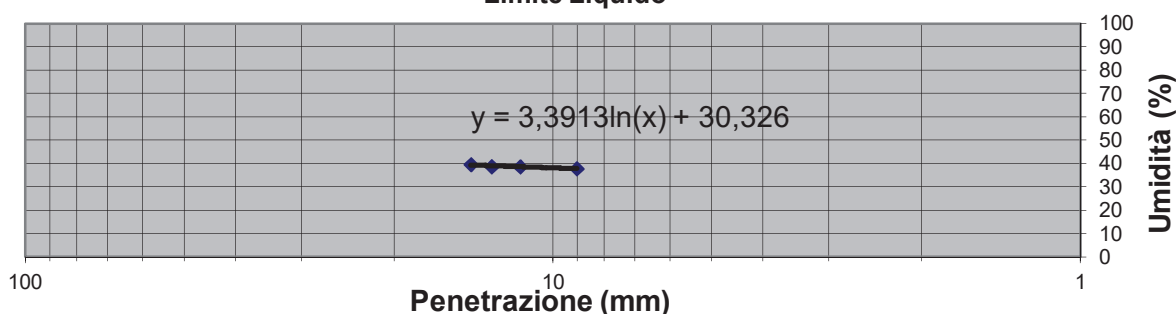
Determinazione dei limiti di Atterberg (UNI CEN ISO/TS 17892-12:2005)

Certificato N°	277.40	Verbale di Accettazione N°	277 del 16/03/2018
Committente	A.I.P.O. - UFFICIO OPERATIVO PIACENZA		
Descrizione campione	Terra – Campione rimaneggiato		
Identificazione campione	Area 2 – Traccia 6 – C2 (-1,60m)		
Cantiere/Opera	PC-E-810, Soarza (PC)		
Data ricevimento	Data apertura	Data esecuzione prova	Data emissione
22/03/2018	28/03/2018	28/03/2018 – 06/04/2018	17/04/2018

Limite Liquido

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua	Penetrazione
(n°)	(g)	(g)	(g)	(g)	(%)	mm
1	47,72	41,80	26,85	14,95	39,6	14,31
2	48,41	42,30	26,53	15,77	38,7	13,06
3	44,26	39,32	26,55	12,77	38,7	11,54
4	45,78	40,50	26,54	13,96	37,8	9,01

Limite Liquido



Limite Plastico

Provino	Massa umida + capsula	Massa secca + capsula	Massa capsula	Massa netta secca	Contenuto in acqua
(n°)	(g)	(g)	(g)	(g)	(%)
4	34,86	33,01	26,46	6,55	28,2
5	36,02	33,80	25,89	7,91	28,1

Limite Liquido	Limite Plastico	Indice di Plasticità
%	%	%
38	28	10

Lo Sperimentatore	La Direzione Tecnica
Dott. Alex Orlandini	

Strumentazione utilizzata per la prova	Penetrometro per limite di liquidità Controls (Codice interno PSD01) e attrezzatura per limite plastico (Codice interno CU02)
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Note: utilizzato per la prova cono da 60g con angolo della punta di 60°; campione preparato per vagliatura ad umido al setaccio 0,4mm	Passante % al vaglio 0,4mm: 98
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RAPPORTO DI PROVA 18/000159627

data di emissione 19/04/2018

Codice intestatario 0078207

Spett.le
PARMAGEO SRL
VIA ARGINI SUD, N. 31
43030 BASILICANOVA (PR)
IT

Dati campione

Numero di accettazione 18.048255.0001
Consegnato da GLS General Logistics Systems il 31/03/2018
Data ricevimento 31/03/2018
Proveniente da SOARZA (PC) CANTIERE: AIPO - PC-E-810
Matrice TERRENO DA SONDAGGIO
Descrizione campione TERRENO - AREA 1 - TRACCE 1-2 C3 MIX - PROFONDITA' DA 0,00 A 3,00 - PRELIEVO DEL 14/03/2018

Dati campionamento

Campionato da Personale esterno TECNICO PARMAGEO SRL il 14/03/2018

RISULTATI ANALITICI

	Valore/ Incertezza	U.M.	Valori di riferimento	Riferimenti	RL	R	Data inizio fine analisi	Unità op.	Ri ga
SUL CAMPIONE TAL QUALE									
FRAZIONE GRANULOMETRICA DA 2 cm A 2 mm Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1	0,5±0,1	% p/p			0,10		03/04/2018- -06/04/2018	02	2
UMIDITA' Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.2	12,33±1,36	% p/p			0,050		03/04/2018- -05/04/2018	02	3
ANALISI ESEGUITE SULLA FRAZIONE GRANULOMETRICA < 2 mm ED ESPRESSE SULLA TOTALITÀ DEI MATERIALI SECCHI									
Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1								02	4
ARSENICO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	3,12±0,78	mg/kg (su s.s.)	<20 TAB. 1/A <50 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	5
CADMIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	6
COBALTO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	7,0±1,3	mg/kg (su s.s.)	<20 TAB. 1/A <250 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	7
CROMO ESAVALENTE Met.: EPA 3060 A 1996 + EPA 7196 A 1992	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	1,0	101.9*	03/04/2018- -06/04/2018	02	8
CROMO TOTALE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	71±12	mg/kg (su s.s.)	<150 TAB. 1/A <800 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	9
MERCURIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<1 TAB. 1/A <5 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	10
NICHEL Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	60±17	mg/kg (su s.s.)	<120 TAB. 1/A <500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	11
PIOMBO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	4,7±1,4	mg/kg (su s.s.)	<100 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	12
RAME Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	6,0±1,1	mg/kg (su s.s.)	<120 TAB. 1/A <600 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	13
ZINCO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	27,3±4,8	mg/kg (su s.s.)	<150 TAB. 1/A <1500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	14
AMIANTO TOTALE Met.: DM06/09/94 ALL. 1-B	< RL	mg/kg (su s.s.)	<1000 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	100		03/04/2018- -11/04/2018	02	15
IDROCARBURI > C12 Met.: ISO 16703:2004	< RL	mg/kg (su s.s.)	<50 TAB. 1/A <750 TAB. 1/B	DL 152/06 TAB1 A/B	10	103.25 *	03/04/2018- -06/04/2018	02	16

Informazioni aggiuntive

Riga (5-16) - Riferimento: DL 152/06 TAB1 A/B = DLgs n° 152 03/04/2006 SO GU n° 88 14/04/2006 ALL.5 TAB.1 COL.A/B

Riga (5-7), (9-14) - Metodo: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014 = Per le analisi effettuate con il metodo EPA 6010, il recupero dell'LCS (laboratory control sample) è risultato compreso tra 80% e 120% così come previsto dal metodo.

Riga (8) - Metodo: EPA 3060 A 1996 + EPA 7196 A 1992 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Modello 714/SQ rev. 9

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Documento firmato digitalmente ai sensi del D Lgs N.82 del 7 marzo 2005 e s.m.i

I risultati contenuti nel presente Rapporto di prova si riferiscono esclusivamente al campione oggetto di analisi. Il presente Rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta di Chelab.

CHELAB S.r.l. Socio Unico, Company subject to the direction and coordination of Mérieux NutriSciences Corporation

Head office: Via Fratta 25 31023 Resana, Italy Phone. + 39 0423.7177 / Fax + 39 0423.715058 www.merieuxnutrisciences.it

VAT nr. 01500900269, R.E.A Treviso n. 156079 Fully paid up € 103.480,00.

Riga (15) - Metodo: DM06/09/94 ALL. 1-B = DM 06/09/1994 GU N° 288 10/12/1994 ALL 1 met. B

Riga (16) - Metodo: ISO 16703:2004 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Unità Operative

Unità 02 : Via Castellana Resana (TV)

Conformità/non conformità ai requisiti e alle specifiche

I Valori di riferimento indicati sono relativi alle Colonne A (Siti ad uso Verde pubblico, privato e residenziale) e B (Siti ad uso commerciale ed industriale) del D.Lgs n 152/06 All. 5 parte quarta

Pareri ed interpretazioni - non oggetto di accreditamento ACCREDIA

Nel campione esaminato non è stata rilevata la presenza di fibre di amianto.

Responsabile prove chimiche
Dott. Federico Perin Chimico Ordine dei chimici - Provincia di treviso Iscrizione n. A338
Num. certificato 18131919 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

Responsabile laboratorio
Dott. Sébastien Moulard
Num. certificato 18132017 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

- La riga contrassegnata da asterisco (*) indica che la prova non è accreditata da Accredia. - Se non diversamente specificato, l'incertezza è estesa ed è stata calcolata con un fattore di copertura $k=2$ corrispondente ad un livello di probabilità di circa il 95% o come intervallo di confidenza calcolato ad un livello di probabilità di circa il 95%. - RL: limite di quantificazione; "<x" o ">x" indicano rispettivamente un valore inferiore o superiore al campo di misura della prova. - Se non diversamente specificato, le sommatorie sono calcolate mediante il criterio del lower bound (L.B.) - Iscrizione al numero 7 dell'elenco regionale della Regione Veneto dei laboratori che effettuano analisi nell'ambito delle procedure di autocontrollo delle industrie alimentari, come da Allegato A del DDR n. 73 del 16 gennaio 2008. - R: recupero, i recuperi contrassegnati da asterisco non sono stati utilizzati nei calcoli. - Qualora sia presente una specifica (limiti di legge o specifiche cliente) con cui sono stati confrontati i risultati analitici, i valori esposti in grassetto indicano un risultato fuori da tale specifica. - Se non diversamente specificato i giudizi di conformità/non conformità eventualmente riportati si riferiscono ai parametri analizzati e si basano sul confronto del valore con i valori di riferimento senza considerare l'intervallo di confidenza della misura.

RAPPORTO DI PROVA 18/000159629

data di emissione 19/04/2018

Codice intestatario 0078207

Spett.le
PARMAGEO SRL
VIA ARGINI SUD, N. 31
43030 BASILICANOVA (PR)
IT

Dati campione

Numero di accettazione 18.048255.0002
Consegnato da GLS General Logistics Systems il 31/03/2018
Data ricevimento 31/03/2018
Proveniente da SOARZA (PC) CANTIERE: AIPO - PC-E-810
Matrice TERRENO DA SONDAGGIO
Descrizione campione TERRENO - AREA 1 - TRACCIA 3 C3 MIX - PROFONDITA' DA 0,00 A 3,00 - PRELIEVO DEL 14/03/2018

Dati campionamento

Campionato da Personale esterno TECNICO PARMAGEO SRL il 14/03/2018

RISULTATI ANALITICI

	Valore/ Incertezza	U.M.	Valori di riferimento	Riferimenti	RL	R	Data inizio fine analisi	Unità op.	Ri ga
SUL CAMPIONE TAL QUALE									
FRAZIONE GRANULOMETRICA DA 2 cm A 2 mm Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1	< RL	% p/p			0,10		03/04/2018- -06/04/2018	02	2
UMIDITA' Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.2	14,84±1,64	% p/p			0,050		03/04/2018- -05/04/2018	02	3
ANALISI ESEGUITE SULLA FRAZIONE GRANULOMETRICA < 2 mm ED ESPRESSE SULLA TOTALITÀ DEI MATERIALI SECCHI									
Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1								02	4
ARSENICO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	5,8±1,2	mg/kg (su s.s.)	<20 TAB. 1/A <50 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	5
CADMIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	6
COBALTO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	12,2±2,2	mg/kg (su s.s.)	<20 TAB. 1/A <250 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	7
CROMO ESAVALENTE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	1,0	101.9*	03/04/2018- -06/04/2018	02	8
CROMO TOTALE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	95±17	mg/kg (su s.s.)	<150 TAB. 1/A <800 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	9
MERCURIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	0,43±0,28	mg/kg (su s.s.)	<1 TAB. 1/A <5 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	10
NICHEL Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	96±26	mg/kg (su s.s.)	<120 TAB. 1/A <500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	11
PIOMBO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	19,4±5,2	mg/kg (su s.s.)	<100 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	12
RAME Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	27,5±4,9	mg/kg (su s.s.)	<120 TAB. 1/A <600 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	13
ZINCO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	87±15	mg/kg (su s.s.)	<150 TAB. 1/A <1500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	14
AMIANTO TOTALE Met.: DM06/09/94 ALL. 1-B	< RL	mg/kg (su s.s.)	<1000 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	100		03/04/2018- -11/04/2018	02	15
IDROCARBURI > C12 Met.: ISO 16703:2004	13,3±6,8	mg/kg (su s.s.)	<50 TAB. 1/A <750 TAB. 1/B	DL 152/06 TAB1 A/B	10	103.25 *	03/04/2018- -06/04/2018	02	16

Informazioni aggiuntive

Riga (5-16) - Riferimento: DL 152/06 TAB1 A/B = DLgs n° 152 03/04/2006 SO GU n° 88 14/04/2006 ALL.5 TAB.1 COL.A/B

Riga (5-7), (9-14) - Metodo: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014 = Per le analisi effettuate con il metodo EPA 6010, il recupero dell'LCS (laboratory control sample) è risultato compreso tra 80% e 120% così come previsto dal metodo.

Riga (8) - Metodo: EPA 3060 A 1996 + EPA 7196 A 1992 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Modello 714/SQ rev. 9

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Documento firmato digitalmente ai sensi del D Lgs N.82 del 7 marzo 2005 e s.m.i

I risultati contenuti nel presente Rapporto di prova si riferiscono esclusivamente al campione oggetto di analisi. Il presente Rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta di Chelab.

CHELAB S.r.l. Socio Unico, Company subject to the direction and coordination of Mérieux NutriSciences Corporation

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VAT nr. 01500900269, R.E.A Treviso n. 156079 Fully paid up € 103.480,00.

Riga (15) - Metodo: DM06/09/94 ALL. 1-B = DM 06/09/1994 GU N° 288 10/12/1994 ALL 1 met. B

Riga (16) - Metodo: ISO 16703:2004 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Unità Operative

Unità 02 : Via Castellana Resana (TV)

Conformità/non conformità ai requisiti e alle specifiche

I Valori di riferimento indicati sono relativi alle Colonne A (Siti ad uso Verde pubblico, privato e residenziale) e B (Siti ad uso commerciale ed industriale) del D.Lgs n 152/06 All. 5 parte quarta

Pareri ed interpretazioni - non oggetto di accreditamento ACCREDIA

Nel campione esaminato non è stata rilevata la presenza di fibre di amianto.

Responsabile prove chimiche
Dott. Federico Perin Chimico Ordine dei chimici - Provincia di Treviso Iscrizione n. A338
Num. certificato 18131919 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

Responsabile laboratorio
Dott. Sébastien Moulard
Num. certificato 18132017 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

- La riga contrassegnata da asterisco (*) indica che la prova non è accreditata da Accredia. - Se non diversamente specificato, l'incertezza è estesa ed è stata calcolata con un fattore di copertura $k=2$ corrispondente ad un livello di probabilità di circa il 95% o come intervallo di confidenza calcolato ad un livello di probabilità di circa il 95%. - RL: limite di quantificazione; "<x" o ">x" indicano rispettivamente un valore inferiore o superiore al campo di misura della prova. - Se non diversamente specificato, le sommatorie sono calcolate mediante il criterio del lower bound (L.B.) - Iscrizione al numero 7 dell'elenco regionale della Regione Veneto dei laboratori che effettuano analisi nell'ambito delle procedure di autocontrollo delle industrie alimentari, come da Allegato A del D.D.R. n. 73 del 16 gennaio 2008. - R: recupero, i recuperi contrassegnati da asterisco non sono stati utilizzati nei calcoli. - Qualora sia presente una specifica (limiti di legge o specifiche cliente) con cui sono stati confrontati i risultati analitici, i valori esposti in grassetto indicano un risultato fuori da tale specifica. - Se non diversamente specificato i giudizi di conformità/non conformità eventualmente riportati si riferiscono ai parametri analizzati e si basano sul confronto del valore con i valori di riferimento senza considerare l'intervallo di confidenza della misura.

RAPPORTO DI PROVA 18/000159631

data di emissione 19/04/2018

Codice intestatario 0078207

Spett.le
PARMAGEO SRL
VIA ARGINI SUD, N. 31
43030 BASILICANOVA (PR)
IT

Dati campione

Numero di accettazione 18.048255.0003
Consegnato da GLS General Logistics Systems il 31/03/2018
Data ricevimento 31/03/2018
Proveniente da SOARZA (PC) CANTIERE: AIPO - PC-E-810
Matrice TERRENO DA SONDAGGIO
Descrizione campione TERRENO - AREA 1 - TRACCIA 4 C3 MIX - PROFONDITA' DA 0,00 A 3,00 - PRELIEVO DEL 14/03/2018

Dati campionamento

Campionato da Personale esterno TECNICO PARMAGEO SRL il 14/03/2018

RISULTATI ANALITICI

	Valore/ Incertezza	U.M.	Valori di riferimento	Riferimenti	RL	R	Data inizio fine analisi	Unità op.	Ri ga
SUL CAMPIONE TAL QUALE									
FRAZIONE GRANULOMETRICA DA 2 cm A 2 mm Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1	< RL	% p/p			0,10		03/04/2018- -06/04/2018	02	2
UMIDITA' Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.2	17,89±1,97	% p/p			0,050		03/04/2018- -05/04/2018	02	3
ANALISI ESEGUITE SULLA FRAZIONE GRANULOMETRICA < 2 mm ED ESPRESSE SULLA TOTALITÀ DEI MATERIALI SECCHI									
Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1								02	4
ARSENICO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	5,2±1,1	mg/kg (su s.s.)	<20 TAB. 1/A <50 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	5
CADMIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	6
COBALTO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	11,9±2,1	mg/kg (su s.s.)	<20 TAB. 1/A <250 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	7
CROMO ESAVALENTE Met.: EPA 3060 A 1996 + EPA 7196 A 1992	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	1,0	101.9*	03/04/2018- -06/04/2018	02	8
CROMO TOTALE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	85±15	mg/kg (su s.s.)	<150 TAB. 1/A <800 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	9
MERCURIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<1 TAB. 1/A <5 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	10
NICHEL Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	90±24	mg/kg (su s.s.)	<120 TAB. 1/A <500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	11
PIOMBO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	17,2±4,6	mg/kg (su s.s.)	<100 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	12
RAME Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	31,1±5,5	mg/kg (su s.s.)	<120 TAB. 1/A <600 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	13
ZINCO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	81±14	mg/kg (su s.s.)	<150 TAB. 1/A <1500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	14
AMIANTO TOTALE Met.: DM06/09/94 ALL. 1-B	< RL	mg/kg (su s.s.)	<1000 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	100		03/04/2018- -11/04/2018	02	15
IDROCARBURI > C12 Met.: ISO 16703:2004	19,2±7,2	mg/kg (su s.s.)	<50 TAB. 1/A <750 TAB. 1/B	DL 152/06 TAB1 A/B	10	103.25 *	03/04/2018- -06/04/2018	02	16

Informazioni aggiuntive

Riga (5-16) - Riferimento: DL 152/06 TAB1 A/B = DLgs n° 152 03/04/2006 SO GU n° 88 14/04/2006 ALL.5 TAB.1 COL.A/B

Riga (5-7), (9-14) - Metodo: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014 = Per le analisi effettuate con il metodo EPA 6010, il recupero dell'LCS (laboratory control sample) è risultato compreso tra 80% e 120% così come previsto dal metodo.

Riga (8) - Metodo: EPA 3060 A 1996 + EPA 7196 A 1992 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Modello 714/SQ rev. 9

Pagina 2 di 3

Documento firmato digitalmente ai sensi del D Lgs N.82 del 7 marzo 2005 e s.m.i

I risultati contenuti nel presente Rapporto di prova si riferiscono esclusivamente al campione oggetto di analisi. Il presente Rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta di Chelab.

CHELAB S.r.l. Socio Unico, Company subject to the direction and coordination of Mérieux NutriSciences Corporation

Head office: Via Fratta 25 31023 Resana, Italy Phone. + 39 0423.7177 / Fax + 39 0423.715058 www.merieuxnutrisciences.it

VAT nr. 01500900269, R.E.A Treviso n. 156079 Fully paid up € 103.480,00.

Riga (15) - Metodo: DM06/09/94 ALL. 1-B = DM 06/09/1994 GU N° 288 10/12/1994 ALL 1 met. B

Riga (16) - Metodo: ISO 16703:2004 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Unità Operative

Unità 02 : Via Castellana Resana (TV)

Conformità/non conformità ai requisiti e alle specifiche

I Valori di riferimento indicati sono relativi alle Colonne A (Siti ad uso Verde pubblico, privato e residenziale) e B (Siti ad uso commerciale ed industriale) del D.Lgs n 152/06 All. 5 parte quarta

Pareri ed interpretazioni - non oggetto di accreditamento ACCREDIA

Nel campione esaminato non è stata rilevata la presenza di fibre di amianto.

Responsabile prove chimiche
Dott. Federico Perin Chimico Ordine dei chimici - Provincia di treviso Iscrizione n. A338
Num. certificato 18131919 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

Responsabile laboratorio
Dott. Sébastien Moulard
Num. certificato 18132017 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

- La riga contrassegnata da asterisco (*) indica che la prova non è accreditata da Accredia. - Se non diversamente specificato, l'incertezza è estesa ed è stata calcolata con un fattore di copertura $k=2$ corrispondente ad un livello di probabilità di circa il 95% o come intervallo di confidenza calcolato ad un livello di probabilità di circa il 95%. - RL: limite di quantificazione; "<x" o ">x" indicano rispettivamente un valore inferiore o superiore al campo di misura della prova. - Se non diversamente specificato, le sommatorie sono calcolate mediante il criterio del lower bound (L.B.). - Iscrizione al numero 7 dell'elenco regionale della Regione Veneto dei laboratori che effettuano analisi nell'ambito delle procedure di autocontrollo delle industrie alimentari, come da Allegato A del DDR n. 73 del 16 gennaio 2008. - R: recupero, i recuperi contrassegnati da asterisco non sono stati utilizzati nei calcoli. - Qualora sia presente una specifica (limiti di legge o specifiche cliente) con cui sono stati confrontati i risultati analitici, i valori esposti in grassetto indicano un risultato fuori da tale specifica. - Se non diversamente specificato i giudizi di conformità/non conformità eventualmente riportati si riferiscono ai parametri analizzati e si basano sul confronto del valore con i valori di riferimento senza considerare l'intervallo di confidenza della misura.

RAPPORTO DI PROVA 18/000159633

data di emissione 19/04/2018

Codice intestatario 0078207

Spett.le
PARMAGEO SRL
VIA ARGINI SUD, N. 31
43030 BASILICANOVA (PR)
IT

Dati campione

Numero di accettazione 18.048255.0004
Consegnato da GLS General Logistics Systems il 31/03/2018
Data ricevimento 31/03/2018
Proveniente da SOARZA (PC) CANTIERE: AIPO - PC-E-810
Matrice TERRENO DA SONDAGGIO
Descrizione campione TERRENO - AREA 1 - TRACCIA 5 C3 MIX - PROFONDITA' DA 0,00 A 3,00 - PRELIEVO DEL 14/03/2018

Dati campionamento

Campionato da Personale esterno TECNICO PARMAGEO SRL il 14/03/2018

RISULTATI ANALITICI

	Valore/ Incertezza	U.M.	Valori di riferimento	Riferimenti	RL	R	Data inizio fine analisi	Unità op.	Ri ga
SUL CAMPIONE TAL QUALE									
FRAZIONE GRANULOMETRICA DA 2 cm A 2 mm Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1	< RL	% p/p			0,10		03/04/2018- -06/04/2018	02	2
UMIDITA' Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.2	20,86±2,30	% p/p			0,050		03/04/2018- -05/04/2018	02	3
ANALISI ESEGUITE SULLA FRAZIONE GRANULOMETRICA < 2 mm ED ESPRESSE SULLA TOTALITÀ DEI MATERIALI SECCHI									
Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1								02	4
ARSENICO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	5,0±1,1	mg/kg (su s.s.)	<20 TAB. 1/A <50 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	5
CADMIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	6
COBALTO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	9,1±1,6	mg/kg (su s.s.)	<20 TAB. 1/A <250 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	7
CROMO ESAVALENTE Met.: EPA 3060 A 1996 + EPA 7196 A 1992	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	1,0	101.9*	03/04/2018- -06/04/2018	02	8
CROMO TOTALE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	76±13	mg/kg (su s.s.)	<150 TAB. 1/A <800 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	9
MERCURIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	0,65±0,30	mg/kg (su s.s.)	<1 TAB. 1/A <5 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	10
NICHEL Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	74±20	mg/kg (su s.s.)	<120 TAB. 1/A <500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	11
PIOMBO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	16,4±4,5	mg/kg (su s.s.)	<100 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	12
RAME Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	17,7±3,2	mg/kg (su s.s.)	<120 TAB. 1/A <600 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	13
ZINCO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	94±17	mg/kg (su s.s.)	<150 TAB. 1/A <1500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	14
AMIANTO TOTALE Met.: DM06/09/94 ALL. 1-B	< RL	mg/kg (su s.s.)	<1000 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	100		03/04/2018- -11/04/2018	02	15
IDROCARBURI > C12 Met.: ISO 16703:2004	< RL	mg/kg (su s.s.)	<50 TAB. 1/A <750 TAB. 1/B	DL 152/06 TAB1 A/B	10	103.25 *	03/04/2018- -06/04/2018	02	16

Informazioni aggiuntive

Riga (5-16) - Riferimento: DL 152/06 TAB1 A/B = DLgs n° 152 03/04/2006 SO GU n° 88 14/04/2006 ALL.5 TAB.1 COL.A/B

Riga (5-7), (9-14) - Metodo: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014 = Per le analisi effettuate con il metodo EPA 6010, il recupero dell'LCS (laboratory control sample) è risultato compreso tra 80% e 120% così come previsto dal metodo.

Riga (8) - Metodo: EPA 3060 A 1996 + EPA 7196 A 1992 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Modello 714/SQ rev. 9

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Documento firmato digitalmente ai sensi del D Lgs N.82 del 7 marzo 2005 e s.m.i

I risultati contenuti nel presente Rapporto di prova si riferiscono esclusivamente al campione oggetto di analisi. Il presente Rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta di Chelab.

CHELAB S.r.l. Socio Unico, Company subject to the direction and coordination of Mérieux NutriSciences Corporation

Head office: Via Fratta 25 31023 Resana, Italy Phone. + 39 0423.7177 / Fax + 39 0423.715058 www.merieuxnutrisciences.it

VAT nr. 01500900269, R.E.A Treviso n. 156079 Fully paid up € 103.480,00.

Riga (15) - Metodo: DM06/09/94 ALL. 1-B = DM 06/09/1994 GU N° 288 10/12/1994 ALL 1 met. B

Riga (16) - Metodo: ISO 16703:2004 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Unità Operative

Unità 02 : Via Castellana Resana (TV)

Conformità/non conformità ai requisiti e alle specifiche

I Valori di riferimento indicati sono relativi alle Colonne A (Siti ad uso Verde pubblico, privato e residenziale) e B (Siti ad uso commerciale ed industriale) del D.Lgs n 152/06 All. 5 parte quarta

Pareri ed interpretazioni - non oggetto di accreditamento ACCREDIA

Nel campione esaminato è stata rilevata la presenza di amianto di tipo crisotilo in concentrazione inferiore al limite di rilevabilità della metodica quantitativa sopra indicata.

Responsabile prove chimiche
Dott. Federico Perin Chimico Ordine dei chimici - Provincia di Treviso Iscrizione n. A338
Num. certificato 18131919 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

Responsabile laboratorio
Dott. Sébastien Moulard
Num. certificato 18132017 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

- La riga contrassegnata da asterisco (*) indica che la prova non è accreditata da Accredia. - Se non diversamente specificato, l'incertezza è estesa ed è stata calcolata con un fattore di copertura $k=2$ corrispondente ad un livello di probabilità di circa il 95% o come intervallo di confidenza calcolato ad un livello di probabilità di circa il 95%. - RL: limite di quantificazione; "<x" o ">x" indicano rispettivamente un valore inferiore o superiore al campo di misura della prova. - Se non diversamente specificato, le sommatorie sono calcolate mediante il criterio del lower bound (L.B.) - Iscrizione al numero 7 dell'elenco regionale della Regione Veneto dei laboratori che effettuano analisi nell'ambito delle procedure di autocontrollo delle industrie alimentari, come da Allegato A del D.D.R. n. 73 del 16 gennaio 2008. - R: recupero, i recuperi contrassegnati da asterisco non sono stati utilizzati nei calcoli. - Qualora sia presente una specifica (limiti di legge o specifiche cliente) con cui sono stati confrontati i risultati analitici, i valori esposti in grassetto indicano un risultato fuori da tale specifica. - Se non diversamente specificato i giudizi di conformità/non conformità eventualmente riportati si riferiscono ai parametri analizzati e si basano sul confronto del valore con i valori di riferimento senza considerare l'intervallo di confidenza della misura.

RAPPORTO DI PROVA 18/000159634

data di emissione 19/04/2018

Codice intestatario 0078207

Spett.le
PARMAGEO SRL
VIA ARGINI SUD, N. 31
43030 BASILICANOVA (PR)
IT

Dati campione

Numero di accettazione 18.048255.0005
Consegnato da GLS General Logistics Systems il 31/03/2018
Data ricevimento 31/03/2018
Proveniente da SOARZA (PC) CANTIERE: AIPO - PC-E-810
Matrice TERRENO DA SONDAGGIO
Descrizione campione TERRENO - AREA 1 - TRACCIA 6 C3 MIX - PROFONDITA' DA 0,00 A 3,00 - PRELIEVO DEL 14/03/2018

Dati campionamento

Campionato da Personale esterno TECNICO PARMAGEO SRL il 14/03/2018

RISULTATI ANALITICI

	Valore/ Incertezza	U.M.	Valori di riferimento	Riferimenti	RL	R	Data inizio fine analisi	Unità op.	Ri ga
SUL CAMPIONE TAL QUALE									
FRAZIONE GRANULOMETRICA DA 2 cm A 2 mm Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1	< RL	% p/p			0,10		03/04/2018- -06/04/2018	02	2
UMIDITA' Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.2	24,35±2,68	% p/p			0,050		03/04/2018- -05/04/2018	02	3
ANALISI ESEGUITE SULLA FRAZIONE GRANULOMETRICA < 2 mm ED ESPRESSE SULLA TOTALITÀ DEI MATERIALI SECCHI									
Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1								02	4
ARSENICO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	7,3±1,5	mg/kg (su s.s.)	<20 TAB. 1/A <50 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	5
CADMIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	0,54±0,29	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	6
COBALTO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	13,9±2,5	mg/kg (su s.s.)	<20 TAB. 1/A <250 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	7
CROMO ESAVALENTE Met.: EPA 3060 A 1996 + EPA 7196 A 1992	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	1,0	101.9*	03/04/2018- -06/04/2018	02	8
CROMO TOTALE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	112±20	mg/kg (su s.s.)	<150 TAB. 1/A <800 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	9
MERCURIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<1 TAB. 1/A <5 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	10
NICHEL Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	109±29	mg/kg (su s.s.)	<120 TAB. 1/A <500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	11
PIOMBO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	28,6±7,7	mg/kg (su s.s.)	<100 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	12
RAME Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	45,8±8,0	mg/kg (su s.s.)	<120 TAB. 1/A <600 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	13
ZINCO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	123±22	mg/kg (su s.s.)	<150 TAB. 1/A <1500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	14
AMIANTO TOTALE Met.: DM06/09/94 ALL. 1-B	< RL	mg/kg (su s.s.)	<1000 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	100		03/04/2018- -11/04/2018	02	15
IDROCARBURI > C12 Met.: ISO 16703:2004	24,1±7,6	mg/kg (su s.s.)	<50 TAB. 1/A <750 TAB. 1/B	DL 152/06 TAB1 A/B	10	103.25 *	03/04/2018- -06/04/2018	02	16

Informazioni aggiuntive

Riga (5-16) - Riferimento: DL 152/06 TAB1 A/B = DLgs n° 152 03/04/2006 SO GU n° 88 14/04/2006 ALL.5 TAB.1 COL.A/B

Riga (5-7), (9-14) - Metodo: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014 = Per le analisi effettuate con il metodo EPA 6010, il recupero dell'LCS (laboratory control sample) è risultato compreso tra 80% e 120% così come previsto dal metodo.

Riga (8) - Metodo: EPA 3060 A 1996 + EPA 7196 A 1992 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Modello 714/SQ rev. 9

Pagina 2 di 3

Documento firmato digitalmente ai sensi del D Lgs N.82 del 7 marzo 2005 e s.m.i

I risultati contenuti nel presente Rapporto di prova si riferiscono esclusivamente al campione oggetto di analisi. Il presente Rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta di Chelab.

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VAT nr. 01500900269, R.E.A Treviso n. 156079 Fully paid up € 103.480,00.

Riga (15) - Metodo: DM06/09/94 ALL. 1-B = DM 06/09/1994 GU N° 288 10/12/1994 ALL 1 met. B

Riga (16) - Metodo: ISO 16703:2004 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Unità Operative

Unità 02 : Via Castellana Resana (TV)

Conformità/non conformità ai requisiti e alle specifiche

I Valori di riferimento indicati sono relativi alle Colonne A (Siti ad uso Verde pubblico, privato e residenziale) e B (Siti ad uso commerciale ed industriale) del D.Lgs n 152/06 All. 5 parte quarta

Pareri ed interpretazioni - non oggetto di accreditamento ACCREDIA

Nel campione esaminato non è stata rilevata la presenza di fibre di amianto.

Responsabile prove chimiche
Dott. Federico Perin Chimico Ordine dei chimici - Provincia di Treviso Iscrizione n. A338
Num. certificato 18131919 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

Responsabile laboratorio
Dott. Sébastien Moulard
Num. certificato 18132017 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

- La riga contrassegnata da asterisco (*) indica che la prova non è accreditata da Accredia. - Se non diversamente specificato, l'incertezza è estesa ed è stata calcolata con un fattore di copertura $k=2$ corrispondente ad un livello di probabilità di circa il 95% o come intervallo di confidenza calcolato ad un livello di probabilità di circa il 95%. - RL: limite di quantificazione; "<x" o ">x" indicano rispettivamente un valore inferiore o superiore al campo di misura della prova. - Se non diversamente specificato, le sommatorie sono calcolate mediante il criterio del lower bound (L.B.). - Iscrizione al numero 7 dell'elenco regionale della Regione Veneto dei laboratori che effettuano analisi nell'ambito delle procedure di autocontrollo delle industrie alimentari, come da Allegato A del D.D.R. n. 73 del 16 gennaio 2008. - R: recupero, i recuperi contrassegnati da asterisco non sono stati utilizzati nei calcoli. - Qualora sia presente una specifica (limiti di legge o specifiche cliente) con cui sono stati confrontati i risultati analitici, i valori esposti in grassetto indicano un risultato fuori da tale specifica. - Se non diversamente specificato i giudizi di conformità/non conformità eventualmente riportati si riferiscono ai parametri analizzati e si basano sul confronto del valore con i valori di riferimento senza considerare l'intervallo di confidenza della misura.

RAPPORTO DI PROVA 18/000159635

data di emissione 19/04/2018

Codice intestatario 0078207

Spett.le
PARMAGEO SRL
VIA ARGINI SUD, N. 31
43030 BASILICANOVA (PR)
IT

Dati campione

Numero di accettazione 18.048255.0006
Consegnato da GLS General Logistics Systems il 31/03/2018
Data ricevimento 31/03/2018
Proveniente da SOARZA (PC) CANTIERE: AIPO - PC-E-810
Matrice TERRENO DA SONDAGGIO
Descrizione campione TERRENO - AREA 2 - TRACCIA 1 C3 MIX - PROFONDITA' DA 0,00 A 3,00 - PRELIEVO DEL 20/03/2018

Dati campionamento

Campionato da Personale esterno TECNICO PARMAGEO SRL il 20/03/2018

RISULTATI ANALITICI

	Valore/ Incertezza	U.M.	Valori di riferimento	Riferimenti	RL	R	Data inizio fine analisi	Unità op.	Ri ga
SUL CAMPIONE TAL QUALE									
FRAZIONE GRANULOMETRICA DA 2 cm A 2 mm Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1	< RL	% p/p			0,10		03/04/2018- -06/04/2018	02	2
UMIDITA' Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.2	13,41±1,48	% p/p			0,050		03/04/2018- -05/04/2018	02	3
ANALISI ESEGUITE SULLA FRAZIONE GRANULOMETRICA < 2 mm ED ESPRESSE SULLA TOTALITÀ DEI MATERIALI SECCHI									
Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1								02	4
ARSENICO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	4,11±0,91	mg/kg (su s.s.)	<20 TAB. 1/A <50 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	5
CADMIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	6
COBALTO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	8,3±1,5	mg/kg (su s.s.)	<20 TAB. 1/A <250 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	7
CROMO ESAVALENTE Met.: EPA 3060 A 1996 + EPA 7196 A 1992	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	1,0	101.9*	03/04/2018- -06/04/2018	02	8
CROMO TOTALE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	73±13	mg/kg (su s.s.)	<150 TAB. 1/A <800 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	9
MERCURIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<1 TAB. 1/A <5 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	10
NICHEL Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	68±19	mg/kg (su s.s.)	<120 TAB. 1/A <500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	11
PIOMBO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	10,9±3,0	mg/kg (su s.s.)	<100 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	12
RAME Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	12,7±2,3	mg/kg (su s.s.)	<120 TAB. 1/A <600 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	13
ZINCO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	62±11	mg/kg (su s.s.)	<150 TAB. 1/A <1500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	14
AMIANTO TOTALE Met.: DM06/09/94 ALL. 1-B	< RL	mg/kg (su s.s.)	<1000 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	100		03/04/2018- -11/04/2018	02	15
IDROCARBURI > C12 Met.: ISO 16703:2004	< RL	mg/kg (su s.s.)	<50 TAB. 1/A <750 TAB. 1/B	DL 152/06 TAB1 A/B	10	103.25 *	03/04/2018- -06/04/2018	02	16

Informazioni aggiuntive

Riga (5-16) - Riferimento: DL 152/06 TAB1 A/B = DLgs n° 152 03/04/2006 SO GU n° 88 14/04/2006 ALL.5 TAB.1 COL.A/B

Riga (5-7), (9-14) - Metodo: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014 = Per le analisi effettuate con il metodo EPA 6010, il recupero dell'LCS (laboratory control sample) è risultato compreso tra 80% e 120% così come previsto dal metodo.

Riga (8) - Metodo: EPA 3060 A 1996 + EPA 7196 A 1992 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Modello 714/SQ rev. 9

Pagina 2 di 3

Documento firmato digitalmente ai sensi del D Lgs N.82 del 7 marzo 2005 e s.m.i

I risultati contenuti nel presente Rapporto di prova si riferiscono esclusivamente al campione oggetto di analisi. Il presente Rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta di Chelab.

CHELAB S.r.l. Socio Unico, Company subject to the direction and coordination of Mérieux NutriSciences Corporation

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VAT nr. 01500900269, R.E.A Treviso n. 156079 Fully paid up € 103.480,00.

Riga (15) - Metodo: DM06/09/94 ALL. 1-B = DM 06/09/1994 GU N° 288 10/12/1994 ALL 1 met. B
Riga (16) - Metodo: ISO 16703:2004 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Unità Operative

Unità 02 : Via Castellana Resana (TV)

Conformità/non conformità ai requisiti e alle specifiche

I Valori di riferimento indicati sono relativi alle Colonne A (Siti ad uso Verde pubblico, privato e residenziale) e B (Siti ad uso commerciale ed industriale) del D.Lgs n 152/06 All. 5 parte quarta

Pareri ed interpretazioni - non oggetto di accreditamento ACCREDIA

Nel campione esaminato non è stata rilevata la presenza di fibre di amianto.

Responsabile prove chimiche
Dott. Federico Perin Chimico Ordine dei chimici - Provincia di treviso Iscrizione n. A338
Num. certificato 18131919 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

Responsabile laboratorio
Dott. Sébastien Moulard
Num. certificato 18132017 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

- La riga contrassegnata da asterisco (*) indica che la prova non è accreditata da Accredia. - Se non diversamente specificato, l'incertezza è estesa ed è stata calcolata con un fattore di copertura $k=2$ corrispondente ad un livello di probabilità di circa il 95% o come intervallo di confidenza calcolato ad un livello di probabilità di circa il 95%. - RL: limite di quantificazione; "<x" o ">x" indicano rispettivamente un valore inferiore o superiore al campo di misura della prova. - Se non diversamente specificato, le sommatorie sono calcolate mediante il criterio del lower bound (L.B.) - Iscrizione al numero 7 dell'elenco regionale della Regione Veneto dei laboratori che effettuano analisi nell'ambito delle procedure di autocontrollo delle industrie alimentari, come da Allegato A del DDR n. 73 del 16 gennaio 2008. - R: recupero, i recuperi contrassegnati da asterisco non sono stati utilizzati nei calcoli. - Qualora sia presente una specifica (limiti di legge o specifiche cliente) con cui sono stati confrontati i risultati analitici, i valori esposti in grassetto indicano un risultato fuori da tale specifica. - Se non diversamente specificato i giudizi di conformità/non conformità eventualmente riportati si riferiscono ai parametri analizzati e si basano sul confronto del valore con i valori di riferimento senza considerare l'intervallo di confidenza della misura.

RAPPORTO DI PROVA 18/000159636

data di emissione 19/04/2018

Codice intestatario 0078207

Spett.le
PARMAGEO SRL
VIA ARGINI SUD, N. 31
43030 BASILICANOVA (PR)
IT

Dati campione

Numero di accettazione 18.048255.0007
Consegnato da GLS General Logistics Systems il 31/03/2018
Data ricevimento 31/03/2018
Proveniente da SOARZA (PC) CANTIERE: AIPO - PC-E-810
Matrice TERRENO DA SONDAGGIO
Descrizione campione TERRENO - AREA 2 - TRACCIA 2 C3 MIX - PROFONDITA' DA 0,00 A 3,00 - PRELIEVO DEL 20/03/2018

Dati campionamento

Campionato da Personale esterno TECNICO PARMAGEO SRL il 20/03/2018

RISULTATI ANALITICI

	Valore/ Incertezza	U.M.	Valori di riferimento	Riferimenti	RL	R	Data inizio fine analisi	Unità op.	Ri ga
SUL CAMPIONE TAL QUALE									
FRAZIONE GRANULOMETRICA DA 2 cm A 2 mm Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1	< RL	% p/p			0,10		03/04/2018- -06/04/2018	02	2
UMIDITA' Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.2	13,41±1,48	% p/p			0,050		03/04/2018- -05/04/2018	02	3
ANALISI ESEGUITE SULLA FRAZIONE GRANULOMETRICA < 2 mm ED ESPRESSE SULLA TOTALITÀ DEI MATERIALI SECCHI									
Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1								02	4
ARSENICO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	5,4±1,1	mg/kg (su s.s.)	<20 TAB. 1/A <50 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	5
CADMIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	6
COBALTO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	10,5±1,9	mg/kg (su s.s.)	<20 TAB. 1/A <250 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	7
CROMO ESAVALENTE Met.: EPA 3060 A 1996 + EPA 7196 A 1992	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	1,0	101.9*	03/04/2018- -06/04/2018	02	8
CROMO TOTALE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	84±15	mg/kg (su s.s.)	<150 TAB. 1/A <800 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	9
MERCURIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<1 TAB. 1/A <5 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	10
NICHEL Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	83±22	mg/kg (su s.s.)	<120 TAB. 1/A <500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	11
PIOMBO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	18,8±5,1	mg/kg (su s.s.)	<100 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	12
RAME Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	22,9±4,1	mg/kg (su s.s.)	<120 TAB. 1/A <600 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	13
ZINCO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	94±17	mg/kg (su s.s.)	<150 TAB. 1/A <1500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	14
AMIANTO TOTALE Met.: DM06/09/94 ALL. 1-B	< RL	mg/kg (su s.s.)	<1000 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	100		03/04/2018- -11/04/2018	02	15
IDROCARBURI > C12 Met.: ISO 16703:2004	< RL	mg/kg (su s.s.)	<50 TAB. 1/A <750 TAB. 1/B	DL 152/06 TAB1 A/B	10	103.25 *	03/04/2018- -06/04/2018	02	16

Informazioni aggiuntive

Riga (5-16) - Riferimento: DL 152/06 TAB1 A/B = DLgs n° 152 03/04/2006 SO GU n° 88 14/04/2006 ALL.5 TAB.1 COL.A/B

Riga (5-7), (9-14) - Metodo: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014 = Per le analisi effettuate con il metodo EPA 6010, il recupero dell'LCS (laboratory control sample) è risultato compreso tra 80% e 120% così come previsto dal metodo.

Riga (8) - Metodo: EPA 3060 A 1996 + EPA 7196 A 1992 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Modello 714/SQ rev. 9

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Documento firmato digitalmente ai sensi del D Lgs N.82 del 7 marzo 2005 e s.m.i

I risultati contenuti nel presente Rapporto di prova si riferiscono esclusivamente al campione oggetto di analisi. Il presente Rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta di Chelab.

CHELAB S.r.l. Socio Unico, Company subject to the direction and coordination of Mérieux NutriSciences Corporation

Head office: Via Fratta 25 31023 Resana, Italy Phone. + 39 0423.7177 / Fax + 39 0423.715058 www.merieuxnutrisciences.it

VAT nr. 01500900269, R.E.A Treviso n. 156079 Fully paid up € 103.480,00.

Riga (15) - Metodo: DM06/09/94 ALL. 1-B = DM 06/09/1994 GU N° 288 10/12/1994 ALL 1 met. B

Riga (16) - Metodo: ISO 16703:2004 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Unità Operative

Unità 02 : Via Castellana Resana (TV)

Conformità/non conformità ai requisiti e alle specifiche

I Valori di riferimento indicati sono relativi alle Colonne A (Siti ad uso Verde pubblico, privato e residenziale) e B (Siti ad uso commerciale ed industriale) del D.Lgs n 152/06 All. 5 parte quarta

Pareri ed interpretazioni - non oggetto di accreditamento ACCREDIA

Nel campione esaminato è stata rilevata la presenza di amianto di tipo crisotilo in concentrazione inferiore al limite di rilevabilità della metodica quantitativa sopra indicata.

Responsabile prove chimiche
Dott. Federico Perin Chimico Ordine dei chimici - Provincia di treviso Iscrizione n. A338
Num. certificato 18131919 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

Responsabile laboratorio
Dott. Sébastien Moulard
Num. certificato 18132017 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

- La riga contrassegnata da asterisco (*) indica che la prova non è accreditata da Accredia. - Se non diversamente specificato, l'incertezza è estesa ed è stata calcolata con un fattore di copertura $k=2$ corrispondente ad un livello di probabilità di circa il 95% o come intervallo di confidenza calcolato ad un livello di probabilità di circa il 95%. - RL: limite di quantificazione; "<x" o ">x" indicano rispettivamente un valore inferiore o superiore al campo di misura della prova. - Se non diversamente specificato, le sommatorie sono calcolate mediante il criterio del lower bound (L.B.) - Iscrizione al numero 7 dell'elenco regionale della Regione Veneto dei laboratori che effettuano analisi nell'ambito delle procedure di autocontrollo delle industrie alimentari, come da Allegato A del DDR n. 73 del 16 gennaio 2008. - R: recupero, i recuperi contrassegnati da asterisco non sono stati utilizzati nei calcoli. - Qualora sia presente una specifica (limiti di legge o specifiche cliente) con cui sono stati confrontati i risultati analitici, i valori esposti in grassetto indicano un risultato fuori da tale specifica. - Se non diversamente specificato i giudizi di conformità/non conformità eventualmente riportati si riferiscono ai parametri analizzati e si basano sul confronto del valore con i valori di riferimento senza considerare l'intervallo di confidenza della misura.

RAPPORTO DI PROVA 18/000159638

data di emissione 19/04/2018

Codice intestatario 0078207

Spett.le
PARMAGEO SRL
VIA ARGINI SUD, N. 31
43030 BASILICANOVA (PR)
IT

Dati campione

Numero di accettazione 18.048255.0008
Consegnato da GLS General Logistics Systems il 31/03/2018
Data ricevimento 31/03/2018
Proveniente da SOARZA (PC) CANTIERE: AIPO - PC-E-810
Matrice TERRENO DA SONDAGGIO
Descrizione campione TERRENO - AREA 2 - TRACCIA 3 C2 MIX - PROFONDITA' DA 0,00 A 3,00 - PRELIEVO DEL 21/03/2018

Dati campionamento

Campionato da Personale esterno TECNICO PARMAGEO SRL il 21/03/2018

RISULTATI ANALITICI

	Valore/ Incertezza	U.M.	Valori di riferimento	Riferimenti	RL	R	Data inizio fine analisi	Unità op.	Ri ga
SUL CAMPIONE TAL QUALE									
FRAZIONE GRANULOMETRICA DA 2 cm A 2 mm Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1	25,4±5,2	% p/p			0,10		03/04/2018- -06/04/2018	02	2
UMIDITA' Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.2	9,35±1,03	% p/p			0,050		03/04/2018- -05/04/2018	02	3
ANALISI ESEGUITE SULLA FRAZIONE GRANULOMETRICA < 2 mm ED ESPRESSE SULLA TOTALITÀ DEI MATERIALI SECCHI									
Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1								02	4
ARSENICO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	3,81±0,87	mg/kg (su s.s.)	<20 TAB. 1/A <50 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	5
CADMIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	6
COBALTO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	5,6±1,1	mg/kg (su s.s.)	<20 TAB. 1/A <250 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	7
CROMO ESAVALENTE Met.: EPA 3060 A 1996 + EPA 7196 A 1992	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	1,0	101.9*	03/04/2018- -06/04/2018	02	8
CROMO TOTALE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	50,5±8,8	mg/kg (su s.s.)	<150 TAB. 1/A <800 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	9
MERCURIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<1 TAB. 1/A <5 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	10
NICHEL Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	47±13	mg/kg (su s.s.)	<120 TAB. 1/A <500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	11
PIOMBO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	7,3±2,0	mg/kg (su s.s.)	<100 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	12
RAME Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	7,9±1,4	mg/kg (su s.s.)	<120 TAB. 1/A <600 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	13
ZINCO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	34,9±6,2	mg/kg (su s.s.)	<150 TAB. 1/A <1500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	14
AMIANTO TOTALE Met.: DM06/09/94 ALL. 1-B	< RL	mg/kg (su s.s.)	<1000 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	100		03/04/2018- -11/04/2018	02	15
IDROCARBURI > C12 Met.: ISO 16703:2004	< RL	mg/kg (su s.s.)	<50 TAB. 1/A <750 TAB. 1/B	DL 152/06 TAB1 A/B	10	103.25 *	03/04/2018- -06/04/2018	02	16

Informazioni aggiuntive

Riga (5-16) - Riferimento: DL 152/06 TAB1 A/B = DLgs n° 152 03/04/2006 SO GU n° 88 14/04/2006 ALL.5 TAB.1 COL.A/B

Riga (5-7), (9-14) - Metodo: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014 = Per le analisi effettuate con il metodo EPA 6010, il recupero dell'LCS (laboratory control sample) è risultato compreso tra 80% e 120% così come previsto dal metodo.

Riga (8) - Metodo: EPA 3060 A 1996 + EPA 7196 A 1992 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Modello 714/SQ rev. 9

Pagina 2 di 3

Documento firmato digitalmente ai sensi del D Lgs N.82 del 7 marzo 2005 e s.m.i

I risultati contenuti nel presente Rapporto di prova si riferiscono esclusivamente al campione oggetto di analisi. Il presente Rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta di Chelab.

CHELAB S.r.l. Socio Unico, Company subject to the direction and coordination of Mérieux NutriSciences Corporation

Head office: Via Fratta 25 31023 Resana, Italy Phone. + 39 0423.7177 / Fax + 39 0423.715058 www.merieuxnutrisciences.it

VAT nr. 01500900269, R.E.A Treviso n. 156079 Fully paid up € 103.480,00.

Riga (15) - Metodo: DM06/09/94 ALL. 1-B = DM 06/09/1994 GU N° 288 10/12/1994 ALL 1 met. B

Riga (16) - Metodo: ISO 16703:2004 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Unità Operative

Unità 02 : Via Castellana Resana (TV)

Conformità/non conformità ai requisiti e alle specifiche

I Valori di riferimento indicati sono relativi alle Colonne A (Siti ad uso Verde pubblico, privato e residenziale) e B (Siti ad uso commerciale ed industriale) del D.Lgs n 152/06 All. 5 parte quarta

Pareri ed interpretazioni - non oggetto di accreditamento ACCREDIA

Nel campione esaminato non è stata rilevata la presenza di fibre di amianto.

Responsabile prove chimiche
Dott. Federico Perin Chimico Ordine dei chimici - Provincia di treviso Iscrizione n. A338
Num. certificato 18131919 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

Responsabile laboratorio
Dott. Sébastien Moulard
Num. certificato 18132017 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

- La riga contrassegnata da asterisco (*) indica che la prova non è accreditata da Accredia. - Se non diversamente specificato, l'incertezza è estesa ed è stata calcolata con un fattore di copertura $k=2$ corrispondente ad un livello di probabilità di circa il 95% o come intervallo di confidenza calcolato ad un livello di probabilità di circa il 95%. - RL: limite di quantificazione; "<x" o ">x" indicano rispettivamente un valore inferiore o superiore al campo di misura della prova. - Se non diversamente specificato, le sommatorie sono calcolate mediante il criterio del lower bound (L.B.) - Iscrizione al numero 7 dell'elenco regionale della Regione Veneto dei laboratori che effettuano analisi nell'ambito delle procedure di autocontrollo delle industrie alimentari, come da Allegato A del DDR n. 73 del 16 gennaio 2008. - R: recupero, i recuperi contrassegnati da asterisco non sono stati utilizzati nei calcoli. - Qualora sia presente una specifica (limiti di legge o specifiche cliente) con cui sono stati confrontati i risultati analitici, i valori esposti in grassetto indicano un risultato fuori da tale specifica. - Se non diversamente specificato i giudizi di conformità/non conformità eventualmente riportati si riferiscono ai parametri analizzati e si basano sul confronto del valore con i valori di riferimento senza considerare l'intervallo di confidenza della misura.

RAPPORTO DI PROVA 18/000159639

data di emissione 19/04/2018

Codice intestatario 0078207

Spett.le
PARMAGEO SRL
VIA ARGINI SUD, N. 31
43030 BASILICANOVA (PR)
IT

Dati campione

Numero di accettazione 18.048255.0009
Consegnato da GLS General Logistics Systems il 31/03/2018
Data ricevimento 31/03/2018
Proveniente da SOARZA (PC) CANTIERE: AIPO - PC-E-810
Matrice TERRENO DA SONDAGGIO
Descrizione campione TERRENO - AREA 2 - TRACCIA 4 C2 MIX - PROFONDITA' DA 0,00 A 3,00 - PRELIEVO DEL 22/03/2018

Dati campionamento

Campionato da Personale esterno TECNICO PARMAGEO SRL il 22/03/2018

RISULTATI ANALITICI

	Valore/ Incertezza	U.M.	Valori di riferimento	Riferimenti	RL	R	Data inizio fine analisi	Unità op.	Ri ga
SUL CAMPIONE TAL QUALE									
FRAZIONE GRANULOMETRICA DA 2 cm A 2 mm Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1	35,1±7,1	% p/p			0,10		03/04/2018- -06/04/2018	02	2
UMIDITA' Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.2	9,02±0,99	% p/p			0,050		03/04/2018- -05/04/2018	02	3
ANALISI ESEGUITE SULLA FRAZIONE GRANULOMETRICA < 2 mm ED ESPRESSE SULLA TOTALITÀ DEI MATERIALI SECCHI									
Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1								02	4
ARSENICO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	2,73±0,73	mg/kg (su s.s.)	<20 TAB. 1/A <50 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	5
CADMIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	6
COBALTO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	4,37±0,82	mg/kg (su s.s.)	<20 TAB. 1/A <250 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	7
CROMO ESAVALENTE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	1,0	101.9*	03/04/2018- -06/04/2018	02	8
CROMO TOTALE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	46,8±8,1	mg/kg (su s.s.)	<150 TAB. 1/A <800 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	9
MERCURIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<1 TAB. 1/A <5 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	10
NICHEL Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	37,4±10,0	mg/kg (su s.s.)	<120 TAB. 1/A <500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	11
PIOMBO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	7,9±2,2	mg/kg (su s.s.)	<100 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	12
RAME Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	7,7±1,4	mg/kg (su s.s.)	<120 TAB. 1/A <600 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	13
ZINCO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	41,8±7,4	mg/kg (su s.s.)	<150 TAB. 1/A <1500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	14
AMIANTO TOTALE Met.: DM06/09/94 ALL. 1-B	260±150	mg/kg (su s.s.)	<1000 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	100		03/04/2018- -11/04/2018	02	15
IDROCARBURI > C12 Met.: ISO 16703:2004	< RL	mg/kg (su s.s.)	<50 TAB. 1/A <750 TAB. 1/B	DL 152/06 TAB1 A/B	10	103.25 *	03/04/2018- -06/04/2018	02	16

Informazioni aggiuntive

Riga (5-16) - Riferimento: DL 152/06 TAB1 A/B = DLgs n° 152 03/04/2006 SO GU n° 88 14/04/2006 ALL.5 TAB.1 COL.A/B

Riga (5-7), (9-14) - Metodo: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014 = Per le analisi effettuate con il metodo EPA 6010, il recupero dell'LCS (laboratory control sample) è risultato compreso tra 80% e 120% così come previsto dal metodo.

Riga (8) - Metodo: EPA 3060 A 1996 + EPA 7196 A 1992 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Modello 714/SQ rev. 9

Pagina 2 di 3

Documento firmato digitalmente ai sensi del D Lgs N.82 del 7 marzo 2005 e s.m.i

I risultati contenuti nel presente Rapporto di prova si riferiscono esclusivamente al campione oggetto di analisi. Il presente Rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta di Chelab.

CHELAB S.r.l. Socio Unico, Company subject to the direction and coordination of Mérieux NutriSciences Corporation

Head office: Via Fratta 25 31023 Resana, Italy Phone. + 39 0423.7177 / Fax + 39 0423.715058 www.merieuxnutrisciences.it

VAT nr. 01500900269, R.E.A Treviso n. 156079 Fully paid up € 103.480,00.

Riga (15) - Metodo: DM06/09/94 ALL. 1-B = DM 06/09/1994 GU N° 288 10/12/1994 ALL 1 met. B

Riga (16) - Metodo: ISO 16703:2004 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Unità Operative

Unità 02 : Via Castellana Resana (TV)

Conformità/non conformità ai requisiti e alle specifiche

I Valori di riferimento indicati sono relativi alle Colonne A (Siti ad uso Verde pubblico, privato e residenziale) e B (Siti ad uso commerciale ed industriale) del D.Lgs n 152/06 All. 5 parte quarta

Pareri ed interpretazioni - non oggetto di accreditamento ACCREDIA

Nel campione esaminato è stata rilevata la presenza di fibre di amianto di tipo crisotilo nella concentrazione sopra riportata.

Responsabile prove chimiche
Dott. Federico Perin Chimico Ordine dei chimici - Provincia di Treviso Iscrizione n. A338
Num. certificato 18131919 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

Responsabile laboratorio
Dott. Sébastien Moulard
Num. certificato 18132017 emesso dall'ente certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC S.p.A., IT

- La riga contrassegnata da asterisco (*) indica che la prova non è accreditata da Accredia. - Se non diversamente specificato, l'incertezza è estesa ed è stata calcolata con un fattore di copertura $k=2$ corrispondente ad un livello di probabilità di circa il 95% o come intervallo di confidenza calcolato ad un livello di probabilità di circa il 95%. - RL: limite di quantificazione; "<x" o ">x" indicano rispettivamente un valore inferiore o superiore al campo di misura della prova. - Se non diversamente specificato, le sommatorie sono calcolate mediante il criterio del lower bound (L.B.). - Iscrizione al numero 7 dell'elenco regionale della Regione Veneto dei laboratori che effettuano analisi nell'ambito delle procedure di autocontrollo delle industrie alimentari, come da Allegato A del D.D.R. n. 73 del 16 gennaio 2008. - R: recupero, i recuperi contrassegnati da asterisco non sono stati utilizzati nei calcoli. - Qualora sia presente una specifica (limiti di legge o specifiche cliente) con cui sono stati confrontati i risultati analitici, i valori esposti in grassetto indicano un risultato fuori da tale specifica. - Se non diversamente specificato i giudizi di conformità/non conformità eventualmente riportati si riferiscono ai parametri analizzati e si basano sul confronto del valore con i valori di riferimento senza considerare l'intervallo di confidenza della misura.

RAPPORTO DI PROVA 18/000159640

data di emissione 19/04/2018

Codice intestatario 0078207

Spett.le
PARMAGEO SRL
VIA ARGINI SUD, N. 31
43030 BASILICANOVA (PR)
IT

Dati campione

Numero di accettazione 18.048255.0010
Consegnato da GLS General Logistics Systems il 31/03/2018
Data ricevimento 31/03/2018
Proveniente da SOARZA (PC) CANTIERE: AIPO - PC-E-810
Matrice TERRENO DA SONDAGGIO
Descrizione campione TERRENO - AREA 2 - TRACCIA 5 C3 MIX - PROFONDITA' DA 0,00 A 3,00 - PRELIEVO DEL 23/03/2018

Dati campionamento

Campionato da Personale esterno TECNICO PARMAGEO SRL il 23/03/2018

RISULTATI ANALITICI

	Valore/ Incertezza	U.M.	Valori di riferimento	Riferimenti	RL	R	Data inizio fine analisi	Unità op.	Ri ga
SUL CAMPIONE TAL QUALE									
FRAZIONE GRANULOMETRICA DA 2 cm A 2 mm Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1	< RL	% p/p			0,10		03/04/2018- -06/04/2018	02	2
UMIDITA' Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.2	23,10±2,54	% p/p			0,050		03/04/2018- -05/04/2018	02	3
ANALISI ESEGUITE SULLA FRAZIONE GRANULOMETRICA < 2 mm ED ESPRESSE SULLA TOTALITÀ DEI MATERIALI SECCHI									
Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met II.1								02	4
ARSENICO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	9,2±1,8	mg/kg (su s.s.)	<20 TAB. 1/A <50 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	5
CADMIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	0,93±0,32	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	6
COBALTO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	15,5±2,8	mg/kg (su s.s.)	<20 TAB. 1/A <250 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	7
CROMO ESAVALENTE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	< RL	mg/kg (su s.s.)	<2 TAB. 1/A <15 TAB. 1/B	DL 152/06 TAB1 A/B	1,0	101.9*	03/04/2018- -06/04/2018	02	8
CROMO TOTALE Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	126±22	mg/kg (su s.s.)	<150 TAB. 1/A <800 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	9
MERCURIO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	0,46±0,28	mg/kg (su s.s.)	<1 TAB. 1/A <5 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	10
NICHEL Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	119±32	mg/kg (su s.s.)	<120 TAB. 1/A <500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	11
PIOMBO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	53±14	mg/kg (su s.s.)	<100 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	0,83	99.96*	03/04/2018- -11/04/2018	02	12
RAME Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	59±10	mg/kg (su s.s.)	<120 TAB. 1/A <600 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	13
ZINCO Met.: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014	204±36	mg/kg (su s.s.)	<150 TAB. 1/A <1500 TAB. 1/B	DL 152/06 TAB1 A/B	0,42	99.96*	03/04/2018- -11/04/2018	02	14
AMIANTO TOTALE Met.: DM06/09/94 ALL. 1-B	< RL	mg/kg (su s.s.)	<1000 TAB. 1/A <1000 TAB. 1/B	DL 152/06 TAB1 A/B	100		03/04/2018- -11/04/2018	02	15
IDROCARBURI > C12 Met.: ISO 16703:2004	54±11	mg/kg (su s.s.)	<50 TAB. 1/A <750 TAB. 1/B	DL 152/06 TAB1 A/B	10	103.25 *	03/04/2018- -06/04/2018	02	16

Informazioni aggiuntive

Riga (5-16) - Riferimento: DL 152/06 TAB1 A/B = DLgs n° 152 03/04/2006 SO GU n° 88 14/04/2006 ALL.5 TAB.1 COL.A/B

Riga (5-7), (9-14) - Metodo: DM 13/09/1999 GU N° 248 21/10/1999 Met XI.1 + EPA 6010 D 2014 = Per le analisi effettuate con il metodo EPA 6010, il recupero dell'LCS (laboratory control sample) è risultato compreso tra 80% e 120% così come previsto dal metodo.

Riga (8) - Metodo: EPA 3060 A 1996 + EPA 7196 A 1992 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Modello 714/SQ rev. 9

Pagina 2 di 3

Documento firmato digitalmente ai sensi del D Lgs N.82 del 7 marzo 2005 e s.m.i

I risultati contenuti nel presente Rapporto di prova si riferiscono esclusivamente al campione oggetto di analisi. Il presente Rapporto di prova non può essere riprodotto parzialmente, salvo autorizzazione scritta di Chelab.

CHELAB S.r.l. Socio Unico, Company subject to the direction and coordination of Mérieux NutriSciences Corporation

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VAT nr. 01500900269, R.E.A Treviso n. 156079 Fully paid up € 103.480,00.

Riga (15) - Metodo: DM06/09/94 ALL. 1-B = DM 06/09/1994 GU N° 288 10/12/1994 ALL 1 met. B

Riga (16) - Metodo: ISO 16703:2004 = I controlli qualità applicabili risultano all'interno dei parametri statistici calcolati.

Unità Operative

Unità 02 : Via Castellana Resana (TV)

Confronto dei valori con i valori di riferimento

Riga	Parametro	Conformità	Riferimento
14	ZINCO	NON CONFORME TAB.A	DL 152/06 TAB1 A/B
16	IDROCARBURI > C12	NON CONFORME TAB.A	DL 152/06 TAB1 A/B

Conformità/non conformità ai requisiti e alle specifiche

I Valori di riferimento indicati sono relativi alle Colonne A (Siti ad uso Verde pubblico, privato e residenziale) e B (Siti ad uso commerciale ed industriale) del D.L.gs n 152/06 All. 5 parte quarta

Pareri ed interpretazioni - non oggetto di accreditamento ACCREDIA

Nel campione esaminato è stata rilevata la presenza di amianto di tipo crisotilo in concentrazione inferiore al limite di rilevabilità della metodica quantitativa sopra indicata.

Responsabile prove chimiche**Dott. Federico Perin**

Chimico
Ordine dei chimici - Provincia di Treviso
Iscrizione n. A338

Num. certificato 18131919 emesso dall'ente
certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC
S.p.A., IT

Responsabile laboratorio**Dott. Sébastien Moulard**

Num. certificato 18132017 emesso dall'ente
certificatore ArubaPEC S.p.A. NG CA 3, ArubaPEC
S.p.A., IT

- La riga contrassegnata da asterisco (*) indica che la prova non è accreditata da Accredia. - Se non diversamente specificato, l'incertezza è estesa ed è stata calcolata con un fattore di copertura $k=2$ corrispondente ad un livello di probabilità di circa il 95% o come intervallo di confidenza calcolato ad un livello di probabilità di circa il 95%. - RL: limite di quantificazione; "<x" o ">x" indicano rispettivamente un valore inferiore o superiore al campo di misura della prova. - Se non diversamente specificato, le sommatorie sono calcolate mediante il criterio del lower bound (L.B.) - Iscrizione al numero 7 dell'elenco regionale della Regione Veneto dei laboratori che effettuano analisi nell'ambito delle procedure di autocontrollo delle industrie alimentari, come da Allegato A del D.D.R. n. 73 del 16 gennaio 2008. - R: recupero, i recuperi contrassegnati da asterisco non sono stati utilizzati nei calcoli. - Qualora sia presente una specifica (limiti di legge o specifiche cliente) con cui sono stati confrontati i risultati analitici, i valori esposti in grassetto indicano un risultato fuori da tale specifica. - Se non diversamente specificato i giudizi di conformità/non conformità eventualmente riportati si riferiscono ai parametri analizzati e si basano sul confronto del valore con i valori di riferimento senza considerare l'intervallo di confidenza della misura.

Rapporto di prova n°: 20LA00145 del 03/02/2020



Spett.
**AIPO- AGENZIA INTERREG. PER IL FIUME
PO**
Via Garibaldi, 75
43100 PARMA (PR)

Dati relativi al campione
Campione numero: 20LA00145

Ordine di accettazione numero: 20-000114

Descrizione campione: Terreno da scavo

Punto di prelievo: Scavo 1 (profondità da -1,60 a -2,10m)

Campionamento effettuato da: Davide Montanari

Campionato il: 10/01/2020

Ricevuto/Acettato il: 10/01/2020

Data inizio analisi: 13/01/2020

Data fine analisi: 17/01/2020

Metodiche di campionamento

* **M929** - D.Lgs. n.152 del 03/04/2006 - Parte IV - Allegato 2 al Titolo V

Risultati analitici

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
* AMIANTO <i>M1543 Rev.0 2012 (amianto in terre e rocce da scavo) -</i>	mg/kg s.s.	< 100		1000	
* VAGLIO tra 2 cm e 2 mm <i>-</i>	%	0			
* SOTTOVAGLIO 2mm <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.1 -</i>	%	100			
RESIDUO SECCO A 105°C <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.2 -</i>	%	72,42	±0,37		
ARSENICO (As) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	11	±3	20	
CADMIO (Cd) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	1,2	±0,3	2	
COBALTO (Co) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	13	±3	20	
CROMO (Cr) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	89	±21	150	
CROMO ESAVALENTE <i>EPA 3060A 1996 + EPA 7196A 1992 -</i>	mg/kg s.s.	< 0,2		2	
MERCURIO (Hg) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,22	±0,05	1	
NICHEL (Ni) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	84	±20	120	
PIOMBO (Pb) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	63	±15	100	
RAME (Cu) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	57	±14	120	
ZINCO (Zn) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	180	±45	150	

segue Rapporto di prova n°: 20LA00145 del 03/02/2020

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
IDROCARBURI C > 12 (C12-C40) ISO 16703:2004 -	mg/kg s.s.	43	±9	50	90

Limiti: » D.Lgs. n.152/06 Parte Quarta Titolo V Allegato 5 Tabella 1 A: Siti ad uso verde pubblico, privato.

■ i parametri contraddistinti dal simbolo a lato sono fuori limite.

(*): i parametri contrassegnati con l'asterisco non rientrano tra quelli accreditati dal laboratorio

L'incertezza è espressa nelle unità di misura del parametro a cui si riferiscono. Il fattore di copertura è pari a k=2 con un intervallo di probabilità del 95% e gradi di libertà >= 10.

Note relative ai controlli:

I risultati analitici si riferiscono esclusivamente al campione sottoposto a prova.

La riproduzione parziale del presente rapporto di prova non è consentita senza autorizzazione scritta del laboratorio.

Riconoscimenti del laboratorio

- Accreditato ACCREDIA secondo la norma UNI CEI EN ISO/IEC 17025:2018 con il N°0231. (L'accreditamento non implica l'approvazione del prodotto da parte del laboratorio o dell'organismo accreditante).
- Certificato UNI EN ISO 9001:2015 n.14586.
- Iscritto al n. provvisorio 008/RE/005 del registro Regione Emilia Romagna dei laboratori abilitati a svolgere analisi nell'ambito delle procedure di autocontrollo delle imprese alimentari (riconoscimento con validità nazionale).
- Qualificato dal Ministero della Salute a svolgere attività analitiche sull'amianto ai sensi del DM 14/05/96 (codice lab. 86EMR4)
- Riconosciuto ai fini dei requisiti di idoneità tecnica ai gruppi di prodotti Ecolabel "COPERTURE DURE" cod.021 secondo la Decisione della Commissione del 9 luglio 2009 (2009/607/CE) pubblicata sulla GUUE del 12/08/2009 L. 208.
- Iscritto all'Albo Nazionale Gestori Ambientali nella Categoria 9, classe D, ai sensi dell'art. 212 del D.Lgs. 152/06.



Responsabile del Laboratorio

Dott. Ferrari Massimo

DOCUMENTO FIRMATO DIGITALMENTE SECONDO LE NORME VIGENTI.

Fine del Rapporto di Prova

Rapporto di prova n°: 20LA00146 del 03/02/2020



Spett.
**AIPO- AGENZIA INTERREG. PER IL FIUME
PO**
Via Garibaldi, 75
43100 PARMA (PR)

Dati relativi al campione
Campione numero: 20LA00146

Ordine di accettazione numero: 20-000114

Descrizione campione: Terreno da scavo

Punto di prelievo: Scavo 2 (profondità da -0,40 a -1,00m)

Campionamento effettuato da: Davide Montanari

Campionato il: 10/01/2020

Ricevuto/Acettato il: 10/01/2020

Data inizio analisi: 13/01/2020

Data fine analisi: 17/01/2020

Metodiche di campionamento

* **M929** - D.Lgs. n.152 del 03/04/2006 - Parte IV - Allegato 2 al Titolo V

Risultati analitici

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
* AMIANTO <i>M1543 Rev.0 2012 (amianto in terre e rocce da scavo) -</i>	mg/kg s.s.	< 100		1000	
* VAGLIO tra 2 cm e 2 mm <i>-</i>	%	0			
* SOTTOVAGLIO 2mm <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.1 -</i>	%	100			
RESIDUO SECCO A 105°C <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.2 -</i>	%	74,00	±0,38		
ARSENICO (As) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	5,8	±1,4	20	
CADMIO (Cd) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,47	±0,11	2	
COBALTO (Co) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	9,6	±2,2	20	
CROMO (Cr) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	54	±13	150	
CROMO ESAVALENTE <i>EPA 3060A 1996 + EPA 7196A 1992 -</i>	mg/kg s.s.	< 0,2		2	
MERCURIO (Hg) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,07	±0,02	1	
NICHEL (Ni) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	70	±17	120	
PIOMBO (Pb) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	29	±7	100	
RAME (Cu) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	35	±8	120	
ZINCO (Zn) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	93	±23	150	

segue Rapporto di prova n°: 20LA00146 del 03/02/2020

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
IDROCARBURI C > 12 (C12-C40) ISO 16703:2004 -	mg/kg s.s.	26	±5	50	90

Limiti: » D.Lgs. n.152/06 Parte Quarta Titolo V Allegato 5 Tabella 1 A: Siti ad uso verde pubblico, privato.

(*) i parametri contrassegnati con l'asterisco non rientrano tra quelli accreditati dal laboratorio

L'incertezza è espressa nelle unità di misura del parametro a cui si riferiscono. Il fattore di copertura è pari a k=2 con un intervallo di probabilità del 95% e gradi di libertà >= 10.

Note relative ai controlli:

I risultati analitici si riferiscono esclusivamente al campione sottoposto a prova.


La riproduzione parziale del presente rapporto di prova non è consentita senza autorizzazione scritta del laboratorio.

Riconoscimenti del laboratorio

- Accreditato ACCREDIA secondo la norma UNI CEI EN ISO/IEC 17025:2018 con il N°0231. (L'accreditamento non implica l'approvazione del prodotto da parte del laboratorio o dell'organismo accreditante).
- Certificato UNI EN ISO 9001:2015 n.14586.
- Iscritto al n. provvisorio 008/RE/005 del registro Regione Emilia Romagna dei laboratori abilitati a svolgere analisi nell'ambito delle procedure di autocontrollo delle imprese alimentari (riconoscimento con validità nazionale).
- Qualificato dal Ministero della Salute a svolgere attività analitiche sull'amianto ai sensi del DM 14/05/96 (codice lab. 86EMR4)
- Riconosciuto ai fini dei requisiti di idoneità tecnica ai gruppi di prodotti Ecolabel "COPERTURE DURE" cod.021 secondo la Decisione della Commissione del 9 luglio 2009 (2009/607/CE) pubblicata sulla GUUE del 12/08/2009 L. 208.
- Iscritto all'Albo Nazionale Gestori Ambientali nella Categoria 9, classe D, ai sensi dell'art. 212 del D.Lgs. 152/06.



Responsabile del Laboratorio


Dott. Ferrari Massimo

DOCUMENTO FIRMATO DIGITALMENTE SECONDO LE NORME VIGENTI.

Fine del Rapporto di Prova

Rapporto di prova n°: 20LA00147 del 03/02/2020



Spett.
**AIPO- AGENZIA INTERREG. PER IL FIUME
PO**
Via Garibaldi, 75
43100 PARMA (PR)

Dati relativi al campione
Campione numero: 20LA00147

Ordine di accettazione numero: 20-000114

Descrizione campione: Terreno da scavo

Punto di prelievo: Scavo 3 (profondità da -0.35 a -1,00 m)

Campionamento effettuato da: Davide Montanari

Campionato il: 10/01/2020

Ricevuto/Acettato il: 10/01/2020

Data inizio analisi: 13/01/2020

Data fine analisi: 17/01/2020

Metodiche di campionamento

* **M929** - D.Lgs. n.152 del 03/04/2006 - Parte IV - Allegato 2 al Titolo V

Risultati analitici

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
* AMIANTO <i>M1543 Rev.0 2012 (amianto in terre e rocce da scavo) -</i>	mg/kg s.s.	< 100		1000	
* VAGLIO tra 2 cm e 2 mm <i>-</i>	%	0			
* SOTTOVAGLIO 2mm <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.1 -</i>	%	100			
RESIDUO SECCO A 105°C <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.2 -</i>	%	75,71	±0,39		
ARSENICO (As) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	8,5	±2,0	20	
CADMIO (Cd) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,83	±0,191	2	
COBALTO (Co) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	11	±3	20	
CROMO (Cr) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	69	±17	150	
CROMO ESAVALENTE <i>EPA 3060A 1996 + EPA 7196A 1992 -</i>	mg/kg s.s.	< 0,2		2	
MERCURIO (Hg) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,15	±0,04	1	
NICHEL (Ni) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	76	±18	120	
PIOMBO (Pb) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	49	±12	100	
RAME (Cu) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	46	±11	120	
ZINCO (Zn) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	145	±36	150	

segue Rapporto di prova n°: 20LA00147 del 03/02/2020

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
IDROCARBURI C > 12 (C12-C40) ISO 16703:2004 -	mg/kg s.s.	42	±8	50	90

Limiti: » D.Lgs. n.152/06 Parte Quarta Titolo V Allegato 5 Tabella 1 A: Siti ad uso verde pubblico, privato.

(*) i parametri contrassegnati con l'asterisco non rientrano tra quelli accreditati dal laboratorio

L'incertezza è espressa nelle unità di misura del parametro a cui si riferiscono. Il fattore di copertura è pari a k=2 con un intervallo di probabilità del 95% e gradi di libertà >= 10.

Note relative ai controlli:

I risultati analitici si riferiscono esclusivamente al campione sottoposto a prova.


La riproduzione parziale del presente rapporto di prova non è consentita senza autorizzazione scritta del laboratorio.

Riconoscimenti del laboratorio

- Accreditato ACCREDIA secondo la norma UNI CEI EN ISO/IEC 17025:2018 con il N°0231. (L'accreditamento non implica l'approvazione del prodotto da parte del laboratorio o dell'organismo accreditante).
- Certificato UNI EN ISO 9001:2015 n.14586.
- Iscritto al n. provvisorio 008/RE/005 del registro Regione Emilia Romagna dei laboratori abilitati a svolgere analisi nell'ambito delle procedure di autocontrollo delle imprese alimentari (riconoscimento con validità nazionale).
- Qualificato dal Ministero della Salute a svolgere attività analitiche sull'amianto ai sensi del DM 14/05/96 (codice lab. 86EMR4)
- Riconosciuto ai fini dei requisiti di idoneità tecnica ai gruppi di prodotti Ecolabel "COPERTURE DURE" cod.021 secondo la Decisione della Commissione del 9 luglio 2009 (2009/607/CE) pubblicata sulla GUUE del 12/08/2009 L. 208.
- Iscritto all'Albo Nazionale Gestori Ambientali nella Categoria 9, classe D, ai sensi dell'art. 212 del D.Lgs. 152/06.



Responsabile del Laboratorio


Dott. Ferrari Massimo

DOCUMENTO FIRMATO DIGITALMENTE SECONDO LE NORME VIGENTI.

Fine del Rapporto di Prova

Rapporto di prova n°: 20LA00148 del 03/02/2020



Spett.
**AIPO- AGENZIA INTERREG. PER IL FIUME
PO**
Via Garibaldi, 75
43100 PARMA (PR)

Dati relativi al campione
Campione numero: 20LA00148

Ordine di accettazione numero: 20-000114

Descrizione campione: Terreno da scavo

Punto di prelievo: Scavo 4 (profondità da -0,50 a -1,10m)

Campionamento effettuato da: Davide Montanari

Campionato il: 10/01/2020

Ricevuto/Acettato il: 10/01/2020

Data inizio analisi: 13/01/2020

Data fine analisi: 17/01/2020

Metodiche di campionamento

* **M929** - D.Lgs. n.152 del 03/04/2006 - Parte IV - Allegato 2 al Titolo V

Risultati analitici

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
* AMIANTO <i>M1543 Rev.0 2012 (amianto in terre e rocce da scavo) -</i>	mg/kg s.s.	< 100		1000	
* VAGLIO tra 2 cm e 2 mm <i>-</i>	%	0			
* SOTTOVAGLIO 2mm <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.1 -</i>	%	100			
RESIDUO SECCO A 105°C <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.2 -</i>	%	75,49	±0,39		
ARSENICO (As) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	5,9	±1,4	20	
CADMIO (Cd) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,50	±0,12	2	
COBALTO (Co) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	10	±2	20	
CROMO (Cr) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	57	±14	150	
CROMO ESAVALENTE <i>EPA 3060A 1996 + EPA 7196A 1992 -</i>	mg/kg s.s.	< 0,2		2	
MERCURIO (Hg) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,061	±0,015	1	
NICHEL (Ni) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	74	±18	120	
PIOMBO (Pb) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	25	±6	100	
RAME (Cu) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	34	±8	120	
ZINCO (Zn) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	96	±24	150	

segue Rapporto di prova n°: 20LA00148 del 03/02/2020

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
IDROCARBURI C > 12 (C12-C40) ISO 16703:2004 -	mg/kg s.s.	33	±7	50	90

Limiti: » D.Lgs. n.152/06 Parte Quarta Titolo V Allegato 5 Tabella 1 A: Siti ad uso verde pubblico, privato.

(*) i parametri contrassegnati con l'asterisco non rientrano tra quelli accreditati dal laboratorio

L'incertezza è espressa nelle unità di misura del parametro a cui si riferiscono. Il fattore di copertura è pari a k=2 con un intervallo di probabilità del 95% e gradi di libertà >= 10.

Note relative ai controlli:

I risultati analitici si riferiscono esclusivamente al campione sottoposto a prova.


La riproduzione parziale del presente rapporto di prova non è consentita senza autorizzazione scritta del laboratorio.

Riconoscimenti del laboratorio

- Accreditato ACCREDIA secondo la norma UNI CEI EN ISO/IEC 17025:2018 con il N°0231. (L'accreditamento non implica l'approvazione del prodotto da parte del laboratorio o dell'organismo accreditante).
- Certificato UNI EN ISO 9001:2015 n.14586.
- Iscritto al n. provvisorio 008/RE/005 del registro Regione Emilia Romagna dei laboratori abilitati a svolgere analisi nell'ambito delle procedure di autocontrollo delle imprese alimentari (riconoscimento con validità nazionale).
- Qualificato dal Ministero della Salute a svolgere attività analitiche sull'amianto ai sensi del DM 14/05/96 (codice lab. 86EMR4)
- Riconosciuto ai fini dei requisiti di idoneità tecnica ai gruppi di prodotti Ecolabel "COPERTURE DURE" cod.021 secondo la Decisione della Commissione del 9 luglio 2009 (2009/607/CE) pubblicata sulla GUUE del 12/08/2009 L. 208.
- Iscritto all'Albo Nazionale Gestori Ambientali nella Categoria 9, classe D, ai sensi dell'art. 212 del D.Lgs. 152/06.



Responsabile del Laboratorio


Dott. Ferrari Massimo

DOCUMENTO FIRMATO DIGITALMENTE SECONDO LE NORME VIGENTI.

Fine del Rapporto di Prova

Rapporto di prova n°: 20LA00149 del 03/02/2020



Spett.
**AIPO- AGENZIA INTERREG. PER IL FIUME
PO**
Via Garibaldi, 75
43100 PARMA (PR)

Dati relativi al campione
Campione numero: 20LA00149

Ordine di accettazione numero: 20-000114

Descrizione campione: Terreno da scavo

Punto di prelievo: Scavo 5 (profondità da -0,30 a -0,80m)

Campionamento effettuato da: Davide Montanari

Campionato il: 10/01/2020

Ricevuto/Acettato il: 10/01/2020

Data inizio analisi: 13/01/2020

Data fine analisi: 17/01/2020

Metodiche di campionamento

* **M929** - D.Lgs. n.152 del 03/04/2006 - Parte IV - Allegato 2 al Titolo V

Risultati analitici

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
* AMIANTO <i>M1543 Rev.0 2012 (amianto in terre e rocce da scavo) -</i>	mg/kg s.s.	< 100		1000	
* VAGLIO tra 2 cm e 2 mm <i>-</i>	%	0			
* SOTTOVAGLIO 2mm <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.1 -</i>	%	100			
RESIDUO SECCO A 105°C <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.2 -</i>	%	80,01	±0,41		
ARSENICO (As) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	5,2	±1,2	20	
CADMIO (Cd) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,39	±0,09	2	
COBALTO (Co) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	8,9	±2,0	20	
CROMO (Cr) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	56	±13	150	
CROMO ESAVALENTE <i>EPA 3060A 1996 + EPA 7196A 1992 -</i>	mg/kg s.s.	< 0,2		2	
MERCURIO (Hg) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,06	±0,01	1	
NICHEL (Ni) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	66	±16	120	
PIOMBO (Pb) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	21	±5	100	
RAME (Cu) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	27	±6	120	
ZINCO (Zn) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	90	±23	150	

segue Rapporto di prova n°: 20LA00149 del 03/02/2020

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
IDROCARBURI C > 12 (C12-C40) ISO 16703:2004 -	mg/kg s.s.	31	±6	50	90

Limiti: » D.Lgs. n.152/06 Parte Quarta Titolo V Allegato 5 Tabella 1 A: Siti ad uso verde pubblico, privato.

(*) i parametri contrassegnati con l'asterisco non rientrano tra quelli accreditati dal laboratorio

L'incertezza è espressa nelle unità di misura del parametro a cui si riferiscono. Il fattore di copertura è pari a k=2 con un intervallo di probabilità del 95% e gradi di libertà >= 10.

Note relative ai controlli:

I risultati analitici si riferiscono esclusivamente al campione sottoposto a prova.

La riproduzione parziale del presente rapporto di prova non è consentita senza autorizzazione scritta del laboratorio.

Riconoscimenti del laboratorio

- Accreditato ACCREDIA secondo la norma UNI CEI EN ISO/IEC 17025:2018 con il N°0231. (L'accreditamento non implica l'approvazione del prodotto da parte del laboratorio o dell'organismo accreditante).
- Certificato UNI EN ISO 9001:2015 n.14586.
- Iscritto al n. provvisorio 008/RE/005 del registro Regione Emilia Romagna dei laboratori abilitati a svolgere analisi nell'ambito delle procedure di autocontrollo delle imprese alimentari (riconoscimento con validità nazionale).
- Qualificato dal Ministero della Salute a svolgere attività analitiche sull'amianto ai sensi del DM 14/05/96 (codice lab. 86EMR4)
- Riconosciuto ai fini dei requisiti di idoneità tecnica ai gruppi di prodotti Ecolabel "COPERTURE DURE" cod.021 secondo la Decisione della Commissione del 9 luglio 2009 (2009/607/CE) pubblicata sulla GUUE del 12/08/2009 L. 208.
- Iscritto all'Albo Nazionale Gestori Ambientali nella Categoria 9, classe D, ai sensi dell'art. 212 del D.Lgs. 152/06.



Responsabile del Laboratorio


Dott. Ferrari Massimo

DOCUMENTO FIRMATO DIGITALMENTE SECONDO LE NORME VIGENTI.

Fine del Rapporto di Prova

Rapporto di prova n°: 20LA00150 del 03/02/2020



Spett.
**AIPO- AGENZIA INTERREG. PER IL FIUME
PO**
Via Garibaldi, 75
43100 PARMA (PR)

Dati relativi al campione
Campione numero: 20LA00150

Ordine di accettazione numero: 20-000114

Descrizione campione: Terreno da scavo

Punto di prelievo: Scavo 6 (profondità da -0,25 a -0,60m)

Campionamento effettuato da: Davide Montanari

Campionato il: 10/01/2020

Ricevuto/Acettato il: 10/01/2020

Data inizio analisi: 13/01/2020

Data fine analisi: 17/01/2020

Metodiche di campionamento

* **M929** - D.Lgs. n.152 del 03/04/2006 - Parte IV - Allegato 2 al Titolo V

Risultati analitici

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
* AMIANTO <i>M1543 Rev.0 2012 (amianto in terre e rocce da scavo) -</i>	mg/kg s.s.	< 100		1000	
* VAGLIO tra 2 cm e 2 mm <i>-</i>	%	0			
* SOTTOVAGLIO 2mm <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.1 -</i>	%	100			
RESIDUO SECCO A 105°C <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.2 -</i>	%	83,66	±0,43		
ARSENICO (As) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	5,4	±1,3	20	
CADMIO (Cd) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,40	±0,09	2	
COBALTO (Co) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	8,2	±1,9	20	
CROMO (Cr) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	48	±12	150	
CROMO ESAVALENTE <i>EPA 3060A 1996 + EPA 7196A 1992 -</i>	mg/kg s.s.	< 0,2		2	
MERCURIO (Hg) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,079	±0,019	1	
NICHEL (Ni) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	60	±14	120	
PIOMBO (Pb) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	25	±6	100	
RAME (Cu) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	27	±6	120	
ZINCO (Zn) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	89	±22	150	

segue Rapporto di prova n°: 20LA00150 del 03/02/2020

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
IDROCARBURI C > 12 (C12-C40) ISO 16703:2004 -	mg/kg s.s.	13	±3	50	90

Limiti: » D.Lgs. n.152/06 Parte Quarta Titolo V Allegato 5 Tabella 1 A: Siti ad uso verde pubblico, privato.

(*) i parametri contrassegnati con l'asterisco non rientrano tra quelli accreditati dal laboratorio

L'incertezza è espressa nelle unità di misura del parametro a cui si riferiscono. Il fattore di copertura è pari a k=2 con un intervallo di probabilità del 95% e gradi di libertà >= 10.

Note relative ai controlli:

I risultati analitici si riferiscono esclusivamente al campione sottoposto a prova.


La riproduzione parziale del presente rapporto di prova non è consentita senza autorizzazione scritta del laboratorio.

Riconoscimenti del laboratorio

- Accreditato ACCREDIA secondo la norma UNI CEI EN ISO/IEC 17025:2018 con il N°0231. (L'accreditamento non implica l'approvazione del prodotto da parte del laboratorio o dell'organismo accreditante).
- Certificato UNI EN ISO 9001:2015 n.14586.
- Iscritto al n. provvisorio 008/RE/005 del registro Regione Emilia Romagna dei laboratori abilitati a svolgere analisi nell'ambito delle procedure di autocontrollo delle imprese alimentari (riconoscimento con validità nazionale).
- Qualificato dal Ministero della Salute a svolgere attività analitiche sull'amianto ai sensi del DM 14/05/96 (codice lab. 86EMR4)
- Riconosciuto ai fini dei requisiti di idoneità tecnica ai gruppi di prodotti Ecolabel "COPERTURE DURE" cod.021 secondo la Decisione della Commissione del 9 luglio 2009 (2009/607/CE) pubblicata sulla GUUE del 12/08/2009 L. 208.
- Iscritto all'Albo Nazionale Gestori Ambientali nella Categoria 9, classe D, ai sensi dell'art. 212 del D.Lgs. 152/06.



Responsabile del Laboratorio


Dott. Ferrari Massimo

DOCUMENTO FIRMATO DIGITALMENTE SECONDO LE NORME VIGENTI.

Fine del Rapporto di Prova

Rapporto di prova n°: 20LA00151 del 03/02/2020



Spett.
**AIPO- AGENZIA INTERREG. PER IL FIUME
PO**
Via Garibaldi, 75
43100 PARMA (PR)

Dati relativi al campione
Campione numero: 20LA00151

Ordine di accettazione numero: 20-000114

Descrizione campione: Terreno da scavo

Punto di prelievo: Scavo 7 (profondità da -0,30 a -0,90m)

Campionamento effettuato da: Davide Montanari

Campionato il: 10/01/2020

Ricevuto/Acettato il: 10/01/2020

Data inizio analisi: 13/01/2020

Data fine analisi: 17/01/2020

Metodiche di campionamento

* **M929** - D.Lgs. n.152 del 03/04/2006 - Parte IV - Allegato 2 al Titolo V

Risultati analitici

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
* AMIANTO <i>M1543 Rev.0 2012 (amianto in terre e rocce da scavo) -</i>	mg/kg s.s.	< 100		1000	
* VAGLIO tra 2 cm e 2 mm <i>-</i>	%	0			
* SOTTOVAGLIO 2mm <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.1 -</i>	%	100			
RESIDUO SECCO A 105°C <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.2 -</i>	%	82,12	±0,42		
ARSENICO (As) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	5,6	±1,3	20	
CADMIO (Cd) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,53	±0,12	2	
COBALTO (Co) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	8,6	±2,0	20	
CROMO (Cr) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	50	±12	150	
CROMO ESAVALENTE <i>EPA 3060A 1996 + EPA 7196A 1992 -</i>	mg/kg s.s.	< 0,2		2	
MERCURIO (Hg) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,081	±0,019	1	
NICHEL (Ni) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	61	±15	120	
PIOMBO (Pb) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	28	±7	100	
RAME (Cu) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	28	±7	120	
ZINCO (Zn) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	109	±27	150	

segue Rapporto di prova n°: 20LA00151 del 03/02/2020

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
IDROCARBURI C > 12 (C12-C40) ISO 16703:2004 -	mg/kg s.s.	14	±3	50	90

Limiti: » D.Lgs. n.152/06 Parte Quarta Titolo V Allegato 5 Tabella 1 A: Siti ad uso verde pubblico, privato.

(*) i parametri contrassegnati con l'asterisco non rientrano tra quelli accreditati dal laboratorio

L'incertezza è espressa nelle unità di misura del parametro a cui si riferiscono. Il fattore di copertura è pari a k=2 con un intervallo di probabilità del 95% e gradi di libertà >= 10.

Note relative ai controlli:

I risultati analitici si riferiscono esclusivamente al campione sottoposto a prova.

La riproduzione parziale del presente rapporto di prova non è consentita senza autorizzazione scritta del laboratorio.

Riconoscimenti del laboratorio

- Accreditato ACCREDIA secondo la norma UNI CEI EN ISO/IEC 17025:2018 con il N°0231. (L'accreditamento non implica l'approvazione del prodotto da parte del laboratorio o dell'organismo accreditante).
- Certificato UNI EN ISO 9001:2015 n.14586.
- Iscritto al n. provvisorio 008/RE/005 del registro Regione Emilia Romagna dei laboratori abilitati a svolgere analisi nell'ambito delle procedure di autocontrollo delle imprese alimentari (riconoscimento con validità nazionale).
- Qualificato dal Ministero della Salute a svolgere attività analitiche sull'amianto ai sensi del DM 14/05/96 (codice lab. 86EMR4)
- Riconosciuto ai fini dei requisiti di idoneità tecnica ai gruppi di prodotti Ecolabel "COPERTURE DURE" cod.021 secondo la Decisione della Commissione del 9 luglio 2009 (2009/607/CE) pubblicata sulla GUUE del 12/08/2009 L. 208.
- Iscritto all'Albo Nazionale Gestori Ambientali nella Categoria 9, classe D, ai sensi dell'art. 212 del D.Lgs. 152/06.



Responsabile del Laboratorio


Dott. Ferrari Massimo

DOCUMENTO FIRMATO DIGITALMENTE SECONDO LE NORME VIGENTI.

Fine del Rapporto di Prova

Rapporto di prova n°: 20LA00152 del 03/02/2020



Spett.
**AIPO- AGENZIA INTERREG. PER IL FIUME
PO**
Via Garibaldi, 75
43100 PARMA (PR)

Dati relativi al campione
Campione numero: 20LA00152

Ordine di accettazione numero: 20-000114

Descrizione campione: Terreno da scavo

Punto di prelievo: Scavo 8 (profondità da -0,30 a -0,80m)

Campionamento effettuato da: Davide Montanari

Campionato il: 10/01/2020

Ricevuto/Acettato il: 10/01/2020

Data inizio analisi: 13/01/2020

Data fine analisi: 17/01/2020

Metodiche di campionamento

* **M929** - D.Lgs. n.152 del 03/04/2006 - Parte IV - Allegato 2 al Titolo V

Risultati analitici

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
* AMIANTO <i>M1543 Rev.0 2012 (amianto in terre e rocce da scavo) -</i>	mg/kg s.s.	< 100		1000	
* VAGLIO tra 2 cm e 2 mm <i>-</i>	%	0			
* SOTTOVAGLIO 2mm <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.1 -</i>	%	100			
RESIDUO SECCO A 105°C <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.2 -</i>	%	73,42	±0,37		
ARSENICO (As) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	6,1	±1,5	20	
CADMIO (Cd) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,45	±0,10	2	
COBALTO (Co) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	9,4	±2,2	20	
CROMO (Cr) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	52	±12	150	
CROMO ESAVALENTE <i>EPA 3060A 1996 + EPA 7196A 1992 -</i>	mg/kg s.s.	< 0,2		2	
MERCURIO (Hg) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,10	±0,02	1	
NICHEL (Ni) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	67	±16	120	
PIOMBO (Pb) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	28	±7	100	
RAME (Cu) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	31	±7	120	
ZINCO (Zn) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	94	±24	150	

segue Rapporto di prova n°: 20LA00152 del 03/02/2020

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
IDROCARBURI C > 12 (C12-C40) ISO 16703:2004 -	mg/kg s.s.	14	±3	50	90

Limiti: » D.Lgs. n.152/06 Parte Quarta Titolo V Allegato 5 Tabella 1 A: Siti ad uso verde pubblico, privato.

(*) i parametri contrassegnati con l'asterisco non rientrano tra quelli accreditati dal laboratorio

L'incertezza è espressa nelle unità di misura del parametro a cui si riferiscono. Il fattore di copertura è pari a k=2 con un intervallo di probabilità del 95% e gradi di libertà >= 10.

Note relative ai controlli:

I risultati analitici si riferiscono esclusivamente al campione sottoposto a prova.


La riproduzione parziale del presente rapporto di prova non è consentita senza autorizzazione scritta del laboratorio.

Riconoscimenti del laboratorio

- Accreditato ACCREDIA secondo la norma UNI CEI EN ISO/IEC 17025:2018 con il N°0231. (L'accreditamento non implica l'approvazione del prodotto da parte del laboratorio o dell'organismo accreditante).
- Certificato UNI EN ISO 9001:2015 n.14586.
- Iscritto al n. provvisorio 008/RE/005 del registro Regione Emilia Romagna dei laboratori abilitati a svolgere analisi nell'ambito delle procedure di autocontrollo delle imprese alimentari (riconoscimento con validità nazionale).
- Qualificato dal Ministero della Salute a svolgere attività analitiche sull'amianto ai sensi del DM 14/05/96 (codice lab. 86EMR4)
- Riconosciuto ai fini dei requisiti di idoneità tecnica ai gruppi di prodotti Ecolabel "COPERTURE DURE" cod.021 secondo la Decisione della Commissione del 9 luglio 2009 (2009/607/CE) pubblicata sulla GUUE del 12/08/2009 L. 208.
- Iscritto all'Albo Nazionale Gestori Ambientali nella Categoria 9, classe D, ai sensi dell'art. 212 del D.Lgs. 152/06.



Responsabile del Laboratorio


Dott. Ferrari Massimo

DOCUMENTO FIRMATO DIGITALMENTE SECONDO LE NORME VIGENTI.

Fine del Rapporto di Prova

Rapporto di prova n°: 20LA01797 del 12/03/2020



Spett.
**AIPO- AGENZIA INTERREG. PER IL FIUME
PO**
Via Garibaldi, 75
43100 PARMA (PR)

Dati relativi al campione
Campione numero: 20LA01797

Ordine di accettazione numero: 20-001368

Descrizione campione: Terreno da scavo 9

Punto di prelievo: Sondaggio 9 (profondità da -0,5 a -2m)

Campionamento effettuato da: Davide Montanari

Campionato il: 11/02/2020

Ricevuto/Acettato il: 11/02/2020

Data inizio analisi: 13/02/2020

Data fine analisi: 20/02/2020

Metodiche di campionamento

* **M929** - D.Lgs. n.152 del 03/04/2006 - Parte IV - Allegato 2 al Titolo V

Risultati analitici

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
* AMIANTO <i>M1543 Rev.0 2012 (amianto in terre e rocce da scavo) -</i>	mg/kg s.s.	< 100		1000	
* VAGLIO tra 2 cm e 2 mm <i>-</i>	%	0			
* SOTTOVAGLIO 2mm <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.1 -</i>	%	100			
RESIDUO SECCO A 105°C <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.2 -</i>	%	74,50	±0,38		
ARSENICO (As) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	8,2	±2,0	20	
CADMIO (Cd) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,89	±0,21	2	
COBALTO (Co) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	12	±3	20	
CROMO (Cr) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	80	±19	150	
CROMO ESAVALENTE <i>EPA 3060A 1996 + EPA 7196A 1992 -</i>	mg/kg s.s.	< 0,2		2	
MERCURIO (Hg) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,19	±0,05	1	
NICHEL (Ni) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	89	±21	120	
PIOMBO (Pb) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	41	±10	100	
RAME (Cu) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	55	±13	120	
ZINCO (Zn) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	169	±42	150	

segue Rapporto di prova n°: 20LA01797 del 12/03/2020

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
IDROCARBURI C > 12 (C12-C40) ISO 16703:2004 -	mg/kg s.s.	9,5	±1,9	50	90

Limiti: » D.Lgs. n.152/06 Parte Quarta Titolo V Allegato 5 Tabella 1 A: Siti ad uso verde pubblico, privato.

■ i parametri contraddistinti dal simbolo a lato sono fuori limite.

(*): i parametri contrassegnati con l'asterisco non rientrano tra quelli accreditati dal laboratorio

L'incertezza è espressa nelle unità di misura del parametro a cui si riferiscono. Il fattore di copertura è pari a k=2 con un intervallo di probabilità del 95% e gradi di libertà >= 10.

Note relative ai controlli:

Per i metodi che prevedono determinazioni di residui/tracce e quando la procedura di pretrattamento (es. concentrazione/purificazione/estrazione) può influenzare il recupero, il risultato analitico è corretto per il fattore di recupero. Tale valore è riportato nell'apposita colonna. Per i metodi accreditati che prevedono l'impiego di standard interni è stato verificato che il recupero degli stessi rientri nel range previsto dal metodo e il calcolo della concentrazione finale viene riportato già corretto del recupero. I risultati analitici si riferiscono esclusivamente al campione sottoposto a prova.

La riproduzione parziale del presente rapporto di prova non è consentita senza autorizzazione scritta del laboratorio.

Riconoscimenti del laboratorio

- Accreditato ACCREDIA secondo la norma UNI CEI EN ISO/IEC 17025:2018 con il N°0231. (L'accreditamento non implica l'approvazione del prodotto da parte del laboratorio o dell'organismo accreditante).
- Certificato UNI EN ISO 9001:2015 n.14586.
- Iscritto al n. provvisorio 008/RE/005 del registro Regione Emilia Romagna dei laboratori abilitati a svolgere analisi nell'ambito delle procedure di autocontrollo delle imprese alimentari (riconoscimento con validità nazionale).
- Qualificato dal Ministero della Salute a svolgere attività analitiche sull'amianto ai sensi del DM 14/05/96 (codice lab. 86EMR4)
- Riconosciuto ai fini dei requisiti di idoneità tecnica ai gruppi di prodotti Ecolabel "COPERTURE DURE" cod.021 secondo la Decisione della Commissione del 9 luglio 2009 (2009/607/CE) pubblicata sulla GUUE del 12/08/2009 L. 208.
- Iscritto all'Albo Nazionale Gestori Ambientali nella Categoria 9, classe D, ai sensi dell'art. 212 del D.Lgs. 152/06.



Responsabile del Laboratorio

Dott. Ferrari Massimo

DOCUMENTO FIRMATO DIGITALMENTE SECONDO LE NORME VIGENTI.

Fine del Rapporto di Prova

Rapporto di prova n°: 20LA01798 del 12/03/2020



Spett.
**AIPO- AGENZIA INTERREG. PER IL FIUME
PO**
Via Garibaldi, 75
43100 PARMA (PR)

Dati relativi al campione
Campione numero: 20LA01798

Ordine di accettazione numero: 20-001368

Descrizione campione: Terreno da scavo 10

Punto di prelievo: Sondaggio10 (profondità da -0,4 a -2m)

Campionamento effettuato da: Davide Montanari

Campionato il: 11/02/2020

Ricevuto/Acettato il: 11/02/2020

Data inizio analisi: 13/02/2020

Data fine analisi: 20/02/2020

Metodiche di campionamento

* **M929** - D.Lgs. n.152 del 03/04/2006 - Parte IV - Allegato 2 al Titolo V

Risultati analitici

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
* AMIANTO <i>M1543 Rev.0 2012 (amianto in terre e rocce da scavo) -</i>	mg/kg s.s.	< 100		1000	
* VAGLIO tra 2 cm e 2 mm <i>-</i>	%	0			
* SOTTOVAGLIO 2mm <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.1 -</i>	%	100			
RESIDUO SECCO A 105°C <i>DM 13/09/1999 SO GU n°248 21/10/1999 Met II.2 -</i>	%	78,46	±0,4		
ARSENICO (As) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	5,9	±1,4	20	
CADMIO (Cd) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,51	±0,12	2	
COBALTO (Co) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	8,9	±2,0	20	
CROMO (Cr) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	53	±13	150	
CROMO ESAVALENTE <i>EPA 3060A 1996 + EPA 7196A 1992 -</i>	mg/kg s.s.	< 0,2		2	
MERCURIO (Hg) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	0,12	±0,03	1	
NICHEL (Ni) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	64	±15	120	
PIOMBO (Pb) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	25	±6	100	
RAME (Cu) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	30	±7	120	
ZINCO (Zn) <i>UNI EN 16174:2012 (metodo B) + UNI EN ISO 17294-2:2016 -</i>	mg/kg s.s.	109	±27	150	

segue Rapporto di prova n°: 20LA01798 del 12/03/2020

Parametro <i>Metodo</i>	U.M.	Risultato	Incertezza	Limiti	Recupero (%)
IDROCARBURI C > 12 (C12-C40) ISO 16703:2004 -	mg/kg s.s.	4,2	±0,8	50	90

Limiti: » D.Lgs. n.152/06 Parte Quarta Titolo V Allegato 5 Tabella 1 A: Siti ad uso verde pubblico, privato.

(*): i parametri contrassegnati con l'asterisco non rientrano tra quelli accreditati dal laboratorio

L'incertezza è espressa nelle unità di misura del parametro a cui si riferiscono. Il fattore di copertura è pari a k=2 con un intervallo di probabilità del 95% e gradi di libertà >= 10.

Note relative ai controlli:

Per i metodi che prevedono determinazioni di residui/tracce e quando la procedura di pretrattamento (es. concentrazione/purificazione/estrazione) può influenzare il recupero, il risultato analitico è corretto per il fattore di recupero. Tale valore è riportato nell'apposita colonna. Per i metodi accreditati che prevedono l'impiego di standard interni è stato verificato che il recupero degli stessi rientri nel range previsto dal metodo e il calcolo della concentrazione finale viene riportato già corretto del recupero.

I risultati analitici si riferiscono esclusivamente al campione sottoposto a prova.

La riproduzione parziale del presente rapporto di prova non è consentita senza autorizzazione scritta del laboratorio.

Riconoscimenti del laboratorio

- Accreditato ACCREDIA secondo la norma UNI CEI EN ISO/IEC 17025:2018 con il N°0231. (L'accreditamento non implica l'approvazione del prodotto da parte del laboratorio o dell'organismo accreditante).
- Certificato UNI EN ISO 9001:2015 n.14586.
- Iscritto al n. provvisorio 008/RE/005 del registro Regione Emilia Romagna dei laboratori abilitati a svolgere analisi nell'ambito delle procedure di autocontrollo delle imprese alimentari (riconoscimento con validità nazionale).
- Qualificato dal Ministero della Salute a svolgere attività analitiche sull'amianto ai sensi del DM 14/05/96 (codice lab. 86EMR4)
- Riconosciuto ai fini dei requisiti di idoneità tecnica ai gruppi di prodotti Ecolabel "COPERTURE DURE" cod.021 secondo la Decisione della Commissione del 9 luglio 2009 (2009/607/CE) pubblicata sulla GUUE del 12/08/2009 L. 208.
- Iscritto all'Albo Nazionale Gestori Ambientali nella Categoria 9, classe D, ai sensi dell'art. 212 del D.Lgs. 152/06.



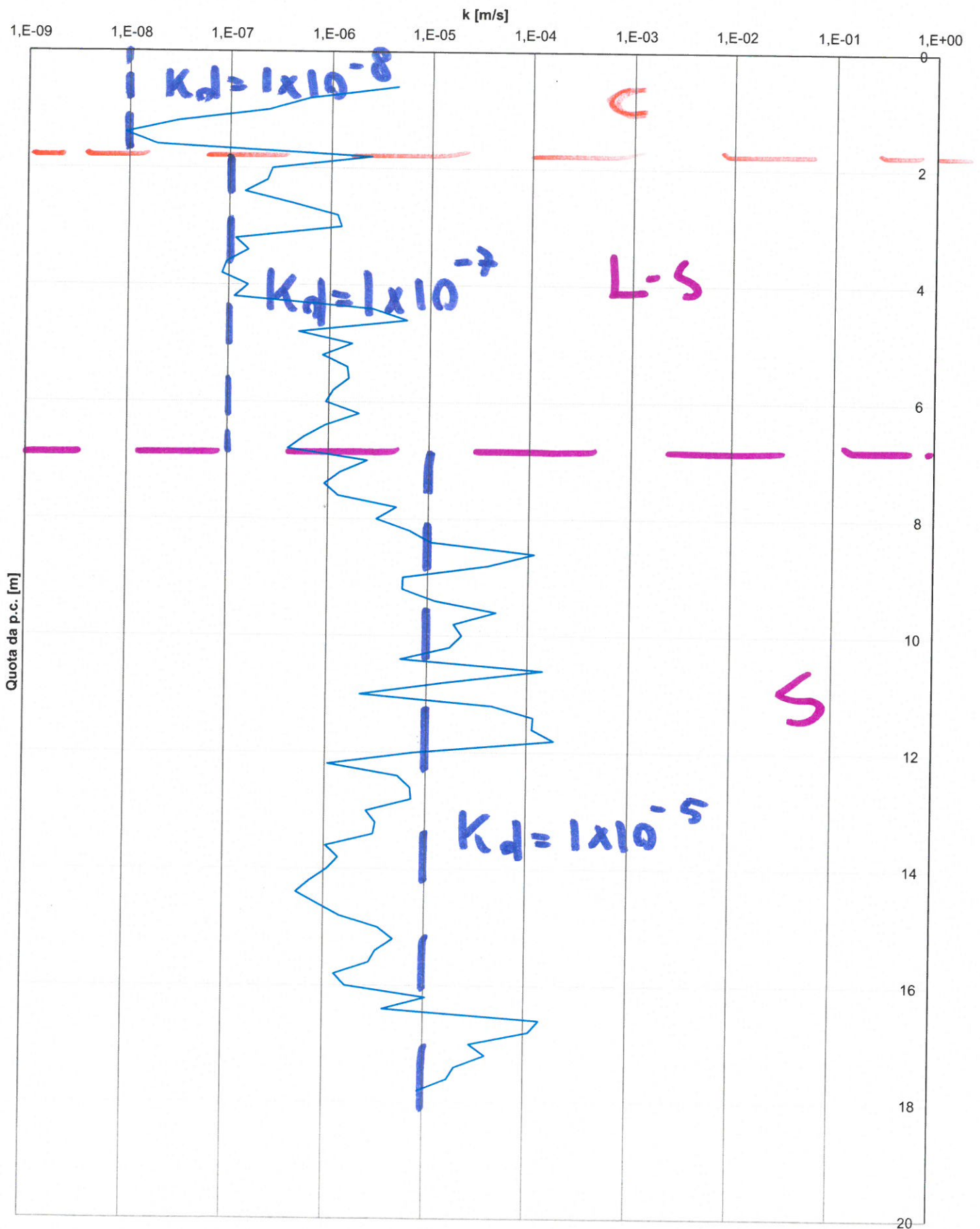
Responsabile del Laboratorio


Dott. Ferrari Massimo

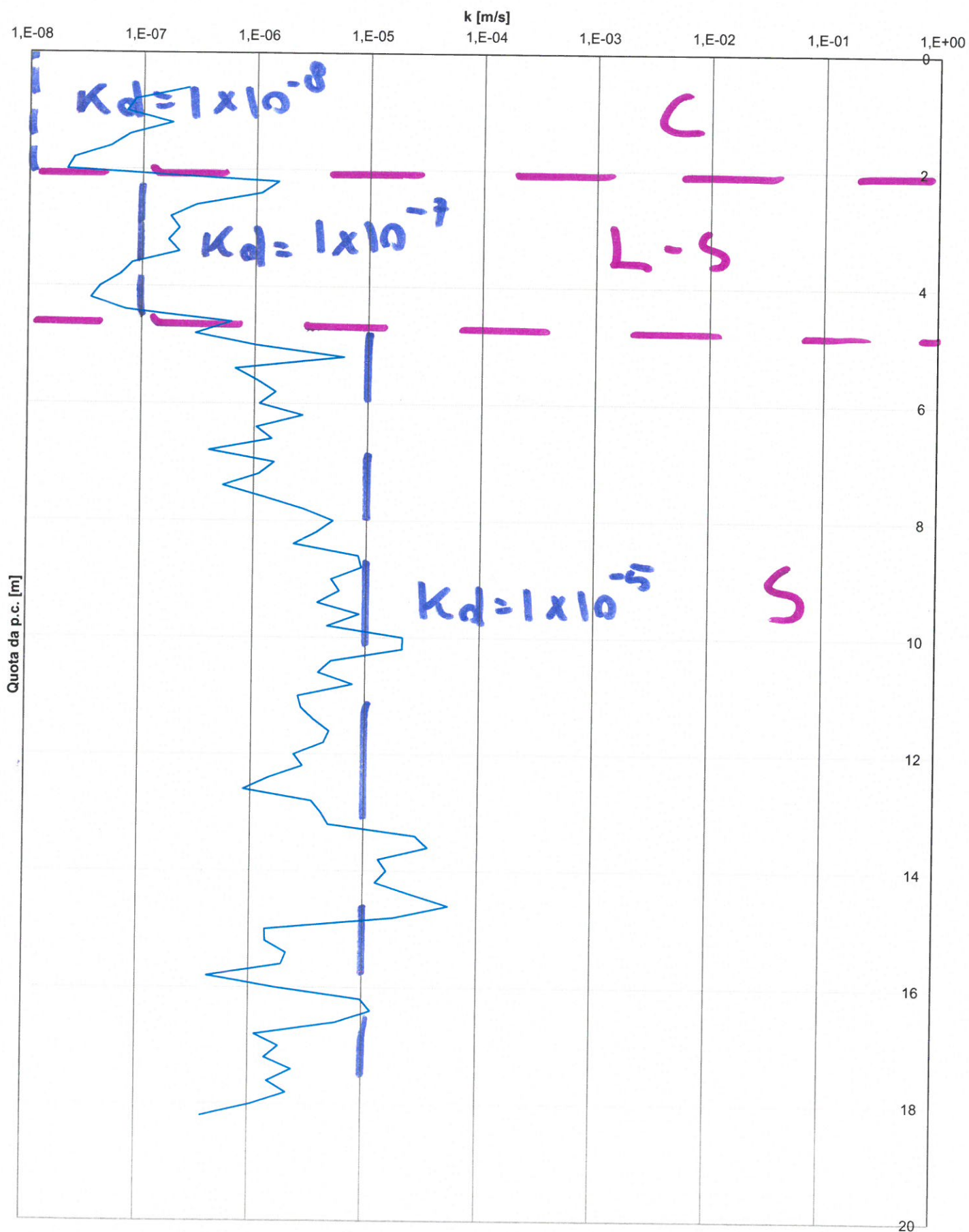
DOCUMENTO FIRMATO DIGITALMENTE SECONDO LE NORME VIGENTI.

Fine del Rapporto di Prova

CPT 3 Prova penetrometrica - Andamento di k



CPT 4 Prova penetrometrica - Andamento di k



Prova penetrometrica CPT 8 - Andamento di k

