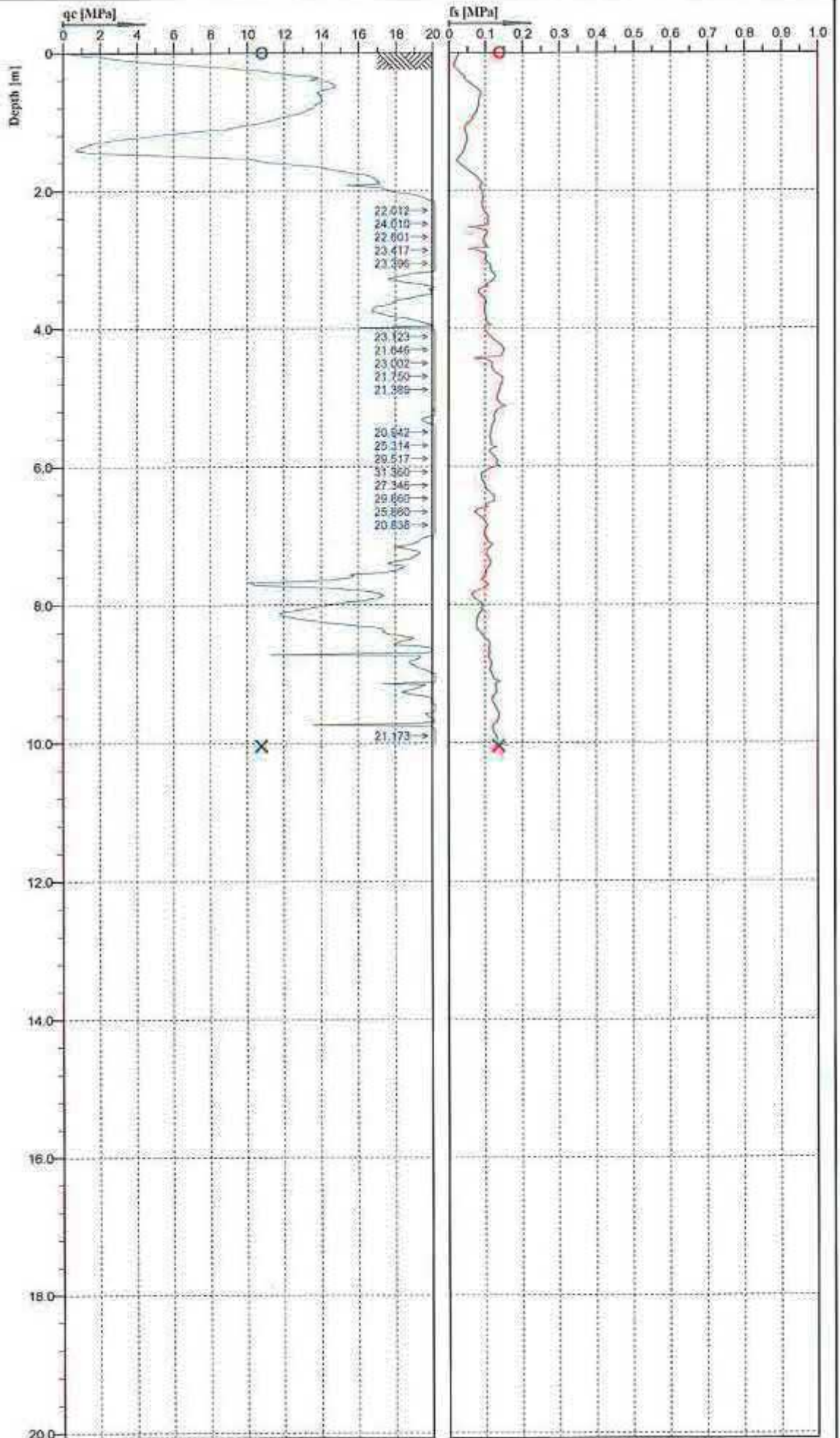
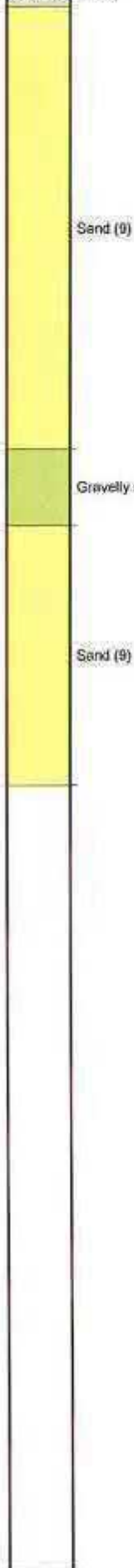




Appendix I

Post Earthfill CPT Logs

Classification by
Robertson 1986

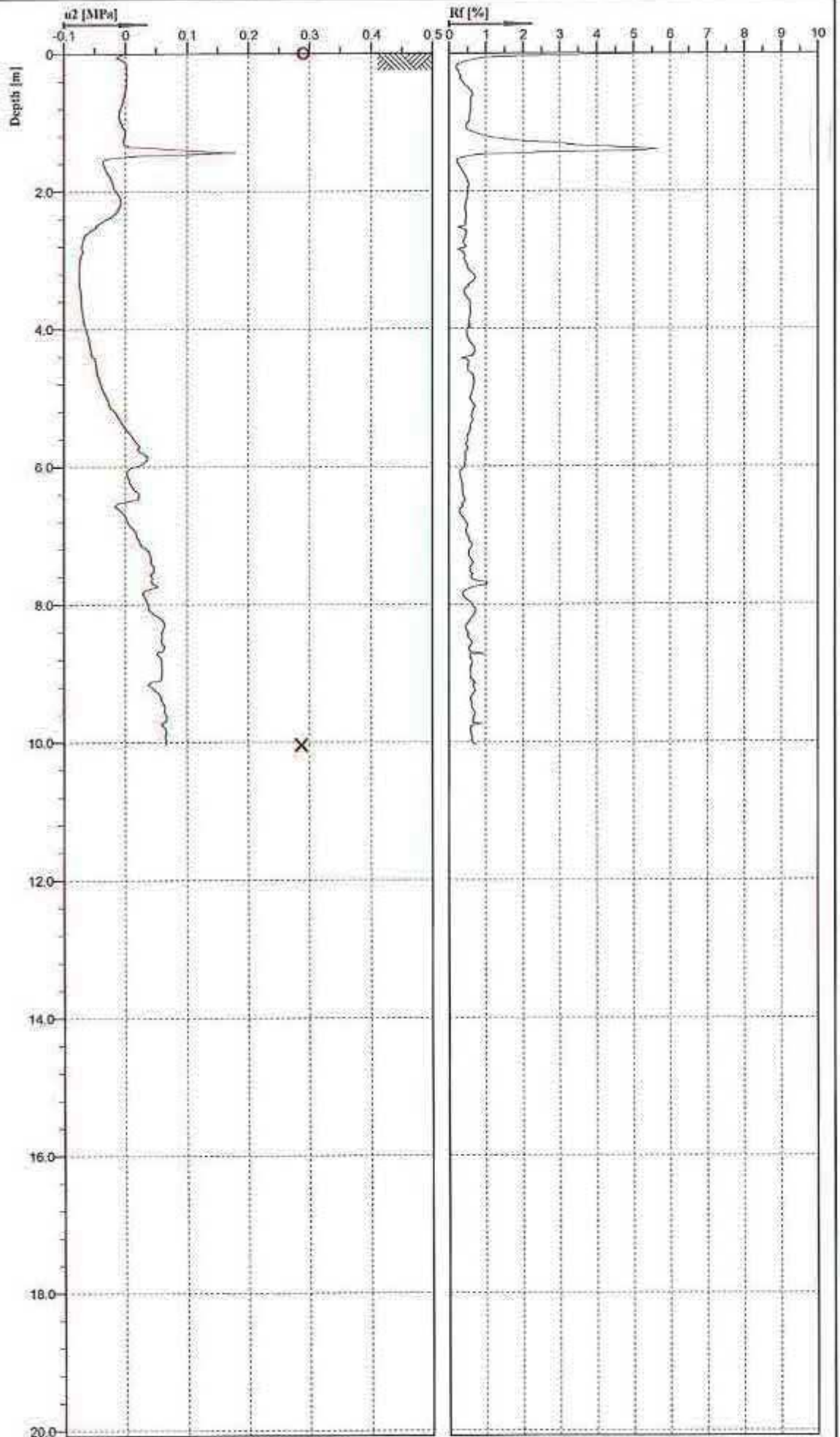
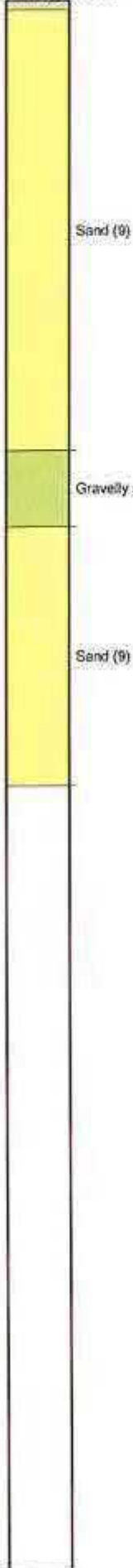


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF1
Project ID:		Client:	Aurecon	Date:	29/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF1.cpt		

Classification by Robertson 1986



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

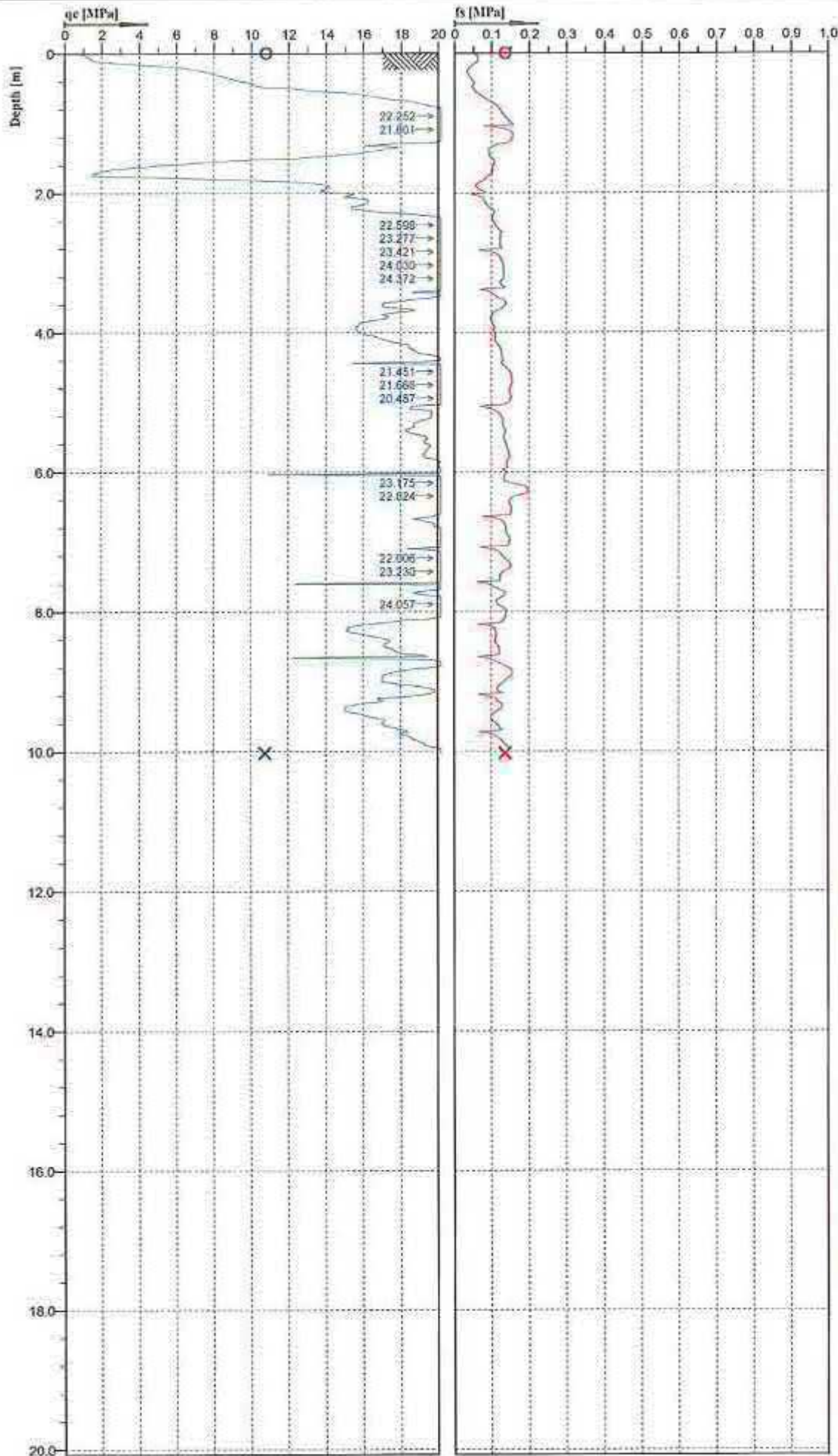


Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF1
Project ID:		Client:	Aurecon	Date:	29/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH		Page:	1/1		Fig:	
			File:	PrestonsSouthCPTPF1.cpt			

Classification by Robertson 1986

Clay (3)

Sand (9)



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

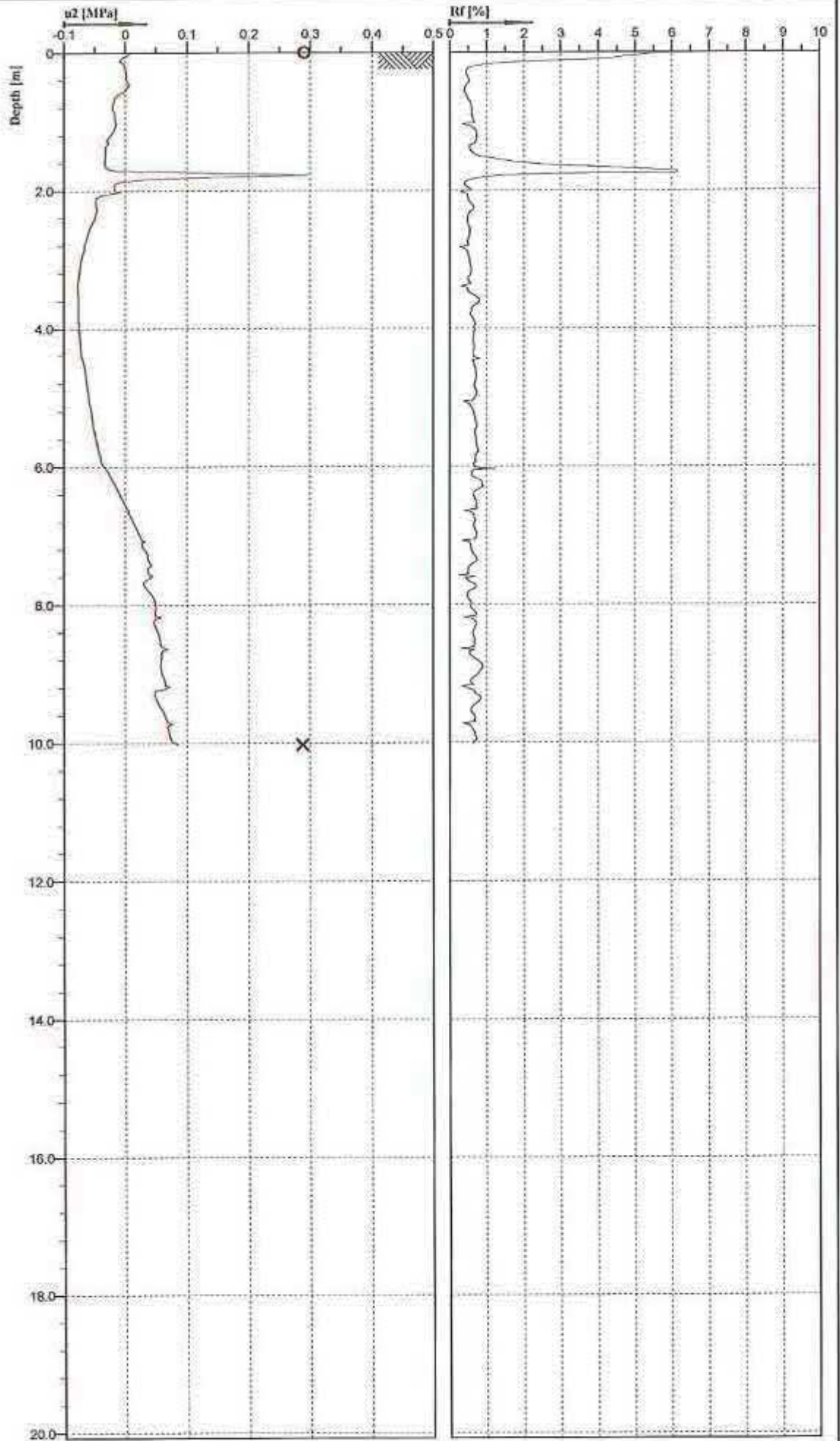
Cone No: 4494
Tip area (cm²): 10
Sleeve area (cm²): 180

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF2
Project ID:		Client:	Aurecon	Date:	29/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF2.cpt		

Classification by
Robertson 1986

Clay (3)

Sand (9)

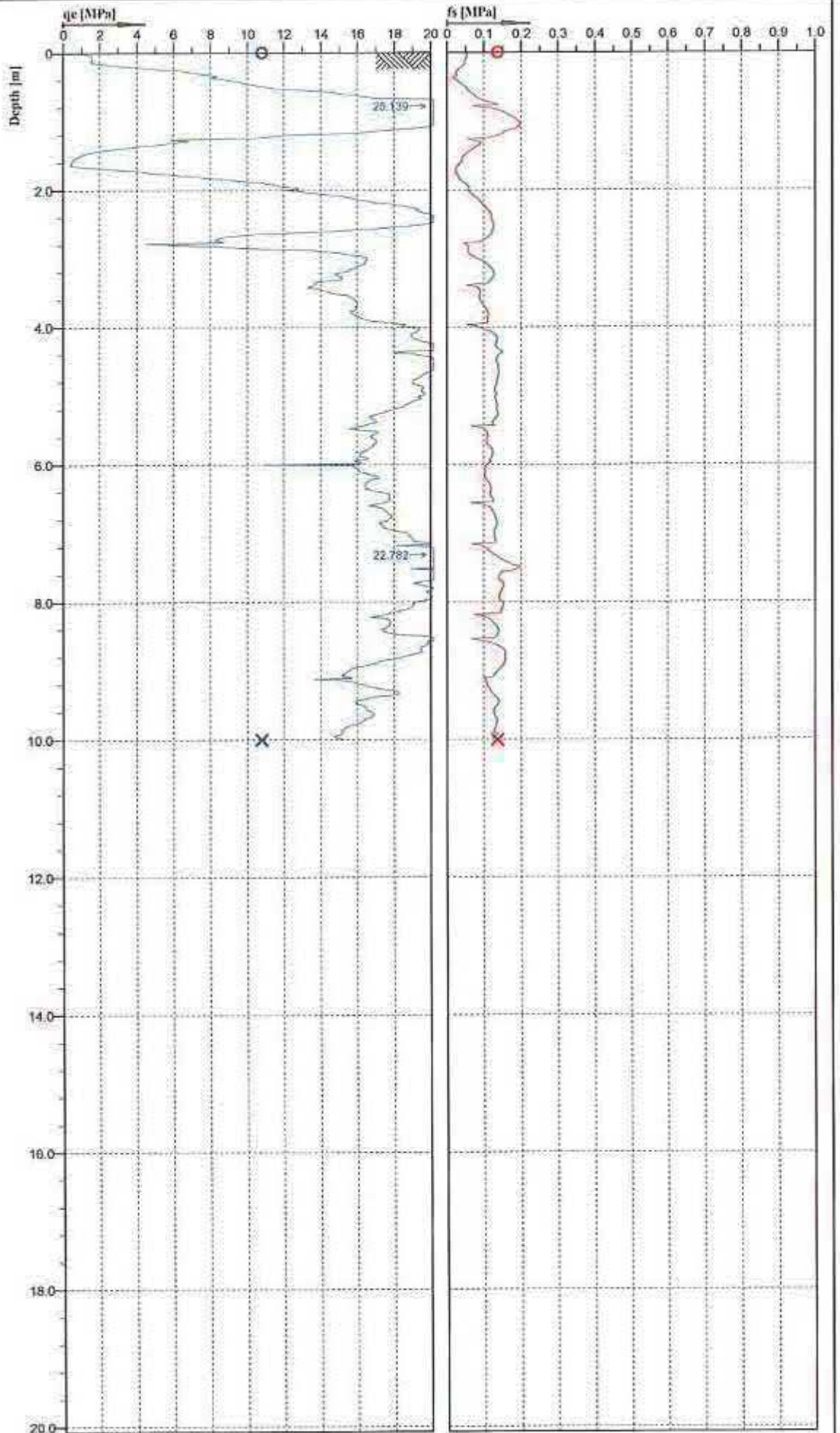


Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHGH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF2
Project ID:		Client:	Aurecon	Date:	29/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF2.cpt		

Classification by
Robertson 1986
Silty clay to clay (4)

Sand (9)

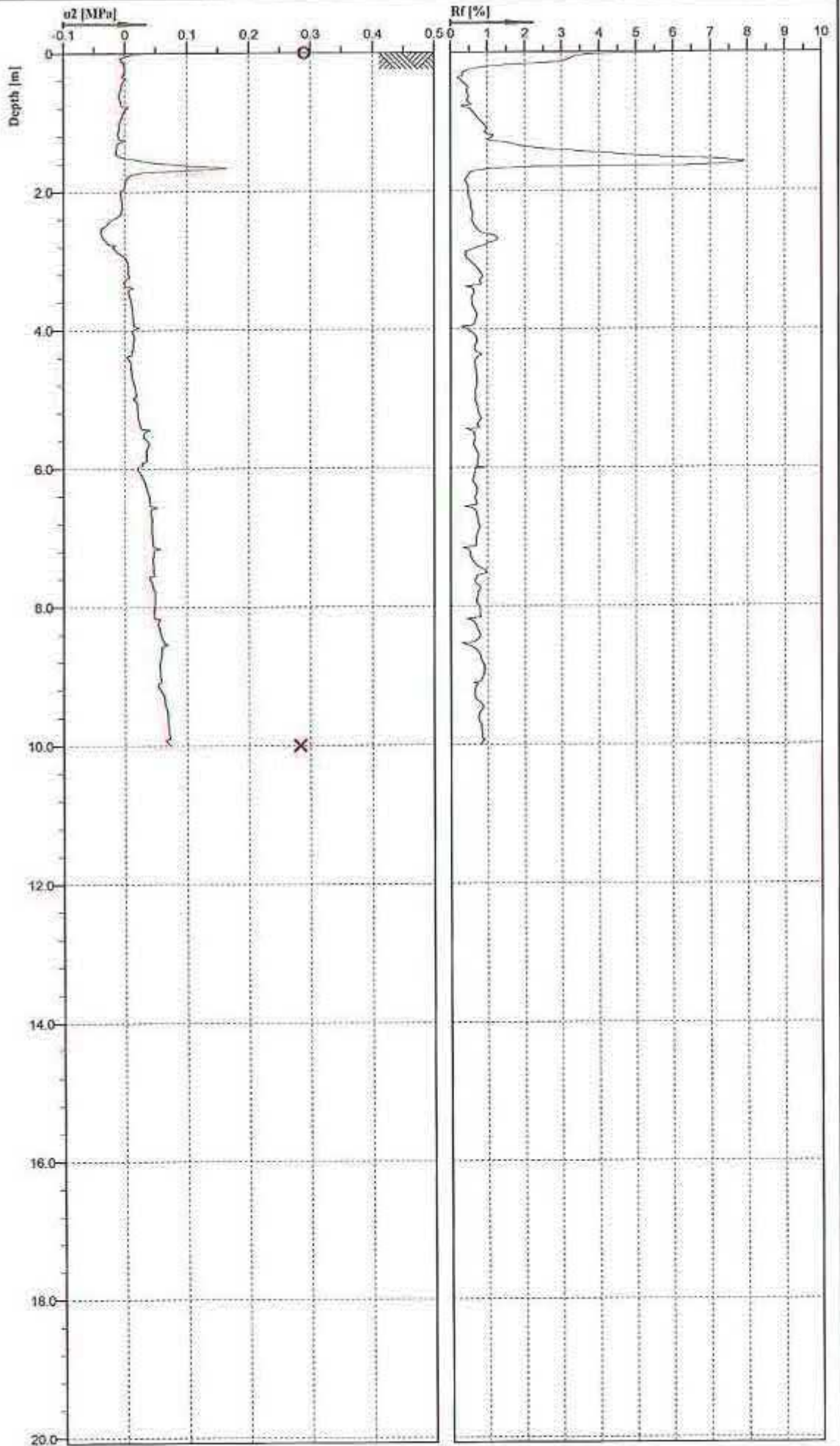
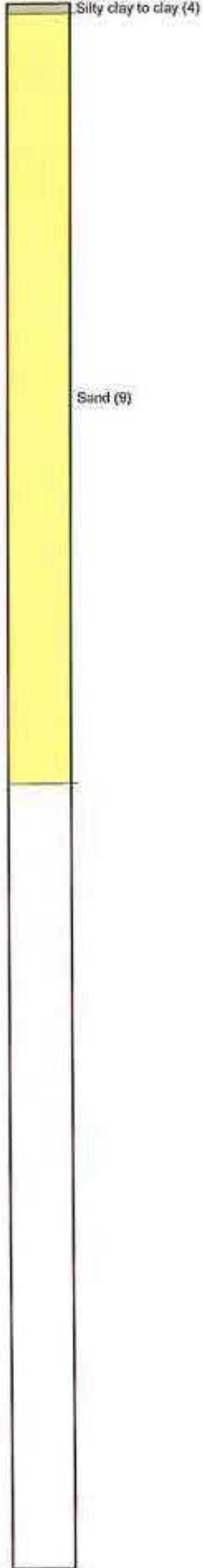


Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF3
Project ID:		Client:	Aurecon	Date:	29/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF3.cpt		

Classification by
Robertson 1988



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150



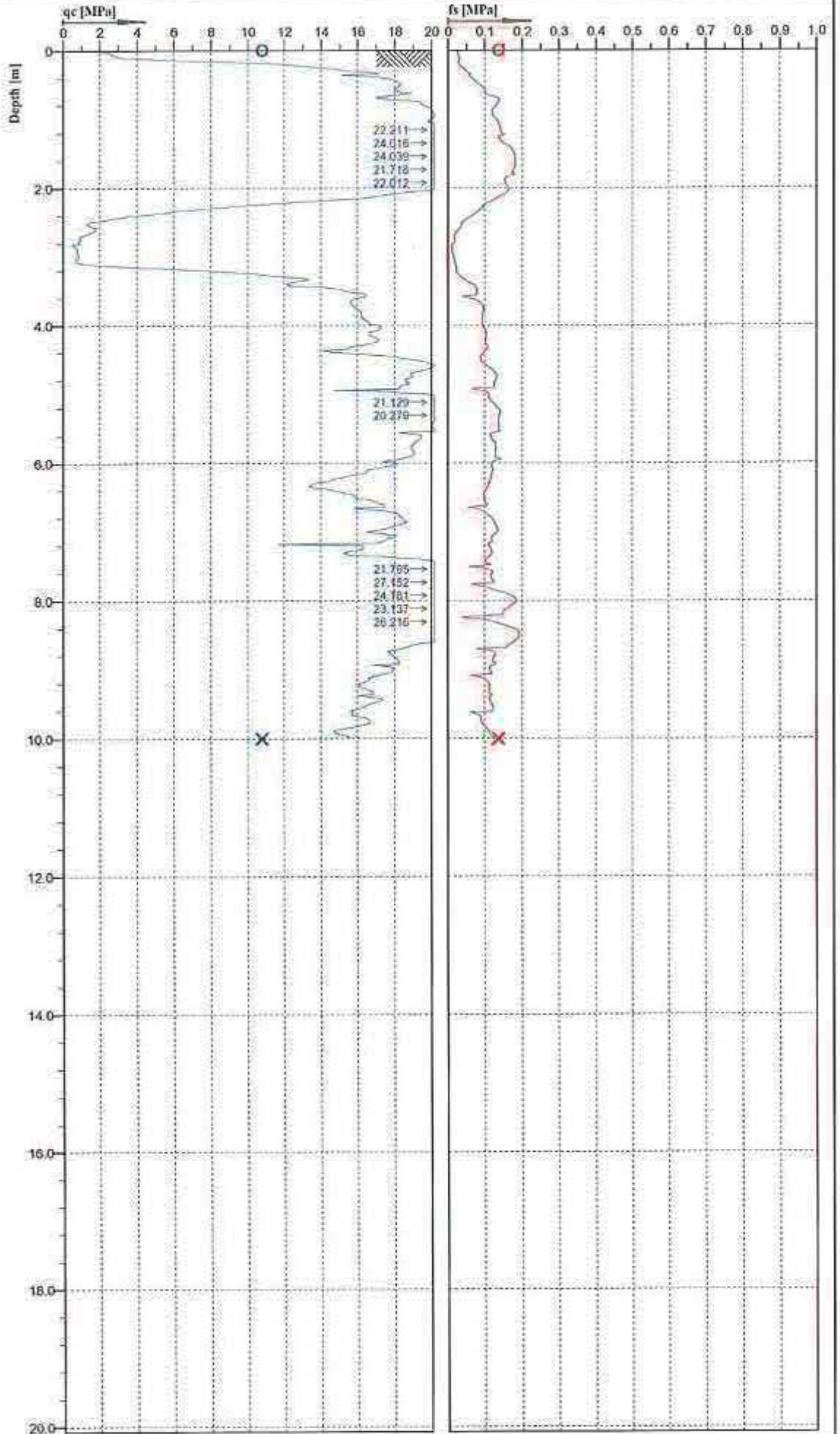
Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF3
Project ID:		Client:	Aurecon	Date:	29/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF3.cpt		

Classification by
Robertson 1986

Silty sand to sandy silt (7)



Sand (9)



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

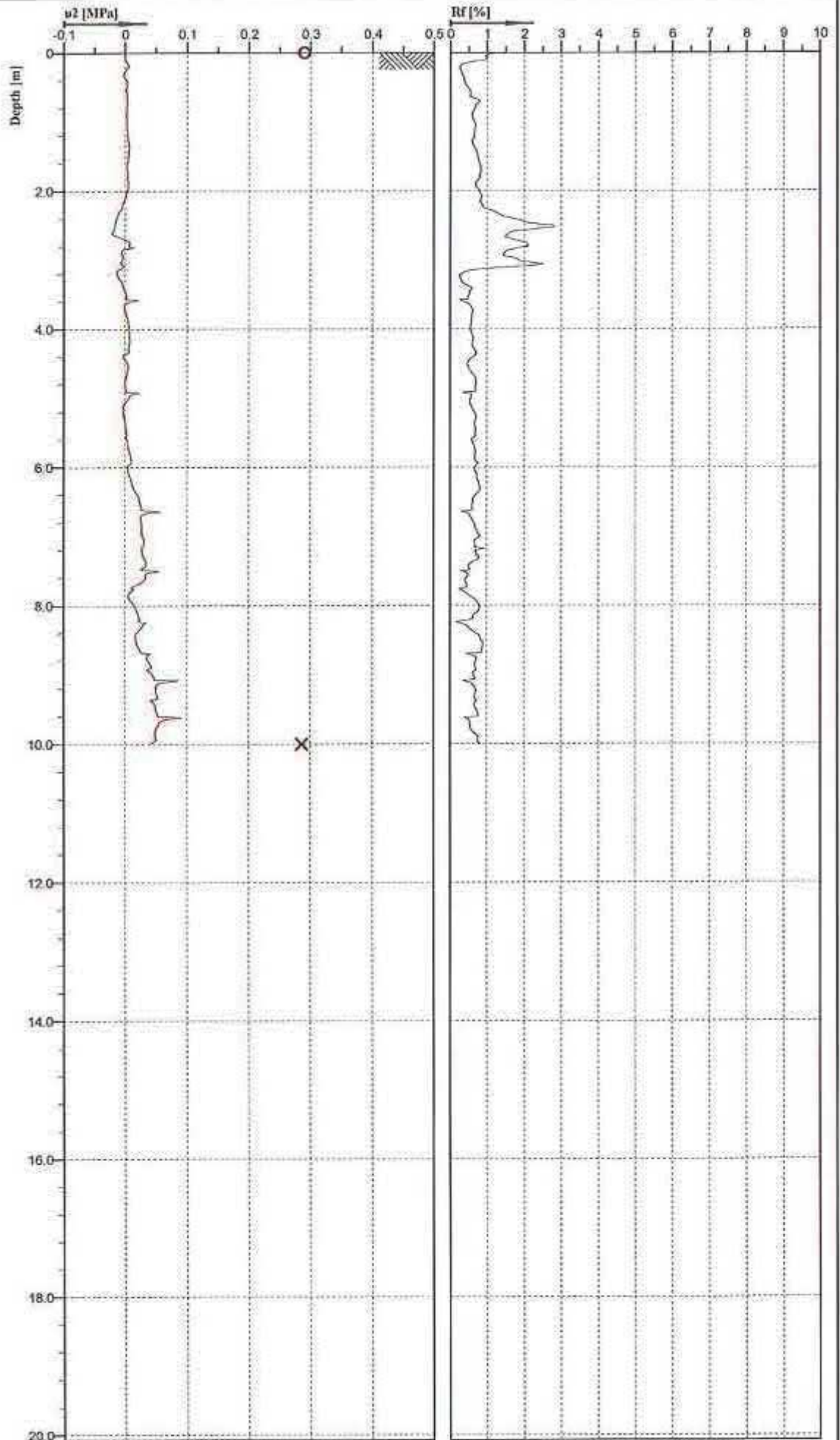
Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF04
Project ID:	Client: Aurecon	Date: 29/08/2014	Scale: 1 : 80
Project: PRESTONS SOUTH		Page: 1/1	Fig:
		File: PrestonsSouthCPTPF4.cpl	

Classification by
Robertson 1986

Silty sand to sandy silt (7)



Sand (9)



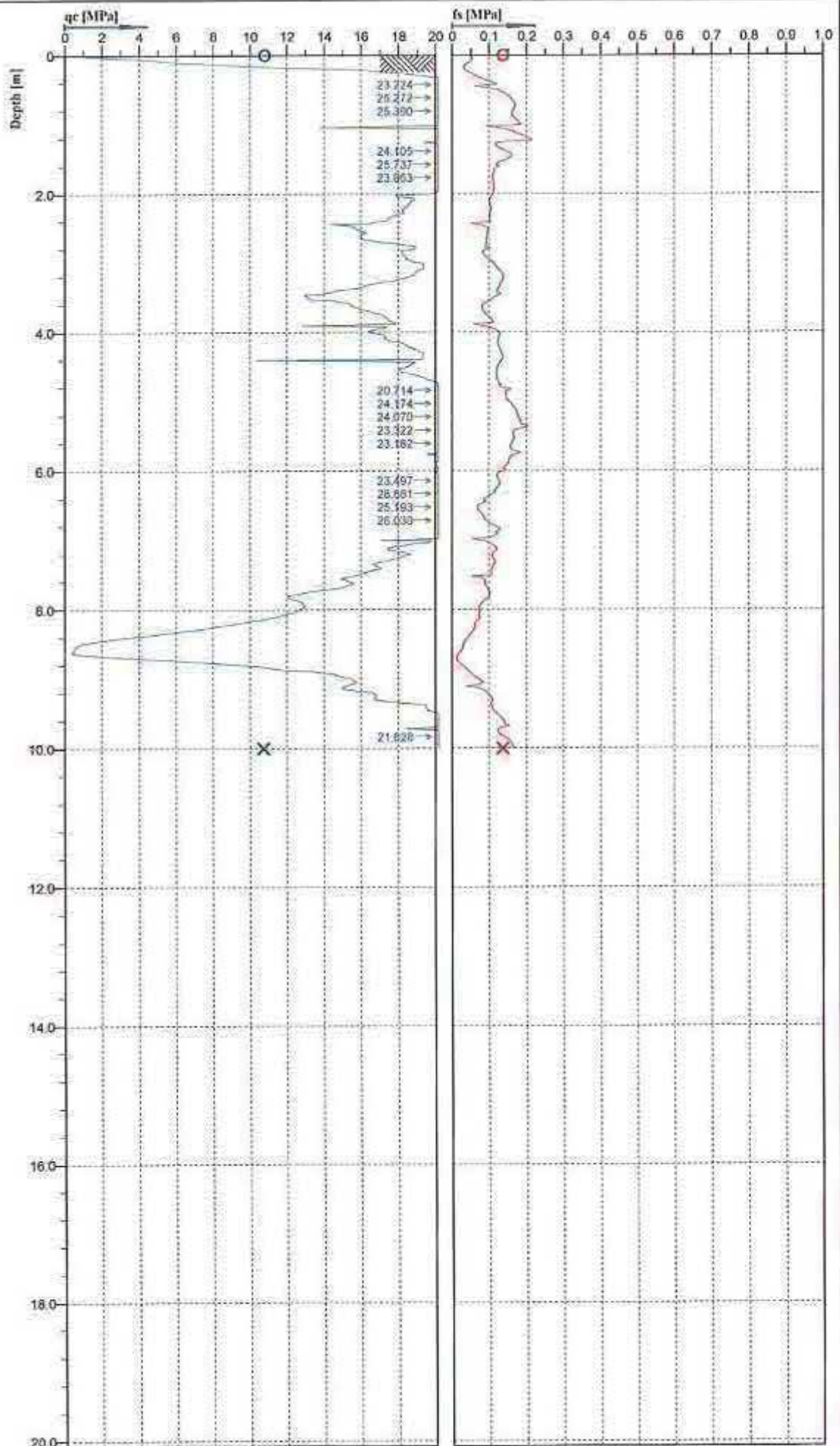
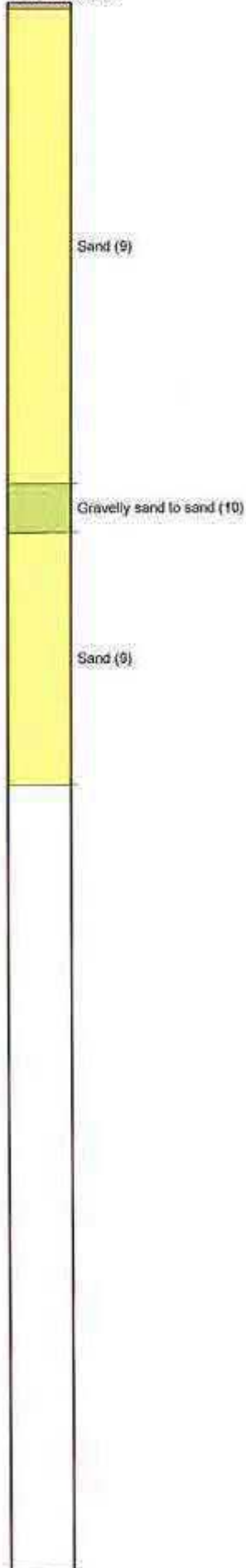
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150



Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF04
Project ID:		Client:	Aurecon	Date:	29/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF4.cpt		

Classification by
Robertson 1986



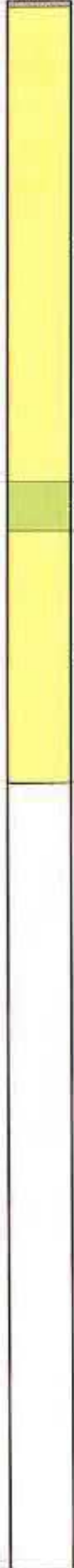
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area (cm²): 10
Sleeve area (cm²): 150



Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF05
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF5.cpt		

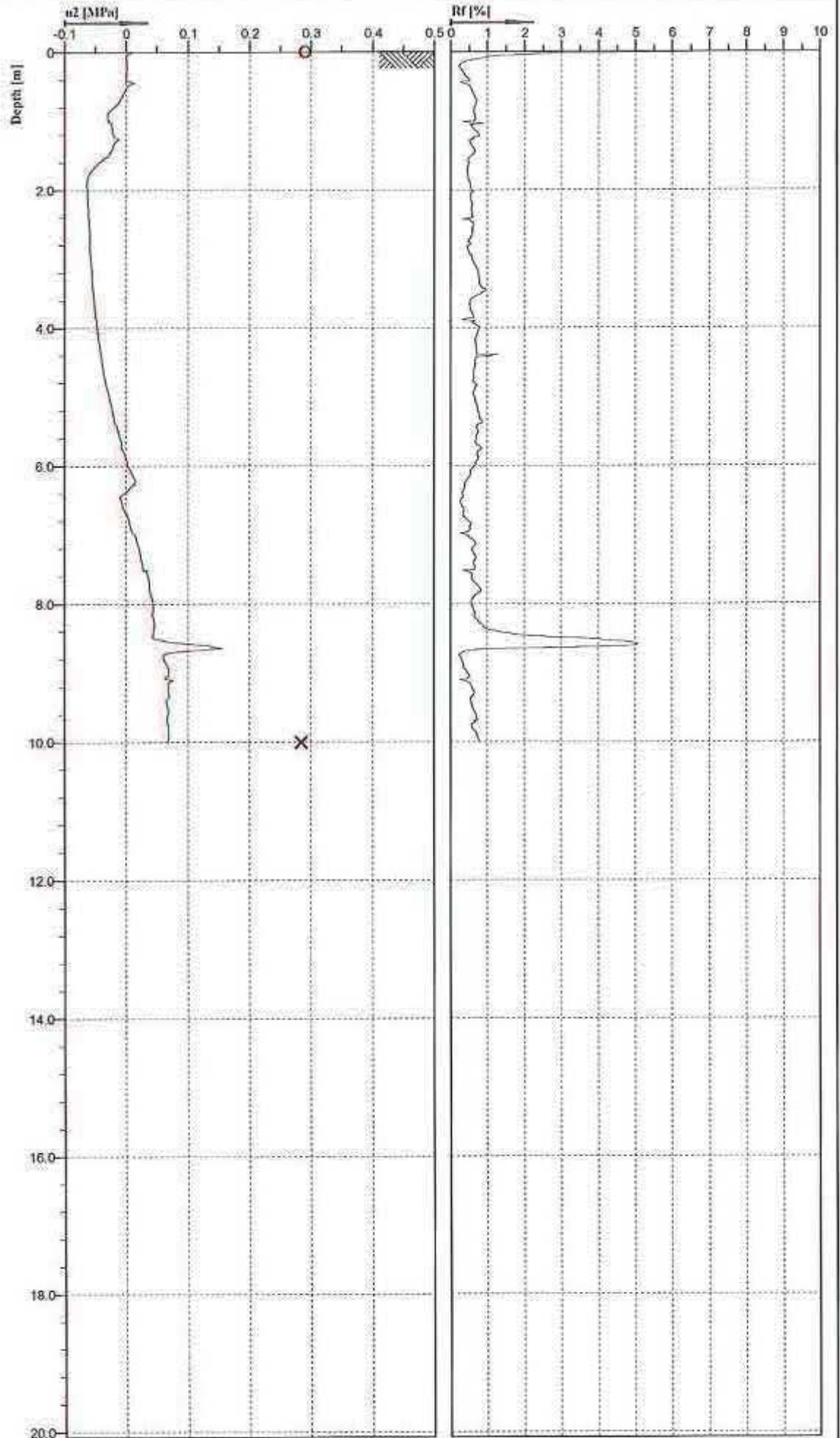
Classification by
Robertson 1986



Sand (9)

Gravely sand to sand (10)

Sand (9)

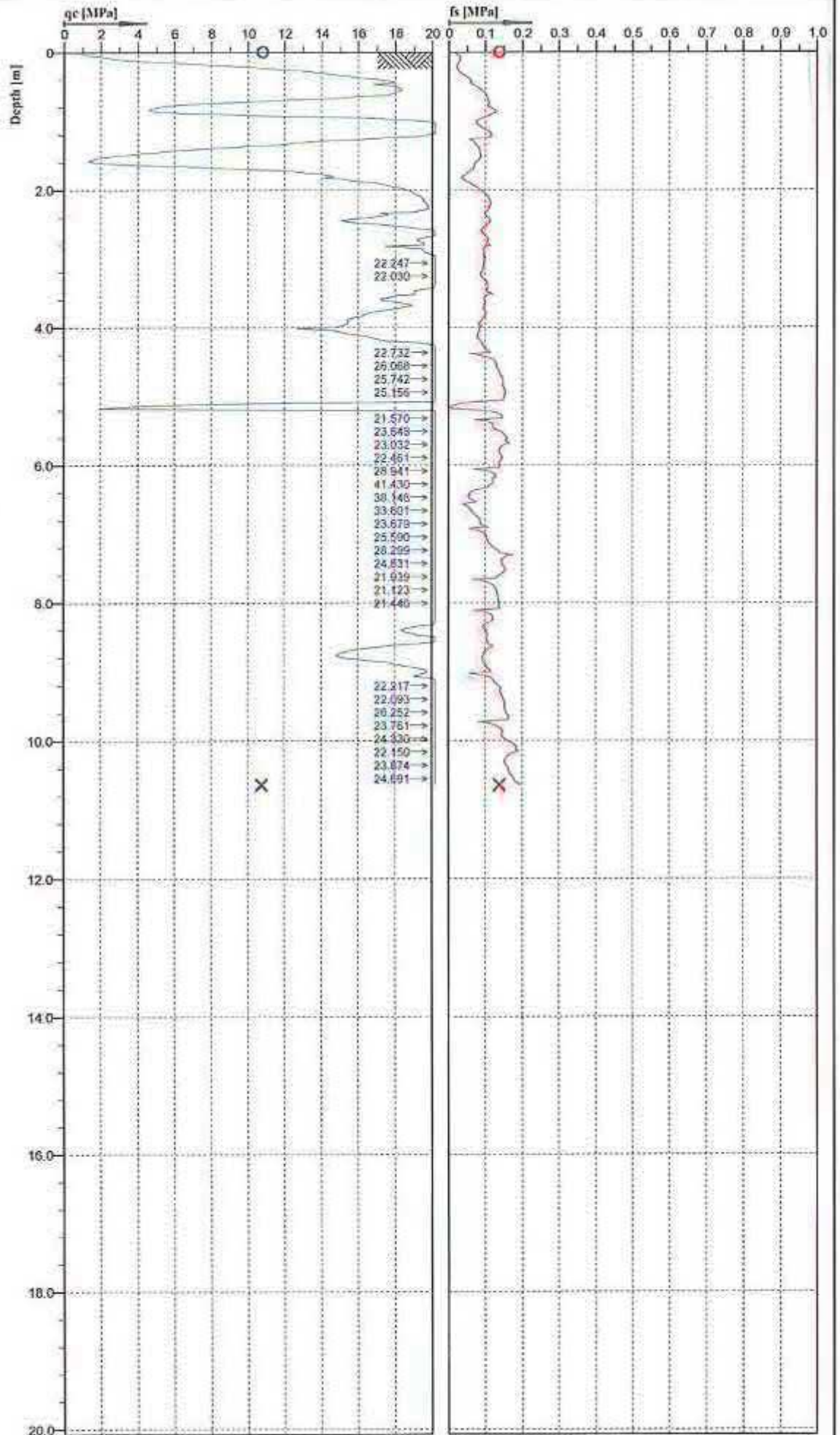


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²]: 10
Sieve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF05
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF5.cpt		

Classification by Robertson 1986

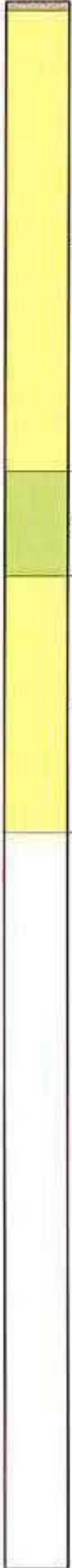


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF06
Project ID:	Client: Aurecon	Date: 28/08/2014	Scale: 1 : 80
Project: PRESTONS SOUTH		Page: 1/1	Fig:
		File: PrestonsSouthCPTPF6.cpt	

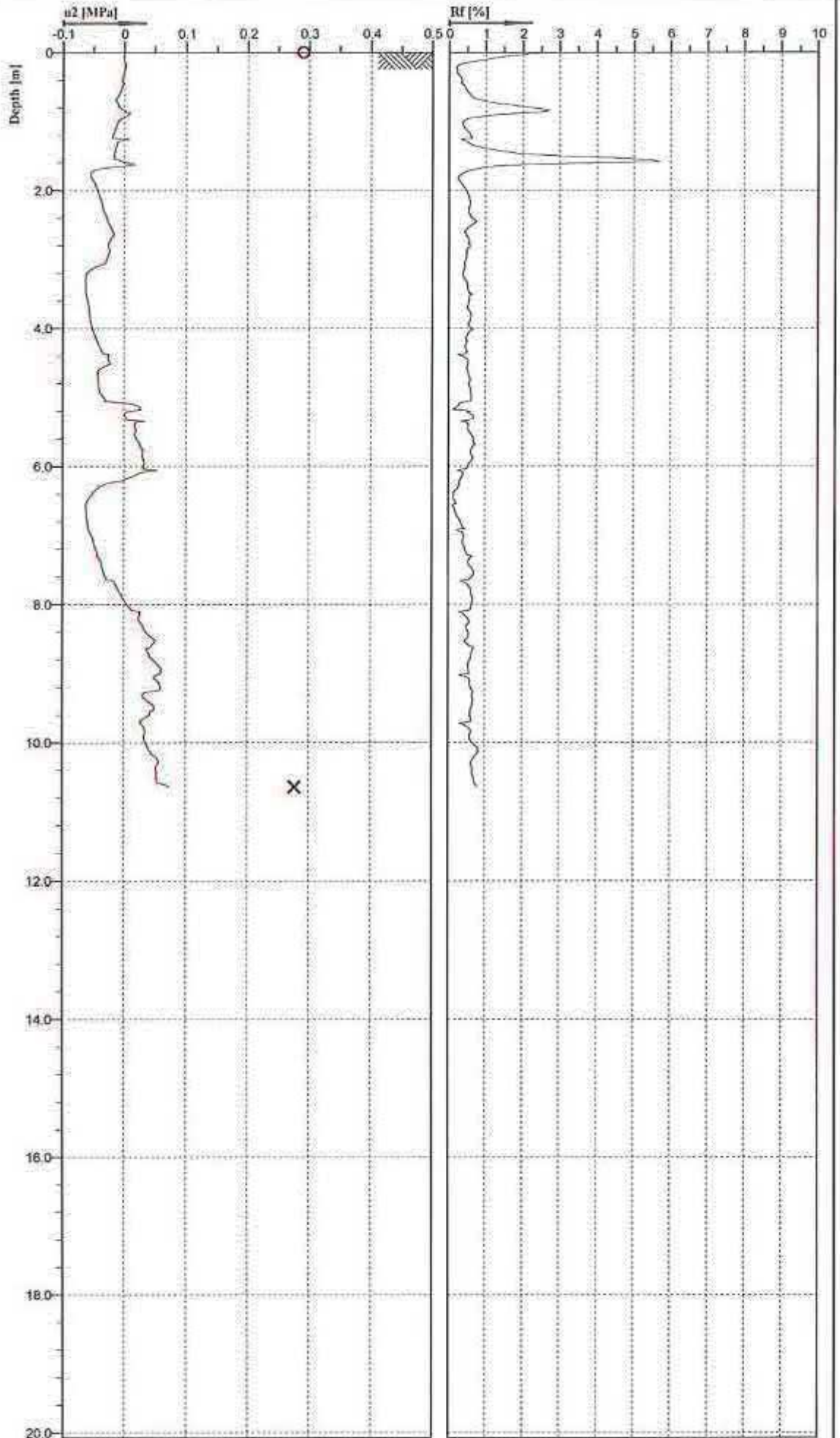
Classification by Robertson 1988



Sand (9)

Gravely sand to sand (10)

Sand (9)



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

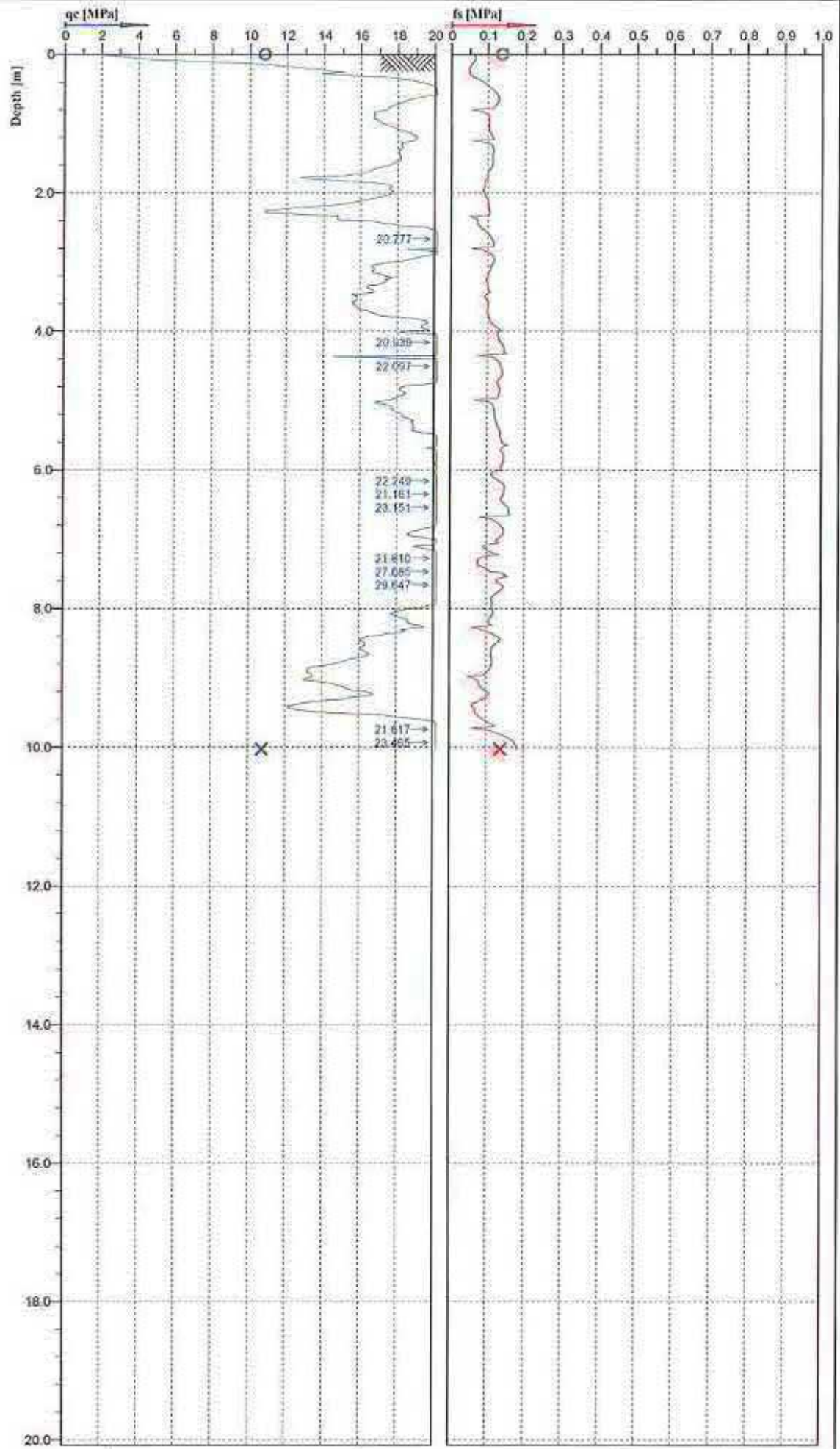


Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF06
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF6.cpl		

Classification by
Robertson 1986



Sand (9)



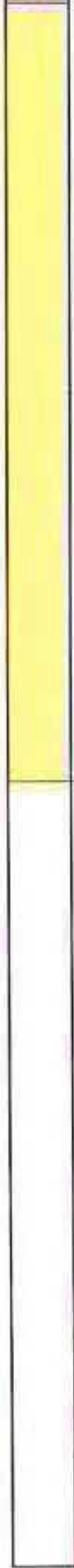
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

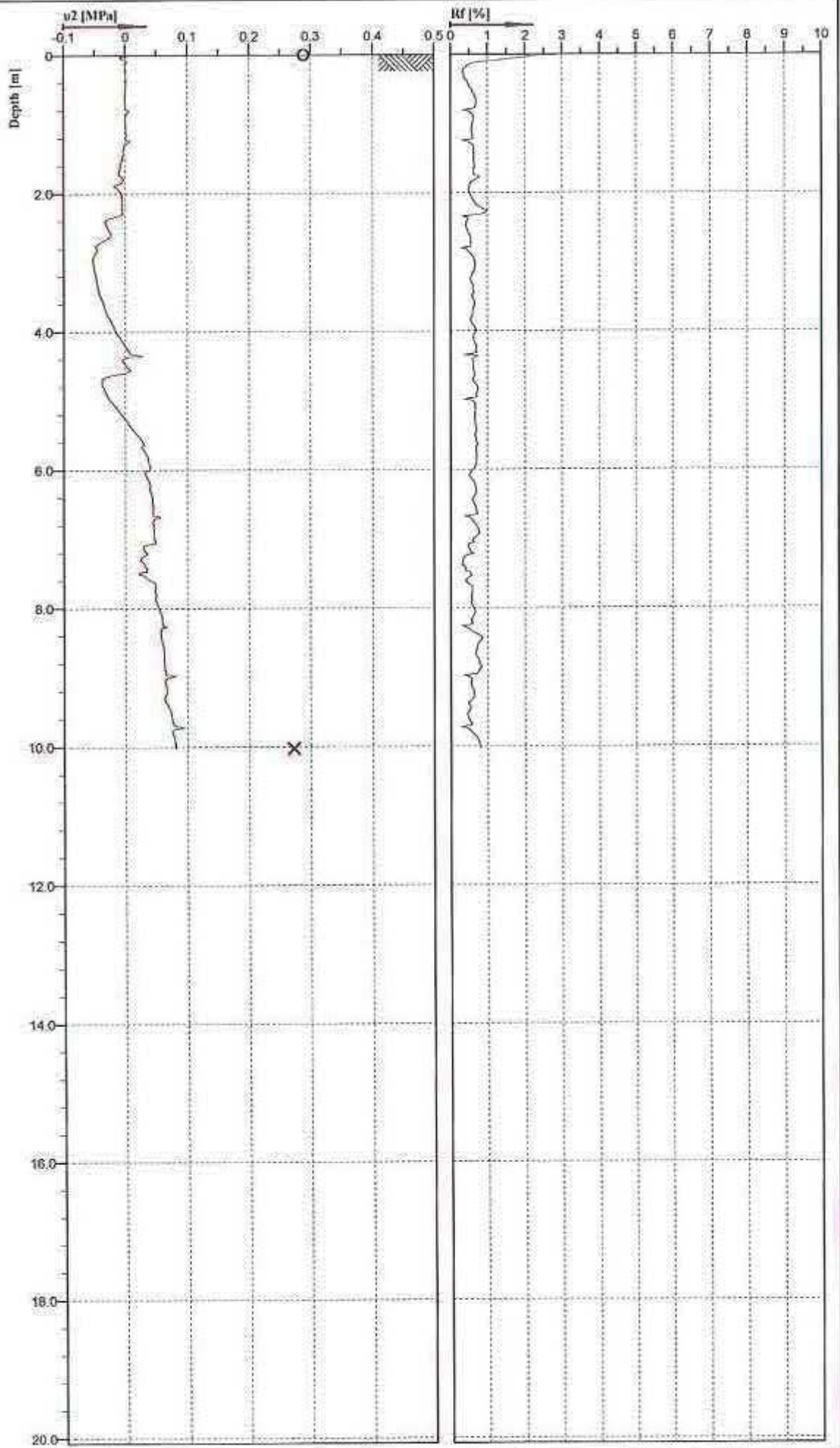


Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF7A
Project ID:		Client:	Aurecon	Date:	8/09/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	preston south CPTPF7A.cpt		

Classification by
Robertson 1986



Sand (9)



PRO-DRILL
SPECIALIST DRILLING ENGINEERS



Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

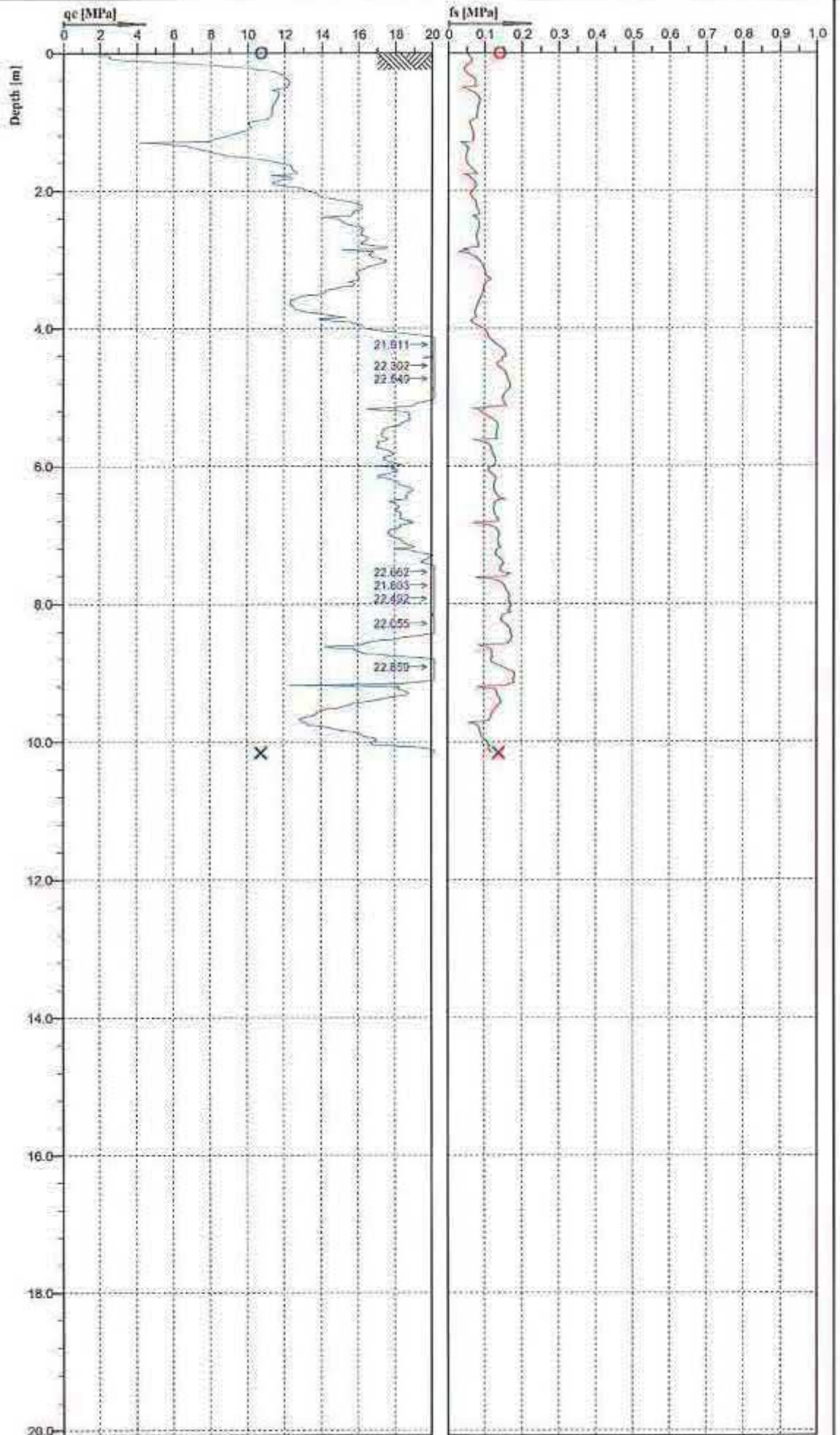
Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF7A
Project ID:	Client: Aurecon	Date: 8/09/2014	Scale: 1 : 80
Project: PRESTONS SOUTH		Page: 1/1	Fig:
		File: preston south CPTPF7A.cpt	

Classification by
Robertson 1986

Sandy silt to clayey silt (6)



Sand (9)



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Core No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

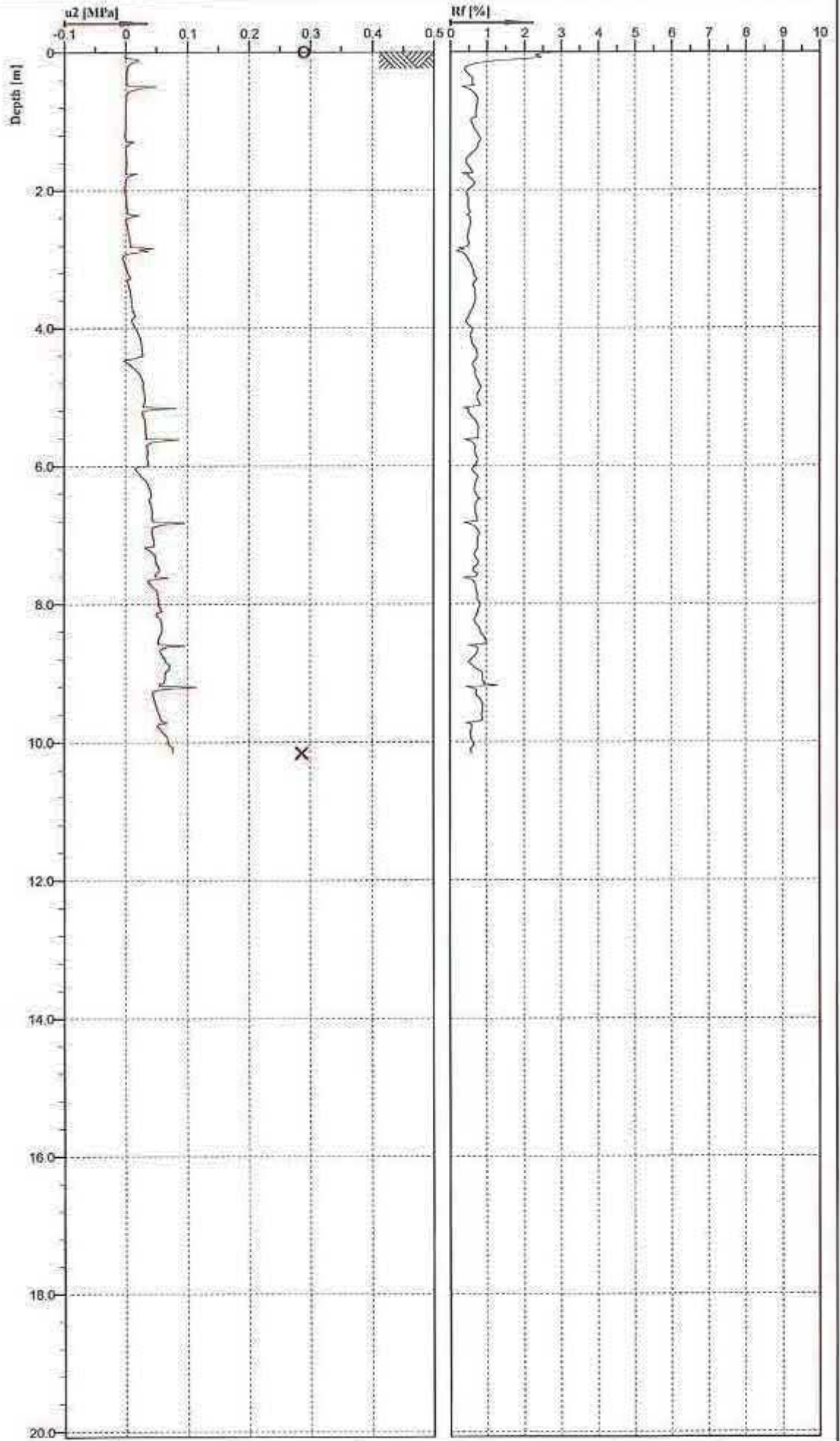


Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF08
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF8.cpt		

Classification by
Robertson 1986

Sandy silt to clayey silt (6)

Sand (9)



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4454
Tip area [cm²]: 10
Sleeve area [cm²]: 150

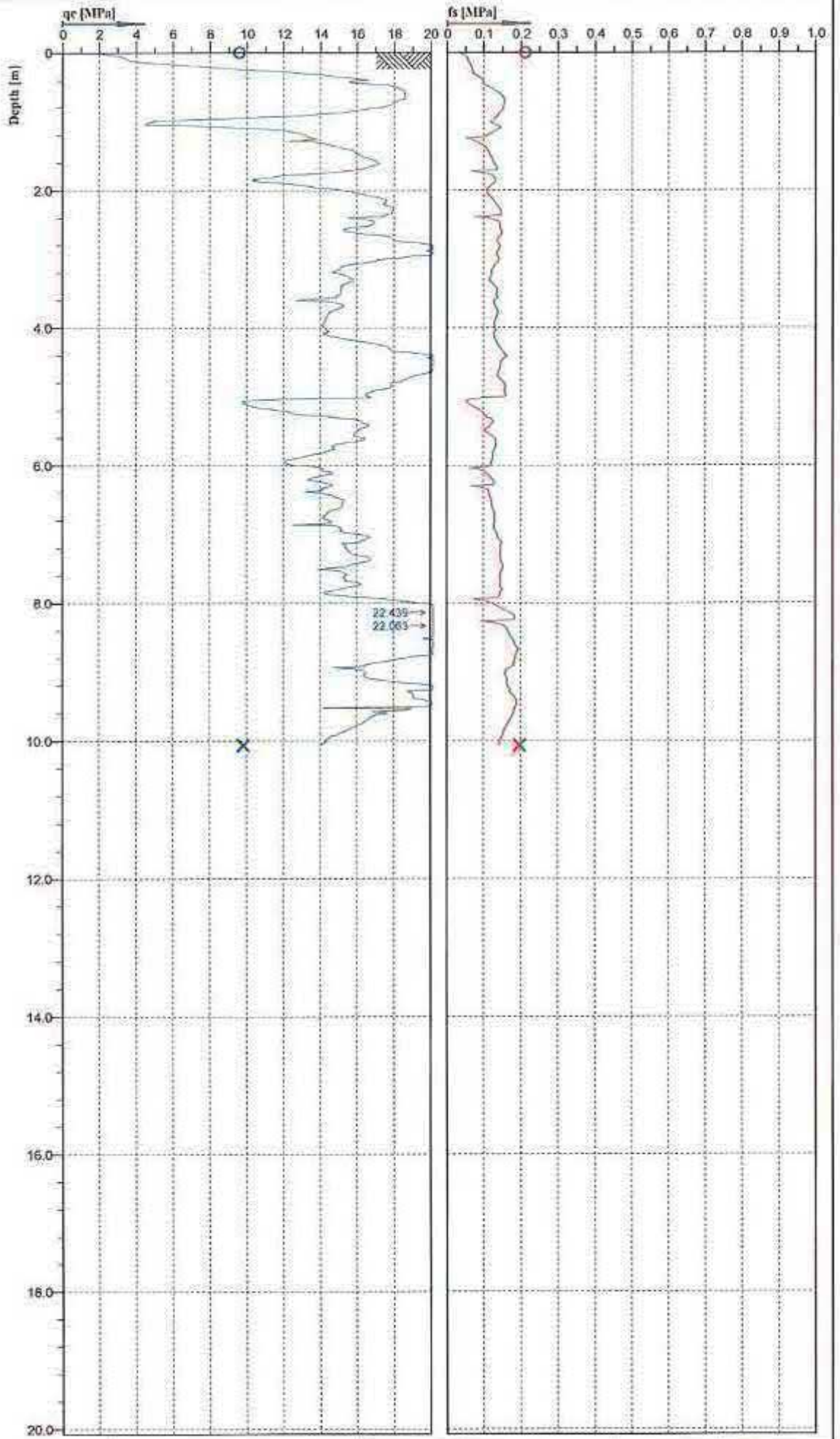
Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF08
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF8.cpt		

Classification by
Robertson 1988

Sandy silt to clayey silt (0)



Sand (9)



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

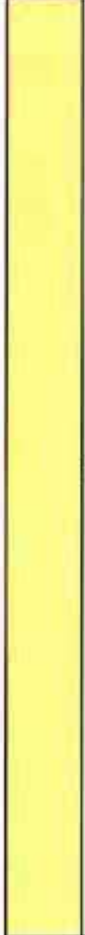
Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150



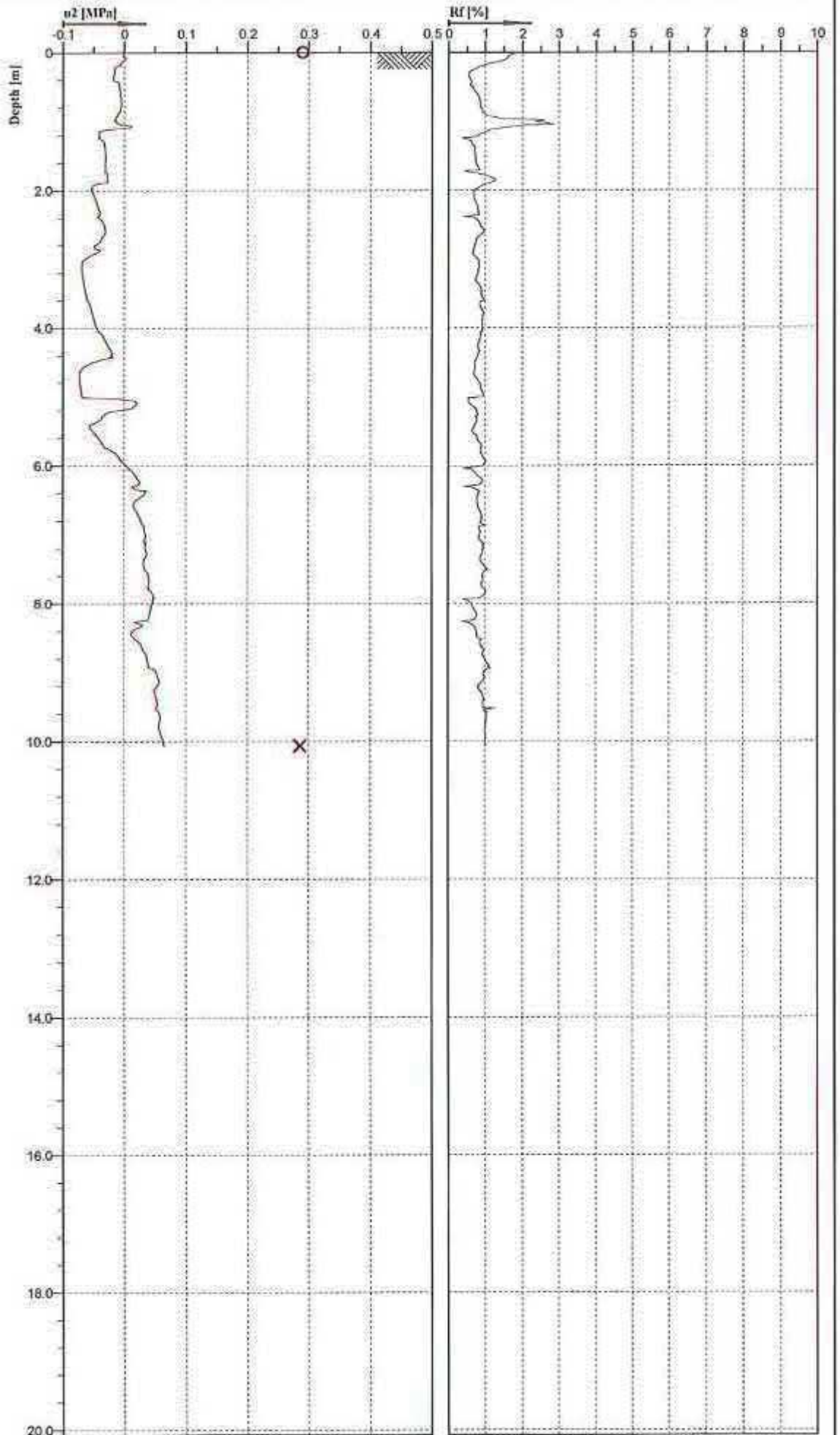
Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF09
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF9.cpt		

Classification by
Robertson 1986

Sandy silt to clayey silt (6)



Sand (9)



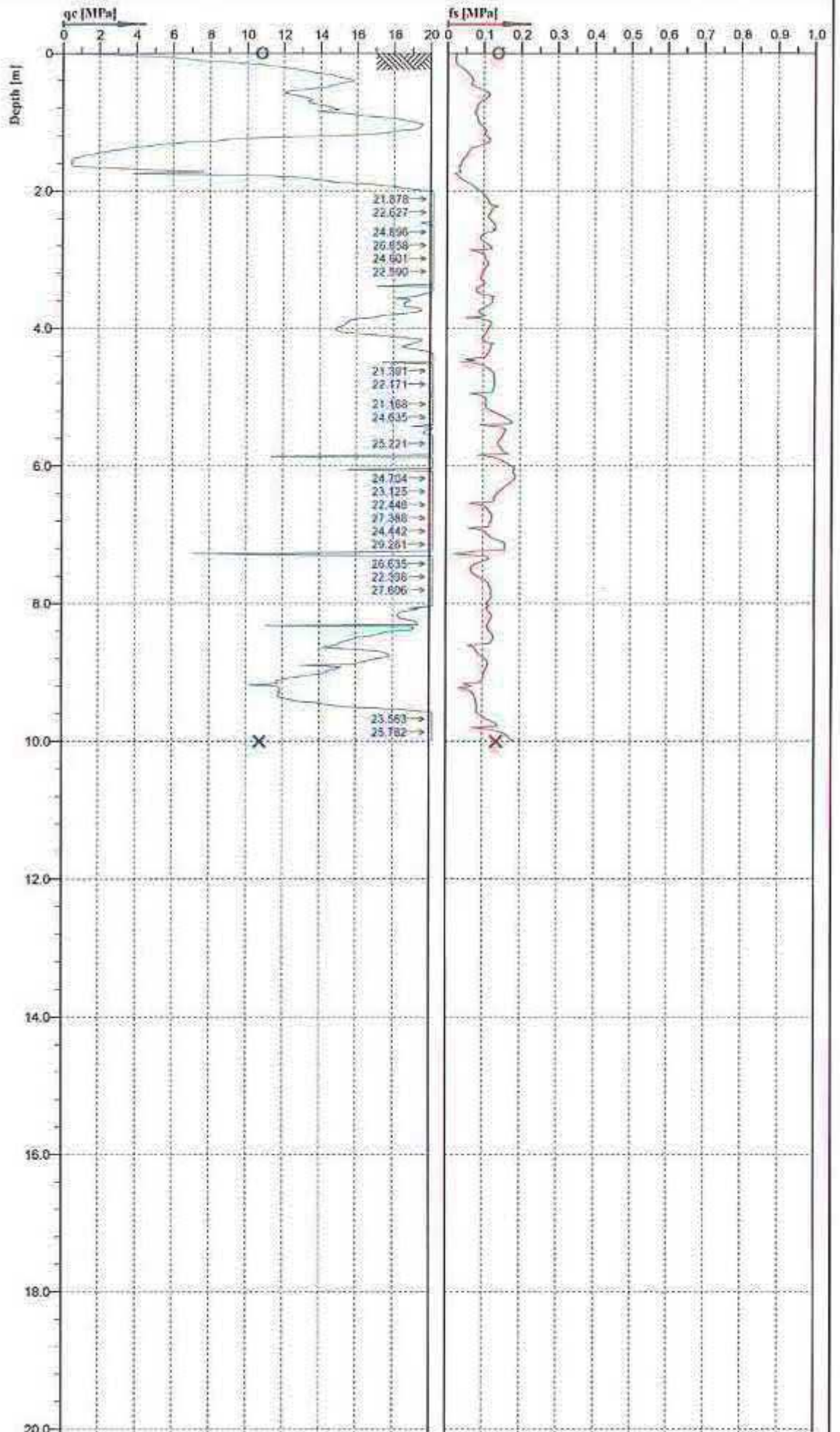
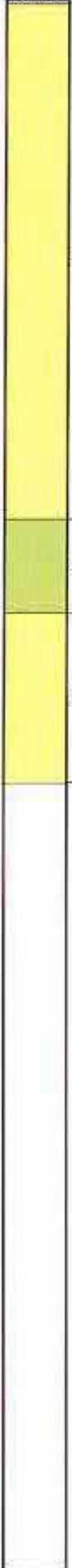
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²] 10
Sieve area [cm²] 150



Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF09
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF9.cpt		

Classification by
Robertson 1986



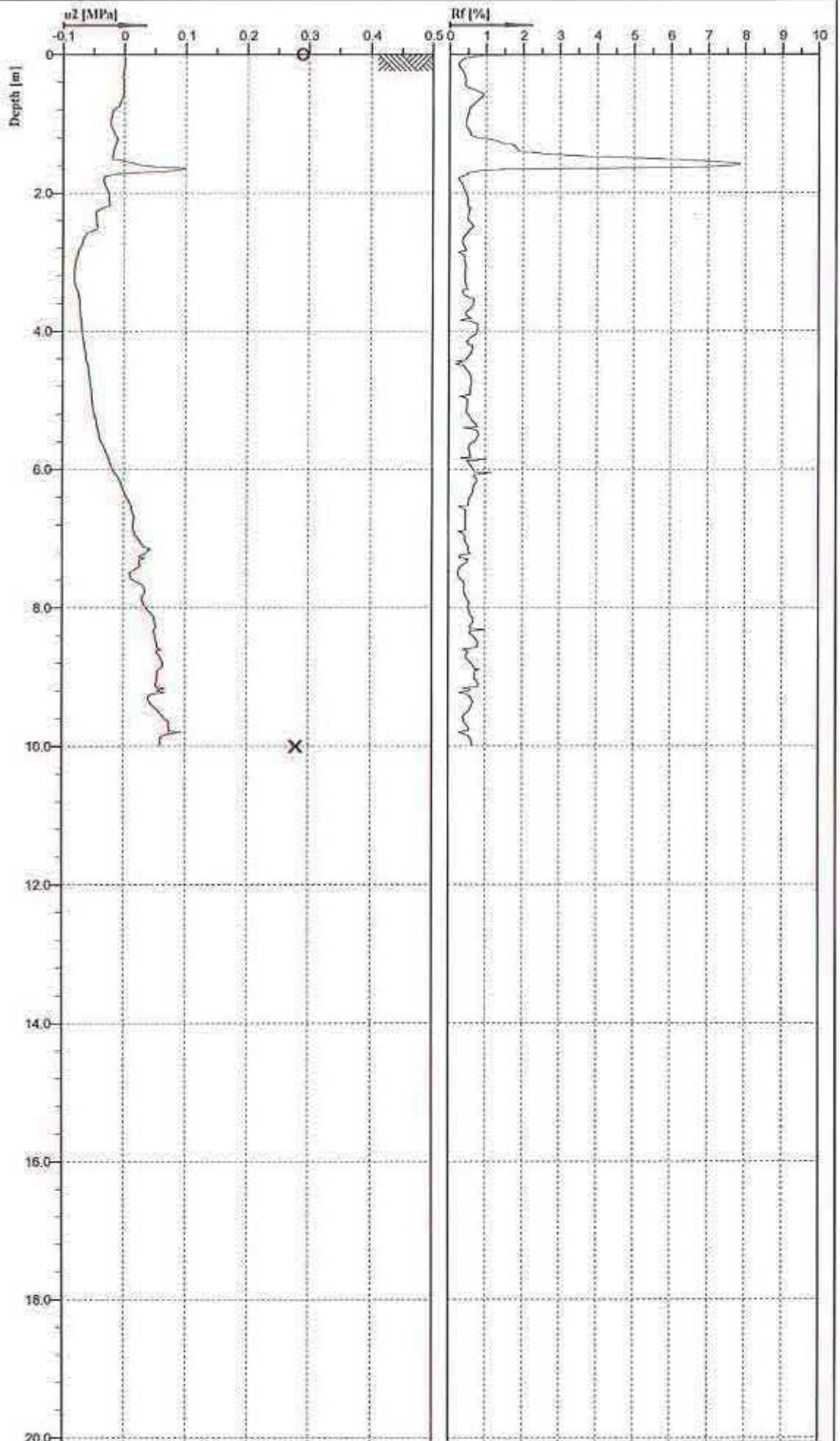
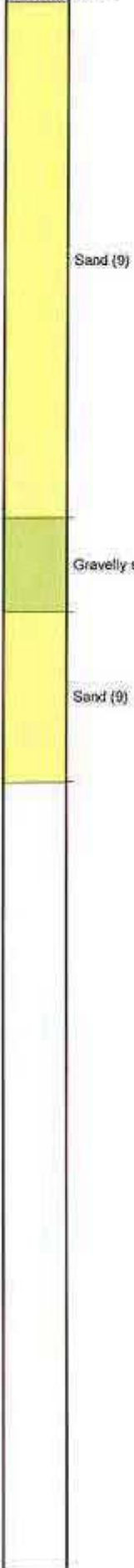
PRO-DRILL
SPECIALIST DRILLING ENGINEERS



Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF10
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF10.cpl		

Classification by
Robertson 1986

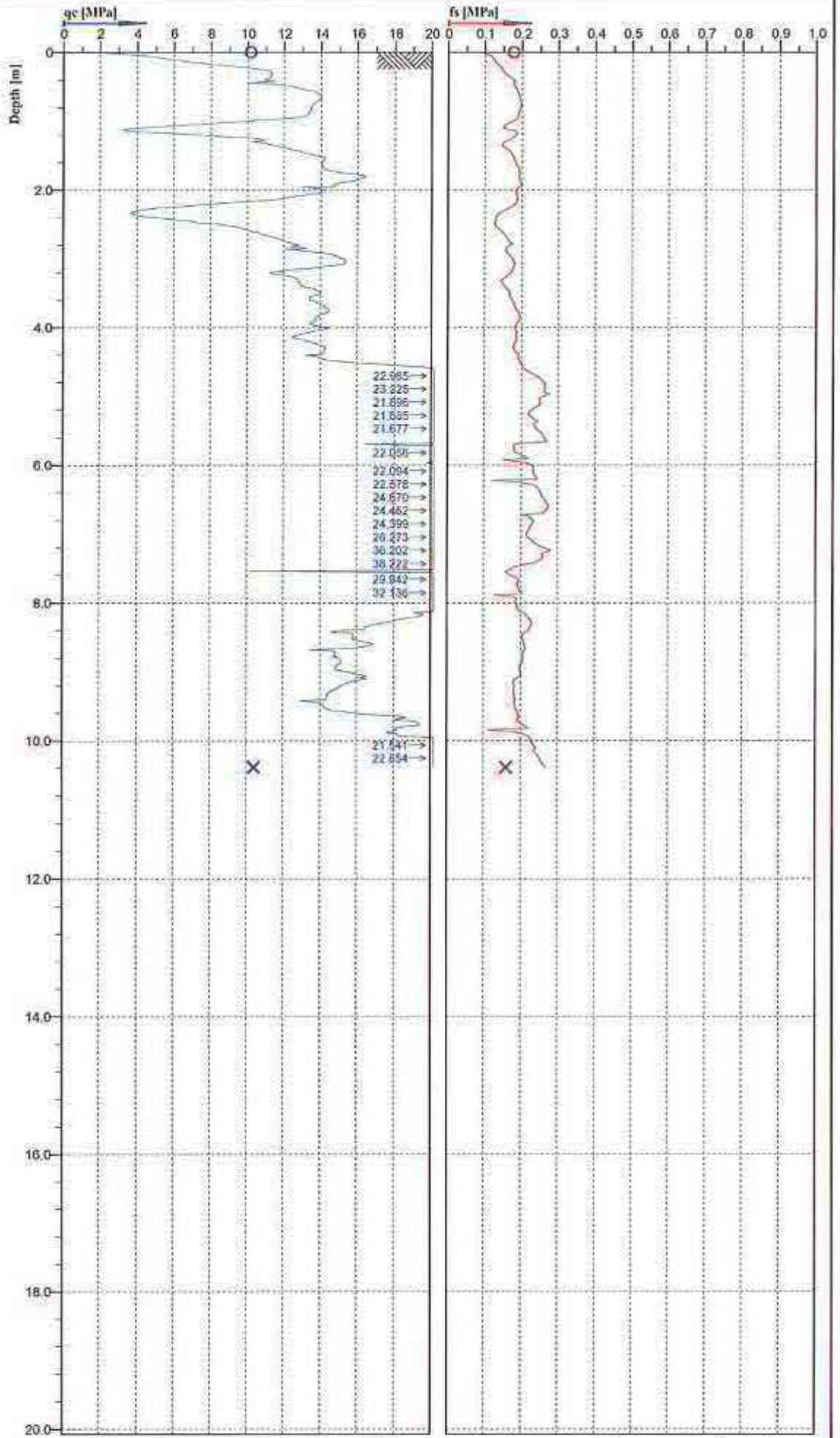
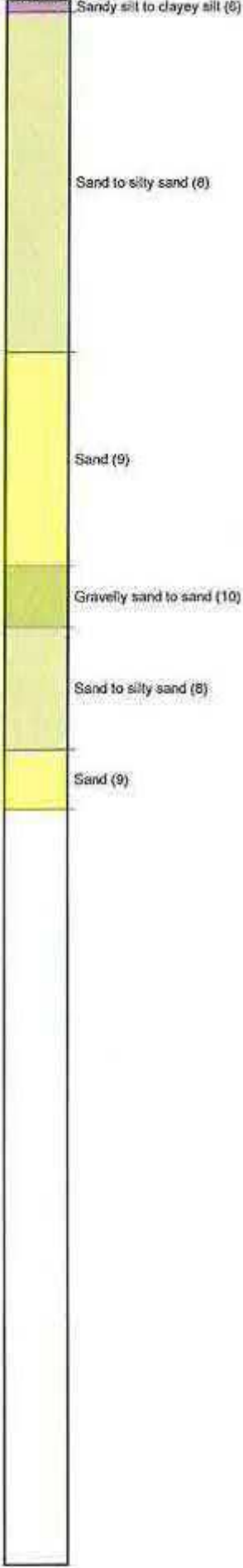


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF10
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF10.cpt		

Classification by
Robertson 1988



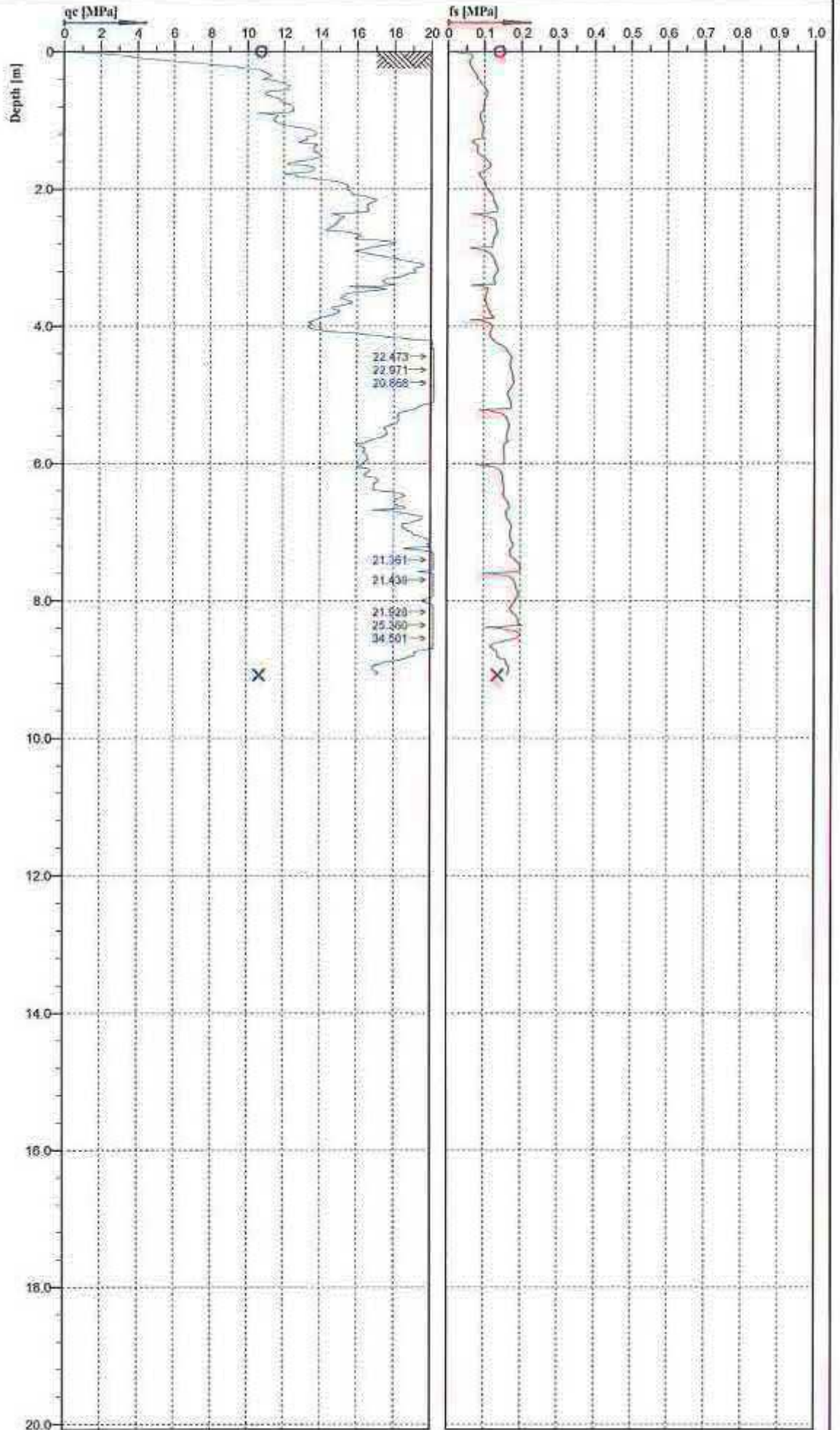
Cone No. 4494
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF11
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF11.cpt		

Classification by
Robertson 1986

Clayey silt to silty clay (5)

Sand (9)

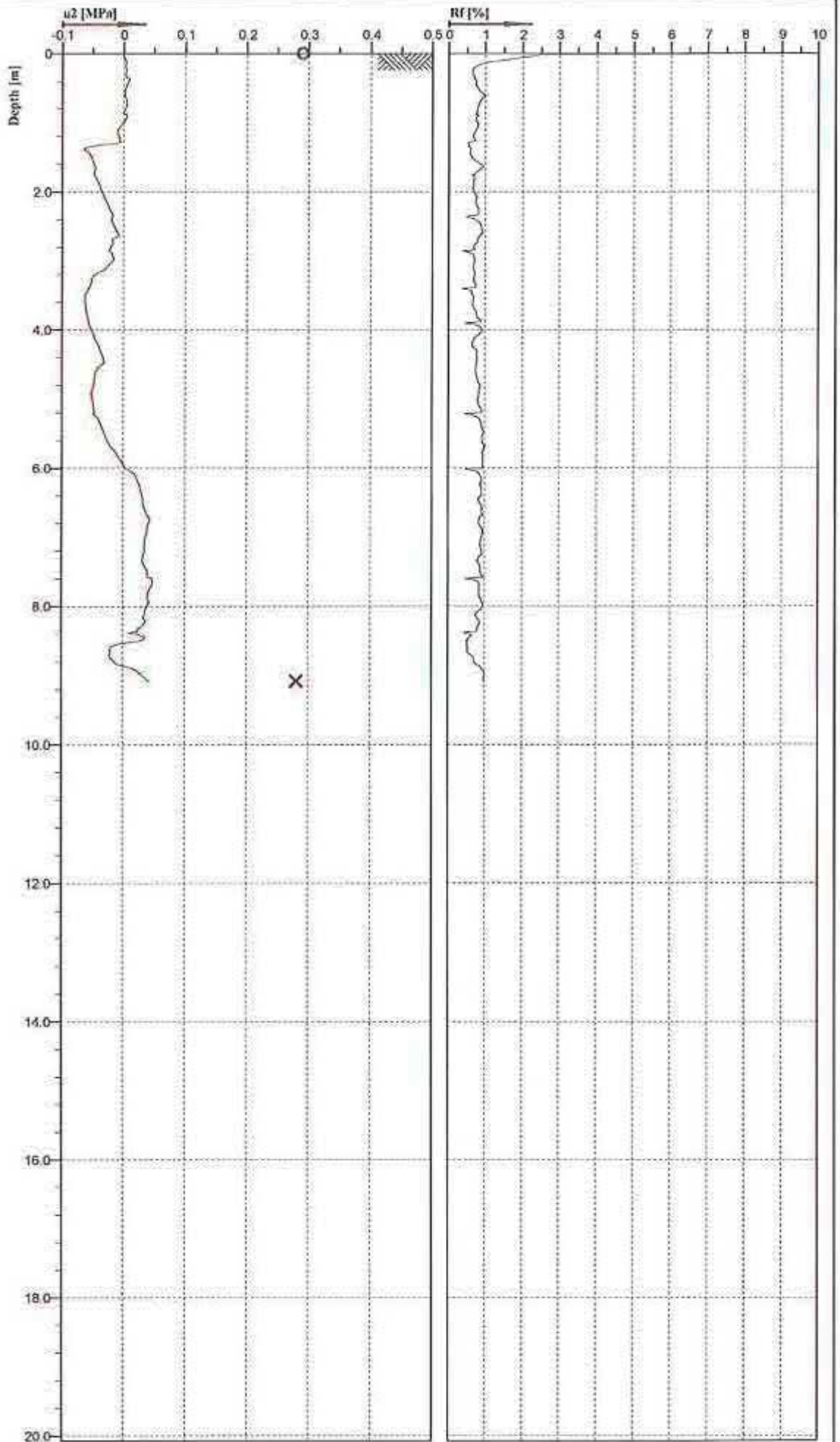


Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF12
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF12.cpt		

Classification by
Robertson 1986

Clayey silt to silty clay (5)

Sand (9)

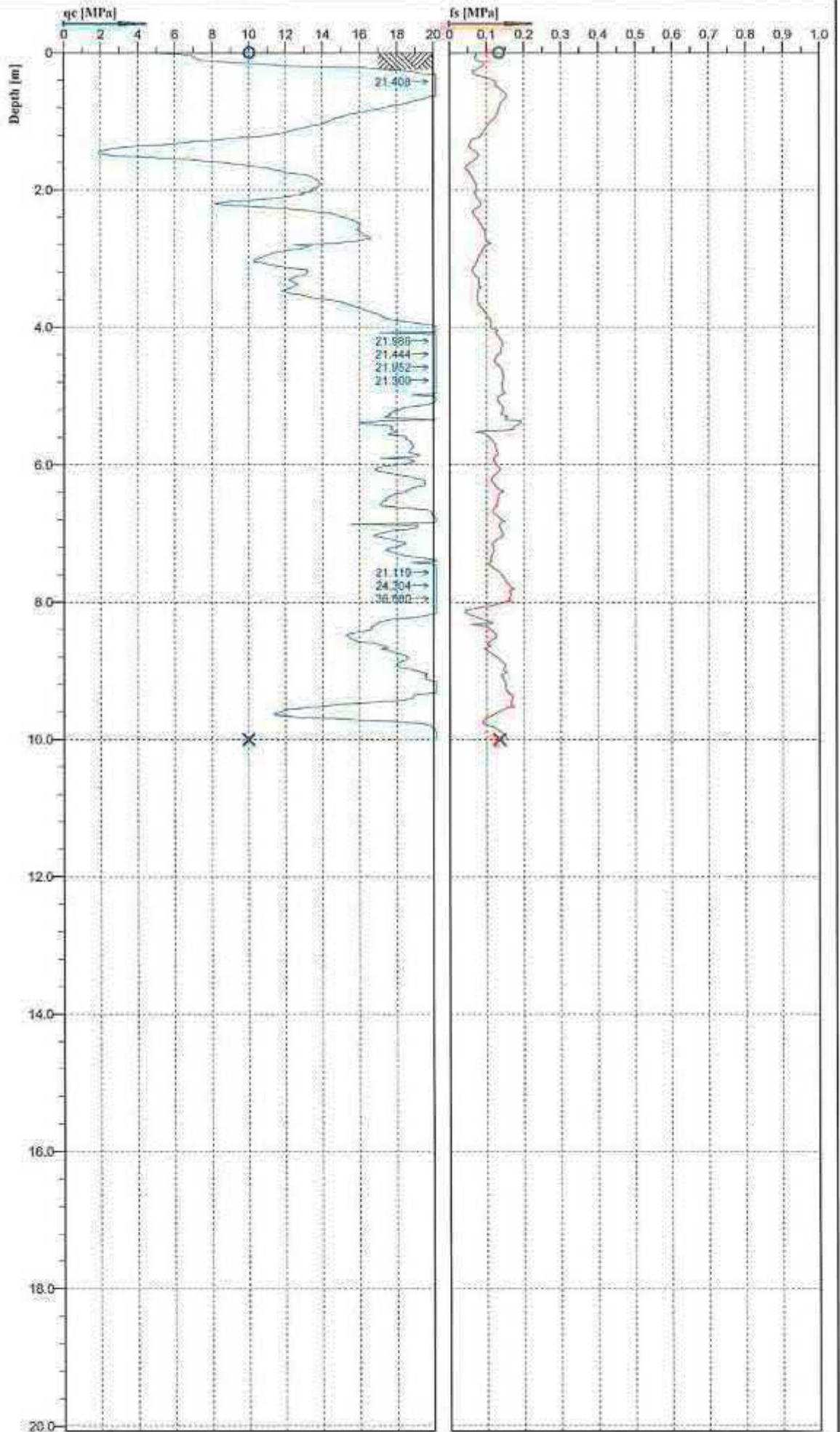


Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF12
Project ID:		Client:	Aurecon	Date:	28/08/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF12.cpl		

Classification by
Robertson 1986

Sand to silty sand (8)

Sand (9)



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4439
Tip area [cm²]: 10
Sleeve area [cm²]: 150

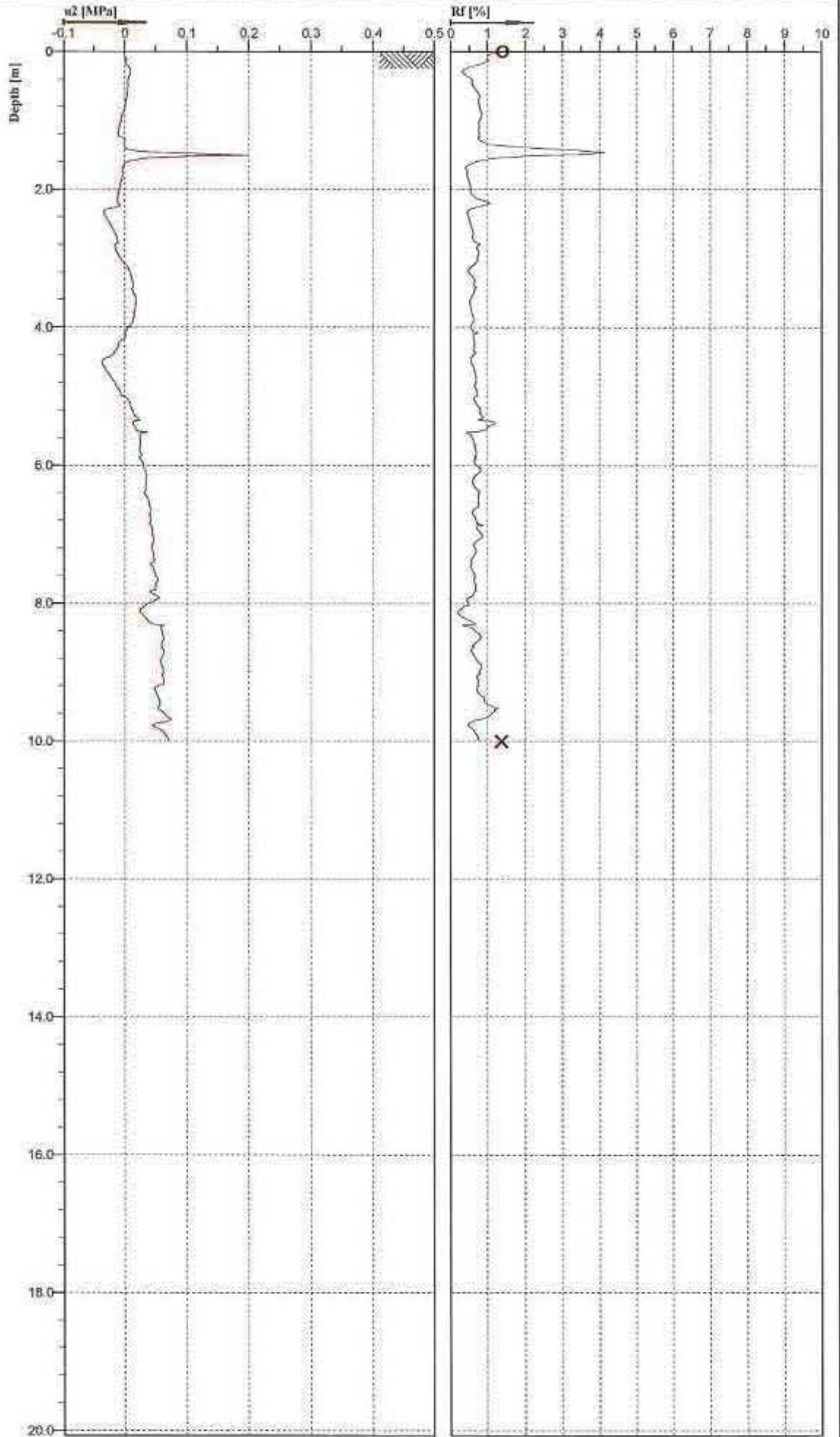
Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF21
Project ID:		Client:	AURECON	Date:	25/11/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF21.cpt		

Classification by
Robertson 1986

Sand to silty sand (8)



Sand (9)

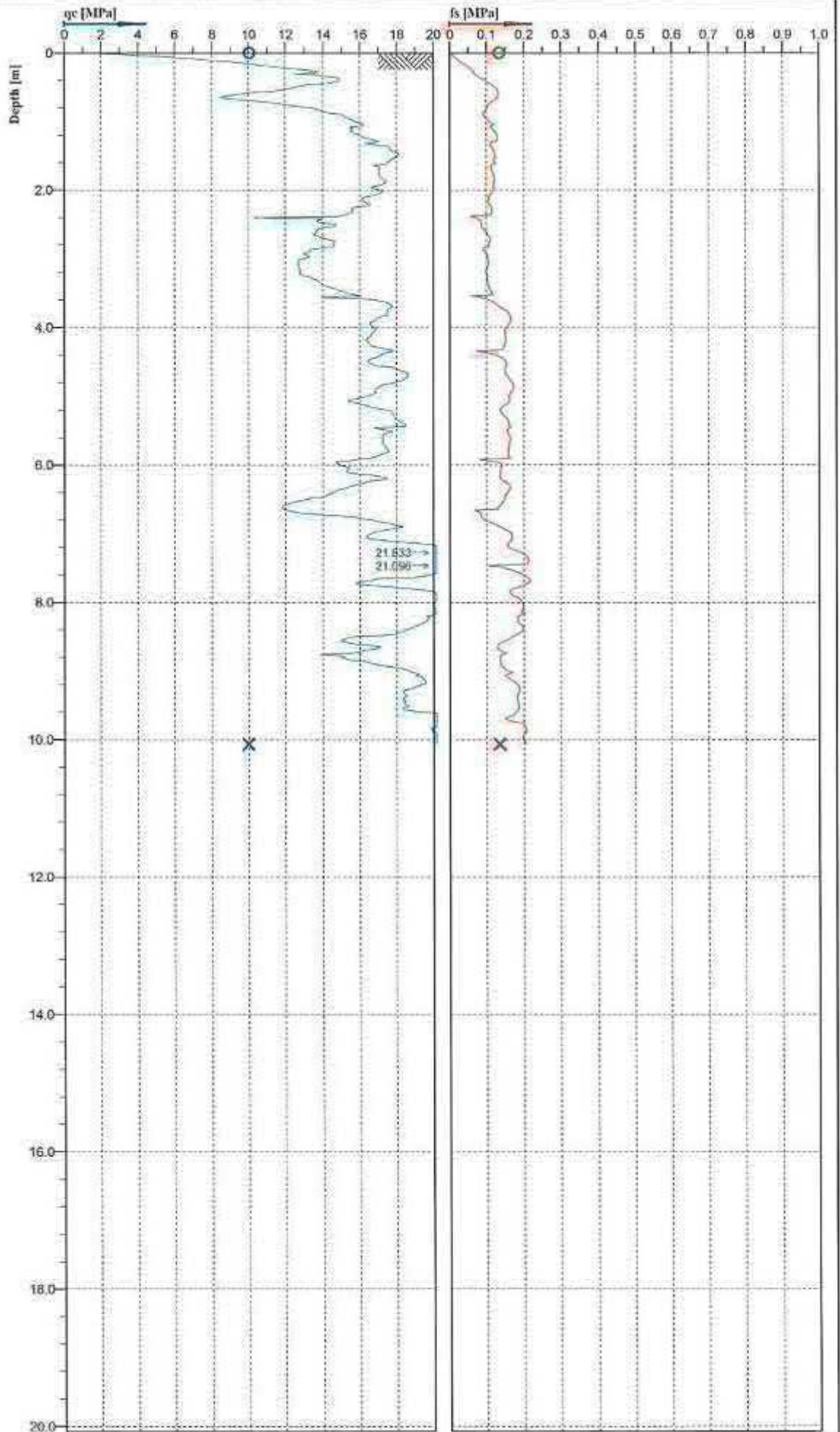
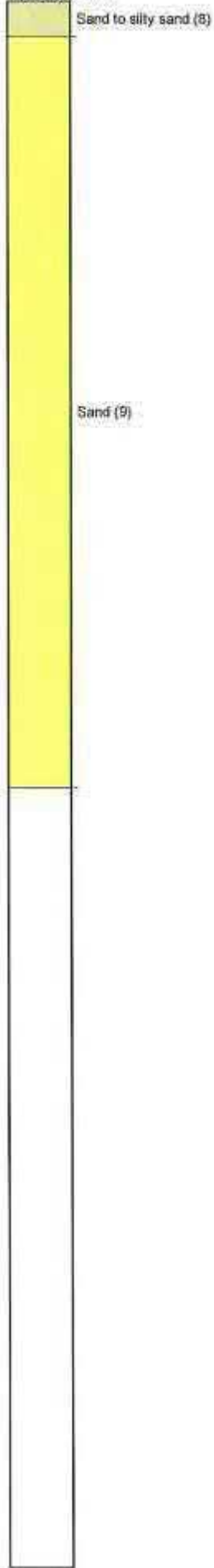


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4439
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF21
Project ID:		Client:	AURECON	Date:	25/11/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF21.cpt		

Classification by
Robertson 1986

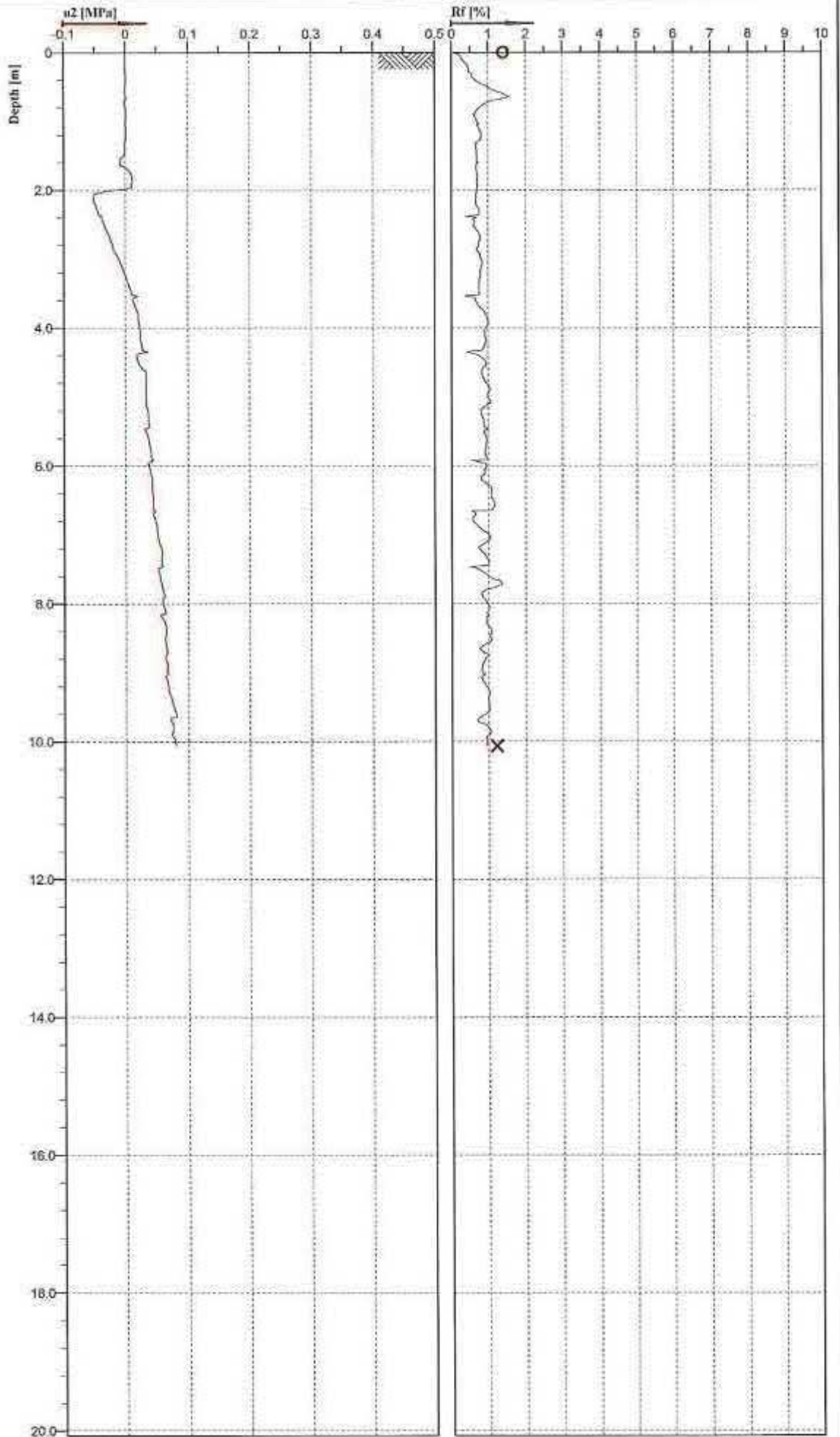
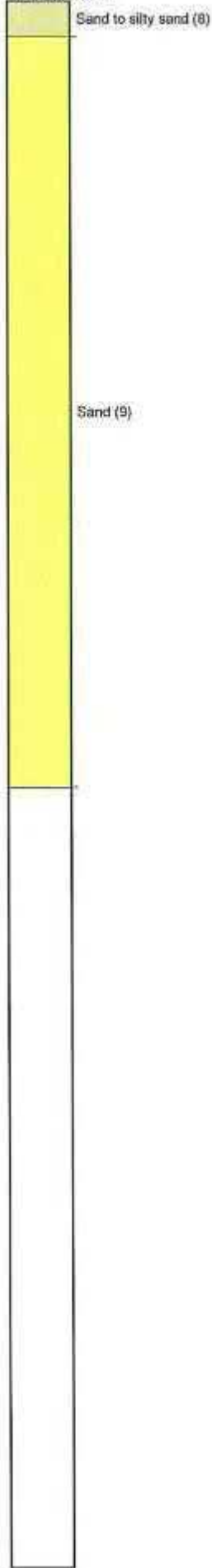


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4439
Tip area [cm²]: 10
Sieve area [cm²]: 150

Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF22
Project ID:	Client: AURECON	Date: 25/11/2014	Scale: 1 : 80
Project: PRESTONS SOUTH		Page: 1/1	Fig:
		File: PrestonsSouthCPTPF22.cpt	

Classification by
Robertson 1986



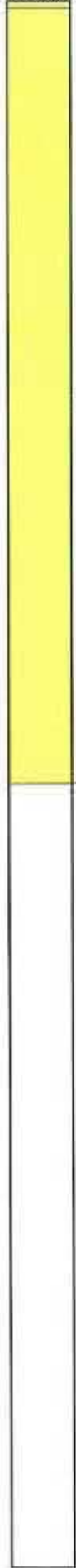
PRO-DRILL
SPECIALIST DRILLING ENGINEERS



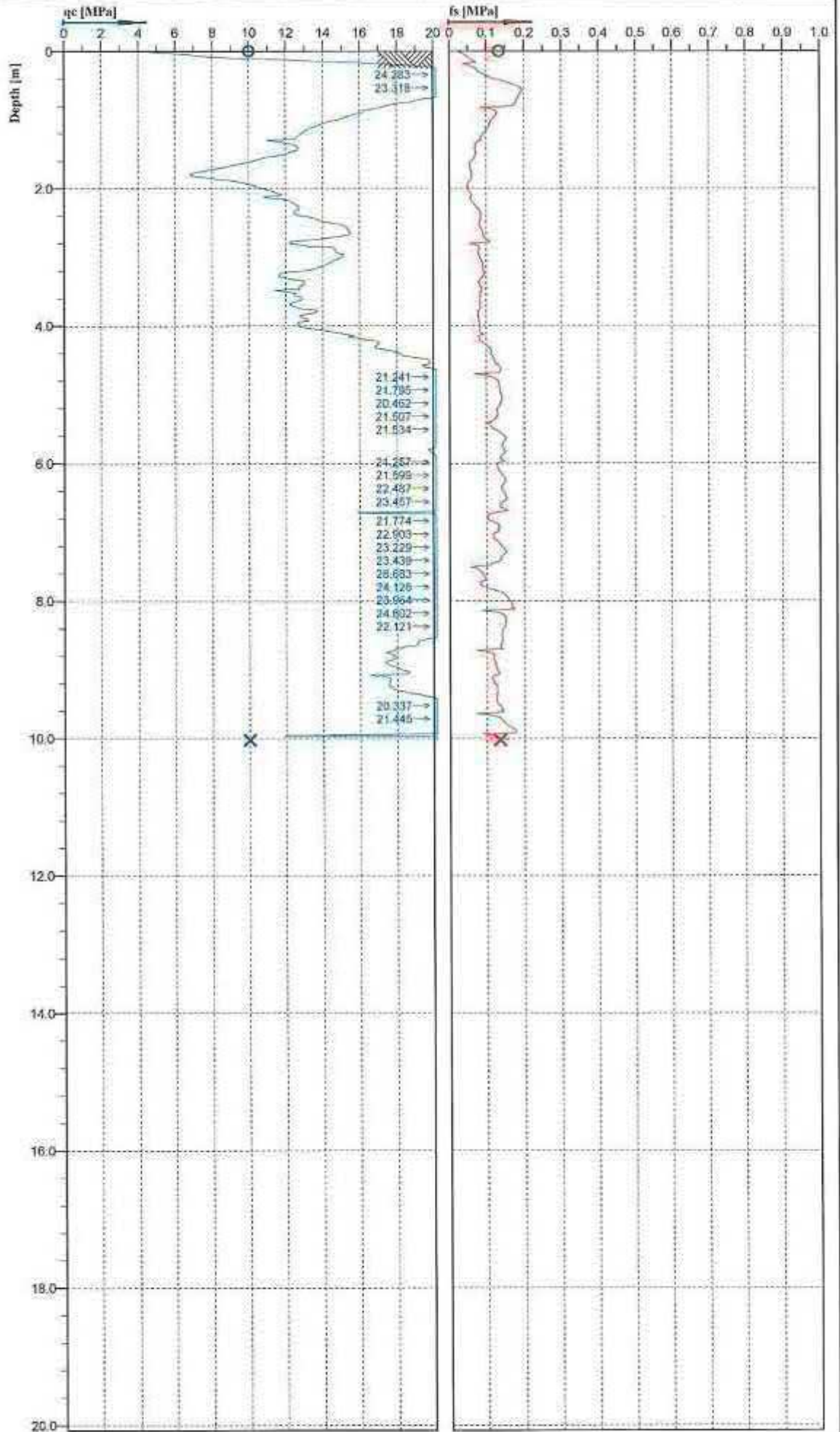
Cone No: 4439
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF22
Project ID:	Client: AURECON	Date: 25/11/2014	Scale: 1 : 80
Project: PRESTONS SOUTH		Page: 1/1	Fig:
		File: PrestonsSouthCPTPF22.cpt	

Classification by
Robertson 1986



Sand (9)



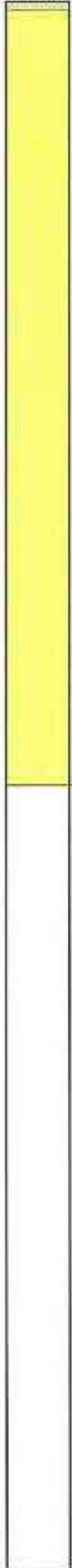
PRO-DRILL
SPECIALIST DRILLING ENGINEERS



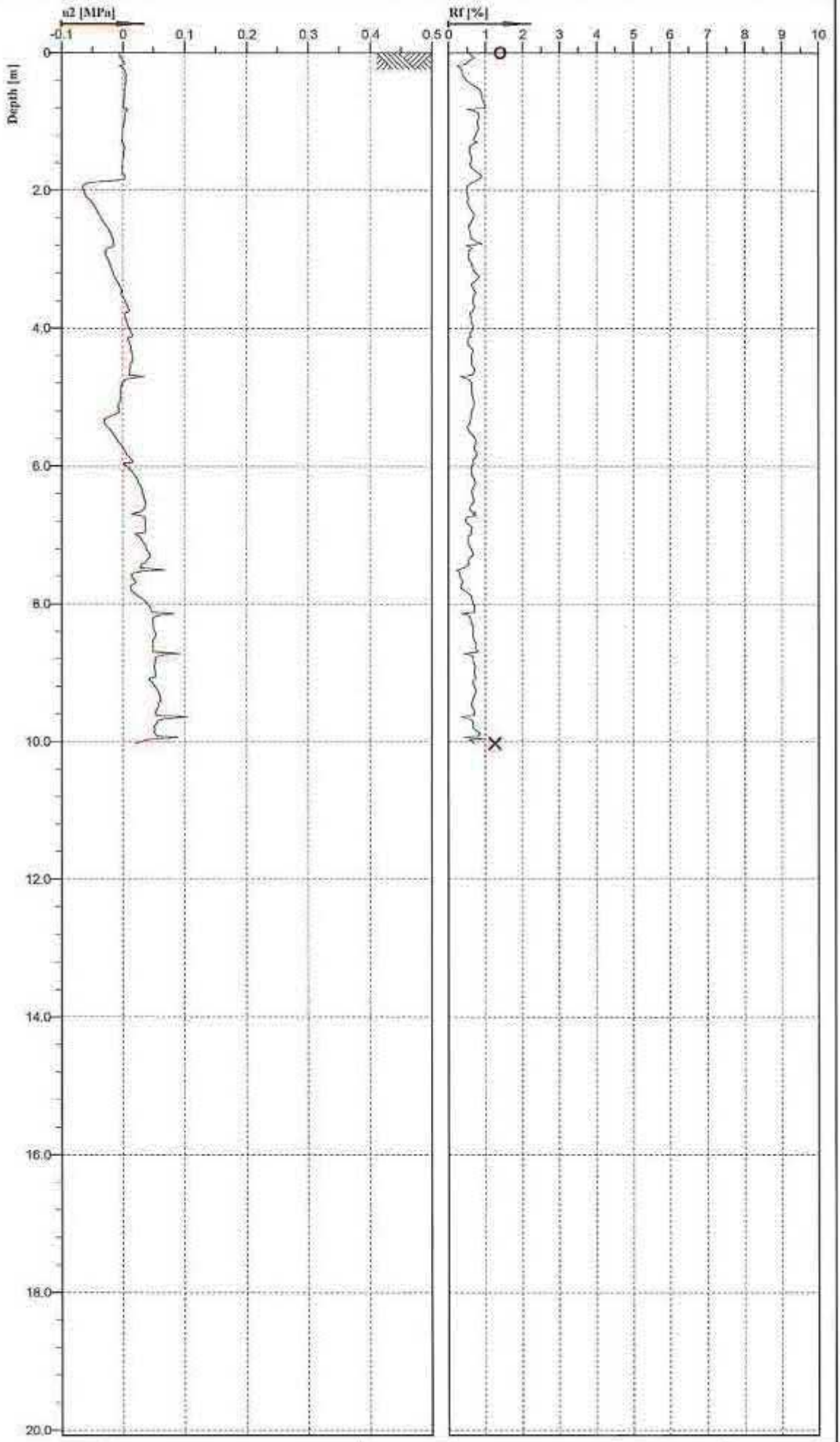
Cone No: 4439
Tip area [cm²]: 10
Sleeve area [cm²]: 190

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF23
Project ID:		Client:	AURECON	Date:	25/11/2014	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthCPTPF23.cpt		

Classification by
Robertson 1985



Sand (9)



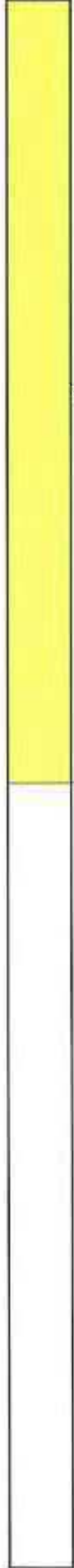
PRO-DRILL
SPECIALIST DRILLING ENGINEERS



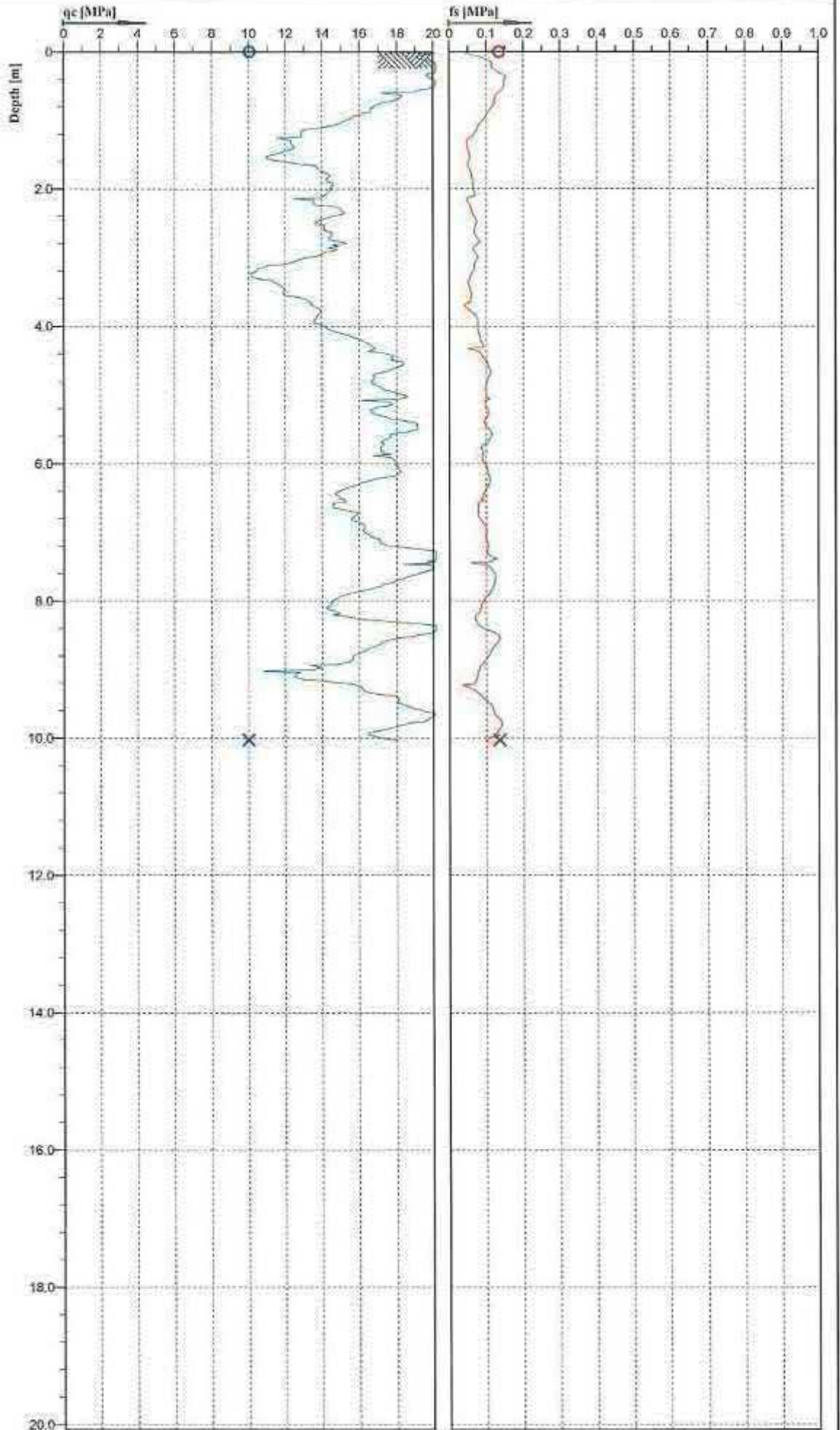
Cone No: 4439
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF23
Project ID:	Client: AURECON	Date: 25/11/2014	Scale: 1 : 80
Project: PRESTONS SOUTH		Page: 1/1	Fig:
		File: PrestonsSouthCPTPF23.cpt	

Classification by
Robertson 1988



Sand (9)



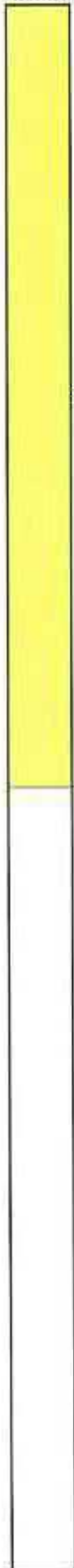
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4439
Tip area [cm²]: 10
Sleeve area [cm²]: 150

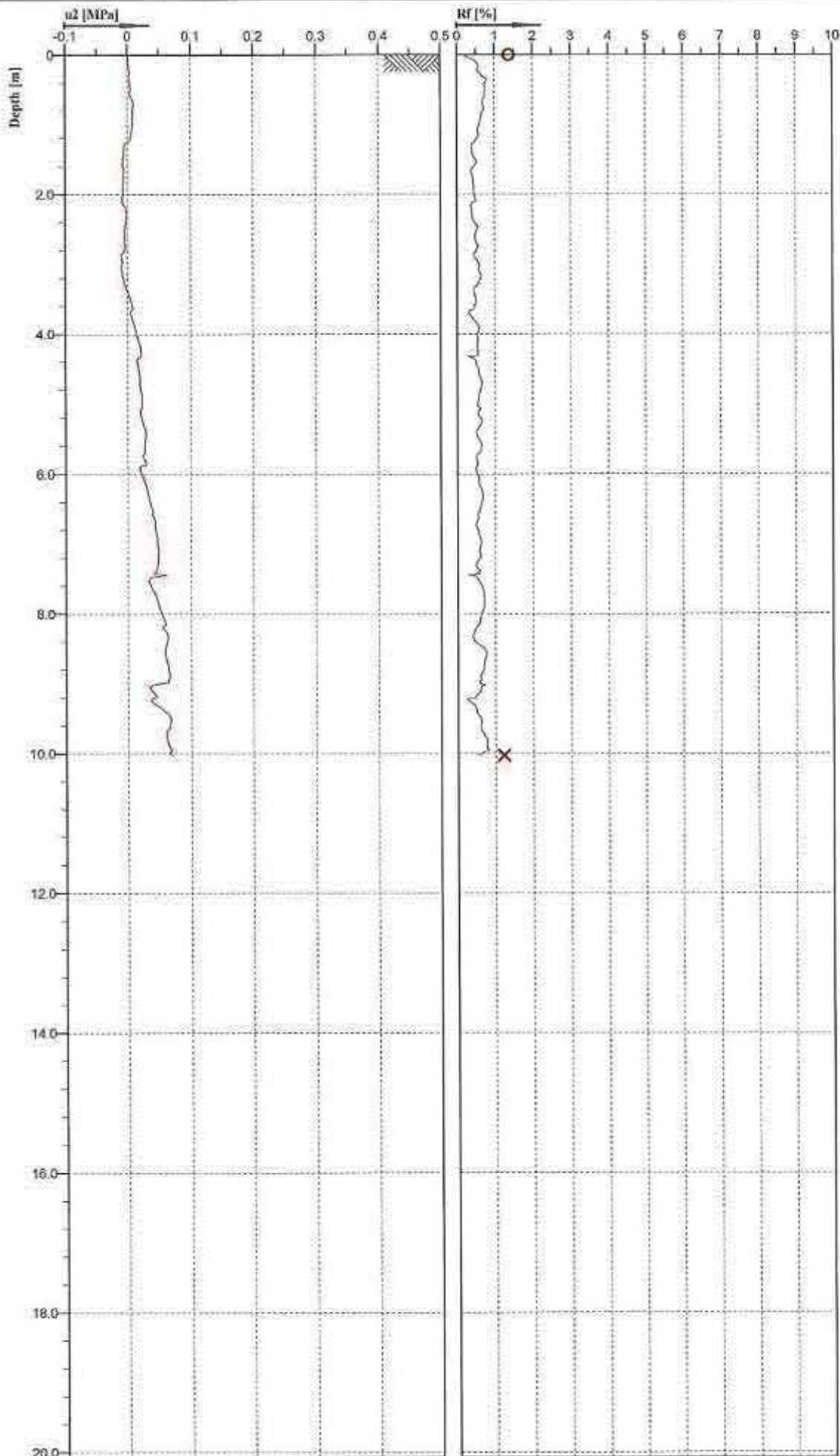


Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF26
Project ID:	Client: Aurecon	Date: 04/02/2015	Scale: 1 : 80
Project: PRESTONS SOUTH		Page: 1/1	Fig:
		File: PrestonsSouthPF26.cpt	

Classification by
Robertson 1988



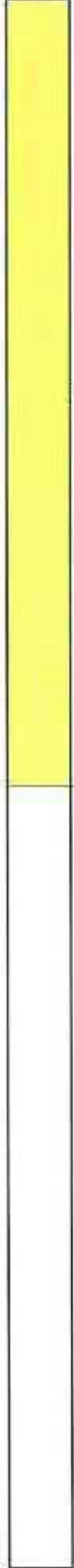
Sand (9)



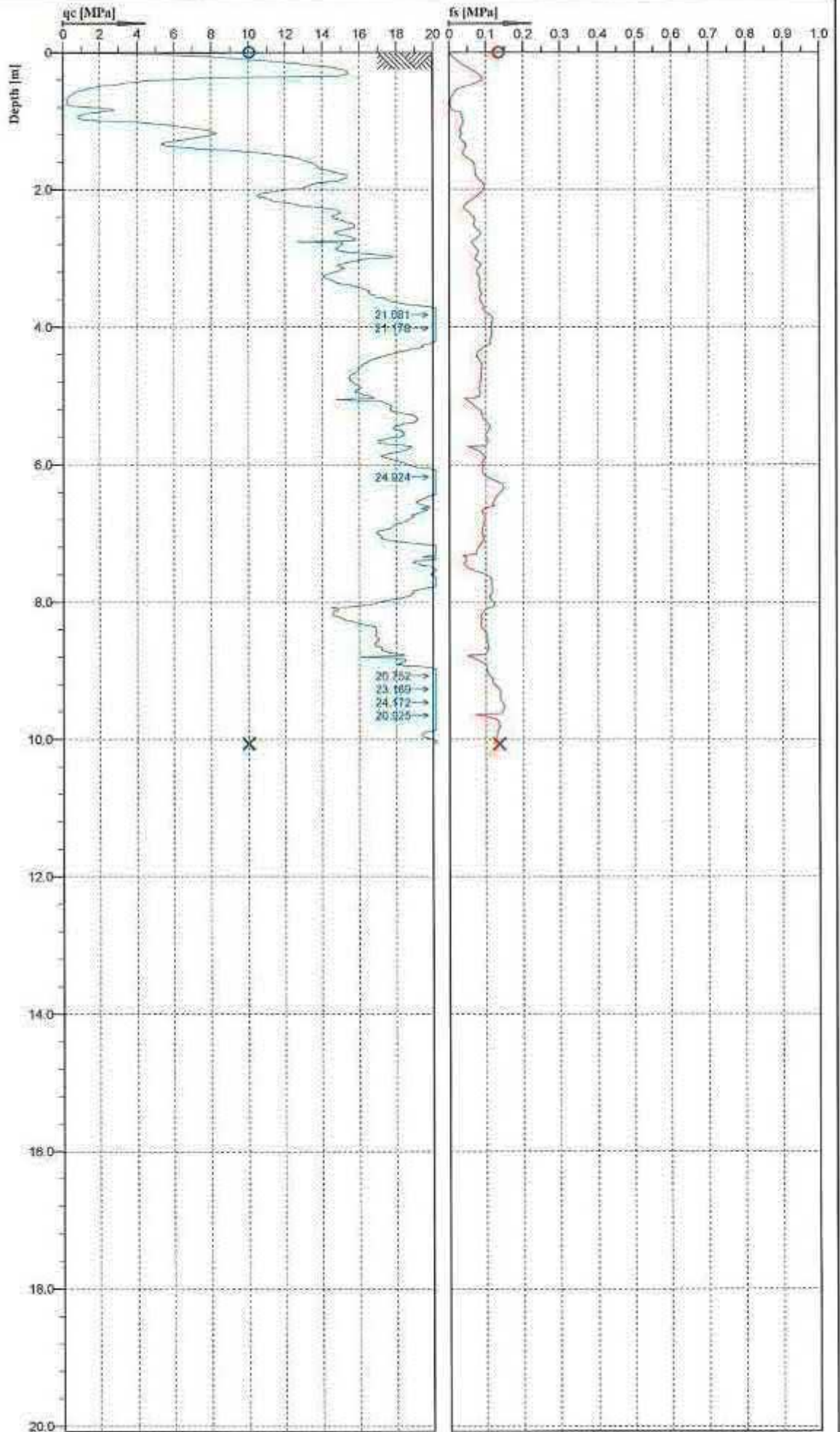
Core No: 4439
Tip area [cm²]: 10
Stem area [cm²]: 150

Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF26
Project ID:	Client: Aurecon	Date: 04/02/2015	Scale: 1 : 80
Project: PRESTONS SOUTH		Page: 1/1	Fig:
		File: PrestonsSouthPF26.cpl	

Classification by
Robertson 1996



Sand (9)

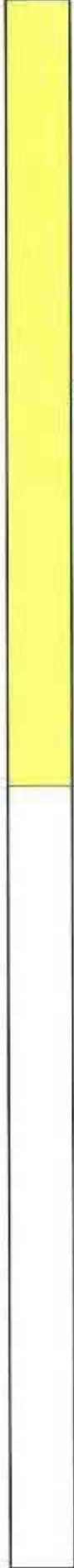


Cone No: 4439
Tip area [cm²]: 10
Sleeve area [cm²]: 150

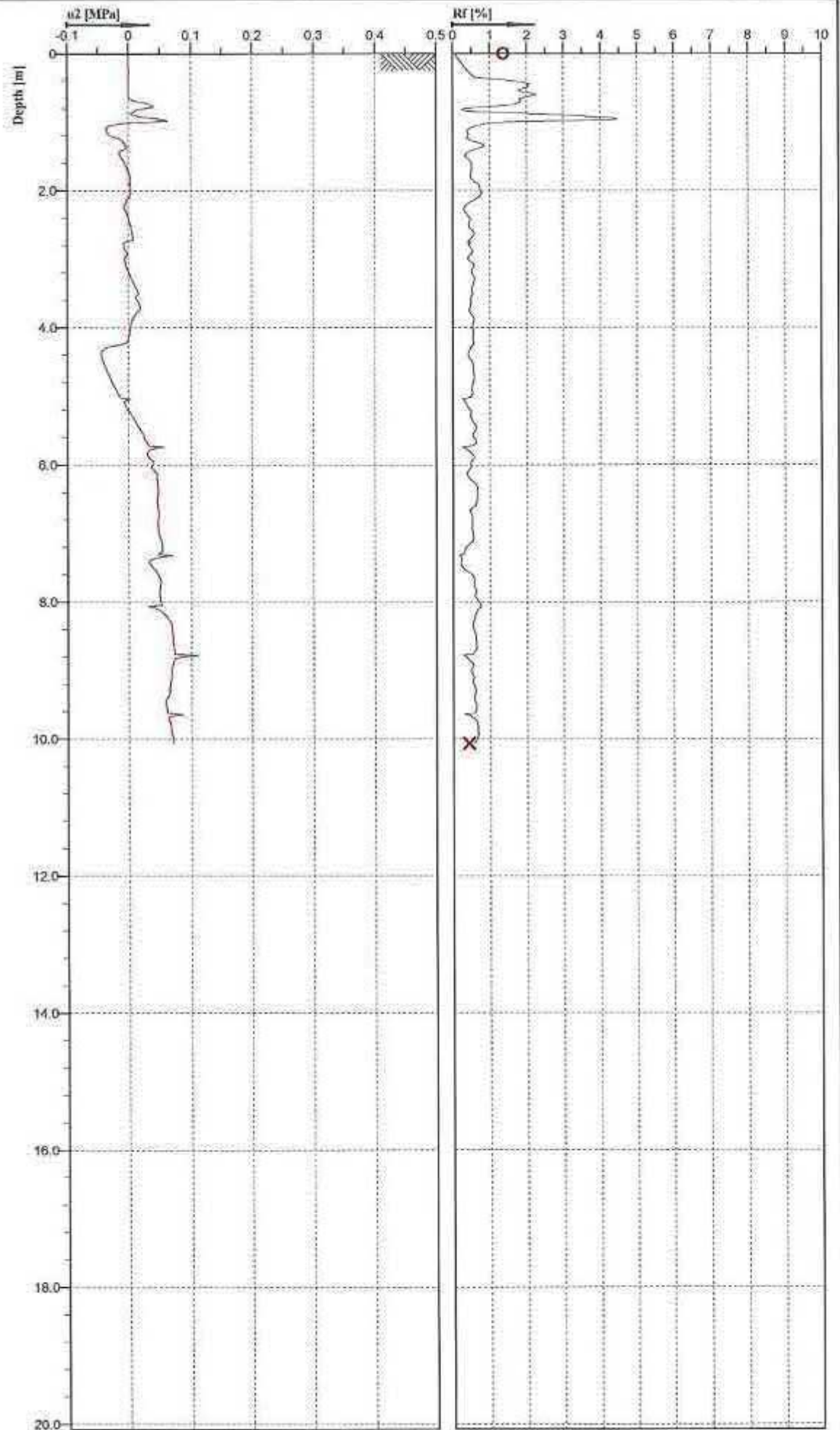
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF27
Project ID:		Client:	Aurecon	Date:	04/02/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthPF27.cpt		

Classification by
Robertson 1986



Sand (S)



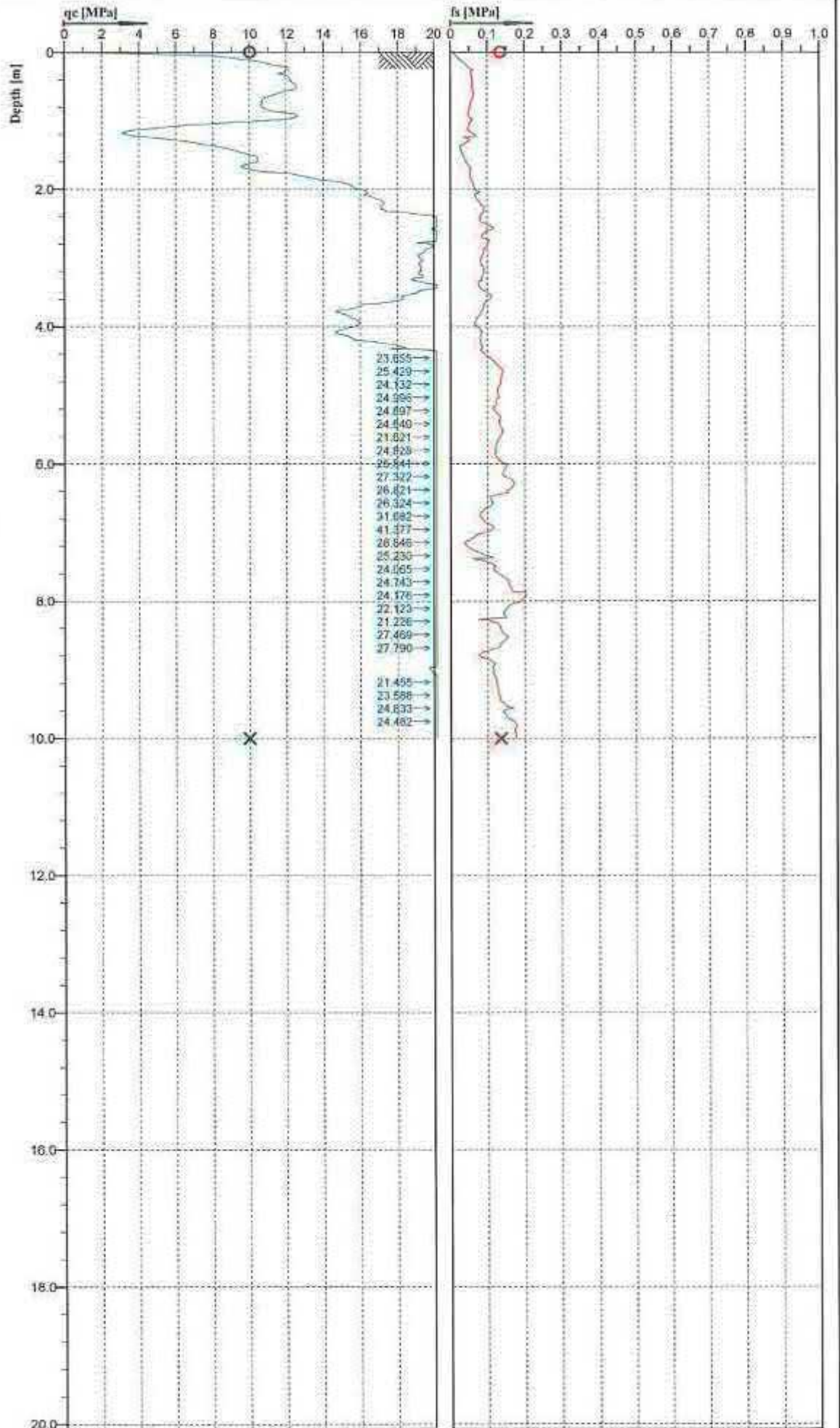
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4439
Tip area [cm²]: 10
Skirt area [cm²]: 150



Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF27
Project ID:		Client:	Aurecon	Date:	04/02/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthPF27.cpt		

Classification by
Robertson 1986

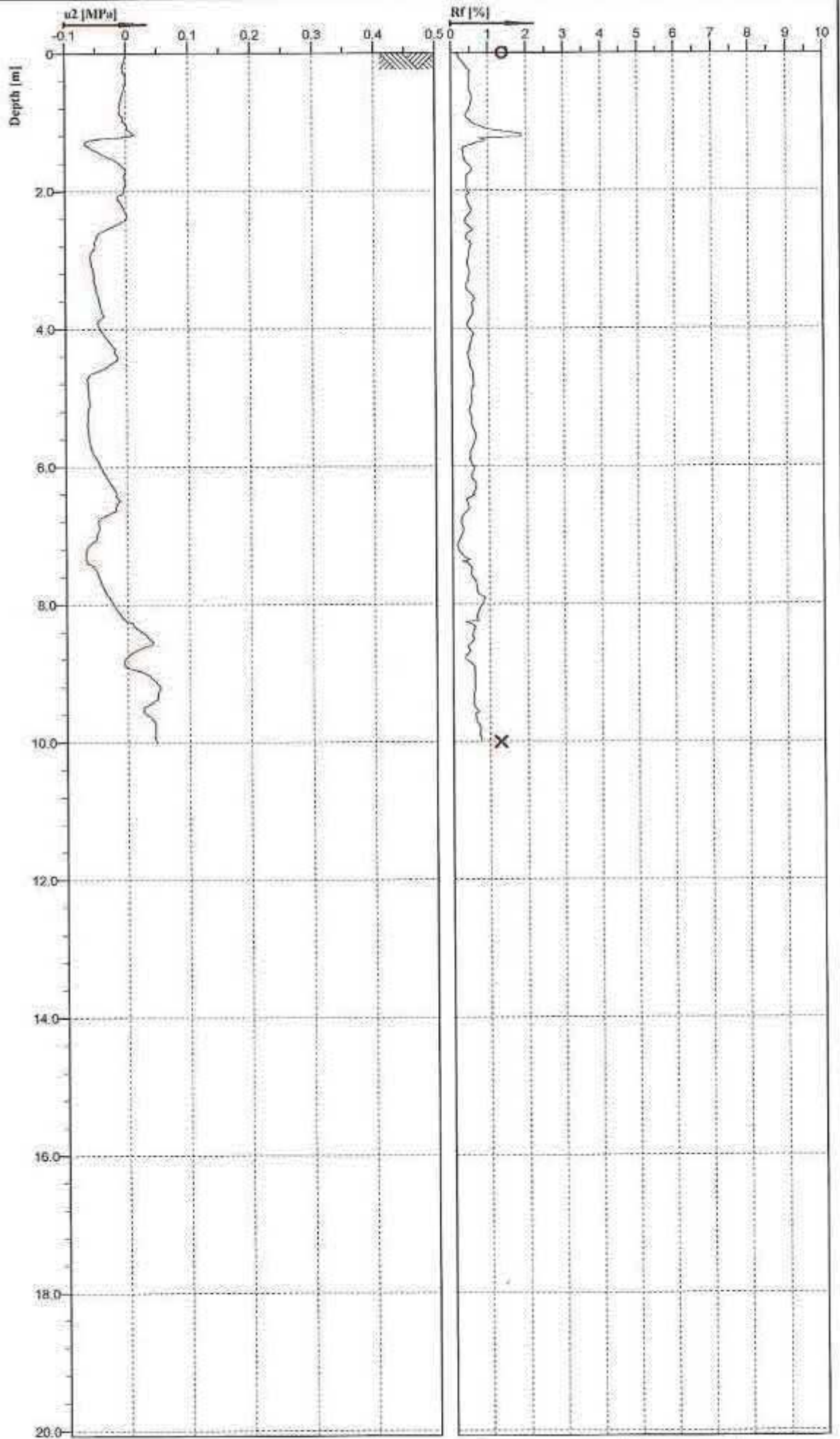
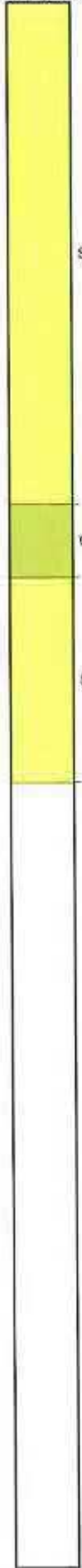


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4439
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF28
Project ID:	Client: Aurecon	Date: 04/02/2015	Scale: 1 : 80
Project: PRESTONS SOUTH		Page: 1/1	Fig:
		File: PrestonsSouthPF28.cpl	

Classification by
Robertson 1986



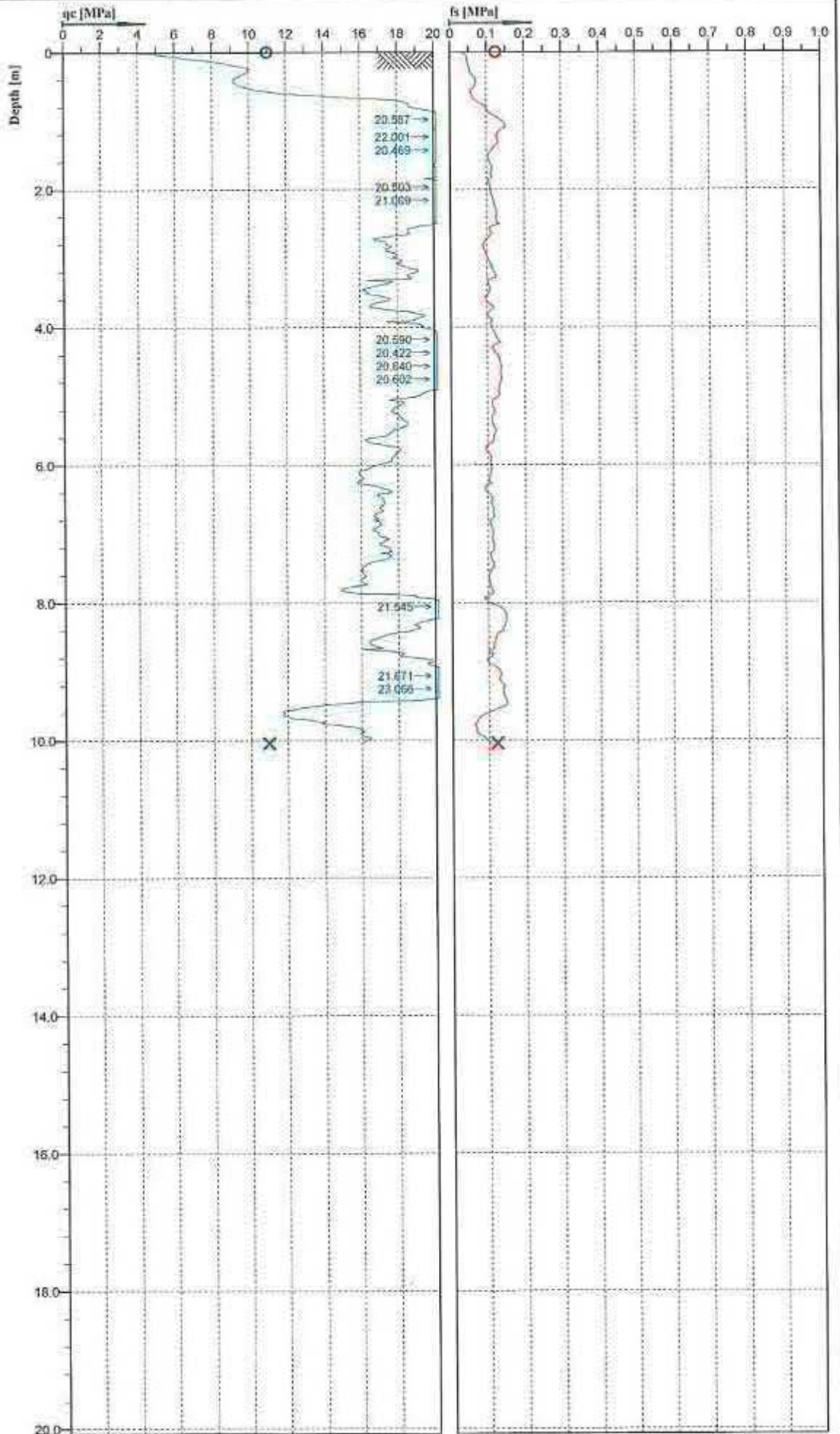
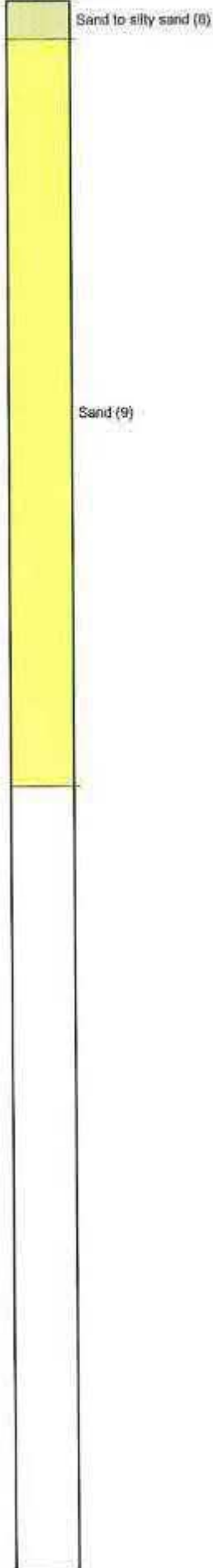
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 449E
Tip area [cm²]: 10
Sleeve area [cm²]: 150



Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF28
Project ID:		Client:	Aurecon	Date:	04/02/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthPF28.cpt		

Classification by
Robertson 1986

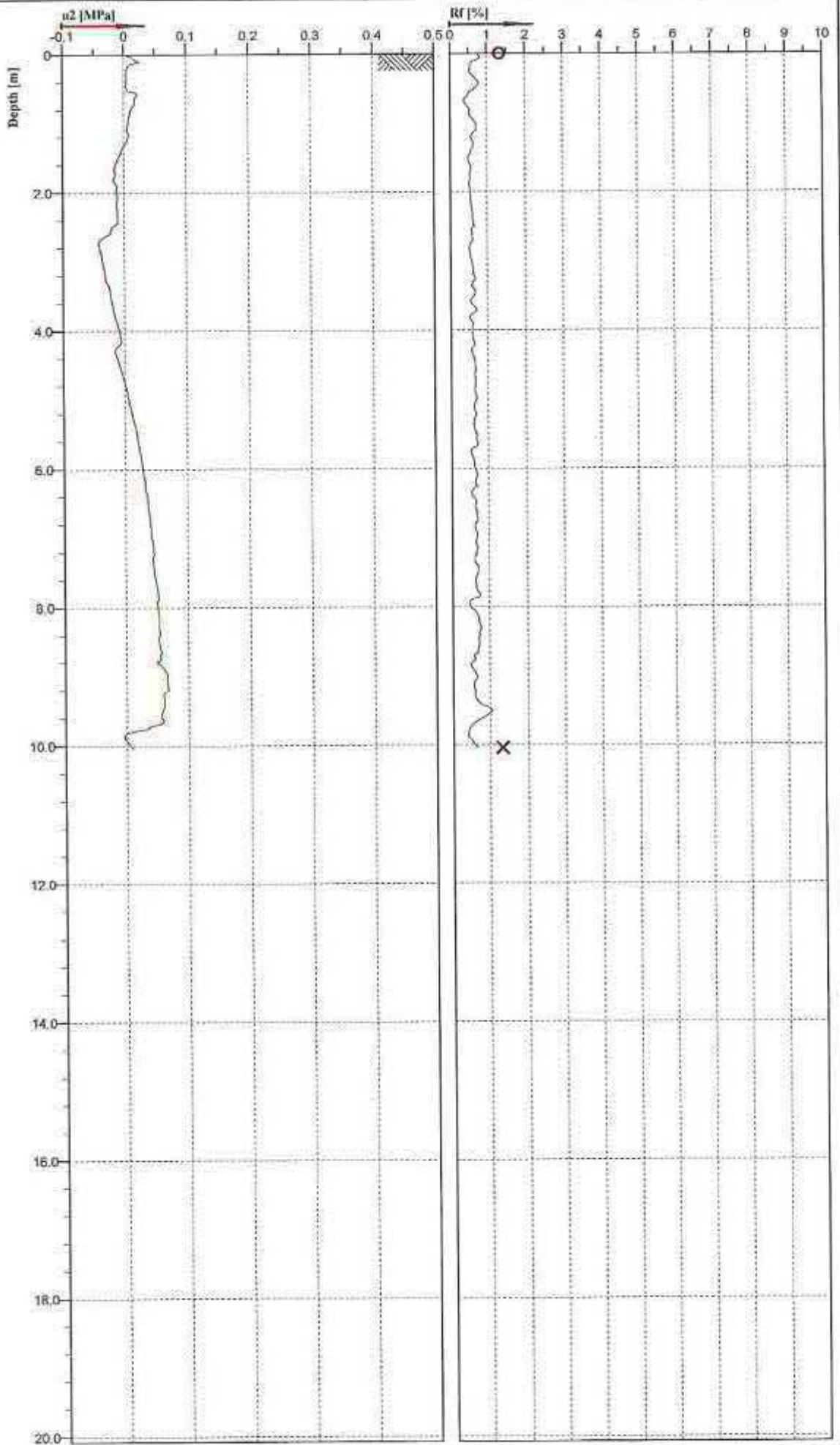
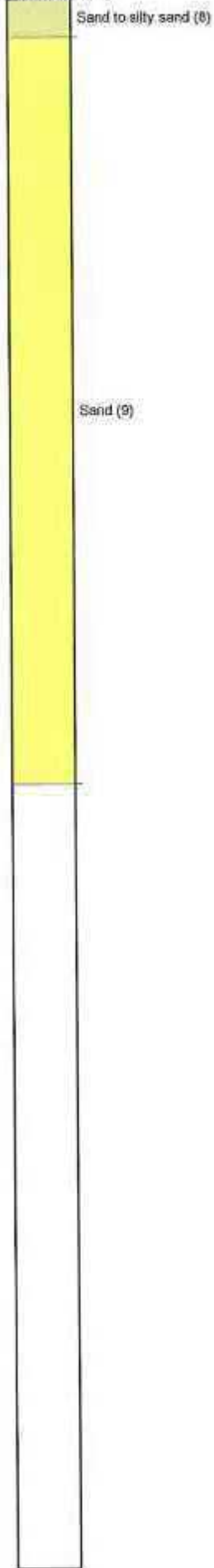


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4486
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF29
Project ID:	Client: AURECON	Date: 04-03-2015	Scale: 1 : 80
Project: PRESTONS SOUTH STAGE M & N		Page: 1/1	Fig:
		File: Preston South CPTPF29.cpt	

Classification by
Robertson 1986

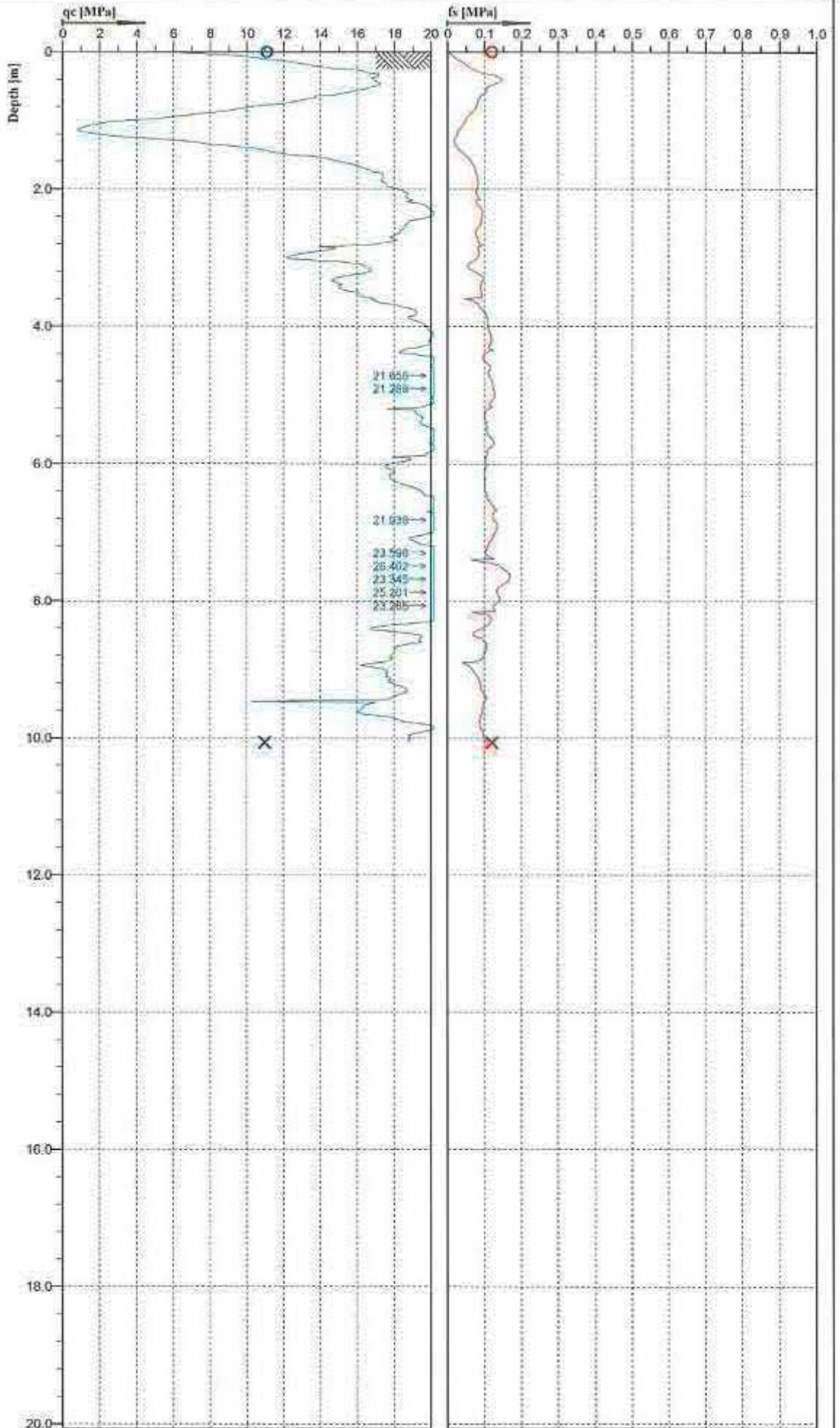
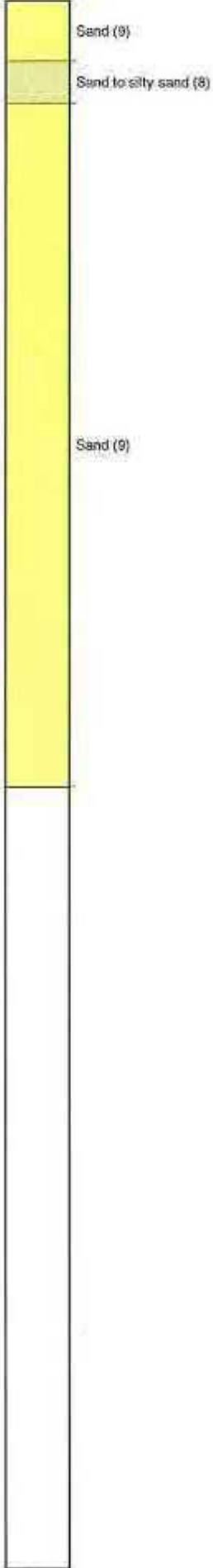


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4486
Tip area (cm²): 10
Stem area (cm²): 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF29
Project ID:		Client:	AURECON	Date:	04-03-2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTPF29.cpt		

Classification by
Robertson 1986

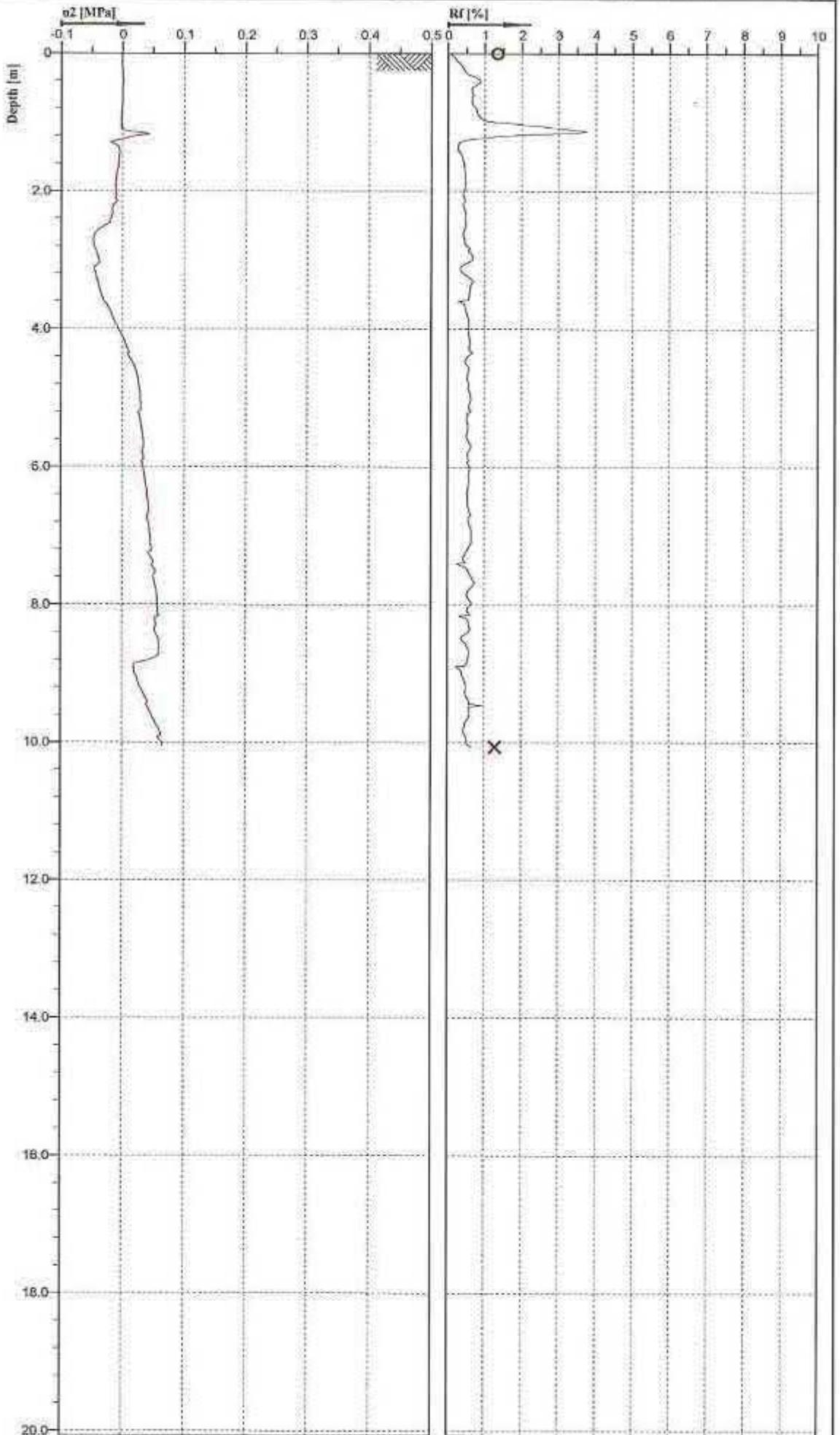
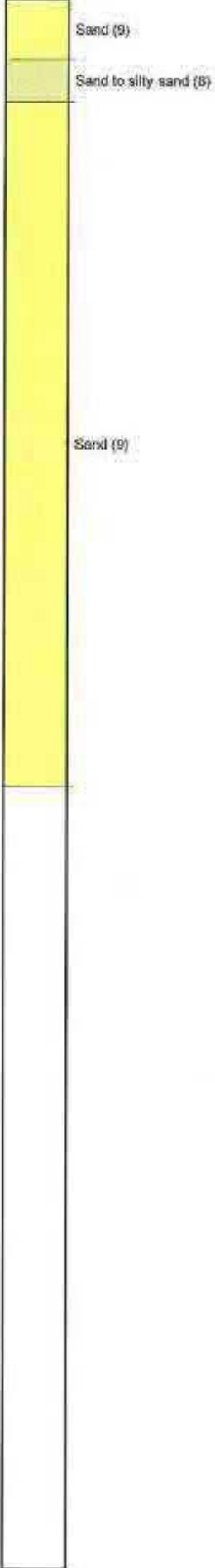


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4480
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	PF30
Project ID:		Client:	Aurecon	Date:	18/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH			Page:	1/1	Fig:	
				File:	PrestonsSouthPF30.cpl		

Classification by
Robertson 1986



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4466
Tip area [cm²]: 10
Sleeve area [cm²]: 130



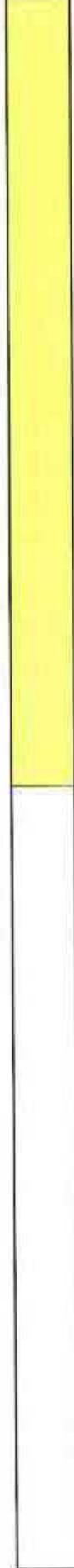
Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: PF30
Project ID:	Client: Aurecon	Date: 18/03/2015	Scale: 1 : 80
Project: PRESTONS SOUTH		Page: 1/1	Fig:
		File: PrestonsSouthPF30.cpl	



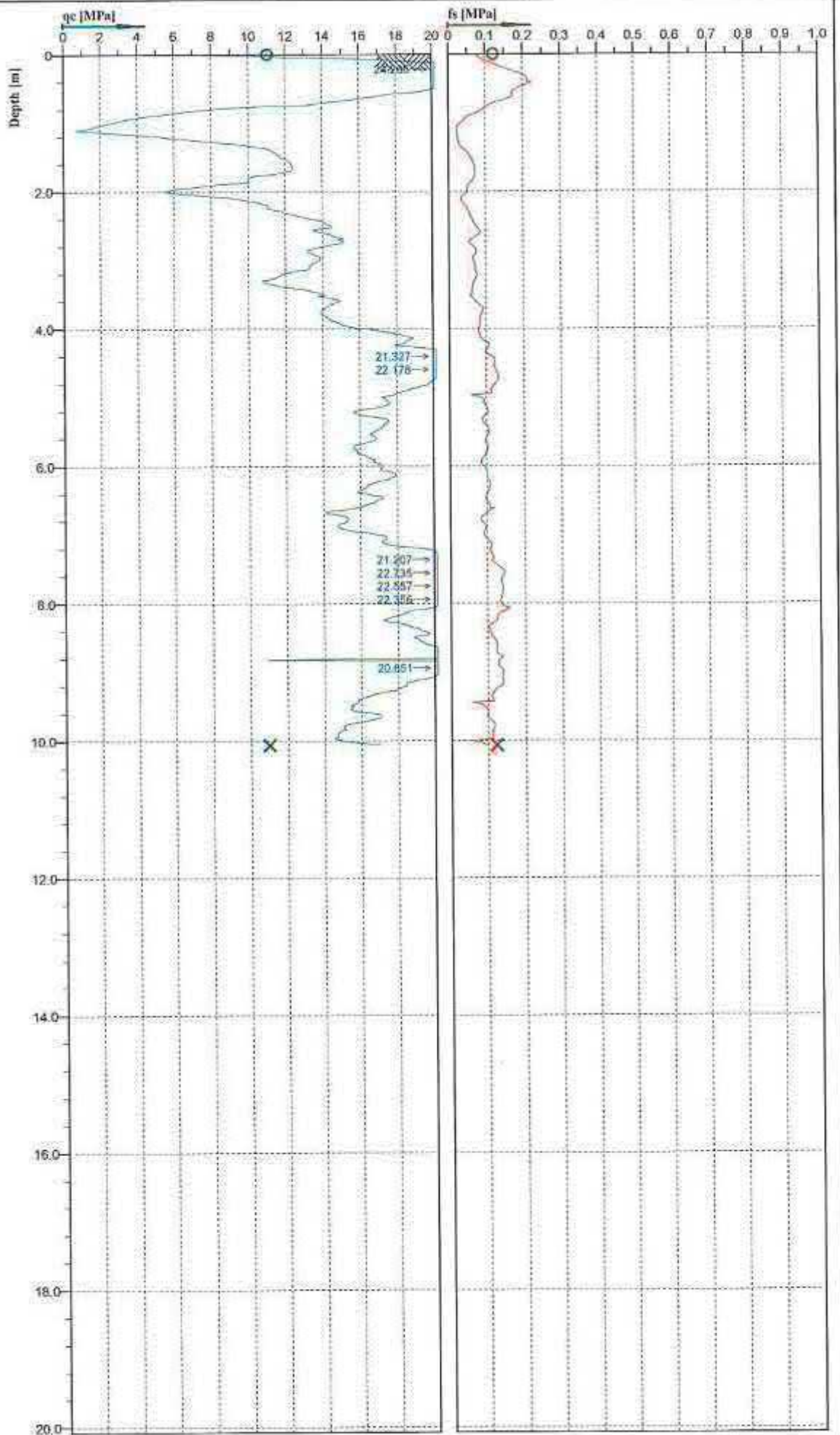
Appendix J

Verification CPT Logs

Classification by
Robertson 1995

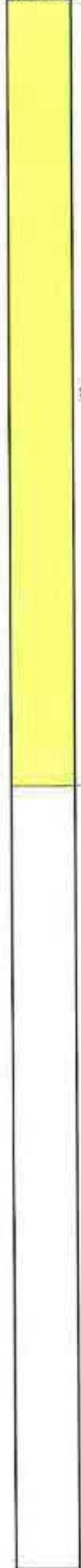


Sand (9)

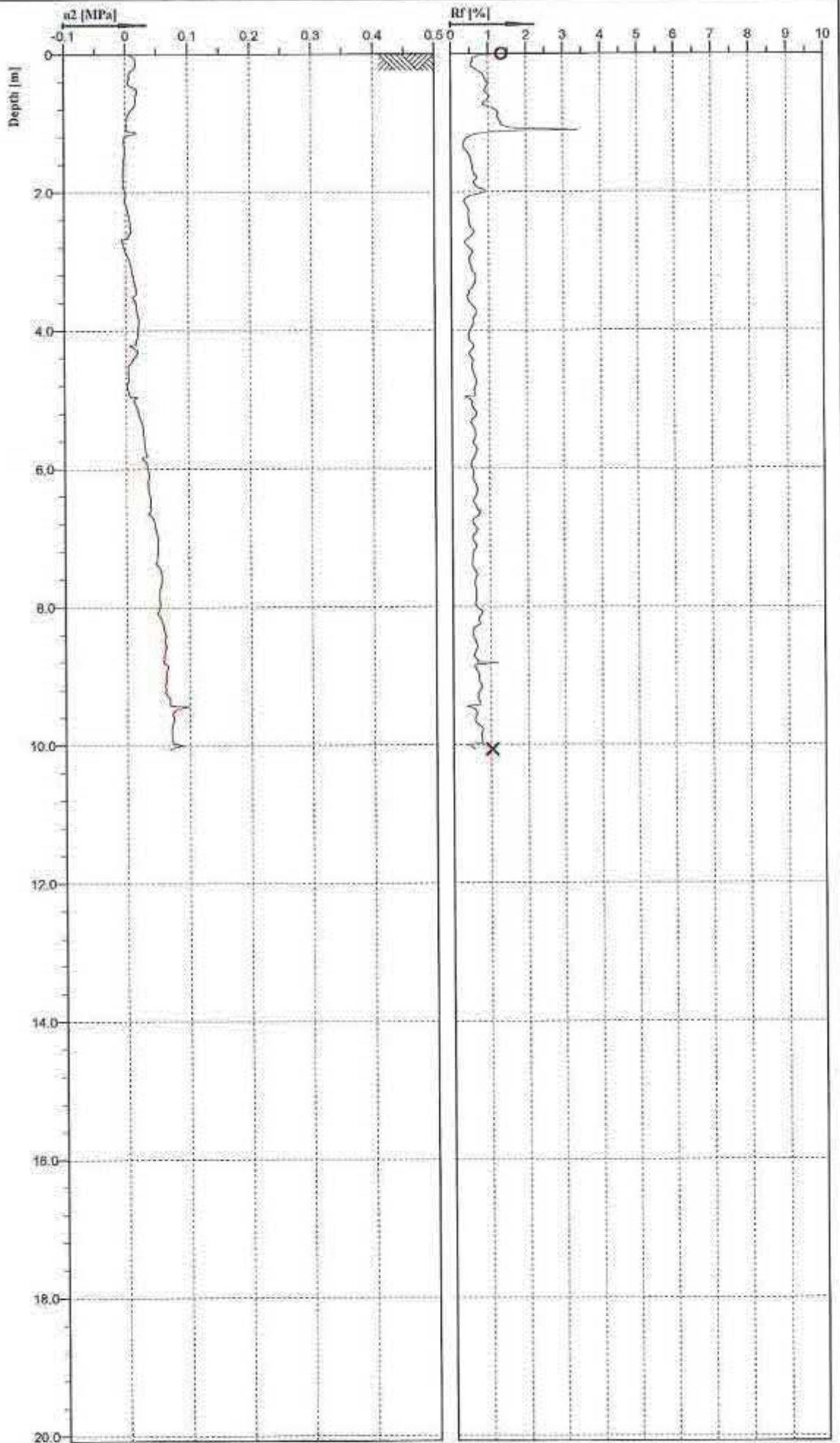


Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no.:	V1
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig.:	
				File:	Preston South CPTV1.cpt		

Classification by
Robertson 1986

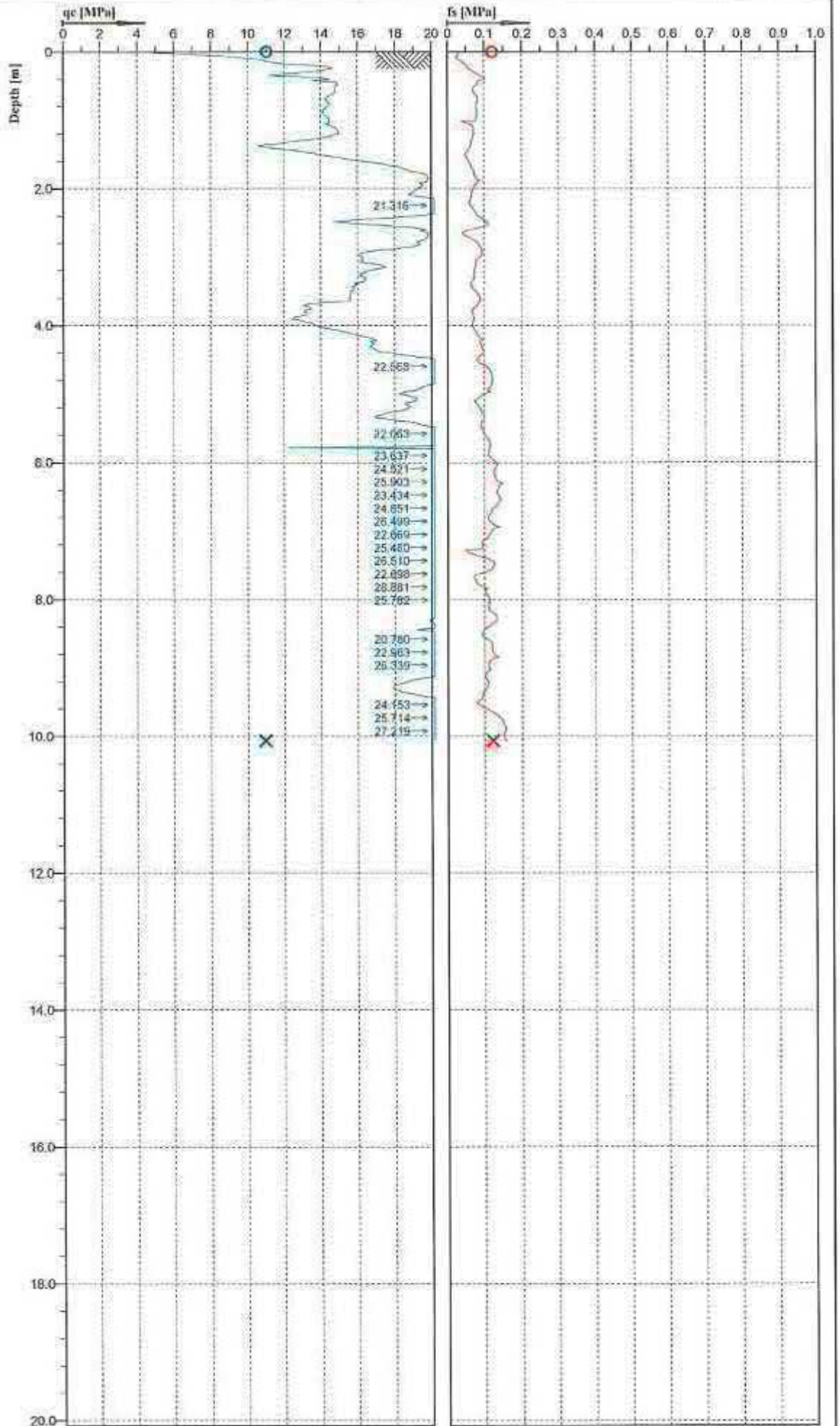
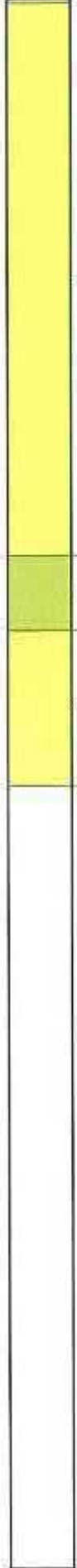


Sand (9)



Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V1
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV1.cpt		

Classification by Robertson 1986



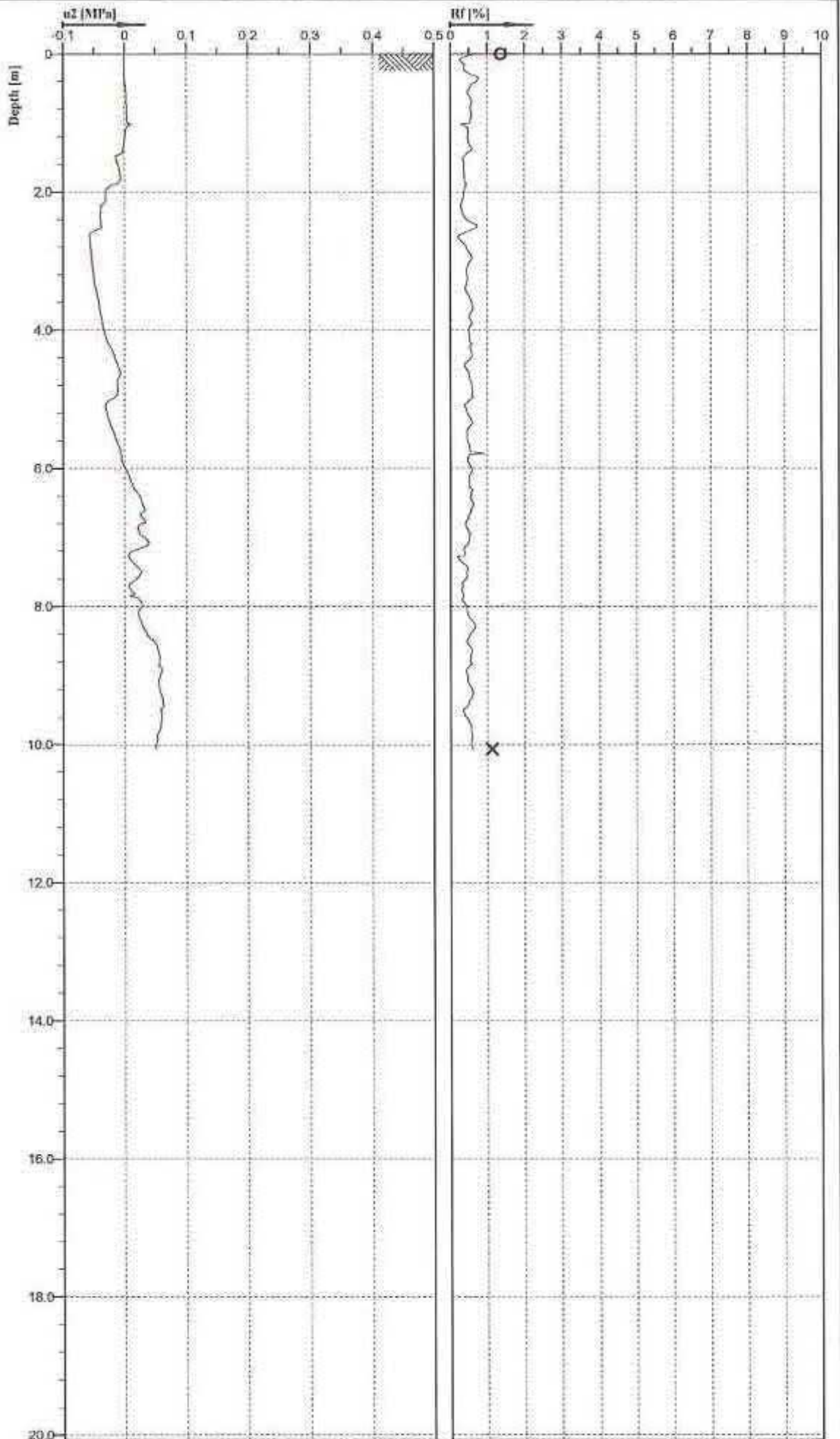
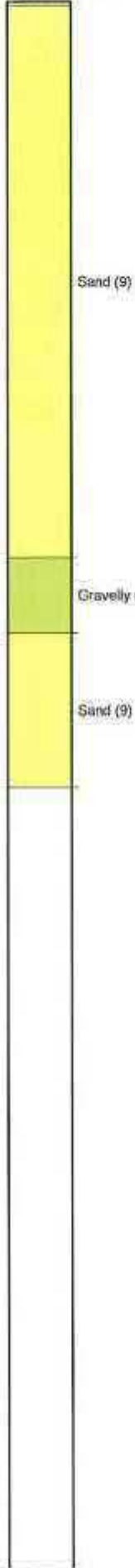
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4488
Tip area [cm²]: 10
Sleeve area [cm²]: 156



Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: V2
Project ID:	Client: AURECON	Date: 04/03/2015	Scale: 1 : 80
Project: PRESTONS SOUTH STAGE M & N		Page: 1/1	Fig:
		File: Preston South CPTV2.cpt	

Classification by
Robertson 1986



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

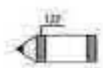
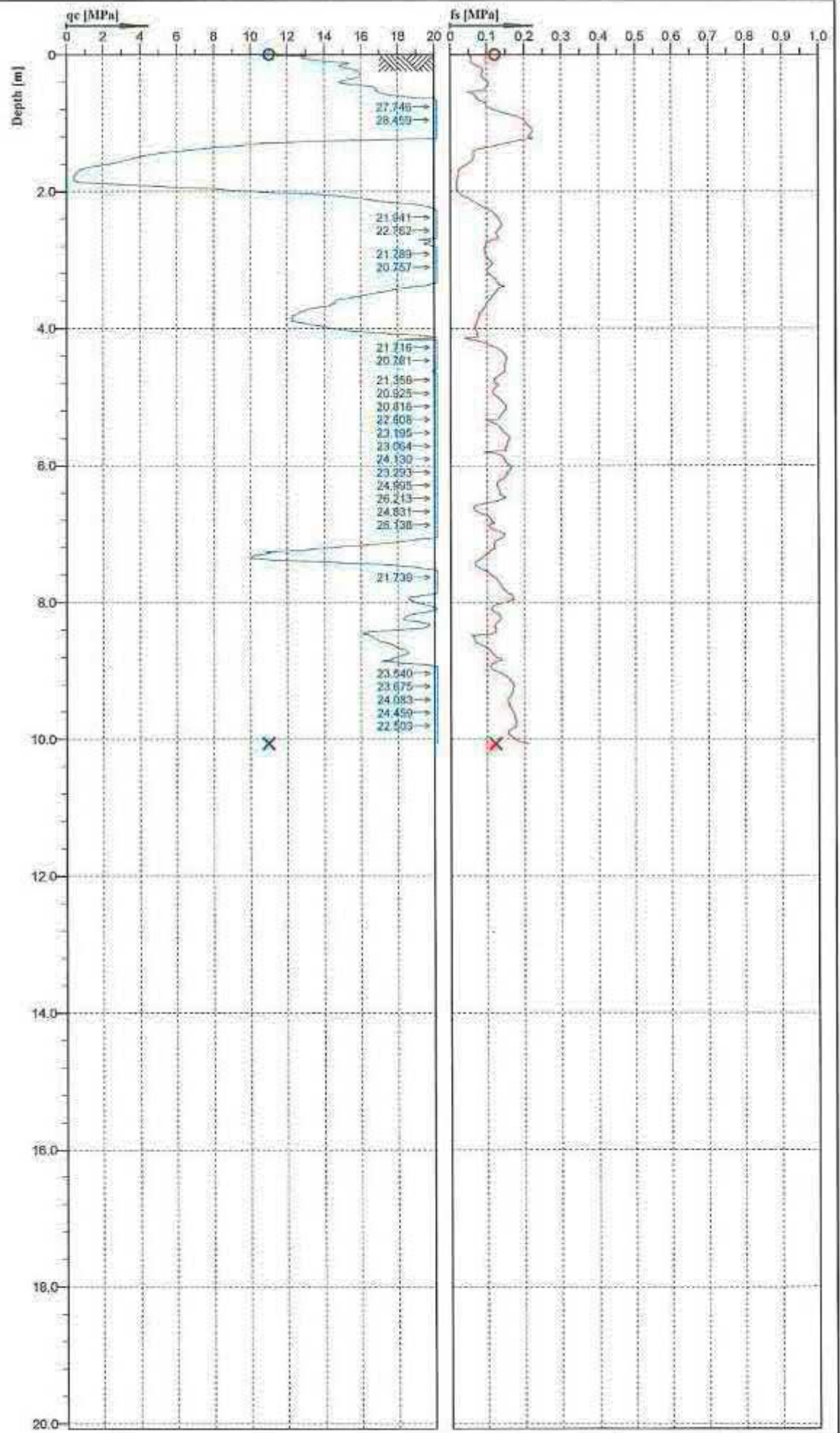
Cone No: 4466
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V2
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV2.cpt		

Classification by
Robertson 1986



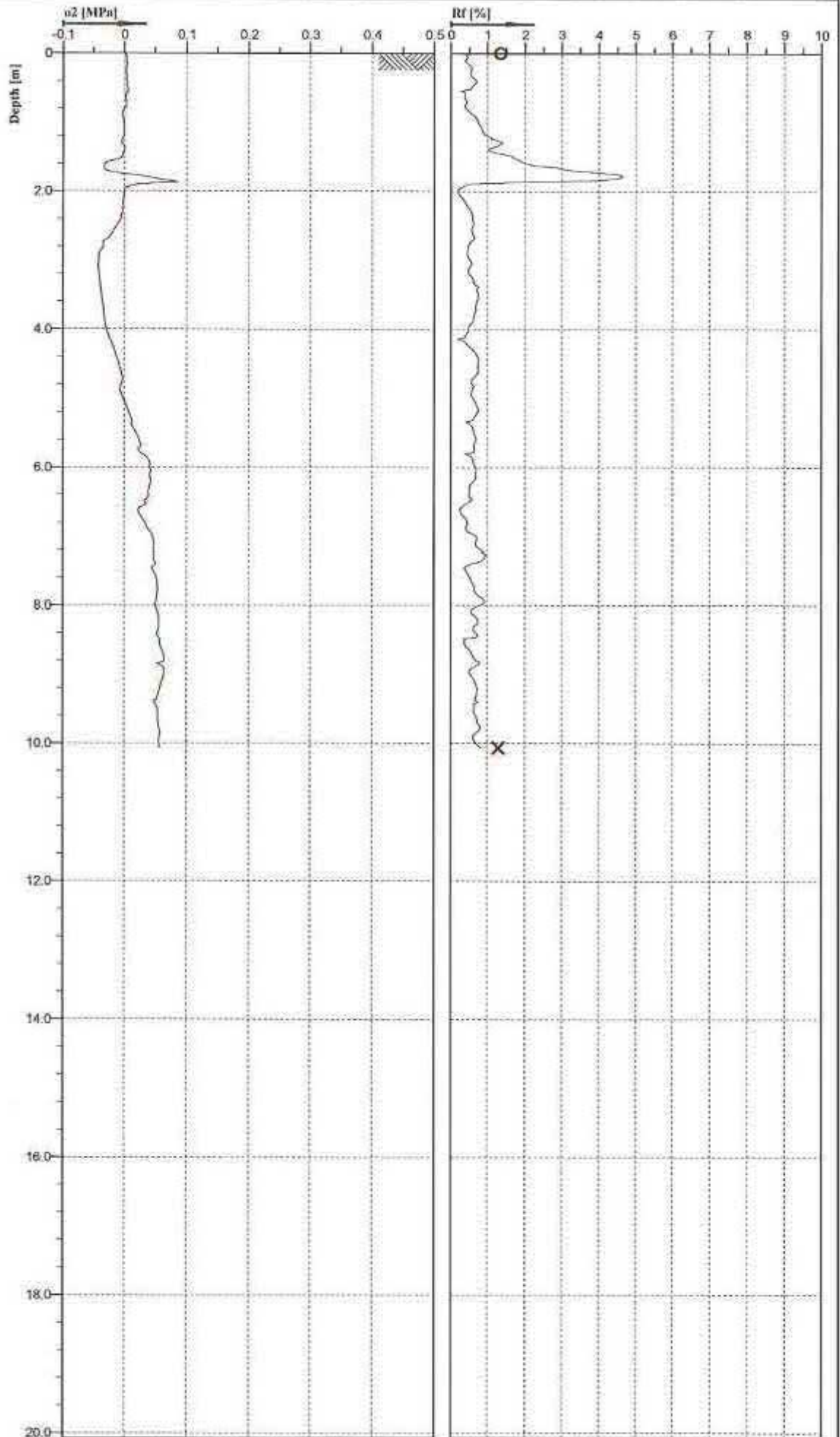
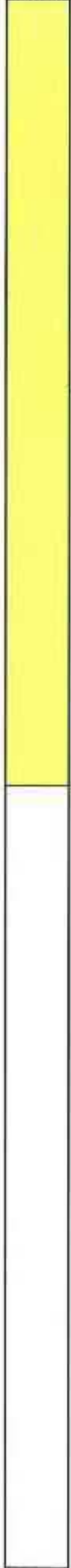
Sand (9)



Cone No: 4488
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V3
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV3.cpt		

Classification by
Robertson 1986



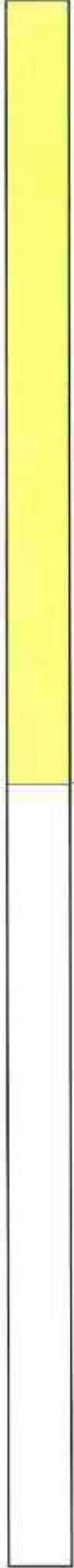
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4486
Tip area [cm²]: 10
Sleeve area [cm²]: 150

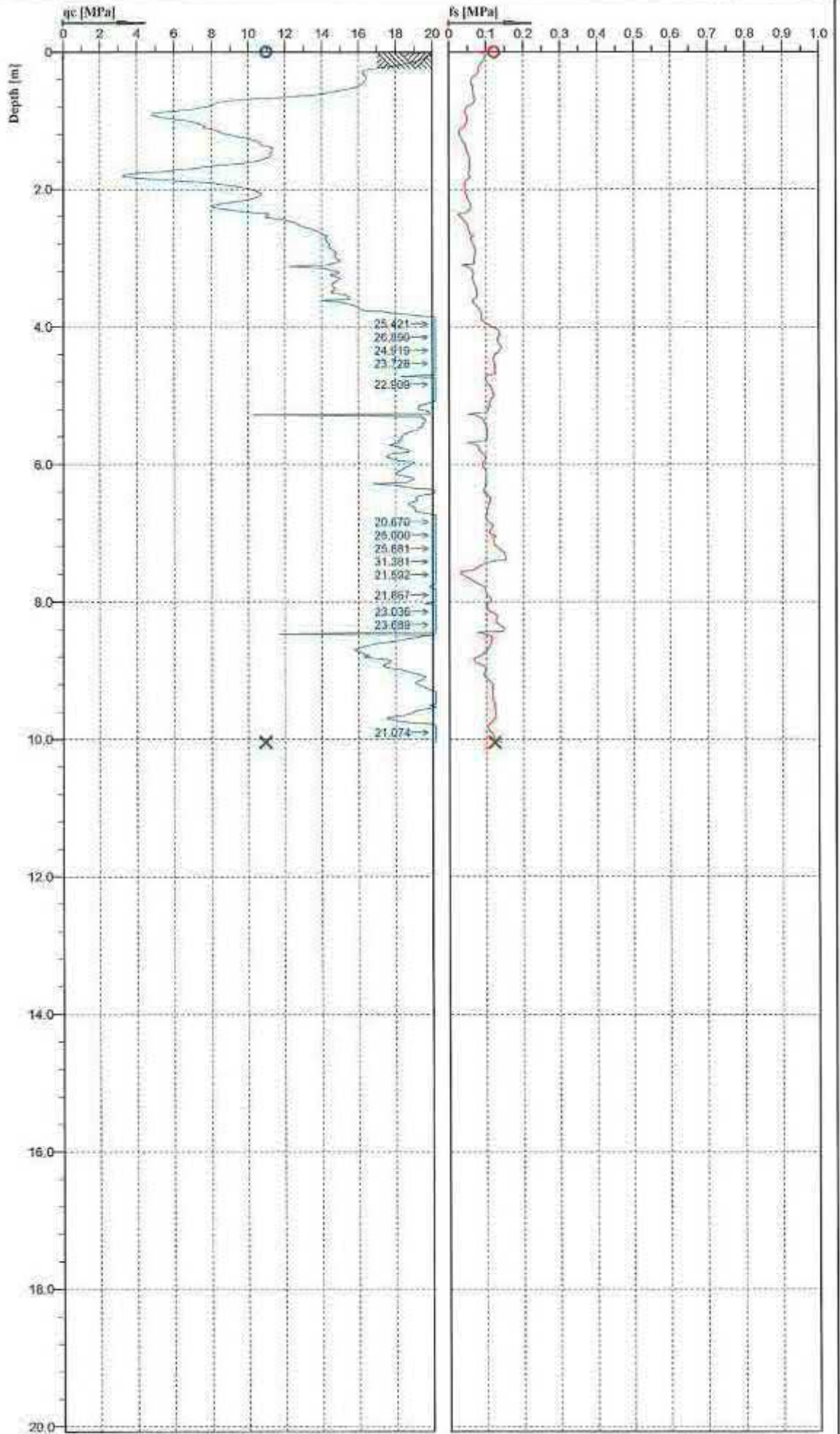


Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V3
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV3.cpt		

Classification by
Robertson 1986



Sand (9)



PRO-DRILL
SPECIALIST DRILLING ENGINEERS



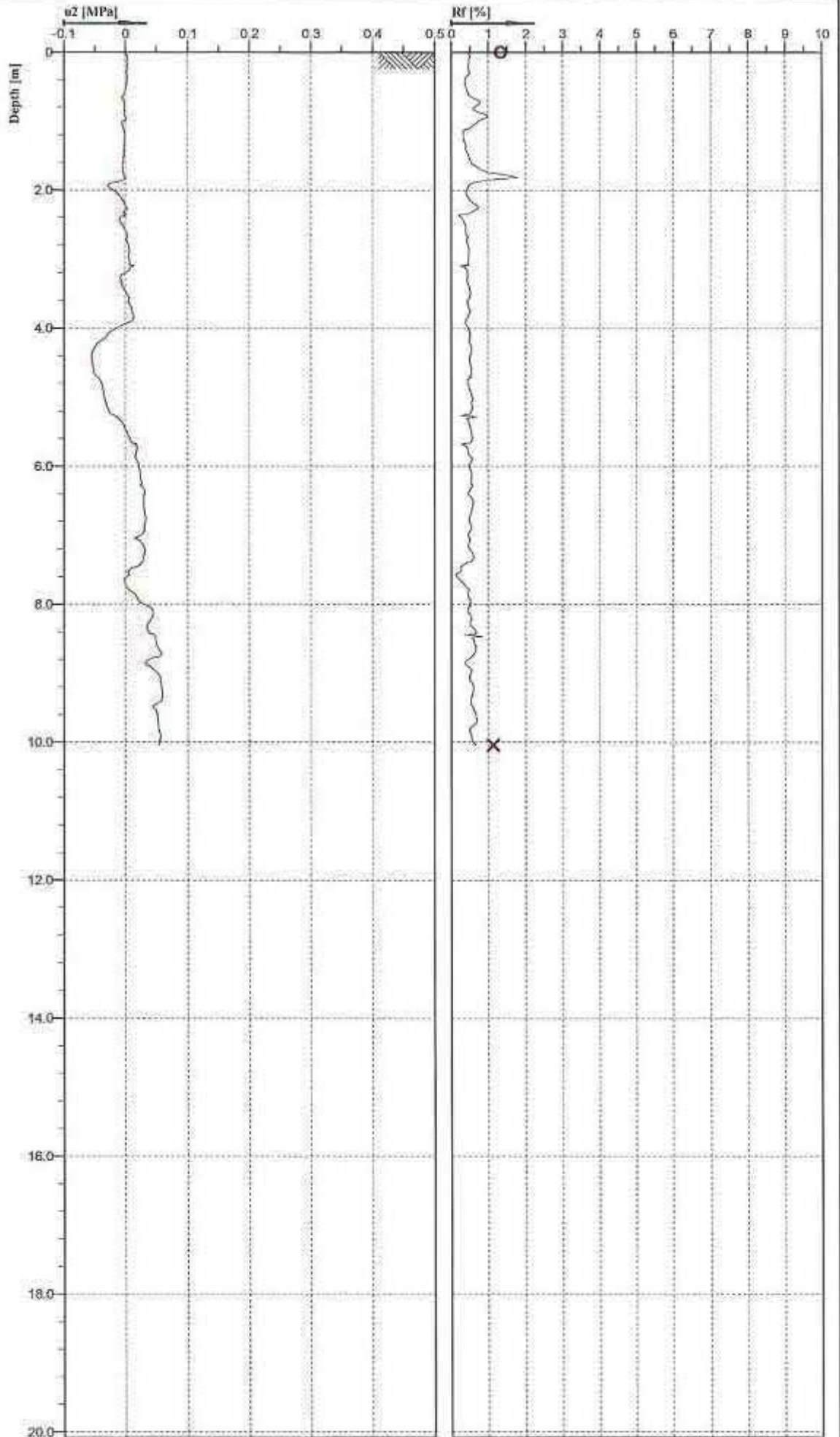
Cone No: 4466
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V4
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV4.cpt		

Classification by
Robertson 1986



Sand (9)

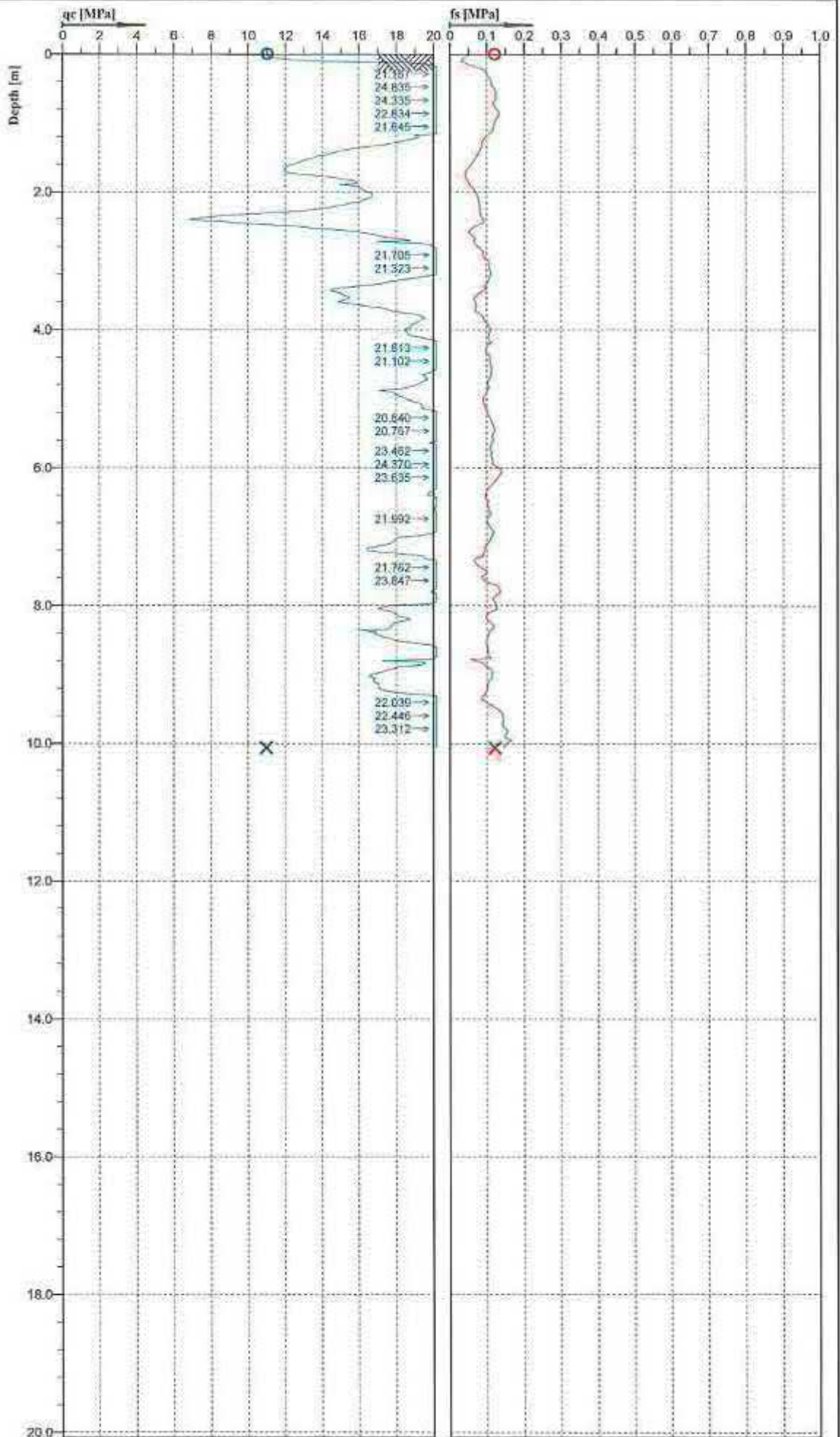
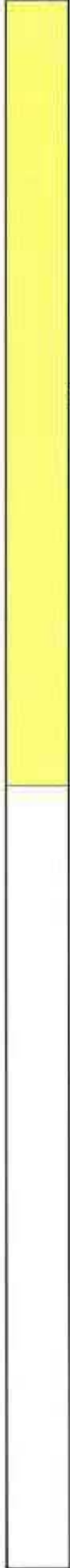


Cone No: 4488
Tip area [cm²]: 10
Gleeve area [cm²]: 150

PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V4
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV4.cpt		

Classification by
Robertson 1986



PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4698
Tip area [cm²]: 10
Sleeve area [cm²]: 150

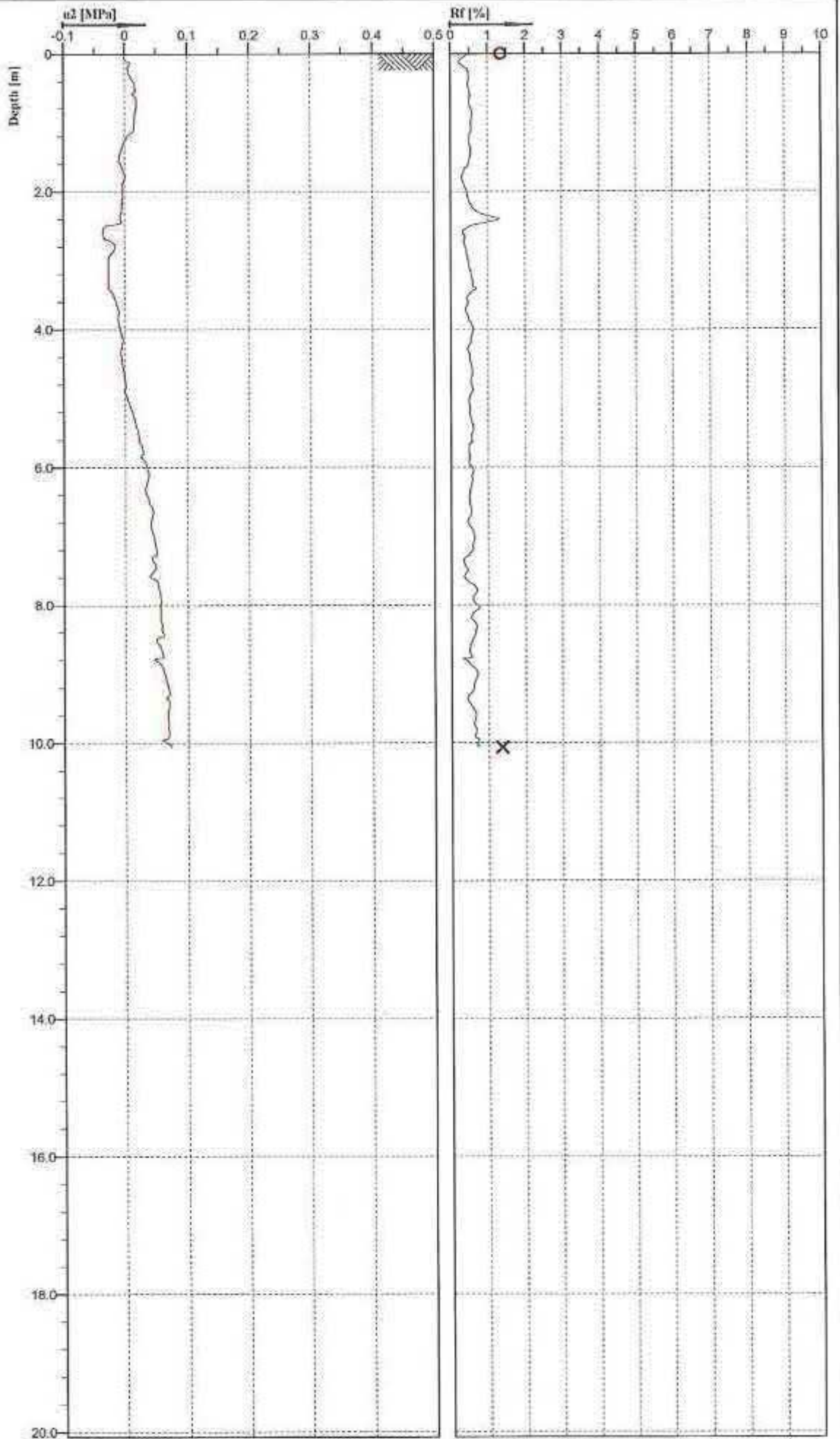


Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: V5
Project ID:	Client: AURECON	Date: 04/03/2015	Scale: 1 : 80
Project: PRESTONS SOUTH STAGE M & N		Page: 1/1	Fig:
		File: Preston South CPTV5.cpt	

Classification by
Robertson 1988



Sand (S)



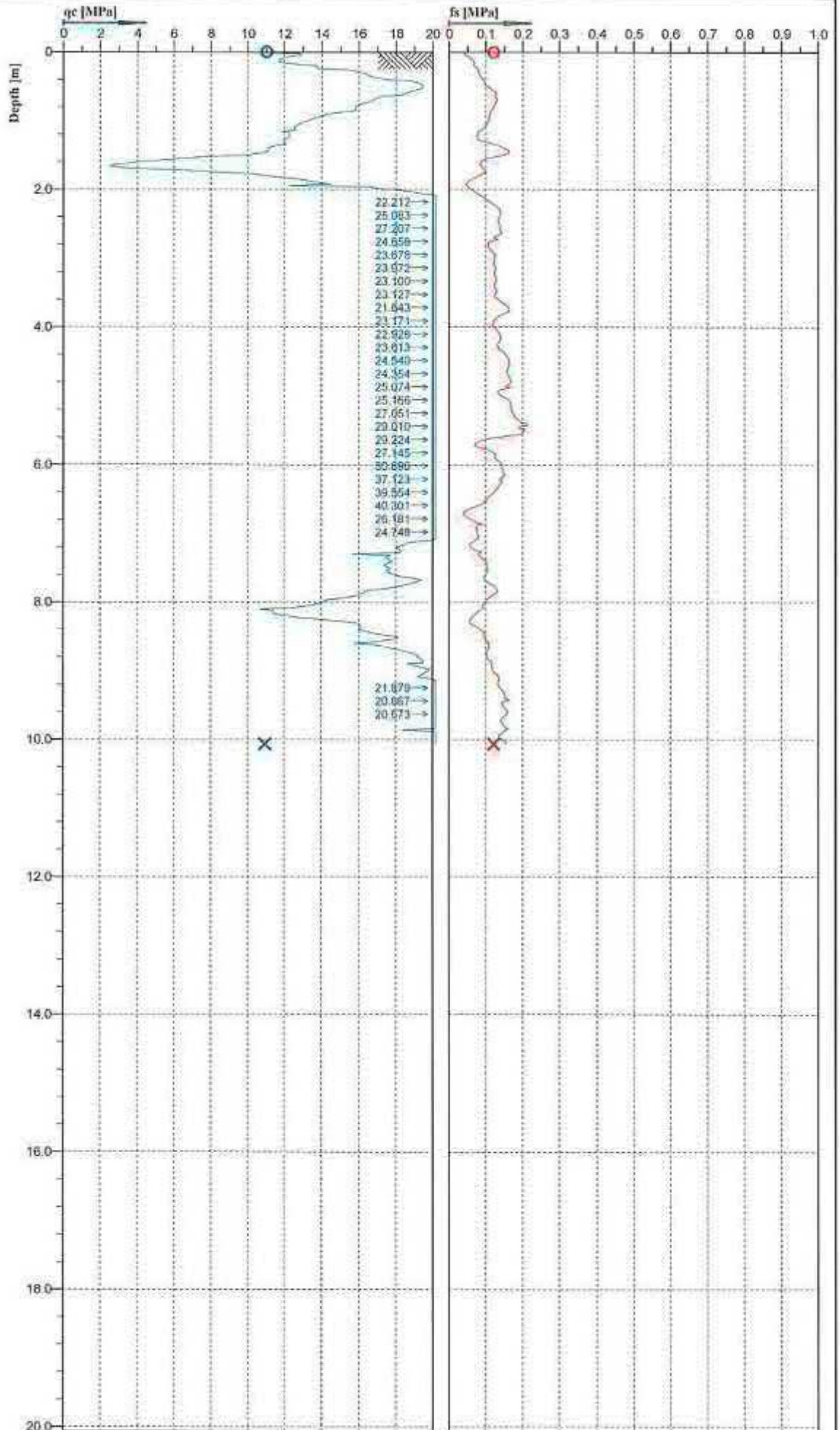
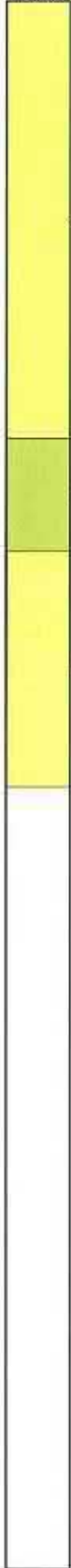
PRO-DRILL
SPECIALIST DRILLING ENGINEERS



Cone No: 4486
Tip area (cm²): 10
Sleeve area (cm²): 150

Location: CHCH	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test no: V5
Project ID:	Client: AURECON	Date: 04/03/2015	Scale: 1 : 80
Project: PRESTONS SOUTH STAGE M & N		Page: 1/1	Fig:
		File: Preston South CPTV5.cpl	

Classification by
Robertson 1986

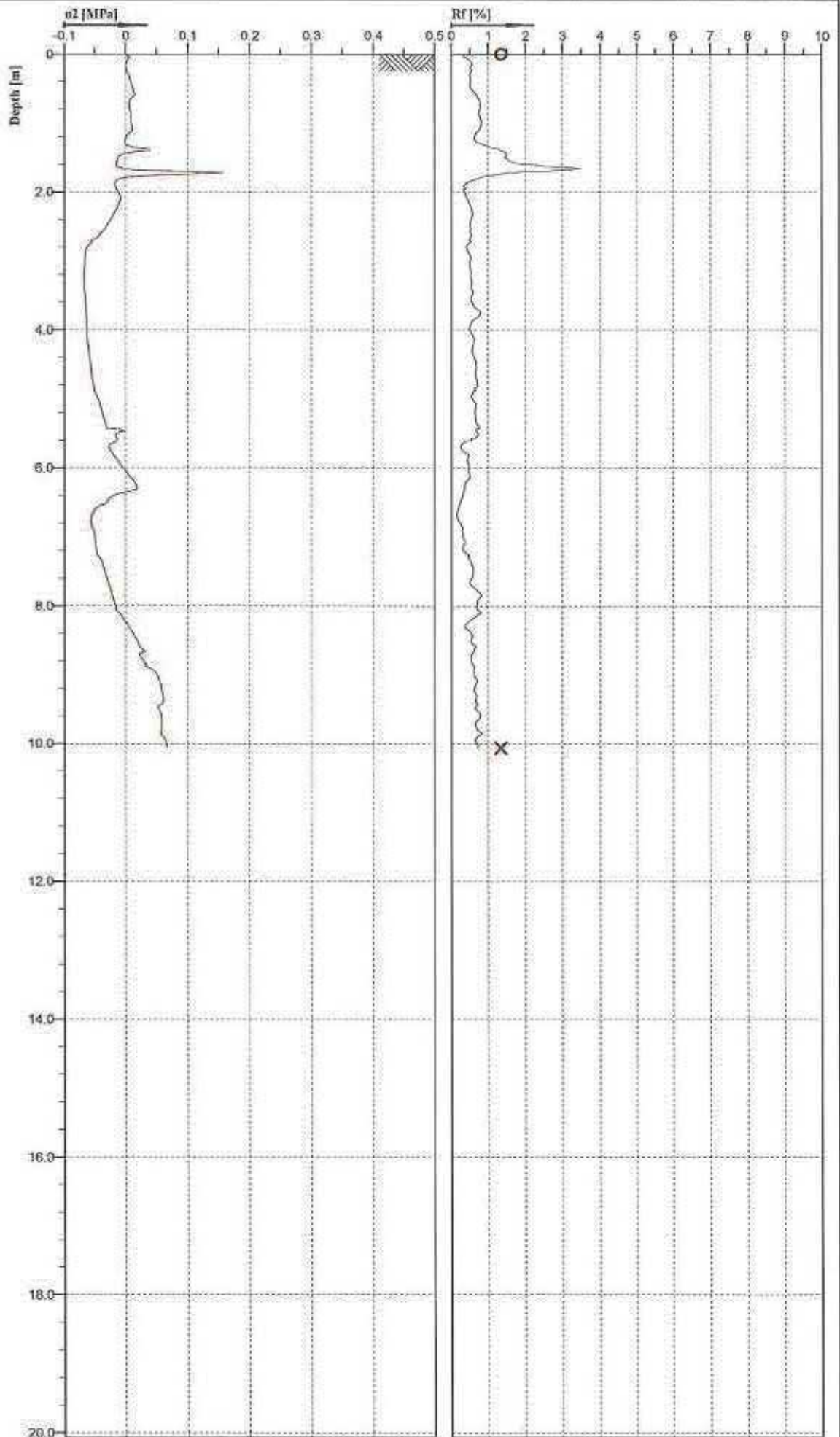
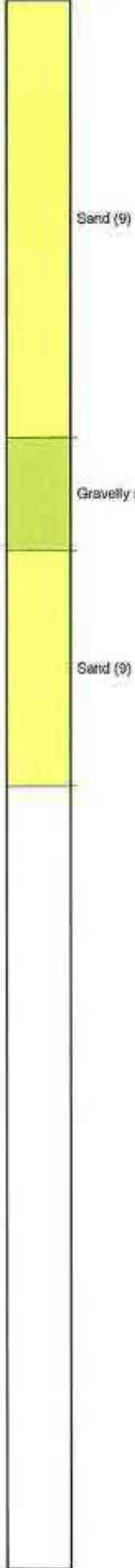


Code No: 4465
Tip area [cm²]: 10
Sleeve area [cm²]: 150

PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V6
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV6.cpt		

Classification by
Robertson 1998



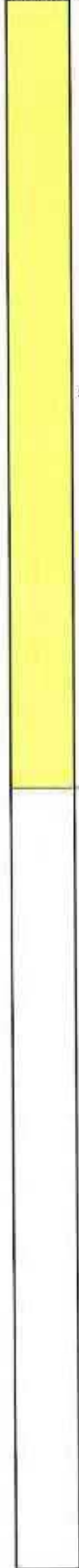
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4488
Tip area [cm²]: 10
Skirt area [cm²]: 150

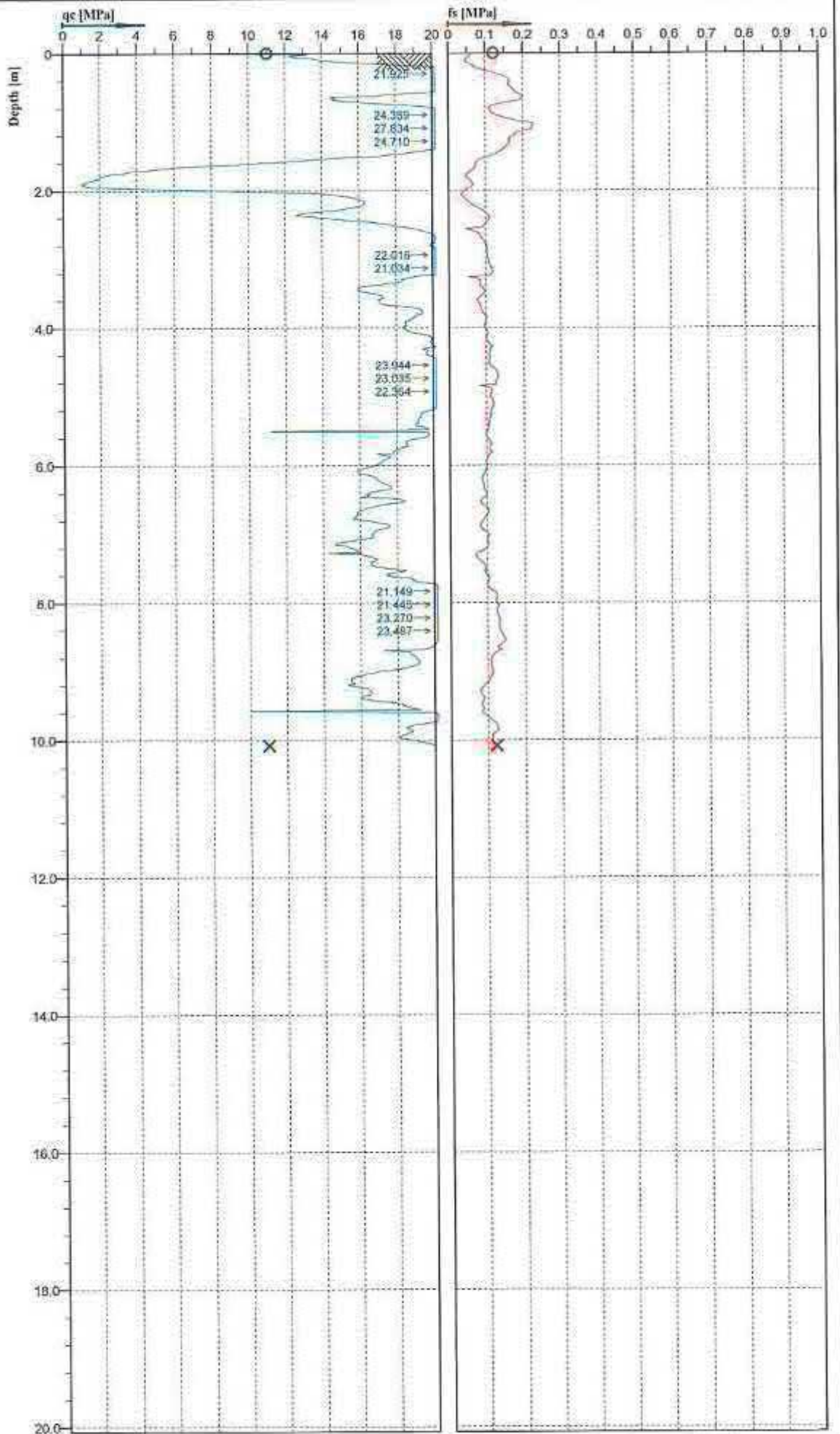


Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V6
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV6.cpt		

Classification by
Robertson 1986



Sand (S)

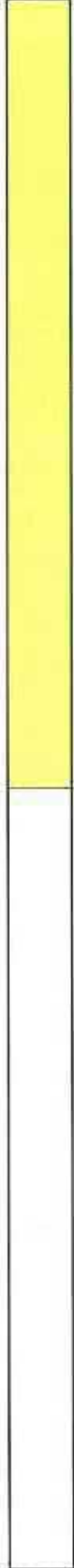


PRO-DRILL
SPECIALIST DRILLING ENGINEERS

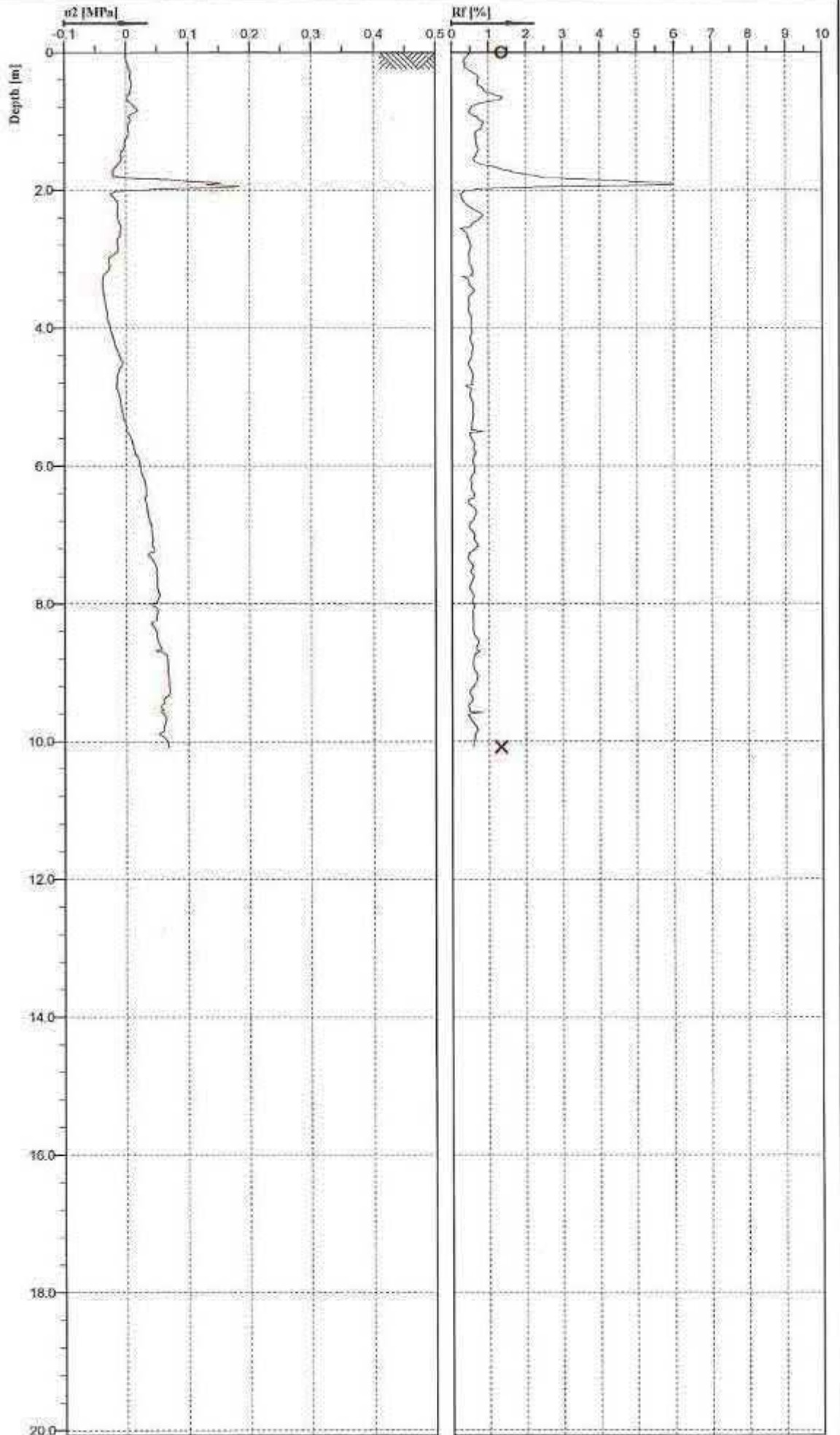
Core No: 4496
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V7
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV7.cpt		

Classification by
Robertson 1986:



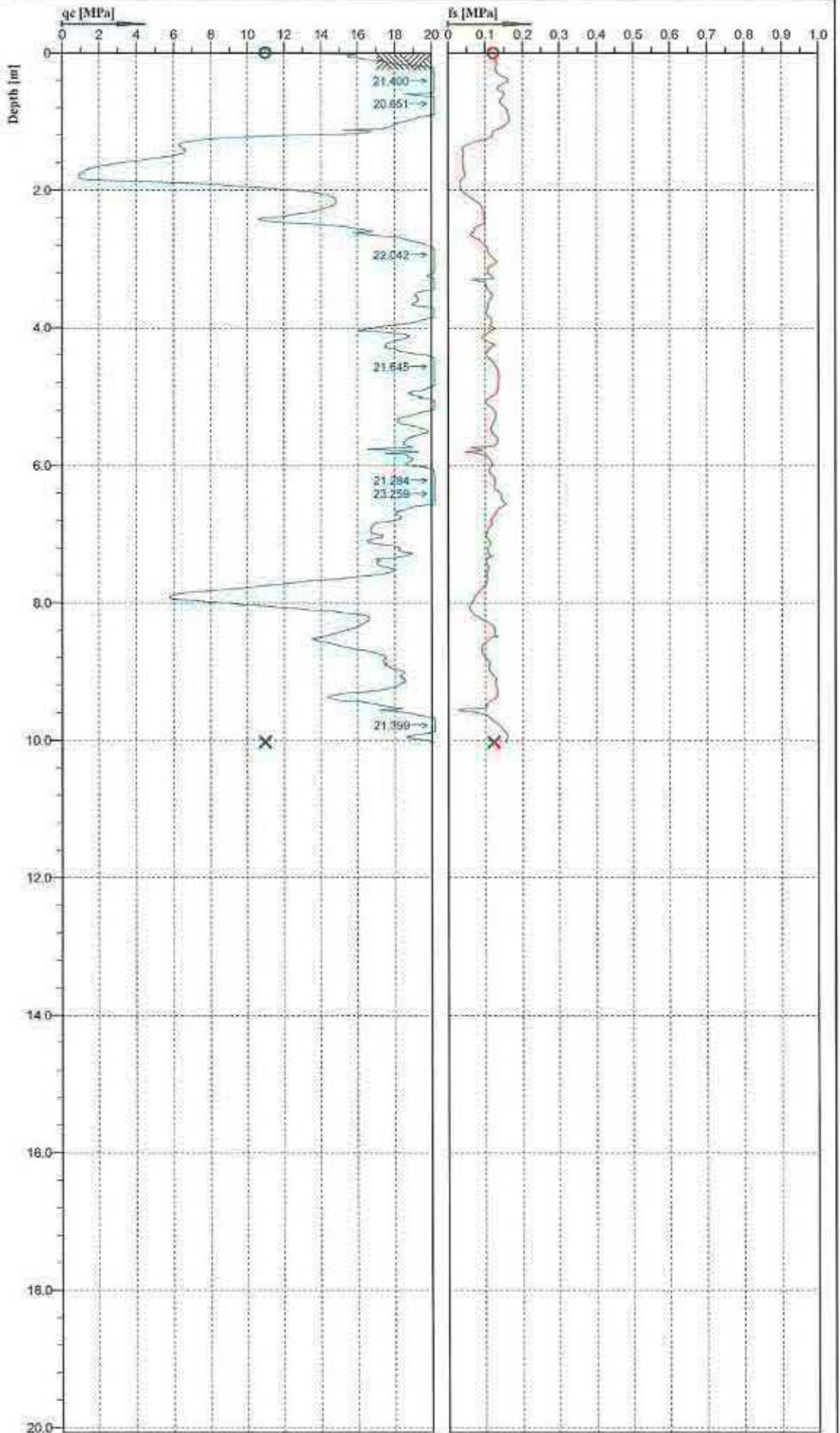
Sand (9)



Cone No: 4488
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V7
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV7.cpt		

Classification by
Robertson 1986



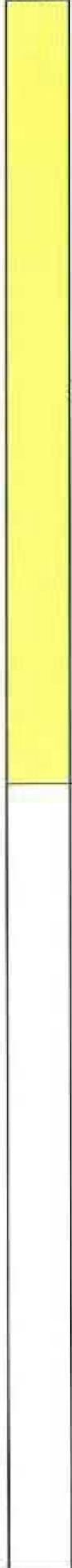
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4486
Tip area [cm²]: 10
Sleeve area [cm²]: 150

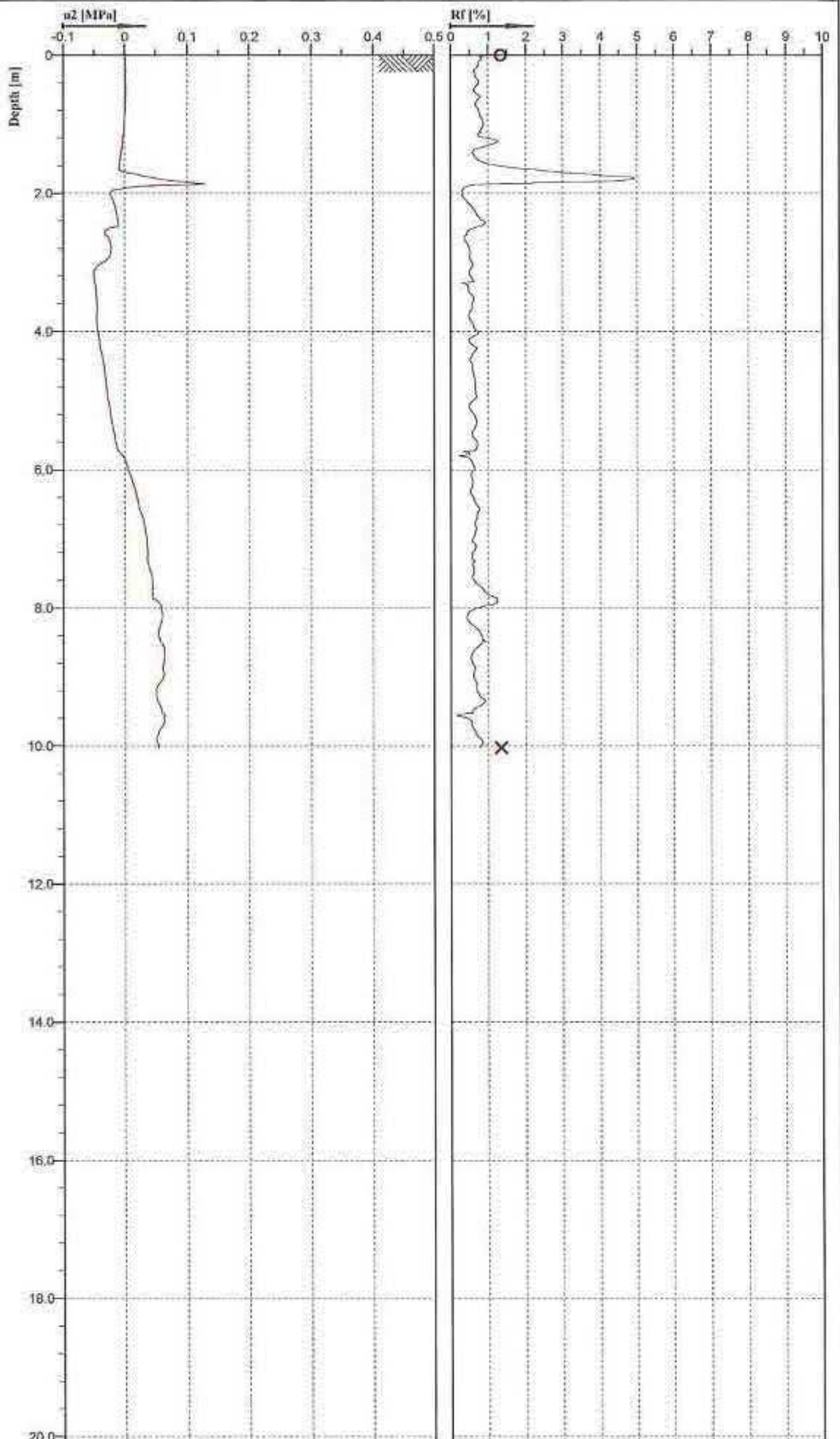


Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V8
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV8.cpt		

Classification by
Robertson 1988



Sand (9)



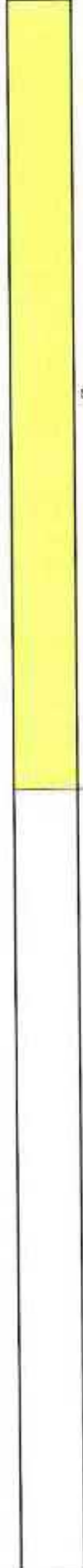
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Cone No: 4488
Tip area [cm²]: 10
Sieve area [cm²]: 150

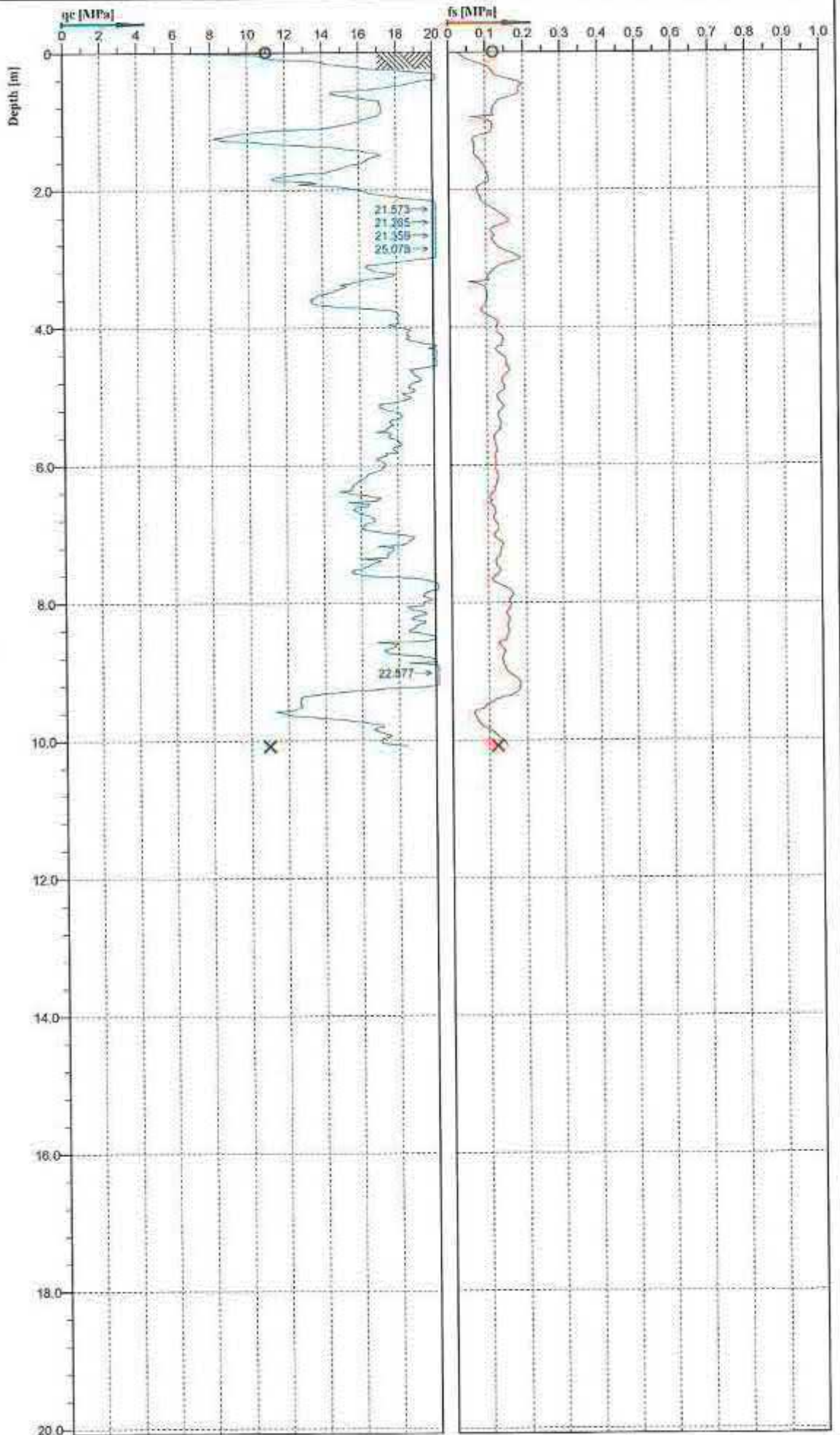


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Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV8.cpl		

Classification by
Robertson 1986



Sand (S)

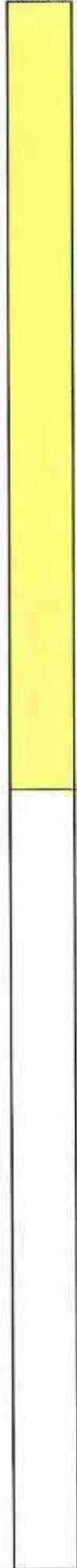



 Cone No: 4486
 Tip area [cm²]: 10
 Sleeve area [cm²]: 150

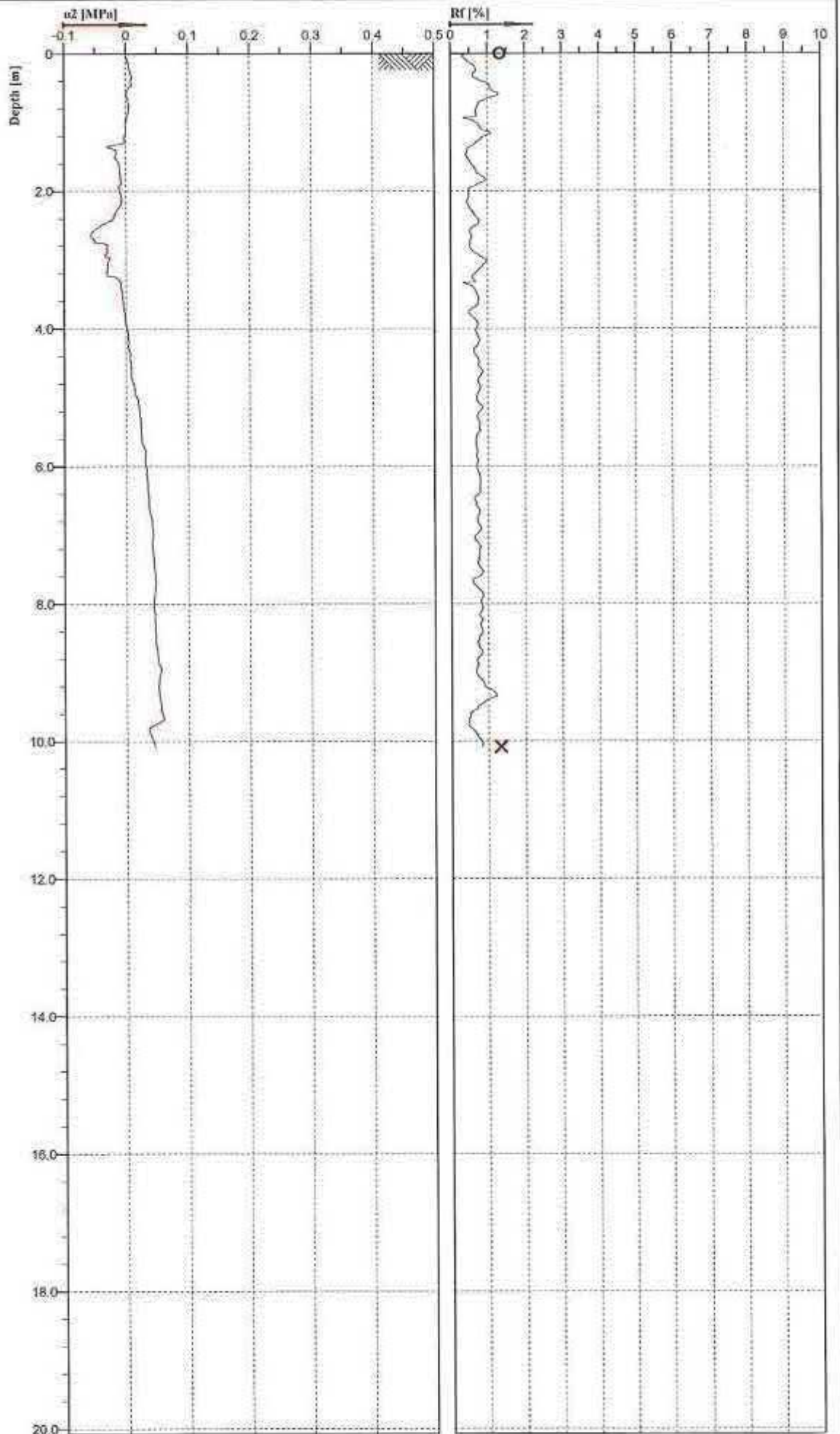
PRO-DRILL
SPECIALIST DRILLING ENGINEERS

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V9
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV9.cpt		

Classification by
Robertson 1986



Sand (3)



PRO-DRILL
SPECIALIST DRILLING ENGINEERS



Cone No: 4486
Tip area [cm²]: 10
Sleeve area [cm²]: 150

Location:	CHCH	Position:	X: 0.00 m, Y: 0.00 m	Ground level:	0.00	Test no:	V9
Project ID:		Client:	AURECON	Date:	04/03/2015	Scale:	1 : 80
Project:	PRESTONS SOUTH STAGE M & N			Page:	1/1	Fig:	
				File:	Preston South CPTV9.cpt		



Appendix K Certification

Statement of Professional Opinion on the Suitability of Land for Building Construction

ISSUED BY: Aurecon New Zealand Limited
TO: CDL Land New Zealand Limited
TO BE SUPPLIED TO: Christchurch City Council
IN RESPECT OF: Prestons South Subdivision Stage M & N
AT: Prestons Road, Christchurch

I, Dr Jan Kupee, on behalf of Aurecon New Zealand Limited hereby confirm that:

1. I am a suitably qualified and experienced Geotechnical Engineer and my firm was retained by the developer to provide geotechnical engineering services on the above development.

2. The extent of my inspections, and the results of all tests carried out are as described in the geotechnical report *Geotechnical Completion Report Prestons South Stage M & N, Revision 0, Project No. 235361, dated 27 March 2015.*

3. In my professional opinion, not to be construed as a guarantee and based only on the extent of our inspections and tests in accordance with our scope of services, I consider that:

(a) The completed works give due regard to land slope and foundation stability considerations.

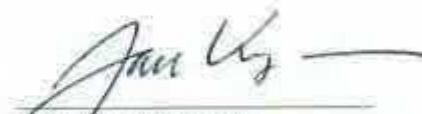
(b) The original ground not affected by filling and the filled ground are suitable for the construction of a development/subdivision and are not subject to erosion, subsidence or slippage in accordance with the provisions of Section 106 of the Resource Management Act 1991 provided that the recommendations made in the Aurecon Report *Geotechnical Completion Report Prestons South Stage M & N, Revision 0, Project No. 235361, dated 27 March 2015* are followed.

4. This professional opinion is furnished to the territorial authority and the owner/developer for their purposes alone, on the express condition that it will not be relied upon by any other person and does not remove the necessity for the normal inspection of foundation conditions at the time of erection of any building.

5. This certificate shall be read in conjunction with my/the geotechnical report referred to in Clause 2 above, and shall not be copied or reproduced except in conjunction with the full geotechnical completion report.

6. The geotechnical engineering firm issuing this statement holds a current policy of professional indemnity insurance of no less than \$250,000.

(Minimum amount of insurance shall be commensurate with the current amounts recommended by IPENZ, ACENZ, TNZ, INGENIUM.)



(Signature of Engineer)

27/3/2015

(Date)

Qualifications and experience:

PhD, MSc, candIng, MIPENZ, CPEng (Geotechnical & Project Management), IntPE



Aurecon New Zealand Limited

Unit 1, 150 Cavendish Road
Casebrook Christchurch 8051
PO Box 1061
Christchurch 8140
New Zealand

T +64 3 366 0821

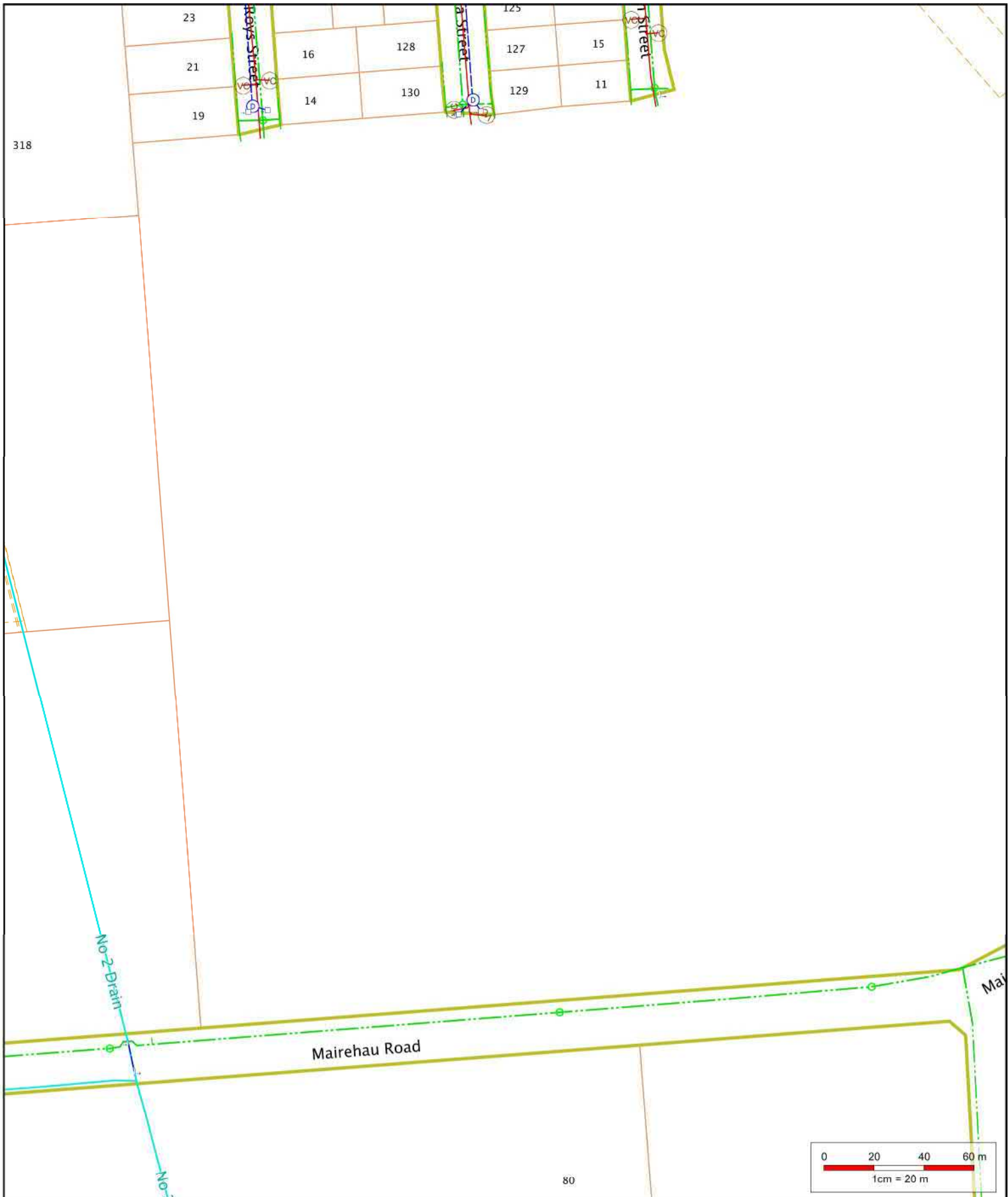
F +64 3 379 6955

E christchurch@aurecongroup.com

W aurecongroup.com

Aurecon offices are located in:

Angola, Australia, Botswana, China,
Ethiopia, Hong Kong, Indonesia,
Lesotho, Libya, Malawi, Mozambique,
Namibia, New Zealand, Nigeria,
Philippines, Singapore, South Africa,
Swaziland, Tanzania, Thailand, Uganda,
United Arab Emirates, Vietnam.




1 : 2,000 on A4
 Jul 25, 2017 9:10:06 AM



 ph: 941-8300 fax: 941-8385

Accuracy not guaranteed. Onsite verification required. Display of data scale dependent, full detail available at 1:500.

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Private Drainage

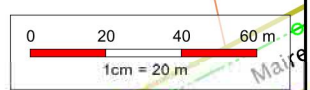
- Standard Infrastructure**
- Bio Gas
 - Condensate Trap
 - End Cap
 - Inlet
 - Outlet
 - Valve
 - Main
 - Cable
- Water Intake/Supply**
- Connector
 - Bellows
 - Connector
 - Hydrant

- Water Intake/Supply**
- Inlet
 - Meter
 - Outlet
 - Pump
 - Restrictor
 - Valve
 - Air Release
 - Butterfly
 - Flow restriction
 - Gate
 - Pressure Activated
 - Sluice
 - Valve
 - Reservoir
 - Structure
 - Lateral
 - Main
 - Sub Main

- Wastewater**
- End Cap
 - Valve
 - Air Gap Separator
 - Vent
 - Eye
 - Eye (Vertical)
 - Outfall
 - Pump
 - Junction
 - Access
 - Flush Manhole
 - Inspection Point
 - Standard Manhole
 - Trap
 - Vented Manhole
 - Lateral
 - Main
 - Pressure Main

- Wastewater**
- Lateral Fitting
- Local Pressure**
- CP Control Panel
 - BK Boundary Kit
 - T Tank System
 - Site
 - V Vacuum Chamber
 - BU Vacuum Breather
- Stormwater**
- Bend
 - Change
 - Eye
 - Flow Restriction
 - Inlet
 - Dome Sump
 - Double Sump
 - Gross Debris Trap

- Stormwater**
- Inlet
 - Inlet Headwall
 - Pipe End
 - Silt Trap
 - Single Sump
 - Soak Pit
 - Triple Sump
 - Junction
 - Standard Manhole
 - Outlet
 - Pump
 - Structure
 - Basin
 - Lateral
 - Main
 - Lateral Fitting
 - Double Sump
- Stormwater**
- Lateral Fitting
 - Single Sump
 - Soak Pit
 - Inspection point
 - Manhole
- All services**
- Pipe Protection
 - a- Abandoned
 - p- Proposed
 - os- Out of service
- Landbase**
- Easement




1 : 2,000 on A4
 Jul 25, 2017 9:10:50 AM

 ph: 941-8300 fax: 941-8385

Private Drainage

- Standard Infrastructure**
- Bio Gas
 - Condensate Trap
 - End Cap
 - Inlet
 - Outlet
 - Valve
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- Bend
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Accuracy not guaranteed. Onsite verification required. Display of data scale dependent, full detail available at 1:500.
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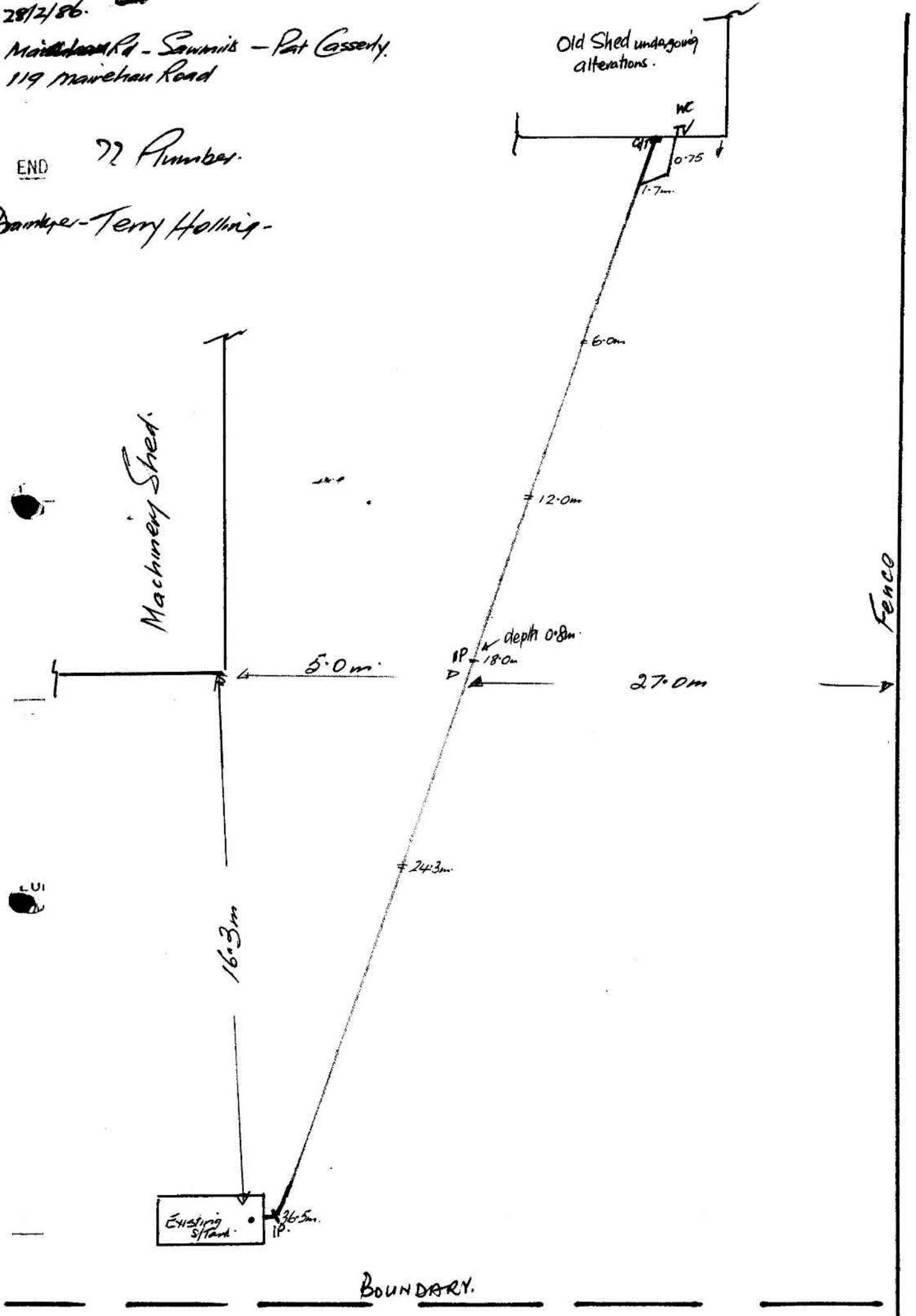
28/2/86.

Mairehau Rd - Sawmills - Pat Cassidy.
119 Mairehau Road

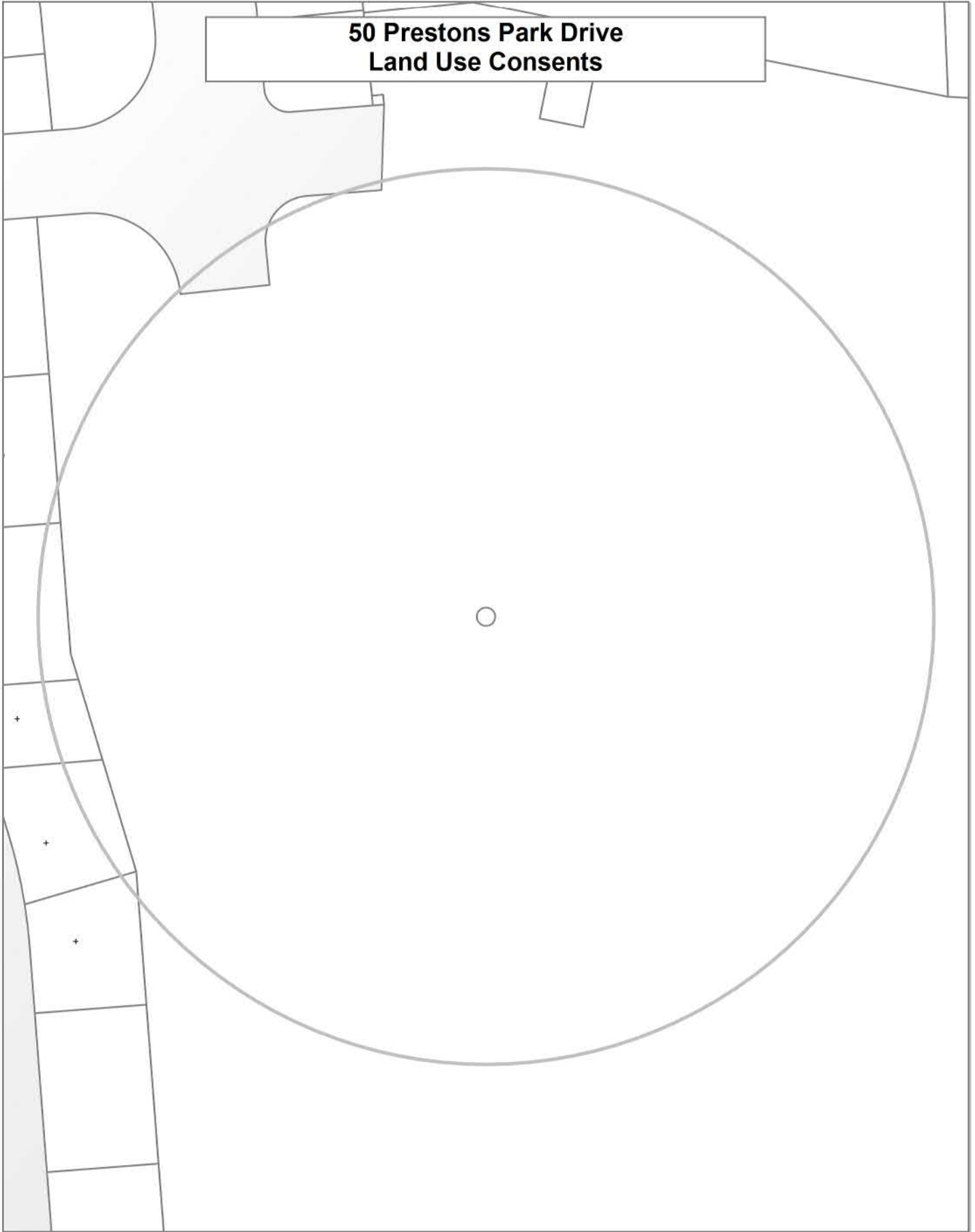
END ?? Plumber.

Banker - Terry Holting.

Old Shed undergoing alterations.



**50 Prestons Park Drive
Land Use Consents**



**50 Prestons Park Drive
Subdivision Consents**

Fee simple
~~Lots 2330~~
Approved



Land Use Resource Consents within 100 metres of 50 Prestons Park Drive

Note: This list does not include subdivision Consents and Certificates of Compliance issued under the Resource Management Act.

11 Ellesmere Street

RMA/2006/850

Overseas investment certificate - Historical Reference RMA92004879

Processing complete

Applied 21/04/2006

Decision issued 05/05/2006

Granted 04/05/2006

RMA/2011/1766

UNDERTAKE EARTHWORKS - Historical Reference RMA92019351

Processing complete

Applied 22/12/2011

Decision issued 20/04/2012

Granted 20/04/2012

RMA/2013/2369

Stage 2 Prestons Development - Historical Reference RMA92024089

Processing

Applied 07/11/2013

RMA/2014/502

EARTHWORKS - IN CONJUNCTION WITH RMA92019351 - Historical Reference RMA92025118

Processing

Applied 05/03/2014

Data Quality Statement

Land Use Consents

All resource consents are shown for sites that have been labelled with an address. For sites that have been labelled with a cross (+) no resource consents have been found. Sites that have no label have not been checked for resource consents. This will be particularly noticeable on the margins of the search radius. If there are such sites and you would like them included in the check, please ask for the LIM spatial query to be rerun accordingly. This will be done free of charge although there may be a short delay. Resource consents which are on land occupied by roads, railways or rivers are not, and currently cannot be displayed, either on the map or in the list. Resource consents that relate to land that has since been subdivided, will be shown in the list, but not on the map. They will be under the address of the land as it was at the time the resource consent was applied for. Resource consents that are listed as Non-notified and are current, may in fact be notified resource consents that have not yet been through the notification process. If in doubt. Please phone (03)941 8999.

The term "resource consents" in this context means land use consents. Subdivision consents and certificates of compliance are excluded.

Subdivision Consents

All subdivision consents are shown for the sites that have been labelled with consent details. For Sites that have been labelled with a cross (+) no records have been found. Sites that have no label have not been checked for subdivision consents. This will be particularly noticeable on the margins of the search radius. If there are such sites and you would like them included in the check, please ask for the LIM spatial query to be rerun accordingly. This will be done free of charge although there may be a short delay.

The term “subdivision consents” in this context means a resource consent application to subdivide land. Non subdivision land use resource consents and certificates of compliance are excluded.

This report will only record those subdivision applications which have not been completed i.e once a subdivision has been given effect to and the new lots/properties have been established the application which created those lots will not be shown

All subdivision consent information is contained on the map and no separate list is supplied