Jordprovsanalys **ALS SCANDINAVIA AB**

Projekt **Kv Kölen**			
Uppdragsnummer	*Uppdragsgivare*	*Granskad*	Christer Åkerman
30039781	Sweco Sverige AB, Nyköping	*Löp-nr*	37006
Provtagningsdatum	*Provtagningsredskap / Analysmetod*	*Utskriftsdatum*	2022-04-28
2022-03-21 - 2022-03-24	Skr	*Undersökningsdatum*	Per Östensson
Lab.tekn.		2022-04-26 - 2022-04-27	

Borrhål/ Sektion	Djup [m]	Benämning (okulär jordartsklassning SS-EN ISO 14688-1+2) Jordartsförkortning (enl. SGF 2016)	Vatten kvot w [%]	Kon-flyt-gräns w_L [%]	Mtrl typ/ tjälf. klass[1)]
22S001	0.7-1.0	Gråbrun något finsandig gyttjig LERA torrskorpekaraktär, (fsa)gyCl(dc)	28	50	5B/4
	1.0-2.0	Grå finsandig siltig LERA med tjocka siltiga finsandsskikt, fsasiCl)sifsa(	24	28	5A/4
	2.0-3.0	Grå sulfidhaltig siltig LERA med tunna finsandsskikt samt enstaka gruskorn, susiCl (fsa)	36	38	5A/4
	3.0-4.0	Grå sulfidhaltig siltig LERA med tunna finsandsskikt samt enstaka gruskorn, susiCl (fsa)	43	48	5A/4
	4.0-5.0	Grå sulfidhaltig siltig LERA med sand- och gruskorn, susiCl	49	53	5A/4
22S005	2.0-2.5	Grå något sulfidhaltig LERA med siltiga finsandsskikt samt enstaka skalrester, (su)Clsifsa (sh)	27	37	4B/3
	2.5-3.0	Grå sulfidhaltig LERA med sandkorn, suCl	63	70	4B/3
	3.0-4.0	Grå sulfidhaltig LERA med sandkorn, suCl	60	67	4B/3
	4.0-5.0	Grå sulfidhaltig LERA med sand- och gruskorn, suCl	59	67	4B/3
22S009	2.2-3.2	Grå något rostfläckig sulfidhaltig LERA med sandkorn, suCl	73	84	4B/3
	3.2-4.0	Grå sulfidhaltig LERA, suCl	77	82	4B/3
	4.0-5.0	Svartgrå sulfidhaltig LERA med sandkorn, suCl	79	82	4B/3

1) Klassning enl. AMA Anläggning 20

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Rutinundersökning ostört prov

Projekt **Kv Kölen**		*Löp-nr* 37006	*Granskad* Per Östensson
Uppdragsnummer	*Uppdragsgivare*	*Provtagningsdatum*	*Provtagningsredskap*	*Utskriftsdatum* 2022-04-05
30039781	Sweco Sverige AB, Nyköping	2022-03-24	Kv St II ø 50mm	*Datum för analys*
Referensnivå		*Vattennivå / Datum*	/	2022-04-05 Emelie Lagrosen

Sektion / Djup [m]	Borrhål 22S005 / Okulär jordartsklassificering [1]	Skrymdensitet Dia-meter [cm]	Vikt/ Längd [g/cm]	ρ [2] [t/m³]	Konprov Ostört [mm]	Medel [mm/g]	Omrört [mm/g]	Skjuvhållfasthet Ostört τ_{fu} [kPa] [3]	Omrört [kPa]	Sensi-tivitet S_t	Kon-flyt-gräns w_L [%]	w-våt w-torr [g]	Vatten kvot w [%]		Jordartsförkortning (enl. SGF Beteck-ningssystem 2016)
3.0	Grå sulfidhaltig LERA	5,00	546.0 / 17.0	**1,64**	11.7 11.7 11.1 11.6 11.8 11.4	11.6 / 400	6.2 / 60	**29**	3.8	**8**	**76**	73.9 44.5	**66**		suCl
							7.9 / 60					69.8 41.3			
4.0	Svartgrå sulfidhaltig LERA	5,00	531.0 / 17.0	**1,59**	13.1 12.9 13.0 13.2 13.0 13.0	13.0 / 400	7.5 / 60	**23**	2.6	**9**	**74**	73.2 43.7	**68**		suCl
5.0	Svartgrå sulfidhaltig LERA	5,00	534.0 / 17.0	**1,60**	13.1 13.0 13.1 13.0 12.9 13.3	13.1 / 400	7.7 / 60	**23**	2.5	**9**	**76**	70.5 41.6	**69**		suCl

1) Okulär jordartsklassificering enl. SS-EN ISO 1488 1+2

Densiteten beräknad på medelvärde av fylld över-, mellan- och undehyls

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3) Okorrigerat värde. Korrigeringen rekommenderas enl. SGF-INFO nr 3. Avvikelse från SS027125. Om konintrycket är mindre än 7.0mm med 100g konen, används 400g konen, enligt SGF:s laboratoriekommitté.

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Rutinundersökning ostört prov **ALS Scandinavia AB**

Projekt **Kv Kölen**

Uppdragsnummer	*Uppdragsgivare*	*Granskad*	Christer Åkerman
30039781	Sweco Sverige AB, Nyköping	*Löp-nr*	37006
Provtagningsdatum	*Provtagningsredskap / Analysmetod*	*Datum*	2022-04-28
2022-03-24	Skr, Kv St II ø 50mm	*Analys utförd*	Per Östensson
		2022-04-05 -	2022-04-27

Borrhål/ Sektion	Djup [m]	Benämning / (okulär jordartskl. SS-EN ISO 14688-1+2) Jordartsförkortning (enl. SGF 2016)	Densitet ρ [t/m^3]	Vattenkvot w_n [%]	Konflytgräns w_L [%]	Sensitivitet S_t	Skjuvhållf.h. τ_{fu} [kPa] 1)	Mtrl. typ/ tjälf. klass 2)	Anm
22S005	2.0-2.5	Grå något sulfidhaltig LERA med siltiga finsandsskikt samt enstaka skalrester, (su)Clsifsa (sh)		27	37			4B/3	
	2.5-3.0	Grå sulfidhaltig LERA m sandkorn, suCl		63	70			4B/3	
	3.0	Grå sulfidhaltig LERA, suCl	1.64	66	76	8	29	4B/3	
	3.0-4.0	Grå sulfidhaltig LERA m sandkorn, suCl		60	67			4B/3	
	4.0	Svartgrå sulfidhaltig LERA, suCl	1.59	68	74	9	23	4B/3	
	4.0-5.0	Grå sulfidhaltig LERA med sand- och gruskorn, suCl		59	67			4B/3	
	5.0	Svartgrå sulfidhaltig LERA, suCl	1.60	69	76	9	23	4B/3	

1) Okorrigerat värde. Korrigeringen rekommenderas enl. SGF-INFO nr 3. Avvikelse från SS027125: Om konintrycket är mindre än 7,0 mm med 100g konen, används 400g konen, enligt rekommendation från SGF:s laboratoriekommitté.
2) Klassificering enl. AMA Anläggning 20

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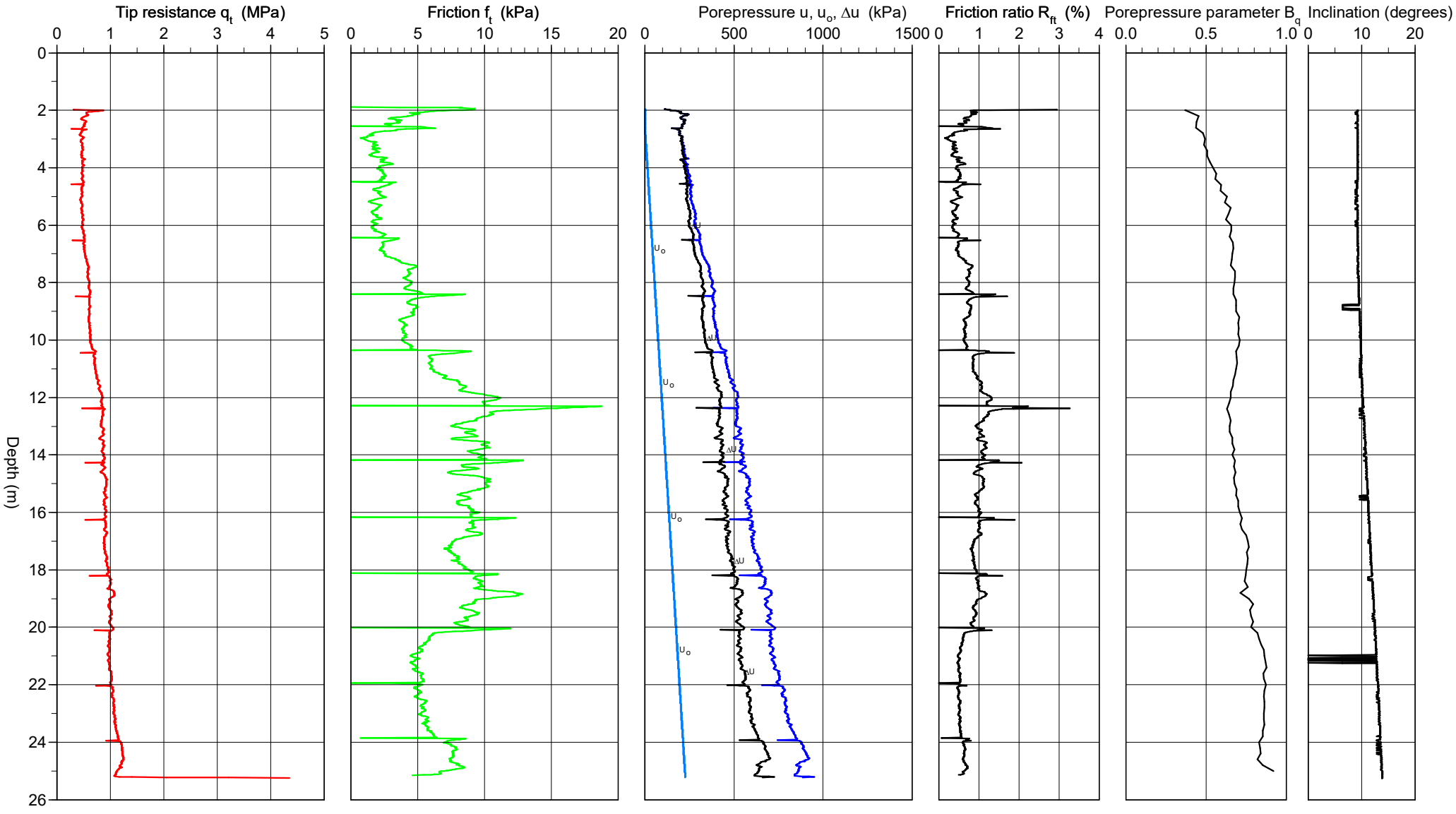
CPT-test performed according to EN ISO 22476-1

Predrilling depth	2.00 m	Reference	my	Fluid in filter	Olja&fett
Start depth	2.00 m	Level at reference	4.30 m	Coordinats	X=6636970.090,Y=130526.744
Stop depth	25.69 m	Predrilled material	Mg	Equipment	Envi Memocone
Ground water level	2.70 m	Geometry	Normal	Cone nr	52010

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S001
Date	20220321



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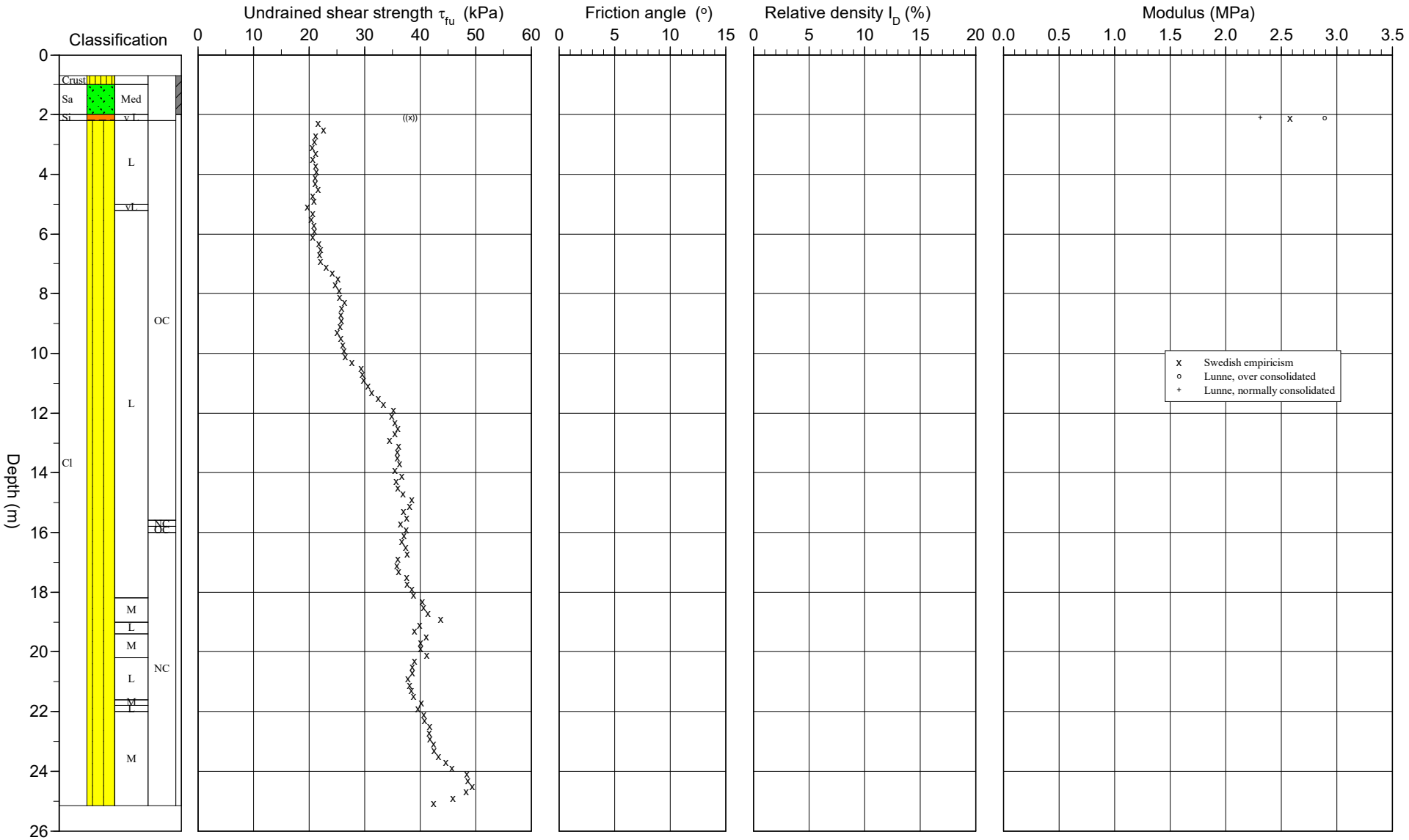
2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	my	Predrilling depth	2.00 m	Evaluator	INPRAG
Level at reference	4.30 m	Predrilled material	Mg	Evaluation date	2022-04-12
Ground water level	2.70 m	Equipment	Envi Memocone		
Start depth	2.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S001
Date	20220321



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CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	my	Predrilling depth	2.00 m	Evaluator	INPRAG
Ground water level	4.30 m	Predrilled material	Mg	Evaluation date	2022-04-12
Grundvattenyta	2.70 m	Equipment	Envi Memocone		
Start depth	2.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
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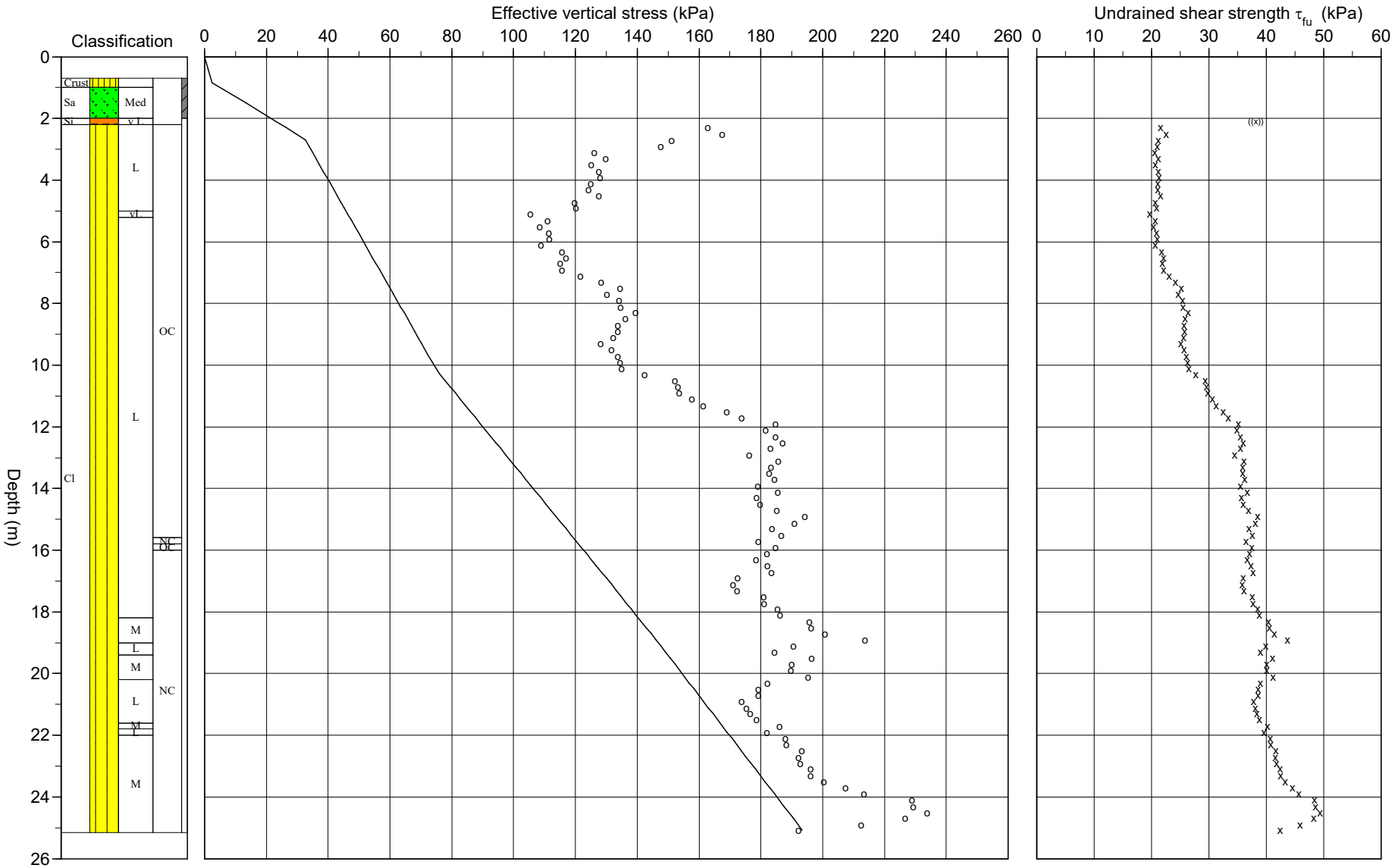
Date	20220321



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C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S001**
Date **20220321**

Predrilling depth	2.00 m	Predrilled material	Mg
Start depth	2.00 m	Geometry	Normal
Stop depth	25.69 m	Fluid in filter	Olja&fett
Ground water level	2.70 m	Operator	Claire Ellinger
Reference	my	Equipment	Envi Memocone
Level at reference	4.30 m	[x] **Porepressure measurement**	

Calibration data

Cone	52010	Internal friction O_c	0.0 kPa
Date	2021-04-07	Internal friction O_f	0.0 kPa
Areafactorr a	0.690	Cross talk c_1	0.000
Areafactor b	0.006	Cross talk c_2	0.000

Cero values, kPa

	Porepressure	Friction	Tip resistance
Before	0.00	0.00	0.00
After	2.10	0.10	-0.01
Diff	2.10	0.10	-0.01

Scale factors

Porepressure Range	Porepressure Code	Friction Range	Friction Code	Tip resistance Range	Tip resistance Code

[ ] **Use scale factors**

Correction

Porepressure	(none)
Friction	(none)
Tip resistance	(none)

Estimated sounding class

Porepressure observations

Depth (m)	Porepressure (kPa)
2.70	0.00

Boundaries

Depth (m)

Classification

Depth (m) From	Depth (m) To	Density (ton/m^3)	Liquid limit	Soil
0.70	1.00	1.70	0.50	Crust
1.00	2.00	1.70	0.28	Sa Med
2.00	3.00		0.38	
3.00	4.00		0.48	
4.00	5.00		0.48	
5.00	25.15		0.53	

Notes

C P T - test

Project
Kv Kölen
30039781

Site Uppsala
Designation 22S001
Date 20220321

Depth (m) From	To	Classification		ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
0.70	1.00	Crust		1.70	0.50			2.5	2.5						
1.00	2.00	Sa Med		1.70	0.28			13.3	13.3						
2.00	2.20	Si v L		1.60	0.38	((38.2))		23.2	23.2				2.6	2.9	2.3
2.20	2.40	Cl L	OC	1.60	0.38	21.6		26.4	26.4	162.9	6.17				
2.40	2.60	Cl L	OC	1.60	0.38	22.6		29.5	29.5	167.4	5.67				
2.60	2.80	Cl L	OC	1.60	0.38	21.2		32.7	32.6	151.2	4.63				
2.80	3.00	Cl L	OC	1.60	0.38	21.0		35.8	33.8	147.7	4.37				
3.00	3.20	Cl L	OC	1.60	0.48	20.6		38.9	34.9	126.1	3.61				
3.20	3.40	Cl L	OC	1.60	0.48	21.2		42.1	36.1	129.9	3.60				
3.40	3.60	Cl L	OC	1.60	0.48	20.7		45.2	37.2	125.2	3.37				
3.60	3.80	Cl L	OC	1.60	0.48	21.2		48.4	38.3	127.6	3.33				
3.80	4.00	Cl L	OC	1.60	0.48	21.3		51.5	39.5	128.0	3.24				
4.00	4.20	Cl L	OC	1.60	0.48	21.1		54.6	40.6	124.9	3.08				
4.20	4.40	Cl L	OC	1.60	0.48	21.1		57.8	41.8	124.2	2.97				
4.40	4.60	Cl L	OC	1.60	0.48	21.6		60.9	42.9	127.5	2.97				
4.60	4.80	Cl L	OC	1.60	0.48	20.7		64.1	44.0	119.8	2.72				
4.80	5.00	Cl L	OC	1.60	0.48	20.9		67.2	45.2	120.2	2.66				
5.00	5.20	Cl vL	OC	1.60	0.53	19.7		70.3	46.3	105.4	2.28				
5.20	5.40	Cl L	OC	1.60	0.53	20.7		73.5	47.5	111.1	2.34				
5.40	5.60	Cl L	OC	1.60	0.53	20.4		76.6	48.6	108.4	2.23				
5.60	5.80	Cl L	OC	1.60	0.53	20.9		79.8	49.7	111.5	2.24				
5.80	6.00	Cl L	OC	1.60	0.53	21.0		82.9	50.9	111.6	2.19				
6.00	6.20	Cl L	OC	1.60	0.53	20.7		86.0	52.0	108.8	2.09				
6.20	6.40	Cl L	OC	1.60	0.53	21.8		89.2	53.2	115.6	2.18				
6.40	6.60	Cl L	OC	1.60	0.53	22.1		92.3	54.3	117.0	2.15				
6.60	6.80	Cl L	OC	1.60	0.53	21.9		95.5	55.4	115.2	2.08				
6.80	7.00	Cl L	OC	1.60	0.53	22.1		98.6	56.6	115.8	2.05				
7.00	7.20	Cl L	OC	1.60	0.53	23.1		101.7	57.7	121.6	2.11				
7.20	7.40	Cl L	OC	1.60	0.53	24.2		104.9	58.8	128.4	2.18				
7.40	7.60	Cl L	OC	1.60	0.53	25.2		108.0	60.0	134.4	2.24				
7.60	7.80	Cl L	OC	1.60	0.53	24.7		111.1	61.1	130.2	2.13				
7.80	8.00	Cl L	OC	1.60	0.53	25.4		114.3	62.3	134.1	2.15				
8.00	8.20	Cl L	OC	1.60	0.53	25.5		117.4	63.4	134.6	2.12				
8.20	8.40	Cl L	OC	1.60	0.53	26.4		120.6	64.5	139.4	2.16				
8.40	8.60	Cl L	OC	1.60	0.53	25.9		123.7	65.7	136.1	2.07				
8.60	8.80	Cl L	OC	1.60	0.53	25.7		126.8	66.8	133.7	2.00				
8.80	9.00	Cl L	OC	1.60	0.53	25.8		130.0	68.0	133.7	1.97				
9.00	9.20	Cl L	OC	1.60	0.53	25.6		133.1	69.1	132.1	1.91				
9.20	9.40	Cl L	OC	1.60	0.53	25.1		136.3	70.2	128.1	1.82				
9.40	9.60	Cl L	OC	1.60	0.53	25.7		139.4	71.4	131.7	1.85				
9.60	9.80	Cl L	OC	1.60	0.53	26.1		142.5	72.5	133.7	1.84				
9.80	10.00	Cl L	OC	1.60	0.53	26.3		145.7	73.7	134.5	1.83				
10.00	10.20	Cl L	OC	1.60	0.53	26.5		148.8	74.8	135.1	1.81				
10.20	10.40	Cl L	OC	1.85	0.53	27.7		152.2	76.2	142.5	1.87				
10.40	10.60	Cl L	OC	1.85	0.53	29.4		155.8	77.8	152.3	1.96				
10.60	10.80	Cl L	OC	1.85	0.53	29.6		159.5	79.4	153.2	1.93				
10.80	11.00	Cl L	OC	1.85	0.53	29.8		163.1	81.1	153.7	1.90				
11.00	11.20	Cl L	OC	1.85	0.53	30.6		166.7	82.7	157.6	1.91				
11.20	11.40	Cl L	OC	1.85	0.53	31.3		170.4	84.3	161.3	1.91				
11.40	11.60	Cl L	OC	1.85	0.53	32.5		174.0	86.0	168.9	1.96				
11.60	11.80	Cl L	OC	1.85	0.53	33.4		177.6	87.6	173.8	1.98				
11.80	12.00	Cl L	OC	1.85	0.53	35.2		181.2	89.2	184.8	2.07				
12.00	12.20	Cl L	OC	1.85	0.53	34.9		184.9	90.8	181.7	2.00				
12.20	12.40	Cl L	OC	1.85	0.53	35.5		188.5	92.5	184.8	2.00				
12.40	12.60	Cl L	OC	1.85	0.53	36.0		192.1	94.1	187.1	1.99				
12.60	12.80	Cl L	OC	1.85	0.53	35.5		195.8	95.7	183.1	1.91				
12.80	13.00	Cl L	OC	1.85	0.53	34.5		199.4	97.4	176.2	1.81				
13.00	13.20	Cl L	OC	1.85	0.53	36.1		203.0	99.0	185.7	1.88				
13.20	13.40	Cl L	OC	1.85	0.53	35.9		206.6	100.6	183.3	1.82				
13.40	13.60	Cl L	OC	1.85	0.53	35.9		210.3	102.3	182.7	1.79				
13.60	13.80	Cl L	OC	1.85	0.53	36.3		213.9	103.9	184.4	1.77				
13.80	14.00	Cl L	OC	1.85	0.53	35.5		217.5	105.5	179.1	1.70				
14.00	14.20	Cl L	OC	1.85	0.53	36.7		221.2	107.1	185.5	1.73				
14.20	14.40	Cl L	OC	1.85	0.53	35.7		224.8	108.8	178.6	1.64				
14.40	14.60	Cl L	OC	1.85	0.53	36.0		228.4	110.4	179.8	1.63				
14.60	14.80	Cl L	OC	1.85	0.53	36.9		232.1	112.0	185.2	1.65				
14.80	15.00	Cl L	OC	1.85	0.53	38.5		235.7	113.7	194.2	1.71				
15.00	15.20	Cl L	OC	1.85	0.53	38.1		239.3	115.3	190.9	1.66				
15.20	15.40	Cl L	OC	1.85	0.53	37.0		242.9	116.9	183.6	1.57				
15.40	15.60	Cl L	OC	1.85	0.53	37.6		246.6	118.6	186.7	1.57				
15.60	15.80	Cl L	NC	1.85	0.53	36.5		250.2	120.2	179.2	1.49				
15.80	16.00	Cl L	OC	1.85	0.53	37.5		253.8	121.8	184.8	1.52				
16.00	16.20	Cl L	NC	1.85	0.53	37.1		257.5	123.4	181.9	1.47				
16.20	16.40	Cl L	NC	1.85	0.53	36.7		261.1	125.1	178.5	1.43				
16.40	16.60	Cl L	NC	1.85	0.53	37.4		264.7	126.7	182.1	1.44				
16.60	16.80	Cl L	NC	1.85	0.53	37.7		268.4	128.3	183.6	1.43				
16.80	17.00	Cl L	NC	1.85	0.53	36.0		272.0	130.0	172.6	1.33				

C P T - test

Project Kv Kölen 30039781	**Site** Uppsala **Designation** 22S001 **Date** 20220321

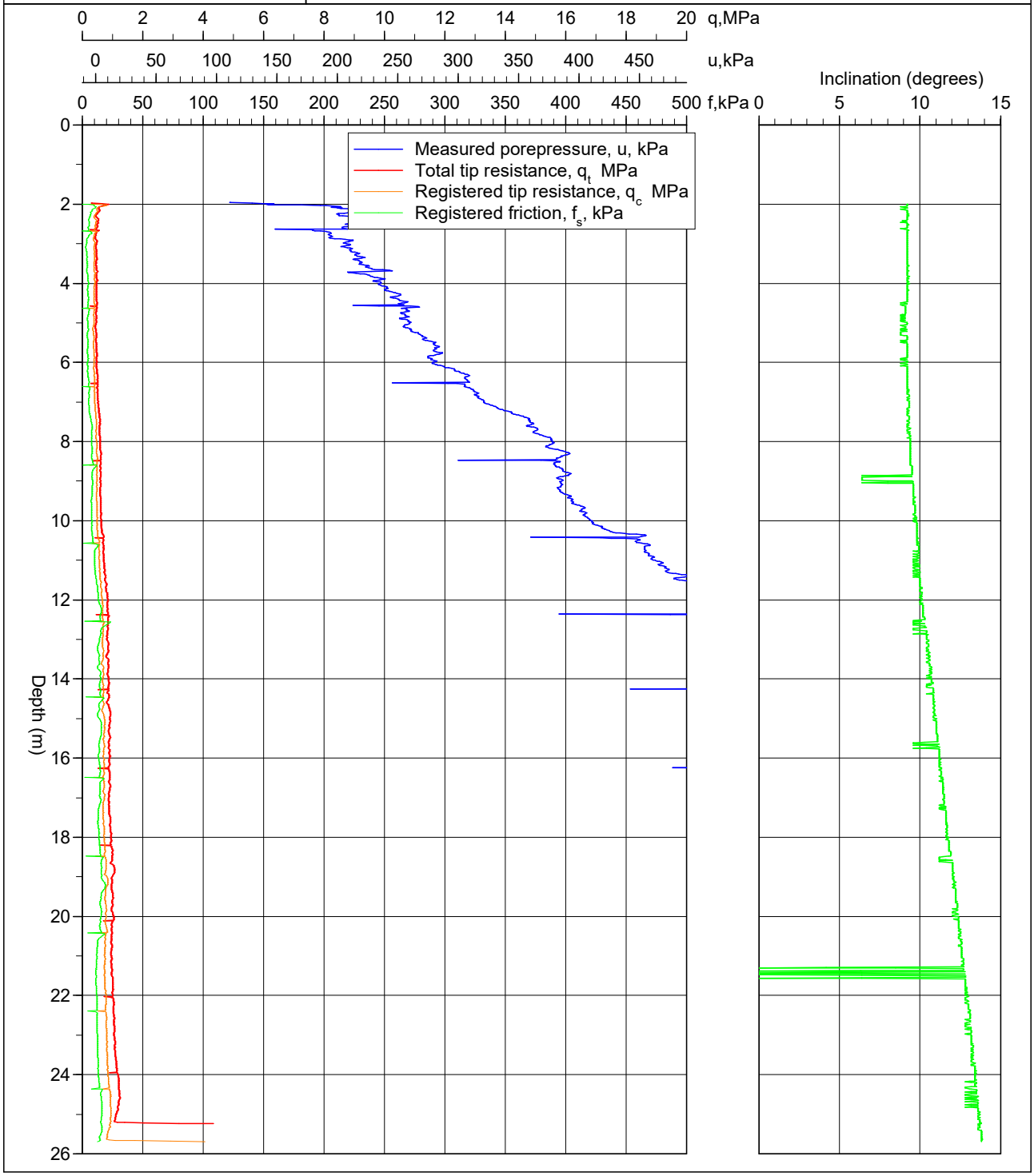
Depth (m) From	To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
17.00	17.20	Cl L	NC	1.85	0.53	35.8		275.6	131.6	171.1	1.30				
17.20	17.40	Cl L	NC	1.80	0.53	36.1		279.2	133.2	172.4	1.29				
17.40	17.60	Cl L	NC	1.85	0.53	37.6		282.8	134.8	180.9	1.34				
17.60	17.80	Cl L	NC	1.80	0.53	37.7		286.4	136.3	181.1	1.33				
17.80	18.00	Cl L	NC	1.85	0.53	38.5		289.9	137.9	185.4	1.34				
18.00	18.20	Cl L	NC	1.85	0.53	38.8		293.6	139.5	186.3	1.33				
18.20	18.40	Cl M	NC	1.85	0.53	40.4		297.2	141.2	195.7	1.39				
18.40	18.60	Cl M	NC	1.85	0.53	40.6		300.8	142.8	196.4	1.38				
18.60	18.80	Cl M	NC	1.85	0.53	41.4		304.5	144.4	200.7	1.39				
18.80	19.00	Cl M	NC	1.85	0.53	43.7		308.1	146.1	213.7	1.46				
19.00	19.20	Cl L	NC	1.80	0.53	39.9		311.7	147.6	190.5	1.29				
19.20	19.40	Cl L	NC	1.80	0.53	39.0		315.2	149.2	184.5	1.24				
19.40	19.60	Cl M	NC	1.80	0.53	41.1		318.7	150.7	196.5	1.30				
19.60	19.80	Cl M	NC	1.80	0.53	40.1		322.3	152.2	189.9	1.25				
19.80	20.00	Cl M	NC	1.80	0.53	40.1		325.8	153.8	189.8	1.23				
20.00	20.20	Cl M	NC	1.80	0.53	41.2		329.3	155.3	195.4	1.26				
20.20	20.40	Cl L	NC	1.80	0.53	39.0		332.9	156.8	182.3	1.16				
20.40	20.60	Cl L	NC	1.80	0.53	38.6		336.4	158.4	179.3	1.13				
20.60	20.80	Cl L	NC	1.80	0.53	38.6		339.9	159.9	179.3	1.12				
20.80	21.00	Cl L	NC	1.80	0.53	37.8		343.4	161.4	173.8	1.08				
21.00	21.20	Cl L	NC	1.80	0.53	38.1		347.0	163.0	175.4	1.08				
21.20	21.40	Cl L	NC	1.80	0.53	38.4		350.5	164.5	176.6	1.07				
21.40	21.60	Cl L	NC	1.80	0.53	38.8		354.0	166.0	178.7	1.08				
21.60	21.80	Cl M	NC	1.80	0.53	40.2		357.6	167.6	186.0	1.11				
21.80	22.00	Cl L	NC	1.80	0.53	39.6		361.1	169.1	182.0	1.08				
22.00	22.20	Cl M	NC	1.80	0.53	40.7		364.6	170.6	188.0	1.10				
22.20	22.40	Cl M	NC	1.80	0.53	40.8		368.2	172.1	188.4	1.09				
22.40	22.60	Cl M	NC	1.80	0.53	41.7		371.7	173.7	193.4	1.11				
22.60	22.80	Cl M	NC	1.80	0.53	41.6		375.2	175.2	192.2	1.10				
22.80	23.00	Cl M	NC	1.80	0.53	41.8		378.8	176.7	192.7	1.09				
23.00	23.20	Cl M	NC	1.80	0.53	42.4		382.3	178.3	196.1	1.10				
23.20	23.40	Cl M	NC	1.80	0.53	42.5		385.8	179.8	196.0	1.09				
23.40	23.60	Cl M	NC	1.80	0.53	43.3		389.4	181.3	200.3	1.10				
23.60	23.80	Cl M	NC	1.80	0.53	44.6		392.9	182.9	207.4	1.13				
23.80	24.00	Cl M	NC	1.80	0.53	45.7		396.4	184.4	213.5	1.16				
24.00	24.20	Cl M	NC	1.80	0.53	48.4		400.0	185.9	228.9	1.23				
24.20	24.40	Cl M	NC	1.80	0.53	48.6		403.5	187.5	229.4	1.22				
24.40	24.60	Cl M	NC	1.80	0.53	49.4		407.0	189.0	233.8	1.24				
24.60	24.80	Cl M	NC	1.80	0.53	48.3		410.5	190.5	226.7	1.19				
24.80	25.00	Cl M	NC	1.80	0.53	45.9		414.1	192.1	212.5	1.11				
25.00	25.15	Cl M	NC	1.80	0.53	42.4		417.2	193.4	192.2	1.00				

CPT-test performed according to EN ISO 22476-1

Project	**Kv Kölen**	**Site**	**Uppsala**
Project number	**30039781**	**Designation**	**22S001**
Company	**Sweco Sverige AB**	**Date**	**20220321**
Operator	**Claire Ellinger**		

Predrilled depth	2.00 m	Predrilled material	Mg
Start depth	2.00 m	Geometry	Normal
Stop depth	25.69 m	Fluid in filter	Olja&fett
Ground water level	2.70 m	Borehole coordinates	X=6636970.090,Y=130526.744
Reference	my	Equipment	Envi Memocone
Level at reference	4.30 m	Cone nr	52010

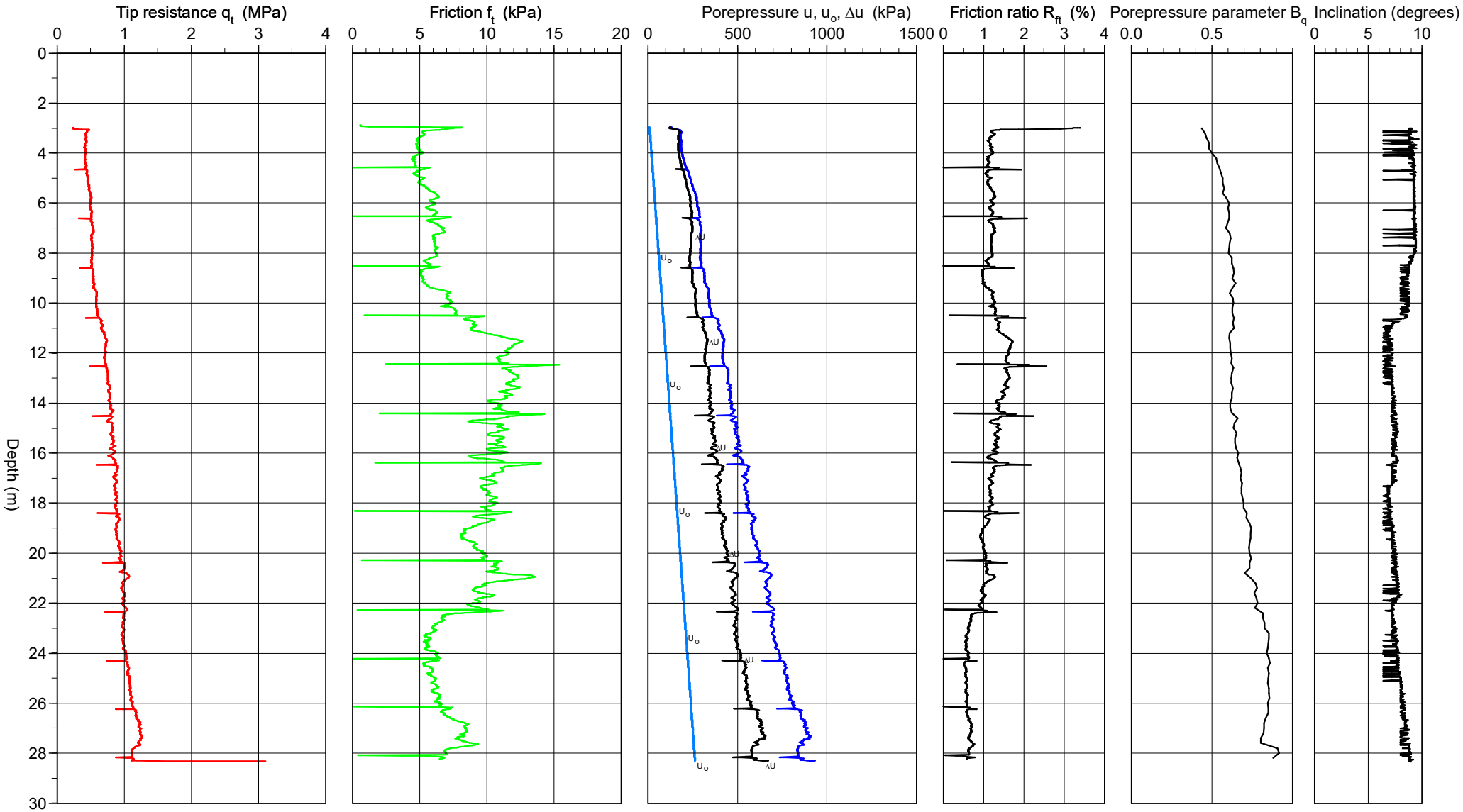
[X] **Porepressure measurement**



CPT-test performed according to EN ISO 22476-1

Predrilling depth	3.00 m	Reference	MY	Fluid in filter	Olja&fett
Start depth	3.00 m	Level at reference	3.81 m	Coordinats	X=6637033.978,Y=130593.450
Stop depth	28.59 m	Predrilled material	Mg	Equipment	Envi Memocone
Ground water level	2.21 m	Geometry	Normal	Cone nr	52010

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S002
Date	20220323



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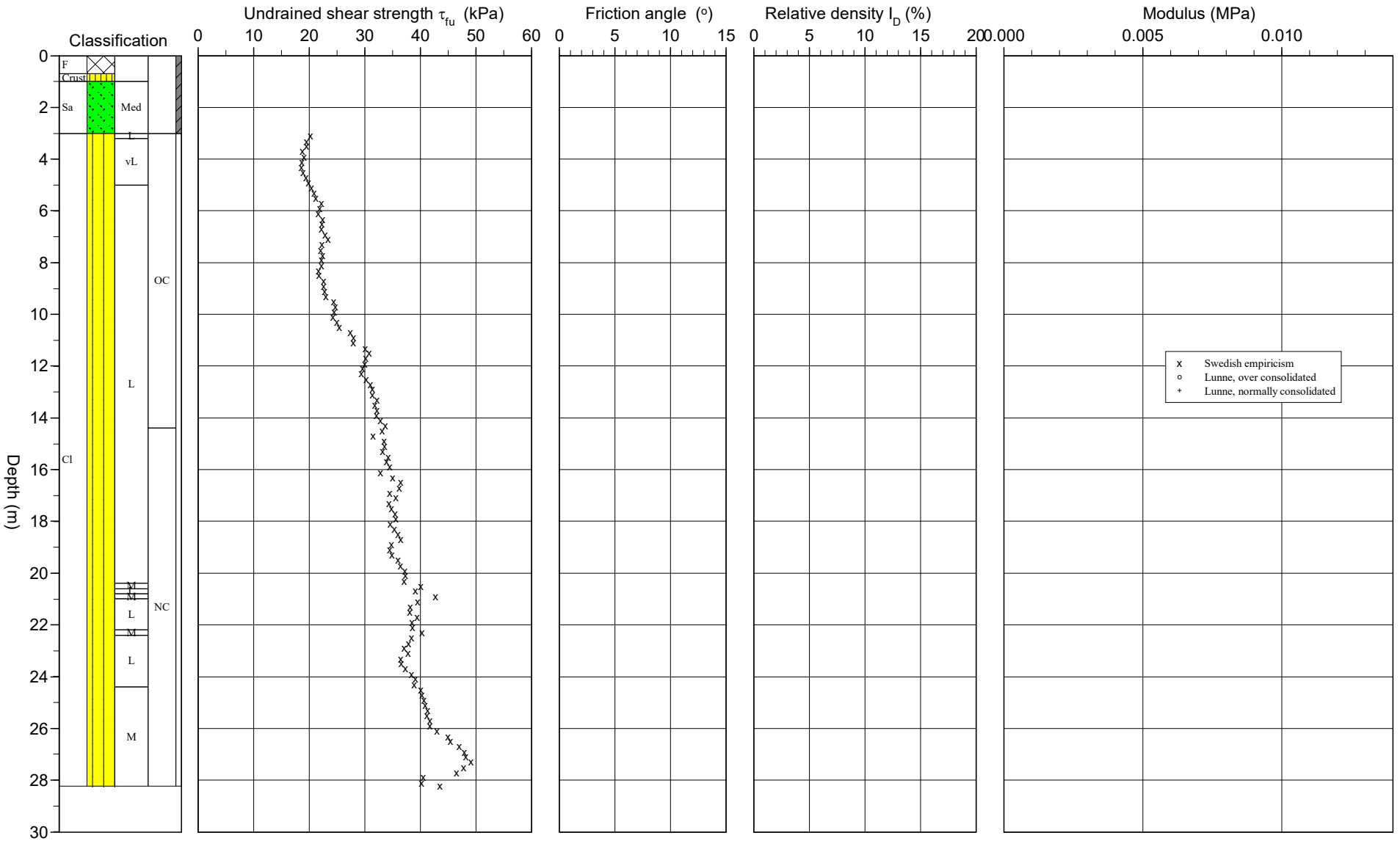
2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	MY	Predrilling depth	3.00 m	Evaluator	INPRAG
Level at reference	3.81 m	Predrilled material	Mg	Evaluation date	2022-04-12
Ground water level	2.21 m	Equipment	Envi Memocone		
Start depth	3.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S002
Date	20220323

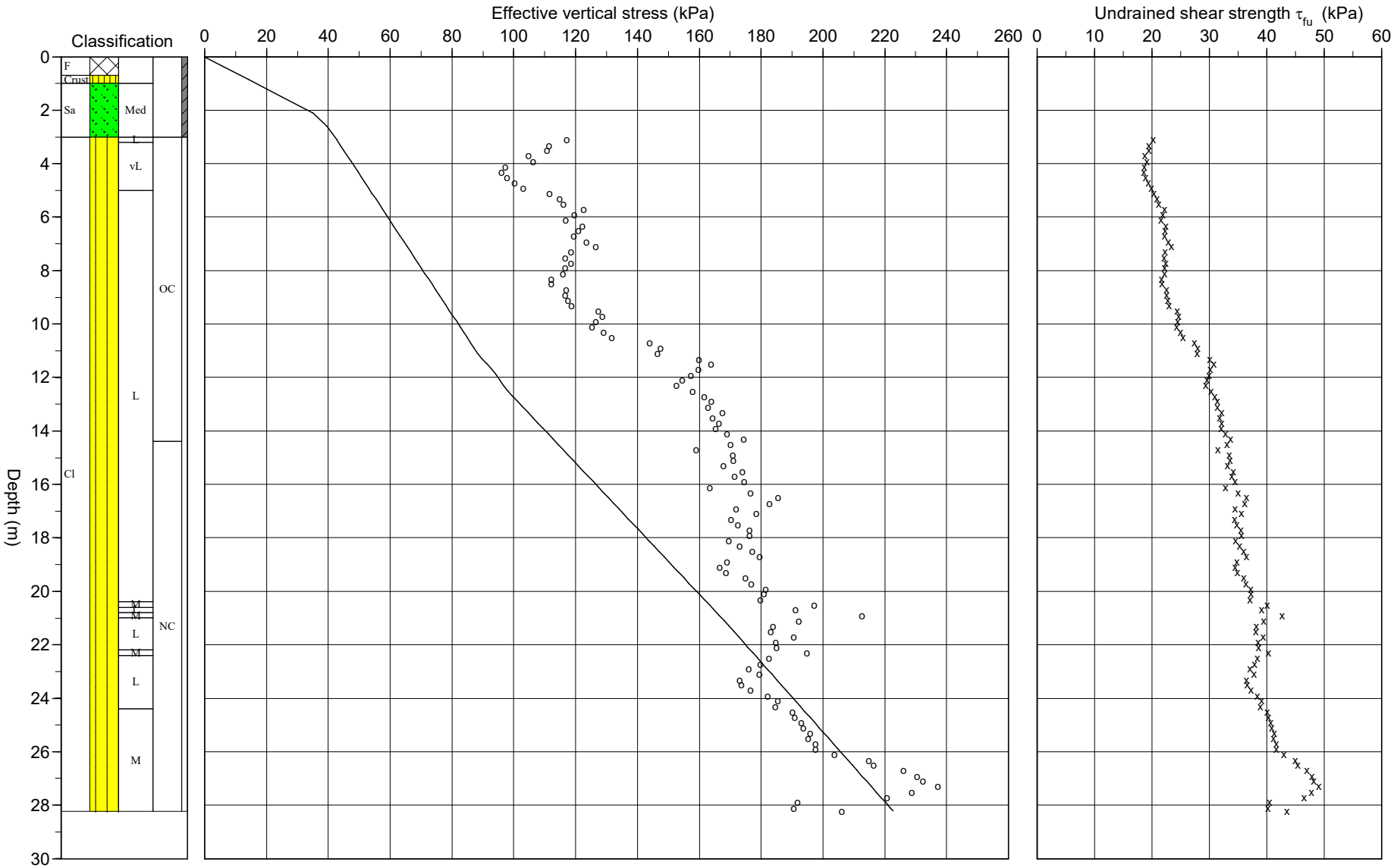


B:\Geotechnical\2022\kölen Uppsala\Conrad\cpw\22S002.CPW 2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	MY	Predrilling depth	3.00 m	Evaluator	INPRAG
Ground water level	3.81 m	Predrilled material	Mg	Evaluation date	2022-04-12
Grundvattenyta	2.21 m	Equipment	Envi Memocone		
Start depth	3.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S002
Date	20220323



C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S002**
Date **20220323**

Predrilling depth	3.00 m	Predrilled material	Mg
Start depth	3.00 m	Geometry	Normal
Stop depth	28.59 m	Fluid in filter	Olja&fett
Ground water level	2.21 m	Operator	Claire Ellinger
Reference	MY	Equipment	Envi Memocone
Level at reference	3.81 m	[x] **Porepressure measurement**	

Calibration data

Cone	52010	Internal friction O_c	0.0 kPa
Date	2021-04-07	Internal friction O_f	0.0 kPa
Areafactorr a	0.690	Cross talk c_1	0.000
Areafactor b	0.006	Cross talk c_2	0.000

Cero values, kPa

	Porepressure	Friction	Tip resistance
Before	0.00	0.00	0.00
After	0.10	0.10	-0.16
Diff	0.10	0.10	-0.16

Scale factors

Porepressure Range	Porepressure Code	Friction Range	Friction Code	Tip resistance Range	Tip resistance Code

[ ] **Use scale factors**

Correction

Porepressure	(none)
Friction	(none)
Tip resistance	(none)

Estimated sounding class

Porepressure observations

Depth (m)	Porepressure (kPa)
2.21	0.00

Boundaries

Depth (m)

Classification

Depth (m) From	Depth (m) To	Density (ton/m^3)	Liquid limit	Soil
0.00	0.70	1.70		F
0.70	1.00	1.70	0.50	Crust
1.00	2.00	1.70	0.28	Sa Med
2.00	3.00	1.70	0.38	Sa Med
3.00	4.00		0.48	
4.00	5.00		0.53	
5.00	28.24		0.48	

Notes

C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S002**
Date **20220323**

Depth (m) From	Depth (m) To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
0.00	0.70	F		1.70				5.8	5.8						
0.70	1.00	Crust		1.70	0.50			14.2	14.2						
1.00	2.00	Sa Med		1.70	0.28			25.0	25.0						
2.00	2.21	Sa Med		1.70	0.38			35.1	35.1						
2.21	3.00	Sa Med		1.70	0.38			43.5	39.5						
3.00	3.20	Cl L	OC	1.60	0.48	20.2		51.6	42.7	117.2	2.74				
3.20	3.40	Cl vL	OC	1.60	0.48	19.5		54.7	43.9	111.4	2.54				
3.40	3.60	Cl vL	OC	1.60	0.48	19.5		57.9	45.0	110.7	2.46				
3.60	3.80	Cl vL	OC	1.60	0.48	18.8		61.0	46.1	104.8	2.27				
3.80	4.00	Cl vL	OC	1.60	0.48	19.1		64.2	47.3	106.3	2.25				
4.00	4.20	Cl vL	OC	1.60	0.53	18.7		67.3	48.4	97.2	2.01				
4.20	4.40	Cl vL	OC	1.60	0.53	18.6		70.4	49.6	96.1	1.94				
4.40	4.60	Cl vL	OC	1.60	0.53	18.9		73.6	50.7	97.8	1.93				
4.60	4.80	Cl vL	OC	1.60	0.53	19.4		76.7	51.8	100.3	1.93				
4.80	5.00	Cl vL	OC	1.60	0.53	19.9		79.9	53.0	103.0	1.95				
5.00	5.20	Cl L	OC	1.60	0.48	20.4		83.0	54.1	111.6	2.06				
5.20	5.40	Cl L	OC	1.60	0.48	20.9		86.1	55.3	114.7	2.08				
5.40	5.60	Cl L	OC	1.60	0.48	21.2		89.3	56.4	116.1	2.06				
5.60	5.80	Cl L	OC	1.60	0.48	22.2		92.4	57.5	122.6	2.13				
5.80	6.00	Cl L	OC	1.60	0.48	21.9		95.5	58.7	119.6	2.04				
6.00	6.20	Cl L	OC	1.60	0.48	21.6		98.7	59.8	116.7	1.95				
6.20	6.40	Cl L	OC	1.60	0.48	22.4		101.8	60.9	122.3	2.01				
6.40	6.60	Cl L	OC	1.60	0.48	22.3		105.0	62.1	120.9	1.95				
6.60	6.80	Cl L	OC	1.60	0.48	22.2		108.1	63.2	119.4	1.89				
6.80	7.00	Cl L	OC	1.60	0.48	22.9		111.2	64.4	123.5	1.92				
7.00	7.20	Cl L	OC	1.60	0.48	23.4		114.4	65.5	126.4	1.93				
7.20	7.40	Cl L	OC	1.60	0.48	22.3		117.5	66.6	118.5	1.78				
7.40	7.60	Cl L	OC	1.60	0.48	22.1		120.7	67.8	116.7	1.72				
7.60	7.80	Cl L	OC	1.60	0.48	22.4		123.8	68.9	118.5	1.72				
7.80	8.00	Cl L	OC	1.60	0.48	22.2		126.9	70.1	116.6	1.66				
8.00	8.20	Cl L	OC	1.60	0.48	22.2		130.1	71.2	115.9	1.63				
8.20	8.40	Cl L	OC	1.60	0.48	21.7		133.2	72.3	112.1	1.55				
8.40	8.60	Cl L	OC	1.60	0.48	21.8		136.4	73.5	112.2	1.53				
8.60	8.80	Cl L	OC	1.60	0.48	22.6		139.5	74.6	117.0	1.57				
8.80	9.00	Cl L	OC	1.60	0.48	22.6		142.6	75.8	116.6	1.54				
9.00	9.20	Cl L	OC	1.60	0.48	22.8		145.8	76.9	117.6	1.53				
9.20	9.40	Cl L	OC	1.60	0.48	23.0		148.9	78.0	118.8	1.52				
9.40	9.60	Cl L	OC	1.60	0.48	24.4		152.1	79.2	127.4	1.61				
9.60	9.80	Cl L	OC	1.60	0.48	24.7		155.2	80.3	128.8	1.60				
9.80	10.00	Cl L	OC	1.60	0.48	24.5		158.3	81.5	126.6	1.55				
10.00	10.20	Cl L	OC	1.60	0.48	24.3		161.5	82.6	125.4	1.52				
10.20	10.40	Cl L	OC	1.60	0.48	25.0		164.6	83.7	129.1	1.54				
10.40	10.60	Cl L	OC	1.60	0.48	25.4		167.8	84.9	131.7	1.55				
10.60	10.80	Cl L	OC	1.60	0.48	27.4		170.9	86.0	144.0	1.67				
10.80	11.00	Cl L	OC	1.60	0.48	28.0		174.0	87.1	147.4	1.69				
11.00	11.20	Cl L	OC	1.60	0.48	27.9		177.2	88.3	146.5	1.66				
11.20	11.40	Cl L	OC	1.85	0.48	30.1		180.6	89.7	160.0	1.78				
11.40	11.60	Cl L	OC	1.85	0.48	30.8		184.2	91.3	163.8	1.79				
11.60	11.80	Cl L	OC	1.85	0.48	30.2		187.8	92.9	159.7	1.72				
11.80	12.00	Cl L	OC	1.60	0.48	30.0		191.2	94.3	157.3	1.67				
12.00	12.20	Cl L	OC	1.60	0.48	29.6		194.3	95.5	154.4	1.62				
12.20	12.40	Cl L	OC	1.60	0.48	29.4		197.5	96.6	152.6	1.58				
12.40	12.60	Cl L	OC	1.85	0.48	30.3		200.9	98.0	157.8	1.61				
12.60	12.80	Cl L	OC	1.85	0.48	31.0		204.5	99.6	161.6	1.62				
12.80	13.00	Cl L	OC	1.85	0.48	31.4		208.1	101.2	164.1	1.62				
13.00	13.20	Cl L	OC	1.85	0.48	31.4		211.7	102.9	162.9	1.58				
13.20	13.40	Cl L	OC	1.85	0.48	32.2		215.4	104.5	167.5	1.60				
13.40	13.60	Cl L	OC	1.85	0.48	31.8		219.0	106.1	164.3	1.55				
13.60	13.80	Cl L	OC	1.85	0.48	32.2		222.6	107.8	166.4	1.54				
13.80	14.00	Cl L	OC	1.85	0.48	32.1		226.3	109.4	165.3	1.51				
14.00	14.20	Cl L	OC	1.85	0.48	32.8		229.9	111.0	169.0	1.52				
14.20	14.40	Cl L	OC	1.85	0.48	33.7		233.5	112.6	174.4	1.55				
14.40	14.60	Cl L	NC	1.85	0.48	33.1		237.2	114.3	170.0	1.49				
14.60	14.80	Cl L	NC	1.85	0.48	31.5		240.8	115.9	159.0	1.37				
14.80	15.00	Cl L	NC	1.85	0.48	33.5		244.4	117.5	170.9	1.45				
15.00	15.20	Cl L	NC	1.85	0.48	33.6		248.0	119.2	171.1	1.44				
15.20	15.40	Cl L	NC	1.85	0.48	33.2		251.7	120.8	167.9	1.39				
15.40	15.60	Cl L	NC	1.85	0.48	34.2		255.3	122.4	174.0	1.42				
15.60	15.80	Cl L	NC	1.85	0.48	33.9		258.9	124.1	171.5	1.38				
15.80	16.00	Cl L	NC	1.85	0.48	34.5		262.6	125.7	174.5	1.39				
16.00	16.20	Cl L	NC	1.85	0.48	32.8		266.2	127.3	163.4	1.28				
16.20	16.40	Cl L	NC	1.85	0.48	35.0		269.8	128.9	176.7	1.37				
16.40	16.60	Cl L	NC	1.85	0.48	36.5		273.5	130.6	185.6	1.42				
16.60	16.80	Cl L	NC	1.85	0.48	36.2		277.1	132.2	182.8	1.38				
16.80	17.00	Cl L	NC	1.85	0.48	34.5		280.7	133.8	172.0	1.29				
17.00	17.20	Cl L	NC	1.85	0.48	35.6		284.3	135.5	178.4	1.32				
17.20	17.40	Cl L	NC	1.85	0.48	34.4		288.0	137.1	170.3	1.24				

C P T - test

Project	Site	Uppsala
Kv Kölen 30039781	Designation	22S002
	Date	20220323

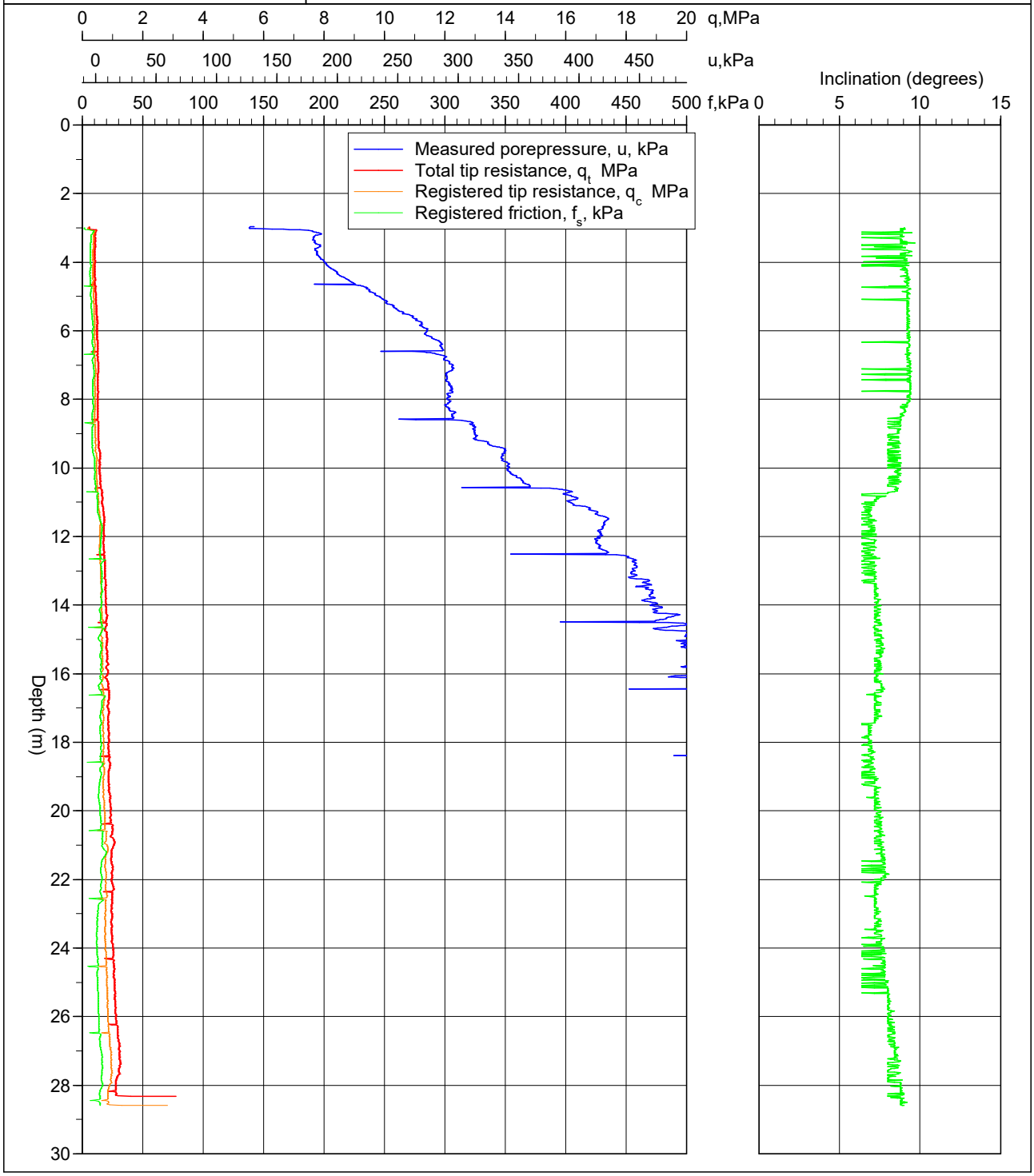
Depth (m) From	Depth (m) To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
17.40	17.60	Cl L	NC	1.85	0.48	34.8		291.6	138.7	172.5	1.24				
17.60	17.80	Cl L	NC	1.85	0.48	35.5		295.2	140.4	176.3	1.26				
17.80	18.00	Cl L	NC	1.85	0.48	35.6		298.9	142.0	176.3	1.24				
18.00	18.20	Cl L	NC	1.85	0.48	34.6		302.5	143.6	169.5	1.18				
18.20	18.40	Cl L	NC	1.85	0.48	35.3		306.1	145.2	173.1	1.19				
18.40	18.60	Cl L	NC	1.85	0.48	36.0		309.8	146.9	177.2	1.21				
18.60	18.80	Cl L	NC	1.85	0.48	36.5		313.4	148.5	179.5	1.21				
18.80	19.00	Cl L	NC	1.85	0.48	34.8		317.0	150.1	169.0	1.13				
19.00	19.20	Cl L	NC	1.85	0.48	34.5		320.6	151.8	166.5	1.10				
19.20	19.40	Cl L	NC	1.85	0.48	34.9		324.3	153.4	168.5	1.10				
19.40	19.60	Cl L	NC	1.85	0.48	36.0		327.9	155.0	174.9	1.13				
19.60	19.80	Cl L	NC	1.85	0.48	36.4		331.5	156.6	176.8	1.13				
19.80	20.00	Cl L	NC	1.85	0.48	37.2		335.2	158.3	181.4	1.15				
20.00	20.20	Cl L	NC	1.85	0.48	37.3		338.8	159.9	181.0	1.13				
20.20	20.40	Cl L	NC	1.85	0.48	37.1		342.4	161.5	179.8	1.11				
20.40	20.60	Cl M	NC	1.85	0.48	40.1		346.0	163.2	197.3	1.21				
20.60	20.80	Cl L	NC	1.85	0.48	39.1		349.7	164.8	191.1	1.16				
20.80	21.00	Cl M	NC	1.85	0.48	42.7		353.3	166.4	212.6	1.28				
21.00	21.20	Cl L	NC	1.85	0.48	39.5		356.9	168.1	192.3	1.14				
21.20	21.40	Cl L	NC	1.80	0.48	38.2		360.5	169.6	183.8	1.08				
21.40	21.60	Cl L	NC	1.80	0.48	38.1		364.0	171.2	183.1	1.07				
21.60	21.80	Cl L	NC	1.80	0.48	39.4		367.6	172.7	190.5	1.10				
21.80	22.00	Cl L	NC	1.80	0.48	38.5		371.1	174.2	184.7	1.06				
22.00	22.20	Cl L	NC	1.80	0.48	38.6		374.6	175.8	184.9	1.05				
22.20	22.40	Cl M	NC	1.80	0.48	40.3		378.2	177.3	194.7	1.10				
22.40	22.60	Cl L	NC	1.80	0.48	38.4		381.7	178.8	182.6	1.02				
22.60	22.80	Cl L	NC	1.80	0.48	37.9		385.2	180.4	179.8	1.00				
22.80	23.00	Cl L	NC	1.80	0.48	37.1		388.8	181.9	176.0	1.00				
23.00	23.20	Cl L	NC	1.80	0.48	37.8		392.3	183.4	179.3	1.00				
23.20	23.40	Cl L	NC	1.80	0.48	36.5		395.8	185.0	173.0	1.00				
23.40	23.60	Cl L	NC	1.80	0.48	36.6		399.4	186.5	173.6	1.00				
23.60	23.80	Cl L	NC	1.80	0.48	37.3		402.9	188.0	176.7	1.00				
23.80	24.00	Cl L	NC	1.80	0.48	38.4		406.4	189.5	182.2	1.00				
24.00	24.20	Cl L	NC	1.80	0.48	39.1		410.0	191.1	185.3	1.00				
24.20	24.40	Cl L	NC	1.80	0.48	38.9		413.5	192.6	184.5	1.00				
24.40	24.60	Cl M	NC	1.80	0.48	40.1		417.0	194.1	190.2	1.00				
24.60	24.80	Cl M	NC	1.80	0.48	40.3		420.6	195.7	191.0	1.00				
24.80	25.00	Cl M	NC	1.80	0.48	40.7		424.1	197.2	193.0	1.00				
25.00	25.20	Cl M	NC	1.80	0.48	40.9		427.6	198.7	193.7	1.00				
25.20	25.40	Cl M	NC	1.80	0.48	41.3		431.1	200.3	195.9	1.00				
25.40	25.60	Cl M	NC	1.80	0.48	41.2		434.7	201.8	195.1	1.00				
25.60	25.80	Cl M	NC	1.80	0.48	41.7		438.2	203.3	197.6	1.00				
25.80	26.00	Cl M	NC	1.80	0.48	41.7		441.7	204.9	197.5	1.00				
26.00	26.20	Cl M	NC	1.80	0.48	43.0		445.3	206.4	203.8	1.00				
26.20	26.40	Cl M	NC	1.80	0.48	45.0		448.8	207.9	214.8	1.03				
26.40	26.60	Cl M	NC	1.80	0.48	45.4		452.3	209.5	216.4	1.03				
26.60	26.80	Cl M	NC	1.80	0.48	47.0		455.9	211.0	226.0	1.07				
26.80	27.00	Cl M	NC	1.80	0.48	47.9		459.4	212.5	230.5	1.08				
27.00	27.20	Cl M	NC	1.80	0.48	48.2		462.9	214.1	232.3	1.09				
27.20	27.40	Cl M	NC	1.80	0.48	49.1		466.5	215.6	237.1	1.10				
27.40	27.60	Cl M	NC	1.80	0.48	47.8		470.0	217.1	228.7	1.05				
27.60	27.80	Cl M	NC	1.80	0.48	46.5		473.5	218.6	220.9	1.01				
27.80	28.00	Cl M	NC	1.80	0.48	40.5		477.1	220.2	191.9	1.00				
28.00	28.20	Cl M	NC	1.80	0.48	40.2		480.6	221.7	190.5	1.00				
28.20	28.24	Cl M	NC	1.80	0.48	43.5		482.7	222.6	206.1	1.00				

CPT-test performed according to EN ISO 22476-1

Project	**Kv Kölen**	**Site**	**Uppsala**
Project number	**30039781**	**Designation**	**22S002**
Company	**Sweco Sverige AB**	**Date**	**20220323**
Operator	**Claire Ellinger**		

Predrilled depth	3.00 m	Predrilled material	Mg
Start depth	3.00 m	Geometry	Normal
Stop depth	28.59 m	Fluid in filter	Olja&fett
Ground water level	2.21 m	Borehole coordinates	X=6637033.978,Y=130593.450
Reference	MY	Equipment	Envi Memocone
Level at reference	3.81 m	Cone nr	52010

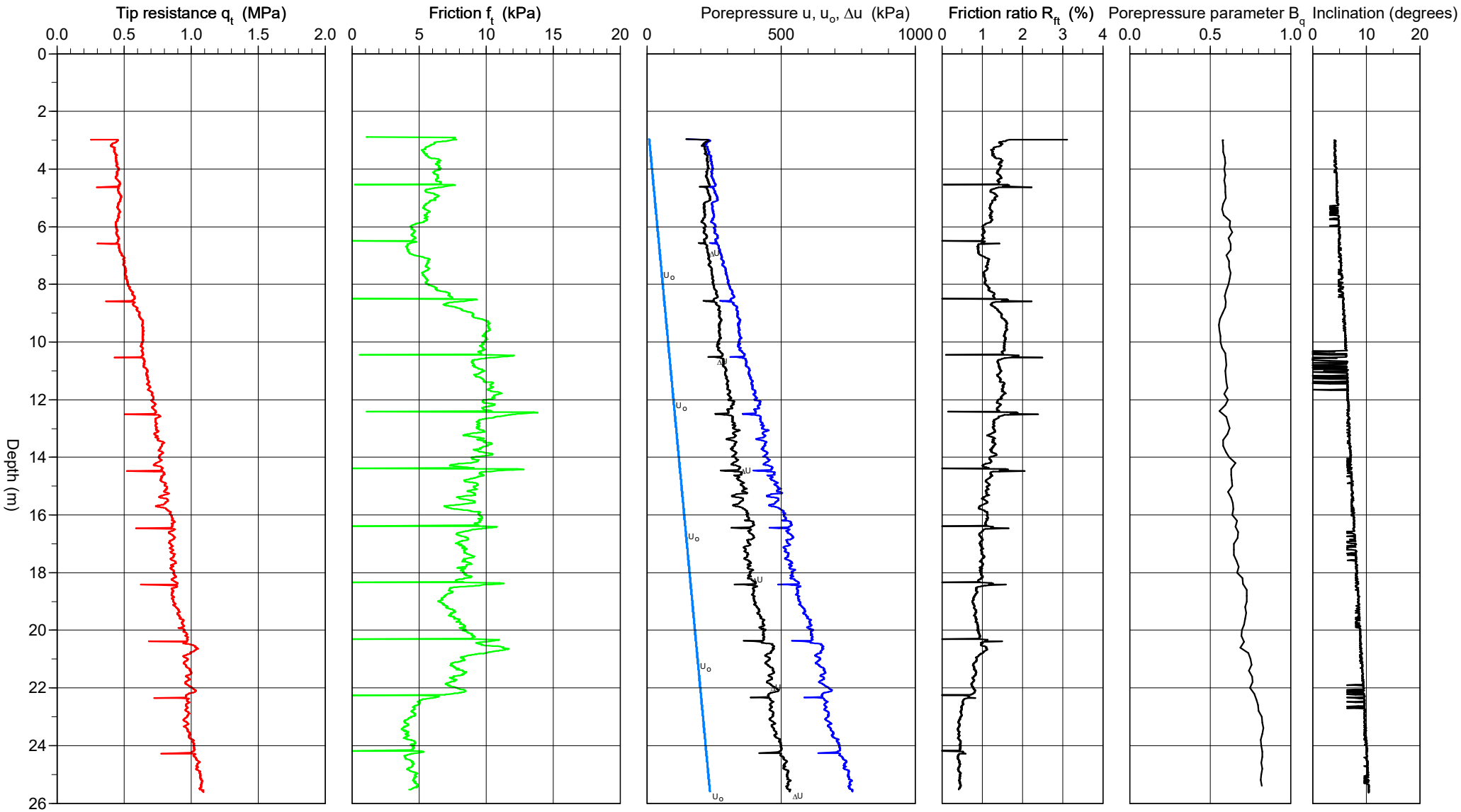
[X] **Porepressure measurement**



CPT-test performed according to EN ISO 22476-1

Predrilling depth	3.00 m	Reference	my	Fluid in filter	Olja&fett
Start depth	3.00 m	Level at reference	3.87 m	Coordinats	x=6637078.978,y=130688.687
Stop depth	25.82 m	Predrilled material	Mg	Equipment	Envi Memocone
Ground water level	2.27 m	Geometry	Normal	Cone nr	52010

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S003
Date	20220323



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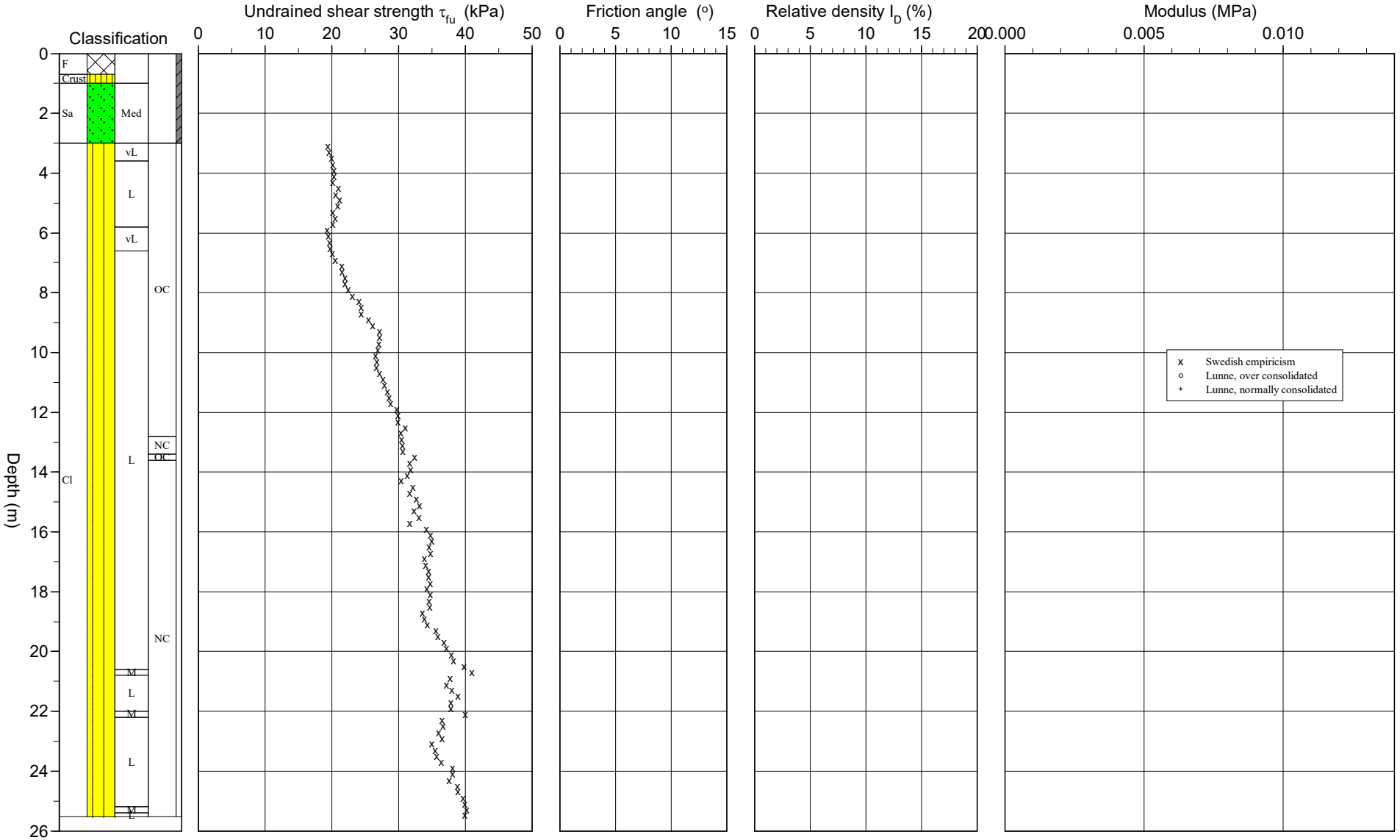
2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	my	Predrilling depth	3.00 m	Evaluator	INPRAG
Level at reference	3.87 m	Predrilled material	Mg	Evaluation date	2022-04-12
Ground water level	2.27 m	Equipment	Envi Memocone		
Start depth	3.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S003
Date	20220323

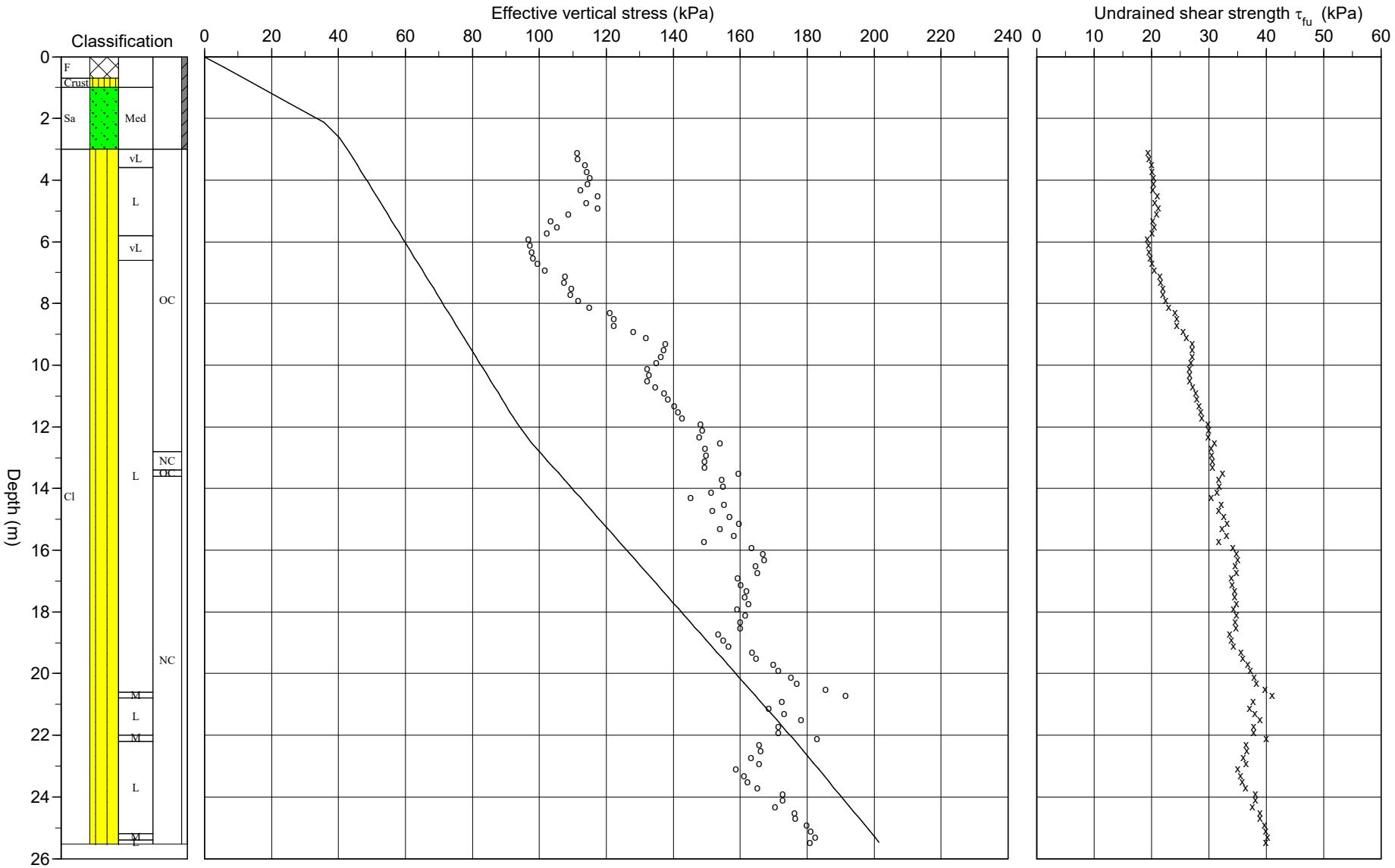


B:\Geotechnical\2022\kölen Uppsala\Conrad\cpw\22S003.CPW 2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	my	Predrilling depth	3.00 m	Evaluator	INPRAG
Ground water level	3.87 m	Predrilled material	Mg	Evaluation date	2022-04-12
Grundvattenyta	2.27 m	Equipment	Envi Memocone		
Start depth	3.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S003
Date	20220323



C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S003**
Date **20220323**

Predrilling depth	3.00 m	Predrilled material	Mg
Start depth	3.00 m	Geometry	Normal
Stop depth	25.82 m	Fluid in filter	Olja&fett
Ground water level	2.27 m	Operator	Claire Ellinger
Reference	my	Equipment	Envi Memocone
Level at reference	3.87 m	[x] **Porepressure measurement**	

Calibration data

Cone	52010	Internal friction O_c	0.0 kPa
Date	2021-04-07	Internal friction O_f	0.0 kPa
Areafactorr a	0.690	Cross talk c_1	0.000
Areafactor b	0.006	Cross talk c_2	0.000

Cero values, kPa

	Porepressure	Friction	Tip resistance
Before	0.00	0.00	0.00
After	-7.40	0.20	0.03
Diff	-7.40	0.20	0.03

Scale factors

Porepressure Range	Porepressure Code	Friction Range	Friction Code	Tip resistance Range	Tip resistance Code

[ ] **Use scale factors**

Correction

Porepressure	(none)
Friction	(none)
Tip resistance	(none)

Estimated sounding class

Porepressure observations

Depth (m)	Porepressure (kPa)
2.27	0.00

Boundaries

Depth (m)

Classification

Depth (m) From	Depth (m) To	Density (ton/m^3)	Liquid limit	Soil
0.00	0.70	1.70		F
0.70	1.00	1.70	0.50	Crust
1.00	2.00	1.70	0.28	Sa Med
2.00	3.00	1.70	0.38	Sa Med
3.00	4.00		0.48	
4.00	5.00		0.48	
5.00	25.53		0.53	

Notes

C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S003**
Date **20220323**

Depth (m) From	Depth (m) To	Classification		ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
0.00	0.70	F		1.70				5.8	5.8						
0.70	1.00	Crust		1.70	0.50			14.2	14.2						
1.00	2.00	Sa Med		1.70	0.28			25.0	25.0						
2.00	2.27	Sa Med		1.70	0.38			35.6	35.6						
2.27	3.00	Sa Med		1.70	0.38			43.9	40.2						
3.00	3.20	Cl vL	OC	1.60	0.48	19.4		51.6	43.3	111.3	2.57				
3.20	3.40	Cl vL	OC	1.60	0.48	19.6		54.7	44.4	111.4	2.51				
3.40	3.60	Cl vL	OC	1.60	0.48	20.0		57.9	45.5	113.6	2.49				
3.60	3.80	Cl L	OC	1.60	0.48	20.1		61.0	46.7	114.1	2.44				
3.80	4.00	Cl L	OC	1.60	0.48	20.4		64.2	47.8	115.0	2.40				
4.00	4.20	Cl L	OC	1.60	0.48	20.4		67.3	49.0	114.4	2.34				
4.20	4.40	Cl L	OC	1.60	0.48	20.2		70.4	50.1	112.3	2.24				
4.40	4.60	Cl L	OC	1.60	0.48	21.0		73.6	51.2	117.4	2.29				
4.60	4.80	Cl L	OC	1.60	0.48	20.6		76.7	52.4	114.0	2.18				
4.80	5.00	Cl L	OC	1.60	0.48	21.2		79.9	53.5	117.5	2.20				
5.00	5.20	Cl L	OC	1.60	0.53	20.9		83.0	54.7	108.8	1.99				
5.20	5.40	Cl L	OC	1.60	0.53	20.2		86.1	55.8	103.4	1.85				
5.40	5.60	Cl L	OC	1.60	0.53	20.5		89.3	56.9	105.3	1.85				
5.60	5.80	Cl L	OC	1.60	0.53	20.1		92.4	58.1	102.2	1.76				
5.80	6.00	Cl vL	OC	1.60	0.53	19.3		95.5	59.2	96.6	1.63				
6.00	6.20	Cl vL	OC	1.60	0.53	19.5		98.7	60.3	97.2	1.61				
6.20	6.40	Cl vL	OC	1.60	0.53	19.6		101.8	61.5	97.7	1.59				
6.40	6.60	Cl vL	OC	1.60	0.53	19.8		105.0	62.6	98.0	1.57				
6.60	6.80	Cl L	OC	1.60	0.53	20.1		108.1	63.8	99.5	1.56				
6.80	7.00	Cl L	OC	1.60	0.53	20.5		111.2	64.9	101.7	1.57				
7.00	7.20	Cl L	OC	1.60	0.53	21.5		114.4	66.0	107.6	1.63				
7.20	7.40	Cl L	OC	1.60	0.53	21.6		117.5	67.2	107.3	1.60				
7.40	7.60	Cl L	OC	1.60	0.53	22.0		120.7	68.3	109.5	1.60				
7.60	7.80	Cl L	OC	1.60	0.53	22.0		123.8	69.5	109.2	1.57				
7.80	8.00	Cl L	OC	1.60	0.53	22.5		126.9	70.6	111.6	1.58				
8.00	8.20	Cl L	OC	1.60	0.53	23.0		130.1	71.7	114.8	1.60				
8.20	8.40	Cl L	OC	1.60	0.53	24.1		133.2	72.9	121.0	1.66				
8.40	8.60	Cl L	OC	1.60	0.53	24.4		136.4	74.0	122.2	1.65				
8.60	8.80	Cl L	OC	1.60	0.53	24.4		139.5	75.2	122.1	1.63				
8.80	9.00	Cl L	OC	1.60	0.53	25.5		142.6	76.3	128.1	1.68				
9.00	9.20	Cl L	OC	1.60	0.53	26.1		145.8	77.4	131.8	1.70				
9.20	9.40	Cl L	OC	1.60	0.53	27.1		148.9	78.6	137.6	1.75				
9.40	9.60	Cl L	OC	1.60	0.53	27.1		152.1	79.7	137.1	1.72				
9.60	9.80	Cl L	OC	1.60	0.53	27.1		155.2	80.9	136.3	1.69				
9.80	10.00	Cl L	OC	1.60	0.53	26.9		158.3	82.0	135.0	1.65				
10.00	10.20	Cl L	OC	1.60	0.53	26.6		161.5	83.1	132.2	1.59				
10.20	10.40	Cl L	OC	1.60	0.53	26.7		164.6	84.3	132.6	1.57				
10.40	10.60	Cl L	OC	1.60	0.53	26.7		167.8	85.4	132.1	1.55				
10.60	10.80	Cl L	OC	1.60	0.53	27.2		170.9	86.6	134.6	1.56				
10.80	11.00	Cl L	OC	1.60	0.53	27.7		174.0	87.7	137.4	1.57				
11.00	11.20	Cl L	OC	1.60	0.53	27.9		177.2	88.8	138.4	1.56				
11.20	11.40	Cl L	OC	1.60	0.53	28.3		180.3	90.0	140.3	1.56				
11.40	11.60	Cl L	OC	1.60	0.53	28.6		183.4	91.1	141.4	1.55				
11.60	11.80	Cl L	OC	1.60	0.53	28.8		186.6	92.2	142.6	1.55				
11.80	12.00	Cl L	OC	1.60	0.53	29.8		189.7	93.4	148.1	1.59				
12.00	12.20	Cl L	OC	1.85	0.53	30.0		193.1	94.8	148.6	1.57				
12.20	12.40	Cl L	OC	1.60	0.53	29.9		196.5	96.2	147.8	1.54				
12.40	12.60	Cl L	OC	1.85	0.53	31.0		199.9	97.5	153.9	1.58				
12.60	12.80	Cl L	OC	1.85	0.53	30.4		203.5	99.2	149.4	1.51				
12.80	13.00	Cl L	NC	1.85	0.53	30.5		207.1	100.8	149.9	1.49				
13.00	13.20	Cl L	NC	1.85	0.53	30.6		210.8	102.4	149.4	1.46				
13.20	13.40	Cl L	NC	1.85	0.53	30.6		214.4	104.1	149.3	1.43				
13.40	13.60	Cl L	OC	1.85	0.53	32.4		218.0	105.7	159.4	1.51				
13.60	13.80	Cl L	NC	1.85	0.53	31.7		221.7	107.3	154.5	1.44				
13.80	14.00	Cl L	NC	1.85	0.53	31.8		225.3	108.9	154.9	1.42				
14.00	14.20	Cl L	NC	1.85	0.53	31.4		228.9	110.6	151.4	1.37				
14.20	14.40	Cl L	NC	1.85	0.53	30.4		232.5	112.2	145.2	1.29				
14.40	14.60	Cl L	NC	1.85	0.53	32.2		236.2	113.8	155.1	1.36				
14.60	14.80	Cl L	NC	1.85	0.53	31.7		239.8	115.5	151.7	1.31				
14.80	15.00	Cl L	NC	1.85	0.53	32.6		243.4	117.1	156.9	1.34				
15.00	15.20	Cl L	NC	1.85	0.53	33.2		247.1	118.7	159.5	1.34				
15.20	15.40	Cl L	NC	1.85	0.53	32.3		250.7	120.4	153.9	1.28				
15.40	15.60	Cl L	NC	1.85	0.53	33.1		254.3	122.0	158.1	1.30				
15.60	15.80	Cl L	NC	1.85	0.53	31.7		258.0	123.6	149.1	1.21				
15.80	16.00	Cl L	NC	1.85	0.53	34.2		261.6	125.2	163.4	1.30				
16.00	16.20	Cl L	NC	1.85	0.53	34.8		265.2	126.9	166.9	1.32				
16.20	16.40	Cl L	NC	1.85	0.53	35.0		268.8	128.5	167.1	1.30				
16.40	16.60	Cl L	NC	1.85	0.53	34.6		272.5	130.1	164.5	1.26				
16.60	16.80	Cl L	NC	1.85	0.53	34.8		276.1	131.8	165.1	1.25				
16.80	17.00	Cl L	NC	1.85	0.53	33.9		279.7	133.4	159.2	1.19				
17.00	17.20	Cl L	NC	1.85	0.53	34.1		283.4	135.0	160.1	1.19				
17.20	17.40	Cl L	NC	1.85	0.53	34.5		287.0	136.7	161.9	1.18				

C P T - test

Project Kv Kölen 30039781	**Site** Uppsala **Designation** 22S003 **Date** 20220323

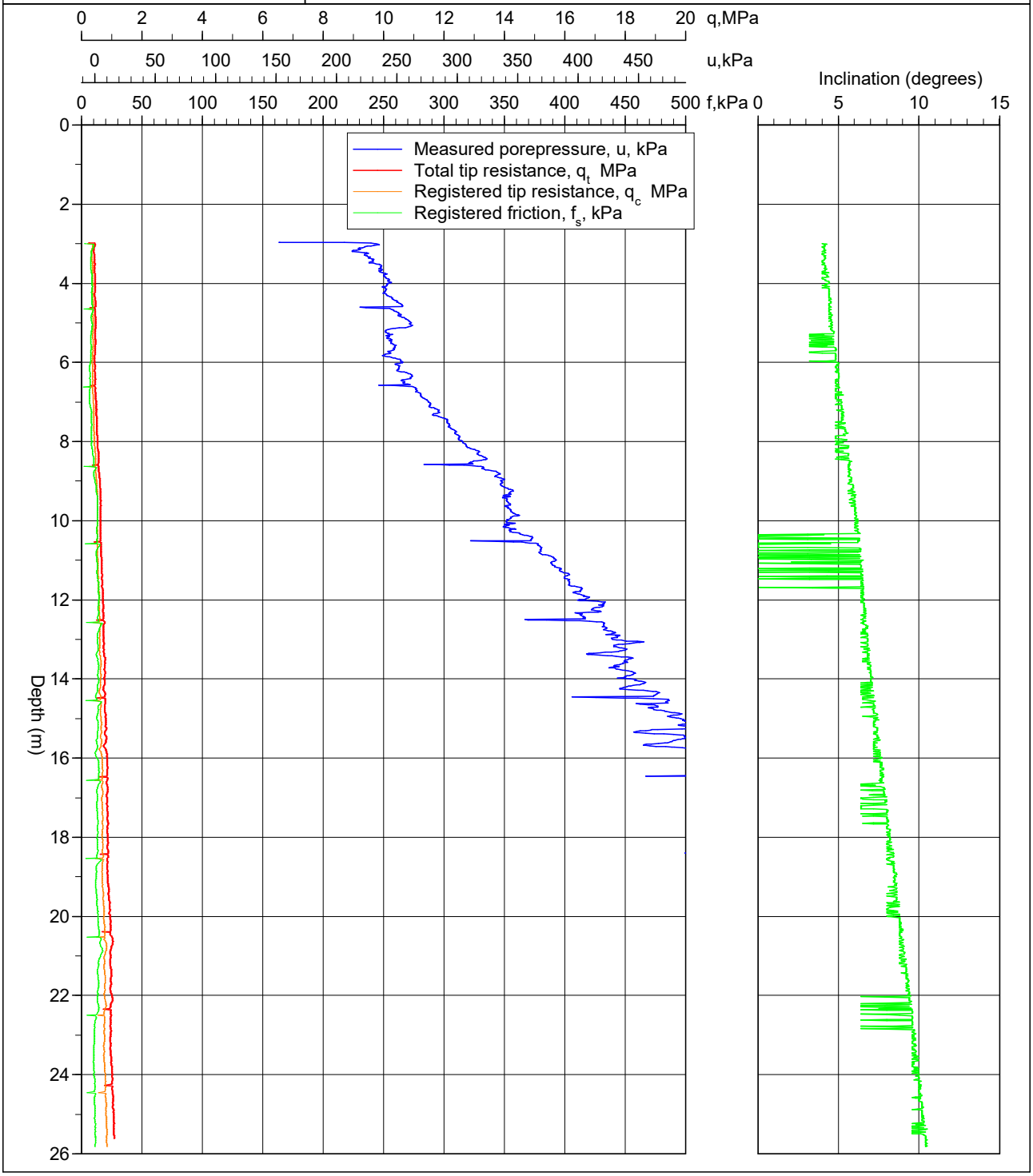
Depth (m) From	To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
17.40	17.60	Cl L	NC	1.85	0.53	34.5		290.6	138.3	161.3	1.17				
17.60	17.80	Cl L	NC	1.85	0.53	34.8		294.3	139.9	162.4	1.16				
17.80	18.00	Cl L	NC	1.85	0.53	34.3		297.9	141.5	159.1	1.12				
18.00	18.20	Cl L	NC	1.85	0.53	34.8		301.5	143.2	161.4	1.13				
18.20	18.40	Cl L	NC	1.85	0.53	34.6		305.1	144.8	160.0	1.11				
18.40	18.60	Cl L	NC	1.85	0.53	34.7		308.8	146.4	159.9	1.09				
18.60	18.80	Cl L	NC	1.85	0.53	33.6		312.4	148.1	153.5	1.04				
18.80	19.00	Cl L	NC	1.85	0.53	33.9		316.0	149.7	154.9	1.04				
19.00	19.20	Cl L	NC	1.85	0.53	34.3		319.7	151.3	156.5	1.03				
19.20	19.40	Cl L	NC	1.85	0.53	35.6		323.3	152.9	163.6	1.07				
19.40	19.60	Cl L	NC	1.85	0.53	35.9		326.9	154.6	164.7	1.07				
19.60	19.80	Cl L	NC	1.85	0.53	36.8		330.5	156.2	169.9	1.09				
19.80	20.00	Cl L	NC	1.85	0.53	37.2		334.2	157.8	171.4	1.09				
20.00	20.20	Cl L	NC	1.85	0.53	37.9		337.8	159.5	175.2	1.10				
20.20	20.40	Cl L	NC	1.85	0.53	38.3		341.4	161.1	176.9	1.10				
20.40	20.60	Cl L	NC	1.85	0.53	39.8		345.1	162.7	185.5	1.14				
20.60	20.80	Cl M	NC	1.85	0.53	41.0		348.7	164.4	191.5	1.16				
20.80	21.00	Cl L	NC	1.85	0.53	37.7		352.3	166.0	172.5	1.04				
21.00	21.20	Cl L	NC	1.85	0.53	37.1		356.0	167.6	168.5	1.01				
21.20	21.40	Cl L	NC	1.85	0.53	38.0		359.6	169.2	173.2	1.02				
21.40	21.60	Cl L	NC	1.85	0.53	38.9		363.2	170.9	178.0	1.04				
21.60	21.80	Cl L	NC	1.85	0.53	37.8		366.8	172.5	171.5	1.00				
21.80	22.00	Cl L	NC	1.80	0.53	37.8		370.4	174.1	171.4	1.00				
22.00	22.20	Cl M	NC	1.85	0.53	40.0		374.0	175.7	183.0	1.04				
22.20	22.40	Cl L	NC	1.80	0.53	36.5		377.6	177.2	165.6	1.00				
22.40	22.60	Cl L	NC	1.80	0.53	36.6		381.1	178.8	166.2	1.00				
22.60	22.80	Cl L	NC	1.80	0.53	36.0		384.7	180.3	163.2	1.00				
22.80	23.00	Cl L	NC	1.80	0.53	36.5		388.2	181.8	165.6	1.00				
23.00	23.20	Cl L	NC	1.80	0.53	35.0		391.7	183.4	158.8	1.00				
23.20	23.40	Cl L	NC	1.80	0.53	35.5		395.2	184.9	161.1	1.00				
23.40	23.60	Cl L	NC	1.80	0.53	35.8		398.8	186.4	162.1	1.00				
23.60	23.80	Cl L	NC	1.80	0.53	36.4		402.3	188.0	165.0	1.00				
23.80	24.00	Cl L	NC	1.80	0.53	38.1		405.8	189.5	172.6	1.00				
24.00	24.20	Cl L	NC	1.80	0.53	38.1		409.4	191.0	172.6	1.00				
24.20	24.40	Cl L	NC	1.80	0.53	37.6		412.9	192.6	170.4	1.00				
24.40	24.60	Cl L	NC	1.80	0.53	38.9		416.4	194.1	176.2	1.00				
24.60	24.80	Cl L	NC	1.80	0.53	38.9		420.0	195.6	176.5	1.00				
24.80	25.00	Cl L	NC	1.80	0.53	39.7		423.5	197.2	179.9	1.00				
25.00	25.20	Cl L	NC	1.80	0.53	39.9		427.0	198.7	181.0	1.00				
25.20	25.40	Cl M	NC	1.80	0.53	40.2		430.6	200.2	182.4	1.00				
25.40	25.53	Cl L	NC	1.80	0.53	39.9		433.4	201.5	180.9	1.00				

CPT-test performed according to EN ISO 22476-1

Project	**Kv Kölen**	**Site**	**Uppsala**
Project number	**30039781**	**Designation**	**22S003**
Company	**Sweco Sverige AB**	**Date**	**20220323**
Operator	**Claire Ellinger**		

Predrilled depth	3.00 m	Predrilled material	Mg
Start depth	3.00 m	Geometry	Normal
Stop depth	25.82 m	Fluid in filter	Olja&fett
Ground water level	2.27 m	Borehole coordinates	x=6637078.978,y=130688.687
Reference	my	Equipment	Envi Memocone
Level at reference	3.87 m	Cone nr	52010

[X] **Porepressure measurement**



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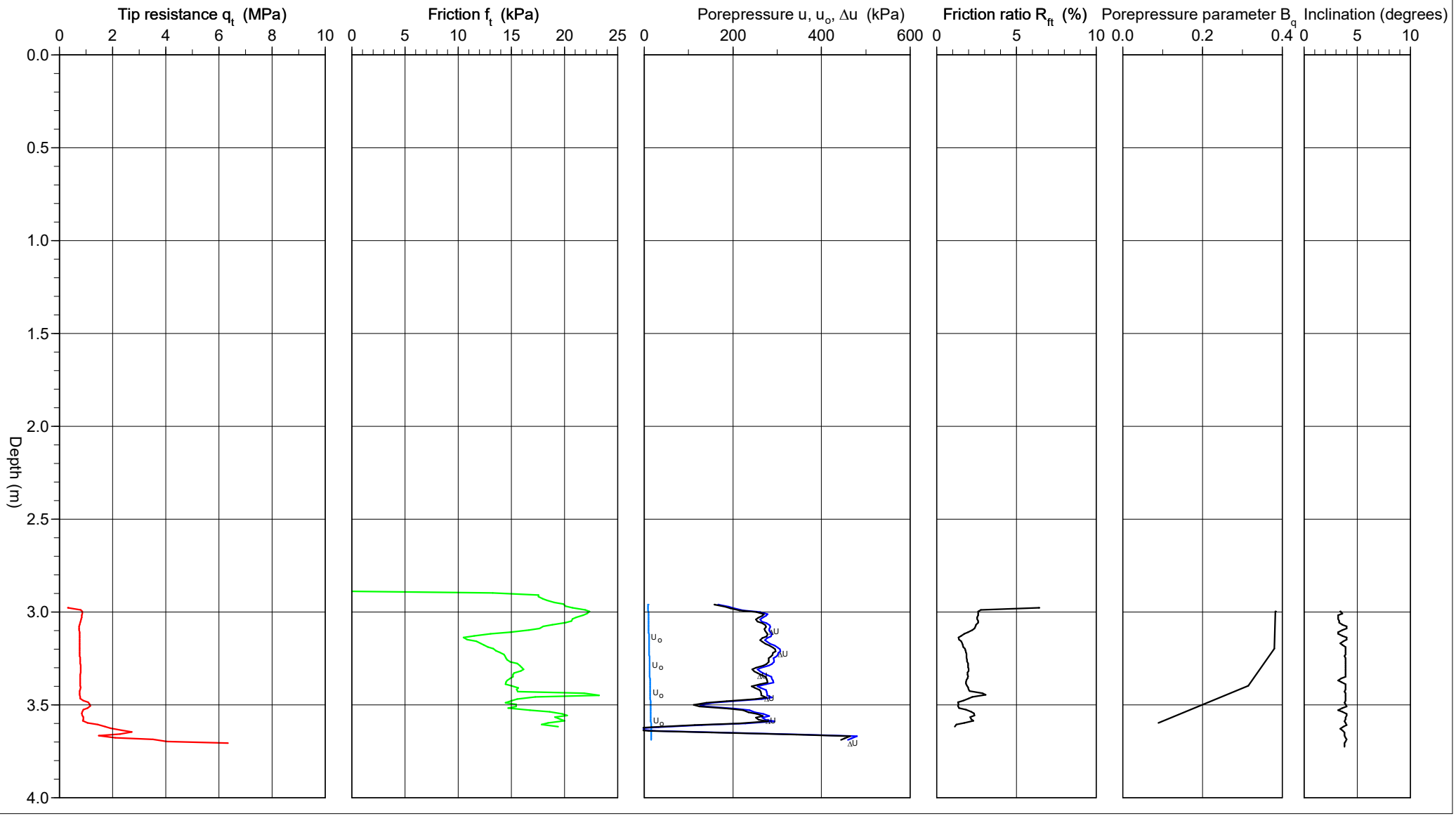
CPT-test performed according to EN ISO 22476-1

Predrilling depth	3.00 m	Reference	my	Fluid in filter	Olja&fett
Start depth	3.00 m	Level at reference	3.70 m	Coordinats	x=6636858.665,y=130524.071
Stop depth	3.73 m	Predrilled material	mg	Equipment	Envi Memocone
Ground water level	2.10 m	Geometry	Normal	Cone nr	52010

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S004
Date	20220322



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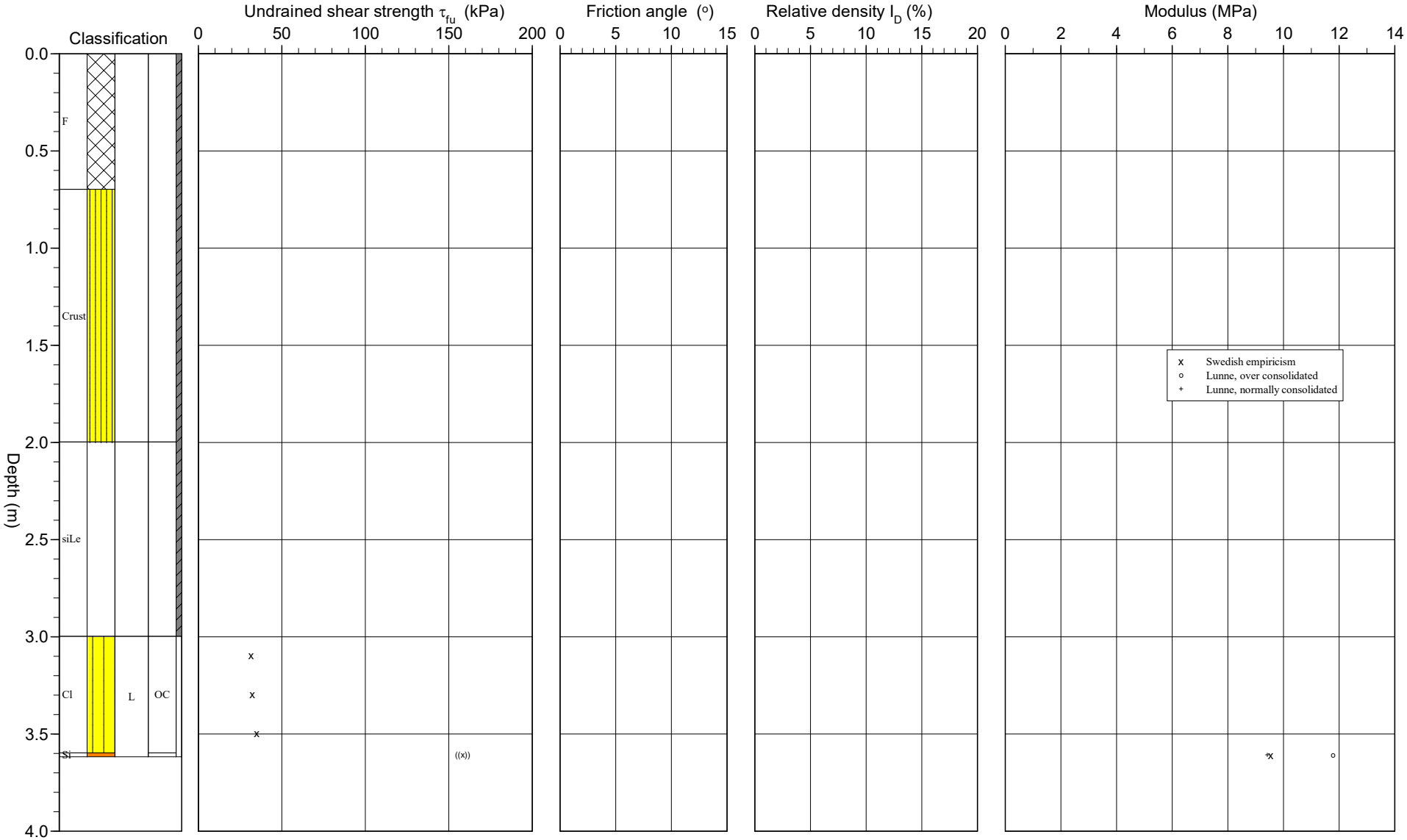
2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	my	Predrilling depth	3.00 m	Evaluator	INPRAG
Level at reference	3.70 m	Predrilled material	mg	Evaluation date	2022-04-12
Ground water level	2.10 m	Equipment	Envi Memocone		
Start depth	3.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S004
Date	20220322



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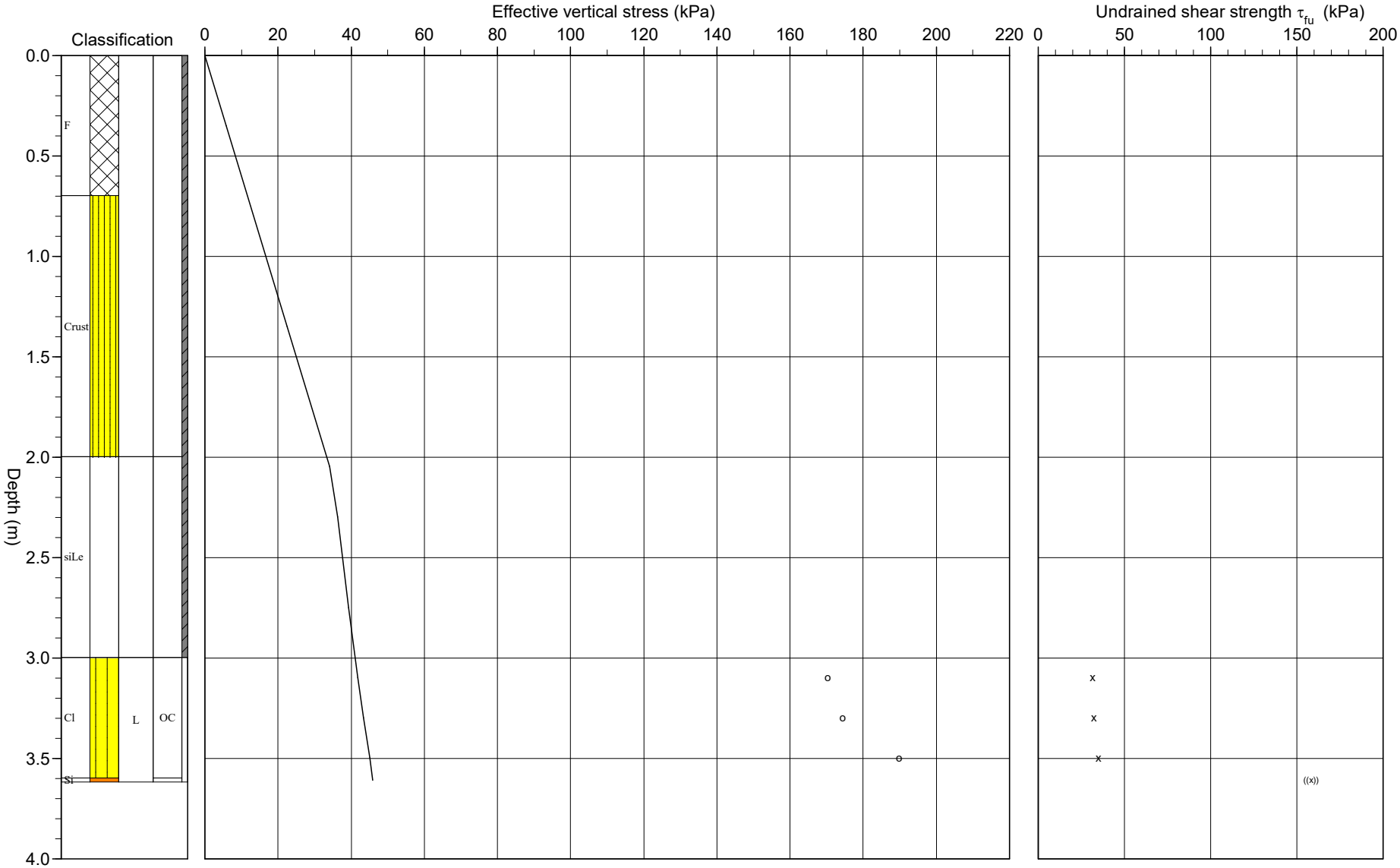
CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	my	Predrilling depth	3.00 m	Evaluator	INPRAG
Ground water level	3.70 m	Predrilled material	mg	Evaluation date	2022-04-12
Grundvattenyta	2.10 m	Equipment	Envi Memocone		
Start depth	3.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S004
Date	20220322



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C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S004**
Date **20220322**

Predrilling depth	3.00 m	Predrilled material	mg
Start depth	3.00 m	Geometry	Normal
Stop depth	3.73 m	Fluid in filter	Olja&fett
Ground water level	2.10 m	Operator	Claire Ellinger
Reference	my	Equipment	Envi Memocone
Level at reference	3.70 m	[x] **Porepressure measurement**	

Calibration data

Cone	52010	Internal friction O_c	0.0 kPa
Date	2021-04-07	Internal friction O_f	0.0 kPa
Areafactorr a	0.690	Cross talk c_1	0.000
Areafactor b	0.006	Cross talk c_2	0.000

Cero values, kPa

	Porepressure	Friction	Tip resistance
Before	0.00	0.00	0.00
After	3.90	0.50	0.05
Diff	3.90	0.50	0.05

Scale factors

Porepressure Range	Porepressure Code	Friction Range	Friction Code	Tip resistance Range	Tip resistance Code

[ ] **Use scale factors**

Correction

Porepressure	(none)
Friction	(none)
Tip resistance	(none)

Estimated sounding class

Porepressure observations

Depth (m)	Porepressure (kPa)
2.10	0.00

Boundaries

Depth (m)

Classification

Depth (m) From	Depth (m) To	Density (ton/m^3)	Liquid limit	Soil
0.00	0.70	1.70		F
0.70	2.00	1.70		Crust
2.00	2.50	1.70	0.37	siLe
2.50	3.00	1.70	0.70	siLe
3.00	3.73		0.67	

Notes

C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S004**
Date **20220322**

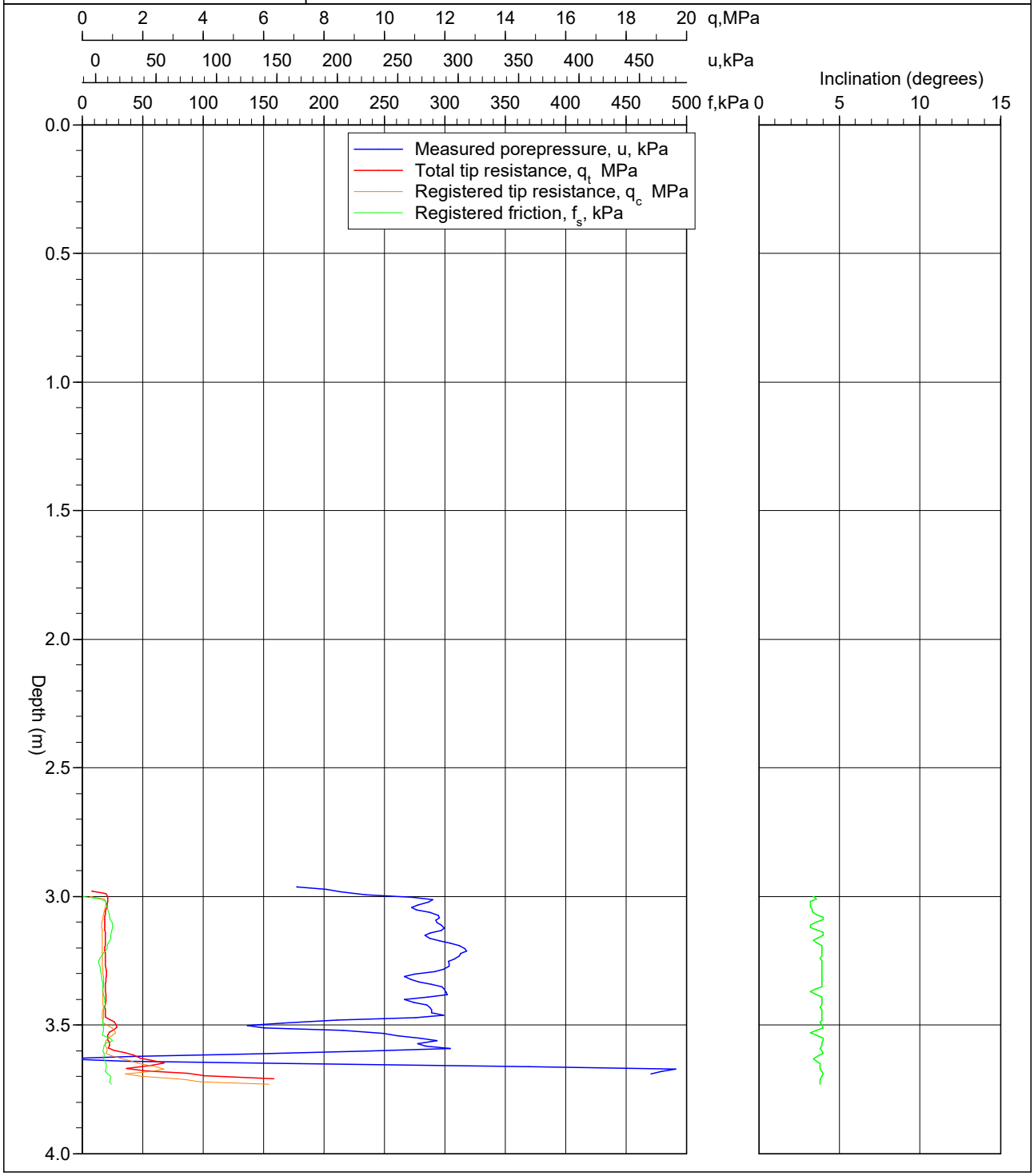
Depth (m) From	Depth (m) To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
0.00	0.70	F		1.70				5.8	5.8						
0.70	2.00	Crust		1.70				22.5	22.5						
2.00	2.10	siLe		1.70	0.37			34.2	34.2						
2.10	2.50	siLe		1.70	0.37			38.3	36.3						
2.50	3.00	siLe		1.70	0.70			45.9	39.3						
3.00	3.20	Cl L	OC	1.85	0.67	31.6		51.8	41.8	170.4	4.08				
3.20	3.40	Cl L	OC	1.85	0.67	32.4		55.5	43.4	174.4	4.01				
3.40	3.60	Cl L	OC	1.85	0.67	34.9		59.1	45.1	189.8	4.21				
3.60	3.62	Si L		1.70	0.67	((158.3))		61.1	45.9				9.5	11.8	9.4

CPT-test performed according to EN ISO 22476-1

Project	**Kv Kölen**	**Site**	**Uppsala**
Project number	**30039781**	**Designation**	**22S004**
Company	**Sweco Sverige AB**	**Date**	**20220322**
Operator	**Claire Ellinger**		

Predrilled depth	3.00 m	Predrilled material	mg
Start depth	3.00 m	Geometry	Normal
Stop depth	3.73 m	Fluid in filter	Olja&fett
Ground water level	2.10 m	Borehole coordinates	x=6636858.665,y=130524.071
Reference	my	Equipment	Envi Memocone
Level at reference	3.70 m	Cone nr	52010

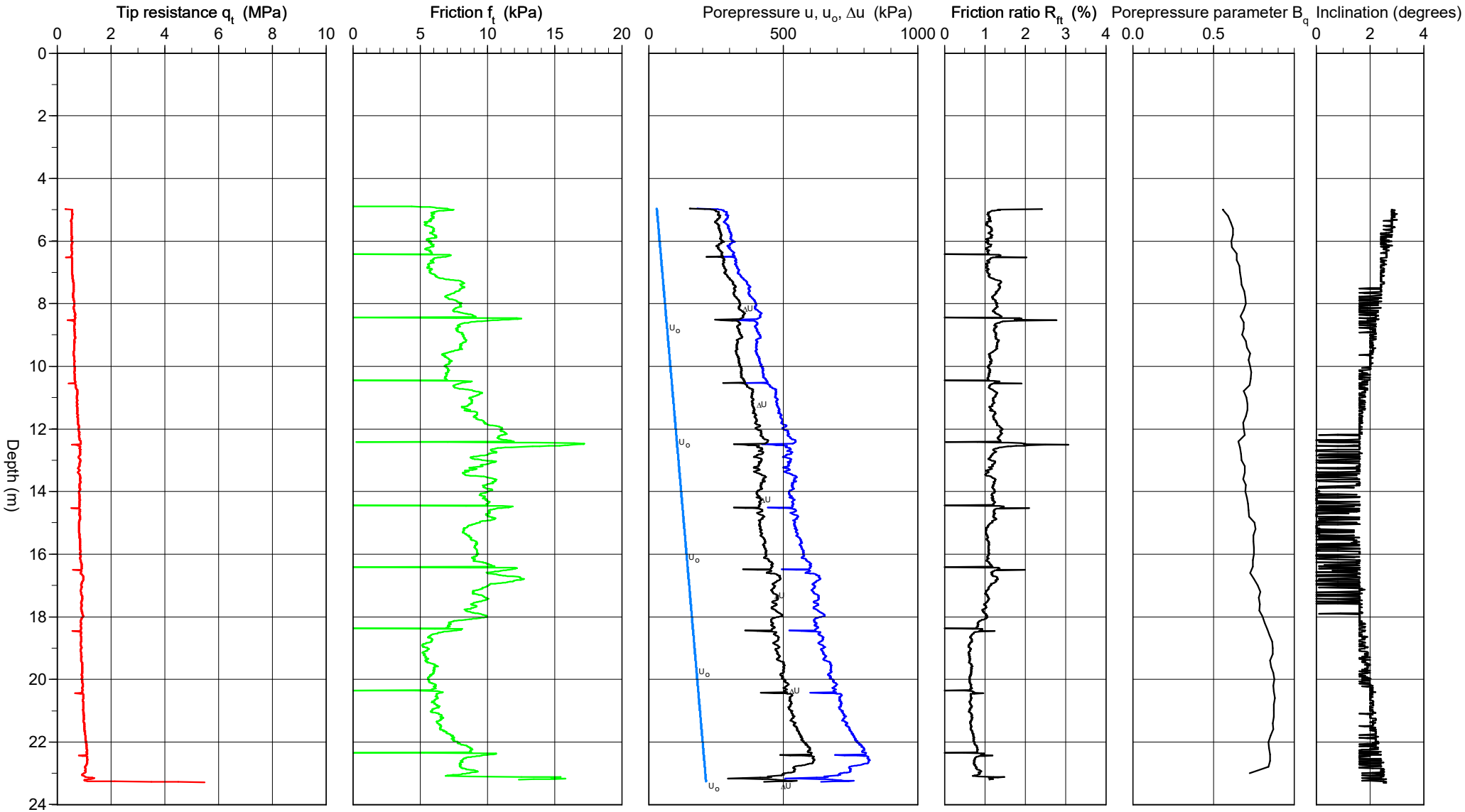
[x] **Porepressure measurement**



CPT-test performed according to EN ISO 22476-1

Predrilling depth	5.00 m	Reference	MY	Fluid in filter	Olja&fett
Start depth	5.00 m	Level at reference	3.70 m	Coordinats	X=6636858.665,Y=130524.071
Stop depth	23.32 m	Predrilled material	Mg	Equipment	Envi Memocone
Ground water level	2.10 m	Geometry	Normal	Cone nr	52010

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S004B
Date	20220322



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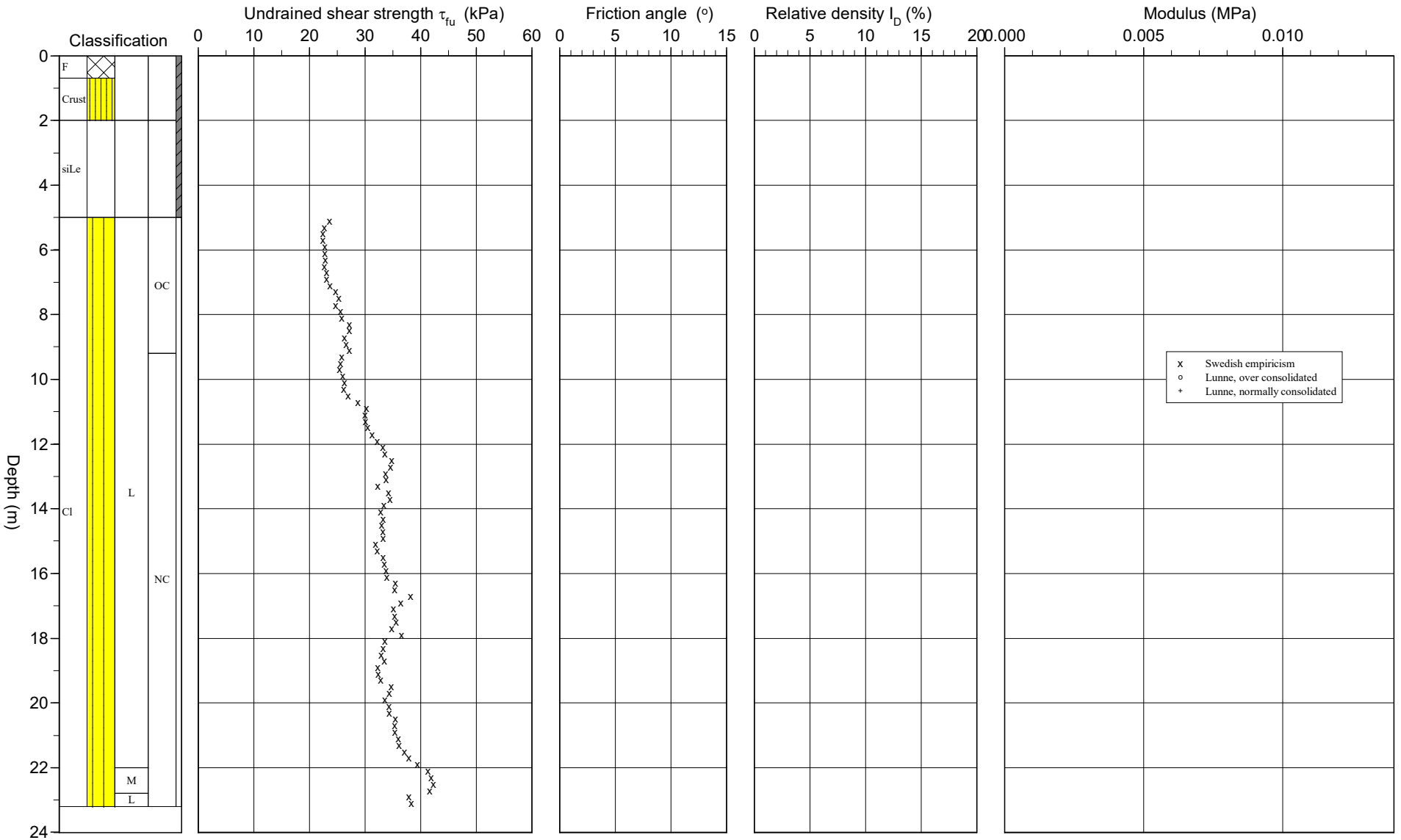
2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	MY	Predrilling depth	5.00 m	Evaluator	INPRAG
Level at reference	3.70 m	Predrilled material	Mg	Evaluation date	2022-04-12
Ground water level	2.10 m	Equipment	Envi Memocone		
Start depth	5.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S004B
Date	20220322



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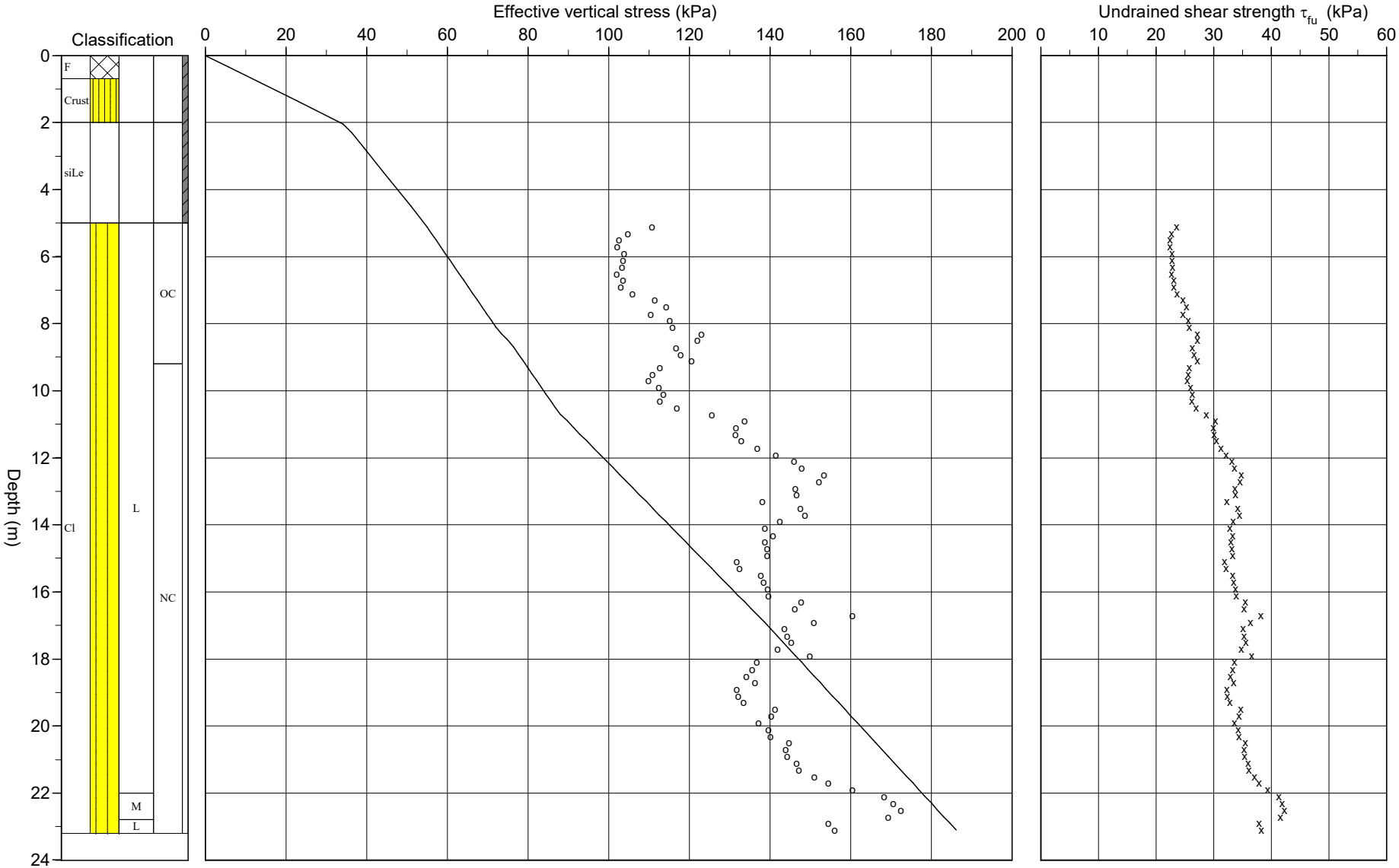
CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	MY	Predrilling depth	5.00 m	Evaluator	INPRAG
Ground water level	3.70 m	Predrilled material	Mg	Evaluation date	2022-04-12
Grundvattenyta	2.10 m	Equipment	Envi Memocone		
Start depth	5.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S004B
Date	20220322



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C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S004B**
Date **20220322**

Predrilling depth	5.00 m	Predrilled material	Mg
Start depth	5.00 m	Geometry	Normal
Stop depth	23.32 m	Fluid in filter	Olja&fett
Ground water level	2.10 m	Operator	Claire Ellinger
Reference	MY	Equipment	Envi Memocone
Level at reference	3.70 m	[x] **Porepressure measurement**	

Calibration data

Cone	52010	Internal friction O_c	0.0 kPa
Date	2021-04-07	Internal friction O_f	0.0 kPa
Areafactorr a	0.690	Cross talk c_1	0.000
Areafactor b	0.006	Cross talk c_2	0.000

Cero values, kPa

	Porepressure	Friction	Tip resistance
Before	0.00	0.00	0.00
After	2.30	-0.40	0.01
Diff	2.30	-0.40	0.01

Scale factors

Porepressure Range	Porepressure Code	Friction Range	Friction Code	Tip resistance Range	Tip resistance Code

[ ] **Use scale factors**

Correction

Porepressure	(none)
Friction	(none)
Tip resistance	(none)

Estimated sounding class

Porepressure observations

Depth (m)	Porepressure (kPa)
2.10	0.00

Boundaries

Depth (m)

Classification

Depth (m) From	Depth (m) To	Density (ton/m^3)	Liquid limit	Soil
0.00	0.70	1.70		F
0.70	2.00	1.70		Crust
2.00	2.50	1.70	0.37	siLe
2.50	3.00	1.70	0.70	siLe
3.00	4.00	1.70	0.67	siLe
4.00	5.00	1.70	0.67	siLe
5.00	23.20		0.67	

Notes

C P T - test

Project	**Site** Uppsala
Kv Kölen	**Designation** 22S004B
30039781	**Date** 20220322

Depth (m) From	To	Classification		ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
0.00	0.70	F		1.70				5.8	5.8						
0.70	2.00	Crust		1.70				22.5	22.5						
2.00	2.10	siLe		1.70	0.37			34.2	34.2						
2.10	2.50	siLe		1.70	0.37			38.3	36.3						
2.50	3.00	siLe		1.70	0.70			45.9	39.3						
3.00	4.00	siLe		1.70	0.67			58.4	44.3						
4.00	5.00	siLe		1.70	0.67			75.0	51.0						
5.00	5.20	Cl L	OC	1.60	0.67	23.6		85.0	54.9	110.7	2.02				
5.20	5.40	Cl L	OC	1.60	0.67	22.7		88.1	56.1	104.7	1.87				
5.40	5.60	Cl L	OC	1.60	0.67	22.4		91.2	57.2	102.5	1.79				
5.60	5.80	Cl L	OC	1.60	0.67	22.4		94.4	58.3	102.1	1.75				
5.80	6.00	Cl L	OC	1.60	0.67	22.8		97.5	59.5	103.9	1.75				
6.00	6.20	Cl L	OC	1.60	0.67	22.8		100.7	60.6	103.5	1.71				
6.20	6.40	Cl L	OC	1.60	0.67	22.9		103.8	61.7	103.3	1.67				
6.40	6.60	Cl L	OC	1.60	0.67	22.7		106.9	62.9	101.9	1.62				
6.60	6.80	Cl L	OC	1.60	0.67	23.1		110.1	64.0	103.5	1.62				
6.80	7.00	Cl L	OC	1.60	0.67	23.1		113.2	65.2	103.0	1.58				
7.00	7.20	Cl L	OC	1.60	0.67	23.7		116.3	66.3	105.8	1.60				
7.20	7.40	Cl L	OC	1.60	0.67	24.7		119.5	67.4	111.4	1.65				
7.40	7.60	Cl L	OC	1.60	0.67	25.3		122.6	68.6	114.3	1.67				
7.60	7.80	Cl L	OC	1.60	0.67	24.7		125.8	69.7	110.4	1.58				
7.80	8.00	Cl L	OC	1.60	0.67	25.6		128.9	70.9	115.2	1.62				
8.00	8.20	Cl L	OC	1.60	0.67	25.8		132.0	72.0	115.8	1.61				
8.20	8.40	Cl L	OC	1.85	0.67	27.2		135.4	73.4	123.0	1.68				
8.40	8.60	Cl L	OC	1.85	0.67	27.2		139.1	75.0	122.0	1.63				
8.60	8.80	Cl L	OC	1.60	0.67	26.3		142.4	76.4	116.7	1.53				
8.80	9.00	Cl L	OC	1.60	0.67	26.6		145.6	77.5	117.9	1.52				
9.00	9.20	Cl L	OC	1.60	0.67	27.2		148.7	78.7	120.5	1.53				
9.20	9.40	Cl L	NC	1.60	0.67	25.8		151.9	79.8	112.7	1.41				
9.40	9.60	Cl L	NC	1.60	0.67	25.6		155.0	81.0	110.9	1.37				
9.60	9.80	Cl L	NC	1.60	0.67	25.4		158.1	82.1	109.9	1.34				
9.80	10.00	Cl L	NC	1.60	0.67	26.0		161.3	83.2	112.4	1.35				
10.00	10.20	Cl L	NC	1.60	0.67	26.3		164.4	84.4	113.6	1.35				
10.20	10.40	Cl L	NC	1.60	0.67	26.2		167.6	85.5	112.7	1.32				
10.40	10.60	Cl L	NC	1.60	0.67	27.0		170.7	86.7	116.9	1.35				
10.60	10.80	Cl L	NC	1.85	0.67	28.7		174.1	88.0	125.5	1.43				
10.80	11.00	Cl L	NC	1.85	0.67	30.3		177.7	89.7	133.7	1.49				
11.00	11.20	Cl L	NC	1.85	0.67	30.0		181.3	91.3	131.6	1.44				
11.20	11.40	Cl L	NC	1.85	0.67	30.1		185.0	92.9	131.5	1.41				
11.40	11.60	Cl L	NC	1.85	0.67	30.5		188.6	94.6	132.9	1.41				
11.60	11.80	Cl L	NC	1.85	0.67	31.3		192.2	96.2	136.8	1.42				
11.80	12.00	Cl L	NC	1.85	0.67	32.2		195.9	97.8	141.4	1.45				
12.00	12.20	Cl L	NC	1.85	0.67	33.2		199.5	99.4	146.0	1.47				
12.20	12.40	Cl L	NC	1.85	0.67	33.6		203.1	101.1	147.9	1.46				
12.40	12.60	Cl L	NC	1.85	0.67	34.8		206.7	102.7	153.5	1.49				
12.60	12.80	Cl L	NC	1.85	0.67	34.6		210.4	104.3	152.1	1.46				
12.80	13.00	Cl L	NC	1.85	0.67	33.7		214.0	106.0	146.3	1.38				
13.00	13.20	Cl L	NC	1.85	0.67	33.8		217.6	107.6	146.5	1.36				
13.20	13.40	Cl L	NC	1.85	0.67	32.3		221.3	109.2	138.1	1.26				
13.40	13.60	Cl L	NC	1.85	0.67	34.2		224.9	110.9	147.6	1.33				
13.60	13.80	Cl L	NC	1.85	0.67	34.5		228.5	112.5	148.7	1.32				
13.80	14.00	Cl L	NC	1.85	0.67	33.4		232.2	114.1	142.5	1.25				
14.00	14.20	Cl L	NC	1.85	0.67	32.8		235.8	115.7	138.7	1.20				
14.20	14.40	Cl L	NC	1.85	0.67	33.3		239.4	117.4	140.7	1.20				
14.40	14.60	Cl L	NC	1.85	0.67	33.0		243.0	119.0	138.8	1.17				
14.60	14.80	Cl L	NC	1.85	0.67	33.2		246.7	120.6	139.3	1.15				
14.80	15.00	Cl L	NC	1.85	0.67	33.3		250.3	122.3	139.3	1.14				
15.00	15.20	Cl L	NC	1.85	0.67	31.9		253.9	123.9	131.8	1.06				
15.20	15.40	Cl L	NC	1.85	0.67	32.2		257.6	125.5	132.4	1.06				
15.40	15.60	Cl L	NC	1.85	0.67	33.3		261.2	127.2	137.7	1.08				
15.60	15.80	Cl L	NC	1.85	0.67	33.5		264.8	128.8	138.4	1.07				
15.80	16.00	Cl L	NC	1.85	0.67	33.8		268.5	130.4	139.4	1.07				
16.00	16.20	Cl L	NC	1.85	0.67	33.9		272.1	132.0	139.5	1.06				
16.20	16.40	Cl L	NC	1.85	0.67	35.5		275.7	133.7	147.8	1.11				
16.40	16.60	Cl L	NC	1.85	0.67	35.3		279.3	135.3	146.1	1.08				
16.60	16.80	Cl L	NC	1.85	0.67	38.2		283.0	136.9	160.5	1.17				
16.80	17.00	Cl L	NC	1.85	0.67	36.4		286.6	138.6	150.9	1.09				
17.00	17.20	Cl L	NC	1.80	0.67	35.1		290.2	140.1	143.5	1.02				
17.20	17.40	Cl L	NC	1.80	0.67	35.3		293.7	141.7	144.3	1.02				
17.40	17.60	Cl L	NC	1.80	0.67	35.6		297.2	143.2	145.3	1.01				
17.60	17.80	Cl L	NC	1.80	0.67	34.8		300.8	144.7	141.8	1.00				
17.80	18.00	Cl L	NC	1.80	0.67	36.6		304.3	146.3	149.9	1.02				
18.00	18.20	Cl L	NC	1.80	0.67	33.6		307.8	147.8	136.8	1.00				
18.20	18.40	Cl L	NC	1.80	0.67	33.3		311.4	149.3	135.6	1.00				
18.40	18.60	Cl L	NC	1.80	0.67	32.9		314.9	150.9	134.1	1.00				
18.60	18.80	Cl L	NC	1.80	0.67	33.5		318.4	152.4	136.3	1.00				
18.80	19.00	Cl L	NC	1.80	0.67	32.3		322.0	153.9	131.8	1.00				

C P T - test

Project	**Site** Uppsala
Kv Kölen	**Designation** 22S004B
30039781	**Date** 20220322

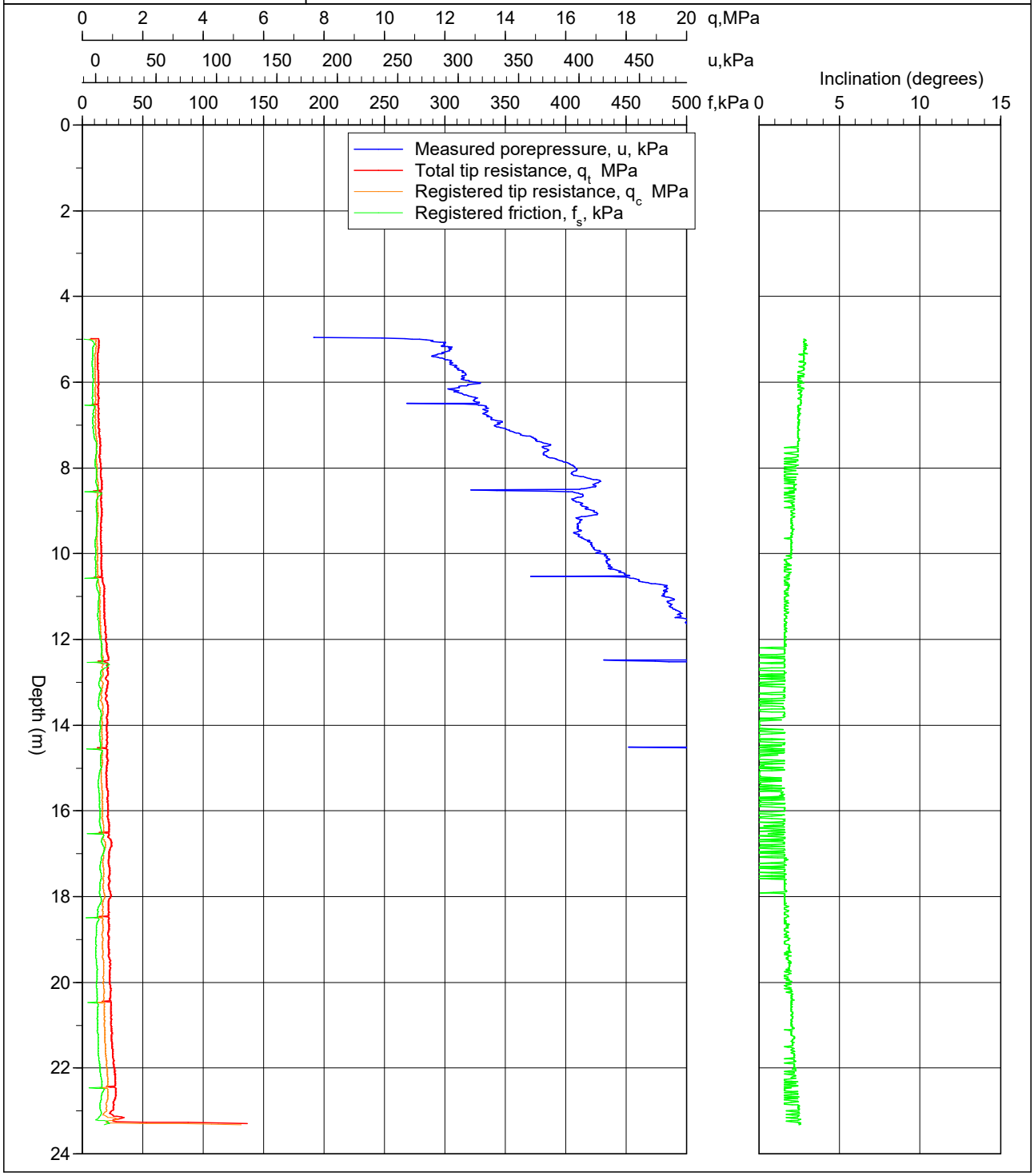
Depth (m) From	To	Classification		ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
19.00	19.20	Cl L	NC	1.80	0.67	32.4		325.5	155.5	132.1	1.00				
19.20	19.40	Cl L	NC	1.80	0.67	32.8		329.0	157.0	133.5	1.00				
19.40	19.60	Cl L	NC	1.80	0.67	34.7		332.6	158.5	141.2	1.00				
19.60	19.80	Cl L	NC	1.80	0.67	34.4		336.1	160.1	140.4	1.00				
19.80	20.00	Cl L	NC	1.80	0.67	33.6		339.6	161.6	137.1	1.00				
20.00	20.20	Cl L	NC	1.80	0.67	34.3		343.2	163.1	139.6	1.00				
20.20	20.40	Cl L	NC	1.80	0.67	34.4		346.7	164.6	140.2	1.00				
20.40	20.60	Cl L	NC	1.80	0.67	35.5		350.2	166.2	144.7	1.00				
20.60	20.80	Cl L	NC	1.80	0.67	35.3		353.7	167.7	143.9	1.00				
20.80	21.00	Cl L	NC	1.80	0.67	35.4		357.3	169.2	144.3	1.00				
21.00	21.20	Cl L	NC	1.80	0.67	36.0		360.8	170.8	146.6	1.00				
21.20	21.40	Cl L	NC	1.80	0.67	36.1		364.3	172.3	147.1	1.00				
21.40	21.60	Cl L	NC	1.80	0.67	37.1		367.9	173.8	151.0	1.00				
21.60	21.80	Cl L	NC	1.80	0.67	37.9		371.4	175.4	154.4	1.00				
21.80	22.00	Cl L	NC	1.80	0.67	39.4		374.9	176.9	160.4	1.00				
22.00	22.20	Cl M	NC	1.80	0.67	41.3		378.5	178.4	168.3	1.00				
22.20	22.40	Cl M	NC	1.80	0.67	41.9		382.0	180.0	170.6	1.00				
22.40	22.60	Cl M	NC	1.80	0.67	42.3		385.5	181.5	172.4	1.00				
22.60	22.80	Cl M	NC	1.80	0.67	41.6		389.1	183.0	169.4	1.00				
22.80	23.00	Cl L	NC	1.80	0.67	37.9		392.6	184.6	154.4	1.00				
23.00	23.20	Cl L	NC	1.85	0.67	38.3		396.2	186.1	156.1	1.00				

CPT-test performed according to EN ISO 22476-1

Project	**Kv Kölen**	**Site**	**Uppsala**
Project number	**30039781**	**Designation**	**22S004B**
Company	**Sweco Sverige AB**	**Date**	**20220322**
Operator	**Claire Ellinger**		

Predrilled depth	5.00 m	Predrilled material	Mg
Start depth	5.00 m	Geometry	Normal
Stop depth	23.32 m	Fluid in filter	Olja&fett
Ground water level	2.10 m	Borehole coordinates	X=6636858.665,Y=130524.071
Reference	MY	Equipment	Envi Memocone
Level at reference	3.70 m	Cone nr	52010

[X] **Porepressure measurement**



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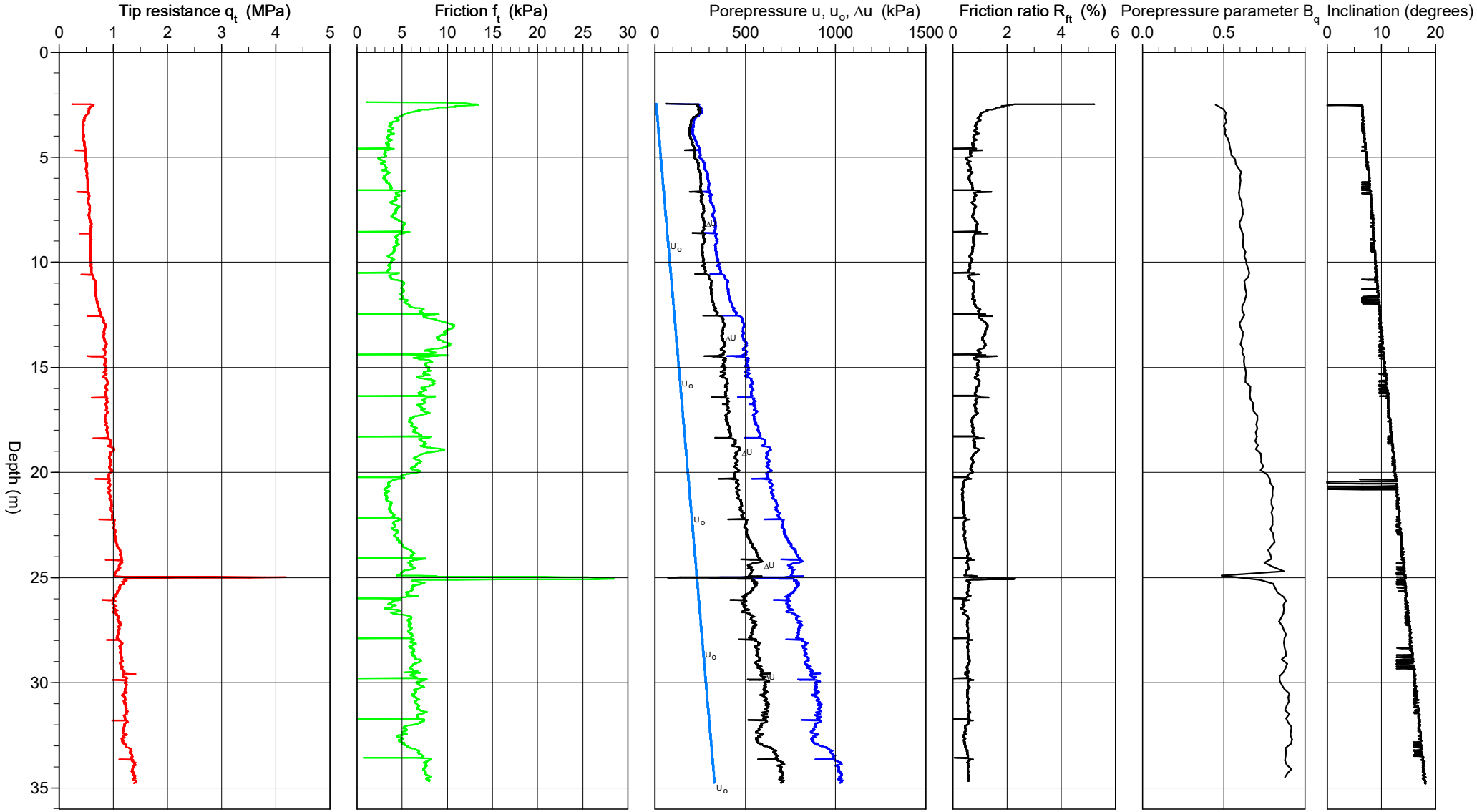
CPT-test performed according to EN ISO 22476-1

Predrilling depth	2.50 m	Reference	MY	Fluid in filter	Olja&fett
Start depth	2.50 m	Level at reference	3.55 m	Coordinats	X=6636936.178,Y=130647.251
Stop depth	35.57 m	Predrilled material	Mg	Equipment	Envi Memocone
Ground water level	1.95 m	Geometry	Normal	Cone nr	52010

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S005
Date	20220322



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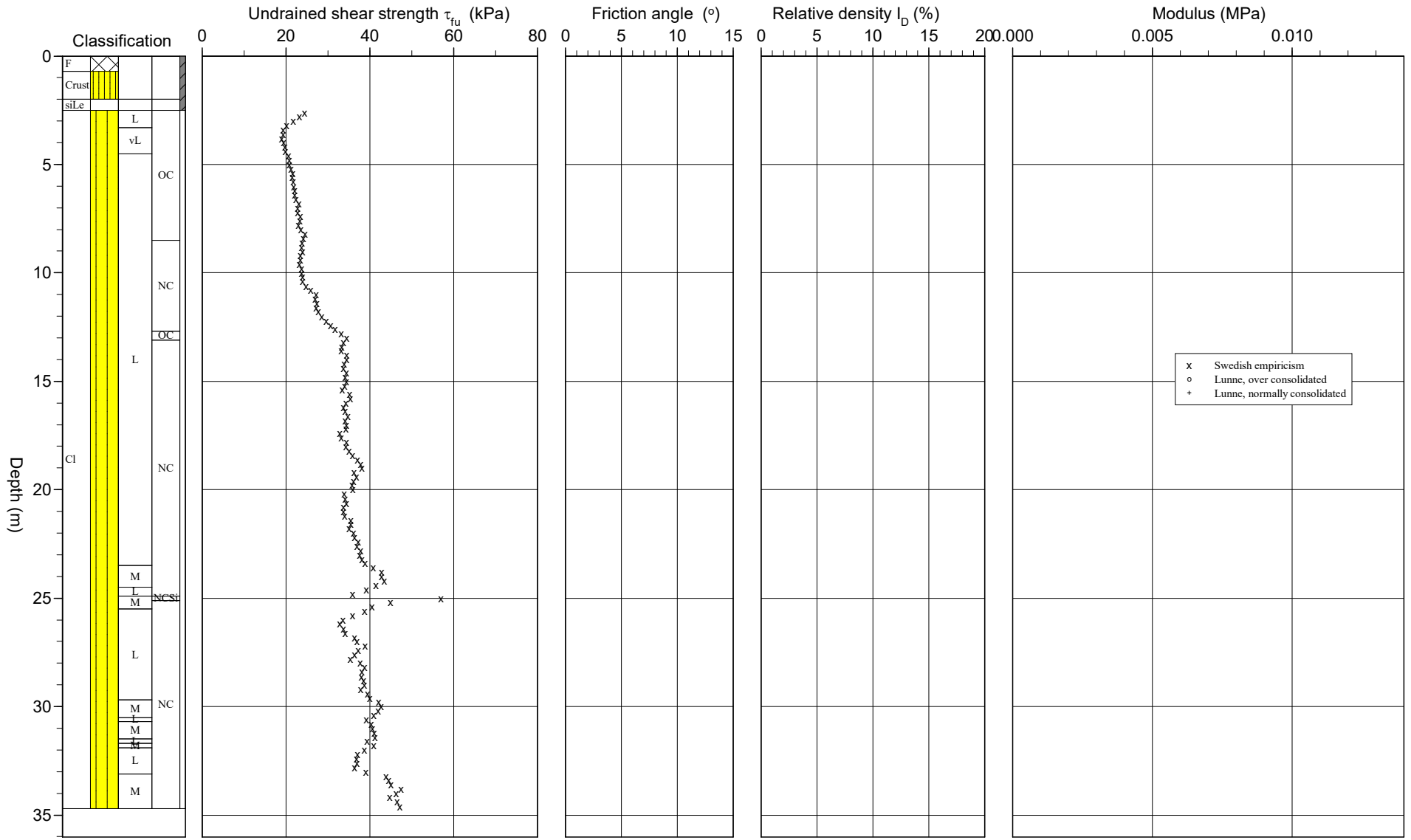
2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	MY	Predrilling depth	2.50 m	Evaluator	INPRAG
Level at reference	3.55 m	Predrilled material	Mg	Evaluation date	2022-04-12
Ground water level	1.95 m	Equipment	Envi Memocone		
Start depth	2.50 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S005
Date	20220322



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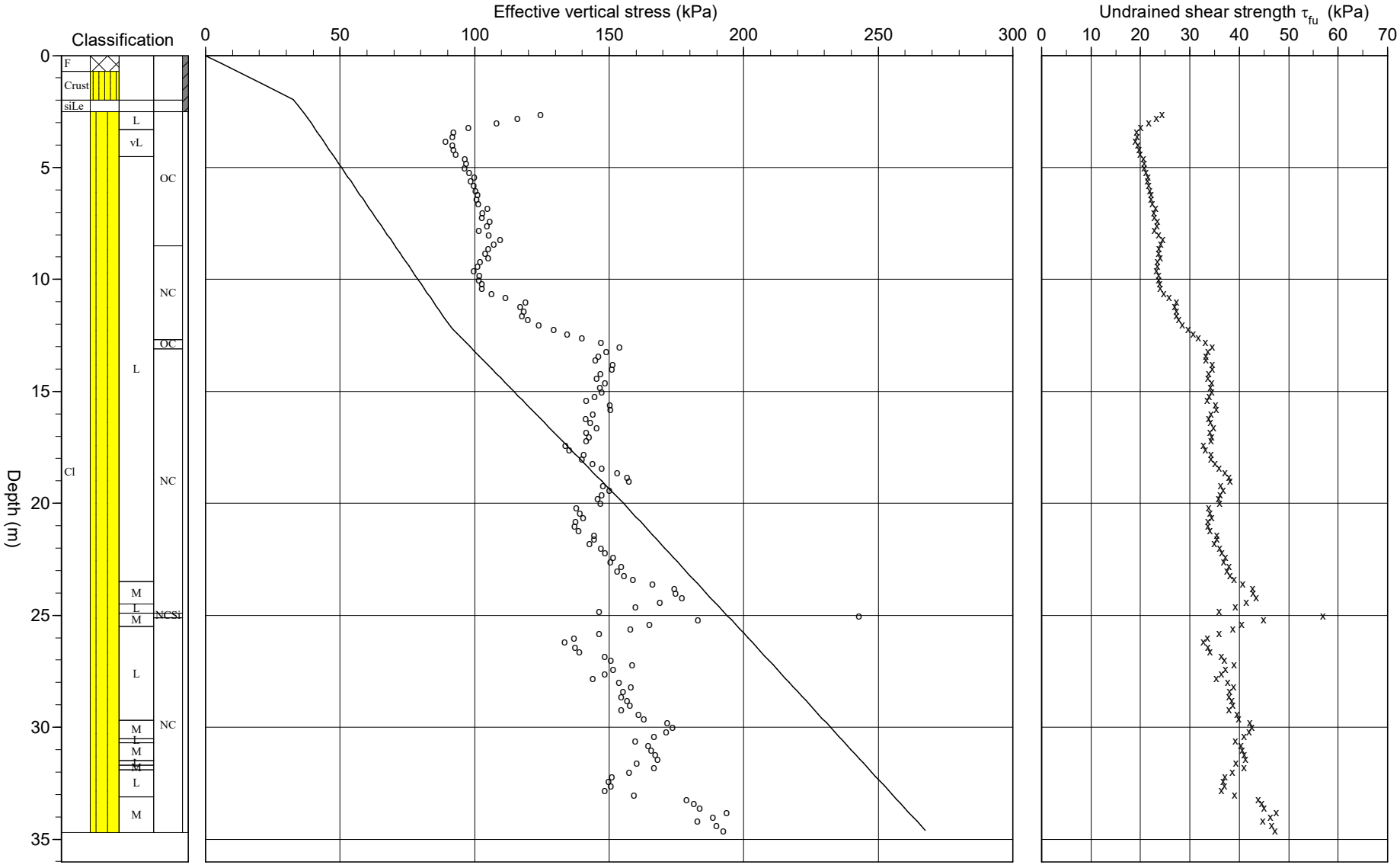
CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	MY	Predrilling depth	2.50 m	Evaluator	INPRAG
Ground water level	3.55 m	Predrilled material	Mg	Evaluation date	2022-04-12
Grundvattenyta	1.95 m	Equipment	Envi Memocone		
Start depth	2.50 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S005
Date	20220322



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C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S005**
Date **20220322**

Predrilling depth	2.50 m	Predrilled material	Mg
Start depth	2.50 m	Geometry	Normal
Stop depth	35.57 m	Fluid in filter	Olja&fett
Ground water level	1.95 m	Operator	Claire Ellinger
Reference	MY	Equipment	Envi Memocone
Level at reference	3.55 m	[X] **Porepressure measurement**	

Calibration data

Cone	52010	Internal friction O_c	0.0 kPa
Date	2021-04-07	Internal friction O_f	0.0 kPa
Areafactorr a	0.690	Cross talk c_1	0.000
Areafactor b	0.006	Cross talk c_2	0.000

Cero values, kPa

	Porepressure	Friction	Tip resistance
Before	0.00	0.00	0.00
After	-4.20	-0.10	0.05
Diff	-4.20	-0.10	0.05

Scale factors

Porepressure Range	Porepressure Code	Friction Range	Friction Code	Tip resistance Range	Tip resistance Code

[ ] **Use scale factors**

Correction

Porepressure	(none)
Friction	(none)
Tip resistance	(none)

Estimated sounding class

Porepressure observations

Depth (m)	Porepressure (kPa)
1.95	0.00

Boundaries

Depth (m)

Classification

Depth (m) From	Depth (m) To	Density (ton/m^3)	Liquid limit	Soil
0.00	0.70	1.70		F
0.70	2.00	1.70		Crust
2.00	2.50	1.70	0.37	siLe
2.50	3.00	1.64	0.70	
3.00	4.00	1.59	0.67	
4.00	5.00	1.60	0.67	
5.00	34.69		0.67	

Notes

C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S005**
Date **20220322**

Depth (m) From	Depth (m) To	Classification	ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
0.00	0.70	F	1.70				5.8	5.8						
0.70	1.95	Crust	1.70				22.1	22.1						
1.95	2.00	Crust	1.70				32.9	32.7						
2.00	2.50	siLe	1.70	0.37			37.5	34.5						
2.50	2.70	Cl L OC	1.64	0.70	24.4		43.3	36.8	124.4	3.39				
2.70	2.90	Cl L OC	1.64	0.70	23.2		46.5	38.0	115.8	3.05				
2.90	3.10	Cl L OC	1.59	0.67	21.7		49.7	39.2	108.3	2.76				
3.10	3.30	Cl L OC	1.59	0.67	20.1		52.8	40.3	97.7	2.42				
3.30	3.50	Cl vL OC	1.59	0.67	19.3		55.9	41.4	92.2	2.23				
3.50	3.70	Cl vL OC	1.59	0.67	19.3		59.1	42.5	91.8	2.16				
3.70	3.90	Cl vL OC	1.59	0.67	19.0		62.2	43.7	89.2	2.04				
3.90	4.10	Cl vL OC	1.60	0.67	19.5		65.3	44.8	91.7	2.05				
4.10	4.30	Cl vL OC	1.60	0.67	19.7		68.4	45.9	92.1	2.01				
4.30	4.50	Cl vL OC	1.60	0.67	19.9		71.6	47.1	93.1	1.98				
4.50	4.70	Cl L OC	1.60	0.67	20.6		74.7	48.2	96.5	2.00				
4.70	4.90	Cl L OC	1.60	0.67	20.8		77.9	49.3	96.9	1.96				
4.90	5.10	Cl L OC	1.60	0.67	20.7		81.0	50.5	96.1	1.90				
5.10	5.30	Cl L OC	1.60	0.67	21.2		84.1	51.6	98.0	1.90				
5.30	5.50	Cl L OC	1.60	0.67	21.6		87.3	52.8	99.9	1.89				
5.50	5.70	Cl L OC	1.60	0.67	21.4		90.4	53.9	98.5	1.83				
5.70	5.90	Cl L OC	1.60	0.67	21.7		93.5	55.0	99.6	1.81				
5.90	6.10	Cl L OC	1.60	0.67	21.9		96.7	56.2	100.4	1.79				
6.10	6.30	Cl L OC	1.60	0.67	22.1		99.8	57.3	101.1	1.76				
6.30	6.50	Cl L OC	1.60	0.67	22.2		103.0	58.5	100.6	1.72				
6.50	6.70	Cl L OC	1.60	0.67	22.4		106.1	59.6	101.3	1.70				
6.70	6.90	Cl L OC	1.60	0.67	23.1		109.2	60.7	104.8	1.73				
6.90	7.10	Cl L OC	1.60	0.67	22.8		112.4	61.9	102.8	1.66				
7.10	7.30	Cl L OC	1.60	0.67	22.8		115.5	63.0	102.6	1.63				
7.30	7.50	Cl L OC	1.60	0.67	23.5		118.7	64.2	105.7	1.65				
7.50	7.70	Cl L OC	1.60	0.67	23.4		121.8	65.3	104.6	1.60				
7.70	7.90	Cl L OC	1.60	0.67	22.9		124.9	66.4	101.6	1.53				
7.90	8.10	Cl L OC	1.60	0.67	23.6		128.1	67.6	105.2	1.56				
8.10	8.30	Cl L OC	1.60	0.67	24.5		131.2	68.7	109.4	1.59				
8.30	8.50	Cl L OC	1.60	0.67	24.1		134.4	69.8	107.2	1.53				
8.50	8.70	Cl L NC	1.60	0.67	23.8		137.5	71.0	104.9	1.48				
8.70	8.90	Cl L NC	1.60	0.67	23.7		140.6	72.1	103.8	1.44				
8.90	9.10	Cl L NC	1.60	0.67	24.0		143.8	73.3	105.1	1.43				
9.10	9.30	Cl L NC	1.60	0.67	23.5		146.9	74.4	101.9	1.37				
9.30	9.50	Cl L NC	1.60	0.67	23.4		150.1	75.5	101.2	1.34				
9.50	9.70	Cl L NC	1.60	0.67	23.2		153.2	76.7	99.6	1.30				
9.70	9.90	Cl L NC	1.60	0.67	23.7		156.3	77.8	101.8	1.31				
9.90	10.10	Cl L NC	1.60	0.67	23.7		159.5	79.0	101.6	1.29				
10.10	10.30	Cl L NC	1.60	0.67	24.0		162.6	80.1	102.6	1.28				
10.30	10.50	Cl L NC	1.60	0.67	24.0		165.7	81.2	102.7	1.26				
10.50	10.70	Cl L NC	1.60	0.67	24.8		168.9	82.4	106.2	1.29				
10.70	10.90	Cl L NC	1.60	0.67	25.8		172.0	83.5	111.4	1.33				
10.90	11.10	Cl L NC	1.60	0.67	27.3		175.2	84.7	118.8	1.40				
11.10	11.30	Cl L NC	1.60	0.67	27.0		178.3	85.8	117.1	1.36				
11.30	11.50	Cl L NC	1.60	0.67	27.3		181.4	86.9	118.3	1.36				
11.50	11.70	Cl L NC	1.60	0.67	27.3		184.6	88.1	117.7	1.34				
11.70	11.90	Cl L NC	1.60	0.67	27.7		187.7	89.2	119.8	1.34				
11.90	12.10	Cl L NC	1.60	0.67	28.5		190.9	90.4	123.8	1.37				
12.10	12.30	Cl L NC	1.85	0.67	29.6		194.2	91.7	129.4	1.41				
12.30	12.50	Cl L NC	1.85	0.67	30.7		197.9	93.4	134.4	1.44				
12.50	12.70	Cl L NC	1.85	0.67	31.8		201.5	95.0	139.9	1.47				
12.70	12.90	Cl L OC	1.85	0.67	33.2		205.1	96.6	147.0	1.52				
12.90	13.10	Cl L OC	1.85	0.67	34.5		208.8	98.3	153.9	1.57				
13.10	13.30	Cl L NC	1.85	0.67	33.8		212.4	99.9	149.0	1.49				
13.30	13.50	Cl L NC	1.85	0.67	33.3		216.0	101.5	145.9	1.44				
13.50	13.70	Cl L NC	1.85	0.67	33.2		219.7	103.1	144.9	1.40				
13.70	13.90	Cl L NC	1.85	0.67	34.5		223.3	104.8	151.2	1.44				
13.90	14.10	Cl L NC	1.85	0.67	34.6		226.9	106.4	151.2	1.42				
14.10	14.30	Cl L NC	1.85	0.67	33.9		230.5	108.0	146.8	1.36				
14.30	14.50	Cl L NC	1.85	0.67	33.7		234.2	109.7	145.3	1.33				
14.50	14.70	Cl L NC	1.85	0.67	34.4		237.8	111.3	148.5	1.33				
14.70	14.90	Cl L NC	1.85	0.67	34.1		241.4	112.9	146.5	1.30				
14.90	15.10	Cl L NC	1.85	0.67	34.4		245.1	114.6	147.3	1.29				
15.10	15.30	Cl L NC	1.85	0.67	34.0		248.7	116.2	144.6	1.24				
15.30	15.50	Cl L NC	1.85	0.67	33.5		252.3	117.8	141.4	1.20				
15.50	15.70	Cl L NC	1.85	0.67	35.2		256.0	119.4	150.3	1.26				
15.70	15.90	Cl L NC	1.85	0.67	35.3		259.6	121.1	150.4	1.24				
15.90	16.10	Cl L NC	1.85	0.67	34.2		263.2	122.7	144.1	1.17				
16.10	16.30	Cl L NC	1.85	0.67	33.8		266.8	124.3	141.3	1.14				
16.30	16.50	Cl L NC	1.85	0.67	34.2		270.5	126.0	142.9	1.13				
16.50	16.70	Cl L NC	1.85	0.67	34.7		274.1	127.6	145.3	1.14				
16.70	16.90	Cl L NC	1.85	0.67	34.1		277.7	129.2	141.5	1.09				
16.90	17.10	Cl L NC	1.85	0.67	34.4		281.4	130.9	142.4	1.09				

C P T - test

Project	Site	Uppsala
Kv Kölen	Designation	22S005
30039781	Date	20220322

Depth (m) From	To	Classification		ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
17.10	17.30	Cl L	NC	1.85	0.67	34.3		285.0	132.5	141.5	1.07				
17.30	17.50	Cl L	NC	1.85	0.67	32.8		288.6	134.1	133.7	1.00				
17.50	17.70	Cl L	NC	1.85	0.67	33.2		292.2	135.7	135.2	1.00				
17.70	17.90	Cl L	NC	1.85	0.67	34.3		295.9	137.4	140.6	1.02				
17.90	18.10	Cl L	NC	1.85	0.67	34.3		299.5	139.0	140.0	1.01				
18.10	18.30	Cl L	NC	1.85	0.67	35.1		303.1	140.6	143.7	1.02				
18.30	18.50	Cl L	NC	1.85	0.67	35.9		306.8	142.3	147.3	1.04				
18.50	18.70	Cl L	NC	1.85	0.67	37.1		310.4	143.9	153.1	1.06				
18.70	18.90	Cl L	NC	1.85	0.67	37.9		314.0	145.5	156.7	1.08				
18.90	19.10	Cl L	NC	1.85	0.67	38.1		317.7	147.1	157.4	1.07				
19.10	19.30	Cl L	NC	1.85	0.67	36.2		321.3	148.8	147.7	1.00				
19.30	19.50	Cl L	NC	1.85	0.67	36.8		324.9	150.4	150.0	1.00				
19.50	19.70	Cl L	NC	1.85	0.67	36.1		328.5	152.0	147.2	1.00				
19.70	19.90	Cl L	NC	1.85	0.67	35.8		332.2	153.7	145.8	1.00				
19.90	20.10	Cl L	NC	1.85	0.67	36.0		335.8	155.3	146.7	1.00				
20.10	20.30	Cl L	NC	1.80	0.67	33.8		339.4	156.9	137.8	1.00				
20.30	20.50	Cl L	NC	1.80	0.67	34.1		342.9	158.4	139.0	1.00				
20.50	20.70	Cl L	NC	1.80	0.67	34.4		346.4	159.9	140.3	1.00				
20.70	20.90	Cl L	NC	1.80	0.67	33.8		350.0	161.5	137.6	1.00				
20.90	21.10	Cl L	NC	1.80	0.67	33.7		353.5	163.0	137.2	1.00				
21.10	21.30	Cl L	NC	1.80	0.67	34.0		357.0	164.5	138.7	1.00				
21.30	21.50	Cl L	NC	1.80	0.67	35.5		360.6	166.1	144.5	1.00				
21.50	21.70	Cl L	NC	1.80	0.67	35.4		364.1	167.6	144.3	1.00				
21.70	21.90	Cl L	NC	1.80	0.67	35.0		367.6	169.1	142.8	1.00				
21.90	22.10	Cl L	NC	1.80	0.67	36.1		371.2	170.7	147.0	1.00				
22.10	22.30	Cl L	NC	1.80	0.67	36.5		374.7	172.2	148.6	1.00				
22.30	22.50	Cl L	NC	1.80	0.67	37.2		378.2	173.7	151.5	1.00				
22.50	22.70	Cl L	NC	1.80	0.67	36.9		381.8	175.3	150.4	1.00				
22.70	22.90	Cl L	NC	1.80	0.67	37.9		385.3	176.8	154.5	1.00				
22.90	23.10	Cl L	NC	1.80	0.67	37.6		388.8	178.3	153.1	1.00				
23.10	23.30	Cl L	NC	1.80	0.67	38.2		392.4	179.9	155.6	1.00				
23.30	23.50	Cl L	NC	1.80	0.67	39.0		395.9	181.4	158.8	1.00				
23.50	23.70	Cl M	NC	1.80	0.67	40.8		399.4	182.9	166.1	1.00				
23.70	23.90	Cl M	NC	1.80	0.67	42.7		403.0	184.4	174.2	1.00				
23.90	24.10	Cl M	NC	1.80	0.67	42.8		406.5	186.0	174.6	1.00				
24.10	24.30	Cl M	NC	1.80	0.67	43.4		410.0	187.5	176.9	1.00				
24.30	24.50	Cl M	NC	1.85	0.67	41.4		413.6	189.1	168.8	1.00				
24.50	24.70	Cl L	NC	1.80	0.67	39.2		417.2	190.7	159.8	1.00				
24.70	24.90	Cl L	NC	1.80	0.67	35.9		420.7	192.2	146.4	1.00				
24.90	25.10	Cl M	NCSi	1.85	0.67	57.0		424.3	193.8	242.8	1.25				
25.10	25.30	Cl M	NC	1.85	0.67	44.9		427.9	195.4	183.0	1.00				
25.30	25.50	Cl M	NC	1.80	0.67	40.5		431.5	197.0	165.1	1.00				
25.50	25.70	Cl L	NC	1.80	0.67	38.8		435.0	198.5	157.9	1.00				
25.70	25.90	Cl L	NC	1.80	0.67	35.9		438.6	200.1	146.3	1.00				
25.90	26.10	Cl L	NC	1.80	0.67	33.6		442.1	201.6	136.9	1.00				
26.10	26.30	Cl L	NC	1.80	0.67	32.8		445.6	203.1	133.4	1.00				
26.30	26.50	Cl L	NC	1.80	0.67	33.7		449.2	204.7	137.4	1.00				
26.50	26.70	Cl L	NC	1.80	0.67	34.1		452.7	206.2	138.8	1.00				
26.70	26.90	Cl L	NC	1.80	0.67	36.4		456.2	207.7	148.3	1.00				
26.90	27.10	Cl L	NC	1.80	0.67	37.0		459.8	209.2	150.6	1.00				
27.10	27.30	Cl L	NC	1.80	0.67	38.9		463.3	210.8	158.5	1.00				
27.30	27.50	Cl L	NC	1.80	0.67	37.2		466.8	212.3	151.5	1.00				
27.50	27.70	Cl L	NC	1.80	0.67	36.4		470.4	213.8	148.2	1.00				
27.70	27.90	Cl L	NC	1.80	0.67	35.3		473.9	215.4	144.0	1.00				
27.90	28.10	Cl L	NC	1.80	0.67	37.7		477.4	216.9	153.7	1.00				
28.10	28.30	Cl L	NC	1.80	0.67	38.8		480.9	218.4	158.1	1.00				
28.30	28.50	Cl L	NC	1.80	0.67	38.1		484.5	220.0	155.1	1.00				
28.50	28.70	Cl L	NC	1.80	0.67	37.9		488.0	221.5	154.6	1.00				
28.70	28.90	Cl L	NC	1.80	0.67	38.5		491.5	223.0	156.7	1.00				
28.90	29.10	Cl L	NC	1.80	0.67	38.7		495.1	224.6	157.8	1.00				
29.10	29.30	Cl L	NC	1.80	0.67	37.9		498.6	226.1	154.5	1.00				
29.30	29.50	Cl L	NC	1.80	0.67	39.5		502.1	227.6	161.0	1.00				
29.50	29.70	Cl L	NC	1.80	0.67	39.9		505.7	229.2	162.8	1.00				
29.70	29.90	Cl M	NC	1.80	0.67	42.1		509.2	230.7	171.7	1.00				
29.90	30.10	Cl M	NC	1.80	0.67	42.6		512.7	232.2	173.6	1.00				
30.10	30.30	Cl M	NC	1.80	0.67	42.0		516.3	233.8	171.2	1.00				
30.30	30.50	Cl M	NC	1.80	0.67	40.9		519.8	235.3	166.8	1.00				
30.50	30.70	Cl L	NC	1.80	0.67	39.2		523.3	236.8	159.7	1.00				
30.70	30.90	Cl M	NC	1.80	0.67	40.4		526.9	238.3	164.6	1.00				
30.90	31.10	Cl M	NC	1.80	0.67	40.6		530.4	239.9	165.5	1.00				
31.10	31.30	Cl M	NC	1.80	0.67	41.0		533.9	241.4	167.2	1.00				
31.30	31.50	Cl M	NC	1.80	0.67	41.3		537.5	242.9	168.1	1.00				
31.50	31.70	Cl L	NC	1.80	0.67	39.3		541.0	244.5	160.2	1.00				
31.70	31.90	Cl M	NC	1.80	0.67	40.9		544.5	246.0	166.7	1.00				
31.90	32.10	Cl L	NC	1.80	0.67	38.7		548.0	247.5	157.5	1.00				
32.10	32.30	Cl L	NC	1.80	0.67	37.0		551.6	249.1	151.0	1.00				
32.30	32.50	Cl L	NC	1.80	0.67	36.8		555.1	250.6	149.8	1.00				

C P T - test

Project Kv Kölen 30039781	**Site** Uppsala **Designation** 22S005 **Date** 20220322

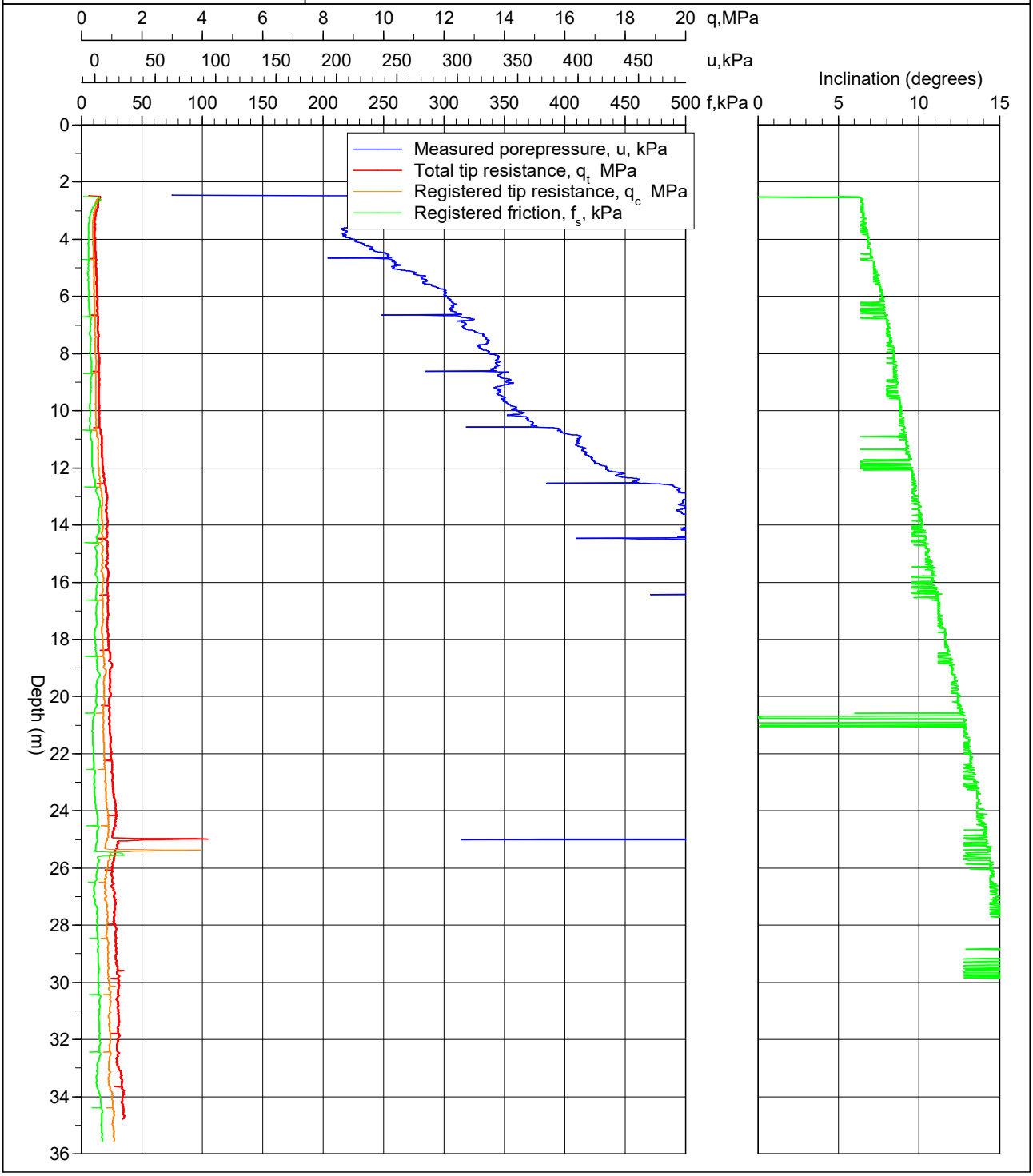
Depth (m) From	To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
32.50	32.70	Cl L	NC	1.80	0.67	37.0		558.6	252.1	150.7	1.00				
32.70	32.90	Cl L	NC	1.80	0.67	36.4		562.2	253.7	148.3	1.00				
32.90	33.10	Cl L	NC	1.80	0.67	39.0		565.7	255.2	159.1	1.00				
33.10	33.30	Cl M	NC	1.80	0.67	43.9		569.2	256.7	178.7	1.00				
33.30	33.50	Cl M	NC	1.80	0.67	44.6		572.8	258.3	181.5	1.00				
33.50	33.70	Cl M	NC	1.80	0.67	45.1		576.3	259.8	183.7	1.00				
33.70	33.90	Cl M	NC	1.80	0.67	47.5		579.8	261.3	193.6	1.00				
33.90	34.10	Cl M	NC	1.80	0.67	46.3		583.4	262.9	188.5	1.00				
34.10	34.30	Cl M	NC	1.80	0.67	44.9		586.9	264.4	182.8	1.00				
34.30	34.50	Cl M	NC	1.80	0.67	46.6		590.4	265.9	189.9	1.00				
34.50	34.69	Cl M	NC	1.80	0.67	47.2		593.9	267.4	192.5	1.00				

CPT-test performed according to EN ISO 22476-1

Project	**Kv Kölen**	**Site**	**Uppsala**
Project number	**30039781**	**Designation**	**22S005**
Company	**Sweco Sverige AB**	**Date**	**20220322**
Operator	**Claire Ellinger**		

Predrilled depth	2.50 m	Predrilled material	Mg
Start depth	2.50 m	Geometry	Normal
Stop depth	35.57 m	Fluid in filter	Olja&fett
Ground water level	1.95 m	Borehole coordinates	X=6636936.178,Y=130647.251
Reference	MY	Equipment	Envi Memocone
Level at reference	3.55 m	Cone nr	52010

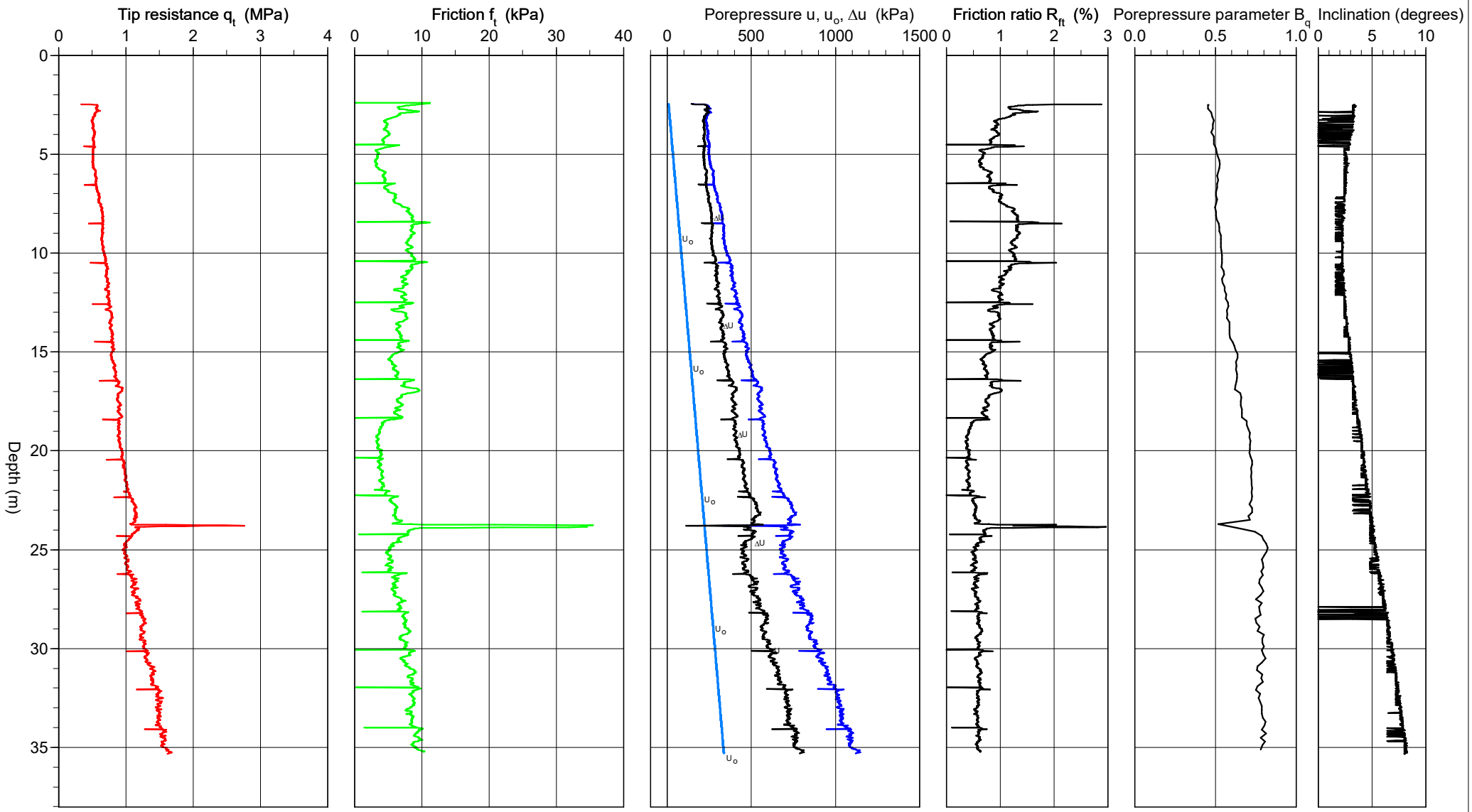
[X] **Porepressure measurement**



CPT-test performed according to EN ISO 22476-1

Predrilling depth	2.50 m	Reference	MY	Fluid in filter	Olja&fett
Start depth	2.50 m	Level at reference	3.48 m	Coordinats	X=6636978.336,Y=130762.603
Stop depth	35.44 m	Predrilled material	Mg	Equipment	Envi Memocone
Ground water level	1.89 m	Geometry	Normal	Cone nr	52010

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S006
Date	20220323



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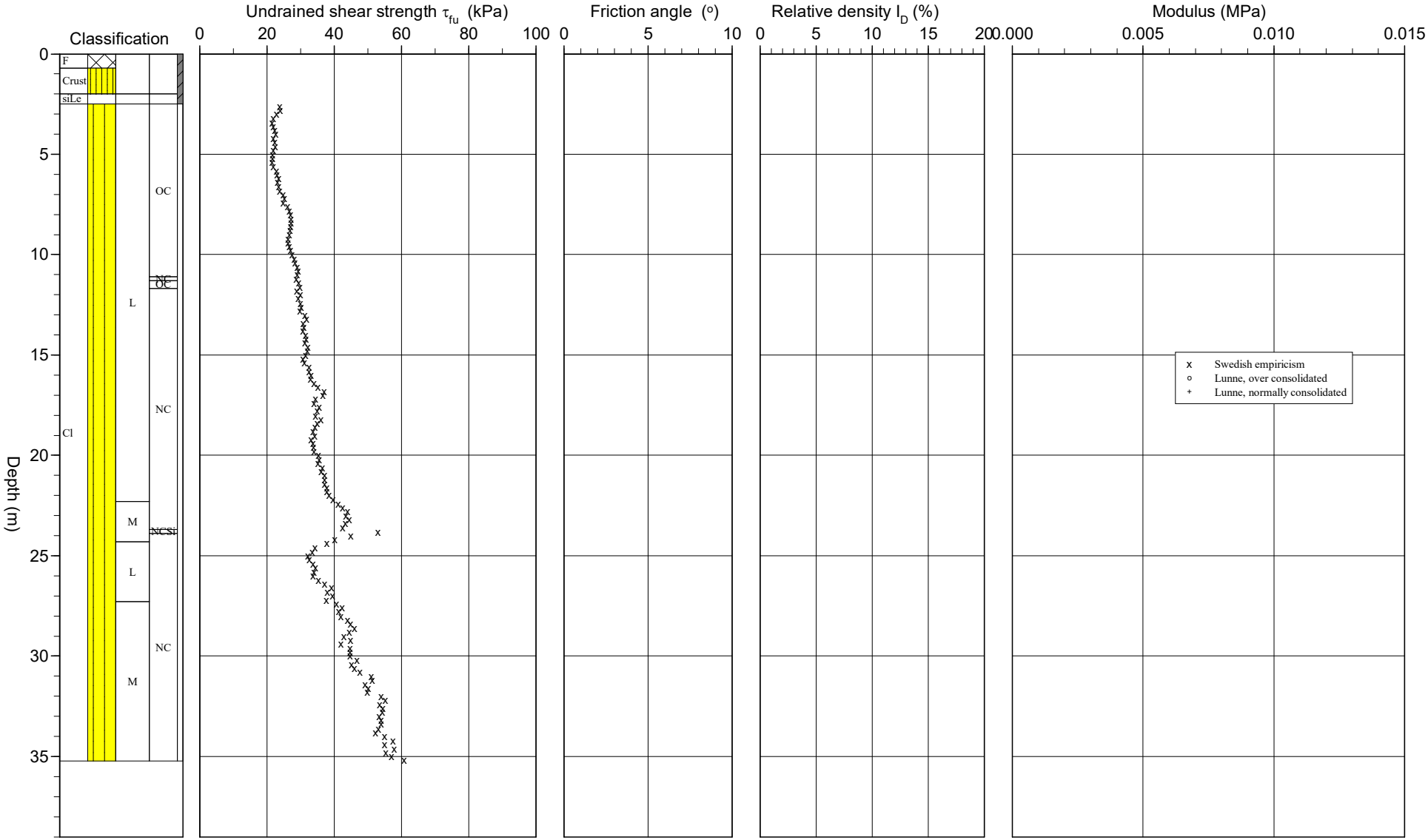
2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	MY	Predrilling depth	2.50 m	Evaluator	INPRAG
Level at reference	3.48 m	Predrilled material	Mg	Evaluation date	2022-04-12
Ground water level	1.89 m	Equipment	Envi Memocone		
Start depth	2.50 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S006
Date	20220323



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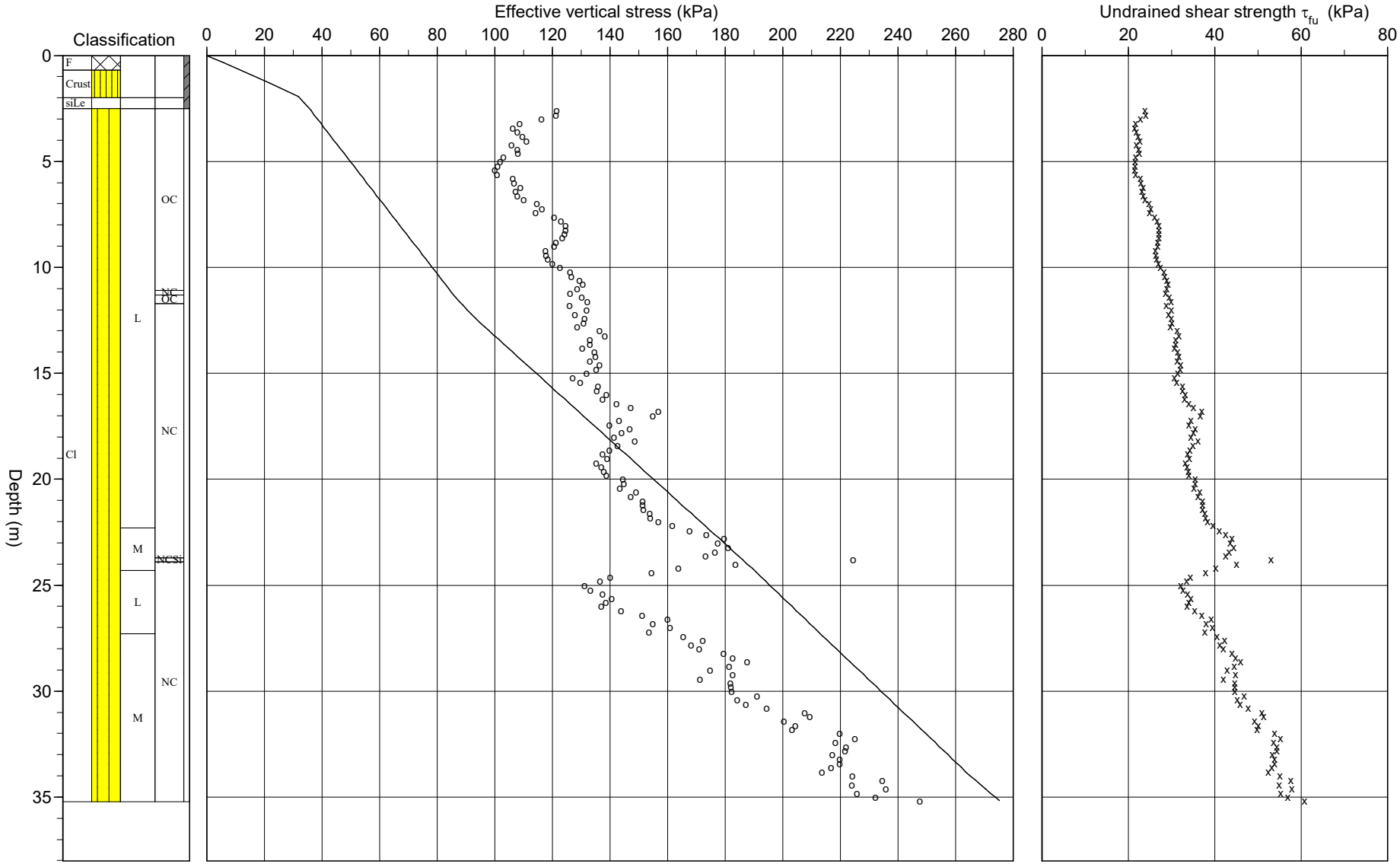
CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	MY	Predrilling depth	2.50 m	Evaluator	INPRAG
Ground water level	3.48 m	Predrilled material	Mg	Evaluation date	2022-04-12
Grundvattenyta	1.89 m	Equipment	Envi Memocone		
Start depth	2.50 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S006
Date	20220323



C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S006**
Date **20220323**

Predrilling depth	2.50 m	Predrilled material	Mg
Start depth	2.50 m	Geometry	Normal
Stop depth	35.44 m	Fluid in filter	Olja&fett
Ground water level	1.89 m	Operator	Claire Ellinger
Reference	MY	Equipment	Envi Memocone
Level at reference	3.48 m	[x] **Porepressure measurement**	

Calibration data

Cone	52010	Internal friction O_c	0.0 kPa
Date	2021-04-07	Internal friction O_f	0.0 kPa
Areafactorr a	0.690	Cross talk c_1	0.000
Areafactor b	0.006	Cross talk c_2	0.000

Cero values, kPa

	Porepressure	Friction	Tip resistance
Before	0.00	0.00	0.00
After	-1.60	-0.20	0.08
Diff	-1.60	-0.20	0.08

Scale factors

Porepressure Range	Porepressure Code	Friction Range	Friction Code	Tip resistance Range	Tip resistance Code

[ ] **Use scale factors**

Correction

Porepressure	(none)
Friction	(none)
Tip resistance	(none)

Estimated sounding class

Porepressure observations

Depth (m)	Porepressure (kPa)
1.89	0.00

Boundaries

Depth (m)

Classification

Depth (m) From	Depth (m) To	Density (ton/m^3)	Liquid limit	Soil
0.00	0.70	1.70		F
0.70	2.00	1.70		Crust
2.00	2.50	1.70	0.37	siLe
2.50	3.00		0.70	
3.00	4.00		0.67	
4.00	5.00		0.67	
5.00	35.23		0.67	

Notes

C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S006**
Date **20220323**

Depth (m) From	To	Classification		ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
0.00	0.70	F		1.70				5.8	5.8						
0.70	1.89	Crust		1.70				21.6	21.6						
1.89	2.00	Crust		1.70				32.4	31.8						
2.00	2.50	siLe		1.70	0.37			37.5	33.9						
2.50	2.70	Cl L	OC	1.60	0.70	23.8		43.3	36.1	121.3	3.36				
2.70	2.90	Cl L	OC	1.60	0.70	24.0		46.4	37.3	121.3	3.26				
2.90	3.10	Cl L	OC	1.60	0.67	22.8		49.5	38.4	116.2	3.03				
3.10	3.30	Cl L	OC	1.60	0.67	21.8		52.7	39.5	108.6	2.75				
3.30	3.50	Cl L	OC	1.60	0.67	21.5		55.8	40.7	106.2	2.61				
3.50	3.70	Cl L	OC	1.60	0.67	21.9		59.0	41.8	107.8	2.58				
3.70	3.90	Cl L	OC	1.60	0.67	22.3		62.1	42.9	109.6	2.55				
3.90	4.10	Cl L	OC	1.60	0.67	22.6		65.2	44.1	110.9	2.52				
4.10	4.30	Cl L	OC	1.60	0.67	21.9		68.4	45.2	105.8	2.34				
4.30	4.50	Cl L	OC	1.60	0.67	22.3		71.5	46.4	107.8	2.32				
4.50	4.70	Cl L	OC	1.60	0.67	22.5		74.7	47.5	108.0	2.27				
4.70	4.90	Cl L	OC	1.60	0.67	21.8		77.8	48.6	103.1	2.12				
4.90	5.10	Cl L	OC	1.60	0.67	21.6		80.9	49.8	101.7	2.04				
5.10	5.30	Cl L	OC	1.60	0.67	21.6		84.1	50.9	101.0	1.98				
5.30	5.50	Cl L	OC	1.60	0.67	21.5		87.2	52.1	99.9	1.92				
5.50	5.70	Cl L	OC	1.60	0.67	21.8		90.4	53.2	100.8	1.90				
5.70	5.90	Cl L	OC	1.60	0.67	22.8		93.5	54.3	106.2	1.96				
5.90	6.10	Cl L	OC	1.60	0.67	23.0		96.6	55.5	106.7	1.92				
6.10	6.30	Cl L	OC	1.60	0.67	23.4		99.8	56.6	108.8	1.92				
6.30	6.50	Cl L	OC	1.60	0.67	23.2		102.9	57.8	107.1	1.86				
6.50	6.70	Cl L	OC	1.60	0.67	23.4		106.0	58.9	107.8	1.83				
6.70	6.90	Cl L	OC	1.60	0.67	23.9		109.2	60.0	109.9	1.83				
6.90	7.10	Cl L	OC	1.60	0.67	24.8		112.3	61.2	114.5	1.87				
7.10	7.30	Cl L	OC	1.60	0.67	25.2		115.5	62.3	116.4	1.87				
7.30	7.50	Cl L	OC	1.60	0.67	24.9		118.6	63.5	114.2	1.80				
7.50	7.70	Cl L	OC	1.60	0.67	26.1		121.7	64.6	120.6	1.87				
7.70	7.90	Cl L	OC	1.60	0.67	26.6		124.9	65.7	123.1	1.87				
7.90	8.10	Cl L	OC	1.60	0.67	27.0		128.0	66.9	124.6	1.86				
8.10	8.30	Cl L	OC	1.60	0.67	27.1		131.2	68.0	124.6	1.83				
8.30	8.50	Cl L	OC	1.60	0.67	27.1		134.3	69.1	124.2	1.80				
8.50	8.70	Cl L	OC	1.60	0.67	27.1		137.4	70.3	123.4	1.76				
8.70	8.90	Cl L	OC	1.60	0.67	26.8		140.6	71.4	121.3	1.70				
8.90	9.10	Cl L	OC	1.60	0.67	26.7		143.7	72.6	120.6	1.66				
9.10	9.30	Cl L	OC	1.60	0.67	26.3		146.9	73.7	117.7	1.60				
9.30	9.50	Cl L	OC	1.60	0.67	26.4		150.0	74.8	117.7	1.57				
9.50	9.70	Cl L	OC	1.60	0.67	26.6		153.1	76.0	118.4	1.56				
9.70	9.90	Cl L	OC	1.60	0.67	27.0		156.3	77.1	120.0	1.56				
9.90	10.10	Cl L	OC	1.60	0.67	27.5		159.4	78.3	122.6	1.57				
10.10	10.30	Cl L	OC	1.60	0.67	28.2		162.6	79.4	126.2	1.59				
10.30	10.50	Cl L	OC	1.60	0.67	28.4		165.7	80.5	126.6	1.57				
10.50	10.70	Cl L	OC	1.60	0.67	29.0		168.8	81.7	129.5	1.59				
10.70	10.90	Cl L	OC	1.60	0.67	29.3		172.0	82.8	130.6	1.58				
10.90	11.10	Cl L	OC	1.60	0.67	29.0		175.1	84.0	128.6	1.53				
11.10	11.30	Cl L	NC	1.60	0.67	28.6		178.2	85.1	126.3	1.48				
11.30	11.50	Cl L	OC	1.60	0.67	29.4		181.4	86.2	130.3	1.51				
11.50	11.70	Cl L	OC	1.85	0.67	29.9		184.8	87.6	132.3	1.51				
11.70	11.90	Cl L	NC	1.60	0.67	28.8		188.2	89.0	125.9	1.42				
11.90	12.10	Cl L	NC	1.85	0.67	30.0		191.5	90.4	131.7	1.46				
12.10	12.30	Cl L	NC	1.60	0.67	29.3		194.9	91.8	127.8	1.39				
12.30	12.50	Cl L	NC	1.85	0.67	30.1		198.3	93.2	131.1	1.41				
12.50	12.70	Cl L	NC	1.85	0.67	30.1		201.9	94.8	130.8	1.38				
12.70	12.90	Cl L	NC	1.85	0.67	29.8		205.6	96.4	128.5	1.33				
12.90	13.10	Cl L	NC	1.85	0.67	31.3		209.2	98.0	136.4	1.39				
13.10	13.30	Cl L	NC	1.85	0.67	31.8		212.8	99.7	138.2	1.39				
13.30	13.50	Cl L	NC	1.85	0.67	30.9		216.5	101.3	132.9	1.31				
13.50	13.70	Cl L	NC	1.85	0.67	31.0		220.1	102.9	132.9	1.29				
13.70	13.90	Cl L	NC	1.85	0.67	30.6		223.7	104.6	130.3	1.25				
13.90	14.10	Cl L	NC	1.85	0.67	31.5		227.3	106.2	134.6	1.27				
14.10	14.30	Cl L	NC	1.85	0.67	31.7		231.0	107.8	135.1	1.25				
14.30	14.50	Cl L	NC	1.85	0.67	31.4		234.6	109.5	132.9	1.21				
14.50	14.70	Cl L	NC	1.85	0.67	32.1		238.2	111.1	136.4	1.23				
14.70	14.90	Cl L	NC	1.85	0.67	32.0		241.9	112.7	135.3	1.20				
14.90	15.10	Cl L	NC	1.85	0.67	31.4		245.5	114.3	131.8	1.15				
15.10	15.30	Cl L	NC	1.85	0.67	30.6		249.1	116.0	127.1	1.10				
15.30	15.50	Cl L	NC	1.85	0.67	31.2		252.8	117.6	129.5	1.10				
15.50	15.70	Cl L	NC	1.85	0.67	32.5		256.4	119.2	135.9	1.14				
15.70	15.90	Cl L	NC	1.85	0.67	32.5		260.0	120.9	135.5	1.12				
15.90	16.10	Cl L	NC	1.85	0.67	33.2		263.6	122.5	138.7	1.13				
16.10	16.30	Cl L	NC	1.85	0.67	33.1		267.3	124.1	137.5	1.11				
16.30	16.50	Cl L	NC	1.85	0.67	34.0		270.9	125.8	142.1	1.13				
16.50	16.70	Cl L	NC	1.85	0.67	35.1		274.5	127.4	147.2	1.16				
16.70	16.90	Cl L	NC	1.85	0.67	37.0		278.2	129.0	156.8	1.22				
16.90	17.10	Cl L	NC	1.85	0.67	36.7		281.8	130.6	154.8	1.18				

C P T - test

Project	Site	Uppsala
Kv Kölen	Designation	22S006
30039781	Date	20220323

Depth (m) From	To	Classification		ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
17.10	17.30	Cl L	NC	1.85	0.67	34.6		285.4	132.3	143.1	1.08				
17.30	17.50	Cl L	NC	1.85	0.67	34.0		289.1	133.9	139.9	1.04				
17.50	17.70	Cl L	NC	1.85	0.67	35.5		292.7	135.5	146.8	1.08				
17.70	17.90	Cl L	NC	1.85	0.67	35.0		296.3	137.2	144.0	1.05				
17.90	18.10	Cl L	NC	1.85	0.67	34.6		299.9	138.8	141.4	1.02				
18.10	18.30	Cl L	NC	1.85	0.67	36.1		303.6	140.4	148.7	1.06				
18.30	18.50	Cl L	NC	1.85	0.67	35.0		307.2	142.1	142.5	1.00				
18.50	18.70	Cl L	NC	1.85	0.67	34.3		310.8	143.7	139.8	1.00				
18.70	18.90	Cl L	NC	1.85	0.67	33.7		314.5	145.3	137.4	1.00				
18.90	19.10	Cl L	NC	1.85	0.67	34.1		318.1	146.9	139.0	1.00				
19.10	19.30	Cl L	NC	1.85	0.67	33.2		321.7	148.6	135.3	1.00				
19.30	19.50	Cl L	NC	1.85	0.67	33.6		325.3	150.2	137.0	1.00				
19.50	19.70	Cl L	NC	1.85	0.67	33.8		329.0	151.8	137.9	1.00				
19.70	19.90	Cl L	NC	1.85	0.67	34.0		332.6	153.5	138.7	1.00				
19.90	20.10	Cl L	NC	1.85	0.67	35.4		336.2	155.1	144.3	1.00				
20.10	20.30	Cl L	NC	1.85	0.67	35.5		339.9	156.7	144.7	1.00				
20.30	20.50	Cl L	NC	1.85	0.67	35.2		343.5	158.3	143.4	1.00				
20.50	20.70	Cl L	NC	1.85	0.67	36.5		347.1	160.0	148.9	1.00				
20.70	20.90	Cl L	NC	1.85	0.67	36.1		350.8	161.6	147.1	1.00				
20.90	21.10	Cl L	NC	1.85	0.67	37.1		354.4	163.2	151.3	1.00				
21.10	21.30	Cl L	NC	1.85	0.67	37.1		358.0	164.9	151.3	1.00				
21.30	21.50	Cl L	NC	1.85	0.67	37.2		361.6	166.5	151.6	1.00				
21.50	21.70	Cl L	NC	1.85	0.67	37.8		365.3	168.1	153.9	1.00				
21.70	21.90	Cl L	NC	1.85	0.67	37.8		368.9	169.8	154.0	1.00				
21.90	22.10	Cl L	NC	1.85	0.67	38.5		372.5	171.4	156.7	1.00				
22.10	22.30	Cl L	NC	1.85	0.67	39.6		376.2	173.0	161.5	1.00				
22.30	22.50	Cl M	NC	1.85	0.67	41.1		379.8	174.6	167.5	1.00				
22.50	22.70	Cl M	NC	1.85	0.67	42.6		383.4	176.3	173.4	1.00				
22.70	22.90	Cl M	NC	1.85	0.67	44.0		387.1	177.9	179.6	1.01				
22.90	23.10	Cl M	NC	1.85	0.67	43.6		390.7	179.5	177.5	1.00				
23.10	23.30	Cl M	NC	1.85	0.67	44.4		394.3	181.2	181.0	1.00				
23.30	23.50	Cl M	NC	1.85	0.67	43.3		397.9	182.8	176.5	1.00				
23.50	23.70	Cl M	NC	1.85	0.67	42.5		401.6	184.4	173.1	1.00				
23.70	23.90	Cl M	NCSi	1.85	0.67	53.0		405.2	186.1	224.3	1.21				
23.90	24.10	Cl M	NC	1.85	0.67	45.0		408.8	187.7	183.5	1.00				
24.10	24.30	Cl M	NC	1.85	0.67	40.2		412.5	189.3	163.8	1.00				
24.30	24.50	Cl L	NC	1.80	0.67	37.9		416.0	190.9	154.4	1.00				
24.50	24.70	Cl L	NC	1.80	0.67	34.3		419.6	192.4	139.9	1.00				
24.70	24.90	Cl L	NC	1.80	0.67	33.5		423.1	194.0	136.6	1.00				
24.90	25.10	Cl L	NC	1.80	0.67	32.2		426.6	195.5	131.1	1.00				
25.10	25.30	Cl L	NC	1.80	0.67	32.7		430.2	197.0	133.2	1.00				
25.30	25.50	Cl L	NC	1.80	0.67	33.7		433.7	198.6	137.4	1.00				
25.50	25.70	Cl L	NC	1.80	0.67	34.5		437.2	200.1	140.6	1.00				
25.70	25.90	Cl L	NC	1.80	0.67	34.0		440.8	201.6	138.6	1.00				
25.90	26.10	Cl L	NC	1.80	0.67	33.6		444.3	203.1	137.0	1.00				
26.10	26.30	Cl L	NC	1.80	0.67	35.3		447.8	204.7	143.8	1.00				
26.30	26.50	Cl L	NC	1.80	0.67	37.1		451.4	206.2	151.3	1.00				
26.50	26.70	Cl L	NC	1.80	0.67	39.2		454.9	207.7	159.9	1.00				
26.70	26.90	Cl L	NC	1.80	0.67	38.0		458.4	209.3	154.8	1.00				
26.90	27.10	Cl L	NC	1.80	0.67	39.4		462.0	210.8	160.7	1.00				
27.10	27.30	Cl L	NC	1.80	0.67	37.7		465.5	212.3	153.5	1.00				
27.30	27.50	Cl M	NC	1.80	0.67	40.6		469.0	213.9	165.4	1.00				
27.50	27.70	Cl M	NC	1.85	0.67	42.3		472.6	215.4	172.3	1.00				
27.70	27.90	Cl M	NC	1.80	0.67	41.3		476.2	217.0	168.1	1.00				
27.90	28.10	Cl M	NC	1.80	0.67	42.0		479.7	218.6	171.1	1.00				
28.10	28.30	Cl M	NC	1.80	0.67	44.0		483.2	220.1	179.4	1.00				
28.30	28.50	Cl M	NC	1.80	0.67	44.8		486.8	221.6	182.6	1.00				
28.50	28.70	Cl M	NC	1.85	0.67	46.0		490.4	223.2	187.6	1.00				
28.70	28.90	Cl M	NC	1.85	0.67	44.5		494.0	224.8	181.5	1.00				
28.90	29.10	Cl M	NC	1.80	0.67	42.9		497.6	226.4	174.8	1.00				
29.10	29.30	Cl M	NC	1.80	0.67	44.8		501.1	227.9	182.7	1.00				
29.30	29.50	Cl M	NC	1.80	0.67	42.0		504.6	229.5	171.2	1.00				
29.50	29.70	Cl M	NC	1.80	0.67	44.6		508.2	231.0	181.8	1.00				
29.70	29.90	Cl M	NC	1.80	0.67	44.7		511.7	232.5	182.0	1.00				
29.90	30.10	Cl M	NC	1.80	0.67	44.7		515.2	234.1	182.2	1.00				
30.10	30.30	Cl M	NC	1.80	0.67	46.9		518.8	235.6	190.9	1.00				
30.30	30.50	Cl M	NC	1.80	0.67	45.2		522.3	237.1	184.3	1.00				
30.50	30.70	Cl M	NC	1.80	0.67	45.9		525.8	238.7	187.1	1.00				
30.70	30.90	Cl M	NC	1.80	0.67	47.7		529.3	240.2	194.5	1.00				
30.90	31.10	Cl M	NC	1.85	0.67	51.0		532.9	241.8	207.7	1.00				
31.10	31.30	Cl M	NC	1.85	0.67	51.4		536.6	243.4	209.3	1.00				
31.30	31.50	Cl M	NC	1.80	0.67	49.2		540.1	245.0	200.4	1.00				
31.50	31.70	Cl M	NC	1.80	0.67	50.2		543.7	246.5	204.4	1.00				
31.70	31.90	Cl M	NC	1.80	0.67	49.9		547.2	248.1	203.2	1.00				
31.90	32.10	Cl M	NC	1.80	0.67	53.9		550.7	249.6	219.7	1.00				
32.10	32.30	Cl M	NC	1.85	0.67	55.2		554.3	251.2	225.1	1.00				
32.30	32.50	Cl M	NC	1.80	0.67	53.6		557.9	252.7	218.3	1.00				

C P T - test

Project Kv Kölen 30039781	**Site** Uppsala **Designation** 22S006 **Date** 20220323

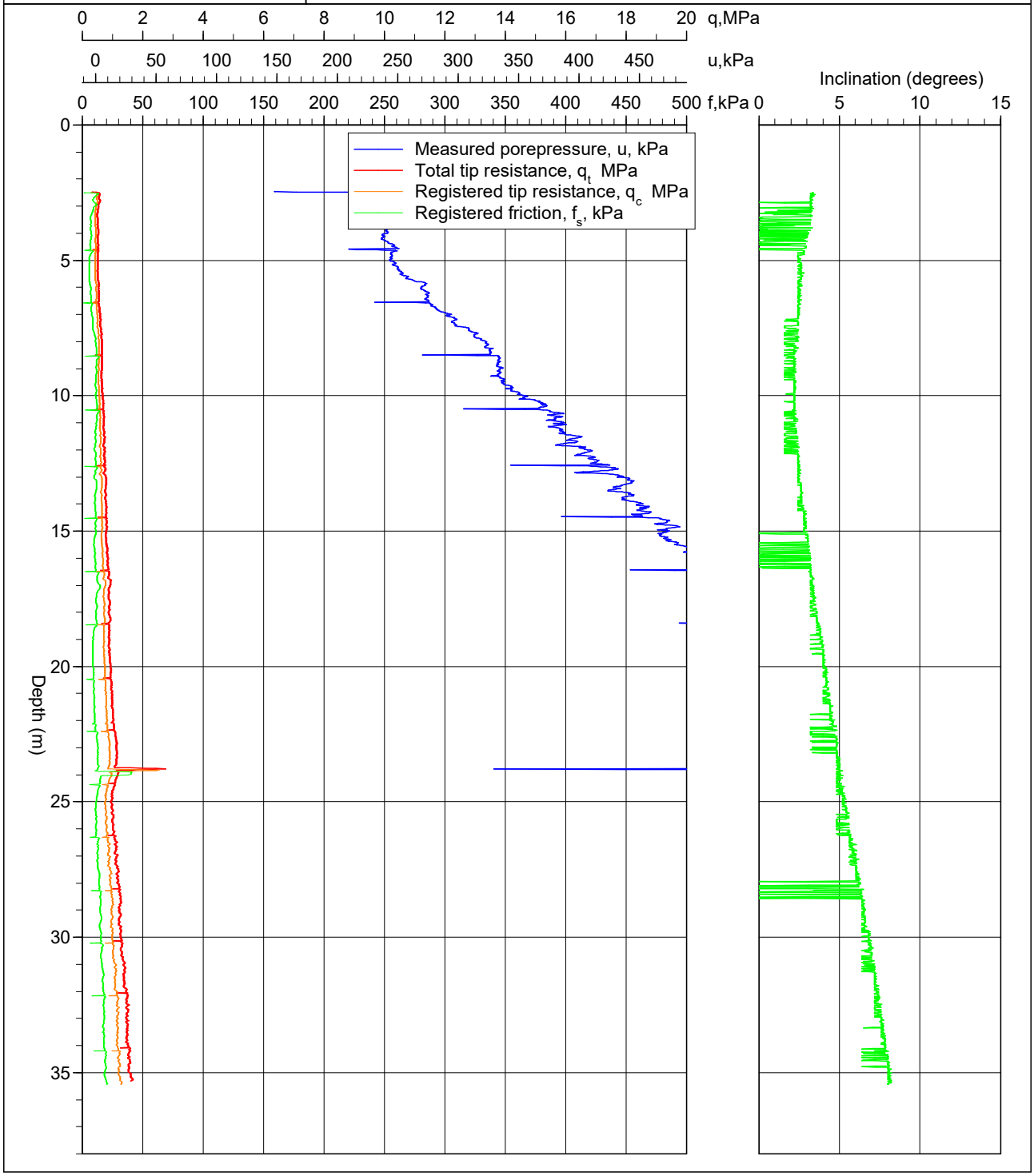
Depth (m) From	To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
32.50	32.70	Cl M	NC	1.80	0.67	54.5		561.4	254.3	221.9	1.00				
32.70	32.90	Cl M	NC	1.80	0.67	54.4		565.0	255.8	221.6	1.00				
32.90	33.10	Cl M	NC	1.80	0.67	53.3		568.5	257.3	217.2	1.00				
33.10	33.30	Cl M	NC	1.80	0.67	53.9		572.0	258.9	219.8	1.00				
33.30	33.50	Cl M	NC	1.80	0.67	53.9		575.6	260.4	219.7	1.00				
33.50	33.70	Cl M	NC	1.80	0.67	53.2		579.1	261.9	216.9	1.00				
33.70	33.90	Cl M	NC	1.80	0.67	52.4		582.6	263.5	213.5	1.00				
33.90	34.10	Cl M	NC	1.90	0.67	55.0		586.2	265.1	224.1	1.00				
34.10	34.30	Cl M	NC	1.90	0.67	57.6		590.0	266.8	234.5	1.00				
34.30	34.50	Cl M	NC	1.90	0.67	55.0		593.7	268.6	223.9	1.00				
34.50	34.70	Cl M	NC	1.90	0.67	57.9		597.4	270.3	235.9	1.00				
34.70	34.90	Cl M	NC	1.90	0.67	55.4		601.2	272.0	225.7	1.00				
34.90	35.10	Cl M	NC	1.90	0.67	57.0		604.9	273.7	232.2	1.00				
35.10	35.22	Cl M	NC	1.90	0.67	60.8		607.9	275.1	247.6	1.00				

CPT-test performed according to EN ISO 22476-1

Project	**Kv Kölen**	**Site**	**Uppsala**
Project number	**30039781**	**Designation**	**22S006**
Company	**Sweco Sverige AB**	**Date**	**20220323**
Operator	**Claire Ellinger**		

Predrilled depth	2.50 m	Predrilled material	Mg
Start depth	2.50 m	Geometry	Normal
Stop depth	35.44 m	Fluid in filter	Olja&fett
Ground water level	1.89 m	Borehole coordinates	X=6636978.336,Y=130762.603
Reference	MY	Equipment	Envi Memocone
Level at reference	3.48 m	Cone nr	52010

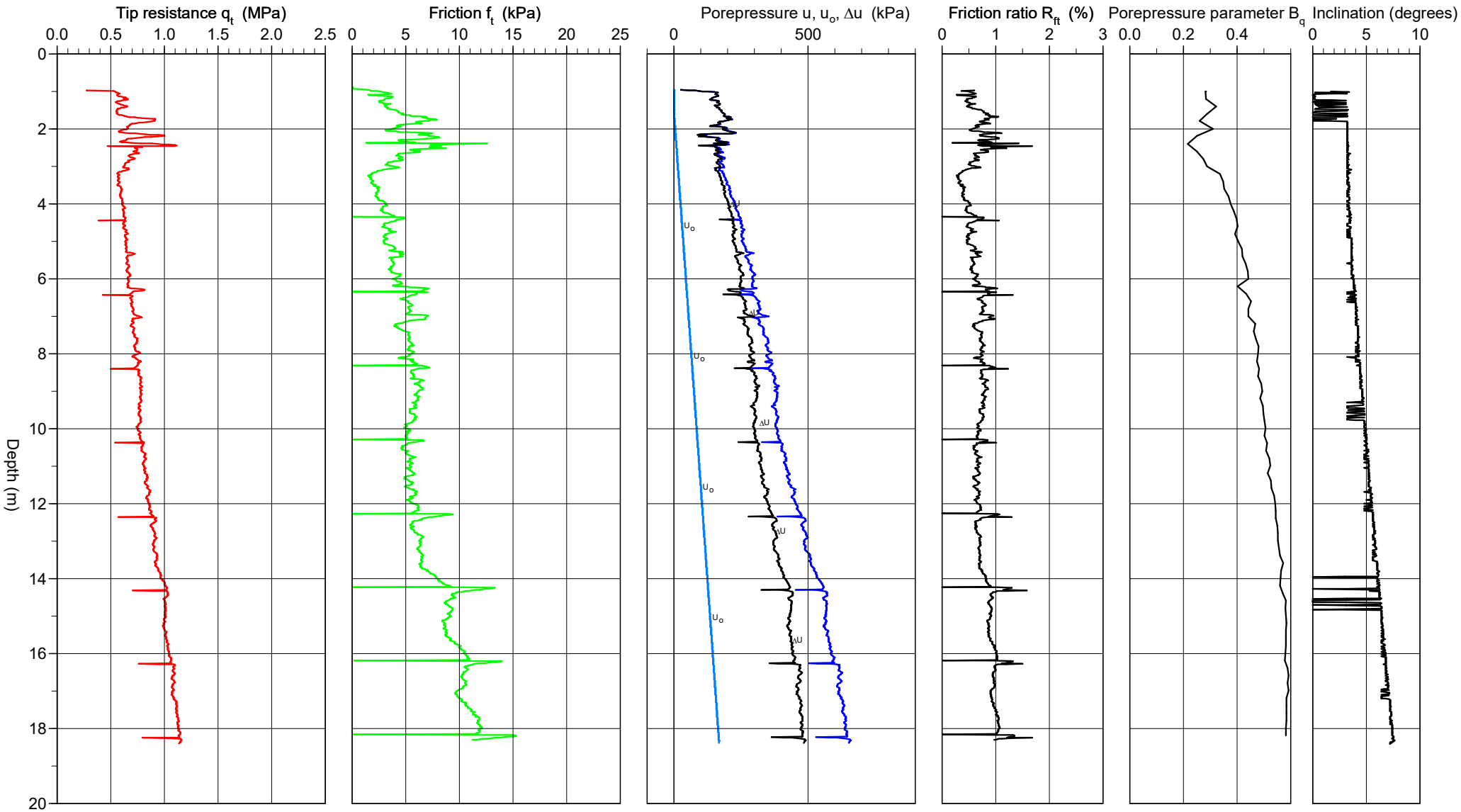
[X] **Porepressure measurement**



CPT-test performed according to EN ISO 22476-1

Predrilling depth	1.00 m	Reference	my	Fluid in filter	Olja&fett
Start depth	1.00 m	Level at reference	3.21 m	Coordinats	x=6636762.506,y=130625.921
Stop depth	18.49 m	Predrilled material	Mg	Equipment	Envi Memocone
Ground water level	1.61 m	Geometry	Normal	Cone nr	52010

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S007
Date	20220321



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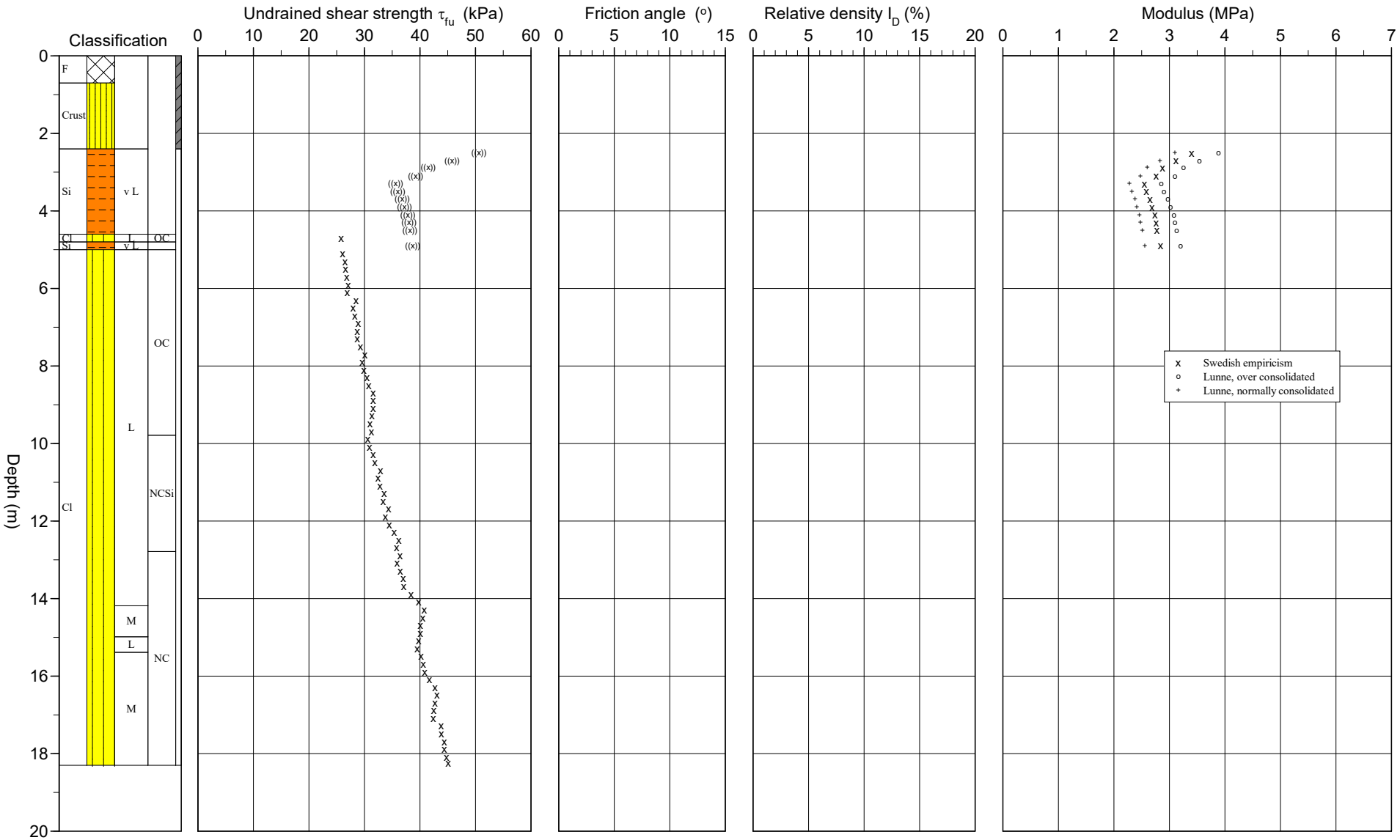
2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	my	Predrilling depth	1.00 m	Evaluator	INPRAG
Level at reference	3.21 m	Predrilled material	Mg	Evaluation date	2022-04-12
Ground water level	1.61 m	Equipment	Envi Memocone		
Start depth	1.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S007
Date	20220321



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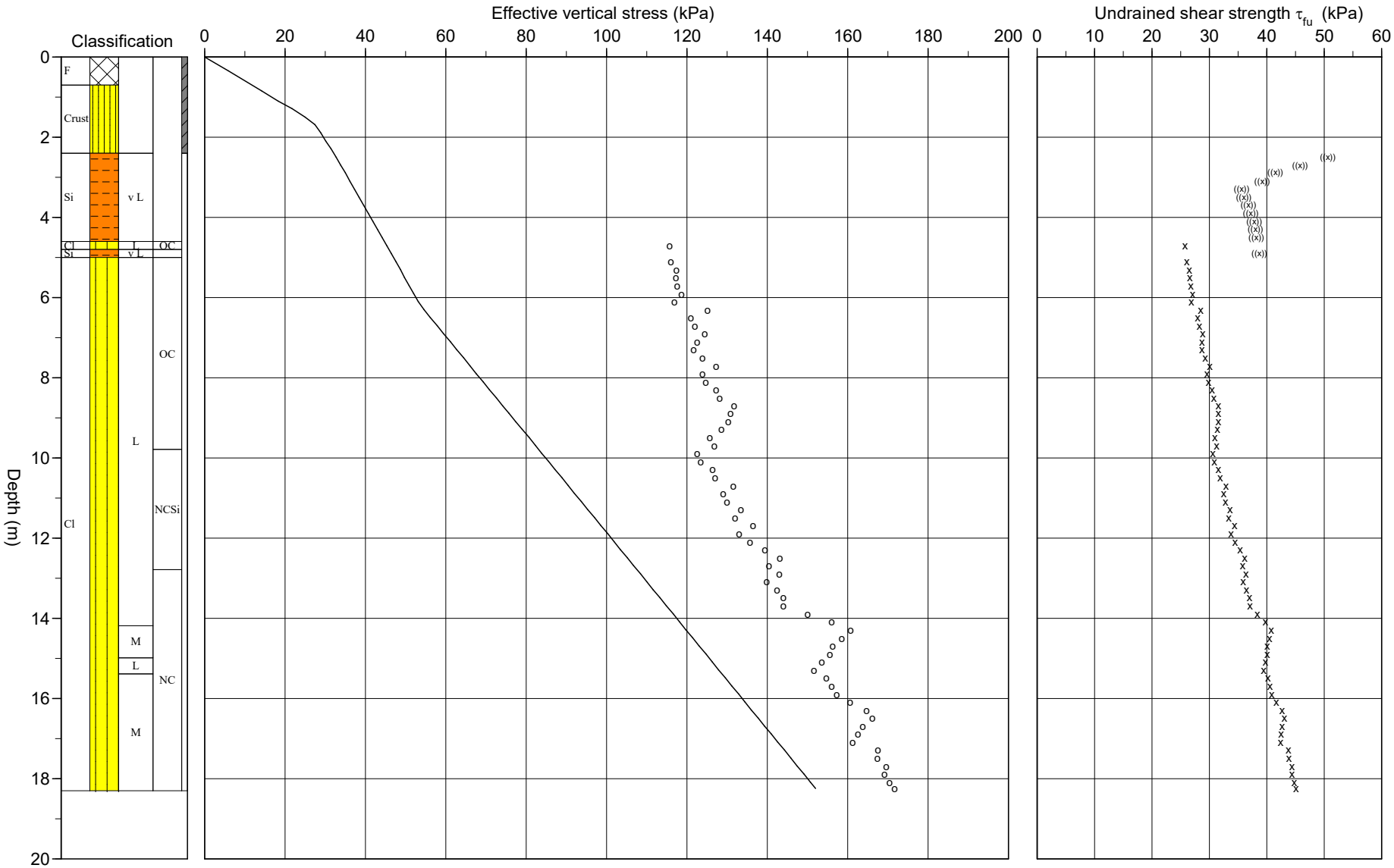
CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	my	Predrilling depth	1.00 m	Evaluator	INPRAG
Ground water level	3.21 m	Predrilled material	Mg	Evaluation date	2022-04-12
Grundvattenyta	1.61 m	Equipment	Envi Memocone		
Start depth	1.00 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S007
Date	20220321



C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S007**
Date **20220321**

Predrilling depth	1.00 m	Predrilled material	Mg
Start depth	1.00 m	Geometry	Normal
Stop depth	18.49 m	Fluid in filter	Olja&fett
Ground water level	1.61 m	Operator	Claire Ellinger
Reference	my	Equipment	Envi Memocone
Level at reference	3.21 m	[x] **Porepressure measurement**	

Calibration data

Cone	52010	Internal friction O_c	0.0 kPa
Date	2021-04-07	Internal friction O_f	0.0 kPa
Areafactorr a	0.690	Cross talk c_1	0.000
Areafactor b	0.006	Cross talk c_2	0.000

Cero values, kPa

	Porepressure	Friction	Tip resistance
Before	0.00	0.00	0.00
After	8.40	0.00	0.11
Diff	8.40	0.00	0.11

Scale factors

Porepressure Range	Porepressure Code	Friction Range	Friction Code	Tip resistance Range	Tip resistance Code

[ ] **Use scale factors**

Correction

Porepressure	(none)
Friction	(none)
Tip resistance	(none)

Estimated sounding class

Porepressure observations

Depth (m)	Porepressure (kPa)
1.61	0.00

Boundaries

Depth (m)

Classification

Depth (m) From	Depth (m) To	Density (ton/m^3)	Liquid limit	Soil
0.00	0.70	1.70		F
0.70	2.50	1.70		Crust
2.50	3.20		0.84	
3.20	4.00		0.82	
4.00	5.00		0.82	
5.00	18.31		0.82	

Notes

C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S007**
Date **20220321**

Depth (m) From	Depth (m) To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
0.00	0.70	F		1.70				5.8	5.8						
0.70	1.00	Crust		1.70				14.2	14.2						
1.00	1.20	Crust		1.70				18.3	18.3						
1.20	1.40	Crust		1.70				21.7	21.7						
1.40	1.60	Crust		1.70				25.0	25.0						
1.60	1.80	Crust		1.70				28.4	27.5						
1.80	2.00	Crust		1.70				31.7	28.8						
2.00	2.20	Crust		1.70				35.0	30.1						
2.20	2.40	Crust		1.70				38.4	31.5						
2.40	2.60	Si v L		1.60	0.84	((50.6))		41.6	32.7				3.4	3.9	3.1
2.60	2.80	Si v L		1.60	0.84	((45.8))		44.7	33.8				3.1	3.5	2.8
2.80	3.00	Si v L		1.60	0.84	((41.5))		47.9	35.0				2.9	3.3	2.6
3.00	3.20	Si v L		1.60	0.84	((39.2))		51.0	36.1				2.8	3.1	2.5
3.20	3.40	Si v L		1.60	0.82	((35.6))		54.2	37.3				2.6	2.9	2.3
3.40	3.60	Si v L		1.60	0.82	((36.0))		57.3	38.4				2.6	2.9	2.3
3.60	3.80	Si v L		1.60	0.82	((36.8))		60.4	39.5				2.6	3.0	2.4
3.80	4.00	Si v L		1.60	0.82	((37.2))		63.6	40.7				2.7	3.0	2.4
4.00	4.20	Si v L		1.60	0.82	((37.8))		66.7	41.8				2.7	3.1	2.5
4.20	4.40	Si v L		1.60	0.82	((38.0))		69.8	42.9				2.8	3.1	2.5
4.40	4.60	Si v L		1.60	0.82	((38.2))		73.0	44.1				2.8	3.1	2.5
4.60	4.80	Cl L	OC	1.60	0.82	25.8		76.1	45.2	115.7	2.56				
4.80	5.00	Si v L		1.60	0.82	((38.7))		79.3	46.4				2.8	3.2	2.6
5.00	5.20	Cl L	OC	1.60	0.82	26.1		82.4	47.5	116.0	2.44				
5.20	5.40	Cl L	OC	1.60	0.82	26.5		85.5	48.6	117.4	2.41				
5.40	5.60	Cl L	OC	1.60	0.82	26.6		88.7	49.8	117.3	2.36				
5.60	5.80	Cl L	OC	1.60	0.82	26.8		91.8	50.9	117.6	2.31				
5.80	6.00	Cl L	OC	1.60	0.82	27.1		95.0	52.1	118.6	2.28				
6.00	6.20	Cl L	OC	1.60	0.82	26.9		98.1	53.2	116.9	2.20				
6.20	6.40	Cl L	OC	1.85	0.82	28.5		101.5	54.6	125.1	2.29				
6.40	6.60	Cl L	OC	1.85	0.82	28.0		105.1	56.2	121.1	2.15				
6.60	6.80	Cl L	OC	1.85	0.82	28.3		108.7	57.8	122.0	2.11				
6.80	7.00	Cl L	OC	1.85	0.82	28.9		112.4	59.5	124.5	2.09				
7.00	7.20	Cl L	OC	1.85	0.82	28.7		116.0	61.1	122.6	2.01				
7.20	7.40	Cl L	OC	1.85	0.82	28.7		119.6	62.7	121.7	1.94				
7.40	7.60	Cl L	OC	1.85	0.82	29.3		123.3	64.4	123.9	1.92				
7.60	7.80	Cl L	OC	1.85	0.82	30.1		126.9	66.0	127.3	1.93				
7.80	8.00	Cl L	OC	1.85	0.82	29.6		130.5	67.6	123.9	1.83				
8.00	8.20	Cl L	OC	1.85	0.82	29.9		134.2	69.3	124.8	1.80				
8.20	8.40	Cl L	OC	1.85	0.82	30.5		137.8	70.9	127.2	1.79				
8.40	8.60	Cl L	OC	1.85	0.82	30.8		141.4	72.5	128.2	1.77				
8.60	8.80	Cl L	OC	1.85	0.82	31.6		145.0	74.1	131.7	1.78				
8.80	9.00	Cl L	OC	1.85	0.82	31.6		148.7	75.8	130.9	1.73				
9.00	9.20	Cl L	OC	1.85	0.82	31.6		152.3	77.4	130.3	1.68				
9.20	9.40	Cl L	OC	1.85	0.82	31.4		155.9	79.0	128.6	1.63				
9.40	9.60	Cl L	OC	1.85	0.82	31.0		159.6	80.7	125.7	1.56				
9.60	9.80	Cl L	OC	1.85	0.82	31.3		163.2	82.3	126.8	1.54				
9.80	10.00	Cl L	NCSi	1.85	0.82	30.6		166.8	83.9	122.5	1.46				
10.00	10.20	Cl L	NCSi	1.85	0.82	30.9		170.4	85.5	123.5	1.44				
10.20	10.40	Cl L	NCSi	1.85	0.82	31.6		174.1	87.2	126.5	1.45				
10.40	10.60	Cl L	NCSi	1.85	0.82	31.9		177.7	88.8	127.1	1.43				
10.60	10.80	Cl L	NCSi	1.85	0.82	32.9		181.3	90.4	131.6	1.45				
10.80	11.00	Cl L	NCSi	1.85	0.82	32.5		185.0	92.1	129.0	1.40				
11.00	11.20	Cl L	NCSi	1.85	0.82	32.8		188.6	93.7	129.9	1.39				
11.20	11.40	Cl L	NCSi	1.85	0.82	33.6		192.2	95.3	133.4	1.40				
11.40	11.60	Cl L	NCSi	1.85	0.82	33.4		195.9	97.0	131.9	1.36				
11.60	11.80	Cl L	NCSi	1.85	0.82	34.4		199.5	98.6	136.4	1.38				
11.80	12.00	Cl L	NCSi	1.85	0.82	33.8		203.1	100.2	132.9	1.33				
12.00	12.20	Cl L	NCSi	1.85	0.82	34.5		206.7	101.8	135.7	1.33				
12.20	12.40	Cl L	NCSi	1.85	0.82	35.4		210.4	103.5	139.4	1.35				
12.40	12.60	Cl L	NCSi	1.85	0.82	36.2		214.0	105.1	143.2	1.36				
12.60	12.80	Cl L	NCSi	1.85	0.82	35.8		217.6	106.7	140.4	1.32				
12.80	13.00	Cl L	NC	1.85	0.82	36.4		221.3	108.4	143.1	1.32				
13.00	13.20	Cl L	NC	1.85	0.82	35.9		224.9	110.0	139.8	1.27				
13.20	13.40	Cl L	NC	1.85	0.82	36.5		228.5	111.6	142.4	1.28				
13.40	13.60	Cl L	NC	1.85	0.82	37.0		232.2	113.3	144.1	1.27				
13.60	13.80	Cl L	NC	1.85	0.82	37.1		235.8	114.9	144.1	1.25				
13.80	14.00	Cl L	NC	1.85	0.82	38.4		239.4	116.5	150.0	1.29				
14.00	14.20	Cl L	NC	1.85	0.82	39.8		243.0	118.1	156.1	1.32				
14.20	14.40	Cl M	NC	1.85	0.82	40.8		246.7	119.8	160.7	1.34				
14.40	14.60	Cl M	NC	1.85	0.82	40.5		250.3	121.4	158.6	1.31				
14.60	14.80	Cl M	NC	1.85	0.82	40.1		253.9	123.0	156.3	1.27				
14.80	15.00	Cl M	NC	1.85	0.82	40.1		257.6	124.7	155.5	1.25				
15.00	15.20	Cl L	NC	1.85	0.82	39.8		261.2	126.3	153.5	1.22				
15.20	15.40	Cl L	NC	1.85	0.82	39.5		264.8	127.9	151.6	1.18				
15.40	15.60	Cl M	NC	1.85	0.82	40.2		268.5	129.6	154.8	1.19				
15.60	15.80	Cl M	NC	1.85	0.82	40.6		272.1	131.2	156.1	1.19				
15.80	16.00	Cl M	NC	1.85	0.82	40.9		275.7	132.8	157.2	1.18				

C P T - test

Project	**Site** Uppsala
Kv Kölen	**Designation** 22S007
30039781	**Date** 20220321

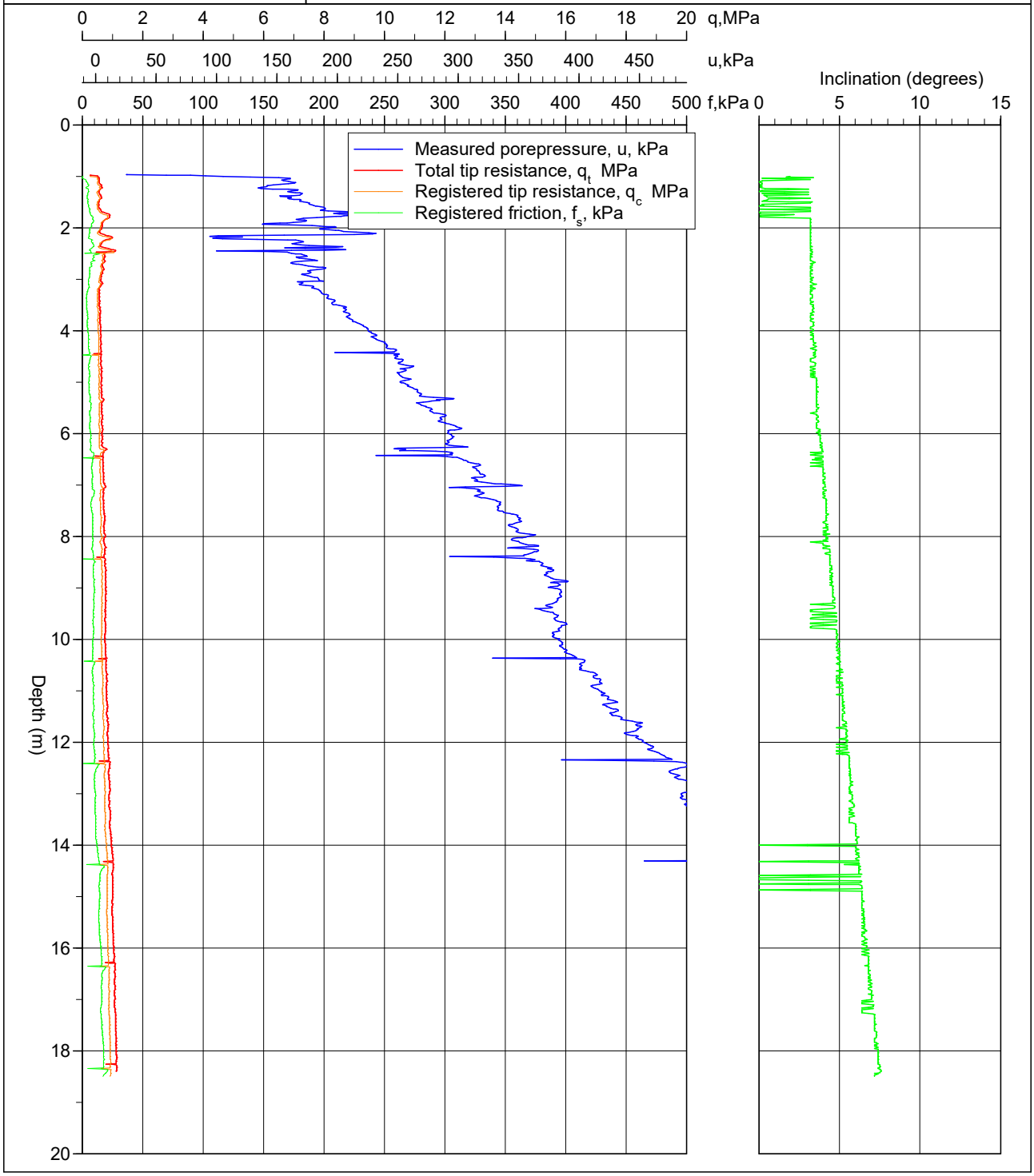
Depth (m) From	To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
16.00	16.20	Cl M	NC	1.85	0.82	41.7		279.3	134.4	160.6	1.19				
16.20	16.40	Cl M	NC	1.85	0.82	42.7		283.0	136.1	164.7	1.21				
16.40	16.60	Cl M	NC	1.85	0.82	43.1		286.6	137.7	166.1	1.21				
16.60	16.80	Cl M	NC	1.85	0.82	42.7		290.2	139.3	163.7	1.18				
16.80	17.00	Cl M	NC	1.85	0.82	42.5		293.9	141.0	162.5	1.15				
17.00	17.20	Cl M	NC	1.85	0.82	42.4		297.5	142.6	161.2	1.13				
17.20	17.40	Cl M	NC	1.85	0.82	43.8		301.1	144.2	167.5	1.16				
17.40	17.60	Cl M	NC	1.85	0.82	43.9		304.7	145.8	167.5	1.15				
17.60	17.80	Cl M	NC	1.85	0.82	44.4		308.4	147.5	169.5	1.15				
17.80	18.00	Cl M	NC	1.85	0.82	44.4		312.0	149.1	169.1	1.13				
18.00	18.20	Cl M	NC	1.85	0.82	44.8		315.6	150.7	170.4	1.13				
18.20	18.31	Cl M	NC	1.85	0.82	45.1		318.5	152.0	171.7	1.13				

CPT-test performed according to EN ISO 22476-1

Project	**Kv Kölen**	**Site**	**Uppsala**
Project number	**30039781**	**Designation**	**22S007**
Company	**Sweco Sverige AB**	**Date**	**20220321**
Operator	**Claire Ellinger**		

Predrilled depth	1.00 m	Predrilled material	Mg
Start depth	1.00 m	Geometry	Normal
Stop depth	18.49 m	Fluid in filter	Olja&fett
Ground water level	1.61 m	Borehole coordinates	x=6636762.506,y=130625.921
Reference	my	Equipment	Envi Memocone
Level at reference	3.21 m	Cone nr	52010

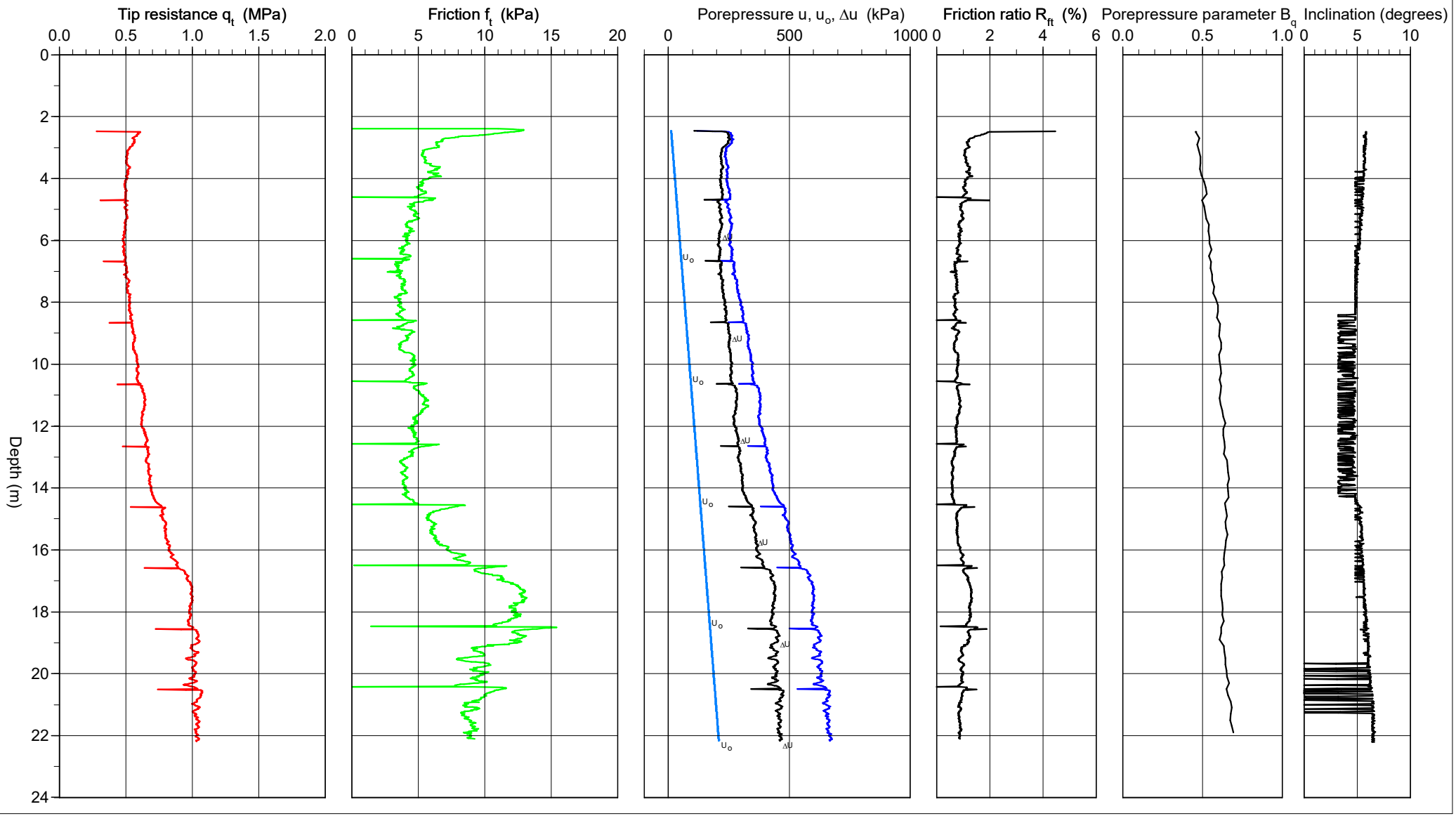
[x] **Porepressure measurement**



CPT-test performed according to EN ISO 22476-1

Predrilling depth	2.50 m	Reference	My	Fluid in filter	Olja&fett
Start depth	2.50 m	Level at reference	3.01 m	Coordinats	X=6636825.707,Y=130739.978
Stop depth	22.29 m	Predrilled material	Mg	Equipment	Envi Memocone
Ground water level	1.41 m	Geometry	Normal	Cone nr	52010

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S008
Date	20220322



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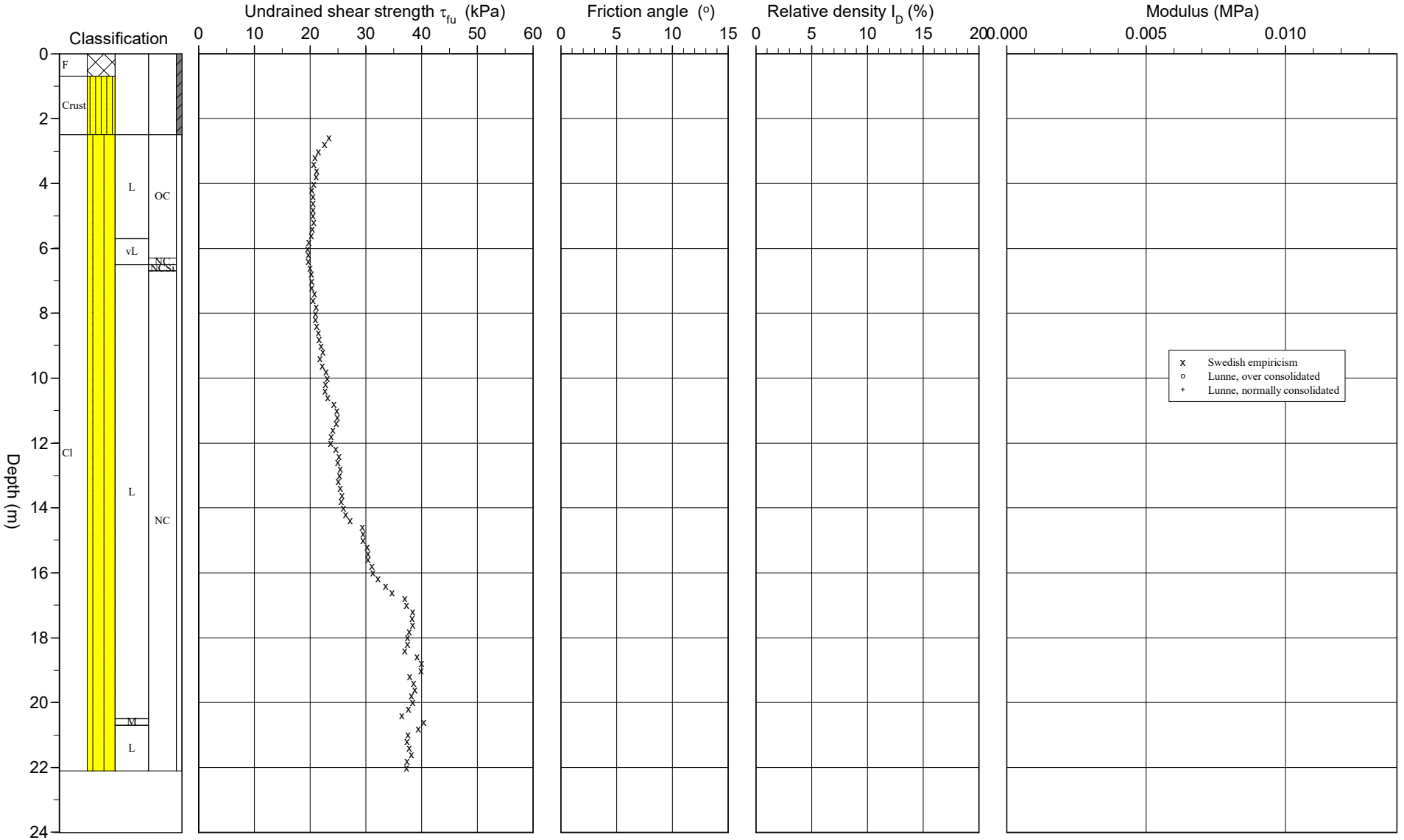
2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	My	Predrilling depth	2.50 m	Evaluator	INPRAG
Level at reference	3.01 m	Predrilled material	Mg	Evaluation date	2022-04-12
Ground water level	1.41 m	Equipment	Envi Memocone		
Start depth	2.50 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S008
Date	20220322



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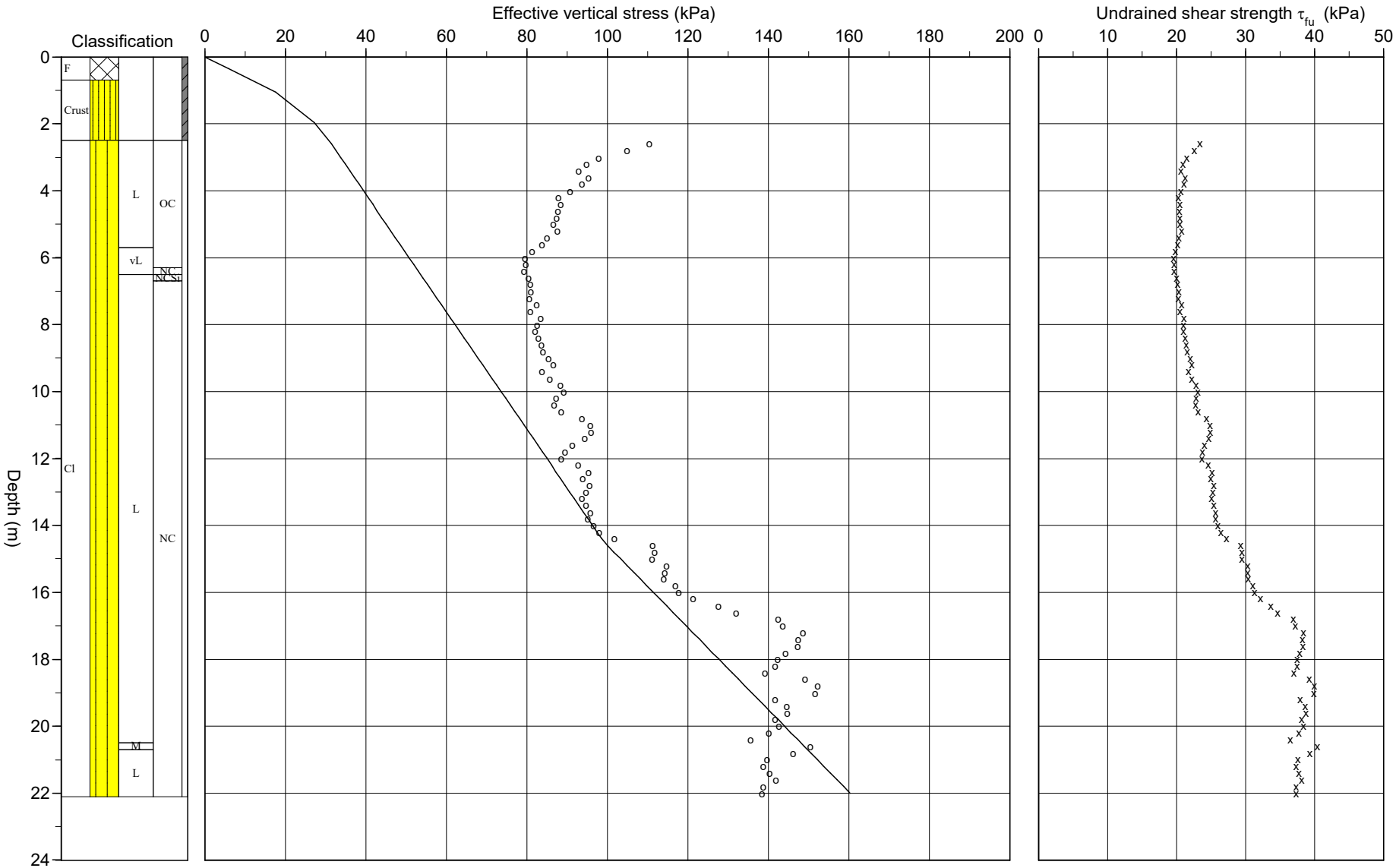
CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	My	Predrilling depth	2.50 m	Evaluator	INPRAG
Ground water level	3.01 m	Predrilled material	Mg	Evaluation date	2022-04-12
Grundvattenyta	1.41 m	Equipment	Envi Memocone		
Start depth	2.50 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S008
Date	20220322



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C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S008**
Date **20220322**

Predrilling depth	2.50 m	Predrilled material	Mg
Start depth	2.50 m	Geometry	Normal
Stop depth	22.29 m	Fluid in filter	Olja&fett
Ground water level	1.41 m	Operator	Claire Ellinger
Reference	My	Equipment	Envi Memocone
Level at reference	3.01 m	[x] **Porepressure measurement**	

Calibration data

Cone	52010	Internal friction O_c	0.0 kPa
Date	2021-04-07	Internal friction O_f	0.0 kPa
Areafactorr a	0.690	Cross talk c_1	0.000
Areafactor b	0.006	Cross talk c_2	0.000

Cero values, kPa

	Porepressure	Friction	Tip resistance
Before	0.00	0.00	0.00
After	-3.50	-0.30	0.05
Diff	-3.50	-0.30	0.05

Scale factors

Porepressure Range	Porepressure Code	Friction Range	Friction Code	Tip resistance Range	Tip resistance Code

[ ] **Use scale factors**

Correction

Porepressure	(none)
Friction	(none)
Tip resistance	(none)

Estimated sounding class

Porepressure observations

Depth (m)	Porepressure (kPa)
1.41	0.00

Boundaries

Depth (m)

Classification

Depth (m) From	Depth (m) To	Density (ton/m^3)	Liquid limit	Soil
0.00	0.70	1.70		F
0.70	2.50	1.70		Crust
2.50	3.20		0.84	
3.20	4.00		0.82	
4.00	5.00		0.82	
5.00	22.10		0.82	

Notes

C P T - test

Project	Site	Uppsala
Kv Kölen	Designation	22S008
30039781	Date	20220322

Depth (m) From	To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
0.00	0.70	F		1.70				5.8	5.8						
0.70	1.41	Crust		1.70				17.6	17.6						
1.41	2.50	Crust		1.70				32.6	27.2						
2.50	2.70	Cl L	OC	1.60	0.84	23.4		43.3	31.4	110.4	3.52				
2.70	2.90	Cl L	OC	1.60	0.84	22.6		46.4	32.5	104.9	3.22				
2.90	3.10	Cl L	OC	1.60	0.84	21.5		49.5	33.7	97.8	2.90				
3.10	3.30	Cl L	OC	1.60	0.82	20.9		52.7	34.8	94.8	2.72				
3.30	3.50	Cl L	OC	1.60	0.82	20.7		55.8	35.9	92.9	2.58				
3.50	3.70	Cl L	OC	1.60	0.82	21.2		59.0	37.1	95.2	2.57				
3.70	3.90	Cl L	OC	1.60	0.82	21.1		62.1	38.2	93.7	2.45				
3.90	4.10	Cl L	OC	1.60	0.82	20.7		65.2	39.4	90.7	2.30				
4.10	4.30	Cl L	OC	1.60	0.82	20.3		68.4	40.5	87.8	2.17				
4.30	4.50	Cl L	OC	1.60	0.82	20.5		71.5	41.6	88.4	2.12				
4.50	4.70	Cl L	OC	1.60	0.82	20.5		74.7	42.8	87.7	2.05				
4.70	4.90	Cl L	OC	1.60	0.82	20.5		77.8	43.9	87.5	1.99				
4.90	5.10	Cl L	OC	1.60	0.82	20.5		80.9	45.1	86.6	1.92				
5.10	5.30	Cl L	OC	1.60	0.82	20.7		84.1	46.2	87.5	1.89				
5.30	5.50	Cl L	OC	1.60	0.82	20.4		87.2	47.3	85.0	1.79				
5.50	5.70	Cl L	OC	1.60	0.82	20.2		90.4	48.5	83.7	1.73				
5.70	5.90	Cl vL	OC	1.60	0.82	19.8		93.5	49.6	81.3	1.64				
5.90	6.10	Cl vL	OC	1.60	0.82	19.6		96.6	50.8	79.6	1.57				
6.10	6.30	Cl vL	OC	1.60	0.82	19.7		99.8	51.9	79.7	1.54				
6.30	6.50	Cl vL	NC	1.60	0.82	19.7		102.9	53.0	79.3	1.50				
6.50	6.70	Cl L	NCSi	1.60	0.82	20.0		106.0	54.2	80.4	1.48				
6.70	6.90	Cl L	NC	1.60	0.82	20.2		109.2	55.3	80.8	1.46				
6.90	7.10	Cl L	NC	1.60	0.82	20.3		112.3	56.5	81.0	1.43				
7.10	7.30	Cl L	NC	1.60	0.82	20.3		115.5	57.6	80.6	1.40				
7.30	7.50	Cl L	NC	1.60	0.82	20.8		118.6	58.7	82.5	1.40				
7.50	7.70	Cl L	NC	1.60	0.82	20.5		121.7	59.9	80.9	1.35				
7.70	7.90	Cl L	NC	1.60	0.82	21.1		124.9	61.0	83.4	1.37				
7.90	8.10	Cl L	NC	1.60	0.82	21.0		128.0	62.2	82.5	1.33				
8.10	8.30	Cl L	NC	1.60	0.82	21.0		131.2	63.3	82.0	1.30				
8.30	8.50	Cl L	NC	1.60	0.82	21.2		134.3	64.4	82.9	1.29				
8.50	8.70	Cl L	NC	1.60	0.82	21.5		137.4	65.6	83.6	1.28				
8.70	8.90	Cl L	NC	1.60	0.82	21.6		140.6	66.7	84.1	1.26				
8.90	9.10	Cl L	NC	1.60	0.82	22.0		143.7	67.8	85.4	1.26				
9.10	9.30	Cl L	NC	1.60	0.82	22.3		146.9	69.0	86.5	1.25				
9.30	9.50	Cl L	NC	1.60	0.82	21.8		150.0	70.1	83.7	1.19				
9.50	9.70	Cl L	NC	1.60	0.82	22.2		153.1	71.3	85.6	1.20				
9.70	9.90	Cl L	NC	1.60	0.82	22.9		156.3	72.4	88.3	1.22				
9.90	10.10	Cl L	NC	1.60	0.82	23.1		159.4	73.5	89.2	1.21				
10.10	10.30	Cl L	NC	1.60	0.82	22.8		162.6	74.7	87.3	1.17				
10.30	10.50	Cl L	NC	1.60	0.82	22.7		165.7	75.8	86.7	1.14				
10.50	10.70	Cl L	NC	1.60	0.82	23.2		168.8	77.0	88.6	1.15				
10.70	10.90	Cl L	NC	1.60	0.82	24.3		172.0	78.1	93.8	1.20				
10.90	11.10	Cl L	NC	1.60	0.82	24.8		175.1	79.2	95.7	1.21				
11.10	11.30	Cl L	NC	1.60	0.82	24.9		178.2	80.4	96.0	1.19				
11.30	11.50	Cl L	NC	1.60	0.82	24.7		181.4	81.5	94.4	1.16				
11.50	11.70	Cl L	NC	1.60	0.82	24.1		184.5	82.7	91.2	1.10				
11.70	11.90	Cl L	NC	1.60	0.82	23.8		187.7	83.8	89.4	1.07				
11.90	12.10	Cl L	NC	1.60	0.82	23.7		190.8	84.9	88.6	1.04				
12.10	12.30	Cl L	NC	1.60	0.82	24.6		193.9	86.1	92.7	1.08				
12.30	12.50	Cl L	NC	1.60	0.82	25.2		197.1	87.2	95.2	1.09				
12.50	12.70	Cl L	NC	1.60	0.82	25.0		200.2	88.4	93.9	1.06				
12.70	12.90	Cl L	NC	1.60	0.82	25.4		203.4	89.5	95.5	1.07				
12.90	13.10	Cl L	NC	1.60	0.82	25.3		206.5	90.6	94.7	1.04				
13.10	13.30	Cl L	NC	1.60	0.82	25.1		209.6	91.8	93.6	1.02				
13.30	13.50	Cl L	NC	1.60	0.82	25.4		212.8	92.9	94.7	1.02				
13.50	13.70	Cl L	NC	1.60	0.82	25.7		215.9	94.0	95.7	1.02				
13.70	13.90	Cl L	NC	1.60	0.82	25.6		219.1	95.2	95.2	1.00				
13.90	14.10	Cl L	NC	1.60	0.82	26.0		222.2	96.3	96.6	1.00				
14.10	14.30	Cl L	NC	1.60	0.82	26.4		225.3	97.5	98.1	1.01				
14.30	14.50	Cl L	NC	1.60	0.82	27.2		228.5	98.6	101.7	1.03				
14.50	14.70	Cl L	NC	1.85	0.82	29.4		231.9	100.0	111.4	1.11				
14.70	14.90	Cl L	NC	1.85	0.82	29.5		235.5	101.6	111.7	1.10				
14.90	15.10	Cl L	NC	1.85	0.82	29.5		239.1	103.2	111.2	1.08				
15.10	15.30	Cl L	NC	1.85	0.82	30.3		242.7	104.9	114.7	1.09				
15.30	15.50	Cl L	NC	1.85	0.82	30.4		246.4	106.5	114.3	1.07				
15.50	15.70	Cl L	NC	1.85	0.82	30.4		250.0	108.1	114.0	1.05				
15.70	15.90	Cl L	NC	1.85	0.82	31.1		253.6	109.8	116.9	1.06				
15.90	16.10	Cl L	NC	1.85	0.82	31.3		257.3	111.4	117.7	1.06				
16.10	16.30	Cl L	NC	1.85	0.82	32.2		260.9	113.0	121.2	1.07				
16.30	16.50	Cl L	NC	1.85	0.82	33.6		264.5	114.7	127.5	1.11				
16.50	16.70	Cl L	NC	1.85	0.82	34.7		268.2	116.3	132.0	1.14				
16.70	16.90	Cl L	NC	1.85	0.82	37.0		271.8	117.9	142.5	1.21				
16.90	17.10	Cl L	NC	1.85	0.82	37.3		275.4	119.5	143.6	1.20				
17.10	17.30	Cl L	NC	1.85	0.82	38.4		279.0	121.2	148.5	1.23				

C P T - test

Project
Kv Kölen
30039781

Site **Uppsala**
Designation **22S008**
Date **20220322**

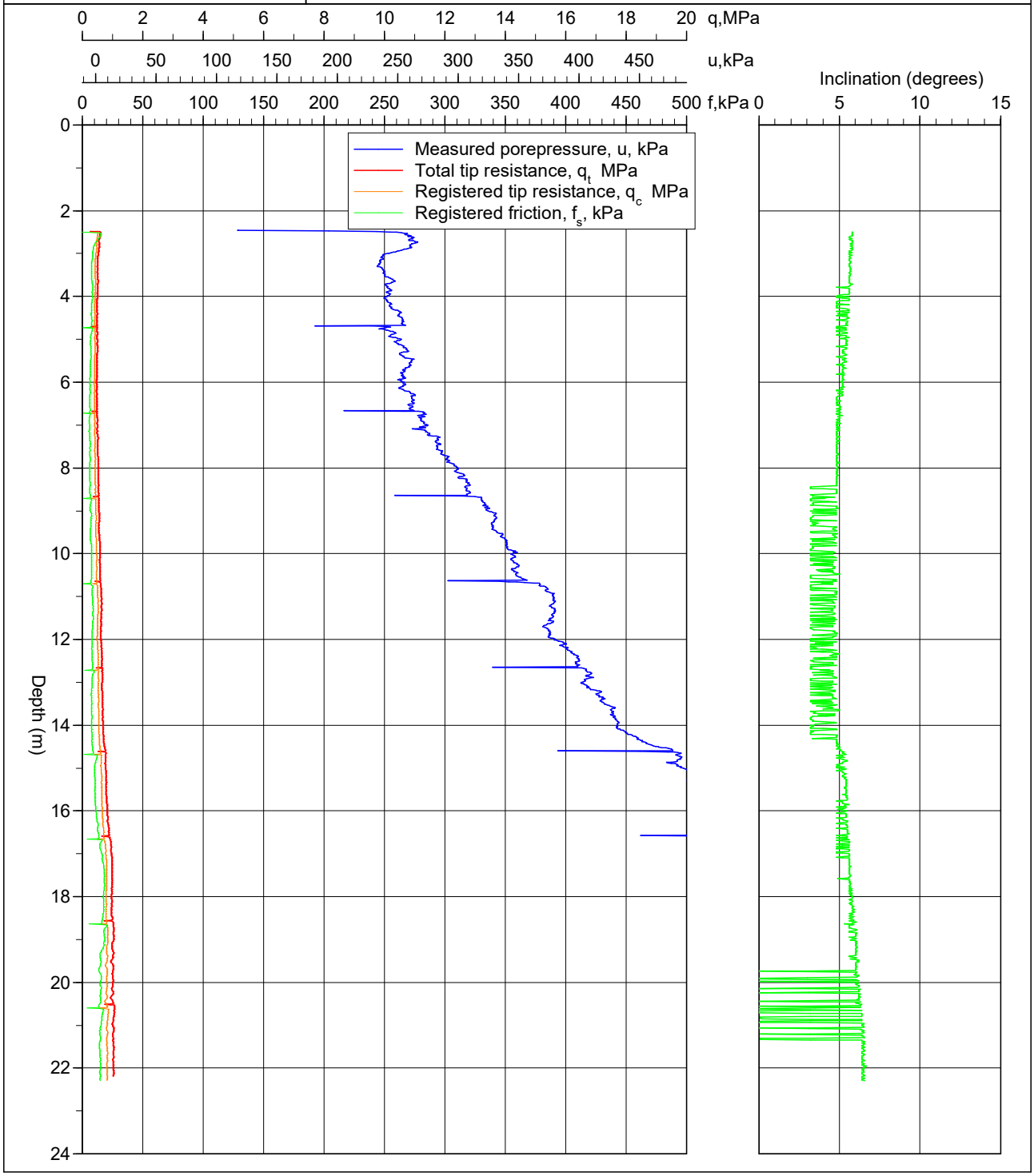
Depth (m) From	To	Classification		ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
17.30	17.50	Cl L	NC	1.85	0.82	38.3		282.7	122.8	147.5	1.20				
17.50	17.70	Cl L	NC	1.85	0.82	38.4		286.3	124.4	147.3	1.18				
17.70	17.90	Cl L	NC	1.85	0.82	37.8		289.9	126.1	144.3	1.14				
17.90	18.10	Cl L	NC	1.85	0.82	37.5		293.6	127.7	142.3	1.11				
18.10	18.30	Cl L	NC	1.85	0.82	37.5		297.2	129.3	141.7	1.10				
18.30	18.50	Cl L	NC	1.85	0.82	37.0		300.8	131.0	139.2	1.06				
18.50	18.70	Cl L	NC	1.85	0.82	39.2		304.5	132.6	149.1	1.12				
18.70	18.90	Cl L	NC	1.85	0.82	40.0		308.1	134.2	152.2	1.13				
18.90	19.10	Cl L	NC	1.85	0.82	39.9		311.7	135.8	151.5	1.12				
19.10	19.30	Cl L	NC	1.85	0.82	37.9		315.3	137.5	141.7	1.03				
19.30	19.50	Cl L	NC	1.85	0.82	38.6		319.0	139.1	144.6	1.04				
19.50	19.70	Cl L	NC	1.85	0.82	38.8		322.6	140.7	144.8	1.03				
19.70	19.90	Cl L	NC	1.85	0.82	38.2		326.2	142.4	141.7	1.00				
19.90	20.10	Cl L	NC	1.85	0.82	38.4		329.9	144.0	142.6	1.00				
20.10	20.30	Cl L	NC	1.85	0.82	37.7		333.5	145.6	140.2	1.00				
20.30	20.50	Cl L	NC	1.85	0.82	36.5		337.1	147.3	135.6	1.00				
20.50	20.70	Cl M	NC	1.85	0.82	40.4		340.8	148.9	150.4	1.01				
20.70	20.90	Cl L	NC	1.85	0.82	39.4		344.4	150.5	146.2	1.00				
20.90	21.10	Cl L	NC	1.85	0.82	37.6		348.0	152.1	139.7	1.00				
21.10	21.30	Cl L	NC	1.85	0.82	37.4		351.6	153.8	138.7	1.00				
21.30	21.50	Cl L	NC	1.85	0.82	37.8		355.3	155.4	140.2	1.00				
21.50	21.70	Cl L	NC	1.85	0.82	38.2		358.9	157.0	141.8	1.00				
21.70	21.90	Cl L	NC	1.85	0.82	37.4		362.5	158.7	138.7	1.00				
21.90	22.10	Cl L	NC	1.85	0.82	37.3		366.2	160.3	138.5	1.00				

CPT-test performed according to EN ISO 22476-1

Project	**Kv Kölen**	**Site**	**Uppsala**
Project number	**30039781**	**Designation**	**22S008**
Company	**Sweco Sverige AB**	**Date**	**20220322**
Operator	**Claire Ellinger**		

Predrilled depth	2.50 m	Predrilled material	Mg
Start depth	2.50 m	Geometry	Normal
Stop depth	22.29 m	Fluid in filter	Olja&fett
Ground water level	1.41 m	Borehole coordinates	X=6636825.707,Y=130739.978
Reference	My	Equipment	Envi Memocone
Level at reference	3.01 m	Cone nr	52010

[X] **Porepressure measurement**



CPT-test performed according to EN ISO 22476-1

Predrilling depth	3.50 m	Reference	My	Fluid in filter	Olja&fett
Start depth	3.50 m	Level at reference	3.07 m	Coordinats	X=6636871.669,Y=130830.461
Stop depth	35.34 m	Predrilled material	Mg	Equipment	Envi Memocone
Ground water level	1.47 m	Geometry	Normal	Cone nr	52010

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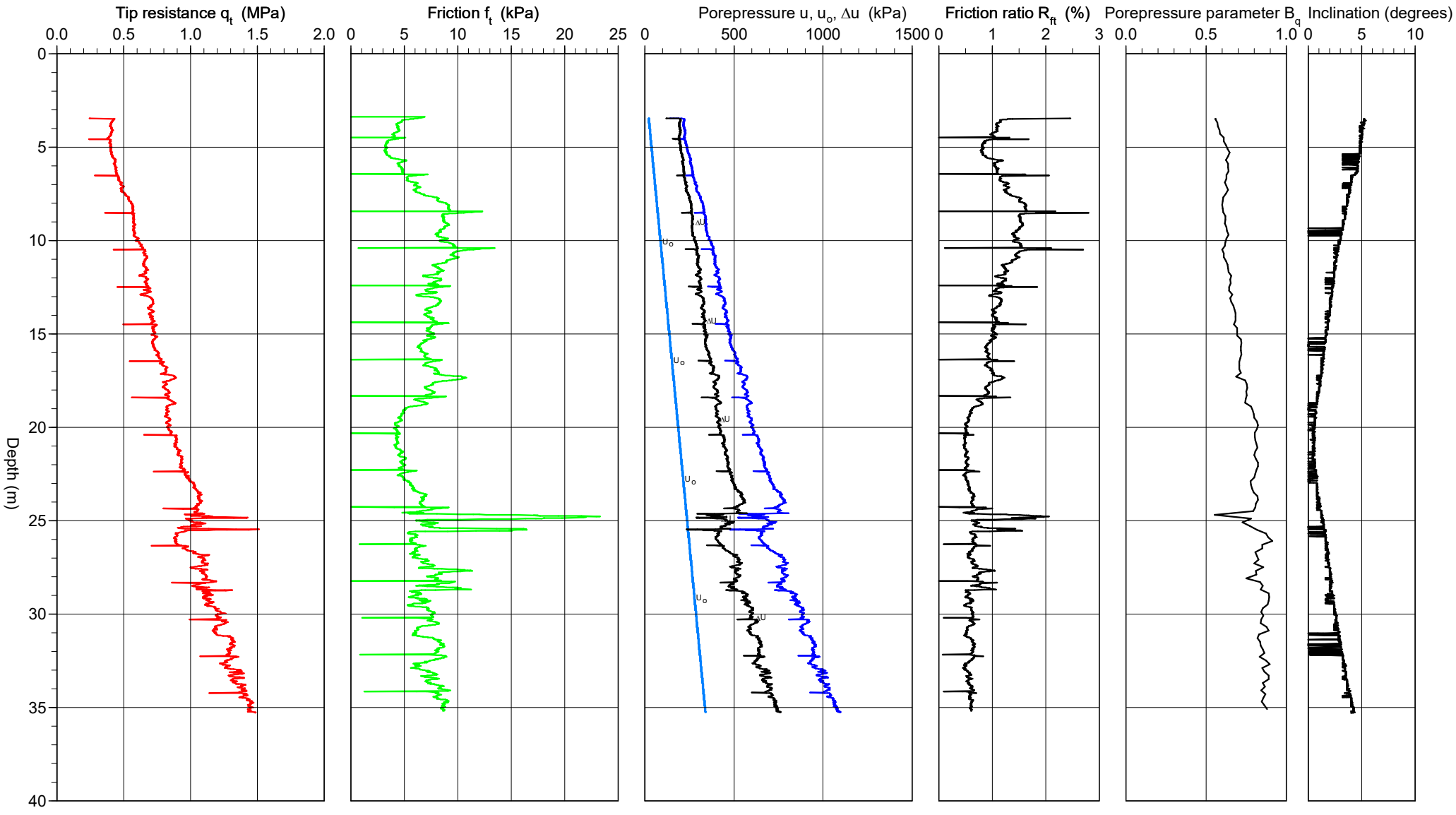

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2022-05-06

CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	My	Predrilling depth	3.50 m	Evaluator	INPRAG
Level at reference	3.07 m	Predrilled material	Mg	Evaluation date	2022-04-12
Ground water level	1.47 m	Equipment	Envi Memocone		
Start depth	3.50 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
Site	Uppsala
Designation	22S009
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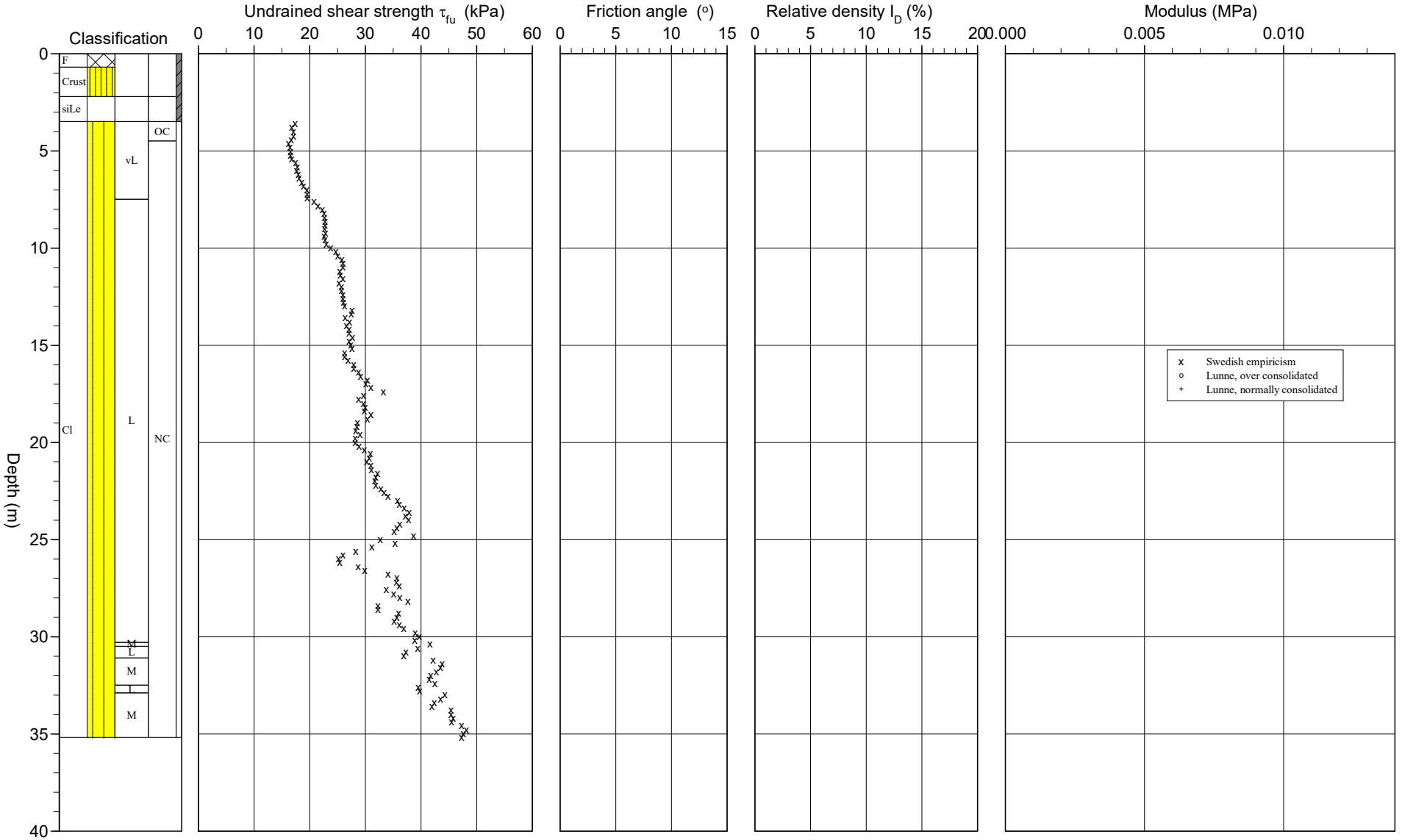

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CPT test evaluated accorrding to SGI Information 15 rev. 2007

Reference	My	Predrilling depth	3.50 m	Evaluator	INPRAG
Ground water level	3.07 m	Predrilled material	Mg	Evaluation date	2022-04-12
Grundvattenyta	1.47 m	Equipment	Envi Memocone		
Start depth	3.50 m	Geometry	Normal		

Project	Kv Kölen
Project nr	30039781
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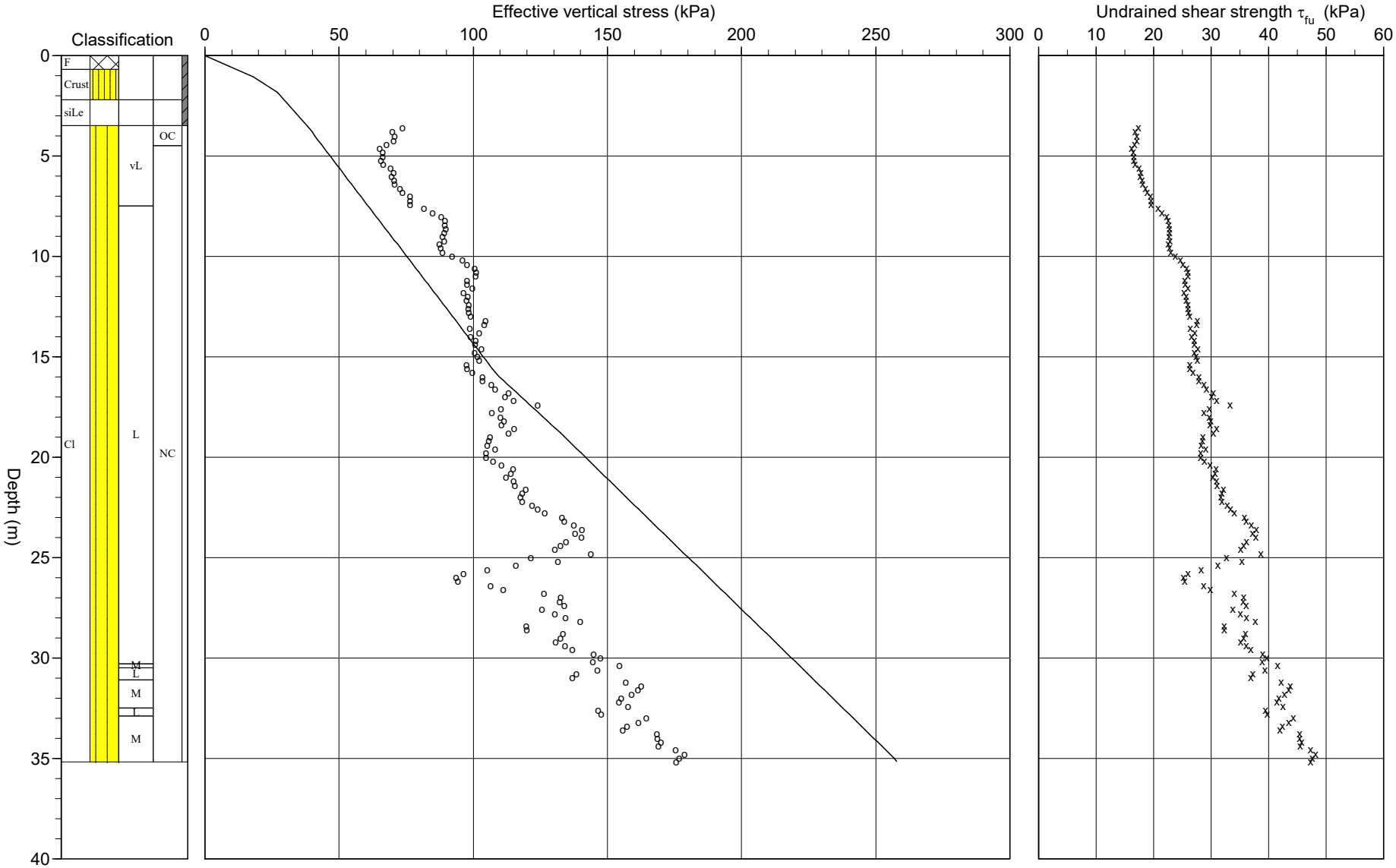

C P T - test

Project
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Site **Uppsala**
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Predrilling depth	3.50 m	Predrilled material	Mg
Start depth	3.50 m	Geometry	Normal
Stop depth	35.34 m	Fluid in filter	Olja&fett
Ground water level	1.47 m	Operator	Claire Ellinger
Reference	My	Equipment	Envi Memocone
Level at reference	3.07 m	[x] **Porepressure measurement**	

Calibration data

Cone	52010	Internal friction O_c	0.0 kPa
Date	2021-04-07	Internal friction O_f	0.0 kPa
Areafactorr a	0.690	Cross talk c_1	0.000
Areafactor b	0.006	Cross talk c_2	0.000

Cero values, kPa

	Porepressure	Friction	Tip resistance
Before	0.00	0.00	0.00
After	1.40	0.20	0.00
Diff	1.40	0.20	0.00

Scale factors

Porepressure Range	Porepressure Code	Friction Range	Friction Code	Tip resistance Range	Tip resistance Code

[ ] **Use scale factors**

Correction

Porepressure	(none)
Friction	(none)
Tip resistance	(none)

Estimated sounding class

Porepressure observations

Depth (m)	Porepressure (kPa)
1.47	0.00

Boundaries

Depth (m)

Classification

Depth (m) From	Depth (m) To	Density (ton/m^3)	Liquid limit	Soil
0.00	0.70	1.70		F
0.70	2.20	1.70		Crust
2.20	3.50	1.70	0.84	siLe
3.50	4.00		0.82	
4.00	5.00		0.82	
5.00	35.20		0.82	

Notes

C P T - test

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Depth (m) From	Depth (m) To	Classification		ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
0.00	0.70	F		1.70				5.8	5.8						
0.70	1.47	Crust		1.70				18.1	18.1						
1.47	2.20	Crust		1.70				30.6	27.0						
2.20	3.50	siLe		1.70	0.84			47.5	33.7						
3.50	3.70	Cl vL	OC	1.60	0.82	17.4		59.9	38.6	73.7	1.91				
3.70	3.90	Cl vL	OC	1.60	0.82	16.8		63.1	39.8	69.8	1.75				
3.90	4.10	Cl vL	OC	1.60	0.82	17.1		66.2	40.9	70.7	1.73				
4.10	4.30	Cl vL	OC	1.60	0.82	17.1		69.4	42.1	70.3	1.67				
4.30	4.50	Cl vL	OC	1.60	0.82	16.7		72.5	43.2	67.8	1.57				
4.50	4.70	Cl vL	NC	1.60	0.82	16.2		75.6	44.3	65.1	1.47				
4.70	4.90	Cl vL	NC	1.60	0.82	16.5		78.8	45.5	66.1	1.45				
4.90	5.10	Cl vL	NC	1.60	0.82	16.6		81.9	46.6	66.1	1.42				
5.10	5.30	Cl vL	NC	1.60	0.82	16.6		85.1	47.8	65.6	1.37				
5.30	5.50	Cl vL	NC	1.60	0.82	16.8		88.2	48.9	66.4	1.36				
5.50	5.70	Cl vL	NC	1.60	0.82	17.5		91.3	50.0	69.2	1.38				
5.70	5.90	Cl vL	NC	1.60	0.82	17.8		94.5	51.2	70.2	1.37				
5.90	6.10	Cl vL	NC	1.60	0.82	17.7		97.6	52.3	69.7	1.33				
6.10	6.30	Cl vL	NC	1.60	0.82	18.0		100.7	53.5	70.6	1.32				
6.30	6.50	Cl vL	NC	1.60	0.82	18.1		103.9	54.6	70.7	1.29				
6.50	6.70	Cl vL	NC	1.60	0.82	18.6		107.0	55.7	72.7	1.30				
6.70	6.90	Cl vL	NC	1.60	0.82	18.9		110.2	56.9	73.8	1.30				
6.90	7.10	Cl vL	NC	1.60	0.82	19.5		113.3	58.0	76.6	1.32				
7.10	7.30	Cl vL	NC	1.60	0.82	19.6		116.4	59.2	76.5	1.29				
7.30	7.50	Cl vL	NC	1.60	0.82	19.6		119.6	60.3	76.4	1.27				
7.50	7.70	Cl L	NC	1.60	0.82	20.8		122.7	61.4	81.5	1.33				
7.70	7.90	Cl L	NC	1.60	0.82	21.5		125.9	62.6	84.9	1.36				
7.90	8.10	Cl L	NC	1.60	0.82	22.3		129.0	63.7	88.2	1.38				
8.10	8.30	Cl L	NC	1.60	0.82	22.6		132.1	64.9	89.5	1.38				
8.30	8.50	Cl L	NC	1.60	0.82	22.7		135.3	66.0	89.4	1.35				
8.50	8.70	Cl L	NC	1.60	0.82	22.8		138.4	67.1	89.7	1.34				
8.70	8.90	Cl L	NC	1.60	0.82	22.8		141.6	68.3	89.1	1.31				
8.90	9.10	Cl L	NC	1.60	0.82	22.7		144.7	69.4	88.5	1.27				
9.10	9.30	Cl L	NC	1.60	0.82	22.9		147.8	70.5	89.2	1.26				
9.30	9.50	Cl L	NC	1.60	0.82	22.6		151.0	71.7	87.4	1.22				
9.50	9.70	Cl L	NC	1.60	0.82	22.8		154.1	72.8	87.9	1.21				
9.70	9.90	Cl L	NC	1.60	0.82	23.0		157.3	74.0	88.4	1.20				
9.90	10.10	Cl L	NC	1.60	0.82	23.8		160.4	75.1	92.0	1.23				
10.10	10.30	Cl L	NC	1.60	0.82	24.7		163.5	76.2	96.0	1.26				
10.30	10.50	Cl L	NC	1.60	0.82	25.1		166.7	77.4	97.7	1.26				
10.50	10.70	Cl L	NC	1.60	0.82	25.8		169.8	78.5	100.5	1.28				
10.70	10.90	Cl L	NC	1.60	0.82	26.0		173.0	79.7	101.2	1.27				
10.90	11.10	Cl L	NC	1.60	0.82	26.0		176.1	80.8	100.9	1.25				
11.10	11.30	Cl L	NC	1.60	0.82	25.4		179.2	81.9	97.7	1.19				
11.30	11.50	Cl L	NC	1.60	0.82	25.5		182.4	83.1	97.7	1.18				
11.50	11.70	Cl L	NC	1.60	0.82	26.0		185.5	84.2	99.7	1.18				
11.70	11.90	Cl L	NC	1.60	0.82	25.3		188.6	85.4	96.4	1.13				
11.90	12.10	Cl L	NC	1.60	0.82	25.7		191.8	86.5	97.9	1.13				
12.10	12.30	Cl L	NC	1.60	0.82	25.7		194.9	87.6	97.6	1.11				
12.30	12.50	Cl L	NC	1.60	0.82	26.0		198.1	88.8	98.4	1.11				
12.50	12.70	Cl L	NC	1.60	0.82	26.0		201.2	89.9	98.2	1.09				
12.70	12.90	Cl L	NC	1.60	0.82	26.1		204.3	91.1	98.4	1.08				
12.90	13.10	Cl L	NC	1.60	0.82	26.3		207.5	92.2	99.0	1.07				
13.10	13.30	Cl L	NC	1.60	0.82	27.6		210.6	93.3	104.7	1.12				
13.30	13.50	Cl L	NC	1.60	0.82	27.5		213.8	94.5	104.1	1.10				
13.50	13.70	Cl L	NC	1.60	0.82	26.4		216.9	95.6	98.9	1.03				
13.70	13.90	Cl L	NC	1.60	0.82	27.2		220.0	96.7	102.2	1.06				
13.90	14.10	Cl L	NC	1.60	0.82	26.6		223.2	97.9	99.0	1.01				
14.10	14.30	Cl L	NC	1.60	0.82	27.1		226.3	99.0	100.9	1.02				
14.30	14.50	Cl L	NC	1.60	0.82	27.1		229.5	100.2	100.7	1.01				
14.50	14.70	Cl L	NC	1.60	0.82	27.7		232.6	101.3	103.0	1.02				
14.70	14.90	Cl L	NC	1.60	0.82	27.1		235.7	102.4	100.5	1.00				
14.90	15.10	Cl L	NC	1.60	0.82	27.4		238.9	103.6	101.6	1.00				
15.10	15.30	Cl L	NC	1.60	0.82	27.6		242.0	104.7	102.3	1.00				
15.30	15.50	Cl L	NC	1.60	0.82	26.3		245.2	105.9	97.5	1.00				
15.50	15.70	Cl L	NC	1.60	0.82	26.3		248.3	107.0	97.8	1.00				
15.70	15.90	Cl L	NC	1.60	0.82	26.9		251.4	108.1	99.7	1.00				
15.90	16.10	Cl L	NC	1.85	0.82	27.9		254.8	109.5	103.6	1.00				
16.10	16.30	Cl L	NC	1.85	0.82	27.9		258.4	111.2	103.6	1.00				
16.30	16.50	Cl L	NC	1.85	0.82	28.8		262.1	112.8	106.8	1.00				
16.50	16.70	Cl L	NC	1.85	0.82	29.2		265.7	114.4	108.3	1.00				
16.70	16.90	Cl L	NC	1.85	0.82	30.4		269.3	116.0	113.1	1.00				
16.90	17.10	Cl L	NC	1.85	0.82	30.1		273.0	117.7	111.9	1.00				
17.10	17.30	Cl L	NC	1.85	0.82	31.0		276.6	119.3	115.1	1.00				
17.30	17.50	Cl L	NC	1.85	0.82	33.3		280.2	120.9	124.1	1.03				
17.50	17.70	Cl L	NC	1.85	0.82	29.7		283.9	122.6	110.4	1.00				
17.70	17.90	Cl L	NC	1.85	0.82	28.8		287.5	124.2	106.9	1.00				
17.90	18.10	Cl L	NC	1.85	0.82	29.7		291.1	125.8	110.2	1.00				

C P T - test

Project	Site	Uppsala
Kv Kölen	Designation	22S009
30039781	Date	20220322

Depth (m) From	Depth (m) To	Classification		ρ t/m³	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
18.10	18.30	Cl L	NC	1.85	0.82	30.0		294.7	127.5	111.5	1.00				
18.30	18.50	Cl L	NC	1.85	0.82	29.8		298.4	129.1	110.7	1.00				
18.50	18.70	Cl L	NC	1.85	0.82	31.0		302.0	130.7	115.2	1.00				
18.70	18.90	Cl L	NC	1.85	0.82	30.4		305.6	132.3	113.0	1.00				
18.90	19.10	Cl L	NC	1.80	0.82	28.6		309.2	133.9	106.2	1.00				
19.10	19.30	Cl L	NC	1.80	0.82	28.5		312.7	135.5	105.8	1.00				
19.30	19.50	Cl L	NC	1.80	0.82	28.3		316.3	137.0	105.2	1.00				
19.50	19.70	Cl L	NC	1.80	0.82	29.1		319.8	138.5	108.1	1.00				
19.70	19.90	Cl L	NC	1.80	0.82	28.2		323.3	140.0	104.7	1.00				
19.90	20.10	Cl L	NC	1.80	0.82	28.2		326.9	141.6	104.8	1.00				
20.10	20.30	Cl L	NC	1.80	0.82	28.9		330.4	143.1	107.4	1.00				
20.30	20.50	Cl L	NC	1.80	0.82	29.8		333.9	144.6	110.6	1.00				
20.50	20.70	Cl L	NC	1.80	0.82	30.9		337.5	146.2	114.8	1.00				
20.70	20.90	Cl L	NC	1.80	0.82	30.7		341.0	147.7	114.0	1.00				
20.90	21.10	Cl L	NC	1.80	0.82	30.3		344.5	149.2	112.4	1.00				
21.10	21.30	Cl L	NC	1.80	0.82	31.0		348.1	150.8	115.1	1.00				
21.30	21.50	Cl L	NC	1.80	0.82	31.1		351.6	152.3	115.5	1.00				
21.50	21.70	Cl L	NC	1.80	0.82	32.2		355.1	153.8	119.6	1.00				
21.70	21.90	Cl L	NC	1.80	0.82	31.9		358.7	155.4	118.3	1.00				
21.90	22.10	Cl L	NC	1.80	0.82	31.7		362.2	156.9	117.6	1.00				
22.10	22.30	Cl L	NC	1.80	0.82	31.9		365.7	158.4	118.3	1.00				
22.30	22.50	Cl L	NC	1.80	0.82	32.8		369.2	160.0	121.9	1.00				
22.50	22.70	Cl L	NC	1.80	0.82	33.4		372.8	161.5	124.1	1.00				
22.70	22.90	Cl L	NC	1.80	0.82	34.1		376.3	163.0	126.7	1.00				
22.90	23.10	Cl L	NC	1.80	0.82	35.8		379.8	164.6	133.0	1.00				
23.10	23.30	Cl L	NC	1.80	0.82	36.1		383.4	166.1	133.9	1.00				
23.30	23.50	Cl L	NC	1.80	0.82	37.0		386.9	167.6	137.5	1.00				
23.50	23.70	Cl L	NC	1.80	0.82	37.9		390.4	169.1	140.6	1.00				
23.70	23.90	Cl L	NC	1.80	0.82	37.2		394.0	170.7	138.1	1.00				
23.90	24.10	Cl L	NC	1.80	0.82	37.8		397.5	172.2	140.3	1.00				
24.10	24.30	Cl L	NC	1.80	0.82	36.2		401.0	173.7	134.5	1.00				
24.30	24.50	Cl L	NC	1.80	0.82	35.7		404.6	175.3	132.4	1.00				
24.50	24.70	Cl L	NC	1.80	0.82	35.2		408.1	176.8	130.5	1.00				
24.70	24.90	Cl L	NC	1.85	0.82	38.7		411.7	178.4	143.7	1.00				
24.90	25.10	Cl L	NC	1.80	0.82	32.7		415.3	180.0	121.5	1.00				
25.10	25.30	Cl L	NC	1.85	0.82	35.4		418.8	181.5	131.5	1.00				
25.30	25.50	Cl L	NC	1.80	0.82	31.2		422.4	183.1	116.0	1.00				
25.50	25.70	Cl L	NC	1.80	0.82	28.3		426.0	184.7	105.2	1.00				
25.70	25.90	Cl L	NC	1.80	0.82	26.0		429.5	186.2	96.5	1.00				
25.90	26.10	Cl L	NC	1.80	0.82	25.2		433.0	187.7	93.6	1.00				
26.10	26.30	Cl L	NC	1.80	0.82	25.4		436.5	189.3	94.3	1.00				
26.30	26.50	Cl L	NC	1.80	0.82	28.7		440.1	190.8	106.4	1.00				
26.50	26.70	Cl L	NC	1.80	0.82	29.9		443.6	192.3	111.1	1.00				
26.70	26.90	Cl L	NC	1.80	0.82	34.1		447.1	193.8	126.5	1.00				
26.90	27.10	Cl L	NC	1.80	0.82	35.7		450.7	195.4	132.6	1.00				
27.10	27.30	Cl L	NC	1.80	0.82	35.6		454.2	196.9	132.2	1.00				
27.30	27.50	Cl L	NC	1.80	0.82	36.1		457.7	198.4	133.9	1.00				
27.50	27.70	Cl L	NC	1.80	0.82	33.8		461.3	200.0	125.5	1.00				
27.70	27.90	Cl L	NC	1.80	0.82	35.1		464.8	201.5	130.4	1.00				
27.90	28.10	Cl L	NC	1.80	0.82	36.2		468.3	203.0	134.4	1.00				
28.10	28.30	Cl L	NC	1.85	0.82	37.7		471.9	204.6	139.8	1.00				
28.30	28.50	Cl L	NC	1.80	0.82	32.3		475.5	206.2	119.9	1.00				
28.50	28.70	Cl L	NC	1.80	0.82	32.3		479.0	207.7	120.0	1.00				
28.70	28.90	Cl L	NC	1.80	0.82	36.0		482.6	209.3	133.6	1.00				
28.90	29.10	Cl L	NC	1.80	0.82	35.7		486.1	210.8	132.5	1.00				
29.10	29.30	Cl L	NC	1.80	0.82	35.2		489.6	212.3	130.6	1.00				
29.30	29.50	Cl L	NC	1.80	0.82	36.1		493.1	213.9	134.2	1.00				
29.50	29.70	Cl L	NC	1.80	0.82	36.9		496.7	215.4	136.9	1.00				
29.70	29.90	Cl L	NC	1.80	0.82	39.0		500.2	216.9	144.8	1.00				
29.90	30.10	Cl L	NC	1.80	0.82	39.7		503.7	218.5	147.4	1.00				
30.10	30.30	Cl L	NC	1.80	0.82	38.9		507.3	220.0	144.6	1.00				
30.30	30.50	Cl M	NC	1.80	0.82	41.6		510.8	221.5	154.5	1.00				
30.50	30.70	Cl L	NC	1.80	0.82	39.4		514.3	223.0	146.4	1.00				
30.70	30.90	Cl L	NC	1.80	0.82	37.3		517.9	224.6	138.4	1.00				
30.90	31.10	Cl L	NC	1.80	0.82	36.9		521.4	226.1	137.0	1.00				
31.10	31.30	Cl M	NC	1.80	0.82	42.2		524.9	227.6	156.8	1.00				
31.30	31.50	Cl M	NC	1.80	0.82	43.8		528.5	229.2	162.7	1.00				
31.50	31.70	Cl M	NC	1.80	0.82	43.5		532.0	230.7	161.3	1.00				
31.70	31.90	Cl M	NC	1.80	0.82	42.8		535.5	232.2	158.9	1.00				
31.90	32.10	Cl M	NC	1.80	0.82	41.8		539.1	233.8	155.1	1.00				
32.10	32.30	Cl M	NC	1.80	0.82	41.5		542.6	235.3	154.3	1.00				
32.30	32.50	Cl M	NC	1.80	0.82	42.5		546.1	236.8	157.7	1.00				
32.50	32.70	Cl L	NC	1.80	0.82	39.5		549.7	238.4	146.7	1.00				
32.70	32.90	Cl L	NC	1.80	0.82	39.8		553.2	239.9	147.7	1.00				
32.90	33.10	Cl M	NC	1.80	0.82	44.3		556.7	241.4	164.6	1.00				
33.10	33.30	Cl M	NC	1.80	0.82	43.5		560.2	243.0	161.5	1.00				
33.30	33.50	Cl M	NC	1.80	0.82	42.4		563.8	244.5	157.4	1.00				

C P T - test

Project Kv Kölen 30039781	**Site** Uppsala **Designation** 22S009 **Date** 20220322

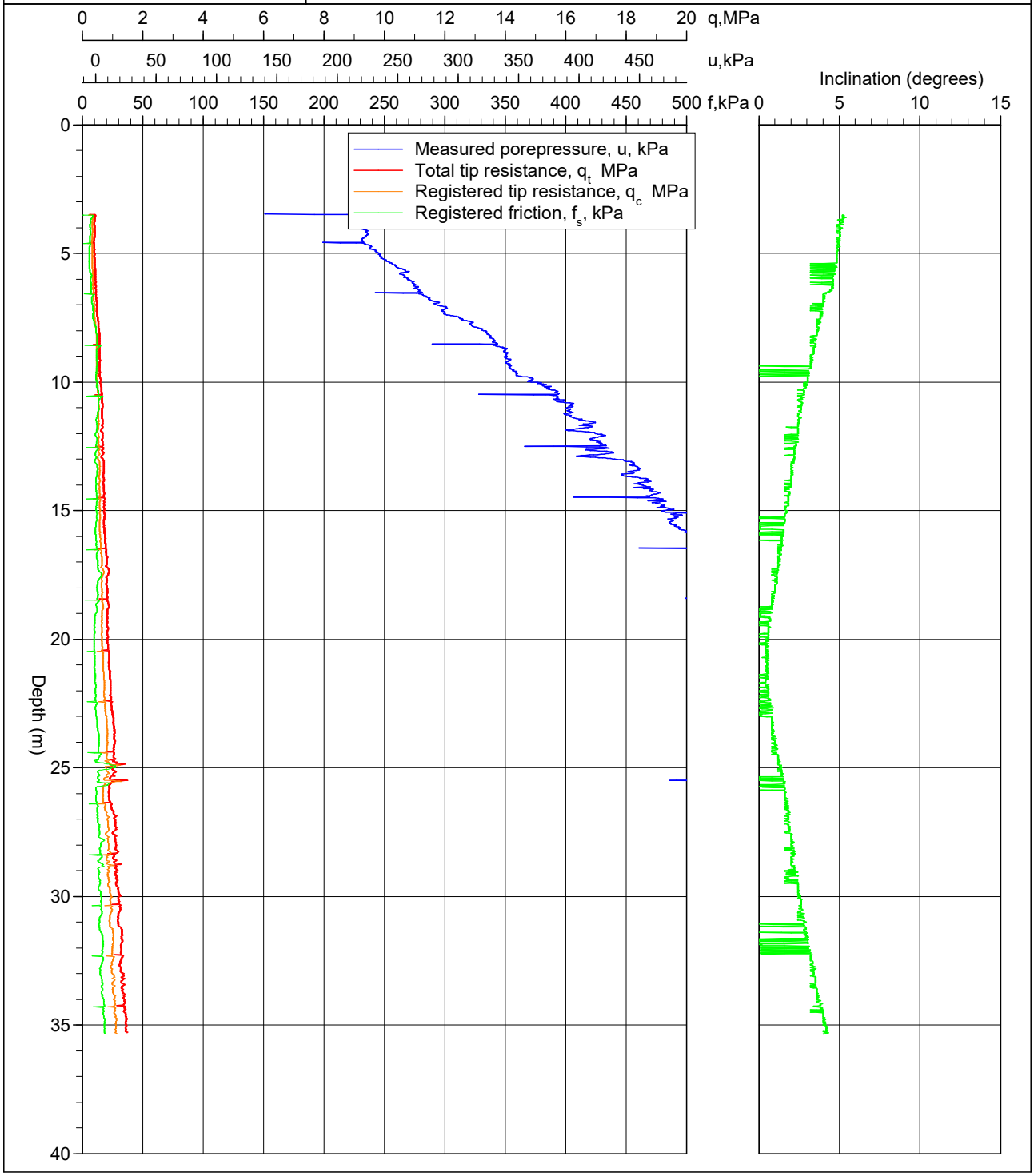
Depth (m) From	To	Classification		ρ t/m^3	w_L	τ_{fu} kPa	ϕ °	σ_{vo} kPa	σ'_{vo} kPa	σ'_c kPa	OCR	I_D %	E MPa	M_{OC} MPa	M_{NC} MPa
33.50	33.70	Cl M	NC	1.80	0.82	42.0		567.3	246.0	155.8	1.00				
33.70	33.90	Cl M	NC	1.80	0.82	45.4		570.8	247.6	168.5	1.00				
33.90	34.10	Cl M	NC	1.80	0.82	45.4		574.4	249.1	168.7	1.00				
34.10	34.30	Cl M	NC	1.80	0.82	45.8		577.9	250.6	169.9	1.00				
34.30	34.50	Cl M	NC	1.80	0.82	45.5		581.4	252.1	169.0	1.00				
34.50	34.70	Cl M	NC	1.80	0.82	47.3		585.0	253.7	175.6	1.00				
34.70	34.90	Cl M	NC	1.80	0.82	48.2		588.5	255.2	178.8	1.00				
34.90	35.10	Cl M	NC	1.80	0.82	47.6		592.0	256.7	176.8	1.00				
35.10	35.20	Cl M	NC	1.80	0.82	47.3		594.7	257.9	175.7	1.00				

CPT-test performed according to EN ISO 22476-1

Project	**Kv Kölen**	**Site**	**Uppsala**
Project number	**30039781**	**Designation**	**22S009**
Company	**Sweco Sverige AB**	**Date**	**20220322**
Operator	**Claire Ellinger**		

Predrilled depth	3.50 m	Predrilled material	Mg
Start depth	3.50 m	Geometry	Normal
Stop depth	35.34 m	Fluid in filter	Olja&fett
Ground water level	1.47 m	Borehole coordinates	X=6636871.669,Y=130830.461
Reference	My	Equipment	Envi Memocone
Level at reference	3.07 m	Cone nr	52010

[X] **Porepressure measurement**



Calibration certificate, G1

Date: Friday 15 October 2021
Owner: Sweco, Norrtälje
Calibration place:
Operator: Anders Malmström

G1 master ID: 30120
Rig serial number: N/A
Rig man year: N/A
Rig type: GS8

Calibrated parameters	Applied value	Reading	Unit	Error %
Feed Force (main)	0	0	Kg	-
	250	258	Kg	3.10 %
	500	504	Kg	0.79 %
	750	744	Kg	0.8 %
	1000	998	Kg	0.2 %
	2000	2020	Kg	0.99 %

Parameter	Applied value	Reading	Unit	Error %
DEPTH	2000	2000	Millimeters	0 %
ROTATION UNIT 1	20	20	Halfturns	0 %
ROTATION UNIT 2	20	20	Halfturns	0 %
ROTATION PRESSURE	44	44	Bar	0 %
HAMMER PRESSURE	100	100	Bar	0 %
FLUSH PRESSURE	4	4	Bar	0 %
FLUSHING VOLUME	12	12	l/min	0 %
FLUSH PRESSURE	4	4	Bar	0 %

Geoscand AB
Traversgatan 3
S-441 38 Alingsås
SWEDEN

15 oktober 2021

TECKENFÖRKLARING PLAN

22SXX ID-NR FÖR BORRHÅL

+3,5 MARKHÖJD VID BORRHÅL

SONDERING

- ENKEL SONDERING UTAN REDOVISNING AV SONDERINGSMOTSTÅND, TEX STICKSONDERING
- DYNAMISK SONDERING, TEX SLAGSONDERING
- STATISK SONDERING, TEX TRYCKSONDERING
- CPT-SONDERING

TILLÄGG FÖR DJUPBESTÄMNING

- SONDERING AVSLUTAD UTAN ATT STOPP ERHÅLLITS
- SONDERING TILL FÖRMODAD FAST BOTTEN
- SONDERING MINST 3 M I FÖRMODAT BERG
- SOONDERING MINDRE ÄN 3 M I FÖRMODAT BERG
- SONDERING TILL FÖRMODAT BERG

PROVTAGNING

- STÖRD PROVTAGNING AV JORD

HYDROGEOLOGISKA UNDERSÖKNINGAR

- GRUNDVATTENRÖR
- VATTENNIVÅ BESTÄMD I TEX PROVTAGNINGSHÅL

KOORDINATSSYSTEM

SWEREF99 1800
HÖJD: RH2000

HÄNVISNINGAR FÖR BETECKNINGAR

FÖR MER DETALJERAD FÖRKLARING HÄNVISAS TILL SGF/BGS BETECKNINGSSYSTEM PÅ www.sgf.net (Publikationer → SGF/BGS BETECKNINGSSYSTEM)

BET	ANT	ÄNDRINGEN AVSER	SIGN	DATUM

UPPSALA KOMMUN

SWECO SVERIGE AB
Sankt Larsgatan 16
58224 Linköping
Org.nr. 556767-9849
www.sweco.se

UPPDRAG NR	RITAD AV	HANDLÄGGARE
30039781	P GAOTURE	P GAOTURE
DATUM	GRANSKAD AV	
2022-04-20	L MALMROS	

KV KÖLEN UPPSALA
GEOTEKNISK UNDERSÖKNING

PLAN

SKALA	NUMMER	BET
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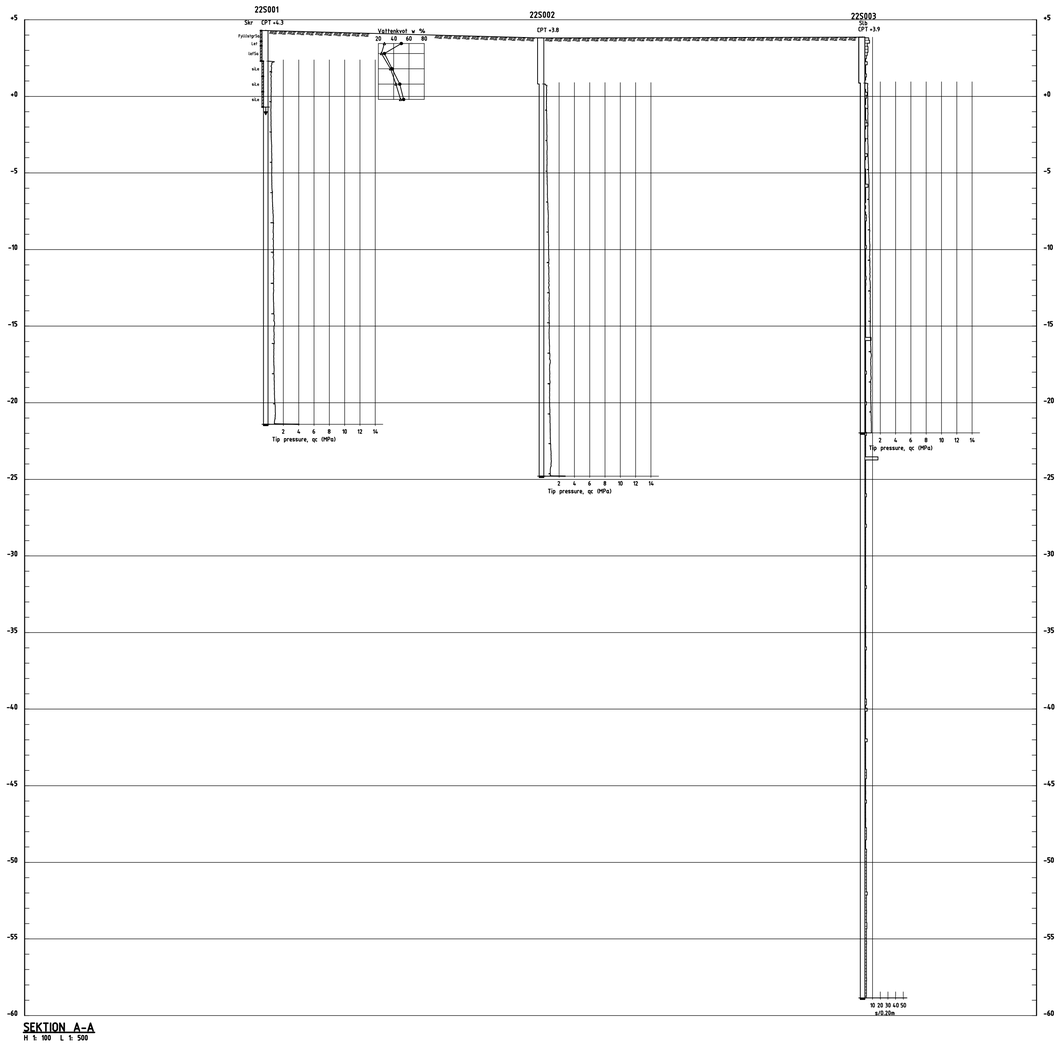

SEKTION A-A
H: 1: 100 L: 1: 500

TECKENFÖRKLARING PLAN

22SXX ID-NR FÖR BORRHÅL

+3,8 MARKHÖJD VID BORRHÅL

SONDERING

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- DYNAMISK SONDERING, TEX SLAGSONDERING
- STATISK SONDERING, TEX TRYCKSONDERING
- CPT-SONDERING

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- SOONDERING MINDRE ÄN 3 M I FÖRMODAT BERG
- SONDERING TILL FÖRMODAT BERG

PROVTAGNING

- STÖRD PROVTAGNING AV JORD

HYDROGEOLOGISKA UNDERSÖKNINGAR

- GRUNDVATTENRÖR
- VATTENNIVÅ BESTÄMD I TEX PROVTAGNINGSHÅL

KOORDINATSSYSTEM

SWEREF99 1800
HÖJD: RH2000

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30039781	P GAOTURE	P GAOTURE
DATUM	GRANSKAD AV	
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KV KÖLEN UPPSALA
GEOTEKNISK UNDERSÖKNING

Sektion A-A

SKALA	NUMMER	BET
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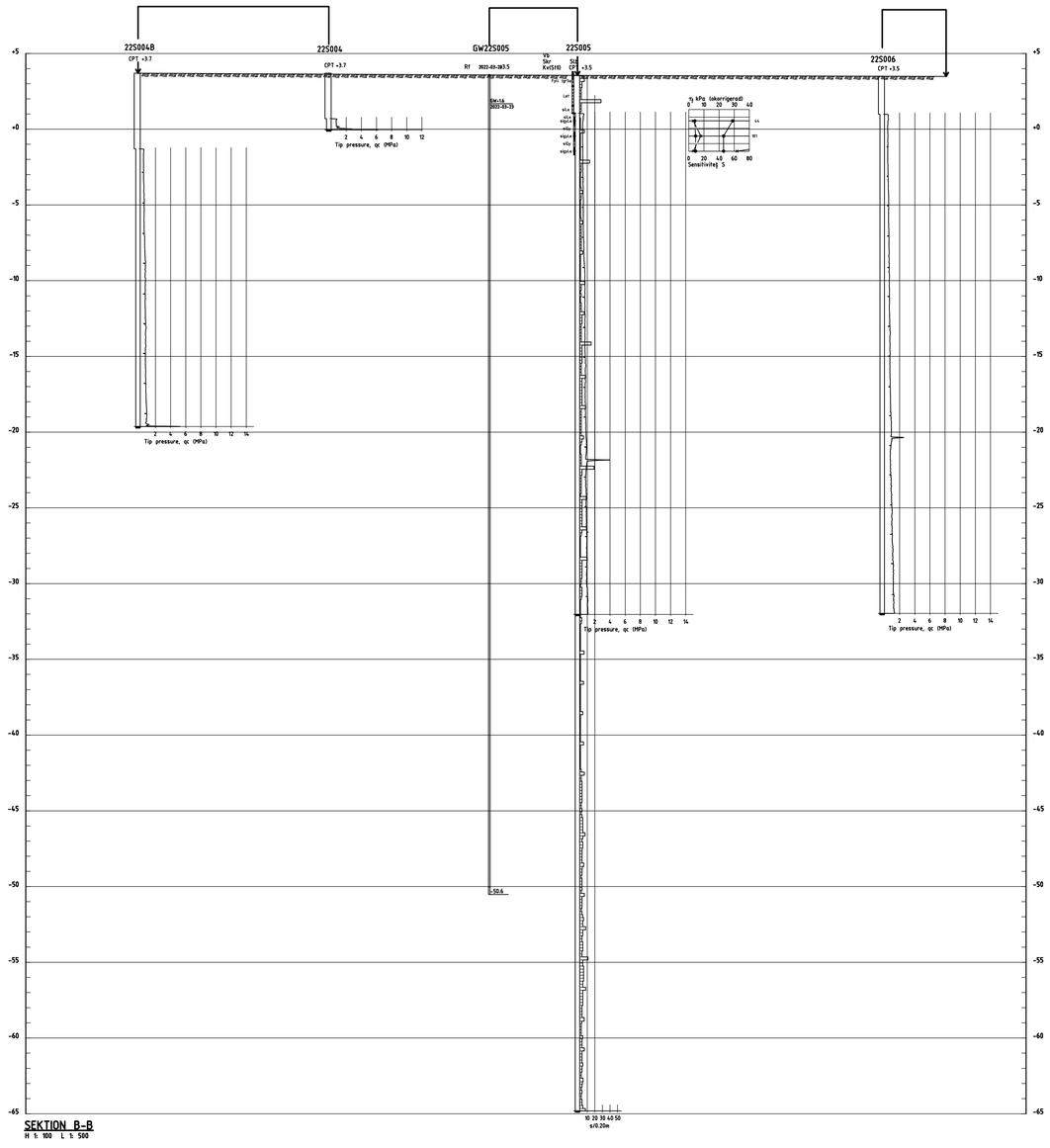

TECKENFÖRKLARING PLAN

22SXX ID-NR FÖR BORRHÅL

+3,5 MARKHÖJD VID BORRHÅL

SONDERING

- ENKEL SONDERING UTAN REDOVISNING AV SONDERINGSMOTSTÅND, TEX STICKSONDERING
- DYNAMISK SONDERING, TEX SLAGSONDERING
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KOORDINATSSYSTEM

SWEREF99 1800
HÖJD: RH2000

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30039781	P GAOTURE	P GAOTURE
DATUM	GRANSKAD AV	
2022-04-20	L MALMROS	

KV KÖLEN UPPSALA
GEOTEKNISK UNDERSÖKNING

Sektion B-B

SKALA	NUMMER	BET
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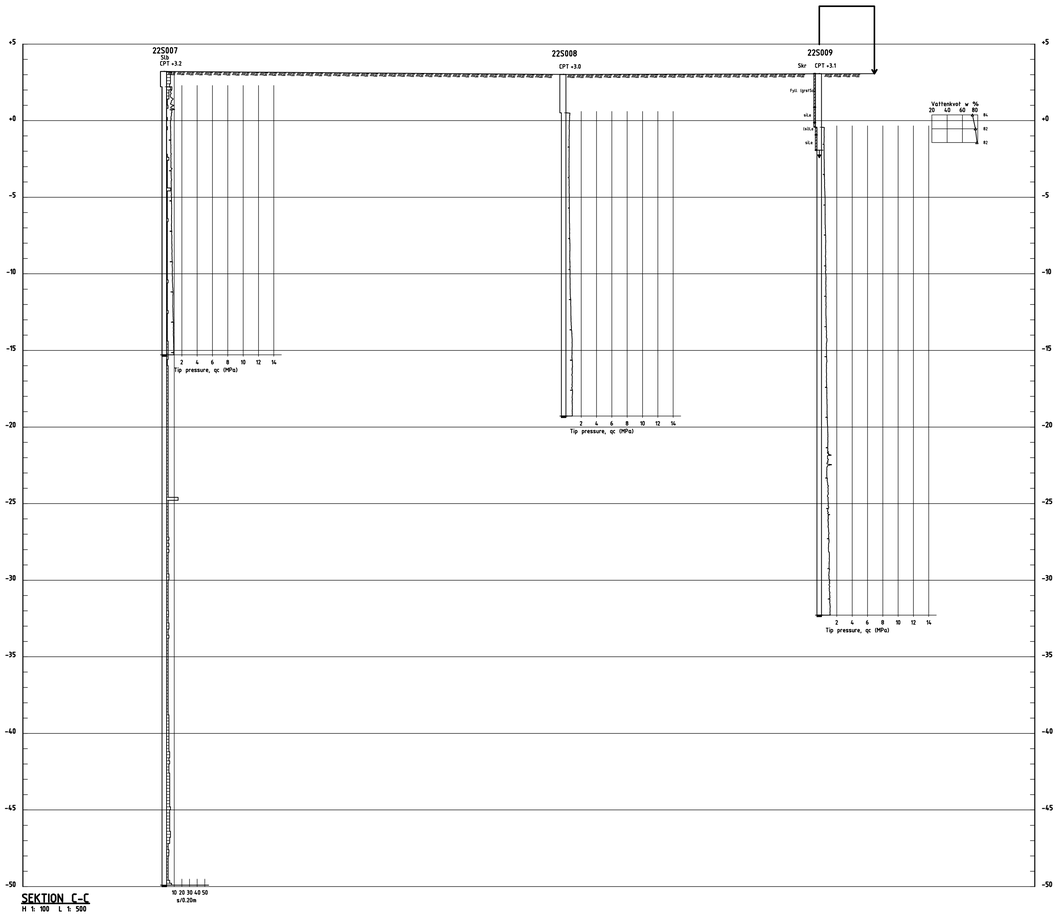

SEKTION C-C
H 1: 100 L 1: 500

TECKENFÖRKLARING PLAN

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+3,5 MARKHÖJD VID BORRHÅL

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KOORDINATSSYSTEM

SWEREF99 1800
HÖJD: RH2000

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Sektion C-C

SKALA	NUMMER	BET
1:200 A1	G-10.2-003	