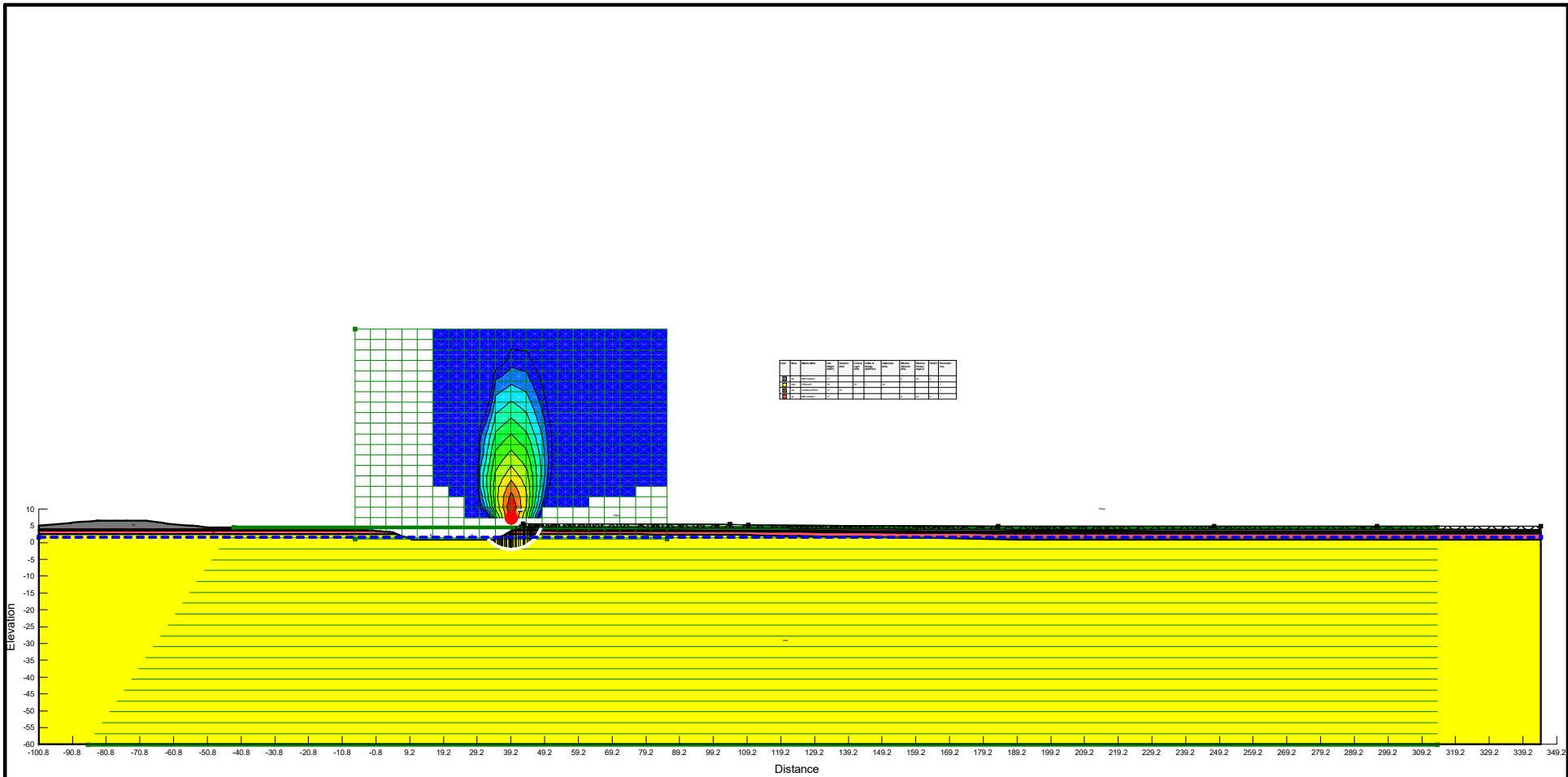
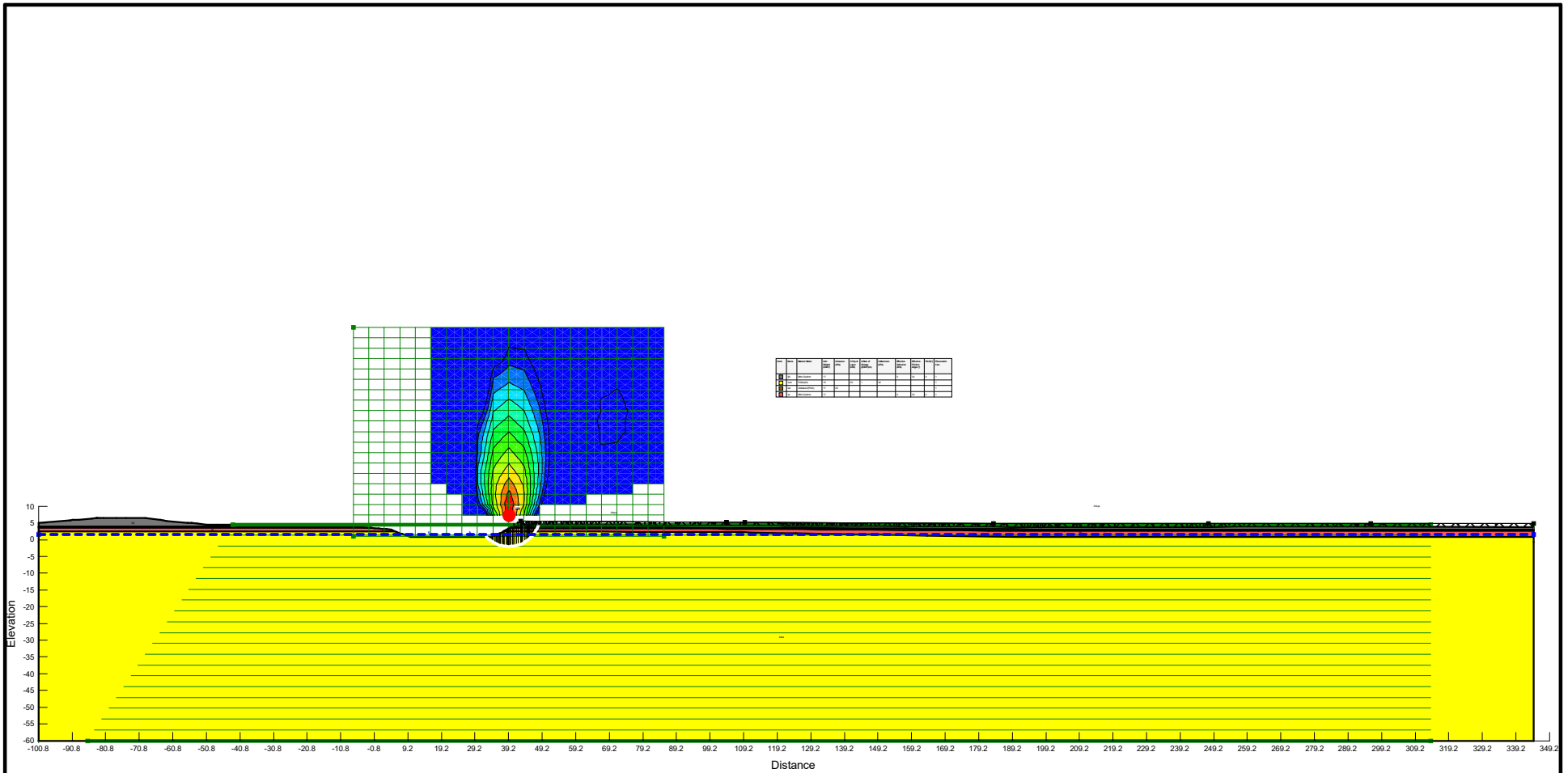


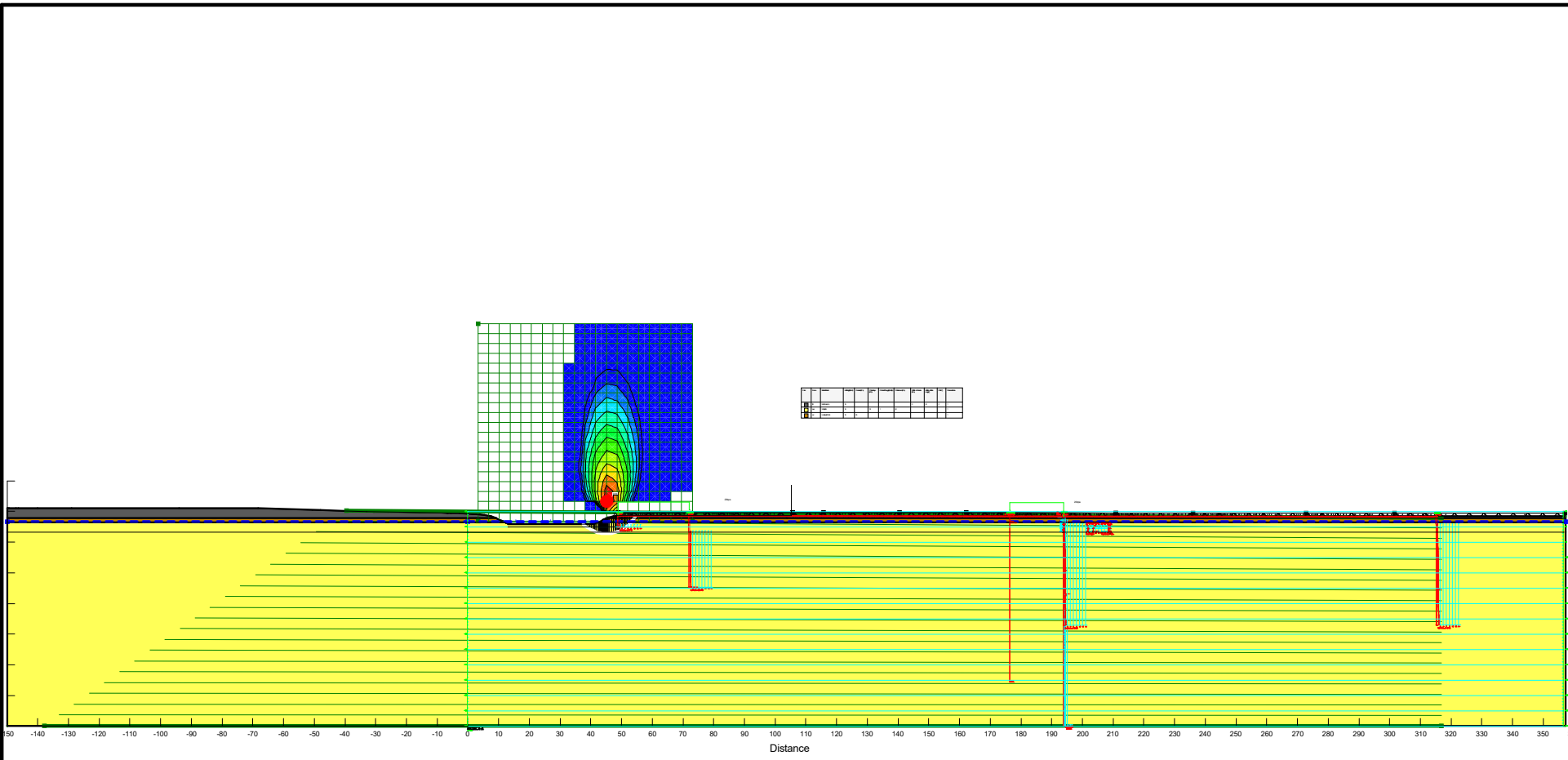
Slope Stability 40	
AA - 20kpa.gsz	
13-05-2022	1:1,823



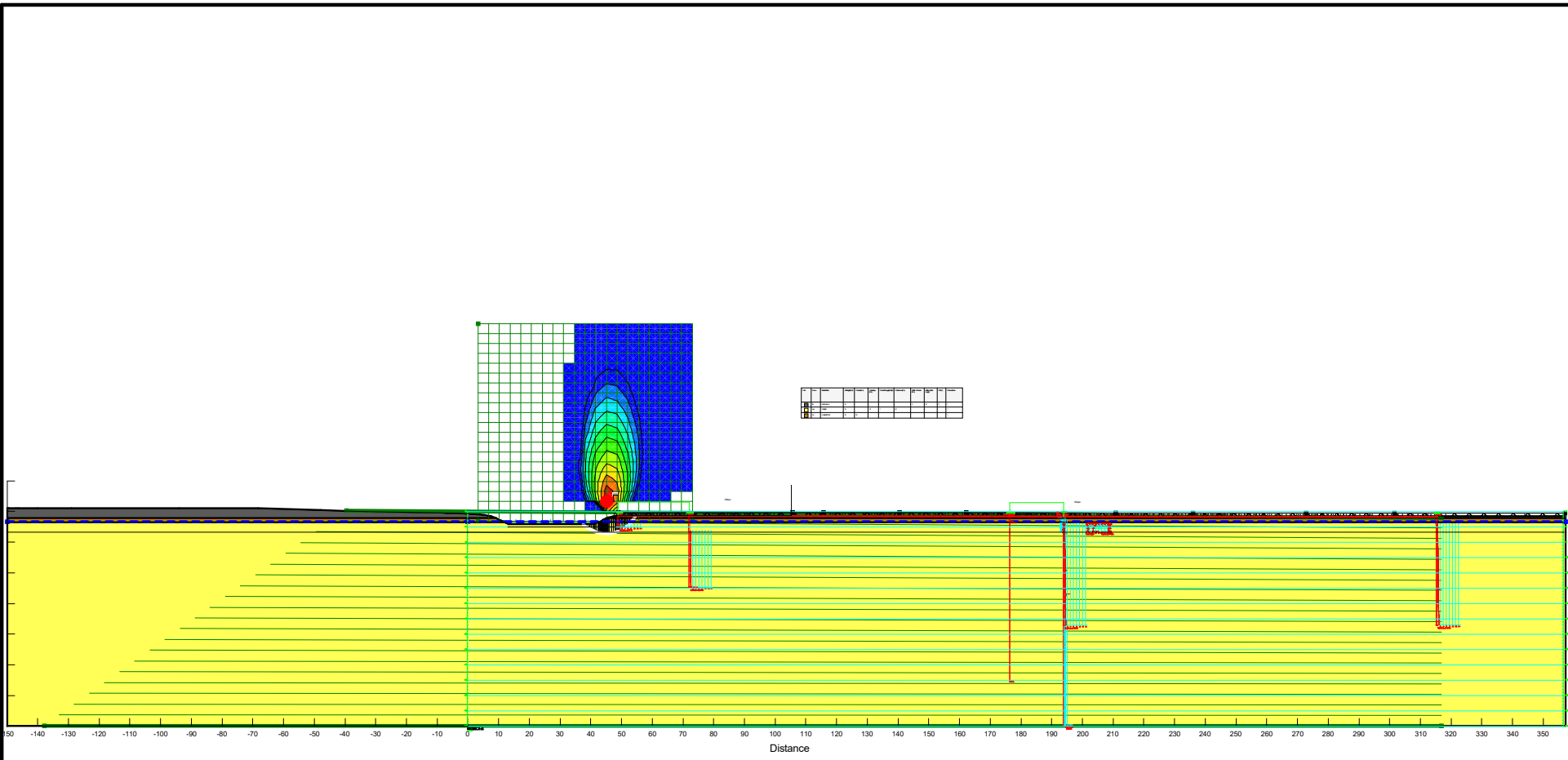
Slope Stability 40	
AA - 30kpa.gsz	
13-05-2022	1:1,824



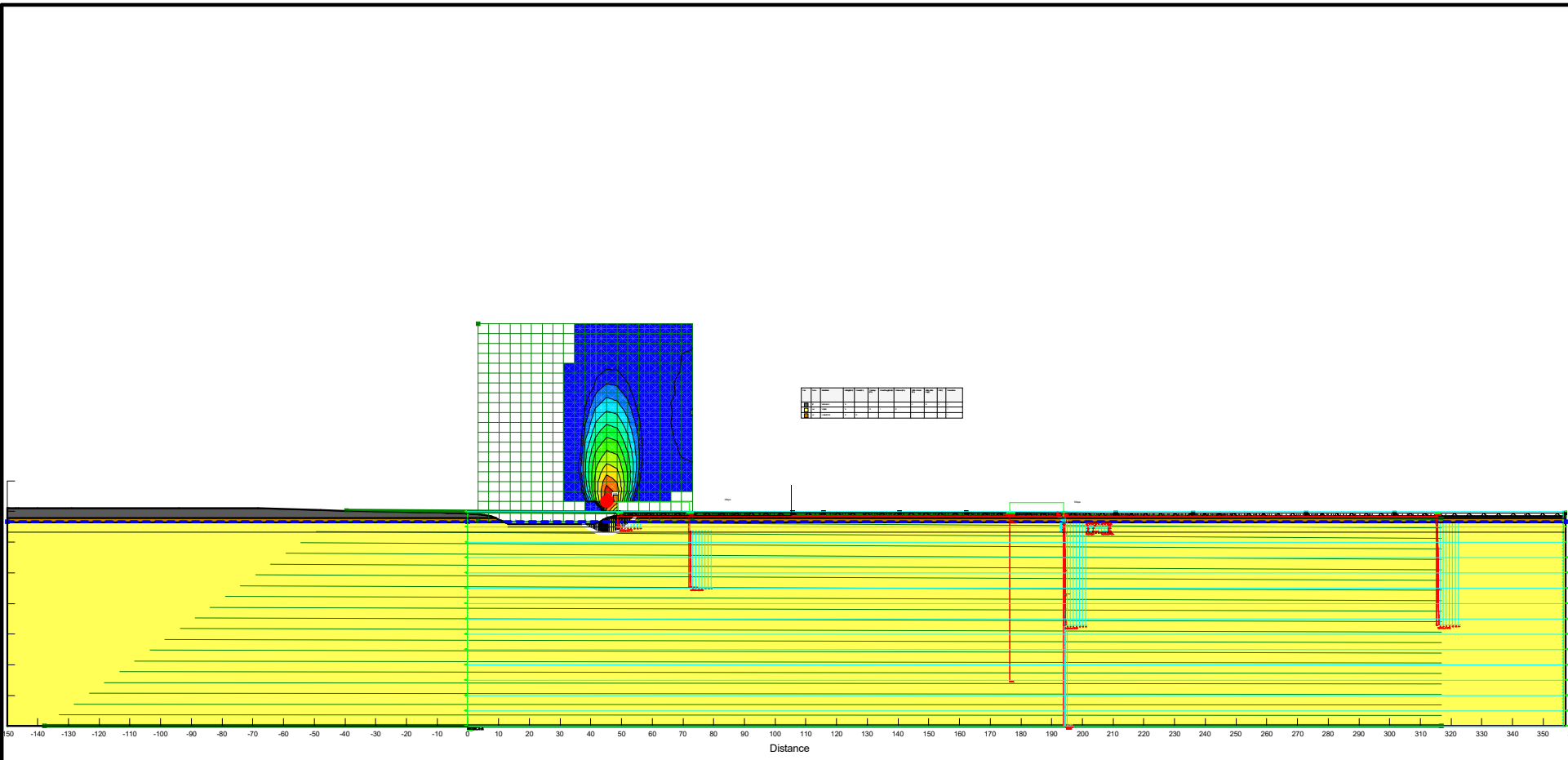
Slope Stability 40	
AA-50kpa.gsz	
13-05-2022	1:1,824



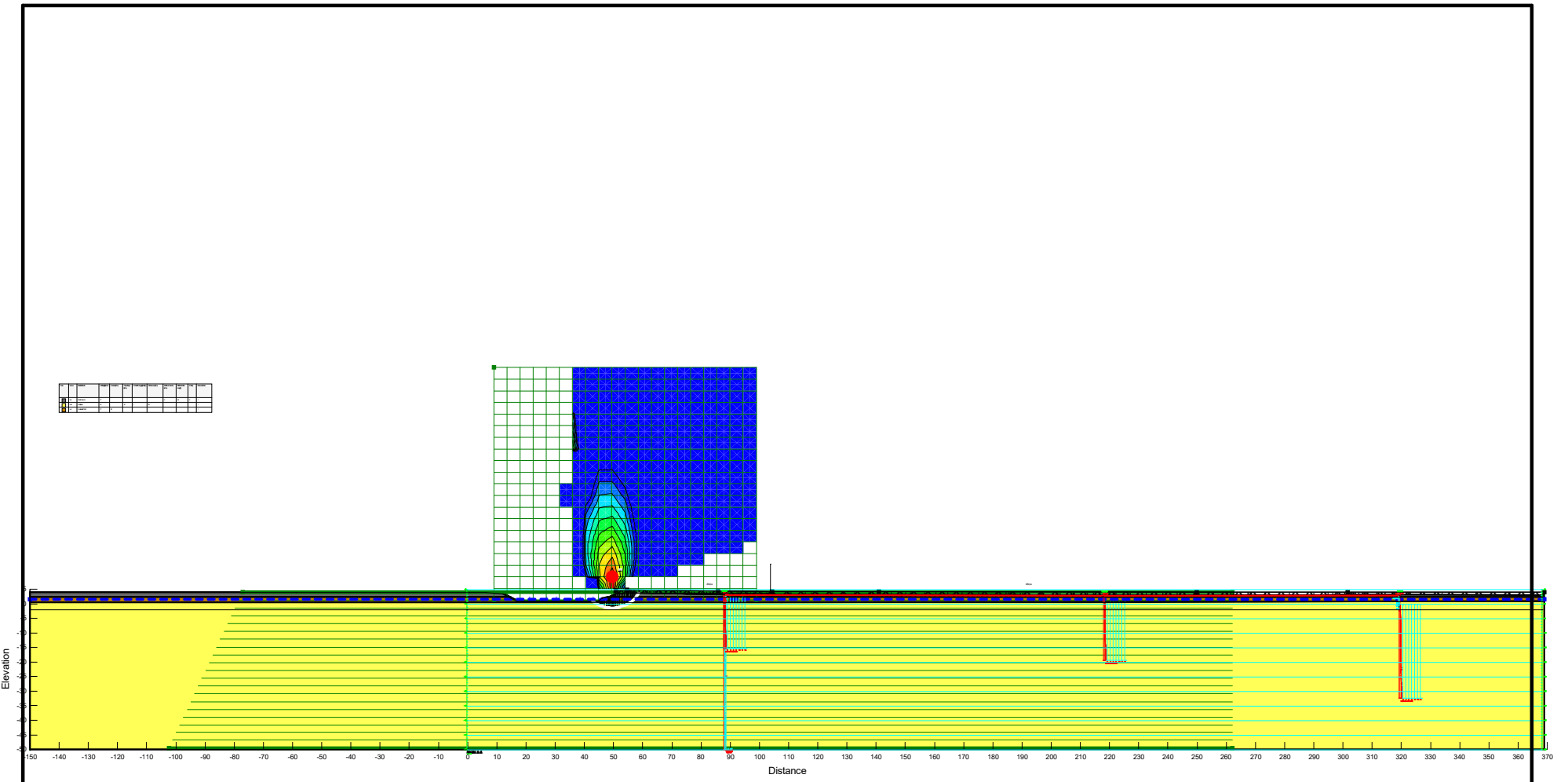
Slope Stability 20	
BB - 20kpa.gsz	
13-05-2022	1:2,011



Slope Stability 20	
BB - 30kpa.gsz	
13-05-2022	1:2,011



Slope Stability 20	
BB- 50kpa.gsz	
13-05-2022	1:2,011

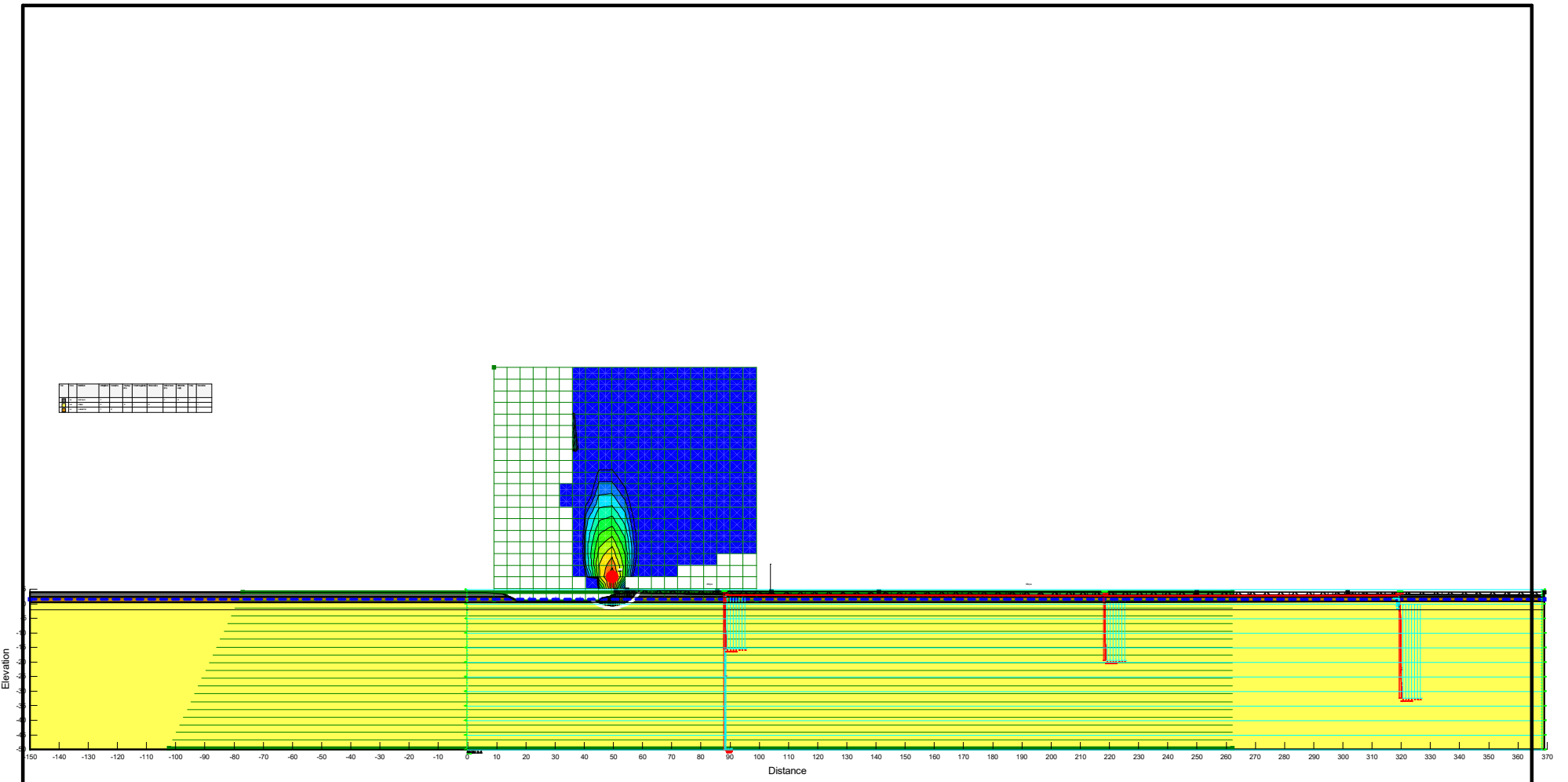


Slope Stability 40

CC - 20kpa.gsz

13-05-2022

1.2,036



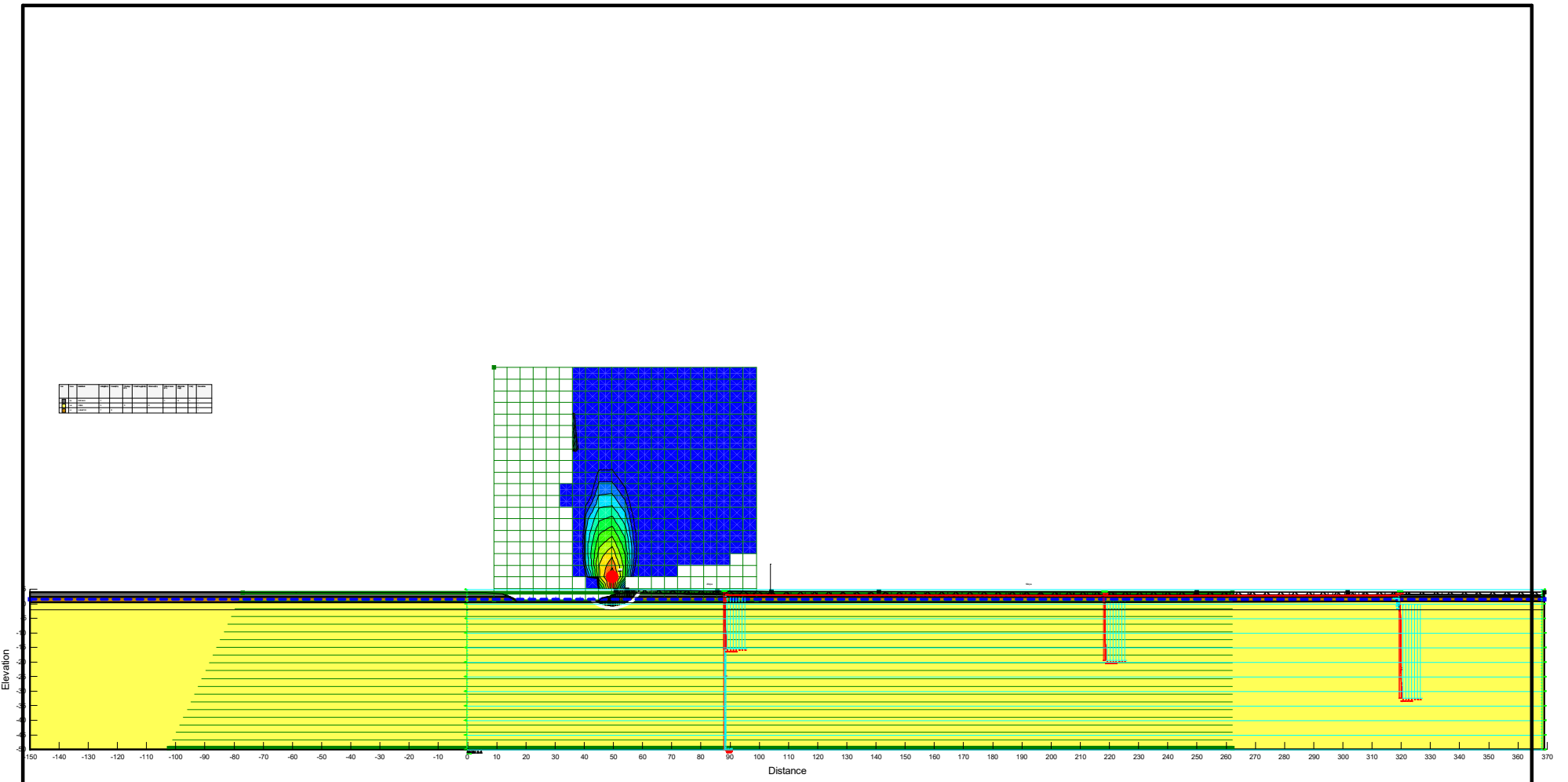
Slope Stability 40

CC - 30kpa.gsz

13-05-2022

1.2,036



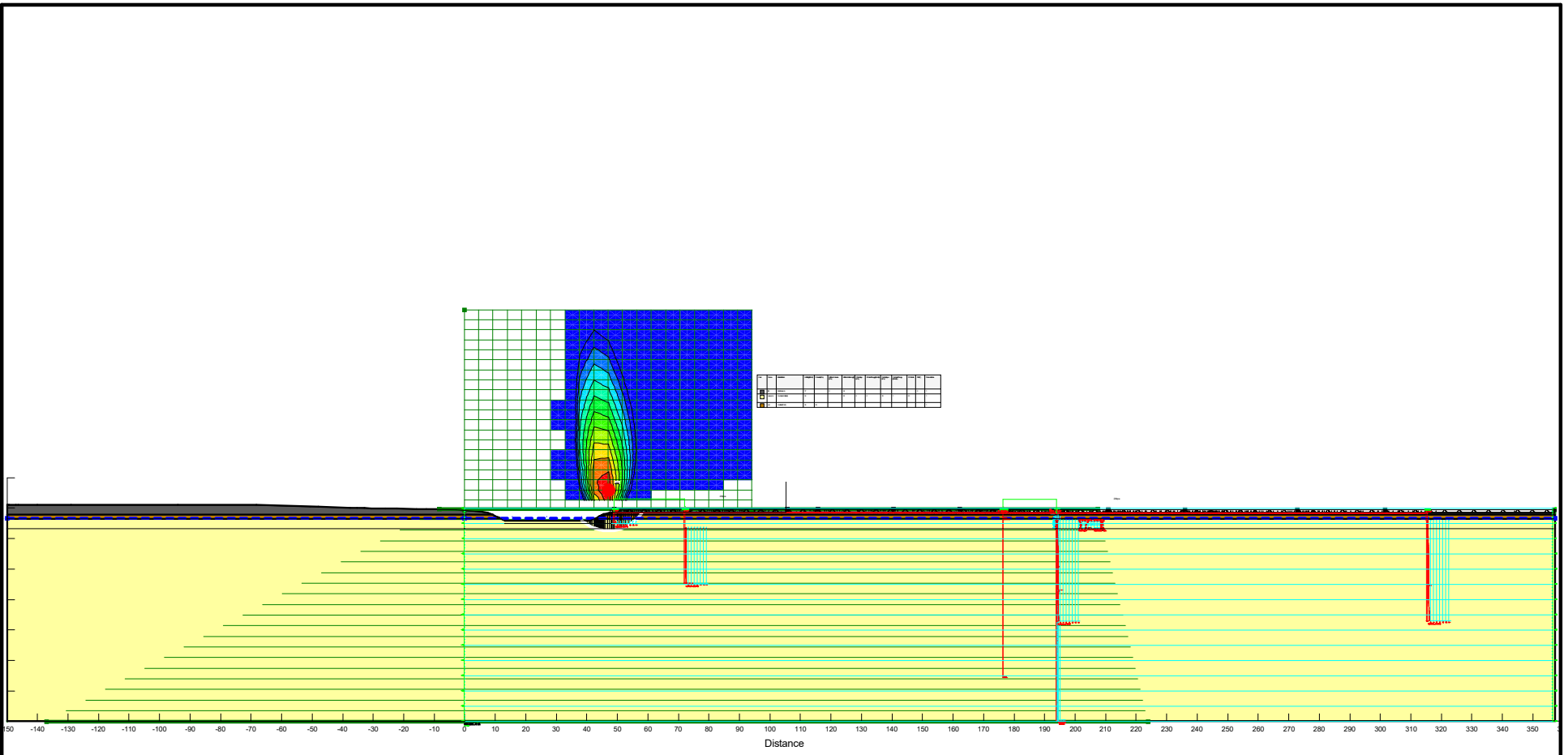


Slope Stability 40

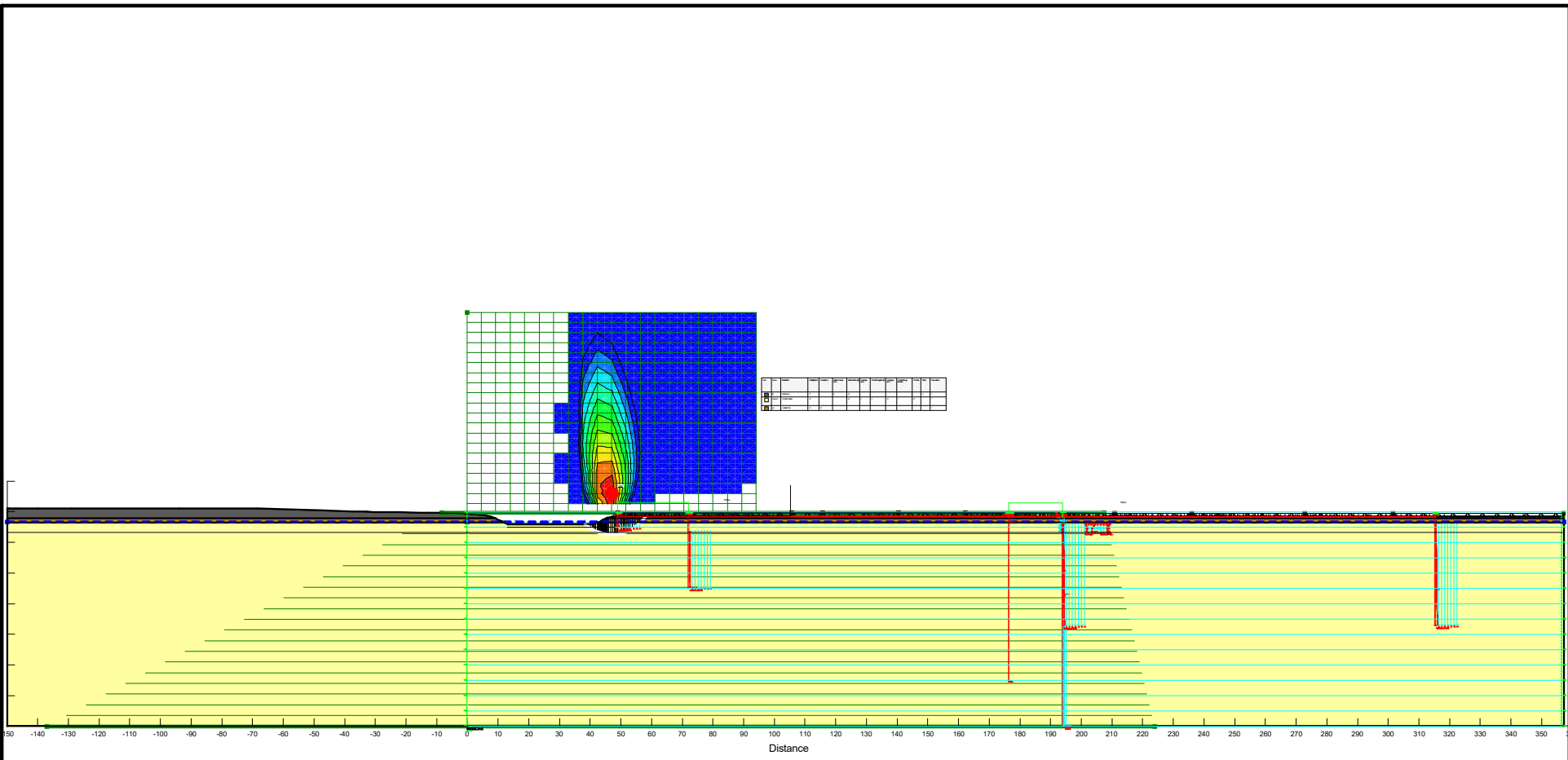
CC-50kpa.gsz

13-05-2022

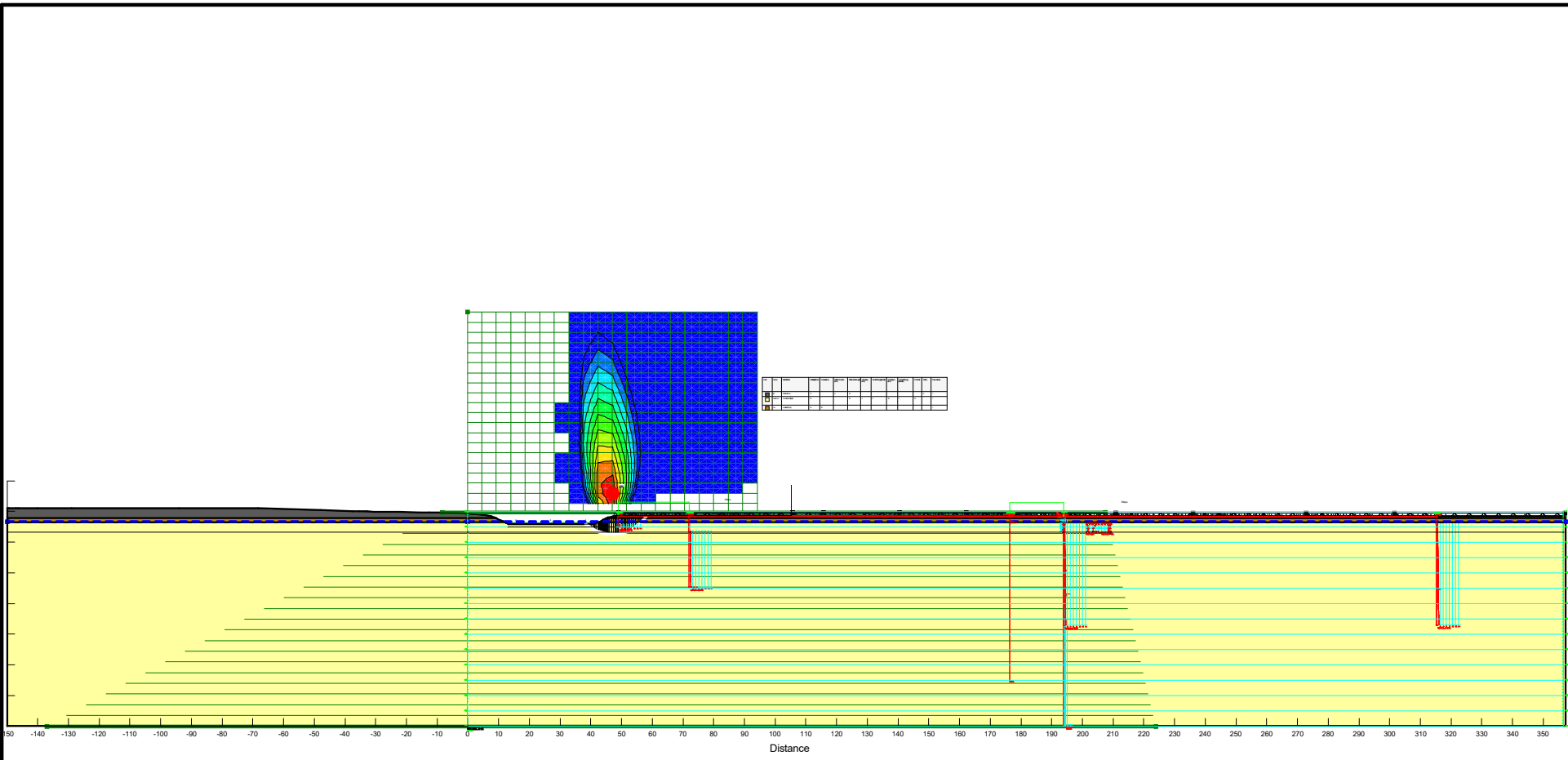
1.2,036



Slope Stability 30	
BB comb- 20kpa.gsz	
12-05-2022	1:2,011

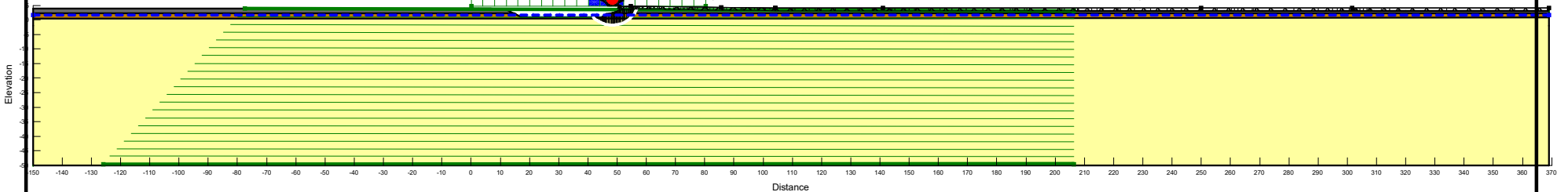
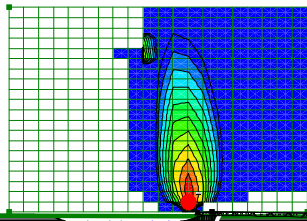


Slope Stability 30	
BB comb - 30kpa.gsz	
12-05-2022	1:2,011



Slope Stability 30	
BB comb - 50kpa.gsz	
12-05-2022	1:2,011

1									
2									
3									
4									
5									
6									
7									
8									
9									
10									



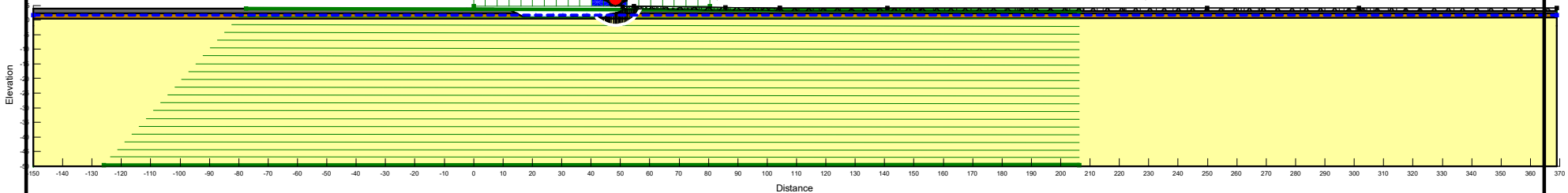
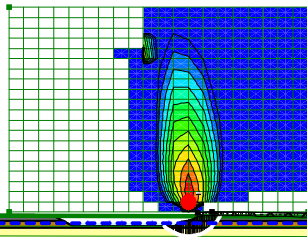
Slope Stability 20

CC comb - 20kpa.gsz

12-05-2022

1.2,036

Layer	Soil Type	Unit Weight (kN/m <sup>3</sup> )	cohesion (kPa)	friction angle (degrees)	c <sub>u</sub> (kPa)	phi <sub>u</sub> (degrees)
1	Clay	20	30	25	0	0
2	Clay	20	30	25	0	0
3	Clay	20	30	25	0	0
4	Clay	20	30	25	0	0
5	Clay	20	30	25	0	0
6	Clay	20	30	25	0	0
7	Clay	20	30	25	0	0
8	Clay	20	30	25	0	0
9	Clay	20	30	25	0	0
10	Clay	20	30	25	0	0
11	Clay	20	30	25	0	0
12	Clay	20	30	25	0	0
13	Clay	20	30	25	0	0
14	Clay	20	30	25	0	0
15	Clay	20	30	25	0	0
16	Clay	20	30	25	0	0
17	Clay	20	30	25	0	0
18	Clay	20	30	25	0	0
19	Clay	20	30	25	0	0
20	Clay	20	30	25	0	0
21	Clay	20	30	25	0	0
22	Clay	20	30	25	0	0
23	Clay	20	30	25	0	0
24	Clay	20	30	25	0	0
25	Clay	20	30	25	0	0
26	Clay	20	30	25	0	0
27	Clay	20	30	25	0	0
28	Clay	20	30	25	0	0
29	Clay	20	30	25	0	0
30	Clay	20	30	25	0	0
31	Clay	20	30	25	0	0
32	Clay	20	30	25	0	0
33	Clay	20	30	25	0	0
34	Clay	20	30	25	0	0
35	Clay	20	30	25	0	0
36	Clay	20	30	25	0	0
37	Clay	20	30	25	0	0
38	Clay	20	30	25	0	0
39	Clay	20	30	25	0	0
40	Clay	20	30	25	0	0
41	Clay	20	30	25	0	0
42	Clay	20	30	25	0	0
43	Clay	20	30	25	0	0
44	Clay	20	30	25	0	0
45	Clay	20	30	25	0	0
46	Clay	20	30	25	0	0
47	Clay	20	30	25	0	0
48	Clay	20	30	25	0	0
49	Clay	20	30	25	0	0
50	Clay	20	30	25	0	0
51	Clay	20	30	25	0	0
52	Clay	20	30	25	0	0
53	Clay	20	30	25	0	0
54	Clay	20	30	25	0	0
55	Clay	20	30	25	0	0
56	Clay	20	30	25	0	0
57	Clay	20	30	25	0	0
58	Clay	20	30	25	0	0
59	Clay	20	30	25	0	0
60	Clay	20	30	25	0	0
61	Clay	20	30	25	0	0
62	Clay	20	30	25	0	0
63	Clay	20	30	25	0	0
64	Clay	20	30	25	0	0
65	Clay	20	30	25	0	0
66	Clay	20	30	25	0	0
67	Clay	20	30	25	0	0
68	Clay	20	30	25	0	0
69	Clay	20	30	25	0	0
70	Clay	20	30	25	0	0
71	Clay	20	30	25	0	0
72	Clay	20	30	25	0	0
73	Clay	20	30	25	0	0
74	Clay	20	30	25	0	0
75	Clay	20	30	25	0	0
76	Clay	20	30	25	0	0
77	Clay	20	30	25	0	0
78	Clay	20	30	25	0	0
79	Clay	20	30	25	0	0
80	Clay	20	30	25	0	0
81	Clay	20	30	25	0	0
82	Clay	20	30	25	0	0
83	Clay	20	30	25	0	0
84	Clay	20	30	25	0	0
85	Clay	20	30	25	0	0
86	Clay	20	30	25	0	0
87	Clay	20	30	25	0	0
88	Clay	20	30	25	0	0
89	Clay	20	30	25	0	0
90	Clay	20	30	25	0	0
91	Clay	20	30	25	0	0
92	Clay	20	30	25	0	0
93	Clay	20	30	25	0	0
94	Clay	20	30	25	0	0
95	Clay	20	30	25	0	0
96	Clay	20	30	25	0	0
97	Clay	20	30	25	0	0
98	Clay	20	30	25	0	0
99	Clay	20	30	25	0	0
100	Clay	20	30	25	0	0
101	Clay	20	30	25	0	0
102	Clay	20	30	25	0	0
103	Clay	20	30	25	0	0
104	Clay	20	30	25	0	0
105	Clay	20	30	25	0	0
106	Clay	20	30	25	0	0
107	Clay	20	30	25	0	0
108	Clay	20	30	25	0	0
109	Clay	20	30	25	0	0
110	Clay	20	30	25	0	0
111	Clay	20	30	25	0	0
112	Clay	20	30	25	0	0
113	Clay	20	30	25	0	0
114	Clay	20	30	25	0	0
115	Clay	20	30	25	0	0
116	Clay	20	30	25	0	0
117	Clay	20	30	25	0	0
118	Clay	20	30	25	0	0
119	Clay	20	30	25	0	0
120	Clay	20	30	25	0	0
121	Clay	20	30	25	0	0
122	Clay	20	30	25	0	0
123	Clay	20	30	25	0	0
124	Clay	20	30	25	0	0
125	Clay	20	30	25	0	0
126	Clay	20	30	25	0	0
127	Clay	20	30	25	0	0
128	Clay	20	30	25	0	0
129	Clay	20	30	25	0	0
130	Clay	20	30	25	0	0
131	Clay	20	30	25	0	0
132	Clay	20	30	25	0	0
133	Clay	20	30	25	0	0
134	Clay	20	30	25	0	0
135	Clay	20	30	25	0	0
136	Clay	20	30	25	0	0
137	Clay	20	30	25	0	0
138	Clay	20	30	25	0	0
139	Clay	20	30	25	0	0
140	Clay	20	30	25	0	0
141	Clay	20	30	25	0	0
142	Clay	20	30	25	0	0
143	Clay	20	30	25	0	0
144	Clay	20	30	25	0	0
145	Clay	20	30	25	0	0
146	Clay	20	30	25	0	0
147	Clay	20	30	25	0	0
148	Clay	20	30	25	0	0
149	Clay	20	30	25	0	0
150	Clay	20	30	25	0	0



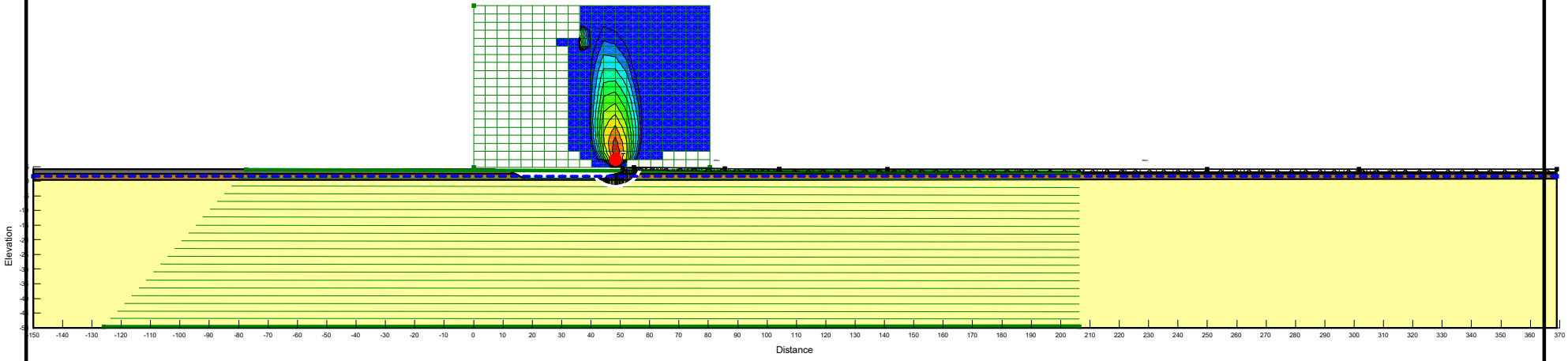
Slope Stability 20

CC comb - 30kpa.gsz

12-05-2022

1.2,036

Layer	Soil Name	Unit Weight (kN/m <sup>3</sup> )	cohesion (kPa)	friction angle (degrees)	Poisson's Ratio	Modulus (kPa)	Failure Mode
1	Clay	20	10	25	0.3	1000	Shear
2	Sand	18	0	35	0.25	10000	Shear
3	Gravel	22	0	40	0.2	100000	Shear
4	Rock	25	0	60	0.1	1000000	Shear

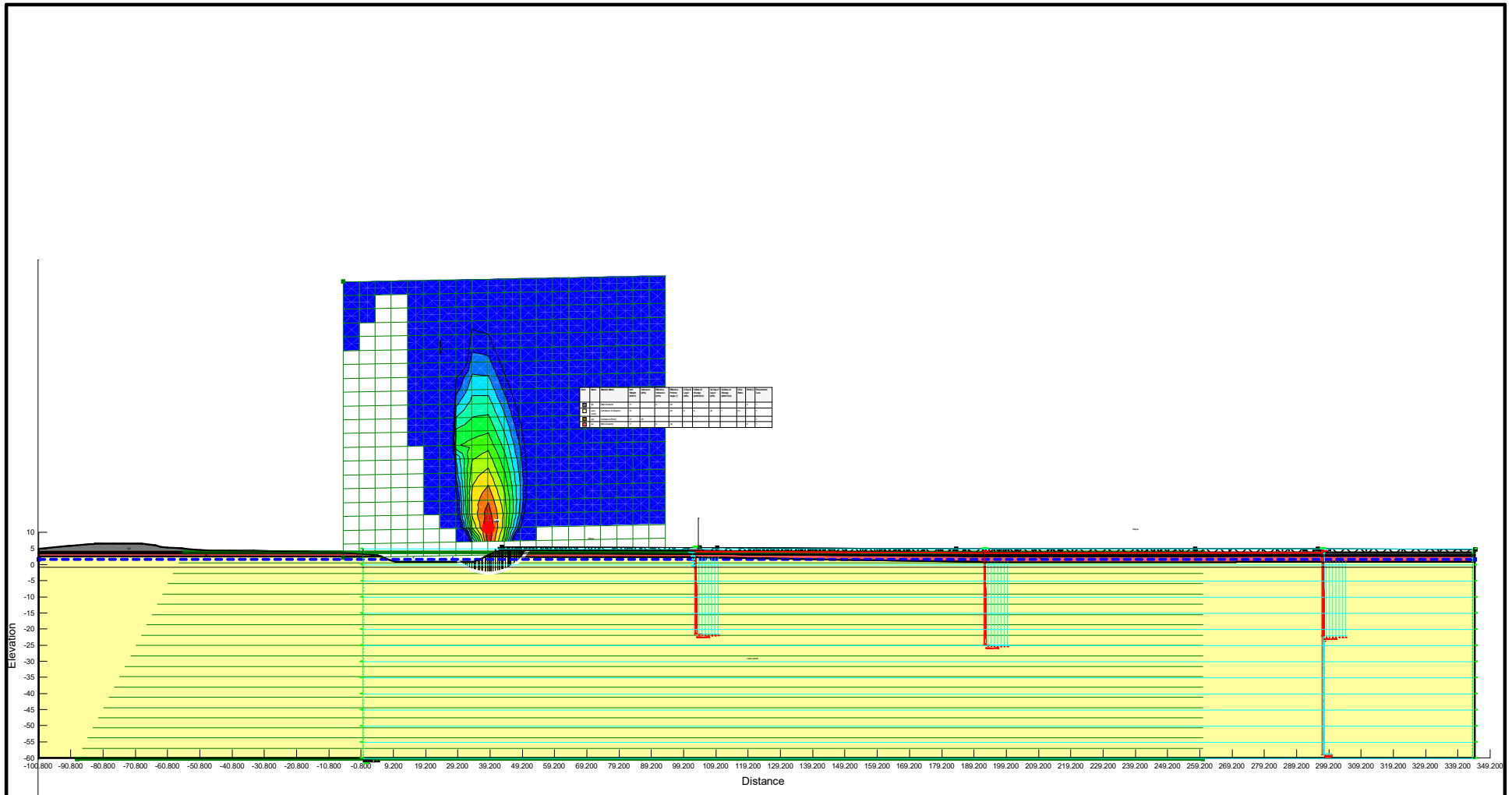


Slope Stability 20

CC comb -50kpa.gsz

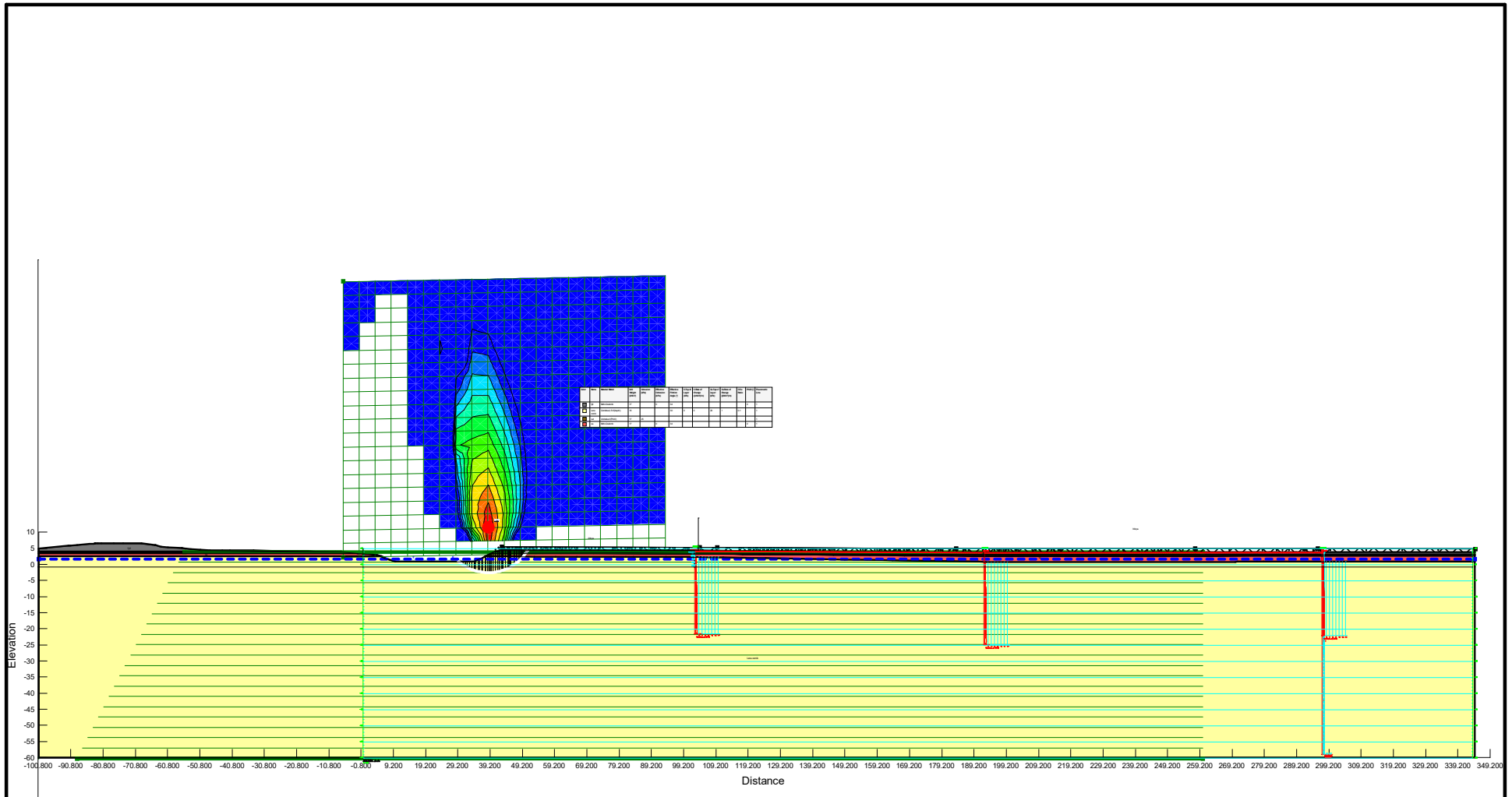
12-05-2022

1.2,036

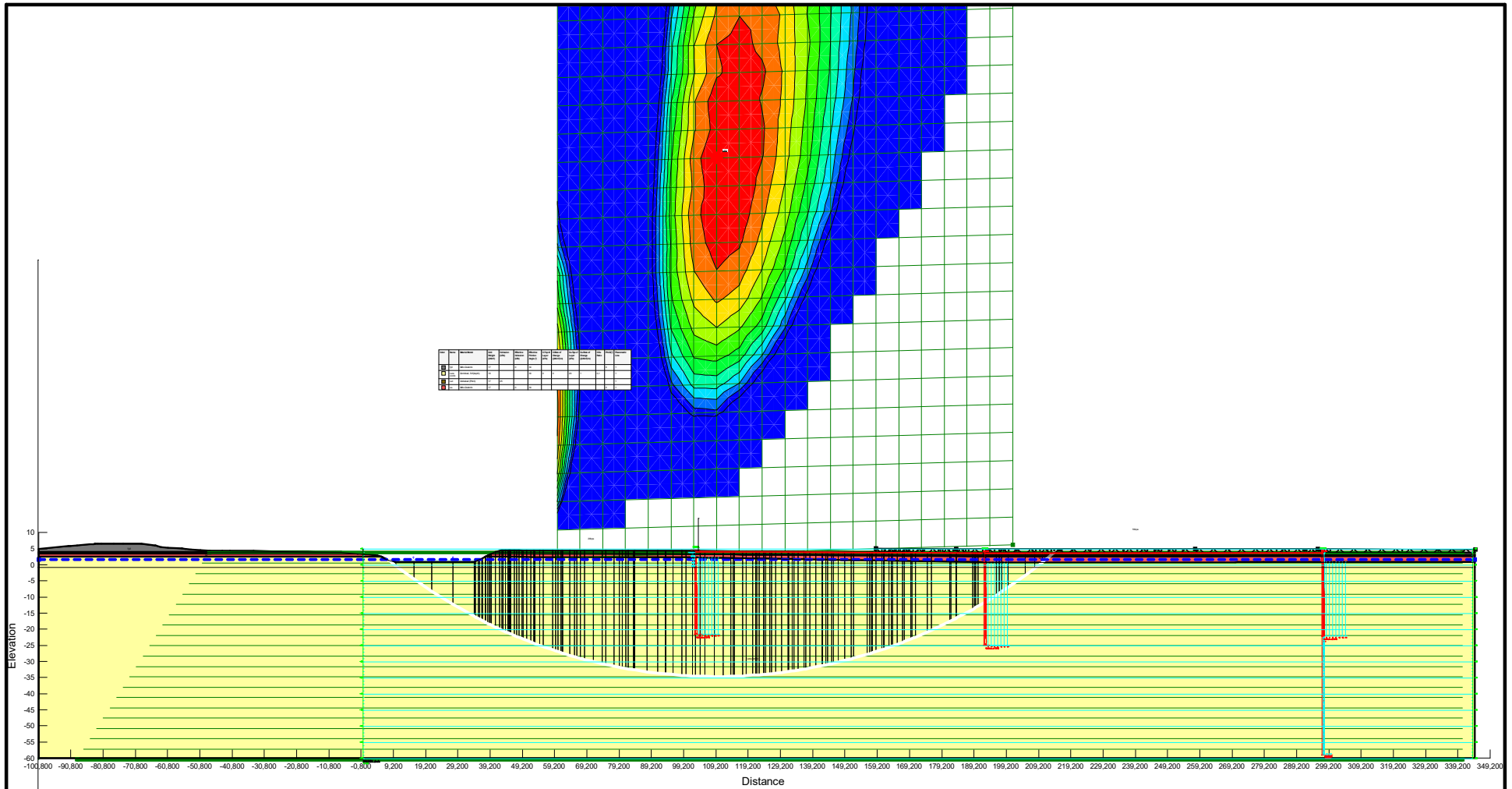


Slope Stability 50	
AA comb- 20kpa.gsz	
12-05-2022	1:1,829

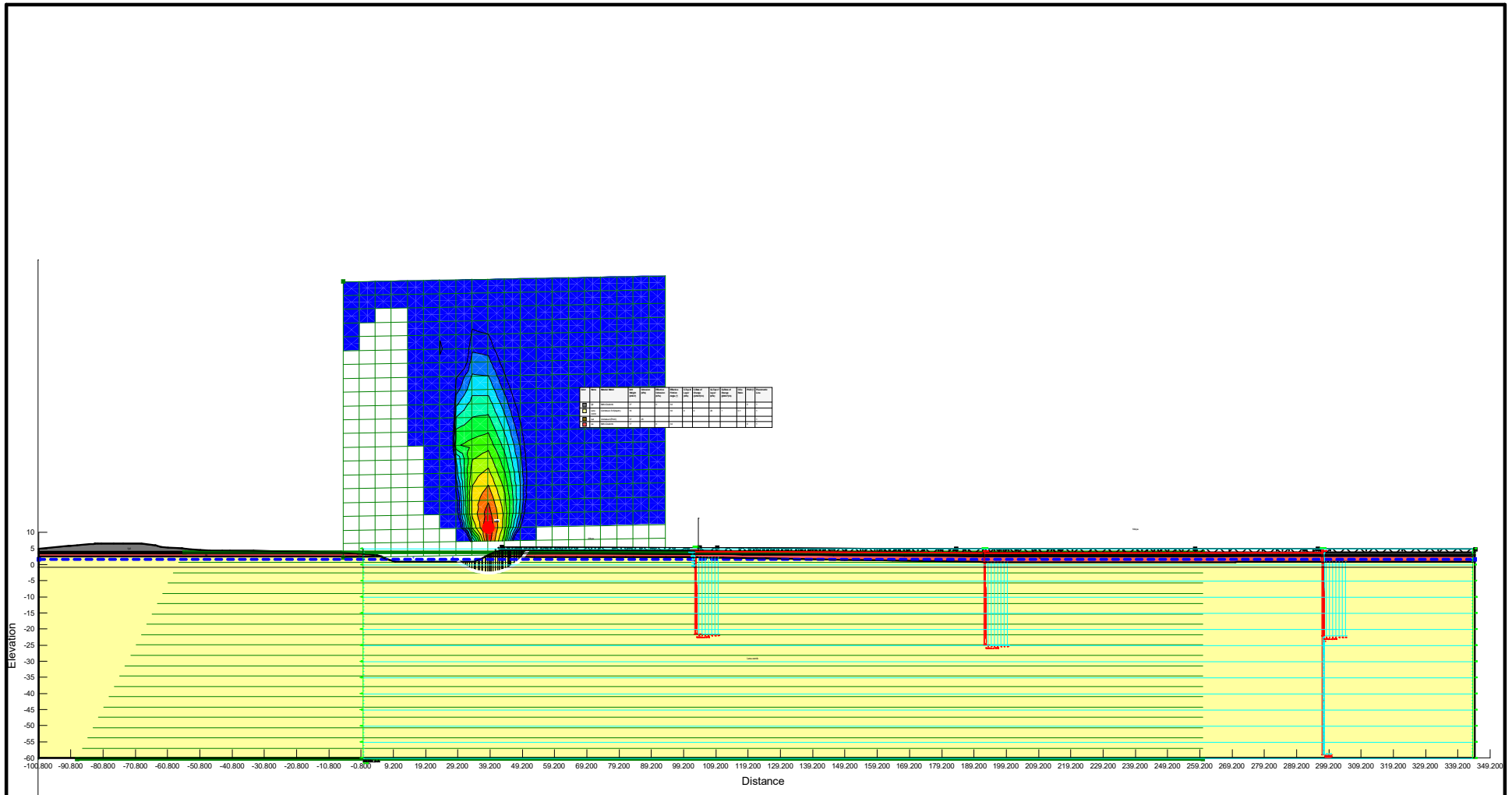




Slope Stability 50	
AA comb- 30kpa.gsz	
12-05-2022	1:1,829



Slope Stability 50  
 AA comb- 50kpa begränsad last.gsz  
 2022-07-01 1:1 829



Slope Stability 50	
AA comb- 50kpa.gsz	
12-05-2022	1:1,829

## GeoSuite Settlement Report

---

### Project data

Project name: KV KOLEN UPPSALA  
Project number: 30039781  
Contractor:  
Comment:

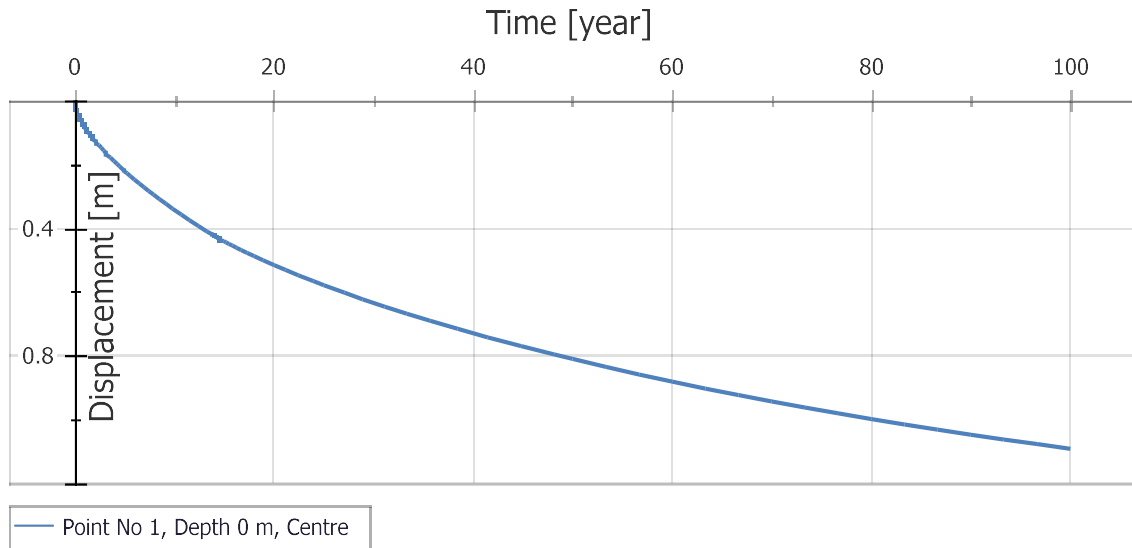
---

Calculation name: 20kpa  
Description:  
File name: Z:\15\_CAD\G\AUTOGRAF.DBF\POSTGRAF.DBF\20kpa.xml  
Date modified: 2022-06-17 12:48

## Summary

### Point No 1, Centre

---



Depth [m]	Displacement [m]	Time [years]
0.00	1.093	100.0000

## Pore pressure data

Water weight = 10 kN/m<sup>3</sup>Bulk modulus = 2000000 kN/m<sup>2</sup>

## Loads

---

Reference depth (Z)	= 0 m	Xmax = 50
Load pressure (p_ref)	= 20 kPa	Xmin = -50
Stress distribution model	= Finite Boussinesq	Ymax = 50
		Ymin = -50

### Load history:

Time [year]	Factor, f_load [-]
0.0000	1.000

## Control data

Time increment: Automatic

Specify values = False

Max time step

Min pore pressure change

Max pore pressure change

Max iterations = 1000

Max time period = 100 years

Time integration coefficient = 1

Tolerance factor = 0.0001



## Soil layers

### Point No 1, Centre

#### Layer Fyll [Chalmers without creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m <sup>3</sup> ]	M0 [kN/m <sup>2</sup> ]	ML [kN/m <sup>2</sup> ]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m <sup>2</sup> ]	sig_pL [kN/m <sup>2</sup> ]
0.00	7	18	30000	30000	10	0.8	1	250	251
0.7		18	30000	30000	10	0.8	1	250	251

Depth [m]	k_init [m/years]	Beta_k [-]							
0.00	0.0192	5							
0.7	0.0192	5							

#### Layer Let [Chalmers without creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m <sup>3</sup> ]	M0 [kN/m <sup>2</sup> ]	ML [kN/m <sup>2</sup> ]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m <sup>2</sup> ]	sig_pL [kN/m <sup>2</sup> ]
0.7	13	18	30000	30000	10	0.8	1	250	251
2		17	29409	25000	10	0.8	1	250	251

Depth [m]	k_init [m/years]	Beta_k [-]							
0.7	0.0192	5							
2	0.0192	3.5							

#### Layer Lera 1 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m <sup>3</sup> ]	M0 [kN/m <sup>2</sup> ]	ML [kN/m <sup>2</sup> ]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m <sup>2</sup> ]	sig_pL [kN/m <sup>2</sup> ]
2	10	17	29409	25000	10	0.8	1	250	251
3.00		16.4	11222	1179	7.9	0.8	1	74	147

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
2	-0.00274	0.13	1.1	2553	140	0.0192	3.5		
3.00	-0.00274	0.54	1.1	1536	140	0.0192	3.5		

#### Layer Lera 2 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
3.00	10	16.4	11222	1179	7.9	0.8	1	74	147
4.00		15.9	9008	585	9.6	0.8	1	65	104

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
3.00	-0.00274	0.54	1.1	1536	140	0.0192	3.5		
4.00	-0.00274	0.71	1.1	1115	134	0.041	3.7		

Layer Lera 3 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
4.00	10	15.9	9008	585	9.6	0.8	1	65	104
5.00		16	8900	688	9.2	0.8	1	58	98

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
4.00	-0.00274	0.71	1.1	1115	134	0.041	3.7		
5.00	-0.00274	0.9	1.1	639	131	0.0599	2.5		

Layer Lera 4 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
5.00	50	16	8900	688	9.2	0.8	1	58	98
10		17	9287	688	9.2	0.8	1	90	98

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
5.00	-0.00274	0.9	1.1	639	131	0.0599	2.5		
10	-0.00274	0.97	1.1	464	131	0.0599	2.5		

Layer Lera 5 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
10	150	17	9287	688	9.2	0.8	1	90	98
25		18	14704	688	9.2	0.8	1	210	211

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
10	-0.00274	0.97	1.1	464	131	0.0599	2.5		
25	-0.00274	0.99	1.1	417	131	0.0599	2.5		

## Pore pressure

Point No 1, Centre

---

Time: 0.0 years

Ground water level: 1.60 m below ground surface

Depth [m]	Pore pressure [kPa]	Condition
0.00	0.00	Drainage
0.70	0.00	Drainage
1.60	0.00	Drainage
2.00	4.00	Normal
5.00	34.00	Normal
10.00	84.00	Normal
25.00	234.00	Drainage

## Excess pore pressure

Point No 1, Centre

---

Time: 0.0001 years

Depth [m]	Pore pressure [kPa]
0.00	0.00
0.70	0.00
2.00	0.00
5.00	0.00
15.00	0.00
25.00	0.00

## Load stresses

Point No 1, Centre

---

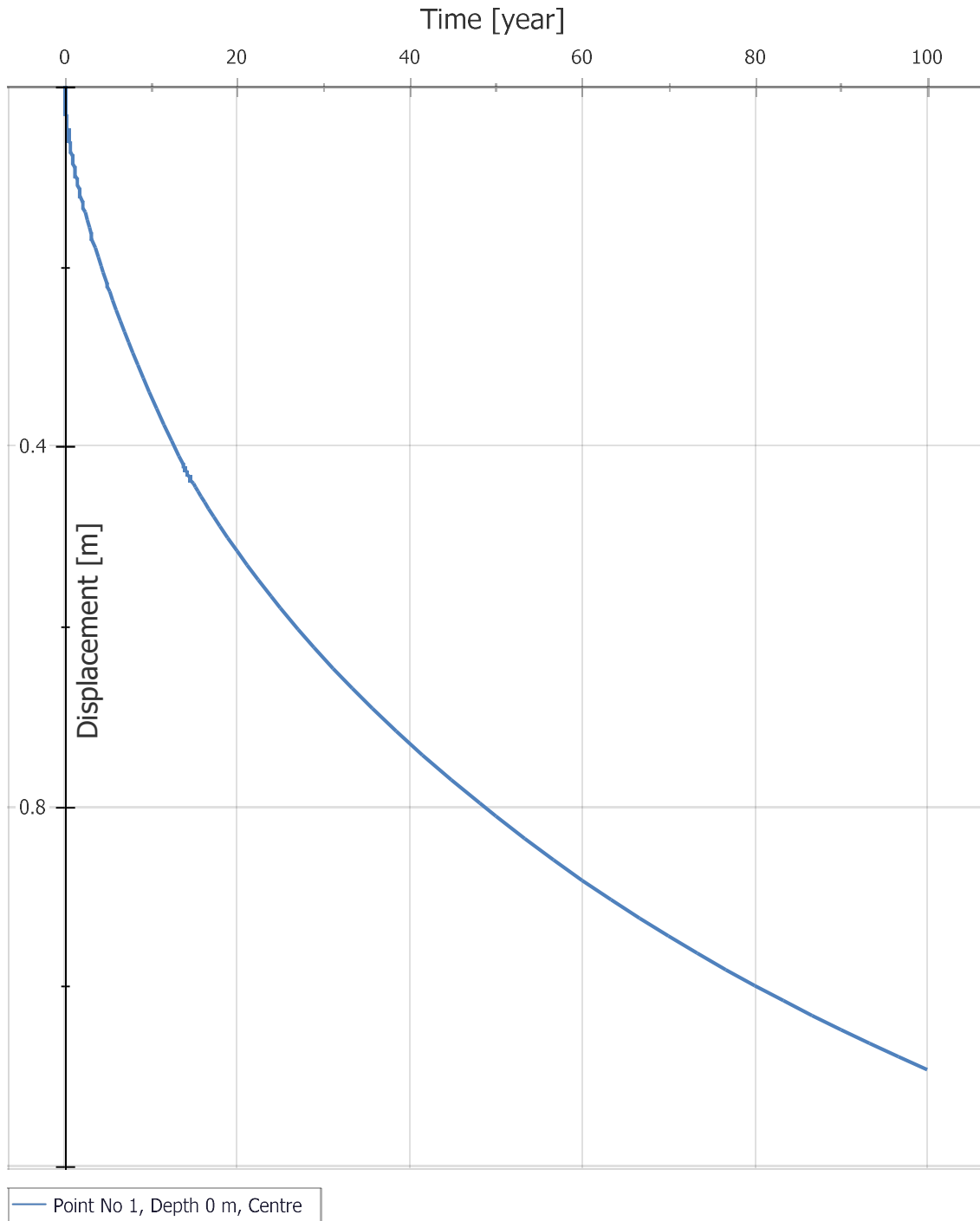
Time: 0.0 years

Depth [m]	Ex. stress [kPa]
0.00	20.00
5.27	19.98
6.66	19.96
7.64	19.94
8.43	19.92
9.10	19.90
9.69	19.88
10.22	19.86
10.70	19.84
11.15	19.82
11.57	19.80
11.96	19.78
12.33	19.76
12.68	19.74
13.02	19.72
13.34	19.70
13.65	19.68
13.95	19.66
14.24	19.64
14.52	19.62
14.79	19.60
15.05	19.59
15.31	19.56
15.56	19.54
15.80	19.53
16.04	19.50
16.27	19.49
16.50	19.46
16.72	19.45
16.94	19.42
17.15	19.41
17.36	19.39
17.57	19.36
17.77	19.35
17.97	19.32
18.17	19.30
18.36	19.28
18.55	19.26
18.74	19.24
18.92	19.22

19.10	19.20
19.28	19.18
19.46	19.16
19.64	19.14
19.81	19.12
19.98	19.10
20.15	19.08
20.32	19.06
20.49	19.04
20.65	19.02
20.81	19.00
20.97	18.98
21.13	18.96
21.29	18.94
21.45	18.92
21.60	18.90
21.75	18.88
21.90	18.86
22.05	18.84
22.20	18.82
22.35	18.80
22.50	18.78
22.65	18.76
22.79	18.74
22.93	18.72
23.07	18.70
23.21	18.68
23.35	18.66
23.49	18.64
23.63	18.62
23.77	18.60
23.91	18.58
24.05	18.56
24.19	18.54
24.32	18.52
24.45	18.50
24.58	18.48
24.71	18.46
24.84	18.44
24.97	18.42
25.00	18.41

## Displacement versus Time - Graph

## Displacement versus Time - Graph for Point No 1, Centre



## Complete Input data files

Point No 1, Centre

---



## GeoSuite Settlement Report

---

### Project data

Project name: KV KOLEN UPPSALA  
Project number: 30039781  
Contractor:  
Comment:

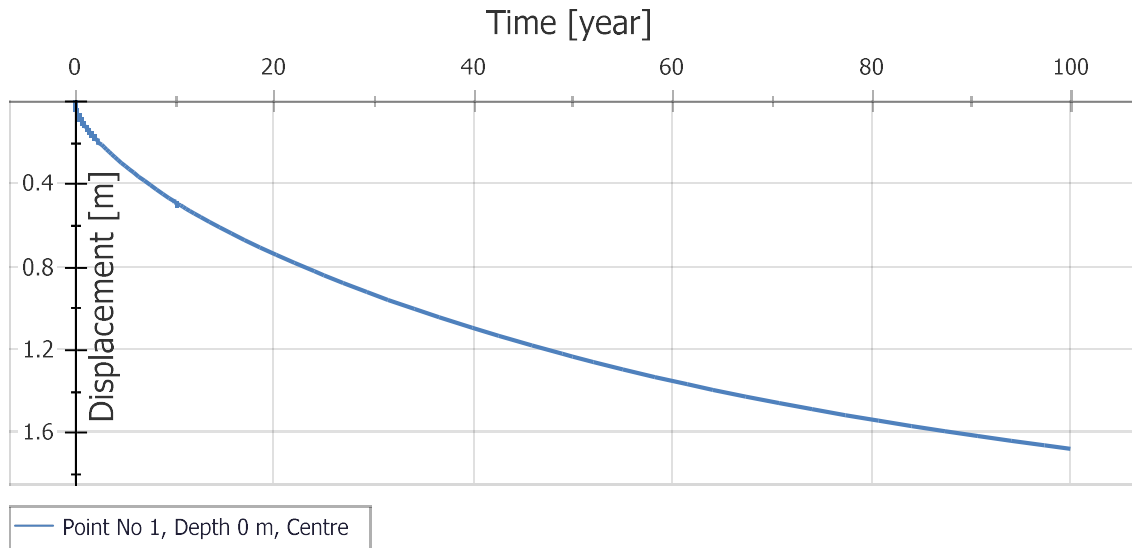
---

Calculation name: 30kpa  
Description:  
File name: Z:\15\_CAD\G\AUTOGRAF.DBF\POSTGRAF.DBF\30kpa.xml  
Date modified: 2022-06-17 12:51

## Summary

### Point No 1, Centre

---



Depth [m]	Displacement [m]	Time [years]
0.00	1.681	100.0000

## Pore pressure data

Water weight = 10 kN/m<sup>3</sup>Bulk modulus = 2000000 kN/m<sup>2</sup>

## Loads

---

Reference depth (Z) = 0 m Xmax = 50  
Load pressure (p\_ref) = 30 kPa Xmin = -50  
Stress distribution model = Finite Boussinesq Ymax = 50  
Ymin = -50

Load history:

Time [year]	Factor, f_load [-]
0.0000	1.000

## Control data

Time increment: Automatic

Specify values = False

Max time step

Min pore pressure change

Max pore pressure change

Max iterations = 1000

Max time period = 100 years

Time integration coefficient = 1

Tolerance factor = 0.0001

## Soil layers

### Point No 1, Centre

#### Layer Fyll [Chalmers without creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
0.00	7	18	30000	30000	10	0.8	1	250	251
0.7		18	30000	30000	10	0.8	1	250	251

Depth [m]	k_init [m/years]	Beta_k [-]							
0.00	0.0192	5							
0.7	0.0192	5							

#### Layer Let [Chalmers without creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
0.7	13	18	30000	30000	10	0.8	1	250	251
2		17	29409	25000	10	0.8	1	250	251

Depth [m]	k_init [m/years]	Beta_k [-]							
0.7	0.0192	5							
2	0.0192	3.5							

#### Layer Lera 1 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
2	10	17	29409	25000	10	0.8	1	250	251
3.00		16.4	11222	1179	7.9	0.8	1	74	147

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
2	-0.00274	0.13	1.1	2553	140	0.0192	3.5		
3.00	-0.00274	0.54	1.1	1536	140	0.0192	3.5		

#### Layer Lera 2 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
3.00	10	16.4	11222	1179	7.9	0.8	1	74	147
4.00		15.9	9008	585	9.6	0.8	1	65	104

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
3.00	-0.00274	0.54	1.1	1536	140	0.0192	3.5		
4.00	-0.00274	0.71	1.1	1115	134	0.041	3.7		

Layer Lera 3 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
4.00	10	15.9	9008	585	9.6	0.8	1	65	104
5.00		16	8900	688	9.2	0.8	1	58	98

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
4.00	-0.00274	0.71	1.1	1115	134	0.041	3.7		
5.00	-0.00274	0.9	1.1	639	131	0.0599	2.5		

Layer Lera 4 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
5.00	50	16	8900	688	9.2	0.8	1	58	98
10		17	9287	688	9.2	0.8	1	90	98

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
5.00	-0.00274	0.9	1.1	639	131	0.0599	2.5		
10	-0.00274	0.97	1.1	464	131	0.0599	2.5		

Layer Lera 5 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
10	150	17	9287	688	9.2	0.8	1	90	98
25		18	14704	688	9.2	0.8	1	210	211

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
10	-0.00274	0.97	1.1	464	131	0.0599	2.5		
25	-0.00274	0.99	1.1	417	131	0.0599	2.5		

## Pore pressure

Point No 1, Centre

---

Time: 0.0 years

Ground water level: 1.60 m below ground surface

Depth [m]	Pore pressure [kPa]	Condition
0.00	0.00	Drainage
0.70	0.00	Drainage
1.60	0.00	Drainage
2.00	4.00	Normal
5.00	34.00	Normal
10.00	84.00	Normal
25.00	234.00	Drainage



## Excess pore pressure

Point No 1, Centre

---

Time: 0.0001 years

Depth [m]	Pore pressure [kPa]
0.00	0.00
0.70	0.00
2.00	0.00
5.00	0.00
15.00	0.00
25.00	0.00

## Load stresses

Point No 1, Centre

---

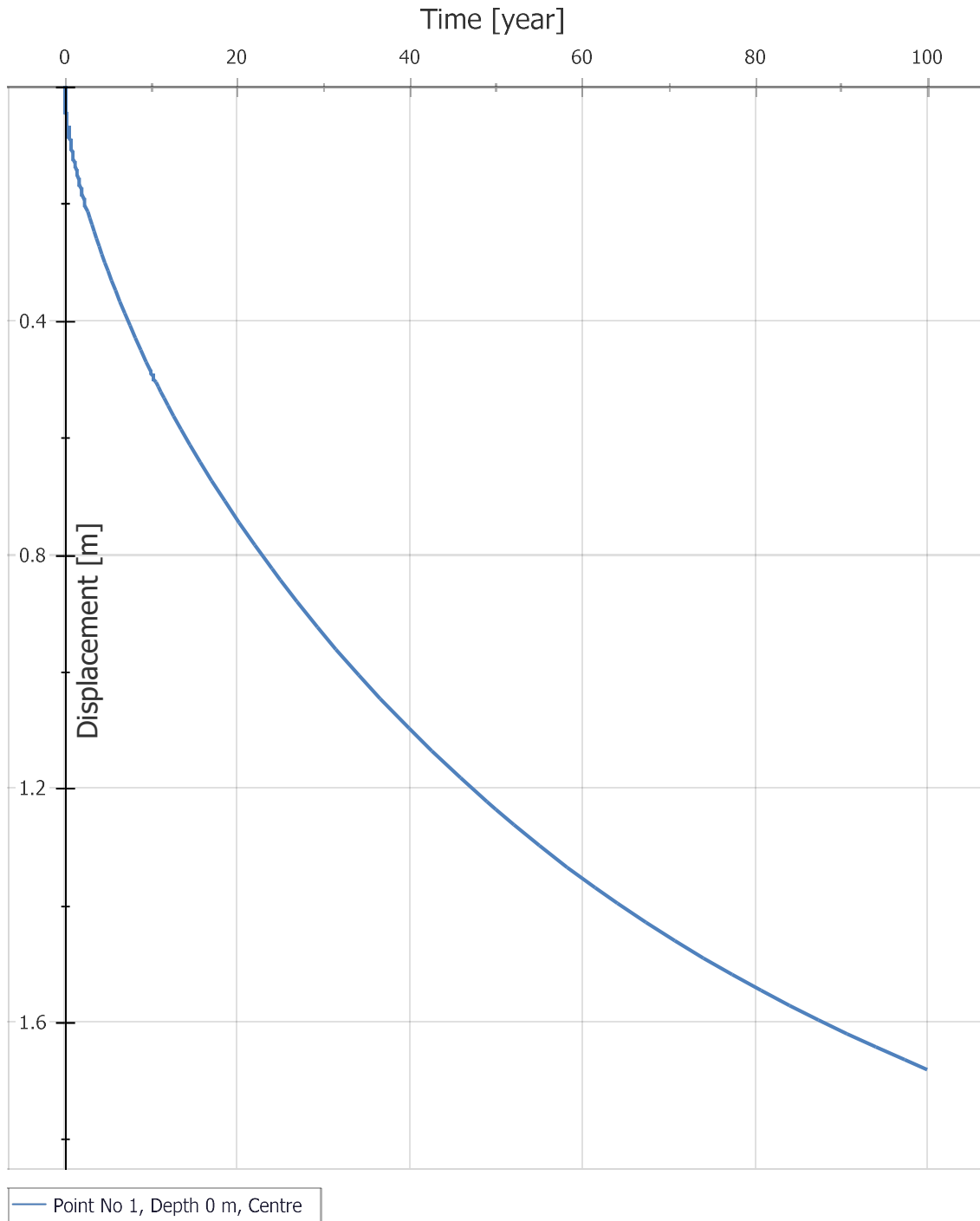
Time: 0.0 years

Depth [m]	Ex. stress [kPa]
0.00	30.00
5.27	29.97
6.66	29.94
7.64	29.91
8.43	29.88
9.10	29.85
9.69	29.82
10.22	29.79
10.70	29.76
11.15	29.73
11.57	29.70
11.96	29.67
12.33	29.65
12.68	29.62
13.02	29.59
13.34	29.56
13.65	29.53
13.95	29.50
14.24	29.47
14.52	29.44
14.79	29.41
15.05	29.38
15.31	29.35
15.56	29.32
15.80	29.29
16.04	29.26
16.27	29.23
16.50	29.20
16.72	29.17
16.94	29.14
17.15	29.11
17.36	29.08
17.57	29.05
17.77	29.02
17.97	28.99
18.17	28.96
18.36	28.93
18.55	28.90
18.74	28.87
18.92	28.84

19.10	28.81
19.28	28.78
19.46	28.75
19.64	28.72
19.81	28.69
19.98	28.66
20.15	28.63
20.32	28.60
20.49	28.56
20.65	28.53
20.81	28.50
20.97	28.47
21.13	28.44
21.29	28.41
21.45	28.38
21.60	28.35
21.75	28.32
21.90	28.29
22.05	28.26
22.20	28.23
22.35	28.20
22.50	28.17
22.65	28.14
22.79	28.11
22.93	28.08
23.07	28.05
23.21	28.02
23.35	27.99
23.49	27.96
23.63	27.93
23.77	27.90
23.91	27.87
24.05	27.84
24.19	27.80
24.32	27.78
24.45	27.75
24.58	27.72
24.71	27.69
24.84	27.66
24.97	27.63
25.00	27.62

## Displacement versus Time - Graph

## Displacement versus Time - Graph for Point No 1, Centre



## Complete Input data files

Point No 1, Centre

---

## GeoSuite Settlement Report

---

### Project data

Project name: KV KOLEN UPPSALA  
Project number: 30039781  
Contractor:  
Comment:

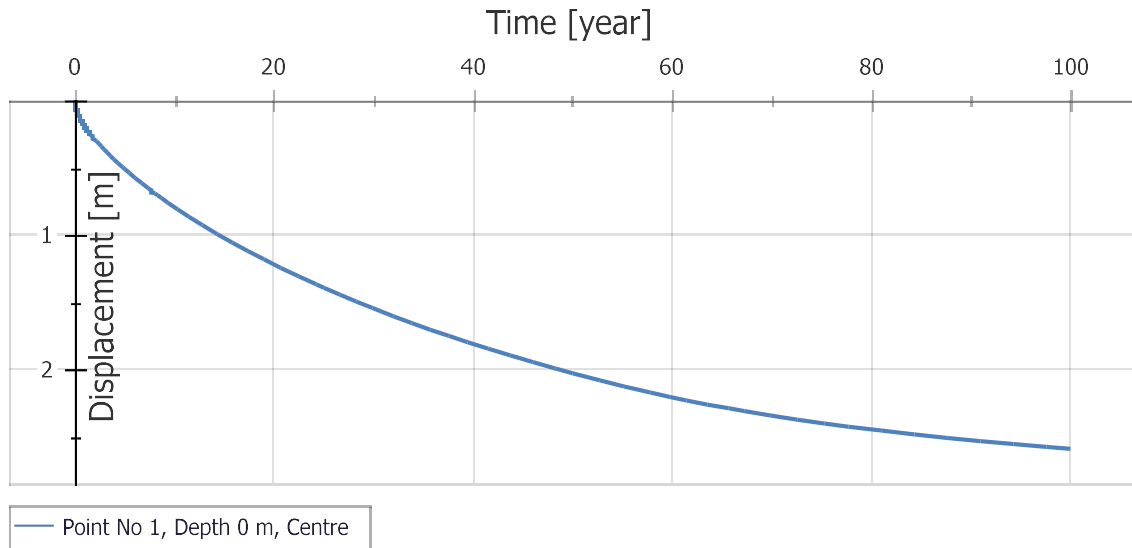
---

Calculation name: 50 kpa  
Description:  
File name: Z:\15\_CAD\G\AUTOGRAF.DBF\POSTGRAF.DBF\50 kpa.sxml  
Date modified: 2022-06-17 12:55

## Summary

### Point No 1, Centre

---



Depth [m]	Displacement [m]	Time [years]
0.00	2.587	100.0000

## Pore pressure data

Water weight = 10 kN/m<sup>3</sup>Bulk modulus = 2000000 kN/m<sup>2</sup>





## Control data

Time increment: Automatic

Specify values = False

Max time step

Min pore pressure change

Max pore pressure change

Max iterations = 1000

Max time period = 100 years

Time integration coefficient = 1

Tolerance factor = 0.0001

## Soil layers

### Point No 1, Centre

#### Layer Fyll [Chalmers without creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
0.00	7	18	30000	30000	10	0.8	1	250	251
0.7		18	30000	30000	10	0.8	1	250	251

Depth [m]	k_init [m/years]	Beta_k [-]							
0.00	0.0192	5							
0.7	0.0192	5							

#### Layer Let [Chalmers without creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
0.7	13	18	30000	30000	10	0.8	1	250	251
2		17	29409	25000	10	0.8	1	250	251

Depth [m]	k_init [m/years]	Beta_k [-]							
0.7	0.0192	5							
2	0.0192	3.5							

#### Layer Lera 1 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
2	10	17	29409	25000	10	0.8	1	250	251
3.00		16.4	11222	1179	7.9	0.8	1	74	147

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
2	-0.00274	0.13	1.1	2553	140	0.0192	3.5		
3.00	-0.00274	0.54	1.1	1536	140	0.0192	3.5		

#### Layer Lera 2 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
3.00	10	16.4	11222	1179	7.9	0.8	1	74	147
4.00		15.9	9008	585	9.6	0.8	1	65	104

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
3.00	-0.00274	0.54	1.1	1536	140	0.0192	3.5		
4.00	-0.00274	0.71	1.1	1115	134	0.041	3.7		

Layer Lera 3 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
4.00	10	15.9	9008	585	9.6	0.8	1	65	104
5.00		16	8900	688	9.2	0.8	1	58	98

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
4.00	-0.00274	0.71	1.1	1115	134	0.041	3.7		
5.00	-0.00274	0.9	1.1	639	131	0.0599	2.5		

Layer Lera 4 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
5.00	50	16	8900	688	9.2	0.8	1	58	98
10		17	9287	688	9.2	0.8	1	90	98

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
5.00	-0.00274	0.9	1.1	639	131	0.0599	2.5		
10	-0.00274	0.97	1.1	464	131	0.0599	2.5		

Layer Lera 5 [Chalmers with creep, Log based (strain)]

Depth [m]	Sub-layers	Soil Weight [kN/m3]	M0 [kN/m2]	ML [kN/m2]	M' [-]	a0 [-]	a1 [-]	sig_pc [kN/m2]	sig_pL [kN/m2]
10	150	17	9287	688	9.2	0.8	1	90	98
25		18	14704	688	9.2	0.8	1	210	211

Depth [m]	t_ref [years]	b0 [-]	b1 [-]	r0 [-]	r1 [-]	k_init [m/years]	Beta_k [-]		
10	-0.00274	0.97	1.1	464	131	0.0599	2.5		
25	-0.00274	0.99	1.1	417	131	0.0599	2.5		

## Pore pressure

Point No 1, Centre

---

Time: 0.0 years

Ground water level: 1.60 m below ground surface

Depth [m]	Pore pressure [kPa]	Condition
0.00	0.00	Drainage
0.70	0.00	Drainage
1.60	0.00	Drainage
2.00	4.00	Normal
5.00	34.00	Normal
10.00	84.00	Normal
25.00	234.00	Drainage

## Excess pore pressure

Point No 1, Centre

---

Time: 0.0001 years

Depth [m]	Pore pressure [kPa]
0.00	0.00
0.70	0.00
2.00	0.00
5.00	0.00
15.00	0.00
25.00	0.00

## Load stresses

Point No 1, Centre

---

Time: 0.0 years

Depth [m]	Ex. stress [kPa]
0.00	50.00
5.04	49.96
6.37	49.91
7.31	49.87
8.06	49.83
8.70	49.78
9.26	49.74
9.76	49.70
10.22	49.66
10.65	49.61
11.05	49.57
11.42	49.53
11.77	49.48
12.11	49.44
12.43	49.40
12.74	49.35
13.03	49.31
13.31	49.27
13.58	49.22
13.85	49.18
14.11	49.13
14.36	49.09
14.60	49.05
14.84	49.00
15.07	48.96
15.29	48.92
15.51	48.87
15.72	48.83
15.93	48.79
16.14	48.74
16.34	48.70
16.54	48.65
16.73	48.61
16.92	48.57
17.11	48.52
17.30	48.48
17.48	48.43
17.66	48.39
17.84	48.35
18.01	48.30

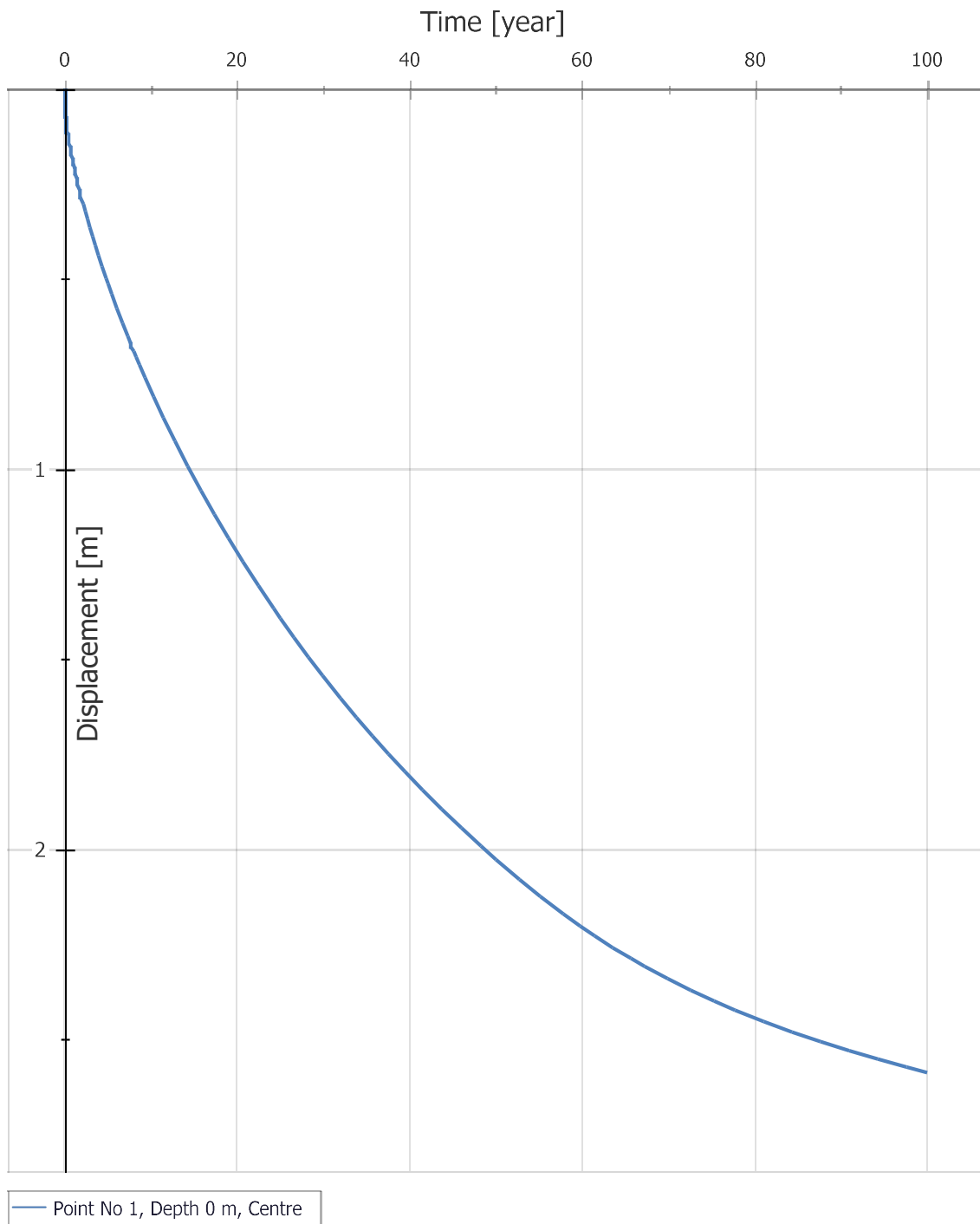
18.18	48.26
18.35	48.21
18.52	48.17
18.69	48.12
18.85	48.08
19.01	48.04
19.17	47.99
19.33	47.95
19.49	47.90
19.64	47.86
19.79	47.82
19.94	47.77
20.09	47.73
20.24	47.68
20.39	47.64
20.53	47.59
20.67	47.55
20.81	47.51
20.95	47.46
21.09	47.42
21.23	47.38
21.37	47.33
21.51	47.28
21.65	47.24
21.78	47.20
21.91	47.15
22.04	47.11
22.17	47.06
22.30	47.02
22.43	46.98
22.56	46.93
22.69	46.89
22.82	46.84
22.95	46.79
23.08	46.75
23.20	46.71
23.32	46.66
23.44	46.62
23.56	46.57
23.68	46.53
23.80	46.49
23.92	46.44
24.04	46.40
24.16	46.35
24.28	46.31
24.40	46.26
24.52	46.22
24.64	46.17



24.76	46.12
24.88	46.08
24.99	46.03
25.00	46.03

## Displacement versus Time - Graph

## Displacement versus Time - Graph for Point No 1, Centre



## Complete Input data files

Point No 1, Centre

---