

technical Engineering\Soil Mechanics\ver Mechanics\verruijt\Soil Mechanics\SPWc , Mechanics\verruijt\Soil Mechanics\

**General Data**

Licensed User : technical Engineering\Soil Mechanics\ver Mechanics\verruijt\Soil Mechanics\SPWc

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### Data of Layers

Step 0, Left side

Layer	Top (m)	Bottom (m)	Wd (kN/m <sup>3</sup> )	Ws (kN/m <sup>3</sup> )	Zw (m)	Cap (m)	q (kN/m <sup>2</sup> )	c (kN/m <sup>2</sup> )	Ka (-)	Kp (-)	Kn (-)	Dw (m)
1	0.000	4.000	17.160	17.160	6.000	0.000	10.000	0.000	0.333	2.000	0.500	0.032
2	4.000	5.000	17.160	17.160	6.000	0.000	10.000	0.000	0.333	2.000	0.500	0.032
3	5.000	6.000	18.600	18.600	6.000	0.000	10.000	0.000	0.270	2.470	0.426	0.010
4	6.000	10.000	18.600	18.600	6.000	0.000	10.000	0.000	0.270	2.470	0.426	0.010

Step 0, Right side

Layer	Top (m)	Bottom (m)	Wd (kN/m <sup>3</sup> )	Ws (kN/m <sup>3</sup> )	Zw (m)	Cap (m)	q (kN/m <sup>2</sup> )	c (kN/m <sup>2</sup> )	Ka (-)	Kp (-)	Kn (-)	Dw (m)
1	0.000	4.000	17.160	17.160	6.000	0.000	10.000	0.000	0.333	2.000	1.000	0.032
2	4.000	5.000	17.160	17.160	6.000	0.000	10.000	0.000	0.333	2.000	0.500	0.032
3	5.000	6.000	18.600	18.600	6.000	0.000	10.000	0.000	0.270	2.470	0.426	0.010
4	6.000	10.000	18.600	18.600	6.000	0.000	10.000	0.000	0.270	2.470	0.426	0.010

Step 1, Left side

Layer	Top (m)	Bottom (m)	Wd (kN/m <sup>3</sup> )	Ws (kN/m <sup>3</sup> )	Zw (m)	Cap (m)	q (kN/m <sup>2</sup> )	c (kN/m <sup>2</sup> )	Ka (-)	Kp (-)	Kn (-)	Dw (m)
1	0.000	4.000	0.000	10.000	6.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000
2	4.000	5.000	17.160	17.160	6.000	0.000	0.000	0.000	0.333	2.000	0.500	0.032
3	5.000	6.000	18.600	18.600	6.000	0.000	0.000	0.000	0.270	2.470	0.426	0.010
4	6.000	10.000	18.600	18.600	6.000	0.000	0.000	0.000	0.270	2.470	0.426	0.010

Step 1, Right side

Layer	Top (m)	Bottom (m)	Wd (kN/m <sup>3</sup> )	Ws (kN/m <sup>3</sup> )	Zw (m)	Cap (m)	q (kN/m <sup>2</sup> )	c (kN/m <sup>2</sup> )	Ka (-)	Kp (-)	Kn (-)	Dw (m)
1	0.000	4.000	17.160	17.160	6.000	0.000	10.000	0.000	0.333	2.000	1.000	0.032
2	4.000	5.000	17.160	17.160	6.000	0.000	10.000	0.000	0.333	2.000	0.500	0.032
3	5.000	6.000	18.600	18.600	6.000	0.000	10.000	0.000	0.270	2.470	0.426	0.010
4	6.000	10.000	18.600	18.600	6.000	0.000	10.000	0.000	0.270	2.470	0.426	0.010

### Data of Anchors and Lateral Forces

Step 0 :

Point	Fx (kN/m)	Fa (kN/m)	Fw (m)
0	0.000	0.000	1.000
1	0.000	0.000	1.000
2	0.000	0.000	1.000
3	0.000	0.000	1.000
4	0.000	0.000	1.000

Step 1 :

Point	Fx (kN/m)	Fa (kN/m)	Fw (m)
0	0.000	0.000	1.000
1	0.000	0.000	1.000
2	0.000	0.000	1.000
3	0.000	0.000	1.000
4	0.000	0.000	1.000

### Data of Axial Forces and Moment

Step	NA (kN/m)	NB (kN/m)	MA (kNm/m)
0	0.000	0.000	0.000
1	0.000	0.000	0.000

**Catalogue of Profiles**

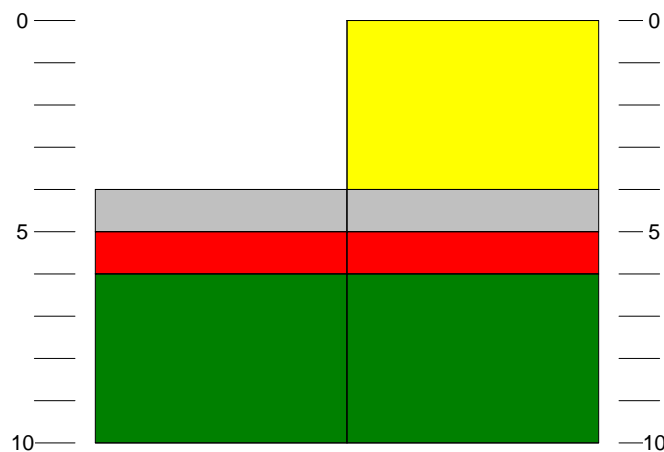
No	Profile Name	Area (m <sup>2</sup> /m)	Weight (kN/m <sup>3</sup> )	E (GN/m <sup>2</sup> )	h (m)	i (m)	EI (kNm <sup>2</sup> /m)
1	Larssen 20	0.010100	78.000	210.000	0.220000	0.080800	13847.2
2	Larssen 21	0.012100	78.000	210.000	0.220000	0.079800	16181.2
3	Larssen 22	0.015500	78.000	210.000	0.340000	0.117000	44557.7
4	Larssen 23	0.019700	78.000	210.000	0.420000	0.146000	88184.3
5	Larssen 24	0.022300	78.000	210.000	0.420000	0.153000	109624.3
6	Larssen 25	0.026200	78.000	210.000	0.420000	0.156100	134068.4
7	Larssen 61	0.012000	78.000	210.000	0.150000	0.056570	8064.4
8	Larssen 62	0.014000	78.000	210.000	0.310000	0.113000	37540.9
9	Larssen 31	0.012700	78.000	210.000	0.150000	0.052100	7239.3
10	Larssen 32	0.015500	78.000	210.000	0.250000	0.082600	22208.1
11	Larssen 42	0.015500	78.000	210.000	0.210000	0.075900	18751.4
12	Larssen 43	0.020800	78.000	210.000	0.410000	0.127000	70451.5
13	Larssen 45	0.025400	78.000	210.000	0.410000	0.124000	82015.6
14	Hoesch 95	0.012000	78.000	210.000	0.190000	0.076800	14863.6
15	Hoesch 116	0.014800	78.000	210.000	0.250000	0.101000	31704.7
16	Hoesch 122	0.015500	78.000	210.000	0.190000	0.075900	18751.4
17	Hoesch 134	0.017100	78.000	210.000	0.300000	0.122000	53448.4
18	Hoesch 155	0.019700	78.000	210.000	0.300000	0.123000	62588.7
19	Hoesch 175	0.022300	78.000	210.000	0.340000	0.141000	93102.7
20	Hoesch 215	0.027400	78.000	210.000	0.340000	0.140000	112778.4

**Cross Sections**

Step 0 :



Step 1 :



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Results after Step 1 :

i	z (m)	w (m)	M (kNm)	Q- (kN)	Q+ (kN)	F (kN)	f (kN/m <sup>2</sup> )
0	0.000000	-0.476392	0.000000	0.000000	0.000000	0.000000	0.000000
1	0.100000	-0.468904	0.018079	-0.361571	-0.361571	0.000000	-3.615710
2	0.200000	-0.461416	0.075171	-0.780286	-0.780286	0.000000	-4.187150
3	0.300000	-0.453928	0.176993	-1.256143	-1.256143	0.000000	-4.758570
4	0.400000	-0.446440	0.329257	-1.789142	-1.789142	0.000000	-5.329990
5	0.500000	-0.438953	0.537678	-2.379285	-2.379285	0.000000	-5.901430
6	0.600000	-0.431465	0.807971	-3.026570	-3.026570	0.000000	-6.472850
7	0.700000	-0.423979	1.145850	-3.730999	-3.730999	0.000000	-7.044290
8	0.800000	-0.416493	1.557028	-4.492570	-4.492570	0.000000	-7.615710
9	0.900000	-0.409008	2.047221	-5.311283	-5.311283	0.000000	-8.187130
10	1.000000	-0.401525	2.622142	-6.187140	-6.187140	0.000000	-8.758570
11	1.100000	-0.394044	3.287506	-7.120139	-7.120139	0.000000	-9.329990
12	1.200000	-0.386565	4.049027	-8.110282	-8.110282	0.000000	-9.901430
13	1.300000	-0.379089	4.912419	-9.157567	-9.157567	0.000000	-10.472850
14	1.400000	-0.371617	5.883397	-10.261994	-10.261994	0.000000	-11.044270
15	1.500000	-0.364149	6.967675	-11.423565	-11.423565	0.000000	-11.615710
16	1.600000	-0.356686	8.170968	-12.642278	-12.642278	0.000000	-12.187130
17	1.700000	-0.349229	9.498988	-13.918135	-13.918135	0.000000	-12.758570
18	1.800000	-0.341778	10.957452	-15.251134	-15.251134	0.000000	-13.329990
19	1.900000	-0.334336	12.552072	-16.641275	-16.641275	0.000000	-13.901410
20	2.000000	-0.326903	14.288564	-18.088560	-18.088560	0.000000	-14.472850
21	2.100000	-0.319480	16.172641	-19.592987	-19.592987	0.000000	-15.044270
22	2.200000	-0.312069	18.210018	-21.154558	-21.154558	0.000000	-15.615710
23	2.300000	-0.304671	20.406410	-22.773271	-22.773271	0.000000	-16.187130
24	2.400000	-0.297288	22.767530	-24.449126	-24.449126	0.000000	-16.758550
25	2.500000	-0.289921	25.299092	-26.182125	-26.182125	0.000000	-17.329990
26	2.600000	-0.282573	28.006812	-27.972266	-27.972266	0.000000	-17.901410
27	2.700000	-0.275244	30.896403	-29.819551	-29.819551	0.000000	-18.472850
28	2.800000	-0.267939	33.973579	-31.723978	-31.723978	0.000000	-19.044270
29	2.900000	-0.260657	37.244055	-33.685547	-33.685547	0.000000	-19.615690
30	3.000000	-0.253403	40.713546	-35.704260	-35.704260	0.000000	-20.187130
31	3.100000	-0.246178	44.387764	-37.780115	-37.780115	0.000000	-20.758550
32	3.200000	-0.238985	48.272426	-39.913114	-39.913114	0.000000	-21.329990
33	3.300000	-0.231827	52.373244	-42.103255	-42.103255	0.000000	-21.901410
34	3.400000	-0.224707	56.695934	-44.350538	-44.350538	0.000000	-22.472830
35	3.500000	-0.217628	61.246209	-46.654965	-46.654965	0.000000	-23.044270
36	3.600000	-0.210594	66.029784	-49.016534	-49.016534	0.000000	-23.615690
37	3.700000	-0.203607	71.052373	-51.435247	-51.435247	0.000000	-24.187130
38	3.800000	-0.196671	76.319691	-53.911102	-53.911102	0.000000	-24.758550
39	3.900000	-0.189790	81.837451	-56.444099	-56.444099	0.000000	-25.329970
40	4.000000	-0.182969	87.611368	-59.034240	-59.034240	0.000000	-25.901410
41	4.100000	-0.176211	93.655226	-61.842923	-61.842923	0.000000	-28.086830
42	4.200000	-0.169521	99.965649	-64.365550	-64.365550	0.000000	-25.226270
43	4.300000	-0.162902	106.514033	-66.602119	-66.602119	0.000000	-22.365690
44	4.400000	-0.156361	113.271770	-68.552630	-68.552630	0.000000	-19.505110
45	4.500000	-0.149902	120.210256	-70.217085	-70.217085	0.000000	-16.644550
46	4.600000	-0.143529	127.300884	-71.595482	-71.595482	0.000000	-13.783970
47	4.700000	-0.137249	134.515050	-72.687823	-72.687823	0.000000	-10.923410
48	4.800000	-0.131066	141.824146	-73.494106	-73.494106	0.000000	-8.062830
49	4.900000	-0.124985	149.199568	-74.014331	-74.014331	0.000000	-5.202250
50	5.000000	-0.119011	156.612710	-74.248500	-74.248500	0.000000	-2.341690
51	5.100000	-0.113151	163.971734	-72.931980	-72.931980	0.000000	13.165200
52	5.200000	-0.107410	171.178646	-71.206260	-71.206260	0.000000	17.257200
53	5.300000	-0.101791	178.192526	-69.071340	-69.071340	0.000000	21.349200
54	5.400000	-0.096302	184.972454	-66.527220	-66.527220	0.000000	25.441200
55	5.500000	-0.090946	191.477510	-63.573900	-63.573900	0.000000	29.533200
56	5.600000	-0.085728	197.666774	-60.211380	-60.211380	0.000000	33.625200
57	5.700000	-0.080653	203.499326	-56.439660	-56.439660	0.000000	37.717200
58	5.800000	-0.075725	208.934246	-52.258740	-52.258740	0.000000	41.809200
59	5.900000	-0.070948	213.930614	-47.668620	-47.668620	0.000000	45.901200

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60	6.000000	-0.066325	218.447510	-42.669300	-42.669300	0.000000	49.993200
61	6.100000	-0.061859	222.463014	-37.640780	-37.640780	0.000000	50.285200
62	6.200000	-0.057555	225.966206	-32.423060	-32.423060	0.000000	52.177200
63	6.300000	-0.053413	228.938166	-27.016140	-27.016140	0.000000	54.069200
64	6.400000	-0.049437	231.359974	-21.420020	-21.420020	0.000000	55.961200
65	6.500000	-0.045627	233.212710	-15.634700	-15.634700	0.000000	57.853200
66	6.600000	-0.041986	234.477454	-9.660180	-9.660180	0.000000	59.745200
67	6.700000	-0.038514	235.135286	-3.496460	-3.496460	0.000000	61.637200
68	6.800000	-0.035212	235.167286	2.856460	2.856460	0.000000	63.529200
69	6.900000	-0.032079	234.554534	9.398580	9.398580	0.000000	65.421200
70	7.000000	-0.029116	233.278110	16.129900	16.129900	0.000000	67.313200
71	7.100000	-0.026321	231.319094	23.050420	23.050420	0.000000	69.205200
72	7.200000	-0.023693	228.658566	30.160140	30.160140	0.000000	71.097200
73	7.300000	-0.021230	225.277606	37.459060	37.459060	0.000000	72.989200
74	7.400000	-0.018930	221.157294	44.947180	44.947180	0.000000	74.881200
75	7.500000	-0.016789	216.278710	52.624500	52.624500	0.000000	76.773200
76	7.600000	-0.014804	210.622934	60.491020	60.491020	0.000000	78.665200
77	7.700000	-0.012972	204.171046	68.546740	68.546740	0.000000	80.557200
78	7.800000	-0.011286	196.904126	76.791660	76.791660	0.000000	82.449200
79	7.900000	-0.009743	188.803254	85.225780	85.225780	0.000000	84.341200
80	8.000000	-0.008335	179.864065	93.557997	93.557997	0.000000	83.322170
81	8.100000	-0.007058	170.161270	100.497903	100.497903	0.000000	69.399060
82	8.200000	-0.005903	159.829105	106.145397	106.145397	0.000000	56.474940
83	8.300000	-0.004864	148.991895	110.598800	110.598800	0.000000	44.534030
84	8.400000	-0.003932	137.764264	113.953806	113.953806	0.000000	33.550060
85	8.500000	-0.003099	126.251449	116.302500	116.302500	0.000000	23.486940
86	8.600000	-0.002358	114.549702	117.732437	117.732437	0.000000	14.299370
87	8.700000	-0.001699	102.746790	118.325809	118.325809	0.000000	5.933720
88	8.800000	-0.001115	90.922566	118.158666	118.158666	0.000000	-1.671430
89	8.900000	-0.000596	79.149622	117.300219	117.300219	0.000000	-8.584470
90	9.000000	-0.000135	67.558151	114.529199	114.529199	0.000000	-27.710200
91	9.100000	0.000278	56.354940	109.535034	109.535034	0.000000	-49.941650
92	9.200000	0.000650	45.752399	102.515775	102.515775	0.000000	-70.192590
93	9.300000	0.000988	35.937208	93.788050	93.788050	0.000000	-87.277250
94	9.400000	0.001301	27.058278	83.790553	83.790553	0.000000	-99.974970
95	9.500000	0.001594	19.238812	72.598759	72.598759	0.000000	-111.917940
96	9.600000	0.001873	12.595558	60.266326	60.266326	0.000000	-123.324330
97	9.700000	0.002142	7.240854	46.827756	46.827756	0.000000	-134.385700
98	9.800000	0.002406	3.284393	32.301457	32.301457	0.000000	-145.262990
99	9.900000	0.002667	0.834660	16.693203	16.693203	0.000000	-156.082540
100	10.000000	0.002928	0.000000	0.000000	0.000000	0.000000	-166.932030

Results after Step 1 :

