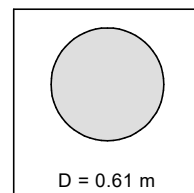


The diagram illustrates a pile foundation system with the following details:

- Soil Layers and Properties:**
 - Top Layer (Pink):** Auffüllung (Schotter) with $q_c = c_{u,k} = 0.0$. Elevation range: 286.06 to 285.06.
 - Middle Layer (Light Green):** Auffüllung (Altablagerung) with $q_c = 4.0 \text{ MN/m}^2$. Elevation range: 285.06 to 277.83.
 - Bottom Layer (Dark Green):** Schwemmsedimente with $q_c = 10.0 \text{ MN/m}^2$. Elevation range: 277.83 to 273.06.
 - Base Layer (Dark Green):** Fels (Grauwacke) with $q_c = 20.0 \text{ MN/m}^2$. Elevation range: 273.06 to 15.5.
- Pile Dimensions and Load Data:**
 - Tip Load:** 275.06
 - Side Load 1:** 274.56, $L = 11.00 \text{ m}$
 - Side Load 2:** 274.06, $L = 11.50 \text{ m}$
 - Side Load 3:** 273.56, $L = 12.00 \text{ m}$
 - Side Load 4:** 273.06, $L = 12.50 \text{ m}$
 - Side Load 5:** 273.06, $L = 13.00 \text{ m}$
- Vertical Scale:** A vertical axis on the left indicates elevations from 0.5 down to 15.5.



CPT3 (unter Werte)
 Frankipfahl
 Verhältniswert (min, max) = 0.00
 Interpolation Mantelreibung:
 bei $q_c < 7.5 \text{ MN/m}^2$ aktiviert
 bei $c_{u,k} < 60 \text{ kN/m}^2$ aktiviert
 Pfahldurchmesser = 0.610 m
 $\gamma_P = 1.40$
 $\gamma_G = 1.35$
 $\gamma_Q = 1.50$
 $F_{G,k} = 1.200 \text{ MN}$
 $F_{Q,k} = 0.400 \text{ MN}$
 erf $R_{1,k} = (F_{G,k} \cdot \gamma_G + F_{Q,k} \cdot \gamma_Q) \cdot \gamma_P$
 erf $R_{1,k} = (1.620 + 0.600) \cdot 1.400 = 3.108 \text{ MN}$

D [m]	Länge [m]	q _{cm} [MN/m²]	R _{s1,k} [MN]	R _{b1,k} [MN]	R _{1,k} [MN]	Volumen [m³]	W [-]
0.610	11.00	10.000	0.838	2.270	3.108	0.587	0.714
0.610	11.50	10.984	0.920	2.188	3.108	0.512	0.785
0.610	12.00	12.623	1.001	2.107	3.108	0.422	0.902
0.610	12.50	14.262	1.083	2.025	3.108	0.354	1.019
0.610	13.00	15.902	1.164	1.944	3.108	0.300	1.136

Erfahrungswerte für: Frankipfahl			
s/D _s	Pfahlspitzenwiderstand q _{b,k} [MN/m²]		
	q _c = 7,5 MN/m²	q _c = 15 MN/m²	q _c = 25 MN/m²
0,02	-	-	-
0,03	-	-	-
0,10	-	-	-
	c _{u,k} = 100 kN/m²	c _{u,k} = 150 kN/m²	c _{u,k} = 250 kN/m²
0,02	-	-	-
0,03	-	-	-
0,10	-	-	-
Pfahlmantelreibung q _{s,k} [MN/m²]			
q _c = 7,5 MN/m²	q _c = 15 MN/m²	q _c = 25 MN/m²	
0,070 - 0,095	0,115 - 0,150	0,135 - 0,180	
c _{u,k} = 60 kN/m²	c _{u,k} = 150 kN/m²	c _{u,k} = 250 kN/m²	
0,035 - 0,045	0,055 - 0,070	0,070 - 0,090	

