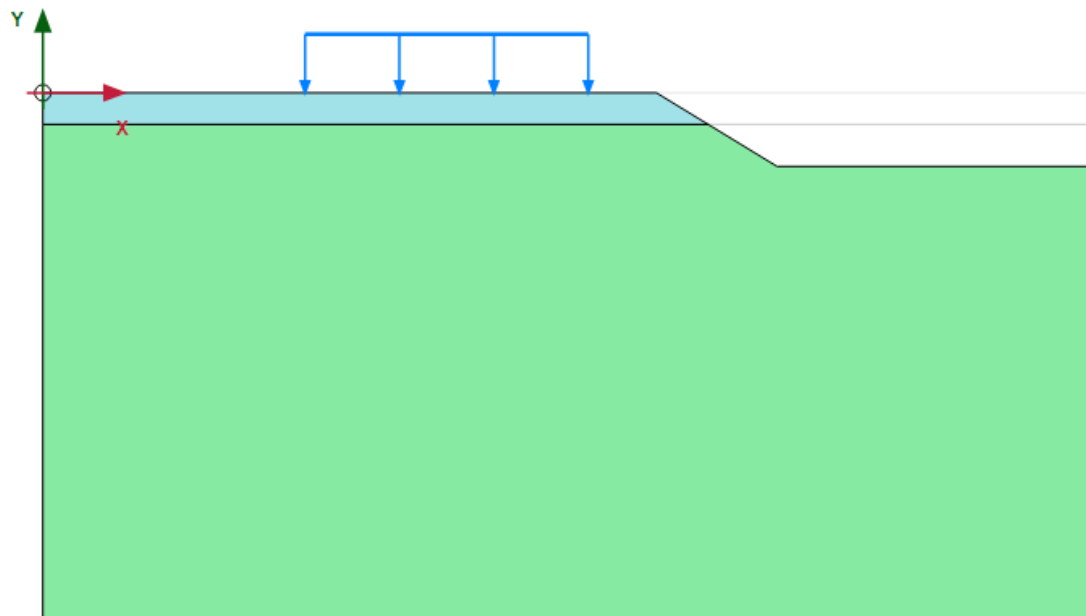
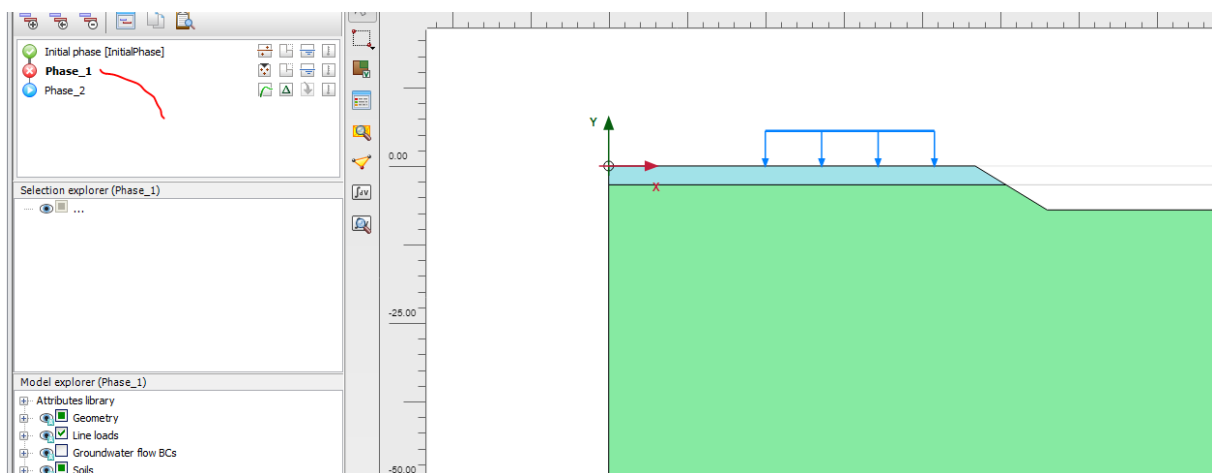


Dear Francesc,

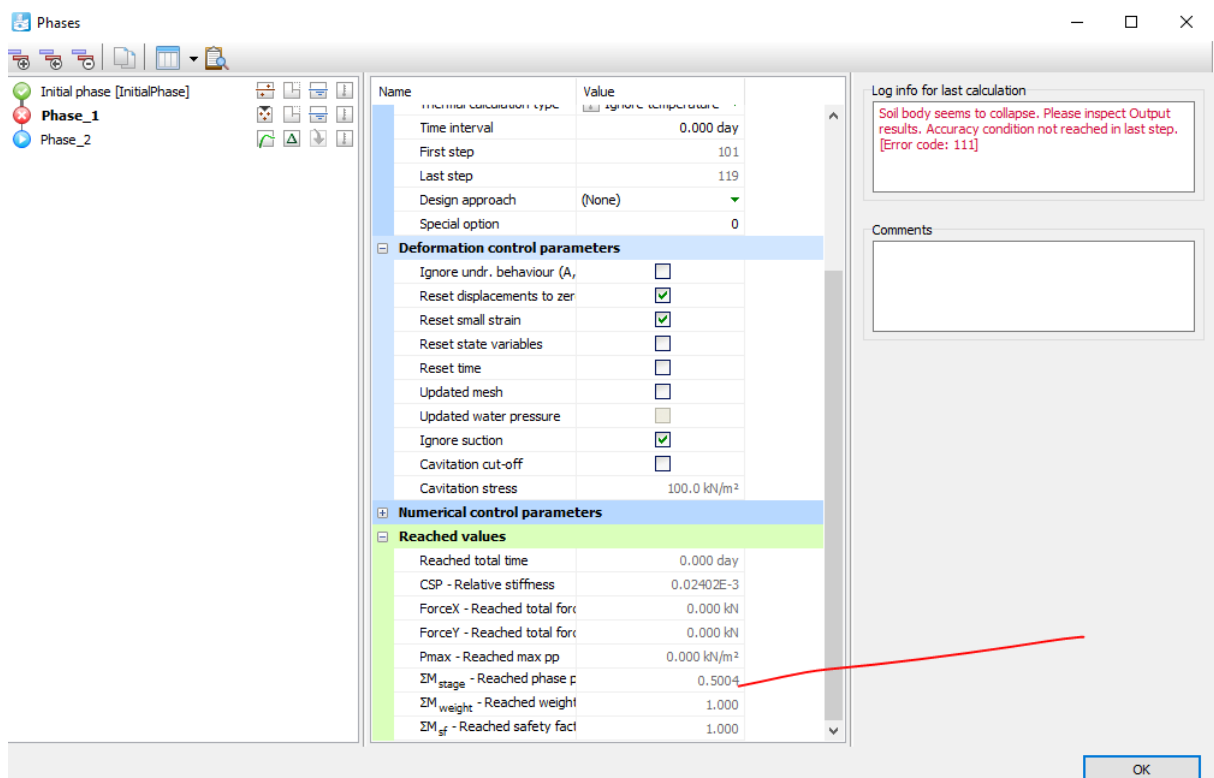
I hope I understood you clearly. Now take for example this problem. This is a slope with almost 150 kPa load adjacent to it (this is just an example).



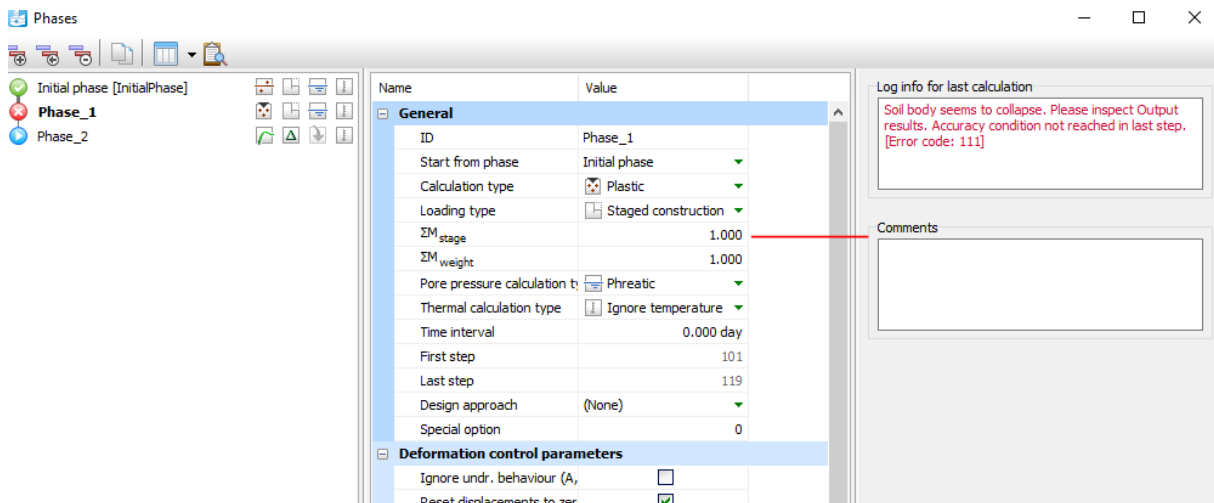
Now after running analysis, due to high loads and low soil strength, the upper layer of the soil fails due to low bearing capacity.



The failure occurred when Mstage value reached 0.5004



So, to find out the safety factor at failure at this failure point, I have to limit the Mstage at 0.500 something close to 0.5004 and not exactly the value itself.



Finally, re run the model, and get the SF value.

Phases

Initial phase [InitialPhase]  
Phase\_1  
Phase\_2

Name	Value
<b>General</b>	
ID	Phase_1
Start from phase	Initial phase
Calculation type	Plastic
Loading type	Staged construction
$\Sigma M_{stage}$	0.5000
$\Sigma M_{weight}$	1.000
Pore pressure calculation type	Phreatic
Thermal calculation type	Ignore temperature
Time interval	0.000 day
First step	101
Last step	111
Design approach	(None)
Special option	0
<b>Deformation control parameters</b>	
Ignore undr. behaviour (A <sub>v</sub> )	<input type="checkbox"/>
Reset displacements to zero	<input checked="" type="checkbox"/>
Reset small strain	<input checked="" type="checkbox"/>

Log info for last calculation  
Prescribed ultimate state fully reached.  
Unfinished construction stage.  
Next calculation must be staged construction [Warning code: 2]

Comments

Then I can get SF value at failure at around 0.5501.

Phases

Initial phase [InitialPhase]  
Phase\_1  
Phase\_2

Name	Value
Pore pressure calculation type	Use pressures from p
Thermal calculation type	Ignore temperature
First step	1
Last step	100
Design approach	(None)
Special option	0
<b>Deformation control parameters</b>	
Ignore undr. behaviour (A <sub>v</sub> )	<input type="checkbox"/>
Reset displacements to zero	<input type="checkbox"/>
Reset small strain	<input type="checkbox"/>
Reset state variables	<input type="checkbox"/>
Updated mesh	<input type="checkbox"/>
Updated water pressure	<input type="checkbox"/>
Ignore suction	<input checked="" type="checkbox"/>
Cavitation cut-off	<input type="checkbox"/>
Cavitation stress	100.0 kN/m <sup>2</sup>
<b>Numerical control parameters</b>	
<b>Reached values</b>	
Reached total time	0.000 day
CSP - Relative stiffness	0.07382E-12
ForceX - Reached total force	0.000 kN
ForceY - Reached total force	0.000 kN
Pmax - Reached max pp	0.000 kN/m <sup>2</sup>
$\Sigma M_{stage}$ - Reached phase p	0.000
$\Sigma M_{weight}$ - Reached weight	1.000
$\Sigma M_{sf}$ - Reached safety fact	0.5501

Log info for last calculation  
OK

Comments

OK