Odränerad analys, nulägesanalys 1

File Information

Created By: Karlström, Hanna
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Last Solved Date: 2011-04-13
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Project Settings

Length(L) Units: meters
Time(t) Units: Seconds
Force(F) Units: kN
Pressure(p) Units: kPa
Strength Units: kPa
Unit Weight of Water: 9.807 kN/m³
View: 2D

Analysis Settings

Odränerad analys, nulägesanalys 1

Description: V31/150 odränerad analys Uppsprucken torrskorpa, 50% vattenfyllda sprickor
Kind: SLOPE/W
Method: Morgenstern-Price
Settings
- Side Function
  - Interslice force function option: Half-Sine
- PWP Conditions Source: Pressure Head Spatial Function
- Pressure Head Spatial Fn.: Nulägesanalys

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 20
- Optimize Critical Slip Surface Location: Yes
- Tension Crack
  - Tension Crack Option: Tension Crack Line
  - Percentage Wet: 0.5
  - Tension Crack Fluid Unit Weight: 9.807 kN/m³

FOS Distribution

FOS Calculation Option: Constant

Advanced

Number of Slices: 30
Optimization Tolerance: 0.01
Minimum Slip Surface Depth: 0.1 m
Optimization Maximum Iterations: 2000
Optimization Convergence Tolerance: 1e-007
Starting Optimization Points: 8
Ending Optimization Points: 16
Complete Passes per Insertion: 1
Driving Side Maximum Convex Angle: 5 °
Resisting Side Maximum Convex Angle: 1 °

Materials

Crust ud

Model: S=f(depth)
Unit Weight: 18 kN/m³
C-Top of Layer: 30 kPa
C-Rate of Change: 0 kPa/m
Limiting C: 0 kPa

Clay 1 ud

Model: S=f(depth)
Unit Weight: 15.8 kN/m³
C-Top of Layer: 15 kPa
C-Rate of Change: 0.59 kPa/m
Limiting C: 16 kPa

Clay 2 ud

Model: S=f(depth)
Unit Weight: 15.8 kN/m³
C-Top of Layer: 16 kPa
C-Rate of Change: 1.43 kPa/m
Limiting C: 26 kPa

Clay 3 ud

Model: S=f(depth)
Unit Weight: 15.8 kN/m³
C-Top of Layer: 26 kPa
C-Rate of Change: 0 kPa/m
Limiting C: 0 kPa

Clay 4 ud

Model: S=f(depth)
Unit Weight: 15.8 kN/m³
C-Top of Layer: 26 kPa
C-Rate of Change: 0 kPa/m
Limiting C: 0 kPa

Clay 5 ud

Model: S=f(depth)
Unit Weight: 15.8 kN/m³
C-Top of Layer: 19 kPa
C-Rate of Change: 1.08 kPa/m
Limiting C: 23 kPa

Clay 6 ud

Model: S=f(depth)
Unit Weight: 15.8 kN/m³
C-Top of Layer: 23 kPa
C-Rate of Change: 2.67 kPa/m
Limiting C: 31 kPa

Clay 7 ud

Model: S=f(depth)
Unit Weight: 15.8 kN/m³
C-Top of Layer: 31 kPa
C-Rate of Change: 0 kPa/m
Limiting C: 0 kPa

Friction

Model: Mohr-Coulomb
Unit Weight: 22 kN/m³
Unit Wt. Above Water Table: 20 kN/m³
Cohesion: 0 kPa
Phi: 38 °
Phi-B: 0 °

Clay 8 ud

Model: S=f(datum)
Unit Weight: 15.7 kN/m³
C-Datum: 16 kPa
C-Rate of Change: 0 kPa/m
Limiting C: 16 kPa
Elevation: 12 m

Clay 9 ud

Model: S=f(datum)
Unit Weight: 15.7 kN/m³
C-Datum: 16 kPa
C-Rate of Change: 1.25 kPa/m
Limiting C: 26 kPa
Elevation: 7 m

Clay 10 ud

Model: S=f(datum)
Unit Weight: 16 kN/m³
C-Datum: 26 kPa
C-Rate of Change: 1.44 kPa/m
Limiting C: 39 kPa

Elevation: -1 m

Clay 11 ud

Model: S=f(datum)
Unit Weight: 16 kN/m³
C-Datum: 39 kPa
C-Rate of Change: 1.2 kPa/m
Limiting C: 0 kPa
Elevation: -10 m

Clay 12 ud

Model: S=f(depth)
Unit Weight: 16 kN/m³
C-Top of Layer: 16 kPa
C-Rate of Change: 0 kPa/m
Limiting C: 0 kPa

Clay 13 ud

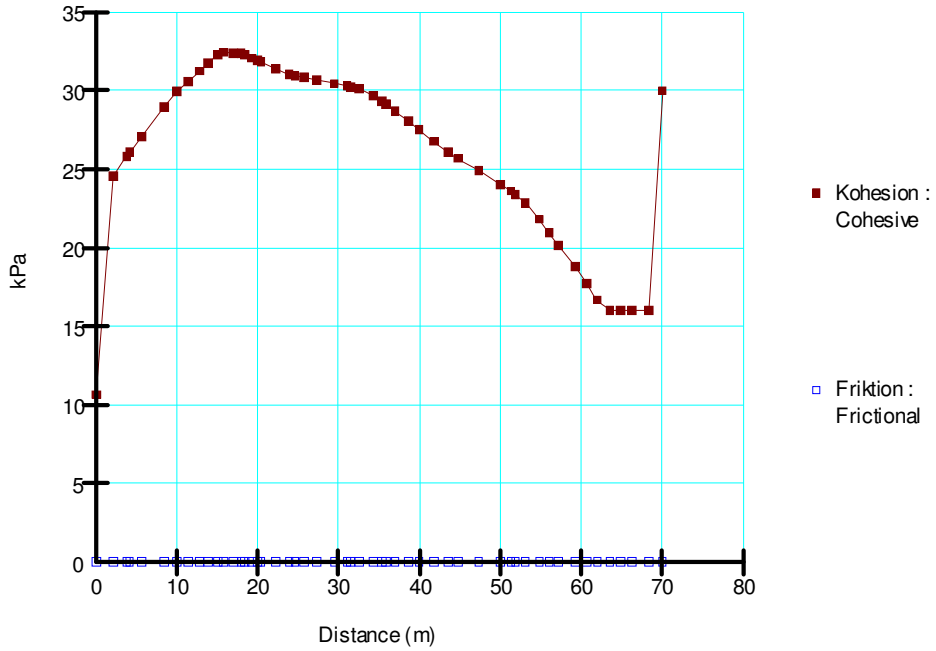
Model: S=f(datum)
Unit Weight: 16 kN/m³
C-Datum: 45 kPa
C-Rate of Change: 0 kPa/m
Limiting C: 45 kPa
Elevation: -15 m

Strandskoning

Model: Mohr-Coulomb
Unit Weight: 21 kN/m³
Unit Wt. Above Water Table: 18 kN/m³
Cohesion: 0 kPa
Phi: 40 °
Phi-B: 0 °

Clay 16 ud älv

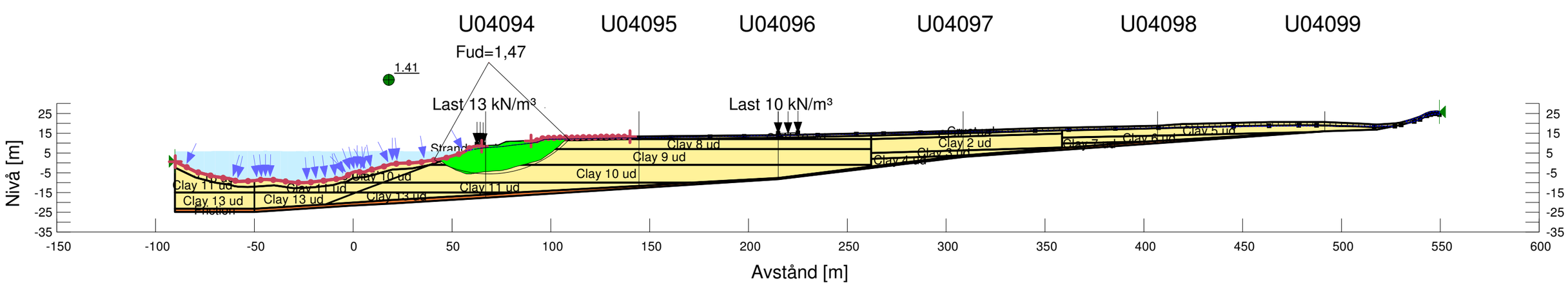
Model: S=f(depth)
Unit Weight: 16 kN/m³
C-Top of Layer: 5 kPa
C-Rate of Change: 10.5 kPa/m
Limiting C: 0 kPa


35
30
25
20
15
10
5
0
kPa
0
10
20
30
40
50
60
70
80
Distance (m)
Kohesion :
Cohesive
Friktion :
Frictional

Skala 1:2000 (A3)
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: V31/150 odränerad analys
Uppsprucken torrskorpa, 50% vattenfyllda sprickor
Beräkningsmodell: Morgenstern-Price
Metod: Entry and Exit
Portrycksmodell: Pressure Head Spatial Function
Datum: 2011-04-13

Nivå för yttre vattenstånd + 6 [m]



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