Kombinerad analys, befintliga förhållanden

File Information

Created By: Virginia Bengtsson
Revision Number: 234
Last Edited By: Bengtsson Virginia
Date: 2011-04-10
Time: 12:28:55
File Name: 38850WKS.gsz
Directory: S:\Uppdrag\60_Externt\6020xx\602085_Stabilitetsutredning GÄ_Tyréns\GÄU DELOMRÅDE 4\Delområde 1-10\Delområde 4-14084\Geoteknik\Beräkningar\Sektion 11 38850\
Last Solved Date: 2011-04-10
Last Solved Time: 12:33:38

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

Kombinerad analys, befintliga förhållanden

Description: 38/850 kombinerad analys Uppsprucken torrskorpa, vattenfyllda sprickor (50%)
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.: Pressure Head Function

SlipSurface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Grid and Radius
- 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 co

Model: Combined, S=f(depth)
Unit Weight: 17 kN/m³
Phi: 30 °
C-Top of Layer: 3 kPa
C-Rate of Increase: 0
Cu-Top of Layer: 30 kPa
Cu-Rate Increase: 0
C/Cu Ratio: 0

Fill

Model: Mohr-Coulomb
Unit Weight: 19 kN/m³
Cohesion: 0 kPa
Phi: 38 °
Phi-B: 0 °

Clay 1 co älv

Model: Combined, S=f(depth)
Unit Weight: 15.6 kN/m³
Phi: 30 °
C-Top of Layer: 0.8 kPa
C-Rate of Increase: 0
Cu-Top of Layer: 8 kPa
Cu-Rate Increase: 0
C/Cu Ratio: 0

Clay 3 co älv

Model: Combined, S=f(depth)
Unit Weight: 15.6 kN/m³
Phi: 30 °

C-Top of Layer: 1.7 kPa
C-Rate of Increase: 0.127
Cu-Top of Layer: 17 kPa
Cu-Rate Increase: 1.27
C/Cu Ratio: 0

Clay 3 co

Model: Combined, S=f(depth)
Unit Weight: 15.6 kN/m³
Phi: 30 °
C-Top of Layer: 1.4 kPa
C-Rate of Increase: 0
Cu-Top of Layer: 14 kPa
Cu-Rate Increase: 0
C/Cu Ratio: 0

Clay 4 co

Model: Combined, S=f(datum)
Unit Weight: 15.6 kN/m³
Phi: 30 °
C-Datum: 1.4 kPa
C-Rate of Increase: 0.069
Cu-Datum: 14 kPa
Cu-Rate Increase: 0.69
C/Cu Ratio: 0
Elevation: 1 m

Clay 5 co

Model: Combined, S=f(datum)
Unit Weight: 15.6 kN/m³
Phi: 30 °
C-Datum: 1.4 kPa
C-Rate of Increase: 0.167
Cu-Datum: 14 kPa
Cu-Rate Increase: 1.67
C/Cu Ratio: 0
Elevation: 1 m

Clay 2 co älv

Model: Combined, S=f(depth)
Unit Weight: 15.6 kN/m³
Phi: 30 °
C-Top of Layer: 0.8 kPa
C-Rate of Increase: 0.45
Cu-Top of Layer: 8 kPa
Cu-Rate Increase: 4.5
C/Cu Ratio: 0

Friction

Model: Mohr-Coulomb
Unit Weight: 22 kN/m³
Unit Wt. Above Water Table: 19 kN/m³

Cohesion: 0 kPa
Phi: 38 °
Phi-B: 0 °

Gravel

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

Bedrock

Model: Bedrock (Impenetrable)

Clay 6 co

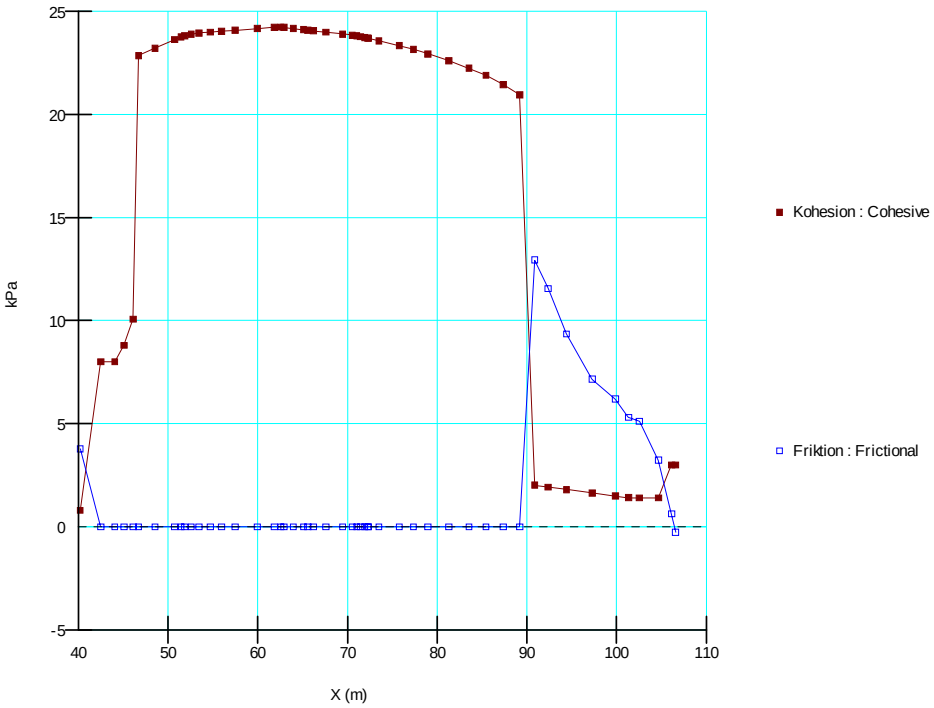
Model: Combined, S=f(depth)
Unit Weight: 16.2 kN/m³
Phi: 30 °
C-Top of Layer: 1.4 kPa
C-Rate of Increase: 0
Cu-Top of Layer: 14 kPa
Cu-Rate Increase: 0
C/Cu Ratio: 0

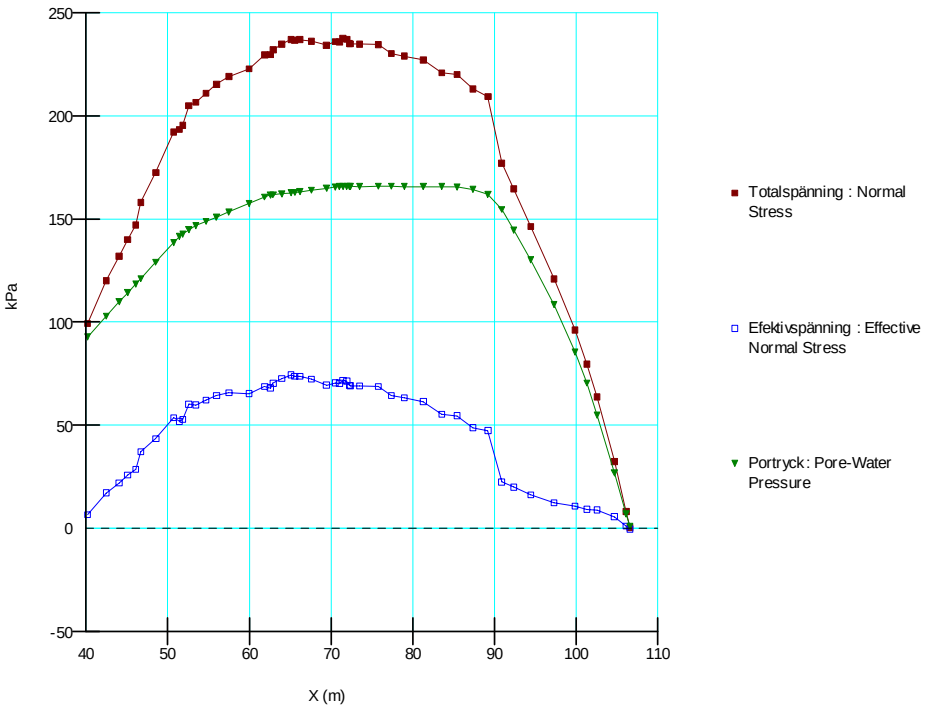
Surcharge Loads

Surcharge Load 1

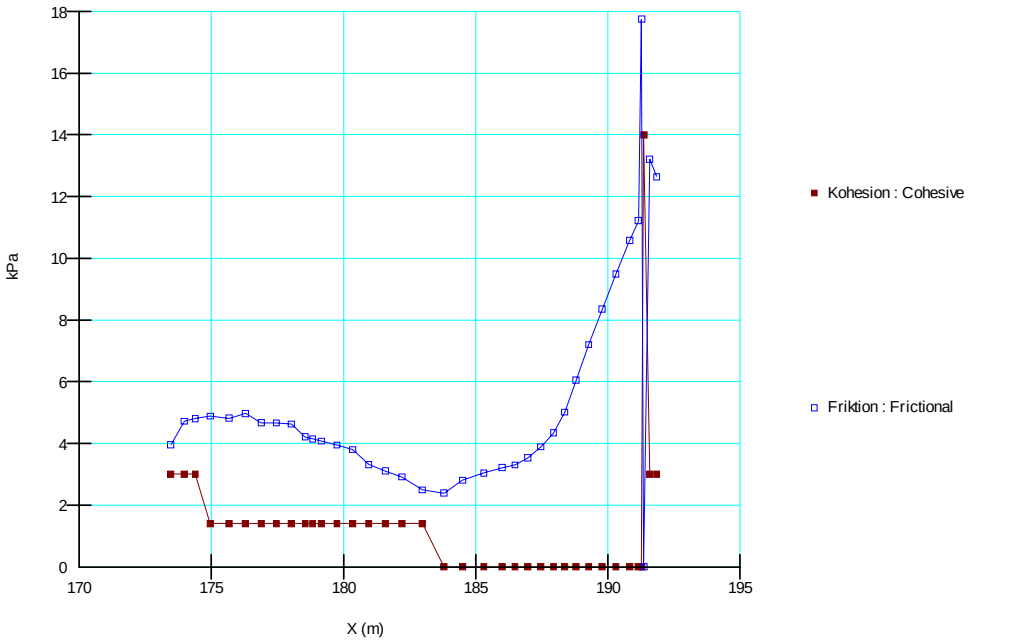
Surcharge (Unit Weight): 20 kN/m³
Direction: Vertical

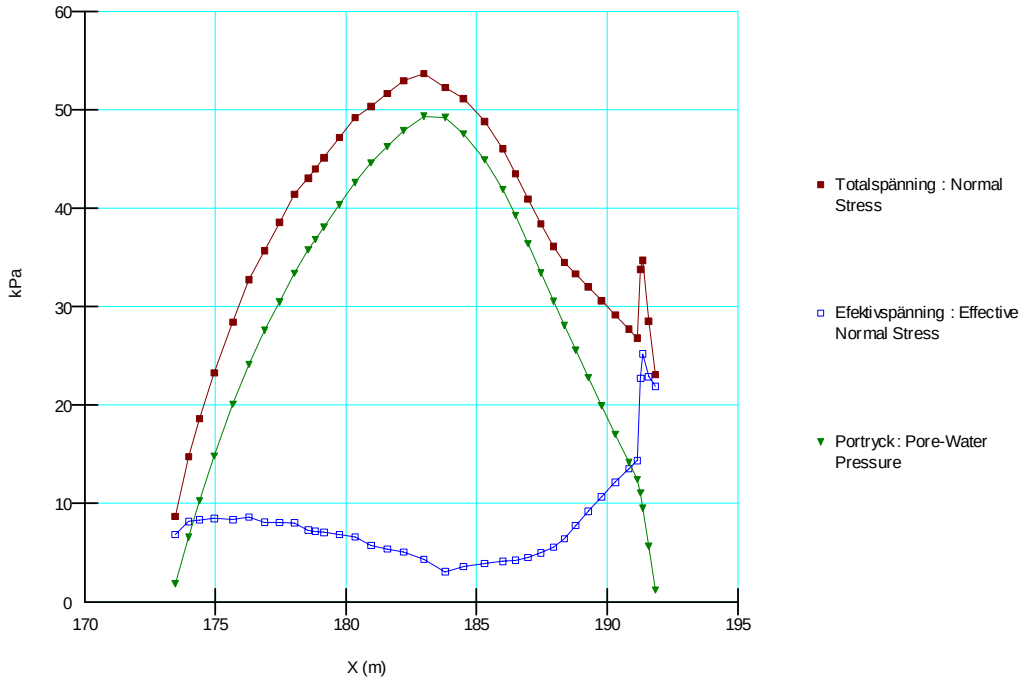
Glidyta älvsländ (Fk = 0,76)





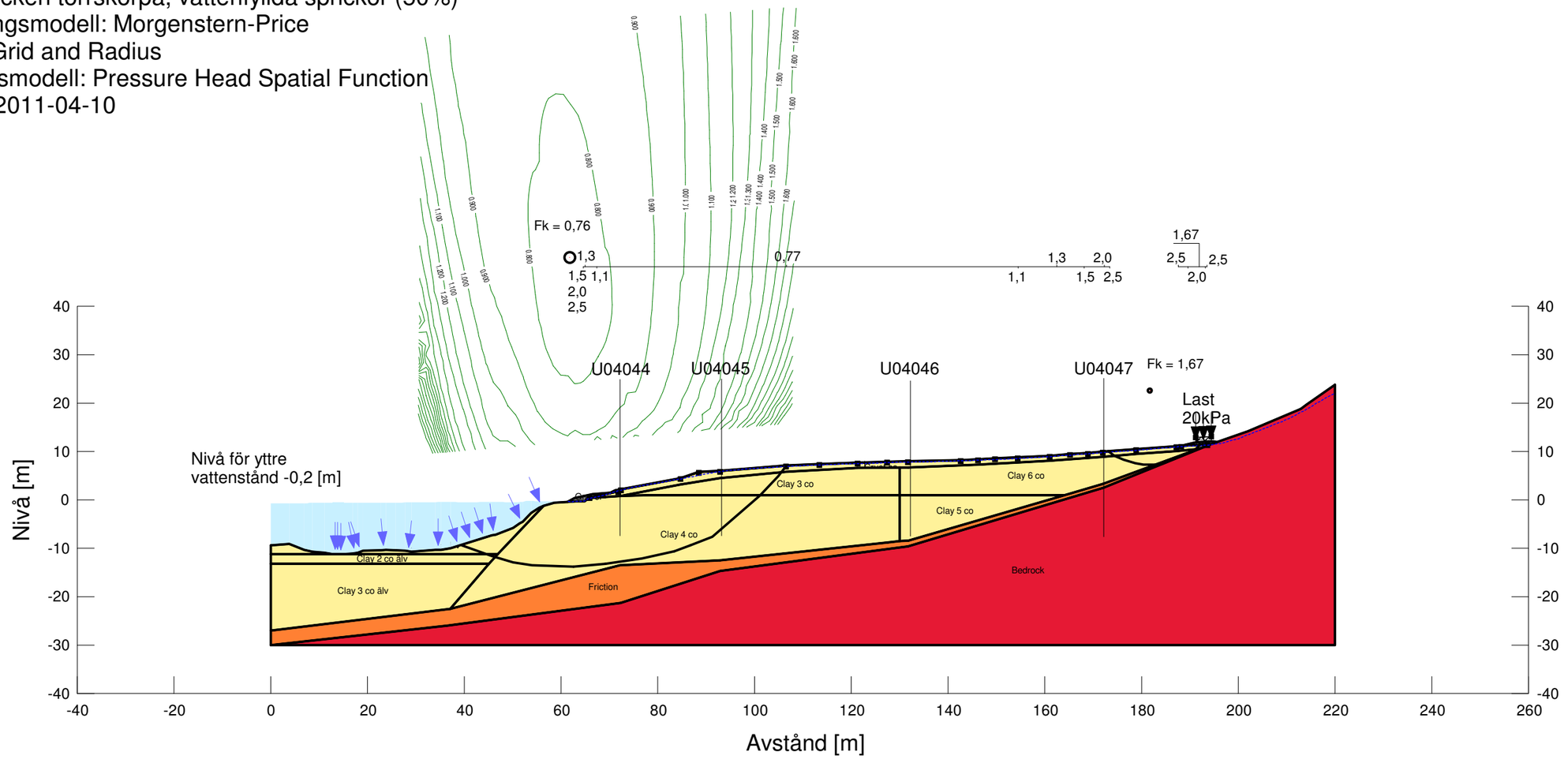
Glidyta fastmarksslänt (Fk = 1,67)





Skala 1:1000 (A3)
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012
SEKTION: 38/850 kombinerad analys
Uppsprucken torrskorpa, vattenfyllda sprickor (50%)
Beräkningsmodell: Morgenstern-Price
Metod: Grid and Radius
Portrycksmodell: Pressure Head Spatial Function
Datum: 2011-04-10



Beräkning utförd av:
Virginia Bengtsson

Granskad av:
Mats Ekenberg

Directory: S:\Uppdrag\60_Externt\6020xx\602085_Stabilitetsutredning GÄ_Tyréns\Leverans\Till Tyrens\20110411\sektion 2 5 11\38850 11\38850WKS.gsz

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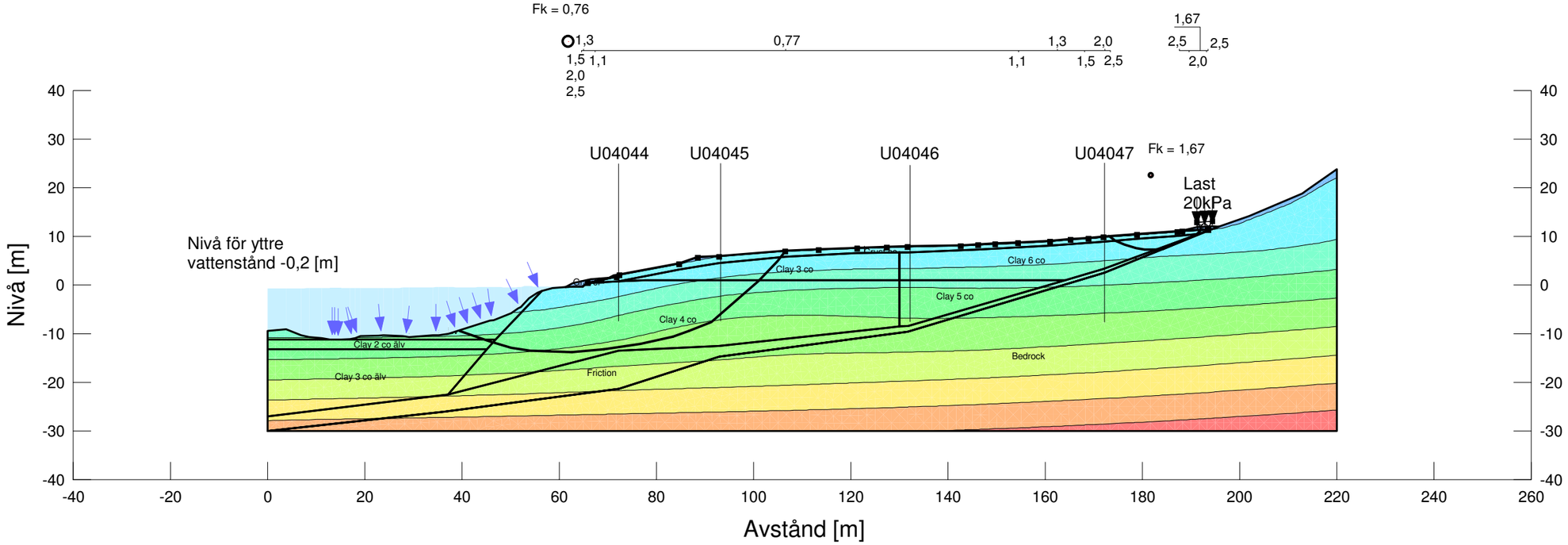

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