

# Kombinerad analys, nulägesanalys,söder 1

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## File Information

Created By: [Karlström, Hanna](#)  
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Date: [2011-04-05](#)  
Time: [10:34:10](#)  
File Name: [31150WKSA.gsz](#)  
Directory: [V:\\\_UPPDRAG\224784\Teknik\Delområde 1-10\Delområde 4-14084\Geoteknik\Beräkningar\Sektion 25\V31\\_150A\](#)  
Last Solved Date: [2011-04-05](#)  
Last Solved Time: [10:39:18](#)

## 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/m<sup>3</sup>](#)  
View: [2D](#)

## Analysis Settings

### Kombinerad analys, nulägesanalys,söder 1

Description: [V31/150A kombinerad 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/m<sup>3</sup>

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,  $S=f(\text{depth})$

Unit Weight: 18 kN/m<sup>3</sup>

Phi: 30 °

C-Top of Layer: 0 kPa

C-Rate of Change: 0 kPa/m

Cu-Top of Layer: 30 kPa

Cu-Rate of Change: 0 kPa/m

C/Cu Ratio: 0.1

### Friction

Model: Mohr-Coulomb

Unit Weight: 22 kN/m<sup>3</sup>

Unit Wt. Above Water Table: 20 kN/m<sup>3</sup>

Cohesion: 0 kPa

Phi: 38 °

Phi-B: 0 °

### Clay 1 co

Model: Combined,  $S=f(\text{datum})$

Unit Weight: 15.7 kN/m<sup>3</sup>

Phi: 30 °

C-Datum: 0 kPa

C-Rate of Change: 0 kPa/m

Cu-Datum: 16 kPa

Cu-Rate of Change: 0 kPa/m

C/Cu Ratio: 0.1

Elevation: 12 m

### Clay 2 co

Model: Combined,  $S=f(\text{datum})$

Unit Weight: 15.7 kN/m<sup>3</sup>

Phi: 30 °  
C-Datum: 0 kPa  
C-Rate of Change: 0 kPa/m  
Cu-Datum: 16 kPa  
Cu-Rate of Change: 1.25 kPa/m  
C/Cu Ratio: 0.1  
Elevation: 7 m

### Clay 3 co

Model: Combined,  $S=f(\text{datum})$   
Unit Weight: 16 kN/m<sup>3</sup>  
Phi: 30 °  
C-Datum: 0 kPa  
C-Rate of Change: 0 kPa/m  
Cu-Datum: 26 kPa  
Cu-Rate of Change: 1.44 kPa/m  
C/Cu Ratio: 0.1  
Elevation: -1 m

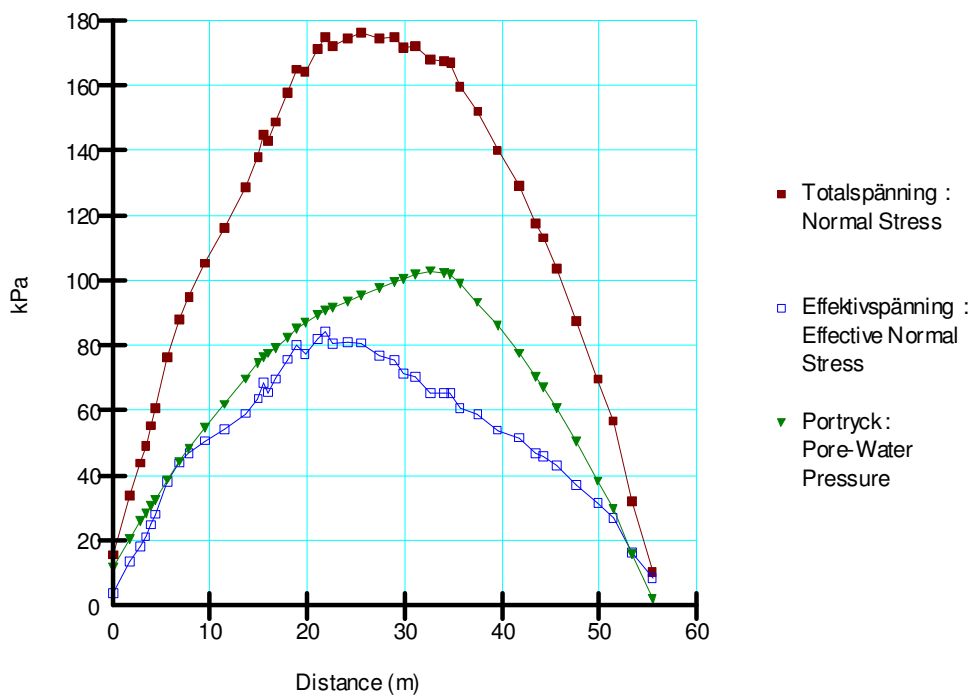
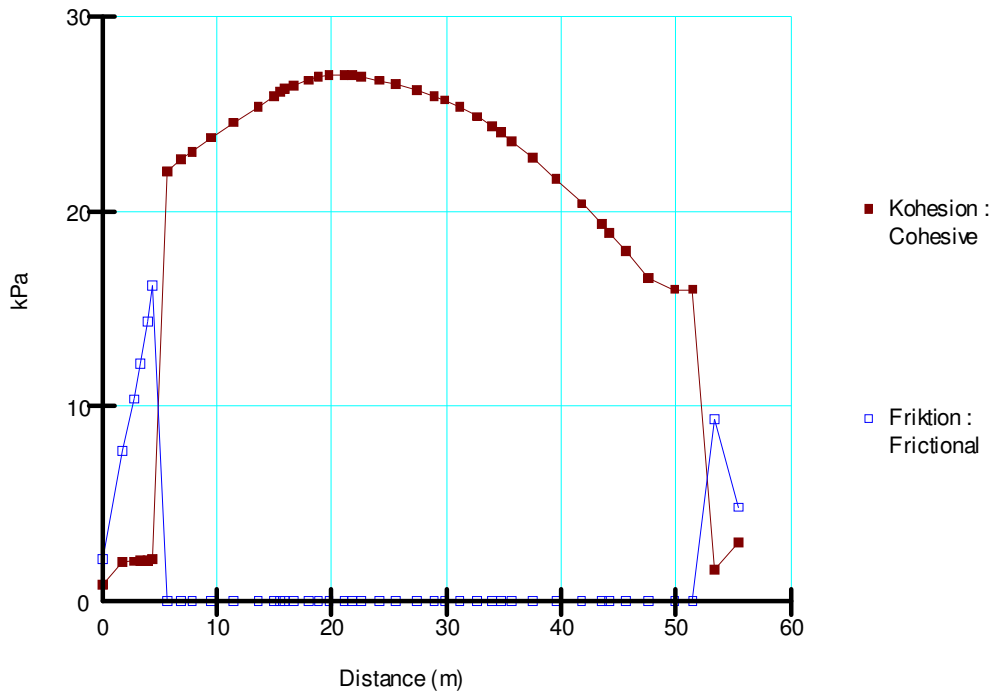
### Clay 4 co

Model: Combined,  $S=f(\text{datum})$   
Unit Weight: 16 kN/m<sup>3</sup>  
Phi: 30 °  
C-Datum: 0 kPa  
C-Rate of Change: 0 kPa/m  
Cu-Datum: 39 kPa  
Cu-Rate of Change: 1.2 kPa/m  
C/Cu Ratio: 0.1  
Elevation: -10 m

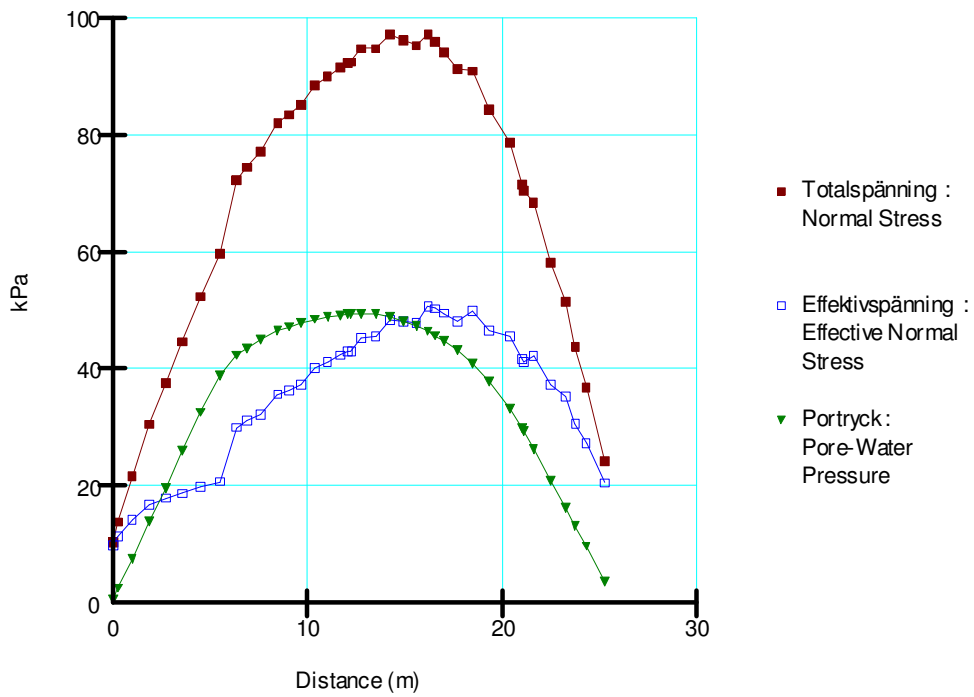
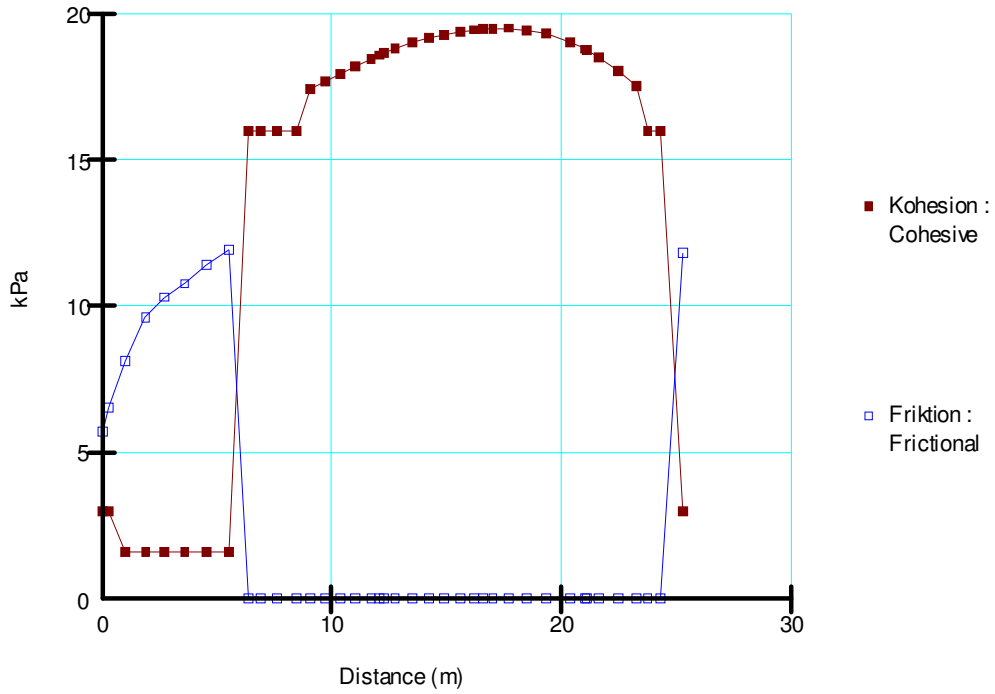
### Clay 5 co älv

Model: Combined,  $S=f(\text{depth})$   
Unit Weight: 15 kN/m<sup>3</sup>  
Phi: 30 °  
C-Top of Layer: 0 kPa  
C-Rate of Change: 0 kPa/m  
Cu-Top of Layer: 5 kPa  
Cu-Rate of Change: 8.91 kPa/m  
C/Cu Ratio: 0.1

Södra slänten



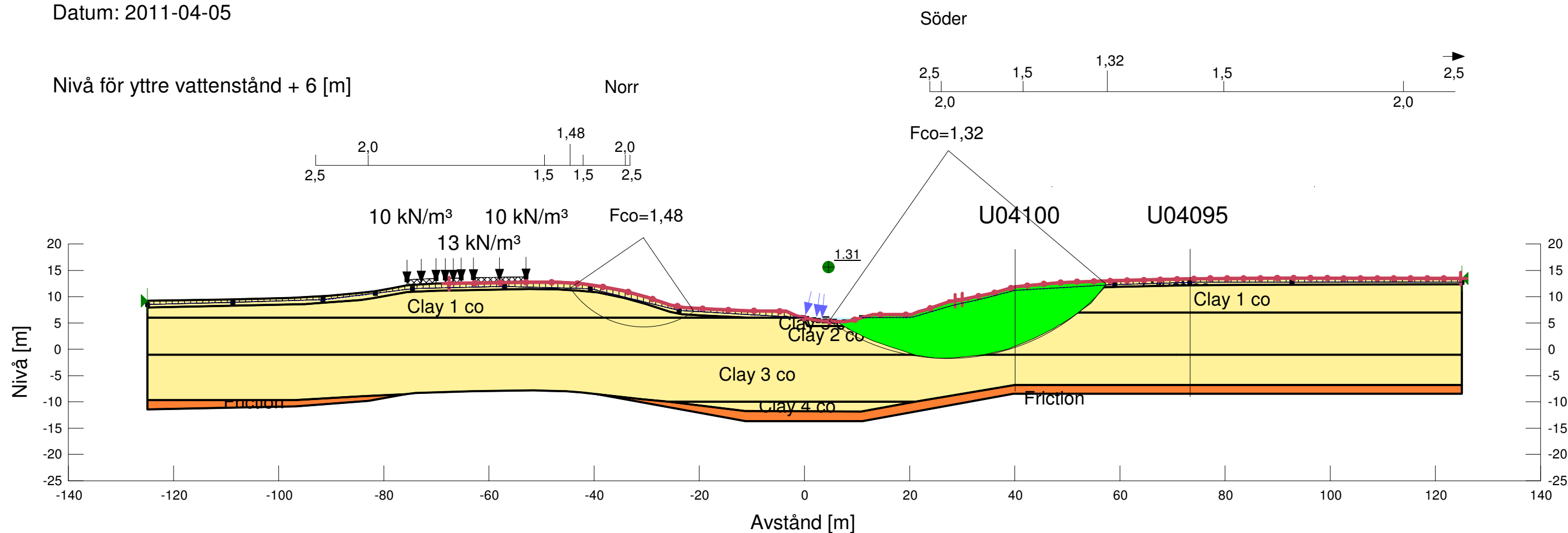
Norra slänten





Skala 1:800 (A3)  
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012  
SEKTION: V31/150A kombinerad analys  
Uppsprucken torrskorpa, 50% vattenfyllda sprickor  
Beräkningsmodell: Morgenstern-Price  
Metod: Entry and Exit  
Portrycksmodell: Pressure Head Spatial Function  
Datum: 2011-04-05

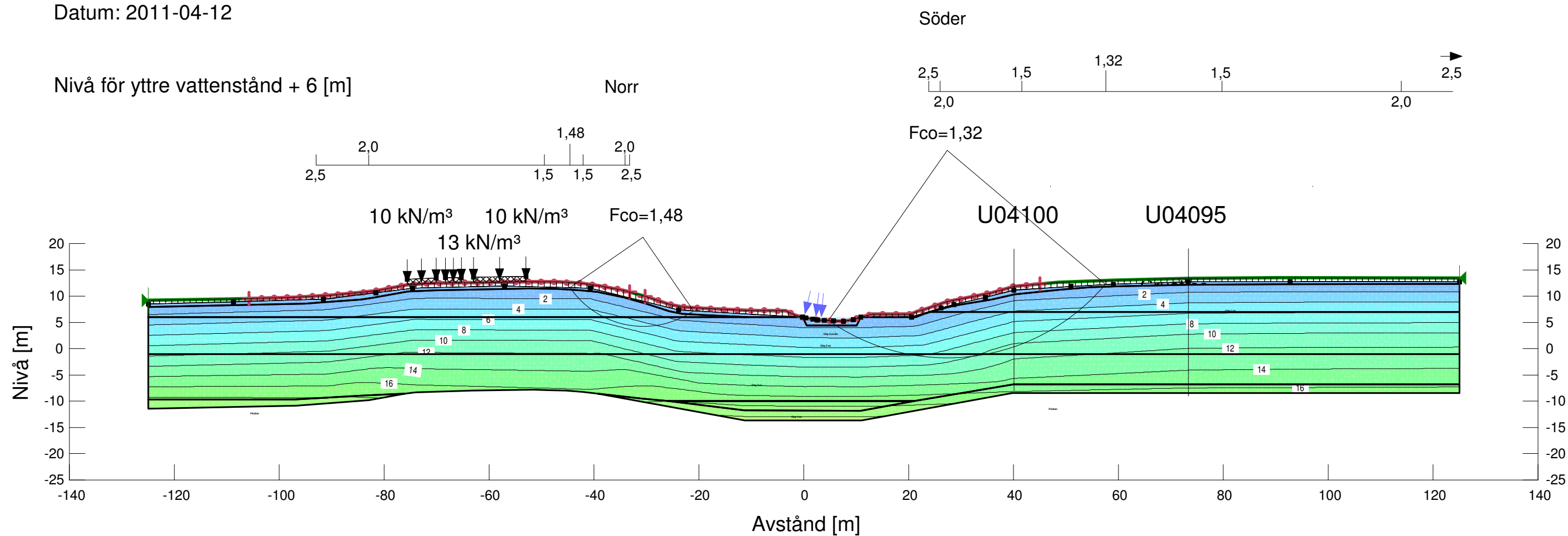


Beräkning utförd av: Hanna Karlström  
Granskad av: Mats Ekenberg



Skala 1:800 (A3)  
Leveransdatum 2011-03-31

Göta älv utredningen 2009-2012  
SEKTION: V31/150A kombinerad analys norra sidan  
Uppsprucken torrskorpa, 50% vattenfyllda sprickor  
Beräkningsmodell: Morgenstern-Price  
Metod: Entry and Exit  
Portrycksmodell: Pressure Head Spatial Function  
Datum: 2011-04-12



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