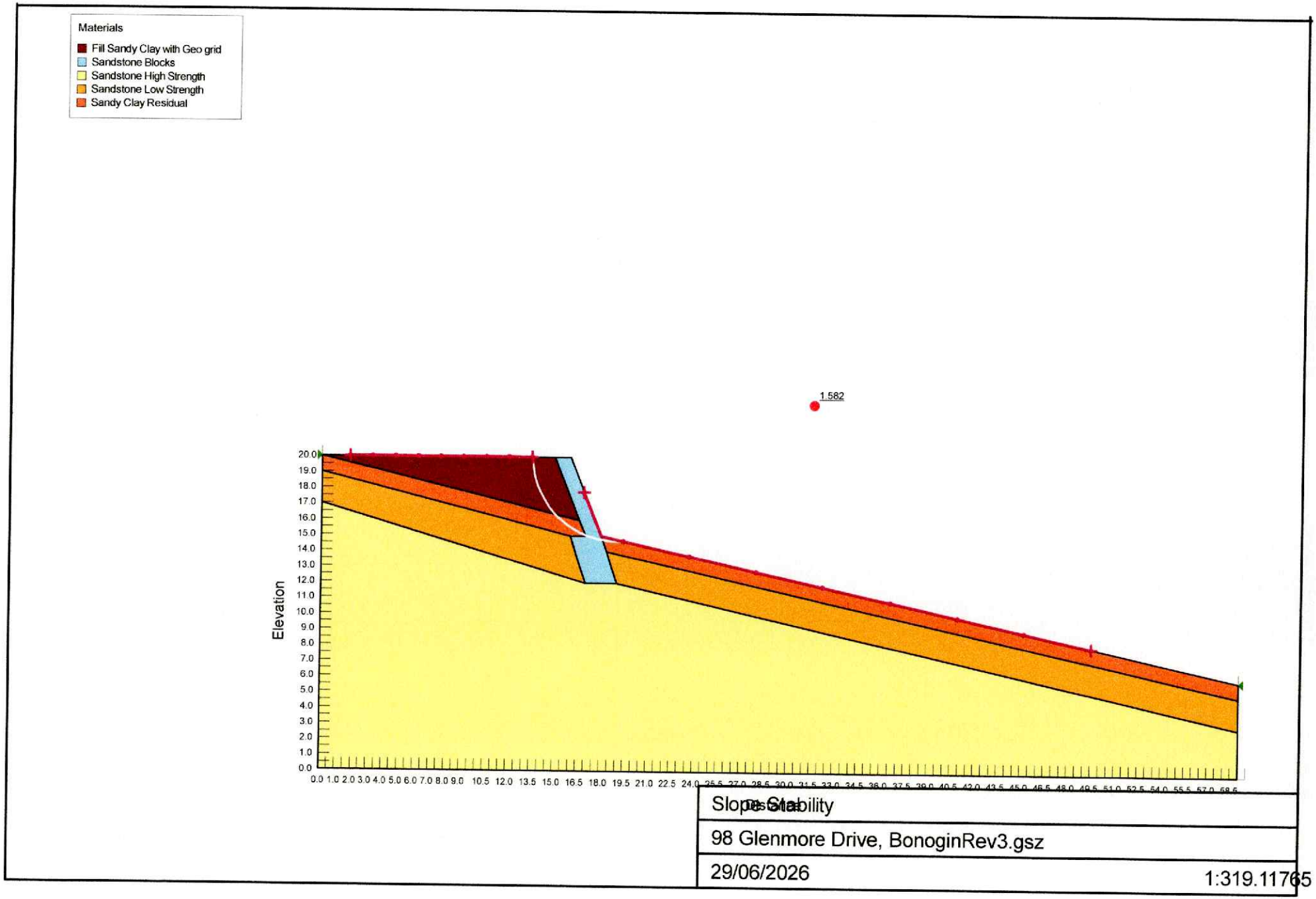

Materials
Fill Sandy Clay with Geo grid
Sandstone Blocks
Sandstone High Strength
Sandstone Low Strength
Sandy Clay Residual
1.582
Elevation
20.0
19.0
18.0
17.0
16.0
15.0
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.5 12.0 13.5 15.0 16.5 18.0 19.5 21.0 22.5 24.0
Slope Stability
98 Glenmore Drive, BonoginRev3.gsz
29/06/2026
1:319.11765

Slope Stability

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File Information

File Version: 11.08
Product Version: 25.1.1.182
Title: 98 Glenmore Drive, Bonogin
Created By: Rhys French
Last Edited By: rhys french
Revision Number: 3
Date: 29/06/2026
Time: 02:23:59 PM
File Name: 98 Glenmore Drive, BonoginRev3.gsz
Directory: C:\Users\rhysf\OneDrive\Desktop\Geotechnical Reports\Slope Stability\

Project Settings

Unit System: International System of Units (SI)
Start Date: Sunday, 29 June 2026

Analysis Settings

Slope Stability

Description: RW 7m
Kind: SLOPE/W
Analysis Type: Limit Equilibrium
Settings
- Method: Morgenstern-Price
- Side Function Settings
  - Side Function: Half-Sine
- PWP Conditions from: (none)
- Unit Weight of Water: 9.807 kN/m³

Slip Surface
- Slip Surface Settings
  - Search Method: Entry and Exit
  - Specify Radius Tangent Lines: No
  - Direction of Movement: Left to Right
  - Use Passive Mode: No
  - No. of Critical Slip Surfaces to Store: 1
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 m
  - Minimum Slip Surface Volume: 1 m³
  - Number of Columns: 30
- Tension Crack Option: (none)

Optimization
- Optimize Critical Slip Surface: No

Convergence
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable Difference in F of S: 0.001
- Under-Relaxation Criteria
  - Initial Rate: 1
  - Minimum Rate: 0.1

Rate Reduction Factor: 0.65
Reduction Frequency (iterations): 50
Solution Settings
Search Method: Root Finder
Tolerable difference between starting and converged F of S: 3
Maximum iterations to calculate converged lambda: 20
Maximum Absolute Lambda: 2

Materials

Fill Sandy Clay with Geo grid

Slope Stability Material Model: Mohr-Coulomb
Unit Weight: 18.5 kN/m³
Effective Cohesion: 10 kPa
Effective Friction Angle: 32 °
Phi-B: 0 °

Sandy Clay Residual

Slope Stability Material Model: Mohr-Coulomb
Unit Weight: 18.5 kN/m³
Effective Cohesion: 2 kPa
Effective Friction Angle: 31 °
Phi-B: 0 °

Sandstone Low Strength

Slope Stability Material Model: Mohr-Coulomb
Unit Weight: 22 kN/m³
Effective Cohesion: 20 kPa
Effective Friction Angle: 32 °
Phi-B: 0 °

Sandstone High Strength

Slope Stability Material Model: Bedrock (Impenetrable)

Sandstone Blocks

Slope Stability Material Model: Mohr-Coulomb
Unit Weight: 23 kN/m³
Effective Cohesion: 50 kPa
Effective Friction Angle: 33 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (1.773, 20) m
Left-Zone Right Coordinate: (13.5, 20) m
Left-Zone Increment: 8
Right Type: Range
Right-Zone Left Coordinate: (16.889724, 17.77569) m
Right-Zone Right Coordinate: (49.5, 8.085366) m
Right-Zone Increment: 8
Radius Increments: 4

Slip Surface Limits

Left Coordinate: (0, 20) m
Right Coordinate: (59, 6) m

Geometry

Name: 2D Geometry

Settings

View: 2D
Element Thickness: 0.5 m

Points

	X	Y
Point 1	0 m	20 m
Point 2	15 m	20 m
Point 3	17 m	15 m
Point 4	16 m	15 m
Point 5	17 m	12 m
Point 6	19 m	12 m
Point 7	18 m	15 m
Point 8	59 m	6 m
Point 9	59 m	0 m
Point 10	0 m	0 m
Point 11	16 m	20 m
Point 12	16.6 m	16 m
Point 13	0 m	19 m
Point 14	18.333333 m	14 m
Point 15	59 m	5 m
Point 16	0 m	18 m
Point 17	16.5 m	13.5 m
Point 18	18.666666 m	13 m
Point 19	59 m	4 m
Point 20	0 m	17 m
Point 21	59 m	3 m

Regions

	Material	Points	Area
Region 1	Sandstone Blocks	2,12,3,4,17,5,6,18,14,7,11	11 m^2
Region 2	Fill Sandy Clay with Geo grid	1,12,2	30 m^2
Region 3	Sandy Clay Residual	8,7,14,15	39.333 m^2
Region 4	Sandy Clay Residual	3,12,1,13,4	18 m^2
Region 5	Sandstone Low Strength	13,16,17,4	19.25 m^2
Region 6	Sandstone Low Strength	15,14,18,19	39 m^2
Region 7	Sandstone High Strength	20,10,9,21,6,5	570.5 m^2
Region 8	Sandstone Low Strength	16,20,5,17	19.75 m^2
Region 9	Sandstone Low Strength	19,18,6,21	38.667 m^2