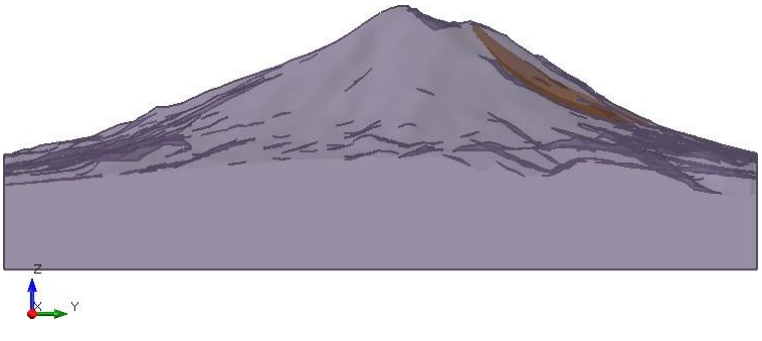
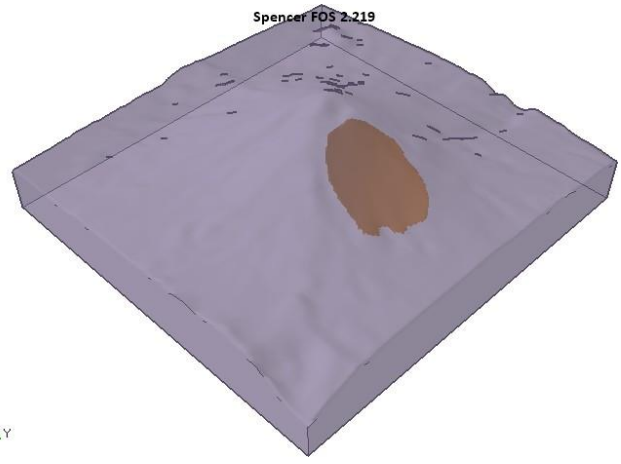
3D Index by File

Slope Stability Verification

Rocscience Inc.





Slope Stability Verification – Index by File – 3D Models

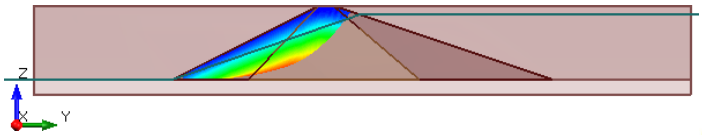
Introduction

The Slope Stability Verification of programs Slide^3, RS^3, Slide, and RS^2 is separated into three different types of models which create three separate verification documents and their corresponding indexes. These model types are 2D extruded models, 2D swept models, and 3D models. Each example contains its model type as the first part of its keyword description. The verification is separated by model type for easier identification of specific models or specific types of models. This is the index for the 3D models.

Generally, a 3D model is a model that cannot be classified as either a 2D extruded or 2D swept model. These models have mostly been created by lofting different 2D cross sections to each other, so their cross sections are not consistent throughout the model, which is what differentiates these models from the other two model types. Models with more complex geometries, such as open pits, have also been included in this index. These models have mostly been taken from reference material such as journal and conference proceedings; however, some examples are verified by comparing the safety factors from the programs to each other.

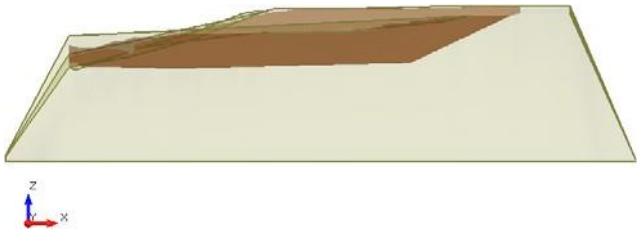
This index contains the name of each 3D verification example, its keyword description, and two pictures of the example. The keyword description for each of these models will start with '3D,' to easily identify the type. The numbers of the verification examples found in this index match the number of the example found in the Verification document. The keyword description generally describes the most important elements of the model, and can also be found in the Table of Contents of the Verification under the name of the given example, and under the title of the example in the main body of the Verification. The verification titles only give their number, not a description of the model, so these keywords are useful for identifying specific models. The pictures given in this index show one of the three plane views in Slide^3, as well as an isometric view of the 3D Slide^3 model both of which include the slip surface. The pictures are useful for matching an example's appearance with its number and description.

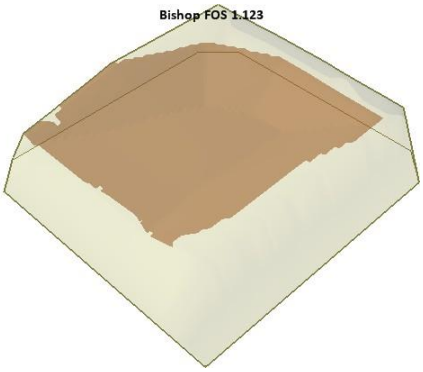
3D Verification #001



3D valley, (4) materials, water table, ellipsoidal with SA

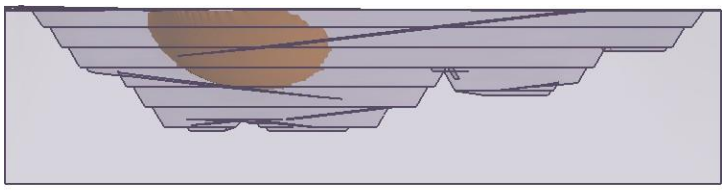
3D Verification #002

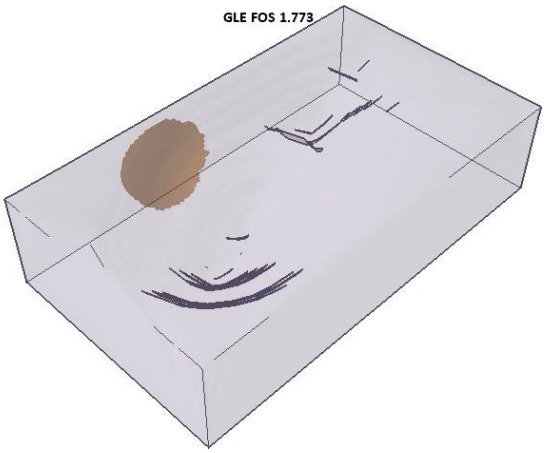




3D landfill, weak plane defined slip surface

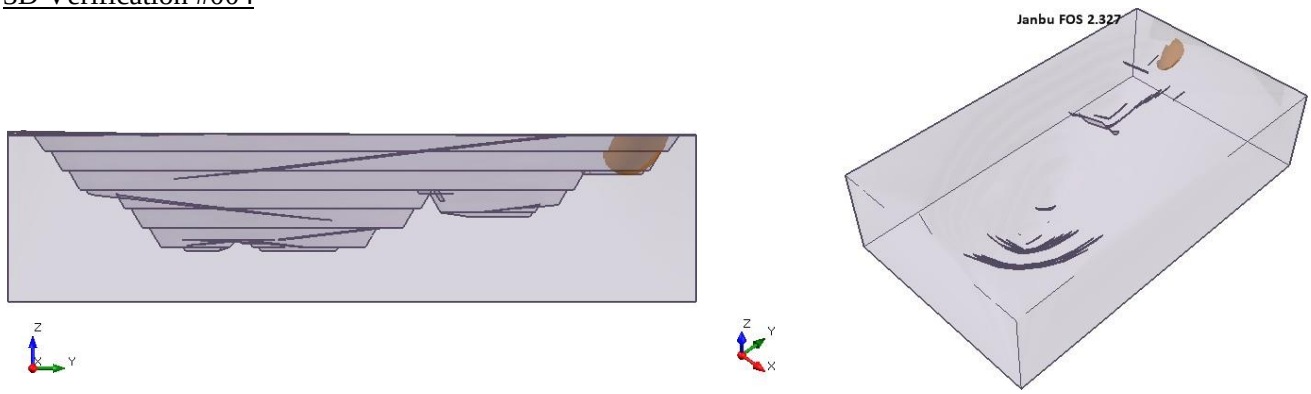
3D Verification #003





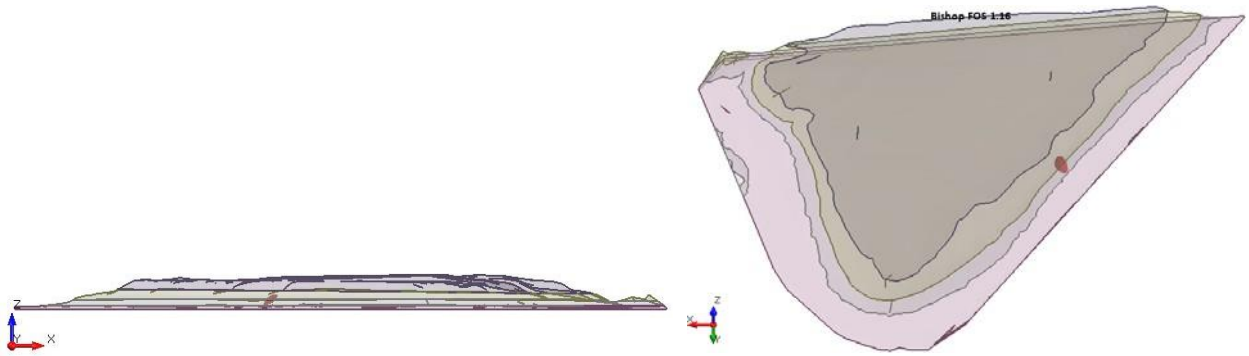
3D open pit mine, homogeneous, slope limits, ellipsoidal with SA

3D Verification #004



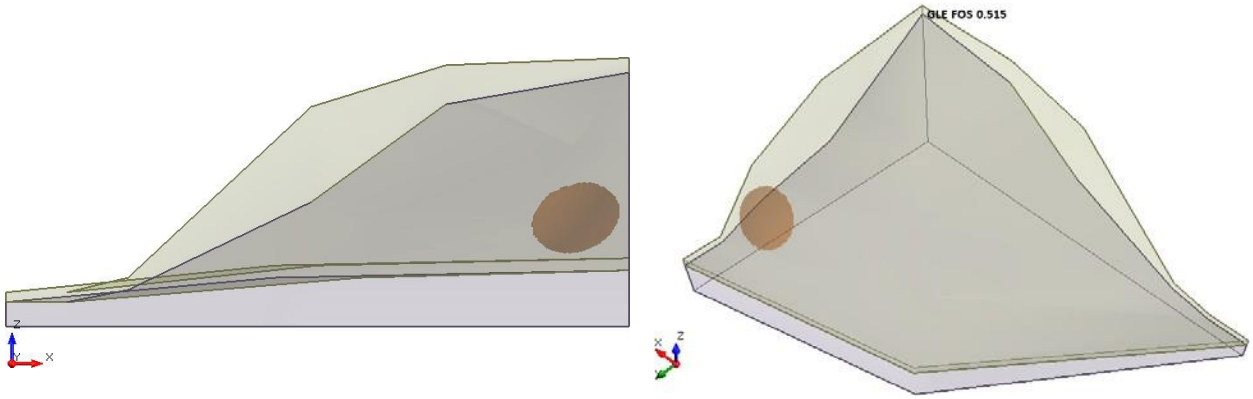
3D open pit mine, homogeneous, slope limits, ellipsoidal with SA

3D Verification #005



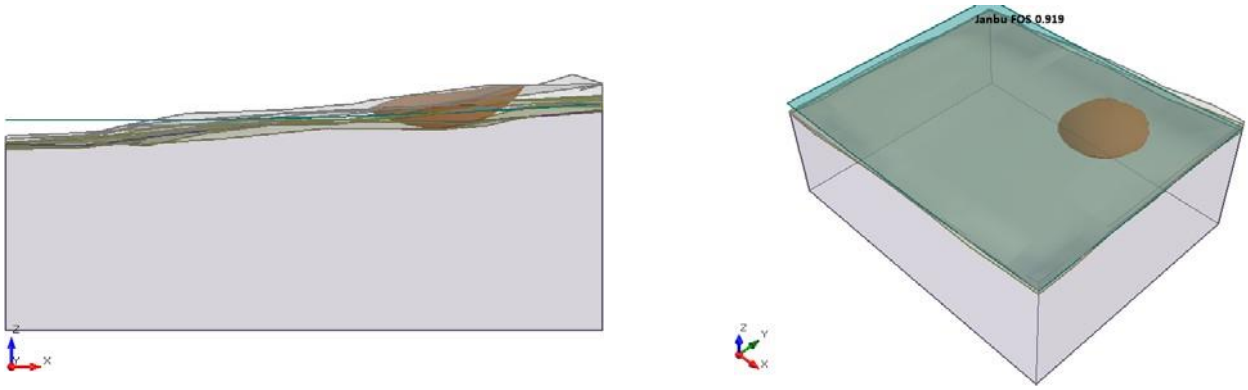
3D coastal bluffs, (4) materials, spherical

3D Verification #006



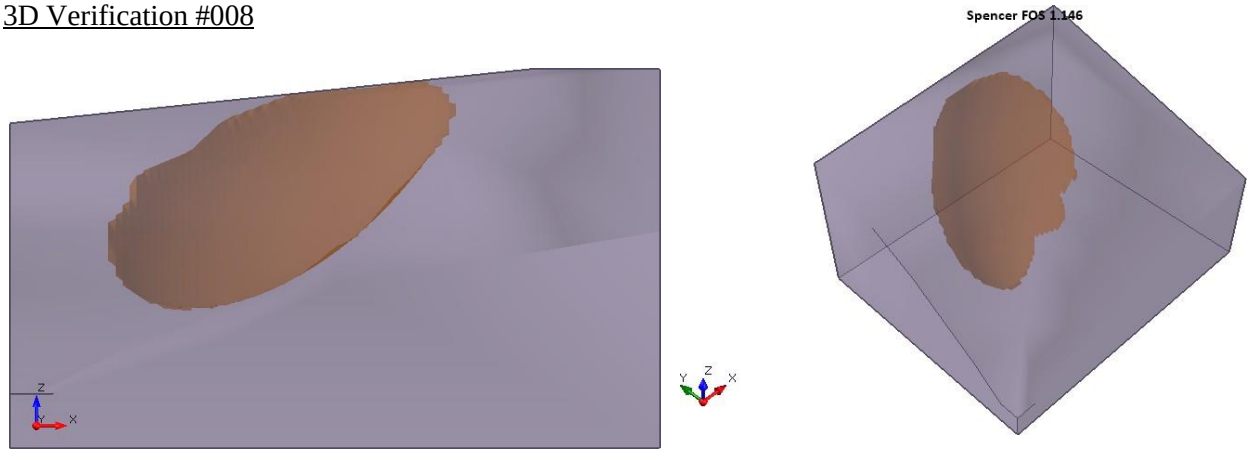
3D lofted, weak surface with rock base, spherical

3D Verification #007



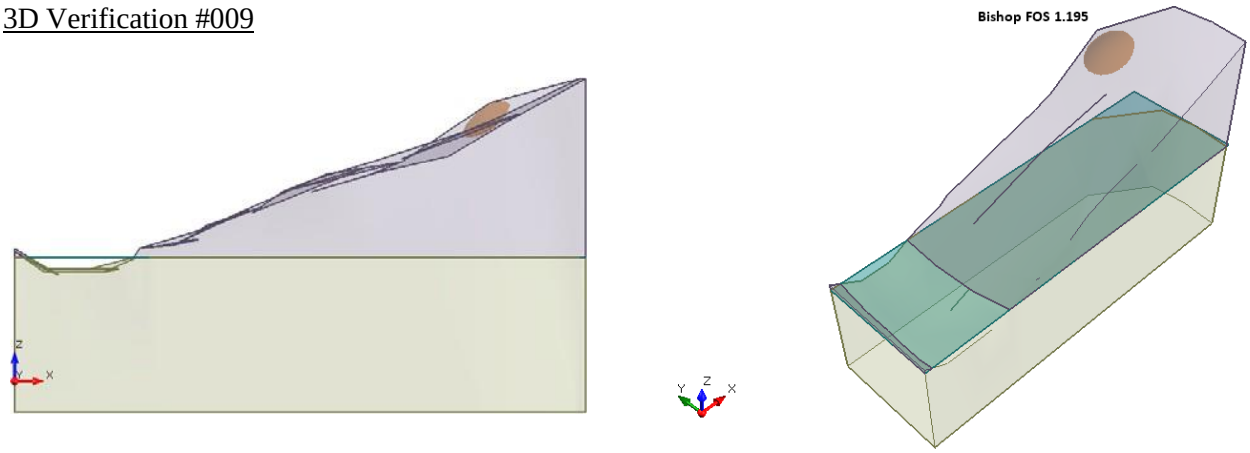
3D lofted, (3) materials, water table with ponded water, ellipsoidal with SA

3D Verification #008



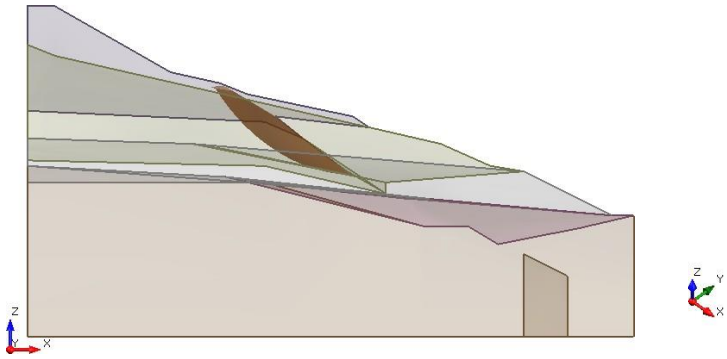
3D lofted, homogeneous, ellipsoidal with SA

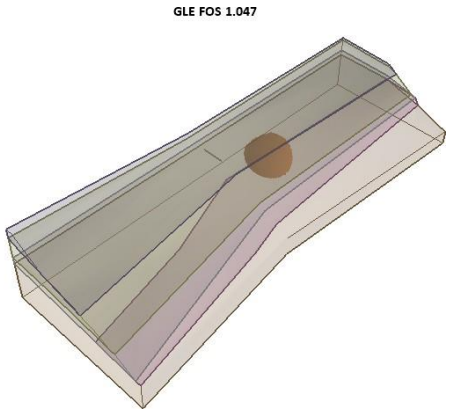
3D Verification #009



3D lofted, (2) materials, water table with ponded water, ellipsoidal with SA

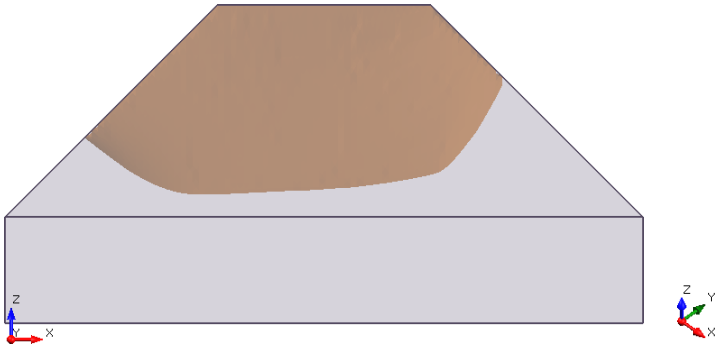
3D Verification #010

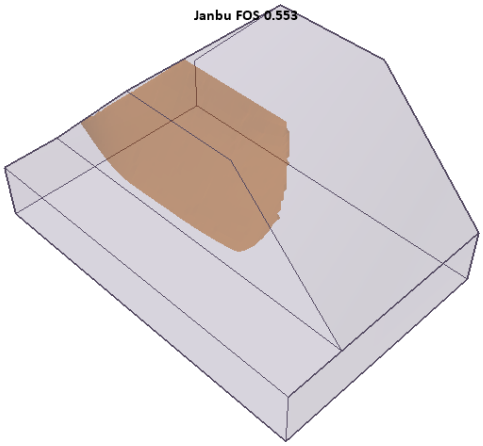




3D lofted, (5) materials, slope limits, ellipsoidal

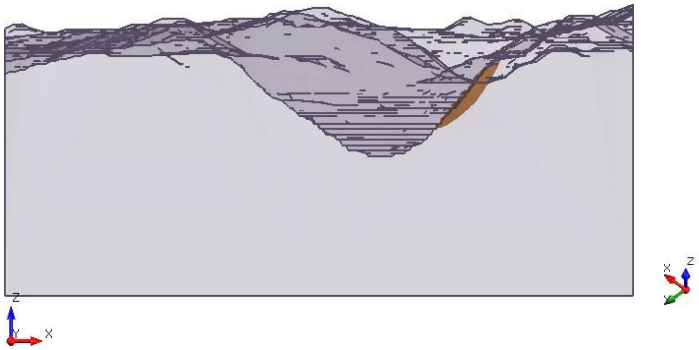
3D Verification #011

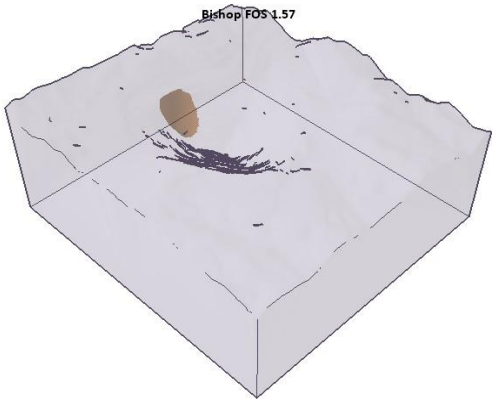




3D embankment, vertical cut, homogeneous, ellipsoidal with SA

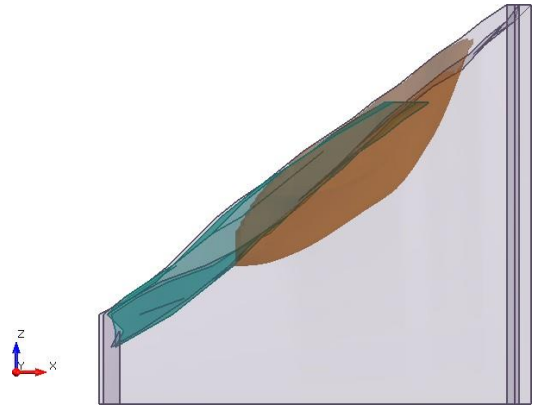
3D Verification #012

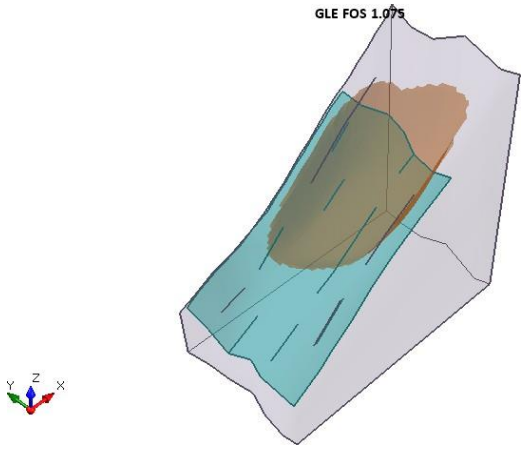




3D open pit mine, homogeneous, ellipsoidal with SA

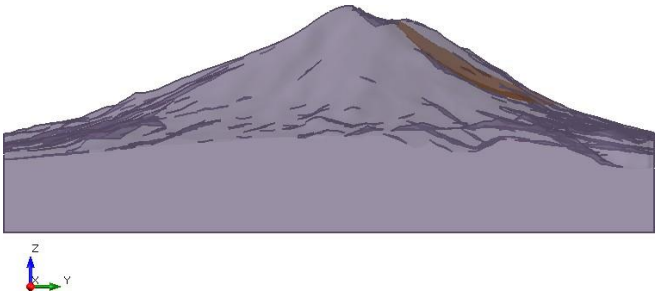
3D Verification #013

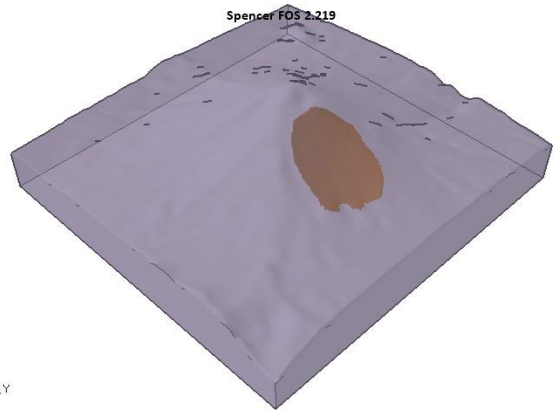




3D catchment, homogeneous, water table, ellipsoidal with SA

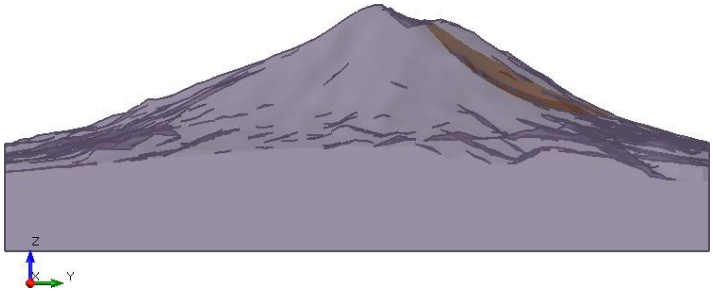
3D Verification #014

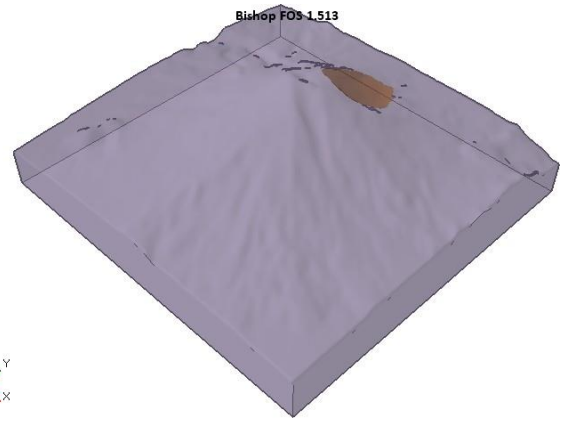




3D volcano, homogeneous, spherical

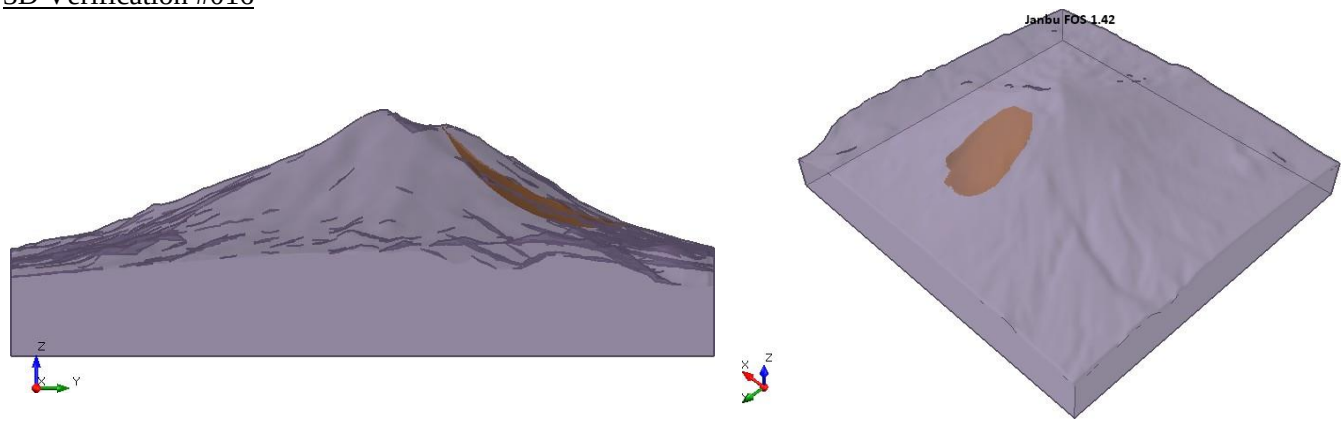
3D Verification #015





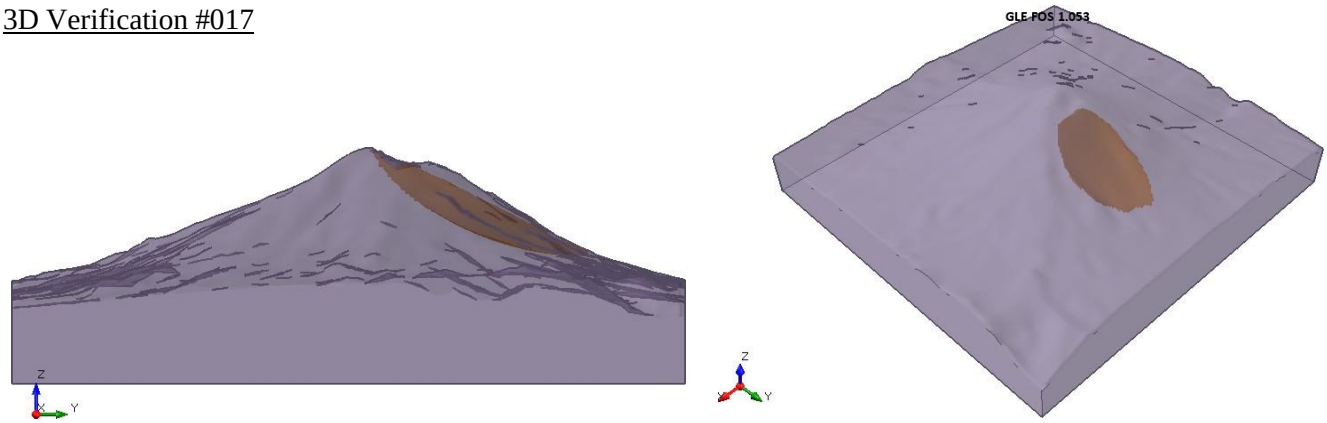
3D volcano, homogeneous, Ru coefficient, spherical

3D Verification #016



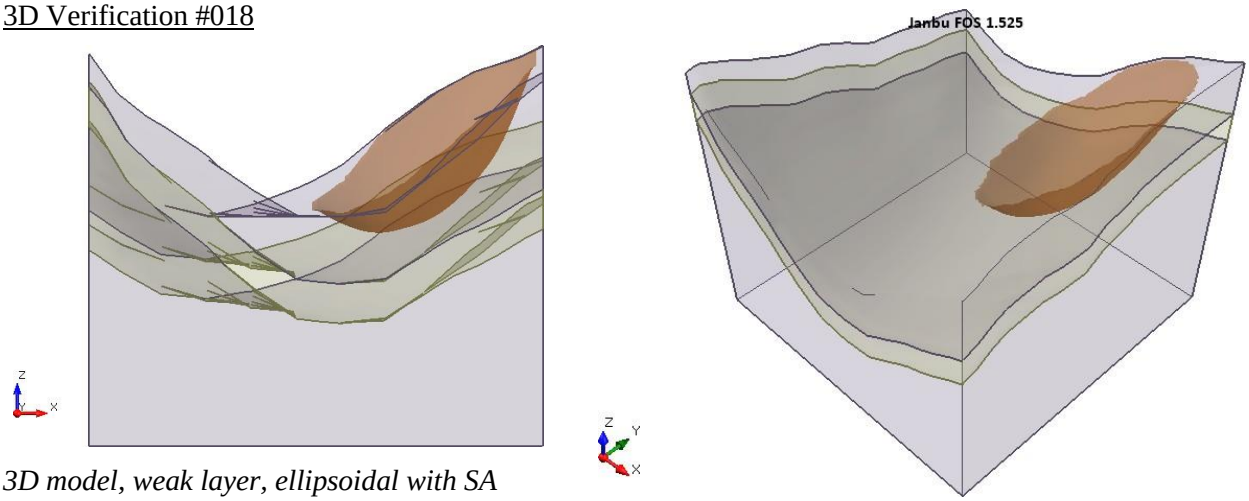
3D volcano, homogeneous, seismic loading, spherical

3D Verification #017



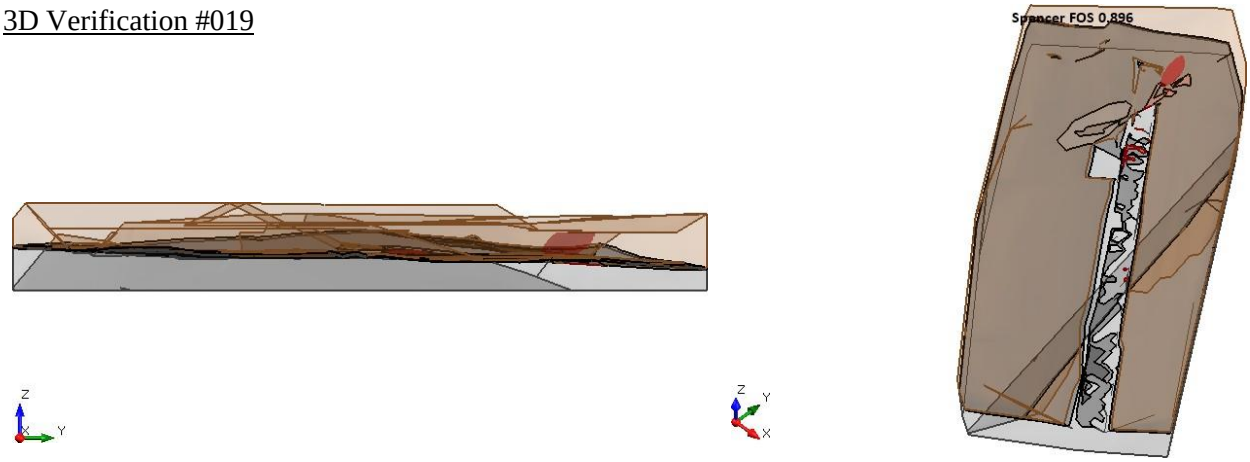
3D volcano, homogeneous, Ru coefficient, seismic loading, spherical

3D Verification #018



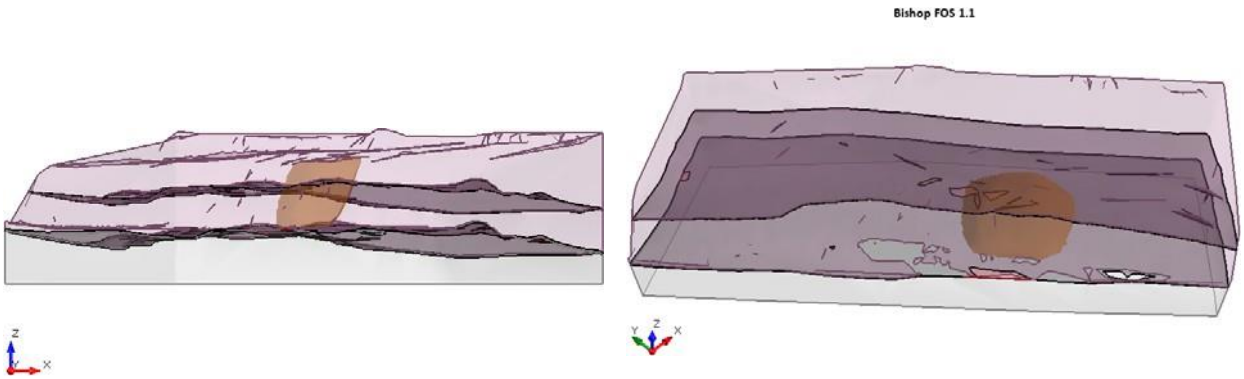
3D model, weak layer, ellipsoidal with SA

3D Verification #019



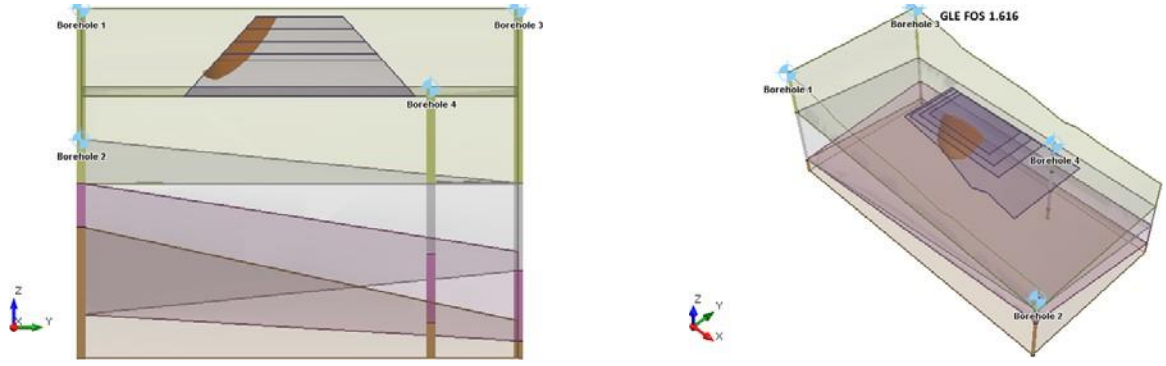
3D coal mine, (6) materials, ellipsoidal with SA

3D Verification #020



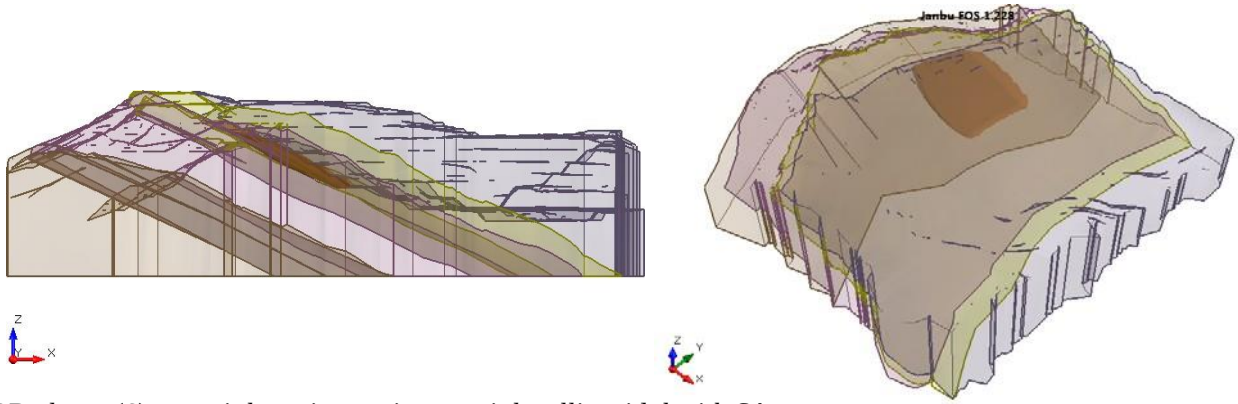
3D coal mine, (3) materials + anisotropic material, slope limits, ellipsoidal with SA

3D Verification #021



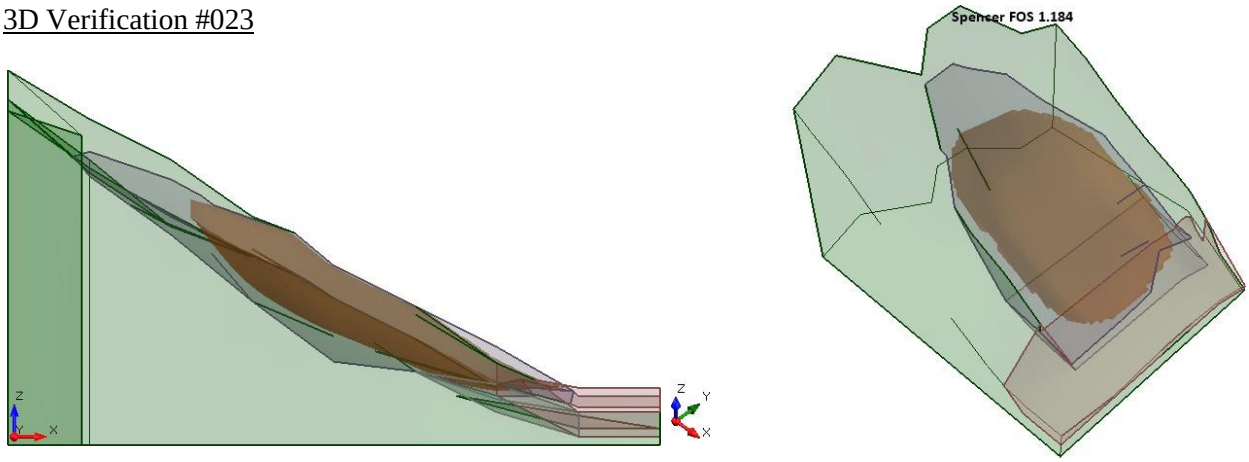
3D slope with embankment, (5) materials, ellipsoidal with SA

3D Verification #022



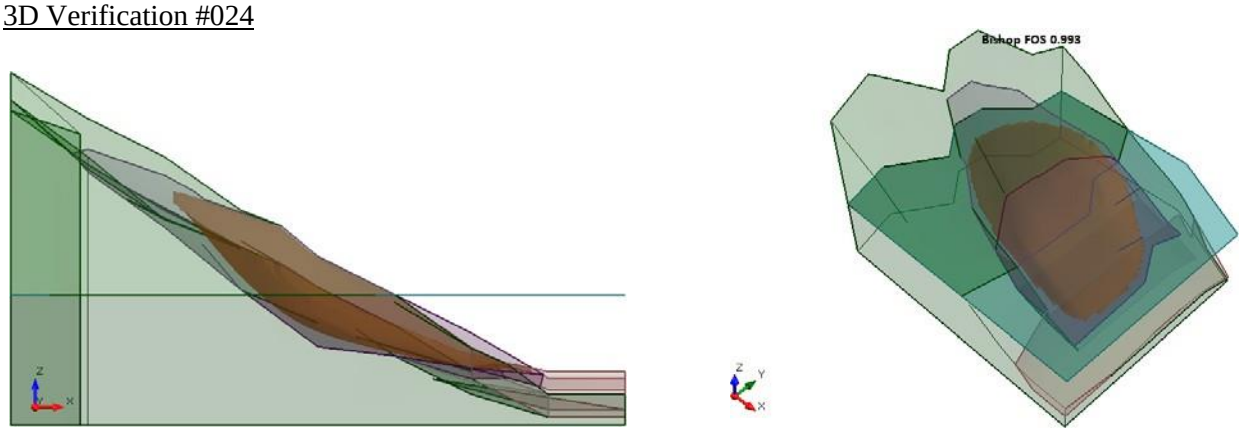
3D slope, (6) materials, anisotropic materials, ellipsoidal with SA

3D Verification #023



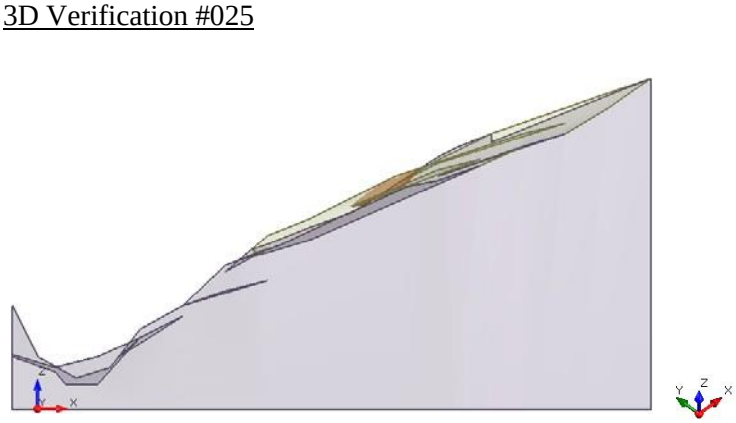
3D slope, (4) materials, ellipsoidal with SA

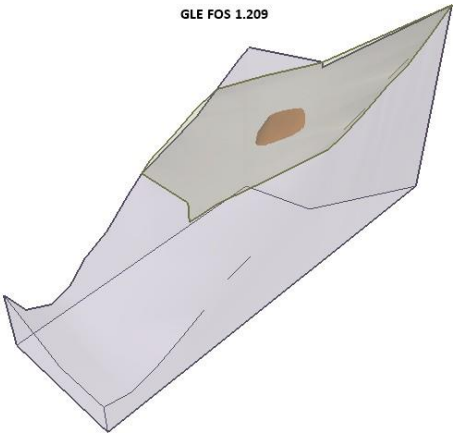
3D Verification #024



3D slope, (4) materials + (2) saturated materials, water table, ellipsoidal with SA

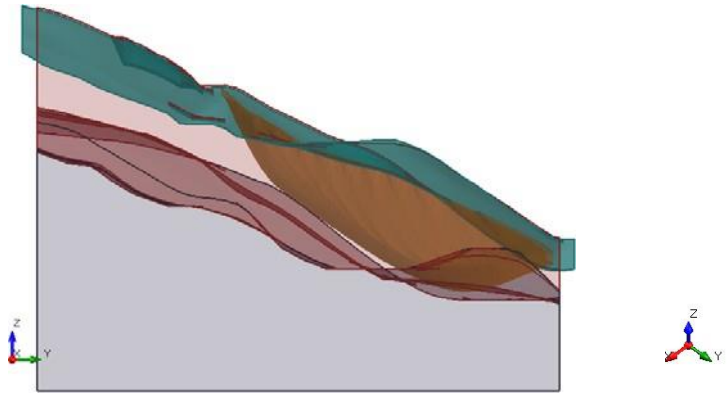
3D Verification #025

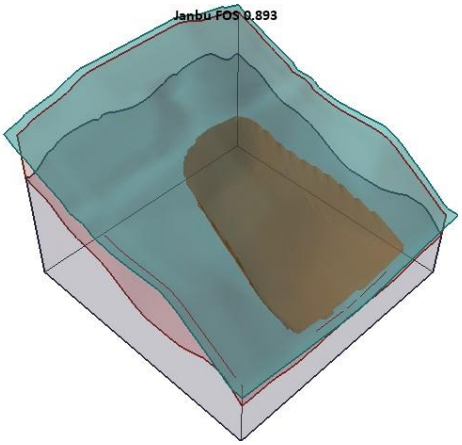




3D slope, (2) materials, ellipsoidal with SA

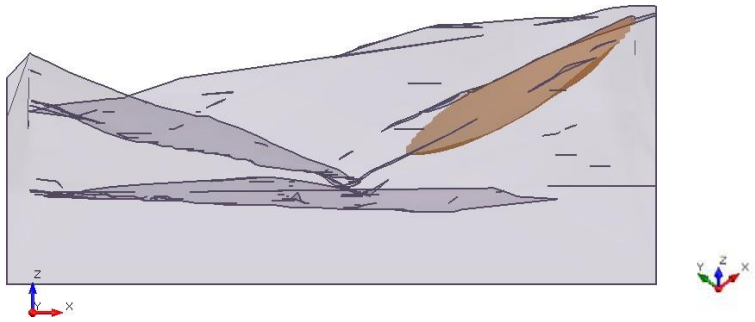
3D Verification #026

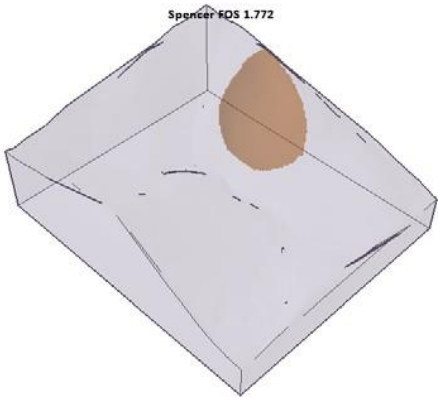




3D slope, (2) materials, water table, ellipsoidal with SA

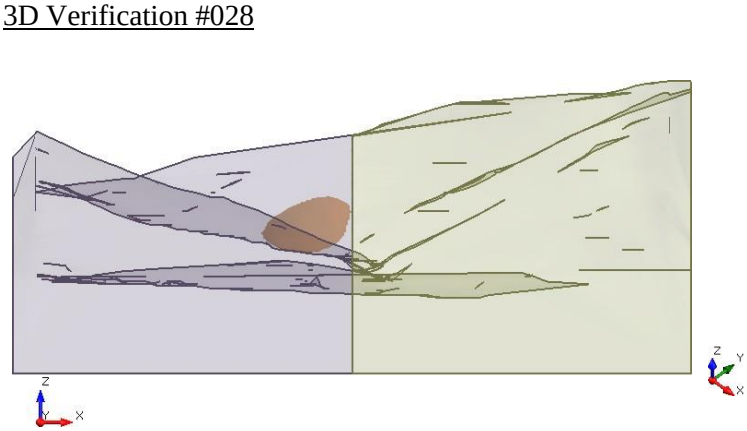
3D Verification #027

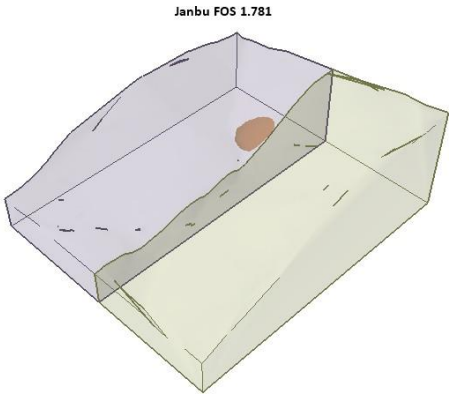




3D tailings facility, homogeneous, ellipsoidal with SA

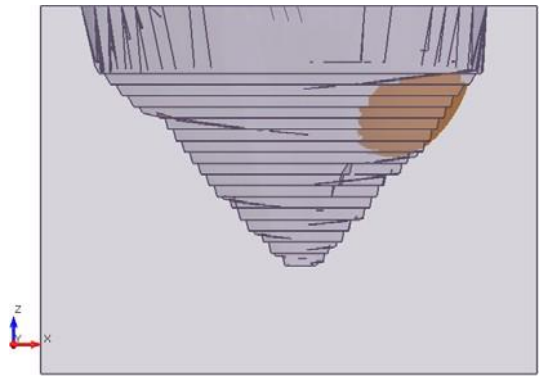
3D Verification #028

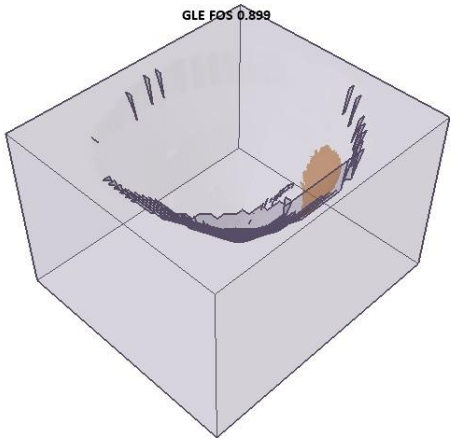




3D tailings facility, (2) materials, ellipsoidal with SA

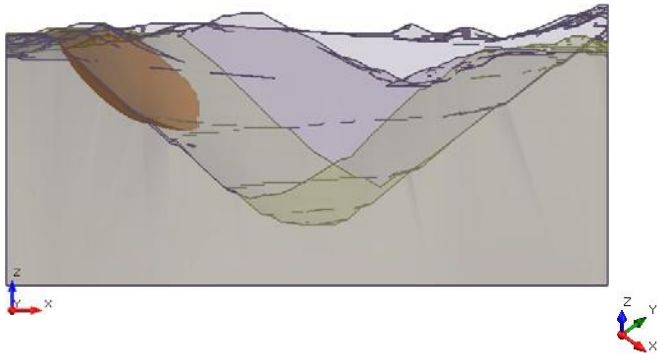
3D Verification #029

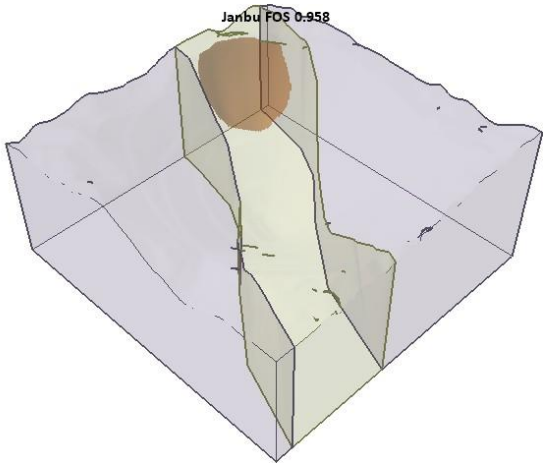




3D open pit, homogeneous, ellipsoidal with SA

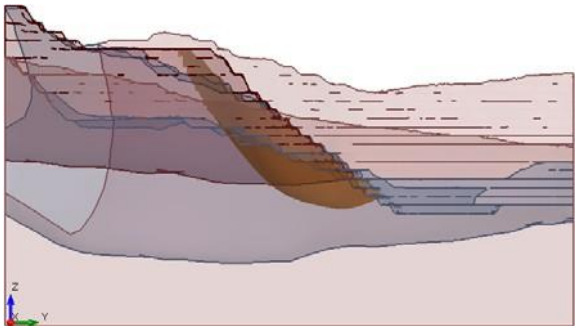
2D Verification #030

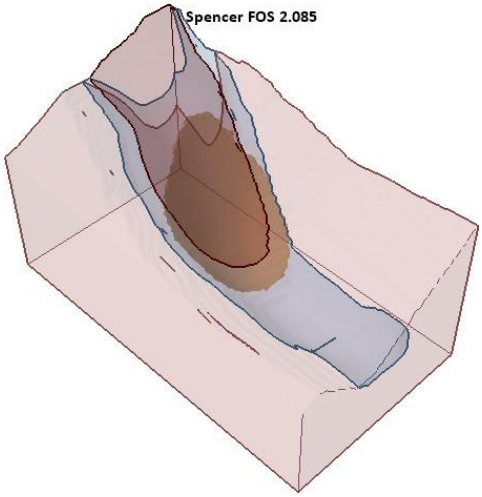




3D open pit, (2) materials, ellipsoidal with SA

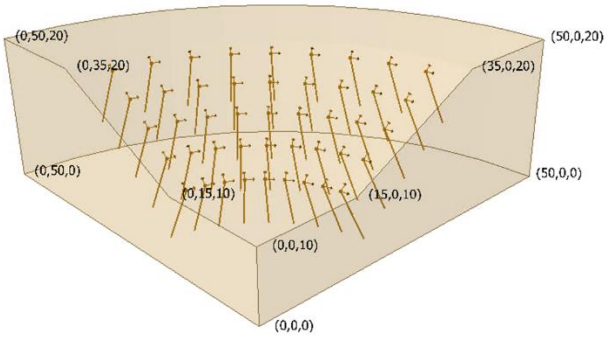
3D Verification #031

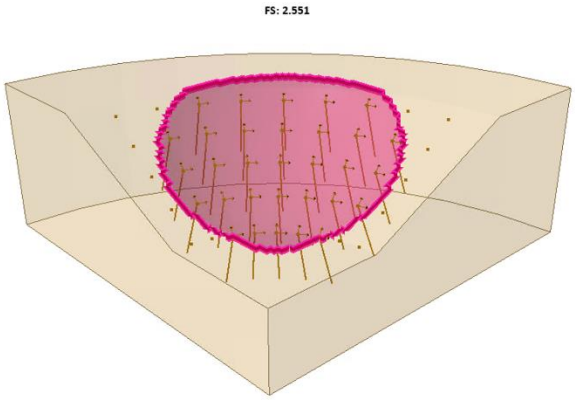




3D coal mine, (3) materials, ellipsoidal with SA

3D Verification #032





RSPile model, homogeneous, ellipsoidal