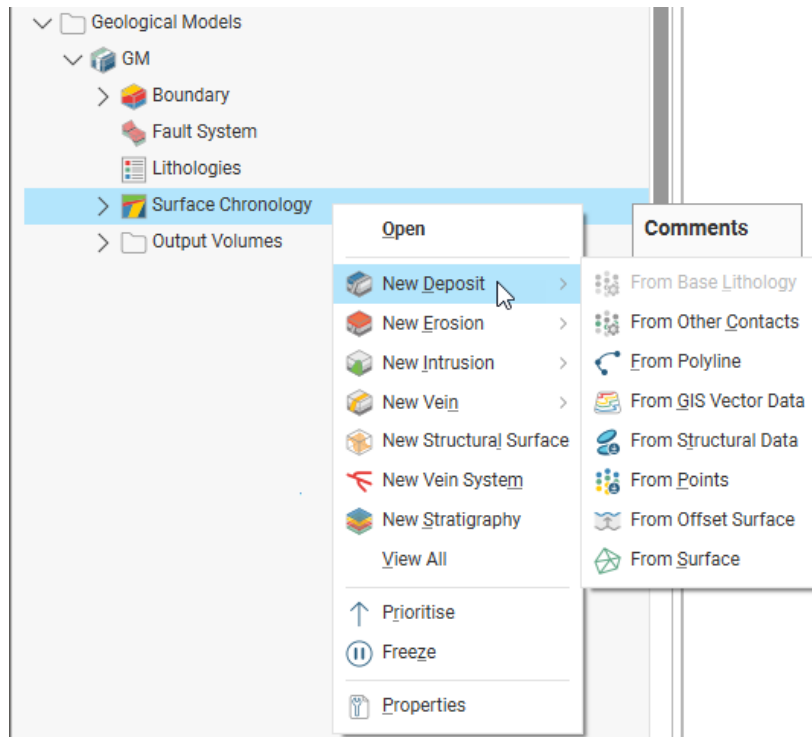


# Leapfrog Energy Surface Types

For Leapfrog Energy Version 2023.2



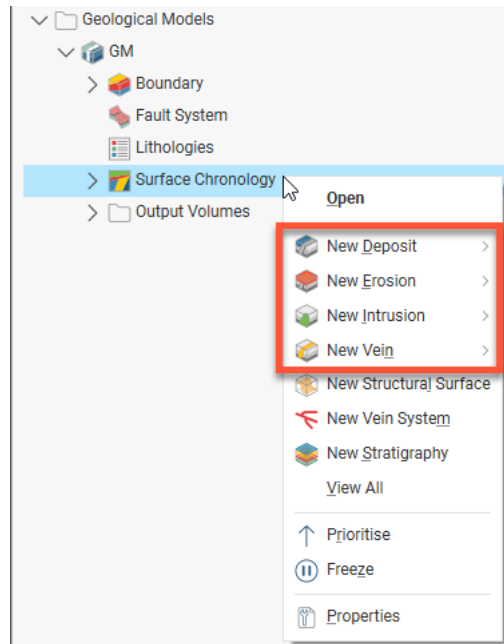
## Core Contact Surface Types

- Deposit and Erosion Surfaces
- Intrusion Surfaces
- Vein Surfaces

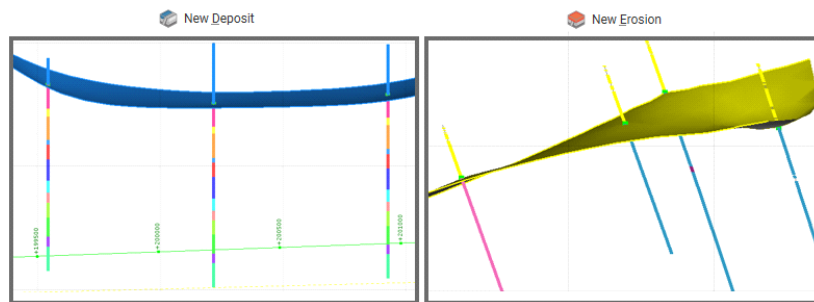
## Specific Function Surfaces

- Structural Surfaces
- Offset Surfaces
- Vein System Surfaces
- Stratigraphic Sequences

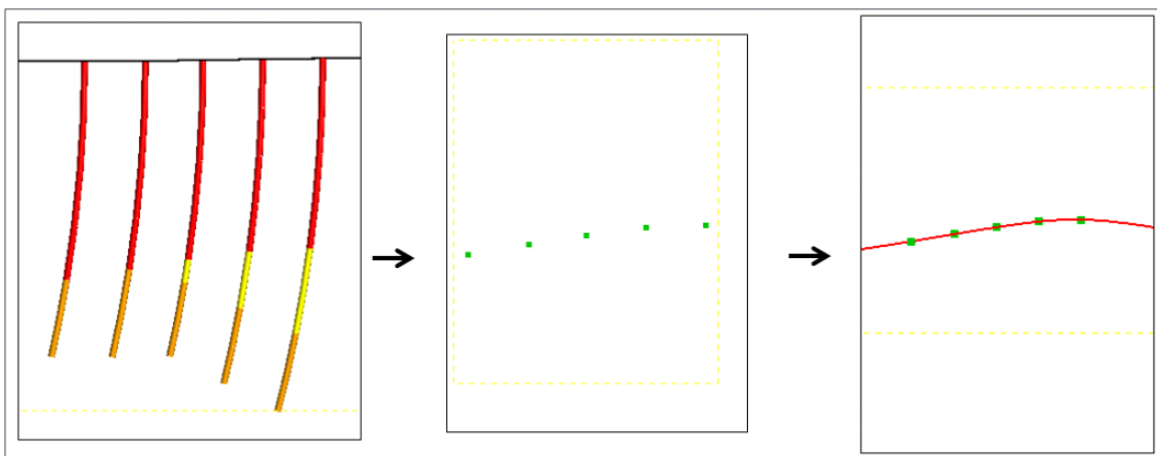
## Core Contact Surface Types



## Deposit and Erosion Surfaces

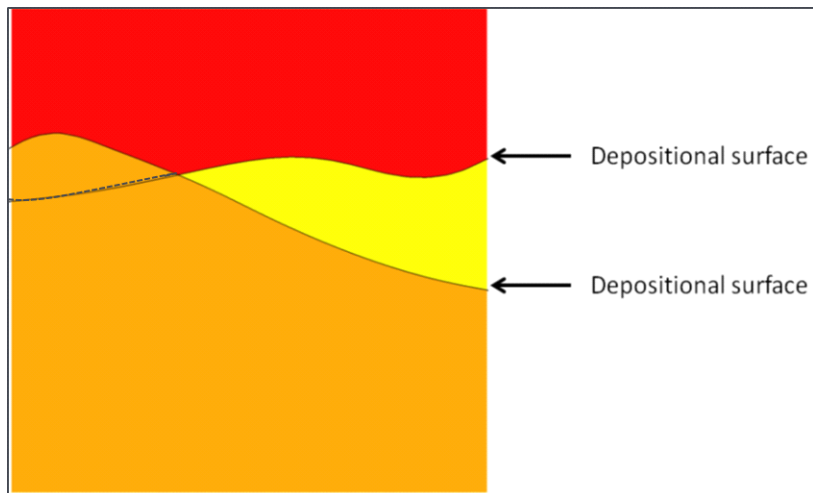


One set of contact points – above **OR** below the unit of interest

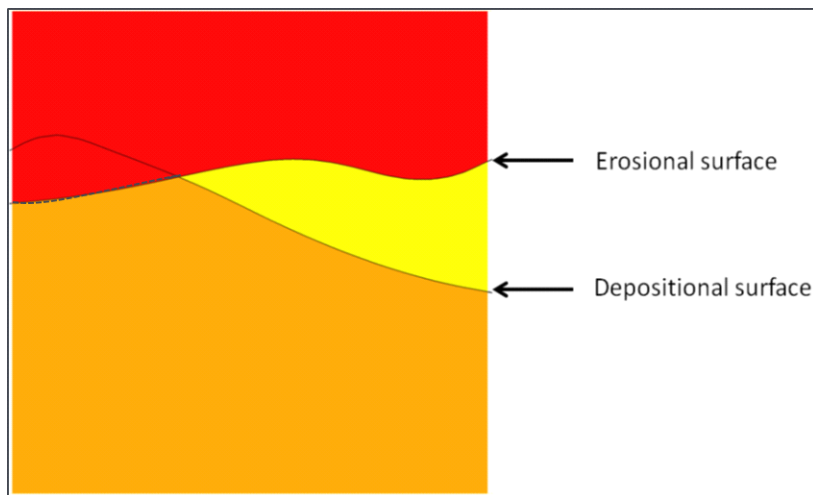


Only **ONE** contact point per unit per well

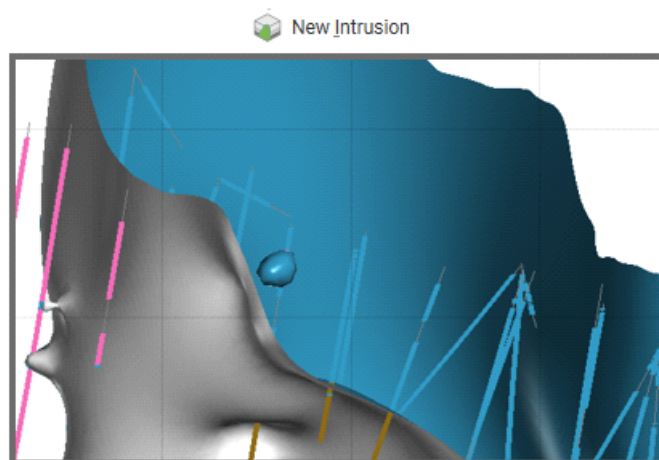
Deposit surface volumes **cannot** cut into an underlying older unit



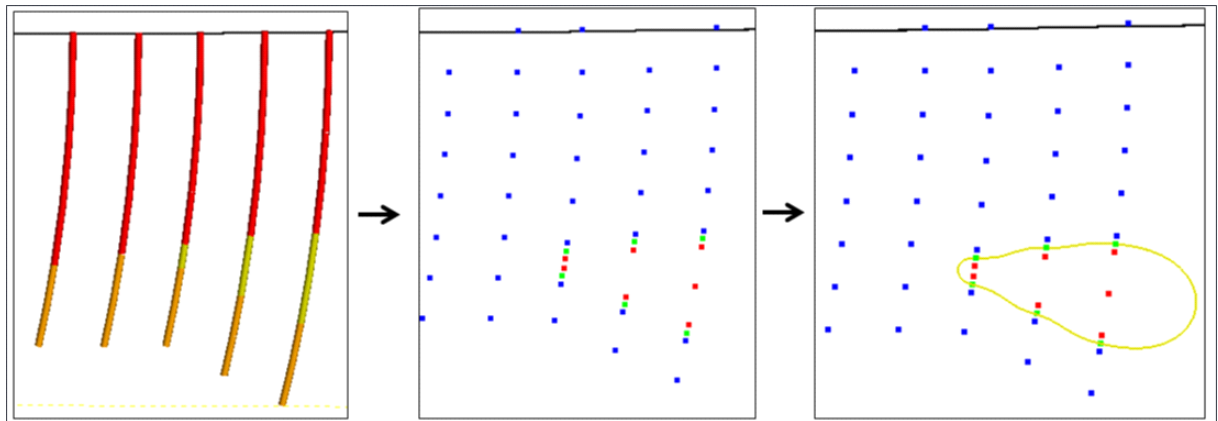
Erosion surface volumes **can** cut into an underlying older unit



## Intrusion Surfaces

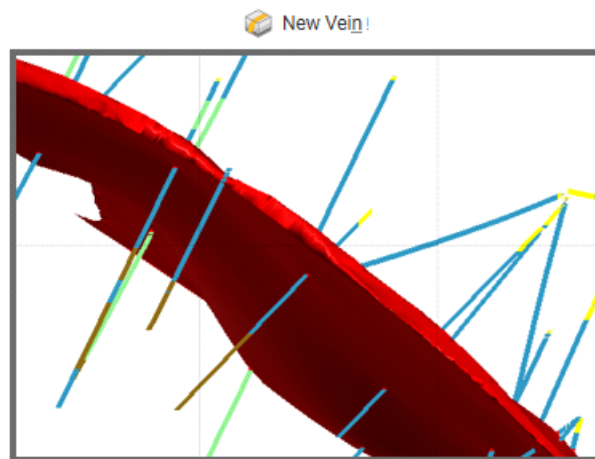


One set of contact points – above **AND** below the unit of interest

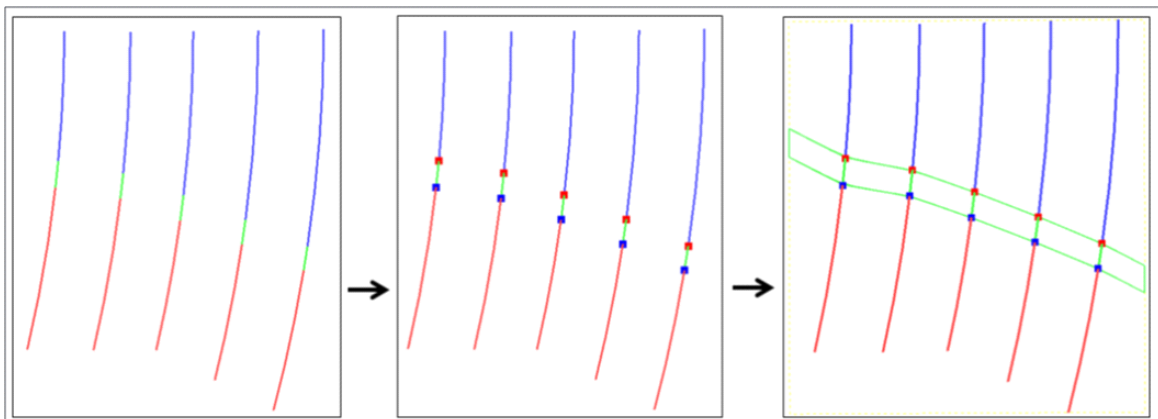


Can have **MULTIPLE** contact points per unit per well  
Intrusion volumes **enclose** the unit of interest

## Vein Surfaces



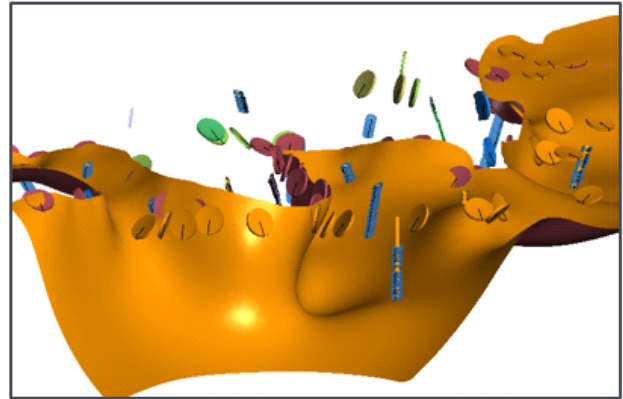
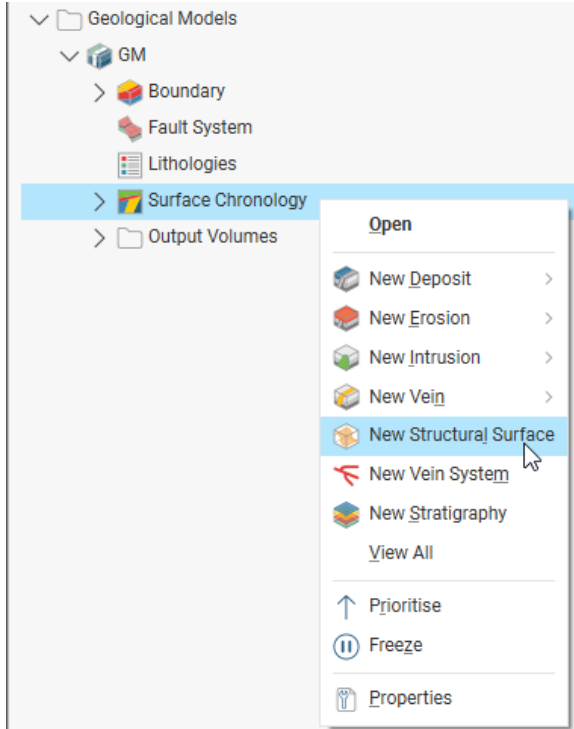
**Two** sets of contact points – above **AND** below the unit of interest



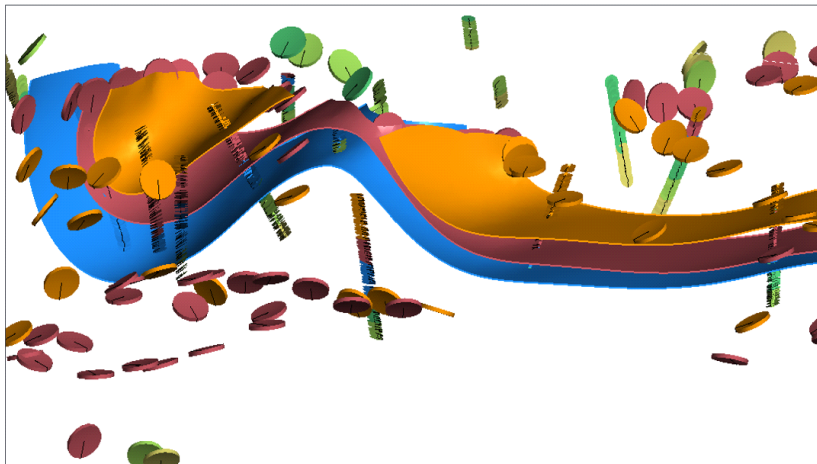
Creates a Hanging wall (HW) set **AND** Footwall (FW) set of contact points

## Specific Function Surfaces

### Structural Surfaces

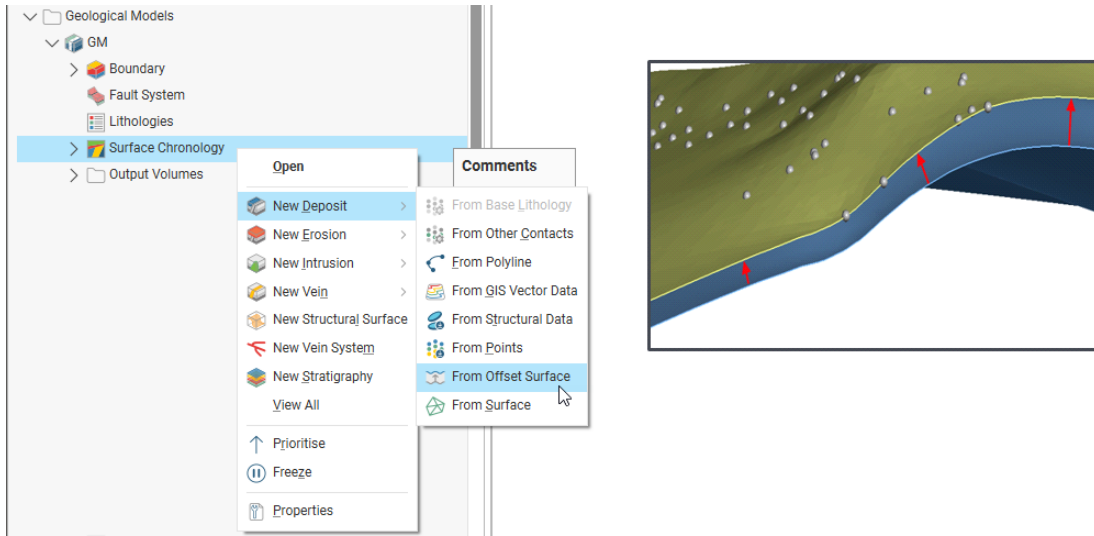


Incorporates **non-contact** structural data with on-contact data (drilling data, surface mapping)

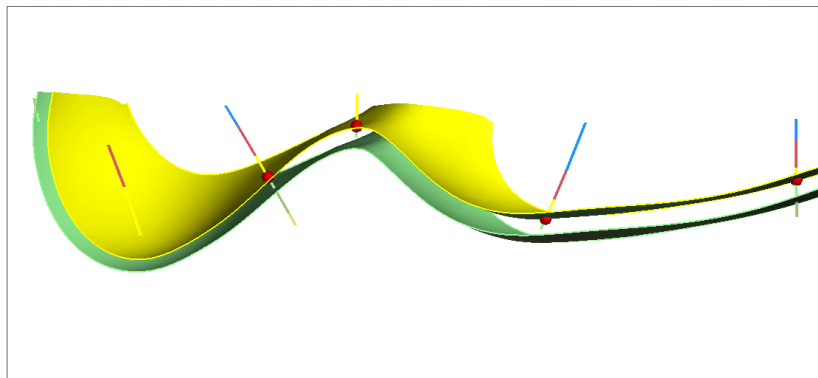


Can be used for a **Deposit**, **Erosion** or **Intrusion** contact type

## Offset Surfaces

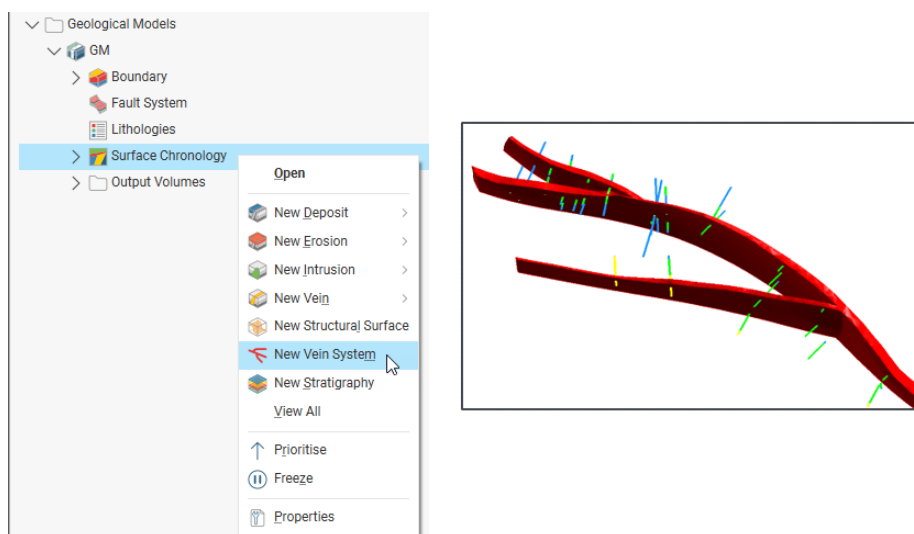


Maintains **consistent offset** while **honouring** contact points – for stratigraphy with common deformation

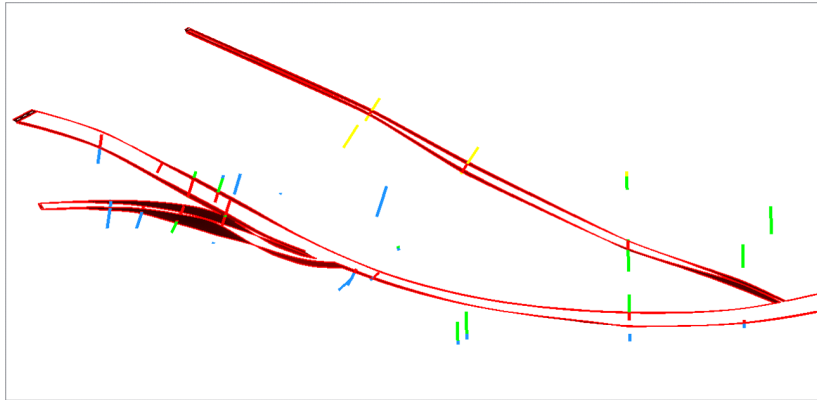


Can be used for a **Deposit** or **Erosion** contact type

## Vein System Surfaces

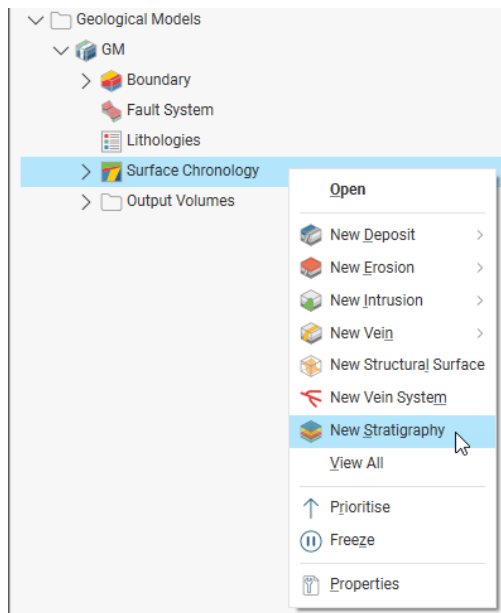


Combines individual veins into a **single interconnected system** of veins

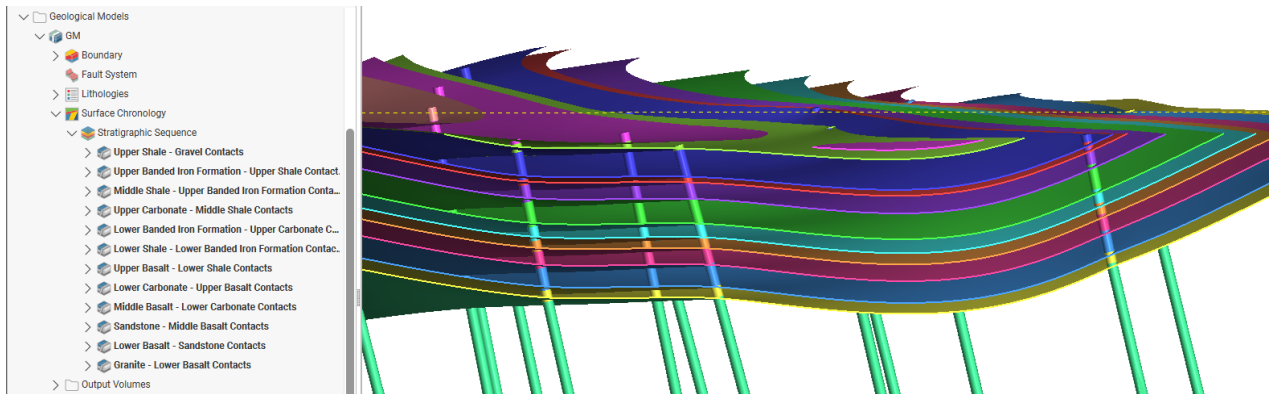


Can be used for a **Vein** contact type

## Stratigraphic Sequences



Generates **multiple** surfaces in a stratigraphic sequence in a **single pass**



Can be used for a **Deposit** or **Erosion** contact type