

LEAPFROG GEOTHERMAL



leapfrog®
FAST, DYNAMIC GEOLOGICAL MODELLING

SURFACE TYPES

Leapfrog Geothermal 3.9

LEAPFROG GEOTHERMAL 3.9 SURFACES

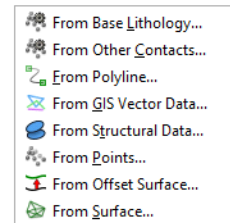
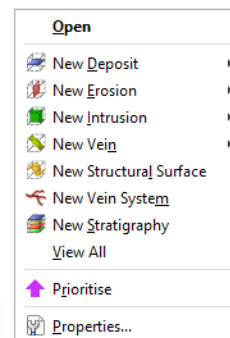
CORE CONTACT SURFACE TYPES

Deposit

Erosion

Intrusion

Vein



SPECIFIC FUNCTION SURFACES

Structural

Offset

Vein System

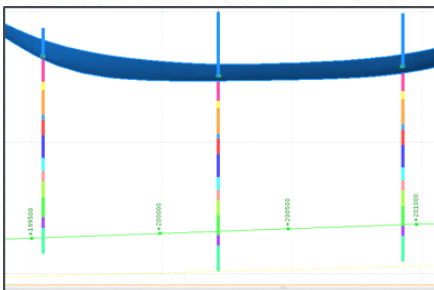
Stratigraphy

LEAPFROG GEOTHERMAL 3.9 SURFACES

CORE CONTACT SURFACE TYPES

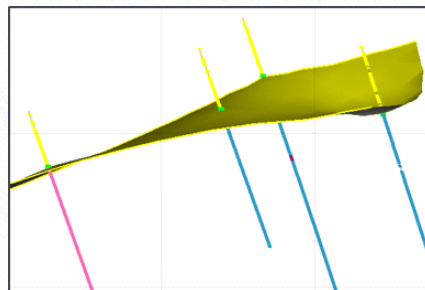
Deposit

Shale - Gravel Contacts



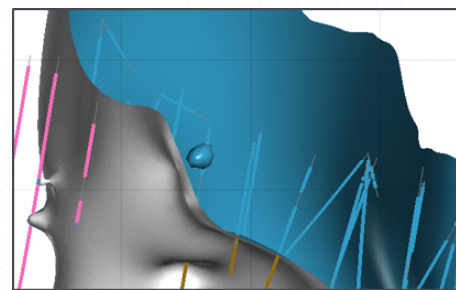
Erosion

Recent contacts



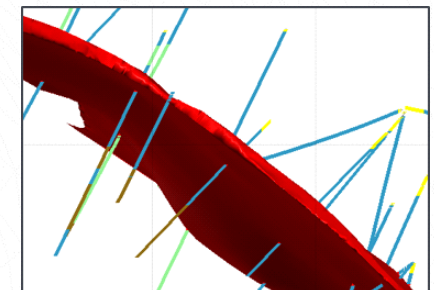
Intrusion

Early Diorite



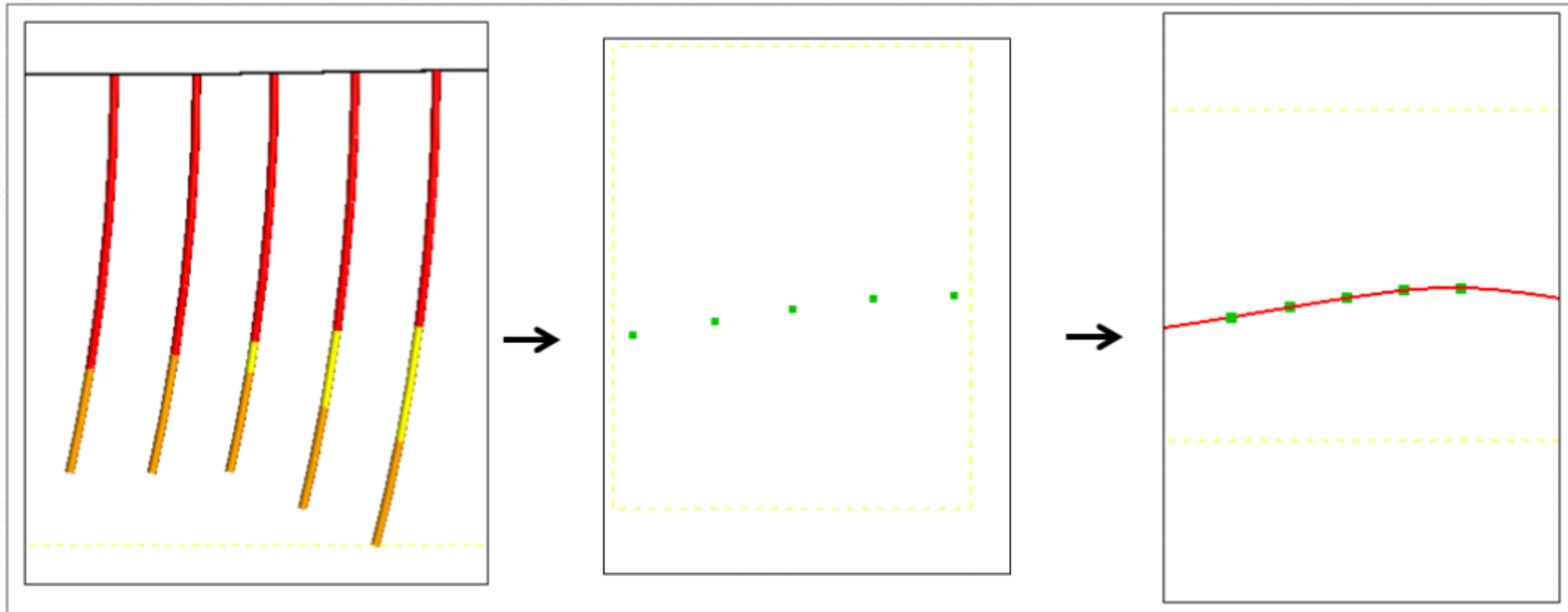
Vein

Dyke 1



DEPOSIT AND EROSION SURFACE

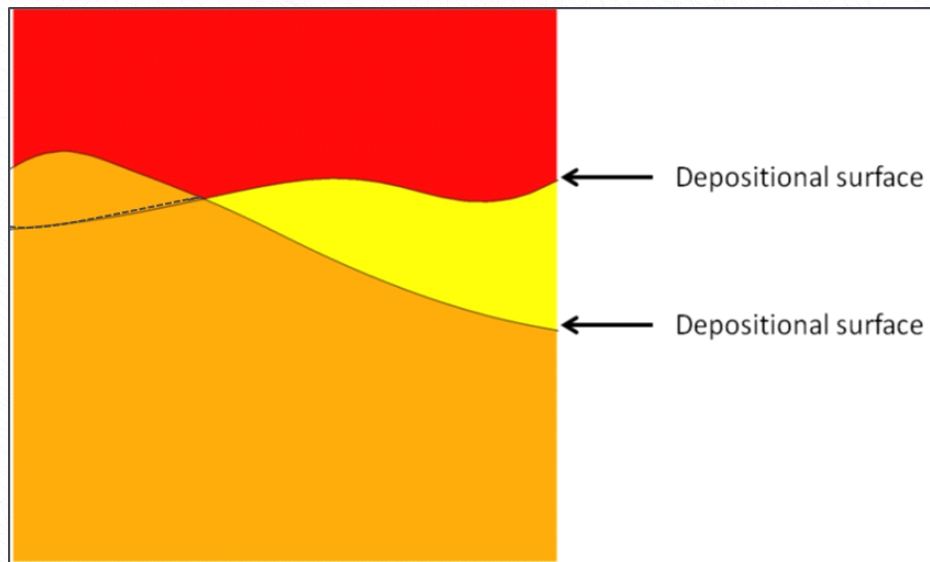
One set of contact points – above OR below the unit of interest



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

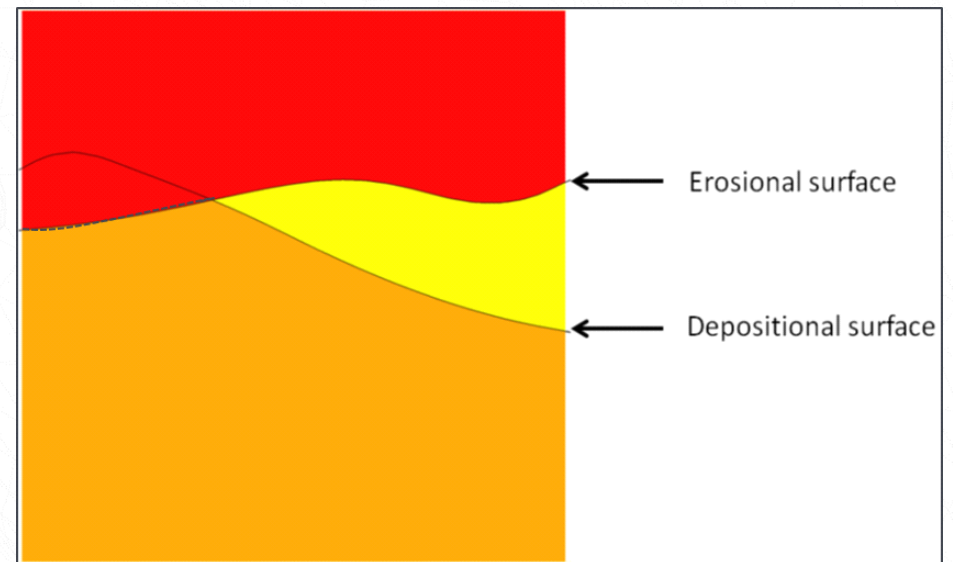
DEPOSIT AND EROSION VOLUMES

Deposit Surface



Cannot cut into an underlying older unit

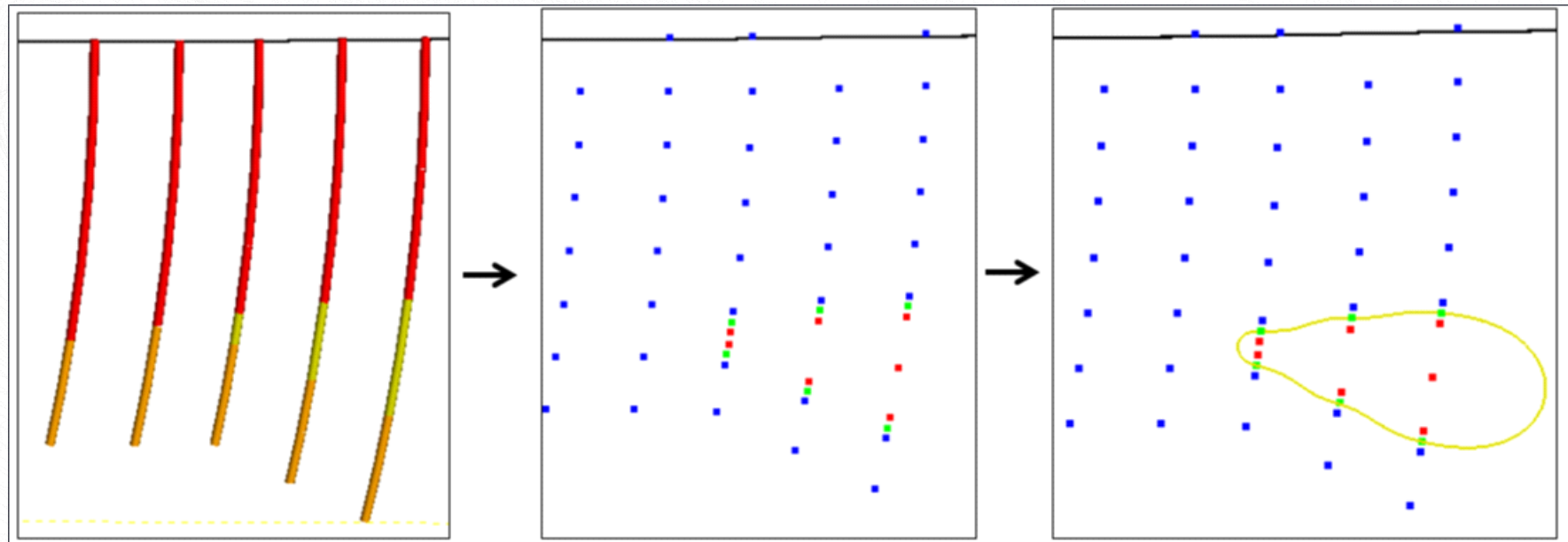
Erosion Surface



Can cut into an underlying older unit

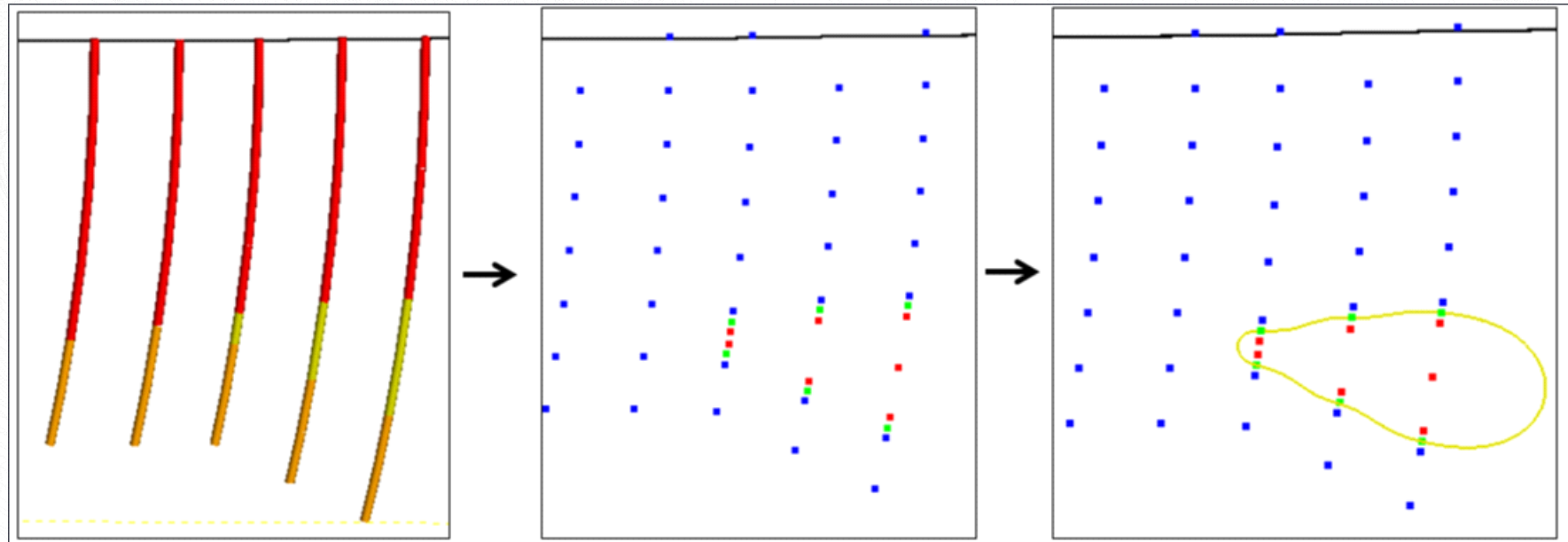
INTRUSION SURFACE

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



Can have **MULTIPLE** contact points per unit per well

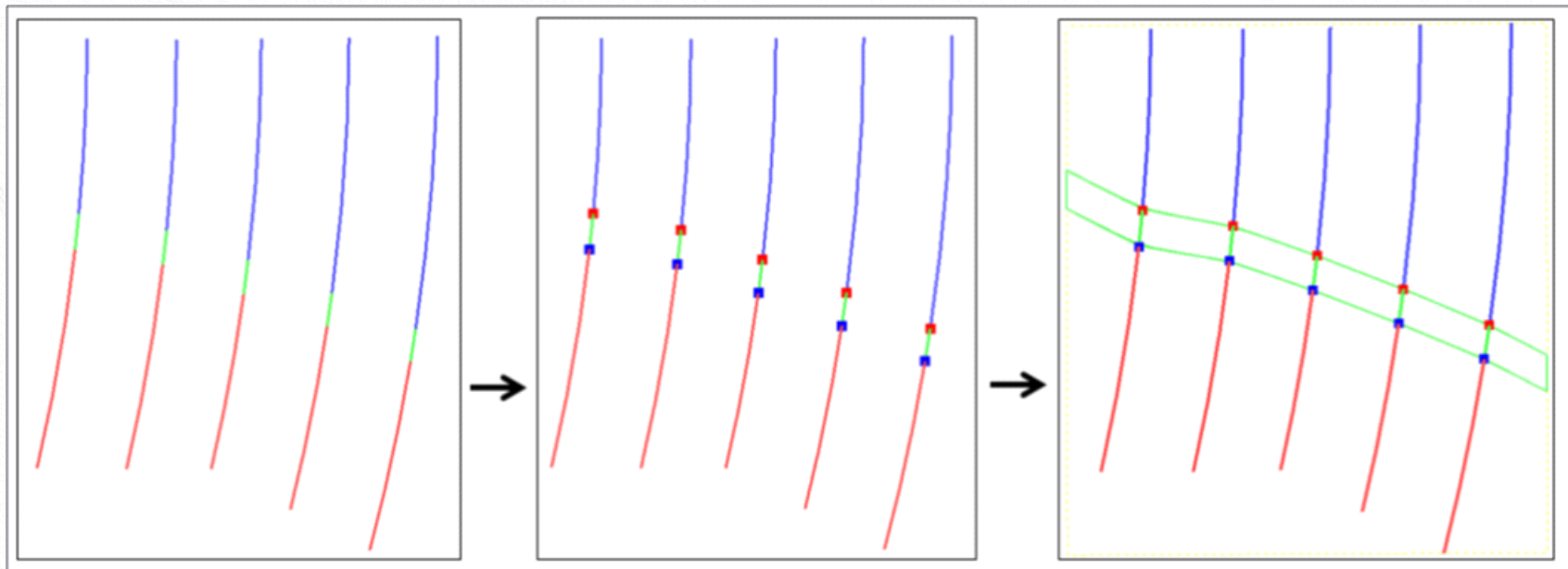
INTRUSION VOLUMES



Encloses the unit of interest

VEIN SURFACE

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



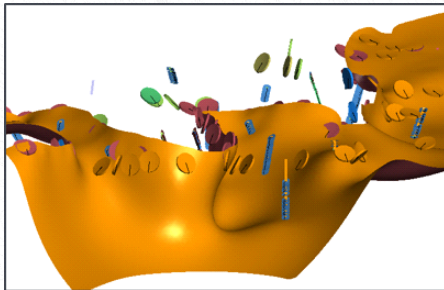
Creates a Hanging wall (HW) set **AND** Footwall (FW) set of contact points

SPECIFIC FUNCTION SURFACES

SPECIFIC FUNCTION SURFACES

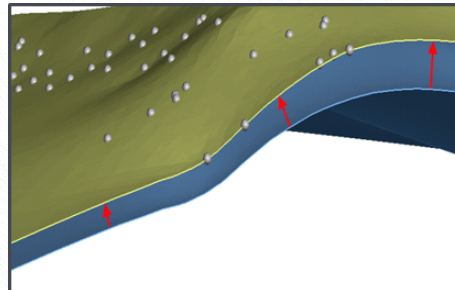
Structural

Amuri - Enys Contacts



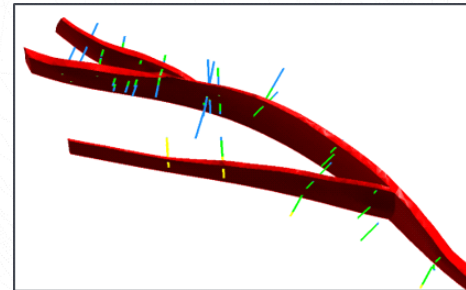
Offset

From Offset Surface...



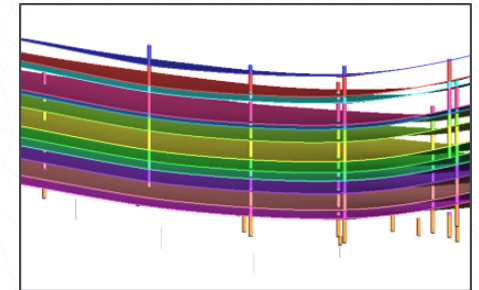
Vein System

Quartz Vein System



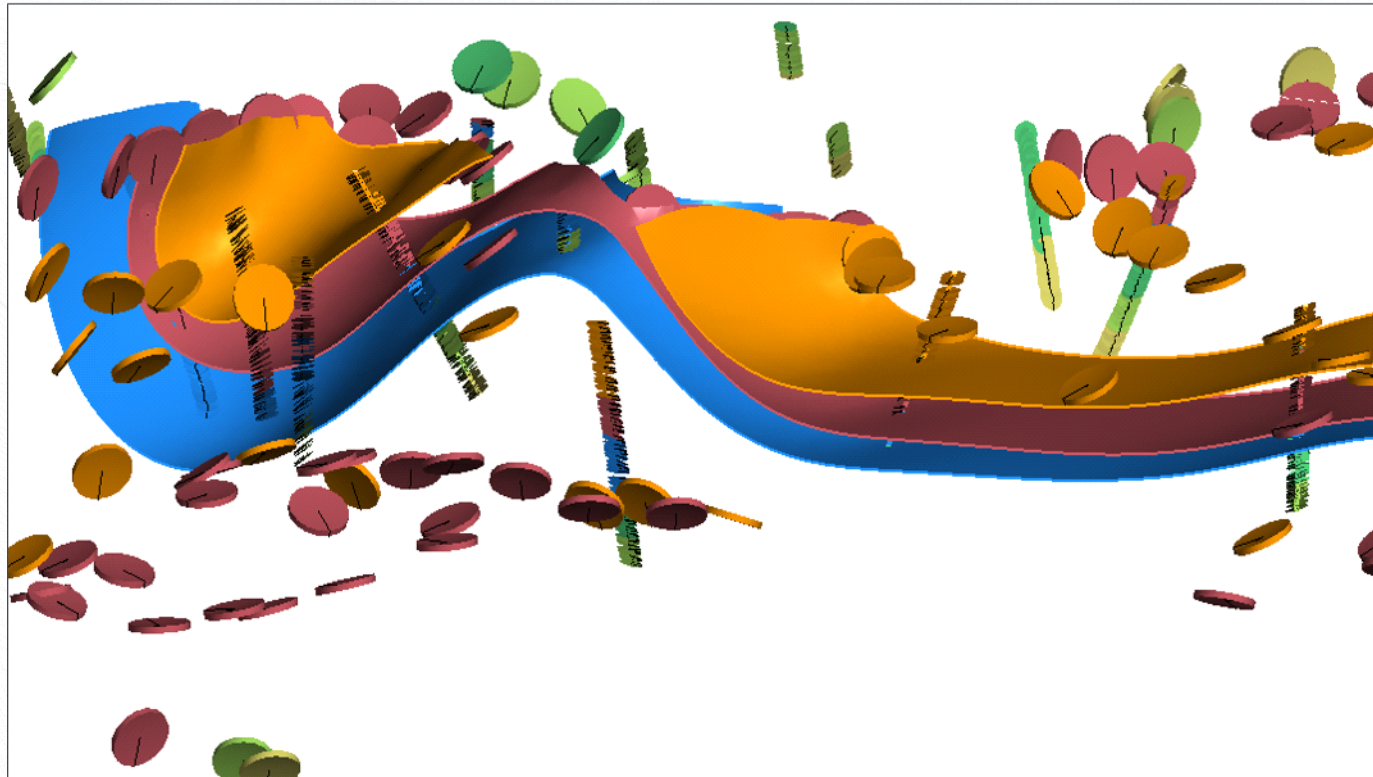
Stratigraphy

Stratigraphic Sequence



STRUCTURAL SURFACE

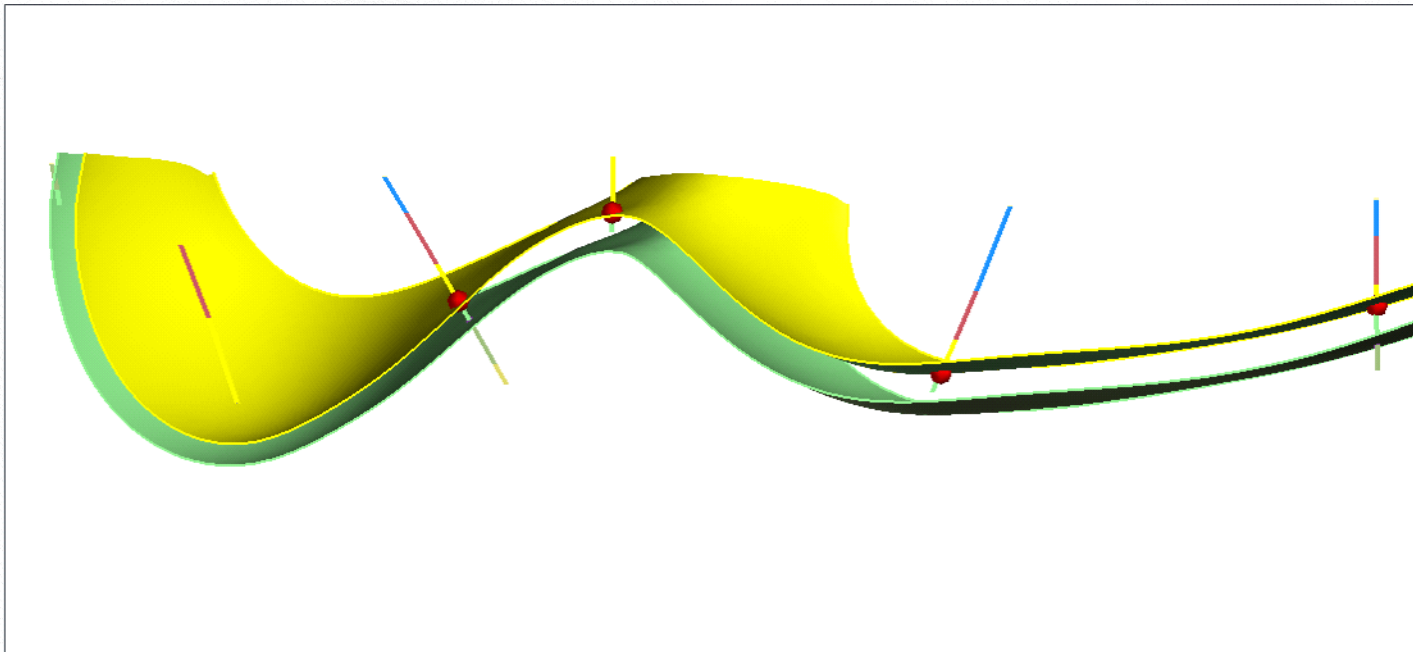
Incorporates **non-contact** structural data with on-contact data
(wells, surface mapping)



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

OFFSET SURFACE

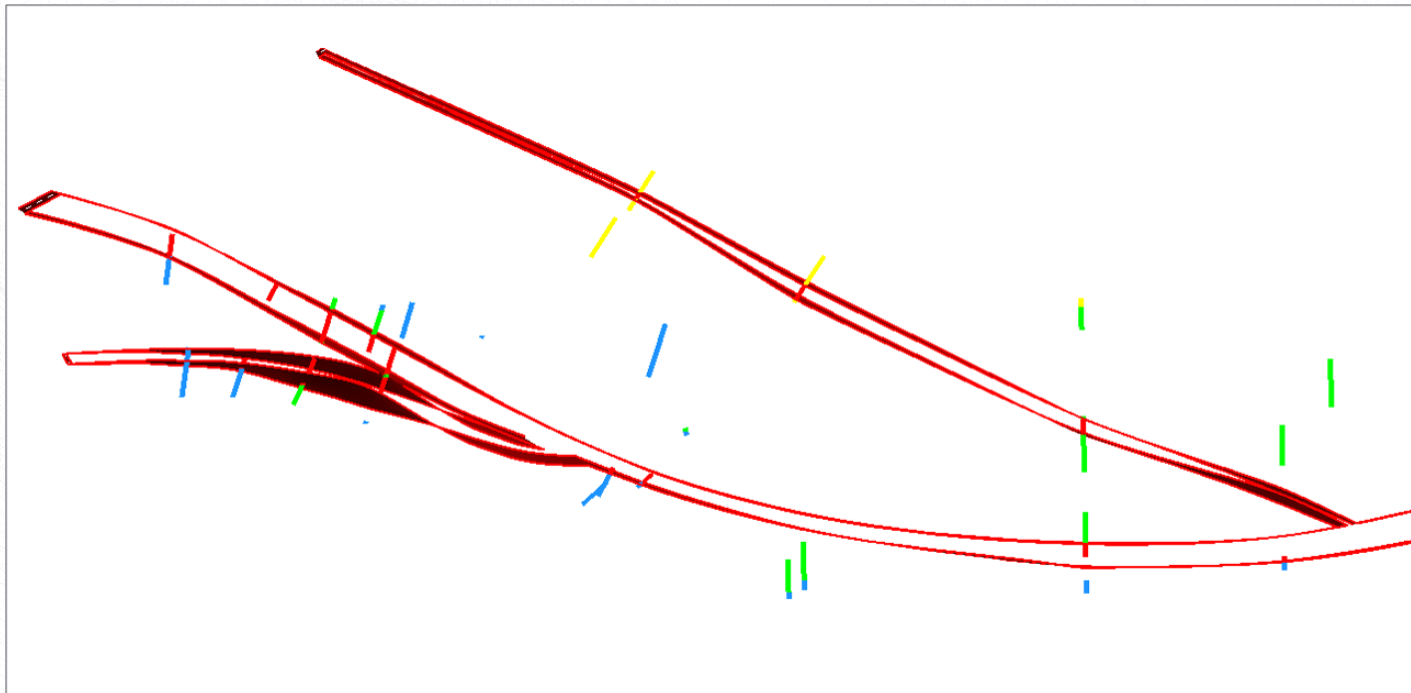
Maintains **consistent offset** while **honouring** contact points – for stratigraphy with common deformation



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

VEIN SYSTEM SURFACE

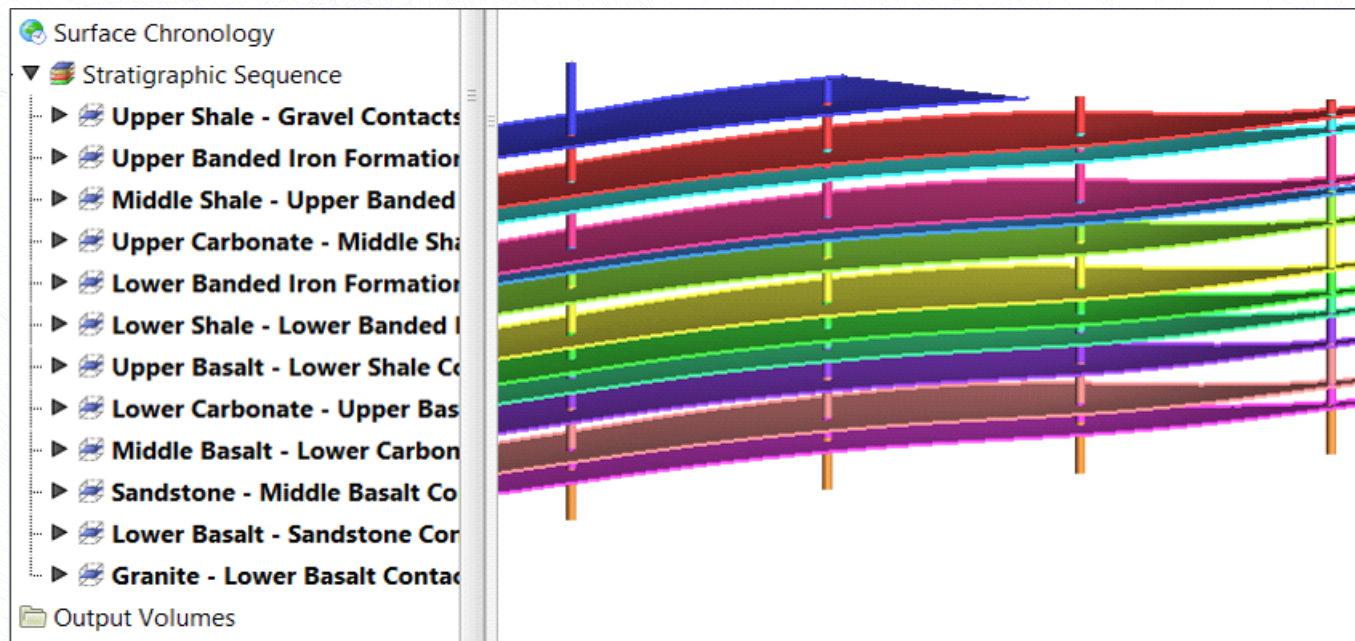
Combines individual veins into a **single interconnected system** of veins



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

STRATIGRAPHIC SEQUENCE

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



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