



Figure 1: Geological modeling in the SAIGUP realizations contains six facies that represent a shallow-marine system. The rock types are represented by various colors for a selected realization. Axes show the spatial dimention of the model in meter.

Table 2: Specification of geological and simulation models; averaged values are arithmetic averages and belong to the specific geological realization shown in Figure 1.

Parameter	Value
Model dimensions	3 km×9 km×80 m
Geological grid resolution	80 × 240 × 80
Simulation grid resolution	40 × 120 × 20
Simulation grid resolution	40 × 120 × 20
Average of lateral permeability	181 mD
Average of Vertical permeability	26.8 mD
Average of porosity	0.145

Table 3: Colors and line and marker types used to signify different values of the geological parameters outlined in Figure 2.

Code	Description	Color/line/marker	Feature values
<b>Thickness</b>	Fault	thin/medium/thick	unfaulted/open/close
<b>Shape</b>	Lobosity	square/circle/diamond	flat/one-lobe/two-lobe
<b>Size</b>	Barriers	small/medium/large	10% / 50% / 90%
<b>Color</b>	Aggradation	blue/green/red	low/medium/high
<b>Case no. counting</b>	Progradation	first half/second half	up-dip / down-dip