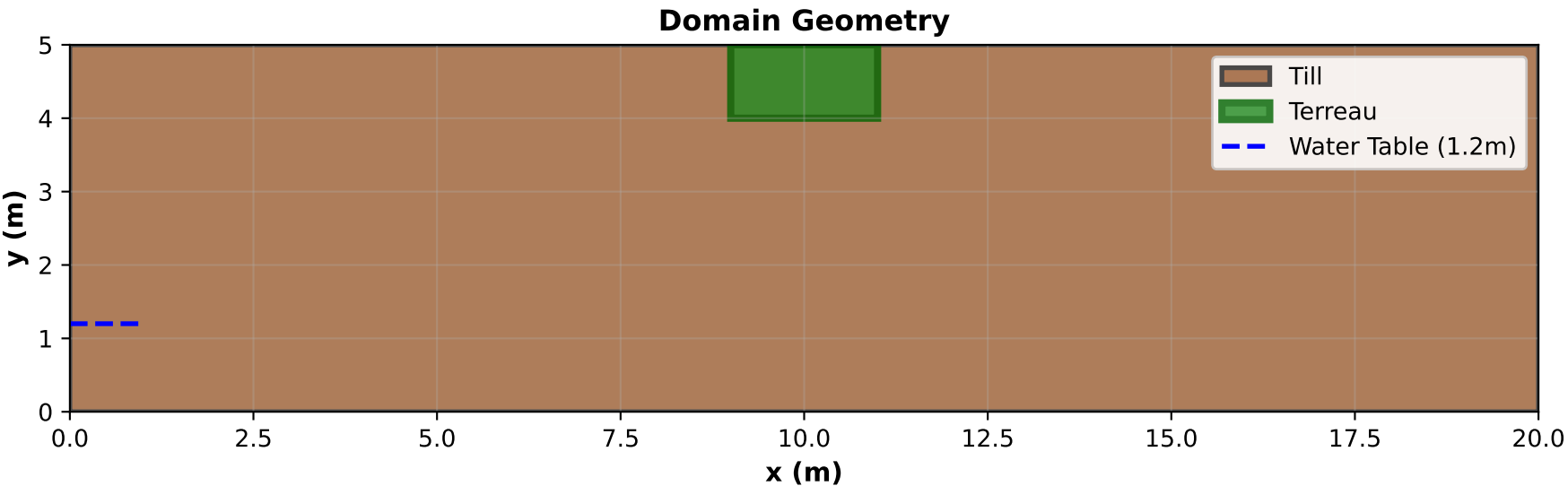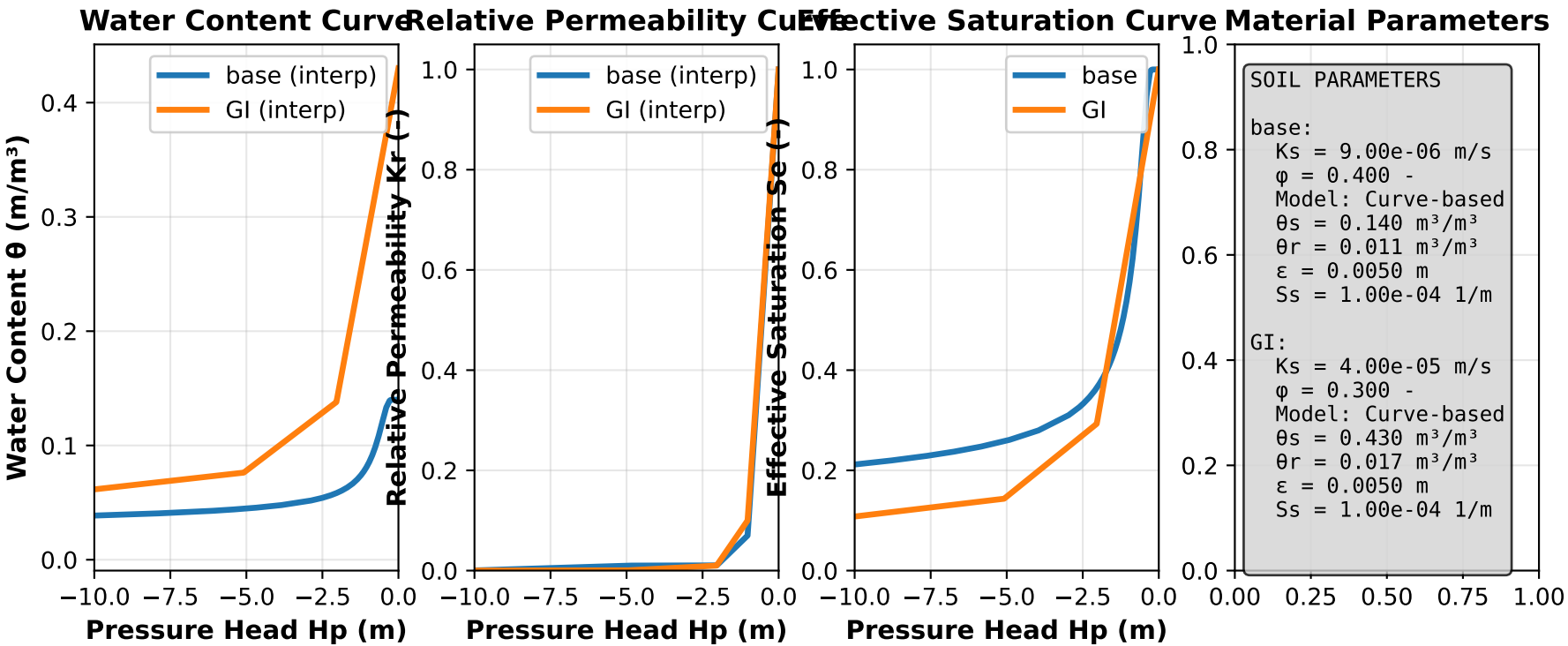# RICHARDS EQUATION SIMULATION - MODEL SETUP
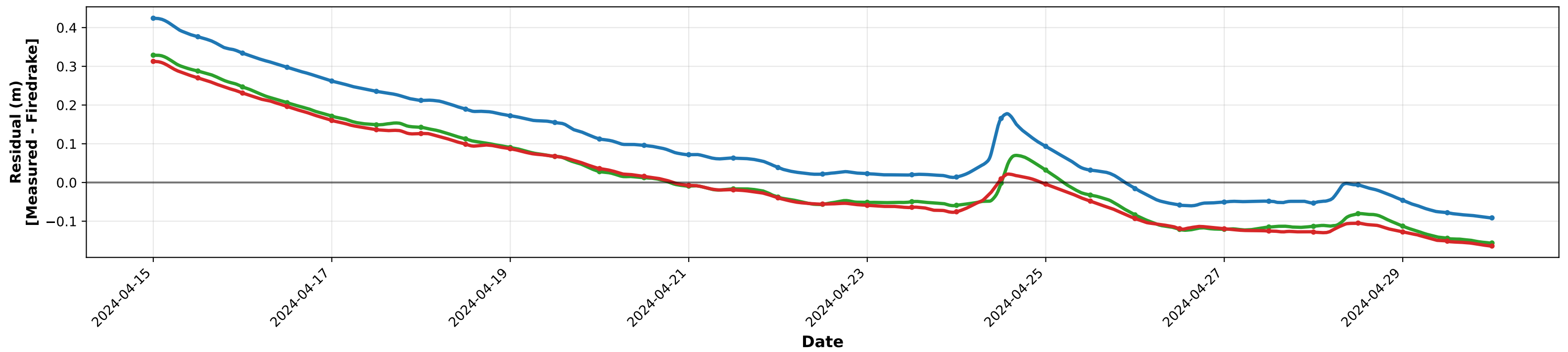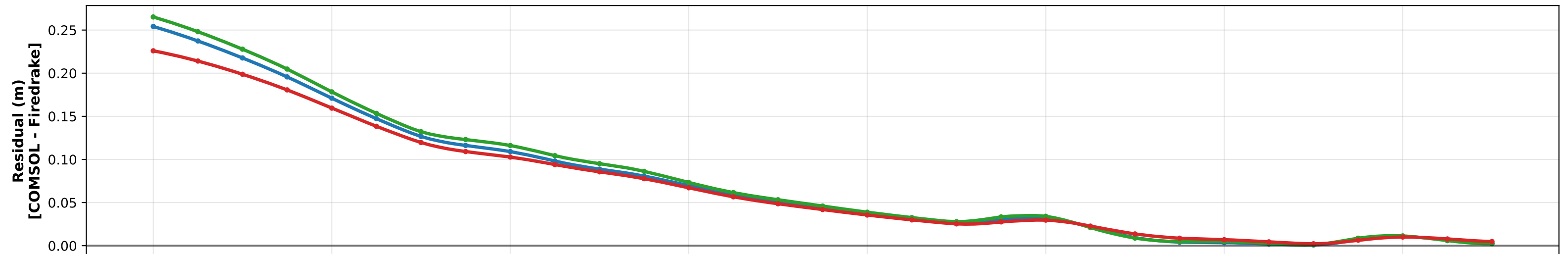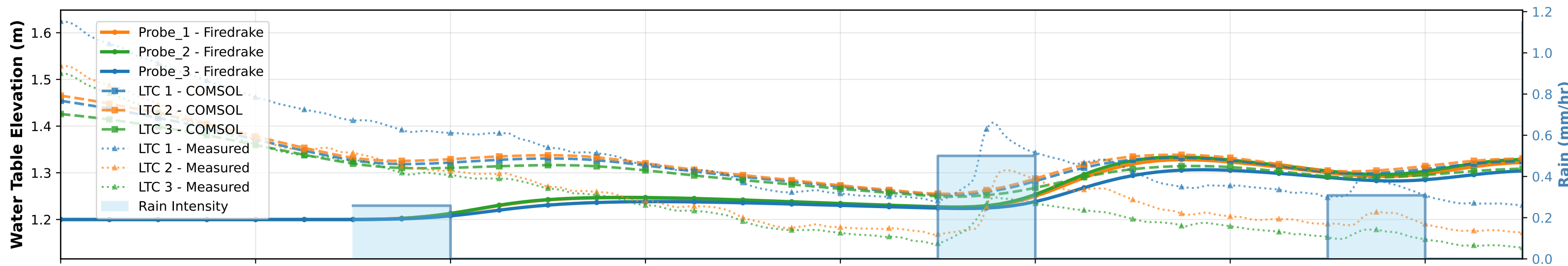
```
SIMULATION CONFIGURATION

Simulation Name: Datetime_Duration
Start: 2024-04-15 00:00
End: 2024-04-30 00:00
Duration: 360.0 hours (15.0 days)
Time Step: 10800.0 seconds

Domain: 20.0 m × 5.0 m | Mesh: 80 × 40

Simulation duration (real time): 0:00:43.012146
```


Water Content Curve — Water Content θ (m/m³) vs Pressure Head Hp (m); base (interp), GI (interp)

Relative Permeability Curve — Relative Permeability Kr (-) vs Pressure Head Hp (m); base (interp), GI (interp)

Effective Saturation Curve — Effective Saturation Se (-) vs Pressure Head Hp (m); base, GI

Material Parameters

```
SOIL PARAMETERS

base:
  Ks = 9.00e-06 m/s
  φ = 0.400 -
  Model: Curve-based
  θs = 0.140 m³/m³
  θr = 0.011 m³/m³
  ε = 0.0050 m
  Ss = 1.00e-04 1/m

GI:
  Ks = 4.00e-05 m/s
  φ = 0.300 -
  Model: Curve-based
  θs = 0.430 m³/m³
  θr = 0.017 m³/m³
  ε = 0.0050 m
  Ss = 1.00e-04 1/m
```

Domain Geometry — y (m) vs x (m); Till, Terreau, Water Table (1.2m)

GI

WATER TABLE ELEVATION - TIME SERIES

SOIL SATURATION - SPATIAL DISTRIBUTION