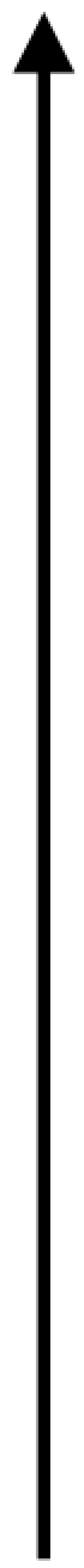


SLIM



co2storage project lifecycle

Dordtse weiden singeloptimalisatie



Fluid flow

simulations

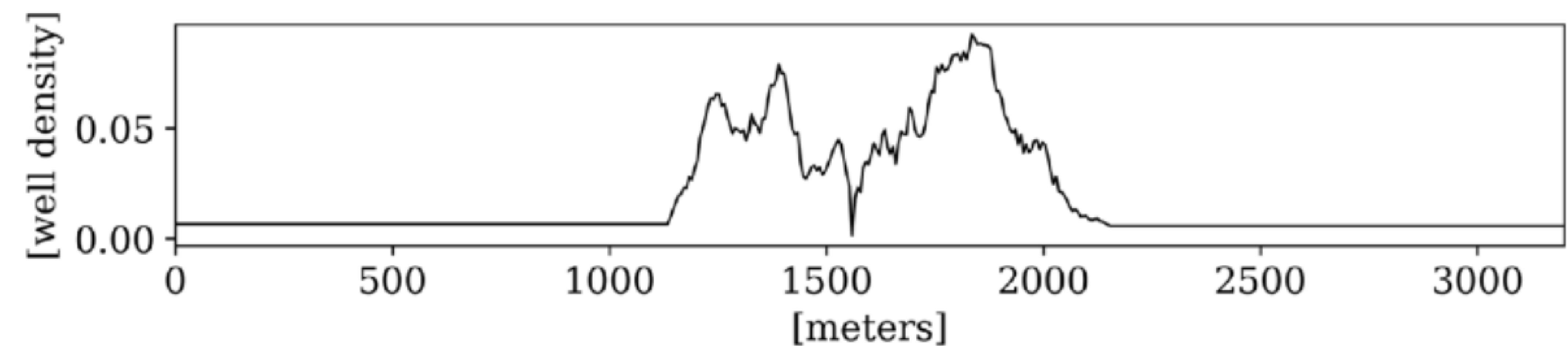


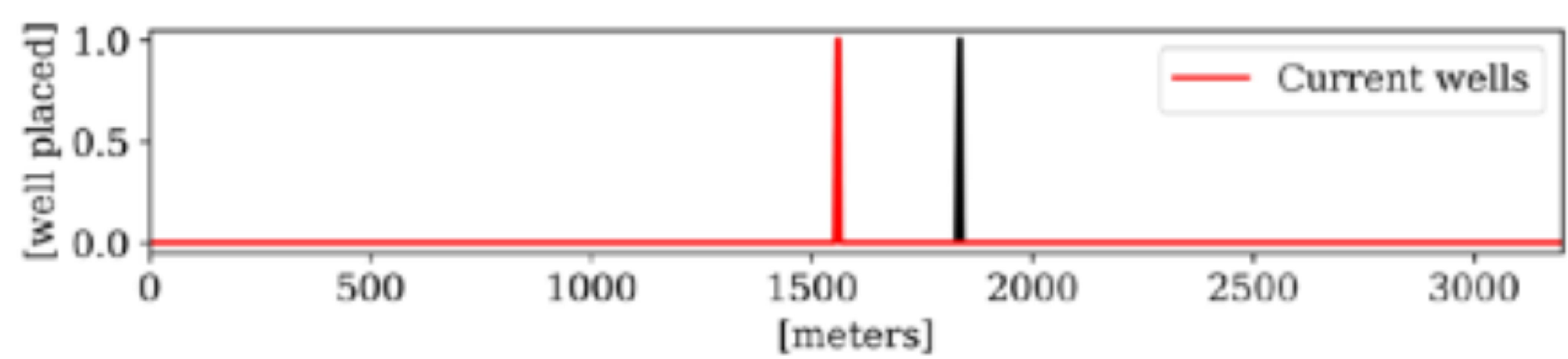
Synthetic

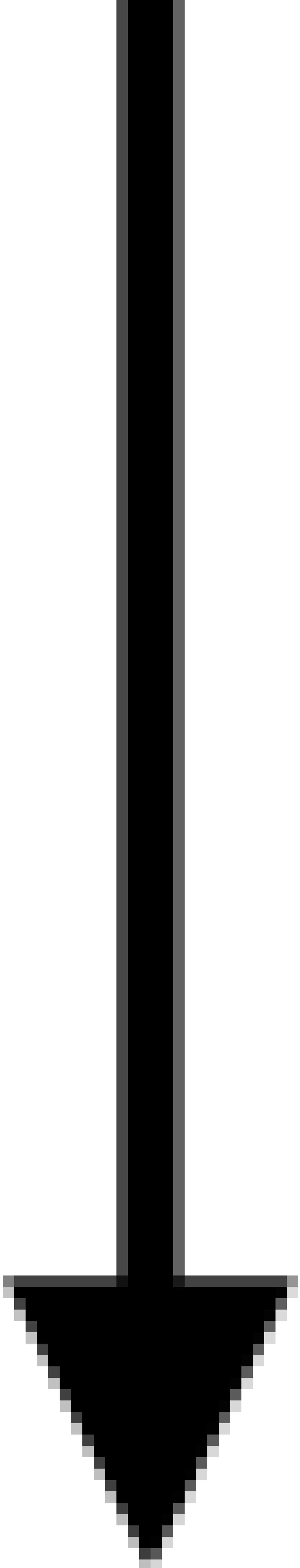
observations

Posterior becomes
prior and recourse

Inference from field data $\hat{p}_\theta(\mathbf{x}_{t+1} | \mathbf{y}_{t+1}^0)$









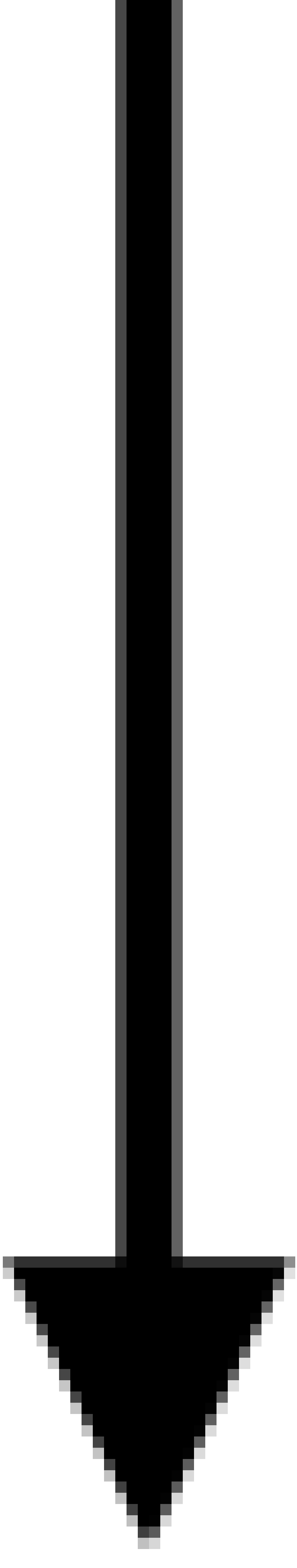
Field

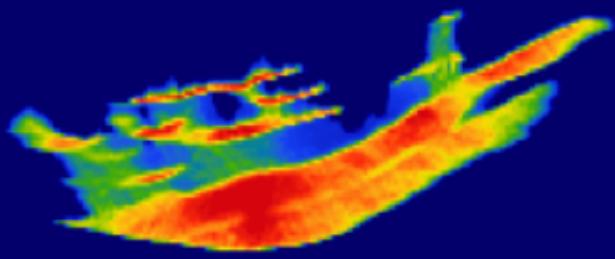
observation

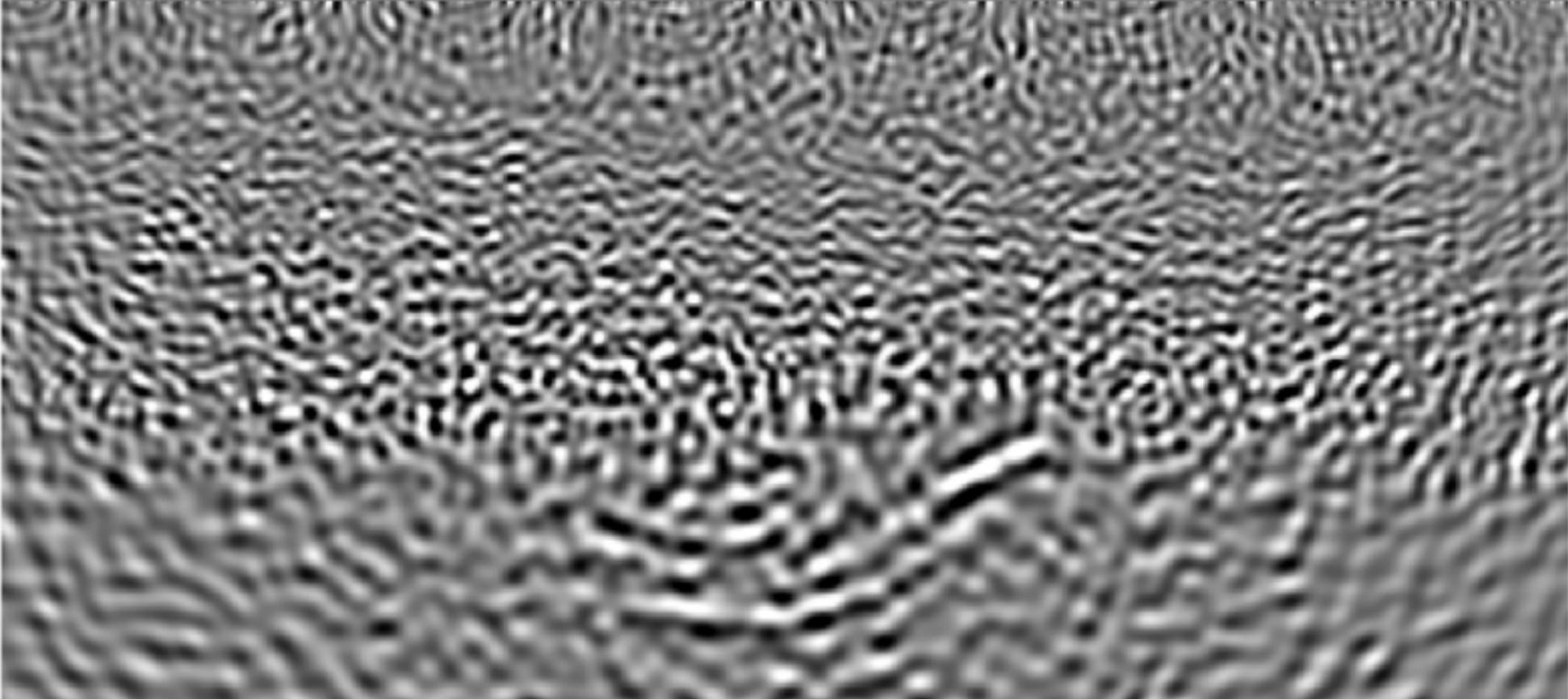


Posterior

inference

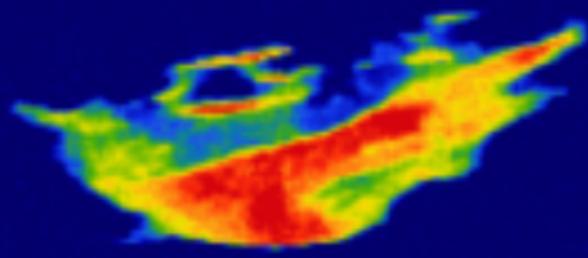


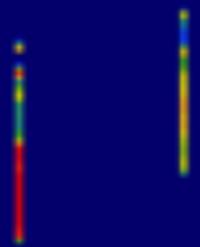


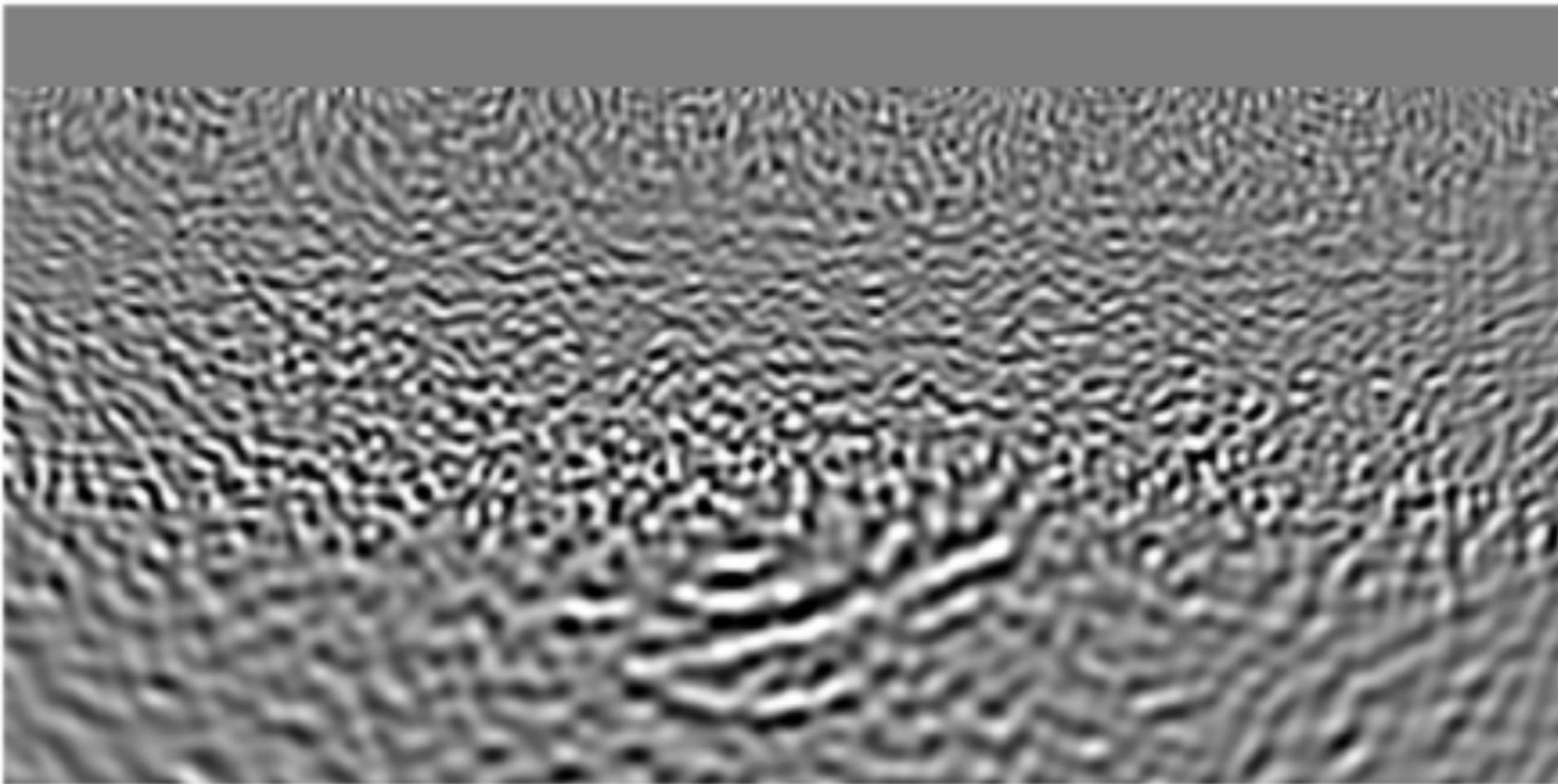












Prior samples $p_{\theta|X_0}$

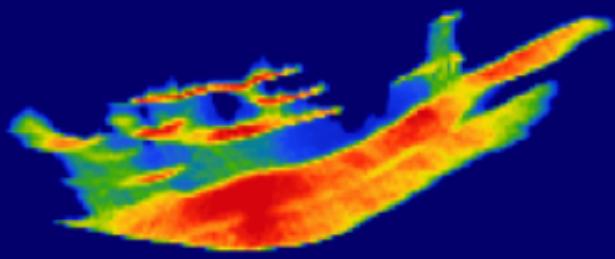
Forecasted plumes $p(x_{k+1}|x_k)$

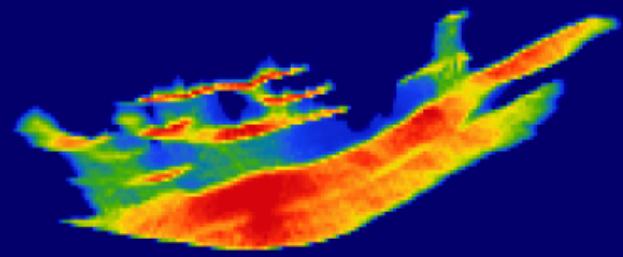
Train inference network and
well design using pairs $p(x_{k+1}, y_{k+1})$

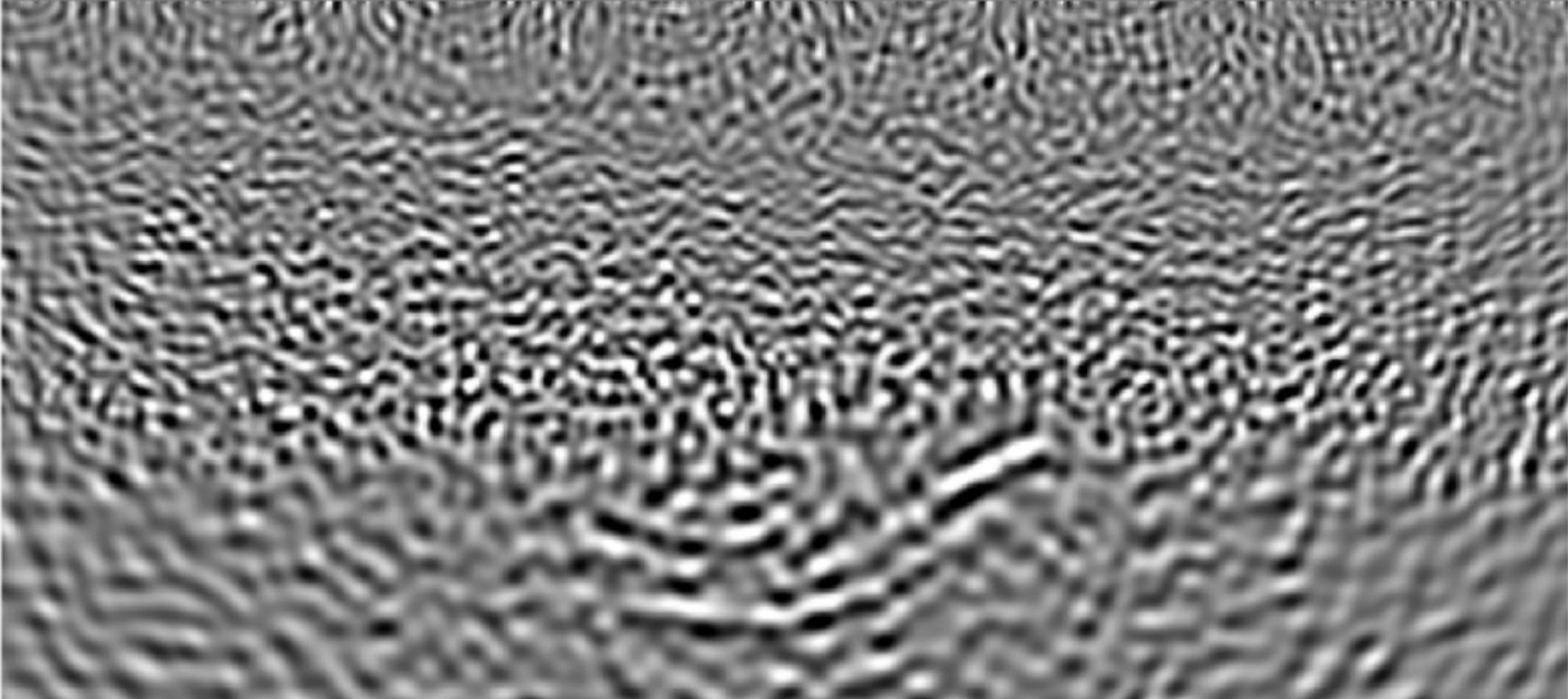
Outputs: posterior sampler

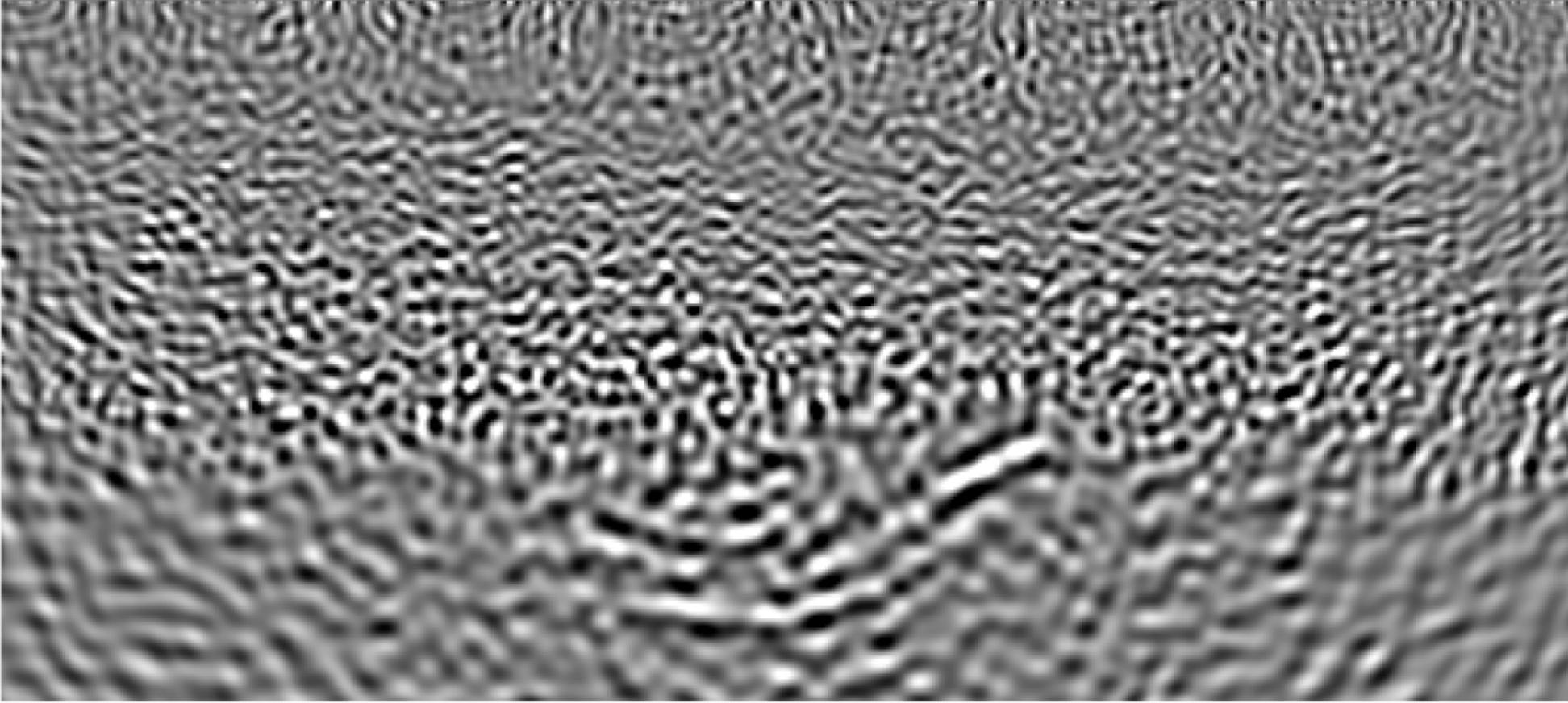
$p_{\hat{\theta}}(\mathbf{x}_{k+1} \mid \mathbf{y}_{k+1})$ and optimal well
density

Collect field data y_{t+1}^0 w/ optimal well



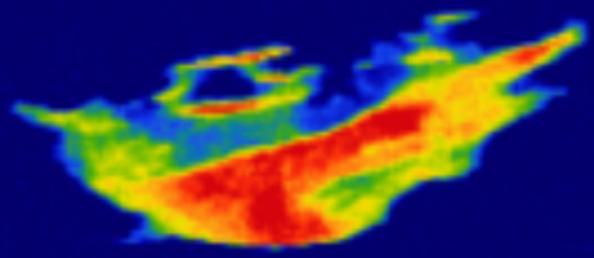


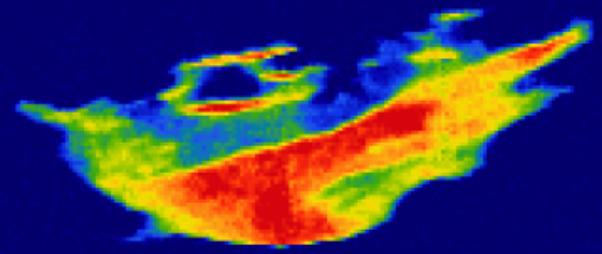




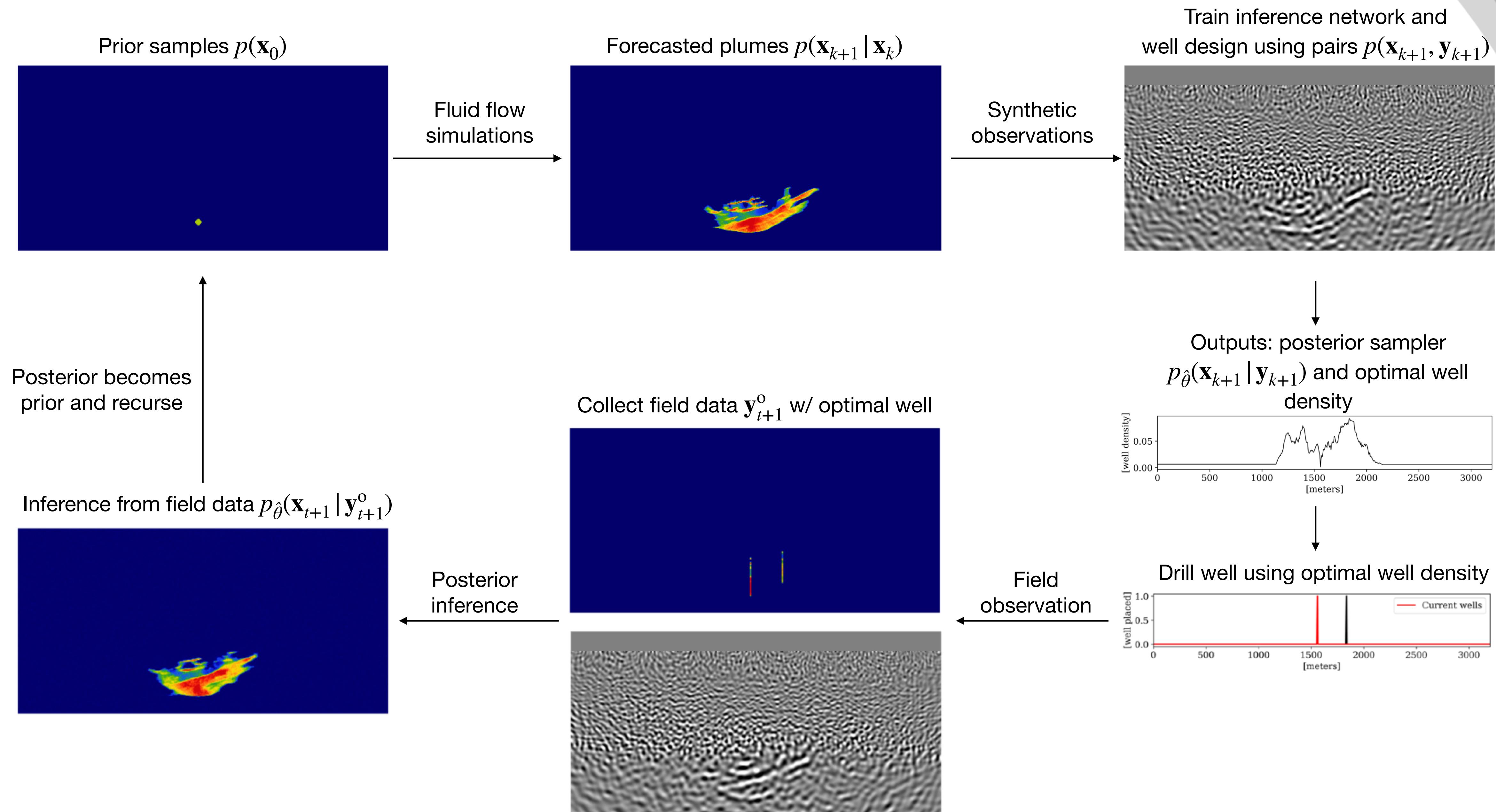








CO₂ storage project life cycle



Monitor 1

SLIM 

