

Table S1. Parameters of reactive transport

Half saturation of NO_3^- in $\text{NO}_3^- \rightarrow \text{NO}_2$ (mole/L)	1.1e-5
Half saturation of CH_3COOH^- in $\text{NO}_3^- \rightarrow \text{NO}_2$ (mole/L)	2e-4
Inhibition constant of O2 in $\text{NO}_3^- \rightarrow \text{NO}_2$ (mole/L)	1e-5
Rate constant in $\text{NO}_3^- \rightarrow \text{NO}_2$ (mole/L/s)	1e-9
Half saturation of NO_2^- in $\text{NO}_2^- \rightarrow \text{N}_2$ (mole/L)	1.13e-5
Half saturation of CH_3COOH^- in $\text{NO}_2^- \rightarrow \text{N}_2$ (mole/L)	2e-5
Inhibition of O2 in $\text{NO}_2^- \rightarrow \text{N}_2$ (mole/L)	1e-5
Rate constant in $\text{NO}_2^- \rightarrow \text{N}_2$ (mole/L/s)	2e-10

Table S2 Parameters of homogeneous fields

Zone	hydraulic conductivity (m/d)	Porsity
1	24	0.3
2	16	0.43
3	10	0.45
4	4	0.43

5

Table S3 Parameters of heterogeneous fields

Material	hydraulic conductivity (m/d)	Porsity
Clay	0.01	0.45
Silt	5	0.4
Fine sand	75	0.35
Medium sand	250	0.3

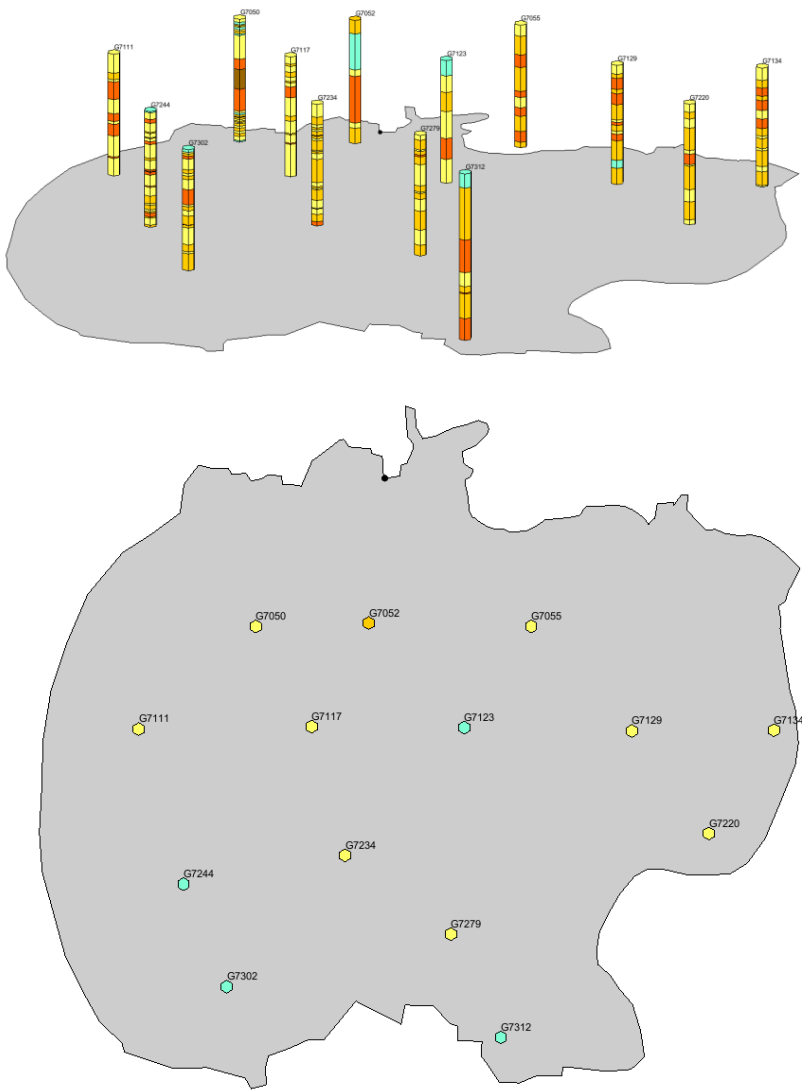


Figure.S1 Locations of the 14 boreholes within the study area.

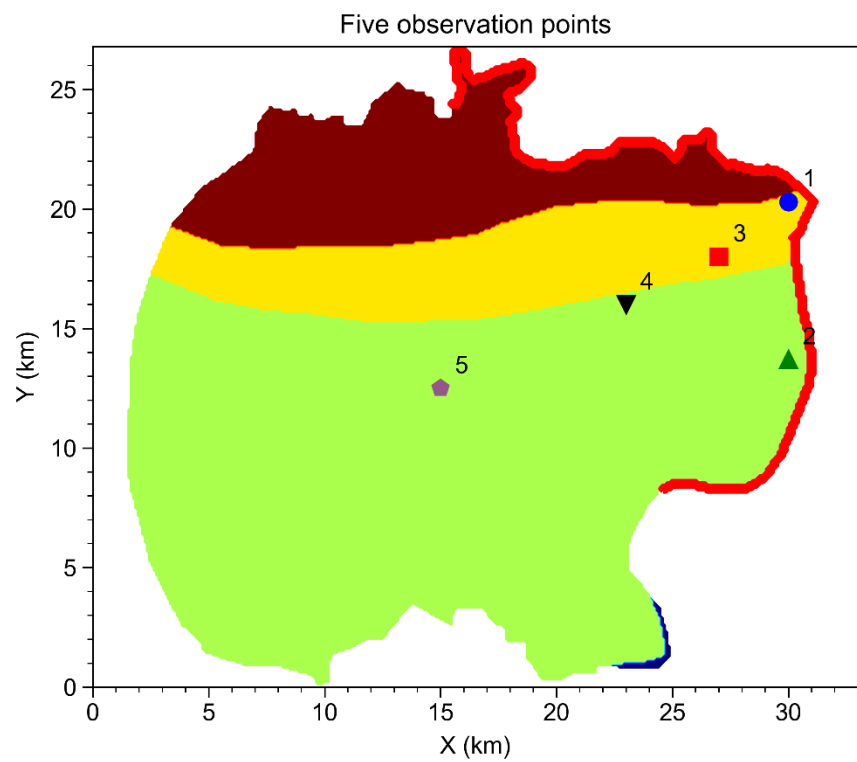


Figure S2. Spatial Distribution of Zones and Observation Wells