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subject: An Adjustment for Using Steel Corrosion Rates in BRAGFLO to Reflect
Repository Chemical Condition Changes due to Adding MgO as a Backfill

In order to control the repository chemistry, a sufficient amount of MgO will be added to the repository as a backfill. Through chemical reaction, this backfill will practically remove all CO₂ generated by microbial reactions and thus prevent any possibility of CO₂ accumulation in the repository. Therefore, the previously-suggested enhancement of steel corrosion by CO₂ (Wang & Brush, 1996) will be no longer possible. In our previous memo (Wang & Brush, 1996), two set of inundated steel corrosion rates were provided: one is 0.0 to 0.5 $\mu\text{m}/\text{year}$ for the cases without CO₂ present and another is 0.0 to 6.5 $\mu\text{m}/\text{year}$ for the cases with CO₂ present. *Considering the chemical condition changes due to adding MgO as a backfill, we suggest using the rate of 0 to 0.5 $\mu\text{m}/\text{year}$ for all BRAGFLO simulations.*

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