Ferric Leach - How It Works:

Metals can be extracted from many uranium ores with acid. This process is effective on Berlin ore, but acid consumption is very high due to the presence of carbonates and phosphates. One of the most significant features of the ferric leach tests undertaken on the Berlin ore is that no acid was added to control pH in Step 1 of the leach process. This is because ferric sulphate reacts naturally with water to generate jarosite and sulphuric acid, as acid demand increases. This can be represented as follows: