## **Supplementary Informations**

1. Journal name

Energy & Fuels

2. Manuscript Title

Variations in microbiota communities with the ranks of coals from three Permian mining areas predictive energy metabolic functions in mine tailings profiles

3. Author names

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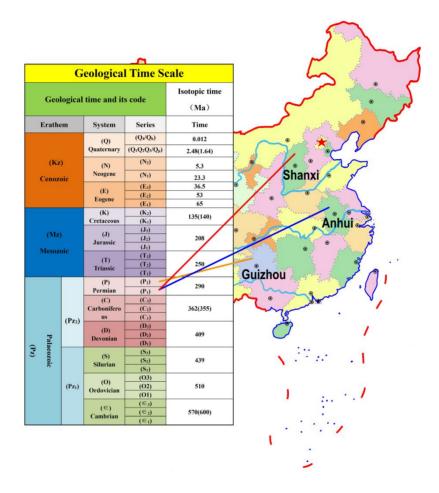


Figure S1. Three sampling areas and corresponding stratigraphic ages.

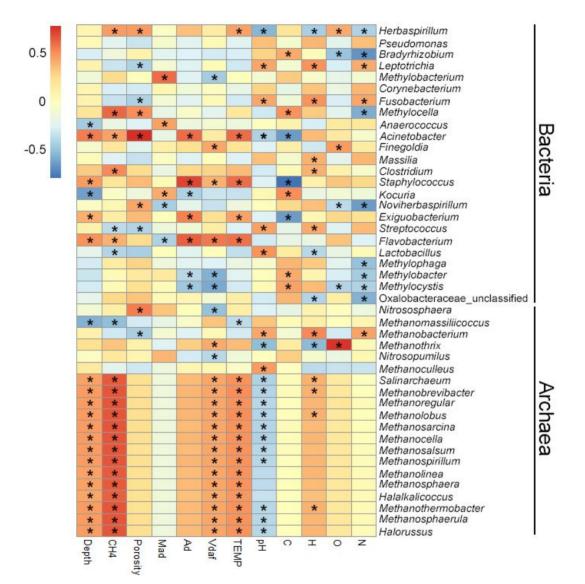


Figure S2. Heat maps showing the relationships between physicochemical factors and the main genera of bacteria and archaea. '\*' indicates a significant relationship (p < 0.05).