

environment, effectively resolved geological safety hazards, while simultaneously creating distinctive cultural landscapes and realizing tourism industry development. It formed a three-in-one integration of ecological, cultural, and tourism functions. Its core value lies not only in eliminating environmental problems but also in creating long-term economic benefits, powerfully promoting regional sustainable development.

Conclusions: This model provides replicable and scalable successful experience and a demonstration case for systematic, multifunctional ecological restoration of similar abandoned mines domestically, delivering significant comprehensive ecological, economic, and social benefits.

Keywords: mine ecological restoration; geological technology; governance model; Xixian County; Pugongshan

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中国地质学会发布两项团体标准

近期,根据国家标准化委员会、民政部印发的《团体标准管理规定》和《中国地质学会团体标准管理办法(试行)》的有关要求,经中国地质学会团体标准委员会审定通过,批准发布《超长重力热管地热能开发技术规范》T/GSC 012-2025)、《陆域科学钻探岩芯整理技术规程》(T/GSC 013-2025)两项团体标准。自2026年1月1日起正式实施。

《超长重力热管地热能开发技术规范》T/GSC 012-2025);件按照 GB/T1.1—2020《标准化工作导则 第1部分:标准化文件的结构和起草规则》的规定起草。

本文件起草单位:中国科学院广州能源研究所,中国地质科学院水文地质环境地质研究所,清华大学,河北省煤田地质局第二地质队,双良节能股份有限公司,西安交通大学,电力规划设计总院,中国矿业大学。

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《陆域科学钻探岩芯整理技术规程》(T/GSC 013-2025);按照 GB/T1.1—2020《标准化工作导则 第1部分:标准化文件的结构和起草规则》的规定起草。

本文件起草单位:自然资源实物地质资料中心、中国石化华北油气分公司、大庆油田有限责任公司、黑龙江省地质资料档案馆、内蒙古地质调查研究院、辽宁省地矿集团地质资料中心有限责任公司、山东省鲁南地质工程勘察院、山东省自然资源资料档案馆。

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张婧 供稿

ZHANG Jing: The Geological Society of China releases two group standards