GIS-BASED MULTI-CRITERIA DECISION MAKING UNDER SILICA SATURATION INDEX (SSI) FOR SELECTING THE BEST DIRECT USE SCENARIOS FOR GEOTHERMAL RESOURCES IN CENTRAL AND SOUTHERN RIFT VALLEY, KENYA

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氏　　　　名	NGETHE John（ニェテ　ジョン）
論　文　名	GIS-BASED MULTI-CRITERIA DECISION MAKING UNDER SILICA SATURATION INDEX (SSI) FOR SELECTING THE BEST DIRECT USE SCENARIOS FOR GEOTHERMAL RESOURCES IN CENTRAL AND SOUTHERN RIFT VALLEY, KENYA（ケニア中央および南部リフトバレーにおける地熱直接利用のベストシナリオ選択のためのシリカ飽和指数（SSI）に基づく GIS による意思決定手法）
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論　文　審　査　の　結　果　の　要　旨

　This research contributes to the overall understanding of selecting the best direct-use scenarios for Kenyan geothermal resources based on their fluid characteristic, local economic activities, and enabling local infrastructure. The study also characterizes high, medium, and low enthalpy geothermal resources, with or without productive deep wells or hot springs.

　This dissertation has a great contribution to resource engineering because it employs a GIS-based multi-criteria decision-making (MCDM) method: a hybrid of the analytical hierarchy process (AHP) method with the weighted aggregated sum product assessment (WASPAS) method. The model was validated with existing direct use (DU) case studies to gauge its ability to predict suitable utilization methods. Therefore, this thesis is worthy of the degree of Doctor of Philosophy in Engineering.