Alluvium isopach map in the southern Nakagawa Lowland, Kanto Plain, based on interpretation of drilling logs

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We constructed an alluvium isopach map in the southern Nakagawa Lowland, Kanto Plain, Japan, based on a numerical database of about 4000 drilling logs that were selected from over than 6000 logs. The resolution is about 500 m-mesh. It clearly images the topography of two incised-valleys that had formed by the paleo-Nakagawa River and the paleo-Ayasegawa River until the last glacial maximam. The clear and dense dataset of the valley walls enable us to estimate the ground condition. For example, relatively thick and large sandy sediments are recognized in 10 to 30 m-depth near the eastern valley wall of the paleo-Nakagawa River. In contrast, thinner and small sand beds are distributed near the western parts of the valley. This difference might relate to the damage ratio of wood houses due to 1923 Kanto great earthquake. This database will be effective tool for not only construction of 3-D sedimentation model but also high-resolution prediction for strong ground motion due to large earthquakes.