

**OCCURRENCE OF GROUNDWATER IN FRACTURED CRYSTALLINE ROCKS IN  
SYNFORMS (ARENAS) IN THE HIGHLAND GROUP OF SRI LANKA  
- A CASE STUDY FROM THE KANDY DISTRICT**

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Groundwater exploration for hand pump wells and pipe water supply schemes in Kandy district, Sri Lanka was started as the Harispattuwa Water Supply and Sanitation Project and presently it is continuing as the Kandy District Water Supply and Sanitation Project. Geologically this area belongs to the Highland Group of Sri Lanka. Occurrences of deep ground water in three synforms (arenas) namely Gadaladeniya, Harispattuwa and Dumbara have been analysed by using about 700 drilled boreholes.

Correlation of maximum flushing yield with borehole locations, total drilled depth and depth to the main fracture were made.

Contour diagrams of maximum flushing yield values indicate that high yielding deep groundwater patches lie along synform limbs and axis including nose areas. Correlation diagrams show that there are high yielding borehole wells with shallow drilled depth in Gadaladeniya and Harispattuwa synforms but in the Dumbara synform comparatively high yielding boreholes were identified at deeper drilled depth. There is no clear relationship between maximum flushing yield depth to the main fracture.