



PROJECTS

SITE REMEDIATION

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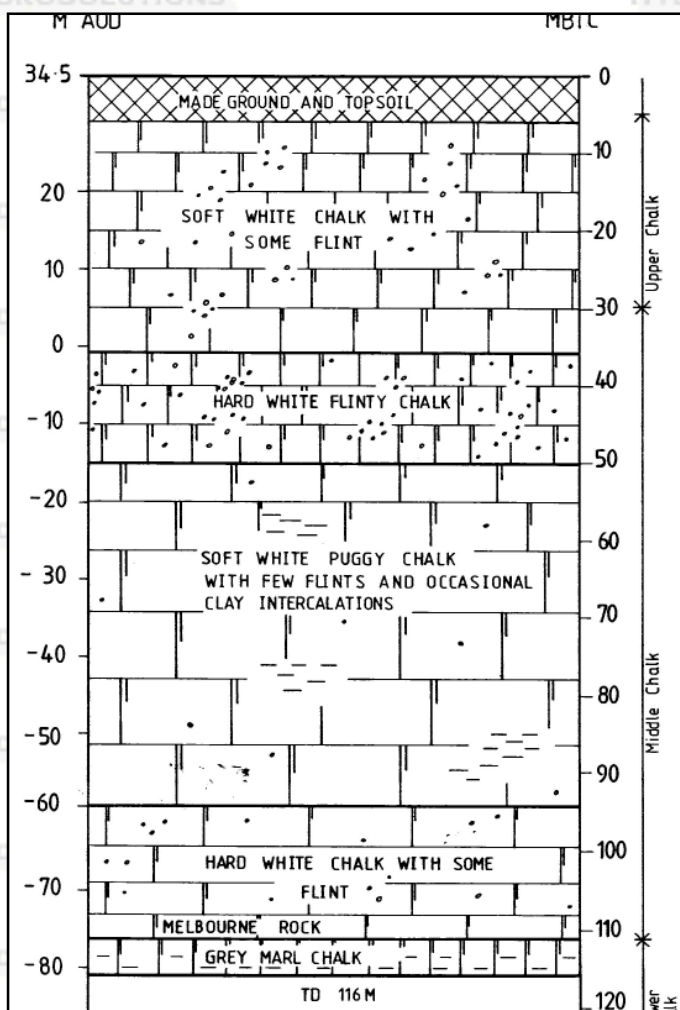
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MID KENT WATER COMPANY

Numerical modelling- diesel spillage at a groundwater Public Water Supply

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An investigation of a major diesel spillage following a facility upgrade at a Chalk groundwater PWS was undertaken.

A soil vapour monitoring exercise was followed by installation of pressure vacuum lysimeters to monitoring the unsaturated zone. Groundwater monitoring bores were established to determine groundwater flow & direction, horizontal & vertical hydraulic parameters and groundwater quality.

A local groundwater numerical model was constructed using MODFLOW. A routine to approximate the reduction in transmissivity with depth within chalk during drawdown was written, and the regional reduction in groundwater due to drought. The model was calibrated against limited historical data.

The model was used to identify groundwater abstraction rates required to provide hydraulic capture and recovery of the diesel contamination, while allowing partial recommissioning of the PWS.

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