



Parameter	Units	Value	User-specified units	Justification
Hydraulic conductivity, K	L/T	1.00E-05	m/s	Lower range value for "well sorted gravel" (Fetter C.W. (1994): to give an overestimate of Q; BH logs reveal that shallow lithology also contains less permeable lithologies
Elevation of base of aquifer, z_{bot}	L	3.1	mAOD	
Distance to constant-head boundary, A	L	3.1	m	Calculated from Radius of influence Calculation ($R = \sqrt{1.9Kht/n}$)
Width of aquifer transverse to groundwater flow, L	L	20.0	m	Trenching at 20m intervals
Head at the constant-head boundary, H	L	5.118	mAOD	mAOD at WS110
Head in the excavation, h_d	L	3.118	mAOD	Trenches will be dug 1.5mbgl. To ensure excavation remains dry, a value 2m below H is used.
Result				
Calculated inflow, Q	L ³ /T	2.607E-04	m ³ /s	
Inflow per day	L ³ /T	22.52	m3 per day	

$$Q = -K \frac{(H^2 - h_d^2)}{A} L$$