

**Treated seepage water holding pond design calculation to meet the Detention Time of 5 days.**

Sr.No	Details	Calculations	Remark
1	Anticipated seepage water in both the caverns as per the information available from M/s. Engineers India Limited	Max. Seepage rate considered $q = 10 \text{ m}^3/\text{Hr.}$	Maximum Seepage rate observed is $5 \text{ m}^3/\text{Hr.}$
2	Anticipated seepage water in both the caverns per day $Q = q \times 24 \times 5$	$Q = 10 \times 24$ $Q = 240 \text{ m}^3 / \text{day}$	
3	The treated seepage water holding pond's designed capacity required to have Detention Time of 5 days	$= Q \times 5 \text{ m}^3 \text{ for 5 days}$ $= 240 \times 5 \text{ m}^3 \text{ for 5 days}$ $= 1200 \text{ m}^3 \text{ for 5 days}$	

The treated seepage water pond's holding capacity provided is  $2400 \text{ m}^3$