



Quantum Filtration Media

Attention: Clive

Reference: South West Health Campus

To summarise our involvement in the system –

When we were contacted, the two systems each consisted of

- ✚ 3 x 48” vessels filled with unknown media (later assumed to be Manganese Green Sand)
- ✚ 1 x Submersible bore pump discharging into a holding tank
- ✚ 1 x Potassium Per Manganate storage and injection system
- ✚ 1 x Irrigation pump drawing from the mixing tank and feeding the reticulation via the filter plant

After extensive testing we concluded that the existing system was capable of removing the dissolved iron but had little or no effect on the manganese.

Trials were conducted using Quantum media which proved effective.

We then modified the existing system to incorporate the Quantum media by

- ✚ Remove existing media
- ✚ Repair damaged laterals
- ✚ Clean vessels and manifolds
- ✚ Install under-bed gravel and Quantum media
- ✚ Repair damaged backwash valves
- ✚ Remove the mixing tank and reticulation pump from the system
- ✚ Modify control system to
 - Initiate backwash by volume processed
 - Control maximum and minimum flow, pressure and backwash rates
 - Decommission mixing tank and reticulation pump controls
 - Facilitate chemical injection on volumetric basis
- ✚ Install Sodium Hypochloride injection system

Since this work was carried out, the only problems encountered have been due to mechanical failure of the filtration system. When the units are operating as per specification, the media removes practically all iron and manganese contaminants.

I trust this information is as you require.

Regards,
Stuart Hair