

Thank you for your letter dated 30th March, 2016.

I submit the following evidence: -

JH Groundwater said that they may be able to help, at an additional cost to ourselves.

However, they would not be unable to do so, within the time scale given.

I am sorry, but I do not know of any published records of “interrupted pathways connecting any water supply with its source”.

**However, Mr Hefin Thomas has informed us, that he has experienced toxins leaking from his pole that was 8 foot deep and installed by WPD. This pole was later changed to an untreated pole, because it contaminated his water supply. I believe that Mrs Medland has already sent you a letter from Mr Thomas, confirming this.**

We have asked WPD to replace this treated pole with a concrete pole. Our springs surround this pole and in heavy rain, the pole above ground level, will not have any cover on it, to stop the rain from soaking in and leaching toxins into the ground. This in turn will seep into our water supply, as experienced by Mr Hefin Thomas, Alltwalis. WPD has said that it will not replace the wooden pole with a concrete one, unless ordered to do so. Considering the amount of rain that we have experienced throughout winter, this scenario is not a potential outcome, it is a very real threat to our water supply and that of our neighbours.

I can provide further evidence about fractured rocks. This Information has been acquired from the [International Association of Hydrogeologists. International Conference on Groundwater in Fractured rocks, 2003 in Prague.](#)

They state that many-sided problems are connected with groundwater fractured rock, pollution and environmental damage being their biggest cause for concern. Protection and management in fractured hydrogeologic environments belong to the most important tasks of the present-day hydrogeology. Clear hydrogeologic understanding and quantitative hydrogeologic assessments are required before and during various types of geotechnical and engineering-geological activities, such as construction of tunnels and or **underground cavities. (like digging holes for poles)**. The flow system in fractured rocks is complex and difficult to define. This is due to the fact that the permeability distribution of fractured rock is very heterogeneous (the rocks being of different kinds, degrees, or dimensions), and ranges over many orders of magnitudes. Flow and transport processes through fractured rocks, are very difficult to describe, due to the geometrical irregularities of the joints, fissures and fractures.

I have enclosed a diagram (International Conference on Groundwater in Fractured rocks, 2003 in Prague.), to show how the fractured rocks presents underground. You can see that these fractures are small channels in the rock, that carry our spring water supply to our catchment area. As the diagram shows, the fractures do not follow a straight line, but have a zig-zag formation, this means that the water is coming from all different direction. **(Which is why Mr Whittingham told us, that it would be impossible to find the source of our spring.)** This diagram, also clearly shows that the fractures are located directly under the ground. They range from one to three feet below ground, and therefore, these fractures can easily be crushed by trucks, equipment or machinery being driven across our field, where our springs are located. You can then appreciate, that the excavation to put in this pole, will

crush the fractures in the rock, and these channels will disappear and so will the water supply that flowed into these channels.

“by digging underground cavities in such settings, can have other serious impact, such as the disappearance of springs close to the surface.” (International Asso. Of Hydrogeologists, Prague.)

In other words, if the machinery, equipment or excavation destroy these fractures, then they will also destroy the channels in which our water flows through, which could result in a total or part loss of water supply to our property and to our stock. As commented in the report from JH Groundwater, if the construction crew is not made aware of this danger and take many different routes over the field to this pole, the effects could be devastating.

Before they place this pole in the ground, they will need to drill a hole twice the width of the pole. The length of the pole entering the ground is 2.7 metres, however, this is only as regards to the pole itself, its actual length will be a lot longer, when you include the concrete and sleeve. They then use a hydraulic ram to compact the ground around the pole. This hydraulic ram will destroy the channels in our fractured rocks, which are just below the surface, stopping any flow of water around this pole. There is no way of knowing how many fractures will be destroyed by WPD construction crew and their equipment, whether all or some of our water supply will be lost? Therefore, anything that breaks the surface of the ground, has the **potential** to damage the channels in our fractured rocks.

We are also greatly concern over how WPD intend to get these poles on to our land, where will the poles be stored until they are needed, and what sort of truck, equipment or machinery will they be using and how many trips will they need to make to get the poles in place. Each journey over our land, could have a serious impact on our fractured rocks, that are just below ground level.

Respectfully

Mr & Mrs A P Rentmore

Plan view

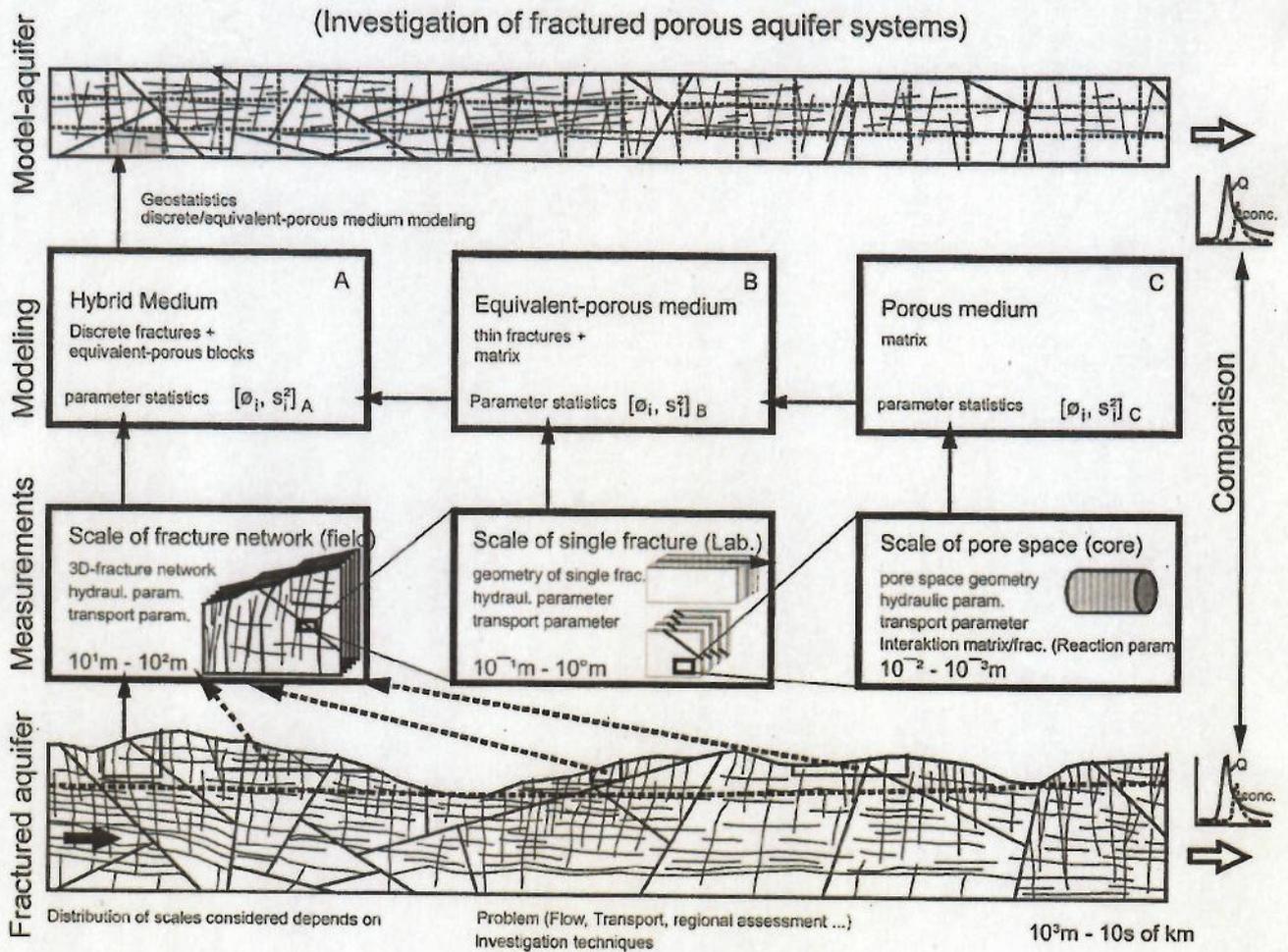


Figure 1. Aquifer Analogue Approach