

Table S1. Details of the separate aquifer types (Geological formation) used in this study.

Aquifer type	Aquifer class	No. of samples	Specific conductance ( $\mu\text{S}/\text{cm}$ )	
			Median	IQR
Bowland High and Craven group	2B	21	625	581 – 660
Corallian Group	2B	17	693	673 - 723
Dinantian Rocsk (undiff.)	2B	37	578	382 – 624
Fell sandstone group	1B	34	801	597 – 930
Gault clay formation	3	24	946	564 – 1155
Great oolite	2B	237	759	658 – 807
Grey chalk	2A	402	756	689 – 808
Inferior oolite	2A	218	905	839 – 958
Inverclyde group	2B	11	556	464 – 1555
Kellaways & Oxford clay	3	179	886	796 – 1260
Lambeth group	1C	42	906	644 – 1428
Lias clay	3	27	262	223 – 820
Lower Greensand	1A	14	807	789 - 825
Millstone grit	2B	74	425	290 – 701
Neogene & Quaternary rocks	1B	93	888	676 – 1110
Pennine coal measures	2B	59	1080	695 – 1845
Permian rocks (undiff.)	1A	57	548	448 – 612
	1B	7	1610	672 – 1762
	3	29	901	855 – 1040
Pridoli rocks	2C	18	735	647 – 909
Thames group	3	114	918	708 – 1193
Triassic rocks (udif.)	1A	288	941	608 – 1163
	2B	97	989	891 – 1076
	2C	141	403	209 – 629
Upper Devonian rocks	2C	5	2270	2170 – 2600
Upper Greensand	1B	5	70	70 – 89
Wealden group	3	17	903	386 – 1524
	1B	37	625	501 - 816
West Walton, Ampthill & Kimmeridge clays	3	13	1140	784 – 2290
Yoredale group	2B	14	309	249 - 360
Zechstein group	2A	177	845	650 - 1010
<b>Total</b>		<b>3315</b>	<b>767</b>	<b>618 - 938</b>