

MEMOIRS 1964

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WATER ANALYSIS

by

D.T. Richardson, A.R.I.C.

The accompanying table gives details of samples of water taken on the 26th March, 1964.

Kilnsey Crag Waters

The first two samples can be considered identical. One has, however, a higher free carbon dioxide content than the other. The third sample is significantly different to the other two. A regular study of those various springs will be the only way in which one will eventually arrive at some sort of conclusion as to the varying composition.

Sleets Gill Cave

The Lower Sleets rising and the feeder into this rising have the same chemical composition as would be expected as they rise within a few feet of one another.

A difference in composition exists between Sleets Gill water and the water issuing from the rising in the valley between Sleets Gill and Lower Sleets.

The water from the spring East of Low Sleets is interesting in the fact that it is considerably harder than the other waters in the vicinity and contains almost six times as much magnesium salts.

The water from Mossdale Caverns reappears in these three risings. It is interesting to note the great variation in composition of these waters.

Woodnook Sink, Threshfield and Robin Hoods Well

These waters are widely separated from the remainder of the series. The results are included for the benefit of those workers who wish to compare results.

I regret that no mention has been made of the various samples which members of the Society have brought out of caves and potholes - it is hoped to include a comprehensive list of these in the next edition.

ANALYSIS OF WATER FROM LITTONDALE AND WHARFEDALE

	NGR	HARDNESS			Ca. Salts CaCO ₃	Mg. Salts MgCO ₃	Free CO ₂	pH
		Total CaCO ₃	Temp. CaCO ₃	Perm. CaCO ₃				
Spring at Base of Kilnsey Crag.	9740. 6840	195.0	168.0	27.0	187.0	7.5	7.0	7.3
Spring at Base of Kilnsey Crag	9735. 6848	197.0	168.0	29.0	190.0	5.9	4.0	7.4
Spring to North of Kilnsey Crag	9730. 6855	179.0	151.0	28.0	171.0	6.7	6.0	7.3
Stream leaving Sleets Gill	9606. 6945	188.0	167.0	21.0	179.0	7.6	5.0	7.3
Rising between Sleets Gill and Low Sleets	9635. 6918	177.0	152.0	25.0	169.0	6.7	6.0	7.3
Low Sleets Rising	9664. 6900	158.0	134.0	24.0	151.0	5.9	5.0	7.3
Feeder into Low Sleets	9671. 6911	159.0	132.0	27.0	151.0	5.0	5.0	7.3
Spring East of Low Sleets	9680. 6895	233.0	210.0	23.0	197.0	30.2	6.0	7.2
Black Keld Rising	9743. 7099	84.0	60.0	24.0	73.0	9.2	5.0	7.1
Davey Keld Rising	9813. 6705	192.0	171.0	21.0	163.0	26.0	6.0	7.3
Rising at Low Mill Grassington	SE 0073. 6324	129.0	98.0	31.0	118.0	9.2	6.0	7.1
Woodnook Sink	9553. 6436	112.0	87.0	25.0	103.0	7.6	2.0	7.5
Robin Hood's Well	9789. 6577	174.0	147.0	27.0	168.0	5.0	4.0	7.1

Samples collected 26th March, 1964.

Results in milligrammes per litre. (Parts per million)

Analyses by D.T. RICHARDSON, A.R.I.C.