

## The Salt Spring, East Chinnock, Somerset

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THIS interesting spring is situate in Harlands Field to the north-east of Barrows Farm, East Chinnock—at 'Salt Ho.' on the 1-inch Geological Survey Map (Old Series), Sheet 18. On the 6-inch Map, Sheet LXXXIX N.W., Somerset, 'Salt Hole' and 'Spring' are marked. To the country-folk the hollow in which is the spring is known as the 'Salt Hole.'

H. B. Woodward, F.R.S., referred to the 'Salt House' in 1892,<sup>1</sup> and in 1894 said that the salt water comes from the Inferior Oolite.<sup>2</sup> This is the case; but the geographic distribution of the Midford Sands, Inferior Oolite, and Fullers' Earth in the immediate vicinity of the spring is not easy to determine. On the Geological Survey Map the 'Salt Ho.' is represented as being on Midford Sands. In the field, 'Hurlands,' in which was situated the 'Salt House'—as may be readily seen from the depression—was once a pit, where clay was worked for making bricks, agricultural pipes, etc. But when the clay-getters came to work the 'lower part of the clay,' the clay was so impregnated with salt that the pipes made of it would not burn, but 'ran together.' Masses of these spoilt pipes are still to be seen lying about—for example, in the hedge between the site of the Brick Works and Barrows Farm. The colour of the spoilt pipes suggests that the clay of which they are made is Fullers' Earth.

In 1791 the Rev. John Collinson said :<sup>3</sup>

<sup>1</sup> *Proc. Som. Arch. Soc.* xxxvii (1892), 69.

<sup>2</sup> 'Jurassic Rocks, etc.', *Mem. Geol. Surv.* iv (1894), 513.

<sup>3</sup> *The History of Somerset*, ii, 327.

‘There is in this parish a salt spring, about a mile west from the church. It is in a meadow of deep rusty red and yellowish rich loamy earth, covered with a thick fine turf. The spring forms a pool of water, in which are reeds and other aquatic plants, with divers species of confervas, but none of them of the marine kind. The spring never fails in dry, nor overflows in wet seasons. From the pool narrow drains are cut to a house erected for the purpose of making salt with the water thereof, in which the proportion of salt seems to be about one-fortieth part; for with this water they can make one pound of salt in forty more than they can with water, under a similar operation, and with a like quantity of rock salt.’

In 1836, the Rev. Wm. Phelps repeated Collinson’s account,<sup>1</sup> but added that :

‘Upon trying it with chemical tests the following were the results :

A few drops of nitrate of silver produced a whitish cloud ; tincture of galls a smoky hue ; tincture of litmus an intense blue ; acetate of lead converted the whole into a milky appearance.’

In 1918 Dom Ethelbert Horne said :<sup>2</sup>

‘In October, 1918, the spring . . . had gone completely out of use.’

In May 1925, when I visited the spring, it was running, but it was difficult to obtain satisfactory samples of the water owing to the marshy nature of the ground. Mr. R. G. B. Fish took samples on July 17, 1925, and the result of Mr. Cecil Cooke Duncan’s analysis shows that of the solids in solution, 436.1 grains per gallon, no less than 407.8 grains are common salt.

Mr. A. S. George, of Barrows Farm, informed me :

‘Cattle will only drink of the water if hard drove for it, and when they drink it, it scours them badly.’

At Barrows Farm is a well, 25 to 30 feet deep, presumably through Inferior Oolite, the water from which was ‘too bad to use’—brackish and impregnated with sulphuretted hydrogen. Water from a well, commencing in Fullers’ Earth and probably penetrating it and entering the subjacent Inferior

<sup>1</sup> *The History and Antiquities of Somersetshire*, i [pt. 2], 39, 40.

<sup>2</sup> *Somerset Holy Wells* (1923), p 36.

Oolite, situate about half-way between Glebe Farm and Rushy Wood Farm, Haselbury Plucknett parish, is also brackish.

ANALYSIS OF WATER FROM THE 'SALT HOLE,' HURDLANDS  
FIELD, EAST CHINNOCK, SOMERSET

Sample received from Mr. R. G. B. Fish on July 17, 1925

Analysis made by Mr. CECIL COOKE DUNCAN, F.I.C., F.C.S.,  
County Analyst, Worcestershire. (No. 8512, 138A, 11.)

	Grains per gallon.	Parts per 100,000.
Solids in Suspension . . . . .	Trace	
Solids in Solution, dried at 100 C. . . . .	436.1	623.0
"    "    "    appearance . . . . .	White	
"    "    "    after ignition . . . . .	428.4	612.0
Behaviour of Solids on Ignition . . . . .	Slight	browning
Phosphates . . . . .	None	
Chlorine calculated as Common Salt . . . . .	407.8	582.6
Free and Saline Ammonia . . . . .	0.004	0.006
Albuminoid Ammonia . . . . .	0.005	0.0076
Oxygen absorbed in three hours . . . . .	0.019	0.027
Nitrogen in Nitrates . . . . .	None	
Colour . . . . .	Slightly opalescent.	
Deposit . . . . .	Slight brown.	
Smell . . . . .	None.	
Hardness : Permanent . . . . .	15° Clark.	
Temporary . . . . .	17° "	
Total . . . . .	32° "	

Parts per 100,000

Insoluble . . . . .	1.5
CaO . . . . .	14.5
MgO . . . . .	5.7
NaCl . . . . .	582.6
SO <sub>3</sub> . . . . .	6.5

*Remarks.*—The chief mineral constituent of the water is Sodium Chloride.