



The Quantocks

The Beach that Burns

Today the environs around the village of Kilve and its lonesome beach are protected by some of the most robust environmental safeguards in Europe – but that doesn't mean to say that a day will dawn when fuel requirements overturn ecological concerns. The oilfield at Kilve is huge. It was once calculated that it contained no less than 10 billion tons of oil-bearing rock.

The same investigations – carried out 76 years ago - showed that the rock was even richer in oil than the famous Green River Beds in Colorado, which at the time were believed to be the most oil-drenched shales in the world.

But could this peaceful and unspoilt part of the Westcountry one day find itself the target of a massive oil-rush? Well, with oil prices looking set to rise and rise, the locals may have good reason to look into the annals of the area's recent past. As the above figures show, the oil industry has been tempted by what lies beneath the West Somerset coast before.

On several occasions newspapers – both local and national – have carried headlines referring to the potential large-scale exploitation of the region's largest oilfield.

And even today if you go down to Kilve Pill, as the beach is known, there is a stark reminder of the days when the oilmen started to dig for liquid gold. It comes in the form of a massive, square, brink-lined chimney, which is all that's left to bear witness to the oil-rush of the 1920's.

The trouble then was – and is – that the oil at Kilve does not come in easily extracted liquid form. The old oil retort acts as a kind of constant reminder of this fact - its job was to house the furnace in which rock was literally boiled in order to extract the crude oil.

Oil shale is a term applied to a fine dark coloured rock that is rich enough in bituminous material (called kerogen) capable of yielding petroleum after it has been distilled. The kerogen in oil shale can be converted to oil through a chemical process known as pyrolysis – a process that is commonly known as "retorting". The problem is that the rock must be heated to between 450 and 500 °C in order to free up the oil, which is obviously an expensive operation to perform.

Not that this worried the oilmen of the 1920's - so excited were they by the oil shales of the Somerset coast, their enthu-

It's probably the only beach in the country where the rocks catch fire when you light a barbecue. That's because the bedrock at Kilve, on the West Somerset coast, is rich in oil – indeed, the black stuff inside the stone is believed to be among the finest quality shale oil in the world.

Not surprisingly, residents who live near the seven-mile coastal strip between Hinckley Point nuclear power station and the ancient port of Watchet, begin to murmur unease in times such as these when the world experiences massive hikes in the price of crude.

siasm was even captured by national newspaper headlines of the day: "Oil Romance of the West" proclaimed one...

Trial borings revealed that the area covered by the shale amounted to a sweeping 8000 acres and experts worked out that five acres, quarried to a depth of 36 feet, would supply a whopping five million gallons of retorted oil a year. A chemical analysis promised yields of from 30 to 99 gallons per cubic ton.

So excited was Dr W Forbes-Leslie, one of the country's leading oil experts at the time, that he declared the shale was "of a class hitherto unknown in England".

The experimental retort was built at Kilve with other works further along the coast at Doniford and Combwich. Plans were drawn up for the building of a railway from Kilve to the port of Bridgwater.

Had the exploitation begun in earnest, then one of the wildest, least visited and most starkly beautiful coastlines in the region would have been torn up and ruined forever. The oil experts were looking at an area seven miles long, extending one to two miles inland from the coast. An area which has now been designated as a Site of Special Scientific Interest (SSSI) – much of which lies within the Quantock Area of Outstanding Natural Beauty (AONB), which is celebrating its 50th anniversary this year.

One of the experts at the time, Mr Latrett Parking, said that the oil shale was contained in "one of the most remarkable formations ever exposed to scientific examination".

And he noted: "In an open grate it burns fiercely with a long flame. From this evidence it would appear to be rich in oil; I am not surprised therefore to find the chemist's analysis giving yield of from 30 to 99.6 gallons per cubic ton."

Rather ominously, as far as the area's landscape was concerned, he concluded: "The oil shale seams can be mined by quarrying along high, open faces. These faces may be extended for several miles."

The February 1924 issue of an international publication called *The Petroleum Times* was beside itself with excitement. The editor himself put pen to paper describing the "enormous potentialities" of the Kilve shales.

"That the commercial development of the shale deposits will lead to the establishment of an important industry in Somerset is a foregone conclusion," he wrote. "Already the Great Western Railway Company has under consideration the construction of a new line which will pass through shale lands."

In the end, financial backing failed and the entire project came to nothing. But four decades later the Kilve shale beds were back in the news, with newspapers reporting that oil companies were interested in extracting natural gas from the area.

And again, these plans – if plans there were – came to nothing. So what of the future? In a world where oil is becoming ever more costly and difficult to find, will the lovely folds of

the West Somerset oil fields ever find themselves being exploited.

“Not in my lifetime,” said Alyn Jones, Somerset County Council’s minerals and waste manager. “I can’t comment on the commercial question because that’s constantly changing – but environmentally the area has designations which afford it great protection.”

Mr Jones quoted the county’s official stance on mineral extraction, saying that any such development adjacent to an AONB would only be permitted if it did not cause “significant harm to the distinctive character and features of the landscape”. No chance there then – not with quarry faces extending for several miles...

Moreover, the county plan states: “Proposals for mineral development affecting an SSSI will be subject to the most rigorous examination where the need for the mineral will be balanced against environmental and other considerations. Substantial weight will be given to the protection of such sites and proposals that are likely to cause significant harm to such sites will not be permitted unless it can be demonstrated that there is an overwhelming need for the mineral that clearly outweighs the harm and cannot reasonably be met elsewhere.”

So, the quarry faces might not fit happily into the county’s edicts, but there is that niggling clause at the end about “overwhelming need”.

Where needs must, as they say. It obviously won’t happen yet awhile, but one day in the distant future - when cars are silent because of a lack of fuel - some bright spark might stand on the clifftop at Kilve and shout: “There’s gold in them there beaches,” and begin to dig the rich seams of oil-shale that lie underneath...