

## Information Sheet 3F: Glass making

### Meldon Aplite Quarries (SX 566922)

In 1889 it was reported that a valuable grain of '*granulite*' (or aplite) had been discovered at Meldon. Unique in the south-west, the high quality deposit contained potassium, sodium, aluminum and silica in almost the ideal quantities to produce the principal base requirements for successful glassmaking (see Information Sheet 1E for geological information about this deposit).



The southern and larger aplite quarry and some of the surviving buildings; with Meldon Dam beyond  
(Photo: Kevin Page 2005)

This report followed the leasing of a quarry at Meldon in about 1885 by a Charles Green who had made arrangements for its working. Most of the initial aplite working took place on the eastern side of river although there seems to be some confusion as to the source of the material, some sources implying that it may have included waste material from the earlier limestone quarries. As the aplite is only known to be present in the vicinity of the current aplite quarries, such a source seems highly unlikely. No actual glass manufacture apparently took place however, and the enterprise was probably of short duration.

During this early phase of activity, trucks were run along a tramway to move excavated material to a series of buildings at the northern end of the eastern limestone quarries, which housed crushers and a transfer shed, the foundations of these buildings can still be seen. Wagons running on an incline carried the crushed material to a railway siding near the viaduct, the incline is visible as an embankment partially obscuring the mouth of the early limekiln.

A paper published in 1890 contained an analysis of samples of aplite which the author, Lindsay Bucknall, had sent from Meldon to Siemens of Dresden. He expressed his firm intention to establish both china and glass works at the quarries based on the very favourable results although little seems to have happened immediately (although a photograph taken in 1912 shows a small excavation at the site of what is now the southern quarry, which could have been an exploratory working for aplite).



The northern and smaller aplite quarry (Photo: Kevin Page 2005)

In the 1920s there were optimistic predictions that the site would become a national centre for glassmaking and that 12 furnaces with capacities of 120 tons were to be erected (*Western Morning News*, 29/3/1920). Some bottles were produced, however, using a formula of 'granulite' (calcined, 700 parts), 'marble' (uncalcined, 150 parts), 'carbonate of soda' (75 parts), 'manganese' (45 parts) and that the glass was reported to be easily worked. The last known production was over a period of eighteen months around 1920, when Dutch and German glassblowers produced distinctive small, light-green coloured medicine and cosmetic bottles. Difficulties were experienced however, in producing a sufficiently clear glass on a regular basis and by February 1921 most of the workforce at that time, (about 100 men) were laid-off. Quarrying for aplite continued however, but ceased soon afterwards. Buildings associated with glass production were most likely situated on the levelled area, immediately south-east of the modern entrance to the aplite quarry site and the Okehampton Hamlets car park. Examples of the glass bottles produced here can be seen in the *Museum of Dartmoor Life* in Okehampton.



Glass bottle produced at the Meldon glass works (Photo: Jane Marchand 2006)

The aplite was worked in two quarries on either side of the Red-a-ven Brook which follow the outcrop of the vein. That to the north is allegedly the earlier of the two, with the southern quarry being the last in operation. Besides glass manufacture, the aplite had a number of uses including for enamelling, stoneware, abrasives and road metalling. Aerial photographs show that by 1947 both quarries had reached roughly two thirds of their current extent. A substantial bridge across the Red-a-ven brook was in use although today only its massive abutments remain. A number of buildings associated with these workings are shown on contemporary Ordnance Survey maps and today the weigh-house, workshop and power-shop are identifiable on the ground. The weigh-house contains the vandalised remains of the weighing machinery and is fronted by an intact weigh-bridge, the block-built workshop lies to the north-east. Between the two is a larger rectangular building which may have been office accommodation. A stone-built concrete roofed magazine lies on a slight shelf immediately to the north of the southern quarry and what appears to have been the detonator store with an iron gate is situated 20m to the west.



Surviving quarry buildings on the east side of the Red-a-ven Brook (Photo: Kevin Page 2005)

The truncated stumps of several girders and the high recessed revetment at the eastern edge of the site suggest that an overhead cableway linked various elements of the processing area. Waste dumps form a series of terraces in the eastern part of the site, their form is very different from the finger spoil heaps close to the river.

At one stage power for the site was generated by a water-driven turbine situated close to the West Okement river some 250m away from the centre of operations. The small building containing the turbines can still be seen, its position necessary to maintain the pressure needed to work the turbines. Earthworks suggest that the water was piped, rather than channelled, from the Red-a-ven Brook opposite the southern quarry to the turbines with spent water being returned to the West Okement river via a short brick-lined channel on the west side of the building.

The date of the final demise of the aplite quarrying industry is not clear, but aerial photographs from 1976 show the site as it is today.

Authors: J. Marchand & R.E. Page 2006