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THE HILLHEAD COLLIERY SOUTH BRAE OF CAMPSIE

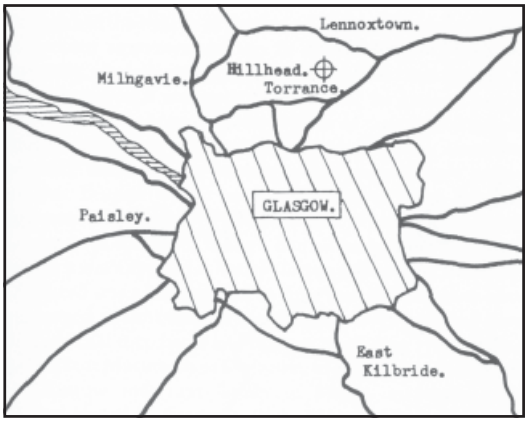
Brian S. Skillen

SYNOPSIS

This relatively small local working, north of Glasgow, was sunk in particularly difficult terrain. The complex faulting, allied to the firery nature of the coal seams, were problems which were never properly surmounted in the area. That exploitation of the minerals lasted for so long in these conditions is somewhat of a surprise.

THE SETTING

The Hillhead Colliery was situated on the southern flank of the South Brae of Campsie, a gently swelling ridge of hills to the north of Glasgow, dominated by the rugged Campsie Fells and giving way to the flood plain of the River Kelvin and the Balmore Haughs to the south. The Campsie District is similar geologically to Renfrewshire and the Campsie Main Coal and Limestone was the equivalent of the Hurlet Seams of Renfrewshire. The geological sequence is again similar in that the Blackhall Limestone was followed by the Campsie or Hurlet Seams in sequence, though some local colour was added in the Sandstones of Craigmaddie Muir which lay some distance below the Hurlet in sequence, between the Queenzieburn and Langshot Faults. Then running north of this line to the Campsie Fault, the top of the Campsie Volcanic Group appears, this then dominating the sequence beyond the Campsie Fault. The localised Balgrochan and Craigenglen Beds occur in the Strath formed by the Glazert Water, and need only be mentioned in passing to illustrate that the section across the South Brae of Campsie was anything but simple. Indeed the local geology was so cut about by faults and massive dolerite intrusions that burnt out the coal, that it was a wonder that mining in the area became so intensive. However, the Main Coal and Limestone, or the Hurlet Seams, were worked from as early as the 17th century, and so abundant was the supply of coal and other minerals that Campsie soon proved an ideal seat of industry; which in turn encouraged greater mineral exploitation both for fuel and raw material in the local alum industry. This exploitation as already suggested was somewhat hampered by the faulted geology and for this reason Campsie became an area of many small collieries and limestone mines, that worked areas till they were cut off by upthrows or downthrows of strata, or were stopped by dolerite intrusions. Though the plantations of the Forestry Commission have hidden many of the old workings and associated



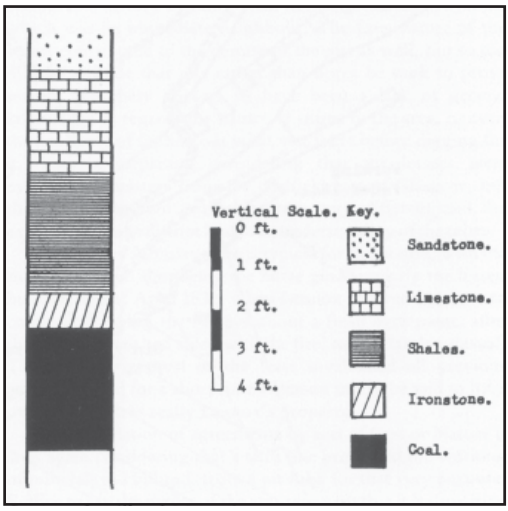
Location map of the Hillhead Colliery. NTS.

limestone kilns, evidence of small collieries such as that of Hillhead may still be found.

The Hillhead Colliery was sited in heavily faulted terrain, where strata lower in the series actually appeared higher on the hill than those in other parts of the South Brae, as a result of accompanying upthrow and downthrow faults. This can be illustrated by considering two adjacent pits in the Barraston area. Where in one the Main or Hurlet Coal appeared at 360ft whilst nearby in a pit of similar surface level, it appeared at about 72 ft. This high level of faulting was to have a significant effect on the exploitation of the Hillhead Colliery and this will be considered in due course. But an even more serious problem was to affect Hillhead and that was the firey nature of the Hurlet Seams, which resulted in a squabble over its leasing .

The Hillhead Colliery

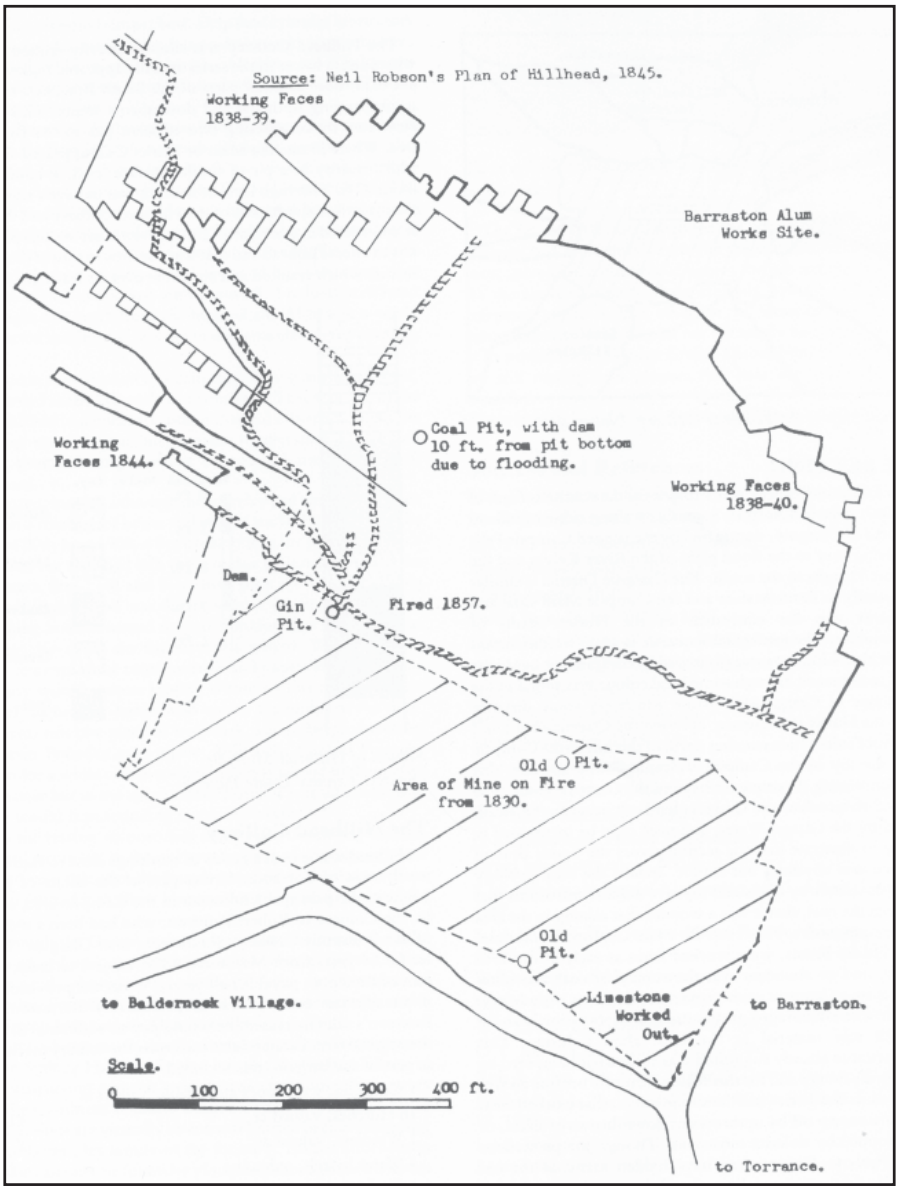
Hillhead was one of a group of workings close to Barraston, north west of Torrance. It was part of the Estate of J.K.L. Lennox, the principal landowner in the Campsie area, and he let the Colliery to Robert Paterson, who had been a manager of the Westmuir Colliery, Shettleston, near Glasgow. It was let for 14 years from Martinmas 1829, subject to breaks, at a rent of £260 p.a., payable half yearly, under the provision that if an adjacent colliery ceased, presumably Barraston, and Paterson's sales increased, he would pay an additional £120 on the original rent. Paterson also took over the colliery machinery as part of the bargain, this included:



Section of Hillhead Minerals.
(Source: Lennox Estate Papers)

1	Coal Gin, with ropes and chains, valued at	£35	
16	Hutches, valued at	£14	8s
1	Windlass, valued at	£ 1	4s
4	Water barrels, valued at	£ 1	15s
1	Set of Sinking Tools, valued at		15s
	Total	£53	2s

[15] and Lennox was bound to buy back this machinery on the cessation of the lease. A covenant also included the possible erection of a steam engine though this was not done. In 1830, what appears to have been a new lease was drafted allowing a break



Neil Robson's plan of Hillhead, 1845. *Plan of workingfaces* 1838 - 39.

at 7 years on 6 months notice. The covenants included the proviso that Lennox would buy back at least 2 months coal production and 70 chalders of limestone, on cessation of the lease.

This gentleman's bargain having been struck Paters on commenced operations, extracting a small tonnage of coal and limestone. It has already been mentioned that the Hurlet Coal seam was firey and to both Paterson and Lennox's dismay spontaneous ignition fired a considerable area of the working about the middle of 1830. Lennox immediately reduced the rent to £70 8s 4d. plus the lordship and £10 10s for the workmen's houses to encourage Paterson to continue. The smoke billowing from the pit mouth became a considerable nuisance, and John Wylie, the tenant farmer, gained an allowance for damages to the Hillhead Farm House sustained by smoke from the Colliery, and it seemed for sometime that

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the colliery would have to close. But Paterson persisted and blocked off the fire, by leading brick walls from pillar to pillar and then sealing them with clay. He managed to enclose the fire and started working other areas of the mineral field. In terms of the original lease the pit was therefore back in full operation, but in reality the regular lease was abandoned, though in effect Hillhead was again an economic proposition. On 29 April 1831, Paterson offered Lennox £162 in rents, for the period Whitsunday 1831 to Whitsunday 1832, with £21 for the houses. It was formalised in writing, and this was where Lennox's problems began.

Lennox by his kind act of not pushing for the rent actually relinquished the benefit of the formal lease, principally through the written agreement of the 29 April 1831 - which was essentially a modification of the original lease, and though for a definite period it was open to extension, for Lennox had not written to the contrary. It was a form of tacit relocation, the written agreement of April continued in all its conditions excepting the condition relating to endurance. Legal opinion was that Lennox would necessarily have to come to a new agreement with Paters on , a new bargain, which was essentially the nature of the lease, though like all bargains it did not go the way it was expected as both Paters on and Lennox found out.

Hillhead was a bad bargain, its firey and difficult strata never encouraged coalmasters to stay long. Lessees included many Glasgow coal merchants and masters, including Hugh Allison and William Macintosh of Comedie, in the Barony Parish, also the Glasgow merchant family of Miller, in whose hands Hillhead played its last nasty trick. Messrs Gavin, James and Robert Miller, worked the Hillhead Farm Lands between 1855-57, mainly from the Gin, Hole and Langhaugh Pits, all access pits to faces which necessitated a long walk through wastes below ground, before they could be reached. The wastes to the south of the Gin Pit were again on fire due to spontaneous ignition, and Robert had had extensive wall building between support pillars done to contain it. Geological faults cut off other parts of the old workings and by 1857 it would appear that Hillhead was really a lot of small pockets of workings under the general title of the mineral field as a whole. In January 1857, the Gin Pit due to its proximity to the blaze took fire; Miller and his men blocked it to cut off air getting in to feed the flames. They waited until June and opened the mine again, only to find it still burning and full of carbon monoxide where it was clear of the flames. Hillhead had played its ace and the Gin Pit workings closed in November 1857 completely.

Hillhead was the joker in the pack of the many Campsie mines, for that lord of misrule, geology, destroyed any further hopes of mining at that time. Indeed a further report on the mine at a time when there were still some hopes to exploit it, serves only to underline the contrary nature of the areas' geology. As noted, the principal pit had been the Gin pit which was used by subsequent lessees who worked through the old wastes to the new workings as they radiated out from pit bottom. Access was eventually impossible due to the spontaneous ignition of a large area of the wastes. The proximity of Hill head tempted the further thoughts of working it from the Barraston side of the mineral field. It was a case that for much of its life Hillhead had been drained from a pit belonging to the neighbouring Barraston lessees, known as the Shaw Burn Pit. But this appears to have been natural seepage and water movement rather than any planned water courses towards Shawburn. The possession of water buckets and other means of drainage by the Hillhead lessees suggests this. This in its turn suggests that much of the interlying ground was not proven, and the problems that could have been encountered became only too obvious in a series of trials c1860.

The fire in the Gin pit cut off much of the workings and to gain access it was decided to sink a new pit towards the dip of strata, where according to the inclination of the seam where it had been worked, the seam could be expected at 180 feet below surface level. The Hillhead Pit was begun with great expectations but even after 240 feet had been passed, no signs of the seam could be found and as a result operations were abandoned. A bore was put down to try and find the coal about 180 feet back towards the rise in the direction of the wastes. In the bore both the Main Coal and Limestone of the area were found, but in an unworkable condition at 174 feet below ground. The difference in depth between the bore and the pit and the state of the seams suggests that there was a major fault line running from the north east to the south west, which effectively cut off the Hillhead Pit from the very coalfield instructed to have been worked from it. The seams were unworkable from the Shaw Burn side for the same reason, other than by driving a trial through the fault line, an expense which the hopeful lessees could not afford and thus Hillhead was never an economic proposition.

Conclusion

Hillhead as a mine presented serious difficulties for exploitation, principally associated with the faulted nature of the area's strata. The highly localised nature of this faulting is shown when comparing Hillhead's failures with the long and honourable history of other local mines, including Barraston which was its immediate neighbour. The firey nature of the seams contributed to the demise of the pits as well, but so too did the attitude that pits rather than bores be sunk to prove seams, and there appears to have been a lack of general knowledge as regards the nature of seams in the area, or even the economy of finding out what was there before digging for it. This is surprising considering that the lessees were experienced masters from the coalfield east of Glasgow, but then again the two coalfields were very different and the experience of one did not lead to an understanding of the other.

The Colliery infrastructure is typical for the period, with the most expensive item being the horse gin. Similarly the leases; but the lease of April 1831, when Lennox allowed Paters on to continue working the mine without a fresh agreement, after the original lease had failed with the fire, was certainly unusual. The implied renewal of the lease invalidated all previous agreement and for a short time Paters on might be said to have owned what was really Lennox's property.

This invalidation of agreements by acts of God or Nature is seen again considering that a fault line prevented the working of minerals in Hillhead, from a pit sunk for that very purpose. Suffice to say the nature of the area was such that it is surprising that local exploitation continued for so long.

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