gritty sandstone; depth, 400 ft. (7/7/97): Mr. Shore informed me the bore-hole was stopped at 416 ft. by running sand and water in very large quantities.

Allandale Colliery, near Shag Point (Allandale Coal Company, Limited, owners).—(3/6/97): The workings in this colliery are from an incline tunnel dipping in the opposite direction to the stratification of the measures. The seam is broken up to some extent by small faults. Good ventilation is maintained, and the places generally are in good order. The present return airway is rather small and very rough in places, but, as a new tunnel has recently been driven to win an area of coal to the dip of the present workings, and a heading is now being cut which will connect the workings of both tunnels in the course of a week or two, there is no need to incur expense in putting the return airway into better order, as it will answer all reasonable requirements for the length of time it is required. When the connection is made, all the coal will be jigged to the new drive, and hauled there to the surface. The present main working-drive will then become the upcast and second outlet, for which purpose it is admirably adapted. The new drive is 960 ft. long, with a grade of 1 in 5, and is afterwards driven level for 385 ft. Size, 10 ft. by 6 ft. The seam where struck is dipping about 1 in 2½. It is intersected by small faults, and has a varying thickness up to 6 ft.

Fernhill Mine, Abbotsford (James Gray, lessee).—(21/9/97): On inspecting this mine I found the ventilation very sluggish, and several places sealed off on account of fires; also one or two places heating. The Dunedin Corporation's Silverstream water-race crosses the workings, and the lessee alleges that water percolates from this race through the strata into the mine-workings. Certainly I found water dripping in several places, its effect being to damp the slack and coaly refuse in the mine. This has a decided tendency to induce spontaneous combustion in the coal-mines of this locality. Mr. Gray further fears that, unless the Corporation siphon the race for a few chains, it may ultimately break through and flood the mine. He is consequently afraid of opening out the coal to the dip until steps are taken to secure the stability of the water-race. (25/10/97): I again visited the mine, in company with Mr. S. H. Mirams, city engineer, and with Mr. Gray we went through the underground workings and along the water-race. Mr. Gray appears to make out a good case, although liability is disclaimed by Mr. Mirams.

Abbotsford Colliery (Freeman's Coal Company; E. R. Green, manager).—(21/7/97): Accompanied by Mr. Green, I inspected the whole of the workinge in progress, return airways, &c., and found everything in reasonably good order, and the ventilation very satisfactory. All the present workings are in solid ground. The pillar-workings (which took fire) are sealed off by good brick stoppings, with a length of substantial brick arching in the engine-plane. Fire-stink is thus effectively kept back from present workings. The main return air-course is rather small, but a new road is being cut to the roadway adjacent to the upcast shaft. This will be used as a pipe-road in connection with a new compound duplex pump about to be put down, and will serve as a main return airway also. On the completion of this new road it is intended to enlarge the present roadway near the upcast. At present the ventilating-power is obtained from the heat generated by steam-pipes in the shaft and the exhaust steam from the Tangye pump, but when this is displaced by the new pump, fan or furnace ventilation will be necessary. The coal is intersected by a few faults. These cause the dip to be somewhat variable. Plans, report-books, &c., well up to date, and Act generally well observed.

Walton Park Colliery, Fairfield.—(6/8/97): The Walton Park Coal and Pottery Company (Limited) having ceased operations, the mine now belongs to Mr. Patterson, and is worked by Messrs. Pollock and Gray as lessees. I found twenty persons employed below ground, coal-getting being principally by splitting pillars in the rise-workings. The dip-workings are full of water, and the middle workings sealed off on account of fire. The ventilation was good, and averaged 324 cubic feet of air per minute per person employed. Pumping is being effected by means of the old bucket-pumps attached to the winding-engine, and till quite recently was assisted by a Tangye duplex pump. This latter has not been satisfactory, and is temporarily replaced by a duplex pump (specially designed for a Southland mine), while the makers (Messrs. Johnston and Sons, engineers, Invercargill) are constructing a larger pump of similar design, capable of dealing with the entire water-flow of the mine. (29/9/97): I again visited the mine, the lessees having informed me that a creep was taking place near the shaft. I found the auxiliary pumping plant had been drawn to the surface, and that the water had risen a few feet up the shaft. I also learned that a couple of joints had sprung in the large steam-boiler from which the duplex pump took its steam, necessitating the insertion of a new plate. From an examination of the shaft down to the water, and from what I learned from the lessees as to the condition of things underground near the shaft-bottom, together with a careful perusal of the daily report-book, I very much question the wisdom of attempting to take the water out of the shaft, seeing that most of the available coal above the shaft-level can be taken out by means of an existing tunnel. (4/10/97): Mr. Pollock, one of the lessees, wrote me that the proprietor of the mine had resumed possession as from that date, and that the writer had ceased to act as mine-manager. The proprietor's representative called on me a day or two afterwards, and informed me of their intention to take the water out of the shaft by winding. Pending the appointment of a manager, Mr. James Lowden (a certificated manager) assumed temporary charge. Mr. John Kenyon was subsequently appointed manager, and took up his duties about the 14th October. On the 17th October a serious breakdown occurred to the winding plant, by which considerable damage was done, and the old bucket-pump was thereon set to work. On the following day the enginewright, on going down the back pit (pump compartment) to effect repairs to the pump pipes, fell into the water, and was drowned (see "Accidents"). In subsequent conversation with the manager and proprietor, I strongly deprecated any further attempts to take the water out of the shaft, but recommended them to work all available coal from the tunnel-entrance. This was decided on, and on my further inspecting the mine on the 24th November a site was chosen to re-erect the large steam-boiler and sink a small