# EPITOME

of

# REPORT ON SCHOUTEN ISLAND COAL AREA

by

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## A - LOCATION AND EXTENT

Schouten Island comprises 16 square miles, and is situated at the southern extremity of Freycinet Peninsula, and is about 13 miles in a south-easterly direction from the township of Swansea. The coal seams known to exist on the island occur at, or near, sea level, and the chief outcrops at present visible are in close proximity to the anchorage.

## B - ACCESS

A comparatively safe anchorage exists on the northern end of the island, in which ships of shallow draft shelter from the weather. This is the only good anchorage on the island, and by its means access to the island is gained. In practically all weathers, except from the north-west, the anchorage is comparatively calm. A jetty was at one time built in conjunction with the coal mining industry of the island. This jetty has since been destroyed, but it was reported that small boats could load at it in all weathers. No regular service to the island exists at present, the only means of making a landing being by means of boats hired from Swansea or Triabunna.

## C - TOPOGRAPHY

### (1) General Description

The eastern portion of the island is characterised by fairly high hills of granite which extend as far west as the anchorage. The western portion is not so rugged as the eastern, the country being for the most part more heavily timbered, and rising to the hills in a series of gentle undulations. The west coast is bounded by cliff-faces which increase in height towards the southern extremity of the island.

### (2) Relation to Mining

The chief outcrops of coal have been found at, or near, sea-level on the northern part of the island. The general direction of the dip is to the north, and the easiest method of wining the coal would be by adits driven into the seams from their outcrops.

## D - GEOLOGY

The eastern portion of the island from the coast to the summit of the hills, is occupied by Devonian granite. The western portion is composed of Trias-Jura strata and Upper Mesozoic diabase. The Trias-Jura strata on the West coast are the sandstones of the Lower or Ross series, while those on the north-west and north are the felspathic sandstones of the felspathic sandstone series, and it is in these latter that the coal seams occur. The diabase intrudes the Trias-Jura

strata in the form of a large dyke-like mass.

The positions of the granite and diabase in direct contact with one another are due to faulting and the fault has an axial direction with a downthrow to the west. Another fault exists on the north coast with a direction from north-east to south west. A minor fault is visible near the shaft sunk by Mr. Bernacci.

The general dip of the sandstones and the coal seams is to the north at small angles, but dips up to 30° have been recorded and probably occur near faults.

## E - THE COAL SEAMS REPRESENTED IN THE AREA

Only three outcrops of coal were observed, none of which show coal of quality worthy of exploitation. These outcrops appeared to the west of the diabase on the north coast, and occur under such conditions of dip that the continuation of the seam from the coast inland would reappear at the surface in a very short distance. The old workings near the anchorage opened up a seam reported to be 6 feet thick, of which the 2 feet 6 inches at the bottom was of good grade.

## F - THE MINING PROPERTIES

### (1) Number and Area of Leases

Two leases - one of 320 acres and the other of 420 acres - have been applied for by A.L. Luttrell on the north western portion of the island. No leases are, however, in actual existence at the present time.

### (2) Extent and Method of Mining Operations

Except for a prospecting shaft sunk by Mr. Bernacchi no other mining has been carried out recently. Most of the work done on Schouten Island was carried out previous to the examination of the area by J. Milligan in 1848. This work was done in the Trias-Jura strata near the anchorage. Two short tunnels and two shafts were sunk on this land, all of which at the present time have collapsed, and entrance is impossible. Milligan who examined these workings states "One main drift a little above high water mark, and nearly 6 feet by 6 feet, has been carried in the direction (S.S.W. or W.S.W.) or range of the seam more than 100 yards. From this two branch galleries have been worked towards the crop so as to communicate round the massive square pillar. A narrow air course had then been carried to the surface of the bank. The drift ended abruptly, and apparently in massive clay"

The original drive evidently finished up at a fault, the magnitude of which is not known. No records are available as to quantity and quality of the coal produced from these old workings. A tramway was constructed along the coast, a distance of three miles, to a jetty, where coal was loaded. It was reported that this jetty was in water sufficiently deep for a boat of 12 feet draught to berth alongside.

### (3) Quality of the Coal

None of the seams are sufficiently exposed to give an opportunity to sample properly. The outcrops, however, appear of very poor quality, and it cannot be expected that the quality of the seams here will approach in quality the average of the East Coast coals.

(4) Production

No coal is being produced at the present time from Schouten Island. The old workings have fallen in, whilst only prospecting shafts are being sunk.

(5) Quantity of Coal Available

The quantity of coal available on the western shore of the Island will be very small. No attempt has been made to calculate the amount which, at a maximum, would not exceed 10,000 tons. A narrow belt of felspathic sandstones exists along the shoreline. These are tilted at the high angle of about 23° towards the coast. This high angle of dip is indicative of either a fault or the intrusion of the diabase. The evidence in this case is in favour of the presence of a fault which has a downthrow to the north west. The sandstones on the lower part of the Island are, as far as were examined, the Lower or Ross sandstones, which are not coal-bearing. The possibility of mining coal on a commercial basis from the west coast of the island is remote, for the quantity available would not be sufficient to maintain the working for any great period of time.

A second area exists, adjoining the anchorage, where coal has already been mined. The quantity here is also limited, and as work has already been carried out over an extended period the quantity now available would be too small to warrant extensive working. The area over which coal would be found would, in this case, be approximately 10 acres. The seam mined was reported as being 6 feet thick, of which 2 feet 6 inches at the bottom was of good grade. Assuming this thickness to prevail over the whole area, the total quantity of coal available would be 30,000 tons, approximately. From this quantity must be deducted the quantity of coal mined of which there is at present no record.

(Sgd.) H.G.W. Keid

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