

Somaliland Protectorate – Colonial Geological Surveys 1947-1956

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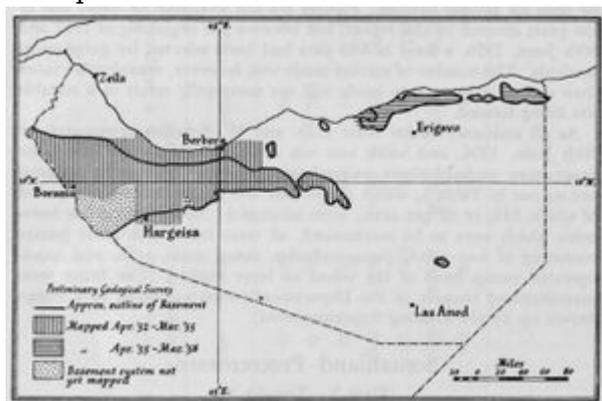
From Dixey, F. 1957. [Colonial Geological Surveys 1947-1956: a review of progress during the past ten years](#). Colonial geology and mineral resources. Bulletin supplement No. 2. London: HMSO.



Somaliland Geological Survey 5. General view at Wiget looking about north of west. Photo by Dr. S. H. Shaw from colour transparencies. Plate X.



Somaliland Geological Survey 6. Geological Survey Dept. Before start of field trip. Photo by Dr. S. H. Shaw from colour transparencies. Plate X.



Preliminary geological mapping in the

Somaliland Protectorate

Mr. R. A. Farquharson was appointed Government Geologist in 1923, and made a " First Report on the Geology and Mineral Resources of British Somaliland " in 1924. On assuming control of the Agricultural Department soon afterwards, however, he was unable, apart from supervising some water drilling, to carry out any substantial geological survey work before retiring in 1938. Geologists attached to Water Supply Schemes, Boundary Surveys, and the General Survey of 1943-1950 mapped some areas, and oil company geologists surveyed most of the sedimentary rock areas between 1922 and 1948. The Government Geological Survey of the Somaliland Protectorate started in April, 1952, with only one geologist, but to-day consists of a Chief Geologist, and three geologists, and there are vacancies for a fourth geologist and a draughtsman which it is hoped will be filled by the end of 1956.

The primary object of this Survey has been the mapping of the Basement Rocks of the Protectorate, followed by more detailed work where minerals of economic importance are found. General geological assistance is also given to the Government and the general public. Of approximately 8,000 sq. miles of Basement Rock outcrops, the preliminary mapping of about 7,000 has been completed, in addition to the mapping of some areas of adjacent sedimentary rocks. Some revision, however, as well as more detailed mapping of much of this has already become necessary, and, with the aid of the 1 : 125,000 scale preliminary plots and complete air-photo cover provided by the Directorate of Colonial Surveys, all preliminary mapping is now being carried out with air photos in the field, and plotted on to the 1 : 125,000 maps. One sheet (Berbera: D.C.S. sheet 24) was completed in June, 1955, for colour-printing, and several more sheets are nearly ready.

Except for the outline of its outcrop, the Basement Complex of Somaliland was practically unknown in 1952, but a preliminary account of the whole Complex of the Protectorate should soon be available because of the work since completed. In brief, the Complex appears to consist of metamorphic rocks, the lowest exposed cores being usually preponderantly granitised psammities. These grade through migmatized zones into pelitic and psammitic gneisses, schists, and granulites, with some associated volcanics, and some older granitic intrusions. Gabbros and dolerites were intruded into these severely folded and metamorphosed rocks. In the N.E. of the Protectorate the less metamorphosed Inda Ad Series was laid down on an eroded surface of Basement gneisses and schists. The whole complex was then folded and intruded by Younger Granites, and later pegmatites and other acid intrusions. Some late basalts often cut the Basement and Younger Granites, usually in long arcuate fissure intrusions, and late quartz veins cut both the Basement and the Inda Ad Series. The whole Basement Complex, together with the Inda Ad Series and Younger Granites, was then eroded, probably to a peneplain, before the Adigrat Sandstone (? Trias) was laid down. The peneplain surface of the Basement was faulted and folded with the overlying sedimentary rocks. Most of the mineralisation so far found seems to be associated with the Younger Granites, although the gabbro masses have not yet been investigated in detail.

In the overlying sedimentary rocks considerable argillaceous bands have been found in the Nubian Sandstone (Cretaceous), lending further support to the disputed Nubian age of the Shabel Beds of the Dagahh Shabel oil seep area. Other important work in connection with the potential oil and water-bearing sedimentary rocks is the proving of the pre-Cretaceous age of the Shilemadu syenites in the Nogal, and the mapping of gentle folding of Older Boulder Beds (? Miocene) in the West Central part of the Somaliland Plateau area.

Further occurrences of minerals previously known to exist in Somaliland have been found, namely,

beryl, galena, manganese silicates, mica, molybdenite, and rutile. Columbite has been found with beryl and mica in the later pegmatite dykes, and a considerable area has been mapped with frequent, but so far uneconomic, occurrences of galena. In the north-east of the Protectorate, a small vein rich in cassiterite has been discovered. Samples of samarskite, allanite and monazite have also been brought in by prospectors from the mineralised pegmatite areas of the Central Protectorate. The beryl and columbite are at present being worked in pegmatite outcrops by a small mining company, but no alluvials have yet been found. The most hopeful prospect of mineral production, however, apart from oil, lies in the Gypsum-Anhydrite Series. Scores of millions of tons of gypsum and anhydrite are exposed between 9 and 25 miles of Berbera harbour, but no mineral loading facilities are so far available.

Various oil companies now hold about seven-eighths of the Protectorate in Exploration Licences, and the Geological Survey has been able to give them some assistance. Some advice, too, has been sought and given in connection with water supplies, especially those of Hargeisa, for which a sub-surface dam is recommended.

Publications and maps issued by the Department during the period under review include:

Annual Reports of the Geological Survey for the fiscal years April to March 1952-53, 1953-54, 1954-55, 1955-56, with summaries of new geological work carried out.

Mineral Resources Pamphlet No. 1 on gypsum and anhydrite, published in 1954. *Water Resources Pamphlet No. 1*, published in 1955, dealing with the proposed sub-surface dam at Hargeisa.

The Berbera Sheet of the *Geological Map* was completed on a scale of 1 : 125,000 and is at present being colour-printed by the Directorate of Colonial (Geodetic and Topographic) Surveys.

Mineral occurrences

Allanite

Anhydrite

Beryl

Columbite

Gypsum

Lead and lead ores

Manganese

Mica

Molybdenite

Monazite

Oil

Rutile

Samarskite

Tin and tin ores

Water supply

Somaliland Protectorate – Staff list

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