

MINERAL SURVEY REPORTS JAMMU & KASHMIR GOVERNMENT.

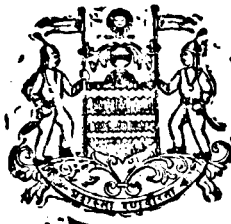
BAUXITE DEPOSITS OF JAMMU PROVINCE,

BY

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(with Plates 1 to 17).



JAMMU :

Printed at "The Ranbir Press,"—30-8-85—300.

P R E F A C E.

During the first few years of its tentative existence the Mineral Survey of Kashmir printed none of its reports but was indebted to my old department of the Geological Survey of India for publishing in their *Records* accounts of certain mineral occurrences. Since then four subsequent reports have been printed by order of the Kashmir Government. The present report on the Bauxite deposits of Jammu Province is therefore the fifth of this latter series (See list at end of Preface). Like its predecessors it appears under my name, and the responsibility for its contents and form, and for a great part of the field and other work on which it is based rests with me.

Nevertheless much intrinsic help in map work, pit sinking and drilling, and in determinative (and a certain amount of analytical) work was supplied by my colleagues, Mr. Joti Parshad, B. A., F. G. S., late Senior Assistant Superintendent, and Messrs. Labhu Ram Badyal, M. Sc., and Sohani Ram, B. Sc., Junior Assistant Superintendents. The field work on the Panhasa and Sukhwalgali-Jangalgali areas was entirely carried out by Mr. Sohani Ram.

Mr. D. N. Wadia, M.A., F.G.S., of the Geological Survey of India, then Professor of Geology at the Prince of Wales College, Jammu, contributed most of the earlier chemical work on the bauxite. Subsequently the British Aluminium Company, London, did a set of analyses and a working test free of cost, and, on the advice of and with the co-operation of the then Director of the Geological Survey of India and the Imperial Mineral Resources Bureau (now a branch of the Imperial Institute), analyses were made by Messrs. J. & H. S. Pattinson of Newcastle-on-Tyne and further analyses and research work were done at the University of Birmingham under the supervision of Professor T. Turner. A few analyses were done by the Aluminium Company of America.

Mr. R. Carter Speers of the Forman Christian College, Lahore, and the Industrial Chemist, Srinagar, also contributed some analytical work on our bauxites and a few experiments were made by commercial firms in India in connection with oil decolourants and paper making which were without any satisfactory results. They are not again referred to in the body of the report because of their incompleteness or inconclusiveness.

The present published account will be followed by others on fuels, on the metallic and non-metallic minerals, and on the precious and semi-precious gemstones, ornamental stones, etc. These, it is hoped, will appear as soon as the material can be put up and passed through the press; so that, before long, the economic minerals of Jammu and Kashmir will be permanently recorded, so far as at present known, for general information.

Subjoined is a list of all the printed reports on Kashmir minerals that have so far appeared since the Mineral Survey started work in 1917 :—

- (1) Note on the Aquamarine mines of Daso on the Braldu R., Shigar Valley, Baltistan, by C. S. Middlemiss and Joti Parshad (published in *Records Geological Survey of India*, Vol. XLIX, pt. 3, 1918 with plates 6 to 10).
- (2) Possible occurrence of Petroleum in Jammu Province : Preliminary note on the Nar-Budhan dome of Kotli tehsil in the Punch Valley, by C. S. Middlemiss (published in *Records Geological Survey of India*, Vol. XLIX, pt. 4, 1919, with plates 13 to 16).
- (3) Lignitic Coalfields in the Karewa formation of the Kashmir Valley, by C. S. Middlemiss (published in *Records Geological Survey of India*, Vol. LV, pt. 3, 1923, with plates 28—30).
- (4) Abrasives: Note on the Polishing material of Risin Spur Khunamuh near Srinagar, by C. S. Middlemiss (printed by order of the Kashmir Government, with plates 1 & 2).
- (5) The Graphite deposit of Braripura, Uri tehsil, Kashmir, by C. S. Middlemiss (printed by the order of the Kashmir Government, with plates 1 to 5).
- (6) Ochre deposits of Nur Khwah, Rata Sar and Jhuggi in the Jhelum Valley, Uri tehsil, Kashmir, by C. S. Middlemiss, (printed by order of the Kashmir Government, with plates 1 to 6).
- (7) The Gypsum deposit of the Lachhipura, Bagna, Islamabad, Limbar and Katha nalas, Uri tehsil, Kashmir, by C. S. Middlemiss (printed by order of the Kashmir Government).

C. S. MIDDLEMISS.

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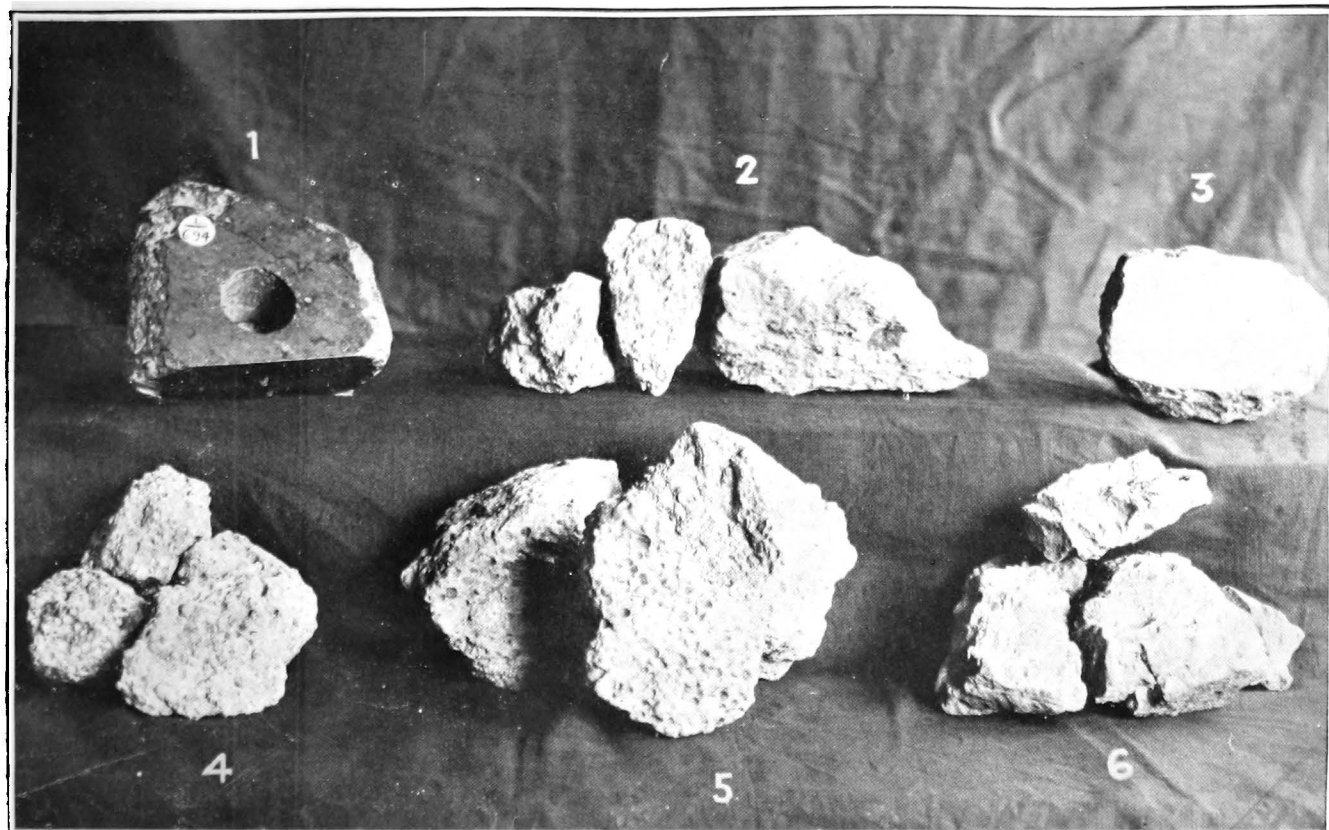
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MINERAL SURVEY OF KASHMIR.

Plate 1



MINERAL SURVEY OF KASHMIR.

Plate 2



MINERAL SURVEY OF KASHMIR

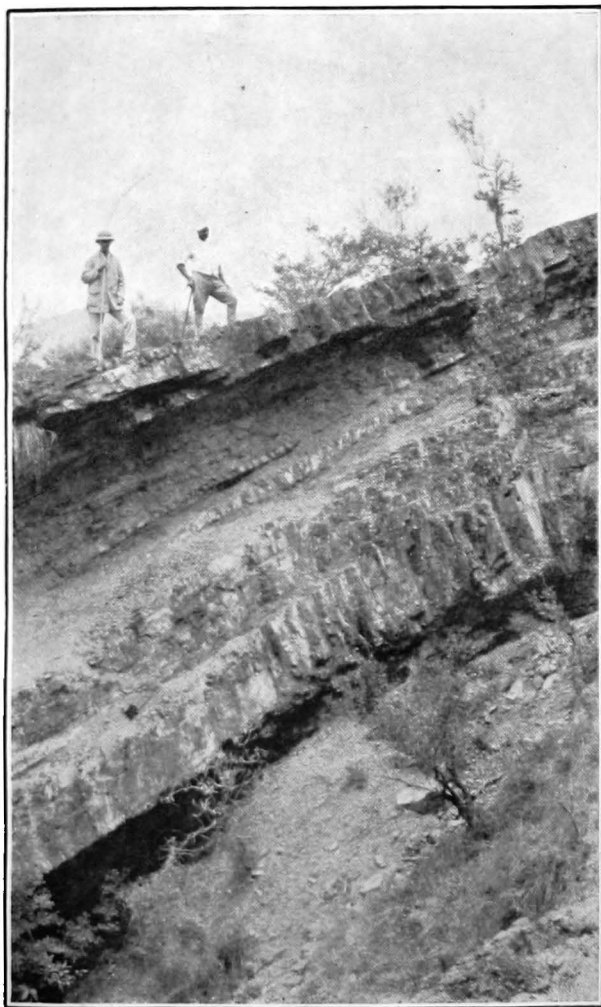
Plate 3



BAUXITE CHAKAR C AREA

MINERAL SURVEY OF KASHMIR.

Plate 4



BAUXITE SCARP SALAL.

MINERAL SURVEY OF KASHMIR

Plate 5

Specific Gravities

