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# MINERAL RESOURCES OF ALASKA

REPORT ON PROGRESS OF  
INVESTIGATIONS IN

1923

BY

A. H. BROOKS AND OTHERS



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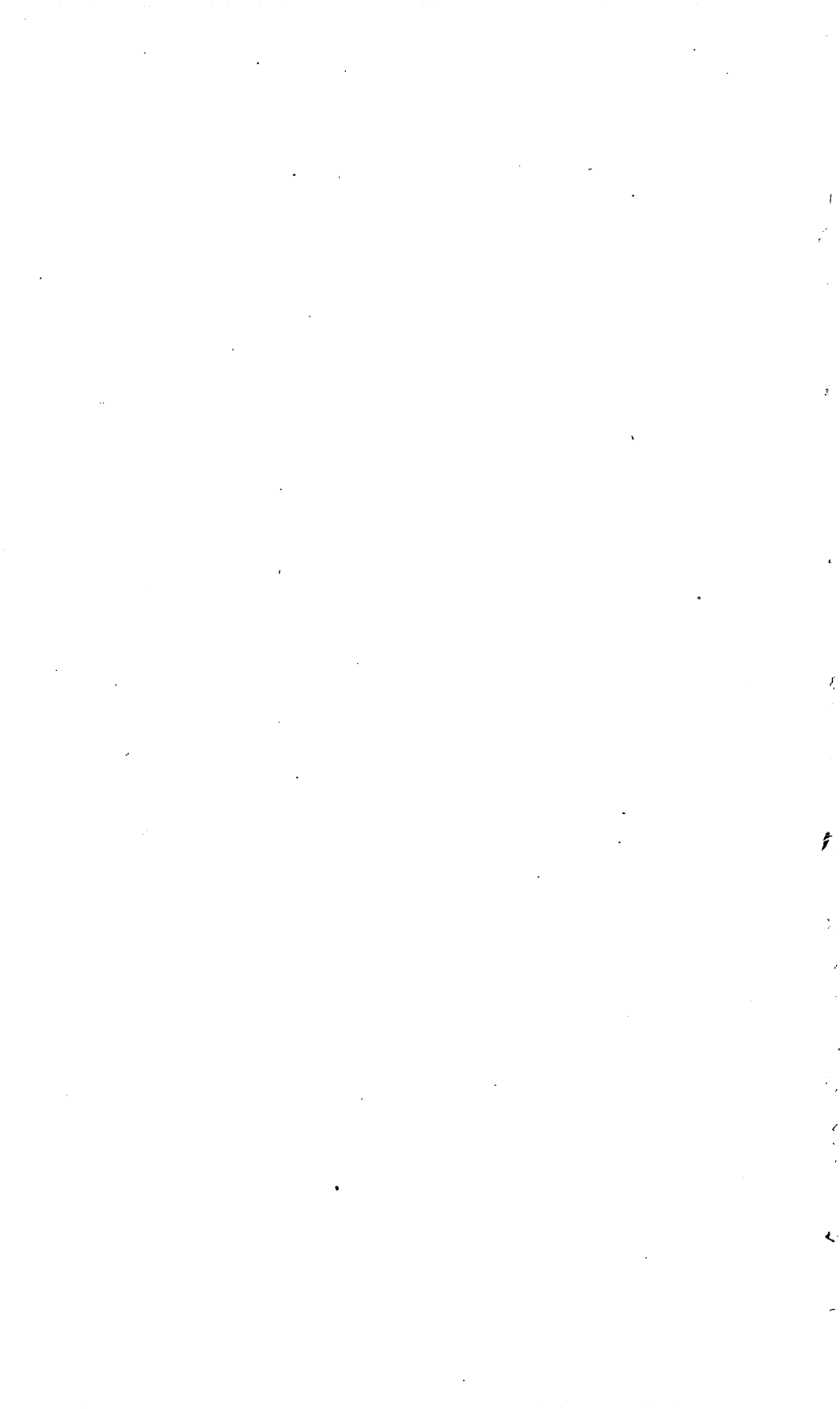
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# MINERAL RESOURCES OF ALASKA, 1923

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## PREFACE

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By ALFRED H. BROOKS

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This volume is the twentieth of a series of annual bulletins<sup>1</sup> summarizing the results achieved during the year in the investigation of the mineral resources of Alaska and treating of mineral deposits and of the statistics of mineral production of the Territory.

The previous volumes of this series have been made to cover, so far as practicable, the entire mining industry of the Territory, because for many years the Geological Survey was the only organization that had for its mission the investigation of the Alaska mining industry, and therefore it perforce attempted to cover the entire field. The available funds did not permit the investigation of the technique of mining,<sup>2</sup> but for many years efforts were made to collect information about mining in addition to that on mineral resources and production, with the collection of which the Survey is charged by law. Data on the methods and the progress of mining are now given in the reports<sup>3</sup> of the Territorial mine inspector, who is also resident supervising engineer of the Bureau of Mines. To avoid duplication of his report, the references to the technology of mining will be limited to those that are incidental to a consideration of the mineral deposits and to an understanding of the statistics of mineral production. As a Federal official, the mine inspector does not collect mineral statistics except those relating to the production of mineral fuels on leased public lands. Therefore this report, unlike those previously issued, relates only to mineral production, statements on mining being left to the mine inspector.

This volume, like those previously issued, deals primarily with the mineral resources of Alaska, and its chief purpose is to give prompt publication of the more important economic results of the year. The articles included are mainly statements of preliminary results and may be modified when the field material is more fully studied. Those who are interested in any particular problem or district are therefore urged to procure a copy of the complete report on it as soon as it is available.

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<sup>1</sup> The preceding volumes in this series are U. S. Geol. Survey Bulls. 259, 284, 314, 345, 379, 442, 480, 520, 542, 592, 622, 642, 662, 692, 712, 714, 722, 739, and 755.

<sup>2</sup> The only exception to this was a study of placer-mining methods of Alaska, made in 1904 by the late C. W. Purington (The methods and costs of gravel and placer mining: U. S. Geol. Survey Bull. 263, 1905).

<sup>3</sup> Annual report of the Territorial mine inspector to the Governor of Alaska for the year 1920, Juneau, 1921; for 1921, Juneau, 1922; for 1922, Juneau, 1923.

The reports included in this volume could not be prepared without the information furnished by many residents of the Territory. Some of these have rendered assistance for many years.

Special acknowledgment should be made to the late George W. Ledger, who died in 1923. From 1914 until his death Mr. Ledger every year made a careful summary of the mineral discoveries and mining development in the Rampart district, of which he was a resident. As it is impossible with the small force of technical men available, limited by the appropriation, to reexamine more than a small percentage of the mining districts in Alaska, the free service rendered by Mr. Ledger and many like him is of inestimable value in furthering the achievement of knowledge of the mineral wealth of Alaska. It is impossible to record here the names of all who have rendered aid to the Geological Survey, but the list would include a large majority of the mine operators, as well as many others, and would number in all over a thousand residents. Special acknowledgment should be made to B. D. Stewart, Territorial mine inspector and resident engineer of the Bureau of Mines, who furnished the data on coal production, as well as much other valuable information; to N. L. Wimmeler, also of the Bureau of Mines, for information about gold placers; to George Parks and H. K. Carlisle, of the General Land Office; to the Directors and other officers of the Bureau of Mines and Bureau of the Mint; to the collector and other officers of the Alaska customs service; to the officers of the Alaska Railroad; to Charles H. Flory, forest supervisor for Alaska; to E. H. Bartholf, of Hyder; John C. McBride and the Alaska-Juneau Gold Mining Co., of Juneau; Thomas Vogel, of Haines; J. H. Cann, of Chichagof; Thomas G. White, of Katalla; the Kennecott Copper Corporation, of Kennicott; G. Howard Birch, of Nizina; Thomas Larson, of Chitina; J. M. Elmer, of Dempsey; Alex Liska, Sumner Smith, and Felix Brown, of Anchorage; Arthur Moose Johnson, of Chulitna; Charles Zielke, of Nenana; W. E. James, of Chisana; William Yanert, of Beaver; J. J. Hillard and E. A. Robertson, of Eagle; Alfred Johnson, of Deadwood; the First National Bank, George Hutchinson, and Henry Cook, of Fairbanks; Charles E. M. Cole, of Jack Wade; Edward Schneirla and Frank Speljack, of Ophir; Alexander Mitchell and Mason C. Farrar, of Kantishna; H. S. Wanamaker, of Wiseman; Tom Plunkett, of Marshall; J. W. Wick, of Russian Mission; George Jesse and John Flanagan, of Long; Omar J. Quinn, W. E. Leska, and H. Jensen, of Poorman; Lynn Smith and Ernest Werner, of Ruby; A. J. Griffin, of Richardson; A. M. Bainbridge, of Tolovana; L. F. Bullard and Thomas P. Aitken, of McGrath; A. Stecker and John Haroldson, of Kwinak; the Miners and Merchants Bank, A. W. Kah, and Jack Gale, of Nome; E. M. Marx, of Teller; S. M. Gaylord, of Solomon; Louis Lloyd, Frank R. Ferguson, and James C. Cross, of Shungnak; and J. J. Elliot, of Haycock.