

**MAP OF ALASKA SHOWING KNOWN  
GOLD-BEARING ROCKS WITH  
DESCRIPTIVE TEXT CONTAINING  
SKETCHES OF THE GEOGRAPHY,  
GEOLOGY, AND GOLD DEPOSITS AND  
ROUTES TO THE GOLD FIELDS**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649010370

Map of Alaska showing known gold-bearing rocks with descriptive text containing sketches of the geography, geology, and gold deposits and routes to the gold fields by United States Geological Survey

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.  
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

[www.triestepublishing.com](http://www.triestepublishing.com)

**UNITED STATES GEOLOGICAL SURVEY**

**MAP OF ALASKA SHOWING KNOWN  
GOLD-BEARING ROCKS WITH  
DESCRIPTIVE TEXT CONTAINING  
SKETCHES OF THE GEOGRAPHY,  
GEOLOGY, AND GOLD DEPOSITS AND  
ROUTES TO THE GOLD FIELDS**



DEPARTMENT OF THE INTERIOR  
UNITED STATES GEOLOGICAL SURVEY  
= CHARLES D. WALCOTT, DIRECTOR

# MAP OF ALASKA

SHOWING KNOWN GOLD-BEARING ROCKS <sup>1885</sup>

WITH

DESCRIPTIVE TEXT

CONTAINING SKETCHES OF THE

GEOGRAPHY, GEOLOGY, AND GOLD DEPOSITS

AND

ROUTES TO THE GOLD FIELDS

*U.S.*  
PREPARED IN ACCORDANCE WITH PUBLIC RESOLUTION NO. 3 OF THE FIFTY-FIFTH CONGRESS  
SECOND SESSION, APPROVED JANUARY 30, 1898

PRINTED IN THE ENGRAVING AND PRINTING DIVISION OF THE  
UNITED STATES GEOLOGICAL SURVEY  
WASHINGTON, D. C.

1898



## LETTER OF TRANSMITTAL

---

DEPARTMENT OF THE INTERIOR,  
UNITED STATES GEOLOGICAL SURVEY,  
*Washington, D. C., February 2, 1898.*

SIR: In accordance with your instructions, I have somewhat hastily brought together in the following pages such facts as seem likely to prove of immediate use to the prospectors and miners who may visit Alaska.

Mesars. W. H. Dall and F. C. Schrader, both of whom have personally studied the region, have rendered efficient aid in this work.

Very respectfully,  
Your obedient servant,

S. F. EMMONS,  
*Geologist.*

HON. CHARLES D. WALCOTT,  
*Director United States Geological Survey.*

## CONTENTS.

---

	PAGE.
Introduction . . . . .	5
Geographical sketch . . . . .	7 ✓
Rivers . . . . .	8 ✓
Climatic conditions . . . . .	10
Routes to Klondike . . . . .	11
Geological sketch . . . . .	18 ✓
Physical description . . . . .	19 ✓
Original deposits, or quartz veins . . . . .	21 ✓
Detrital or placer deposits . . . . .	28 ✓
Probable extent of gold-bearing deposits . . . . .	35 ✓
Other metals than gold . . . . .	38 ✓
Coal and lignite . . . . .	39 ✓



## MAP OF ALASKA, WITH DESCRIPTIVE TEXT.

### INTRODUCTION.

Alaska was first visited by a Russian expedition under Bering in 1741. In 1799 the territory was granted to a Russo-American fur company by the Emperor Paul VIII, and in 1839 the charter was renewed for twenty-four years. In 1867 it was ceded to the United States for a money payment of \$7,200,000. The treaty was signed on March 30 and ratified on June 20, 1867; on the 18th of October following, formal transfer of the country was made to the military force of the United States at New Archangel, now called Sitka.

For a long time the wisdom of the purchase of this bleak tract of unknown land lying largely within the Arctic Circle was seriously questioned, and Mr. Seward, under whom, as Secretary of State, the negotiations for its purchase were conducted, was subjected to some criticism, even ridicule, in consequence. But the energy of the American people would not allow even so unpromising a region to remain idle. First, the seal fisheries on the Pribilof Islands were made to yield a considerable revenue to the Government. Then valuable gold mines were discovered and successfully worked in the islands of the Alexander Archipelago and along the adjoining coast, where the climate was found to be relatively mild and the proximity to deep and well-protected harbors facilitated the cheap mining and reduction of the ores. Gradually a few venturesome prospectors found their way across the mountains into the higher and far colder regions of the interior. The first mining excitement in the interior was in the Cassiar mining district in British Columbia around Dease Lake, near the head of the Stikine River; from 1871 to 1887. Later, prospectors found their way into the more northern regions and down the valley of the Yukon into American territory, where they discovered valuable placers on Birch Creek, Mission Creek, and Forty-mile Creek, small southern tributaries of the Yukon. In the autumn of 1896 still richer discoveries were made a short distance east of the boundary, along the Klondike River, and a great rush of miners to these now famous diggings set in the following spring. Within a single year the yield from this region has exceeded in amount the purchase money for the entire Territory of Alaska, and though a large portion of the gold has come from territory within the Canadian lines, American miners for the most part have taken it out.

Accurate data with regard to the geography of Alaska it is as yet difficult to obtain. The immediate coast-line and the many islands which border it have been mapped by the United States Coast and

Geodetic Survey, and the course of the great Yukon River, comparable in size to the Mississippi, was determined by the Western Union Telegraph Company's expedition in 1867 and by an expedition in 1869 under Lieut. C. W. Raymond, of the United States Engineers. What other information has been obtained with regard to the interior is derived from route and sketch maps made from time to time by individual explorers, who generally followed the valleys of the larger streams. Vast tracts of mountain land between these streams are yet practically unknown. Hence the accompanying map, which is a copy of part of Chart T of the Coast Survey, in which have been embodied some details derived from maps of special localities, makes no attempt to show the general distribution of the mountain ranges in the interior, but confines itself to a delineation of the courses of the known streams. In some cases even these tracings of stream courses are known to be inaccurate, but until a general survey of the interior is made it will be impossible to correct them.

Ketchum and Lebarge, of the Western Union telegraph expedition, were apparently the first white men to traverse the entire length of the Yukon River. They traveled on ice and snow from St. Michael to Fort Yukon in the winter of 1866-67, and in the following summer made their way to Fort Selkirk and back, joining on their return W. H. Dall, who had charge of the scientific work of the expedition, and who, with Frederick Whymper, had ascended to that point by water. In later years scientific explorations of the interior have been made by members of the Canadian and of the United States geological surveys. In 1887 Dawson and McConnell, of the Canadian Survey, ascended the Stikine to the Liard, the former going north-westward by the Frances and Pelly to Fort Selkirk, the latter descending the Liard to the Mackenzie and the following season crossing from the Mackenzie to Fort Yukon by the Porcupine River and ascending the Yukon to its southwestern sources. William Ogilvie, of the same corps, entered the Yukon district in 1887 and has been there most of the time since, engaged in route and boundary surveys. In 1889 I. C. Russell, of the United States Geological Survey, in company with a boundary party of the Coast Survey, ascended the Yukon River from its mouth to the head of boat navigation, coming out over the Chilkoot Pass. In 1891 C. W. Hayes, of the United States Geological Survey, accompanied Schwatka's expedition up the White, across Soolai Pass, and down the Copper River. In the summer of 1895 G. F. Becker and W. H. Dall, under orders of the Director of the United States Geological Survey, made examinations of the coastal regions with reference to gold and coal; and in 1896 J. E. Spurr, assisted by H. B. Goodrich and F. C. Schrader, made a reconnaissance of the gold-bearing rocks of the Yukon district.

## WORKS CONTAINING GENERAL USEFUL INFORMATION ABOUT ALASKA.

Travel and Adventures in the Territory of Alaska, by Frederick Whympere. Harper and Brothers, New York, 1869.

Alaska and Its Resources, by W. H. Dall. Lee and Shepard, Boston, 1870.

Along Alaska's Great River, by Frederick Schwatka. Cassell and Co., New York, 1886.

Alaska, Its History and Resources, Gold Fields, Routes and Scenery, by Miner Bruce. Lowman and Hanford Stationery and Printing Co., Seattle, 1895.

Coal and Lignite of Alaska, by W. H. Dall: Seventeenth Ann. Rept. U. S. Geol. Survey, Part I, Washington, 1896.

Reconnaissance of the Gold Fields of Southern Alaska, by George F. Becker: Eighteenth Ann. Rept. U. S. Geol. Survey, Part III, Washington, 1898.

Geology of the Yukon Gold District, Alaska, by J. E. Spurr: Eighteenth Ann. Rept. U. S. Geol. Survey, Part III, Washington, 1898.

## GEOGRAPHICAL SKETCH.

Alaska has an area of 580,107 square miles. It is roughly quadrangular in outline, with a pan-handle extension in the southeast along the coast and a peninsula stretching out into the ocean on the southwest, which continues in the chain of the Aleutian Islands that separate Bering Sea from the Pacific Ocean. Its eastern boundary is formed by the 141st meridian of longitude west from Greenwich, and the westernmost portion of its mainland, Cape Prince of Wales, is on the 168th meridian, or within 54 miles of the easternmost point of Asia. In latitude it extends from 54° 40', the southern point of Prince of Wales Island, to Point Barrow, in 71° 23' north latitude, far within the Arctic Circle. Its greatest extent in a north-south line is thus 1,100 miles, and from east to west 800 miles.

The coast-line is much broken by arms of the sea, reaching far inland, either as open bays, as sounds or submerged river valleys, or as fiord-like inlets. Its length is estimated at 18,211 miles, which is greater than that of the entire coast-line of the United States. The coast also abounds in islands, which cover an aggregate area of 31,205 square miles and which as a rule are very mountainous. The chain of the Aleutian Islands, reaching nearly 1,500 miles into the Pacific Ocean, is largely of eruptive origin and contains many volcanic craters, some of which are yet active. They rise very abruptly from the sea, often to an elevation of several thousand feet, one on Unimak Island reaching a height of 8,955 feet.

The Alexander Archipelago and the adjoining coast strip, the best-known and most frequented part of the Territory, resembles the submerged portion of a narrow and precipitous mountain system. The archipelago consists of 1,100 islands, the largest and most southern of which is Prince of Wales Island. It is intersected by deep and relatively narrow waterways, which often run far inland and bear