

**NOTES ON THE GOLD OF EASTERN
CANADA: BEING A REPRINT OF
PORTIONS OF VARIOUS REPORTS
OF THE GEOLOGICAL SURVEY OF
CANADA FROM 1848 TO 1863**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649195107

Notes on the gold of eastern Canada: being a reprint of portions of various reports of the Geological Survey of Canada from 1848 to 1863 by W. E. Logan

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

W. E. LOGAN

**NOTES ON THE GOLD OF EASTERN
CANADA: BEING A REPRINT OF
PORTIONS OF VARIOUS REPORTS
OF THE GEOLOGICAL SURVEY OF
CANADA FROM 1848 TO 1863**

NOTES
OF THE
GOLD OF EASTERN CANADA:

BEING
A REPRINT OF PORTIONS OF VARIOUS REPORTS

OF THE
GEOLOGICAL SURVEY OF CANADA

FROM 1848 TO 1863.



MONTREAL:
DAWSON BROTHERS.
1864.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in the context of public administration and government operations. This section outlines the various methods and systems used to collect, store, and analyze data, ensuring that information is readily accessible and reliable.

2. The second part of the document focuses on the challenges and solutions associated with data management. It identifies common issues such as data redundancy, inconsistency, and security concerns. The text provides detailed recommendations for addressing these challenges, including the implementation of robust data governance policies, the use of advanced data management tools, and the establishment of clear roles and responsibilities for data handling.

3. The third part of the document explores the integration of data across different departments and systems. It highlights the benefits of a unified data environment, such as improved decision-making, enhanced operational efficiency, and better service delivery. The text discusses various integration strategies, including data warehousing, data lakes, and the use of APIs to facilitate data exchange between systems.

4. The fourth part of the document addresses the importance of data privacy and protection. It discusses the legal and ethical considerations surrounding data collection and use, and provides guidance on how to ensure compliance with relevant regulations. The text emphasizes the need for strong security measures, such as encryption, access controls, and regular security audits, to protect sensitive information from unauthorized access and breaches.

5. The fifth part of the document discusses the role of data in driving innovation and growth. It highlights how data-driven insights can be used to identify new market opportunities, optimize business processes, and develop innovative products and services. The text provides examples of successful data-driven initiatives and offers practical advice on how to leverage data for strategic advantage.

6. The sixth part of the document discusses the importance of data literacy and skills development. It emphasizes that for organizations to fully benefit from their data, employees must have the necessary skills to collect, analyze, and interpret data. The text provides recommendations for implementing data literacy programs, including training, workshops, and hands-on experience, to ensure that all employees are equipped with the skills needed to work effectively with data.

7. The seventh part of the document discusses the importance of data ethics and responsible data use. It highlights the need to ensure that data is collected and used in a fair, transparent, and ethical manner, respecting individual privacy and rights. The text provides guidance on how to establish a strong data ethics framework, including the development of clear policies, the establishment of an ethics committee, and the implementation of regular ethics audits.

8. The eighth part of the document discusses the importance of data security and risk management. It highlights the various threats to data security, such as cyberattacks, data breaches, and insider threats, and provides detailed recommendations for mitigating these risks. The text emphasizes the need for a comprehensive data security strategy, including the implementation of strong security controls, the use of intrusion detection and prevention systems, and the establishment of a robust incident response plan.

9. The ninth part of the document discusses the importance of data backup and recovery. It highlights the need to ensure that data is regularly backed up and can be recovered in the event of a disaster or data loss. The text provides recommendations for implementing a robust data backup and recovery strategy, including the use of cloud-based backup solutions, the establishment of clear recovery procedures, and the regular testing of backup and recovery processes.

10. The tenth part of the document discusses the importance of data archiving and retention. It highlights the need to ensure that data is properly archived and retained for the required period of time, in order to comply with legal and regulatory requirements. The text provides recommendations for implementing a robust data archiving and retention strategy, including the use of secure archiving solutions, the establishment of clear retention policies, and the regular review and update of retention schedules.

P R E F A C E.

Public attention having lately been called to the deposits of gold in south-eastern Canada, it has been thought advisable to reprint from the various Reports of Progress of the Geological Survey, the observations made and published by its officers at different times from 1848 to 1863, and chiefly during the first five years of this period. These earlier Reports, although published at the time of their several dates, by order of the Government, have now become so rare and difficult of access that many persons now interested in the gold of Canada do not appear to be aware of their existence, and take for novelties the facts long ago made known to the public by the Geological Survey. The extracts from the several Reports are arranged in chronological order, and a few notes have been added.

W. E. LOGAN.

OFFICE OF THE GEOLOGICAL SURVEY,
Montreal, Canada, January 1864.

CONTENTS.

	PAGE
PREFACE	3
Extract from the Report of 1848.....	5
" " " " " 1850.....	12
Gold at the Exhibition of 1851.....	14
Extract from the Report of 1851	15
" " " " " 1852	20
" " " " " " 	27
" " " " " 1853	28
" " " " " 1853-55	29
" " " " " 1853	31

NOTES

ON THE

GOLD OF EASTERN CANADA.

FROM THE REPORT OF MAY 1, 1848.

PAGES 72—80.

It appears from the Reports of some of the State Geological Surveys of the American Union, from various papers which have come before the public in Silliman's *Journal of Science and Art*, and from the statements of Mr. James D. Dana and Professor Charles Upham Shepard in their works on Mineralogy, that the existence of gold in North America, occurring in more or less quantity in veins and alluvial deposits, has been traced at intervals, some of which are considerable, from Georgia, the Carolinas, Virginia and other Southern States, and even from Mexico to the Chaudière in Lower Canada. It is not improbable it may follow the run of one and the same geological formation through the whole distance, and will ultimately be traced to Gaspé. Along the whole line it seems to be associated with, or in the vicinity of rocks strongly characterised by magnesia, such as dolomite, serpentine, talc and chlorite slates, and at the same time marked by the presence of chromic iron, titaniferous iron and rutile. It is found in similar association in other countries; and the description of the Ural Mountains, for which we are indebted to Sir R. I. Murchison and his companions, shews that these characteristics are conspicuously displayed in that auriferous region of Russia, where the gold is accompanied also by platinum; which is stated in Silliman's *Journal* for September last, to have been observed very recently in one of the gold mines of North Carolina.

What has already been said of the rocks of the Eastern Townships* is sufficient to show that the general types above alluded to are legibly imprinted on the Canadian prolongation of the Green Mountains; and the geological analogy between the Canadian strata, and those of the more Southern States is drawn still closer by the discovery of gold in the district under description, not only in alluvial deposits, but also (in mere traces however,) in a vein. In the different localities in which vein gold has been found in the Southern States, the metal appears in most instances to be in a matrix of white quartz, as a vein-stone, sometimes associated with either iron or copper pyrites, or with galena or blende; and it is remarked that the pyrites is often found decomposed and converted into hydrated peroxyd of iron, strongly marking the outcrop of the vein. The metal however is not in all cases confined to the quartz veins; sometimes it extends into the rock bounding the quartz on each side. But the gold, whether in the quartz, in the metallic sulphurets, in the hydrated peroxyd of iron, or in the rock of the country, is always native, and it is disseminated in grains, which though sometimes visible to the naked eye, are most frequently so fine as not to be discernible in the matrix, notwithstanding it may be pure milk-white quartz, even with the assistance of a powerful magnifying glass, until the matrix has been bruised to a powder, and a separation effected by washing. "In far the greater number of cases, the eye detects nothing but quartz, or sometimes metallic sulphurets (of iron, zinc or lead); and the observer, unless instructed in the case, would never suspect the presence of gold, either distinct or in the metallic sulphurets." The veins are of various breadths, from one foot and less to five feet and more, and the rocks in which they occur appear in general to be talcose slates, or clay slates not far removed from them. The veins seem in almost every case to coincide with the stratification both in strike and dip, thus assuming the semblance of beds. Professor Silliman, in his "Remarks on the Gold Mines of Virginia," (Journal, vol. 32, p. 98,) from which the above facts are taken, states that the expense of working the auriferous quartz is from 80 to 85 cents per 100 lbs., and the produce

* In a previous part of this Report, pages 30—58.

of 100 lbs., leaving out fractions and extraordinary results, from \$1 and \$2 to \$10 in value, the gold being estimated at $4\frac{1}{4}$ cents per grain; which in round numbers may be said to equal from 25 to 250 grains of gold to 100 lbs. of the vein-stone. In Somerset County in Vermont, gold has been met with in a quartz vein with hydrated peroxyd of iron, coinciding with the stratification, in talcose slates; but it is not stated by Professor Hitchcock, who has given an account of it in his Report on the Geology of the State of Massachusetts, that the quantity is of economic value.

The only locality of a vein with traces of gold, yet determined in the Eastern Townships, is in the vicinity of Sherbrooke, the metal being found associated with the copper pyrites in the vein which has already been noticed* for the latter ore, on the seventeenth lot of the seventh range of Ascot. In the quartz gangue, the hydrated peroxyd of iron, the quality of the rock to which it belongs, and its conformity with the stratification, it agrees with the southern localities already mentioned. The quantity of the precious metal however appears to be insignificant. But it is to be remarked, that the gold in the matrix being invisible to the eye, even assisted by a magnifying glass, the examination of the vein was not made with a knowledge of its presence; and it was only in assaying the copper obtained by smelting a washed sample of copper-pyrites resulting from 74 lbs. of the vein taken indiscriminately, that the existence of the gold was ascertained. According to this trial, 100 lbs. of the vein would yield $12\frac{1}{2}$ ounces of copper; 180 grains of which copper yielded 0.031 of a grain of gold. The 100 lbs. of the vein would thus give 1.03 grain of gold; and the value of the metal in a ton of the rock would be about \$1. The 180 grains of copper yielded also 0.162 of a grain of silver; so that 100 lbs. of the vein, in addition to the gold, contains 5.40 grains of silver.

It is unnecessary to mention that these results are valueless in an economic point of view, and no allusion to them would have been made beyond a passing notice in stating the produce of the copper, did not the presence of the precious metal in a vein come in aid to illustrate the general character of the region, and in particular of

* Page 72 of this Report.