

# NINTH ANNUAL REPORT

OF THE

## MINISTER OF MINES,

FOR THE

YEAR ENDING 31ST DECEMBER,

1882.

BEING AN ACCOUNT OF

MINING OPERATIONS FOR GOLD, COAL, &C.

IN THE

Province of British Columbia.



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REPORT  
OF THE  
MINISTER OF MINES  
FOR THE  
YEAR 1882.

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*To the Honourable CLEMENT F. CORNWALL, Lieutenant-Governor of the Province of British Columbia.*

MAY IT PLEASE YOUR HONOUR:

I have the honour herewith to respectfully submit the Ninth Annual Report of the Mining Industries of the Province.

JOHN ROBSON,  
*Provincial Secretary and Minister of Mines.*

*Provincial Secretary's Office,  
23rd February, 1883.*

# REPORT

## GOLD.

The value of the amounts exported by the Banks during the year 1882 is as follows:—

Bank of British Columbia .....	\$237,983
Bank of British North America .....	181,071
Garesche, Green & Co. ....	376,017
	\$795,071

This is a decrease of nearly \$80,000, compared with the Bank export of 1881. The number of men, however, engaged in this industry has declined in about the same proportion, for the average yearly earnings per man are very closely approximate for the two years.

## CARIBOO.

Although the yield of gold in this district fell off considerably during the past year, it is gratifying to find that a spirit of cheerfulness and hope pervades the comprehensive report of the Gold Commissioner.

The sum voted at the last session of the Legislature for explorations has, so far as the portion appropriated to Cariboo is concerned, already borne some fruit. Prospecting, other than surface and outside of the well-known gold bearing creeks, had almost become a thing of the past. It has now received a stimulus which will certainly last during the coming season, independently of the success or failure of any particular work now being prosecuted.

The interesting report of Messrs. Petrie, McDonald, Porter, and Johns is herewith published. They evidently have faith in Ollalie Creek, and the nature of the ground apparently fulfils the conditions considered favourable by those experienced in the deep diggings of Cariboo. Unless driven out by water at a lower level, the result ought soon to be known; if a successful one, another mining division will have been added to the district.

A report from Messrs. Johnston and Macdonald, who likewise received a portion of the Government grant, is also published. They travelled over the section of country lying to the north of Sugar Creek, but were not in a position to do other than surface prospecting. They found favourable indications of gold, and are of opinion that a creek they discovered is worth being thoroughly tested.

Messrs. Foster and Paris, who were also assisted out of the vote for explorations, travelled down Willow River for a distance of about forty miles below Barkerville. Like the party last mentioned; they were not prepared to sink, and their expedition was without result.

Messrs. Pearce and Bennett, the fourth party assisted in their outfit by the Government, found paying diggings on a tributary of Cunningham Creek. This discovery tends to confirm the opinion that Cariboo has, so far, been only partially prospected, for Cunningham Creek has been well-known for more than twenty years.

## MR. BOWRON'S REPORT.

“RICHFIELD, 27th Nov., 1882.

“SIR,—In pursuance of request in your circular of 13th September last, I have the honour to enclose forms containing mining statistics of the district for the present year, and submit the following report in connection therewith.

“From a reference to the accompanying statistics it will be seen that a marked decrease in the annual gold product has taken place, a result that has caused much disappointment among the miners generally, but more especially among those companies who, for the past year or two, have been preparing to work their claims by hydraulic process. Not that their claims have been proven non-remunerative, but simply from the fact that this system of mining is comparatively new to Cariboo and, consequently, the time, trouble and expense necessary to put such claims in proper working order has been under-estimated.

"Another cause of the decrease in the yield will be found in the decreased number of men employed. The statistics shew that our white mining population number about seventy-five less than in 1881, which is accounted for by the demand for skilled white labour upon the railroad works.

"The Chinese, who now out-number the white population of the district about two to one, very naturally again make the best showing, as, while many of the white men are either prospecting or erecting new and elaborate machinery to work their mines, the Chinaman, on the contrary, is busy with his sluice-box or rocker, every day adding something to the general output.

"On Williams Creek the Bed-rock Flume Co. have not done any work the present season. The old Downie & Bradley Nicholson Co., situated about three-quarters of a mile above Richfield, and now in the hands of Chinese, admit taking out \$16,000 the past season. This claim has been worked continuously for eighteen years and still has every appearance of being good for years to come. The Boneta Co., situated immediately above the old Black Jack claim, appear to have found a back channel from which very good pay was taken during the season.

"The gentlemen to whom a conditional lease of the abandoned ground below the cañon was promised last year, having been unsuccessful in their endeavours to induce capitalists to take hold of the enterprise, have surrendered their right to the lease, and the ground, or a portion of it, has been located by miners, who are now engaged running a drain to open up the same and expect to be taking out gold shortly.

"The Waverly Hydraulic Co., of Grouse Creek, lost the greater part of the season by reason of their tunnel, through which their claim is being opened, getting choked with gravel and dirt, which filled the cut above with water to a depth of some ninety feet. This necessitated considerable delay, as it was deemed too hazardous an undertaking to attempt opening the tunnel while that pressure of water remained, and the greater part of the season was lost before the claim was opened for work.

"The Sugar Creek Hydraulic Co. have progressed satisfactorily with their work, having reached pay dirt and washed out about \$2,000. The owners feel confident of being able to make it profitable in the future.

"The Glamorgan Co., of New Creek, who have been running a tunnel through very bad ground for the greater part of the past two years, lately sank a blind shaft in their tunnel and obtained what they consider paying prospects. They are now about to put up machinery and expect to be taking out pay in about two months hence. Other claims have been located, both above and below, on this creek.

"On Antler Creek, the Yellow Lion Co., situated below the old McBean Bench and in the pass leading towards Cunningham Creek, about a year ago found gold on the bed-rock within a few feet of the surface, and followed it into a channel from twenty-five to thirty feet deep, which appears to run towards Cunningham Creek. This claim has paid well the whole season, and would indicate that the Antler lead, from this point, runs through the pass towards Cunningham Creek, a distance of some three miles, and which up to the present time remains unprospected. The benches on the lower end of Antler Creek, worked principally by Chinese, have paid fairly well during the past summer.

"On Lightning Creek but little new work has been undertaken. The hydraulic companies' works on Dunbar Flat are not in a sufficiently advanced state to test the productiveness of their mines.

"From Last Chance Creek, which was worked and paid handsomely in years past, but latterly entirely abandoned, Messrs. J. Holmes and George McLeod have obtained excellent prospects about one mile from its mouth. They exhibited a beautiful sample of gold, one piece of which weighed over an ounce, and, on application, were granted discovery claims. At present writing it is impossible to form an opinion as to the extent or value of this discovery.

"The bars and benches on the Fraser and Quesnelle Rivers have been less productive than in 1880 and 1881. There have, however, been a less number engaged, and those principally Chinese. Mr. St. Laurent, Collector at Quesnelle, reports the discovery, by Chinese, of some new mines about thirty miles up Quesnelle River, some twenty of whom have taken up supplies and will remain there during the winter.

"The limited sum of money, from the vote of last session, placed at my disposal for exploration purposes has, I believe, after consultation with the members from this district, been most judiciously expended. Four different parties were assisted in purchasing their outfit, three of whom have handed in reports which will be found hereunto annexed. Whatever

the ultimate result of these discoveries may be, at present we can only conjecture. I must, however, say that the representations made by these different parties have evoked much enthusiasm here among all classes; and two parties, one of four and another of six men, will be kept out all winter, prospecting for deep diggings, on creeks discovered the past season, and believed to contain gold in paying quantities on the clay.

"One party of four men, under Mr. Hilton, have already started with some 2,800 lbs. of supplies, furnished by the traders, farmers, and miners of the district, to prosecute researches on a creek about 45 miles north of Cottonwood Bridge. This creek was discovered by Messrs. Hilton and North, last summer, and named Alder Creek. They took out between five and six ounces of gold on top of the clay, and have returned there again to reach bed-rock, if possible.

"Another party of six men proceed at once to Porter Creek, about 45 miles south of Barkerville, and will endeavour to reach bed-rock on that creek.

"Messrs. S. Pearce and W. Bennett, who also received assistance in their outfit from the exploration fund, discovered a small gulch putting into Cunningham Creek, which will pay fair wages. The discoverers have built themselves a cabin, and will work there the coming season. Two companies have recorded ground on the stream, which has been named Pearce's Gulch.

"One observable feature in the reports of the parties who have been out exploring the past season, is the number of favourable-looking creeks and gulches found, upon which no appearance of previous prospecting was seen. This renders it most desirable that one or two parties, of say four men each, should be kept out during the coming summer, and any assistance made by the Government towards this end would, I think, judging from the action taken the present season, be most liberally supplemented by the people of this district.

"There was melted at the Government Assay Office, Barkerville, \$194,142 30 for the eleven months of present year. I estimate the total yield of gold for the district, exclusive of Omineca, for 1882, as follows:—

Barkerville Division .....	\$180,500
Lightning Creek Division .....	85,595
Quesnelle Division .....	71,610
Keithley Division .....	98,820
Estimated amount of which no account was obtained ..	20,000
Estimated yield throughout district from date of collecting statistics till 31st December ..	15,000
	\$471,525

"With the exception of some tunnel work on Burns' Mountain, no prospecting for quartz was done. Samples of quartz taken from a ledge found on one of the tributaries of Willow River by Foster and Paris, assayed at the Government Assay Office \$15 07 per ton of 2,000 lbs., with traces of silver. I have, &c.,

(Signed) "JNO. BOWRON,  
"Gold Commissioner.

"To the Hon. the Provincial Secretary and Minister of Mines."

#### MR. STEPHENSON'S REPORT.

FORKS QUESNELLE, 15th November, 1882.

"SIR,—I have the honour to forward herewith the mining statistics for Keithley Division, Cariboo District. Although I have been as careful as possible in collecting information, I must acknowledge a serious falling off from last year's yield of gold in nearly all the different sections of this division.

"The unprecedented high waters of this season, certainly did in many instances retard work, and on Keithley Creek did considerable damage to several of the creek claims. But upon the other hand for hydraulic and ground sluicing claims, where plenty of water is needed, the season has been unusually good for a plentiful supply.

"As yet there is very little hydraulic mining in this section, chiefly owing to heavy outlay necessary to get water upon the benches that would pay to be worked as hydraulic claims.

"The river mining has been greatly retarded by the water keeping at a high stage until late in the season, thereby causing quite a number of Chinamen to go down the country who,

had the water been as low as usual at the time of the year, would have been mining upon the river bars until the cold weather set in; but this season the cold weather has come before the water has gone down, therefore, we have very little river mining this fall.

"On the Fraser River, from Quesnelle to Soda Creek, there are comparatively few miners this year, they having apparently worked out the diggings found last year without any new discoveries for the current year.

"I have, &c.,  
(Signed) "W. STEPHENSON,  
"Government Agent.

*"To the Honourable the Minister of Mines, Victoria, B. C."*

#### REPORT OF MESSRS. PETRIE, McDONALD, JOHNS AND PORTER.

*To the Commissioner of Cariboo District:*

"SIR,—We, the undersigned, having received a portion of the Government fund for exploration purposes, beg leave to submit the following report which contains a summary of our proceedings since 15th August last:—On that date we left Barkerville and proceeded south over Bald Mountain until we struck Swift River and its tributaries. Here we found small prospects on the surface; but as we were not prepared to sink for deep diggings, continued our way in a southerly direction across the divide between Swift River and the main Quesnelle.

"On the south side of the divide we found a very large quartz ledge from 15 to 20 feet in width with well defined walls. The ledge runs in a N.E. and S.W. direction and is traceable on the surface for over 700 feet, the croppings in places rising 10 feet above the ground. It is so situated on the side of the mountain that we judged a tunnel run in a distance of 500 feet would tap the ledge 1000 feet from the surface.

"On the south side of the divide we found a section of country, which heretofore seemed to have been entirely overlooked. We found one large stream to which has been given the name of Porter Creek, having a number of small tributaries, upon several of which we found gold upon the clay. We made an attempt to sink on one of these, but for lack of windlass and rope, could only get down about 18 feet. This stream empties into Porter Creek about a mile from where we were sinking. Subsequently we ascertained that Porter Creek empties into Swift River about five, or perhaps six, miles below where we were working.

"In the meantime our supply of provisions was getting exhausted, but fortunately one of our party about this time killed a cariboo, and as grouse were very plentiful we prolonged our stay several days, and found that on Porter Creek the valley in places is over a mile in width, that small prospects could be found over the whole of this distance, which confirmed us in the belief, that we had found a favourable field to prospect in, and we determined as our provisions were exhausted to return to Barkerville and refit ourselves again, and come back to test the deep ground. Accordingly we started back, and reached Barkerville on the 23rd September. Receiving further aid, we started back again, on the 28th, provided with rope, windlass, buckets, &c. In order to get through with horses and pack animals, we were obliged to go by way of Stanley, following the old Swift River trail for about 15 miles, and then cutting our way through the timber the remainder of the distance. This occupied us ten days, and as the cold weather was setting in we had to build ourselves a cabin, which took eight days more. We then commenced sinking a new shaft about fifty feet from the old one which we had left at 18 feet deep, and continued sinking until the 21st November, having reached a depth of 56 feet, when we were again obliged to return to Barkerville for more supplies.

"The shaft is well and securely timbered. The ground is for the first few feet gravel, then about 10 feet clay, then more gravel for about 30 feet, after which, comes a hard dry slum to bottom.

"The sinking is pretty good (hard and dry); we can only conjecture as to depth to bed-rock, but think it will not exceed 25 feet from where we left off. We have named this creek Ollalie Creek.

"As the Government fund for exploration is exhausted, as well as our own individual resources, we have made an appeal to the general public for assistance, and have met with such

a generous response that we intend returning again in a few days to continue sinking, if possible, our shaft to bed-rock.

"We have the honour, &c.,

Signed "FRANK PETRIE,  
 " "ALEX. McDONALD,  
 " "ALEXANDER PORTER,  
 " "SILAS JOHNS.

"Barkerville, B. C., 30th November, 1882."

#### MESSRS. JOHNSTON AND McDONALD'S REPORT.

"To John Bowron, Gold Commissioner, Richfield :

"SIR,—We beg to report the result of our prospecting tour to the north of Sugar Creek:—

"Starting from Sugar Creek on the 15th August, we went down Valley Creek twenty miles, then went north-west to Stone Lake Valley, a distance of ten miles. We then struck a creek, about the size of Stouts Gulch, running to the east, on which we sunk three prospect holes and got colours of gold in each, but not enough to pay. We did not get bed-rock on this creek. We then went on about four miles in a north-west direction and struck another creek of about the same size, and sunk several holes on it with the same result. We then went on about one mile further, and found a large stream, larger than Williams Creek. We found bed-rock at the upper end of this creek, but found no gold; this creek runs east. We then went across the mountain in a westerly direction, about ten miles, and came on Willow River; followed Willow River about three miles and struck another creek emptying into it from the north. On this creek we found a cañon and did some prospecting, getting colours of gold. This is a good looking creek, but it would take considerable work to properly prospect. There are several quartz ledges crossing it—the kind of quartz found on Lowhee Creek. We think the creek worth a thorough prospecting. We went on four miles to another creek about as large as Williams Creek, on which we found prospects of fine gold, and started a ground sluice. Got a cut in about five feet, when we came on a soft mud or slum; we drove down a pole into it about twelve feet and concluded we could not bottom and gave it up. There is no quartz or slate rock to be seen on this creek. We went on to another creek about four miles, but found it small and worthless looking, therefore did not stop to prospect it. We then came back up Willow River to the creek where the quartz and slate was found. Crossed Willow River and came on a creek upon which we obtained a good prospect, in one pan about ten cents, but it did not hold out.

"We then started for home, and on the way prospected some of the bars on Willow River. We got fine gold, but whether in sufficient quantities to pay we are uncertain; although gold was obtained in every pan we tried. Coming up Valley Creek to within four miles of Sugar Creek, we prospected on a creek which puts into the former from the south, finding nothing.

"We also prospected on a creek between Sugar and Mustang Creeks, but did not find the channel, as there was no wash where we sunk.

"We then returned to Sugar Creek, where we arrived on the 17th September.

"The country through which we travelled is very favourable looking for gold, but it would require a larger force of men to sink.

"Yours, &c.,

(Signed) "A. JOHNSTON,  
 " "ALEX. McDONALD.

"Barkerville, October 11th, 1882."

#### CASSIAR.

#### MR. VOWELL'S REPORT.

"CASSIAR, B. C., 24th October, 1882.

"SIR,—I have the honour, herewith, to forward for the information of the Government, the mining statistics for 1882, and such other particulars in reference to my district as may be of importance, viz:—

“Since my last report, dated the 18th July, 1882, a slight improvement has taken place in mining prospects throughout the district.

“The output of gold for 1882 has been fair, and compares favourably with that of last year, when there were nearly twice the number engaged in mining as have been at Cassiar during the present year.

“On McDames Creek there was a decided improvement during the latter portion of the season, and on Thiberts Creek several hill claims have proved highly remunerative, while others are being opened with the intention of prospecting, etc., during the winter months.

“Dease Creek has not done much, but all *hope*, as regards the richness of its *hills*, has not been yet abandoned, several companies being determined to carry on prospecting in that locality next year.

“Those who have been mining on the Liard—some twenty in all—are very well satisfied with their season’s work, and some Chinese and others have done so well on Walker’s Creek as to induce them to return next year with many of their friends.

“In going down the Liard River last spring, the Chinese lost one boat with four Chinamen and the boat load of provisions.

“Estimate of the general yield of gold during past season is as follows :—

“McDames Creek section.....	\$72,700
“Dease and Thiberts section.....	80,100
“Yukon, Takoo and Stickeen.....	30,000

“Total,..... \$182,800

“The last entry (\$30,000) is mere guess work, no returns having been received from the last mentioned places. \* \* \* \* \*

“About one hundred and fifty souls, exclusive of Indians, intend to pass the coming winter in these mines; of these, some 30 white men and 40 Chinese remain at McDames Creek, 28 white men on Thiberts Creek, 6 white men and 25 Chinese at Dease Creek, and about 20 white men on the Stickeen. \* \* \*

“I have &c.,  
 (Signed) “A. W. VOWELL,  
 “Gold Commissioner and Stipendiary Magistrate, Cassiar.

“The Hon. the Provincial Secretary, Victoria, B. C.”

LILLOOET.

LILLOOET DIVISION.

MR. PHAIR’S REPORT.

“LILLOOET, 18th November, 1882.

“SIR,—In compliance with the request contained in your circular letter of the 13th September last, I have the honour to forward herewith the mining statistics for the Lillooet Division of Lillooet District for the year 1882.

“No new discoveries of gold have been made the past season, nor any prospecting done except on Bridge River and its south tributary. On the latter, a company of four men put in a wing-dam and obtained a very fair prospect. They got \$13 in coarse gold from a hole 4 feet by 11 feet and 6 feet in depth, which was chiefly on the bed-rock. It was, however, too late in the season to test the creek thoroughly, but they intend returning early next spring.

“They told me the creek is easily wing-dammed, and that there is plenty of good timber adjacent to it.

“It is on this south branch that Indian Hunter Jack, whom I mentioned in my last report, has a claim recorded, and which paid him very well during the past season. Thirteen Indians have just returned from there, none of whom had less than \$30 in gold dust.

“The journey can be made in three or four days from this town. The route is by Seaton Lake, thence across the mountain, which is very steep and without a trail. Indians will not pack supplies for less than 5 cents a pound.

“There are many creeks in the vicinity of this one, which, from what I can learn, were never thoroughly prospected.

"The amount of gold bought here this year was \$9,270 less than last year.

"The total yield for the past season is about \$30,415.

"I have, &c.,

(Signed)

"C. PHAIR,

"Government Agent.

"To the Hon. the Minister of Mines, &c., Victoria."

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CLINTON DIVISION.

MR. SOUES' REPORT.

"GOVERNMENT OFFICE, CLINTON,

"28th October, 1882.

"SIR,—I have the honour to enclose herewith the mining statistics for the year 1882, for the upper portion of Lillooet District, extending from Leons Creek on the south to the mouth of Chilcoaten River on the north, a distance of about 60 miles. With the exception of 4 white men, the whole of the gold mining, in this portion of the district, may be said to be done by Chinese, and it is therefore simply impossible to get at anything like a correct return of the total annual yield. The sources from which I have obtained my information are the merchants and other buyers of gold, and I have no reason to doubt the correctness of their statements.

"The total amount which I have to report from these sources is \$25,380. This amount is somewhat under the total of last year, but I am satisfied the yield—could it be ascertained—would be in excess of last year, from the fact that a much larger number than usual of wandering and non-registered Chinese miners have been at work in this district this year. I estimate the amount of gold taken out by this class, at least equal to one-third of the actual figures obtained from reliable sources.

"I have no new discoveries to report for this section. Mining was again tried this year on Scotty's Creek, a tributary of Bonaparte River. The gold, of a fine quality, is found in the bed of the creek, but the impediments in the way, in the form of large boulders, are insurmountable unless backed by capital. The water power is excellent, and with a properly constructed flume which would involve considerable outlay, these obstacles could be removed.

"I regret exceedingly again to report, no work done this year on the Big Slide Lode. Mr. Foster, so far, has been unsuccessful in making arrangements for the working of his claim on that lode. Science in this particular case is still behind the requirements of the age. The precious metal is, without a shadow of a doubt, in the ore, but the question, how is it to be profitably extracted, still remains unsolved.

"I have, &c.,

"F. SOUES,

"Gold Commissioner.

"To Hon. the Minister of Mines, Victoria."

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YALE.

HOPE AND YALE DIVISION.

MR. DEWDNEY'S REPORT.

"GOVERNMENT OFFICE, YALE,

"25th November, 1882.

"SIR,—I have the honour to forward herewith mining statistics for the Yale and Hope Divisions.

"The principal portion of the mining in this district has been carried on, on Saw Mill Flat opposite Yale.

"The Stahlo-Chuck Flume Mining Company brought water on to the flat at a very great expense to thoroughly prospect the ground, but, unfortunately, with no good results. The enterprise proved a complete failure.

"I might also mention that another company brought water on to the flat from Hills Bar Creek, a distance of about one mile and three-quarters, at a great outlay, with the same result as the Stahlo-Chuck Company.

"The miners after putting in considerable labour prospecting their claims, finally had to abandon them in consequence of the ground not yielding sufficient gold to remunerate them.

"There are still a few Chinamen (who have purchased claims from the whites) working on the flats, but with what result it is hard to find out.

"I have, &c.,

"W. DEWDNEY,  
"Government Agent, &c.

"The Hon. the Minister of Mines, Victoria."

#### KAMLOOPS DIVISION.

##### MR. TUNSTALL'S REPORT.

"KAMLOOPS, December 12th 1882.

"SIR,—I have the honour to enclose the mining statistics appertaining to the Kamloops District for the current year.

"The estimated yield of gold is \$3,700, produced by companies permanently located on Tranquille Creek, and \$300 more obtained by transient miners, making an aggregate amount of \$4,000.

"I have, &c.,

"G. C. TUNSTALL,  
"Government Agent.

"Hon. the Minister of Mines, &c., Victoria."

#### OKANAGAN DIVISION.

No report has been received this year from the Government Agent, and it is feared that the prospecting mentioned in the last mining report as being vigorously prosecuted on Cherry Creek has resulted unsuccessfully.

#### KOOTENAY.

The report from this district is decidedly encouraging, and the statistics show a slight increase in the number of white miners, and also in the yield of gold.

The deflection of the Canadian Pacific Railway from the "Leather" to the more southerly "Kicking Horse" pass will surely tend to develop the resources of Kootenay and the Big Bend of the Columbia. This latter section offers great facilities for hydraulic mining, and will in all probability again become a mining camp, supporting a small but well-to-do community.

##### MR. FERNIE'S REPORT.

"KOOTENAY, October 31st, 1882.

"SIR,—I have the honour to forward herewith, the mining statistics for the Kootenay District, for the season of 1882. The hydraulic claims on Wild Horse Creek, on both sides of the creek, have paid better this year than they ever did before, and the miners are highly elated over their prospects for the future. On Perry Creek, the Black Hills Company has not made satisfactory progress, owing to the loose nature of the ground and quantities of water met with, which makes tunnelling very slow work. The Mont Cenis company are fixing up their tunnel, and expect soon to be taking out pay. The other gold mining companies in the different portions of the district have averaged fair pay for the work done. Good prospects were found on Bull River by the men building a bridge across the river. I afterwards fitted out a party to prospect higher up the river and try to trace the source of the gold. No paying

prospects were found above the long cañon, where the bridge is, and it is supposed the gold found came from a quartz ledge in the vicinity. \* \* \* \*

"I have, &c.

(Signed)

"WILLIAM FERNIE,

"Assistant Gold Commissioner.

"The Hon. the Minister of Mines."

## COAL.

The Report of the Inspector is satisfactory and encouraging: the output for 1882 is the largest yet recorded, and good reasons are given for the confident expectation that the result of the labours of the present year will show a still further increase.

The East Wellington Company appear to be pushing forward their works with energy; and it may be predicted, with some safety, that in the next annual report of the Inspector, their Colliery will help, substantially, to swell the total of the returns.

The following table shows the output of each year from 1874 to 1882, inclusive:

Year.	No. of Tons.
1874 .....	81,000
1875 .....	110,000
1876 .....	139,000
1877 .....	154,009
1878 .....	171,000
1879 .....	241,000
1880 .....	268,000
1881 .....	228,000
1882 .....	282,000

"NANAIMO, B. C.,

"20th February, 1883.

"SIR,—I have the honour, in pursuance of the 'Coal Mines Regulation Act, 1877,' to respectfully submit my annual report as Inspector of Mines.

"During the year ending 31st December, 1882, coal mining has been carried on by the Vancouver Coal Mining and Land Company, at Douglas Pit, Chase River and Southfield, and by Dunsmuir, Diggle, & Company, at North and South Wellington Collieries.

"The output of coal for 1882 at the above named collieries, amounts to 282,139 tons, being an increase of 54,139 tons above the product of 1881, and the highest yet attained in any year.

"The coal in stock on the 1st January, 1882, amounted to 9,318 tons; which quantity, together with 282,139 tons raised, made a total of 291,458 tons of coal for consumption and sale.

"In 1882, 232,411 tons of coal were shipped from this Province to San Francisco, and ports in California; Portland, Oregon; Seattle, Washington Territory (for gas making); ports in Alaska Territory; Mexican Ports; China; and the Hawaiian Islands; and to mail steamships and vessels calling.

"Sales of 56,161 tons have been made for home consumption by local steam vessels, manufactories, and for gas making, and household and other uses. The domestic sales for the year are 15,970 tons more than the sales of 1881.

"The stock of coal which was on hand at the Collieries at the end of the year 1882, amounted to 2,885 tons.

"It is proper that I should explain that although the general output of coal for 1882 has been kept up comparatively well, yet if the operations at Chase River Mine had not been so much hampered by troubles by flooding, and other mining casualties, which prevented the Vancouver Coal Company from producing their usual output from their mine, the aggregate output for the year would have still further exceeded any former returns. I believe, however, that the mining difficulties which have beset this company are being surmounted, and I antici-

pate that with the extension of the lower workings of Chase River Mine, and the continued development of the Southfield seam, the company will soon be able to realize their former output from these mines alone.

“With regard to the shipments of coal for 1882, about 158,000 tons were destined for San Francisco, being slightly less than the consignments of 1881.

“The total receipts for 1882 at San Francisco (our principal foreign market), as shown by the commercial returns of that port, amounted to about 883,000 tons, contributed as follows:—

	Tons,
Mount Diablo .....	113,255
Coos Bay .....	14,533
Seattle .....	154,611
Tacoma .....	54,627
British Columbia .....	157,762
Australia .....	158,901
Great Britain .....	188,771
Cumberland .....	14,860
Anthracite .....	24,996
Chili .....	580
Total .....	882,896

“It will be observed that British Columbia stands high in rank as a source of the coal supply of the important market of San Francisco, where our article holds a well-established reputation.

“One able commercial publication at that port recently remarks—‘British Columbia has been supplying this market with coal for about a quarter of a century. The oldest claims of this character are at Nanaimo. For a dozen years or more Departure Bay has been gaining in prominence as a source of coal, and the Wellington Colliery sends along its regular quota monthly; its popularity as a domestic coal finds it a ready sale at top prices.’

“With such a record, and bearing in mind the fluctuating character of the supplies from Great Britain and Australia, this Province may reasonably reckon upon finding room in the San Francisco market for an expansion of its coal trade fully commensurate with the probable increase of production, and at fairly remunerative prices, for many years to come.

“For some time past a considerable portion of the exported coal has been shipped direct from this Province to Wilmington in Southern California, as railway lines and other consumers in that part of the State that formerly drew their supplies from San Francisco are now chiefly supplied at Wilmington.

“His Excellency the Marquis of Lorne, Governor-General of Canada, during his stay at Nanaimo, visited the collieries, and by personal investigation obtained a knowledge of our mineral resources and an insight into the mode of working and shipping our coal that appeared to impress him very favourably.

“In this connection, I trust it will be pardonable for me to refer to the comments of the London *Times* upon the remarks as to our coal industry made by His Excellency the Governor-General at the Victoria banquet.

“The *Times* says:—‘The Colony (British Columbia) may be said to have owed its existence to the discovery of gold in 1856; and now that the supply of nuggets has ceased and the gold has to be sought for by the costly method of a regular siege, there is still wealth to be gained from the coal fields. The coal from the Nanaimo mines now leads the market at San Francisco, and there is no reason to doubt the Governor-General’s forecast that before long Nanaimo will become one of the chief mining stations on the American continent.’

“The Canadian Tariff still presses upon our coal industry, and the inequitable impost of 75 cents per ton heavily handicaps our coal on its entry into the United States. It is not necessary, however, in this report to do more than mention these vexed questions, so that they may be kept in view, as the whole subject will be found fully treated upon in former reports, to which I beg leave to refer.

#### NANAIMO COLLIERY.

DOUGLAS PIT.

“At this mine there are only a few miners sending out coal at present, but that will not last long, as they are taking out pillars (of coal) which were left on the road to the working

faces further in, and which now that these inside places are worked out are no longer required.

#### CHASE RIVER MINE.

"The workings here are from a slope about 500 yards long. The coal is mined principally from what is known as the No. 4 level, but there are a few other places where they are taking out pillars. About 400 yards along the above level a slant branches off in a northerly direction, angling across the pitch of the coal, and is down about 400 yards at the bottom. It is under the sea at the head of Nanaimo harbour. The thickness of strata intervening between the salt water and the workings underground is about 500 feet, made up of shale, sandstone, and conglomerate rock. This is quite a sufficient cover for safety against the salt water. There is a little water that comes out of the coal and rock, but it is found to be quite free from salt. This is the slant mentioned in a previous report. At the bottom the coal is four feet thick, hard, and of good quality. This mine is wrought on the pillar and stall system, the coal varying in thickness from four to six feet, with a pitch varying from 10 to 45 degrees. Nearly all the way down this slant the coal is good and hard. The miners have not met with anything to hinder their progress, and at the face now it is almost flat. This drive continued on its present course would come close to the shaft which is being put down at the Esplanade in Nanaimo, about 1,000 yards distant. This mine is almost entirely free from fire-damp. The fireman on going into the places in the morning will occasionally see just enough to let him know that there is gas in the mine. This place is ventilated by a large furnace at the bottom of the upcast shaft. The air is conducted in on the separate split system. Ventilation is very good, and the air is conducted close into the face of the stalls, the pillars between being thin, so that whenever it is required there is a connection or place put through to the next stall, hence the return; so that after the air has gone around the working faces it returns by the furnace to the upcast shaft. The workings of this mine and the workings of Douglas pit are connected, and are all as one, which makes them very extensive. In the winter season the flow of water gets to be very heavy in this place. Being the lowest of all those workings, it drains to the pumps here; and this winter the present pumping machinery has not been large enough to keep the water out, so that there has been very little coal coming from the lower level for some time. Now they are erecting another large pump, which will be working two or three days from now, so that the mine will be kept dry without causing any delay to the working of it.

#### FITZWILLIAM MINE.

"There has been nothing doing at this mine in the way of taking out coal since the end of April last, but there is a likelihood of it being started again. This Company has been carrying on very extensive works in exploring and opening new mines. Amongst them is the shaft I mentioned in my previous report. It is now down to the depth of 450 feet, which leaves 150 feet to get to the coal. Owing to a strong inflow of water they had to stop work in the bottom about two months ago until they get a large engine erected, which is to be a double engine with two 30-inch cylinders, seven feet stroke. This engine is supposed to be able to do all the work in the way of taking out water, and all the hoisting that will be required at this place. About 75 yards to the north of No. 1 shaft they are putting down another shaft 16 feet in diameter, which is now down 120 feet, having gone through one vein of coal two feet thick, which is hard and good. At this shaft there is also a double engine with two cylinders, 16 inches diameter, four feet stroke. This engine has been worked in the No. 1 shaft for a short time. All this machinery, with boilers and appliances for the same, with pumps, gearing, rails, &c., came from England during the past year.

"There is also a new mine starting at Southfield. A tunnel has been put in 250 yards in the coal, but it is not so thick and regular as it is expected to be when further in. From the commencement it has varied in thickness from one to ten feet. Ahead of this tunnel there were a series of bore-holes put down some time ago, which proved that the coal they went through with those borings varied in thickness from six to twelve feet. It is to be hoped that at this place there will be a profitable and extensive mine. As the tramway is nearly all graded and about one-half of it laid with rails, and the other half is about ready for them, there will be no delay, when they once get into the coal, to get it to the wharf.

"In the Westfield, they put down a bore-hole, but did not succeed in finding the coal. Now, they are putting down another, which shows good indications of getting what is known here as the Wellington coal.

## WELLINGTON COLLIERIES.

## WELLINGTON MINE.

"This is the slope mentioned in a previous report. It is down about 1,000 yards. The coal mining here, as in all the other mines belonging to this Company, is wrought on the pillar and stall system, and is hauled out by a powerful double engine erected some distance from the entrance or mouth of the slope. This being the main travelling way into the mine, it is kept in good order and is quite safe. The roof is supported on timbers from 12 to 15 inches in diameter, which are always renewed from time to time as required, being put in in a substantial and workmanlike manner. The signal, or telegraph, runs the entire length of the slope, with a battery in the engine-house to which is attached a bell fixed near to the engine driver. This signal can be immediately utilized on any part of the slope. There are four levels worked from here, two to each side of the slope, known as 9 and 10, on one side, and 7 and 9 on the other. The coal in these places is from six to ten feet thick and is of well-known good quality. I inspected all these places frequently during the past year when the miners were at work, so that I could see them in their stalls and observe the condition of the mine while they were working, and also hear if there were any complaints. I have frequently enquired if they had anything to report to me about, which was not as they thought it should be, but there have not been any complaints made to me, either verbal or otherwise. I frequently tell them about the dangers of the roof, that they cannot be too careful in attending to the propping of it, and other dangers connected with mining, as they are exposed to them in every movement.

"The ventilation of this mine is obtained partly by a large furnace at the bottom of one of the upcast shafts, and partly by a large fan worked by a double engine erected at the top of another upcast shaft. The No. 2 shaft is also ventilated by means of this fan, being 30 feet diameter and 10 feet wide. Ventilation is good. There are three main divisions of air travelling here, which are conducted well into the workings by stoppings, and when near the face of the stall by brattices. When a sufficient distance has been cut by a connection put through to the adjoining stall, as you will have seen that the plan of working is pillar and stall, the air, after diluting the gases, goes away with the smoke to the furnace and fan shafts. In this mine there is now very little fire-damp met with. The fireman sometimes sees it when examining the works in the morning previous to his notifying the miners that the works are all clear or otherwise. They also examine the old works frequently before the pillars are taken out. It was in this mine where the foreman and other two men were slightly burnt. They were going upon a large pile of rock which had fallen out of the roof, the foreman being first, the other two following, none of them having a safety lamp. On the top some gas had collected, which kindled at their naked light. This is the only explosion of gas in this mine during the past year. The manager is very strict in seeing that the firemen attend to their duty, for on them great responsibility rests as to the safety of the mine for the workmen. One fireman cannot leave the mine till another one takes his place, so that the mine is never without one. I have been through all the working places, airways, and a great part of the old works, and I have not seen any gas in the mine during the past year, having a safety lamp with me sometimes but not always when making these inspections.

"There are six different ways out from this mine. Most of them are in order for use if required. I have always found a good stock of timber on hand and every other thing which would appear to be necessary for the safety of the workmen and the working of the mines.

## No. 2 SHAFT (OR SOUTH WELLINGTON).

"I have examined this pit frequently during the year, but at the end of the month of October work was stopped in it, and there is not likely to be any coal taken out before spring. The works are in good order, standing ready to take out coal, which will be principally from the pillars. Up to the time of stopping the works were kept in good order; and I may here state that there has not been any accident of any kind in the pit, with the exception of a miner getting slightly burnt by injudiciously returning to a shot. This place is well ventilated, which is caused by the same fan mentioned as partly ventilating the Wellington mine. I have frequently found 300 cubic feet of air per minute for each man, and it has been almost entirely free from fire-damp.

## No. 3 PIT, WELLINGTON COLLIERY.

"You will see by a previous report that they had got coal in this shaft, and were putting up machinery, head gear, &c., so as to be able to start to take out coal. Now the works are

in good order and they are getting out about 150 tons per day, but at present they cannot employ more than 20 men in it at any one time, as there is no connection or outlet, and the law restricts them to the above number. This will be got over, however, in a few days, as they are about to connect with the place known as the fan shaft, which will also be the means of ventilation. As they are limited to the above number of men, they are utilizing them to the best advantage by extensive opening out and proving their coal.

"There is a slope down about 500 yards, with good hard coal all the way varying in thickness from eight to eleven feet, which is being continued and proving to be a good and extensive mine. There is a double engine placed at the top of this slope made by Mr. Joseph Spratt of Victoria, which any engineer might be proud of. Ventilation here at present is obtained by a steam jet, which makes good air for the number of men employed. Between No. 2 mine and this one (No. 3) there is a large down throw, or fault, which makes this like opening up a new field. It gives off considerable gas, particularly in close places, such as levels and headings, which have to be carefully attended to, so that the air is brought close to the face by brattice or otherwise.

"You will observe that there were quite a number of persons slightly burnt here, and that negligence or oversight was principally the cause of these explosions. This, I trust, will prove a warning to all concerned not to go without a safety lamp where fire-damp has been seen or is suspected, but to examine and make sure that there is nothing of the kind before taking a naked light in. To all appearance, there is every probability of there being a large output of coal from this pit this year.

#### ADIT LEVEL.

"In the report of 1881 mention is made of an adit level entering from the valley of the Millstone river. This level was run in about 300 yards, where it connected with the Wellington mine, which is now all as one mine. At present there is quite a large output of coal per day from this place. The workings here are, as in the other mines, on the pillar and stall system, the coal being six feet thick and very hard. This level is of great value to the Company, as all the water from the mine above this level will run out here.

"Ventilation is caused by a large furnace built at the bottom of the upcast shaft. Air is good, although sometimes the brattice here, as in all the other mines, is generally further back than the Mining Law allows. The blasting is done with heavy charges of gunpowder, some times as much as two pounds in one charge, so that brattice nine feet off would be almost sure to be broken down, which would be labour lost as well as timber destroyed; but considering that there is little or no gas seen here it is not necessary to keep it so close.

#### No. 4 SHAFT, WELLINGTON COLLIERY.

"This shaft, which was recently put down, is on the bluff overlooking the valley. It is 633 feet deep, with a bore-hole in the bottom 63 feet further, so that this is the deepest shaft about here, being about 700 yards east of No. 3 shaft, and about 250 yards in a north-easterly direction from the bottom of the slope in No. 3. In going down with this shaft, they went through several thin veins of coal, but, at the depth of 350 feet from the surface, they struck what is known as the Wellington seam of coal, which proves to be 10 feet thick, hard, and of its usual good quality. Though the drive is only in about 30 yards, yet it gives off a considerable amount of gas, the miners working only by the light of a safety lamp. But it is most likely that, like all the rest of the mines about here, as it gets opened out, the fire-damp will decrease. At present, they are working about the shaft, and on the top, getting everything in good working order, so that everything may be safe, as far as can be seen. That part of the shaft below the above-mentioned seam of coal, has been put down for the purpose of driving a tunnel through the fault, to connect with the workings of No. 3 shaft. This tunnel will be used for taking out coal, and also for the purpose of ventilation.

"A contract has been let for building a railway to this pit, being over a mile in length, to connect with what is known as the North Wellington railway. This company may be congratulated on their success in finding this coal, as well as the prospect of having a large output of coal during this year (1883).

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### EAST WELLINGTON COAL Co.

"This is a new work, with Gabriel Wingate, mining engineer, superintendent. This company having purchased what was known as the Westwood estate in Mountain district, situated in the valley of the Millstone river, and about half-way between Nanaimo and Wellington; and having obtained possession of this property in August last, immediately commenced operations by starting to sink a shaft 18 feet by 8, throwing out the gravel and rock to a depth of 30 feet, where they found the rock solid, and commenced to build up with timber, filling the space up between the timber and the wall with clay, and continued this to the surface, so that they have the satisfaction of knowing that the surface-water is shut out from the shaft. A steam-engine has been put up as a temporary one, to hoist the rock out, and what water may be met with, which, so far, is very little. They have gone through three thin seams of hard coal, one of them 2 feet thick. Now the shaft is down about 200 feet, and they have the prospect of getting, very soon, what is known as the Wellington coal. The line of railway is also located and surveyed to Departure Bay, a distance of  $3\frac{1}{2}$  miles. It is of easy grade, and will not be difficult to get ready for the rails, a good part of which is already on the ground. There is also another large hoisting engine ready to start, in addition to that mentioned above. This is a double engine, having 14-inch cylinders with three feet stroke, and two large tubular boilers generate steam. With this engine and boilers, there are also pumps, gearing, pulleys, and other appliances necessary to put it in good running order. This machinery will be able to hoist a large quantity of coal per day, at the depth this shaft will be.

"In addition to the above works, this company is building a large sawmill, with steam-engine and boiler attached to the same. This mill is also being erected in the valley, near to the shaft, with a lot of good timber close at hand, so that in a short time it will be cut into lumber.

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"There has been some prospecting done at Comox, by Mr. T. D. Jones, of Nanaimo, during the past year. He has got a boring machine wrought by a steam-engine, and has put down a bore-hole in the valley to the depth of 675 feet. The coal has not been reached, although the prospects for it are good; but it may be very deep in that locality. He is now working in another place, and it is to be hoped he will be successful in finding such a seam of coal as will be a reward for his labour and outlay, and a boon for the district and country at large.

"From the energy and enterprise of these different coal companies in carrying on their works and opening out new coal mines, thus investing a large amount of capital, we may expect a large increase of the output of coal during the year we are now commencing. All these new works will doubtless soon add very largely to the output of coal of this district, and cause such an influx of workmen as will give a fresh impetus to trade and contribute in no small degree to the general welfare and prosperity of the Province.

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#### ACCIDENTS IN AND ABOUT NANAIMO AND WELLINGTON COLLIERIES FOR THE YEAR 1882.

"4th January—Henry Maguire, miner, got his ankle broken by a piece of rock falling on him when going to work in Chase River Mine.

"10th February—John McLean, fireman and track layer in No. 3 shaft, Wellington Colliery, was seriously injured about the back by a piece of coal falling on him from the roof while at work.

"20th February—A Chinaman, working with George Old, miner, was killed by a piece of rock falling on him from the roof, when taking out pillars (coal) in Chase River Mine.

"3rd March—George Reay, miner, was seriously injured by rock falling on him when at work taking out pillars in the Wellington Mine. He had been frequently told by the foreman to be careful. The above George Reay died on 8th March.

"17th March—William Gilbert, miner, was slightly burnt about the face and hands by an explosion of gas, when at work in his stall in Chase River Mine.

"31st May—John Andrews, mule driver, had his leg broken by a fall of rock from the roof, when at work in the Wellington Mine.

"3rd June—Ah Cay, Lin Sin, and Say Loy, Chinamen, were burnt by an explosion of gas in No. 3 shaft, Wellington Colliery. They went into a place which was fenced off. The fireman having examined it in the morning, there was no gas; four hours later the foreman was in the same place and found all clear; later the Chinamen went in, not having anything to do there, hence the explosion as above.

"24th June—A Chinaman working with William Brinn, miner, was killed by a piece of rock falling on him when taking out pillars in Chase River Mine. In this place the coal was 18 feet thick.

"1st July—George Cracey, miner, was burnt about the hands and arms by an explosion of gas in No. 3 shaft, Wellington Colliery. He had been out of his stall for sometime, and returned carrying his lamp on his head; a little gas having collected near the roof, hence the explosion.

"10th July—James Frame, miner, was slightly injured in No. 2 shaft, Wellington Colliery, by injudiciously returning to a shot, thinking it had gone out, but when near to the face the blast went off, having burned longer than he expected.

"17th July—William Montgomery and William Biggs, sinkers, were burnt by an explosion of gas in No. 4 sinking shaft, Wellington Colliery. This is the first gas that has been seen in this shaft, although they examined it frequently with a safety lamp.

"18th July—George Churchill, track layer in Chase River Mine, met with a serious injury by being jammed on a platform by the descending carriage on a self-acting incline.

"1st August—William Noye, miner, was injured in the Wellington mine, by a piece of rock falling on him when at work in his stall.

"8th August—Henry Adams was killed, and William Craven and John Robinson were severely burnt by an explosion of gas in No. 4 sinking shaft, Wellington Colliery.

"11th August—Ah Hoe, Chinaman, had his back dislocated by coming in contact with the roof, when sitting on a loaded car which was being hauled by an engine up an incline, in the Chase River Mine, being an infringement of the Mining Act, and which the workman is strictly charged not to do. The above Chinaman died on 26th August.

"27th September—Michael Wilkinson, miner, was slightly burned about the face by an explosion of gas in his stall, in the Wellington Mine. He went home to dinner, and while away a little gas had collected in his place; when he returned he kindled it with his naked light.

"20th November—Thomas Browne, miner, was seriously bruised about the body, being caught by the ascending cars when crossing the slope in the No. 3 Wellington Pit, after being told the cars were near at hand.

"27th November—A Chinaman was slightly hurt in the Chase River Mine, by a piece of coal which came down a shute and struck him on the leg.

5th December—David McKinlay, miner, in Wellington Mine, was seriously injured about the head and shoulders, being struck by a piece of coal thrown from a shot fired by another man, without letting McKinlay know he was going to blast, although aware that the two places were about connected.

"6th December—Louis Corteu, miner, was slightly bruised about the shoulders while at work in Wellington Mine.

"12th December—Robert Scott, overman, John Richards, and Allan Stevenson, miners, were slightly burnt about the hands and arms by an explosion of gas in the Wellington mine. Stevenson was taking out pillars and had got through to where the roof had caved to a considerable height; Scott had got on the top of the cave, followed by Richards and Stevenson, all three having naked lights. They had not tested with the safety lamp to see if there was any gas. The gas had collected there, and they kindled it with their light. Hence the burning. The fireman could not find any gas about the cave when going his rounds, and he could not get on the cave until such time as an opening was made.

"20th December—John Saunders, miner in No. 3 pit, Wellington Colliery, was cut about the face and arms by the premature firing of a shot. The cause is thought to have been a defective squib.

"In making out my report for the year that has closed, I am sorry to have to return a list of so many accidents, both fatal and serious—viz., 29 in all.

"Nine of these were by falls from the roof; 13 by explosions of gas; 3 by shots; 3 by the cars; and 1 by falling timber from the effects of an explosion of gas in a shaft. You will perceive that five of these were fatal; three of them were at the face where the miners were working taking out pillars; and one by riding on the top of loaded cars hauled on an inclined

plane by a steam engine. The other was in a sinking shaft; and by reading the evidence taken at the inquest on the body you will have the full particulars.

"With the exception of one, all those by explosions of gas were in the Wellington Colliery, which is well ventilated. There have not been any complaints made to me about the air during the past year, and I have not seen any gas in the mine in all that time. I always found a good current of air passing through the mine, and about double the quantity per man of what is mentioned in the Mining Act. In No. 3 pit there are places which sometimes give off a considerable amount of gas. There are places sometimes in the stalls which give off a little gas where the air does not strike as it should do, although the brattice is close up, and if there is any gas it will collect in those places. The accidents reported of Wm. Montgomery and Wm. Biggs being burnt by an explosion of gas in No. 4 sinking shaft may be thus explained. I was there shortly after the explosion. Montgomery told me there were two safety lamps at the shaft. They went down and examined it, but there was no gas to be found, but to make it more sure they sent down a naked light on the bucket by itself. It went to the bottom, and was brought up again to the top, burning all the time. Then the men above-mentioned got into the bucket to go down, and, as near as they could judge, when about 60 feet from the bottom or nearly 300 feet from the surface, there was an explosion which burnt them about the face, arms, and hands. The explosion was on the downcast side. They could not account for it, as they thought they had used every precaution against danger. Ventilation was good, and they said they never had any cause to complain about the air. The drilling was done by a machine worked by steam which exhausted on the upcast side, and the brattice was down well towards the bottom. In looking over the list of accidents caused by explosions of gas, you will see that with the exception of the one above mentioned, all these explosions were caused by want of proper care on the part of the workmen. None of these accidents happened at the start of the shift, but when the men having been out of their stall for some time returned to them without having them examined to see whether there was any gas or not. Then we have those Chinamen going into a place which was fenced off, where no one was allowed to go without a safety lamp. You will also observe that there have been eight accidents by falls from the roof. Two of them took place on the travelling road; all the others were at the face of the workings, which are under the control of the miners themselves. So it would seem that the number of accidents in and about mines can only be lessened by greater care and more intelligence on the part of the miners, and also of strictness on the part of the manager. But, as long as there are mines, there always will be some accidents which no human care or foresight can prevent. You will also see in looking over this report, that there have been a great many of the casualties mentioned in it of a preventible character, and which would be unjust to charge upon the proprietors or managers of the mines, when they have provided every appliance necessary for safety, but are traceable either to the carelessness or recklessness of the workman. I hope that during the year we have entered on every one will use the greatest care (as a mine which gives off gas having one reckless person in it might cause a sad calamity to all those around him), so that when it comes to a close there will be few, if any, accidents to record.

"The following statement shows the quantity of coal raised and the number of fatal and non-fatal accidents during the past five years:—

Year.	Tons raised.	Fatal Accidents.	Non-fatal Accidents	Tons raised per life lost.
1878. ....	170,496	3	7	56,832
1879. ....	241,301	12	18	20,108
1880. ....	267,595	3	13	89,198
1881. ....	228,357	1	11	228,357
1882. ....	282,139	5	24	56,428

"Appended hereto are the Annual Colliery Returns.

"I have, &c., ARCHIBALD DICK,  
Government Inspector of Mines, Nanaimo.

"To the Hon. the Minister of Mines."

## NANAIMO COLLIERIES.

Output of Coal for 12 months ending December 31st, 1882.	No. of Tons sold for home consumption.	No. of Tons sold for Exportation.	No. of Tons on hand 1st January, 1882.	No. of Tons unsold, including coal in stock, Jan. 1st, 1883.
51,429 5-20	14,032 10-20	43,842 10-20	6,887 17-20	442 2-20

  

Number of hands employed.			Wages per day.		
Whites.	Chinese.	Indians.	Whites.	Chinese.	Indians.
187	68	18	\$2 to \$4	\$1 to \$1 50	\$1 25 to \$2 50
Total hands employed ..... 273			Miners' earnings, per day ..... \$2 50 to \$5		

Name of Seams or Pits.—Chase River, Douglas, and Southfield.

Value of Plant.—\$140,000.

Descriptions of Seams, tunnels, levels, shafts, &c., and number of same.—Chase River, worked by slope; 4½ feet to 16 feet thick; 5 levels, 6th starting; Douglas Pit nearly exhausted; Southfield adit driven 240 yards (about;) seam of coal variable and somewhat faulty; two shafts sinking—one down 440 feet, the other 120 feet.

Description and length of Tramway, Plant, &c.—Railway, 2½ miles; locomotives, 3; several powerful winding engines, steam pumps, and 100 coal cars, averaging 5 tons each.

M. BATE.

## WELLINGTON COLLIERY.

Output of Coal for 12 months ending December 31st, 1882.	No. of Tons sold for home consumption.	No. of Tons sold for Exportation.	No. of Tons on hand 1st January, 1882.	No. of Tons unsold including coal in stock January 1st, 1883.
230,710 11-20	42,129 5-20	188,569	2,430 16-20	2,443 2-20

  

Number of hands employed.				Wages per day.		
Boys.	Whites.	Chinese.	Indians.	Whites.	Chinese.	Indians.
None.	316	285	None.	\$2 to \$3 75	\$1 to \$1 25	None.
Total hands employed ..... 601				Miners' earnings per day ..... \$3 to \$4 00		

Name of Seams or Pits.—Wellington.

Value of Plant.—\$245,000.

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Descriptions of Seams, Tunnels, Levels, Shafts, &c., and number of same.—6 to 10 feet thick; 2 shafts working, 1 not working; 1 slope working; 1 adit level working; 2 air shafts; 1 of these large furnace at bottom, the other a ventilating fan, 30 feet diameter, driven by a pair of engines.

Description and length of Tramway, Plant, &c.—10 miles of railway; 5 locomotives; 150 wagons; 5 stationary engines working; 2 engines not used at present; 4 steam pumps; 5 wharves for loading vessels, with bunkers, &c.

*Pro* DUNSMUIR, DIGGLE & Co.,  
CHRISTOPHER LOAT.



# PROVINCE OF BRITISH COLUMBIA.

## TABLE

Showing the actually known and estimated yield of gold; the number of Miners employed; and their average earnings per man, per year, from 1858 to 1882.

Year.	Amount actually known to have been exported by Banks, &c.	Add one-third more, estimate of gold carried away in private hands.	Total.	Number of Miners employed.	Average yearly earnings per man.
1858 (6 months.)	\$ 390,265	\$ 130,088	\$ 520,353	3,000	\$ 173
1859	1,211,304	403,768	1,615,072	4,000	403
1860	1,671,410	557,133	2,228,543	4,400	506
1861	1,999,589	666,529	2,666,118	4,200	634
1862	3,184,700	1,061,566	4,246,266	4,100	517
1863			4,400	482	
1864	2,801,888	933,962	3,735,850	4,400	849
1865	2,618,404	872,801	3,491,205	4,294	813
1866	1,996,580	665,526	2,662,106	2,982	893
1867	1,860,651	620,217	2,480,868	3,044	814
1868	1,779,729	593,243	2,372,972	2,390	992
1869	1,331,234	443,744	1,774,978	2,369	749
1870	1,002,717	334,239	1,336,956	2,348	569
1871	1,349,580	449,860	1,799,440	2,450	734
1872	1,208,229	402,743	1,610,972	2,400	671
1873	979,312	326,437	1,305,749	2,300	567
1874	1,383,464	461,154	1,844,618	2,868	643
1875	1,836,178	618,726	2,474,904	2,024	1,222
1876	1,339,986	446,662	1,786,648	2,282	783
1877	1,206,138	402,045	1,608,182	1,960	820
1878	1,062,670	1-5th 212,534	1,275,204	1,883	677
1879	1,075,049	,, 215,009	1,290,058	2,124	667
1880	844,856	,, 168,971	1,013,827	1,955	518
1881	872,281	,, 174,456	1,046,737	1,898	551
1882	795,071	,, 159,014	954,085	1,738	548
			\$47,141,713		