# FIFTH ANNUAL REPORT

OF THE

# MINISTER OF MINES

FOR THE

YEAR ENDING 31ST DECEMBER,

1878,

BEING AN ACCOUNT OF

## MINING OPERATIONS FOR GOLD, COAL, ETC.,

IN THE PROVINCE OF

## BRITISH COLUMBIA.

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VICTORIA: Printed by RICHARD WOLFENDEN, Government Printer,
at the Government Printing Office, James' Bay.

PROVINCE OF BRITISH COLUMBIA.

# TABLE

**Shewing the actually known and estimated yield of Gold; the number of Miners employed; and their average earnings per man, per year, from 1858 to 1878.**

| 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 | 1,856,178 | 618,726 | 2,474,904 | 2,024 | 1,222 |
| 1876 | 1,339,986 | 446,662 | 1,786,648 | 2,282 | 783 |
| 1877 | 1,206,136 | 402,045 | 1,608,182 | 1,960 | 820 |
| 1878 | 1,062,670 | (1 fifth) 212,534 | 1,275,204 | 1,883 | 677 |
| | | | $42,837,004 | 64,094 | |

# PROVINCE OF BRITISH COLUMBIA.

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# MINING STATISTICS FOR 1878.

| Districts and their Divisions. | No. of Claims worked. | No. employed. | | Rate of Wages. | | Estimated yield. | Value per Ounce. | |
|---|---|---|---|---|---|---|---|---|
| | | Whites. | Chinese. | Whites. | Chinese. | | | |
| **Cariboo.** | | | | | | | | |
| Barkerville Polling Division: | | | | | | | | |
| Williams Creek | 19 | 76 | 59 | $ 5 00 | $ 2 50 | $ 72,790 | $15 70 to | $16 35 |
| Stout's Gulch | 2 | 5 | 18 | ,, | ,, | 14,780 | 17 30 | |
| Lowhee creek | 2 | 5 | 16 | ,, | ,, | 3,500 | 17 50 | |
| Mosquito creek | 5 | 10 | ..... | ,, | ,, | 4,100 | 17 50 | |
| Grouse creek | 8 | 18 | 22 | ,, | ,, | 10,900 | 16 04 | |
| Antler creek | 6 | 8 | 16 | ,, | ,, | 5,000 | 16 00 | 16 75 |
| Cunningham creek | 5 | 9 | 16 | ,, | ,, | 9,000 | 16 16 | |
| Conklin's gulch | 6 | 20 | ..... | ,, | ,, | 6,200 | 16 00 | |
| Stevens, California, and Begg's creek | 6 | 8 | 16 | ,, | ,, | 3,100 | 15 75 | 16 40 |
| Willow river and tributaries | 7 | 17 | ..... | ,, | ,, | 2,000 | 16 00 | 17 00 |
| McCallum, Walker, and Eureka gulches | 3 | 2 | 5 | ,, | ,, | 1,000 | 16 00 | 16 50 |
| Lightning Creek Polling Division: | | | | | | | | |
| Lightning creek | 7 | 49 | 35 | $4 to $5 | $ 2 50 | 63,196 | 16 70 | 17 60 |
| Last Chance creek | 3 | 1 | 4 | ,, | ,, | 1,300 | 17 75 | |
| Van Winkle creek | 1 | 4 | ..... | ,, | ,, | | | |
| Chisholm creek | 4 | 11 | ..... | ,, | ,, | 875 | 17 50 | |
| Coulter creek | 1 | ..... | 4 | ,, | ,, | 300 | 17 50 | |
| Lower Lightning creek | 10 | 6 | 47 | ,, | ,, | 19,570 | 16 00 | 17 55 |
| Cottonwood river | 10 | ..... | 39 | ,, | ,, | 22,630 | 16 00 | 17 55 |
| Peter's creek | 5 | 16 | 10 | ,, | ,, | 3,700 | 17 75 | |
| Nelson creek | 6 | ..... | 26 | ,, | ,, | 39,550 | 17 65 | |
| Burn's creek | 6 | 5 | 19 | ,, | ,, | 18,300 | 17 75 | |
| Davis creek | 2 | ..... | 12 | ,, | ,, | 4,124 | 17 65 | |
| Ruchon creek | 2 | 2 | ..... | ,, | ,, | 500 | 17 65 | |
| Berry and Deadwood creeks | 3 | 11 | ..... | ,, | ,, | 500 | | |
| Perkins gulch | 1 | 3 | ..... | ,, | ,, | 1,000 | 17 45 | |
| Fountain creek | 1 | ..... | 4 | ,, | ,, | 600 | 17 60 | |
| *Dragon creek | 2 | 2 | ..... | ,, | ,, | | | |
| Keithley Creek Polling Division: | | | | | | | | |
| Keithley and other creeks | 35 | 40 | 180 | $5 00 | $ 3 00 | 57,000 | 16 30 | 17 40 |
| Fraser River, Lower Quesnelle, Canon & Hixon cks. | 15 | ..... | 120 | ..... | ..... | 15,000† | 15 00 | 17 00 |
| **Cassiar.** | | | | | | | | |
| Dease creek | 46 | 90 | 258 | $ 6 00 | $ 4 00 | 62,800 | 15 30 | |
| Thibert creek | 31 | 91 | 27 | ,, | ,, | 65,600 | 16 00 | |
| Defot creek | 27 | 84 | ..... | ,, | ..... | 75,000 | 16 00 | |
| McDame and adjoining creeks | 53 | 184 | 60 | ,, | $ 4 00 | 101,320 | 17 00 | |
| **Kootenay.** | | | | | | | | |
| Wild Horse Creek | 16 | 13 | 32 | $ 4 00 | $ 3 50 | 20,650 | 18 00 | |
| Perry Creek | 4 | 2 | 16 | ,, | ,, | 4,750 | 18 00 | |
| **Kamloops.** | | | | | | | | |
| Tranquille River | 6 | ..... | 8 | ..... | ..... | 2,400 | 16 00 | |
| Fraser River | 2 | 6 | 16 | ..... | ..... | 14,000 | 15 00 | |
| | 368 | 798 | 1,085 | | | $ 727,335 | | |

* Prospecting.
† Estimated from best information obtainable.

# REPORT

OF THE

# MINISTER OF MINES

## *FOR THE YEAR 1878.*

*To His Honour* ALBERT NORTON RICHARDS, *Lieutenant-Governor of the Province of British Columbia:*

MAY IT PLEASE YOUR EXCELLENCY:—

I have the honour herewith to present to Your Honour the Fifth Report of the Mining industries of the Province.

All of which is respectfully submitted.

I have the honour to be,
Your Honour's obedient servant,

T. BASIL HUMPHREYS,

*Provincial Secretary & Minister of Mines.*

18*th March*, 1879.

# REPORT.

## GOLD MINING.

The amounts actually exported by the Banks for 1878 are as follow:—

| | |
|---|---|
| Bank of British Columbia | $264,710 64 |
| Bank of British North America | 417,856 96 |
| Garesché, Green & Co | 380,102 58 |
| Total | $1,062,670 18 |

Hitherto one-third has been added to cover the amount of gold exported in private hands. It seems, however, impossible to believe that private export can possibly reach that proportion. Allowing a fifth, the total yield for the year 1878 would be about $1,275,000.

The reports from the Gold Commissioners and Government Agents do not nearly reach this amount, but—as it was remarked in the Mining Report of last year—it is most difficult for these officers to correctly estimate the yield of gold, while, on the other hand, there can be no possible doubt as to the amount exported by the Banks.

CARIBOO.

It would be useless to deny that the great hopes entertained during the earlier part of the season of the past year that the quartz mining interests of Cariboo were about to be successfully developed, have not been realized. It would appear that the people of the Province failed to understand that the development of quartz mines involved the expenditure of a vast amount of capital. The sums expended have probably not been altogether thrown away. Great experience has been gained, and it is the opinion of most practical miners that, in the near future, the quartz ledges of Cariboo will prove themselves to be profitable investments for capitalists.

The few well-known creeks of Cariboo have now been worked for so many years that it cannot but be expected that the yield of gold should fall off in the absence of the discovery of new and important creeks.

To the indefatigable prospectors of Cariboo, the Province must look for such discoveries, and it would appear from the reports of the Government Agents that on many outlying creeks such work is being vigorously prosecuted.

On Lightning Creek mining was carried on for about ten years before the richest ground—so far as yet known—was worked.

On both Antler and Grouse Creeks rich leads of gold were suddenly lost. This was notably the case on Grouse Creek in the Heron Claim, where it entirely disappeared, and although prospected for almost continuously ever since 1867, has never yet been found. That it exists, there can be little doubt. Antler Creek has also puzzled the most experienced miners. For a short distance rich ground was found—either on the high rock or in the bed of the stream—but repeated efforts have failed to discover paying ground either above or below. That gold should have been deposited from one or more given points on a creek is perfectly comprehensible, but very few experienced miners will admit that a heavy run of gold suddenly ceases to exist. It is not, therefore, being unduly sanguine to expect that Antler Creek may yet again be the scene of mining prosperity.

The recent discoveries made in the Horsefly Country are of importance and most satisfactory. This section of the Cariboo District is situated on the direct line of the gold belt—which apparently extends from Kootenay to Cassiar,—and many miners have long considered that this part of the Province would eventually be proved rich in gold.

The remark of the Government Agent at Richfield, referring to quartz, regretting the absence of "united effort among the owners of adjoining locations," is most sensible. There can be no doubt that thousands and thousands of dollars have been needlessly expended for want of "united effort." The Agent is right in describing the "Bonanza" lode as "an immense body of ore," and the problem to be solved is whether the ore at lower levels than those yet reached is of a grade high enough to admit of its being profitably worked. An earnest effort in this direction would be of great advantage to the Province. Since the Government Agent wrote his report, an application has been made for a lease of the lower part of William's Creek, known as the Meadows. This is satisfactory, being good proof that, notwithstanding previous failures, confidence in the richness of the ground remains unabated.

The reports of the Government Agents at Richfield and the Forks of Quesnelle are, to a great extent satisfactory and most certainly interesting. The yield of gold from the alluvial deposits of this important district has, no doubt, decreased, but probably only temporarily; and it should be borne in mind that it was, to some extent, caused by the quartz excitement. A large number of miners were prospecting for quartz and running tunnels in rock, when, under other circumstances, they would have been prospecting for, or working in, alluvial diggings.

"RICHFIELD, October 27th 1878.

"*To the Hon. the Minister of Mines.*

"SIR,—I have the honour to enclose herewith the mining statistics of Barkerville, Lightning Creek, and Quesnelle Polling Divisions, for the year, which, although exhibiting a total yield of gold somewhat less than that of last year, is, nevertheless,

a larger yield per man for the actual time of working, as a large number of men enumerated in the tables was employed during a portion of the year in prospecting the quartz veins; and you will notice that in making out the statistics I have not strictly adhered to the forms as sent me. When miners understand that their claims will not be separately reported in those statistics, we can more easily obtain correct information as regards the amount of gold they have taken out, hence the change I have made in the forms.

"Having obtained the total amount of gold dust purchased by the Banks for the year, viz., $387,017, and after deducting therefrom the amount brought in from Keithley Creek and the Forks of Quesnelle, and also making an allowance for the probable amount taken out of the district in private hands, it would appear that the figures in the tabular statement may be considered approximately correct, as the following tabulated statement will show:—

| | |
|---|---|
| Gold yield of Barkerville Polling Division | $ 132,370 |
| ,, Lightning Creek do. | 176,445 |
| ,, Quesnellemouth do. | 15,000 |
| Amount received from crushing Quartz | 1,000 |
| Estimated amount not reported to Collectors | 30,000 |
| | $ 354,815 |

| | |
|---|---|
| Amount purchased by Banks, less $48,000 which came from Keithley and Forks of Quesnelle | $ 339,017 |
| Estimated amount taken out of District in private hands | 15,798 |
| | $ 354,815 |

"Considerable prospecting has been going on during the latter portion of the season on outlying creeks. A large company has been formed for the purpose of prospecting Deadwood Creek, and it is their intention to carry on operations during the winter.

"On Peter's Creek two companies are now prospecting, and I have learned that one of them, on reaching bed-rock, obtained a prospect sufficient to pay wages. Should this prove continuous, a large amount of ground is now open for location, as the creek is some eight miles in length.

"On Lower Lightning Creek, about four miles above its confluence with Swift or Cottonwood River, a company (the Big Bonanza) has sunk a shaft some eighty feet, obtaining at that depth a good prospect, but was, I understand, unable to reach bed-rock, in the deepest part of the channel, owing to the quantity of water with which the company had to contend. They are still persevering, putting on pumps and machinery of greater capacity than those they have hitherto used.

"Several companies have made locations on the benches of Antler Creek, some ten miles from its source, from which good prospects have been obtained. As these benches are extensive, I anticipate that quite a number of men will here find remunerative employment for several years.

"Snowshoe Creek, a tributary of Keithley, has attracted considerable attention during the past year, and several companies are now prosecuting their researches with every prospect of success.

"In the southern part of the district, important discoveries have been made by Chinamen on Horse-fly River. These discoveries immediately attracted the attention of the farmers and ranchmen of that vicinity. Several locations have been made and companies formed by white men, some of which it is reported have proved to be rich. The country is new and extensive, and many believe that this section of the district will prove to be a most important mining camp.

"Mr. Archer, who collected the statistics for Lightning Creek polling division, speaks most favourably of Nelson Creek, which, according to his returns, shows a larger yield of gold per man than any creek or gulch in the district. No white men are working on this creek, and the collector reports still a large amount of unoccupied ground favourable for mining purposes.

"In the principal centres of population, the great attraction during the past year has been the Quartz Ledges.

"These ledges, during the early part of the year, almost entirely monopolized the attention of the miners; and the flattering reports of which attracted, perhaps, 150 men

from abroad; the latter, however, have nearly all left the district. And notwithstanding the fact that no quartz claims as yet are actually giving returns to the owner, it would be difficult, if indeed possible, to find a man in the district who has not the most implicit confidence in the ultimate success of these mines. But I regret to say that there has been a complete suspension of work on all claims located on the Bonanza Lode; and I also deem it most unfortunate that the various companies located thereon do not unite in sinking a shaft, say 500 feet deep, cross-cutting the vein at different levels, thereby proving at once the value of this immense body of ore, and setting at rest a much vexed question among experts.

"Among the companies at present working, the Enterprise is, perhaps, taking the lead in the development of their mines. Having purchased Mr. Samuel Walker's location on Island Mountain, near Mosquito Creek, they employed some six or seven men during the last three months in taking out ore, and at present they have three or four hundred tons on their dump ready for hauling to the mill. They have also procured the use of ten stamps, with their appliances, from the British Columbia Milling and Mining Company, and have placed them in the old Lane and Kurtz shaft house on Williams Creek Meadows, where they have ample facilities for working the mill either by steam or water power. The mill is now ready for crushing ore, and will commence working as soon as there is sufficient snow for hauling the rock on sleighs.

"Mr. J. C. Beedy, of Lightning Creek, is also erecting a small quartz mill, having a capacity equal to five ordinary stamps, which will be ready for operation next month. The flattering result obtained from 1½ tons of ore brought from his location on Burns' Mountain, and crushed at Richfield, has induced Mr. Beedy to erect this mill. At present, there are over 200 tons of rock ready for hauling to the mill, and some twelve men are employed in connection with this enterprise.

"The Forest Company, whose mine is situated on the mountain about one mile east of Richfield, have been working until quite recently. They have now suspended all operations, pending the result of negotiations with Mr. Edwin Russell, of San Francisco, (who recently visited this district) with a view of placing a mill, of the capacity of ten stamps, on the mine.

"The Proserpine Company are sinking on their claim, which is situated near the Forest Mine. This location is most favourably situated, being, it is supposed, where the Wilkinson and Montgomery Lodes join.

"The Quesnelle Quartz Mining Company, whose location is situated on Hixon Creek, about fifty miles from Quesnellemouth, in a north-east direction, have had six men employed during the greater portion of the summer. The quality of the ore taken from this mine is of a higher grade than any yet found in the district. There is now a quantity of the rock on its way to the mill at Richfield, from the crushing of which a favourable result is anticipated.

"The British Columbia Milling and Mining Company, after expending nearly $100,000 in the purchasing and importation of a twenty-stamp mill, the grading and tunnelling of their mine, suddenly suspended all operations. This was, I understand, occasioned by the want of funds, and I trust is only temporary.

"In the development of our Quartz interests, it is to be regretted that there is not more united effort among the owners of adjoining locations in sinking a shaft to a depth that would thoroughly test the value of the lode, rather than expending their limited means, it may be said uselessly, on their various claims. In my next annual report I trust I shall be able to note an improvement in this particular.

"I have, etc.,

(Signed) "JNO. BOWRON.

"*Government Agent.*"

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"FORKS OF QUESNELLE,

"October 22nd, 1878.

"SIR,—I have the honour herewith to forward my report and mining statistics for Keithley Division, Cariboo District; and although this year's report is no improvement on my last, yet the prospects are much better for the coming season, owing to the fact of good prospects being obtained on both Little and French Snowshoe Creeks (which are tributaries of Keithley Creek), and the outlook is good for extensive paying diggings on these heretofore neglected creeks.

"My report of the yield of gold is, in most cases, taken when on my annual rounds, from the owners of the claims. The white men, who I am sorry to say are the fewest in number, give all the required information most cheerfully, but the Chinese do not give me much information; a few of them understand what is wanted, and are apparently willing to tell the truth, but I believe the estimate is tolerably correct so far as it is possible to be obtained.

"I have also visited the Horse-fly country, and found about forty men there, one-half the number being white men. Nearly all of the Chinamen are in one claim, which is paying well. One company of white men are washing, and they also have good pay. There are two other companies of white men who are not washing yet, but have bottomed their shaft and found good prospects. I have, etc.,

(Signed) "W. STEPHENSON,

"*To the Hon. the Minister of Mines.*" "*Government Agent.*

CASSIAR.

The hopes entertained in the Mining Report of last year, with regard to the discovery by Mr. Walker of a new creek, have, unfortunately, not been realized.

It is, however, most satisfactory to be able to report the rich "strike" on Defot Creek. It is a small and short stream, but it yielded during the latter part of last summer gold to the value of about $65,000. The greatest interest attaching to the discovery, however, is the probability of its being the cause of opening up what may prove to be the richest section of the most northern gold-field in the Province.

All mining work in this district is carried on under great and exceptionable difficulties; so much so, in fact, that the wonder is that the percentage of miners coming down "broke" is not greater than has hitherto been the case.

The second report of the Gold Commissioner, dated the 18th December, is decidedly encouraging, and will be read with interest. The importance of Mr. White's tunnel, on Thibert Creek, is very great; affording as it does employment to men at a season of the year when open mining is altogether out of the question.

The estimate made by the Gold Commissioner of the yield of gold is about $120,000 higher for last year than for 1877. Judging by the Bank returns, it is probable that his estimate for 1877 was far too low, and that he is more approximately correct this year.

"LAKETON, CASSIAR,
"18th October, 1878.

"SIR,—I have the honour herewith to forward, for the information of the Government, the Mining Statistics for 1878, and also to report upon this district as follows:—

"Owing in a great measure to the failure of Walker's Creek, and to the scarcity of water in the different streams and gulches, etc., the season now at its close has not proved a prosperous one for miners or others at Cassiar.

"A great many, from reports circulated last autumn, were induced to visit Walker's Creek and that section of this district, and in almost every instance disappointment was the only result of their enterprise.

"The untoward circumstances alluded to having deprived some hundreds of miners of expected employment, several prospecting parties were organized, etc., with no results, however, save to find out to some extent where the gold was *not*.

"Many went down the Deloire and Liard Rivers, penetrating through that country for some hundreds of miles, and their reports, I regret, are not of a nature to induce others to visit the localities where they have been.

"The country towards the head waters of the Stickeen has also been more or less prospected, with a like unfavourable result.

"McDames Creek has but too truly verified my previous reports as to the spotted nature of its auriferous deposits, and has during the past season been chiefly sustained by yields from its First North Fork and some smaller creeks and gulches in that neighbourhood.

"Prospecting on the First North Fork, towards the summit, has been vigorously carried on for the last eighteen months, but with no definite result as yet, the ground proving difficult to work and the bed-rock to strike. The 'Empire' and 'White Grouse' companies' tunnels have been run in for a distance of 1,300 feet and 900 feet respectively.

"About the middle of last August an excitement was created in regard to bar diggings on the Upper Stickeen, distant about seventy miles from Telegraph Creek, and close to where the confluence of the Clap-an and the Stickeen takes place. The prospects obtained at first, however, did not last, and the transport, etc., of provisions to that locality being attended with great expense that discovery has ceased to be of interest to the mining community.

"Dease Creek being principally in the hands of the Chinese, it is very hard to estimate the returns from it this year. A few claims, worked by white men, have done well, and fair prospects are found in its hills, which are yet unworked for want of dumpage.

"Thibert Creek promised well in commencement of season, but later on the majority of the companies seemed to get off the lead. The great scarcity of water experienced this year also caused much loss upon that creek.

"The excitement caused by the discovery of Defot Creek still prevails; being a small creek, however, the majority of those visiting it after the first 'rush' had to content themselves with a look at what has proved to be, for its size, the richest creek yet found in the district. I have seen many nuggets that have been taken from it weighing about 10 ounces each, and one over 22 ounces; have heard that one, nine pounds in weight, has been there unearthed, but not having seen it I am unable to vouch for the correctness of that report. Some $65,000 has been the total output from that creek since its discovery.

"Upon the divide from which Defot Creek heads, I have seen a great abundance of quartz, and the gold taken from Defot Creek, as you approach the summit, has an unwashed appearance, and in many instances seems to have been but recently delivered from the matrix, etc.

"Hopes are entertained of finding other paying creeks in that direction next summer, but it would be well if those thinking of visiting Cassiar in 1879 would bear in mind that there is anything but a certainty awaiting them; and also that McDames Creek, which has hitherto supported several hundred miners, is now almost 'worked out,' and that in consequence a large number of the 'old hands' will have to depend entirely upon the new section for employment in the coming spring.

"A brief sketch, shewing the distances which intervene between the relative centres, etc., of population in this extensive district, may not be out of place, and is given as follows:—Glenora, or Steamboat Landing, is the first arrived at after leaving Wrangel; then comes Telegraph Creek, 11 miles higher up on the Stickeen; both are forwarding depôts for all the merchandize shipped into Cassiar. From Telegraph Creek to head of Dease Lake, 70 odd miles, chained distance; thence to Laketon, 17 miles. Thiberts Creek from Laketon is 9 miles. From Laketon to Defot Creek, over 30 miles. From Laketon to Walker's Creek, over 120 miles; and from Laketon to McDames Creek town (Centreville), over 90 miles. In addition to the above are numerous smaller creeks and gulches, from 8 to 30 miles distant from McDames Creek; also are to be taken into consideration the bar diggings on the Stickeen, Deloire, and Liard Rivers.

"The population this year has been estimated at about 1,500, exclusive of Indians. Of that number, about one-half were scattered throughout the district in unsettled localities, prospecting, etc., many of them having left early this season.

"Very few of all who visited these mines this year have been successful, and I regret to add that the great majority, when leaving this fall, had to trust rather to Providence than their own resources to enable them to reach Victoria or the Sound, where they expected to obtain employment sufficient to supply them with the means of support during the winter.

"This season has been remarkable for the few cases of sickness that have occurred. There have been five deaths, of which two were accidental.

"Only one case of lunacy has come under my notice during the last three years at Cassiar, and that within the past week. The name of the party afflicted is T. O'Brien, a native, I understand, of New York, and a man who is well known throughout the mines in this country. The sympathizing inhabitants of Laketon got up a subscription towards having him taken to Wrangel, *en route* to Victoria or Portland, where proper medical attendance can be had, etc., and the circumstances being brought to my notice, as also the fact of his being entirely destitute, I advanced $50, getting a voucher of receipt for same, on behalf of the Government.

"Criminal cases, for this year, as follows, viz.: Thos. Anderson, Indian, committed last March for the wilful murder of his klootchman, at Glenora; Ah Sue, Chinaman, committed in August last for the unlawful putting off, etc., of bogus or base gold dust. The former has since been in jail, the latter has been let out on bail, and both are awaiting trial.

"Owing to the general depression that prevailed in earlier part of season, packers have not done well, there being but little freight shipped during that time.

"The mines are not over well stocked with provisions, and the same rates are demanded as have been current during last two or three years.

"About 100 miners, it is supposed, will pass the winter upon the different mining creeks, and some 200 are expected to remain at Glenora.

"The steamer 'Lady of the Lake' is still plying between head of Dease Lake and Thiberts Creek. Weather continues moderate, and some mining (open) is still being carried on.

"Having made every effort towards procuring correct statements, I submit the following, viz.:—

| | |
|---|---|
| Dease Creek | $ 62,800 |
| Thiberts Creek | 65,600 |
| McDames, and outlying gulches and creeks | 101,320 |
| Walkers Creek | 35,000 |
| Defot Creek | 65,000 |
| From localities not particularized | 46,000 |
| Allowance for inaccuracy of individual returns, as given by claim owners, who, in that respect, prove more reticent than ever | 99,000 |
| Amount likely to be taken out from date to 31st December, 1878 | 45,000 |
| TOTAL | $ 519,720 |

"I consider the total output for 1878, as above, to be under-estimated. The tabulated return for McDames Creek, etc., is far below what has been the yield from that section, and I feel confident that the given aggregate will be found to be within the number of thousands actually taken from the mines of Cassiar during the year 1878. When, however, the difference in population is considered, there will be found to have been a falling off from last year in the amount of gold produced, etc.

"I have, etc.,
(Signed) "ARTHUR W. VOWELL,
"*Gold Commissioner.*

"*To the Hon.*
"*The Provincial Secretary.*"

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"CASSIAR, 18th December, 1878.

"SIR, * * * * * * *

"Mr. White's tunnel claim, on Thiberts Creek, continues to pay richly, and has afforded employment up to the present to some 18 or 20 miners. Many claims have been taken up in its vicinity, and prospecting is being there actively carried on.

"Reports from the First North Fork, McDames Creek, are, I am happy in being able to report, encouraging. The Pocahontos company, on that gulch, has again got on good pay.

"About fifty-five men are wintering on McDames and outlying creeks; some sixty and upwards on Dease and Thiberts; and about seventy odd in neighbourhood of the Stickeen, exclusive of Indians.

"The season, up to the present, has been unusually mild; Dease Lake remained open and navigable until the 8th instant. We have already had more snow than fell during the entire winter of 1877-78.

"The health of the camp is good, and considering the season of the year the general aspect is favourable.

* * * * * * * *

"I have, etc.,
(Signed) "A. W. VOWELL,
"*Gold Commissioner.*

"*The Hon. T. B. Humphreys,*
"*Provincial Secretary, Victoria.*"

## KOOTENAY.

The report of the late Gold Commissioner of this district will be found below.

"KOOTENAY, 24th September, 1878.

"*The Hon. the Minister of Mines.*

"SIR,—In connection with the tabulated statement herewith forwarded, I have the honour to report, for the information of the Lieutenant-Governor, that the estimate of yield of gold in this district, for the season now passing, has been made after the most careful enquiry, and I think it may be regarded as a very full return.

"A large proportion of our sparse population, that follow mining, have been prospecting the past summer in different parts of the district, and I regret being obliged to state that in no case has even partial success rewarded their efforts.

"Tiede and West prospected on Finlay Creek, about forty miles from this place, in a north-west direction. Booth and Bobier tried Toby and other creeks, at a greater distance, in the same direction. Powers, Lyons, Ridgway, and Moore worked on Perry Creek, and got no return. The latter four, with some five or six other men, spent some time on the Mouille and Weaver Creek, and every one of those prospectors returned empty handed. Some eight or nine white men have since left the country, and others are preparing to follow.

"The Chinese population, however, appear determined to take a firmer hold in this district; they have increased slightly in the last year. They have been making bolder efforts than heretofore to secure a large portion of the trade, and they promise an increase of their countrymen in the district of from forty to fifty next spring.

"The known quartz ledges in Kootenay are in perfect quiet. Some assays procured by H. S. Booth, in Montana, showed returns so small that no person here wants quartz at present.

"All of the above is respectfully submitted by your most obedient servant,

(Signed) "CORNELIUS BOOTH,
"*Gold Commissioner.*"

## OKANAGAN.

With respect to the mines in the Okanagan section of the Yale District, no official report has been received; but the most reliable information obtainable is to the effect, that though the expectations formed by the miners last year have not been altogether realized, nor the yield of gold as large as there was every reason to anticipate, still a number of men found employment, with more or less success, both on Cherry and Mission Creeks. Some work, under the guidance of Mr. Torrance, was also done on the quartz ledge on Cherry Creek, referred to in the Mining Report of last year as containing silver.

This gentleman, representing capitalists in Montreal, has formed a favourable opinion of the silver deposits in this locality, and is most sanguine of success should the company see fit to continue their operations this summer.

## KAMLOOPS.

A few Chinamen are still mining on the bars of the Tranquille River, and the Government Agent's estimate of the amount of gold obtained does not substantially vary from that of last year. The 12-mile creek on the North Thompson River is being prospected by a company of four white men. Should they succeed in finding paying ground it would add greatly to the importance and prosperity of this section of the Yale District.

"KAMLOOPS, 30th October, 1878.

"SIR,—Enclosed herewith you will find mining statistics for the year 1878, Kamloops Division of Yale.

"There is very little mining done in this part of the district. A few Chinese are still working on Tranquille Creek; it is difficult to find out from them what they are really making, not much I imagine. Most of the old miners are working in the hotels or cooking for the ranchers; those left, plead poverty, and it is hard work getting from them the amount of their mining licence. A few of them tried 12-mile creek, North

Thompson River, last summer, but failed to find satisfactory evidence of the existence of gold in paying quantities on that stream. Since then, however, a company of white men have started in, and having found what they considered a favourable location, commenced sinking a shaft; they have now reached a depth of over fifty feet. I am informed by the foreman, Mr. Guerin, an old Caribooite, that the indications are favourable, and that he and his partners are very sanguine of striking paying diggings when they reach bed-rock. If they should be fortunate enough to do so, there will be plenty of room for others to try their luck, as the creek is large and accessible.

"I have, etc.,
(Signed) "JOHN USSHER,
"*The Deputy Provincial Secretary.*" "*Government Agent.*

HOPE AND YALE.

The bars and benches of the Fraser River appear to be almost inexhaustible, and the Government Agent's report, which will be found below, is important and interesting.

"YALE, 11th October, 1878.

"SIR,—In pursuance of your request of the 8th July last, I beg to forward herewith my report, with mining statistics, for the Hope and Yale Divisions of the Yale District, for the year 1878, by which it will be seen that there is a considerable increase over my last year's returns.

"In my previous annual reports I have alluded to the extensive flats, bearing characteristic indications, which flank on each side of the Fraser River, and which undoubtedly contain rich deposits of gold. The Murphy Bros. have, in one instance, verified this opinion, by striking good paying diggings in the interior of Union Bar flat, paying to the hand from eight to ten dollars per diem. The Chinese company, at Hill's Bar flat, are also working with satisfactory results, thereby proving, after the lapse of twenty years, the existence of valuable placer deposits, which only require a little pluck and energy to open up. To develop the mineral wealth of these divisions is an object of the highest importance; and it is trusted that sufficient nerve and energy will be forthcoming to attain this result.

"It is considered that, although so far little has been done in this direction, the the time is not far distant when the quartz resources of these divisions will be stimulated and developed with greater energy.

* * * * * * * *

"I have, etc.,
(Signed) "WILLIAM TEAGUE,
"*Government Agent.*

"*To the Hon. the Minister of Mines.*"

## SILVER.

Mr. Teague's reports, with regard to the Yale Creek Silver Mines, are encouraging. Amalgam, and rock in a crude state, have been forwarded to Cariboo to be tested and reported upon by the Government Assayer. Great hopes are entertained that these mines will be found sufficiently rich to be worked at a profit; it is unnecessary to dilate on the advantages which would result to the Province should these hopes be realized. It is regretted that the results obtained by the Government Assayer, from the samples forwarded, cannot be received in time for publication in this report.

Prospecting on the Hope Silver Mines is not at present being carried on; it is probable, however, that renewed activity will be shown in this direction should the return made from the Yale Creek rock be even fairly favourable.

"YALE, 11th October, 1878.

"SIR,— * * * * * * *

"I am informed that, on account of the late good reports and prospects, local capital is forthcoming for the development of a silver-bearing ledge which was discovered a short time since, about four miles back of Yale, on Yale Creek, of which tests have

just been made from two locations with most satisfactory results. From the Yale company's claim, half a pound of rock was worked by Mr. Sleight, a gentleman who has had considerable experience in treating and working the silver ores of the Ontario Silver Mine, Utah, and who tested it by the amalgamation process; the result was indeed surprising, giving a return of about two ounces of pure silver. The second test of one pound is in course of preparation, but not completed; I have seen the pulp, which shows rich in amalgam. The lode is apparently well defined, from four to six feet in width. The ore is chiefly a sulphuret, and embedded in talc formation, with indications of yielding largely. Wood and water can be easily supplied, and in sufficient quantities as may be required, at a very trifling cost, for milling and dressing purposes; the ore can therefore be returned at a very small cost.

"The season has been an exciting one with regard to quartz resources. During the summer months both white men and Indians have been searching the creeks and mountains with unabated activity, looking after argentiferous quartz; and in many instances fine specimens of rock—impregnated with arsenical and copper pyrites, galena, copper, with portions of silver and gold—of a most promising character have been taken from the out-croppings of various ledges found in most favourable localities; and in some instances favourable reports and assays have been received by me of specimens sent to Cornwall. Returns from there show a yield of 10 ozs. of silver to 2,000 lbs. from a piece of rock taken from the out-croppings of a ledge on Thompson River, near the 100 mile post; this is a promising lode, and is to be vigorously wrought upon during the winter months, and samples obtained at a greater depth will be transmitted for inspection, next spring, to members of the Cornwall and Devon Mining Association.

"Eighteen applications have been received during the season for mineral lands, which I hope will tend towards the opening up and working the mineral deposits of the district.

"The Hope silver mines are still in abeyance.

"I have, etc.,
(Signed) "WILLIAM TEAGUE,
"*Government Agent.*

"*To the Hon. the Minister of Mines.*"

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"YALE, 20th February, 1879.

"SIR,—The Yale Creek Silver Mines are situated in a northerly direction, in a basin form, on Yale Creek, a distance of about three miles from Yale. They are reached by a circuitous trail, after an hour's walk over a good grade affording every facility of easily making a good road for the transit of machinery when necessarily required for the mines, which can be laid thereat without any obstacles of advance, and at a very trifling cost. The vein matter is embedded in mica schist, and the overlaying strata is very segregated, tilted, and twisted in all manner of ways, evidently by the force of some powerful agencies. The supply of wood and water seems to be unlimited, and the surrounding hills are clothed with a magnificent forest of pine adapted for every useful mining purpose, which are important considerations for the concentration of the ores, as low grade ores could be inexpensively worked, and possibly under skilful management be made remunerative; these are privileges that should not be overlooked, and are often indicators of success in mining affairs. It may be said that mining enterprises have reached such a pass that many men are afraid with limited means of taking an active part in any mining affair after the recent vacillations; but, nevertheless, there is 'balm in Gilead,' although at present it is up hill work to travel to develop the mineral resources of the Province which are yet in embryo; but the day will come when the cloud with its silver lining will shine forth with its resplendent lustre. From time immemorial it has been the essential qualities of the miner to explore or prospect the surface of a country for minerals; therefore, without spirit, energy, perseverance, hope, and practical knowledge in mining, mining enterprises would soon be a thing of the past—retarding the progress of civilization, and sinking the achievements of modern sciences, without the use of metals and their mode of application, into oblivion.

"The first company to take up the gauntlet is the 'Yale Creek Silver Mining Co.,' who, with an enterprising spirit, have erected a cabin and a smithery, with a company of men at work who are making fair progress in driving their tunnel to cross-cut the lode. The indications being met with in the explorations are of a highly encouraging and hopeful character; the branches of ore already met with increase in size as distance

is attained, carrying a combination of oxidized or 'Keenly' quartz, antimony, and sulphurets of iron. The ledges are embedded in a most congenial strata, which is marked with most favourable characteristics for rich deposits of ore at deeper levels.

"The adjoining location, on the east, is the 'Cambie Silver Mining Company,' possessing every favourable geological feature to the eye of being a remunerative piece of property, the company being about to commence their operations by letting a contract for driving a tunnel, an estimated distance of 60 feet, through a favourable stratum of talc schist, to cut the lode.

"The 'California Company' adjoins the 'Cambie' and the Yale Creek companies on the south, and are preparing to follow in similar course to prospect their ground, of which they are sanguine of good results.

"There are two other locations, but the parties have not yet matured their plans of working.

"The assays made from the different companies' locations have resulted with most satisfactory returns, and it is hopeful that we are upon the eve of the turning point of success, and that the promising indications met with at the Yale Creek Mines will successfully open out with good results, turning the tide in our mining resources which have been hitherto so unfortunately mismanaged. "I have, etc.,

(Signed) "WILLIAM TEAGUE,

"*To the Hon. the Minister of Mines.*" "*Government Agent.*

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"YALE, 15th March, 1879.

"SIR,—Since my report to you referring to the Yale Creek Silver Mines, I have the honour to forward herewith, for your information and inspection, 9½ ounces of silver amalgam, the yield of 14½ lbs. of rock taken from the ledge, which was an average sample for a true working test, made by Mr. John Sleight, by the amalgamation process, who is an experienced hand in treating ores, and who has taken since his sojourn among us indefatigable pains in testing and working rock, free of charges, for the benefit of parties who interest themselves in exploring the country for mineral quartz. The specimens of rock accompanying are fair average samples of the rock tested. The lode appears embedded and running parallel and in conjunction with talcose and serpentine rocks, or stratum, by east-north-east and west-south-west direction. The reason the bullion appears in so many pieces, is on account of not having a sufficient receptacle for holding and working the pulp all at one time, therefore Mr. Sleight was obliged to work it in such quantities as his appliances would permit. Be pleased to send me the number of ounces after the amalgam is retorted. "I have, etc.,

(Signed) "WILLIAM TEAGUE,

"*To the Hon. the Minister of Mines.*" "*Government Agent.*

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## COAL.

It is pleasant to read the able and satisfactory report of the Inspector of Mines.

In spite of the disadvantages of cheap coal, and the import duty, at San Francisco, the output has steadily, and to an appreciable extent, increased; so much so in fact that the production of last year more than doubled that of 1874.

The following Table shows the total output of each year, from 1874 to 1878 inclusive:—

| Year. | No. of tons. |
|---|---|
| 1874 | 81,000 |
| 1875 | 110,000 |
| 1876 | 139,000 |
| 1877 | 154,000 |
| 1878 | 171,000 |

"NANAIMO, B. C., 13th February, 1879.

"SIR,—I have the honour to enclose my report as Inspector of Mines. Annexed thereto are returns from the Vancouver Coal Co., and from Messrs. Dunsmuir, Diggle, & Co. I have not received returns from the other mines, as they have been doing hardly anything during the past year. "I have, etc.,

(Signed) "EDWD. GAWLER PRIOR,

"*The Hon. T. B. Humphreys,* "*Inspector of Mines.*

"*Minister of Mines.*"

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"INSPECTOR OF MINES' OFFICE,
"Nanaimo, 5th February, 1879.

"SIR,—I have the honour to transmit my annual report, in conformity with Section 43, 'Coal Mines Regulation Act, 1877.'

"The Coal Mines of Vancouver Island have, during the year 1878, passed through a period of unprecedented discouragement; the prices at San Francisco, the chief foreign market for these coals, having reached the lowest rate yet attained; indeed, while subjected to so much depression, only the most able commercial management, and the utmost economy in carrying on the works, have saved this important industry from entire cessation.

"Under the pressure of these circumstances, the Baynes Sound and Harewood Mines have ceased operations; but as some counterbalance to this falling off, the South Wellington Co. have been constructing preparatory works upon a considerable scale.

"The coal mines which have been in active operation during the past year, viz.: the Vancouver Coal Company's Douglas, Chase River, and Fitzwilliam Mines; and the Wellington Company's Mine, have, however, shown satisfactory progress, having produced upwards of 171,000 tons of coal during the year 1878, against 154,000 tons the total output of four proprietories carrying on work in 1877, being an increase of 17,000 tons for 1878; and the greater excess of 32,000 tons over the total output of 1876.

"In view of the extremely low rates obtained for coal in San Francisco throughout the past year, it is gratifying to find that the shipments of coal to that port have not diminished, but largely increased, thus manifesting a praiseworthy determination on the part of the managers of these mines not to be beaten out of their accustomed channels of trade.

"During the year 1878 over 164,000 tons of coal, the produce of Vancouver Island, have been shipped to San Francisco and Southern Ports of California; Portland, Oregon; Seattle, Washington Territory (gas coal); Ounalaska, Alaska; Mexican Ports, Hawaiian Islands, and Hong-Kong; vessels belonging to various navies; and to the steamships of the several mail services.

"The foreign shipments of coal for 1878, show the remarkable increase of nearly 50,000 tons over the foreign shipments of 1877.

"Undoubtedly the unfortunate stoppage of work at the Wellington Colliery lessened the total output and shipments of coal for the year 1877, but, on the other hand, the idleness of both the Vancouver Coal Company's mines and the Wellington Company's mine during portions of several months of the dullest times of 1878 equalize the actual working time of the mines in the years under comparison, and so justify the deduction that the coal industry of this Province is in a promising state of development and progress.

"The sales of coal for home consumption are small in proportion to the quantities exported. These sales for 1878 were 1,655 tons more than those of 1877.

"I am happy to state that only three fatal accidents have occurred in or about these coal mines during the past year. No. 1: On June 28th, a Chinaman, named Ah Shan, was killed in the Chase River Mine by being crushed between the box and the 'rib.' From the evidence given at the inquest, it appeared that the deceased was 'hanging on' at the bottom of a self-acting incline, and instead of fastening the rope to the box by means of the proper iron hook provided for that purpose, he made a loop of the rope, and fastened it with a small stick. The rope becoming suddenly slack the stick dropped out and the box ran back on him and crushed him against the coal. The man was entirely to blame himself, as he was warned not to fasten the rope in the manner he did.

"No. 2: On September 2nd, a miner, named William Jeffery, was killed in the Douglas Mine by a large piece of coal falling on him. The unfortunate man was lying under the coal, having undermined it, and was still engaged in that operation when the mass suddenly came away, and falling on him, crushed him to death. The deceased was a very steady, experienced miner, and the evidence given at the inquest went to shew that the accident occurred simply from the deceased trusting too much to the natural adhesion of the coal.

"I am sorry to say that a large proportion of both fatal and non-fatal accidents which occur in these mines arise from the fact of men not setting sufficient "spraggs" or props. From personal observation, I am able to state that plenty of timber is supplied to them for that purpose, but very often, if a prop is not close at hand, a man will run the risk of getting hurt to save himself trouble. Another reason why this class of accident is more frequent than any other is, that many men engaged in coal mining in this Province are not experienced miners, but men who have been accustomed to other branches of labour. To be able to secure some places properly with timber, a man must be an experienced miner.

"No. 3: On December 6th, a Chinaman, named Kong Sing, was killed on an incline on the Wellington Colliery tramway. From the evidence taken at the Coroner's inquest it seems that the deceased was a brakesman in charge of the 'run,' and that at the time he met his death he was riding on the front waggon going up the incline. When near the top, the 'run' was thrown off by an iron rail which was laid across the track. The Chinaman was pitched off the front waggon, and three or four waggons passing over him he was so fearfully mangled that he died almost immediately. The verdict returned by the Coroner's jury was to the effect that the rail was placed there purposely, by some person or persons unknown. I was present at the inquest, and it was proved beyond doubt that the rail could not have got there by accident. As yet no clue to the perpetrator of this dastardly act has been found.

"In regard to this incline I would beg to state that it is my opinion that, sooner or later, a very serious accident will occur, as many women and children are in the habit of riding on the waggons running on this incline, although constantly warned by the colliery officials against doing so. Printed notices are also posted up in conspicuous places, warning persons against riding on the waggons, but they do not seem to be heeded. This incline is 1,000 yards long, and has a rise of about 1 in 18, so that if the rope was to break when women or children were on the 'run' they would stand but a slight chance of escaping with their lives.

"There have been seven non-fatal accidents during the past year, causing serious injury to seven persons. Three of these were caused by falls of coal and rock, one by being crushed between boxes, one by a blasting shot, and two by explosions of fire-damp.

"One of the two men injured by explosions of gas was a fireman, whose duty it was to inspect the mine before the miners went into their 'stalls,' etc. On the morning of the accident, as his safety lamp with which he is provided would not burn well, he proceeded on his round of inspection with a naked light in one hand and his safety lamp in the other. On going up a heading, a quantity of fire-damp, which had collected during the night owing to some brattice having been knocked down, ignited at his naked light and burnt him very severely. Fortunately there was not a sufficient quantity of pure air mixed with the carburetted hydrogen gas to make it extremely explosive, or the man could hardly have escaped with his life. As he received a very severe lesson, I did not deem it advisable to take any proceedings against him.

"The ventilation in the several mines has been much improved during the past year.

"In the Wellington Colliery there was an average of 40,000 cubic feet of air per minute passing in the main return, and this quantity was well distributed. In this mine more fire-damp has been met with in the lower workings than was encountered to the rise, which is quite to be expected; but with ordinary care, combined with the good ventilation that is there, no danger need be anticipated.

"In the Chase River Mine I found an average of 35,000 cubic feet of air running per minute, which was well conducted round the faces. The above-mentioned amount of air, viz., 35,000 cubic feet per minute, can be largely increased, with very little trouble, if at any time it is needed. In this mine a good deal of annoyance is caused to the miners by sulphureted hydrogen gas, which is given off in various places. This gas affects them most when undermining and shearing the coal, at which time it

gets into the eyes and causes great inflammation and temporary blindness. No ordinary amount of wind passing will keep this gas from the miner, as his work keeps him so very close to the coal.

"There is not such a marked improvement in the ventilation of the Douglas Mine as in the others.

"During the past year a great deal of work has been done in connection with the South Wellington Colliery. A railway over three miles in length has been built, running from the mine, which is situated between Nanaimo and Wellington, through the Vancouver Coal Company's land, to the sea at Departure Bay, where a large loading pier has been erected. A pair of horizontal engines and two large boilers have been placed in position at the pit, which is sunk to the coal, and another shaft has been sunk down to a depth of 150 feet, which will be used as an upcast. Very little work has been done in the coal as yet, owing to some unfortunate trouble connected with the ownership, but active operations in this branch may soon be expected.

"The Harewood Colliery and the Baynes Sound Colliery have not been putting out any coal, having, as before stated, suspended operations for some time at least.

"All work at the Fitzwilliam Mine has now been stopped with the exception of pumping.

"The Union Coal Company did some prospecting on their estate at Comox during the summer, but no coal was taken out.

"Several bore-holes have been put down by the various Coal Companies; notably, one by the Vancouver Coal Company to a depth of 746 feet by means of their diamond drill; one by Messrs. Dunsmuir, Diggle & Co., to a depth of 500 feet; one by the Baynes Sound Coal Co., to a depth of 375 feet; and one on the Westwood Estate, to a depth of 290 feet.

"I have the honour to give a list of those persons to whom 'Certificates of Service' have been issued in accordance with section 26, 'Coal Mines' Regulation Act, 1877': T. A. Bulkley, John Bryden, James Dunsmuir, Thomas Cairns, John Dick, Archibald Dick, James Gillespie, E. G. Prior.

"The following is a statement showing the amount of coal raised and the number of fatal and non-fatal accidents that have occurred during the last three years:—

| Year. | Tons raised. | Fatal accidents. | Non-fatal accidents. | Tons raised per life lost. |
|---|---|---|---|---|
| 1876 | 139,191 | 4 | 9 | 34,797 |
| 1877 | 154,052 | 5 | 14 | 30,810 |
| 1878 | 170,496 | 3 | 7 | 56,832 |

"From the above figures you will perceive that in the past year there has been about eighty-four per cent. more coal brought to the surface for each life lost than there was during the preceding year.

"This, I think you must consider, is a very satisfactory result for the year 1878.

"Annexed are the usual colliery returns from those mines that have been working.

"I have, etc.,

(Signed) "EDWARD GAWLER PRIOR.
"*Government Inspector of Mines*"

*Hon. T. B. Humphreys,*
*Minister of Mines, &c., &c., &c.*

## NANAIMO COLLIERIES.

| Output of Coal for 12 months, ending 31st Dec., 1878. | No. of tons sold for home consumption. | No. of tons sold for exportation. | No. of tons on hand, January 1st, 1878. | No. of tons unsold, including coal in stock, Jan. 1, 1879. |
|---|---|---|---|---|
| 82,135 tons. | 14,729 tons. | 81,699 tons. | 19,670 tons, 3 cwt. | 5,377 tons. |
| Dullness of trade was the cause of the Company's mines not working part of several months in the year,—hence the falling off in output. | | | | |

| Number of hands employed. | | | Wages per day. | | |
|---|---|---|---|---|---|
| Whites— Men, 237 Boys, 20 | Chinese, 91 | Indians, 25 | Whites, $1 75 to $3 75 | Chinese, $1 to $1 25 | Indians, $1 to $1 50 |
| Total hands employed, 373. | | | Miners' earnings per day, $2 50 to $5 00. | | |

NOTE—The number of hands employed does not include Indians or Chinamen working for miners, and paid by them.

Names of seams or pits..... Douglas, Chase River, and Fitzwilliam.

Value of plant..... $120,000.

Description of seams, tunnels, levels, shafts, etc., and number of same.

*Douglas Mine*, Nanaimo, worked by slope; there are six levels, three of which are in operation. The coal produced is of excellent quality, and in the lowest level is about 5½ to 6 feet thick. The Douglas coal is first-class for steaming and gas making. The old Douglas Pit is now used as an up-cast shaft.

*New Douglas Mine* is situated near Chase River, about 1¾ miles from the Douglas Pit. The mine is being opened up by slope with three north and three south levels. The seam extends from 4½ to 9 feet in thickness of clean coal of first-class quality for steam and household purposes. The New Douglas coal is also known as "Chase River coal," and is held in the highest estimation in the domestic and foreign markets.

*Extension of Works*—For some time past the section of the Company's land to the south of Chase River has been under exploration, and by means of the Company's diamond boring machine, etc., the seam of coal has been proved to extend under a large area of the Company's property. Works preliminary to opening up the seam are in progress.

*Fitzwilliam Mine*, on Newcastle Island, has been worked by slope of 800 yards. Fitzwilliam coal is a superior article for household use. This mine was idle nine months of last year owing to slackness of trade.

*Newcastle Mine;* not in operation; 240 yards by slope, on Newcastle Island.

*Chase River Mine;* 290 feet deep by shaft; not in operation.

Description and length of tramway, plant, etc.

*The Company's Railway* is a little more than two miles in length, constructed of double-headed steel rails, 52 lbs. to the yard, laid on chairs, bolted to wooden ties. The railway extends from the New Douglas Mine to the Company's loading pier, with sidings for shunting, and branches to the Douglas Pit, etc.

The Company have powerful winding engines, steam pumps, etc., fifty 5½-ton coal cars, fifty 3½-ton cars, and three locomotives. There are facilities at the Company's wharves for delivering one thousand five hundred (1,500) tons of coal per day. The Company have accommodation at their wharves for vessels of the capacity of the "Baring Brothers," carrying 3,300 tons of coal, and drawing 27 feet of water.

(Signed) M. BATE.

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## WELLINGTON COLLIERY.

| Output of Coal for 12 months ending 31st Dec., 1878. | No of tons sold for home consumption. | No. of tons sold for exportation. | No. of tons on hand 1st January, 1878. | No. of tons unsold, including Coal in stock, Jan. 1st, 1879 |
|---|---|---|---|---|
| 88,361 tons 11 cwt. | 11,237 tons 10 cwt. | 82,983 tons. | 6,794 tons 13 cwt. | 935 tons 14 cwt. |

| No. of hands employed. | | | Wages per day. | | |
|---|---|---|---|---|---|
| Whites— Men, 165 Boys, none. | Chinese, 129 | Indians, none. | Whites, $2 to $2 50 | Chinese, $1 to $1 25 | Indians, — |
| Total hands employed, 294. | | | Miners' earnings per day, from $3 50 to $5. | | |

Name of seams or pits..... Wellington Seam.

Value of plant.....

Description of seams, tunnels, levels, shafts, etc., and number of same..... Slope.

Description and length of tramway, plant, etc..... 3½ miles railway.

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## *SOUTH WELLINGTON COLLIERY.

| Output of Coal for 12 months ending 31st Dec., 1878. | No. of tons sold for home consumption. | No. of tons sold for exportation. | No. of tons on hand, 1st January, 1878. | No. of tons unsold, including coal in stock, Jan. 1, 1879. |
|---|---|---|---|---|
| 350 tons. | 200 tons. | None. | None. | 150 tons. |

| No. of hands employed. | | | Wages per day. | | |
|---|---|---|---|---|---|
| Whites, 20:— Men, 17 Boys, 3 | Chinese, 10 | Indians, none. | Whites, —. | Chinese, —. | Indians, —. |
| Total hands employed, 30. | | | Miners wages per day, —. | | |

Name of seams or pits..... Wellington seam at South Wellington Pit.

Value of plant..... $60,000.

Description of seams, tunnels, levels, shafts, etc., and number of same. Wellington seam is all that is worked in this property at present. Shaft is 162 feet deep, vertical, to coal, which is 11 feet thick. There is only one level driven, nearly due south, a distance of 300 feet from near end of this level. Shaft, which was intended for air-shaft, is sunk about 150 feet deep; exact course and distance from end of said level to where air-shaft would come through is S., 2° W., magnetic; distance, 162 feet. From above description it will be seen there are two shafts, one of which cuts the vein, the other supposed to be near vein.

Description and length of tramway, plant, etc. Tramway and plant in unfinished state. Value of same I have included in value of plant above.

(Signed) R. WINGATE.
*Agent.*

*This Return was received too late to be included in the Report of the Inspector of Mines.