EIGHTH ANNUAL REPORT

OF THE

MINISTER OF MINES,

FOR THE

YEAR ENDING 31ST DECEMBER,

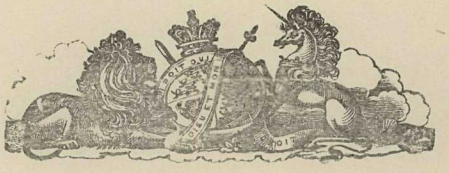
1881,

BEING AN ACCOUNT OF

MINING OPERATIONS FOR GOLD, COAL &C.,

IN THE

Province of British Columbia.



VICTORIA: Printed by RICHARD WOLFENDEN, Government Printer,
at the Government Printing Office, James' Bay.
1882.

PROVINCE OF BRITISH COLUMBIA.

MINING STATISTICS FOR 1881.

Name of Bar, Gulch, Creek, or River.	No. of Companies working.	No. of Interests.	No. of Companies taking out gold.	No. of Companies Prospecting.	Average number of men employed during season.		Rate of Wages.		Nature of Claims.					How Worked.					Description of Machinery.		Value of Gold per ounce.	Estimated value of yield of go.d.	Total Divisions.	Total Districts.
					Whites.	Chinese.	Whites.	Chinese.	Bar.	Creek.	Bench.	Hill.	Quartz.	Rocker.	Sluices.	Hydraulic.	Shaft.	Tunnel.	Water Wheels.	Steam Engines				
CARIBOO.																								
Barkerville Division:																								
Williams Creek	23	.....	18	5	62	43	$4 00	$2 50	.....	6	.....	17	.....	.....	1	16	5	1	.....	.....	$16 00	$66,438		
Conklin's Gulch	3	.....	2	1	14	2	,,	,,	.....	3	.....	.....	.....	.....	.....	.....	3	.....	2	.....	16 00	8,200		
Grouse Creek	7	.....	5	2	15	25	,,	,,	.....	3	4	.....	.....	4	.....	3	.....	.....	.....	.....	15 75	11,100		
Antler Creek	9	.....	6	3	15	23	,,	,,	.....	2	7	.....	.....	.....	8	.....	1	.....	.....	.....	16 50	21,500		
Cunningham Creek	5	.....	4	1	4	11	,,	,,	.....	2	.....	3	.....	.....	4	1	.....	.....	.....	.....	16 00	6,200		
Lowhee ,,	4	.....	4	.....	15	.....	,,	,,	.....	3	.....	1	.....	.....	.....	.....	3	1	1	1	17 00	17,000		
Mosquito ,,	5	.....	4	1	11	2	,,	,,	.....	5	.....	.....	.....	.....	2	3	.....	.....	.....	.....	17 25	5,500		
Canadian ,,	1	.....	1	.....	2	.....	,,	,,	.....	1	.....	.....	.....	.....	.....	.....	1	.....	1	.....	16 00	1,200		
Hardscrabble ,,	2	.....	1	1	9	.....	,,	,,	.....	2	.....	.....	.....	.....	.....	1	.....	1	.....	.....	17 00	3,000		
Jack of Clubs ,,	3	.....	2	1	23	2	,,	,,	.....	3	.....	.....	.....	.....	.....	.....	3	.....	3	.....	16 25	67,000		
Stout's Gulch	2	.....	2	.....	9	13	,,	,,	.....	2	.....	.....	.....	.....	.....	1	1	.....	1	.....	17 00	7,750		
Sugar Creek	2	.....	2	.....	7	.....	,,	,,	.....	.....	.....	2	.....	.....	1	1	.....	.....	.....	.....	15 70	1,000		
Desultory Mining on other Creeks & Gulches	.....	.....	.....	.....	5	30	,,	,,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,000		
																							$225,888	
Lightning Creek Division:																								
Lightning Creek	10	.....	6	4	35	17	4 00	3 00	.....	4	.....	6	.....	.....	6	.....	3	1	3	.....	17 00	9,146		
Last Chance ,,	2	.....	2	.....	2	1	,,	,,	.....	1	.....	1	.....	.....	1	1	.....	.....	.....	.....	,,	1,340		
Davis ,,	2	.....	2	.....	.....	6	,,	,,	.....	2	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	17 25	1,080		
Fountain ,,	1	.....	1	.....	.....	4	,,	,,	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	16 00	2,000		
Perkin's Gulch	1	.....	1	.....	2	.....	,,	,,	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	17 00	500		
Anderson Creek	1	.....	.....	1	4	.....	,,	,,	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	,,			
Deadwood ,,	2	.....	2	.....	2	6	,,	,,	.....	1	.....	1	.....	.....	1	.....	1	.....	.....	.....	17 25	700		
Slough ,,	6	.....	2	4	4	45	,,	,,	.....	.....	5	1	.....	.....	5	.....	.....	1	.....	.....	,,	25,000		
Burn's ,,	4	.....	4	.....	2	13	,,	,,	.....	3	.....	1	.....	.....	3	.....	1	.....	.....	.....	18 00	4,891		
Nelson ,,	4	.....	4	.....	.....	18	,,	,,	.....	2	1	1	.....	.....	.....	4	.....	.....	.....	.....	17 25	23,167		
Dragon ,,	1	.....	.....	1	2	.....	,,	,,	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	,,			
New ,,	1	.....	.....	1	4	.....	,,	,,	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	,,			
Ruchon ,,	3	.....	2	1	3	2	,,	,,	.....	3	.....	.....	.....	.....	2	.....	1	.....	.....	.....	17 25	3,175		
Chisholm ,,	2	.....	1	1	6	.....	,,	,,	.....	2	.....	.....	.....	.....	.....	1	1	.....	.....	.....	,,	1,000		
Burn's Mountain	1	.....	.....	1 quartz	4	.....	,,	,,	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	,,			
Swift River	1	.....	1	.....	.....	8	,,	,,	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	16 75	1,750		
Cottonwood	1	.....	1	.....	.....	10	,,	,,	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	17 00	3,600		
Desultory Mining on other Creeks & Gulches	.....	.....	.....	.....	10	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,000		
																							87,349	
Keithley Creek Division:																								
Keithley Creek	11	54	8	3	16	45	4 00	2 50	.....	6	.....	5	.....	.....	3	1	3	4	6	.....	17 40	35,000		
Snowshoe ,,	9	61	6	3	25	30	,,	,,	.....	5	.....	4	.....	.....	2	2	3	2	3	.....	17 00	26,200		
Harvey ,,	5	35	2	3	25	5	,,	,,	.....	5	.....	.....	.....	.....	.....	2	4	1	2	.....	17 40	4,000		
Cunningham Creek (lower end)	5	25	4	1	.....	25	.....	.....	.....	4	1	.....	.....	.....	5	.....	.....	.....	.....	.....	17 00	3,500		
North Fork Quesnelle River	6	33	6	.....	.....	33	.....	.....	.....	.....	6	.....	.....	.....	6	.....	.....	.....	.....	.....	16 30	8,000		
South ,, ,,	4	22	4	.....	.....	24	.....	.....	.....	1	3	.....	.....	.....	3	1	.....	.....	.....	.....	,,	6,000		
Quesnelle River, upper	.....	.....	.....	.....	.....	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	,,	7,500		
Horse-fly River	3	24	1	2	3	25	.....	.....	.....	2	.....	1	.....	.....	3	.....	.....	.....	.....	.....	,,	9,500		
Fraser River, Quesnelle to Soda Creek	10	70	9	1	.....	100	.....	.....	.....	.....	10	.....	.....	.....	8	1	1	.....	.....	.....	15 00	25,500		
																							125,200	
Quesnellemouth Division:																								
Fraser River, from Quesnelle 30 miles up	14	.....	14	.....	13	92	3 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17 25	56,700		
Cottonwood River, below the bridge	.....	.....	.....	.....	.....	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16 00	4,200		
Quesnelle River, from mouth 20 miles up	6	.....	6	.....	.....	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17 00	18,700		
Hixon and Government Creeks	3	.....	2	1	1	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15 00	2,700		
																							82,300	
CASSIAR.																								520,737
Laketon Division:																								
Dease Creek	26	79	26	.....	24	55	5 00	3 00	.....	15	1	10	.....	.....	21	1	.....	4	7	.....	15 50	37,500		
Thibert Creek	22	75	21	1	50	23	5 00	3 00	.....	9	2	11	.....	.....	18	.....	.....	4	3	.....	16 00	28,100		
Defot ,,	6	19	6	.....	7	12	6 00	4 00	.....	6	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	17 00	5,500		
French ,,	4	6	4	.....	6	.....	6 00	.....	.....	4	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	16 00	1,800		
Liard River	2	20	.....	.....	.....	20	.....	4 00	2	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	16 00	6,000		
Desultory Mining	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,000		
Yield during close season	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,000		
																							98,900	
McDame Creek Division:																								
McDame and adjacent Creeks	47	201	40	7	97	114	.....	.....	1	23	.....	20	.....	.....	41	2	.....	4	4	6	.....	95,000		
Yield during close season	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,000		
																							100,000	
LILLOOET.																								198,900
Lillooet Division:																								
Fraser and Bridge Rivers, Foster's Bar to Leon's Creek	3	21	3	2	4	40	.....	1 50	.....	.....	3	.....	.....	.....	3	.....	.....	.....	.....	.....	16 00	8,152		
McGillivray Creek, Anderson Lake	1	4	1	.....	4	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16 50	1,032		
Indian and Chinese mining (no records)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30,000		
																							39,184	
Clinton Division:																								
Fraser River, Leon's Ck. to Chilcoatin River	13	34	13	.....	.....	65	.....	.....	13	.....	.....	.....	.....	.....	13	.....	.....	.....	.....	.....	15 50 to 16	28,000		
																							28,000	
YALE.																								67,184
Kamloops Division:																								
Tranquille River	.....	.....	.....	.....	.....	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16 00	3,000		
																							3,000	
Okanagan Division:																								
Cherry Creek	8	.....	8	.....	10	15	3 00	1 75	3	2	.....	3	.....	1	5	1	.....	1	1	.....	16 50	8,000		
Rock Creek	6	6	1	5	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	17 50	1,500		
																							9,500	
Yale and Hope Divisions:																								
Fraser River, Hope to 34-mile Bar	10	.....	.....	.....	40	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15 00	8,000		
																							8,000	
KOOTENAY.																								20,500
Wild Horse Creek	16	42	16	.....	7	70	4 00	3 00	.....	3	3	10	.....	.....	6	10	.....	.....	.....	.....	18 00	20,000		
Perry Creek	2	16	1	1	10	6	,,	,,	.....	2	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	,,	2,000		
Palmer's Bar	2	5	2	.....	2	5	,,	,,	.....	.....	2	.....	.....	.....	2	.....	.....	.....	.....	.....	,,	2,000		
Weaver Creek	1	2	1	.....	1	1	,,	,,	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	,,	1,000		
																							25,000	
OMINECA.																								25,000
Munson Creek	10	34	10	.....	26	22	6 00	3 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16 00	6,800		
Black Jack Gulch	3	9	3	.....	6	10	,,	,,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	,,	3,000		
Lost Creek	2	5	2	.....	4	2	,,	,,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	,,	600		
Kildare Gulch	1	2	1	.....	2	2	,,	,,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	,,	400		
Slate Creek	5	15	5	.....	5	10	,,	,,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	,,	2,000		
Germansen Creek	7	26	7	.....	10	22	,,	,,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	,,	6,500		
Vital Creek	1	6	1	.....	6	8	,,	,,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	,,	18,000		
Peace River and various Creeks	4	14	.....	.....	14	.....	,,	,,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	,,	2,000		
																							39,300	
					694	1,294																		39 300
																								$871,·21

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 1881.

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	1-5th 212,534	1,275,204	1,883	677
1879	1,075,049	,, 215,009	1,290,058	2,124	607
1880	844,856	,, 168,971	1,013,827	1,955	518
1881	872,281	,, 174,456	1,046,737	1,898	551
			$46,187,626		

REPORT

OF THE

MINISTER OF MINES

FOR THE

YEAR 1881.

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

MAY IT PLEASE YOUR HONOUR:—

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

T. B. HUMPHREYS,

Provincial Secretary and Minister of Mines.

Provincial Secretary's Office,
23rd January, 1882.

REPORT.

GOLD.

The amounts actually exported by the Banks during the year 1881 are as follow:—

Bank of British Columbia	$336,535
Bank of British North America	236,979
Garesche, Green & Co.	298,767
Total	$872,281

This shows an increase of $27,000 over the Bank export of last year, which, considering that there has been a falling off in the yield from Cassiar of over $,0,000, is decidedly encouraging. The Banks cannot, of course, purchase all the gold produced in the Province, and the total yield may fairly be approximately estimated at $1,000,000.

CARBIOO.

The large sum of $610,000 is estimated by Mr. Bowron as the total yield of this district, exclusive of Omineca, during the past year. This highly satisfactory result is enhanced by the fact that an unusually early frost interfered with the working of hydraulic claims and reduced their returns, and also that some of the hydraulic companies had not at the close of the season sufficiently opened out their ground to enable them to make any return at all. The future, however, of hydraulic mining, in this district at any rate, is now well assured, and for many years to come increased yields may be confidently expected.

The Gold Commissioner reports the formation of a company who propose to open, and work from surface to bed-rock, the abandoned ground in the bed of Williams Creek, below the cañon. Probably no Cariboo miner, since 1863, has doubted the wonderful richness of this piece of ground, but the difficulty has always been how to work it in the manner mentioned above, or, in mining language, how to get a "face on it." An indication of the means by which this is now proposed to be effected would have been of interest to many of the Cariboo men scattered throughout the Province, and its omission from the report is regrettable.

Neither of the reports from this district make any mention of the Cariboo Lake Ditch and Mining Company, and it must be assumed that this enterprise is still in abeyance. As stated in the Mining Report of last year, the ground which this ditch would cover is well known to be rich, and it is most unfortunate that the projectors have failed to prosecute the work during the past season. As an investment this is probably the *safest* which Cariboo offers, and it is to be hoped that a commencement will be made during the coming summer.

Mr. Bowron is undoubtedly right in regarding the discoveries on Slough Creek as important; and it should be borne in mind that the importance ought not to be gauged simply by the extent or richness of the new ground—the great encouragement given to prospectors should also be taken into account.

Dunbar Flat, on Lightning Creek, offers an excellent opportunity to the hydraulic miner, and it is gratifying to know that two companies are now at work bringing water on to the ground. Their ultimate success can hardly be doubted.

The heavy runs of gold on bed-rock have now been nearly exhausted, but Cariboo as a gold producing district is probably still in its infancy; it presents unrivalled facilities for hydraulic mining, both as to water and extent of auriferous ground, and its quartz veins will not always remain unworked.

"RICHFIELD, 28TH NOVEMBER, 1881.

"SIR,—I have the honour to transmit for your information the enclosed Mining Statistics in tabular form, and in connection therewith beg to submit the following report for the year, 1881:—

"The result of mining operations in this district during the present year may be regarded as eminently satisfactory, and confirms to a certain extent the hopes expressed in my report for last year.

"The total gold yield is found to exceed that of 1880 by some fifty or sixty thousand dollars; and had it not been for the early cold weather which set in about the middle of September the output must have been considerably greater. Although mild weather about the 1st of October induced several companies to resume work, it was found the frost had so penetrated the ground that but a partial 'clean up' could be made.

"The present season has been a particularly fortunate one for the Chinese miners, to whose success is mainly attributable the increase in the gold yield. They have probably produced the greater part of the gross yield of the district for the year. Their discoveries the past and present years on Fraser and Quesnelle rivers, Slough, Antler, Grouse, and other creeks, which for a time were ignored by white miners as unworthy their consideration, are of late attracting more attention from the latter. That many of the old familiar benches and side hills having no outward appearance of a 'wash' should contain gold in paying quantities within a few feet of the surface was quite beyond the comprehension of our old experienced miners, yet the irrepressible Mongolian has proven such to be the case, and has made discoveries during the past season of some valuable claims so situated.

"Williams Creek still holds first place as Cariboo's most prolific gold-bearing stream. Hydraulic mining on this creek, which was principally confined to the hills above Richfield, has been inaugurated and is now successfully carried on along the side hills below the cañon. The old Aurora (hill) claim, opposite the town of Barkerville, has been opened the present season, some 1200 feet of iron piping being used, whereby the company obtain a pressure of about 250 feet, which is found to work admirably. A large cut was soon made in the side hill, and although the company, owing to the early frost, was enabled to wash up but a small part of their ground sluice, enough was made known to warrant the belief that this and adjoining claims will continue for many years to yield handsome profits to their owners.

"For several years past but little work has been carried on in the bed of the creek from the cañon down, owing to the old miners' bed-rock drain being filled up with tailings, consequently about one-half the ground formerly occupied has been abandoned. Recently a company applied for a lease of this abandoned ground, who propose opening and working it from surface to bed-rock. This undertaking will require a considerable outlay before any returns can be expected, but, if properly managed, must prove highly remunerative to its projectors. The lack of sufficient capital to successfully cope with the difficulties to be encountered in getting an opening has up to the present time prevented the working of this ground, which is well known to still contain immense gold deposits in the upper gravel strata, notwithstanding the millions which have already been extracted by the old method of drifting on bed-rock from shafts.

"On Lightning Creek but little has been done the past season. The claims below VanWinkle are filled with water, which would require the united efforts of the various companies to master. A majority of the owners of these claims now resident in the district are favourable to the project of uniting to run a drain to strike bed-rock near the Gladstone claim, but as many of the claims are held under a Crown Grant and a number of the owners have left the Province, the project is considered virtually impracticable, which is unfortunate, as by the means proposed a large extent of valuable mining ground would be opened, affording remunerative employment to several hundred

men for a number of years, where work might be prosecuted with profit during the winter months at a time when surface claims are unworkable.

"Two companies have recently located claims on what is known as Dunbar Flat, near the upper part of the creek, and are now engaged in bringing in ditches to work their ground by hydraulic process. Upon their success will depend the value of a very large extent of ground along the side hills.

"The upper portion of Jack of Clubs Creek has again disappointed many old admirers of this locality. The flattering prospects obtained in the Central Company's claim last fall induced the erection of expensive machinery, and for a time work was prosecuted with vigor, but as the company worked up stream the pay gave out. A few men are still engaged running prospect drives, but up to the present time nothing remunerative has been discovered. The other claims lower down on this creek have paid fairly during the season.

"Chinamen have made what I regard as important discoveries on the benches and side hills of Slough Creek. In some localities the pay is found on a level with the water of the Creek, and in other places as much as one hundred and fifty feet above that level. On the lower benches the gold is generally of a coarse quality, ounce pieces being occasionally found, the deposits being usually about five or six feet from the surface. Here as high as $40 per day to the hand has been made. On the higher benches, on the contrary, the gold is fine and found diffused through the whole depth of gravel as deep as any of the companies have yet sunk—some thirty odd feet—which prospects quite as well at the bottom of the shaft as near the surface. Bed-rock has not as yet been reached anywhere on these benches. The situation of the higher benches are favourable to their being worked by hydraulics. Further prospecting here is at present going on. Discoveries somewhat similar have been made on Grouse, Antler, and other creeks.

"The benches along the Fraser and Quesnelle rivers have paid fairly during the season, but did not this year attract so large a number of Chinese as I anticipated from the flattering reports received last fall. The outlook from here is favourable.

"The extensive hydraulic claims on Grouse, Sugar, and Hardscrabble creeks, started last season, did not get their works in a sufficiently advanced condition to warrant a wash up of their ground sluice the present season. I anticipate a good showing from these claims next year. Prospecting companies have been organized and will prosecute work during the winter on Dragon, New, Sugar, Slough, and other creeks. A discovery of gold is reported to have been made on Nation river in the Northern part of the district, but of which I am unable to obtain any reliable particulars.

"From the following information furnished by the Government Assayer, it will be seen that about ten thousand dollars more will have been melted in 1881 than in 1880:

Total amount assayed in 1880	$235,340 04
Assay from 1st January to 26th November, 1881	$235,742 25
Estimated amount for balance of year	9,000 00
Total for 1881	$244,742 25

"From the most reliable data obtainable, I estimate the gold yield of the district for 1881 at something over $650,000, which is based upon the following returns made to Collectors and approximate calculations:—

Amount reported to Collector, Barkerville Polling Division	$225,888
Do. do. Lightning do.	87,349
Do. do. Quesnellemouth do.	82,300
Do. do. Keithley do.	125,200
Estimated gold taken out of Omineca	45,000
Desultory mining through district, estimated	40,000
Estimated product from date of collecting statistics to end of year	50,000
Total for year	$655,737

"Except on Burns' Mountain, where the Fallis Company is running a tunnel 600 feet in length to strike their ledge at a lower level, no quartz mining is now prosecuted in the district.

"The mining population is about equal to that of last year.

"I have, &c.,

(Signed) "JOHN BOWRON,

"*Gold Commissioner.*

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

"FORKS QUESNELLE, November 9th, 1881.

SIR,—I have the honour to forward herewith the Mining Statistics, for 1881, of Keithley Division, Cariboo District. Alltogether the yield of gold is quite as good, if not better, than last year, although the season has not been favourable for mining in the creek bottoms, owing to the heavy rains during the summer, which kept the water up to such a stage that the miners could not succeed in turning it out of its natural course until very late in the season, which was a serious drawback to a considerable number of miners in this section.

"On the Quesnelle River, and also North and South Forks of same, there is little or no change from last year, nor is there anything new to report from these places. Keithley Creek still continues to yield a fair proportion to the returns from this section.

"Snowshoe Creek has fallen off a little this year, owing to some of the companies being engaged during the summer in sinking new shafts and changing from one part of their claim to another for the purpose of working to better advantage. There is considerable prospecting being done on this creek.

"Harvey Creek, I am sorry to say, has not fulfilled the expectations entertained of it at one time during the season, still the men stick to it, and there is a great deal of prospecting being done for the number of men on the creek. There are two companies taking out pay at present.

"On the Fraser River, between Quesnelle and Soda Creek, there has been a considerable amount of mining done this season, and I think more gold taken out than the miners will give any account of. My reasons for thinking so are, that in several of the claims I found, upon enquiry, that many of the original owners had left the country and gone home, substituting friends in their place.

"The nature of the diggings upon the benches of the Fraser, as far as I have seen them, is all the same, the gold being found in a strata of gravel from four to eight inches thick. To reach and work this strata, the miners have to shovel off from four to ten feet of a light sandy soil, directly under which lays the strata of pay dirt which is scraped up and washed in a rocker. The water used for washing is in most cases packed from the river in buckets, sometimes a distance of a quarter of a mile, and up on the second and third benches back from the river. These diggings are altogether worked by the Chinese, as I have not seen a white man engaged in this kind of mining.

"I have, &c.,

(Signed) "WM. STEPHENSON,

"*Government Agent.*

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

CASSIAR.

"CASSIAR, B.C.,

"20th December, 1881.

"SIR,—I have the honour to forward herewith, for the information of the Government, the mining statistics for the current year, together with such particulars as may be of interest, &c., in connection with my district.

"In consequence of no discoveries having been made in 1880 or 1881, the number of miners finding occupation in the district during the present year was less than that of any previous season since the discovery of the Cassiar gold mines, the population, exclusive of Indians, being about 650 in all. The past mining season was not a favourable one, owing to incessant rains and storms, giving rise to repeated freshets, which caused the destruction of much mining property and consequent loss of time and money, &c., and until such time as some new discoveries may be made in the district it cannot be expected that any considerable change for the better will take place, the old creeks, as previously reported upon, having been pretty well worked out.

"There is, however, no immediate probability of any further diminution taking place in the number of men finding employment at these mines, as the hills and benches on the different creeks yet offer attractions which will engage the attention of those interested in mining for many years. On Thibert Creek, especially, the prospects for deep digging were very good this fall.

"A prospecting party, consisting of experienced miners, has been out during the past season, but as yet nothing of importance has been recorded. Good indications, however, have been found, and next year it is highly probable that a new camp will be established, when prosperity will again enliven the district.

"Mr. Rufus Sylvester, who is noted for his enterprise and liberality, furnished the prospectors with all necessaries, &c., and has engaged to fit them out again next year should nothing favourable be brought to light before that time.

"There has been an increasing tendency on the part of the miners during the past several years to keep the amount of gold coming from their respective claims a secret, and this year it has reached its climax, it having proved impossible, under any pretext, to extract such information from them.

"The nearest approximate to the actual output of gold for the present year I have, after much inquiry, &c., estimated to be as follows:—

Laketon section	$88,900
McDame Creek section	95,000
From sources not defined	15,000
Total	$198,900

"The above returns show a falling off of some $99,950 as compared with last year, when there were about 150 more men in the district, and when the season was more favourable for the successful carrying on of gold mining.

"The returns from McDame Creek have not realized the expectations indulged in during the early portion of the past season, the falling off being attributable to the spotted nature of the auriferous ground and to the inclemency of the weather. The prospects for next year are, however, fairly good, as a large ditch is being constructed for the purpose of bringing water upon the benches of that creek, when it is expected that a new class of diggings will be successfully opened.

"The number of men wintering in the district will not exceed 120, exclusive of Indians. Of these there will be some 30 at McDame and outlying creeks, 30 at Thibert Creek, 12 white men and 16 Chinamen at Dease Creek, and about 30 upon the Stickeen.

* * * * * * * * * * *

"I have, &c.,

(Signed) "A. W. VOWELL,

"*Gold Commissioner.*

"*To the Hon. T. B. Humphreys,*

"*Provincial Secretary and Minister of Mines.*"

LILLOOET.

This district embraces, in addition to Bridge River, over a hundred miles of the Fraser, with auriferous benches on either bank, and it is unsatisfactory to find from the returns that not a single hydraulic claim is being worked. The "Big Slide Quartz Lode" has not been reported on before. From the description given the supply of ore must be practically inexhaustible, and it may be looked upon as almost a certainty that it will ere long be profitably worked. Considering the wonderful scientific activity of the present age it is curious that no really cheap or satisfactory method of dealing with refractory ore has yet been discovered. When that shall have been added to the triumphs of science, as it surely will be, the "Big Slide Quartz Lode" will be valued by millions. Even now, however, it ought to pay handsomely if worked on a large scale, and it is earnestly hoped that Mr. Foster, who owns the discovery claim, will succeed in persuading an English Company to take the matter in hand. It is difficult to realize the great effect on the prosperity of the Province which a dividend-paying quartz claim would exert, as a stimulus to induce capitalists to develope the immense quartz lodes and other resources of the Province.

"LILLOOET, 23rd November, 1881.

"SIR,—I have the honour to forward the enclosed mining statistics for the Lillooet Division of Lillooet District, and to report that the diggings discovered last year on McGillivray Creek have not realized the expectations formed of them. The company abandoned them this fall, having worked out the part of the creek between the cañon and Anderson Lake. They were delayed five weeks in consequence of the spring freshet sweeping away their flume. They have now turned their attention to Bridge River, where they intend to put in a wing-dam early next spring; being at present engaged in sawing the lumber. If their sanguine hopes are realized, more miners will follow their example, as it is well known the bed of the river is rich. Two experienced miners spent the greater part of the season prospecting on this river and its tributaries. They report that a large extent of the country would pay good wages if a ditch were constructed about ten miles in length, to convey the water.

"The bars of this river are the favourite mining places of the Indians, as the gold is coarse, and game plentiful in the neighbourhood. An Indian (Hunter Jack) has a claim on the South Fork which pays about three dollars a day to the hand, notwithstanding he has to throw the earth three times before it reaches the water. He expects to make six dollars per diem next season, as he will bring the water in a ditch to his claim.

"The amount of gold bought this year by the traders of this town is $38,185
"Yield of McGillivray's Creek 1,032
"Amount unaccounted for... 1,500

"Estimated total yield for 1881 .....$40,717

"The yield for this division is smaller this year than last owing to two reasons, one is, that many Chinamen left to work on the railroad; the other, that Ah Sam Company discontinued mining early in the season to extend their ditch to ground that they expect will pay well next year. They took out only 72 ounces in comparison with 325 ounces last year.

"I have, &c.,
(Signed) "C. PHAIR,
"*Government Agent.*

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

"GOVERNMENT OFFICE,
"Clinton, 25th November, 1881.

"SIR,—I have the honour to enclose herewith the mining statistics for the upper portion of Lillooet District for the year 1881, The Report embraces from Leon's Creek, on the South, along the line of Fraser River to the Northern boundary of the District at Chilcoaten, a distance of about 60 miles. It is almost impossible to get at a correct return of the amount of gold taken out of this part of the district, owing to the whole of the mining being done by Chinese, and a few Indians. I have used every endeavour to obtain information from several of the Chinese miners as to the amount of gold taken out of their claims for the season, but in no case could get anything like a satisfactory reply.

"The total yield which I have to report is $25,730, this amount being obtained from the different merchants, and other buyers of gold, who would have no motive to mislead in their information, it may be taken as accurate.

"To this must be added a certain amount for what, I have no doubt, leaves the district in possession of private individuals.

"I have no new discoveries to report from this section this year. The Chinese miners seem more inclined to form into small companies of four or five men in each. Several new companies of the latter description have recorded during the past two months, and have taken both new and old abandoned claims on different parts of the river. On the Big Slide Quartz Lode, no work has been done this season. This is to be regretted, not only in the interests of the district but the Province at large. That it will yet be worked, and with most satisfactory results, I have not the slightest doubt. Ore from this lode has been assayed in Portland, San Francisco, New York, Montreal,

and London, with, in every case, satisfactory results of from $10 to $100 per ton of 2,000 lbs. The ore is a mass of sulphurets about four feet wide, and has been traced over three miles in length; one tunnel of 80 feet in length tapping the ledge 150 feet from the surface and another of 300 feet tapping the ledge 600 feet from the surface, are a part of the works that have been done on it in the way of prospecting. At the latter depth the lode is of the same width as on the surface.

"Testing the ore on the ground was tried by roasting and then grinding in an arrasta of the most primitive nature, with a result of $12.50 in fine gold to the ton of 2,000 lbs., but from the refractory nature of the ore it is almost unmanageable before becoming de-sulphurized. There is an excellent water power on the claims prospected, available for driving machinery to any extent.

"Foster is now in treaty with an English company for working his claim, in which it is to be hoped he will be successful, and thereby induce others to engage in the same enterprise on this lode, which I am satisfied will yet figure largely in the mining reports of the Province.

"I have, etc.,
(Signed) "F. SOUES,
"*Gold Commissioner.*

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

YALE.

KAMLOOPS DIVISION.

"KAMLOOPS, December 4th, 1881.

"SIR,—I have the honour to inform you that in consequence of the Chinese being unwilling to give the necessary information, it is out of my power to forward the annual mining statistics for the Kamloops Division of Yale District.

"Eighteen men were engaged in mining on the Tranquille in the early part of the summer; but the number employed throughout the season, being dependent on the success obtained, would probably not average over twelve or fourteen.

"The yield of gold is probably over $3,000.

"I have, &c.,
(Signed) "G. C. TUNSTALL,
"*Government Agent.*

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

OKANAGAN DIVISION.

It is very satisfactory that Mr. Lambly is able to report that at last Cherry Creek is being thoroughly tested by a company which possesses not only the necessary practical mining knowledge, but also ample means for carrying on the work. The success of this company would be beneficial to the district in many ways, too obvious to need pointing out.

"OKANAGAN,
"20th December, 1881.

"SIR,—I have the honour to forward you herewith mining statistics for 1881 for the Okanagan division of the Yale District, and to submit the following report:

"I regret very much that owing to my absence last year I could not make a report on the mining interests of this district, but in 1880, as in most of the years immediately previous, desultory mining for gold was carried on, on the then known gold-bearing streams of the district. The yield for 1880 being much the same as in other years.

"This year I am happy to be able to report more favourably as to one of the creeks, viz. Cherry Creek. Within the past six months a company calling itself the Okanagan Co., and being formed of men of influence from Cariboo, Kamloops, Victoria, and Spellamacheen, has started to prospect on this Creek, and it is their intention to do it thoroughly. John T. Edwards, Esq., and Mr. Jos. Ratchford, both old Cariboo men, are in charge of the company's works here, and it is their intention to spend at least $3,000 or $4,000, to satisfy themselves as to the richness of the creek. They have already made an open cut 90 ft. in length from the creek and at right angles to it, and continued that in the shape of a tunnel 60 ft. further, their idea being to intersect an old bed of the creek, where they feel confident of finding pay. In fact Mr. Ratchford told me some time ago that they had already taken out quite a quantity of gold from the gravel thrown out of the tunnel.

"This is the first properly organized attempt at gold mining ever made in this part of the district, and although no great amount of gold has ever been taken out of Cherry Creek, the promoters of this company are very sanguine as to the results, which are anxiously looked forward to by the farmers and others in the immediate vicinity.

"Mission and Rock Creeks have, during the past year, been almost abandoned. The latter still has a few Chinamen clinging to it, but the result of the little labour they do is, I think, almost *nil*.

It is unfortunate that my report for this year cannot be made brighter, but I fully expect next year to have quite another story to tell.

"I have, &c.,
(Signed) "T. McK. LAMBLY,
"*Government Agent.*

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

YALE AND HOPE DIVISIONS.

The discovery of paying ground on the flat which extends from opposite the town of Yale to Hill's Bar on the left bank of Fraser river, and the completion of the Stahlo-Chuck Company's flume, will probably very largely increase the yield of gold in these Divisions during the coming season. Prospecting on the Quo-que-halla has apparently been abandoned.

"YALE, 17th November, 1881.

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

"It is very difficult to get a correct report from the Chinese mining along the banks of the Fraser river as to the amount of gold they are taking out; consequently I can only give an approximate amount to the hand, which would be from $1 to $3 per day.

"The discovery of gold on the south side of the Fraser, opposite Yale, this spring has tended to make mining operations lively. Nearly the whole flat, extending about a mile and a half, has been taken up and claims recorded. Unfortunately there has been a scarcity of water this summer to work the claims to advantage, but from information I have received regarding the prospects I imagine they will pay good wages.

"The Stahlo-Chuck Flume Mining Company have now completed their flume, bringing water a distance of one mile on to the flat, but too late to benefit the miners as winter has already set in with great severity.

"I have, &c.,
(Signed) "W. DEWDNEY,
"*G. A., &c.*

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

KOOTENAY.

The mining return from this district gives a slight increase in the number of miners employed, and also in the yield of gold.

The Black Hills Company on Perry Creek would appear to have done good work, and it is to be hoped that this example may be followed by others; more especially as the Government Agent reports the existence of plenty of unoccupied ground, which in his opinion is quite as good as that owned by the Black Hills Company.

"KOOTENAY, Nov. 8th, 1881.

"SIR,—I have the honour to forward herewith the Mining Statistics for the Kootenay District for the season of 1881.

"The principal portion of the mining in the district is carried on on Wild Horse Creek, and consists mainly of hydraulic claims, which on the north-west side of this creek have paid well. On the opposite side of the creek the claims have not proved remunerative.

"On Perry Creek, the Black Hills Company has done a large amount of preliminary work and is getting the claim into shape for future operations on a large scale. A good sawmill has been erected on this property and a quantity of lumber sawed. Next season the company will probably be taking out good pay if they meet with no bad luck.

"There is room for a number of other companies like this one, and plenty of as good, if not better, ground than this company is occupying. On Palmer's Bar there is a good ditch now complete, and when the old river channel here is opened up there will be no doubt a large number of men at work taking out good pay.

"There are a few scattered miners in other portions of the district making small wages.

"The prospectors on the Kootenay Lake met with no success.

"I have, &c.,
(Signed) "WILLIAM FERNIE,
"*Government Agent, Kootenay District.*

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

HEAD WATERS OF SKEENA AND FINDLAY BRANCH OF PEACE RIVER.

A party of explorers, assisted by the Government, composed of Messrs. J. Walsh, C. Irvine, and N Sylvas, left Victoria in the beginning of last June with the intention of prospecting in this large and almost unknown district. The Sestont, a fork of the Skeena river, was prospected from its mouth to its head, a distance of about eighty miles. This section does not present favourable indications for gold.

The party crossed the divide between the country drained by the tributaries of the Skeena and that drained by the tributaries of the Findlay Branch of Peace River, and several of these latter streams were prospected. Although gold was not found in paying quantities, a belt of slate about 30 miles wide, with "creeks as good looking as any in Cassiar," was discovered. The country is "mountainous, the mountains are generally bald, and covered with grass and wild flowers in summer." Cariboo might be described in the same language, and it is no wonder that the prospectors "were anything but satisfied to give it up." This belt of country probably contains paying diggings, and it is greatly to be regretted that the lateness of the season, necessitating the return of the party, prevented a more thorough search.

COAL.

For the first time since the issuance of an annual Mining Report a decrease in the output of coal has to be recorded. The falling off is slight, and the Inspector of Mines easily explains it; but the decrease of 6,000 tons in the number sold during the past year for "home consumption" is at first sight startling and unsatisfactory,—startling, because undoubtedly the Province did a greater volume of business, and was more prosperous generally, in 1881 than 1880. However, about 2,000 tons, after being sold for export, were thrown on the Victoria market, which considerably reduces the real shrinkage in home sales. The balance may safely be put down to a decrease in the work done by tugs. The steam colliers "Hylton Castle" and "Barnard Castle" have taken the place of a number of sailing vessels which required towage; and, in addition, it may well be that the coal supplied by Messrs. Dunsmuir, Diggle & Co. to their own powerful tug, the "Alexander," is not included in their return of coal sold for home consumption. Taking all things into consideration, it is most probable that there was no falling off at all during the past year in the amount of coal used for manufacturing and domestic purposes within the Province.

It is most earnestly to be hoped that the representations made to Sir Charles Tupper, and which he promised should receive the careful consideration of the Dominion Government, will not be barren of result. The claim of the Collieries to a drawback is so strong and so reasonable that it seems difficult to believe that it will be altogether ignored.

The Province possesses vast resources, but "Coal is King." The Collieries already give steady employment to over 800 persons; and the day is fast approaching when its commanding position on the Pacific coast, and the immense valu eand importance of its coal measures, will be fully recognized.

The following table shows the output of each year from 1874 to 1881 inclusive:

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

"NANAIMO, B.C., 2nd February, 1882.

"SIR,—I have the honour to submit my Annual Report as Inspector of Mines for British Columbia for the year 1881.

"The coal mines which have been in operation during the past year are the Nanaimo Collieries of the Vancouver Coal Company, known as Douglas Pit, Chase River Mine, and Fitzwilliam Mine; and the Wellington Colliery of Dunsmuir, Diggle & Co., known as North and South Wellington Mines.

"In 1881, 228,357 tons of coal were raised at the above-mentioned Collieries, which with 10,476 tons on hand at the commencement of the year, formed a total of 238,883 tons available for export and sale.

"Shipments amounting to 189,323 tons have been made to San Francisco and other ports in California; Portland, Oregon; Seattle, W.T.; Ounalaska, and Wrangel, Alaska Territory; Mexican ports; China; the Hawaiian Islands, and to mail steamships and calling vessels for fuel.

"In this Province, 40,191 tons have been disposed of for manufacturing, gas, household and other purposes, and for local tug-boats and steam vessels, leaving 9,368 tons on hand at the Collieries on 31st December, 1881.

"The following summary will show the results of the past year's operations in comparison with those of the previous year:—

Year.	Output of Coal.	Home Consumption.	Exported.
1880	267,596 tons.	46,513 tons.	225,849 tons.
1881	228,357 ,,	40,191 ,,	189,323 ,,

The falling off in the output is partly attributable to the Wellington Collieries standing idle when without vessels at their wharves, and partly to the cessation of mining at Douglas Pit and Chase River Mine for several weeks during an embarrassing fire which originated by the combustion of slate (shale) and dross lying in some old workings. The Company's output was also materially lessened by a three months' strike among the miners. In addition to these troubles, the officers of the Vancouver Coal Company have had to contend with hindrances incidental to mining enterprises arising from "faults" and "wants" in the coal seams and an excessive influx of water, all of which, though now nearly overcome, have in the past tended to materially limit their product.

The home consumption of 1881 has been less than that shown by last year's returns, but it stands about the same as in 1879. It should be mentioned, however, that some 2,000 tons or upwards of coal ranking with the exports of 1881 found its way into the Victoria market owing to accidents to the ship "Sumatra" and the steam collier "Hylton Castle."

"It is most desirable that the local trade should attain larger dimensions, and there is ground for hoping that the railway work now under construction on the mainland, with the contemplated extension to the sea shortly to be put under contract, will give such a healthy impetus to general business in this Province as to create employment for additional steam vessels, and render necessary the establishment of new manufactories that will become considerable domestic consumers of coal, and thus improve Provincial sales.

"An encouraging feature in the year's export is a decided increase in shipments to the Hawaiian Islands, where our coal is finding favourable reception. The employment of four steam colliers in British Columbian waters is also a sign of progress, as the freight and delivery of coal can be regulated with greater certainty than by the use of sailing vessels.

"The decline appearing in the quantity of coal exported in 1881 as compared with 1880 is accounted for by the unfavourable state of the principal foreign market (San Francisco) at various periods during the past year, when, as I have stated, the Collieries stood idle waiting for vessels; but there is no doubt that if the market had maintained only its average condition the exports, by an increased output, would have been kept up to the returns of 1880 at least, and might have shown an increase.

"While touching upon the commercial aspect of our coal industry, I feel it to be my duty, in the interests of the public, to refer in this report, as I did in my last, to the trammels with which our coal trade is surrounded by the Dominion Tariff and the American impost of 75 cents per ton. I am encouraged to do so also by your preface to my report, in which you offer the following valuable suggestive remarks:—

"'The disadvantages under which our Collieries labour, in exporting coal, are so "'serious that it is natural and proper for the Government Inspector to follow the "'example of his predecessor in bringing them to the notice of the public. * * * "'Appeals to the Dominion Government are sure to be listened to and carefully "'considered, and may be successful in obtaining the great boon of other reductions in the "'tariff on articles used in the working of coal mines and not manufactured in the "'Province. Every legitimate effort should be used to induce the Dominion "'Government to lighten as much as possible the great weight which, in competition "'with American mines, now oppresses this most valuable industry.'

"And I have now the pleasure to report that a movement in the direction indicated by you, and which will very likely have a very beneficial effect, has been made by the Mayor and Council who, in their address to Sir Charles Tupper, K.C.M.G., on the occasion of his recent visit to this city, submitted the following representations relative to the grievances of the coal mining industry:—

"'The mineral resources of Vancouver Island will commend themselves to your "'notice, and the comparatively infantile, but enterprising, endeavours for their devel-

" ' opment which are being made have established at the port of Nanaimo the nucleus of a
" ' coal trade that with due aid and fostering encouragement from the Dominion bids
" ' fair to become the most important industrial and commercial pursuit of the North
" ' Pacific coast.

" ' Recognizing in you one of the ablest statesmen of Canada, and a distinguished
" ' and leading member of the present Government, our citizens regard this visit with
" ' which you have favoured us as an opportune occasion for bringing before your
" ' attention their views with respect to matters affecting their welfare which fall within
" ' the province of your Government. * * * We must respectfully repeat the
" ' remonstrances which have before been urged upon your Government through the
" ' member for this district as to the unsuitability of the Tariff to the present circum-
" ' stances of this Province, so far as it imposes high protective duties (largely increased
" ' above the Tariff of 1870) upon all such colliery machinery, plant, and supplies as are
" ' not now, and probably will not for many years to come, be manufactured in this
" ' Province, and which we are precluded from obtaining in Eastern Canada by the great
" ' cost of freights.

" ' The ports of the United States form the chief foreign market for our coal, and
" ' there we are met with an impost of 75 cents per ton and the close competition by
" ' American producers, who, in their freedom from that impost and from all import
" ' duties upon their colliery machinery, plant and supplies, are able to offer their pro-
" ' duct at a lower rate than would be remunerative to our Collieries, and were it not
" ' for the superior quality of Vancouver Island coal we should be unable to maintain
" ' a position in the market.

" ' We desire earnestly to direct the attention of your Government to the vital neces-
" ' sity for the immediate adoption of a more enlarged policy than has hitherto prevailed
" ' with respect to our important coal industry; and we claim that we are equitably entitled
" ' to have our Collieries allowed a liberal drawback upon all things required for Col-
" ' liery use and consumption until reciprocity with the coal trade is established between
" ' the Dominion and the United States (which we trust the Government will speedily
" ' endeavour to accomplish), and until we are able to equip and supply our Collieries
" ' from Eastern Canada by means of the Canadian Pacific Railway.'

"Sir Charles Tupper, in the course of his reply to the civic address, stated that the present importance of the British Columbia coal interests spoke well for the industry and energy which had been displayed in the face of the prohibitive tariff. Sir Charles admitted that the present Tariff might not suit all sections of the Dominion, but that where it bore heavily the Government had in many instances endeavoured to ease off the burden. He finally promised that the representations contained in the address should receive the careful consideration of the Government.

"I believe that the statement of grievances above quoted, with the addition of the desirableness of a modification of the Pilotage Regulations to meet the case of the steam colliers, covers the entire ground; and it now fairly rests with the Dominion Government to do justice to the requirements of our struggling coal industry, so directly brought before their notice by the Nanaimo Corporation. The Department of Marine has, I understand, had before it for some time a proposition from the Nanaimo Pilotage authority for the amendment of the Pilotage By-laws.

"Speaking generally as to the prospects of coal mining in British Columbia, I may say that at no previous period in our history have greater efforts been made than are now being prosecuted in this district in the exploration and opening up of new mines; and the outlook as to the increase of the producing powers and the development of the coal wealth of the Province was never brighter and more promising than at present.

NANAIMO COLLIERIES.

DOUGLAS PIT.

"At this mine there are only two miners sending out coal at present. There will be more men employed from time to time, but there cannot be many, as they are working at a piece of coal which was left along with the croppings to protect the mine from surface water.

"As for the lower seam in this pit, I have been informed by Mr. Shepherd, the underground manager, that after going to considerable expense in driving tunnels one way and another, they could find nothing to justify further prospecting at this place, so they took out the rails, &c., and have abandoned it for the present. It is now standing full of water, and the ropes have been taken off.

CHASE RIVER MINE.

"The workings are from a slope. I have inspected them frequently during the past year. The mine is very much troubled with "faults,"—there is a continuation of them one after another; and, to make matters worse, in the month of February the mine took fire by spontaneous combustion at a place about 500 yards from the slope. All the men that could be procured had to be employed to extinguish the fire, as it was spreading into the old works, consuming the pillars, and the roof coming down made it very dangerous for men to be near it. There was plenty of water near at hand, and hand-pumps were brought into use until the arrival of the fire-engine from Nanaimo. A steam-pump was also got to work; but notwithstanding these appliances and the strenuous exertions of about a hundred men, it took nearly four weeks to completely master the fire.

"Coal mining is principally carried on in what is known as No. 4 Level, and a slant drive going down angling across the pitch from the above level. The coal averages from 6 to 8 feet in thickness, and is hard and of good quality. It has a pitch of about 45°, and the bottom rock being very soft makes it difficult to timber the roof up, which is also of a very loose nature, and makes working in the mine dangerous At present the place has a good appearance for a large output of coal for the year just commenced.

"In No 3 Level there are a few miners working, and some are working in other places at pillars which will last for some time, but these places are not extensive.

"The mine is ventilated by a large furnace built at the bottom of the upcast shaft. The air is split into two main divisions, one going to the north, the other to the south side of the slope. There is a large quantity of air in circulation in the mine for the number of men employed, but there is great difficulty in getting it conducted to the face of the workings owing to the coal being so steep and so many faults to contend with.

"There was a complaint made to me (verbally) about the ventilation in a certain part of the mine not being good. I visited the place on the following day and found the ventilation was not what it should be. After I came out of the mine, I informed the Superintendent that he was infringing the Coal Mines Regulation Act, and he said that he would remedy the defect as soon as possible, which was done. At present the air in circulation is all that the law calls for. In exploring or prospecting, a long piece of brattice was used in some places, but now they see that they have got coal to work a counter level was started which will conduct the air to the face and do away with the brattice. The coal where they have been exploring gives off a little gas; but I have only once seen it personally with the safety lamp, and that was in a small hole. The fireman frequently sees a little gas while examining the places in the morning before the men go to work. In consequence of the steepness of the workings, it is only in small places where the air cannot get a full sweep at it that the gas can be seen, but it is easily brushed out and made clear for the miners. At these places the miners keep a safety lamp beside them, so that if they are out of their stalls for any length of time, or after firing a shot, they have to examine their place before they take in a naked light to the face, as the fireman has other places to attend to in day time.

FITZWILLIAM MINE.

"This mine is also worked from a slope, and employs about fourteen miners. The average thickness of coal is about two and a half feet and is of good quality. The workings are low but safe to work in, the roof being hard and the coal lying almost flat. The mine is ventilated by a large furnace at the bottom of the upcast shaft. The coal is worked from both sides of the slope. The current of air is conducted through the mine on the one side, and up the other side to the furnace and upcast shaft. The ventilation is good, and no gas is found in the mine. All of these mines are conducted and in charge of Mr. Shepherd, Underground Manager for the Vancouver Coal and Land Company.

"The Vancouver Coal Company have bored five prospecting holes during the past year with their diamond drill boring machine. Four of these holes are near the wharf from which they ship their coal. At this place they struck the coal at 340 feet from the surface. The holes are only a few feet apart, and they intend to utilize them in sinking a shaft. The other hole was put down close to the beach, and about half a mile in a southerly direction from those already mentioned. At this place the coal was found at the depth of 600 feet from the surface, eight feet thick and very hard. Close to this they are sinking a shaft 18 feet in diameter, which is now down 200 feet. In the first 40 feet there is an alluvial deposit of gravel and clay. This part is timbered with segment blocks, 2 feet 6 inches long, with the end of the timber to the shaft. The next 40 feet is timbered with smaller blocks. The rest of the distance, as far as they are down, is principally hard rock not requiring any timber. The machinery about the shaft is all new, having been lately imported from England. The engine is a double direct-acting one, with cylinders 16 inches diameter receiving the steam from two boilers. The head gear and engines are used temporarily, as they have another large double engine on the way here, with cylinders 36 inches diameter, and other machinery necessary for the works, which is due here early in March. The National Compressed Air Drilling Machine is being used in sinking the shaft, and the shots are fired off by electricity. The works are all covered in and made comfortable and safe for the men. All the works and machinery in and about the shaft are under the control and supervision of Mr. James Beaumont, the Company's Mining Engineer. Although it is 600 feet down to the coal, the Engineer is confident that the shaft will be down before Christmas, 1882, if not too much troubled with water.

WELLINGTON COLLIERIES.

WELLINGTON MINE.

"This mine is worked from a slope, and the coal is hauled out by a powerful double direct-acting engine, which is kept in first-class order. The slope is about a thousand yards long; the roof is supported by timbers from 12 to 15 inches thick, put in in a workmanlike and substantial manner. Signal, or telegraph wires, run the entire length of the slope, from the lower workings to the engine-house, where a bell is fixed close to the Engineer who can thus be signalled immediately in any emergency. There are six levels working from the slope; four on one side known as Nos. 5, 7, 9, and 10 levels, and two on the other side known as Nos. 9 and 10 levels East. I have inspected all of these places frequently during the past year. I always make these inspections when the miners are at work, so that I may personally hear their complaints if they have any to make. I may here mention that no complaints were made by the workmen during the past year, although I informed them that if they would notify me by note whenever they saw anything wrong I would attend to the matter immediately. So far as can be seen, everything is in the best condition for the comfort and safety of the workmen. Sometimes, however, I found some of the miners a little careless in not having the roof properly propped up and more secure nearer to the face of their stalls. I pointed this out to them at the time, but as there is a thick bottom bench of coal they thought it was quite safe until such time as they took up this ply of coal.

"The ventilation of the mine is effected partly by a large furnace, built on a good principle, capable of producing a large quantity of air, and partly by a fan, 30 feet in diameter and 10 feet wide, worked by two powerful engines. The South Wellington mine is wholly ventilated by this plan. At no time did I find less than 175 or more than 300 cubic feet of air per minute to each man employed in the mine. The method in use is the separate split system. The air is conducted in four main divisions along the respective airways close into the face of the workings by brattice. After doing its work it then returns to the furnace or the fan, as the case may be. Sometimes a brattice is not as close to the face as the law requires, but if it was it would be sure to get broken down by blasting, as it is not uncommon for the miners to put two or three pounds of powder in one blast. As the coal is mined on the pillar and stall system, a connection is always made with the adjoining stall every 15 yards, so that the air may have a clean sweep of the workings and in a direct course to either the furnace or fan.

The colliery, as far as can be seen, is in a good and safe condition, both above and below ground. On personal observation, I always found plenty of timber for the use of the miners lying convenient to the mine, so that every man could take the required length of props to suit the workings of his stall, or any other timber he might require.

"There is now very little gas to be seen in the mine at any time. The fireman in examining the workings in the morning before the miners commence work occasionally comes in contact with a little—just enough to show that there is gas in the mine, and make him careful to see that all is clear and safe before the men go to work. I have not seen any gas in the mine during the past year, although I generally had a safety lamp with me on my visits. There are six different means of escape from the mine, exclusive of the furnace shaft.

SOUTH WELLINGTON MINE.

"No. 1 Shaft. I have inspected this part of the Wellington Colliery frequently during the past year, going through all the workings and travelling through all the airways, which I found in good order and of large dimensions. In some places the roof is of a very loose nature. The Manager and miners have to be very careful, and I am glad to be able to say there have been no accidents during the past year—if I can omit the parting of the rope, whereby one man was killed.

"This portion of the mine is ventilated by the same fan that partly ventilates the Wellington mine, and which is capable of keeping in motion a large quantity of air. Here again we have ventilation on the separate split system, which is found to answer best in the ventilation of our mines. There are four main divisions or currents of air, which give from 200 to 400 cubic feet of air per minute to each man, and it is conducted well into the face of the workings. After getting past all the miners, the air again forms into one current and goes out at the fan shaft. Very little gas is now seen, although previous to the men going to work in the morning the fireman occasionally sees enough to keep him on his guard against this most destructive enemy of the coal miner. The old works are also examined to see that every place is clear, and the ropes are good and of first-class quality. There are some things which might have been altered a little, but Mr. Bryden, the Manager, told me that in a few months more they would stop taking coal out of this shaft—not that the coal will be worked out, but that they were driving an audit level entering from the Millstone Valley, by which the coal would be brought out to the railway by horses or mules, when the engine would not be required.

"In my report of last year mention is made of the Company having started a shaft in the valley of the Millstone river. I am now glad to be able to report to you that, after going to great expense, the Company have been rewarded by striking the coal at a depth of 200 feet. This is the vein known as the "Wellington coal." At this place the vein is 10 feet thick and of a good quality. At present but little coal is being taken out, as they are engaged in putting the machinery in good working order in the expectation of having a large output early in the Spring. As a means to get the coal away, there is a new incline built on trestle work, starting from the ground in the valley and gradually rising till it gets to the height of about 70 feet, when it gets to a ridge of rock through which a cut is made so that the same grade may be kept, and in a direct line for about as much farther. Only one track is laid down, but everything is ready to lay the other tracks as soon as required. A large engine is fixed at the head of the incline to haul the coal up. The Company are sinking another shaft on the ridge a short distance from the head of the incline, which will also come down on the Wellington seam of coal, and which they expect to strike at a depth of about 500 feet from the surface. The most improved boring machinery &c., is being used, and it is expected that the shaft, which is 18 by 8 feet, will get down to the coal some time next summer.

ACCIDENTS IN AND ABOUT THE NANAIMO AND WELLINGTON COLLIERIES FOR THE YEAR 1881.

March 1st.—Charles Bennie, miner, while at work in his stall in the Wellington Colliery received injuries about the body by rock falling on him.

March 3rd.—Thomas Hawkes, miner, was slightly injured by a piece of rock falling on him while attending a hose attached to a pump which was throwing water on a fire in Chase River Mine.

April 16th.—Frederick Wild, weighman at South Wellington pit, went on to the cage to go from the upper to the lower staging. While between these places the rope broke, or was cut, and the cage, with Wild on it, fell to the bottom of the shaft (140 feet). When found he was quite dead.

May 3rd.—James Jamison, miner, was burned about the neck and arms by an explosion of gas in a prospecting shaft belonging to the Vancouver Coal Company. He injudiciously opened his safety lamp before he had ascertained whether it was clear of gas or not.

July 25th.—Isaac Snowden, pump-man at Chase river mine, received serious injuries while attending to his duties by a car running away on an incline.

August 27th.—James McKinley and William Purdy, miners, were badly burned about the face and arms in Chase River mine by the after explosion of a shot through not going far enough out of the way.

September 3rd—Joseph Metcalf, miner, received injuries to his hands and shoulders in Chase River mine by a piece of coal falling on him while at work in his stall.

September 12th—John Foster, miner, was slightly cut about the neck by a piece of coal falling on him while at work in his stall in the Chase River mine.

December 20th—Joseph Bevilockway had one of his ribs fractured by falling from a ladder in the Chase river mine.

December 21st—Peter Taylor, miner, got badly burned about the neck, back, and arms in Chase River mine. He went into his stall before the gas was brushed out by the fireman, contrary to the advice of that person, and started to brush it out himself. His naked light being close in, he brought the gas down upon it, thus causing an explosion.

December 24th.—Nicholas Barker, miner, was burned about the head and one hand by an explosion of gas in the Chase River mine He went into another man's stall during his absence without a safety lamp, although he knew the place gave out gas.

"There were 12 accidents in and about the coal mines during the past year. Eight of these occurred at the face of the stalls, which are under the care of the men; one by a fall of rock, two by falls of coal, two from after explosions of shot or blasts, and three by explosions of gas. All of these casualties might have been averted had more care been taken by the miners. It is generally easy to see when rock or coal is getting loose; and as the miners know that some parts of the mines give off a little gas, they cannot be too careful in seeing that their stalls are safe before commencing work.

"You will observe that all the explosions were caused by negligence and violation of the Coal Mines Regulation Act on the part of the miners. I am glad to say the injured men are getting well, and it is to be hoped that the suffering which their own negligence has brought upon them will be a warning to themselves as well as others in the future.

"I regret to report one fatal accident during the past year, that of Frederick Wild, pithead and weighman at the South Wellington shaft. From the evidence taken at the inquiry it would appear that the deceased went on the cage at the upper staging to go to the lower one, and when he was being lowered the rope slipped off the pulley and got between the pillow-block and the sheave, which are very close, and was cut in two. The cage, which weighed 1½ tons, with Wild in it, then fell to the bottom of the shaft, a depth of 140 feet. The deceased was taken out of the shaft as soon as possible after the accident, but he was then quite dead. An examination was made shortly after the accident, when a large piece of congealed tar was found in the groove of the pulley with the impression of the rope on it. This tar had been collecting, from time to time, on the side of the groove, and at the time of the accident had fallen into it and threw the rope off the pulley. This was, no doubt, the cause of the accident. No blame could be

attached to the Company, as it was part of the deceased's duties to see that everything was in good order, which he must thought to have been the case or else he would not have got into the cage. A minute before the accident the rope had taken a load of 2½ tons out of the shaft.

"The following statement shows the quantity of coal raised and the number of fatal and non-fatal accidents during the past four 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

"Appended hereto are the Annual Colliery Returns.

"I have, &c.,
(Signed) "ARCHIBALD DICK,
"*Government Inspector of Mines, Nanaimo.*

"*Hon. the Minister of Mines.*"

NANAIMO COLLIERIES.

Output of Coal for 12 months ending Dec. 31st, 1881.	No. of Tons sold for home consumption.	No. of Tons sold for exportation.	No. of Tons on hand 1st. January, 1881.	No. of Tons unsold, including coal in stock, January 1st, 1882.
47,308 4-20 tons.	9,665 12-20 tons.	36,467 tons.	5,712 5-20 tons.	6,887 17-20 Tons.

Number of Hands employed.			Wages per day.		
Whites.	Chinese.	Indians.	Whites.	Chinese.	Indians.
190	65	17	$2 to $3.75	$1 to $1.25	$1 to $1.50
Total hands employed 272			Miners' earnings per day ..... $2.50 to $5		

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

Name of Seams or Pits.....Chase River, Douglas, and Fitzwilliam.

Value of Plant..... ...$115,000.

Description of Seams, &c. .....Chase River, worked by slope; 4½ to 16 feet thick; 5 levels. Douglas Pit, taking out pillars.

Description and length of Tramway, &c....Railway, 2 miles; locomotives, 3; good supply rolling stock, generally.

M. BATE.

WELLINGTON COLLIERIES.

Output of Coal for 12 months ending December 31, 1881.	No. of Tons sold for home consumption.	No. of Tons sold for exportation.	No. of Tons on hand 1st January, 1881.	No. of Tons unsold including coal in stock, January 1st, 1882.
181,048 17-20 tons.	30,525 14-20 tons.	152,856 10-20	4,764 3-20	2,430 16-20 tons.

Number of Hands employed.			Wages per day.		
Whites.	Chinese.	Indians.	Whites.	Chinese.	Indians.
261	286	None.	$2 to $3 75	$1 to $1.25	None.
Total hands employed 547			Miners' earnings per day..... $3 to $4		

Name of Seams or Pits.....Wellington.

Value of Plant .....$245,000.

Description of Seams, &c.....6 to 10 feet thick; 7 levels; 2 shafts working, 1 not working, and 1 sinking; 1 slope working; 2 air shafts, 1 of these large furnace at bottom, the other ventilating fan 30 feet diameter driven by a pair of engines.

Description and length of Tramway, &c...10 miles of railway, 5 locomotives, 180 waggons; 5 stationary engines working; 2 engines not used at present; 4 steam pumps; 5 wharves for loading vessels, with bunkers, &c.

DUNSMUIR, DIGGLE & Co.