

TENTH ANNUAL REPORT

OF THE

MINISTER OF MINES,

FOR THE

YEAR ENDING 31ST DECEMBER,

1883.

BEING AN ACCOUNT OF

MINING OPERATIONS FOR GOLD, COAL, &C.,

IN THE

Province of British Columbia.

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

# PRC NCE OF BRITISH COLUMBIA.

## MINING STATISTICS FOR 1883.

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 gold.	Total Divisions.	Total Districts.						
					Whites.	Chinese.	Whites.	Chinese.	Bar.	Creek.	Bench.	Hill.	Quartz.	Rocker.	Sluices.	Hydraulic.	Shaft.	Tunnel.	Water Wheels.	Steam Engines.										
<b>CARIBOO.</b>																														
<b>Barkerville Division:</b>																														
Williams Creek	21		19	2	60	55	\$4 00	\$2 50		10			11			3	11	7								\$16 00	\$44,677			
Mosquito and Red Gulch	5		5		12	3	"	3 25		3			2				5									17 25	9,000			
Hardscrabble Creek	1		1		5		"			1						1	1									16 50	1,190			
Sugar Creek	2		2		9	3	"	3 00		2						1	1									15 35	4,810			
Lowhee Creek	9		9		24		"	"		5						4		1		1						17 00	15,500			
Grouse and Canadian Creeks	9		9		17	10	"	"		3	3	3				4	4			1						15 75	10,000			
Antler Creek (Lower)	16		16		98		"	"			15	1				15	1									16 50	42,800			
Antler Creek (Upper)	3		1	2	14		4 00	"		1	2							1	2							8 00	3,000			
Cunningham Creek	9		9		1	29	"	3 00		3		6				8	1									16 00	12,000			
Jack of Clubs Creek	3		3	1	7	13	"	2 50		2		1				1		2								16 50	13,500			
Conklin Gulch	5		3	2	8		"	"		4		1					1	4		1						16 00	1,700			
Stouts Gulch	2		1	1	4	10	"	"		2						1	1			1						17 00	4,500			
McArthur's Gulch	1		1	1	2		"	"		1						1										16 00	1,000			
Steven's, Begg's, and California Creeks	4		4		12		"	3 00		4						3	1									16 00	3,000			
Desultory Mining					35		"	"																			12,000			
<b>\$177,177</b>																														
<b>Lightning Creek Division:</b>																														
Lightning Creek	13		8	5	24	40	4 00	3 00		7		6				6	6			1	3					17 00	7,000			
Last Chance Creek	3		2	1	15		"	"		2		1				3											1,000			
Van Winkle Creek	2		2		20		"	"		1		1				2											1,500			
Perkin's Gulch	3		3		4	13	"	"				3				2		1									800			
Chisholm Creek	5		2	3	6	16	"	"		2		3				4		1		1						17 15	2,000			
Davis Creek	3		3		20		"	"		3		3				3											17 00	5,000		
Ruchon and Canon Creeks	6		1	4	7	15	"	"		4		1				5											2,400			
Slough Creek	6		5	1	3	25	"	"				3				5		1								17 25	15,000			
Nelson Creek	4		4		20		"	"		4		3				2		1	1								9,000			
Burn's Creek	3		2	1	2	20	"	"		2		1				2			1								7,000			
Peter's and Campbell's Creeks	5		4	1	1	28	"	"		3		2				4										17 00	4,000			
Fountain Creek and Swift River	5		5		20		"	"		2		3				5											6,000			
New and Dragon Creeks	2			2	5	1	"	"		2		2				2											500			
Deadwood Creek	2		2		8		"	"		2						2		1	1								10,000			
Desultory Mining					35		"	"																						
Burn's Mountain	3		3		8		"	"				3								3										
<b>71,200</b>																														
<b>Keithley Creek Division:</b>																														
Keithley Creek	11	45	7	4	15	42	4 00	2 50		6	1	4				4	2	2	3	2						17 40	25,400			
Snowshoe Creek	8	22	3	2	12	14	"	"		6		2				4	2	1	1	1						17 00	15,250			
Harvey Creek	5	20	3	2	19		"	"		5						1		2	2	1						17 40	7,000			
Cunningham Creek (lower end)	1	3	1		3		"	"		1						1										17 00	900			
North Fork, Quesnelle River	8	36	8		40		"	"		1	7					6	2									16 30	16,000			
South Fork, Quesnelle River	6	28	6		36		"	"		1	4	1				4	2									16 30	8,300			
Quesnelle River (upper end)	1	4	1		22		"	"		1						1										16 30	8,400			
Cedar Creek	2	9	2	1	10		"	"		1		1				2										16 30	5,000			
Horsefly River	3	23	2	1	25		"	"			2	1						2	1							16 00	8,000			
Fraser River (6 miles below Quesnelle, to Soda Creek)							"	"																		15 00	5,000			
<b>99,250</b>																														
<b>Quesnelmouth Division:</b>																														
Fraser River (commencing six miles below Quesnelle, and thirty miles up the River)	15		15		4	79	3 50 to 4	2 00	6		9					8	5	2								17 00	44,040			
Cottonwood River (from the Bridge down)	3		3		12		"	"			3					1	2									16 50	4,360			
Quesnelle River (from mouth 20 miles up)	10		10		10		"	"		10						10										16 50	5,400			
Hixon Creek and vicinity	5		5		1	10	"	"			5	5				5										16 00	10,260			
Desultory Mining					25		"	"																			5,000			
<b>70,160</b>																														
<b>CASSIAR.</b>																														
<b>Laketon Division:</b>																														
Thibert Creek	18	53	16	2	27	23	5 00	3 50		9		7				16			5	2						16 00	29,000			
Dease Creek	17	50	17		11	25	"	"		8		9				17			3							15 40	14,000			
<b>43,000</b>																														
<b>McDane Creek Division:</b>																														
McDane and adjacent Creeks (including Liard River as to number of men and amount of gold only)	27	116	25	2	55	59	\$5 to 6	4 00											1	6							65,000			
<b>65,000</b>																														
<b>Yield from localities not particularized</b>																														
<b>11,000</b>																														
<b>LILLOOET.</b>																														
<b>Fraser River (from Foster's Bar to mouth of Chilcoatin River, including Bridge River and its tributaries)</b>																														
<b>68,000</b>																														
<b>YALE.</b>																														
<b>Yale and Hope Division:</b>																														
Fraser River and tributaries (Hope to 34 mile bar)	6				20	12	"	"																		15 00	5,000			
<b>5,000</b>																														
<b>Kamloops Division:</b>																														
Tranquille River	4	10	4		12		"	1 50	3	1						4										16 00	1,950			
<b>1,950</b>																														
<b>Okanagan Division:</b>																														
Cherry Creek							"	"																			2,500			
<b>2,500</b>																														
<b>ROOTENAY.</b>																														
<b>Wild Horse Creek</b>																														
Wild Horse Creek	20	59	20		7	70	4 00	3 00		8		12				8	12									18 00	26,000			
Weaver Creek	1	1	1		1		"	"			1						1									18 00	700			
Palmer's Bar	1	2	1		2		"	"			1					1	1									18 00	600			
Bull River (desultory)					5	3	"	"																			18 00	800		
Cannon Creek (desultory)					9		"	"																			18 00	1,000		
Spelmucheem River	3																													

# 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 1883.

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	2,801,883	933,962	3,735,850	4,400	849
1865	2,618,404	872,801	3,491,205	4,234	813
1866	1,996,580	665,526	2,662,106	2,932	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	1,381,234	443,744	1,774,978	2,369	749
1870	1,002,717	334,239	1,336,956	2,343	569
1871	1,849,580	449,860	1,799,440	2,450	734
1872	1,268,229	402,743	1,610,972	2,400	671
1873	979,312	326,437	1,305,749	2,300	567
1874	1,333,404	461,154	1,844,618	2,868	643
1875	1,856,173	613,726	2,474,904	2,024	1,222
1876	1,339,968	446,662	1,786,648	2,232	783
1877	1,206,186	402,045	1,608,182	1,960	820
1878	1,062,670	1-5th 212,534	1,275,204	1,838	677
1879	1,075,049	" 215,009	1,290,058	2,124	607
1880	844,856	" 168,971	1,013,827	1,955	513
1881	872,281	" 174,456	1,046,737	1,898	551
1882	795,071	" 159,014	954,085	1,733	543
1883	661,977	" 133,375	794,252	1,965	404
			<b>\$ 47,935,963</b>		

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REPORT  
OF THE  
MINISTER OF MINES  
FOR THE  
YEAR 1883.

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*To His Honour 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 Tenth Annual Report of the Mining Industries of the Province.

I have the honour to be,

Sir,

Your obedient servant,

JNO. ROBSON,

*Provincial Secretary and Minister of Mines.*

*Provincial Secretary's Office,  
23rd February, 1884.*

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## REPORT.

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### GOLD.

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The value of the gold exported by the Banks, during the year 1883, is as follows:—

Bank of British Columbia .....	\$226,985
Bank of British North America.....	124,797
Garesche, Green, & Co.....	310,145
	\$661,877

The Table shows an increase in the number of miners employed. This increase is entirely composed of Chinese; and to this fact may be attributed the decrease in the average yearly earnings per man.

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### CARIBOO.

#### MR. BOWRON'S REPORT.

“RICHFIELD, 30th November, 1883.

“To the Honourable the Minister of Mines,  
“Victoria.

“SIR,—I have the honour to submit, for your information, my annual report on the gold mines of this district for 1883, accompanied by statistics in tabular forms, from which it will be seen that there has been a small decrease in the gold product of the district from that of 1882, which may be accounted for by an unusually dry season, many companies being obliged to suspend work in July, from a lack of water. Had it not been for this, there would undoubtedly have been a larger yield than that of the previous year.

“Quite a number, attracted by the rare opportunities presented for investments, or the making of permanent homes along the line of railway, now in course of construction in the Province, continue to leave the mines; consequently, our present white population is less than at any time since the first gold discoveries in the district.

“On Williams and Lightning Creeks, where the water supply in the most favourable seasons is limited, and where the larger portion of the claims are now worked by hydraulics, the drought has greatly retarded operations. Indeed, it is doubtful whether any of the claims on these creeks have yielded more than a fair return for the labour expended upon them, if I except the old Barker Co., on Williams Creek, which produced some \$12,000 for a little over two months' work. This company will continue work during the winter, and I am told promises well for its owners.

The Chinese companies working the bars and benches of lower Antler Creek have done exceedingly well the present year. They have, I understand, in some instances, constructed wing-dams, by which means the bed of the creek is worked and found to pay. This is a new feature here, which will add much to the prestige of this creek. The bed-rock has not as yet, however, been reached in any instance—an undertaking regarded by many with favour.

"On the upper part of Antler Creek, the Nason Co. hold a 'real estate' claim, which has not been worked for some years, but upon which active operations have again commenced. The company, having purchased the saw-mill, iron pumps, and machinery of the Victoria Co., Cunningham Creek, would appear to have a proper appreciation of the difficulties to be encountered in testing their deep ground. Much interest is manifested in the success of this company.

"The Mary Ann Co., a hill claim adjoining the Nason, are reported to have found a channel and obtained most encouraging prospects, but up to the present time it is not sufficiently developed to prove the value of the discovery. The Yellow Lion Co., adjoining the Mary Ann, which was taking out good pay in the early part of the season, were completely burned out in July, from the woods taking fire. Cabins, shaft-houses, and even the timbers in the shafts, were completely consumed, entailing a heavy loss on the company, who have since been engaged in replacing losses.

"On Grouse Creek, little has been done in the bed of the creek. Several companies have been engaged opening up the side hills preparatory to working the same by hydraulics. Their prospects are very encouraging. Cunningham Creek, worked principally by Chinese, has turned out fairly.

"It is generally regretted that the Government found it impossible to accede to the wishes of the applicants for a lease of mining ground on Slough Creek, as the names of the parties interested in the undertaking were considered a guarantee that the deep ground on this creek would have been thoroughly proven. It is, however, anticipated that, upon the meeting of the Legislature, the present Act relating to mining leases will be amended, by conferring greater powers in such matters upon the Executive.

"The benches along Slough Creek have paid well to the Chinese who work them.

"The companies prospecting on Dragon and New Creeks for the past three years have not as yet succeeded in getting on pay.

"The report from Quesnellemouth Polling Division shows that about the same amount of gold was produced from the bars and benches of Fraser, Quesnelle, and Cottonwood Rivers as in 1882.

"The Horsefly River section promises to again claim attention. Chinamen working here, in bottoming a new shaft recently, are reported to have struck gravel which will pay from three to four ounces to the set of timbers.

"The parties fitted out last fall by the farmers, merchants, and others in the district (referred to in my last report), to follow up discoveries supposed to have been made during the summer, to the northward of Cottonwood Bridge, and on Porter's Creek, some forty miles to the southward of Barkerville, were not in either case successful in developing anything worthy of mention.

"There has been gold dust to the amount of \$213,420.50 melted at the Assay Office, Barkerville, for the eleven months of the present year, showing an increase of \$19,278.25 over that melted for the same period of 1882.

"The gold product of the mines in this district for the year, exclusive of Omineca, as nearly as can be ascertained, is as follows:—

Barkerville Polling Division, 11 months.....	\$177,177 00
Lightning Creek " ".....	71,200 00
Quesnelle " ".....	70,160 00
Keithley " ".....	99,250 00
Estimated amount of which no account was obtainable..	20,000 00
Estimated yield from date to 31st December, 1883.....	20,000 00

\$457,787 00

#### " EXPLORATIONS.

"The sum placed at my disposal to assist prospectors in their outfits to explore and prospect for new mines, has been expended, I believe, as judiciously as circumstances would permit, but, apparently, so far as the discovery of placer mines is concerned, without important results.

"I am, however, much impressed with the value and importance of the discoveries made by some of the parties, of quartz veins.

"Nine different parties, of from two to five men each, have been assisted in their outfits by the Government exploration fund, six of whom, up to the present time, have sent in reports, copies of which I herewith enclose.

"Mr. McKinnon and party, who explored in the Nation River and Omineca part of the district, found nothing worthy of enlisting attention.

"Mr. Leclare, who prospected in the neighbourhood of South Fork Lake, has sent in a map or sketch of the country traversed by him, but, up to the present time, has failed to send in his report.

"Messrs. Stewart & Wilson, as also Messrs. McGuire & Ross, prospecting in the country to the north-east of Bear Lake, and down Bear River, report the finding of creeks which will pay three dollars per day, but, owing to the difficulty and expense of taking in supplies, these discoveries are not of moment at the present time.

"Messrs. Synon & Fleming report finding extensive bench diggings on Cottonwood River, some ten miles below the bridge, on a higher level than any ground hitherto worked on that stream. Since this discovery, two companies have located claims, and will bring in ditches during the winter.

"Messrs. Pearce, Schuyler, & Shepherd, going some sixty miles down Willow River, found nothing worthy of note in placer mining, but are much impressed with the value of the quartz ledge discovered by Messrs. Foster & Paris, about a year ago (referred to in my report for 1882).

"Messrs. Porter, Johns, Wilson, Swan, & Tillie, prospecting and exploring to the south of Barkerville, were equally unsuccessful as regards the finding of gravel mines, but their discovery of gold in the Mammoth Quartz Ledge, reported last year by Petrie, Porter, & Co., I regard as of paramount importance. Upon the return of this party, a company was organized, and three men sent out with blasting powder, tools, &c., to make a more thorough examination of the ledge, but, from the inclemency of the weather, were able to do but little work. Mr. Schuyler's report to the company, kindly furnished me by the secretary of the company (a copy of which I enclose), will be read with interest. This company purpose starting work as soon as a crust is formed on the snow sufficiently strong to admit of hauling light hand-sleighs with loads over it—probably in March. Four locations have been made on the lode, of 1,500 feet each.

"The Burns' Mountain Quartz Mining Co. are prosecuting work on their tunnel with vigour. The tunnel, when completed, will be some 600 or 700 feet in length, the work being under contract, with three shifts working. The rock through which the tunnel is being run is found, so far, exceedingly hard to blast. Contractor is making from 10 to 15 feet a week, and the tunnel is now in about 250 feet. I have, &c.,

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

#### REPORT OF MESSRS. STEWART & WILSON.

"To John Bowron, Esq., Gold Commissioner.

"SIR,—In accordance with your request, we hereby report as follows:—

"We left Bear Lake August 10th, going by boat down Bear River, about 25 or 30 miles. The river being very low, we made slow progress. It was after sunset when we camped for the night. Rain fell in the afternoon and all night.

"On the 11th we cached surplus provisions at the mouth of a creek, on which we found a little gold. We resolved to prospect it more thoroughly on our return trip.

"The next day (12th) we left the river, travelling west about four miles, in a valley which varies from a half to about one mile wide. It then runs west north-west. Travelled six miles in that direction, and found a creek flowing into the valley from N. to S.

"13th—Went up this creek and prospected. Found a little gold about one and a half miles from its mouth; gold light and scaly. We then determined to go farther into the mountains.

"14th—Travelled north-west, over a high mountain. A severe thunder storm prevailing, we were forced to camp on the summit that night.

"15th—Rain, accompanied by a dense fog, so thick that it was difficult to travel. Only made about four miles, in a westerly direction, and camped.

"16th—The fog and rain continued so thick that it was very difficult to keep our course; travelled about eight miles, gaining the north-west end of the mountain. Here we found a creek flowing from the south-west, which we followed down a distance of about four miles, when we camped for the night.

"17th—Sunk two holes on the creek, finding a little flour gold; bed-rock a blue whinstone. This creek falls into another stream which heads in the same mountain, and runs from south to north. We followed the latter stream on the 18th, about one mile down. Another stream comes into it from south-east, the united waters making a very large creek. Sunk one hole below the junction of the two streams; found no gold. Went on down, prospecting on all the shallow rock we saw for a distance of about three miles, where we put down another hole, without finding gold. Followed the stream down about two miles, prospecting as we went. Here we camped for the night.

"19th—Sunk another hole, finding the same barren sort of rock. We concluded it was not a paying stream that we were on. We then proceeded on to the mouth. The creek is about twelve miles long; it empties into a large valley which stretches E. and W., the water flowing into Willow River.

"20th—Travelled east about five miles, where a creek flows into the valley from the north, and empties to Bear River. The valley here is so flat that we could not tell when we crossed the divide. Went up the creek some distance and prospected, finding no gold, and camped.

"21st—Followed the valley, east, four miles, to another stream coming in from the north-east. Sunk some holes, and panned where we could find bed-rock. Spent all the 22nd prospecting, without success.

"23rd—Going east two miles, found another creek running north, which we went up, prospecting on the way. Found a little flour gold in a cañon, about three miles from its mouth, but, meeting with the same barren rock, we spent very little time on it. We returned to its mouth and camped.

"24th—Followed the valley, east, seven miles, trying the north side as we went, but without success. We spent two days here (24th and 25th), when we arrived at Bear River, where the water of the valley goes over falls of about sixty feet into the river, and flows over shallow rock. Here we could get small prospects which would pay two to three dollars a day. Our provisions being nearly exhausted, we were compelled to turn our steps toward the *cache*, which we did on the 27th. Following up the left bank of the river, after travelling about twelve miles, we reached a small stream or creek, where we found gold, but not in paying quantities.

"28th—Continuing up the stream, keeping about five miles back from the river, found a creek on which we got a little fine gold. This creek is about seven miles distant from the last mentioned creek, or about nineteen miles from where we struck Bear River, and six from the *cache*.

"On the 29th, arrived at the *cache*, up river about twenty-five miles. On the 30th and two following days, we sunk and ground-slucied on a creek which empties into Bear River, near the *cache*. The bed-rock is about eight feet deep. On it we got a little coarser gold, one piece weighing six cents. Where we ground-slucied there was three to four feet of gravel, containing fine gold that would pay from three to four dollars per day.

"September 2nd, went up the river and arrived at Bear Lake on the evening of the 3rd of that month. This closed the trip.

"Respectfully yours,  
(Signed)

"WILLIAM STEWART,  
"N. WILSON."

REPORT OF MESSRS. MCGUIRE & ROSS.

"To John Bowron, Esq., Gold Commissioner.

"We have the honour of submitting to you the following account of our prospecting expedition:—

"We left Barkerville on the 5th day of September, with two horses packed, and arrived at Bear Lake the same day—distance 22 miles.

"We sent the Indian back from there with the horses, and made that point our base for supplies. We met Mr. Wm. Stewart at Bear Lake, and, joining company with him, we three started on the 7th, with 60 or 70 pounds each, in an easterly direction. In about eight miles, we came to a lake, known as Indian Point Lake; camped and built a small raft, one navigating it, with the supplies on board, to head of lake, the other two following Mahood's survey trail on foot. From head of Indian Point Lake, crossed a low tract of land covered with small timber, for a distance of about two miles, to lake known as Big Lake. Constructed a raft



large enough to carry us all, and on the 9th passed up the lake ten miles, to what is called the Big Bend, and landed at mouth of a stream flowing south-westerly. It is a large stream, probably 3,000 miner's inches. The lake itself follows around more to the south, heading close to Swamp River. On the 10th, we started up the creek, through a pass 500 or 600 feet wide, in places; in others narrowing to 100 feet, and made about eight miles that day. Mahood's trail follows the pass for three miles, thence takes the mountain, bearing northerly. We left the trail at that point and took the bush, keeping in pass and bearing more to the eastward. In the morning, we found that we were in a slate range, and prospected as we went along, but found no gold. On second night from Bear Lake, we camped at the mouth of a creek coming more from the south than the one we were following, but could find nothing favourable. On 13th, after travelling about four miles, the pass opened out into an extensive meadow, one mile in width and three miles in length, with fine, tall grass and pea-vine, interspersed here and there with small patches of timber, and containing innumerable trails made by bear and cariboo. We passed over a low, scarcely perceptible divide, and, about two miles from summit, came to a large stream flowing north-easterly. Followed down two or three miles and camped. Continued down stream next day, about 10 miles, travelling being very bad; bed-rock of slate cropping out every two or three hundred yards. Prospected at various points, but found no indication of gold. Next day, about 8 or 10 miles further down, came to another large stream coming from the south-west. Made a camp at the creek, leaving one there, the other two taking three days' provisions, following the tributary up, prospecting the small streams coming into it, but finding nothing. One tributary, on north-east side, comes in about three miles above the mouth. We followed it up four miles. It contains about 200 inches of water. We found bed-rock in one or two places. The gravel looked well, but we could get no gold. Another stream, coming from the west and flowing nearly due north, we followed up about three miles to glaciers. It contains about 150 inches of water. The hills, or mountains, on either side are very steep, cut up every three or four hundred yards by heavy slides, leaving the sides stripped of timber from summit to base, many of them two or three hundred feet in width. We found a light blue slum, or wet clay, on this creek, but found bed-rock only in one place, namely, about one mile above the mouth, on east side. If there is any gold the channel is on the east side and covered deep by slides.

"We returned to camp on the third day, and made preparations to return to Bear Lake for supplies. We made the return trip in a little over three days, from which I estimate the distance travelled from Bear Lake to confluence of streams, at which we left one of the party, to be about 60 miles.

"We have been told by Wilson, the trapper, that, had we continued down the stream following north-easterly, we would have reached Fraser River in 15 miles, and would have struck a section of country much more favourable looking for gold. The country through which we travelled does not look like gold-bearing, being composed of high bald mountain peaks and low marshy valleys.

"On the 22nd September John Ross and Alex. McGuire started down Bear River, following down on the east side. Camped the first day about 8 miles below Bear Lake; next morning forded the river to west side; water being knee deep; half a mile below crossing came to a creek emptying into Bear River, on west side; creek flows nearly due north; for half or three-quarters of a mile the stream flows through a wide flat, with benches eight or ten feet high on east side. The benches extend back from one to three hundred feet, and are composed of fine looking gravel. Found fine gold in every pan we tried, but could not get bed-rock. Less than a mile from the mouth, the creek becomes more confined, the hills rising to a height of 200 feet; the creek having low bars of fifty or sixty feet in width. Here we camped and sunk a hole 6 feet deep, with gold in every strata from top to bottom; gold fine, with an average of  $1\frac{1}{2}$  cents to the pan. There are a great many rocks, seemingly iron and quartz. The water drove us out, but the prospect improved as we went down. About 300 yards above are falls 60 feet high, and 200 yards above that another fall of 50 feet. From there the creek flows through a fine rolling country, lightly timbered. We followed the creek up about six miles and found fine gold everywhere we tried, but could not get bed-rock. The stream has a good grade, and I do not think it is more than twelve or fifteen feet deep, and I believe it would pay wages. There is one drawback, there is no timber nearer than five miles large enough for sluices, but one could raft timber down Bear River to the mouth of the creek and pack the lumber up. After spending four days on the creek we returned to Bear Lake, and thence, after resting two days, our provisions being exhausted, we returned to Barkerville.

"Accompanying the above we give you a rough sketch of the country travelled over.  
 "Wishing the report was more favourable,

"Yours respectfully,  
 (Signed) "ALEX. MCGUIRE,  
 "JOHN ROSS."

REPORT OF MESSRS. FLEMING & SYNON.

"CARIBOO, B. C., October, 1883.

"To Mr. John Bowron, Government Agent,  
 "Richfield, Cariboo, B. C.

"DEAR SIR,—When on our prospecting tour between Cottonwood House and the Fraser River, we discovered three benches about a mile in length and half a mile in breadth on the north bank of the Cottonwood River, and about ten miles from Cottonwood House, that we think will pay to work if a good supply of water can be got.

"And on the south side, and opposite, and for some distance below the benches referred to above, there are benches and flats that we think would pay wages if plenty of water can be got on to them.

"We are of the opinion that a sufficient amount of water can be taken from lakes on the south side of Cottonwood River, and be conveyed in ditch and flume to the lower end of ten mile cañon, thence across the river in a flume and on to the benches. We have applied for 500 inches of water from two lakes on south side of river, and about two or three miles from the ground we have located.

"We spent some time in searching for the lost Wallace quartz lead, but did not succeed in finding it, or anything that we could suppose to be traces of it.

"There is some quartz crossing the lower end of ten-mile cañon, but we did not consider it worth having assayed. There is some soft granite cropping out on the south bank of the cañon, a few yards below where the quartz crosses the cañon.

"Herewith find map of country herein referred to.

(Signed) "JOHN T. FLEMING,  
 "for FLEMING & SYNON."

REPORT OF MESSRS. SCHUYLER, PEARCE, AND SHEPHERD.

"BARKERVILLE, B. C., 25th October, 1883.

"To the Gold Commissioner, Richfield.

"SIR,—In accordance with instructions received from you at the time we obtained a portion of the Government grant in aid of explorations, we herewith present you a report of our explorations.

"We left Barkerville on the 4th September. On account of the difficulty experienced in getting pack animals, we had to hire Messrs. Fletcher & McNaughten's conveyance to haul our outfit to Beaver Pass; there we hired a horse from Brunskill, and, with one we took with us from Barkerville, started for Willow River, via Rushon Creek and Cañon Creek. We reached a point on Willow River, as far as we could get with horses, on the 7th, and sent the animals back with Naysmith, who had gone with us from Rushon Creek for that purpose.

"On the 8th, after *caching* a portion of our outfit, we crossed over Willow River to the east side of it, a short distance above the junction of Valley Creek with Willow River, and continuing down stream we camped at night on a small stream, which we subsequently named Beaver Creek. The following day we prospected this stream as far as its head, but could not raise any colour. The next day we found a large quartz ledge, supposed to be the one discovered by Foster and Paris last season.

"We spent several days prospecting this ledge, made a location, and took away with us samples to have assayed at Barkerville. The ledge is over five feet thick, crops out along the surface for about 600 feet, and dips at an angle of 45°, or thereabouts. Its direction, without making allowance for variation of compass, is 65° east of north, and 65° west of south. The country rock is of slate and the ledge cuts through it at nearly right angles. About one-fourth of the vein is largely impregnated with argentiferous galena ore, assays from which gave \$19.98 silver, and traces of gold, and the quartz rock a small amount of gold per ton. The vein crops out on the side of the mountain in such a way that it will be very easy to prospect, and a small

amount of capital judiciously expended would soon determine its value. We expect to have capital at command by early spring to test its merits, and feel sanguine of its justifying our expectations.

"On the 12th, we continued down stream, 7 or 8 miles, as far as Canoe Creek. Could not get any prospects as far as we went in this direction, and on the 13th returned to our *cache* on Willow River, for supplies.

"On the 14th, we started down the west side of Willow River, and camped at night on a large creek, which we call Pick and Shovel Creek.

"The following day, prospected a tributary of this creek, but, under the most favourable circumstances, could only raise a few fine colours. On this tributary, we found an old prospect camp, containing the tools of some early pioneer. They consisted of an axe, shovel, fry-pan, gold-pan, small billy, cup, and spoon, and remains of a blanket. The axe had been stuck in a tree, and was so firmly grown around by the growth of the tree, during the 18 or 20 years that it had been there, that we could scarcely pull it out. These things had been left so securely sheltered as to have remained in a good state of preservation.

"The following and two subsequent days we spent prospecting the main stream, but with the same result as on the tributary. Here, also, we found an old camp, containing a shovel and two picks. Up this creek are a succession of small cañons, where the bed-rock is either exposed or so nearly so that six feet square could be stripped in an hour; yet, notwithstanding that the conditions were all of the most favourable kind, we could only raise a few fine colours, and that not continuously. Had another day and night of heavy rain while here, which raised the creek to such dimensions as to make it dangerous to ford.

"From 18th to 23rd, went down as far as opening which drains Hyde's Lake and that section of country prospected by Hilton and party, last winter. Failing to find anything like a prospect on any stream that would justify our exertions, we concluded, as we were about out of provisions, to return to the *cache*, which we reached the following day.

"25th—We returned to Cañon Creek. This is a large creek, running nearly due east, and upon which, a number of years ago, there was a good deal of money spent. We spent a portion of two days here, and came to the conclusion that the creek was entirely too heavy for us; that the work done upon this creek failed to test the deep ground which certainly lies upon the opposite side from where the work was done; and that, if a company was organized to test the deep ground, they would strike paying diggings, if not immensely rich ones. The following day, we reached Barry Creek, now in the possession of a few Chinese, and the next day Rushon Creek. Reached Barkerville, on the return, on the 29th.

"Unless the quartz ledge turns out something, our trip has been fruitless of any good results, except to determine that any prospecting done in the direction taken by us must be made on a larger scale, say composed of 6 or 8 men, with supplies and tools to test the deep ground. The travelling on either side of Willow is just about as execrable as it can be imagined, and, unless one is prepared to undergo a large amount of hardship, had better not undertake the trip.

"With many thanks for the Government aid given to us,

"We remain, &c.,

(Signed)

"W. B. SCHUYLER,

"

"SAMUEL PEARCE,

"

"G. L. SHEPHERD."

#### REPORT OF MESSRS. PORTER, JOHNS, WILSON, TILLIE, AND SWAN.

BARKERVILLE, B. C., 17th October, 1883.

"To the Gold Commissioner, Richfield, B. C.

"SIR,—Having received a portion of the Government grant in aid of explorations, we herewith present a statement of our prospecting from the time of leaving until our return.

"Left Stanley on the 6th day of September with four animals packed with supplies, and proceeded up Van Winkle Creek and down Fountaine Creek, and camped for the night on the 7th. We reached Little Swift River, and next day Porter Creek. On the 9th we commenced prospecting on Main Porter Creek and its tributaries, for a distance of five miles up and down stream. We found gold in small quantities on nearly all the streams; in one place a piece weighing 75 cents, but in no place could we find sufficient to pay wages. The country is flat

and swampy, and the clay on the main stream and tributaries is, without any exception, near the surface, say from one to four feet. The bed-rock, wherever seen, is of slate of good character.

"On the 21st we left camp and moved to the Forks of Porter Creek, some 6 or 7 miles distant, and prospected on the tributaries and forks of Porter Creek. On the south branch of Porter Creek we discovered a quartz ledge—samples of which only assayed \$2 per ton. Did not prospect it at all, except to collect a few samples to have assayed at Barkerville. On the E. N. E. branch of Porter Creek we sank a shaft 15 feet deep, but found no gold, and the bed-rock pitching toward the hill, and without a colour on it. We also prospected two small gulches emptying into the south branch of Porter Creek, but without finding gold in paying quantities. In the meantime three of the party had to cut out a trail to the summit of Cariboo Mountain, say 8 or 10 miles, and on the 28th we moved to the summit of Cariboo Mountain. Here we prospected two creeks on a fork of the north-east branch of Porter Creek, and the other a tributary of Swift River, rising in Cariboo Mountain and flowing in a south-easterly direction. We sank two holes on each, but could not get a prospect on either creek. In this place where we camped is the big quartz ledge of which mention was made last year in the report. We prospected on the ledge for about two days and found gold (free gold), quite visible to the eye, in three different places, but a sample assayed only \$2.50 to the ton. We were careful to choose the poorest piece for assay.

"On the 1st day of October we left camp and moved over towards Snow Shoe Creek, and camped on the divide where the water flows both into Swift River and Keithley Creek. We prospected on the Swift River tributary, but owing to stormy weather, and our provisions becoming about exhausted, we were obliged to leave off before thoroughly testing the creek.

"We reached Barkerville on the 15th October. Throughout the whole of our trip the utmost good feeling existed among the whole party, and all seemed animated with a desire to strike something for the good of the district.

"The placer ground thought to exist in the locality traversed by us, is not there in paying quantities. The quartz must be our main dependence. It shall be our endeavour to enlist capital, between now and spring, to take hold and develop what, to us, seems the richest, largest, and best quartz vein in Cariboo District, if not in B. C.

"We have, &c.,  
(Signed)

"ALEX. PORTER,  
"ALEXANDER SWAN,  
"ARNOLD WILSON,  
"WILLIAM H. TILLIE,  
"SILA JOHNS."

#### REPORT OF THE SECRETARY OF THE DOMINION QUARTZ MINING COMPANY.

"BARKERVILLE, 14th November, 1883.

"To the Members of the Dominion Quartz Mining Company.

"GENTLEMEN,—I herewith beg to present a report of our trip to the Company's quartz ledge situated on Cariboo Mountain, and distance from Barkerville, viâ Snow Shoe, about 50 miles. The time occupied in reaching the ledge was four days, although in reality we were five, having to return on the fifth day for a part of our supplies left behind the day previous.

"The weather was most unpropitious, both for sight seeing as well as for working. A terrific storm of wind and rain set in on the night of our arrival, and continued uninterruptedly for four days and nights, and it was only by the greatest amount of labour and perseverance that we succeeded in accomplishing the object of our journey at all.

"I found the ledge fully up to the description given of it by the discoverers. It is situated on the northern slope of Cariboo Mountain; runs about 65° east of north, and 65° west of south, and cuts the mountain at its very apex. As near as I could judge, the ledge is exposed lengthwise for at least 4,000 feet; 1,500 feet of which crops out not less than 10 or 12 feet above the surface of the mountain.

"The condition of the weather, the position occupied by the ledge, situated as it is on the face of the mountain, where it slopes off at an angle of about 45°, and the nature of the snow, prevented us from venturing along that side of the mountain through which the ledge cuts. But I could easily see that on that side the ledge could be cross-cut by tunnels at any desirable depth, from 100 to 1,000 feet, at distances varying accordingly. The summit of the mountain,

traversing a distance of 2,500 or 3,000 feet, is capped with a species of bastard granite, underneath which lies slate. The ledge cuts the whole country formation at right angles, and stands nearly perpendicular with it. As near as I could judge it has not more than  $2^{\circ}$  or  $2\frac{1}{2}^{\circ}$  dip to the eastward. Hundreds and thousands of years have possibly elapsed since this mammoth ledge was formed, during which time all the natural agencies of nature have been directed against it, either for good or ill. The ledge being harder than the surrounding rock has resisted all the force of the elements, and now stands a monument of its own greatness, while the elements have oxidized and volatilized all the minerals near the surface subject to their influence.

"The ledge on the surface will fully average 10 feet wide; contains nothing base or impure so far as I could see, and literally in size and length dwarfs everything heretofore found in the Cariboo District. And, speaking from an experience of about 13 years in the mines of Idaho, Montana, Nevada, and Utah, I feel confident of its ultimate richness, and of its being a true fissure vein, and that when properly developed will produce more gold annually than was ever before produced in Cariboo's palmiest days.

"We had exceptionally rough weather all the time we were out. The snow-shoeing was execrable, and our loads exceedingly heavy; as a consequence of all this our stay had to be correspondingly brief on the mountain.

"We succeeded in getting off a couple of shots, and brought back with us about 25 or 30 lbs. of rock; a sort of general average. Hoping it, and the very crude description of the trip and results, will be satisfactory,

"I beg to remain, &c.,  
(Signed) "W. B. SCHUYLER."

#### MR. STEPHENSON'S REPORT.

"FORKS OF QUESNELLE, B. C.,  
"13th November, 1883.

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

"SIR,—I have the honour to forward herewith the mining statistics of Keithley Division of Cariboo District for 1883. The sum total of the yield of gold is about the same as last year, the difference, such as it is, shows in favour of the present year.

"Although the season has been a very dry one, it does not seem to have been much against the mining in this section, as it has given miners an opportunity of working the beds of some of the creeks which they could not have done had the water been as high as it has been for several years past.

"There has not been anything new found in this section for the past year, except on the Horsefly River. About the latter part of August, the Chinese who were working there found, at a lower level than that which they had been working, much better pay than they have had for the last three years; it caused some little excitement in this section, and I think will be the means of drawing quite a number of men to Horsefly the coming season, and I hope the cause of having that much-neglected section of this district more thoroughly prospected than it has been heretofore.

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

#### CASSIAR.

#### MR. VOWELL'S REPORT.

"LAKETON, CASSIAR, B.C.,  
"3rd October, 1883.

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

"SIR,—I have the honour herewith to forward the 'Mining Statistics' for 1883, as well as my annual report upon this district.

"Owing to the loss of the steamer 'Grappler' and to other untoward occurrences during the commencement of the mining season, the population has considerably decreased.

“Dease, Thibert, and McDame Creeks, as also their tributaries, are to all intents and purposes ‘worked out’ as regards surface claims, and the prospects on either for the successful working of ‘deep diggings’ are not very encouraging.

“Nothing new has been discovered, nor is there any promise of such a resuscitating event taking place this year.

“Several miners have been down the Liard River, but their efforts having been directed towards following up the prospects obtained in Sayyee Creek some years since, which proved unsuccessful, nothing of any moment has resulted from their enterprise.

“The Chinese, owing to the accident that befel their party in 1882, when they lost four of their comrades with boat and load of supplies, &c., were deterred from again venturing in that direction.

“A prospecting party, consisting of four men, provided with one year’s provisions, left Dease Lake on the 27th ultimo, bound for Highland River and its immediate vicinity. That river is in a north-westerly course some 220 miles from Dease Lake, and empties into the Liard River about 20 miles from the confluence of Dease and Liard Rivers. The country to be prospected is supposed to be within the North-West Territory, and to be close upon the boundary of Alaska. The outfit for the above expedition cost something over \$1,200.

“The following figures will give as close an approximate as can with any certainty be arrived at, touching the amount of gold taken out this year in Cassiar, viz:—

Dease and Thibert Creeks, etc.....	\$ 43,000 00
McDame Creek section .....	65,000 00
Localities not particularized.....	11,000 00
Shewing an aggregate of.....	\$119,000 00

“On Dease Creek the summer freshets having been of long continuance, delayed the opening of the few claims still worked by the Chinese, and the fall freshet having carried away several wing-dams just as they were completed, utterly destroyed their season’s work.

“The tunnel claims on that creek have so far proved unprofitable, several having been temporarily abandoned, with the intention, however, of again trying them during the winter months.

“On Thibert Creek very few claims have paid over wages, but from prospects obtained in the deep ground several men are still engaged in mining there, and will be for many years.

“It is still believed by experienced miners that the hills and benches of McDame Creek are tolerably rich in gold, and would pay fairly if they could be worked to advantage. Owing however to the high rates demanded for all mining supplies, and to the poverty of the miners, such a prospective source of profitable employment is of little actual value at present. A few claims on that creek have paid during the past season, and one or two companies intend prospecting on the second and first North Forks during the close season.

“In consequence of early frosts, and a protracted drought at the time when irrigation was most needed, the crops upon the different ranches on the Stickeen have proved a comparative failure.

“The sum of \$500, authorized by the Government to be disbursed in this district for ‘prospecting’ purposes, has not yet been utilized, next spring being considered the best time to have that money expended, etc.

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“Three deaths have taken place in this district during the present year, viz., Perrin Kent, packer, at Glenora; M. Bradley, miner, at Thibert Creek; and Jno. A. Fraser, miner, at Sayyee Creek. These deaths have been duly registered. A clergyman of the Church of England has come to reside in the district permanently. He has been well received by the people generally, and the fact of his being skilled in medicine and surgery has made his advent particularly agreeable to all. Jos. Clearihue and Robert Wilson, Esquires, have been sworn as J.P.’s for Cassiar, during the present year; the former resides at Laketon, and the latter in McDame Creek section. The number of men employed as miners and otherwise in the district during the past season, exclusive of Indians, has been about 225; of these, some 115 souls will pass the winter in the district.

“The weather has lately been remarkably fine, and a late or protracted ‘fall’ is anticipated.

“Enclosed will be found a list of prices, giving the rates demanded and obtained for all such articles as are therein enumerated.

"During the last twelve months, crime has been unknown at Cassiar, and litigation of any kind has been of rare occurrence,

"I have, etc.,  
(Signed) "A. W. VOWELL,  
"G.C., S.M., &c., Cassiar."

### LILLOOET DISTRICT.

#### MR. SOVES' REPORT.

"CLINTON, B.C.,  
"November 27th, 1883.

"The Hon. John Robson,  
"Minister of Mines, Victoria.

"SIR,—I have the honour to enclose herewith the Mining Statistics, and submit the following general report of gold mining in Lillooet District, for 1883.

"The total yield, which I have ascertained from reliable sources, is \$68,342—a considerable increase on that of last year. This sum is the amount acknowledged to have been bought by white and Chinese traders, resident in Lillooet, Dog Creek, and Clinton; but I am quite sure that it falls very far short of the actual yield. One merchant here, informs me that he weighed last week over \$1,900 (not included in the above amount) in dust, in the hands of one private individual leaving the district for the winter.

"The whole of the gold mining in the district may be said to be in the hands of the Chinese, and from them it is utterly impossible to get at anything near the truth.

"In my report of last year I gave the leakage by this class at one-third of the ascertained figures, but I believe one-half would be a great deal nearer the mark.

"The South Fork of Bridge River, referred to in Mr. Phair's report of last year, has had a good deal of prospecting done on it this season, by a party of 8 whites and several Indians, with gratifying results. The gold found there is coarse and of superior quality, \$16.50 being paid for it in Lillooet. Five Indians from that locality last month sold \$280 worth of coarse gold to a white trader in Lillooet; amongst the lot was one piece weighing \$17. The whites and Indians are working about five miles apart, which proves that the gold is not confined to one spot. High water, however, is a drawback to a long season's work. From this locality good results may be anticipated next year.

"A quartz ledge, on McGillavrey's Creek, Anderson Lake, discovered by a party of white men a few weeks ago, gives favourable indications, gold being visible to the naked eye in some of the rock roughly broken up. The party intend driving a prospecting tunnel on the ledge during the winter months.

"Desultory mining throughout the district, along the line of Fraser River, has largely increased this year from the influx of Chinese from railway works.

"Registered claims by old companies are about the same in number as last year.

"I have again to report no work done on any of the claims on the Big Slide Lode during the past year.

"The district allowance of \$500, in aid of prospecting parties, has not been drawn on this year. If available for next year, and suitable men can be found desirous of going out, I would suggest that two parties be assisted in prospecting in the Chilcotin country. From information received, I have every reason to believe good results might be anticipated.

"I have, &c.,  
(Signed) "F. SOVES,  
"Gold Commissioner,  
"Lillooet District."

"CLINTON, B.C.,  
"December 5th, 1883.

"The Hon. John Robson,  
"Minister of Mines, Victoria.

"SIR,—By mail to-day I have the following information from Mr. Phair regarding the Bridge River Mines, which I deem advisable to forward with my report of the 27th ultimo.

"Mr. Phair's letter is dated December 1st, in which he says 'two men have arrived here to-day bringing with them over \$600 in dust, the result of a month's work. They made from \$8 to \$14 a day to the hand, and say they can work most of their claims all the year round, except the cold winter months, they being situated above high water mark. They return in the spring.'

"I have, &c.  
(Signed) "F. SOUES,  
"Gold Commissioner,  
"Lillooet District."

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### YALE.

#### MR. DEWDNEY'S REPORT.

"YALE, 8th November, 1883.

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

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

"I am sorry to inform you that mining has been very slack this season, on account of the Hill's Bar Flat, opposite Yale, proving a perfect failure, there being only one or two Chinese companies working, with poor remuneration for their labour."

"The Queen's Silver Mining Company, about one and a half miles up Yale Creek, commenced running a tunnel early this spring, to test the quartz lode in that vicinity, but, on account of the company closing down suddenly, about two months ago, I am under the impression that they think it will not pay sufficiently to continue carrying on the work. A few Chinese are working along the banks of the Fraser River. What amount of gold they are taking out is impossible to come at, but I should imagine from \$1 to \$2.50 per day.

"I have, &c.,  
(Signed) "W. DEWDNEY,  
"Gold Commissioner."

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### KAMLOOPS.

#### MR. TUNSTALL'S REPORT.

"KAMLOOPS, December 4th, 1883.

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

"SIR,—I have the honour to enclose the mining statistics appertaining to the Kamloops District, for the current year. The yield of gold, last season, was much smaller than usual, owing to the scarcity of water during the latter portion of the summer.

"The amount granted by the Government to aid in prospecting has been expended in purchasing an outfit, and defraying incidental expenses, for Messrs. Ratchford and Myoff, two experienced miners. They left here last fall, and proceeded, viâ Seymour, to the Big Bend of the Columbia, whence they intended to take a boat and go up the river to a certain point, where they would winter, and be able to make an early start in the spring. The result of their operations will be communicated to me by first opportunity, and forwarded to you when received. I have, &c.,

(Signed) "G. C. TUNSTALL,  
"Government Agent,"

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## KOOTENAY.

## MR. KELLY'S REPORT.

"WILD HORSE CREEK,  
"December 15th, 1883.

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

"SIR,—I have the honour to enclose herewith the mining statistics for the District of Kootenay, for the year 1883.

"From the most reliable sources, I have received information that the yield of gold from Wild Horse Creek is about \$26,000—\$1,000 or so more than it was last summer. The increase would have been much over this sum but that the hydraulic companies could not, for want of water, work as long as they did last season. These companies lost a month's work this summer from this cause.

"As evidence of the value of mining property, I may remark that a claim has been sold here, this summer, for \$6,000.

"Perry Creek, I regret to say, has not been worked this season, yet some miners here set a high estimate on the value of Perry Creek mines.

"There is one claim on Weaver Creek. It has paid fairly for the work done on it. Water was scarce, or it would have paid much better.

"One claim has been worked on Palmer's Bar, part of this summer, which yielded \$700.

"On Bull River, there has been some mining done for the last three months. Up to this time it has only been crevice mining, but there must have been, from what I have learned, at least \$800 taken out of this river this year.

"I have the honour, also, to inform you that gold has been discovered on a creek called 'Cannon Creek,' about ten miles above where the Canadian Pacific Railway crosses the Columbia River, via Kicking Horse Pass. This creek was discovered in October last, when I was settling important mining cases at Kootenay Lake mines, 250 miles from here, but I am informed by miners who were there, that there are both bar and creek diggings on this creek. The prospects are very encouraging, but it may be said of these mines, that they are only being prospected. The gold found is coarse; one piece weighed as much as eight dollars, and it is supposed \$1,000 have been taken out of the mines on this creek since it was discovered. It is about 160 miles from here.

"Three mineral locations have been worked on Spallumcheen River this summer.

"A mineral claim has been located, this fall, on Ille-cille-wait River, some 20 miles from Arrow Lakes.

"The mineral locations, or quartz claims, at Kootenay Lakes, have increased in number, since last year's report, from four to nineteen.

"From the prospects I saw at these mines, when I was there in October last, I am convinced there will be, in two years from hence, an extensive mining camp, where capital will be expended in labour and otherwise.

"Ledges or lodes of the ore found in this district are numerous. Prospectors on the mountains about these Kootenay Lakes, have had very little trouble in finding claims.

"Two claims recorded at these mines, this season, were bonded, or sold conditionally, for \$20,000. I have, &c.,

(Signed) "EDWARD KELLY."

## COAL.

The following table shows the output of each year from 1874 to 1883, 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
1882 .....	282,000
1883 .....	213,000

## REPORT OF THE INSPECTOR OF MINES.

“NANAIMO, B. C.,

“5th February, 1884.

“To the Honourable John Robson,  
“Minister of Mines.

“SIR,—I have the honour, as Inspector of Mines, to respectfully submit my report for the year 1883, in pursuance of the ‘Coal Mines Regulation Act, 1877.’

“The collieries which have been in operation during the year are the following, viz:

“The Nanaimo Colliery, belonging to the Vancouver Coal Mining and Land Company, Limited, which consists of Chase River Mine, South Field Mine, and No. 1 shaft on the Esplanade, Nanaimo.

“The Wellington Colliery, belonging to Messrs. Robert Dunsmuir & Sons, comprising Wellington Mine, No. 3 shaft, Wellington, Adit, and No. 4 shaft, Wellington.

“The East Wellington Colliery of R. Chandler, Esq.

“The aggregate output of coal in the year 1883 from the above named collieries, amounted to 213,299 tons, which, with 2,885 tons in stock on the 1st January, 1883, made a total of 216,184 tons of coal for export and local consumption.

“In 1883 the exports of coal from Vancouver Island amounted to 149,567 tons, the principal part being shipped to San Francisco, and ports in California; other shipments were made to Seattle, Washington Territory (gas coal), to Alaska, Mexico, Hawaiian Islands, and to mail steamships and vessels calling.

“The year’s sales for local consumption by steam-vessels, manufactories (including gas works), and for use in households, &c., amounted to 64,786 tons.

“The stocks on hand at the end of the year 1883, were 1,830 tons.

“A comparison of the output of 1883 (213,299 tons) with the output of 1882 (282,139 tons), shows a decrease amounting to 68,840 tons in the output of 1883; one result of which has been a considerable falling off in the exports of coal for the year. The sales for local consumption during 1883, have, however, exceeded those of 1882 by 8,625 tons, which is a gratifying feature in our coal trade.

“The following table of exports and local consumption of coal since the Mining Act of 1877, will exhibit the extent of our trade during the past six years:—

Year.	Exports, tons.	Local consumption, tons.
1878 .....	164,682	26,166
1879 .....	192,096	40,294
1880 .....	225,849	46,513
1881 .....	189,323	40,191
1882 .....	232,411	56,161
1883 .....	149,567	64,786

“With regard to the decrease of output in 1883, I may say that when I last had the honour to present my annual report, the outlook and prospects were very promising for a greatly increased production of coal, but during the past year several of our mines have experienced some of the vicissitudes to which coal mining is naturally subject, such as heavy inflow of water, faults, ‘pinch-outs’ and ‘wants’ in the seams, which you will find referred to

in my remarks upon the respective mines, and those troubles have hampered mining operations and occasioned a considerable diminution in the yield of coal. The strike at the Wellington Colliery was also an unforeseen occurrence, and reduced the usual output of that colliery during a few months. While the decrease of output for the year 1883 is thus accounted for, you will be pleased to gather from my report upon the workings of the mines that our present prospects are most encouraging for the recovery of lost ground, and the attainment of a much larger aggregate output of coal in the year 1884.

"No relief has been extended to our coal industry from the pressure of the Dominion tariff, or from the United States impost of 75 cents a ton on our coal entering their ports; but on the contrary, since my last report, the time for which the drawback of half duty on blasting powder was allowed has expired—in April last—and, therefore, powder imported (or used) since that date is subject to the full duty of three cents per pound. I beg leave to refer to former reports for full particulars of the bearing of the tariff, &c., upon the coal trade of this Province.

#### "NANAIMO COLLIERY.

##### "DOUGLAS PIT.

"At this mine there has been very little coal taken out, and what was got was from the pillars (of coal). Now there is no mining being done here, but the water is being kept out.

##### "CHASE RIVER MINE.

"As mentioned by me in a previous report, the workings of this mine are from a slope about 500 yards long, to what is known as No. 4 level. From this level no coal is being mined at present, but about 400 yards along the level there is a slant which is down about 400 yards. This place has not been worked by the company during the year which is past, as they were much troubled with water coming in, so that it got nearly filled, and that has not been got out yet, but there is a likelihood of its being empty soon, as they have got a large and powerful steam-pump ready to start as soon as the pipes are connected with it. The slant itself makes very little water, and if it had not been for the water going in at the top, it would have been working steadily along. The only mining being done in this place at present is from the No. 5 level, or the first level down the slant. The coal below this is from four to six feet thick, very hard, and of good quality. I think I will not be wrong in saying, in about two months, or less, that there will be quite a large output of coal per day from this place. The mining here is on the pillar and stall system—taking out the pillars (of coal) after the coal is worked from the stall to its destination.

"Ventilation is good. The last time I was down—which was in December—the air in circulation, near to the face of the workings, was 340 cubic feet per minute to each man, being conducted well into the face by brattice.

"During the past summer the company put a large pump down the slope, which is now working, and doing its work well, and, so far as the winter has gone, it can keep the water out, and not work very fast to do that. As the winter season is the time when the water comes in freely, and the present pumping machinery is master of it, the Manager is now satisfied that the mine will be kept dry without causing any delay to the working of the mine. This mine must be very expensive to work. The coal is generally good and of excellent quality, but the company are very much troubled with faults—a continuation of them, one after the other. Considering the difficulty they have here, they keep the mine safe for the working man. So far as personal observation and inspection can find out the dangerous places, they are made secure as soon as possible. There is always plenty of timber on hand, and any other thing that may be wanted for the use of the workman.

##### "SOUTH FIELD MINE.

"This is a new mine started by the Vancouver Coal Company, about four miles to the south of Nanaimo, and known here as the 'South Field Mine.'

"This mine also is entered by a slope; it has but little pitch to it; from the entrance to the face it is about 300 yards; at the face the coal is three feet thick, hard, and of good quality; it has not been all as thick as this, but for quite a distance the coal has been good, and improving in thickness as they go in. At 150 yards, or about half-way down the slope, there is a branch slope going in a northerly direction, and being nearly on the pitch of the coal; this is also down about 150 yards. The coal here is not quite so thick as in the other slope; it is

about four feet thick, and is good and hard. There are levels being driven from both sides of those slopes, and stalls from the levels. In most of the places the coal is good, with conglomerate rock for a roof, which is very strong and hard, there not being much danger of any of it falling, unless one continuous large space is worked out.

"This mine is ventilated by a large furnace at the bottom of the upcast shaft. Ventilation is good, being conducted on the separate split system. The last time I was in the mine there were 200 cubic feet of air per minute in circulation for each man employed in the mine. There is little or no gas seen in this place, and very little water to contend with.

"There is the prospect of an extensive and valuable mine here, as away to the dip, and ahead of this mine, there was a series of bore holes put down some years ago, which proved that the coal they went through with those borings varied in thickness from six to twelve feet; and there was another one put down last summer, about 300 yards distant, at right angles from the entrance and course of the slope, which proved the coal at this place to be about seven feet thick.

"A steam-engine is placed about 150 yards from the entrance of the slope, for hauling the coal out to the surface. The coal is brought out by what is known as the endless rope system; the main rope goes direct from the engine to the top of the branch slope, here there is a wheel on which the main rope works; besides the main rope, there are two other ropes working on this wheel; one of the ropes continues down the slope, about 150 yards, while the other goes down the branch slope about the same distance; each rope having a large pulley fixed at a proper place for the rope to work round; when at work the rope keeps going, having short coupling chains, with a hook on one end for the car, and a 'grip' on the other end, which they can take hold of the rope with while in motion; the cars can also be disconnected by sloping the rope, so that the cars can be taken off the lower ropes when they get to the wheel at the top of the branch slope, where they are coupled to the main rope, thus forming a steady run of cars coming out of the mine.

"At present the company are getting about 250 tons per day from this mine, and this output will be greatly exceeded soon, as they are putting new miners to work daily.

#### "NO. 1 SHAFT AT ESPLANADE, NANAIMO.

"This is what is known, about here, as the Company's big shaft on the Esplanade at Nanaimo. In more respects than one it might be called big; in the first place it may be called by that name, as it was a great undertaking on the part of the company, knowing the depth they had to go—viz., 628 feet; but they did not know what water they might have to contend with; as they progressed towards the coal they were sure to have fresh water, and, owing to this shaft being so close to the sea, it was possible to have a leakage from that quarter; but the company had confidence in their property as well as in the gentleman into whose hands they had trusted the carrying on of such works. This man has had great experience in this kind of work in England, but of such large proportions, that the works here must seem small to him—Mr. James Beaumont, Mining Engineer, of Oughtibridge, Yorkshire, England.

"In May, 1881, Mr. Beaumont commenced the sinking of this shaft by bringing in an open cut from the beach, about 20 feet deep. Not having got the rock, they continued to sink about 20 feet further, at which place they found the rock hard and solid. All this time the shaft was being put down 24 feet in diameter. They then started to build from the bottom towards the surface with segment blocks of timber 30 inches long, with the end of the timber to the shaft, leaving the space inside 18 feet in diameter, which is the size of the shaft, filling it solid between the blocks and the wall with clay; this being completed to the surface, and everything made ready on top, the water was taken out. The shaft was found to be almost perfectly dry, the surface water being shut out from the shaft. Now the work of sinking commenced, and they made good progress until they got about half-way down, when the water began to flow in freely; but for all that good progress was made, until the water got too much for the hoisting engines (a pair of 16-inch cylinders), when they had to quit work in the bottom until they got another and larger engine; so the present engines were erected. These engines are the largest ones about the collieries of British Columbia, being double engines of 30-inch cylinders, with 5 feet stroke, and winding drums of 14 feet diameter. Everything being ready, the water was got out and work resumed in the bottom. Things went all right for a time, but again they found a gas to be coming out of the rock, and the water being strongly impregnated with it, became painful to the eyes, so much so, that the greater part of the sinkers had to leave off work at times. To overcome this they had to put up a small fan, in addition to the one in use, to dilute this gas so that the men could work, and then only four

hours at one time, as it was impossible to stand it longer. Now everything went all right, with great expectations of reaching the coal soon, and in that they were not disappointed, for on the 26th October the news was sounded from the bottom that the coal was found. As the rock was cleaned off the coal, they found it was hard and of good quality, as the Douglas coal generally is, and 7 feet 4 inches thick. Now there are two drifts run into the coal for a considerable distance. About the bottom everything is made secure, in the most workmanlike manner, with large timbers, some of them 24 inches square, and lighter ones as they go away from the shaft. One of the drives above referred to, goes towards the south. In this one the coal has gradually thickened so that it is now 11 feet thick. The other drive is towards the north. In this place it keeps about the same as at the shaft, 7 feet 4 inches. Now the company are putting up the shaft head gear, &c., and are laying sidings from their railway which is already laid, and the locomotive taking cars over it with the coal which is brought from the shaft. As ships are waiting for coal it is not necessary to store it on top.

"As I have said previously that all these works, and the machinery in and about this shaft, were under the control and supervision of Mr. James Beaumont, the Company's Mining Engineer, great credit is due to him for his engineering skill and caution; always having an eye for the care and safety of those employed under him, knowing that there has not been an accident to anyone at these works, which have extended over a period of 2½ years, from the breaking of the surface to the winning of the coal, 628 feet down.

"The people of Nanaimo are to be congratulated on such a finding, and the Province in general, but the Vancouver Coal Company in particular, as they have the prospect of a good and extensive mine, where, it is to be hoped, they will get returns for the great outlay they have made.

"In addition to the above works, you will have observed in the report of 1882, that there is another shaft belonging to this company, 75 yards north of No. 1 shaft, which is in a fair way of getting to the coal soon, being now down 480 feet; and it is expected that the coal will be got at 600 feet from the surface. This (No. 2) shaft is 16 feet in diameter, inside of blocking, which is done similarly to the No. 1 shaft, so that if everything goes as it appears to do at present, that they will have the coal in less than two months, and by that time the mining from No. 1 shaft will be near, so that they will soon get a connection there, and that is required in all extensive mines.

"I here again take the opportunity to mention that as in No. 1 shaft, so in No. 2, there has not been an accident of the smallest kind to anyone employed about it. I hope, as well as the Managers, that they may long continue to keep a clean sheet for want of anything of the kind to enter on it.

"I hope to see those two shafts a success, so that the coal may be got out from them as such undertakings deserve, so that at the close of another year the output of coal will be greatly increased, and the company have a good income for the capital invested.

### "WELLINGTON COLLIERY.

#### "WELLINGTON MINE.

"This is the slope mentioned in a previous report as being down about 1,000 yards. There has not been anything done to the face of the slope during the year which is past, the face of it being stopped at a down fault. This is the fault which separates the workings here from the workings of the No. 3 pit. There are three levels working from this slope, two on the one side, known as 7 and 8 levels west, the one on the other side is known as 10 level east. The coal is mined on the pillar and stall system, driving the stalls to their destination, then commencing at the inside to the pillars, taking out as they come back. This slope is one of two main entrances to this mine; the other being what was mentioned in a previous report as the adit level. There are four shafts to this mine, but there is no coal coming out of them; one is a pumping shaft, and one is the return or furnace shaft, the other two are in a position so that in case of an accident to any of the other places the men could be got out. By those two places, the slope and adit, all the men go in and come out. At those places the coal is taken out. In them everything is made as safe as timber and workman can make it. There is a travelling way on the greater part of this slope, six feet wide from the rails, besides there are man-holes, as places of refuge, at short distances from one another, cut into the side; those holes being washed frequently with lime, so that they may be easily seen in case of danger.

"The coal in this mine varies in thickness from 6 to 10 feet; as for quality that is well known, both in this Province and California, as being of good quality both for steam and household purposes.

"I have frequently examined this mine during the past year, always make it my study to make those inspections when the miners are at work, so that I can see the state of the mine when they are working, and to hear if there are any complaints about anything which they think is not in accordance with the Mining Act, and I frequently talk to them about the dangers of the roof, that they cannot be too careful in attending to the securing of it, as it is the falling of the roof which is the cause of quite a number of the accidents during the past year. And I may here say that the miners should be careful in all things (as well as the Manager), for the smallest neglect which, as he may think, will only be for a few minutes, may cost him his life.

"Ventilation of this mine has for its motive power a large furnace at the bottom of the upcast shaft; the in-takes being the slope, adit level, and three shafts. Ventilation is very good, being conducted on the separate split system, with the main divisions, or one to each level; and as I have already said, the workings here are on the pillar and stall system, so that when a sufficient distance has been cut, there is a connection made with the adjoining stall, so that very little brattice is required, the mine being almost entirely free from gas, so that the brattice is not required to be close up to the face, and if it was it would be sure to be broken down sometimes, as a miner told me it was not unusual to put four pounds of blasting powder in one blast. It takes about 200 cubic feet of air per minute to each man, and that is little enough considering the powder smoke that has to be cleared away. As I have said, there is little or no gas met with, yet the manager takes the precaution to have all the old workings examined frequently, as well as all the working places every day by the fireman with a safety lamp, to see that everything is clear and in a fit state for the miners to proceed to work with safety. The fireman, to show proof that he has been in the stalls, chalks the day of the month on the face of the coal, so that there can be no mistake as to his having been in. You will have seen that there are five different ways in and out of this mine. The miners can come out from three of those at any time; but there are only two where they must go in, and those are the ones leading past the fireman's station, as they cannot go past without being told to do so by the fireman. I always find a good stock of timber on hand, and every other thing which would appear to be necessary for the safety of the workmen and the working of the mine.

#### "NO. 3 SHAFT, WELLINGTON COLLIERY.

"In this mine, as you will see in a previous report, the workings are from a slope, the top of which is about 75 yards in a southerly direction from the bottom of the shaft. At this place a steam-engine is fixed to haul out the coal and what water there is; of the latter there is but little, as the mine is very dry. This slope is down about 750 yards, of a gentle grade, with good coal all the way, varying in thickness from 8 to 10 feet. Now they have got into what is known as the basin of the Wellington coal field; in the trough of this basin they are driving the levels from the bottom of the slope both ways, the coal rising and coming into the levels from both sides. There are two other levels from this slope, branching off about half-way down; in one of these places the coal is not so thick as I have mentioned it to be in the slope. This mine—as are all the other mines belonging to Messrs. Robert Dunsmuir & Sons—is worked on the pillar and stall system; and as they are now underneath the valley of the Millstone River, they are leaving large pillars of coal, at present, to support the roof with the surface. At the deepest place, the coal lies about 400 feet from the surface; and as this is a valuable mine they are using great precaution, so that no accident may happen to it from an inflow of water from the surface.

"Ventilation here is good, the motive power being a large fan, worked by a pair of coupled steam-engines. This fan is 30 feet in diameter and 10 feet wide, exhausting on the upcast shaft, and not requiring to run above 20 revolutions per minute, giving all the air that is necessary for all the men employed here. In addition to the fan, the engine at the top exhausts into the fan shaft. This mine is also aired on the separate split system—viz., four divisions, one to each level; the air being conducted around, and well into the face by brattice or otherwise, after going round the workings comes back again on their respective return, when they again all join into one and go out at the fan shaft. There is not much gas seen in this mine now, although at one time it gave considerable trouble; but since they got connected with the fan shaft, the airways being large and having plenty of air, they now see very little gas. The fireman, when examining the places previous to the miners going to work, sees a little sometimes, which makes him cautious and puts him on his guard.

"I always find plenty of timber and any other thing that may be necessary for the use of the miners to protect themselves when at work.

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 No. 4 SHAFT, WELLINGTON COLLIERY.

"You will see in a previous report that this is the shaft which was put down on the top of the bluff overlooking the valley of the Millstone River. There has been much work done here, both on the surface and in the mine. The coal mined in this pit is what is known as the Wellington coal; it varies in thickness from 8 to 12 feet, leaving about 2 feet of hard coal for a roof. This coal is of a first class quality, and looks well for a good and extensive mine. There have been some small drawbacks to the mining here, as there was a small 'fault' in the coal close to the shaft; the workings now are all clear of it, and the coal looks well. This is also worked on the pillar and stall system. They cannot work this very extensively until they have another outlet from the mine. It was generally thought by the manager at first when they got the coal here, that there was a large down-throw of the coal going from this place to the workings of the No. 3 Shaft—that being the only place for a connection without putting down a second shaft from the surface; but after they had worked in some distance, the manager began to see that there was a chance to get down without any serious trouble. They started a slope for the purpose of making a connection; now they are down about 200 yards, without any fault to hinder their progress, the coal being good and hard all the way, but has a good pitch to it. Now they have got so low that they are satisfied that there is nothing in the way to hinder them but good coal, so that about the 15th of February they expect to get through on the workings of No. 3 Shaft, the accomplishment of which will be a great relief to both shafts; and they will be able to mine more extensively, as they will be at liberty to put on all the men they can find employment for. At present, the Mining Act limits them to a certain number until there are two or more outlets.

"Ventilation of this shaft is by a steam-jet. One part of the shaft is partitioned off exclusively for the upcast. This mine is particularly well ventilated. The air is split at the shaft to each side, taking the level for the intake, returning by the face of the stalls, and leaving the stalls by the return airway direct for the upcast shaft. When this shaft was sunk, it gave off much gas; but ventilation being good, and great care used, there was nothing to fear, always being well supplied with safety lamps. In the levels or headings gas is sometimes given off, which comes out of the floor of the coal; and sometimes a streak of it would collect on the lee side of the timber which the brattice is fixed to, at the same time the air was blowing past strong. Work has gone on quite satisfactorily during the year that is now past; and now that they are about to have an opening another way soon, it is to be hoped that we will be clear from accidents from gas in the year we have entered upon.

"The railway has been completed to this shaft in connection with the North Wellington railway; this branch is about one mile in length. The conductors have been put in the shaft, fixed head gear built, and shutes erected, and every other appliance is there for a mine that is likely to have a large output of coal per day; and the outlook at present is that this shaft will give a good account of itself to Messrs. Robert Dunsmuir & Sons, its owners, for the current year, and it is to be hoped for many years to come.

## "EAST WELLINGTON COLLIERY.

"You will have observed in the Report of 1882 that this Colliery, with its present works, is situate in the valley of the Millstone River, below the Wellington Colliery. At the time of the above-mentioned report, they had got their shaft down about 200 feet. Everything looked favourable for getting the coal good. When they got down 250 feet, or to where the coal should be, they found it but thin and faulty, being all mixed with rock. They got everything fixed and put in order on top, conductors into the shaft, and everything done as if the coal was good and thick. Then they started two drifts, one on each side of the shaft; they were run a long distance, the coal not improving much—sometimes none—yet they kept on; when about 600 feet from the shaft it began to shew signs of getting better and improving in thickness, until it got 8 feet thick; that was good while it lasted. At different times it looked good, and in a few yards would almost pinch out. It is a little better at present, but not regular, and far from it. They have, however, been getting out some coal, as you will see by the returns.

"There is a prospect of this being a good and extensive colliery yet, as the coal has been found good both up and down the valley from where the works are, and it is to be hoped the East Wellington Company will also find it good. There is a large amount of capital invested here. Besides the works about the shaft, they have a railway, laid with steel rails, 3½ miles

long, with wharf, and two locomotives, 20  $4\frac{1}{2}$ -ton cars, and every other appliance for taking away and shipping a large amount of coal per day; their shipping point being Departure Bay. In addition to the above, they have a large sawmill (the same as mentioned by me in 1882 Report as in course of erection). Attached to this mill, there is a planer and every other thing that is necessary for a mill, with steam-engine for working the same. There is also a branch line from the railway to the mill, so that if it is found profitable lumber can be shipped, there being plenty of timber handy to the mill; but it may be reasonably expected that the proprietors of East Wellington Mine will soon be fully employed in carrying coal, so that the timber can stand till some future day.

“ACCIDENTS IN AND ABOUT THE COAL MINES OF BRITISH COLUMBIA FOR THE YEAR 1883.

“16th January—Samuel K. Lowe, sinker, was killed by falling down the East Wellington Colliery sinking shaft.

“1st February—Thomas Rickard got a blow on the side with a piece of timber when at work putting in conductors in No. 4 shaft, Wellington Colliery.

“3rd March—Peter Morrison, miner, was injured about the back by a piece of coal falling on him from the roof while at work in No. 4 shaft, Wellington Colliery.

“8th March—Ah Tuck (Chinaman) when travelling up the slope in the Wellington Mine, not taking the necessary precaution by going into one of the man-holes, was caught by the empty cars coming down, whereby he got his leg broken.

“12th March—George Fisher, miner, when taking out pillars (coal) in the Douglas Pit, got his leg broken by a piece of coal falling on it.

“17th March—David Hardy, miner, was bruised about the body by coals thrown from a shot, which blew through from the adjoining stall they were working at to connect, in No. 4 shaft, Wellington Colliery.

“7th April—Rorry Dunlop, miner in No. 3 Pit, Wellington Colliery, was burned about the hands and face by an explosion of gas. He was working with a safety lamp. The brattice man was sent to put in brattice, being also provided with a safety lamp, but came in without using it, kindled the gas with his naked light, hence the explosion and burning.

“23rd April—Joseph Randle, while repairing pump-rods in the Douglas Pit, got one of his ribs broken by a piece of timber he was using to hold the rods up with, and which slipped.

“2nd May—Henry Hindle, timber-man, was killed by a cave from the roof while at work renewing timber in No. 4 Pit, Wellington Colliery.

“5th May—Samuel Harris, miner, was injured by a fall of rock from the roof while at work in his stall in No. 3 Pit, Wellington Colliery.

“5th May—Frank Ghilioni, miner, was injured by the premature explosion of a shot in No. 3 Pit, Wellington Colliery.

“1st June—Ah Bone (Chinaman), car runner, got his arm broken by a car going off the rails in the No. 3 Pit, Wellington Colliery.

“29th June—Robert Kilpatrick, miner, was slightly burned by the explosion of some loose powder, kindled by a spark from his lamp, being in the act of getting ready to charge a shot in the Wellington Mine.

“18th August—John Johnson, miner in the East Wellington Colliery, was seriously cut in the face by coals thrown from a shot which was fired in the adjoining stall, which blew through on him, after being told to get out of the way, but did not do so.

“25th August—Ah Lum (Chinaman) was slightly injured by a piece of rock falling on him from the roof, in one of the stalls in the East Wellington Colliery.

“8th September—Yum Lee (Chinaman) had his leg broken by a piece of rock falling on him from the roof, while at work in one of the working places in the East Wellington Colliery.

“5th October—Chinaman No. 10, got his arm broken in two places while at work running cars in No. 4 Pit, Wellington Colliery.

“16th October—John Meakin, miner in Chase River Mine, was slightly burned about the face and hand by an explosion of gas, when he returned to the face, after he had fired a shot.

“29th October—Ah Quong (Chinaman), mule-driver, was severely injured by getting jammed between the cars in the Wellington Mine. He died on the following day.

“6th November—Lee Wing (Chinaman) was severely injured about the back by getting jammed between the cars at the outside of the South Field Mine; at the same time he should have been at work in the mine.



"10th November—Simon Joy, miner, wrenched one of his legs when coming off the cage in the No. 3 shaft, Wellington Colliery.

"15th November—Ah You (Chinaman) was slightly cut about the face and arms by small pieces of coal thrown from a shot, which blew through from the adjoining stall, in the Wellington Mine.

"20th November—Henry Bolton, deputy at Chase River Mine, got the small bone of his arm and one of his legs broken by a roller from the pump-rods getting out of its place and going down the slope, striking him while on the descent.

"3rd December—Ah How (Chinaman), when lowering a car down an incline in No. 4 Pit, Wellington Colliery, got foul of the rope, whereby he got one of his legs broken.

"19th December—David Morris, miner, was slightly singed by an explosion of gas in the East Wellington Mine. He was told by the fireman all was clear; Morris went in some time after and kindled some gas which had collected in a hole in the roof.

"20th December—Sin Kee (Chinaman) was bruised on the back by a piece of rock falling on him from the roof in one of the working stalls in the East Wellington Mine.

"21st December—Tong Kee (Chinaman) was seriously injured by a piece of rock falling on him from the roof in a stall of the Wellington Mine.

"28th December—Ah Yune (Chinaman), miner, was killed by rock falling on him from the roof in the Adit Level, Wellington Colliery. He had fired a shot, which blew out four props. By the evidence taken at the Inquest, he was in the act of putting the timber up again when about one ton of rock came down on him.

"I am sorry to have to make a list of so many accidents—for the year that has closed—both serious and fatal; although some of them were slight, yet they come up to 23 in all.

"Seven of them were by falls of rock from the roof; two, by falls of coal; four, by coal thrown from shots; six, by the cars in the mine; three, by explosions of gas; one, by explosion of loose powder; one, when coming off the cage; two, when fixing pumps; and two, in shafts. You will perceive that four of these cases were fatal: one, by falling down a shaft; two, by falls of rock from the roof; and one, by the cars in the mine. You will observe that 17 of these accidents were at the face of the workings, where the miner can see what is required for his safety and protection from accident; but casualty happens not to the inexperienced only, as the most careful and experienced miner will sometimes be caught, and at a time when he thinks he has used great caution.

"There were six accidents by the cars; the greater part of these were to runners, whose daily occupation was working with the cars, yet they run chances so that it may be lighter to them, although they do not always get off, as you have seen by the accidents to this class of labourers. There were three by explosions of gas; one of them was in a place where they had not seen any gas before that time; the place had also been examined by the fireman previous to the men going to work; he found all clear; but when David Morris went in to work, he kindled a small quantity of gas which had been collected in a hole. There was another of those accidents by gas, to a man working with a safety lamp, and you will have noticed how another person came in and kindled it with his naked light. All the other casualties were at places where it was necessary for repairs to be done, and which is in very dangerous places sometimes.

"In looking over the list of accidents, you will have observed that there is quite a number of them of a preventable character, and that with a little more caution on the workman's part, there would not have been such a long list; but while there are mines, and miners to work them, there will always be some one now and again getting disabled, as accidents will happen even to the most careful and skillful miners. But there is a class of men employed in the mines about here which I do not expect to know much about mining, although they may learn something about it, after being in some time, so that they can do light work. This class is the Chinese. You will have seen in the chapter of accidents that 12 of them are mentioned—two of them are fatal.

"As I have said in a previous report, it would be unjust to charge upon the proprietors or managers of mines responsibility for such accidents, when they have provided every appliance necessary for the safety of the workman, and every other thing necessary for the carrying on of a well-conducted colliery.

"Appended hereto are the Annual Colliery Returns.

"I have, &c.,

(Signed) "ARCHIBALD DICK,

"Government Inspector of Mines, Nanaimo."

## NANAIMO COLLIERIES.

Output of coal for 12 months ending December 31, 1883.	No. of tons sold for home consumption.	No. of tons sold for Exportation.	No. of tons on hand 1st January, 1883.	No. of tons unsold, including coal in stock, Jan. 1st, 1884.	
35,665 3-20	16,371	19,631	105½	442 2-20	
Number of hands employed.			Wages per day.		
Whites.	Chinese.	Indians.	Whites.	Chinese.	Indians.
293	97	8	\$2 to \$4	\$1 to \$1.50	\$1.25 to \$2.50
Total hands employed below ground ..... 269			Miners' earnings per day..... \$2.50 to \$5		
Total hands employed above ground ..... 129					

Name of Seams or Pits—Chase River, South Field, and No. 1 Shaft.

Value of Plant—\$150,000.

Descriptions of seams, tunnels, levels, shafts, &c., and number of same—Chase River, worked by slope; average 6 feet thick; South Field, adit 400 yards (about); seam somewhat unreliable; No. 1 Shaft, 630 feet; seam of coal, 7 to 11 feet thick; No. 2 Shaft, sinking.

Description and length of Tramway, Plant, &c.—Railway, 4 miles; 3 locomotives; powerful winding engines, steam-pumps, coal waggons, and extensive wharf.

M. BATE.

## WELLINGTON COLLIERIES.

Output of coal for 12 months ending December, 31st 1883.	No. of tons sold for home consumption.	No. of tons sold for Exportation.	No. of Tons on hand 1st January, 1884.	No. of tons unsold, including coal in stock, Jan. 1st, 1883.	
171,364 5-20	47,333	124,748 15-20	1,725 12-20	2,443 2-20	
Number of hands employed.			Wages per day.		
Whites.	Chinese.	Indians.	Whites.	Chinese.	Indians.
283	276	None.	\$2 to \$3.75	\$1 to \$1.25	None.
Total hands employed.....559			Miners' earnings per day..... \$3 to \$4		

Name of Seams or Pits—Wellington.

Value of Plant—\$250,000.

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

Description and length of Tramway, Plant, &c.—10 miles of railway; 6 locomotives; 197 waggons; 7 stationary engines working; 1 engine not working at present; 6 steam-pumps; 5 wharves for loading vessels, with bunkers, &c.

Pro R. DUNSMUIR & SONS,  
CHRISTOPHER LOAT.

EAST WELLINGTON COLLIERY.

Output of coal for 12 months ending December 31st, 1883.	No. of tons sold for home consumption.	No. of tons sold for Exportation.	No. of tons on hand 1st January, 1884.	No. of tons unsold, including coal in hand, Jan. 1st, 1883.
6,270	1,082	5,188	.....	.....

Number of hands employed.			Wages per month.		
Whites.	Chinese.	Indians.	Whites.	Chinese.	Indians.
42	32	None.	\$134.75	\$40.50	None.
Total hands employed ..... 74			Miners' earnings per month ..... \$81		

Name of Seams or Pits—East Wellington.

Value of Plant—\$10,000.

Descriptions of seams, tunnels, levels, shafts, &c., and number of same—1 shaft 8 by 18 feet, 240 feet deep; 1 seam; 2 slants, 6 by 12 feet; 2 levels, 6 by 10 feet.

Description and length of Tramway, Plant, &c.—3½ foot narrow gauge, 3½ miles in length; 2 locomotives; 20 coal cars.

GEORGE HAWKHURST.