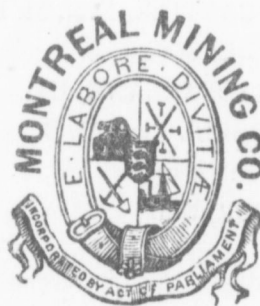


REPORT
OF
THE DIRECTORS
OF THE
MONTREAL MINING COMPANY
TO THE
STOCKHOLDERS
AT THE
ANNUAL GENERAL MEETING,
16TH FEBRUARY, 1853.



Montreal:
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1853.

MONTREAL MINING COMPANY

Montreal Mining Company,

INCORPORATED BY ACT OF PARLIAMENT.

Capital—£300,000, in Shares of £5 each.

DIRECTORS:

- HUGH ALLAN, Esq., PRESIDENT.
- HENRY MULHOLLAND, Esq., VICE-PRESIDENT.
- GEORGE E. CARTIER, Esq., M. P. P.
- ROBERT ANDERSON, Esq.
- ANDREW MACFARLANE, Esq.
- G. W. CAMPBELL Esq., M. D..
- JAMES SCOTT, Esq.
- JOHN CARTER, Esq.

Moved by H. L. Routh, Esq., seconded by George
 adopted, printed and circulated amongst the shareholders, (passed without
 dissent.)
 Resolved—That the Report of the Directors now read, be received.
 That the Report which has now been adopted, be re-considered with the
 view of expanding from it that portion which reflects on the management
 of the former directors, and the conduct of the Commercial Bank; the said
 Report having been adopted, without the knowledge of the mover.
 This resolution having been put to the Meeting, was
 lost.

MONTREAL MINING COMPANY.

The Annual General Meeting of the Montreal Mining Company, was held in the office of the Company in the City of Montreal, on Wednesday, the 16th February, 1853, and was attended by a numerous body of Shareholders.

The President having taken the Chair, desired Mr. James K. Bethune, the Secretary of the Company, to act as Secretary to the Meeting.

He then read the Report of the Board of Directors for the past year, together with a Report on the state, progress and prospects of the Mine from E. B. Borron, Esq., the Manager.

The President also read a Report from Messrs. William Muir, Jr., and T. M. Taylor, the Auditors, and a letter from Mr. Speirs, Accountant, certifying to the correctness of the Books and Accounts of the Company for the past year.

Messrs. William Edmonstone and W. R. Falconer, were named Scrutineers to receive the votes for the Election of the new Directors.

It was then moved by E. D. David, Esq., seconded by John Carter, Esq., and

Resolved.—That the Report of the Directors now read, be received, adopted, printed and circulated amongst the Shareholders ; (passed without dissent.)

Moved by H. L. Routh, Esq., seconded by George Moffatt, Jr., Esq.

That the Report which has now been adopted, be re-considered with the view of expunging from it that portion which reflects on the management of the former Directors, and the conduct of the Commercial Bank ; the said Report having been adopted, without the knowledge of the mover.

This resolution having been put to the Meeting, was lost.

Moved by E. L. Pacaud, Esq., seconded by J. A. Berthelot, Esq.

That the President be requested to accept of the sum of Three Hundred Pounds Currency, in consideration of his valuable services to this Company, during the past year ;--which was carried.

The Scrutineers then reported, that the following gentlemen were elected Directors for the ensuing two years.

JAMES SCOTT, Esq.

DR. G. W. CAMPBELL.

HENRY MULHOLLAND, Esq.

JOHN CARTER, Esq.

The Meeting was then dissolved.

HUGH ALLAN, Chairman.

JAMES K. BETHUNE, Secretary.

REPORT OF THE DIRECTORS
OF
THE MONTREAL MINING COMPANY.

SUBMITTED AT THE
SEVENTH ANNUAL GENERAL MEETING.

The Directors of the Montreal Mining Company in appearing before their constituents at this the Annual Meeting, beg to congratulate them on the improved aspect the affairs of the Corporation now present, as compared with their appearance last year, or indeed on any previous occasion.

At the period when the present Directors were elected to Office, the affairs of the Company looked gloomy in the extreme. The hopes imparted by the Reports laid before the Annual Meetings for several years had invariably ended in disappointment; the frequent demands for money, made on the Shareholders, had well nigh exhausted their patience, and many indeed, despairing of any change for the better, actually gave considerable sums to others to relieve them of their Stock, rather than incur the risk of being called upon to pay their share of the debt then existing.

The losses thus sustained by many individuals were truly deplorable, and it is much to be feared were, in some instances, attended with serious personal consequences.

Coming into office at such a period and under such circumstances, the Directors felt acutely, the grave responsibility devolving on them, not only from being all personally interested in the Company to a large pecuniary extent, but also from the fact that they were elected to replace others, some of whom had been long connected with its management, and that a continuation under the new Directors for any length of time, of the existing un-

fortunate state of affairs, must inevitably break up the Company, and result in the abandonment of the enterprise.

As soon therefore as it was practicable after the Annual Meeting, the Directors proceeded anxiously to examine into the state of the Company's affairs, which they found to be as follows :

LIABILITIES.

Due the Commercial Bank.....	£18604	15	1
Bills payable open Accounts and Accumulations of interest.....	4727	2	0
Money required at the Mine to pay balance of winter's wages.....	1500	0	0
Instalment on Mine due 1st March, 1852, with interest.....	3100	6	2
Instalment on Mine due 1st March, 1853...	3041	13	4
Do do 1st March, 1854...	3041	13	4—34015 9 11

The Directors were thus called on to provide for the almost immediate payment of £27932 3s. 3d., leaving a further sum of £6083 6s. 8d. still due on the Mine, and nearly all these large amounts were bearing interest.

The only means available to meet this heavy amount were the following :—

ASSETS.

A call on the Shareholders made by the former Directors, payable in March, May, June and July, of in all 5s. per share.....	£11363	15	0
Ore per Sinbad, wintered in Welland Canal.....	£2643	8	3
Less inland Freight.....	300	0	0—2343 8 3
Balance of Sales Ore in England to draw for.....	201	2	11
James Cuthbertson's mortgage.....	1545	0	0—15453 6 2
Leaving a balance of.....	£18562	3	9

For the payment of which no provision was made, and of which £12478 17s. 1d. was payable immediately.

There was also an aggregate of calls past due, amounting to £726 12s. 6d., but this was not an available asset, and for a large portion of it the Stock had ultimately to be forfeited.

This aspect of affairs was by no means encouraging, and to add to the embarrassment of the Directors, the Commercial

Bank, with which the Company had for a considerable period exclusively transacted its business, not only declined to furnish the £1500 required at the Mines to pay off the balance of the winter's wages, or to supply funds to carry on the subsequent operations there, but also began to press for a settlement of the large amount due to it. This was regarded by the Directors of this Company as opposed to the spirit of an agreement entered into between the Bank and the former Directors, by which it appeared that the Bank had agreed, with certain exceptions, to pay all the Company's necessary disbursements till the 1st July. The Bank, however, took a different, and as the Directors think, an erroneous view of the agreement, and refused to carry it out, thus throwing on the Directors of the Company, the alternative of procuring the money elsewhere (no very easy matter in the then embarrassed situation of the Company), or of altogether abandoning the works at the Mine.

Under these circumstances, an application was made to the Bank of Montreal, which at once, and most liberally agreed to make the advances required, and it is hoped the value of the account, and the extensive circulation given to its notes will yet compensate it for its valuable assistance to the Company at that period.

In view, however, of the heavy liabilities of the Company, for the payment of which no provision was made, and especially for the purpose of liquidating the debt due to the Commercial Bank, the Directors felt themselves compelled, very reluctantly, to make a call on the Stockholders of five shillings per share, the payment of which, however, they spread over such a space of time as would entail as little hardship as possible on those who had to pay it: of this call 2s. 6d. per share has already been paid, leaving 1s. 3d. payable in April, and a like sum in June next.

These calls, as fast as they were paid, have been appropriated towards the liquidation of the Debt due to the Commercial Bank, of which about £13000 has already been paid off.

For the payment of the installment on the Mine of £3041 13s. 4d., due on the 1st March in this year, no call has been made, it being the intention of the Directors to pay it out of the proceeds of the Mine expected down early in spring. This therefore must be regarded, and actually is a dividend of 1s. 3d. per share,

paid to the stockholders, inasmuch as no equivalent in value has gone into the Mine, and this sum will really be paid out of the profits, but for which, a call must have been made to meet it.

The following is the present state of the Company's affairs.

LIABILITIES.

Due the Commercial Bank.....	£5602	5	5
Due the Bank of Montreal.....	2304	10	5
Bills payable and open accounts.....	1681	5	6
Due on location.....	6083	6	8
Total liabilities.....		£15671	8 0

Against which there are the following :

ASSETS.

Calls not yet due.....	£5681	17	6
Ore at Kingston, 250 tons, the inland freight of which is paid.....	4800	0	0—10481 17 6
Showing a present balance of uncovered liabilities amounting to.....		£5189	10 6

Of this sum £3041 13s. 4d., is due only in March, 1854. To meet the balance and such sums as it may be necessary from time to time to send up to the Mine in payment of wages, &c., there will be about Five Hundred tons of dressed ore ready to ship from the Mine by the 1st May, and the Directors anticipate confidently, that with the exception of the installment on the Mine due next year, it will be altogether clear of debt by the 1st July.

It is proper here to notice the quantity and value of produce received from the Mine in last year, which had been prepared under the previous management. This period is brought up to 1st May last, because though elected here in February, the Mine came practically under the control of the new Directors only in May.

These statements, and the comparison of recent with former results, are not made by the present Directors with a view to find any fault with their predecessors, but they are anxious to lay before the shareholders a clear statement of the affairs of the Company, what it has done, and what it is now doing, to accomplish

which it is impossible altogether to avoid making these comparisons.

The quantity of ore received from the Mine during the past season, prepared during the previous winter, as will be seen by reference to Mr. Borron's report, was as follows :

67 tons of stampwork per Wm. Gordon, paid for on a tribute of 7s. 6d., in the £, sold for.....	£1021	4	6	
Deduct tributers proportion	£382	19	2	
Inland freight.....	87	10	0	£470 9 2 £550 15 4
A quantity of poor ore left on the surface, which cost a large sum to dress, and which yielded of 15 per cent. ore 93 tons, value..	£1162	10	0	
Deduct cost of dressing, &c, a £4	£372	0	0	
Inland freight.....	£116	5	0	488 5 0 674 5 0

Showing the net result of all the work produced from 1st November, 1851, till 1st May, 1852, to be £1225 0 4

As the expenses during that period were very heavy, £3000 having been sent to the Mine in October, and £1500 more required to pay off the wages till 1st May, it follows that a large proportion of the force must have been employed at very unproductive, though perhaps useful and necessary work, during the winter.

It appears therefore, that from the 1st November, 1851, till 1st May, 1852, a period of six months, the Mine produced :

Of Stamp Work.....	67	
Of 15 per cent. ore.....	93	
	—	In all.....160 tons.
And from 1st May, 1852, till 1st November, 1852, a like period of six months, it produced.....	402	"
And from 1st November, 1852, till 1st May, 1853, another like period, it will produce of dressed ore.....	500	
And of additional rough ore, to be afterwards dressed,	250	
	—	750 "

the quantity having been more than doubled in the first six months of Mr. Borron's management, and more than quadrupled in the second similar period.

It is besides not unlikely, that though credited to last winter's

work, the ore from which the 93 tons was produced in 1852, belonged to an earlier period, as the piles were very poor, and were said to have been previously picked over once or twice. These piles were expected to have yielded about 250 tons, as appears by last year's report, but fell far short of doing so.

It should also be noticed, that though the production of the Mine has so much increased, the expenditure has been diminished to a considerable extent, the outlay for Mining operations last year being only—

	£9835 7 3
Against in 1851.....	12774 19 7
And in 1850.....	14169 0 9

The unproductiveness of last winter's work may probably be attributed to the fact, that a large portion of the men were employed in sinking shafts and driving levels, which do not in themselves yield much profit to the Company, but a reference to the very excellent report and sectional drawings of the Mine, sent down by Mr. Borrón, and now on the table, will show that similar work has by no means been neglected this year; on the contrary, it will be seen that Scott's shaft has been sunk a greater number of fathoms during the last six months, than it had been in the previous six years all put together, and that other shafts and levels have been carried forward to a considerable extent.

One cause of the additional quantity of ore produced this winter is no doubt the discovery of a new method of preparing the skimpings. These have hitherto been regarded as little better than a useless heap, accumulating from year to year, and returning nothing to the Company.

The first attempt at dressing them seems to have been made last winter, when they were let out on a tribute of 7s. 6d. in the £. The party which undertook them prepared only 67 tons during the whole winter, at a cost of £382 or £5 12s. 6d. per ton, and did not even then make great wages. Mr. Borrón, however, discovered a different and better mode of dressing them, which is now done with great speed, and at a cost not exceeding £1 15s. per ton.

Another cause of the prosperity of the Mine is the system of working on tribute, established after the first visit of the President to it last year. The price now paid for blasting, hauling to shaft,

raising, tramping, crushing, and jiggging a ton of 15 per cent. ore is about £5, besides the cost of working the engine. By this system, the interest of the miner becomes identified with that of the Company, and he is particularly careful both of his time and the ore he blasts. Neither can there be any fraud in measuring bargains which it has been alleged was, under the old system, the case to a considerable extent.

It is difficult to compare the cost of producing ore as above stated with that of any previous year, as there was formerly no means of ascertaining, with any thing like certainty, what the ton of ore actually cost; but if the Annual Report of 1850, may be taken as evidence, it appears by it, that in that year the cost of Mining operations was £14,169 0s. 9d., and the quantity of ore raised in the same year was 704 tons, making the cost of it something over £20 per ton.

The rise in the value of copper has also been in favor of this year's operations, and as there appears some prospect of a continuance of good prices, the Directors are of opinion that advantage should be taken of it. By the present method of working and with the present force, the Mine will produce little more than 1200 tons of 15 per cent. ore in a year. An increase of force would of course increase the quantity to the extent of the means of jigging, and it may be found desirable to erect additional apparatus for that purpose, and so long as the high price of copper is maintained, every effort should be used to get to market as much ore as possible.

This again involves difficulty in obtaining freight at reasonable rates from the Mine to Montreal, and if the Mine continues to prosper, it may become a question whether the Company should not take steps to render itself independent in this respect.

During the President's second visit to the Mine, he gave directions for one of the smelting furnaces to be taken down with a view to ascertain the value of its contents. The result will be seen from Mr. Borron's report, and if the refinery proves equal to the furnace thus opened, the amount obtained therefrom will assist the Company's funds considerably.

The management of the Store has been quite satisfactory under the new system, and has, so far as is known, given satisfaction to

the workmen. The Company's share of profit for the six months ending 31st December last, amounted to £455 13s. 3d.

In the course of the past season the Mine was visited by a number of strangers, professional and otherwise. One of them, a Mr. Vivian, was so satisfied with the appearance of it, that he came here and entered into a preliminary memorandum of lease, binding himself to form a Company and work the Western location, paying a seignorage of five per cent. on the produce to this Company. Nothing definite has since been heard of his subsequent proceedings.

The non-payment of the calls by a number of the distant and some local shareholders, and the stock itself being of no value in the market, induced the Directors to prepare a bye-law authorising the forfeit of such Stock in arrear of calls, as might not, on being put up to sale by Auction, realize the amount of the calls due on it. This bye-law was passed at the General Meeting of the Stockholders, on the 21st June last, and under its provisions, on the 6th of December, 2,702 shares were offered for Sale and forfeited, thus reducing the issued Stock of the Company from 48,100 shares to 45,398 shares.

Being desirous of obtaining the opinion of a scientific man relative to various parts of the machinery, the President invited Mr. Nicholas Vivian, the Engineer, who came out from England with the Engine, to meet him at the Mine during his visit in October. Mr. Vivian did not arrive there until after the President had left, but he succeeded in making such improvements on the Steam Engine during his short stay, as, according to Mr. Borron's report, will effect a saving in fuel of five cwt. of coals per day. He also suggested other alterations which, while they will have the effect of lessening the expenditure, will at the same time considerably increase the work performed by the Engine and Crusher, and thus tend materially to the Company's advantage.

In conclusion, the Directors have no doubt, that much of their success is due to their good fortune in securing the services of Mr. Borron as manager of the Mine, and on terms which, while it is hoped they will ultimately prove profitable to him, are at the same time highly advantageous to this Company; and they have much satisfaction in recording their undiminished confidence in his prudent and skilful management.

His report appended hereto, will be found clear and explanatory, and with the help of the well executed sectional drawings, can be understood by every stockholder.

The detailed account and balance sheet will be found on the Table, with a list of the shareholders corrected up to this day.

It is part of the business of this meeting, to elect four Directors in the room of Messrs. Henry Mulholland, John Smith, Dr. G. W. Campbell, and James Scott, who go out by rotation, but are all eligible for re-election.

All which is respectfully submitted,

HUGH ALLAN,
President.

Montreal, 16th February, 1853.

ANNUAL REPORT

E. B. BORROR, ESQ., MANAGER OF THE MINES

Deer Creek, Colorado, January 1887

Dear Sir,

In submitting to you this report, I regret to find that I should be unable to give you as much information as you would desire. The work of the mine during the past year has been very unproductive, and the result is that the mine is now in a state of bankruptcy. I have, however, endeavored to give you a full and complete statement of the affairs of the mine, and to show the reasons for the failure.

I shall think that you will be interested to know that the mine was started in 1875, and has since that time been in the hands of several different parties. It was first worked by the late Mr. J. B. Borrer, and was then sold to Mr. J. B. Borrer, Jr., who was the manager of the mine during the past year. The mine was worked during the past year by Mr. J. B. Borrer, Jr., and the result was that the mine was now in a state of bankruptcy.

Looking up the first time, I had to observe that the operations carried on during the past year with a view to immediate return have been very unproductive. Few of the stops were worked, but when the men were otherwise engaged, and consequently not much ore was produced. These stops that were worked on were worked on the work under which the mine is paid a fixed price per ton for the ground he cuts irrespective of the ore to save and

ANNUAL REPORT
OF
E. B. BORRON, ESQ., MANAGER OF THE MINES.

BRUCE MINES, 12th January, 1853.

HUGH ALLAN, ESQ.

President, Montreal Mining Company.

SIR,

In submitting as usual at this season, a report on the Mines and works entrusted to my care ; it is, I conceive, proper that I should lay before you at some length, such information as may enable you to furnish the stockholders at their Annual Meeting, with a correct and satisfactory account of an enterprise in which they are so deeply engaged, and the country at large, so greatly interested. This duty I shall endeavour to perform to the best of my ability ; and beg in the first place to direct your attention to the

MINING OPERATIONS.

I shall divide that which I have to say on this subject, under two general heads. 1st. PRODUCTIVE WORK, comprising all those Mining operations, from which an immediate beneficial interest or return is expected or derived. 2d. UNPRODUCTIVE OR PROSPECTIVE WORK, comprising such operations, which have not for their object immediate profit or returns, but are rather of a preparatory nature, as opening up the ground and laying the foundation for beneficial working in future years.

PRODUCTIVE WORK.

Taking up the first head, I beg to observe, that the operations carried on during the past year with a view to immediate returns, have been very limited.

Few of the stopes were worked last winter, the men being otherwise engaged, and consequently not much ore was produced. Those stopes that were carried on were worked on tut-work, under which system the miner is paid a fixed price per fathom for the ground he cuts irrespective of the ore, to save and

take care of which, therefore, he has no interest whatever. On your arrival here, last June, and after a careful examination into the state of the Mines and Works, it was thought for the interest of the Company, that this system should be changed, and the ore ground in future worked on tribute, by which the miner would be paid a certain rate per ton of ore actually produced, and his interest also, thus be made to concur with that of the Company. So soon then as existing contracts had expired, Tribute bargains was proposed.

The rates offered for the various stopes were based upon the estimates and reports previously rendered to the Company; and had those estimates been correct, were calculated to have yielded the miners higher wages for the same actual amount of work than they had previously obtained under the old system. These rates were, however, universally rejected as quite too low, and a considerable number of miners went away rather than "take" at those rates, thus affording us at the very outset satisfactory evidence. That in the opinion of the parties who had actually worked in the ground, (and were really best able to judge) the productiveness of the Lode was not such as it had been represented to the Company.

This circumstance both Captain Hodge and I were satisfied of, from the beginning, as you know from my Report, and which having been now proved beyond doubt, I am glad to see so candidly stated to the stockholders in the last quarterly Report of the Directors.

A few men, however, to whom we offered rates decidedly advantageous in our own opinion, were induced to remain. These, as we hoped, did well. Six of them who were engaged on the Halvans, or Waste-pile, did better than we expected, in consequence of more ore having been thrown aside than was apparent on the exterior of some of those Piles. This circumstance, and the promptitude with which the Tribute Ore was dressed, assayed and settled for, tended greatly to bring the new system into favour, and was therefore rather fortunate than otherwise.

We have now twenty tributers, who are working with much spirit and industry. The places or stopes where they are employed, you will find particularised on the sections, and are as follows :—

MAIN LODE.

- 2 Men in Stope—Back of the 15 fm. level west of Meredith's shaft.
 3 " " —Bottom of the 25 fm. level east of Ferrier's shaft.
 4 " " —Back of the 25 fm. level east of Ferrier's shaft, foot of winze.
 3 " " —per surface, immediately east of Ferrier's shaft.
 2 " " —Back of 15 fm. level west of Engine shaft.

NORTH LODE.

- 2 " " —Back of 10 fm. level east of Harris' shaft.

TRIAL STOPES.

- 4 " " —Bottom ——— east of Tryal shaft.

The tribute allowed is £5 per ton of 15 per cent. ore, and I do not wish to conceal that it is choice ground which the tributers have at that. I think that the stopes they are presently working may produce on an average not far from 2 tons of ore per fathom. Unless the ground does yield that quantity of ore, the tributers cannot make usual wages at £5 per ton. In this sum are included, cost of Mining, preparation of stuff for crusher, transport from Mine to crusher, and the dressing charges exclusive of engine cost.

If the expectations of the tributers themselves and our own hopes be realized, we shall have 500 tons of ore excavated by the 1st of May next. This branch of our Mining operations, has made rather slow, but under the circumstances, satisfactory progress. The system may be considered as established, and I hope next summer to see our force of tributers materially increased.

It may not be amiss under this head, to take a hurried glance at the ore grounds wholly or partially laid open, and which must form the field, as it were, in which our productive labour must be expended for some time to come. The accompanying section will convey to your mind a clearer idea of the extent and position of the ore grounds than any written description. You will observe that the portions of the lodes already stoped out are shaded dark, and the supposed ore ground is shaded yellow, the unproved and unproductive ground is not shaded at all.

	Fathoms.
We have then it is considered ore ground west of Meredith's shaft, in back of 15 fm. level, bottom rather poor,	100
Ore ground east of Meredith's shaft to Ferrier's shaft. We have here a considerable extent of ore ground laid open above the 25 fm. level, none of which has been worked since I came, nor much enquiry after it as yet on the part of the tributers, still if not at a tribute of £5, yet at £6 or £7 it would most likely be taken out when we see fit to give those rates.	340
Ore ground between Ferrier's and engine shaft. Here we have above the 25 fm. level by far the most regular and productive course of ore ground in the Mine. The width of the lode ranges from 4 to 8 feet, yielding from one to three tons of ore per fathom. The lode is rather poor next Engine shaft, good next Ferrier's and best in the middle at foot of winze.	770
East of Engine shaft. The Lode though of good size does not carry much ore at the 25 fm. level. The stope above, however, will still work, and I have assumed one half the intervening ground therefore to be ore ground,	150
Total ore ground opened on Main Lode,	1360

NORTH LODE.

Between President's and Scott's shaft we have say	140
East of Scott's shaft, back of 25 fm. level,	290
East of Harris' shaft, back of 10 fm. level,	70
Total ore ground opened on North Lode,	500
Total ore ground laid open in the Mines,	1860

The above are approximate estimates only, for however fully grounds may be laid open, it is impossible for any one to know exactly *how much* of such ground will be *profitably productive*, and how much otherwise.

In addition to the above ore ground, the sinking of Ferrier's shaft renders it probable that the ore ground we have above the 25 fm. level on both sides that shaft, will at least bear well down for a depth of 8 fathoms below the level, and if only to that depth we shall have 600 fms. there.

East of Prideaux's shaft also in the bottom of the stopes, there is every reason to expect considerable ore ground, but there is none laid open.

Tryal stopes also will produce some ore ground.

Thus we have, I consider, laid open 1,860 fathoms of ground likely to be profitably productive at the present price of copper ore, and most of which will, I expect, be taken out on tribute at rates ranging from £5 to £7 10s per ton of 15 per cent ore.

PROSPECTIVE WORK.

This branch of Mining operations embraces the driving of levels and sinking of shafts, with the view of either opening up additional ore ground for future operations, or at least, testing the lodes and proving their value and extent. Most of the work performed last year has been of this description. The result has been the laying open of much of the ore ground just taken account of: and the testing of both lodes to an increased depth. This will be more apparent when I come to speak of the *several operations* which I shall now proceed to do, taking them up in detail.

SCOTT'S SHAFT.

Scott's Shaft, is, you are aware, situated on the North lode and sunk on the lode itself, which "underlays" or "brades" to the North. It is, therefore, not a perpendicular shaft. This time last year it was only about two fathoms below the level, it is now 22 fathoms under the 25 fm. level. Of the 20 fathoms sunk during the year, 12 fms. have been accomplished since 3rd July, in addition to which a platt was cut, and cistern and pent-house put in, the time required for which would have enabled us to cut two fathoms more. The lode in the shaft for nearly the first 10 fms. under level, maintained with occasional fluctuations much the same size and character it had at the level, say worth from $1\frac{1}{2}$ to 2 tons of ore per fathom. But at that point, the lode became unsettled, small and poor, particularly in the Western end of the shaft. It continued so for 7 or 8 fathoms when it again became more settled, the walls more regular—widened out from 18 inches to three feet or more. And from having (as at one time) no ore worth saving increased in productiveness to a ton or rather better per fathom, at which it now stands. Although we are nearly 200 feet under the level of the lake we have no water yet

worth mentioning from the bottom. Six men are engaged in sinking this shaft at £27 per fathom.

FERRIER'S SHAFT.

Nothing was doing toward proving the main lode *under* the 25 fathom level on my arrival. Meredith's shaft, Ferrier's shaft and Engine shaft had all been allowed to stand unprospected for a number of months. It is a fact that with very few exceptions, long standing and permanently successful Mines are those whose lodes put down well to very considerable depths, as much as one, two, and sometimes nearly, three hundred fathoms. Where this point had never been decided on your own location, in the neighbourhood, or indeed the whole mineral region, in so much as one single instance, it does, to say the least, seem extraordinary, the want of vigour (not to say want of caution) displayed in the tardy progress of the shafts: extraordinary to find in the *sixth annual Report* that the deepest shaft was only 25 fathoms below the real surface, a depth attainable by *one year's* active operations.

It will be observed by this section, that Ferrier's shaft is situated between the other two and occupies a tolerably central position in reference to the richest and most extensive body of ore ground yet developed in the Mines. For this reason I selected it, and commenced sinking as soon as suitable arrangements could be made. The shaft is now down upwards of 10 fathoms below the level, for the first 8 fathoms of which the lode maintained its width character and productiveness, being from 4 to 5 feet big, carrying regular walls and producing from $1\frac{1}{2}$ to $2\frac{1}{4}$ tons of ore per fathom.

At this depth the lode (like the other lode in Scott's shaft) became disturbed and contracted with imperfect walls and very little ore, in which condition it is at the present time. I have six men employed in this shaft at £30 per fathom.

25 FATHOM LEVEL.

This level has been extended upwards of 80 fathoms during the past year, of which 15 fathoms only have been driven since 3rd

July. That portion of it going eastward from engine shaft has not been driven through, and connected with the branch coming westward from President's and Scott's shafts, nor has it been prosecuted under Prideaux's shaft, both of which were originally intended. Among other reasons for this, I will only mention that the intervening ground, amounting to over 30 fathoms, we had good cause to believe would be entirely dead or unproductive, and would have cost £500 at least to drive through, against which I saw no sufficient counter-vailing reasons or advantages.

25 FATHOM LEVEL EAST OF SCOTT'S SHAFT.

The end of this portion of the level was standing about 7 fathoms East of Scott's shaft on my arrival. It had not been prosecuted for some time, attention having been more particularly directed to other portions of the level. It has been taken up and extended 11 fathoms further. The lode is neither so wide nor productive as it was in the ten fathom level above. Still it is such as will warrant us in taking out the intermediate ground which is expected to yield $1\frac{3}{4}$ tons per fathom on an average. The 10 fathom level has been driven 16 fathoms further east than the present end of the 25 fathom level. But the last 6 fathoms of the 10 fathom level are poor.

Four men are employed here at £16 per fathom.

15 FATHOM LEVEL WEST OF MEREDITH'S SHAFT.

The lode in this end was only a few inches wide and destitute of ore,—it had been discontinued.

My object in taking it up was to extend it westward under the swamp, in which direction the lode is quite unproved either at the surface or below. I preferred this level to the 25 fathom level, because it was 15 fathoms further advanced in the desired direction and from the failure in the stope in bottom of the fifteen fathom level, I had no reason to expect that the lode would be productive below. Thus had I chosen the 25 fathom level, I might have incurred a heavy cost, and certainly much delay in testing the object in view. The lode has not improved with us yet. It is much disordered at present by a cross course. When

we are fairly through this it will probably be seen what the lode is likely to do.

Should it enlarge and carry ore it will open up a new and encouraging field. There are two men employed here.

So much for what has been done in the way of mining operations, and the present state and condition of the operations in active progress.

I shall now say a few words in reference to the future.

It is contemplated with the view to testing the lodes, and if answerable to our hopes to the laying open of ore ground also to carry forward the following operations during the present year:

SCOTT'S SHAFT.

When this shaft attains the depth of 50 fathoms we propose driving out both ways and proving the lode.

FERRIERS' SHAFT.

Also will be put down to the 50 fm. level before driving. At that depth, however, which I hope to attain in seven months, we will drive out on the lode East and West, and hope to lay open a large quantity of ore ground. So soon as the ends get far enough away I will lose no time in resuming the shaft and testing the lode still deeper.

ENGINE SHAFT.

I have it in view to resume the sinking of this shaft in order completely to lay open and test the main lode; but I do not wish to take away any of the hands presently engaged raising ore. Nor to do much, till it is seen whether or no the lode opens out in Ferrier's shaft.

25 FATHOM LEVEL EAST OF SCOTT'S SHAFT.

Will be prosecuted as long as it pays its own cost and is laying open ore ground.

15 FATHOM LEVEL WEST.

We will drive this at least a few fathoms further under the swamp.

ORE DRESSING.

To this department I have devoted more attention than to any of the others, but notwithstanding have never been able to realize my expectations. But the fact is, the capability of the machinery and apparatus for ore dressing has, like some other things, been over-rated.

The quantity of ore dressed during the last year is as follows :

	Tons. Cwt.
Dressed from skimpings last winter,	64 0
Dressed from Mine stuff in May and June by Captain Hocking,	93 12
Dressed from Mine stuffs and wastes from July 3 to December 15, by Captain Davy,	523 12
	<hr/>
Total in tons of 21 cwt.	681 3

Of the above we had about 150 tons on hand on the 15th December, at which date the ground may be said to have been cleared not only of old stocks, but also, nearly the whole stuff broken, up to that time, the cost of raising which appears either against former years or last year. For although some of the tributers had been working under their present contracts some time prior to December 15, yet, as these contracts do not expire till 1st of May next, all the ore so raised, with the wages and expenses, will appear for and against the present year, excepting of course those completed tribute bargains of which you have a list.

What has become of the 4,000 tons of ore which figured so largely in the account two years ago is a problem the solution of which is both difficult and dangerous. But the simplest is, I am persuaded, the most truthful, namely, *it never was there*. One half of it having only an existence in the sanguine imaginations of the estimators. That the produce of the Lode has been over estimated we have satisfactory proof, and it is quite as probable that the quantity and produce of the stuff when laying on the surface in a rough state was over estimated also. However, it stands admitted in the last annual Report that with the exception of 250 tons it disappeared in the year 1851.

And now we start almost clear, with nothing but the Mine to trust to, and what we can get from the skimpings and some rather poor stuff at the west end of the location.

The quantity of ore dressed has been less, and the cost greater than I desired ; but a considerable portion of the stuff dressed last year was exceedingly coarse and poor, and no wonder, for some of the heaps were, it is said, picked over twice, and the best work taken out when there was a push to make up a parcel of ore. In addition to this the small quantity of ore dressed prior to 3rd July compelled me to urge on the operations night and day ; and night work is very costly. Still it is better to work at night than fall behind with this department.

We have expended, as you will perceive by the accounts, £290 1s. 9d. on the new Jigging House, Slime and Ore Floors, &c., also for arrangements necessary for keeping the whole premises warm during the winter.

I am sanguine that *this* year we shall dress *double* the quantity that was dressed *last* year. We have at present upwards of 200 tons dressed ore on hand, and will do our utmost to have 500 tons at least ready for shipment on the 1st of May.

As regards the stamps I think we had better see some satisfactory result from the stamps already put up, before we go to much expence in erecting the additional machinery lately arrived. We will endeavour to have the old stamps set to rights in the spring.

It gives me pleasure to state in this place that the alterations effected by Mr. Vivian have saved us at least 5 cwt of coals per day in the consumption of the engine.

SMELTING WORKS.

These, till otherwise needed, have been turned to useful account as a general ware-house for our surplus machinery, materials, tools and utensils, &c., where the whole, with the building itself, and the furnaces are in careful custody.

We commenced some time ago to take out the bottom of the last Melting Furnace, from which, after a preparatory roasting, the copper was wont to be transferred to the refining. It is nearly all got out. Much of it is in the state of grey metal, producing by my analysis 70 per cent of fine copper. In its present form it is impossible to arrive at anything like the average produce, for we have it in all states, from a saturated fire-brick up to metallic copper. It is estimated to weigh 12 tons, and I expect

is worth £750 currency on the spot. This is such an encouraging beginning that we shall hardly be able to keep our hands off the Refining Furnace till we hear from you. Should we, however, commence to take the bottom out of it also the materials will be laid carefully aside, and such drawings and measurements kept as will enable the mason to put it up again when necessary. This, of course, has been done in regard to the furnace we have been operating upon. I may as well mention that we selected the furnace that we thought would have the biggest bottom.

LOCATION.

Anything that has been spent since 3rd July under this head has been for necessary repairs of houses and buildings, &c.

I was anxious to make a good road from the store, at least along the principal row of houses, and got a portion of it completed before the severe weather set in. You will perceive by the accounts that transfers from merchandize and purchase of houses, &c., negotiated prior to 3rd July have thrown this account into the back ground.

STORE.

The store requires no particular notice in this place further than that during the last half year a very safe and very good business has been done, as will appear from the statements and accounts sent herewith. The magnitude of the establishment was not such last year as to afford so large a field as usual.

POPULATION.

The population presently at the Mines is 304, of which 124 are males, 66 females, 57 boys and 57 girls.

So far as I have had an opportunity of judging, I would say that there are few more healthy places on this continent than the Bruce Mines. Since I came, there has been very little sickness, and no deaths save that of a very young infant.

There is resident at the Mines a worthy and respectable Missionary of the Methodist Church, to whom one of the company's houses is allowed free. The Sunday School which Mr. Campbell was at considerable pains to establish, is still carried on, and

proves exceedingly useful. There is also a public library and reading room supported by voluntary subscriptions.

On the subjects of profit and loss and property I shall not venture, nor is it necessary, as the very carefully drawn up accounts and statements furnished by Mr. Pilgrim will give you, I trust, all the needful information on those points. I may observe in a general way, however, that where, as was the case last year, almost the entire force was during the first, and a large portion of it during the second half year, engaged at a heavy cost sinking shafts, driving levels, and other work entirely prospective, no other result could be reasonably expected than that the balance would be against us. The small stock of poor ores brought over from the preceeding year being far short of an equivalent for this heavy expenditure in unproductive work; not that this outlay was improper, on the contrary much of it was both necessary and proper.

But in future we should make it our study to maintain a just proportion between the force employed in *prospective work* (testing and opening up ground) and the force employed in productive work (raising ore), so that while careful to lay open in advance a sufficiency of ore ground, we should be equally careful not to over-burthen any *one* year with more than what is a necessary and a fair proportion of such prospective operations. This I will endeavour to do in future.

Circumstances do not justify me in holding out any brilliant prospects to the Stockholders. And in a pursuit so uncertain, prudence almost forbids the making of any very definite statements on the subject. Still, as the party who has the management of the Mines should be among the best able to give a correct opinion on their future prospects, and as his employers are entitled to expect it, I beg respectfully to state, that should copper and labour maintain their present relative values, and no serious unforeseen accidents occur, I have scarcely a doubt in my mind but that the Mines, with tolerable management, are capable of yielding a profit on the operations of the next two or three years. As indicated before, the permanent prosperity of the Mine depends in a great measure on the putting down of the lodes *well* in depth, to prove and test which I shall direct special attention, and in the meantime "hope for the best."

In conclusion, it gives me sincere pleasure to state, that I con-

sider myself more than fortunate in the Officers presently at the Mine. Assiduous in their attention to the duties of their several departments they have worked together with the greatest harmony and good-will to promote the common interest of all as involved in the success of the Mine.

I have the honor to be,

Sir,

Your most obedient servant,

E. B. BORRON,

Manager.