

810257

Sandon Area, Slocan District, B.C.  
Slocan Monitor Mines, Ltd.

1-15-54  
82K

Excerpt from Evan Just's Progress Report 1-18-54  
Original filed in separate folder-Exploration-SF

"Legg recommended taking an option on the Slocan Monitor claims in the Sandon area, Slocan district, B. C. The initial suggestion would have involved \$80,000 to \$100,000 of underground exploration. Considering the size of the targets, this seemed too much. Then we agreed that a limited amount of geochemical work would probably be helpful. However, this office decided not to proceed because we do not think the history of the district suggests targets of adequate size."

# INTER-OFFICE CORRESPONDENCE

FROM: Evan Just

CITY: New York

DATE: 1/15/54

TO: Henry T. Mudd

SUBJECT: Sandon Area, Slocan District, B. C.

\* The enclosed bulletin is for your files, if desired.

Legg urged us to work on a property in this area, Slocan Monitor Mines Limited, which he considered promising largely because it is adjacent to Violamac, which as a small mine has been doing rather well. Legg had nearly \$100,000 worth of underground exploration in mind, which we considered as too expensive, at least as an initial venture. We finally agreed, however, that about \$5,000 worth of geochemical work would either condemn the property for practical purposes, or restrict targets for further activity.

Throughout the discussion, Warriner, Stewart and I were skeptical that the district was likely to furnish orebodies of sufficient size and value to warrant a fairly expensive campaign of search. Legg sent us the enclosed bulletin as a basis for resolving these doubts, but our conclusion, contrary to his own, was that the potential targets do not warrant the gamble.

If anyone in that office has a contrary view, we would be pleased to hear from you. Violamac's property is described as the "Victor."

  
Evan Just

EJ:CM  
ENC.

\*

See descriptions in British Columbia Department of Mines Bulletin No. 29 Geology and Ore Deposits of the Sandon Area, Slocan Mining Camp, British Columbia

RECD	JAN 13 1954	
ANSD	BY	
RETURNED TO		
PLEASE REPLY		
TRSM	TRW	TRSM
TRM	TRW	TRC
TRCB	TRW	TRW
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TRW	TRW	TRC

EW

Evan Just

New York

1/14/54

R. E. Legg

Slocan Monitor

I am sorry, Roly, that after studying Hedley's report, Warriner and myself do not believe the history of the district suggests targets of sufficient worth in the Sandon area to warrant proceeding with any activity on the Slocan Monitor claims.

Thank you for your efforts in the matter.

Kindest regards.

---

Evan Just

EJ:CM

## INTER-OFFICE CORRESPONDENCE

FROM: L.P. Warriner

CITY:

DATE: 1/12/54

To: Evan Just

SUBJECT: Slocan Monitor

Having studied the report by ~~Headley~~ on the geology and ore deposits of the Sandon area, I grow less enthusiastic about the reward to be expected from a successful ore hunt in the area.

I do not doubt that the geochemical prospecting program, such as we have discussed (up to \$5,000), would locate additional ore. On the other hand, the cost of establishing continuity and quantity of that ore to warrant underground development outweighs, in my opinion, the chances of striking the needle in the haystack. The veins are all narrow, much faulted, and ore-shoot control virtually impossible to ascertain.

I do not recommend entry into the area unless a better target than the possibilities presented by Slocan Monitor can be obtained.



L. P. Warriner

LPW:pr

INTER-OFFICE CORRESPONDENCE

REC'D

JAN 11 1954

Date

A C

E J

H K

L W

	/	1-12
	/	

DATE: Jan 6/54.

A = Action C = Comment  
I = Information

FROM: R.E. Legg

CITY: Vancouver, B.C.

TO: L.P. Warriner

SUBJECT: Slocan Monitor

I am sorry to hear you did not receive Bulletin 29 by M.S. Hedley. It must have got lost in the Christmas rush. I am mailing another copy today.

*R.E. Legg*

R. E. Legg

REL:FE

*less expense in his sending it than in heading it off.*

*(R)*

L. P. Warriner

New York

1/4/54

R. E. Legg

Slocan Monitor

The copy of Bulletin No. 29, "Geology and Ore Deposits of the Sardon Area, Slocan Mining Camp, British Columbia," by M. S. Hedley, referred to in your memo of December 15, 1953, has not been received. We should have this before giving serious thought to an exploration program.

Lendall P. Warriner

LPW:CM

INTER-OFFICE CORRESPONDENCE

REC'D	DEC 23 1953
Action	Date
A	
A	

FROM: R. E. Legg

CITY: Vancouver, B. C. DATE: Dec. 21/63.

TO: Evan Just

SUBJECT: Slocan Monitor

I thought I had better mention to you that I overheard two of the directors of Slocan Monitor discussing the idea of offering their claims to Violamac Mines Limited. So if you think there is merit in the idea of conducting a geochemical survey next spring, then I think a decision should be forthcoming very shortly.

R. E. Legg  
R. E. Legg

REL:FE



L.V.

12-15-53

Seems to make sense to  
try geochemistry - if study  
of former payoffs in district  
gives encouragement,

But watch out - Roly seems  
a little anxious these days

--- E.T. ---

# INTER-OFFICE CORRESPONDENCE

REC'D DEC 18 1953  
Action Date

A	C		
E	J	/	
H	K		
		A	DATE: Dec.15/53.

FROM: R. E. Legg

CITY: Vancouver, B.C.W

TO: Evan Just

A = Action C = Comment  
I = Information

SUBJECT: Slocan Monitor

This will acknowledge your memo of December 8th. In order to assist you in appraising the situation, I am mailing to you under separate cover Bulletin No. 29, "Geology and Ore Deposits of the Sandon Area, Slocan Mining Camp, B.C." by M.S. Hedley of the B.C. Department of Mines. This Bulletin was published in 1952. When you receive this, I think you will find that it answers many of the points you have raised, but in order to save you time I will make reference in this letter to the pages of particular interest.

On page 11 you will note the location of the Victor Mine. The area which you would be testing lies between this property and Three Forks. On page 117 you will see a photograph of the hillside on which the Victor Mine is located. The Monitor ground lies to the right of the Victor Mine. Dr. Hedley mentions in his report that the area between the Victor and Three Forks was not geologically mapped as rock outcrops were so rare. It is in this area that I have hopes that something may be found. In the early days of the Slocan camp so much of the prospecting was done at higher elevations where outcrops were more plentiful.

I have seen Dr. Warren and I have discussed with him the possibility of carrying out a geochemical survey on the Monitor ground. He has written me a letter on this matter and I enclose a copy of same which is dated December 11th, 1953. I might add that Warren states that lead determinations can be made so I was wrong on this point when writing you earlier. However, on reading his letter you can see the reason why lead determinations are not preferred.

My answers to the questions you have raised are as follows:

- (1) As far as I can find out, the resistivity method of geophysical prospecting has not been used to locate mineralized zones in the Slocan.
- (2) While Violamac appears to be getting better with depth actually no great depth has been reached as yet. Therefore, it cannot be said that Violamac is a particular exception in the district. It is true, that with reference to the main mines of the Slocan, it was found that the lead and silver values became weaker with depth and the ore became more "zinky". Dr. Hedley believes that structure is the

key to the mineralization in the Slocan, and I would refer you to pages 59-61 in which he discusses this matter.

- (3) This is a difficult question to answer. My contention has been all along that there is a probability that orebodies comparable to the Victor could exist on the Slocan Monitor ground. Such orebodies, if they exist, may not prove to be extensions, either on strike or down dips of the Monitor, Min and Cork.
- (4) The Monitor came to the end of its operating life because of a fault which cut off the ore at its south westerly end. The history of production is given on page 91 of Hedley's report as well as a geological description of the mine.
- (5) The history of the early days of the Slocan, when the high-grade ore was produced, does not show too clearly how profitable the mines were. Government statistics were not compulsory in those days. Nevertheless there were some good mines and if you will study the brief descriptions of the more productive properties which are mentioned in the second paragraph of page 11 of Hedley's report, you will see that some of them are comparable to the Victor Mine. These descriptions are also in Hedley's report and you can soon find them by referring to the index. For instance, the Payne, on the opposite side of the valley of the Victor Mine, was one of the largest producers. I would say that the Payne production would be worth between \$10,000,000 and \$15,000,000 at today's values and including the zinc.
- (6) I talked to Mr. Douglas, president of Slocan Monitor, on this question. Mr. Douglas is a lawyer here in Vancouver. He said that he felt Slocan Monitor would be agreeable to any fair deal and suggested that you put forward a proposition which would best meet your requirements from the tax angle.

Before closing, it seems to me that the geochemical survey recommended by Warren appears to be very reasonable in respect to cost. You will note, however, that he stresses the fact that the decision on this matter should not be delayed owing to the difficulty of getting personnel. The cost is close to the lower limit which you mention in your letter. If some anomalies were located then it would likely prove practical to put a bulldozer to work to locate any outcrops. If there should be 20 - 25 feet of overburden then this could be handled in the limited area.

R. E. Legg.  
R. E. Legg

RE:FE

University of British Columbia  
Vancouver 8, B.C.

December 11, 1953

Mr. R.E. Legg  
311-850 West Hastings St.  
Vancouver 1, B. C.

Dear Mr. Legg:

Further to our discussions on the possibility of doing geochemical work on the Slocan Monitor claims in the Slocan area, I would like to suggest that on the basis of the conditions which you have described to me a geochemical survey would be practicable and holds reasonable promise of indicating any buried ore bodies of significance.

Lead and zinc can be tested for readily. Normally we choose zinc because the average tree contains close to 100 times as much zinc as it does lead. This means that, even where lead is present in more anomalous amounts, it may be possible to analyze more readily for the less anomalous zinc. Actually in the circumstances you have outlined I would recommend that both analyses be made as the additional cost is negligible. At least for the start both analyses should be made. Analyses can be made by arrangement with the biogeochemical laboratory of the University of British Columbia. As I envisage the situation, either soil or tree sampling should prove satisfactory. At first it might be advisable to take both tree and soil samples, but, before much work has been carried out, it should be possible to decide which is the better method on these particular claims.

On the basis of the topography you have described, it seems most unlikely that either the depth of overburden or the abundance of glacial debris will seriously hinder geochemical work.

Fortunately, previous geological work in the Slocan makes it possible to anticipate with reasonable assurance the strike of any ore bearing lodes. This enables us to plan our sampling most effectively. Sampling lines are usually run at right angles to any anticipated strike. Assuming an area roughly 3,000 feet long by 1,500 feet wide, I would suggest that samples be taken every 50 feet along lines 100 feet apart. Should any anomalies be apparent as a result of this work, detailed sampling would be advisable in these areas. The normal sampling would produce between 900 and 1,000 samples, plus any additional sampling should any anomalous areas be discovered.

Our experience in the mountainous areas of British Columbia is that one man can collect from 15 to 30 samples per day. Sixty man days would be necessary to do this work. If two men were used, one experienced man at \$400.00 per month and expenses and an assistant at \$250.00 per month and expenses should be able to complete the collecting in one month, depending to some extent on weather conditions. It is impractical to collect evergreens when they are soaking wet. The assaying charge for zinc made by the laboratory at the University of British Columbia is \$1.50 per assay,

while the lead assay has not yet been established. If the lead is done in conjunction with the zinc it would probably cost an extra dollar, or \$2.50 for both. Thus the total cost of collecting and assaying 1,000 samples would be approximately \$2,500 for assaying and \$1,200 for collecting, say \$4,000.

Should you decide to have this work done, I would be pleased to assist you in obtaining suitable personnel. I am in touch with several people who have been trained in these methods, but it is important that I know your plans as early as possible as otherwise the men in question are almost certain to procure other work.

I would like to point out to you that geochemical methods are coming into increasing use in Canada. My colleague, Dr. Delavault, has just returned from New Brunswick where he has set up a laboratory for an important American mining company and has instructed their personnel in laboratory and field techniques. During the past summer our University laboratories did the analytical work for five major companies. Some of this work had to be long delayed as no advance notice of sample shipments was given and trained personnel could not be obtained at short notice. This matter is mentioned because, should you decide to go ahead on the Slocan Monitor, I would have to make arrangements so that suitable personnel were on hand when your samples arrived.

Yours very truly,

*Harry V. Warren*

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Harry V. Warren

Evan Just

New York

12/8/53

R. E. Legg

### Slocan Monitor

I have your memos of December 2 and 4. Beginning with comments on it, first we are surprised at your suggestion that geochemical analyses for lead are not feasible. I think you are wrong, as we have studied surveys in New Brunswick where lead has been determined. If Professor Warren is not able to deal with lead, I am sure it can be arranged. Possibly the difficulty may be that the lead analysis is somewhat dangerous as HCN may be produced; thus some small laboratories prefer not to tackle the job. We did not have stream surveys in mind, but analyses of soil, whether at surface, in auger holes or in bulldozer cuts.

Second, although it is true that one might have success indicated by the time a lesser sum is spent, it seems to us that it would be foolish to enter into this adventure without being prepared to commit a minimum of \$100,000 before quitting.\* As a matter of fact, my judgment would be that, if the ground is considered promising, a \$200,000 gamble is a safer bet than \$100,000. This does not mean however that I suggest this alternative at the present time. For one thing, the expenditure risked has an important relationship to the size of the anticipated prize.

Third, partly in view of the fact that the activity you propose is half drifting, i.e. work anticipated to be barren, and partly because nearly half of the crosscutting you suggest would be dangerously close to Violamac ground, wouldn't it be a better plan to crosscut in from one of the two Monitor tunnels almost to the corner of the Violamac salient? Such a program would appear to have more chance of cutting unknown lodes, would be at a much more convenient working site, particularly if the lower Monitor tunnel were used, and would intersect possible lodes at a lower level, if depth is desirable.

Our hesitancy in recommending a gamble of this size is based partly on the small and rather vague amount of evidence that a commercial orebody exists on the ground, plus the impression that in general the history of the district has been one of small orebodies and limited, if any, profits in general.

Being rather sure that the head office would turn me down if I recommended a \$100,000 commitment on the evidence in hand, the following questions are raised with a view to doing what I can at the moment to further your point of view:

1. Has resistivity been tried in the district as a locator of mineralized zones?

\*unless we tackle a geochemical program, which would probably cost \$5,000 to \$10,000.

2. Violamac appears to be getting better with depth. The workings indicated on the map however do not suggest that the same history existed in mining other orebodies. Is there an optimum elevation for the best ore, based on past experience?
3. Does the history of the district, or your knowledge of the Violamac situation, suggest that the extensions of known veins (Monitor, Min, and Cork), either on strike or down dip, might be particularly promising places to explore?
4. What brought the Monitor to the end of its operating life? Did the lode pinch out or did an adverse market overtake the operation? Is there any basis for doing further probing on it or the Cork or Min?
5. Outside of Violamac, how profitable were the other orebodies of the area in their day? One point that influences this question is the knowledge that in general Cyprus is looking for larger prizes than this district appears to have contained, if I understand its history correctly.
6. Can we presume that if a deal is made on this property, the \$50,000 payment to the vendors would be an investment in equity but that all other monies advanced by Cyprus could be treated as loans? In this connection, please keep in mind the importance to a U. S. company of loan treatment, loans here being repayable before computing taxable income.

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Evan Just

EJ:CM

BC - Slovan Monitor

REC'D

DEC 9 1953

INTER-OFFICE CORRESPONDENCE

Action Date

A C		
E J	1	12-9
H K		
		DATE: Dec. 7/53.

FROM: R. E. Legg

CITY: Vancouver, B.C.

To: Evan Just

A = Action C = Comment  
I = Information

SUBJECT:

The attached clipping appeared in the December 3rd, 1953 issue of the Northern Miner. I thought I would bring it to your attention in case you might have missed it. It just shows what you can do if you have high-grade ore.

R. E. Legg  
R. E. Legg

**VIOLAMAC NET PROFIT REACHES NEW HIGH**

During the 10 months ended with October, Violamac Mines (B.C.) Ltd. had its highest production and earnings. Receipts from metal sales of the Slovan district producer rose \$615,048 to \$1,292,221 and ore treatment gained from 5,455 tons grading \$80.09 per ton to 22,762 tons averaging \$56.77 per ton.

Operating profits for the 10 months are estimated at \$551,264 compared with \$343,751 for the same period of 1952. Net profit increased \$60,219 to \$812,998, after providing for taxes. This is greater than for all of 1952. Dividends totalling \$350,000 were disbursed to the parent company, Violamac Mines Ltd., in the first 10 months of this year.

copy in Violamac



REC'D DEC 7 1953  
Action Date

# INTER-OFFICE CORRESPONDENCE

E J	A	
H K		
L W	1	12-7

FROM: R.E. Legg

CITY: Vancouver, B.C. DATE: Dec. 4/53

TO: Evan Just

A = Action C = Comment  
I = Information

SUBJECT: Slocan Monitor Mines Limited

I will now attempt to answer the points brought up in your letter of November 27th.

Any deal will include all the Slocan Monitor claims. I am sorry I did not specifically mention this to you. I had never thought of making a deal for only the eight claims which Mincor Mines had under option. The first paragraph of my letter of November 18th referred to the sixteen claims for which I recommended a deal be made.

Certainly the main justification for exploring the Slocan Monitor claims is due to their proximity to Violamac. I am sure that this ground would have been tested in the past if the important Violamac showings had been discovered in the early days of the camp. Having been over the ground and having seen the heavy mantle of overburden which covers the Slocan Monitor claims, it is easy for me to appreciate why no surface work was ever done, other than the limited exploration which is mentioned in my report which I sent to you. You referred to the fact that the Violamac mineralization is exceptionally good for the area. This is true today but do not forget that many of the mines in the Slocan in their heyday produced just as good ore as the Violamac is now turning out. The phenomenal rise in metal prices since 1946 resulted in a revival of many of the old properties which contained remnants of lower grade ore. When I visited the Violamac property I saw their mine maps and as a result I have a good appreciation of how their orebodies are formed. It is difficult for me to pass this information along to you as I was not permitted to copy their longitudinal section through the Victor vein. You state that there is no evidence that a similar structure exists on the ground owned by Slocan Monitor. I said to you that there is no evidence that such a structure does not exist. There is a distance of between 3,000 and 4,000 feet which has never been tested adequately.

I recommend that we take an option on the Slocan Monitor claims and that we pay them \$3,000 on taking over this option. Then next May we should make a detailed surface examination of the ground. I do not expect that this will reveal a great deal but it will be afford proof that the area is completely covered with overburden, with few exceptions. We could then decide on an underground programme and it would give you an opportunity to look things over yourself.

You should not overlook the fact that when the present Violamac Company took over their property they only had a small high-grade vein and it has been their subsequent development which has proved their substantial high-grade ore reserves.

As for geochemical work, I am not particularly enthusiastic about this in this instance. There are no small creeks cross-cutting the ground which would permit water testing. It should also be remembered that it is impossible to locate lead mineralization by this means. Warren can pick up copper and zinc but not lead and any orebodies coming to the surface would more likely be heavy lead than anything else. However, I will have a talk with Warren and show him what data is available and get his opinion on the matter.

As long as the purchase payments, which total \$50,000 are put far enough in advance to enable the property to be tested, then I think it is a pretty good deal. Apart from the initial payment of \$3,000, the money which Cyprus would be gambling would all be going into the property. You mention the sum of \$100,000, it is very possible that you could prove up a mine with half this sum. *but*

I believe a deal could be made with Violamac, but present Slocan Monitor people have never tried to interest anyone since their property was tied up with a man in the State of Washington for the past three years. In conclusion, I would say that I am sure the best geological opinion which could be obtained would not state that orebodies comparable to Violamac would not be found between the Victor vein and the Monitor Mine. I have a report on the Monitor made by a Montana geologist in 1951 but as this report covers the Monitor Mine only, it is not of much help in assessing the value of the potential ground which is unexplored. If you think it is worth going ahead with this option along the lines I have suggested for the first year, I would appreciate if you would indicate how you think the property payment of \$50,000 should be spread out.

*R. E. Legg*

R. E. Legg

REL:FE

How status?

Why not lead?

Any interest bet. joint systems?

Elevation of heat mineralization?

Compare Cuk to top 2 tunnels  
on Victor?

Manufai?

Geop. hypotheses?

Why not 9° north etc  
merely helping violence  
where shown?

REC'D DEC 7 1953  
Action Date

# INTER-OFFICE CORRESPONDENCE

A C		
H K	1	12-7
L W	1	12-7

A = Action C = Comm  
I = Information DATE: Dec. 2/53

FROM: R. E. Legg

CITY: Vancouver, B.C.

TO: Evan Just

SUBJECT: Slocan Monitor Mines Limited

This will acknowledge your letter of November 27th.

I will be writing to you fully on this matter within the next few days.

I am keen on this property and the matter of interesting someone in it now rests in my hands. I contacted Dr. Warren, as you suggested, but I won't be able to see him for about a week until the Xmas exams at the University are over.

R. E. Legg  
R. E. Legg

REL:FE

Evan Just

New York

11/27/53

R. E. Legg

Slocan Monitor Mines Limited

Warriner and I have gone over your report and recommendation and tentatively it seems to us that the justification for spending \$100,000 is rather thin.

Possibly this is due to our unfamiliarity with the district, or possibly you have inadvertently anticipated more knowledge on our part than actually exists. Thus, further elaboration of the points behind your views would be helpful, if feasible.

As seen from this distance, it would appear that the main justification is propinquity to Violamac. However, the Violamac mineralization has a recognized relationship to fracture structures, and there seems to be no evidence that similar structures exist on the ground in question except the mineralized fissure which has already been tested. The hazard seems to be enhanced by the circumstance that the Violamac mineralization is exceptionally good for the area.

Inasmuch as the mineralized float referred to might have come from ~~Shoshone~~ ground, what do you think of the suggestion that it might be worth-while to do some geochemical work on the property in an attempt to trace the source of the float? We say this in complete ignorance of whether the overburden is ordinary mountain slope soil and rock debris or glacial drift, and if the latter, whether from mountain or continental glaciation. In other words, if it is glacial drift, we do not know in what direction the ice was moving which deposited it.

As you know, Professor Warren out there is quite an authority on geochemical prospecting and it may be worth-while to consult him on this point.

What is the possibility of including all the Slocan Monitor ground in such a deal instead of simply the Mincor claims? The whole bloc would look much better than the latter.

---

Evan Just

EJ:GM

## INTER-OFFICE CORRESPONDENCE

FROM: L. P. Warriner

CITY: New York

DATE: 11/25/53

TO: Evan Just

SUBJECT: Slocan Monitor Mines Limited

REFERENCE: Memo dated November 18, 1953 by  
R. E. Legg, with accompanying  
report and maps

It seems to me that Legg's case for an expenditure involving close to \$100,000 is pretty thin. The only method of exploration that seems to make sense, and it may not be feasible, is a series of geochemical profiles on the slopes immediately north of the Cork tunnel. The source of the high grade lead float near the Mim tunnel portal could be located by a soil sampling program, perhaps with bulldozing at the apex of the geochemical shadow.

Despite the high grade nature of the Victor vein, the location of similar structures by Legg's proposed adit and crosscuts would be a longer shot than the situation seems to warrant, particularly in view of the inability to use the diamond drill.

I would be in favor of a geochemical program this coming spring involving a cost not to exceed \$10,000.



Lendall P. Warriner

LPW:CM



FIG.9. SURVEYED MINERAL CLAIMS IN THE SANDON AREA AND OWNERSHIP OF THE LARGER GROUPS.

REC'D NOV 23 1953  
Action Date

# INTER-OFFICE CORRESPONDENCE

A C		
E J	A	11-27
H K		
	/	DATE 11/18/53

FROM: R. E. Legg

CITY: Vancouver, B.C.

To: Evan Just

A = Action C = Comment  
I = Information

SUBJECT: Slocan Monitor Mines Ltd.

The above Vancouver company owns sixteen Crown Granted claims and fractions in the Slocan area adjoining the Violamac property. I would recommend that Cyprus make a deal for this property and carry out an exploration programme next year. It would be a gamble to do this, but I consider it to be a worth while gamble since the reward could well be worth twenty times the initial gamble. The terms for the property are commensurate with the risk takes. The facts in support of my recommendation are outlined in this letter and in the attached report.

I am enclosing the following maps:

- (1) Areal Geology of the Sandon Area by M.S.Hedley of the B.C. <sup>3</sup> *where* Department of Mines.
  - (2) Claims map showing (in red) the Slocan Monitor claims.
- On the geological map I have shown partial boundaries of the Monitor, Mincor and Violamac claims. The Slocan Monitor company divided their property roughly into two halves. They had the Monitor claims under option, but this option has now terminated. You will note that Hedley does not show any geology for the Slocan Monitor and Violamac claims. I believe this is because these claims are almost entirely covered with a heavy mantle of overburden.

The Violamac company is a relative newcomer to the Slocan area. This company has the only good mine today in the Slocan. Gross production for the past five years has been three million dollars, with the mine operating on a small scale. Ore reserves at December 31, 1952 were stated by the company to be 214,000 tons. The ore mined during 1952 averaged 23.35 oz. silver, 17.35% lead and 10.07% zinc. The company has not stated what the average grade of their reserves is, but I would say that the net worth of the present reserves would be ~~between~~ six and ten million dollars at present metal prices.

I do not know of any valid reason why there should not be ore bodies between the Victor vein, which is the main producing vein on the Violamac property, and the old Monitor mine. No one has had a serious look. There is a length of 3000 feet on the Slocan Monitor claims which is potential ground. Unfortunately the depth of overburden along the hillside makes surface prospecting a very unsatisfactory method of locating ore. Diamond drilling is out of the question. The Violamac people have told me that they have attempted drilling, but invariably the drill rods bind in the argillite formation. The same geology extends across the Slocan Monitor claims. The only practical method is to tunnel into the hillside and then drive in a direction at right angles to the known strike of the ore bodies.



I have indicated on the enclosed geological map how I would attempt this exploration. I would take advantage of the tunnel on what is known as the Cork vein, which is in about 350 feet. Not that I consider the Cork vein very promising, but at least it showed some ore. On their lower tunnels Violamac had to drive 1000 feet into the hill before they located their ore, and on their lowest level, No.9, now under way they expect to have to drive 1500 feet before reaching the ore.

As I have previously stated, the Slocan Monitor company gave an option on half of their claims known as the Mincor. The optioners formed a company called Mincor Mines Limited and this company attempted to sell stock early this year. This attempt was not successful, which is not to be wondered at with conditions as they have existed locally during this current year. Mincor then approached a local financial house for assistance, and this house engaged me early in September to make an examination of the Mincor claims. I did this and I recommended the same work as I am now recommending to you. No deal was consummated. In fact, the terms were not realistic. It now transpires that last summer Mincor arranged for tunnelling to be done and actually engaged a Nelson contractor who did 200 feet but was never paid for it. This contractor is now suing Mincor Mines Ltd. and Slocan Monitor Mines Ltd. for his bill, which is close to \$7000. In justice to Slocan Monitor they knew nothing about this non-payment until about two weeks ago when they were advised by the contractor's lawyer in Nelson that a suit was being started. As a result of this mess, Slocan Monitor terminated the option held by Mincor Mines. The reason I learned about this lawsuit is because the Slocan monitor people called me in to give my opinion on the validity of the outstanding account. It was an itemized account, but some parts seemed doubtful.

Realizing that an opportunity existed, I asked the Slocan Monitor people if they were open to a deal, and I suggested the following terms:

- (1) Form a new company.
- (2) The optionor (Cyprus) would pay \$50,000 for 80% of the shares of the new company. Slocan Monitor would have 20% of the shares.
- (3) Payments would be spread over several years. Nothing for the first year, which would give Cyprus a chance to see if the ground contained any ore bodies.

However, Slocan Monitor wanted some cash to help them meet the lawsuit, which they knew would go against them. As the Mincor company was broke, they knew they could collect nothing from them. I do not think it would be out of line to pay \$3000.00 down, with the understanding that work would not start until next year, probably around May.

What makes me recommend this deal is the grade of ore which one might expect to find. With ore comparable to that in the Victor vein, one could ignore metal prices. If prices of lead and zinc went up, then the profit would be that much greater.

I am enclosing two copies of the report which I made on the Mincor ground, which gives additional information.

On Monday I expect to go to Nelson to interview the contractor and see if I can whittle down his bill. I should be back by next Wednesday when I shall hope to hear from you.

Best regards  
R.E. LEGG

R.E. Legg

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HT

September 10, 1953

REPORT ON

MINCOR MINING PROPERTY

SLOCAN DISTRICT, BRITISH COLUMBIA

The Mincor Mining Property consists of eight mineral claims comprising a total of 320 acres, which are situated in the Slocan district of British Columbia and which adjoin to the north the property of Violamac Mines (B.C.) Limited, which is a highly profitable small producer of silver-lead-zinc ore.

The purpose of this report is to describe the Mincor property and to assess the possibilities of finding on their claims ore bodies comparable to those being mined on the adjoining Violamac ground, and to outline what expenditure would be necessary to adequately test these possibilities.

MINCOR CLAIMS

The Mincor property consists of the following Crown Granted mineral claims.

<u>Name</u>	<u>Lot No.</u>	<u>Acreage</u>
Taw Fr.	L 14807	47.2 acres
Horn Fr.	14808	37.0 "
Min Fr.	14809	37.2 "
West Fr.	14810	32.3 "
Cork	14811	49.0 "
Lope	14812	30.2 "
Tip	14813	36.5 "
Cuf	14814	<u>51.5 "</u>

320.9 acres

The exact locations of these claims are shown on the attached claims map, which is taken from the report issued in 1952 on "Geology and Ore Deposits of the Sandon Area, Slocan Mining Camp, British Columbia" by M.S. Hedley of the B.C. Department of Mines.

An investigation at the Central Mining Recorder's office in Vancouver shows that the claims are held in the name of Slocan Monitor Mines Limited, 640 Pender Street West, Vancouver, B. C. It is probable that the claims have been transferred to Mincor Mines Ltd. (W.P.L.), and the transfers not yet recorded in Vancouver.

*can be determined by telephone*

### HISTORY

While the claims have been staked for many years, and have been included in the holdings of Slocan Monitor Mines Limited, they apparently received little attention until 1937 when some short exploratory tunnels were driven. From these tunnels there was a small production of silver-lead ore, approximately 50 tons, which was shipped direct to the Trail smelter. At that time the Violamac property, then known as the Victor Group, was not an important producer. No work of any consequence was done on the Mincor ground between the years 1937 and 1952. Thus it can be seen that the history of the Mincor claims is very meagre, which is not to be wondered at since the ground is almost entirely covered with heavy overburden. The claims have taken on an increasing potential value during the past five years owing to the excellent results which have been obtained on the adjoining Violamac property.

*goodness of*

### GEOLOGY

The geology of the Sandon area has been studied extensively by geologists of the Geological Survey of Canada and of the British Columbia Department of Mines. Important contributions have been made by geologists acting for private interests. Possibly the most up-to-date work has been done by M.S. Hedley, for the B.C. Department of Mines and reference is made in this report to his work, which was carried out during the years 1946-50.

Attached hereto is a map entitled "Areal Geology of the Sandon Area" by M.S. Hedley. It will be noted that no geological details are shown on this map for the area comprising the Mincor claims. In fact the same may be said for the Slocan Monitor and Violamac properties which adjoin Mincor to the north and south respectively. However, in his written report, Hedley describes in some detail both the surface and underground geology on the Violamac property. A very brief mention is made to the Mincor property and applies only to the small area adjacent to the short exploratory tunnels.

From what the writer was able to observe the geology on the Mincor claims is essentially the same as that on the Violamac property. The following description of the Violamac geology is taken from Hedley's report:

"The rocks are interbedded argillites and quartzites, commonly rather thinly bedded. There are many sills in the mine workings. The structure is an extensive southwesterly dipping panel, right side up stratigraphically, with an average dip into the hillside estimated to be 40 degrees. Many individual dips are flatter than this figure, but the effect of minor crumples and dragfolds is to steepen the effective dip of the panel as a whole. The limits of the panel are not known, particularly of the zone where the strata must steepen and roll down and under to an overturned position, in accordance with known structure to the southeast.

The rocks are cut by a system of northeasterly trending steep joints that may dip either way but on the average dip to the southeast. The joints cut the strata approximately at right angles. The lode is parallel to the joint system and in fact appears to be an accentuated joint on which there has been only a small amount of displacement. The joints may be mineralized, and even fractures of local or non-systematic development may contain small amounts of lode matter.

The lode varies in appearance from place to place. It may be a single or multiple fracture, from a barely perceptible crack to a sheeted or crushed zone several feet wide, and in parts of No. 3 level several mineralized fractures occur in a width of 20 feet. In the oreshoots, siderite, calcite, and quartz are minor in amount, and the lode matter may be predominantly galena or sphalerite, or both. The ore averages about 1 foot wide in the ore zone, and widths of 5 feet of almost massive galena have been seen.

Faults are abundant; they are as a rule bedded and may cut the strata on dip but less often on strike. The larger faults are prominent gougy zones up to 2 feet and more wide. The movement on them is normal, inasmuch as the hangingwall moved down. Some are related to dragfolds formed as a result of folding, and it seems that here, as in other parts of the area, the bedded normal faults formed at a late stage of the folding, as an extreme of interbed slippage. The amount of movement on the faults cannot be determined, but it is believed to have been relatively small in spite of the prominent development of gouge.

The relation between faults and lode is ambiguous. The lode is offset not at all by some faults, a few inches to a few feet in either direction by others, or an as yet undetermined distance by a few, without regard to the apparent size of the fault. It is probable that the movement on many of the faults were to some degree contemporaneous. The ore widens close to a fault, proving at once an opening of the lode at the fault and a damming effect by the fault gouge. It is possible that the lode formed as a rupture in interfault blocks and not as a single continuous fissure.

The ore solutions clearly penetrated any fracture available to them and deposited ore in response to local physical opening or lowered pressure, wherever a site was present. The most favourable site or sites were naturally within the lode, but other sites included joints, random fractures, and bedding planes. Ore has been followed in one instance a few feet laterally along the bedding, and in one place on No. 5 level, not fully investigated at the time of writing, a "hump" of ore in the floor of the drift appeared to be the result of ore filling between beds in a local roll or dome."

west ?

On the Mincor property where the short exploratory tunnels are located the rocks consist of slaty interbedded argillites which dip to the southeast at 40 to 45 degrees. Thus the geology, as distinct from the transecting ore-bearing lodes, is the same on the Mincor ground in the area of the tunnels as it is on the area covered by the Victor vein. It is not expected that the Victor vein will cross Mincor ground, and it is on the finding of parallel lodes that any successful future for Mincor depends.

ORE SHOWINGS ON MINCOR PROPERTY

The known ore showings on the Mincor claims are not impressive, but in assessing the property it is important to realize that these showings are evidence of mineralization more than anything else. The attached geological map by Hedley shows the locations of the Cork and Min workings.

Cork Vein

There are two tunnels on this vein, one being 75 feet above the other. The upper tunnel is 485 feet long. Hedley describes it as being 285 feet in length, but it has been extended another 200 feet during the past two to three months. No work is now in progress. The lower tunnel is caved, but Hedley describes it as having a length of 240 feet. Both of these tunnels were driven in on a mineralized fissure zone. The upper tunnel shows discontinuous fissuring which is highly oxidized. No ore can be seen, but it is reported that leasers shipped 50 tons of ore in 1937. Mr. Arthur Lakes states that 50 tons of ore were shipped which averaged 108 oz. silver and 72% lead. The leaser, who worked at the property in 1937, lives in the nearby town of Silverton and he confirmed to the writer that this tonnage had been shipped from this vein. He stated that 15 tons consisted of massive galena while the balance was lower in grade. This ore came from the first 80 feet of tunnel and from the small stope put up from the lower tunnel. The two tunnels are connected by this small stope which is now inaccessible.

The limited amount of work done during the past three months failed to find any westerly extension of the mineralized fissure near the portal of the tunnels from which the ore shipments were made, but on studying this work it cannot be considered as conclusive.

### Min Vein

The Min Vein is reported to lie approximately 600 feet north-west of the Cork vein. The Min tunnel is driven south for 140 feet and then for 70 feet to the southeast along a sheared argillite-porphyr contact. There is no evidence of mineralization along this contact. There is evidence of mineralization in the floor of the tunnel near the portal but more work will have to be done to determine its importance. Two short horizontal diamond drill holes were driven from this tunnel. The drill core is lying near the portal and it shows no signs of mineralization. Mr. Arthur Lakes, geologist for Mincor, reports that about 800 lbs. of "float" ore fragments had been found in a large bulldozer cut on the surface immediately above the Min tunnel. Bedrock was not exposed by this cut. This ore has been removed, probably by leasers, but several small fragments of massive galena were found in the cut. It seemed evident to the writer that this ore had moved down the hillside and it may have come from some unknown vein on the Mincor or Violamac ground. Extremely high silver-lead assays were obtained from these pieces of "float" ore, which is not unexpected, as similar assays were obtained from surface ore from the Victor vein on the Violamac ground.

*Proximity  
with bulldozer cut*

### VIOLAMAC PROPERTY

The following information, much of which was obtained directly from the management of Violamac Mines (B.C.) Limited, is included in this report for the reason that the only real justification for exploring the Mincor ground lies in the results which have been obtained close at hand on the Victor vein on the Violamac property.

The Victor vein has been opened up by six adits, namely No's 1, 2, 3, 4, 5, and 7, over a vertical range of approximately 620 feet. Adit No. 1 is the highest tunnel at altitude 4450 feet, while No. 7 is the lowest tunnel at 3800 foot elevation. The following description of the ore showings which outcrop at the surface is given for the purpose of showing how relatively unimportant these are in contrast to the long high grade ore zones which have been opened up in the lower two tunnels at some considerable distance from their respective portals.

Above the No. 1 tunnel the orebody outcrops on the surface for a slope distance of 120 feet. This is the original discovery and it was made by digging trenches to a depth of from 15 to 20 feet through the heavy covering of gravel wash. It is then cut off by a fault and has never been picked up west of this fault. The ore body opened up by this adit had a length of 200 feet and it has mined out to the surface.

No. 2 tunnel was driven 90 feet below No. 1 for a distance of 400 feet. No ore was found in this tunnel. On the surface between No. 1 and No. 2 tunnels there are no outcroppings of ore. Similarly there are no ore outcroppings between No. 2 and No. 3 tunnels. There was one ore body between the 2 and 3 tunnels, but this does not continue to the surface. On No. 4 level the ore body is over 160 feet in length but apparently does not outcrop at the surface. The ore developments on the No. 5 and No. 7 tunnels are by far the most important in the history of the mine to date. These two tunnels No's 5 and 7 were driven approximately 500 and 1000 feet respectively before the ore zone was reached. In No. 5 tunnel continuous ore has been developed for a length of 740 feet for an average width of 1.8 feet, while in No. 7 tunnel there is continuous ore for a length of 800 feet and an average width of 2.2 feet. On this bottom level the full length of the ore has not yet been determined. While the average widths mentioned are relatively narrow, it must be remembered that they represent massive high-grade sulphide ore.

The geological concept of the ore control put forward by the Violamac's geological staff is that the folding of the strata plays an important part in the formation of the ore bodies. There is a measure of agreement between the theories put forward by Mr. Arthur Lakes and those held by the Violamac geologists, but the view is held by the latter that there is still much to learn. It appears to the writer that if this folding is the key to the Violamac ore body then there is some doubt in connection with its downward continuation when the lode, or mineralized shear, extends below the axis of the fold.

The production to date from the Victor vein is:

	<u>Tons</u>	<u>Oz. Silver</u>	<u>lbs. Lead</u>	<u>lbs. Zinc</u>
To end 1947	1,424	254,419	1,298,664	309,222
1948-50	4,355	368,042	3,948,726	1,496,336
1951	892	77,856	1,096,626	242,686
	5,197	48,015	609,532	562,726
1952	<u>12,182</u>	<u>282,851</u>	<u>3,972,960</u>	<u>2,285,757</u>
	24,050	1,031,183	10,926,508	4,896,727

1953 Production figures for 1953 to date are unknown, except that there is an increase over the 1952 figures. The following quotation is taken from the September 3, 1953 issue of "The Northern Miner".

Violamac Profits Up

"Violamac Mines reports that the net profit for the first eight months of this year exceeds the \$295,000 for all of 1952.

Gross smelter returns are expected to be \$1 million for a new record. The 1952 return was \$894,000.

All production continues to come from the fifth and seventh levels but a new ninth level is now being driven 230 ft. vertically below the seventh. The heading on the new horizon has advanced about 120 ft. and although the downward projection of the known ore is not expected for 1,500 ft. the company is hopeful of picking up ore prior to that point."

*Why not sink an internal shaft?*

The ore reserves of the Victor mine were officially stated by the Violamac Company to be 214,700 tons as at December 31, 1952. The ore mined during 1952 averaged 23.35 oz. silver, 17.35% lead and 10.07% zinc. This is high grade ore and has a gross value of \$85.94 per ton, taking silver at 80¢ per ounce, lead at 13¢ per pound and zinc at 11¢ per pound. The net value would be approximately \$50.00 per ton after making allowance for milling losses, smelting, marketing and freight charges and smelting losses. It is not known if the average grade of the ore reserves approaches the figures given for the 1952 production, but it would be safe to assume that the net value of the ore reserves would be in excess of six million dollars.

#### MONITOR MINE

Mention should be made of the Monitor Mine which adjoins the Mincor ground to the north. This old property had a sizeable production in the early days of the Slocan camp, which would be equivalent to \$700,000.00 gross at today's metal prices. The existence of the Monitor ore bodies does at least disprove any suggestion that no ore exists north of the Victor vein.

*data?*

#### CONCLUSION

After talking with the manager of the Violamac property about the most practical method of determining if an ore bearing lode with similar geological characteristics to the Victor vein occurred on the Mincor ground, the conclusion was reached that it would be necessary to drive a tunnel into the hillside for a distance of 700 to 1000 feet and then be prepared to drive crosscuts in both northwest and southeast directions. Violamac's experience is that diamond drilling for lateral exploration is a complete failure due to soft caving ground, so this method of exploration is eliminated.

One important point to realize is that if the existing upper tunnel on the Cork vein was extended in a southeasterly direction parallel to the Victor vein, then it would run into Violamac ground approximately 1450 feet from the portal. Any ore found in this tunnel or in the suggested crosscut leading in a southeasterly direction would likely continue on to Violamac ground. This possibility is shown on the attached geological map. However, should a lode be struck in the suggested northwest crosscut, it may be beyond the Violamac claims.



These possibilities can be appreciated when it is realized that the ore in the No. 7 tunnel on the Victor vein continues from 1000 to 1800 feet from its portal. This is shown on the attached geological map. In short, there is a risk that ore could be found on a likely portion of the Mincor ground and yet the main body of it would be on Violamac ground.

The cost of say 2000 feet of underground drifting and cross-cutting would run close to \$80,000. or \$40.00 per foot. The present cost of drifting at Violamac is \$30.00 per foot, but they are able to distribute their overhead and power costs over their entire operation, rather than charge it all to development footage. It is, of course, possible that an ore body might be found by doing much less than 2000 feet of work, but if such a venture were started, it would be wise to be adequately financed to carry out the work suggested. The approximate locations of the drift and crosscuts are shown on the attached geological map. A venture such as this cannot be recommended with any degree of assurance, but there does exist the possibility that the reward to be gained would be many times the initial expenditure, and this is the factor which should be considered.

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R. E. Legg

Consulting Mining Engineer  
September 11, 1953