

DISPOSAL OF TAILINGS

We have had the privilege of reading over the judgment of Mr. Justice Godson, of The Mining Court of Ontario, on the "Application of Kerr-Addison Gold Mines Ltd. for the right to deposit tailings in Larder Lake." The judgments of Mr. Justice Godson are always a treat to read for the clarity of the argument contained in them, and for the fine English in which they are rendered. This judgment is no exception, and is more than usually interesting because it contains some expert opinions upon the effect of cyanide and turbidity upon lake water.

The application of the mining company referred to was granted; but as certain interests had intervened a good deal of expert evidence was heard.

The argument revolved round the point that Larder Lake is the body of water from which the growing mining communities in the district are obtaining water for domestic purposes and from which mining companies are drawing water for operating and processing uses. The question arose as to whether the cyanide contained in mill tailings, and the turbidity arising from dumping tailings, would render the water of the lake dangerous for human consumption. It was a question that involved more than the immediate application, because other companies in the region would be affected if they come to production. Therefore a number of well-known engineers were heard.

It was stated that the 1000 tons of tailings per day of Kerr-Addison tailings contain about 85 pounds of cyanide, which, upon dilution with water, would be about one part cyanide to 45,000 parts water, or about 2 grains of cyanide per gallon. In other words, a person would have to step up to the tailings pipe and imbibe a gallon of tailings to obtain a fatal dose. When discharged into the lake, this very dilute cyanide strength would be further diluted to an immeasurable degree. In addition to this the cyanide is continually reduced by contained oxygen and organic matter in the lake water.

To be certain on this point, the Court called for further evidence on the part of disinterested engineers, and in all cases corroboration was given. One well-known man commented sharply upon the fact that the poisonous quality of tailings has been grossly exaggerated.

The matter of turbidity was testified to by several men with experience in lake disposal of tailings, and the evidence brought out the fact that turbidity never extends beyond half a mile of the edge of the tailings, and more usually ends within fifty feet, and in one case it was stated that water-samples taken fifteen feet from the edge of a lake tailings dump were quite palatable. Wave action through heavy winds sometimes creates turbidity but the use of a heavy timber boom round the tailings area will prevent this.

Mr. Justice Godson therefore concluded that, properly controlled, cyanide and turbidity do not constitute a menace. He noted the fact that the cyanide is not cumulative owing to the reducing action of organic matter and oxygen contained in the lake water, and in view of these facts granted a temporary assent to the application, which will become permanent if tests over a period of time prove the truth of the opinions given.

Just before granting the application he made a significant statement: "A mining company has its obligations. It should be seized with the knowledge that if its mine comes into production there is available a suitable area for its waste product. It is a problem that should be faced at the start, not at a time immediately preceding production." Sound advice.

S-3
Grand (correspondence [1938-1939])
Legal Records

The Consolidated Mining and Smelting Company of Canada Limited

RADIOGRAM

Con Office
Yellowknife N W T
October 6th 1939

R W D

Yellowknife paper announces local administrative district to be formed radius three and half miles from post office including Yellowknife settlement Con Negus Giant stop this of no advantage to mines and definite disadvantage as settlement will be able to tax mines to provide facilities for benefit of settlement stop have met local superintendents Negus and Giant who are wiring their Head offices similar recommendation to following stop recommend wiring strong protest to commissioner N W T against including mines in proposed district for reason that mines receive no benefit from settlement and may be subjected to taxation in order provide facilities for settlement inhabitants stop these facilities already being provided by mines at each property for the benefit of employees stop protest further against present proposal for two reasons first that although regulations section three provide for posting three notices this was not done one notice only being posted in postoffice September fifteenth ^{none} elsewhere consequence being local mine managements did not know of proposal until announced local paper September thirtieth delivered October fourth stop the date in the notice on which it is proposed to form the district is October first nineteen thirty nine stop second regulations section six provide voters list shall be prepared and posted before October first each year stop this has not been done stop suggest further pointing out to commissioner that mines have no objection to being included in school

The Consolidated Mining and Smelting Company of Canada Limited

RADIOGRAM

district provided suitable arrangements can be made this has been discussed local government stop objection is to being included in local administrative district stop inclusion in school district and exclusion local administrative district has many precedents elsewhere example Goldfields stop general objections to Regulations as written in view proposed district are short residence qualification for voters thirty days should be six months and short residence qualification for members trustee board thirty days should be one year as undesirable persons might come to district get elected trustee board make unpleasant situation for mines stop chief objection however is inclusion of mines in district

W G J

eg ✓

Yellowknife, N.W.T.,
February 14, 1938.

W.G. Jewitt, Esq.,
GOLDFIELDS, Sask.

Re: Wood Cutting


Dear Bill:

The following wire was sent to Mr. Meikle on the 11th.

"There is only wood enough on old berth to last wood cutters one day Stop May we have your permission to cut on ground as outlined by Mr. Fenton until new berth arrangements made Stop No wood will be moved but unless permission to cut is granted nine men will be unemployed as well as seriously effecting fuel situation"

To this he replied,

"Retel eleventh cannot grant authority to cut on new berth until old berth is cancelled am wiring department for immediate instructions and will wire you soon as possible"

To this, we sent the letter, a copy of which is enclosed. Since then we have heard nothing. If we don't hear by Monday night I will wire you and ask for your assistance in straightening this out. As it is now, Ted Cinnamon has no men and no work. Also, our fuel consumption during  cold spell has been nearly 15 cords a day and we can ill afford to have the wood cutting at a standstill. We have hauled all the 16 foot wood we can and we are now changing the racks to haul the 4 foot wood.

The point regarding the wood cutting is that we have gone over the lines of our original berth but the part cut outside the lines was very small and it was all vacant land. The new berth, or extension to the old berth, that we are applying for will cover all the ground inadvertently cut over so I cannot see why there should be

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February 14, 1938

W.G. Jewitt, Esq.

any hesitation in granting it. If they will only say to go ahead and cut and let Mr. Penton and ourselves straighten it out, I am sure everyone can be satisfied and no injustice done.

And in the meantime, it is 40° below.

Yours very truly,

W.G.

HCG/GA

C
O
P
YGoldfields, Sask.,
February 14th., 1938

M. M. O'Brien, Esq.,
Assistant Manager of Mines,
C.M. & S. Co. of Canada, Ltd.,
TRAIL, B. C.

Dear Sir:

I beg to acknowledge receipt of
your letter of February 8th regarding looking after
facilities at the Con.

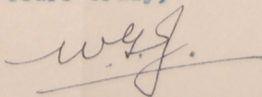
Water, tailings and sewage disposal
are being looked after and will not be affected by
developments on other properties, unless a mill on the
Negus should contaminate the water of the main lake.
Plans showing our proposed arrangements are being filed
by Mr. Giegerich with the Department of Pensions and
Health in Ottawa.

We have most of the more easily
available timber in the district. However, this
will not last long, probably one year's operation will
clean it up and it is essential that we use fuel oil
or crude oil for heating. If this is done before next
winter, it will save some timber which might be useful
for mining.

Water power is a possibility and
the site at the outlet of Prosperous Lake has been
looked over by the Government. We have not attempted
to get any rights as it would be an expensive
development and the district is not far enough advanced
to warrant considering it. However, when Mr. Tyndale
comes in again, I am going to take him over the site.

Regarding the Meg, I understand it is
under option to the same group that took over the Negus.
You will recall that the owners would not accept an
offer I made.

Yours truly,



W. G. Jewitt

WGJ:WLL
c.c. H.C.G.

C
O
P
Y

Trail, B. C.,
Feb. 8, 1938.

W. G. Jewitt, Esq.,
Box Property,
Goldfields, Sask.

Dear Sir:

Mr. Archibald was talking about the Negus group today. It looks as though they are going ahead with work on their property. In that case we must be sure all necessary facilities that we shall require, are looked after, so that they cannot get anything we need. I refer particularly to the use of water and the disposal of tailings and sewage.

You and your men may think of something else such as timber for fuel. The point is, you will have other operators at your door and we do not want to pay for or have difficulty obtaining facilities which we can get without trouble now.

I note the Zig group has been restaked for the Consolidated.

What is our position regarding the Meg group now? Its proximity to the Con and also Kam Lake, gives some value to the group.

Yours truly,

"M. M. O'Brien"

Ass't Manager of Mines.

MMO'B:EMR

Copied: WIL

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THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED

CABLE ADDRESS
"COMINCO"

Goldfields, Sask.,
February 14th., 1938

H. C. Giegerich, Esq.,
CON OFFICE

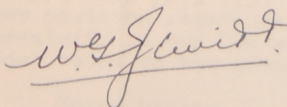
Dear Sir:

I enclose copy of a letter
received from Mr. O'Brien and copy of my reply.

I had written to Mr. Archibald
previously about the water power and he thinks
it would be advisable to have Mr. Tyndale look
over the site on his next trip here.

When you can arrange to do it,
please have Hogan or Donaldson make a stadia
survey of the site at the outlet of Prosperous
Lake, sketching the probable dam site with
10 foot contour intervals, the total fall and
the location of and, if possible, a rough
estimate of the amount of gravel available
there.

Yours truly,



W. G. Jewitt

WGJ:WLL

Enclosures (2)

Yellowknife, N.W.T.
June 12, 1939

W. G. Hewitt, Esq.,
GOLDFIELDS, Sask.

Re: Rat Lake Tailings Disposal Project

Dear Sir:

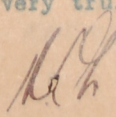
Surveys of Rat Lake have shown the following:

Length Approximately 1,900'
Width " 450'
Area of Lake surface 800,000 sq. ft. or 18.35 acres.
Maximum depth to bottom of soft mud 15 feet.
Average " " " " " 8 "
Volume of water and soft mud 6,000,000 cubic feet.
1 ton tailings will displace 15.7 cu. ft. of water.
Tailings required to displace all water and soft mud 382,000 tons.

At a distance of 600 feet beyond the outlet of Rat Lake the ground drops 8 feet. Approximately 600 feet of ditch could lower the water level of Rat Lake 6.5 feet. This would leave 1,600,000 cubic feet of water and soft mud and would require 100,000 tons of tailings to displace it.

1,300 feet of launder would be required to reach Rat Lake from the mill, the shortest distance being 1,000 feet. Difference in elevation from launder at mill to Rat Lake 33 feet.

Yours very truly,



HCG/EB
cc M.M. O'Brien, Esq.
File

THE CONSOLIDATED MINING AND SMELTING COMPANY
OF CANADA LIMITEDCABLE ADDRESS
COMINCOTadanac Office,
7th July, 1939.

Memorandum to:

R. W. Diamond, Esq.,
Assistant General Manager,
OFFICE.

Kyle had some correspondence with Jewitt early in the year concerning a purported sub-lease to P. Burns & Company of a portion of the surface of one of our mineral claims at the Con. Kyle advised him on December 7th that we had no right to grant a lease of any surface rights. He told Burns & Company on February 3rd that we were in communication with the Government respecting a purchase of surface rights, and that at the time we had no legal right to assign or sub-lease to them.

Then began a correspondence with Mr. Meikle, the Mining Recorder at Fort Smith, which brought us to the point at which we had arrived some time before in our negotiations with the Saskatchewan Government for surface rights at Goldfields.

The mining laws of Saskatchewan and the Northwest Territories, as well as the practice under them, are very similar. As the holders of mineral rights, we enjoy the incidental right to use such parts of the surface of the mineral claims as may be necessary for the mining thereof. As a matter of practice, neither Government will lease or sell the surface of any mineral claim to a third party without the consent of the claim-holder. On the other hand, it may give at its discretion to the claim-holder an annual permit (but not a lease, in spite of Regulation 68), appurtenant to the claim, to occupy the whole or any part of the surface thereof subject to the payment of an annual rental of \$1.00 per acre.

Until we apply for and obtain a permit to occupy the surface of the mineral claim in question at the Con, we certainly have nothing to assign, as Kyle has pointed out. I doubt that the "permit" could be regarded as a lease; it seems likely that it is intended to be, and is, in fact, a mere licence. A licence without an interest in land is not assignable. On the other hand, if it is intended that the permit be regarded as a lease,

it could be assigned, or a sub-lease could be made, but only with the consent of the Government under paragraph 3 of Regulation 68.

My opinion is that, until the situation is clarified, or until we hold a lease-hold interest in the surface, we should not attempt to traffic in any rights affecting the surface.

In his letter of February 16th, 1939, Mr. Meikle has described the procedure as follows:

"The procedure for the applicant who wishes to obtain the surface rights for part of the mineral claim owned by another would be to submit his application and sketch in duplicate together with necessary license fees and a letter from the recorded claim owner stating that such an area is not required by him in his mining developments. On receipt of this application and letter of relinquishment the Department will consider his application".

It follows, too, that it will be in order to give the requisite consent to support P. Burns & Company's application to the Government for a lease of the land which they now occupy. To protect ourselves, immediate consideration should be given to the question of applying for a permit to occupy such areas at Yellowknife as may be deemed necessary.

"A. L. Johannson"

SOLICITOR.

Copied Con Office,
July 15, 1939
EB

THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED
MEMORANDUM

To H. C. Giegerich, Esq., Con Office,

File No.

From W. G. Jewitt, Box Office,

Subject

Date August 1st, 1939.

Reference

Please note attached memo re surface rights at Con.

Is there any reason why Burns should not get the surface rights on the land they occupy? It seems to me the simplest method would be to permit them to get the surface rights for their lot from the Government.

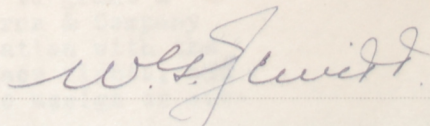
What surface rights, if any, do you think we should obtain? The presence of married employees buildings on the Con property is a factor to be considered.

WGJ/wll.

Enclosure

NOTE: If this Memorandum is not required to be filed for record purposes by the Receiving Department reply, if any, should be made on the reverse side of this form.

Signed



Please to them.

Then began a correspondence with Mr.

Trail, B. C.,
August 8th, 1939

W. G. Jewitt, Esq.,
BOX OFFICE

Dear Sir:-

I have your radiogram of the 2nd instant referring to the Quartz Mining Regulations of the Northwest Territories, and also to Johannson's letter to me of the 7th of July last.

I have just talked with him again about this and he agrees with your conclusion except as to such of the surface as we think we should in any event hold under the best title available, namely, under a permit. He points out that the incidental right under section 68 is to occupy such portion of the surface of the claim and to such extent as the Minister may consider necessary for the efficient operation of the mine but for no other purpose, and that circumstances can readily be imagined where some question may arise. When we have a permit, what the Minister considers necessary is beside the question.

In view of the above, I feel that you should select for application for a permit those surface areas which we want in any event to control. These may consist of a relatively few acres. If you will describe them by reference to the mineral claims, the Legal Department will apply for the permit.

At the moment we have not looked into the number of acres covered by the permit at Goldfields. It may be that the area is more extensive than is necessary or is now contemplated for Yellowknife.

Yours truly,

RWD.MMc

Copies: W.G. Jewitt, extra
Legal Dept.
A.L. Johannson
R.C. Crowe

copy for H.C.G.

Trail, B. C.,
August 8th, 1939.

Messrs Burns & Co. Ltd.,
Calgary, Alberta.

For the attention of Mr. J. H. Kelly

Yellowknife Property

Dear Sirs:

We have received your letter of the 5th of August addressed to our Mr. Kyle, who is now at our head office,

Steps are being taken to acquire the surface rights to which you refer. As we are not sure where precisely your lot lies with reference to the area which we hope to acquire, it seems to us that perhaps it would be best at this time if you would apply to the Government of the Northwest Territories for a lease. The Government will then ask us for our consent to the leasing, which I am sure will readily be forthcoming.

Yours faithfully,

"A. L. Johannson"

ALJ/bm
cc: RWD

Copied:
WGJ/wso
Con Office,
August 17/39
for H.C. Giegerich, Esq.,

In connection with the Con Office, of the shaft, the
 master of larger sheave wheels Yellowknife, N.W.T.,
 August 26th, 1939.

Our present sheave wheels are 30" diameter and were
 installed for the slow speed hoisting with the air hoist. With
 the air hoist, these sheave wheels are smaller than
 W. G. Jewitt, Esq., on the grooves are showing wear which
 C. M. & S. Co. Ltd., the hoisting cables.
GOLDFIELDS, Sask.

Dear Sir:

Enclosed are three prints showing
 the areas for which we believe surface rights
 should be obtained and the description of the
 various blocks.

1. The Mine Block should be large enough for
 all present purposes.
2. The Camp Block may appear larger than nec-
 essary but if we wish protection, we may as
 well have enough to cover not only the build-
 ings, but such things as storage space, yards,
 incinerator, ball grounds, old camp and pos-
 sible townsite.
3. Armstrong Island which is a possible townsite
 and also being used for wood storage has been
 included.

Yours very truly,

HCG

SUPERINTENDENT

HCG:wso

Enclosures (3)