

**MONTREAL
WATER AND POWER
COMPANY**

Correspondance

**6 janvier 1900 -
20 octobre 1927**

P49/E1,8

A. W. P. Co
MONTREAL WATER & POWER CO.
IMPERIAL BUILDING.
ALBERT CARVELL, SECRETARY.

P. O. Box 603.

Montreal.

Jan 6th 1900

J.E. Vanier Esq C.E.

City

Dear Sir /

Referring to the cost of the New Station in St Gabriel Ward, I am instructed to ask you for particulars as to why this Station, including the Pump and Motor, so greatly exceeds the estimates. Your early reply will oblige

Yours very truly

Acavell

Secretary

P49/E1,8

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M. W. P. Co.

12th January 1900.

A. Carvell Esq-
Sec. M. W. & P. Co.

Dear Sir-,

Yours of January 6th instant, asking for particulars as to why the New Station in GABRIEL WARD so greatly exceeds the estimate, was duly received, and in answer I beg to say,

1o That I never made any estimate for an electric pump and accessories for this station. I understand such an estimate was made but not by me.

2o That the estimate I made was for a 5,000,000 gallon high duty steam pump, and amounted to \$38,400.00, and was dated Sept. 28th, 1896.

However, I can easily give you the reason why an electric pump of the above capacity, should cost more than a high duty steam pump as estimated on in 1896.

As far as the cost of a triplex power pump and electric motor are concerned, and that of a high duty steam pump, they are about equal, however when I estimated on a steam pump I had considered that

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the old 2 1/2 million gallon Holly pump, could have been dispensed with and taken out, and the suction of the new pump put in its place, the 3,000,000 gallon SNOW pump, thus being under the same roof as the high duty one, this being possible, for the simple reason that the floor space occupied by a high duty steam pump would allow of this.

On the other hand, the floor space occupied by the electric pump and motor would allow of nothing of the kind, also, the consumption of water had run up, by the time it was decided to put in an electric pump, so very much more than all anticipations, due to increase of population supplied, that it certainly was not prudent to dispense with the old 2 1/2 million gallon Holly pump, especially, using an electric pump, depending for its supply of power on another Co. Also, on taking the inside dimensions of the suction well, it was found too small to allow of the introduction of a third suction pipe, and nothing was left but to prolong the intake pipe and make a new suction well, this costing at least \$10525.00 - On the other hand, the cost of a new pump station for an electric pump, would probably not have been any more than what I estimated on for the high duty steam pump and lodgings, but as this work was delayed until the winter season, on a/c of the contracts for the pump and motor not having been awarded early enough in the summer and fall of 1898, it cost fully \$1000.00 more.

Moreover, the necessity of building a complete separate station on account of using an electric pump, also entailed very much

(8)

more expensive pipe connections with the existing force mains, as in the case of a high duty pump, we would simply have connected on the pipes now connected to the Holly pump, introducing of course some slight changes to meet the new conditions, but nothing comparable at all to what was necessitated, in fact what we were absolutely obliged to put in for the electric pump, cost at least \$4130.00 more than what I contemplated would have been necessary with a high duty pump.

Also, the foundations for a triplex pump and motor, cost fully \$1000.00 more, than what would have been necessary for a high duty steam pump.

As can be seen an electric pumping plant would cost over and above a high duty steam plant at your Wellington Street pump station the sum of \$16655.00 as follows:

INTAKE PIPE AND SUCTION WELL.....	\$10525.00
BUILDING.....	1000.00
PIPING AND CONNECTIONS.....	4130.00
PUMP FOUNDATION.....	1000.00
	<hr/>
TOTAL.....	\$16655.00

and if this be added to the sum of \$38400.00, amount of my estimate for a steam plant, we have as the total cost of an electric plant as put in, the sum of \$55055.00, which is, I understand, approximately the sum expended by your Co. for the above

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mentioned plants

costs

Hoping the above fully explains the increased

I remain,

Yours truly,



Engineer Montreal Water & Power Co.

P49/E1,8

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Railroads, Tramways, Roads,
Water Works, Sewers,
Daring, etc.

POWER PLANTS
OF ALL KINDS.

**ARCHITECTURE,
ARBITRATIONS, EXPERTISES,
EXPROPRIATIONS.**

J. EMILE VANIER,

**Civil and Hydraulic Engineer, Architect
and Land Surveyor.**

B.A.S.—A.M.C. Soc. C.E.—M. Soc. C.E. OF FRANCE.
M. Soc. ARCHITECTS OF THE P. OF Q.

... OFFICES: Rooms 64, 65, 66 and 67 Imperial Building,
No. 107 ST. JAMES STREET.

Montreal, Jan. 29th 1900

To the President & Directors
of the Montreal Water & Power Co.

Dear Sirs—,

Now that the most vital question that your Board of Direc-
tions ever tackled, vis, the HYDRAULIC POWER AT BACK RIVER, is under
study, please let me lay before you a proposition, which I think, may be
of some interest to you.

As you know, or at least as some of you knew, this ques-
tion of Water Power at Sault au Recollet has even since 1876, been for
me a subject of great interest. Surveys were even begun in September
of 1876, and observations and other surveys made from time to time up
to 1891 and also since then, this to say that I am thoroughly conversant
with this River, from Bout de L'Isle to Lake of Two Mountains, I might
also add that at the time Mr. Thos. C. Keefer and myself and were jointly
reporting to the Corporation of the City of Montreal on its water sup-
ply included a thorough examination of RIVER DES PARIRIES from Sault
au Recollet to the Lake, and collected valuable information as to

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drawing River etc.etc.

On the other hand my past experience in organizing hydraulic powers in this Province, and my thorough knowledge of the wants of your Co. also of its actual and future probable standing, and the considerable quantity of documents I have accumulated in my office, regarding this most important question for the last 24 years, together with the large and competent staff at my disposal, would enable me to thoroughly go over this question again and this in for the best interests of your Co.

I may add Dear Sirs, that since 1891 my ideas, and for the better I dare say, have been entirely modified as to the way this water power should be organized and put in operation, either in its full capacity at start, or be prepared to be gradually augmented according to wants.

This of course meaning new series of studies of the question, new surveys, new plans, specifications etc.etc-

Now my proposition to your Board would be the following viz:

That I would prepare all engineering work in connection with the above, also to include, machinery, buildings, pipe lines,

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reservoirs, estimates, reports, specifications, asking of tenders etc, etc, and superintendence and the construction work at the following conditions, Vis: 4% on all work as above described except pipe lines, to be paid to me as work progresses, and 2 1/2% on pipe line work also as work progresses. Copies of all documents enumerated above to be delivered to your Co. as the preliminaries go on, and myself to be in continual touch with your Board and at its disposal for information or otherwise in connection with the above. In case that within 2 years of from now, the Co. should decide not to execute works of a similar order, or be unable to do so, then I would be reimbursed in cash of my disbursements for staff and travelling expenses without interest, my personal services to be free of charge, and the maximum amount of such disbursements not to exceed say \$5500.00 and my books to be subject to inspection and verification for the purpose of determining this amount.

Finally in case, after the two years mentioned above and within 4 years from date, the Co. should decide to go with similar work, in part or in toto, then I would be entitled to the superintendence of said work and all disbursements paid to me would be on account of the 4% and 2 1/2 % commission respectively as mentioned above.

In all cases, I would assume the title of "consulting

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Engineer of the Montreal Water & Power Co."

Hoping, dear Sirs, that you will find my proposal
acceptable, as I think it is,

I remain, dear Sirs,

Yours truly,

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29 Janvier 1900
Proposition à
M. W. P. Co

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Montreal Jan 30th 1900

J.E. Vanier Esq C.E.

Montreal

Dear Sir /

Kindly furnish the Montreal Water & Power Company with the following plans and data, which have not been handed over.

	Description
o.k. 214	Section of Back River and C.P.R. Bridge
217 - 225	Cross Section of Perry Island at Head Race.
301 - 307	Sections of Hydraulic Canal, Perry Island.
605.	Plan & Elevation of Projected C.P.R. Bridge over Hydraulic Canal.
o.k. 1501	Sketch showing arrangement of connections between the Company's mains and City's at Mount Royal & Cadieux Streets.

Page 103 Vanier's Index

o.k. 1	Plan of pipe line on Papineau Road and Rachel St
o.k. 2	Plan of pipe line on Cote des Neiges Road (Double Line)
o.k. 3	Plan of pipe line on Cote des Neiges Road (single line)
o.k. 4	Plan of pipe line on Bellingham Road in Outremont
o.k. 4	Plan of pipe line on Cote St Catherine Road
o.k. 5	Plan of pipe line on Mount Royal Avenue
o.k. 6	Plan of pipe line on Cote St Catherine Road
o.k. 8	Plan of pipe line on Sherbrooke St through City of Mont.
o.k. 9	Plan of pipe line on Van Horne Ave in Outremont
o.k. 10	Plan of pipe line on Sherbrooke St, Pie IX and Boyce in Maisonneuve

The valves and specials to be located in the ten latter.
Page 96 No 344 Plan of water power shewing location of lower wing dam at Sault au Recollet. - *Rollad*
(Missing)

All plans, specifications, contracts and tenders (with the working drawings) in connection with the Electric Installation at Ste Cunegonde.

(The Company has already received one set of B.P's of New Station.

Montreal.

Profiles

Nos 1, 2, 3, 4, 5, 6,

1 Cote St Antoine Road and Sherbrooke St

2 Gareau, St Paul and Lansdowne

3 Western Avenue (Cote St Antoine)

4 Kensington and Sherbrooke

5 Green, St Catherine and Clarke Ave

o.k. 6 Projected pipe line along Rocky Road
'Gagnon's Farm, original of No 10)

H. H. Pitche

Engineer

MONTREAL WATER & POWER COMPANY

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P. O. Box 603.

Montreal.

Jan 31st 1900

J.E. Vanier Esq C.E.
Montreal

Dear Sir /

In addition to the list dated Jan 30th the following plans and data are required. It is understood, however, that no new work, drawing, surveying etc, is to be done by you in connection with these lists. Anything you may not happen to have on hand in the office is not to be furnished us without further notice.

1. Contours of Upper Banks - Back River, from Power Site to affected point above Cartierville on raising the present natural head to 12 feet
2. Fall from Cartierville Bridge to C.P.R. Bridge at Power Site -
 Profiles of water surface.
3. Discharge of River taken at a cross sectioned point, on a given date, with corresponding gauge readings referred to known bench marks.
- 4 Location of such bench marks and those to which all the work already done was referred.
- 5 Elevation of gauges set in 1896 with reference to known bench marks.
- 9 Lowest and highest recorded water level with date, at known point.

Yours truly

H. H. Pitcher
Engineer

MONTREAL WATER & POWER CO.

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Transmitted by Mr. Picheur on
January 4th 1900
P. O. Box 603.

Montreal.

List of prints, data etc. required by the M. & P. Co.

Tracing of Plan of Water Power showing location of lower
wing dam (showing projected C.P.R. Bridge)

Tracing of Berry Island and surroundings and
location of upper wing dam

All details of all work done to date on Back River Scheme
& details of proposed work necessary to the completion of the scheme.

Cross sections of river above and below site.

Profiles of proposed Four main and also of lines
around second mountain.

Plan and levels of proposed reservoir site.
^{low level}

Highest & lowest levels of river recorded yearly showing
available head. Also expected head on completion of
the present proposed plan.

Location & elevations of bench marks in vicinity of the
power site.

Montreal.

List of Prints etc. required by the M.W.P. Co.

Plans of the design of water distribution for Plateau, St. Denis Ward, & Maisonneuve, up to date plans & above
traces.

Profile (tracing) of pipe line from High Level Reservoir
to Maisonneuve, & valve locations.

~~Up to date plans~~

M. W. P. Co.

7th, February 1900

The Montreal Water & Power Co.

C i t y.

Dear Sirs-,

With reference to the letter of the ROYAL ELECTRIC Co. of February 2nd instant, referring to the record of the construction and installing of the motor at your Wellington Street Pump Station by them, I beg to call your attention to a few inaccuracies therein:

To make matters clear, I might state that the arrangement mentioned by Mr. BROWNE, as set forth in my letter to him of January 7th, referred to the following: The contract for the pump as firstly awarded comprised a train of double reductions gears, and the contract for the motor comprised the pinion shaft, an extended base frame, and two bearings for same, also the placing in position of the pinion; however as a slow speed motor was chosen, it was decided to change the double reduction gears on the pump to single reduction, this requiring a longer pinion shaft and an extra bearing on same also a longer base frame.

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Now, the Royal Electric Co. had to furnish the pinion shaft for the double reduction gears, and the pump people had to furnish the extra length of pinion shaft required by the single reduction gears (such being comprised in the subsequent arrangement with them), also another bearing for the pinion shaft, and an extension to the frame to support the latter. As can be seen the pinion shaft was to be supplied portion by the Electric people, portion by the Pump people, it is evident that, as this shaft was to be in one piece, that either one or the other had to supply it, and the difference in cost paid over to the one furnishing the shaft, by the other party, as for the bearings, it was preferable that they be all of one kind. While the Electric Co. was only obliged to furnish a frame extending somewhat beyond the 1st pinion but no further, the pump people had to furnish the balance, that is between the point just mentioned to beyond the 2nd pinion.

All the above changes being a consequence of the replacing of double reduction gears by single, which however is certainly preferable.

The base frame had to be supplied by one of the parties alone, for the same reasons as mentioned for the jack shaft. In view of the above I was of the opinion that it was preferable that the Royal Electric Co. furnish the jack shaft and the extra bearing, while the Northey Mfg. Co. furnish all the base frame, and it was with this object in view, that I opened up correspondence with both parties,

and Mr. BROWNE'S letter of the 9th January was an acceptance of the proposition of the Northey Co. as transmitted through me, I in the whole matter only acting as an intermediate, as neither party was willing to deal direct with one another.

However, in all the above you will see that the Royal Electric Co. had absolutely nothing to do to the pinions, neither did I ever order M. BROWNE to do anything to them, so that I fail to see how he can say on the 3rd page of his letter that the work his Co. was doing on the pinions was at my request.

Now, I quite understand that the enlarged portions of the pinion shaft could not be finished up complete, until the pinions arrived, but all the rest of the shaft certainly should have been and as these portions were only about 24 inches in length each, it certainly could not have taken from May 11th to the beginning of June to do so, as the pinions were delivered at the shop of the ROYAL ELECTRIC Co. late in the afternoon of May 10th, and the pinion shaft was only delivered on June 3rd or 4th at the pump station of your Company, I being of opinion that six days time was ample to finish up pinion enlargements, cutting key ways, and placing and facing clutch disc.

On May 11th, Mr. BROWNE did write me a letter stating that he could deliver the motor in parts, and could have done so since April 25th, but that it could not be set up and assembled until after the necessary work on the pinions had been done, as explained in

a letter of April 19th. Now, Gentlemen, as before stated Mr. BROWNE had no work to do on the pinions, they did out the key ways I understand, but this was a private affair between the Northey Co. and themselves, and in which I did not intervene at all, in fact, this could not have delayed their delivery five minutes, and the letter of April 19th, from Mr. DARLINGTON puts the position rightly, that is, that he could not turn the shaft etc (page 2 of Mr. BROWNE'S letter) That I understood to mean of course, that he could not turn the enlargements where the pinions, were to be placed, until they arrived, which was quite right.

As the motor could not be assembled before the shaft was ready, I think it was quite useless to have the parts of the motor delivered to lay about the floor, where they would quite probably get damaged, and moreover the floor was not built to stand a load of some 80 tons, consequently, I think I was justified in requesting the Royal people not to deliver until they could erect.

However, as a matter of fact, from the time of the delivery of the shaft at your Pump Station, that is June 3rd or 4th last, it took the Royal Electric Co. until July 5th, to have their motor ready, so that, supposing that they had been able to deliver on April 25th they would certainly have been one month behind time anyhow, from the 1st of May.

On page 3 of his letter, Mr. BROWNE says in the third paragraph, that your Company's station was not ready to receive

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their motor until June 15th, I must say that this is absolutely not the case, as the station was ready about May 1st, and moreover that he began delivery in May, that as a matter of fact his machine was very far advanced as far as erection was concerned by June 15th, and when he says that the motor was sent to your station on the latter date, he probably means May 15th, as it was certainly about then or very little later that delivery of part of the motor began.

I have written so lengthly about these matters, simply because Mr. BROWNE seems to want to demonstrate, that his Company was not behind time at all, and that he was delayed by your Company and by the Pump people. Of course the latter certainly delayed him somewhat, but in any case, as can be seen from the above, the Royal Electric Company would have been one month behind time in any event, however, as I understand the question, all the above matters are not in dispute in the settlement with the Royal Electric Co. and that the only one is the one of the clutch. Mr. BROWNE strenuously arguing that the giving out of the clutch was due to defects in the pump, and that in consequence your Company had to pay his Company in full for motor and power to January 1st 1909, on the other hand, the contention of the pump people, myself, and others, is that the clutch gave out purely and simply because it was not rightly adjusted, it not being tightened up enough, in fact, the workman, who put it together had, as admitted by himself, ~~ix~~ no previous experience with this kind of clutch,

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Mr.DARLINGTON himself, the shop Superintendent, personally admitted to me, that he knew the clutch was the best on the market, but that he had had no previous experience with it. I am merely mentioning these facts to you, to show that it was quite possible for the Royal Electric people to make the error of not tightening up the clutch to the required degree.

Moreover, as I think it quite useless to re-argue this question with Mr.BROWNE, as I am convinced absolutely no understanding could be come to with him, I would suggest the following proposition be made to the above named gentleman:

That, in view of the fact that Mr.BROWNE contends that the slipping and consequent cutting of the clutch, thus causing 8 days delay to your Company, was not due to any errors or otherwise of his Company, but on the contrary, were due to defects in the pump, and that on the other hand your Company pretend that the above defects in the clutch were due solely to defects of adjustment of the latter, that Mr. BROWNE have the clutch loosened up as it was at the time of the slipping, this to be done in presence of witnesses on the part of the Royal Electric Company and on the part of your Company, it being put in the same adjustment, as close as can be had, and this to the satisfaction of the witnesses on both sides(I suggesting as yours, your two engine drivers Messrs.VALENTINE & MARCHAND, Mr.LEITCH and myself, all as

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having personally operated this clutch at the time, also Mr. George W. Ingles of the Northey Mfg. Co.), as it was when it slipped and run this way for 30 days, if the clutch does not slip during this period, then your Company to pay the Royal people in full for motor and power, if on the other hand, the clutch slips and cuts, then the Royal Electric Co. should pay to your Company or deduct from their accounts, le the 8 days delay caused by the clutch previously giving out last summer. So Repair the clutch, that would get damaged by cutting or replace it by a new one if damaged beyond repair, all at their own cost, paying in plus the damage caused your Company by such delays.


The Royal Electric Company having the right to have a representative on the premises day and night, to see that everything is done fairly, or if Mr. BROWNE does not want to accept the above proposition, let him deduct from his present accounts the eight days damage done your Company by the clutch slipping last summer, and call the matter square.

I have already mentioned this proposition to your president, and I think it fair and equitable, and certainly not a one that could be seriously objected to by Mr. BROWNE.

Hoping the above shall prove satisfactory,

I remain,

Yours truly,


Engineer Montreal Water & Power Co.

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Montreal, February 12th, 1900.

Received from J. C. Vanier the following plans,
as per order dated Jan. 30th, 1900 :

- # 214 Section of Rock River, at C.P.R. Bridge.
 - 1501 Sketch showing arrangement of connections between the Co's mains
and City's Sat Mount Royal & Cadieux Streets.
 - 1 Plan of pipe line on Papineau Road and Rachel St.
 - 2 " " " " Côte des Neiges Road (Double line).
 - 3 " " " " " " " " (single ").
 - 4 " " " " " Kellingham Road in Outremont.
 - 5 " " " " " Mount Royal Avenue.
 - 6 " " " " " Côte St. Catherine Road.
 - 8 " " " " " Sherbrooke Street through City of Montreal.
 - 9 " " " " " Van Horne Ave. in Outremont.
 - 10 " " " " " Sherbrooke St, Rue St. Joseph, in Maisonneuve.
- Profile 6 Projected pipe line along Rocky Road - Gagnon's farm.

J. H. Pitet

~~Mars 1900~~
~~M. W. P. La~~
B.M. à l'île Bury.

→ la B.M. a servi pour les sections de l'île (Plan de contour)

- 100.00 sur planche moulin Proust, côté N. (disparue).
- 43.72 sur base 2^e arbre de 1^{re} rangée au N.E. de l'île.
- 47.89 sur coin E culée S. du pont du saut - sur pierre
- 39.15 ou tree west of Ry.
- 57.51 sur coin E solage en pierre hôtel Ricard.
- 49.95 sur roche noyer.

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Chez Fanchelle) pour 1899

L'année scientifique
général

L'année industrielle
Mansoury

Souires & Baisers
de Cyprien l'ardif
librairie jeunesse
10 R. St Joseph Paris

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F. W. FITCHER
CHIEF ENGINEER
J. D. MACKERRAS
ASSISTANT ENGINEER

M. W. P. Co.

Montreal Water & Power Co.
Engineering Department.

Imperial Building.

Montreal. Jan. 22, 1902.

J. E. Vanier, Esq., C. E.,

Imperial Building,

C I T Y.

Dear Sir:-

In view of the public agitation at present obtaining in Westmount re the alleged possibility of contamination of the water supply to that town, by the St. Pierre River, Verdun Sewerage and other sources and knowing you to possess intimate knowledge of and long experience with the conditions prevailing, we would request that you give us your opinion and information on the following points:

1. Whether in view of the conditions prevailing at low water there would be a possibility of contamination from the above sources.
2. Whether at winter high water, due to "back water" such contamination might occur.
3. Whether under normal conditions the intake is safe from pollution.
4. Whether a point South of Nun's Island offers any advantages over the present source for a public water supply.

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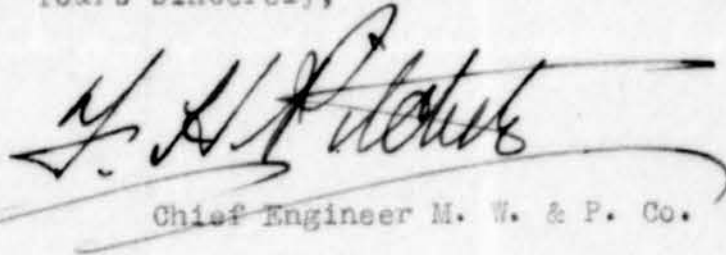
5. What were the considerations which led to the selection by the Town of Ste Cenevide to the present source of supply and later influenced its retention by the Montreal Water & Power Co.

It might be added that frequent analyses, extending over long periods and made for Westmount, ourselves and the other Municipalities supplied, have never shown the slightest trace of pollution, nor the water to be otherwise than "potable". Moreover, Bacteriological and Chemical examination of water from other possible sources have failed to shew as good water for domestic and manufacturing purposes, as is at present obtained.

Hoping to hear from you on these matters soon.

I remain,

Yours sincerely,



Chief Engineer M. W. & P. Co.

J. ÉMILE VANIER.
Civil Engineer & Architect,

... OFFICES ...
107 St. James Street
MONTREAL.

Montreal 17th February 1902.

F.H. Fitcher Esq- C.E.
Chief Engineer
Montreal Water & Power Co.
C i t y -

Dear Sir,

It was my desire to reply to yours of the 22nd of January last re water supply of the Town of Westmount before now, but a few other matters that I had in hands, and searching through old records dating back as far as 1889 to meet your wishes in the present instance have delayed me somewhat.

Anyhow, dear Sir, after a careful consideration of the questions you have layed before me and after looking over all the information in my possession, dating as I said as far back as 1889, when I first reported to the City of St. Cunegeude on the original BERGER & BRIQUE WATER WORKS with the very same source of water supply than now, I beg to answer your questions contained in the said letter of yours of January 22nd last, in the same order and as follows, viz:

1e. Whether in view of the conditions prevailing at low water there would be a possibility of contamination from the above sources.

I have no hesitation whatever in saying that from the thorough knowledge that I have of the ground, with the several years of observations and tests I have made on this particular subject, especially as Chief Engineer of the Cities of St. Cunegeude and St. Henry, there is no contamination possible of the source of supply, particularly since the work done by the Government dredge, when in 1896 a channel was opened along the St. Gabriel shore to a point below the source in question. This channel taking rapidly down stream all discharges from

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River St. Pierre, and Verdun,

2c. Whether at Winter high water, due to "Back Water", such contamination might occur.

From close observations during several years past, it has been fully demonstrated that the flow of water along side the Island of Montreal, from Verdun down to Hochelaga, has always been comparatively free and that all impediments were located on the Laprairie, St. Lambert and Longueuil side of the St. Lawrence, and that all sewerage discharging into the St. Lawrence was being disposed of, even then, more quickly than at low water.

Even under the circumstances you present in your 2nd question the source of water supply of the Cities of Westmount, St. Cenege and St. Henry is well protected. etc.

3c. Whether under normal conditions, the intake is safe from pollution.

The intake is well located, at least 1300 feet or thereabout from the Montreal Island shore, and cannot be contaminated under above named conditions.

4c. Whether a point south of Nun's Island offers any advantages over the present source for a public water supply.

No advantage whatever, for I have had this matter already under consideration several years ago, and crossing Nun's Island to get St. Lawrence water exclusively, in the south channel, was the point under study. It was found objectionable on account of shallowness of stream at that point and more so, on account of the hardness of the St. Lawrence water, as it is a well known fact while with the actual source of supply, the mixture of St. Lawrence and Ottawa River water

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that we get, is of a superior quality for domestic purposes.

So, what were the considerations which led to the selection by the Town of St. Cunezende to the present source of supply and later influenced its retention by the Montreal Water & Power Co.

The facts recited above being well known, on the other hand, analyses of water from time to time since 1877, previously to the building of the BERGER & BAQUE WATER WORKS at St. Cunezende, and improvements made by dredging a new channel along the St. Gabriel shore, since the building of the Lachine collecting drain by the Federal Government, and the perfect quality of the water at the point of supply at all time, have at my knowledge been the considerations which induced the City you mentioned and your Company, to retain said source, and it is my sincere opinion that their justification for doing so was ample.

I have the honor to be, dear sir,

Yours truly,

J. Emile Vanier

Copy

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COPY

M. W. P. Co

March 3rd 1902.

Mr. Henson,

Dear Sir:-

I enclose statement re death rate in Westmount for
1901 as agreed.

Yours

Sgd.

J. A. HUTCHINSON M. D.

The number of deaths during the year 1901 in the town of Westmount
was 90. The population is estimated at the present time to be
9,600. Thus the death rate is only $9 \frac{3}{8}$ per 1000. *
March 1902.

P49/E1,8

1 2 3 4 5 6 7 8

~~COPY~~

Montreal, April 30th 1902.

Mr. A. Carvell,

Secy. Montreal Water & Power Co.,

Dear Sir:-

The health for the municipality of Verdun during the past two years has been particularly good.

On looking over the records for the past two years I find that in a population of 2300 we had 11 cases of Scarlet fever, 6 of Dyptheria, 1 of Smallpox and 3 of Typhoid fever. Within the past year 3 cases of Scarlet fever; 2 of Dyptheria, 1 of Smallpox and 3 of Typhoid fever. Of the three latter cases, two could be traced to a probable source outside the municipality, in fact the same might be said of most of the other contagious cases mentioned.

Since the installation of the water and sewage system we have had a remarkably free Bill of Health, which I consider speaks well for the quality of water supplied.

Yours very truly,

Sgd.

J. J. ROSS, M. D.

414 Bourgeois St.,

Montreal.

P49/E1,8

1 2 3 4 5 6 7 8

copy

Montreal, 6th May 1902.

To the Secretary,

Montreal Water & Power Co.,

Montreal.

Sir/

The health of the Municipality of Delorimier, during the past year, has been exceptionally good, and there have been no complaints made to my department as to the quality of the water supplied to the said Municipality.

Yours truly,

Sgd. L. A. LACOMB, M. D.

700 Parc Lafontaine

P49/E1,8

3 3

1 2 3 4 5 6 7 8

Maisonneuve 2nd April 1903.

~~COPY~~

The Secretary,

Montreal Water & Power Co.,

Montreal.

Dear Sir/

There have been very few cases of typhoid fever in Maisonneuve during the past year and these have never been attributed to the hygienic condition of the water.

The health of the Town has been very good during the past year, and no complaint has been made to the Health Department of the Town as to the purity of the water supply.

Yours truly,

DR. P. LUSSIER.

P49/E1,8

3 4

1 2 3 4 5 6 7 8

Ste Cunegonde Mar 31, 1902.

~~COPY~~

Montreal Water & Power Co.,
Montreal.

Dear Sirs/

During the year 1901 we had only four cases of typhoid fever, none of which were fatal, and none of which cases were attributable to the hygienic condition of the water supply.

The health of the City of St. Cunegonde during the past year has been good and the Department has never received any complaint as to the purity of the water supplied to the Town.

Yours truly,

HENRI COMPEAU, M. D.

Board of Health of
City of Ste Cunegonde.

P49/E1,8

3 5

1 2 3 4 5 6 7 8

Town of St. Louis, 3rd Apr. 1902.

COPY

The Secretary,
Montreal Water & Power Co.,
Montreal.

Dear Sir/

There were only seven cases of typhoid fever in this Municipality during the year 1901, of which none were fatal, but none of these cases were attributed to the condition of the water.

The health of the Town during the past year has been good- in fact better than normal- and no complaints as to the purity of the water supplied to the Town has ever been made to the Health Department of the Municipality.

Yours truly,

GEO. E. LESAGE, M. D.

P49/E1,8

3 6

1 2 3 4 5 6 7 8

COPY

QUEBEC, 11th March 1902.

To the Montreal Water & Power Co.

Dear Sirs:-

In reply to your inquiry about the public health in the City of St. Henri and the water supplied by your Company I beg to say:

1. That at the present time the health of the inhabitants of St. Henri is better than it has been for several years past and the mortality much reduced. The smallpox that has unfortunately visited us is at an end and of typhoid fever we hardly hear any more.
2. The water supplied by your Company is, at the present time as far as I can judge, as good as it can be and I hear of no complaint by anybody in our midst.

Now, dear Sir, I wish you would transmit to me the report of your Analyst for the last term to enable me to put before the local Board of Health of St. Henri the true qualities of the water supplied by your Company. I expect it will prove satisfactory. I regret that my presence in the legislature and the arduous duties of the last weeks of the present session prevent me from writing a longer letter on the questions you ask for.

With the few lines I close and remain,

Your humble servant

Sgd.

J. LANCTOT, M. D.

Medical Health Officer for the City of St. Henri.

P49/E1,8

1 2 3 4 5 6 7 8

WHITE & BUCHANAN.

ADVOCATES.

W. J. WHITE, K.C.

A. W. P. BUCHANAN

Cable Address: "WHITESGO"

New York Life Building

Montreal, 24th. Octr., 1902

J. Emile Vanier Esq.,
Imperial Bldg.
City.

Dear Sir,

Replying to your letter of the 22nd. inst., I enclose your subpoena in the case of Davie vs. Montreal Water & Power Co., as requested.

Yours very truly,

W. J. White
3

Enclos.

P49/E1,8

3 4

1 2 3 4 5 6 7 8

James H. S. Harvie

Plaintiff

vs.

Montreal Water & Power Co

Defendant

EDWARD VII., by the Grace of God, of the United Kingdom of Great Britain and Ireland, and of the British Dominions beyond the Seas, KING, Defender of the Faith, Emperor of India.

To J. A. Vanier, of the City and District of Montreal, Civil Engineer.

WE COMMAND YOU, at the instance of said *Defendant* and under the penalties imposed by law, to appear personally before our said SUPERIOR COURT, sitting at Enquête and Merits in Room No. 24, in the Court House, in the City of Montreal, on the *sixth* day of *October* at quarter ~~at~~ *PAST* TEN of the clock in the forenoon, and there to attend from day to day, until legally discharged, to give evidence in this cause

IN WITNESS WHEREOF, we have caused the seal of our said Court to be hereunto affixed, in the City of Montreal, this *third* day of *October* one thousand nine hundred and *two*

(Signed)

(TRUE COPY.)

White, O'Sullivan & Buchanan *L. P. W. Morion*
Atorneys for Defendants *Clk. Prothonotary of said Superior Court.*

Vertical handwritten notes on the left margin, including 'Copied' and other illegible scribbles.

ENQUÊTE AND MERITS.

Room No. 24

No. 1644

SUPERIOR COURT,
MONTREAL.

He H. S. Gavige

Plaintiff

vs.

Montreal Water & Power Co.

Defendant

SUBPŒNA.

Copy for J. E. Vanier
No. 25 St Louis Square Street.

For information witness may apply to
White & Buchanan
Advocates

No. 11 Place d'Armes Street,
Montreal.

Law Forms of all kinds kept on hand and for sale by
MITCHELL & WILSON, Printers, 1727 Notre Dame Street, Montreal.
1000-5-02.

P49/E1,8

4 11

1 2 3 4 5 6 7 8

*Comptes
à faire*

Oct. 22, 1903 III

W. S. White, Esq. Advocate,
Room 803, N.Y. Life Building,
CITY.

Dear Sir,

A few days ago when I appeared in Court as an expert-witness on that case of Mrs. Kerr ? Vs. the Montreal Water & Power Co. I left my sub poena with Mr. Carvell for taxation, with the understanding that he would bring to me on his return. I find out now that you have it; would you be kind enough to send it here.

In so doing, you would greatly oblige,

Yours truly,



P49/E1,8

4 1

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

WILL TAKE CHARGE
OF
Railroads, Steamways, Roads,
Water Works, Sewers,
ORGANIZATION OF STEAM,
Water and Electric Motive Power,
Electric Lighting and Electric Railways,
Surveys, &c
PATENTS, TRADE MARKS
IN
CANADA & FOREIGN COUNTRIES.
ARBITRATION, EXPERTISES, EXPROPRIATIONS.

• J. EMILE VANIER, •
Civil and Hydraulic Engineer, Land Surveyor

Graduate of the Polytechnic School
Past Member of the Council of the Canadian Society of Civil Engineers
Member of the Council of the Society of Hygiene of the Province of Quebec
Member of the Society of Hygiene of Paris
Professor of Geodesy and Hydrography at the Polytechnic School of Montreal, etc.

Offices: Imperial Building, 107, St. James St.,

Montreal, 9th March 1894

Woltman, Keith & Co.

11 Wall Street.

New-York -

Gentlemen,

Inclosed please find appendix No. I of Keefer's
and Vanier's Report on the Montreal Water Works which you
can insert in its proper place in the report which Mr Keith
has got.

Yours Truly,

(Signed) *J. Emile Vanier*
P.J.H.

P49/E1,8

1 2 3 4 5 6 7 8

Montreal Water & Power Co

May 16th, 4

F. H. Pitcher, Esq.,
Chief Engineer,
Montreal Water & Power Co.

Dear Sir,

The Town of St. Louis is desirous of laying a 4" water pipe on Sanguinet Street, from the extremity of the actual pipe at du Carmel Street to the center of Depot Ave, all as shown on the herein enclosed plan, and as per the already approved specification.

Would you also please send in the quotations for which your Company would be disposed to do this work for.

This matter is pressing, consequently would you please attend to same at your earliest possible convenience.

Yours truly,

Eng. Town of St. Louis.

P49/E1,8

4 3

1 2 3 4 5 6 7 8

MONTREAL WATER & POWER CO.
IMPERIAL BUILDING.
ALBERT CARVELL, SECRETARY.

M. W. P. Co

P. O. Box 603.

Montreal, June 13th, 1904.

A. P. Vincent, Esq.,

Secretary-Treasurer Town of St. Louis de Mile End,
St. Louis de Mile End.

Dear Sir:-

Re Filtered Water.

As your Council knows, there was recently held in the Town of St. Henry a meeting of representatives of the various Towns supplied by this Company with water, and the object of such meeting we understood to be the purpose of considering with this Company what possible arrangements could be made that would enable the Company to supply the Towns in question filtered water. Inasmuch as the Towns have to some extent taken the matter up collectively, and inasmuch as it is necessary from the Company's standpoint that the Company should in such a large question deal with the Municipalities as a whole, the Company has sent a communication to the Chairman of that meeting, a copy of which communication you will find herewith enclosed. The communication to Mr. Chairman Guay you will see deals with the general proposition as it affects the Municipalities as a whole, but distinctly states that there are particular features in connection with each special franchise that will have to be dealt with directly with each Municipality, but that these in no way affect the general features of the proposed new arrangement. Coming, therefore, to the additional features of any new arrangement that would form part of our proposed agreement with your Municipality,

P49/E1,8

1 2 3 4 5 6 7 8

we now beg to say -

(1) That the new contract shall make it clear that the respective proprietors of houses shall be responsible for the proper maintenance and the proper repair of the service pipes beyond the street line, and that they shall be responsible for the protection of said service pipes from the street line from frost, etc.

(2) In the event of water being turned off because of failure of the tenant to pay water accounts, the Company shall be entitled to charge \$1.00 before turning on the water again, and this is to represent the cost to the Company of turning off the water and turning it on again.

(3) During the term of 25 years from the date of expiration of the present contract, the Company's pipes, plant and property shall be exempt from all municipal taxes.

(4) Section 5 should be so amended that a plan should now be prepared showing the whole water system of the Town and this should be accepted by the Town and all future extensions based upon the design contemplated in the proposed plan.

(5) Section 5 should also be altered so as to provide that in case a manufacturer wishes to have a hydrant on his property it will be placed at his own expense by the Company but that he shall pay therefor a sum of \$50.00 per annum and not by meter as now provided.

(6) Clause 7 of the existing contract to be expunged.

(7) A new contract to be drawn modifying the existing contract to the above effect, and any clause in the old contract not in accordance with this to be altered accordingly.

This Company believes that a new arrangement based on the above would be reasonable and fair, although we beg to point out that even on this basis it would be many years before the Company would be able to pay any interest or dividend on all the money that has been invested in this enterprise.

we shall be glad to meet representatives of your Council in order to discuss the exact details of this proposed new arrangement.

we are,

Yours very truly,

MONTREAL WATER & POWER CO.
IMPERIAL BUILDING.
ALBERT CARVELL, SECRETARY.

P.O. Box 603.
Montreal, June 15th, 1904.

L.N. Senecal, Esq.,

Secretary-Treasurer Town of St. Henry,
St. Henry.

Dear Sir:-

As your Council knows, there was recently held in the Town of St. Henry a meeting of representatives of the various Towns supplied by this Company with water, and the object of such meeting we understood to be the purpose of considering with this Company what possible arrangements could be made that would enable the Company to supply the Towns in question filtered water. Inasmuch as the Towns have to some extent taken the matter up collectively, and inasmuch as it is necessary from the Company's standpoint that the Company should in such a large question deal with the Municipalities as a whole, the Company has sent a communication to the Chairman of that meeting, a copy of which communication you will find herewith enclosed. The communication to Mr. Chairman Guay you will see deals with the general proposition as it affects the Municipalities as a whole, but distinctly states that there are particular features in connection with each special franchise that will have to be dealt with directly by each Municipality, but that these in no way affect the general features of the proposed new arrangement. Coming, therefore, to the additional features of any new arrangement that would form part of our proposed agreement with your Municipality, we now beg to say -/

P49/E1,8

4 5

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

(1) That the existing contract shall be amended so as to expunge therefrom any reference to the Rapids of the Ottawa River as a possible source of water supply.

(2) In the event of the water being turned off because of failure of the tenant or proprietor to pay water accounts, the Company shall be entitled to charge \$1.00 before turning on the water again, and this is to represent the cost to the Company of turning off the water and turning it on again.

(3) The new contract should make it clear that the respective proprietors of houses shall be responsible for the proper maintenance and the proper repair of the service pipes beyond the street line, and that they shall be responsible for the protection of said service pipes from the street line from frost, etc.

(4) Section 6 of the existing contract dealing with the question of hydrants should be so amended as to make the intention of the clause a little more clear as to the rights of the Town to be entitled to a free hydrant for every 500 feet of piped street only.

(5) Provision in the new agreement should also be made for an extension of the exemption from all taxes for a further period of 25 years.

(6) A new contract to be drawn modifying the existing contract to the above effect, and any clause in the old contract not in accordance with this to be altered accordingly.

This Company believes that a new arrangement based on the above would be reasonable and fair, although we beg to point out that even on this basis it would be many years before the Company would be able to pay any interest or dividend on all the money that has been invested in this enterprise.

We shall be glad to meet representatives of your Council in order to discuss the exact details of this proposed new arrangement.

We are,

Yours very truly,

1st August 1904.

Montreal Water & Power Co.
City -

Gentlemen:

Re question of the advisability of placing water pipe in the same trench as a sewer, I beg to say that such is frequently done, the only point being to keep the water pipe always above the level of the sewer.

Personally I have not as yet had any trouble from such practice, nor do I know of any although a large amount of pipe is so laid in the City of Montreal, Towns of St. Louis & St. Lambert.

Hoping the above shall prove satisfactory,

I remain,

Yours truly,

P49/E1,8

4 8

1 2 3 4 5 6 7 8

F. H. PITCHER,
CHIEF ENGINEER

Montreal Water & Power Co

*Montreal Water & Power Co.,
Engineering Department.*

*Imperial Building,
Montreal, 4 August, 1904.*

J. Emile Vanier, Esq.,
Civil Engineer,
5 Beaver Hall Square,
Montreal.

Dear Sir,-

I understand you have the homologated plans in your office, scale fifty feet to an inch, of Cote St. Paul, St. Henry, St. Cunegonde, St. Louis de Mile End and Maisonneuve. I am desirous of obtaining copies of these plans, if possible, and would like to know upon what terms you would allow our draughtsman to make tracings of them in your office. An early reply will oblige,

Yours truly,

F. H. Pitcher

P49/E1,8

4 9

1 2 3 4 5 6 7 8

Montreal Water & Power Co.

9th August 1904.

F. H. Pitcher, Esq.,
Chief Engineer
Montreal Water & Power Co.
C i t y -

Dear Sirs

In answer to yours of the 4th instant re homologation plans of Côte St. Paul St. Henry, St. Canegonde, St. Louis du Mile End & Maisonneuve, I beg to say that the original plans are at the Offices of these respective Corporations.

However if you will allow me, I will make a suggestion to you that will save you considerable money, as getting tracings of these plans made would certainly be very costly, here is what I suggest, that we supply you with a complete set of blue prints of all these plans, we usually sell such at \$5. per sheet but as in your case you would require a larger number we could get them out for you at \$3.50 per sheet.

Each plan contains the following number of sheets -

<u>10.</u>	St. Louis	24	sheets
<u>20.</u>	Maisonneuve	36	"
<u>30.</u>	St. Canegonde	8	"
<u>40.</u>	St. Henry	18	"
<u>50.</u>	Côte St. Paul	18	"
	Total....	104	"

P49/E1,8



2
We could not however supply you with prints of the
Ste. Caneconde plan for we have no tracings, so that we could only sup-
ply you with 96 sheets.

Hoping the above shall prove satisfactory,

I remain,

Yours truly,



P49/E1,8

1 2 3 4 5 6 7 8

Handwritten: 100-100-100
P.H. FITCHER
CHIEF ENGINEER
ADDITIONAL ENGINEER

*Montreal Water & Power Co.,
Engineering Department.
Imperial Building.*

Montreal, 10 August, 1904.

J. Emile Vanier, Esq.,
5 Beaver Hall Square,
Montreal.

Dear Sir,-

Replying to yours of the 9th instant, the writer would say: That when this matter comes up for final consideration, your offer will receive due attention.

Thanking you for the same, we are,

Yours truly,

Montreal Water & Power Company,
[Signature]
Chief Engineer.

P49/E1,8

5 2

1 2 3 4 5 6 7 8

le 20 avr 1907

Westminster Ins. M. W. & P. Co.
lecture des leçons prof. d'experts

Plan Westminster

- 11 Mars 07 1^o Pitche - Exp. Co. since 1900
 distrib. mainy mains - plan scale 200 ft
 470 elevation - Refractors
 increase of pressure - Plan P. 12 - produced - water system
- 15 Mars 07 2^o Fellows Exp. Westminster 690 ans -
 Plan P. 13 - produced - plan of water commission
 of McKim Pitche & Fellows - of Aug 31/04 - intake
 1550 feet out from well - diversion of R. w. di P.
 dyke made - F + G. To some drainage - of adones along
 into Carl area - City Dec. Insane Asylum Verdun -
 Plan P. 14. open water - see - at fall - soundings
 reckoned from City datum -
 Ice frozen to bottom - (page 17) - some open channels -
 15 to 20 ft wide - easterly - to intake pipe - then along
 pipe - back water - intake in good condition - channel
 4' x 4' - possible cause area below not sufficient
 harvesting of ice at that point - To some by drainage
 (page 21) diminished quantity of water
- 18 Mars 07 - Fellows of Am Currents - Plan P. 15, a reproduction
 of several plans - plots 1 to 25 - Grass Island
 (page 29) current 11 to 20 (page 30) - Current tables
 (page 31) series des courants - 1^{re} - water Ponca's condenser -
 A.A. B.B. - from G.M. R. boating Club - C.C.
 15 inch sewer - sheet lead - D.D. 6 inch pipe from private home -
 E.E. 24 inch sewer from Verdun - F.F. 12 inch sewer pipe
 from Canadian leather Co. G.G. - another pipe from same
 Co - (page 32) H.H. 18 inch waste from British American
 dye works - I.I. 12 inch waste J.J. 12 inch pipe -
 K.K. ? L.L. 12 inch M.M. drain from Verdun
 then it drain out of dye works - difference of currents
 due to shallowness of water - (page 33) page 34 says
 + he observed that some of the main water channels

entered the intake - start - continuation (p. 35).
observation in Nov 1903 - p. 36 - general course of
water (p. 37) - underway between Pine Island
and intake - p. 39 - taking the 2 samples for
analysis Dr. Bowers - of the Royal Victoria -
samples p. 41 - where taken - Report of Water
Commission filed - p. 43 - Report p. 16 -

+
+

p. 50 - intake pipe on level - rises 5 ft to intake
curb - laying unexcavated - break supposed -
(method) p. 51 - of finding level of intake pipe entrance -
Plan p. 17 - 31 Oct. 04 - winter condition - found
hard lime falling water through p. 53 depth of water
p. 55 confusion as to depth of water -
p. 57 - says he is not an expert on matter of frost
and ice -

p. 58. base lines - manipulation
page 59 cross examined by Mr. White -
re contamination by Riv St Pierre River water

- p. 63 - re frost -
- p. 64 - no stagnant water - Riv St P. does not
go to intake at high water (p. 66)
- p. 69 - re bedrock sewerage - purification?
- p. 73 all answers mixed & contradictory -
- p. 76 re tests -
- p. 77 - intake of the deepest water attainable -
- p. 79 no contamination at LaSalle by drainage
- p. 84 re frost -
- p. 86 lead the Beaudry plan -

11 mai 1907

Process Westmount & Montreal Water, P. 100 Co.

Notes re testimony

P. W. St George

donné le
2 mai 1907

re Plan P. 15 of Plaintiff.

material plus dans l'été glenne pour batis dyke
a present chemin - et plus grande vitesse
sans le long des rives - - la gare a shore
current

original plan - with survey lines
exhibit D. 22.

exhibit D. 23 def.
a triangulation -

exhibit 24 sketch
with cut - above water -

and the dykes -

cross section of channels - - discharge of
water p. 39 P. 25

during freshets currents bear in the shores
(provided they are high)

ice frozen to bottom ?

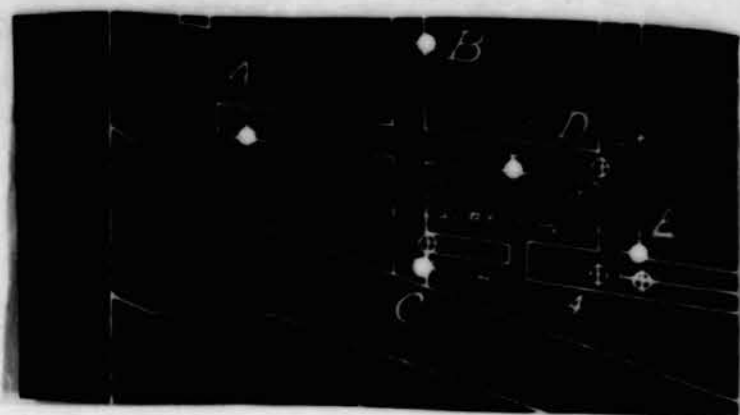
p. 57 Ile Herm - Lacluse rapid works.

cases communicated

p. 72 Riv. St P. overflow dyke
cross examined bad

Je sais quand
j'ai fait ce rapport
sur l'aqueduc
Berger - se rapporte
à St. Cuvillier

Fire Test at five Hydrants shown on Sketch. Five streams,
each through 300 ft. of rubber lined hose and one inch nozzle.



Date _____

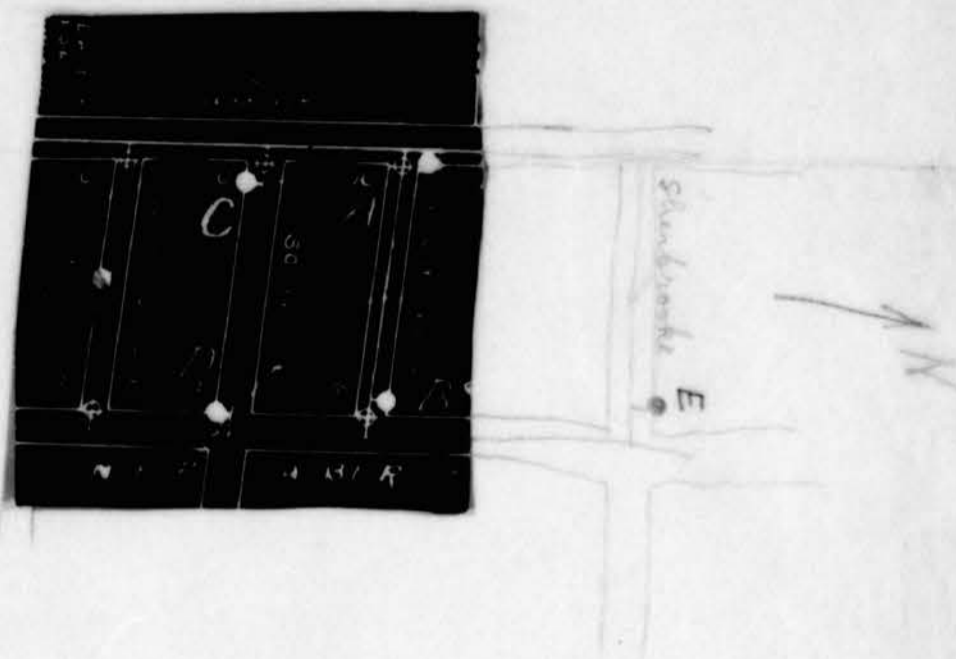
Hydrant	A	B	C	D	E	Remarks
Static pressure at Hydrant						
Pressure at base of play pipe						
Height of stream at test						
Nozzle No.						
Gage No.						
						(Signed) _____
Corrected pressure after testing gages						
Required pressure for stream 75 ft. high from actual test						
Gal. per min. calculated from Freemans tables.						
						(Signed) _____

P49/E1,8

5 b

1 2 3 4 5 6 7 8

Fire Test at five Hydrants shown on Sketch. Five streams,
each through 300 ft. of rubber lined hose and one inch nozzle.



Date _____

Hydrant	A	B	C	D	E	Remarks
Static pressure at Hydrant						
Pressure at base of play pipe						
Height of stream at test						
Nozzle No.						
Gage No.						

(signed) _____

Corrected pressure after testing gages

Required pressure for stream 75 ft. high from actual test

Gal. per min. calculated on Freemans tables.

(signed) _____

P49/E1,8

5 7

1 2 3 4 5 6 7 8



REPRISE

P49/E1,8



Montreal Water & Power Co.
Engineering Department.

F. H. PITCHER
 CHIEF ENGINEER

Imperial Building.

Montreal, April 20th 07

Dear Sirs

*Will you kindly let Mr. Brande
 my assistant have a copy or original
 of a plan showing Back River above
 our property & as far up as the
 Casterville bridge.*

*If you have such a copy, let him
 take the original which I will have
 printed & return on Monday.*

Yours truly
F. H. Pitcher

362⁶. 22 Dec/07

Mme verbal de Mr. Braucher
representant Mr Fitch de la M.W.P.
C. de préparer 2 plans des reliefs de
la Rivière des Prairies au Saulet aux
Recollets -

Mme executé et plans envoyés à
M.W.P. Co & Mr. Braucher
à accusé réception par téléphone

Montreal Water and

*Superior
M. W. P. Co*

25th April 7


P. W. St. George, Esq.,
Montreal Water & Power Company
Alliance Building
City -

Dear Sir,

Immediately after you telephoned last this afternoon, I have found 3 or 4 prints exactly like the one I send you now. This plan was prepared after the dredging was finished so it shows exactly the nature of the work done.

Please let me know if this will suit the purpose.

Yours truly,



P49/E1,8

1 2 3 4 5 6 7 8

May 10th 1907.

S. Carmichael, Esq.,
Advocate
Montreal Water & Power Co.
Alliance Building
St. James St.
City -

Dear Sir,

To be your witness in the WESTMOUNT CASE monday morning as I expect, I would like very much to read at least St. GEORGE'S evidence to-morrow evening, saturday, or sunday.

Could you send it to me here at the office.

I would take it back down the Court house with me monday morning.

Yours truly,

V

P49/E1,8

1 2 3 4 5 6 7 8

*M. W. P. Co.
Compagnie
pour les travaux*

VILLE DE ST. LOUIS
DATES AUXQUELLES LES TRAVAUX D'AQUEDUC SUR LES RUES SUIVANTES
ONT ETE TERMINEES.

<u>ALMA</u>	(de Comte à St. Charles)	Décembre	1906
<u>DEGASPE</u>	Susanne à St. Charles)	"	"
<u>CASGRAIN</u>	(" " C.P.R.)	"	"
<u>St. LAURENT</u>	(Bernard au chemin du Sault)	Juin	1907
<u>CLARKE</u>	(Vanhorne vers le sud)	Mai	1907
<u>St. URBAIN</u>	(de Bernard à Pacifique)	Juin	1907
<u>HAVERLEY</u>	(de Van-Horne vers le sud)	Juillet	1907
<u>St. GEORGES</u>	(Bernard à Van-Horne)	Août	1907
<u>MANCE</u>	(de _____ de _____)	Juin	1907
<u>CLAREMONT</u>		Janvier	1907
<u>St. VIATEUR</u>	(St. Laurent à Hutchison)	Juillet	1907
<u>COMTE</u>	(St. Laurent à Sanguinet)	Juin	1907
<u>St. ZOTIQUE</u>	(St. Laurent à Casgrain)	Juin	1907
<u>CHENIER</u>	en entier	Août	1907
<u>SUZANNE</u>	"	Décembre	1906
<u>BULLER</u>	"	Août	1907
<u>MARCEL</u>	"	Juin	1907
<u>12-1-48</u>	"	Sept.	1908
<u>VILLENEUVE</u>	(Ave. Hotel de Ville aux limites est de la Ville)	Août	1908
<u>CADIEUX</u>	(St. Louis vers le sud)	"	"
<u>St. HUGUES</u>	(St. Laurent à St. Dominique)	Juillet	"
<u>MAGUIRE</u>	(" " " ")	Novembre	1907
<u>LAURETTA</u>	(Casgrain à deGaspé)	Septembre	1907
<u>BEAUMONT</u>	(Clarke vers l'ouest)	Decembre	1907
<u>STANLEY</u>		Août	1908
<u>BAGG</u>		Oct.	1908
<u>ALEXANDRA</u>		Nov.	1908
<u>LANE</u>	(entre Alexandra & grande)	"	"
<u>DEGASPE</u>	(de Maguire vers le nord)	Sept.	1907
<u>VAN-HORNE</u>	(de St. Laurent à Mance)	Janvier	"
<u>SANGUINET</u>	(de St. Zotique à Susanne)	Juin	1907
<u>CLARKE</u>	(de Stanley à Atlantique)	Sept.	1907

TRAVAUX EN COURS D'EXECUTION

BOULEVARD St. JOSEPH (de St. Dominique à St. Urbain)
CLARKE (de Stanley à Bagg)

Montreal 24 Novembre 1908

Ingenieur Ville de St. Louis -

P49/E1,8

1 2 3 4 5 6 7 8

Montreal Water & Power Co.

Montreal, 11 May, 1967.

J. Emile Vanier, Esq.,
5 Beaver Hall Square,
Montreal.

Dear Mr. Vanier,-

I enclose you herewith Mr St. George's evidence,
as requested in your letter of yesterday.

I have left a telephone message for you this morning
to know whether you and Mr. Laurin could meet Mr. R.S. Smith,
K.C., and Mr. White at Mr. White's house - No. 25 Crescent St. -
to-morrow afternoon at 3.30, and in case the message should not
reach you, I am writing you now by letter.

The idea is to have an informal consultation with
Mr. Laurin and yourself as to the evidence to be given on the
question of currents at the beginning of the week.

Yours truly,

Lawrence Carmichael

Resident Solicitor,

Montreal Water & Power Company.

Enc. (2)

Kindly bring the evidence with you tomorrow

P49/E1,8

1 2 3 4 5 6 7 8

Montreal le 14 Mai 07

Monsieur Vanier:

M. Duchesne de la Montreal
State & Power Co. a téléphoné
vers 4 h. est après midi, afin de
vous dire d'aller les rencontrer
demain matin le 15 Courant
à 9 h. am. Cui de St Anne
Orlinton & Côte St Antoine Road.
Westmount

Chaboussier

P49/E1,8

64



May 15th, 1907

F.H. Pitcher, Esq.,
Manager & Chief Engineer
Montreal Water & Power Co.
City -

Dear Sir,

Important business engagements and the bad cold I have had for the last few days prevented me from joining you and experts this a.m. at corner ARLINGTON and COTE ROAD.

It is very windy and as chief Benoit whom I met coming down this a.m. told me to-day was not proper to make your test.

I hope anyhow that you have succeeded in getting the results you were looking for.

Anyhow always at your disposal.

Yours truly,



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PERCIVAL W. St.GEORGE
Consulting Engineer

North British Mercantile Bldg.

Montreal July 11th 1907.

Saurarez Carmichael, Esq.,
Solicitor, Montreal Water & Power Co.
City -

Dear Sir,

By your request, I have examined the proposed Government plan for dredging the St.Lawrence River opposite the Grand Trunk Boating Club at Verdun and in the Vicinity.

Upon your advice I have asked the Government Engineer of the Public Works Department to meet and confer on this plan, whether this scheme if carried out would affect the intake pipe of the Montreal Water & Power Co., and I understood from you that the Government would not begin operations or decide on a plan until such a conference had been held.

As I am about to leave town for some weeks, and in case my opinion should be wanted in this matter, I do not hesitate to say that the plan as shown me, if carried out, will change the current of the river in front of Verdun and will deviate the water from the shore towards the centre of the river, thereby endangering the possible

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pollution of the water near your intake crib, by conveying the discharge of the Verdun sewage nearer the crib than what the natural river does at the present day.

I am, therefore, strongly of opinion that if such a course is taken by the Government, that in order to save your Company's rights and the health of the public who use the water, that every measure should be used to convince the Government that their contemplated work would endanger the health of your customers as well as being a great detriment to your own plant.

Yours truly,

(signed)

PERCIVAL W. St. GEORGE
Consulting Engineer -

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1 2 3 4 5 6 7 8

MONTREAL WATER & POWER COMPANY

Montreal 11th July 1907.

S. Carmichael, Esq.,
Resident Solicitor - Montreal Water & Power Co.
Montreal -

Dear Sir,

I have read the opinion adressed to you by Mr. St.George regarding the proposed dredging in the St.Lawrence River at Verdun, and I can only say, that I fully agree with him in the conclusions at which he arrived regarding the vary probable danger to the water in the vicinity of our intake pipe.

I understood from you that you had arranged with the Government that an opportunity would be given for a conference between the Governement engineers, the engineers of this Company and the Boat Club Officials before any action was taken or before any further report was made, and I regret that this was not carried out.

Apart from the information which my Department would naturally have regarding the bed of the St.Lawrence River at this point, the evidence adduced in the Westmount case clearly shows the delicacy of the position and demonstrates how little alteration it would take to change our intake pipe forom its its preset safe position into one

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of great danger.

At the same time I would impress on you that I consider it perfectly possible to make the changes desired by the Boat Club without endangering the position of the intake pipe, but this certainly would not be done if the plan which has been laid before me were carried out.

Yours truly,

Wm. H. SUTHERLAND
Assistant Engineer
Montreal Water & Power Co.

P49/E1,8



Montreal Water & Power Co.

Legal Department

Montreal, 17 July, 1907.

J. Emile Vanier, Esq. C.E.,
5, Beaver Hall Square,
Montreal.

Dear Sir,-

re - Proposed Dredging - Verdun

In connection with the short interview that Mr. Sutherland, Acting Chief Engineer of the Company, and myself had with you to-day in regard to this matter, and also Mr. St. George's opinion in regard thereto, I wish to ask your opinion on the following:

First - Given the blue print which shows the proposed dredging to be done by the Government, and presuming that the operations were carried out in accordance absolutely with that plan, would or would not the result of such dredging have a tendency to change the bed of the channel and direct the water in such course as might be prejudicial to the intake of the Company ?

Second - In the event of your considering that the carrying out of the plan as it stands would have a prejudicial effect, have you any suggestion to make by which the Government's plan could be so amended as to allow the execution of the original dredging idea, by the addition of further and other works?

As you are aware from your knowledge of the Westmount case and from your own evidence after careful study given therein.

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J. Emile Vanier, Esq., C.E.

17 July, 1907.

the Company contends that the river bed as it at present exists puts the intake crib of the Company in a position of absolute safety. According to the opinion of both Mr. St. George and Mr. Sutherland this condition could easily be changed most disastrously to the Company, and the carrying out of the Government's plan, as it now stands, might have that effect.

The Company is anxious not to interfere unnecessarily in any way whatsoever with any plans which the Government may have in view for the benefit of the Grand Trunk Boating Club, and if any suggestion could be made by which these plans could be carried out and further work done to ensure the safety of the intake pipe, this Company would be very glad to co-operate.

Yours truly,

Samuel Sutherland

Resident Solicitor,

Montreal Water & Power Company.

P49/E1,8

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J. EMILE VANIER
Civil Engineer and Architect

OFFICE:
No. 5 BEAVER HALL SQUARE
MONTREAL

Montreal July 18th 1907.

S. Carmichael, Esq.,
Resident Solicitor,
Montreal Water & Power Co.
Montreal -

Dear Sir,

Yours of yesterday re proposed dredging at VARDUN in the channel opposite the Grand Trunk Boating Club, has been duly received.

In answer to your first question, viz:

- Given the blue print which shows the proposed dredging to be done
- by the Government, and presuming that the operations were carried
- out in accordance absolutely with that plan, would or would not the
- result of such dredging have a tendency to change the bed of the
- channel and direct the water in such course as might be prejudici-
- al to the intake of the Company?"

I do not hesitate to say that the proposed dredging would so change the actual situation in that channel that it would endanger the source of supply of the MONTREAL WATER & POWER Co. and consequently that of the entire suburban population of Montreal.

As to answering your 2nd question, viz:

- In the event of your considering that the carrying out of the
- plan as it stands would have a prejudicial effect, have you any
- suggestion to make by which the Government's plan could be so amen-
- ded as to allow the execution of the original dredging idea, by
- the addition of further and other works?"

After examining closely the projected channel and with the knowledge of the ground that I have, the projected dredging could be

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done provided that the lower end of the deepened channel be diverted towards the Montreal Island shore and that it be continued absolutely passed GRASS ISLAND - All dredging to be dumped on the outside of the new channel so as to make a protection embankment.

I would recommend also that this new channel from Price Island to Grass Island be made at least 75 feet wide by a depth that could be easily agreed upon.

In this way only the sewerage coming from the Verdun sewer could be kept going along the Montreal shore down below the intake as it has gone ever since the building of these sewers.

The Cities of St.Cunegonde and St.Henry of which I have been the Engineer since 1884 up to their annexation to the City of Montreal and which always took great deal of interest in the protection of the source of supply of the water they are furnished with by your Company would resent very much any interference on the part of ~~the part of~~ the Federal Government or any other party to change the actual protection of their water supply.

As Engineer of the Town of St.Louis, Maisonneuve & St.Paul, also supplied by your Company, I wish to put myself on record with your Company and protest most vigourously against any such interference unless the proposed dredging of a new channel be extended as suggested above.

I would therefore, dear Sir, ask you to communicate the present letter to your Board and also to inform me of the progress of this question.

I am also communicating with my Town Councils on this subject.

Yours truly,

Engineer for the Towns of St.Louis,
Maisonneuve & St.Paul -

P49/E1,8

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J. EMILE VANIER
Civil Engineer and Architect

OFFICE:
NO. 5 BEAVER HALL SQUARE
MONTREAL

Montreal July 18th 1907.

S. Carmichael, Esq.,
Resident Solicitor,
Montreal Water & Power Co.
Montreal -

Dear Sir,

Yours of yesterday re proposed dredging at VERDUN in the channel opposite the Grand Trunk Boating Club, has been duly received.

In answer to your first question, viz:

" Given the blue print which shows the proposed dredging to be done"
" by the Government, and presuming that the operations were carried "
" out in accordance absolutely with that plan, would or would not the"
" result of such dredging have a tendency to change the bed of the "
" channel and direct the water in such course as might be prejudici-"
" al to the intake of the Company?"

I do not hesitate to say that the proposed dredging would so change the actual situation in that channel that it would endanger the source of supply of the MONTREAL WATER & POWER Co. and consequently that of the entire suburban population of Montreal.

As to answering your 2nd question, viz:

" In the event of your considering that the carrying out of the "
" plan as it stands would have a prejudicial effect, have you any "
" suggestion to make by which the Government's plan could be so am-"
" ded as to allow the execution of the original dredging idea, by "
" the addition of further and other works? "

After examining closely the projected channel and with the knowledge of the ground that I have, the projected dredging could be

P49/E1,8

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done provided that the lower end of the deepened channel be diverted towards the Montreal Island shore and that it be continued absolutely passed GRASS ISLAND - All dredging to be dumped on the outside of the new channel so as to make a protection embankment.

I would recommend also that this new channel from Price Island to Grass Island be made at least 75 feet wide by a depth that could be easily agreed upon.

In this way only the sewerage coming from the Verdun sewer could be kept going along the Montreal shore down below the intake as it has gone over since the building of these sewers.

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As Engineer of the Town of St. Louis, Maisonneuve & St. Paul, also supplied by your Company, I wish to put myself on record with your Company and protest most vigorously against any such interference unless the proposed dredging of a new channel be extended as suggested above.

I would therefore, dear Sir, ask you to communicate the present letter to your Board and also to inform me of the progress of this question.

I am also communicating with my Town Councils on this subject.

Yours truly,

Engineer for the Towns of St. Louis,
Maisonneuve & St. Paul -

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P49/E1,8

Plan

de drainage proposé

Voir Bobine 1 #62

P49/E1,8

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4254
1^{er} août 1908

Montreal Water & Power Co.

Montreal, 31 July, 1908.

J. Emile Vanier, Esq.,
5, Beaver Hall Square,
Montreal.

Dear Sir,-

Please have the street lines of the extension to Lacombe Avenue in Cote des Neiges laid out according to the plan which we are sending you under separate cover, and the extract from the deed of servitude herewith.

Kindly have pickets put in at points indicated on the plan, and oblige,

Yours truly,

Montreal Water & Power Company,

Wm. Sutherland
Assistant-Engineer.

Enc. (1)

P49/E1,8



Montreal Water & Power Co.

Montreal, 6th. October, 1919.

J. Emile Vanier, C.E., Esq.,
367 Beaver Hall Hill,
Montreal.

Dear Sir:-

Some time in 1907 you may remember having compiled figures and made a statement collaborating with our Mr. Pitcher showing an amount of \$122,127,80 representing interest during construction of this Company's plant up to April 30th. 1907 which was chargeable to Capital Account.

This statement was entered in our books at the time, and it was evidently filed away among engineering statements but we are unable to find it at the present time and would like very much to have a copy of it.

Doubtless you have a copy on file in your Office and if you will let us have it long enough to make a copy of it, we will be very much obliged.

Yours truly,

MONTREAL WATER AND POWER COMPANY


Comptroller

P49/E1,8

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M. W. P. Co

21st November 1907.

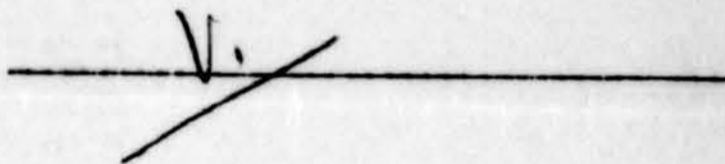
F.H.Pitcher, Esq.,
Manager & Chief Engineer
Montreal Water & Power Co.
107 St.James Street
C i t y -

Dear Sir,

Would you please send me a copy of that letter of yours that I have countersigned yesterday. I making a point to keep track of all documents that go with my signature.

In so doing you would greatly oblige,

Yours truly,



P49/E1,8

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(Copy)

18 November, 1907.

Edwin Hanson, Esq.,
President - Montreal Water & Power Company,
Montreal.

Dear Sir,-

Referring to your letter of 13th instant, I beg to say: That I have gone very carefully into the question you have raised in the letter mentioned, and have also consulted Mr. Vanier, C.E., regarding it. I have consulted Mr. Vanier for the reason that he, probably more than any other engineer in the City, knows of the early development of this Company's system, and his knowledge, therefore, in the question raised by you, is of advantage.

I find that the amount you suggest in your letter as being a reasonable and proper charge for interest during construction of system, amounts to about \$81,000,00, but in reaching this amount, I notice you have adopted an arbitrary time to represent the average time during which period interest shall be charged.

My investigations in the matter have been in the other direction, viz., of ascertaining the value of the respective plants of the Company separated from the original source of supply, and of regarding these separate systems as parts of a contemplated whole enterprise, and practically in course of

P49/E1,8

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Edwin Hanson, Esq.

-2-

13 November, 1907.

construction, until connected with the source of supply. I have also taken into consideration the question of the force and supply main, reservoir, etc., and I find adopting that principle the interest you would be entitled to charge would be \$149,146.23.

I have no hesitation therefore in advising, and Mr. Vanier agrees with me, that you would be perfectly justified in adding interest for a period of at least 50% in excess of the period suggested by you, as then it would amount to only about \$122,000., but the matter, of course, is left in the hands of the Board, to be dealt with as it may seem wise.

Yours truly,

(Signed) F.H. Pitcher,

General Manager and Chief Engineer,
Montreal Water & Power Company.

I have gone very carefully into this matter with Mr. Pitcher and quite concur in the above findings.

(Signed) J. Emile Vanier,

Late Engineer for Montreal Water & Power Co.

P49/E1,8

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Montreal Water & Power Co.

Montreal, 22 November, 1907

J. Emile Vanier, Esq.,
5, Beaver Hall Square,
Montreal.

M. W. & P. Co.

Dear Sir,-

In reply to your letter of 21st November, please
find enclosed copy of letter referred to therein.

Yours truly,

A. H. Pataky

General Manager and Chief Engineer,
Montreal Water & Power Company.

*Completed
at 10/11/07
V.*

Enc. (1)

P49/E1,8

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LE RÉSERVOIR DE 43 MILLIONS DE GALLONS
DE LA "MONTREAL WATER & POWER COMPANY"

Cet ouvrage d'art est un des derniers d'une série de grands travaux que la Cie. en question a fait exécuter depuis quelque temps pour mettre son énorme système au niveau des besoins de sa clientèle.

Cette série d'ouvrages a été inaugurée il y a deux ans par la mise en terre d'un tuyau de refoulement en acier de 3 pieds de diamètre, partant des pompes au fleuve St. Laurent, dans le quartier St. Gabriel de la Cité de Montréal, jusqu'au réservoir maintenant en construction dans la Ville d'Outremont, soit sur un parcours de 7 milles.

En même temps on installait à la bâtisse des pompes de nouvelles pompes, d'une capacité additionnelle d'approvisionnement de 38 millions de gallons d'eau par jour, et à ces nouvelles pompes, de même qu'aux anciennes, on reliait une nouvelle prise d'eau d'au-delà de 2000 pieds de longueur au moyen d'un tuyau d'acier de 5 pieds de diamètre enfoui dans le lit du fleuve jusqu'en eau profonde et en plein courant d'eau pure et limpide du St. Laurent. Avec l'addition de nouvelles bouilloires améliorées de 2000 chevaux vapeur, la capacité d'approvisionnement du système de la Cie. en question a été porté à un peu au-delà de 50 millions de gallons d'eau par jour.

Le grand réservoir maintenant en construction aura comme dimensions, 350 pieds de largeur, par une longueur de 650 pieds et une profondeur effective de 35 pieds et lorsque rempli d'eau, la surface liquide sera à une élévation d'environ 360 pieds au-dessus des eaux du Port de Montréal en été.

Ce réservoir est particulièrement destiné à approvisionner cette partie du territoire couvert par la Compagnie, qui se trouve aux élévations comprises entre 150 et 200 pieds et couvre la majeure partie de WESTMOUNT, QUARTIER MONT-ROYAL, OUTREMONT, tout le QUARTIER LAURIER, St.DENIS, DELORMIER, VILLERAY, LA COTE DES NEIGES en enfin une grande partie de MAISON-NEUVE.

Pour ce qui concerne cette autre partie du territoire de la Cie. en question, et qui se trouve sur le flanc de la montagne, on doit installer au nouveau réservoir une nouvelle et très importante station de pompes d'approvisionnement, laquelle remplacerait définitivement celle qui existe actuellement à l'Avenue Clarke, à WESTMOUNT.

Quant à St.HENRI, Ste. CUNEGONDE et St.PAUL, ces quartiers approvisionnés depuis 20 ans par la "MONTREAL WATER & POWER Co.", dépendent de la Station de Pompes principales de la C^{te} Cie. située au bord du fleuve dans le Quartier St.Gabriel.

La Cie. avait dès 1898 fait provision pour la construction éventuelle du réservoir dont il est question aujourd'hui, la Cie., prévoyant déjà à cette époque que le développement de son territoire exigerait dans un avenir rapproché la réalisation de cette importante amélioration, et elle acquérait il y a quelque 15 ans un terrain à OUTREMONT pour y localiser cet ouvrage important.

Toutefois, au moment de mettre à exécution le projet, elle s'aperçut que ses prévisions de 1898 étaient inadéquates, et il lui fallut l'an dernier modifier ses plans et en quadrupler la capacité, l'augmentation de la population sur son territoire

l'approvisionnement ayant atteint cette énorme progression absolument inespérée il lui fallut donc acquérir les terrains additionnels, afin de donner au nouveau réservoir l'ampleur exigée par les nouvelles circonstances en face desquelles elle se trouvait.

Ce réservoir sera construit en deux compartiments distincts afin qu'une moitié puisse subir des réparations nécessaires au besoin, tandis que l'autre moitié ne cessera de rester en opération ainsi il ne pourra y avoir d'interruption en aucun temps dans la distribution de l'eau.

Le tuyau de sortie du nouveau réservoir passant par les chemins Ste. Catherine et Bellingham, aura une capacité de décharge suffisante pour emporter dans les 24 heures, les 43 millions de gallons d'eau du nouveau réservoir.

Les 7 milles de tuyau d'acier de 3 pieds de diamètre actuellement en terre et en opération à partir des pompes de St. Gabriel jusqu'à Outremont, en passant autour de la montagne, fourniront l'eau requise actuellement, mais graduellement on pourra suivant les besoins grandissants ajouter un et même deux autres tuyaux de même nature et de même dimension, le réservoir nouveau pouvant prendre toute l'eau de ces conduites additionnelles pourraient lui amener.

Le réservoir nouveau aura la capacité suffisante pour alimenter d'eau une population de un demi millions d'âmes, localisée à un niveau supérieur à 150 pieds au-dessus du Port de Montréal.

Ce réservoir nouveau a été placé sur le flanc de la Montagne à Outremont, d'abord à l'élévation indispensable et ensuite placé de manière à ce que la construction en soit la moins dispendieuse possible, étant donné le creusage dans le roc pour la

capacité requise.

Toutefois pour la réalisation de ce projet en cours d'exécution, il faudra extraire 500 mille verges cubes de roc.

Le mur de soutènement du côté nord du réservoir de même celui divisant le même réservoir en deux compartiment seront en béton solide.

Le réservoir a été dessiné et les travaux d'exécution en sont dirigés par Mons. F.H.Pitcher, Ingénieur en chef et Directeur Général de la "MONTREAL WATER & POWER Co."

Les entrepreneurs chargés de l'exécution des travaux sont M.M. LAURIN & LEITCH, Ingénieurs et constructeurs de Montréal.

En outre des travaux d'amélioration cités dans l'aperçu ci-dessus, la Cie., fait encore exécuter actuellement des additions à ses conduites d'eau sur diverses parties de son territoire, et entr'autre elle parachève dans le moment la mise en place d'environ quatre milles de conduites maitresses de 20 et 16 pouces de diamètre respectivement, destinées à parfaire la distribution de la partie est de son territoire, y compris Maisonneuve.

Enfin la "MONTREAL WATER & POWER Co." fait construire un système perfectionné de filtres pour la partie de son approvisionnement qu'elle destine à WESTMOUNT, la capacité de ces nouveaux filtres étant susceptibles d'être augmentée jusqu'à 42 millions de gallons d'eau filtrée par 24 heures.

Pour la construction du nouveau réservoir de 43 millions de gallons de la Cie., les entrepreneurs LAURIN & LEITCH afin d'en parfaire l'exécution dans les délais fixés à leur contrat, ont du installer sur place tout un outillage spécial en parfaite opération

depuis quelques mois.

Cet outillage de beaucoup le plus considérable du genre qui existe en Amérique, se compose en particulier de forets électriques pour perforer le roc, de pelles à vapeur pour prendre le roc miné et en charger les wagons trainés par des locomotives jusqu'aux concasseurs mécaniques, de machines à air comprimé avec le réservoir, de grues roulantes, et enfin pour ne citer que les parties les plus importantes, M.M. LAURIN & LEITCH ont installé là le plus important système de concasseurs mécaniques qui existent actuellement au Canada.

Cet outillage était indispensable pour assurer l'exécution de l'entreprise, étant donné qu'il est impossible d'empiler sur place, les 500 mille tonnes de roc à extraire de l'emplacement du nouveau réservoir.

Ce deux-cent-mille tonnes de roc devant, d'après le problème à résoudre être enlevé du chantier au fur et à mesure qu'on en fait l'extraction, il fallait trouver le moyen de l'écouler au dehors de la meilleure manière possible.

C'est ce que M. LAURIN & LEITCH ont trouvé en faisant de ce roc extrait de fouilles, de la pierre concassée pour macadamisage, ballast de voies ferrées, confection des bétons de pavage, de bâtisses, etc.

Le système de concasseurs installés au réservoir d'outremont par M.M. LAURIN & LEITCH et dont les revues scientifiques d'Amérique ont publié dernièrement les détails d'installation après examen et étude sur place, se compose d'un concasseur principal pouvant concasser à lui seul, 7000 tonnes de quartiers de roc

par journée de 10 heures et pouvant prendre des quartiers de 250 pieds cubes chacun au besoin, a, comme accessoires 4 autres concasseurs de moindre importance chargés à leur tour de concasser à nouveau la pierre en premier lieu broyée par le concasseur principal en petites pierres de grosseurs graduelles.

Ces concasseurs sont actionnés par une machine à vapeur à triple expansions et condensateurs, de 750 chevaux.

Et chemins de fer viennent chercher directement aux concasseurs, la pierre concassée par les voies de raccord qu'ils y ont faites, de même que tramuys électriques, voitures ordinaires, etc.

Ainsi avec cette installation, la pierre extraite de l'emplacement du réservoir est distribuée au marché, exclusivement par des moyens mécaniques, et partant avec le minimum de main-d'œuvre.

M. W. P. Co

25 Nov. 1910

FORTY-THREE MILLION GALLON RESERVOIR OF THE
MONTREAL WATER & POWER COMPANY.

This structure is among the last in a series of large and important works for the increasing and improving of the water supply of the Montreal Water & Power Company.

These works began with the laying of a 3 ft. steel pipe seven miles long from the main pumping station at the River St. Lawrence to the site of the Reservoir in question.

They included moreover the increasing of the main pumping capacity at the river by 33,000,000 gallons per day. The installation of a 5ft. steel intake pipe and large intake well. Installation of 2000 H. P. boiler plant, chimney, etc., bringing the effective pumping capacity of the Company up to 50,000,000 gallons per day.

The reservoir under discussion is to be 350 ft. wide by 650 ft. long and 35 feet deep. When full its water surface will be at an elevation of 365 ft. above the sill of the lower lock of the Lachine Canal (City datum) and will supply the necessary storage for all that part of the Company's system lying between 150 ft. and 200 ft. city elevation, City datum.

This includes the major portion of Westmount, Mount-Royal Ward and Outremont, all of Laurier Ward, St. Denis Ward, De Lorimier, Villeray,

Cote des Neiges Ward and much of Maisonneuve.

A small territory in the vicinity of the Mountain lies above and is supplied by double and triple pumping, St. Henri, St. Cunegonde and Cote St. Paul below supplied by a single low level lift.

For this purpose ~~the~~ exclusive pumping plant will be installed at the reservoir to replace the one on Clarke Avenue, in Westmount.

Some property for this reservoir was acquired in the present site in 1908. Rapid growth and prospects of continued growth made it advisable to construct a reservoir four times as large as could be built on the original property.

Additional property was therefore purchased in 1909 sufficient for the present design.

The reservoir is to be built in two independent parts so that repairs and changes may be effected without interruption to the service.

A 48" Main is provided from the reservoir to the distribution system at Cote St. Catherine and Bellingham Roads in order that the entire capacity (48,000,000 gallons) of the reservoir can be fed into the mains in 24 hours.

As indicated above the reservoir is to be fed by the present 36" Steel Main, via around the Mountain from the lower station. Two additional such mains can be laid and the reservoir is large enough

to take care of the water supplied through them. The Capacity will be sufficient for 500,00 people per day living above the 150^{ft.} level.

The structure was placed in the Mountain Side to give maximum capacity for maximum rock excavation, The excavation will however amount to approximately 500,000 cubic yards of rock. There will be a low concrete retaining wall on the north side and the centre dividing wall will also be massed concrete.

The reservoir was designed and is under the supervision of Mr. F. H. Pitcher, General Manager and Chief Engineer of the Montreal Water and Power Company, and the Contractors for the work are Messrs. Laurin & Leitch of Montreal-

Other important works of the Company in course of construction at the present time are a 4 mile 30" & 16" supply main in the east end as far as Maisonneuve, and a filter plant for the town of Westmount, capable of extension to a capacity of 42,000,000 gallons in 24 hours. Messrs. Laurin & Leitch have also these works in hand for the Company.

For the construction of this reservoir the Contractors have installed one of the most complete plants in America consisting of Temple Electric air drills, steam shovels, dump cars, locomotives, air compressors, travelling cranes and by far the largest crushing plant in Canada. This crushing plant was necessary because the Contractors

had to dispose of the rock coming from the excavations and as it was practically impossible to pile it up in a field, it was decided to crush it, in which state it can readily be disposed off.

To give some idea of this plant, we will only mention that the main crusher is one of the largest sizes made, it being capable of crushing a stone of 250 cubic feet and a quantity of 7000 tons of rock per day, and it takes a 750 H.P. triple expansion condensing engine to operate same.

Crushed stone can be shipped direct from this plant to any Railroad, Street Railway or in wagons.

P49/E1,8

4 4

1 2 3 4 5 6 7 8

M.W.P.C.

Montreal Water & Power Co.

5337

Montreal,

Dec. 2nd. 1910

Mr. J.E. Vanier,
C i t y.

Dear Sir:-

Will you please have the northern boundary of our property at St. Gabriel Station defined and marked with permanent stakes. This northern boundary is described in the deed as a line Three Hundred and twenty-five feet distant from Wellington Street.

Your early attention will oblige, as, the Contractors for the Filtration plant wish to lay out their work.

V.H.S.

Yours truly,

MONTREAL WATER & POWER COMPANY

Wm. Sutherland

Asst. Engineer.

Wm. Sutherland

P49/E1,8

4 5

1 2 3 4 5 6 7 8

*Crompton and
Merrill Co.*

Montreal Water & Power Co.

Montreal, Oct. 31st. 1911

J. Emile Vanier, Esq.
5 Beaver Hall Square,
City.

Dear Sir:-

I beg to acknowledge receipt of Blue print which
you sent me and for which please accept my thanks.

W.H.S.

Yours truly,

MONTREAL WATER & POWER COMPANY

W. H. Sutherland

Asst. Engineer.

P49/E1,8

4 5

1 2 3 4 5 6 7 8

P49/E1,8

Plan des barrages

île-au-Héron

Voir Bobine 1 #63

P49/E1,8

4 7





Hôtel-de-Ville

Montreal

16 juin 1914.

Monsieur J. Emile Vanier,
5 Beaver Hall,
VILLE.

Montreal Water
& Power Co

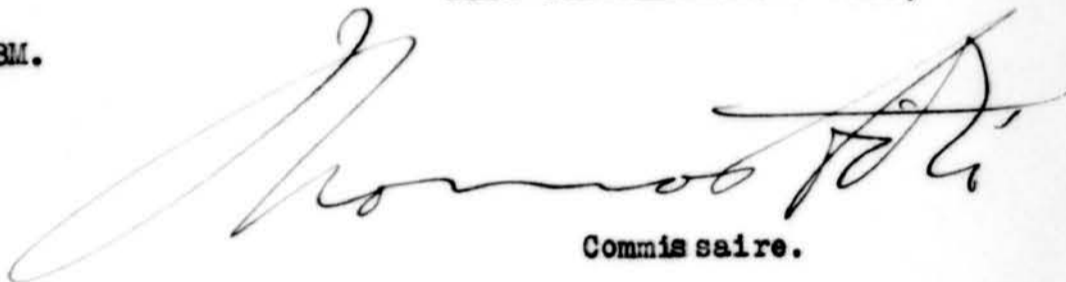
Mon cher monsieur Vanier:-

J'ai la vôtre du 15 juin.

Je crains que vos suggestions ne viennent un peu tard, mais veuillez être assuré que j'y donnerai toute ma plus sérieuse attention, quand viendra devant le Bureau des Commissaires la question de choisir l'ingénieur expert pour la Montreal Water & Power Company.

Bien cordialement à vous,

TC/BM.



Commissaire.

P49/E1,8

4 8

1 2 3 4 5 6 7 8

le 15 Juin 1914 -

Mons. Thomas Côté
Commissaire de la Cité
Hotel de Ville -

Personnelle -

Cher Monsieur,

Depuis quelque temps j'ai des loisirs et je ferais bien quelque chose qui fut dans mes cordes.

L'expertise de la propriété de la "MONTREAL WATER & POWER " COMPANY est précisément une affaire dont je suis déjà au courant, pour l'avoir suivie depuis son origine en 1890, sur tout son territoire, lequel constituait celui où j'opérais, comme Ingénieur des diverses municipalités qui entouraient MONTREAL, depuis Ville de St.Paul à l'ouest jusqu'à MAISONNEUVE à l'est, inclusivement. J'ai été l'ingénieur de toutes ces petites Villes depuis 1880 jusqu'à leur annexion à MONTREAL.

C'est vous dire que je possède dans mes bureaux toute la documentation qui concerne nonseulement les travaux publics de ces nouveaux quartiers de la Cité de MONTREAL, mais aussi celle qui est relative à la "MONTREAL WATER & POWER Co."

A un moment donné la besogne pourrait être menée assez rondement comme vous le voyez.

Dans tous les cas, cher Monsieur, je vous sou mets la chose et si vous n'avez pas pris engagement avec une autre personne, je me tiendrais

P49/E1,8

1 2 3 4 5 6 7 8

à votre disposition ainsi qu'à celle de votre bureau - ayant la certitude que je pourrais être utile nonseulement à la Cité mais aussi à vous-même et à vos collègues.

Bien à vous,



P49/E1,8

1 2 3 4 5 6 7 8

June 19th.

14.

W.H.Sutherland, Esq. C.E.

Asst. Engineer,

Montreal Water & Power Co.

Quebec Bank Bldg.

City.

Dear Sir;

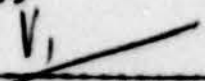
I wish to draw your attention to the fact that you are actually tunnelling under the Ste. Catherine St. concrete paving, on Morgan Ave. to lay water pipes.

I wish you would see, at once, that all necessary precautions be taken so as to insure, now and in the future, a thorough and compact refilling of this tunnel, taking into consideration the heavy and considerable traffic that passes over that paving, including street cars, heavy motor trucks, etc.

Please let me know your program about this part of your work.

In so doing you would greatly oblige,

Yours truly,


Chief Engineer, City of Maisonneuve.

P49/E1,8

1 2 3 4 5 6 7 8

M. W. P. Co.

*Camp fault in
La Montebello water
& Power Co.
ce 11 Jan 1915
v.*

January 21st. 1915

F. H. Pitcher, Esq., C.E.
Chief Engineer & Manager
Montreal Water & Power Co.
City -

Dear Sir,

RE OUTREMONT RESERVOIR


I beg to send you herewith a tabulated statement with plan etc. of cross sections, areas and cubic contents, arrived at from surveys and levels, and which give the cubic results of the concrete work that has been executed under contract, by your contractors, Messrs. LAURIE & LEITCH, last fall.

These measurements and calculations as well as other indications given to contractors during their work have been made under a standing order of your Mr. SUTHERLAND.

Hoping you will find the work sent you as complete as you expect it to be.

I remain, dear Sir,

Yours truly,



P.S. I have all the elements concerning these calculations in case you would wish to verify.

P49/E1,8

1 0 2

1 2 3 4 5 6 7 8

March 6th 1916.

W. H. Sutherland, Esq.,
Asst. Engineer,
Montreal Water & Power Co.,
Quebec Bank Building,
City.

Dear Sir,

Complying with your request of a few days ago, I herewith send you a blue print of the diagram showing location of Cross-sections for quantities of concrete in walls, dam & floor at Outremont Reservoir.

Yours truly,

P49/E1,8

1 2 3 4 5 6 7 8

oct. 20th. 1927.

Mr. Sutherland, C.E.
Montreal Water and Power Co.
No. 11, Place d'Armes,
MONTREAL. P.Q.

Dear Mr. Sutherland:-

We could not find so far,
though our searches have been quite extensive,
that plan pertaining to the OUTRIMONT RESERVOIR
and that bears No. 2309 on our card index, but
I did find in my files a detailed statement of quan-
tities that came out of said plan.

I am now sending you two co-
pies of same.

Hoping this will suit your
purpose.

I beg to remain, dear Mr. Sutherland,

Yours truly.

J.E. Vanier

JEV/AT

Incl.

P49/E1,8

1 2 3 4 5 6 7 8

7
4 copies

Montreal Water & Power Co's Reservoir
at Outremont

Cross sections for concrete quantities
(see plan & sections hereto attached)

- 1st Side Walls.
- 2^o Division Wall or dam
- 3^o Trench for pipes
- 4^o Flooring south part
- " - North part.

1st Sidewalls.

	<u>Area, Sq. ft.</u>	<u>Cubic contents in ft.</u>	<u>Cubic yds.</u>
Section N ^o 1 -	89.50		
" N ^o 2 -	124.95	911.41	
" N ^o 3 -	106.50	1025.80	
" N ^o 4 -	797.50	816.00	
" N ^o 5 -	98.13	782.52	
" N ^o 6 -	111.20	837.32	
" N ^o 7 -	94.28	821.92	
" N ^o 8 -	65.75	640.12	
" N ^o 9 -	131.20	787.80	
" N ^o 10 -	116.25	989.80	
" N ^o 11 -	138.25	1018.00	
" N ^o 12 -	125.25	1054.00	
" N ^o 13 -	127.00	1009.00	
" N ^o 14 -	132.95	1039.80	
" N ^o 15 -	190.12	1292.28	
" N ^o 16 -	330.50	3384.03	
Corner Wall -	-	13088.73	
Section N ^o 17 -	303.00		
" N ^o 18 -	295.00	2543.62	
<u>Carry over</u>		37042.15	
		8897	

Aqueduc de Maisonneuve

Somme remboursable à la Cité pour
la Montreal Water & Power Co.

Contrat de novembre 1912 -
Rapport J. V. & implémentation
2 novembre 1914

\$ 36457.21

~~Min. avec rapp. ann. -~~

Contrat 1^{er} mai 1912

Comprenant additions & diminutions - 130 060.31

Rapports de J. V. du 26 décembre 1912

+ du 20 janvier 1913. & du 16 Nov. 1913.

Lazelle Lelormain

Lazelle = 1382.48

Lelormain = 1985.39

3367.87

	Carried		
		3 2 0 4 2 15	
Section No 19 -	215 - 00	20 42.00	
" " 20 -	181 - 75	15 87.00	
" " 21 -	188 - 10	14 79.40	
" " 22 -	204 - 79	15 71.56	
" " 23 -	215 - 20	16 79.96	
" " 24 -	201 - 50	16 66.80	
" " 25 -	209 - 25	16 43.00	
" " 26 -	195 - 92	16 20.68	13792.00
" " 27 -	209 - 57	16 21.96	
" " 28 -	212 - 55	16 88.48	
" " 29 -	189 - 00	16 06.20	
" " 30 -	205 - 32	15 77.28	
" " 31 -	212 - 12	16 69.76	
" " 32 -	234 - 70	17 87.28	
" " 33 -	242 - 40	19 08.40	
" " 34 -	220 - 00	18 49.60	
" " 35 -	248 - 30	18 73.20	13582.16
" " 36 -	213 - 00	18 45.20	
" " 37 -	213 - 62	17 06.48	
" " 38 -	216 - 65	17 21.04	
" " 39 -	199 - 87	14 57.76	
" " 40 -	234 - 00	17 35.44	
" " 41 -	214 - 37	17 93.44	
" " 42 -	215 - 50	17 19.44	x
" " 43 -	208 - 25	12 71.28	
" " 44 -	212 - 62	4 20.86	
" " 45 -	219 - 25	17 27.44	
" " 46 -	215 - 00	17 36.96	
" " 47 -	211 - 75	17 06.96	
" " 48 -	219 - 50	17 24.96	
" " 49 -	194 - 00	16 54.00	
" " 50 -	188 - 50	15 30.00	
" " 51 -	206 - 99	15 81.92	
	To carry	8 624 7.88	
		21 17 15	

	Carried		86 247 83	Cubic yards
Section No 52 -	241	25	17 92 96	
" No 53 -	244	11	19 41 44	
" No 54 -	245	75	19 59 44	
" No 55 -	252	49	19 92 96	
" No 56 -	219	50	18 87 92	
" No 57 -	192	12	16 46 48	
" No 58 -	215	00	16 28 48	
" No 59 -	206	00	16 84 00	
" No 60 -	213	00	16 76 00	
" No 61 -	205	87	16 75 44	
" No 62 -	207	25	16 52 48	
" No 63 -	238	00	17 80 96	
" No 64 -	162	49	16 25 92	
" No 65 -	164	50	13 31 92	
" No 66 -	161	75	16 31 20	
" No 67 -	158	50	16 01 20	
" No 68 -	188	00	3 118 50	
" No 69 -	193	87	11 45 58	
" No 70 -	213	37	16 28 96	
" No 71 -	216	25	17 18 48	
Total =			121 368 16 = 4495.11	

2^o - Division Wall or dam

Section No 1 -	521	00		
" No 2 -	522	75	44 35 94	
" No 3 -	560	00	43 31 00	
" No 4 -	547	25	44 29 00	
" No 5 -	542	50	43 59 00	
" No 6 -	576	75	44 77 00	
" No 7 -	570	25	45 83 00	
" No 8 -	614	25	47 38 00	
" No 9 -	593	75	48 32 00	
To carry			36 18 94 = 4495.11	

	<i>Carriid</i>	<i>Cubic contents in feet</i>	<i>Cubic yds.</i>
		36189 94	4495 11
<i>Section No 10.</i>	638.00	4927 00	
" <i>No 11.</i>	604.00	4962 00	
" <i>No 12.</i>	592.75	4787 00	
" <i>No 13.</i>	573.50	4665 00	
" <i>No 14.</i>	604.50	4712 00	
" <i>No 15.</i>	602.50	4836 00	
" <i>No 16.</i>	602.50	4836 00	
" <i>No 17.</i>	602.50	4836 00	
" <i>No 18.</i>	579.00	4734 00	
" <i>No 19.</i>	591.00	4680 00	
" <i>No 20.</i>	559.00	4600 00	
" <i>No 21.</i>	566.00	4500 00	
" <i>No 22.</i>	583.00	4516 00	
" <i>No 23.</i>	579.00	4372 00	
" <i>No 24.</i>	533.25	4209 00	
" <i>No 25.</i>	531.50	4259 00	
" <i>No 26.</i>	550.50	4322 00	
" <i>No 27.</i>	544.50	4400 00	
" <i>No 28.</i>	573.50	4492 00	
" <i>No 29.</i>	573.50	4522 00	
" <i>No 30.</i>	573.50	4538 00	
" <i>No 31.</i>	563.50	4548 00	
" <i>No 32.</i>	589.00	4610 00	
" <i>No 33.</i>	558.00	4588 00	
" <i>No 34.</i>	563.50	4486 00	
" <i>No 35.</i>	563.50	4508 00	
" <i>No 36.</i>	556.00	4472 00	
" <i>No 37.</i>	556.00	4448 00	
" <i>No 38.</i>	556.00	4448 00	
" <i>No 39.</i>	563.50	4472 00	
" <i>No 40.</i>	563.50	4502 00	
" <i>No 41.</i>	563.50	4508 00	
<i>Total =</i>		182586 94	6762 48
<i>In carry</i>		11257 59	

P49/E1,8



carried
cubic yds
11 257.59

30 TRENCH FOR PIPES.

Section No	Length	Width	Depth	Cubic Yds
Section No 1 -	159.	06		
" No 2 -	152.	01	2 170	42
" No 3 -	161.	74	1563	70
" No 4 -	150	36	1560	00
" No 5 -	151.	54	1509	00
" No 6 -	142.	31	1469	20
" No 7 -	116	27	1292	90
" No 8 -	110.	42	1133	40
" No 9 -	117.	40	1139	10
" No 10 -	131.	37	1243	80
" No 11 -	120.	49	1259	30
" No 12 -	117	23	1188	60
" No 13 -	118.	48	1178	50
" No 14 -	111	44	1149	60
" No 15 -	130.	99	1212	10
" No 16 -	124.	74	1278	60
" No 17 -	126.	99	1258	70
" No 18 -	118.	48	1227	30
" No 19 -	140	89	1296	80
" No 20 -	98	00	1194	90
" No 21 -	102	21	1001	00
" No 22 -	94	80	1035	00
" No 23 -	103	52	991	60
" No 24 -	103	06	1032	90
" No 25 -	90.	67	968	60
" No 26 -	117	41	1040	40
" No 27 -	110	37	1138	90
" No 28 -	107.	06	1087	10
" No 29 -	98	24	1026	50
" No 30 -	118	12	1081	80
To carry			35734	72
			7 15 13	11 257 59

		35 734 72	11 257.59
Section N° 31 -	103.03	1105.20	
" N° 32 -	102.66	1028.40	
" N° 33 -	109.09	1058.40	
" N° 34 -	107.21	1081.50	
" N° 35 -	107.02	1071.10	
" N° 36 -	118.44	1127.30	
" N° 37 -	175.61	1470.20	
" N° 38 -	82.45	1290.30	
" N° 39 -	75.27	788.60	
" N° 40 -	60.99	681.30	
Total		<u>46437.02</u>	<u>1719.88</u> 12977.47

4° Flooring
(a) South Parl.

Section 1820 -	32 77		
" N° 1 -	268.04	752.00	
" N° 2 -	282.47	3853.50	
" N° 3 -	344.04	2506.24	
" N° 4 -	305.36	2597.76	
" N° 5 -	389.08	2777.76	
" N° 6 -	350.30	2957.76	
" N° 7 -	409.21	3038.24	
" N° 8 -	365.70	3099.84	
" N° 9 -	322.30	2752.40	
" N° 10 -	278.88	4809.92	
" N° 11 -	254.80	4269.44	
" N° 12 -	230.97	3886.58	
" N° 13 -	206.43	3499.20	
" N° 14 -	187.46	3151.04	
" N° 15 -	187.99	3003.52	
" N° 16 -	169.45	2859.52	
" N° 17 -	142.02	2491.68	
" N° 18 -	120.85	2160.48	
To carry		<u>54466.38</u>	<u>12977.47</u> 4186

		54466.38	12977.47
Section N°19 -	176.55	1636.80	
" N°20 -	39.45	928.00	
(B) North Part	0.00	98.60	
		57129.78	
Section N°21 -	8.00	32.00	
" N°22 -	17.40	101.60	
" N°23 -	25.70	172.40	
" N°24 -	33.68	237.52	
" N°25 -	49.74	333.68	
" N°26 -	40.94	362.72	
" N°27 -	72.16	456.24	
" N°28 -	97.94	684.40	
" N°29 -	92.76	762.80	
" N°30 -	93.19	743.76	
" N°31 -	94.12	749.20	
" N°32 -	120.13	856.96	
" N°33 -	151.81	1087.76	
" N°34 -	171.60	1293.60	
" N°35 -	190.86	1449.84	
" N°36 -	188.71	1518.24	
" N°37 -	185.94	1498.56	
" N°38 -	168.22	1416.64	
" N°39 -	225.42	1574.56	
" N°40 -	198.49	1695.60	
" N°41 -	221.28	1675.04	
" N°42 -	237.25	1834.08	
" N°43 -	225.17	1969.68	
" N°44 -	208.35	1838.08	
" N°45 -	197.15	1686.00	
" N°46 -	226.87	1696.08	
" N°47 -	230.99	1831.44	
" N°48 -	241.63	1890.48	
" N°49 -	301.65	2169.12	
" N°50 -	267.19	2275.36	
		92943.12	12977.47
		151715.12	

		92943.12	12977.47
Section No 51	269 43	2146 48	
" No 52	274 15	2174 32	
" No 53	238 45	2050 40	
" No 54	186 12	3396 48	
" No 55	139 60	2608 76	
" No 56	109 81	1995 20	
" No 57	60 41	1361 76	
	0.00	604 00	
Total	=	109277.52	4047.31

Total quantity in Cubic yards = 11024.19

P49/E1,8

Plan

de drainage proposé

Voir Bobine 1 #62



PLAN
 SHOWING
PROPOSED DREDGING
 BY THE
GRAND TRUNK BOATING CLUB.

SOUNDINGS ARE REDUCED TO WATER LEVEL OF
 6.3 FT. CITY DATUM.
 Montreal, July 3rd '07.

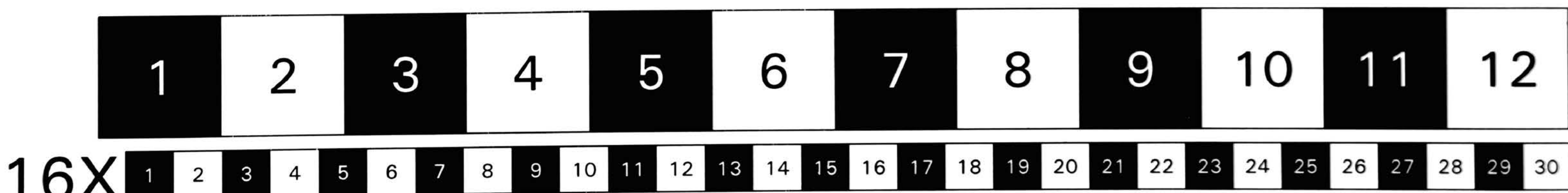


Scale = 200 feet to an Inch

994-C-36

994-C-36

62



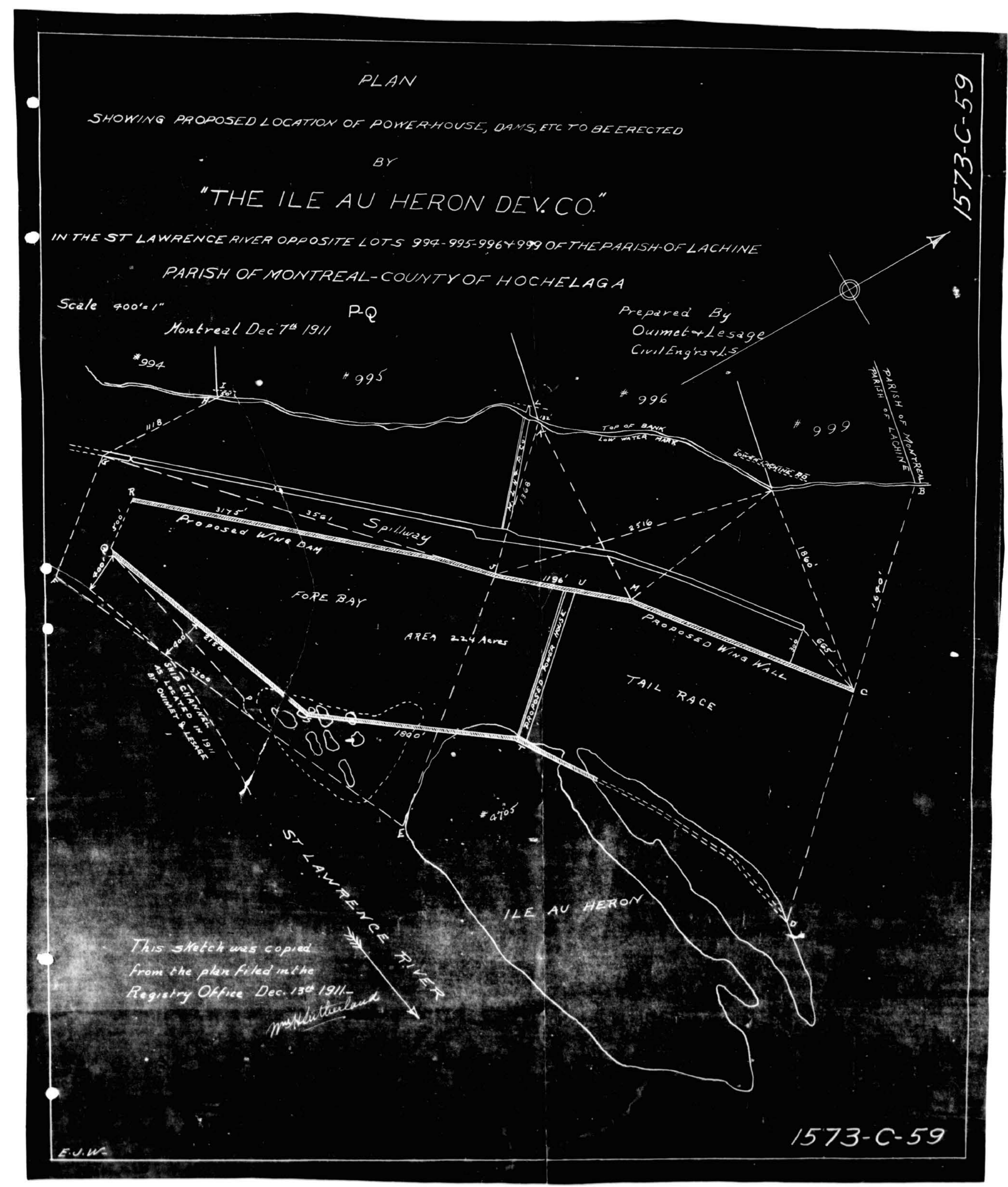
P49/E1,8

Plan des barrages

île-au-Héron

Voir Bobine 1 #63





Ville de Montréal
Service du Greffe

AFFIDAVIT
Reproduction de documents
sur pellicule photographique

Je, Jean-Marie Berthiaume du 275 Notre-Dame Est à Montréal,
désigné(e) pour reproduire les documents de la Ville de Montréal,
affirme solennellement que j'ai procédé, le 15/03/2000
au même endroit, à la reproduction des documents suivants :

Règle 67-0049
P49 FONDS JOSEPH-ÉMILE VANIER

PLANS

Ces documents sont reproduits fidèlement. Toutes les opérations
de microfilmage ont été faites conformément aux procédures en
vigueur à la Ville de Montréal.

Montréal, le 15/03/2000


Jean-Marie Berthiaume

Affirmé solennellement devant moi, à Montréal, ce / /

André Petit
Commissaire à l'assermentation

N/D : 04 8639 (1)