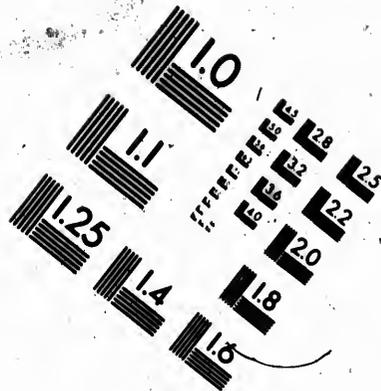
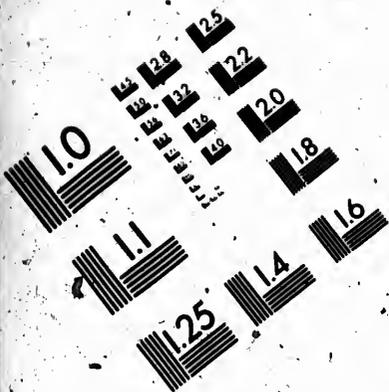




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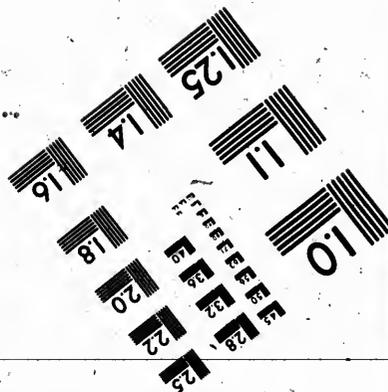
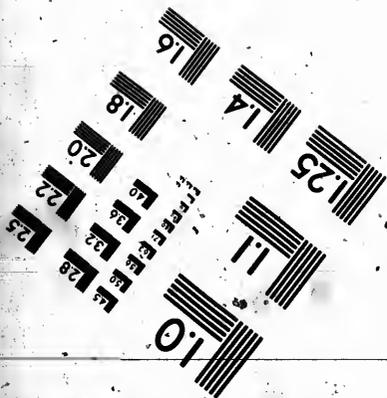
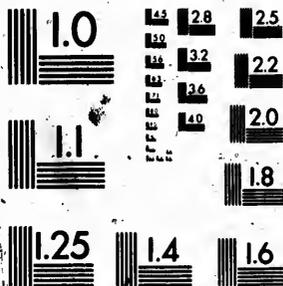
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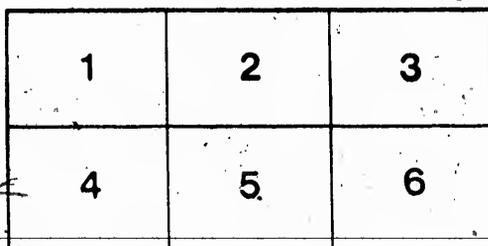
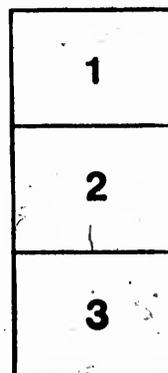
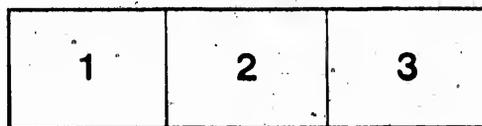
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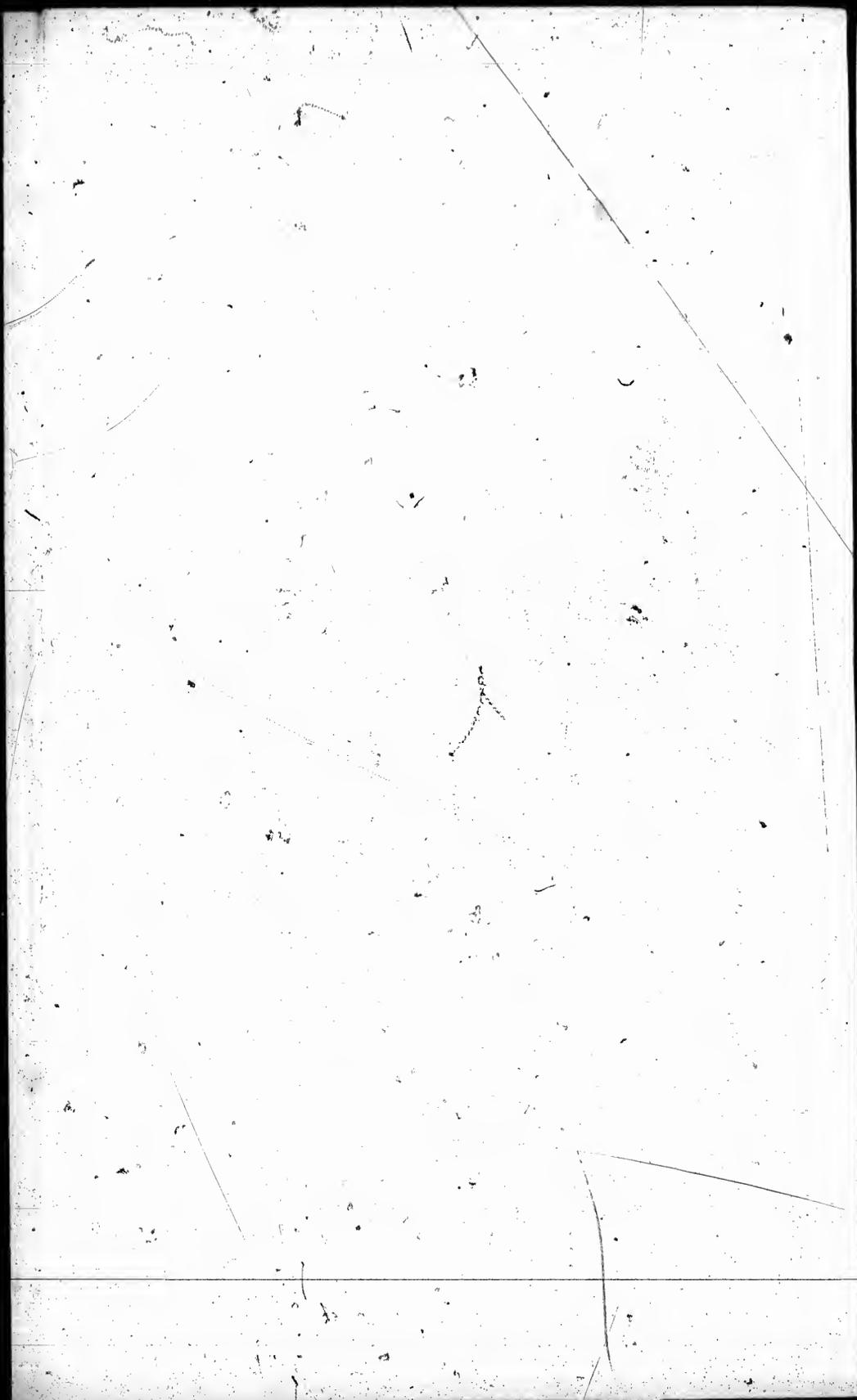
RIVER & LAKEWAY,

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# REMARKS,

OF THE

## NAVIGATION OF THE RIVER St. LAWRENCE, IN U. CANADA

- No. 1 THE Channel between Isle aux Monton (below Johnstown) and Main shore at the lower end is shallow; but keeping the boat track there never is less than three feet, the current is strong; Canadian boats, row and pole up, rate of the current is about 2 1/2 knots—length of the rapid 24 rods or 132 yards.  
By the outside of Isle aux Mouton the depth of water is great, at the head of the Island the current is strong and it is shallow for two rods out from the shore. Boats have to pole up to get round a distance of about 40 rods, rapidity of the current may be 3 knots.
- No. 2 The current below Point No. 2 is strong, boats pole up close to the shore for about 12 chains or 264 yards, below this is an eddy—rate here may be about 2 1/2 knots
- No. 3 The point above the small Island at the head of the Galloups Rapids is shallow—the shoal extending 4 rods out, a passage may be cleared a distance of 5 rods or twenty seven and a half yards within one and a half rod from shore, rate of current two and a half knots, by keeping out there is sufficient water, but the current is stronger.
- No. 4 At the small Island the current runs about 3 knots—depth enough.
- No. 5 The point above Armstrong's mill is shoal, there may be a passage easily made inside, however, it would perhaps be as well to keep outside—by clearing merely a few stone to ascend in a straight direction from the mill—then continue along the shore towards the small Island—rate at the point, 3 1-2 to 4 knots.
- Armstrong's mill. At Armstrong's mill the current outside runs at 3 1-2 knots, it is shoal along the upper part of the pier at low water, it will require to be deepened, the current being more than 1 1-2 to 2 feet depth. Length from below the buttment to the head of the Island 45 1-2 chains, or 1000 yards.
- No. 6
- No. 7 Below Armstrong's mill there is a shoal extending out near the breakers, where boats at low water pass by. As the shoal is narrow, can easily deepen a channel near shore. At the point below, the current is 2 to 2 1-2 knots.
- Point Cardinal. From the mill at Point Cardinal for a distance of 30 chains or 660 yards up, the current runs from 5 to 2 1-2 knots—at the buttment it is shoal and requires deepening one foot, but there is depth enough by keeping out.
- No. 8
- No. 9 & 10 In the bay at Creek near Col. Duncan Fraser's, the current runs at the rate of 2 1-2 to 3 knots, but shallow, length 2 1-2 chains or 55 yards—the channel is outside—at the point below Col. McDonell's it is shallow a considerable distance out, say 3 chains—a passage inside may easily be made
- No. 11 Inside of Presque Isle there is but little water. On the outside for a distance of 42 chains or 924 yards, the current runs from 2 1-2 to 3 1-2 knots—boats pole up, keeping from 3 1-2 to 2 chains out, it being shoal.
- No. 12 At Point Iroquois the current runs from 2 1-2 to 3 1-2 knots, a distance of about 9 rods or 50 yards: depth enough by keeping out about 2 rods. Below Point Iroquois is an eddy of about 18 chains, below which the current runs from 3 to 4 knots, a distance of about 22 chains or 484 yards—depth enough by keeping out.

- No. 13 Below Browses Creek there are a number of points, the first of which is shoal and at which the current is strong—rate about 3 knots.
- No. 14 At Point au Pin the current is from 3 to 3 1-2 knots a short distance.
- Sawyer's mill, No. 15 Outside of race-way at Sawyer's mill, it may be necessary to clear away a few stones the whole length of the rapid above and below the mill is about 180 yards—40 yards above the mill the track is towards shore; the current runs from 4 to 4 1-2 knots—keeping out a few yards from the buttment there is plenty of water.
- At Glasford's Point the current near shore is 2 1-2 knots.
- At Munro's Point it is 4 knots—below the point the shore is bold, and the current runs from 3 to 5 knots for a distance of 18 chains to a small point—where the current is 6 knots from this, the shore is shallow—current from 3 to 4 knots to the point above Casselman's mill, a distance of 52 chains.
- No. 16 & 17 At Casselman's mill, the current runs 6 1-4 knots, plenty of water—the total distance from Munro's point to this, is 116 chains or 2552 yards, current from the mill downwards, the distance of 28 chains, is from 2 to 2 1-2 knots, for 6 chains more, the current is 3 1-2 knots.
- No. 18 At George Markle's, from a large stone 27 chains downward, the current is from 3 to 4 knots, an eddy below this runs 2 1-2 to 3 knots; some large stones could be cleared in this distance—the current, say 3 chains from shore, is about 4 knots; at 9 chains below this, it is a shoal, but steering to avoid getting in the eddy; between the two waters there is depth sufficient. It is shoal at the point below, keeping out, water sufficient, rate 2 1-2 knots.
- No. 19 Opposite Monk's it is very shallow, have to keep out 4 to 5 rods—the current is 2 1-2 knots. At the point below the creek, it is also shallow, and up to the creek the current may be 3 knots 481 yards round this.
- No. 20 & 21 At Point a Goblet the current is 3 1-2 knots a short distance. Along the shore to the meeting house in Williamsburg for a distance of about 58 chains or 1276 yards, the shore is bold and the current runs at one rod from shore at 2 to 2 1-2 knots; at point below the meeting house it is shoal, can keep out, the current is 2 1-2 knots.
- No. 22 & 23 At the Point below Goose-neck Island the current is 2 to 2 1-2 knots; 32 chains above Point des Arables, it is shoal 5 or 6 rods out along to the said point, outside plenty of water, current from 2 to 2 1-2 knots.
- No. 24 Point a Barbee is shallow; from 11 chains or 242 yards above the current, is 3 to 3 1-2 knots, at the pitch it may be 4 knots.
- No. 25 Aults Point (at the head of Cat Island) is shallow, current is 2 to 2 1-2 knots; at point (Jack Summers,) above point a Vyon it is shallow; the current is 2 1-2 knots. At point a Vyon, it is also shallow, there is a passage close to shore, which can be deepened more; the current is 3 knots past the point towards the Grand Remoux a distance of 48 chains; the current is from 2 to 4 knots.
- No. 26 At little Horse shoe Bay, the current is strong at both points and shallow; rapidity at the upper point is about 3 1-2 knots, at lower point 3 knots; below the point close to shore 2 1-2 knots; a few chains lower 3 knots; out about 6 rods from shore 4 knots; the shore here is bold a distance of about 45 chains from the lower point of the little Horse shoe.
- No. 27 At Stoneburner's wharf the current may be 4 1-2 knots near shore.
- At the Long Sout about 9 chains below Stoneburner's wharf there is a fall and eddy, and boats ascending that strike into it, strike the cur-

rent and is in great danger of swinging, whereas the boat should steer between the two currents; here the current may be 6 knots.

At the point 61 chains below the wharf the rate may be 5 1-2 knots; for 15 rods above a few stones would require to be cleared away, the current may be 7 to 8 knots. The shore from the wharf for 57 chains, is very bold.

No. 28 & 29.

From the point to the head of the Big Cheneille it is shallow; keeping outside of the big stone there is depth enough, current may be 3 to 3 1-2 knots. The channel at the entrance of the Big Cheneille is from 5 to 10 feet deep, and down the channel keeping from the shore, there is also plenty of water; the current is from 3 to 5 1-2 knots; the distance between the point above the small island and the foot of the Big Cheneille, is about 70 chains keeping the channel.

No. 30

At the shoal the current may be 3 to 3 1-2 knots.

Moulinette rapid  
No. 31

The channel at Moulinette requires more water thrown in, this can be done by extending a race way at the head of the channel, say 4 rods; sand forming a reef on the outside of the channel for some distance down, say 80 yards, the manner at present of ascending here is by cattle, viz: from 4 to 5 yoke Oxen.

Milleroches rapids  
No. 32

At the Milleroches rapids it is very difficult to ascend at different places. A little above the mill is a fall, at which at very low water there is only 15 inches; there are logs &c. on the outside to throw in more water in a passage here, the best of which is solid rock; there is another fall about 70 yards below the mill, at which there is likewise sometimes want of water—to pass these two places, boats have to take out part of their cargo, and it takes two to three yoke oxen—outside of all this in the middle of the rapid opposite and below the mill, there are three large rocks, by removing which, the boat could ascend in deep water, the current is very strong in the middle, say about 5 1-2 to 6 knots. At the foot of the rapid and at the middle, boats ascend in 3 feet at very low water—the length of this rapid may be 30 chains.

No. 33

At Mashe's Point the current is from 3 1-2 to 4 knots—it may be necessary at this point to clear away a few stones, about 10 rods, to be enabled to get up near the shore, though a boat may ascend by keeping out. In descending to the foot of Barnhart's Island along the main shore half way between Mashe's point and a small point above a stream, the channel crosses to the Island and along the Island shore to the foot.

No. 34

No. 35

At the point above the stream the shoal of rocks on the outside extends across and makes the channel narrow and shallow, too much so at low water, to ascend by; it might be deepened, but there is no necessity, as the channel up to the stream and across to the island shore and between the shoals, midway between the two points, towards the main shore and along the same to Mashe's Point, there is depth sufficient at all times—the current along here, and to the foot of Barnhart's Island is from 2 1-2 to 4 knots, a distance of about 35 chains. The distance from Mashe's Point to the foot at the lower end of the island, is about 86 chains, keeping the channel.

No. 36

From the point below the foot of Barnhart's Island, there is little difficulty to point Maligne; there are several points between, but the current is all that has to be contended with, as it is from 3 to 3 1-2 knots; from the shore, a couple of chains, the current may be 4 knots.

No. 37

Point Maligne, the current runs strong from Wood's creek to and past the point; rate is from 3 1-2 to 5 1-2 or 6 knots a distance of 28 chains; at 18 chains of which is the greatest current for the 10 remaining chains rate may be 4 to 3 knots, near shore opposite.

Opposite Cornwall at the small point the current is about 2 1-2 knots; out in the middle of the channel about 4 1-2 knots.

Wm. McDONALD,

D. S. L. & U. Canada.

CORNWALL,

January the 15th 1825.

POINTS.	RATE.	LENGTH.	DEPTH.	YARDS.	YARDS.
No. 1	2½ knots	24 rods	3	132*	†
2	2½	12 chains	do	264	
3	2½	5 rods	do	27 1-2	
4 5 & 6	3 4 to 6½	45 1-2 chains	1-2 to 2		1000
7	2 to 2½		do		
8	2½ to 5	30 do	deep		660
9	3		enough	55	
10	2½ to 3	2 1-2 do	do		
11	2½ to 3½	42 do	do	92½	
12	do.	2 1-4 do	do	50	
13	3 to 4	22 do	do		484
14	3 to 3½	10 do	do	220	
15	4 to 4½	11 3-4 do	do	280	280
16	4	8 do			176
17	4 to 6	48			
	3 to 4	52 } do	do		2552
	3½ to 6½	10 }			
18	3 to 4	27 do	do		594
19	3	22 do	do	484	
20	3r	8 do	do		176
21	2 to 2½	58 do	do	1276	
22	do.	12 do	do	264	
23	do.	32 do	do	704	
24	3 to 3½ to 4	11 do	do		212
25	3 to 3½ to 4	53 do	do		1166
26	3½	27 do			594
27	L. Soult 8 to 7½	57	do		1251
28	3 to 3 1-2	29 } 127		2794	638
29	3 to 3 1-2	41 }	do		902
30	3 to 3 1-2	21 do	1-2 to 2 1-2		460
31	Moulmette 5 yoke oxen used in towing, fall 6 feet in	9½ do	15 inches to 18		210
32	5 1-2 to 6 to 6 1-2	30 do	15 do outside 3f.		660
from 33	3 1-2 to 4	15 do	2 1-2 to 3		330
to 34	2 1-2	54 do	3	1188	
to 35	3 1-2 to 4	34 do	3 ft. more deep enough, Amer- ican B. L.		748
	3 pts. 3 to 3 1 2 }	43 do	within 30 yds. of our shore, deep enough,	946	946
14688 yards or miles or 2 furlongs. 30 perchs.	together }	28 do			616
	3 to 0			Yards	14688

(WILLIAM McDONALD.)

2 knots;

YARDS.

1000

660

434

280

176

2552

594

176

212

1166

594

1251

638

902

460

210

660

330

748

946

616

14688

LD.)

# REMARKS.

UPON THE

## STATE OF THE RAPIDS, UP THE RIVER St. LAWRENCE, IN LOWER CANADA.

No. 1

The gates of the Cascade locks are 12 feet 10 inches in width, owing to the bridges over the gates, not being sufficiently high—the water in the lock has to be lessened to enable a durham boat to pass under. Consequently to enable a Steam boat to pass, the bridge must be made to swing, or done away with.

No. 2

Above the upper gate it is shallow and continues so for some distance; at twenty yards above, there is not more than 12 inches depth at lowest water. A canadian boat has to take all her lading out except two or three cart loads; the bed of the river at this place is solid rock; require to deepen 8 or 12 inches to enable boats to pass at lowest water with all their lading.

No. 3

It is pretty much an eddy to Pointe Marcotte, where boats have to keep out about 6 rods, and where there is sufficient water, viz: 2 or 3 feet. The current at this point is 2 to 2 1-2 knots.

No. 4

Below split rock it is shallow for 3 chains; the current striking near the shore about 1 1-2 chain; below the lock at the rate of 3 1-2 knots, a distance of 1 1-2 chain, or 34 yards. It is here too shallow at low water, there not being more than 13 to 14 inches—in the bed of the river are layers of rock and can be easily deepened. The width of the gates of this lock is likewise 12 feet 10 inches, and will only admit of a large and a small durham boat at a time.

No. 5

Above the upper gate there is not more than 7 to 8 inches dept at low water, ascending for 7 chains, or 154 yards; not more than 12 inches; the current for these 7 chains, is about 3 1-2 knots.

No. 6

At Point a Delisle, there is a formed channel, outside of which, the current may be 3 1-2 to 3 3-4 knots, and the length 7 1-2 chains; it is too shallow at low water in the inside channel to ascend by. Above this towards Pointe aux Chien, the current is 3 to 2 knots.

No. 7

At Pointe aux Chien, it is shallow for 2 1-2 chains below the pitch, and not more than 15 inches depth at lowest water; the bed of the river at the pitch is solid rock; the length of this place is 4 1-2 chains, the current at the point is 3 1-2 to 4 knots.

No. 8

At Point a Coulagne, the length of the formed channel is 6 chains; the depth in the channel is 16 inches at least; there are several rocks close to each other, which render this channel too narrow at low water; the current may be 3 3-4 knots. On the outside there is plenty of water, and the length is 9 1-4 chains; the current from 4 to 4 1-2 knots.

No. 9

At the mill pitch, the current is 6 1-2 to 7 knots, and requires a few stones taken away; there is plenty of water a few yards out, the distance round this point is 6 chains 75 links.

At first point above the mill pitch, the depth of water may be 12 inches at lowest state; the current is 3 1-2 to 4 knots and the length round 5 chains.

The second point is 5 1-2 chains in length, 10 to 12 inches in depth and

- No. 10 the velocity of the water is 3 1-2 to 5 knots. At these points the channel can easily be deepened more by removing loose stones, and forming a reef off the outside and straightening the present channel at the 2d point above the mill pitch.
- No. 11 A few chains below the Tan house point commences the rapids. For 20 chains up, the current may be 4 1-2 knots, and 13 to 14 inches in depth; for 15 chains more it is 3 1-2 to 3 3-4 knots, and 13 to 15 inches depth—9 chains 50 links further, is the foot of the channel between.
- No. 12 Marshaterre's upper island and main shore, about 16 feet in width and 9 inches depth at lowest water; length of this channel 4 1-2 chains to Marshaterre's point.
- No. 13 From Marshaterre's point to point a Rousson, a distance of 15 chains, it is shallow. Boats have to keep out 1 1-2 chain; in this distance the depth may not be less than 14 inches (there may be required in this distance a couple of rollers or fixtures) it is easy to clear a few stones—velocity of the water is 3 1-2 knots. At Rousson's point, 4 knots; above this there are rocks here and there, which ought to be taken away; five chains above Point Rousson, boats go out on the outside of a rock 2 rods from shore; by clearing a few stones, might easily pass close to shore, the current is 3 1-2 to 3 3-4 knots; for 10 chains more there are some large stones, outside of which boats pass at low water, could easily clear inside; 11 chains further is the King's wharf at the cedars, rate of the current is 3 1-2 knots; require 3 rollers more (fixtures) in the last 25 chains. The whole distance from the Tan house, to the King's wharf is 90 chains.
- No. 15 At Point Marcoux it is shallow, require to keep out as much as 6 rods from the shore, the distance is about 4 chains, the current may be 3 to 3 1-2 knots; further out, there is plenty of water, and the current not more than 3 knots.
- No. 16 At point Byron it is shallow near shore, require to keep out about 3 rods, where there is 2 1-2 feet depth and more; it may require a roller or fixture at a rock outside of the channel, immediately at or opposite the point; by clearing a few large stones, could get up near shore, the current at this point for 6 chains (being the length of this rapid) is 3 3 1-4 & 4 knots.
- No. 17 Point a Joseph Gabriel is shallow, can keep out; the current may be 3 knots, a distance of 3 chains.
- No. 17 At Point a Wattie, a shoal runs down from the point, about 2 chains require to keep outside of this shoal; the length of this point is 4 1-2 chains, the current may be 3 1-2 to 3 3-4 knots.
- No. 18 At Point au Double, there is water sufficient by keeping out 2 rods; the length of this rapid is 5 1-2 chains, require one or two rollers or fixtures, rate of the current is 4 1-2 to 4 3-4 knots; a boat with 14 to 15 tons is drawn by 5 horses.
- No. 19 At the lower point of the Horse shoe, require to cross towards the middle island, keeping on the outside with little difficulty till within 2 rods of the island where it is a shoal; boats keep on the outside of this shoal and inside of the next island and towards Wilson's Point (the channel in high water is along the shore inside of the islands, but at low water it is too shallow at the entrance and at the upper end of the first island,) along the outside channel, the depth of water is not less at any time than 3 feet between the islands Nos. 2 and 3; above the island there is plenty of water; by keeping a little out, the current, for a distance of 15 chains, is from 3- to 4 knots.
- At the foot of the locks at the Cotcau, at low water it requires to let out water from the lock to enable a boat to float in with 10 tons; the width of gates are 12 feet 11 inches.

No. 20

Everight's Point is 5 1-2 chains in length, the rate of current is 2 to 3 1-2 knots. At the foot of the (formed) channel, it is shallow; and also at the head too much so at low water, boats not being able to ascend with more than three tons, consequently have to keep out about 6 rods from shore, where there is plenty of water, and the current is 3 1-2 to 4 knots. It would require abutment or pier extended upwards, and the channel at above the head cleared of moveable stones, at the upper end of the channel it is solid rock, and not more than 13 inches depth at the lower end not more than 12 inches. The current from Everight's point to the Islets is 3 to 2 1-2 knots.

No. 21

At the Islets, between the two islands, by clearing a few large stones, would make a good channel, and extending an arm at the head to bring the water in.

At the outside of the Islets and below the point the current may be 3 1-2 knots; from this to a small bay at the head, around the point, &c. the distance is 20 chains, along which there is plenty of water by keeping out, the current is 3 1-2 to 3 knots; the distance by the channel, which might be opened to the small bay, may be 15 to 16 chains.

No. 22

At French's Point it is very shallow along the (formed) channel, a distance of 4 1-2 chains, the bed of which is solid rock, and it is very shallow for 3 1-2 chains more, but loose stones; the current is 3 to 4 1-2 knots. A pier or abutment could be built this whole distance, which would raise the water a sufficient depth, extending the arm well out at the head. In its present state, boats at low water cannot ascend, there not being more than 7 inches depth; therefore boats have to row across to the island opposite, and ascend along that shore, a distance of about 12 chains, where there is plenty of water; proceeding a short distance more they recross, rowing, &c. to above, the head of the channel, at French's Point.

No. 23

At Allan Petry's it is shallow for 6 rods out, there is plenty of water outside of this; the current is about 3 1-2 knots.

No. 24

At Col. McDonnell's first point the current is 3 1-2 knots, for 6 chains can keep out. Above this a light boat can easily row up outside; midway between the shore and Island at the upper point; near shore the current is 2 1-2 to 3 knots.

Wm. McDONALD, D. P. S.

U. & L. CANADA.

CORNWALL, January 24th, 1825.

POINTS.	RATE, Knts.	LENGTH in Chains.	DEPTH in inches.	LENGTH in Yards.	LENGTH in Yards.
No. 1					†
2	2 to 2½	8	12		
3	3½	3	15	178	66
4		7	8		
5	3½ to 3¾	7½	12		154
6	4½	4½	15		165
7	inside 3½ } outside 4½ }	9½	18		99
8	6½ to 7	6½	24 to 36		203
9	3½ to 4	5	12		148
10	4½ to 5	5½	10		110
11	4½ to 3½	44½	13		121
12	" to 4½	4½	10		
13 & 14	3 3½ to 4 } 3½ to 3½ } 3½ }	41	14 to 18		1980
15	3 to 3½	4	deep enough keeping out	88	
16	3 3½ to 4	6			132
17	3½ to 3¾	4½			99
18	4½ to 4¾	5½			121
19	3½ to 4	15	38		330
20	inside 2 to 3½ } outside 3½ to 4 }	5½	12 to 13		121
21	outside 3½	20			
22	3½	7½	7 to 8		440
23	3½	5	deep enough	110	165
24	3½ to 3¾	6	24		132
				YARDS	4586

2 Miles, 4 furlongs, and 33 perches.

### QUESTIONS AND ANSWERS.

**QUESTION.**—With what lading can a durham boat ascend the rapids to the Mill pitch?

**ANSWER.**—At low water, the last year durham boats came up with 5 to 6 tons, at very low water with only 4 tons. At high water generally 8 tons. A middle sized boat with 10 tons will draw from 14 to 15 inches and requires 8 horses to tow her up the mill pitch; whereas a large boat with the same tonnage will not draw more than 10 inches; it depends on the build of the boat altogether, the question here is, whether a small boat drawing 14 to 15 inches as above, with 10 tons, is a greater draft than a large boat, drawing 10 inches, with same tonnage.

**Q.**—A boat having more lading at the Cascades than she can ascend with, what is the cartage per ton to the cedars?

**A.**—From 8s. to 10s.

**Q.**—With what lading can a durham boat ascend from the Cedars to the Coteau du Lac (Lake St. Francis) what is it per ton in addition?

A.—A boat can ascend all the way at any time with 14 to 15 tons; any more at low water, have to cart at 10s. per ton.

Q.—What has a Durham boat to pay for passing the locks; what has she to pay for towing, and at what places is she towed?

A.—Ten dollars (lockage,) two dollars from Split rock to the Cedars, and sometimes tow at point au Diable.

Q.—How is the descending channel, what the least width, and what the least depth at low water?

A.—The least width (at Frog Island and Cascades) 18 to 20 feet, and least depth 4 feet.

Q.—What would require to be done at the outside of Hôg Island to prevent rafts getting on it?

A.—If a raft kept the channel that boats do, it would run in the shoal or breakers at the mill pitch, which would rack it, and it would get on a shoal below; it requires therefore to keep as near as possible to the island, to be enabled to get in the proper channel, in steering for which island, the raft often runs foul of it; this might be remedied if a butment or pier was thrown up extending along the upper end of the island, so that a raft might touch it at the head and be conducted by it without any danger of getting aground either on the island or on the shoal below.

Q.—Does one boat, heavier laden than another, descend the rapids with greater velocity?

A.—It does, as it is evident, she receives more head way.

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Cornwall, January 24th 1825.

At a meeting of the committee of the St. Lawrence Association for the counties of Stormont and Glengary, held here this day. The Secretary submitted a report from the gentleman, who had been solicited to ascertain the state of the rapids of the St. Lawrence: from which report was extracted the following general information.—That the whole length of the rapids from Cornwall to Johnstown, where chains would be necessary, is 8 1-4 miles, in which are included all rapids where the velocity of the water is 3 1-2 knots and upwards—that “the greatest velocity, [viz: at the Long Sault] had been found to be 8 knots, and the depth of the water at the most shallow parts, (viz: at Milleroches and Moulinette,) 14 inches”—that the improvement of these places may be most easily effected in February, when the channel on this side of Sheek’s Island becomes dry, owing to the quantity of ice, which collects at the head of the channel and stops the passage of the water, and hence the necessity of making all the necessary improvements at that period. “That the whole length of the rapids from the Cascades to Lake Saint Francis, where chains would be necessary, in which are included as above all rapids where the velocity of the water is 3 1-2 knots and upwards, is 2 miles, 4 furlongs and 33 perches. That “the greatest velocity (viz: at the Mill Pitch below the Cedars) is 7 knots, and that 7 inches is the depth of the most shallow parts [viz: at Split Rock and at French’s Point above the Coteau Lock’s.]”

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Should the St. Lawrence Company obtain a charter for a limited number of years, they are desirous of being bound to confine themselves in all their improvements to the ameliorating the condition of the boat navigation, and shall not erect any work or fixture that may, in any way, incommode the present trading or other boats. For which purpose it will be necessary to deepen channels, lay mooring anchors, fix ring-bolts in rocks, at

taching chains thereunto of sufficient strength, to convey up by the power of a steam engine, working certain machinery on board from 1 to 4 boats in tow at the same time with the option of laying posts with rollers and fenders at certain distances, rail-way under water, or any other ingenious method that may be devised, provided it does not obstruct but improve the present channels, for which purpose it will be necessary to have,

1st.—A privilege of exclusive right, to use of chains, anchors, posts, &c. for  
years.

2dly.—Authority to remove rocks, deepen channels, &c. with a clause that whatever sums are justly expended in this way, shall be repaid from the monies appropriated by the act of 3 Geo. 4th cap. 119 sec. 30, whenever it can be obtained.

