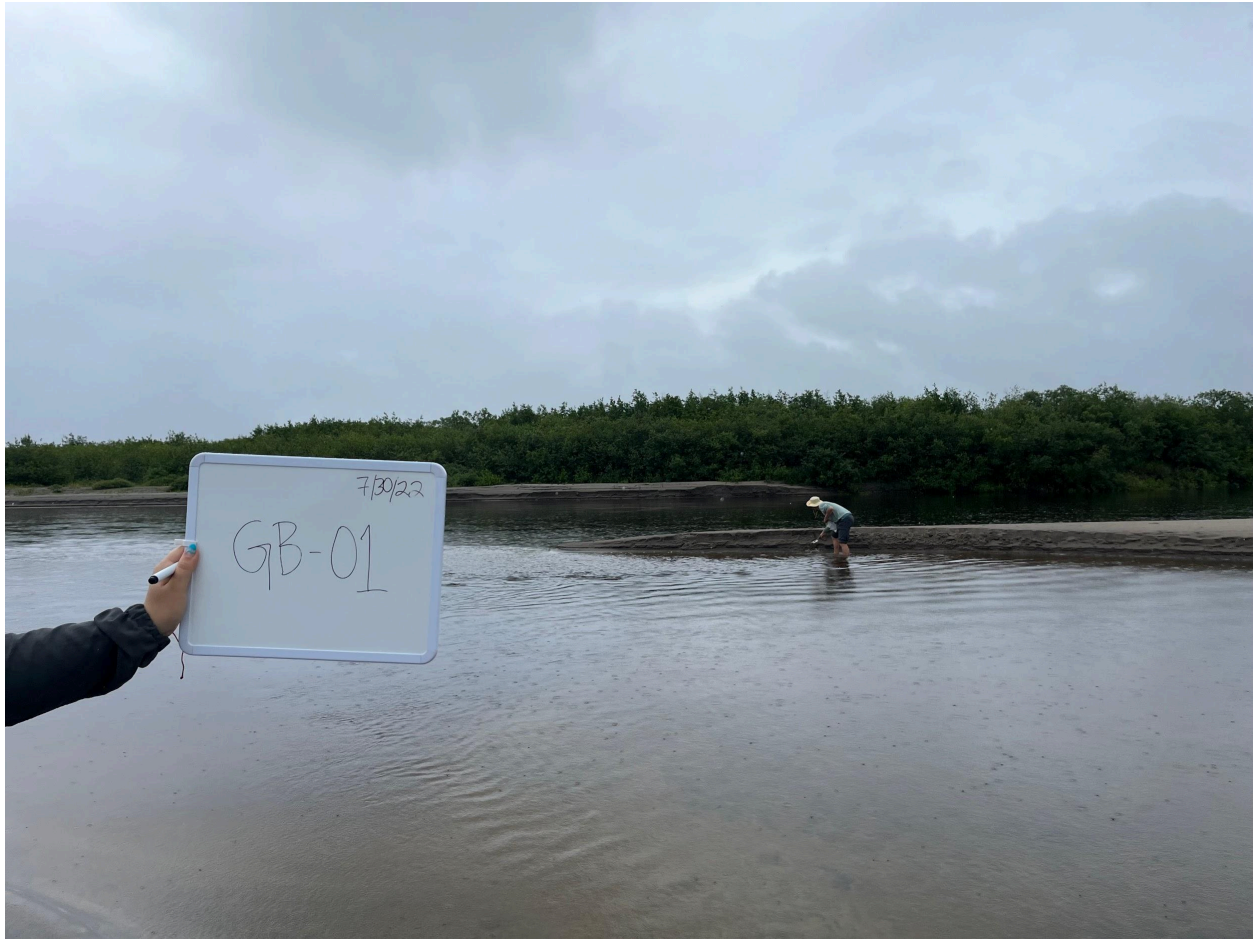


**GB-01**



**Sample Type:** Modern river sediment

**Collection Date:** 07/30/2022

**Relative Location:** Sandbar from Churchill River

**Absolute Location:** 53° 17' 17.0" N, 60° 19' 23.8" W

**Elevation:** 0 feet

**Description/Notes:** The sample was taken across the river from a sandbar, preventing close up pictures being taken of the sample site. Jeremy had to walk through the river to reach the sand bar (luckily the water was relatively shallow). Sample was mostly fine sand with some silt. Vegetation was about 50 meters away from the sample site.

GB-02



**Sample Type:** Modern river sediment

**Collection Date:** 07/30/2022

**Relative Location:** Large point bar on the interior section of the Goose River. 80 meters away from an unnamed bridge.

**Absolute Location:** 53° 23' 36.3" N, 60° 25' 22.6" W

**Elevation:** 5 feet

**Description/Notes:** Sample was composed of coarse sand taken right on the water line from a point bar about 10 m across from a cut bank. The cut bank showcased a 30m high sediment sequence, which we assumed to be deglacial. Sample site was 30m from vegetation. *Extreme* off trail bushwhacking was needed in order to reach the sand bar.



GB-03



**Sample Type:** Deglacial sediment

**Collection Date:** 07/30/2022

**Relative Location:** Adjacent to Muskrat Dam parking area and human altered boulders and cobbles. In Churchill River Valley.

**Absolute Location:** 53° 15' 26.14" N, 60° 18' 48.5" W

**Elevation:** 36 meters

**Description/Notes:** Sample is coarse, medium sand taken from 1m above the water level at the Churchill River. We dug about a foot into the sediment for collection. Sediment was part of a very large glaciofluvial delta filling in most of the Churchill River Valley.



GB-04



**Sample Type:** Modern stream sediment

**Collection Date:** 07/30/2022

**Relative Location:** Tributary to Churchill River.

**Absolute Location:** 53° 13' 12.25" N, 60° 57' 17.53" W

**Elevation:** 210 feet

**Description/Notes:** We were unsure if this sample spot was *entirely* upstream of the lower churchill river valley glaciofluvial delta fill. We took the sample interested to see upon analysis if it was truly a modern sediment sample or simply reworked deglacial sediment. It was difficult to sort out cobbles during sample collection.



GB-05



**Sample Type:** Glacial sediment/esker

**Collection Date:** 07/30/2022

**Relative Location:** Adjacent to anthropogenic gravel pit.

**Absolute Location:** 53° 5' 31.96" N, 61° 53' 31.02" W

**Elevation:** 402 meters

**Description/Notes:** The sample was taken from an exposed slope of the esker that was about 6m high. Collection occurred 1m from the base of the slope and the sample was predominantly coarse sand and cobbles. We took special note that the slope looked in situ and undisturbed by the nearby gravel mining. This sample site was suggested to us by Pierre Olivier.



GB-06



**Sample Type:** Bedrock

**Collection Date:** 07/30/2022

**Relative Location:** A knoll on the south side of the Trans-Labrador Highway.

**Absolute Location:** 53° 20' 6.25" N, 62° 59' 28.14" W

**Elevation:** 484 meters

**Description/Notes:** The rock's highest point is about 2m from the surrounding ground. The rock was crystalline and possibly granite. Strike and dip was not measured. However, a 10° slight dip away from the highway was estimated. There was no topographic shielding.



CF-01



**Sample Type:** Modern river sediment

**Collection Date:** 07/31/2022

**Relative Location:** The base of a 100 m slope adjacent to the water. Facing upriver, the sample site was to the right of us.

**Absolute Location:** 53° 30' 21.564" N, 63° 57' 30.672" W

**Elevation:** 126 meters

**Description/Notes:** This was the most isolated sampling location of the whole excursion. It took us 40 minutes to descend a narrow, steep valley in order to reach a remote river bank. Collection took place near a deglacial sediment sequence. However, since we were about 100 m upstream of this area, we concluded that it is safe to assume the sample is modern with no contribution coming from deglacial debris. Sample site was also near vegetation. Before collection, the sample was wet sieved between 250-1000 microns.

There were multiple cases of exceptional sampling sites being inaccessible during the ascent back up the valley to the van. We could see areas with clear stratigraphy and were disappointed that they were out of reach due to near vertical angles.



CF-02



**Sample Type:** Deglacial sediment

**Collection Date:** 07/31/2022

**Relative Location:** About 0.5 m below the surface of a ridge on the ascent back to the van from CF-01 sample collection.

**Absolute Location:** 53° 30' 27.72" N, 63° 57' 16.272" W

**Elevation:** 167 meters

**Description/Notes:** Sample site was horizontally bedded and appeared to have slumped down a bit from the top of the ridge. The top layer consisted of soil/mud (about 10 cm) before progressing to coarser sand further down. According to information from Pierre, this landscape is part of a deglacial delta.



CF-03



**Sample Type:** Modern river sediment

**Collection Date:** 07/31/2022

**Relative Location:** Bank of unknown river on the west side of an unpaved road south of the Trans-Labrador Highway.

**Absolute Location:** 53° 34' 53.868" N, 64° 30' 20.052" W

**Elevation:** 416 meters

**Description/Notes:** Sample made up of very coarse sand with intermixed large cobbles. Wet sieving between 250-1000 microns was used. Collection site was less than 1 meter from dense riverbank vegetation and was downstream from a dam.



CF-04



**Sample Type:** Bedrock

**Collection Date:** 07/31/2022

**Relative Location:** Bedrock mass visible from roadside. About a 20 minute hike from the road to the sample site.

**Absolute Location:** 53° 20' 26.9154" N, 65° 41' 44.9514" W

**Elevation:** 602 meters

**Description/Notes:** Sample taken from a knob of bedrock rising about 5 m above the surrounding terrain. Less than 5° of topographic shielding. Strike was 305° and dip was 4° northeast.



CF-05



**Sample Type:** Modern river sediment

**Collection Date:** 07/31/2022

**Relative Location:** The south shore of the Ashuanipi River. There was a nearby construction site (about 50m away). But, it was not close enough to make us believe the sediment could have been intermingled with construction tailings.

**Absolute Location:** 53° 3' 34.1634" N, 66° 15' 19.836" W

**Elevation:** 527 meters

**Description/Notes:** There were a fair amount of cobbles and pebbles were mixed in with our sand sample. We also were not able to find a clear sediment source to the river. This river also had a very fast flow.



LC-01



**Sample Type:** Modern river sediment

**Collection Date:** 08/01/2022

**Relative Location:** The shore of the Riviere Pepler. We sampled about 50 m upstream of a bridge where a road crosses the river.

**Absolute Location:** 52° 20' 11.2194" N, 67° 34' 1.632" W

**Elevation:** 533 meters

**Description/Notes:** This river had relatively slow flow and was nearby to a few cottages and a dirt road. We sampled believing that there was little to no risk that the road and houses contributed sediment to the sample site.



LC-02



**Sample Type:** Esker

**Collection Date:** 08/01/2022

**Relative Location:** Sample site right next to Petite Riviere Manicouagan. Sample was taken 4 meters above a lake surface and 3 meters below the top of the sediment deposit.

**Absolute Location:** 52° 12' 3.924" N, 67° 52' 19.9914" W

**Elevation:** 537 meters

**Description/Notes:** The sample was taken from a 10 m high sediment exposure. The esker/deposit is predominantly medium sand that is stratified with wavy/rippled layers. There was nearby vegetation. This location was suggested to us by Pierre Olivier.



LC-03



**Sample Type:** Modern river sediment

**Collection Date:** 08/01/2022

**Relative Location:** Sample taken from a sandy creek right off of the highway (less than 10 minute walk from the road).

**Absolute Location:** 52° 6' 38.376" N, 68° 0' 26.352" W

**Elevation:** 645 meters

**Description/Notes:** We sampled about 20 meters upstream of where the road comes closest to the water. As you can see in the photo, the water had a heavy red tint. We also wet sieved on site between 250-1000 micrometers (also shown in photo).



LC-04



**Sample Type:** Deglacial deposit

**Collection Date:** 08/01/2022

**Relative Location:** Sample taken from a deglacial deposit exposed in a gravel quarry.

**Absolute Location:** 51° 42' 36.6834" N, 68° 4' 18.7674" W

**Elevation:** 440 meters

**Description/Notes:** The exposure was 15 meters high with wavy, stratified fine sand layers at the top and more coarse sand layers near the bottom. The fine sand layers hosted large, floating dropstones. We sampled the contact between both layers. This site was tipped off to us as an ice contact deposit by Pierre Olivier.



LC-05



**Sample Type:** Glacial outwash

**Collection Date:** 08/01/2022

**Relative Location:** Sample taken from a gravel pit.

**Absolute Location:** 51° 29' 17.304" N, 68° 13' 9.012" W

**Elevation:** 391 meters

**Description/Notes:** We sampled halfway up a 10 meter high exposure. Boulders and cobbles at this site were very loose so we only sent one person up to take the sample while the rest of us stood away from the edge of the exposure for safety. We were all apprehensive if a worker from the gravel pit was going to question why we were there.



LC-06



**Sample Type:** Modern stream sediment

**Collection Date:** 08/01/2022

**Relative Location:** Sample taken from a stream very near to the gravel pit from sample site LC-05. The stream was adjacent to the road, so we sampled 15 meters upstream of the road.

**Absolute Location:** 51° 29' 17.376" N, 68° 13' 22.512" W

**Elevation:** 401 meters

**Description/Notes:** We decided to take the sample because it appeared that no gravel pit sediments or road sediments had traveled into the stream.



MC-01



**Sample Type:** Deglacial sediment

**Collection Date:** 08/02/2022

**Relative Location:** Sample taken from a glaciofluvial deposit/outwash esker in a gravel pit.

**Absolute Location:** 50° 28' 29.3874" N, 68° 48' 36.2154" W

**Elevation:** 500 meters

**Description/Notes:** Sample site had beautiful wavy/rippled laminated sediments. We dig into the deposit about 1.8 meters below the surface of the exposure.



MC-02



**Sample Type:** Deglacial sediment

**Collection Date:** 08/02/2022

**Relative Location:** Pointe-des-Fortin beach on the north shore of the Saint Lawrence River.

**Absolute Location:** 48° 38' 42.648" N, 69° 5' 7.5114" W

**Elevation:** 10 meters

**Description/Notes:** Sampled the bottom of sandy forest beds in the deglacial delta along the beach. We sampled 1 meter above the contact. Sediment below the contact had increasingly more clay.



**MC-03**



**Sample Type:** Modern river sediment

**Collection Date:** 08/02/2022

**Relative Location:** 15 km upstream of Pointe-des-Fortin.

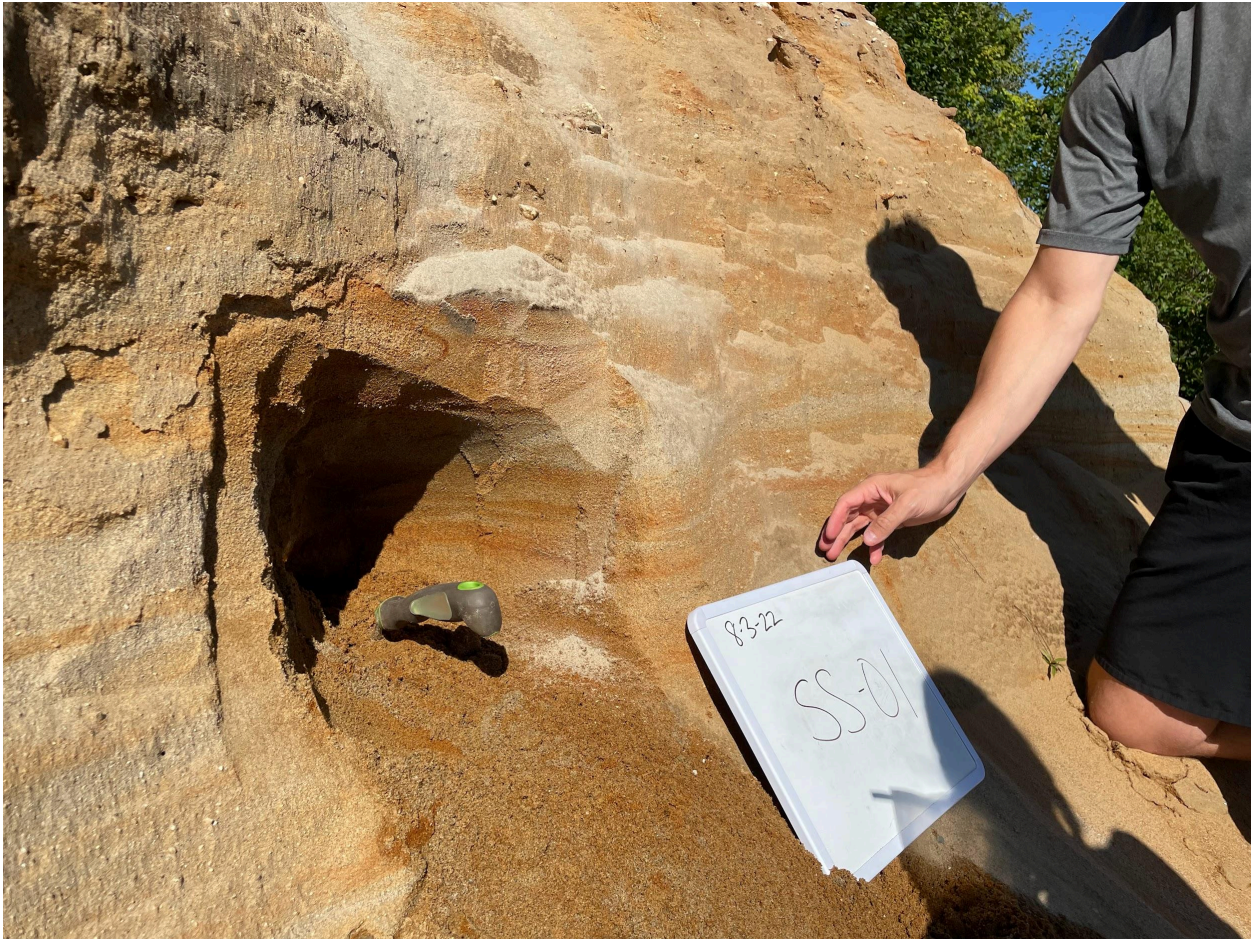
**Absolute Location:** 48° 40' 40.5834" N, 69° 18' 16.0914" W

**Elevation:** 61 meters

**Description/Notes:** The riverbanks here were 10-20 meter high stratified sediment sequences. The sequences were composed of gray clay and sand. We assumed that the sediments were part of the same deglacial delta as MC-02. We considered that some or most of the “modern” river sediment in our sample are just remobilized deglacial sediment from the last site.



SS-01



**Sample Type:** Deglacial sediment

**Collection Date:** 08/03/2022

**Relative Location:** Baie St. Catherine

**Absolute Location:** 48° 6' 10.872" N, 69° 43' 16.6074" W

**Elevation:** 10 meters

**Description/Notes:** The deglacial delta we sampled from was near sandy forests and was 1.5 meters above the beach. The bluff was about 15 meters. Digging into the bluff revealed wavy/rippled stratigraphy with some very red sediment layers.



SS-02



**Sample Type:** Modern creek sediment

**Collection Date:** 08/03/2022

**Relative Location:** 7 km upriver from Saint Simeon and 15 meters from the side of the highway. Sample site was well inland of the Saint Lawrence river.

**Absolute Location:** 47° 53' 39.1914" N, 69° 56' 12.3714" W

**Elevation:** 128 meters

**Description/Notes:** We collected the sample from a sand/gravel bar on the side of the river. We were a few meters upriver from a confluence with a side drainage coming under the highway. Because of the rugged topography and being well inland of the St. Lawrence, we figured it was safe to assume that this river's sediments are dominated by modern inland input.



SS-03



**Sample Type:** Modern creek sediment

**Collection Date:** 08/03/2022

**Relative Location:** Next to the highway in the town of La Malbaie. The sample site was behind a family campsite area.

**Absolute Location:** 47° 39' 59.508" N, 70° 9' 32.184" W

**Elevation:** 3 meters

**Description/Notes:** Sample came from a large gravel bar. We had to dig away the top layer of large cobbles with our hands to reveal wet sand underneath. It was difficult to scoop the sample while avoiding collecting too many cobbles. The sample also had a very strong, fishy odor.



SS-04



**Sample Type:** Modern creek sediment

**Collection Date:** 08/03/2022

**Relative Location:** Sandy point bar along Gouffre River (tributary of St. Lawrence River).

**Absolute Location:** 47° 30' 56.6274" N, 70° 30' 23.58" W

**Elevation:** 25 meters

**Description/Notes:** We wet sieved the sample between 250-1000 micrometers. Vegetation was about 5 meters from the sample site. Sample was mostly medium to coarse sand with some intermingled pebbles.



SS-05



**Sample Type:** Deglacial sediment

**Collection Date:** 08/03/2022

**Relative Location:** A quarry in the St. Leon delta.

**Absolute Location:** 47° 10' 0.6954" N, 70° 48' 16.7754" W

**Elevation:** 307 meters

**Description/Notes:** We sampled 3 meters from the base of the bluff. There were 100 meters of stratigraphy at the top of the sample site. Layers were mixed in with large cobbles and pebbles below the sample point.