

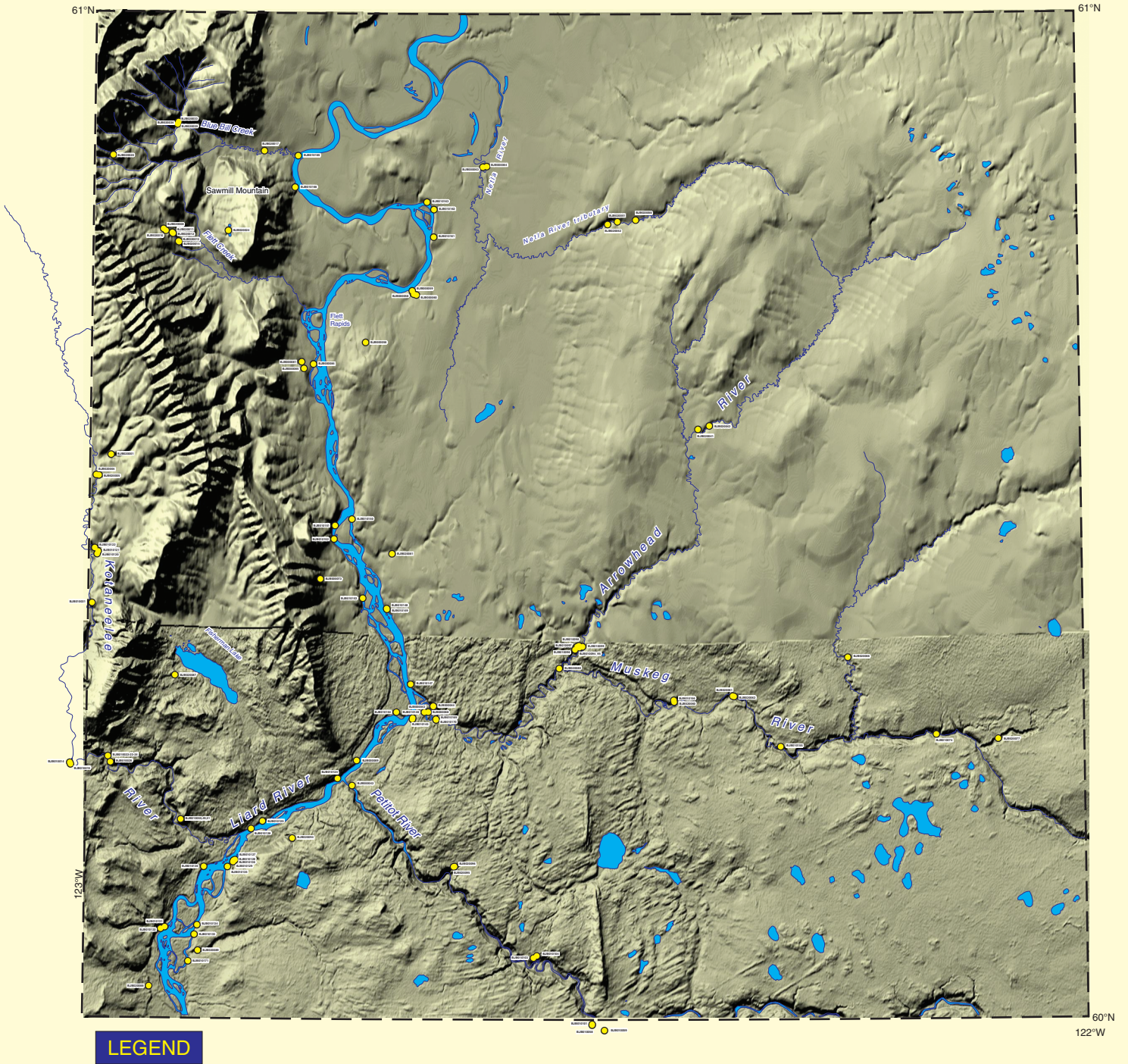
# Appendix C. Stratigraphic logs of major exposures in the study area









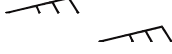



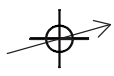



## Fort Liard (95 B) Stratigraphic Sections

Interactive Map

Click on yellow points to access stratigraphic sections diagrams.

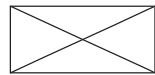


# LEGEND

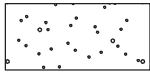
	Convolute bedding, deformation structures		Boulders
	Trough cross-stratification		Microfaulting
	Parallel lamination		Shale, silt, or clay rip-up clasts
	Ripple lamination cross-stratification		Jointing
	Planar-tabular cross-stratification		Sand: fine, medium, coarse
	Paleocurrent		
	Detrital wood		
	Shrinkage cracks		
	Roots		

## Lithofacies code

- D diamicton
- \_ m matrix supported
- \_\_ m massive
- \_\_ s stratified
- G gravel
- \_ m matrix supported
- \_ c clast supported
- \_\_ m massive
- \_\_ s stratified
- S sand
- \_ h horizontal lamination
- \_ r rippled
- \_ t crossbedded
- \_ m massive
- F fines (silt and clay)
- \_ m massive
- \_ l laminated
- \_ d dropstones
- (s) sheared
- (r) resedimented
- (d) deformed



Covered



Gravel



Sand



Silt



Clay



Diamicton



Bedrock, weathered bedrock

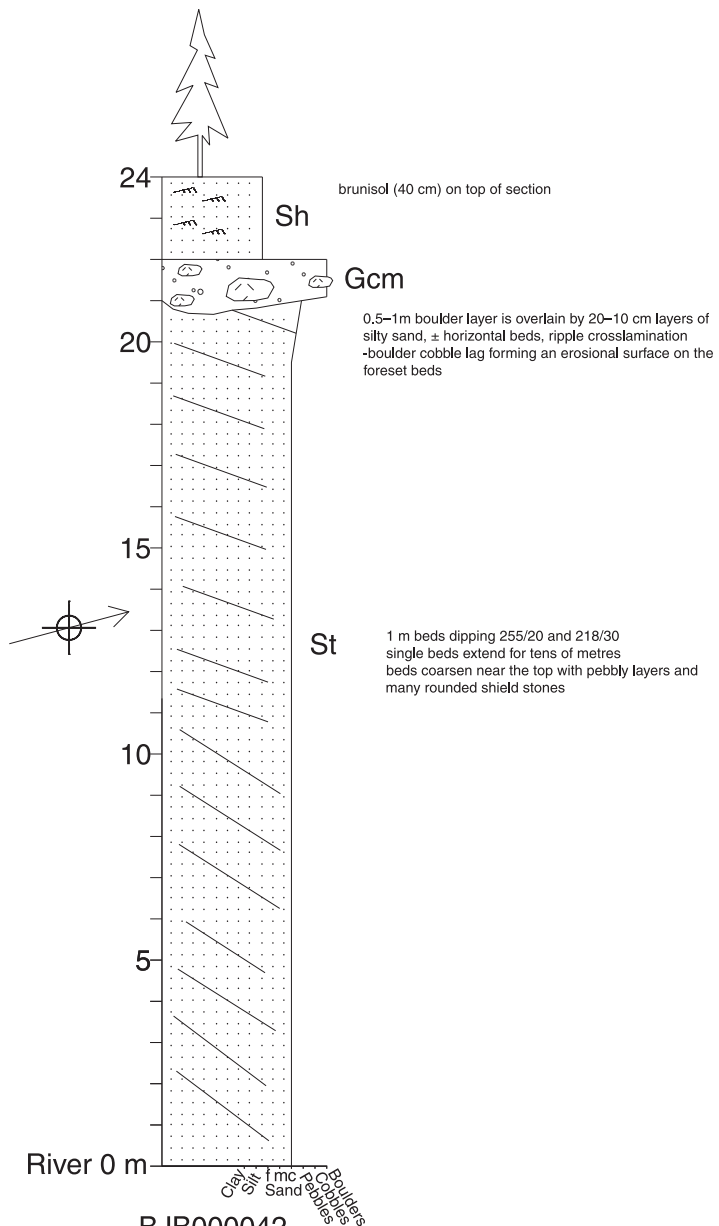
GSC 5884 8720 ± 80 BP Radiocarbon date



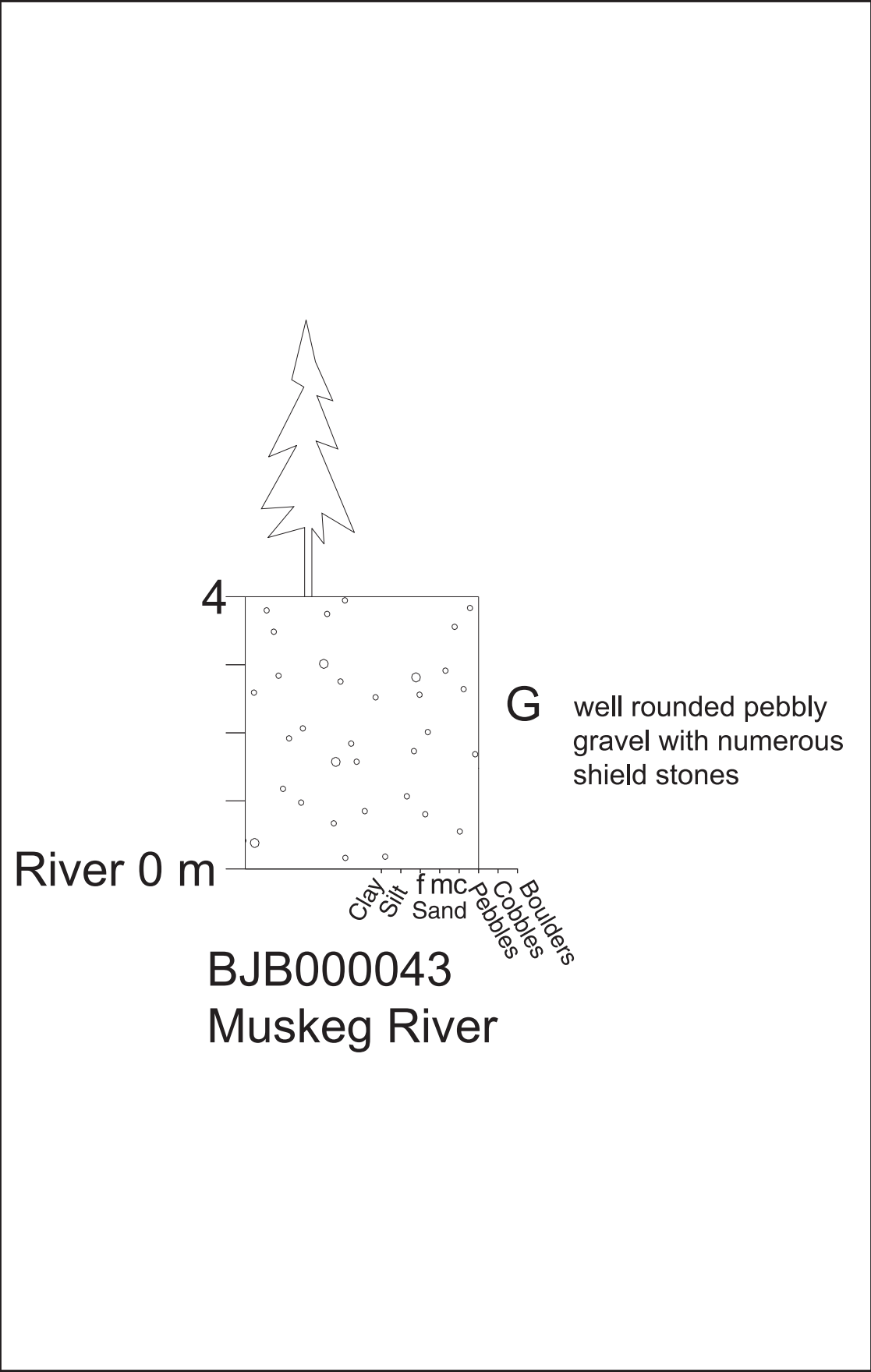
Bulk sample location

/ Interbedded units

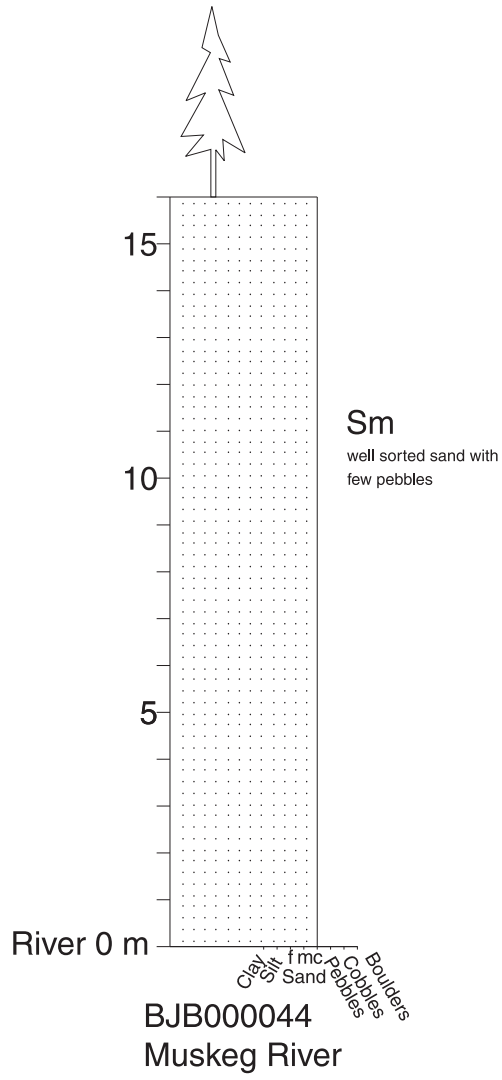
- Mix of sediment types

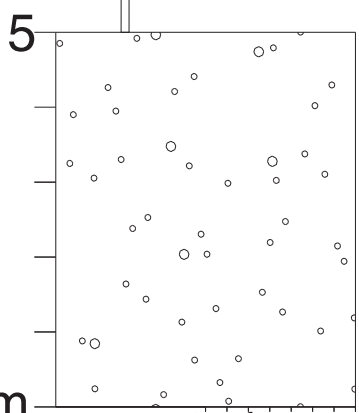


BJB000042  
Fort Liard townsite









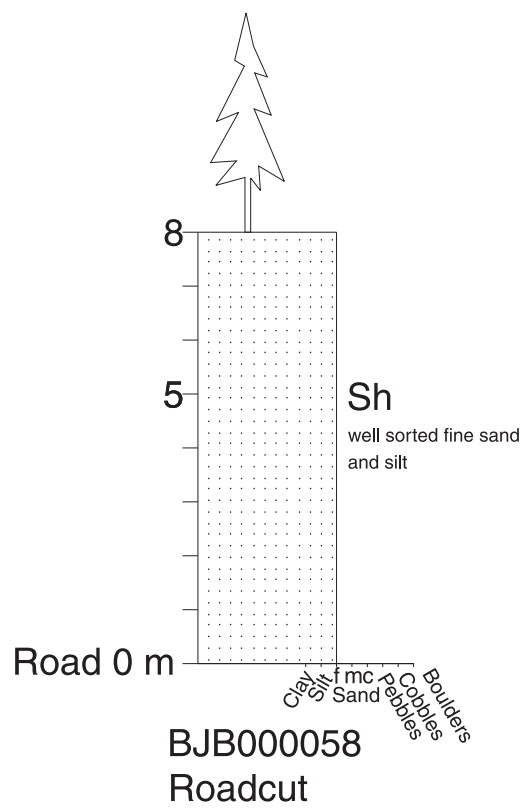
**G/Sh**

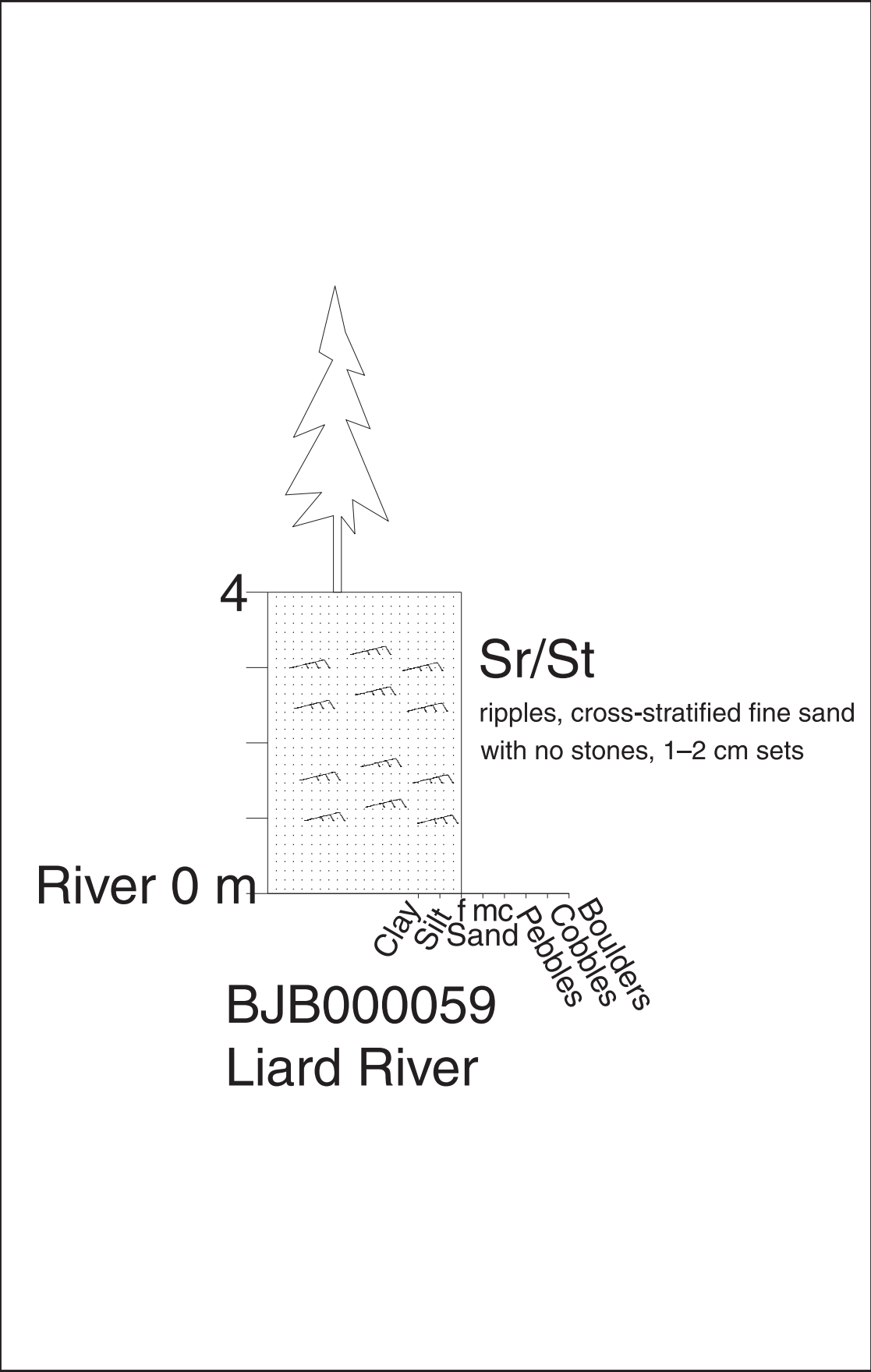
sand and gravel  
deposit in borrow pit  
many granite cobbles  
and boulders, crude  
layering apparent

Above pond 0 m

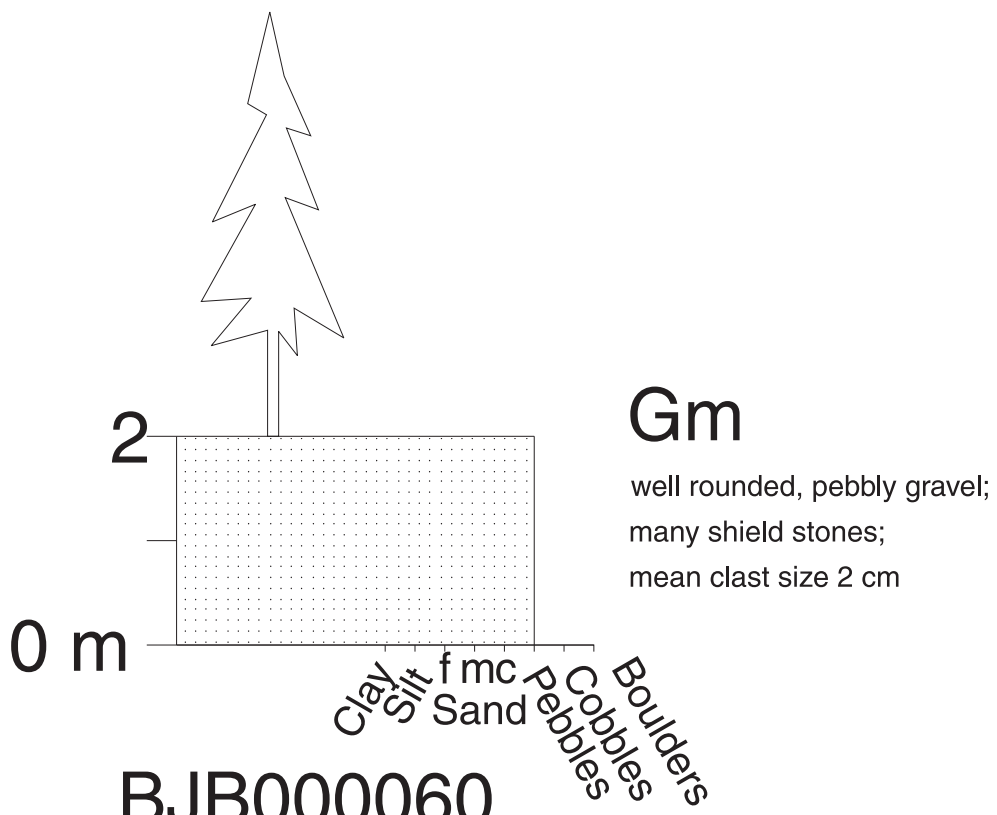
**BJB000056**

Clay  
Silt  
Sand  
fmc  
Pebbles  
Cobble  
Boulders

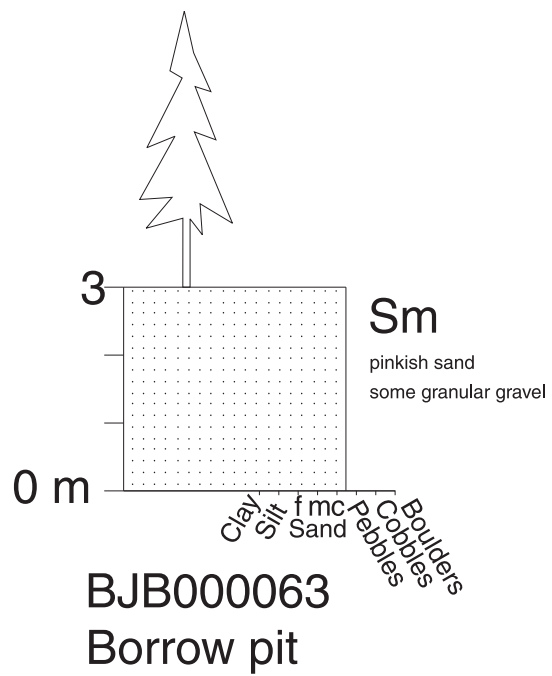


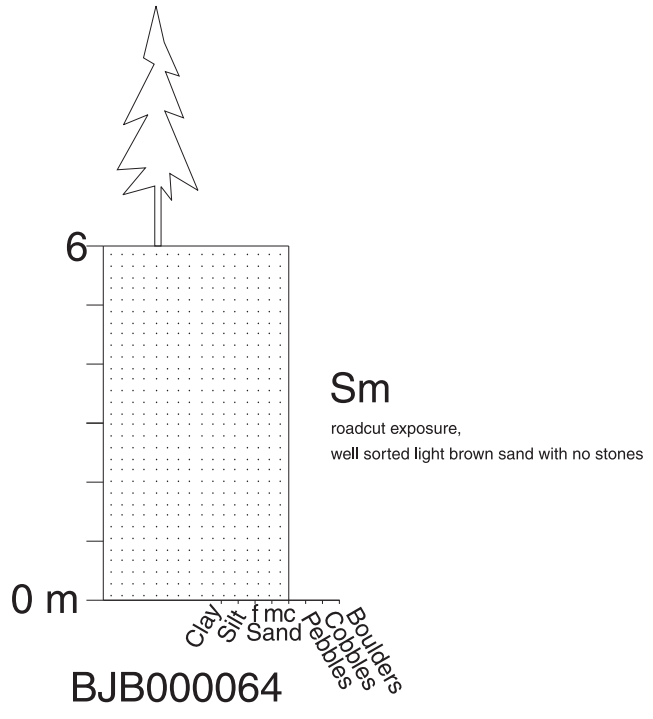


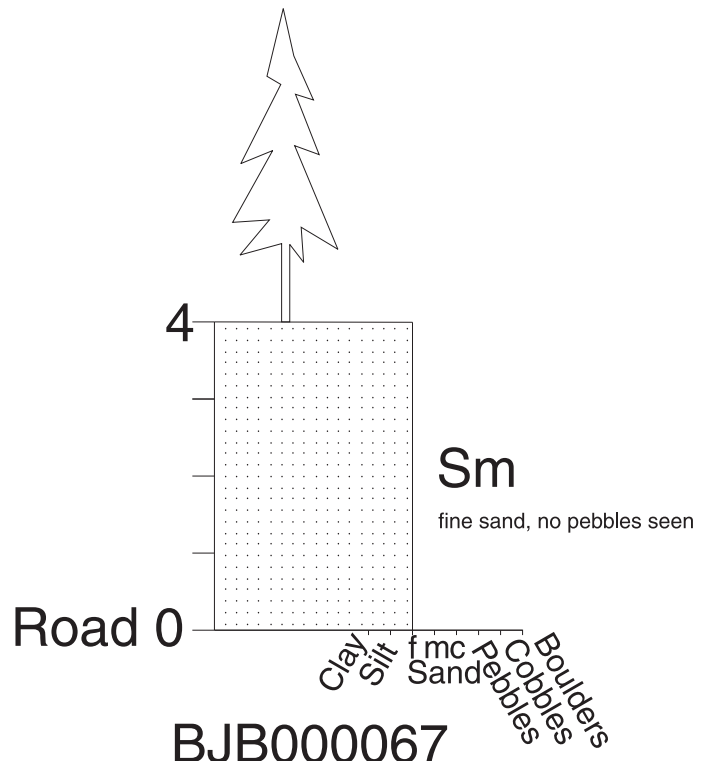




**BJB000060**  
**Borrow pit**

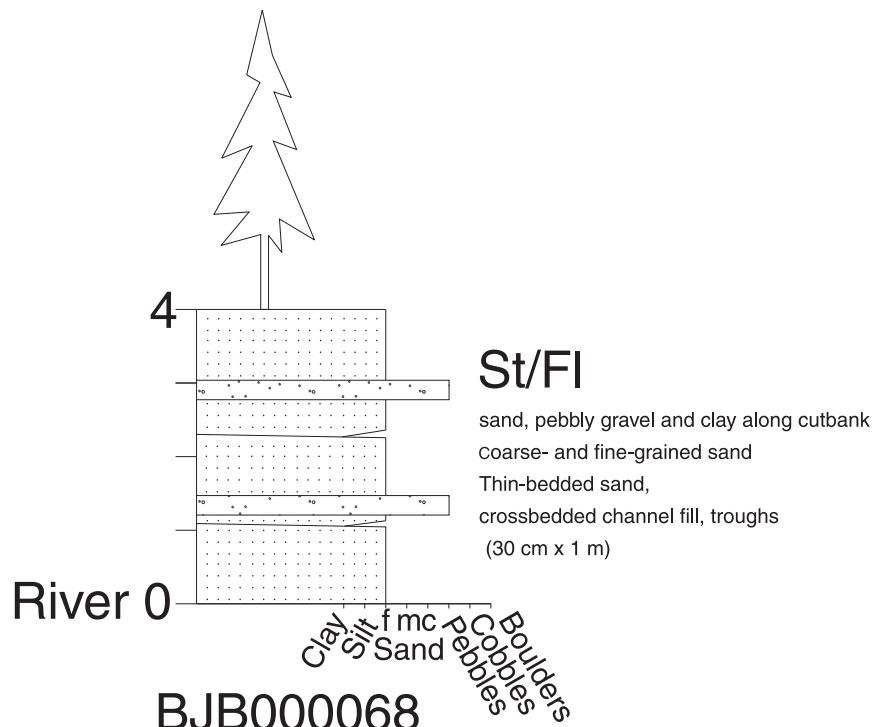




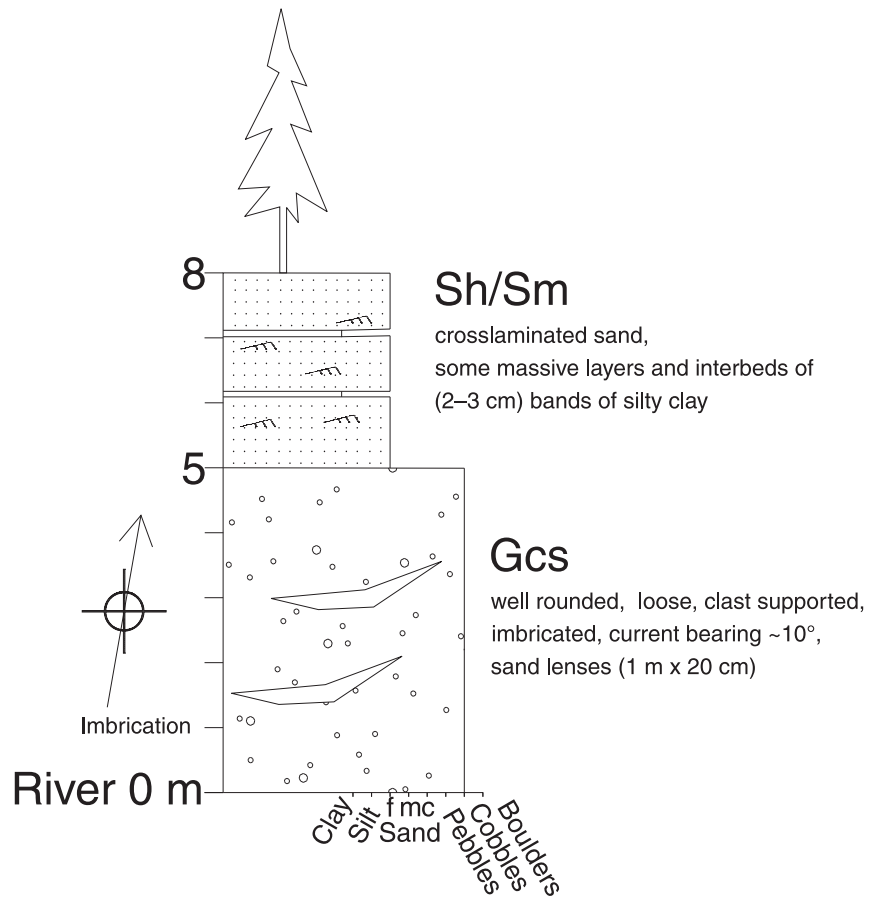


BJB000067  
Nahanni Butte  
turnoff

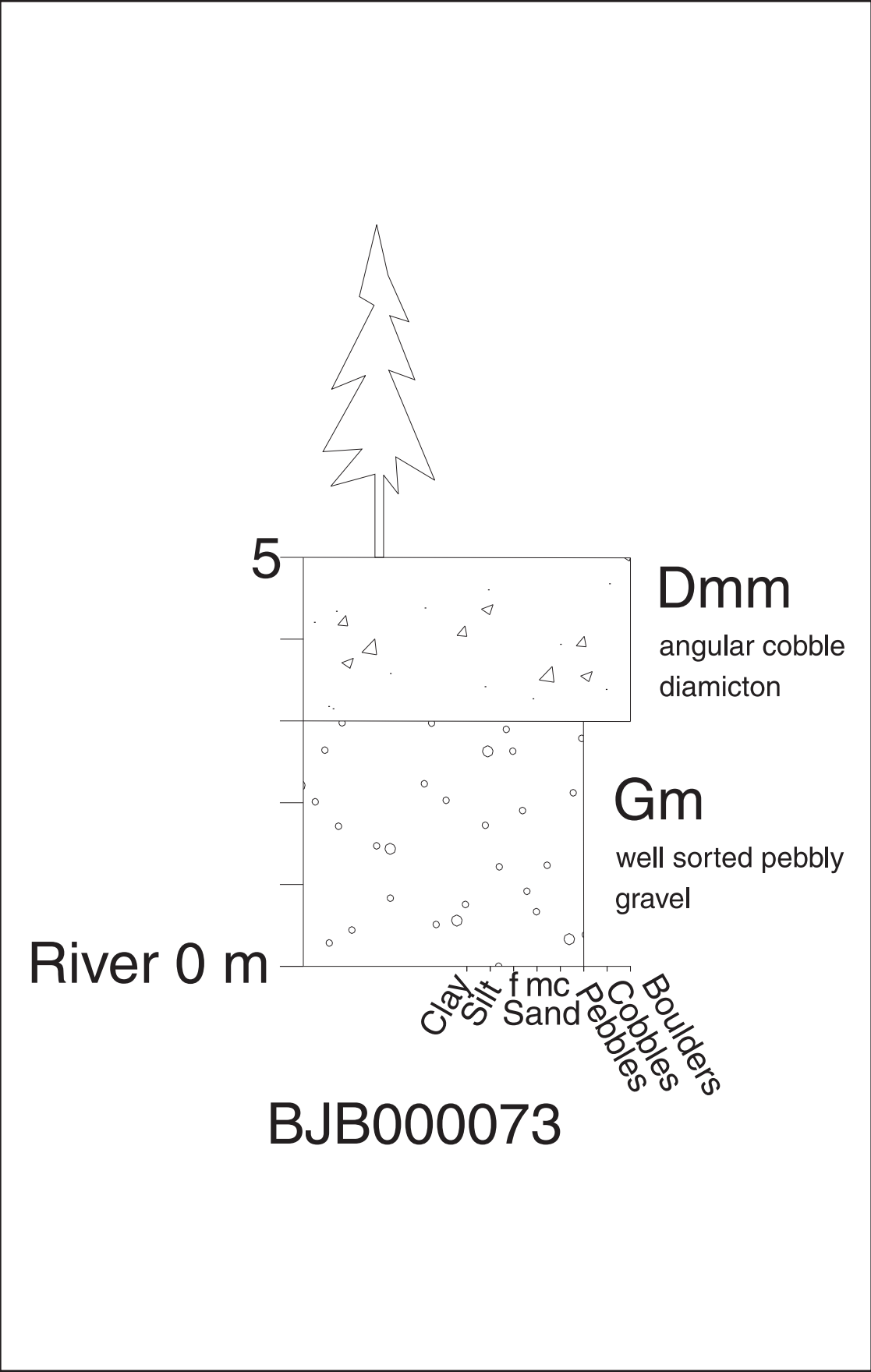


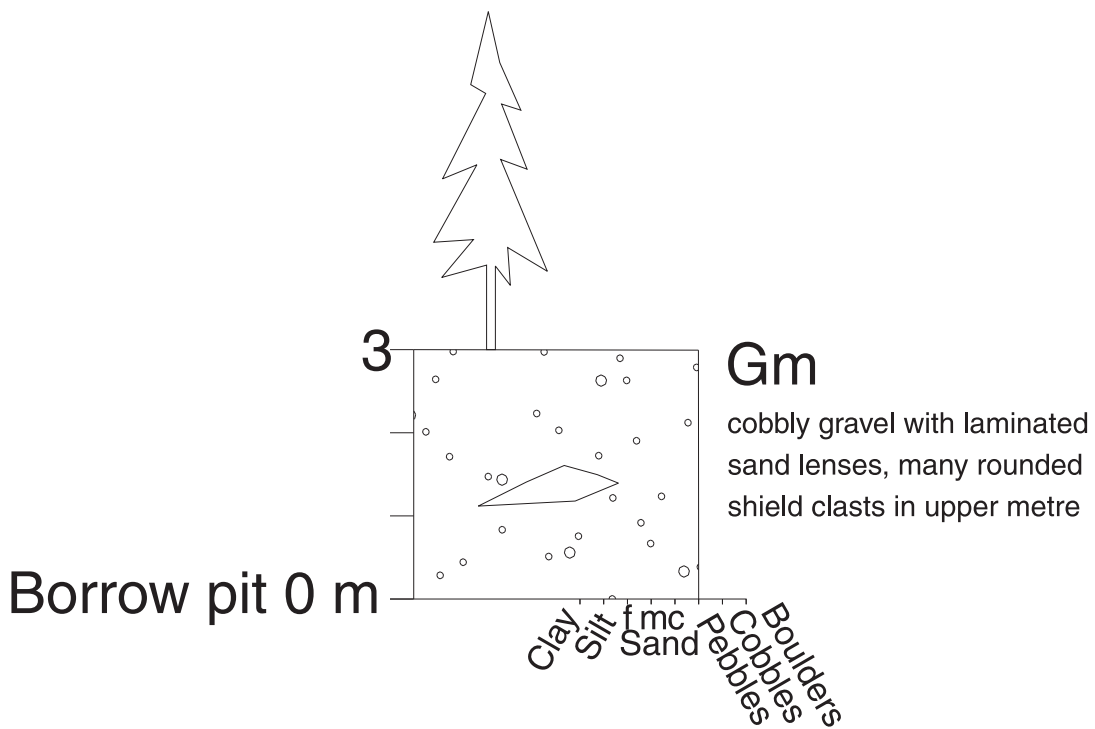


**BJB000068**  
**Muskeg River**  
**bridge**



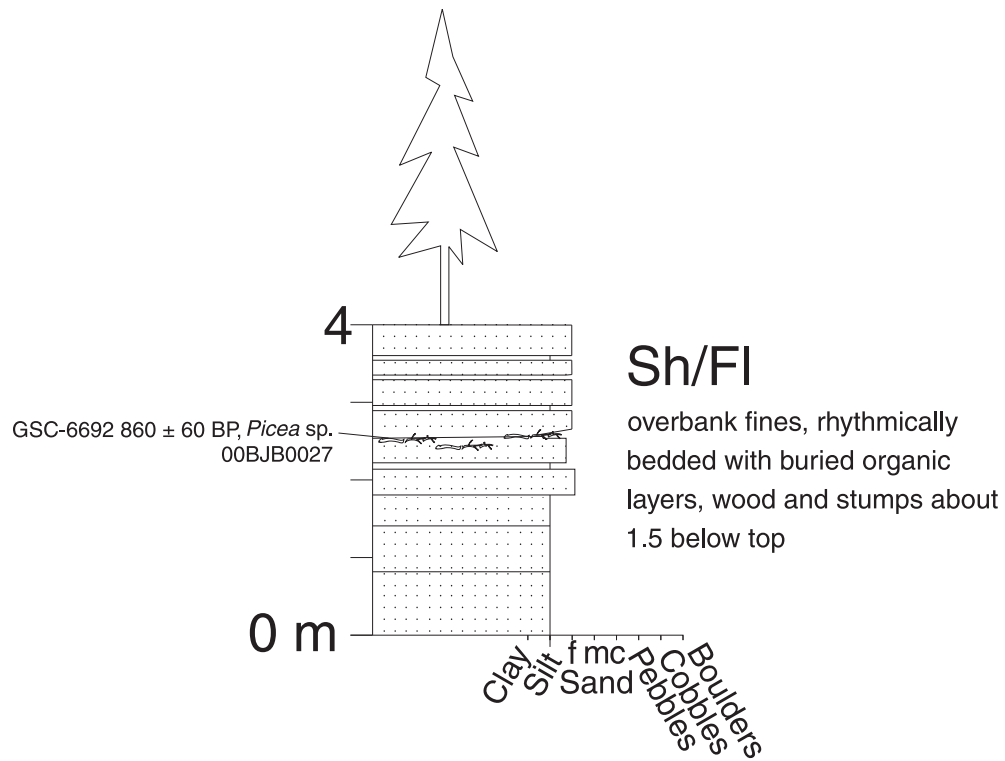
**BJB000069**  
**Liard River**



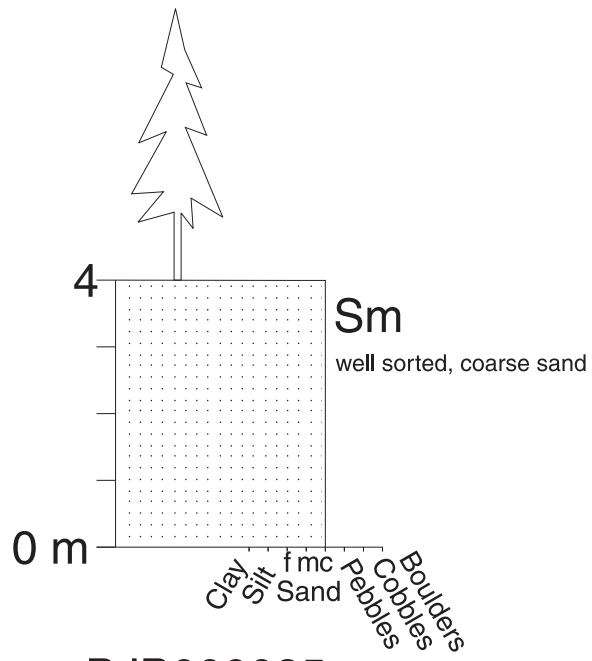


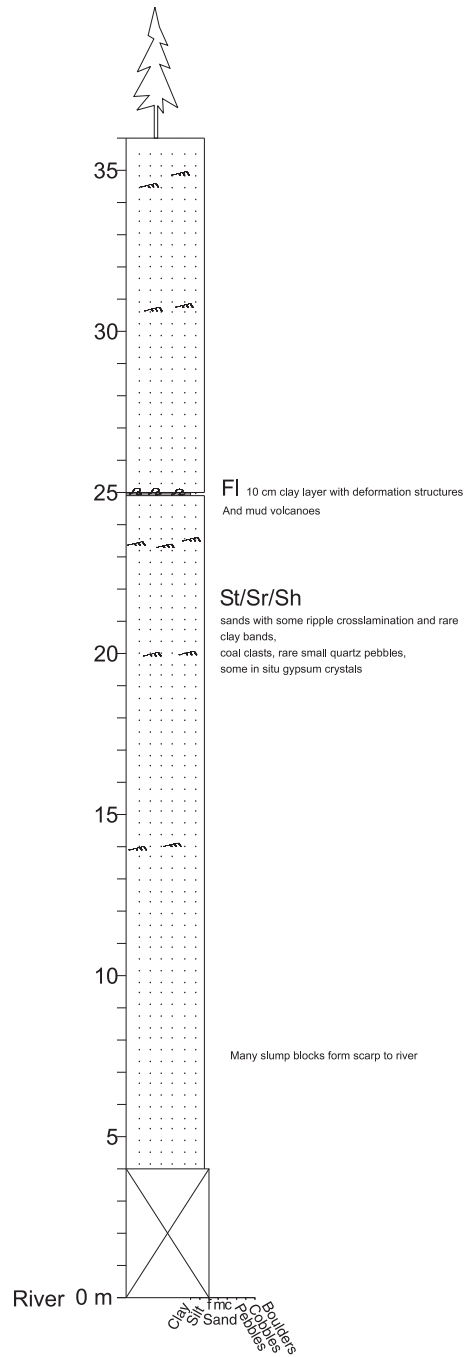
**BJB000081**



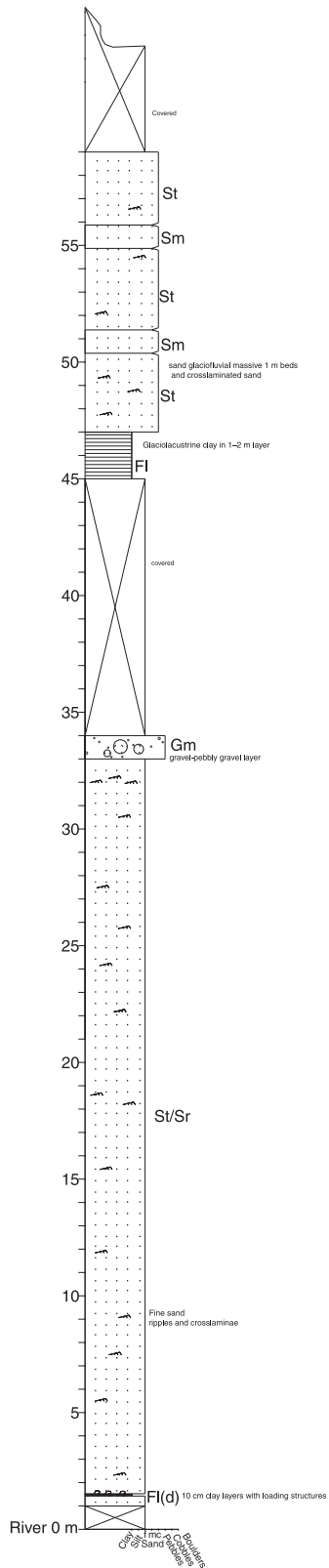


**BJB000084**  
**Liard River**



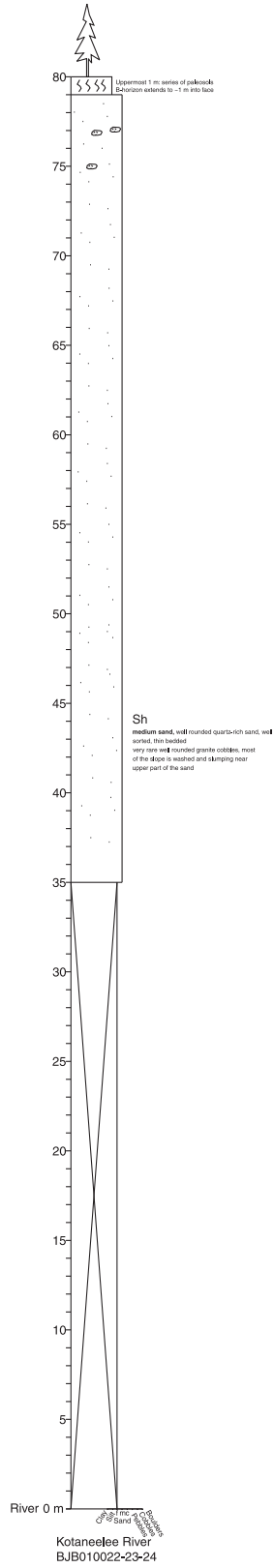


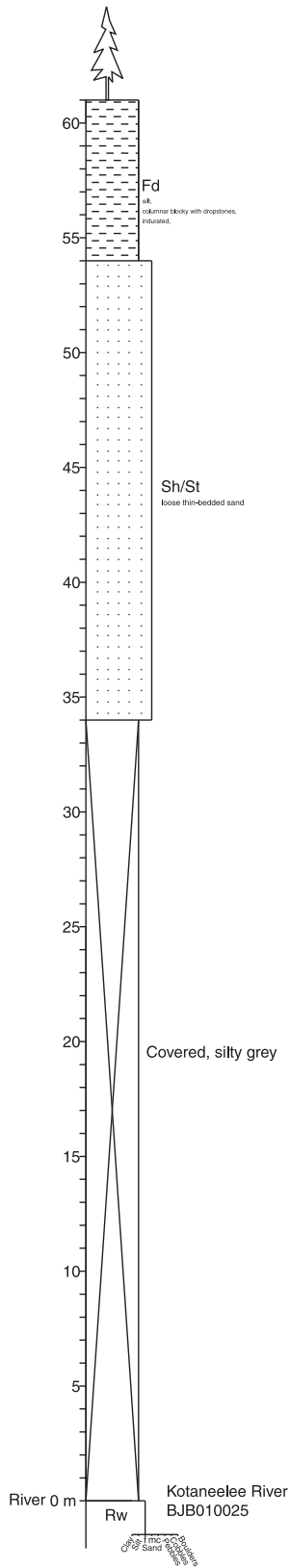
Kotaneelee River,  
LaBiche map area  
BJB010014

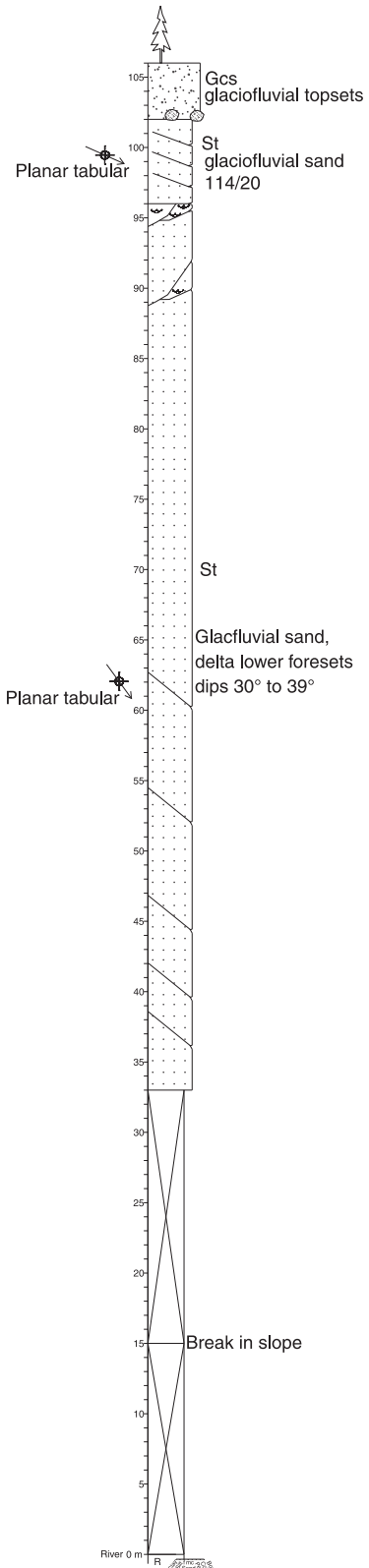


BJB010015  
 Kotanelee River, La  
 Biche map area

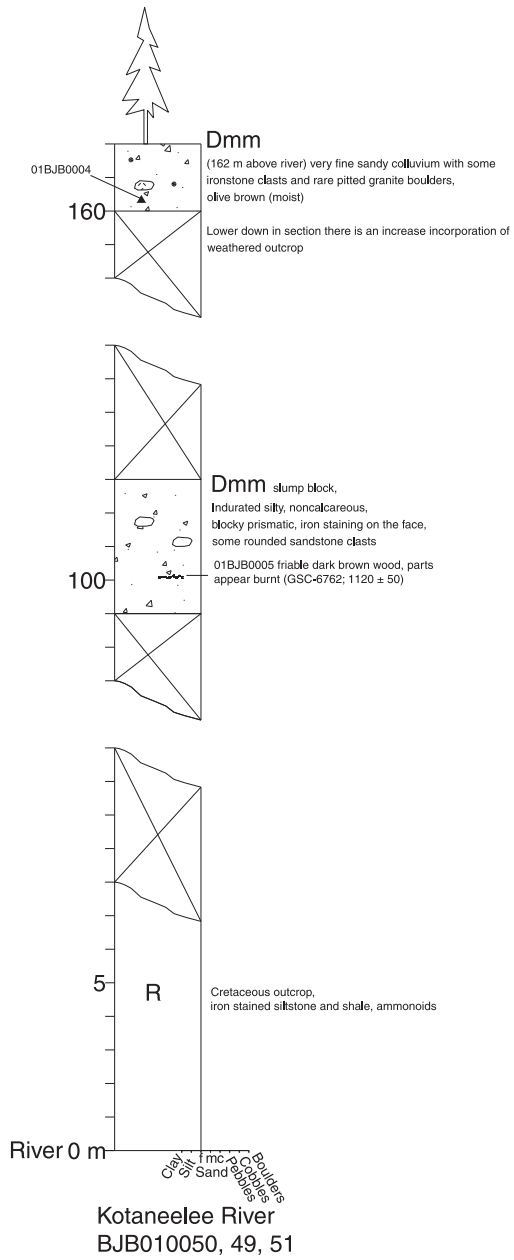


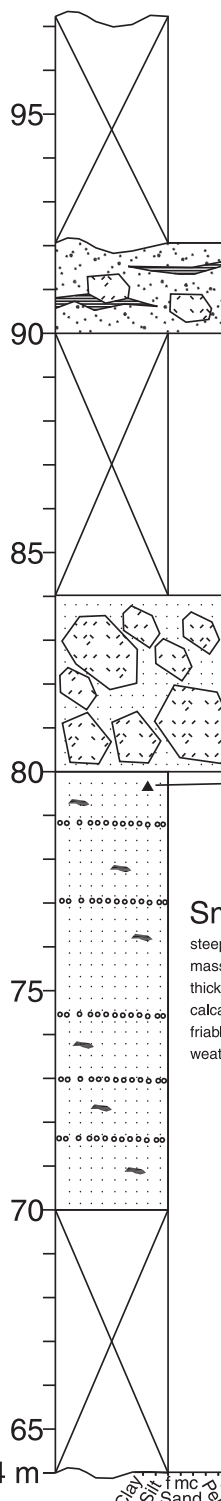






BUB010031  
Kotaneetee River





**Gcs**  
 oxidized orange cobble-boulder gravel,  
 clast supported,  
 shield clasts,  
 interbedded with dark greenish grey clay  
 stringers

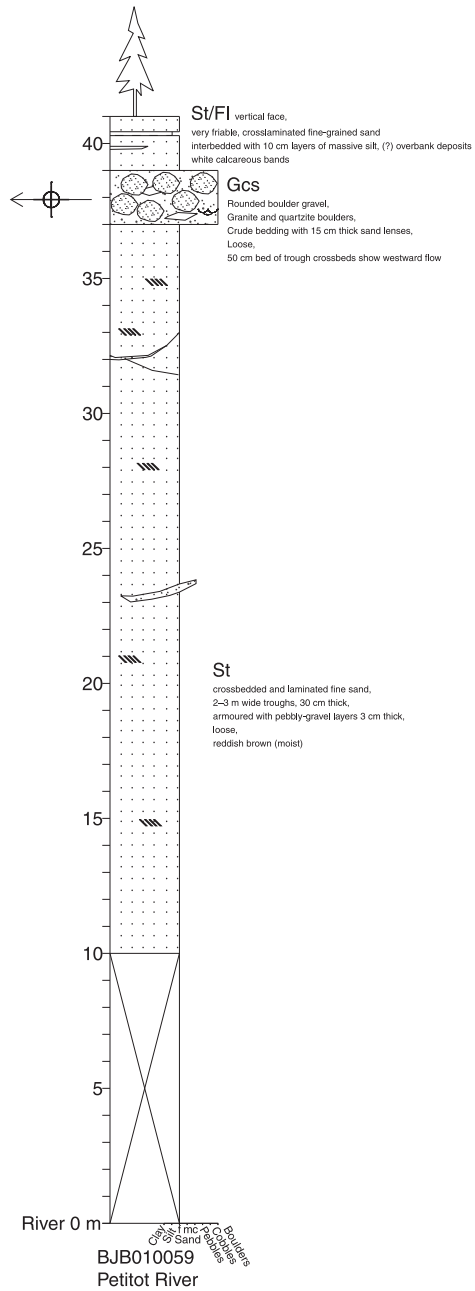
**Gcs**  
 large boulders, including granite  
 orange sand matrix  
 (?) imbricated

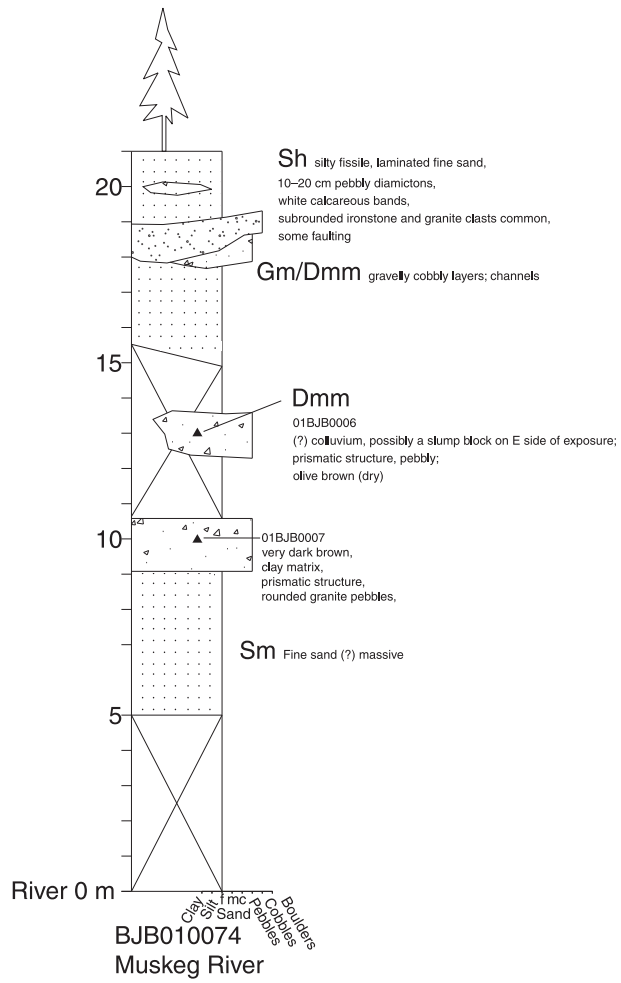
**Sm/Sh**  
 steep face,  
 massive to crudely bedded,  
 thick beds of sand with some pebbly layers,  
 calcareous columnar blocks,  
 friable,  
 weathered sandstone and shale clasts throughout

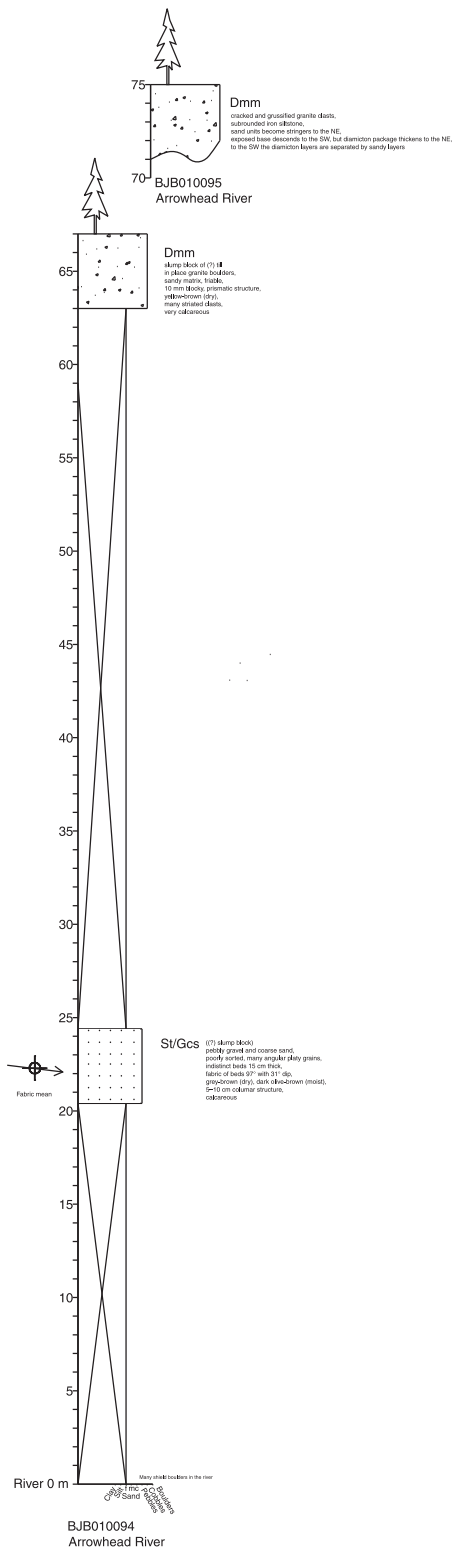
Approximate  
 metres above river  
 overlying bedrock  
 cliff

64 m  
 Clay Silt Sand  
 Boulders  
 Cobbles

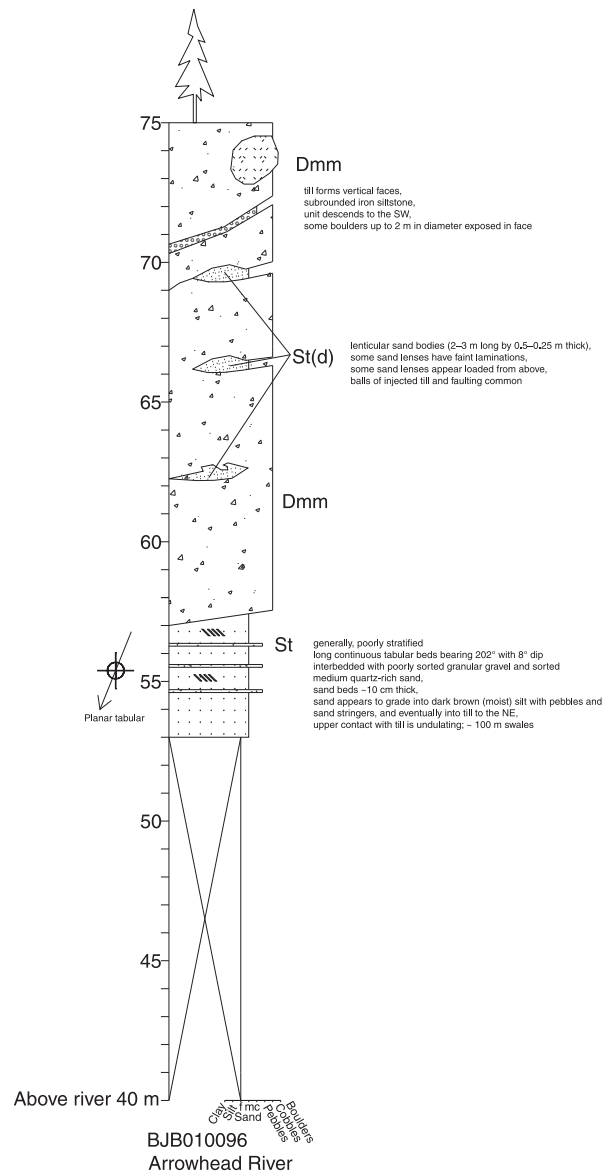
**BJB010058**  
**Petitot River, B.C.**

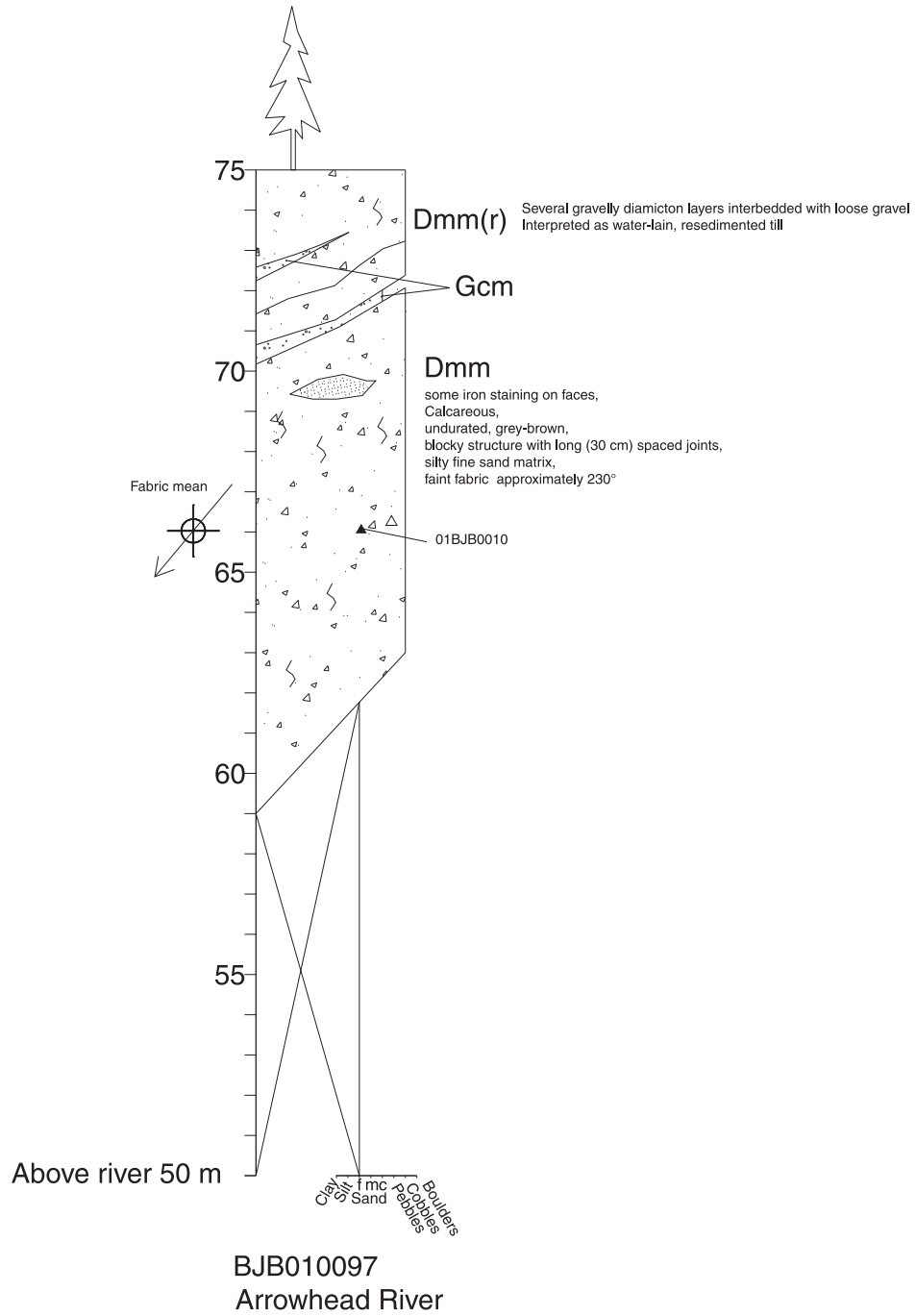


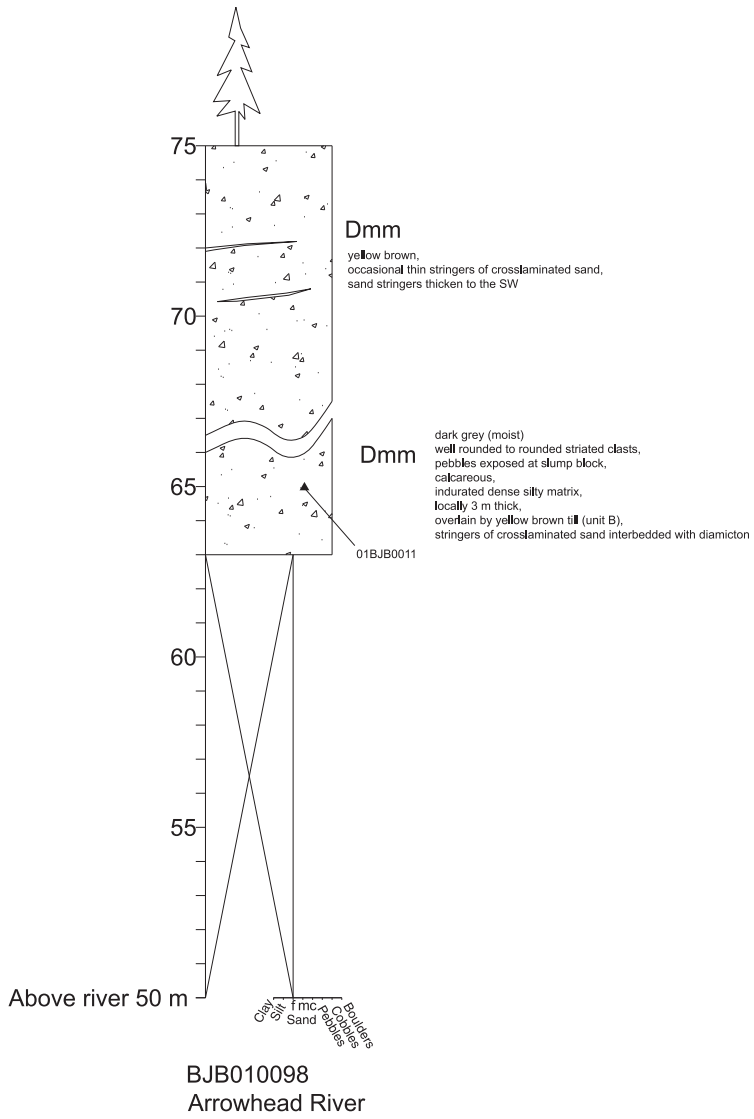


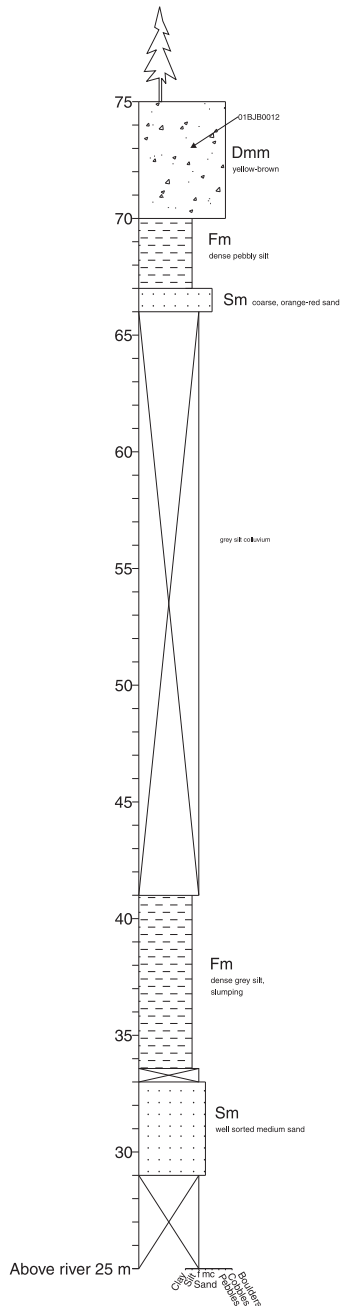




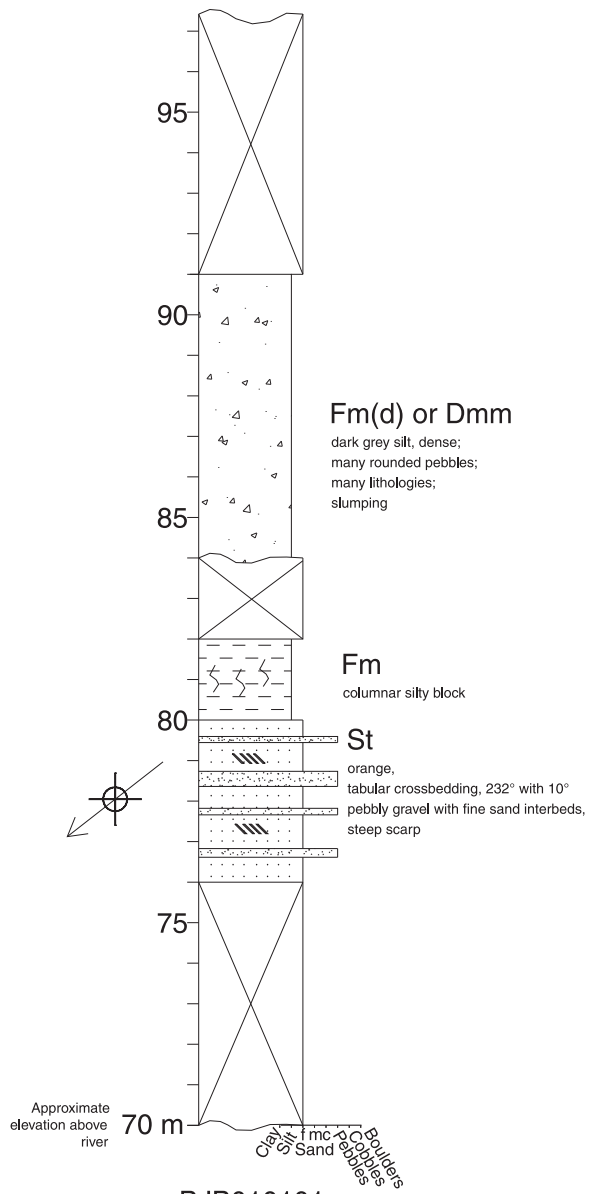




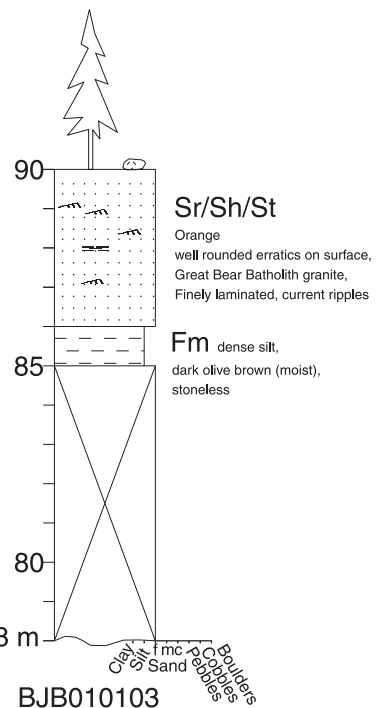




BJB010099  
Arrowhead River

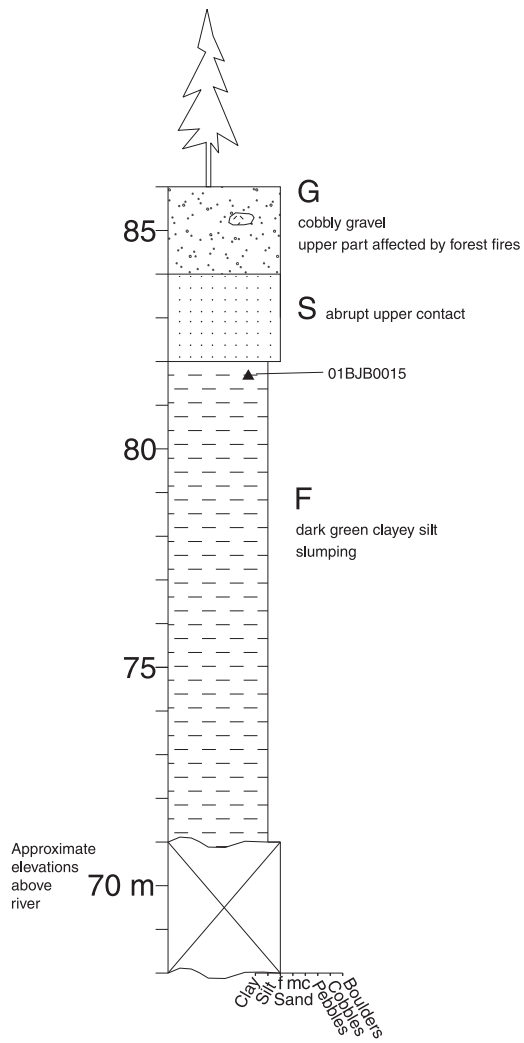


BJB010101  
 Petitot River, B.C.

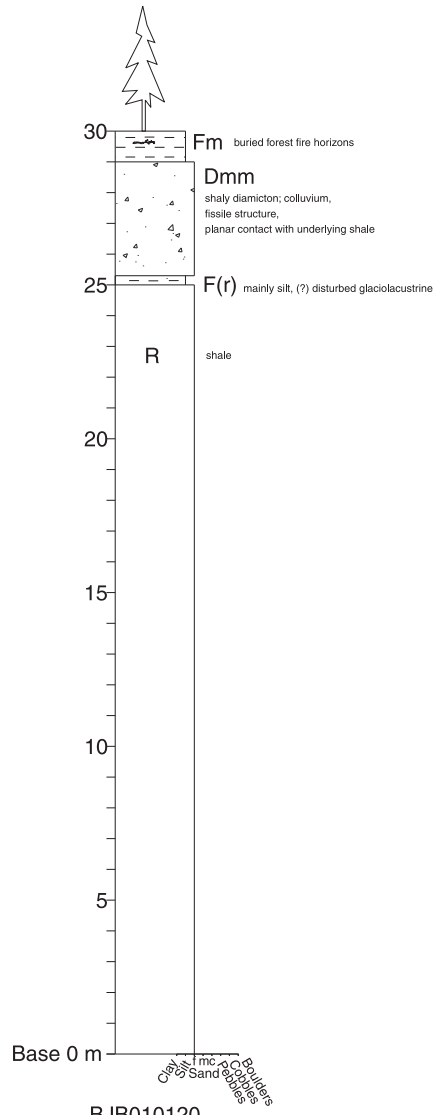


Approximate elevation  
above above  
river, stumped area

**BJB010103**  
**Petitot River**

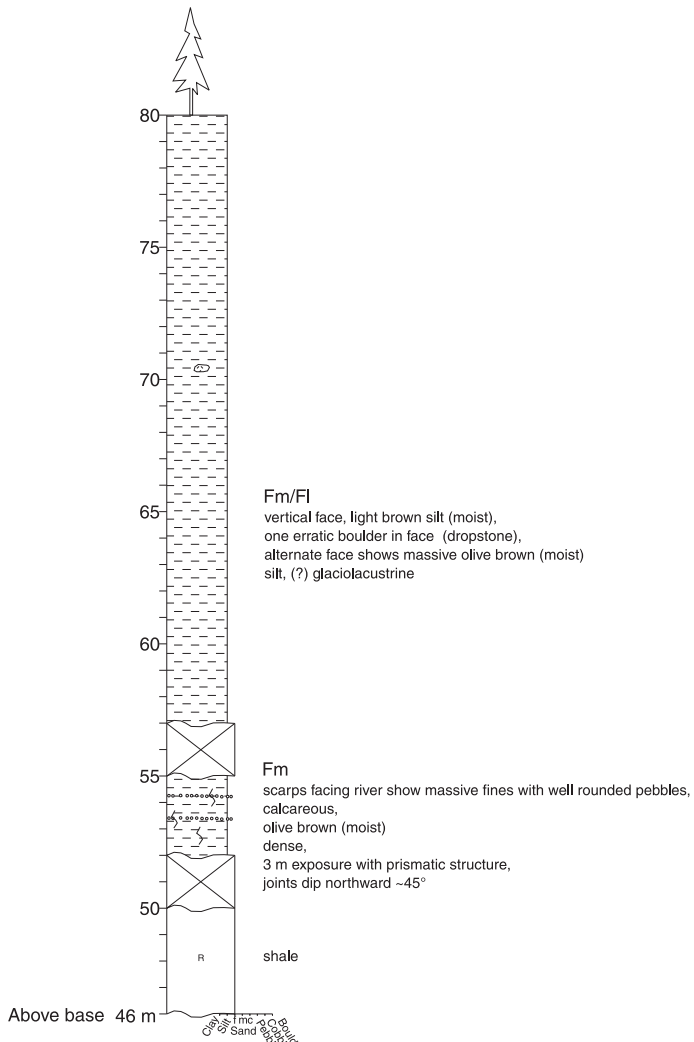


BJB010104  
Petitot River

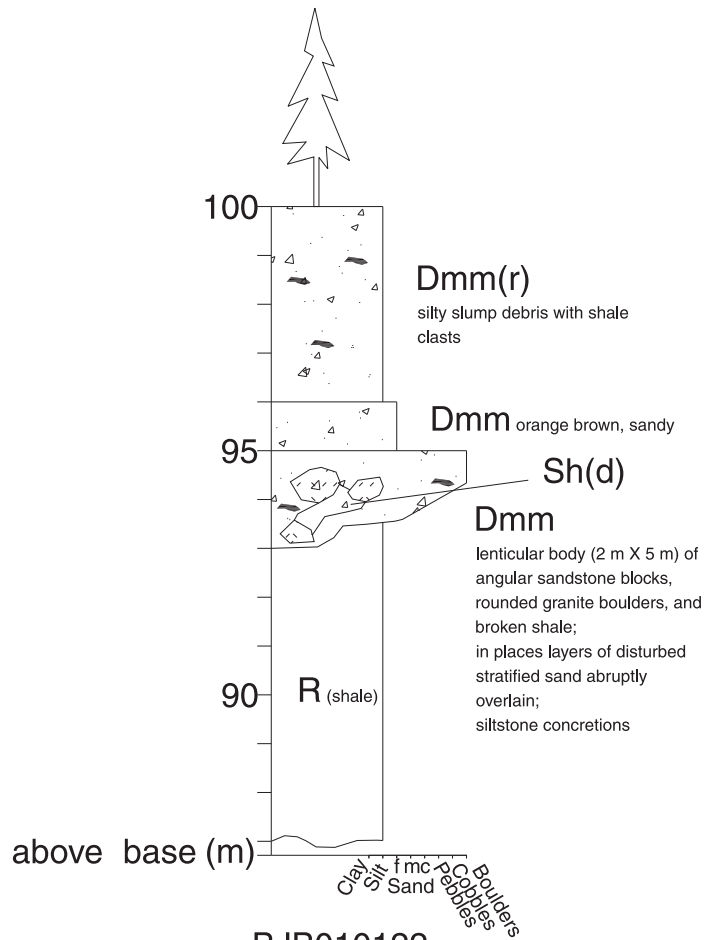


BJB010120  
 Kotaneelee River  
 tributary

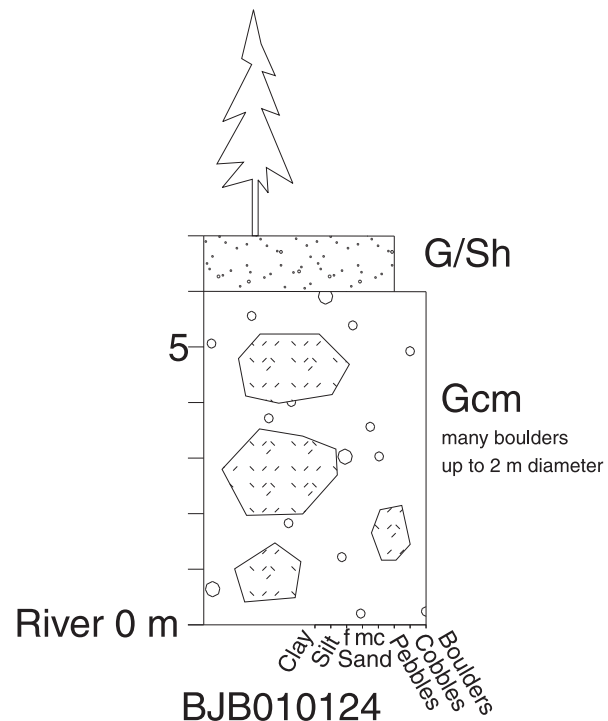




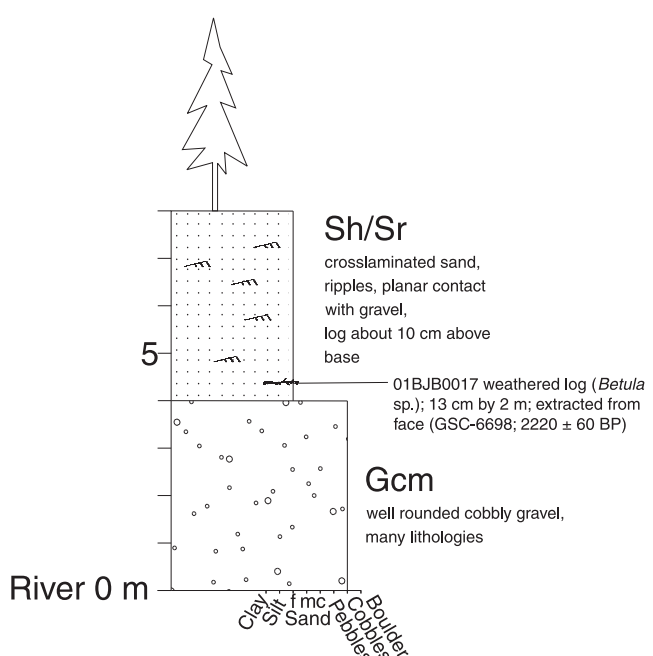
BJB010121  
Kotaneelee River  
tributary



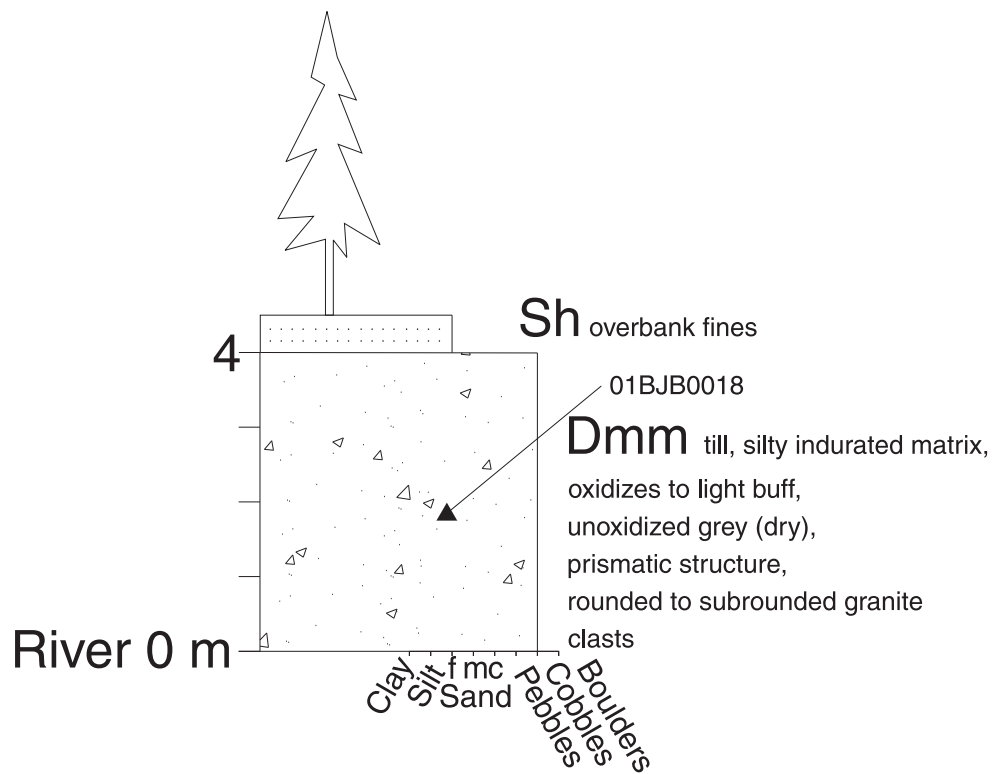
**BJB010122**  
 Kotaneelee River,  
 slump scarp, about 100 m  
 above river



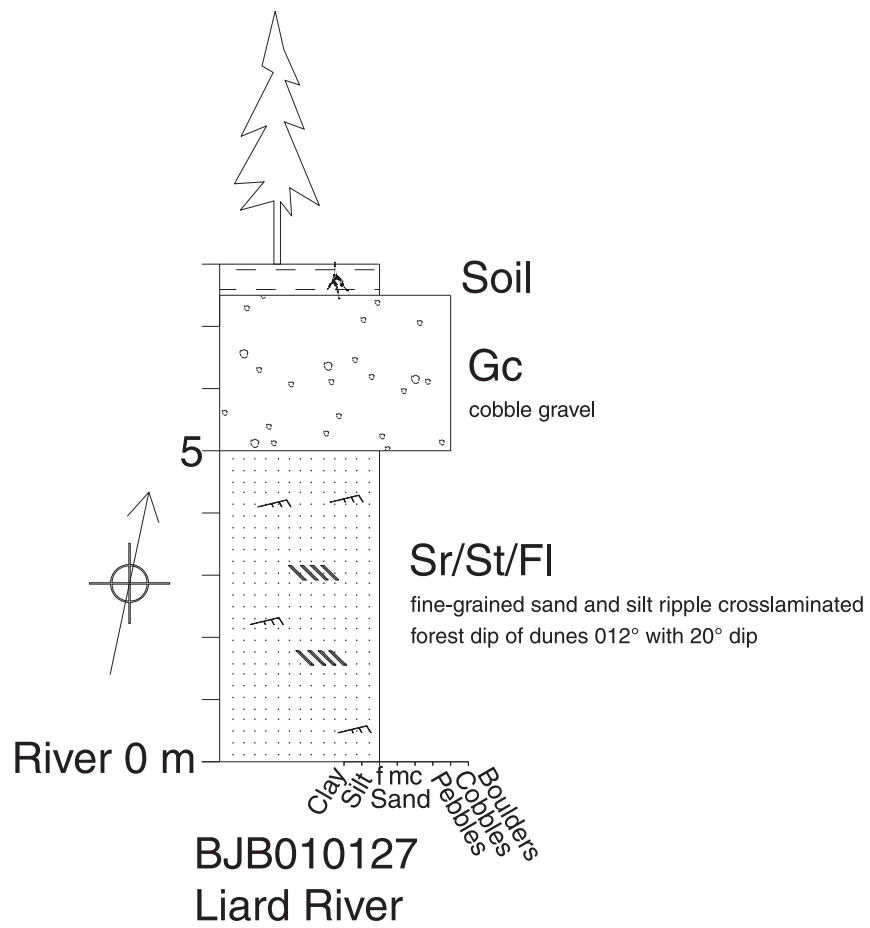
BJB010124  
Liard River,  
glaciofluvial ridge

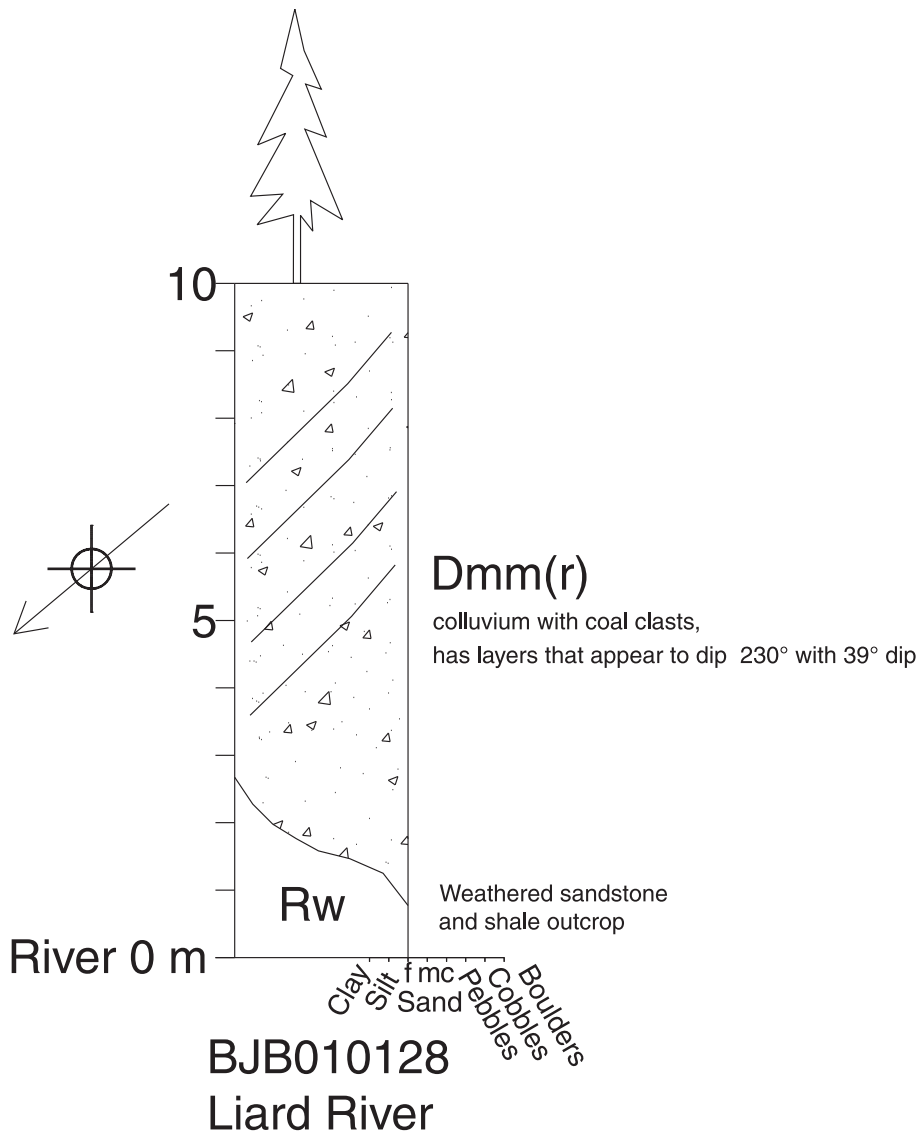


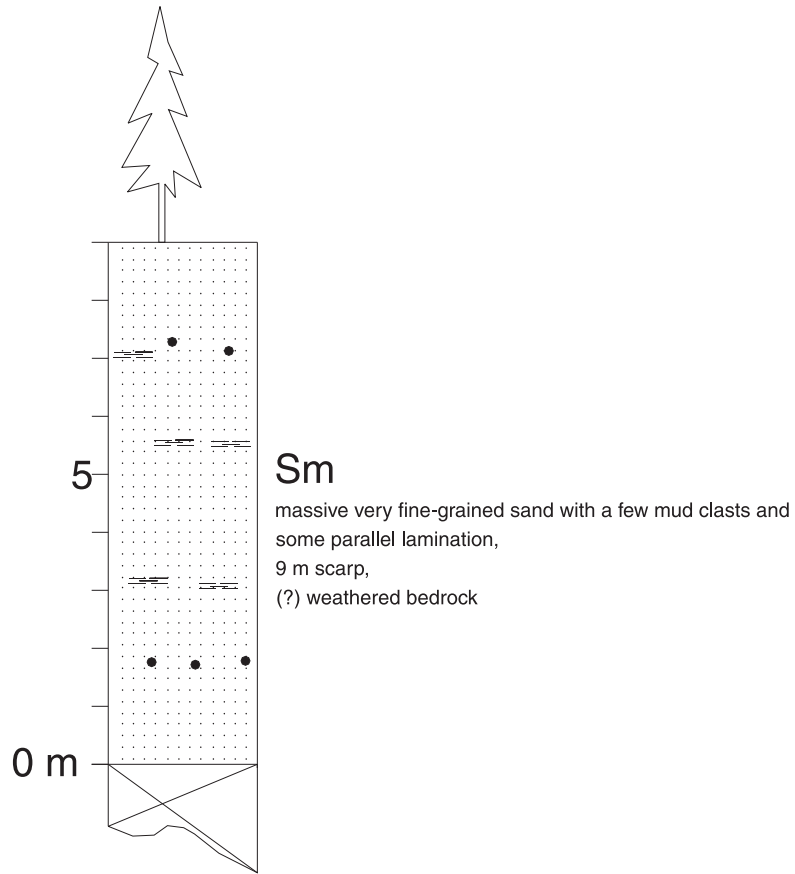
**BJB010125**  
 Liard River



BJB010126  
Liard River, mouth of  
Kotaneelee River

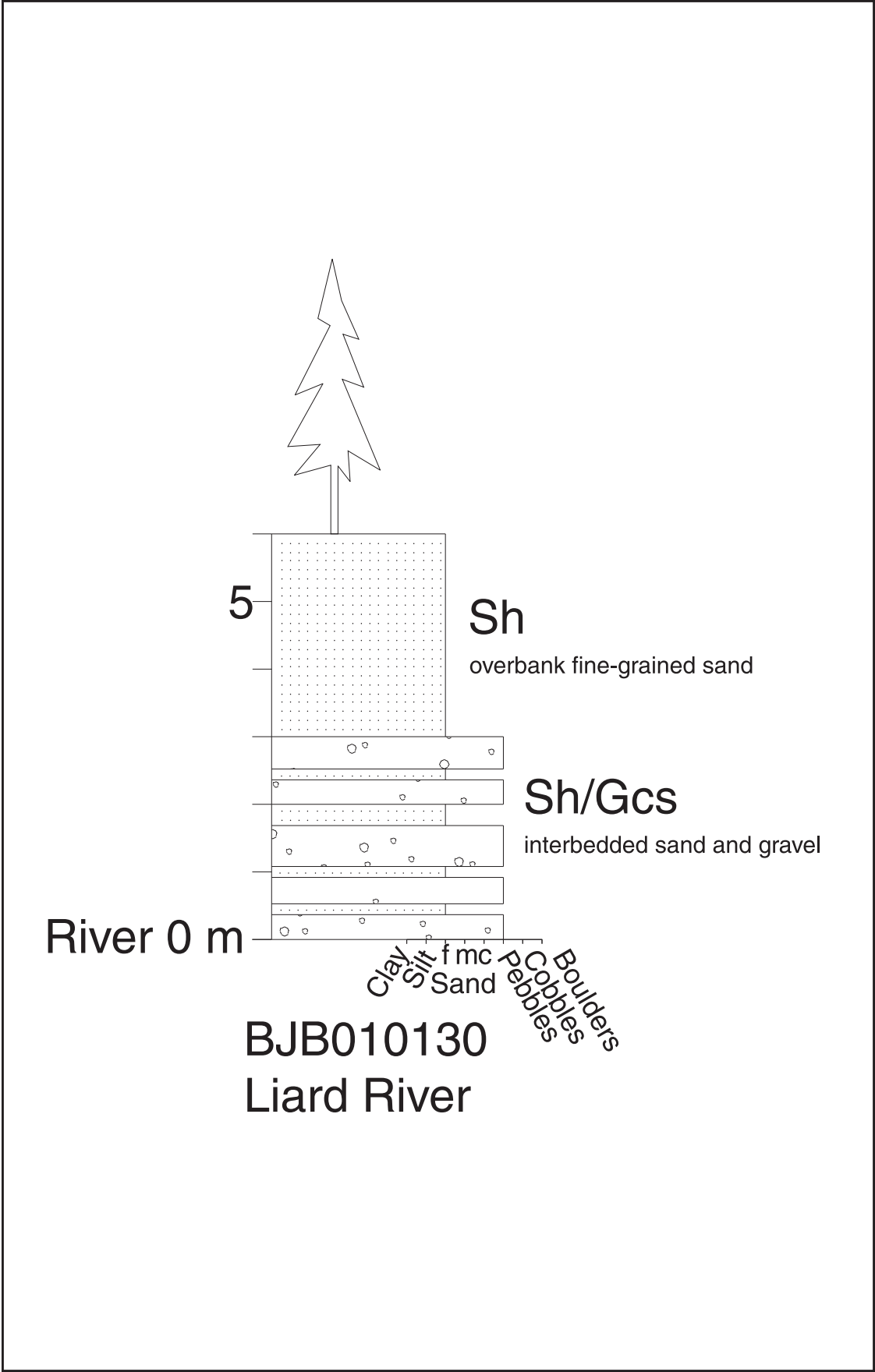






**BJB010129**  
**Liard River,**  
**slump scarp**





5

Sh

overbank fine-grained sand

Sh/Gcs

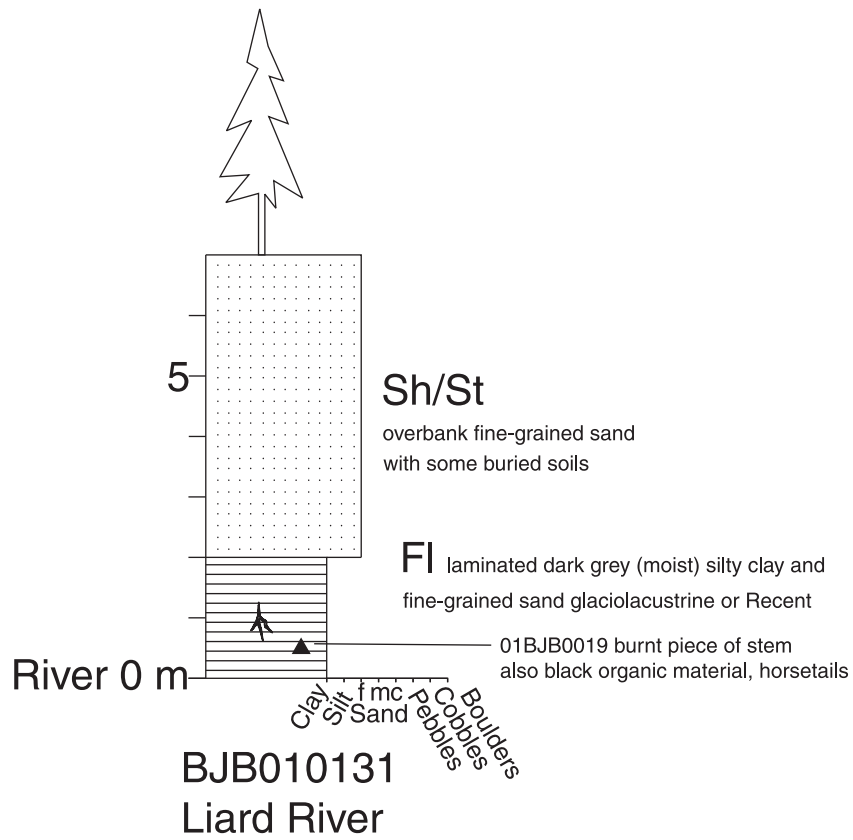
interbedded sand and gravel

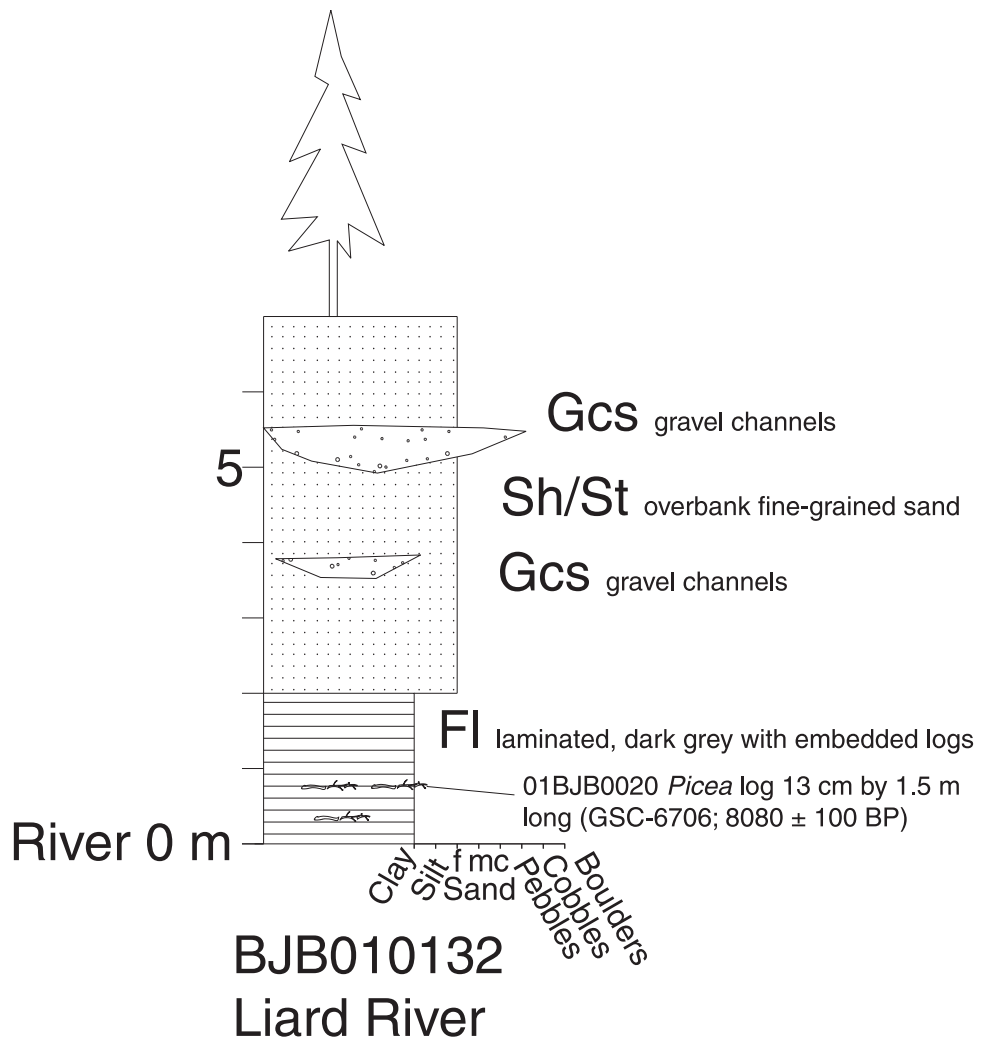
River 0 m

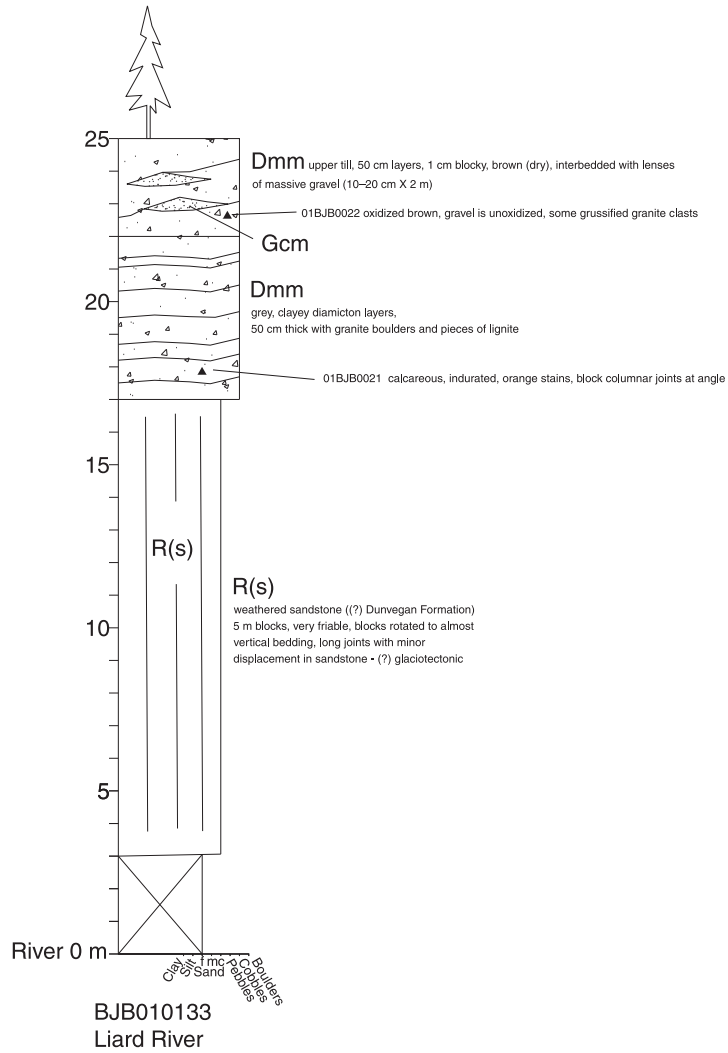
Clay  
Silt  
f mc  
Sand  
Pebbles  
Boulders

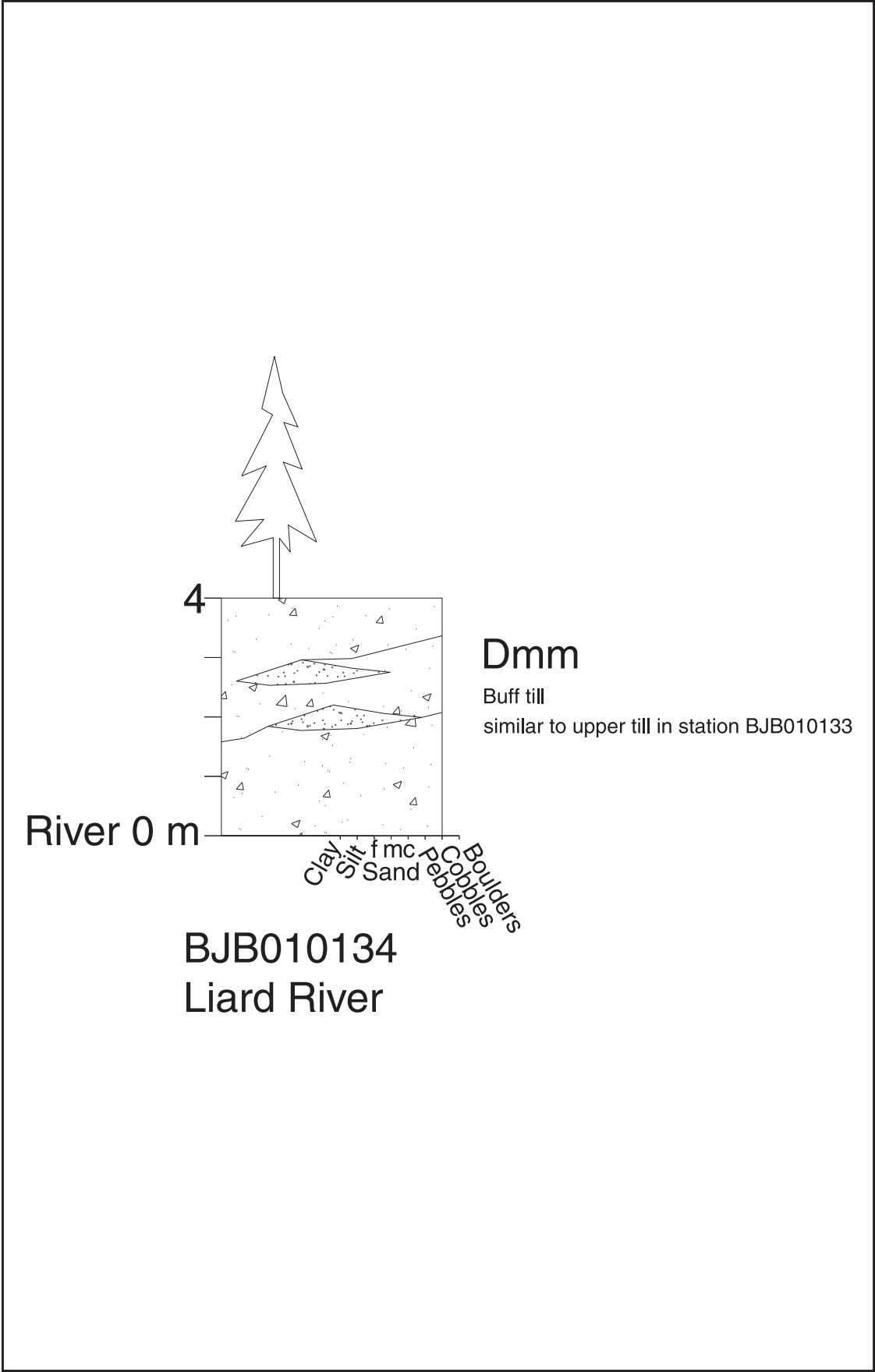
BJB010130

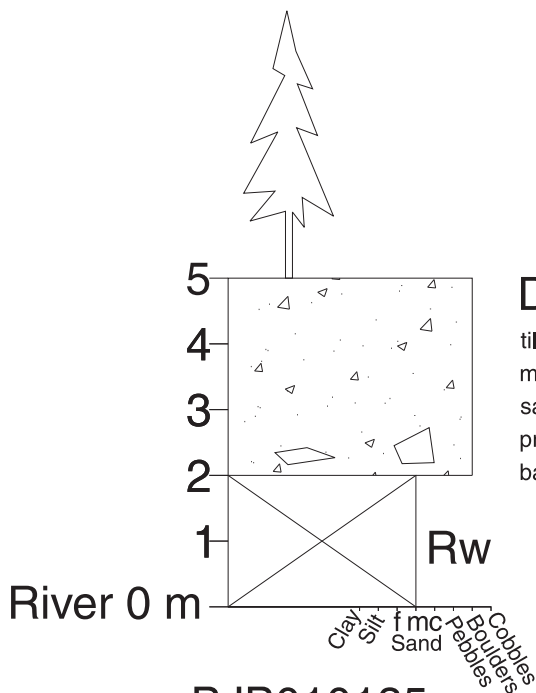
Liard River







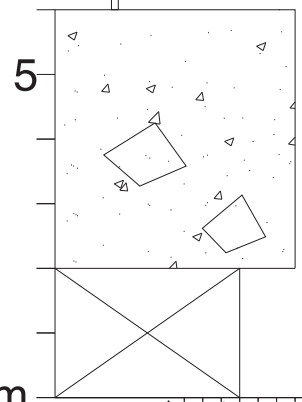
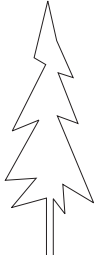




## Dmm

till-like diamicton with subangular to subrounded clasts;  
 many lignite pebbles;  
 sandy colour;  
 prismatic structure, indurated;  
 base is sandy with many angular sandstone blocks

BJB010135  
 Liard River



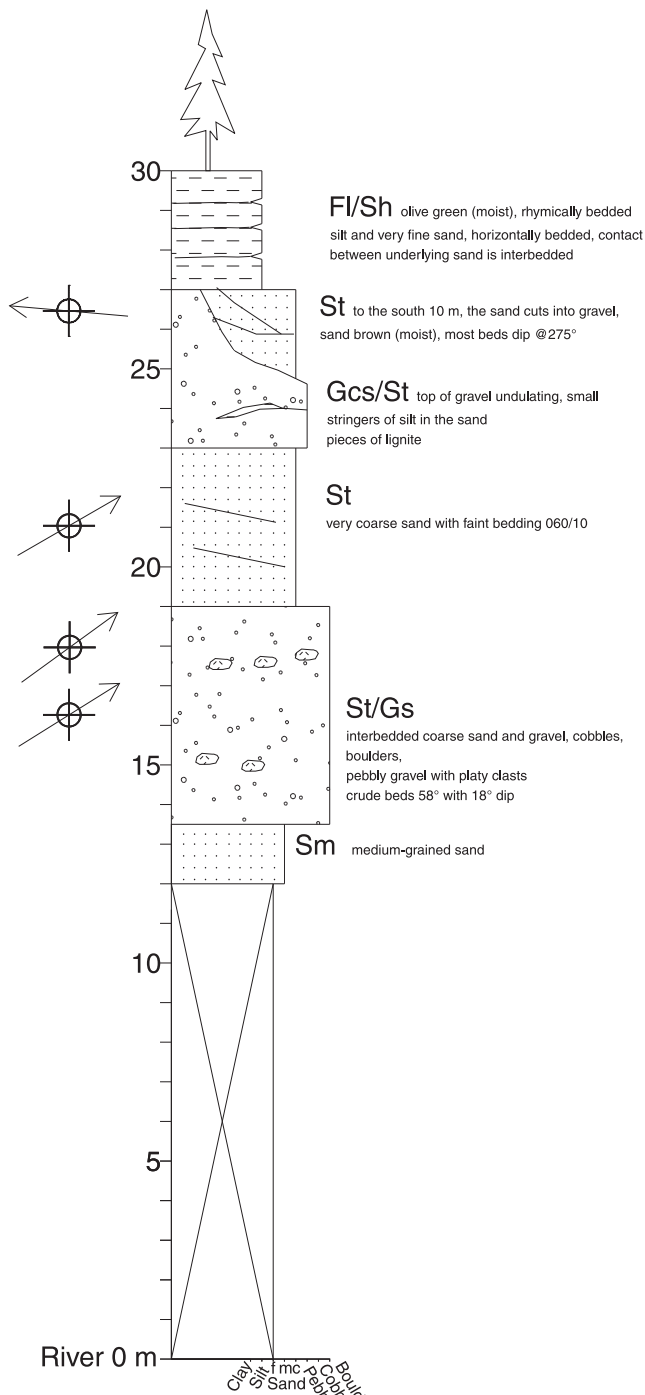
**Dmm**

till-colluvium with angular sandstone boulders,  
clayey weathered shale (dark grey),  
mostly covered

River 0 m

Clay Silt f mc Sand Pebbles Boulders

BJB010136  
Liard River



**FI/Sh** olive green (moist), rhythmically bedded silt and very fine sand, horizontally bedded, contact between underlying sand is interbedded

**St** to the south 10 m, the sand cuts into gravel, sand brown (moist), most beds dip @ 275°

**Gcs/St** top of gravel undulating, small stringers of silt in the sand pieces of lignite

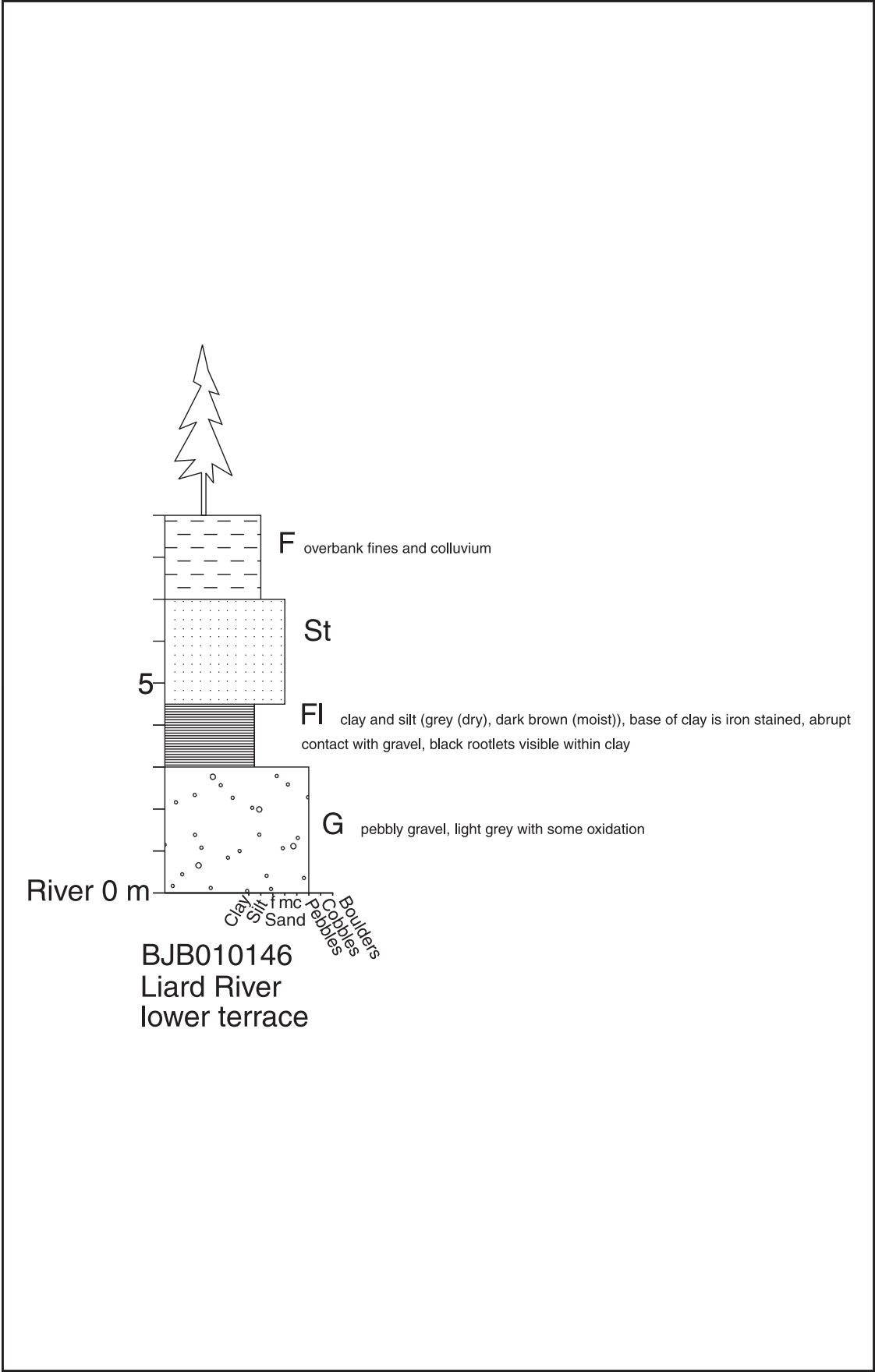
**St** very coarse sand with faint bedding 060/10

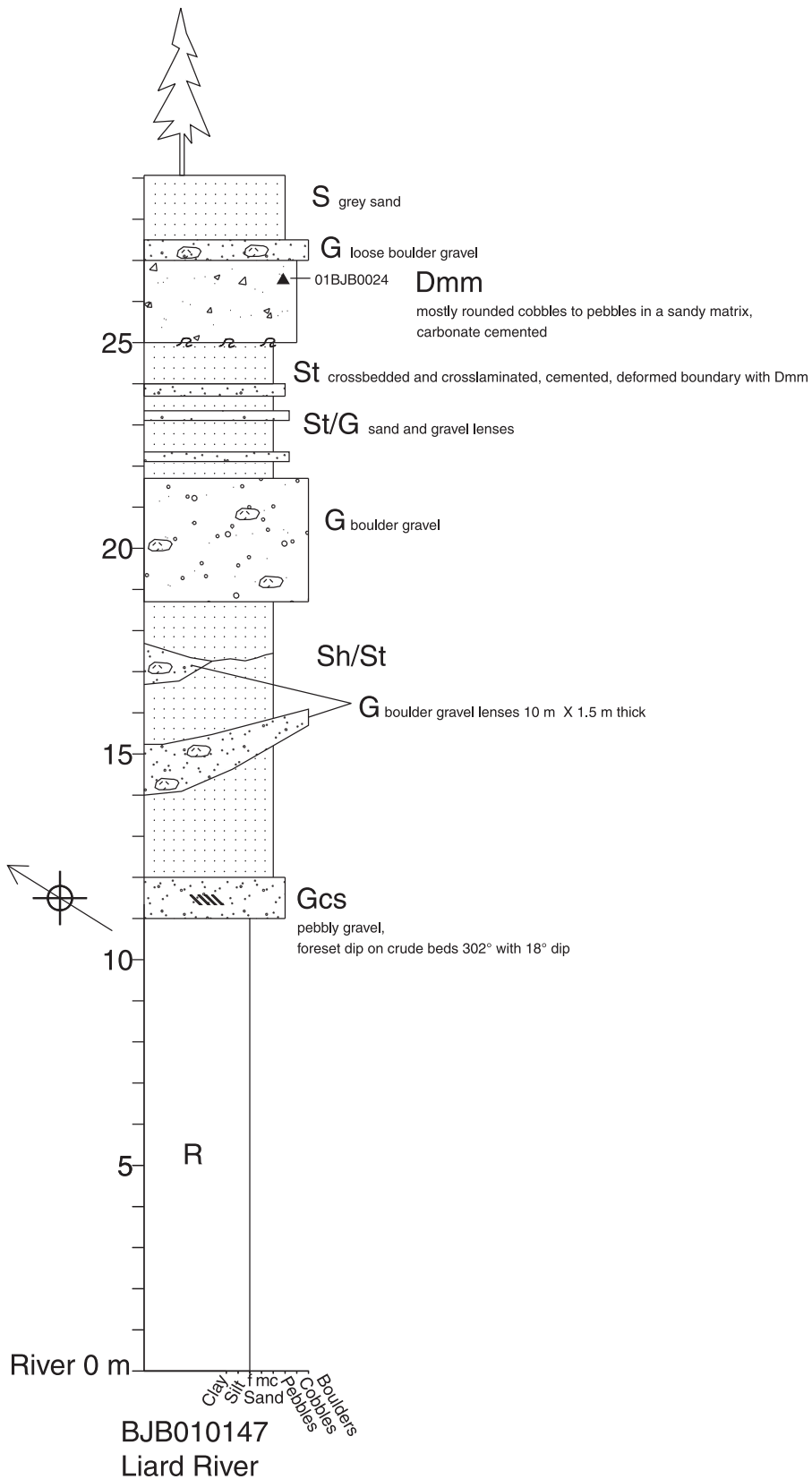
**St/Gs** interbedded coarse sand and gravel, cobbles, boulders, pebbly gravel with platy clasts crude beds 58° with 18° dip

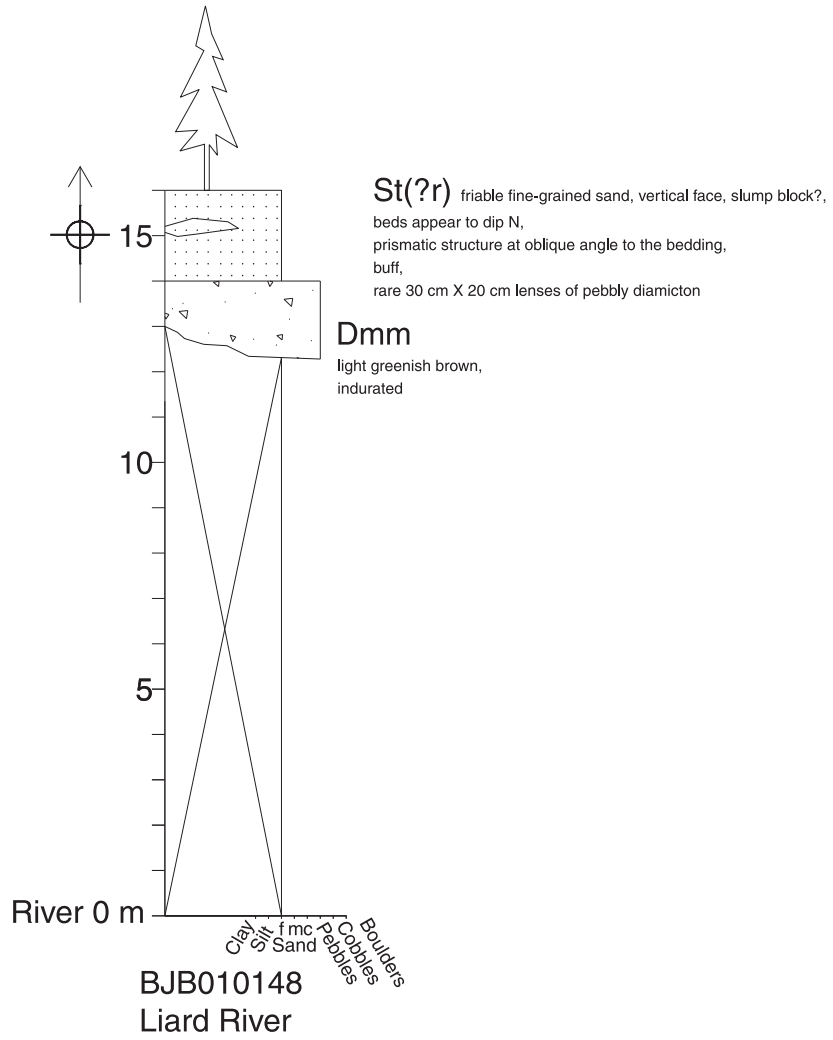
**Sm** medium-grained sand

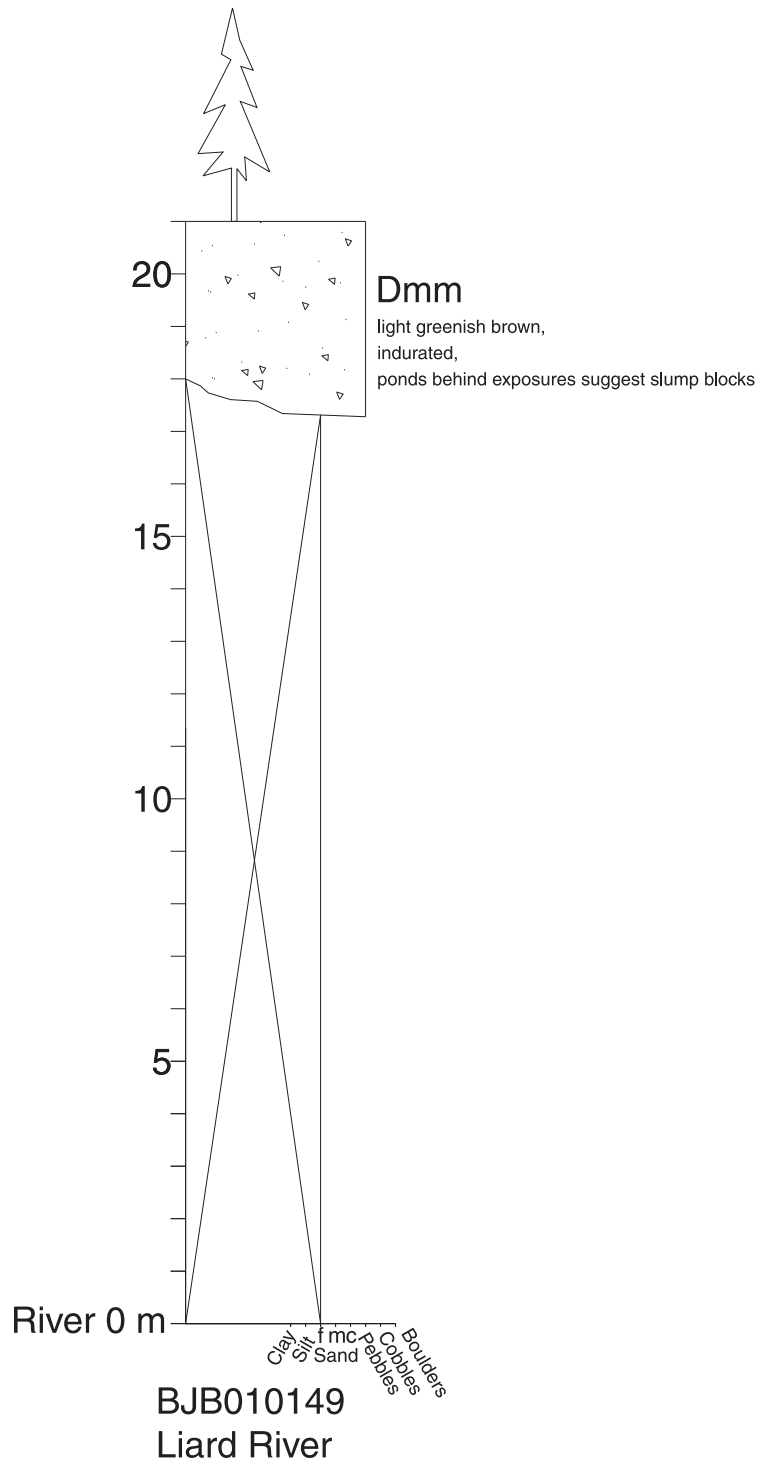
**BJB010145**  
Liard River  
upper terrace

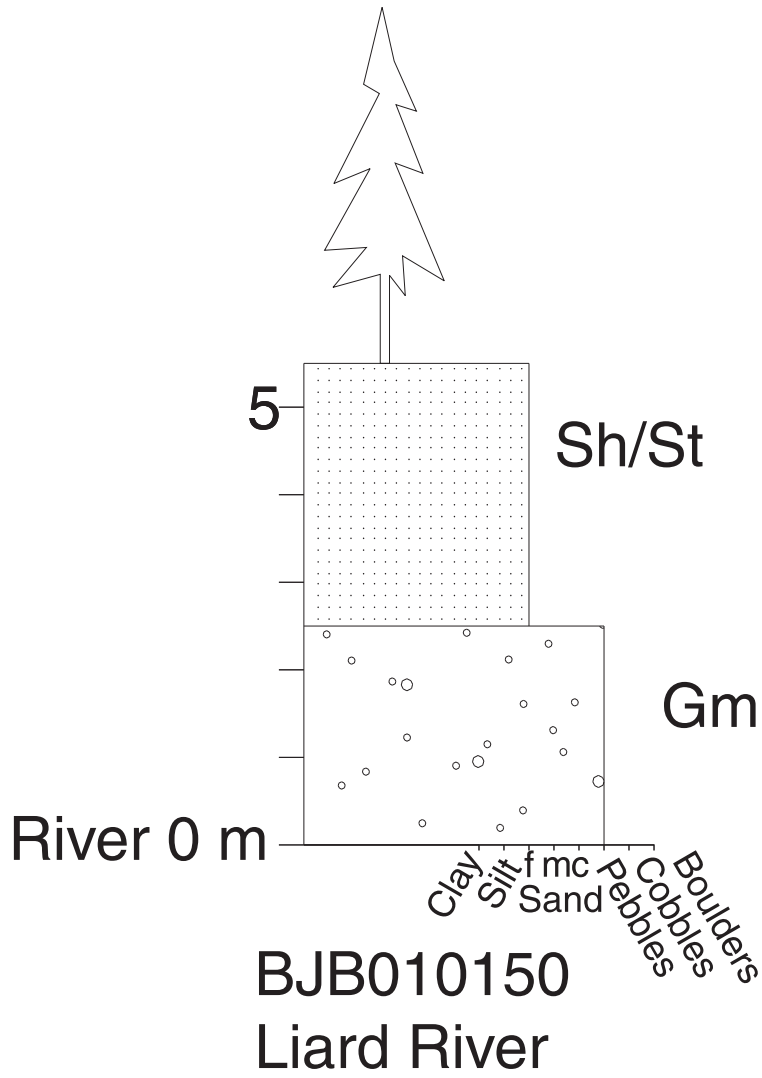


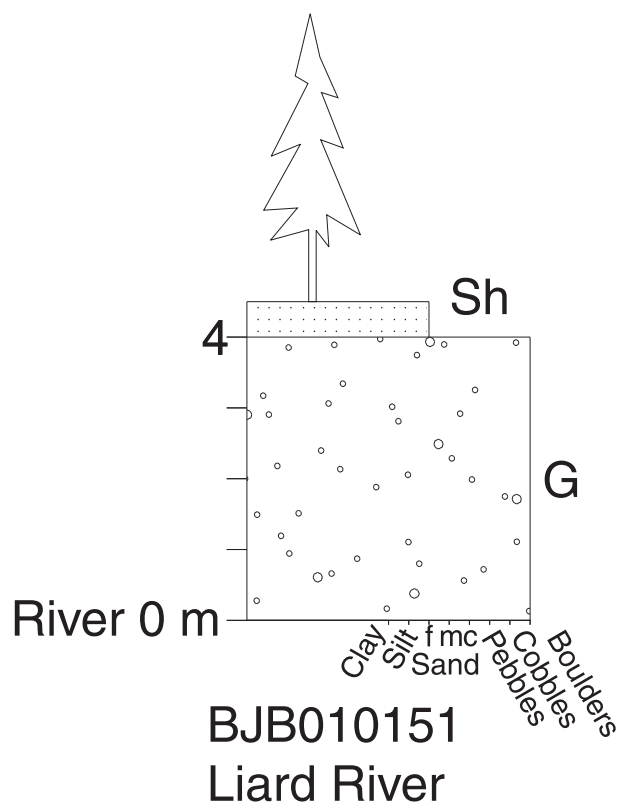


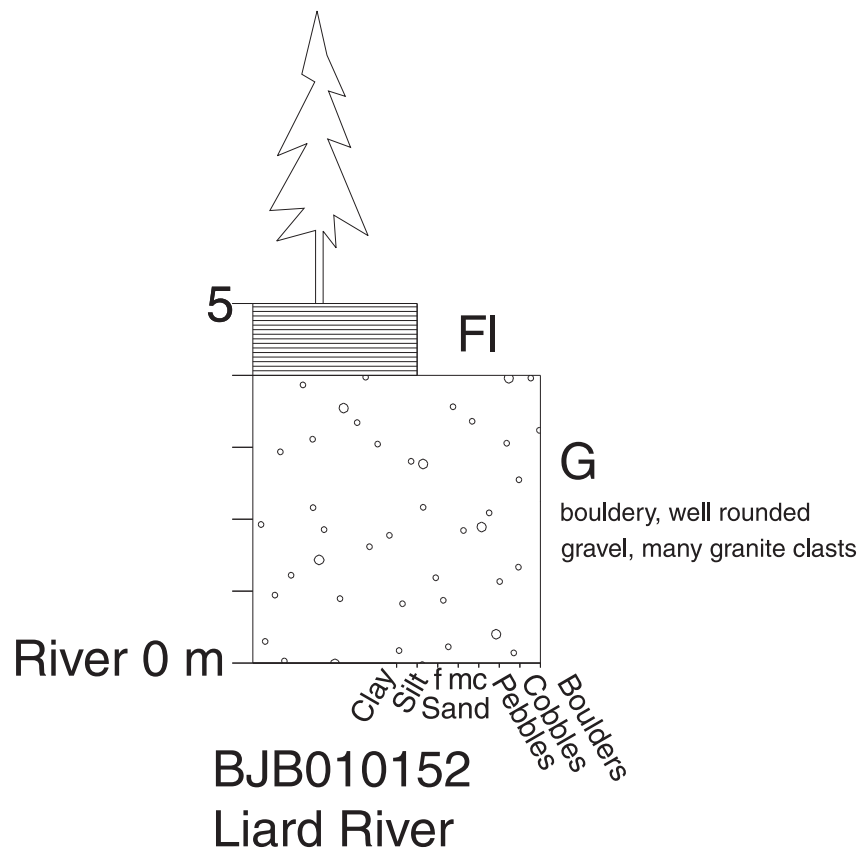


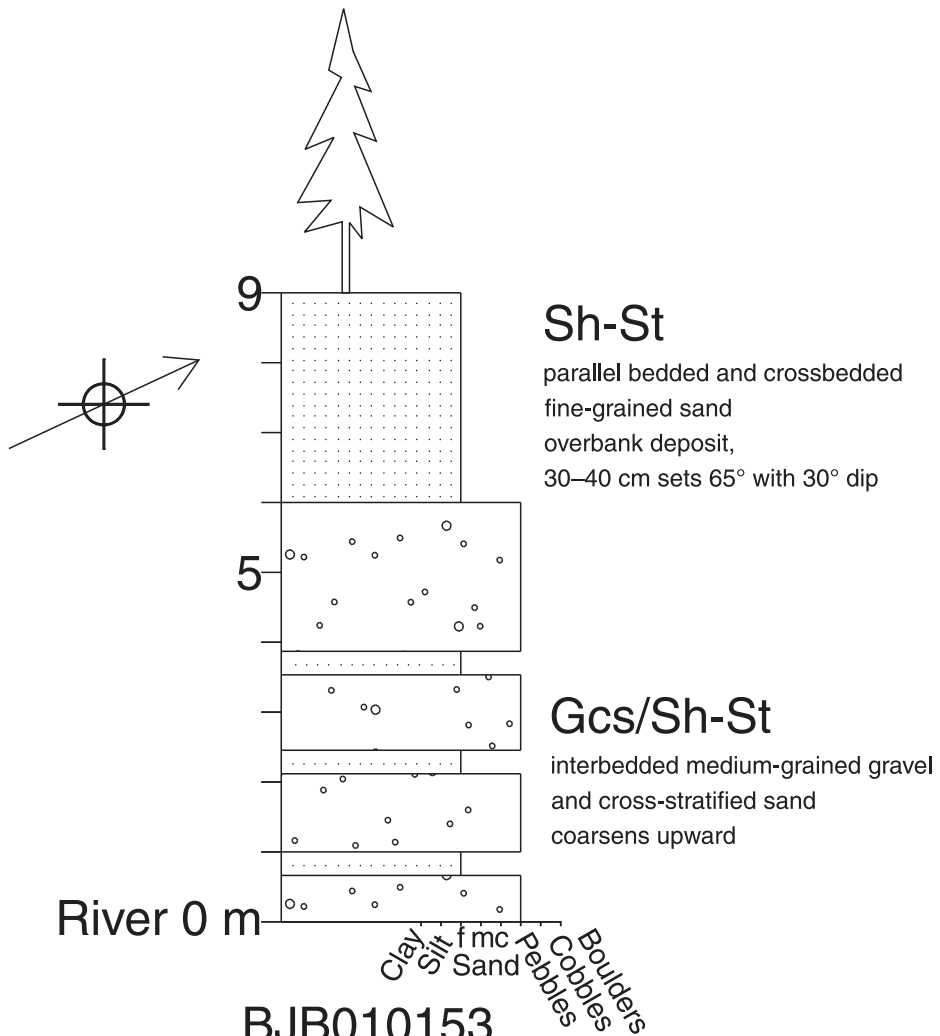






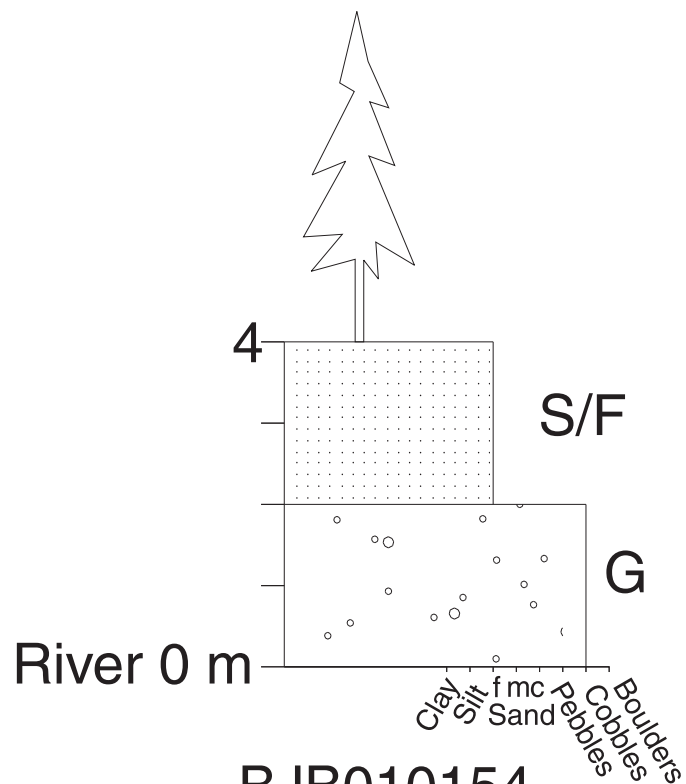






**BJB010153**  
**Liard River**

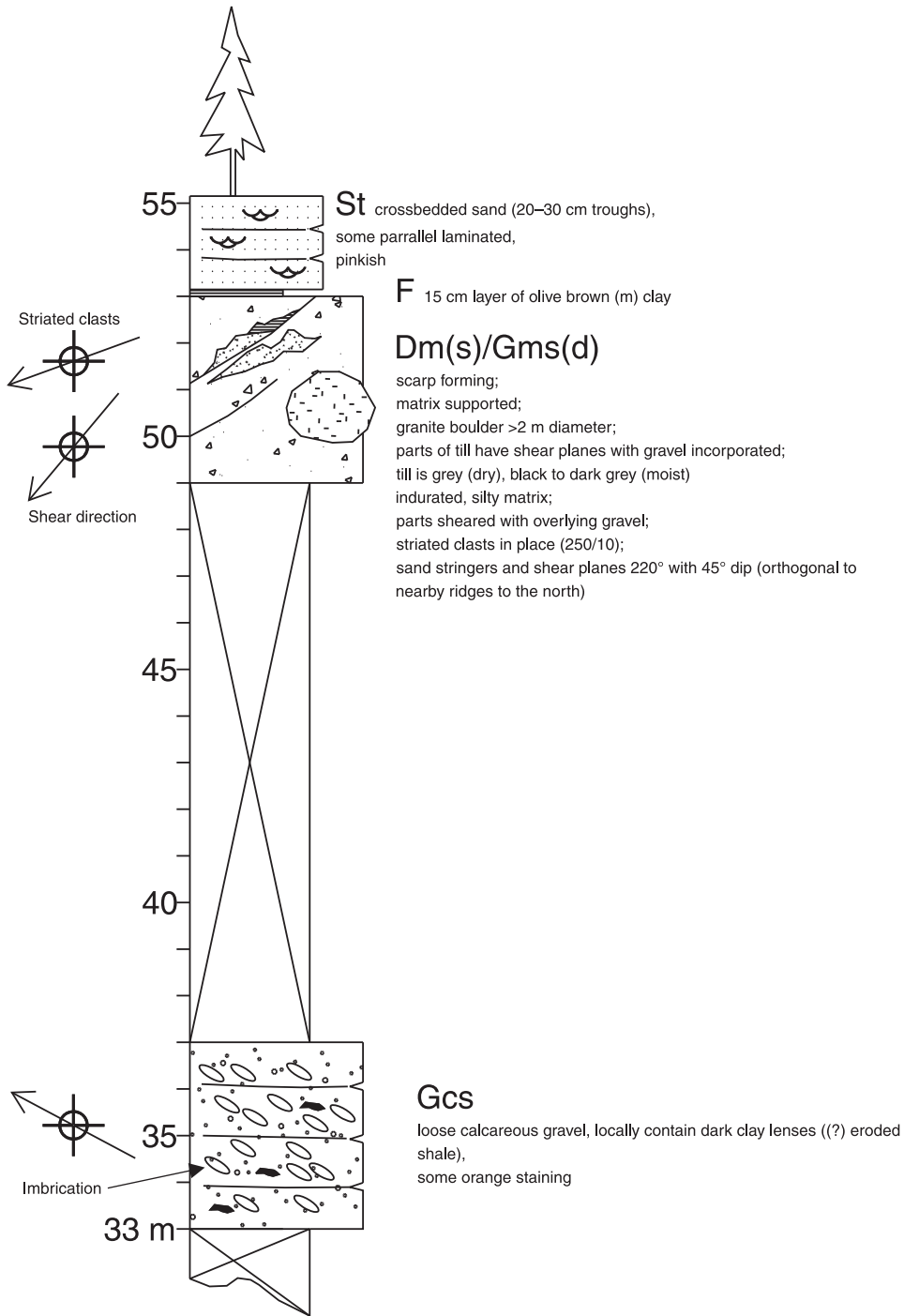




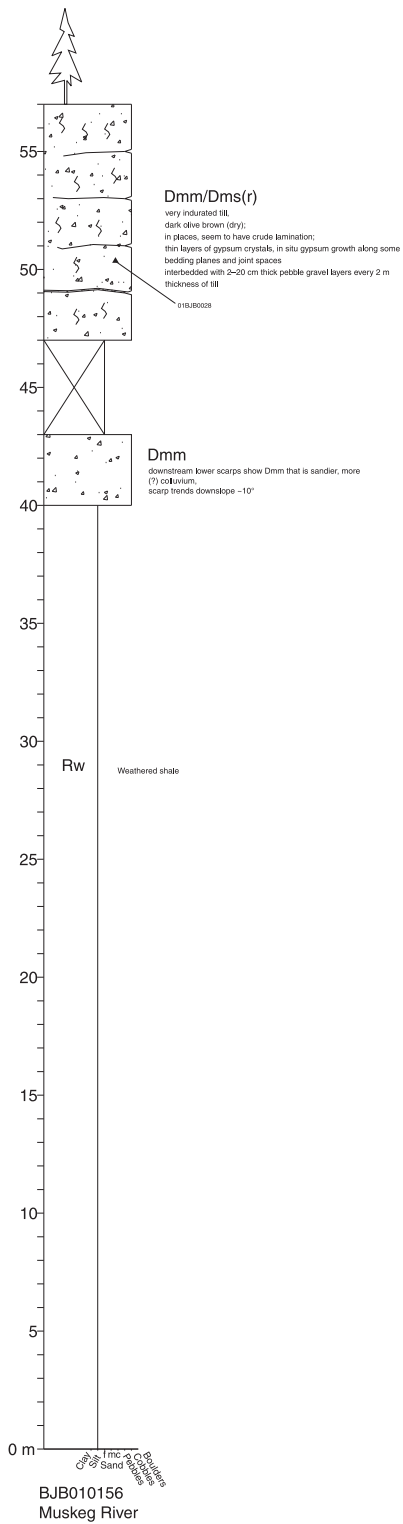
**BJB010154**

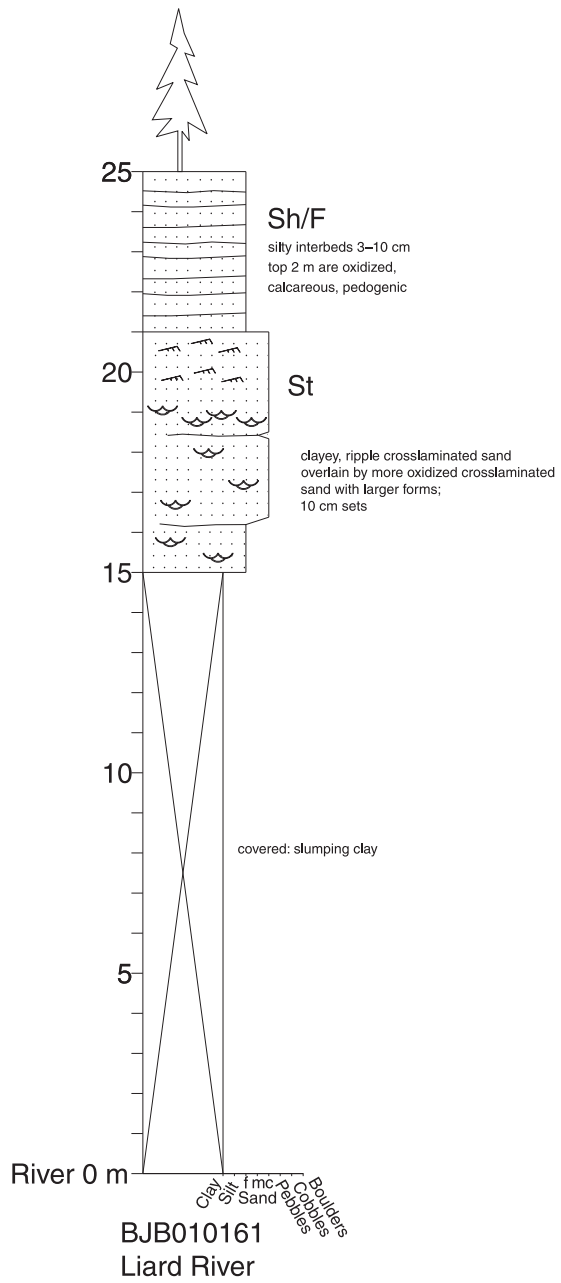
**Liard River**

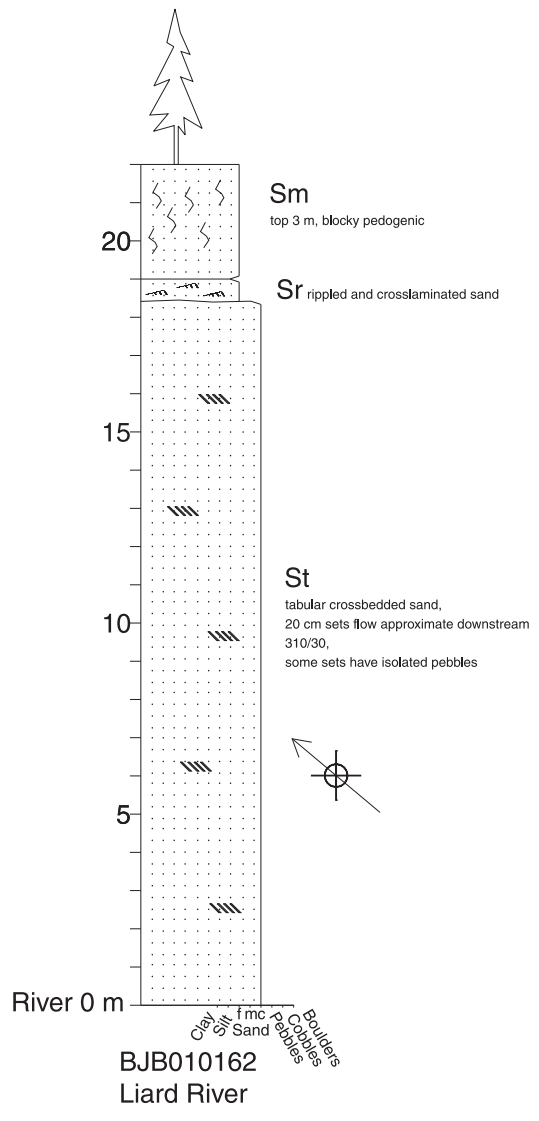
Hundreds of metres of exposure

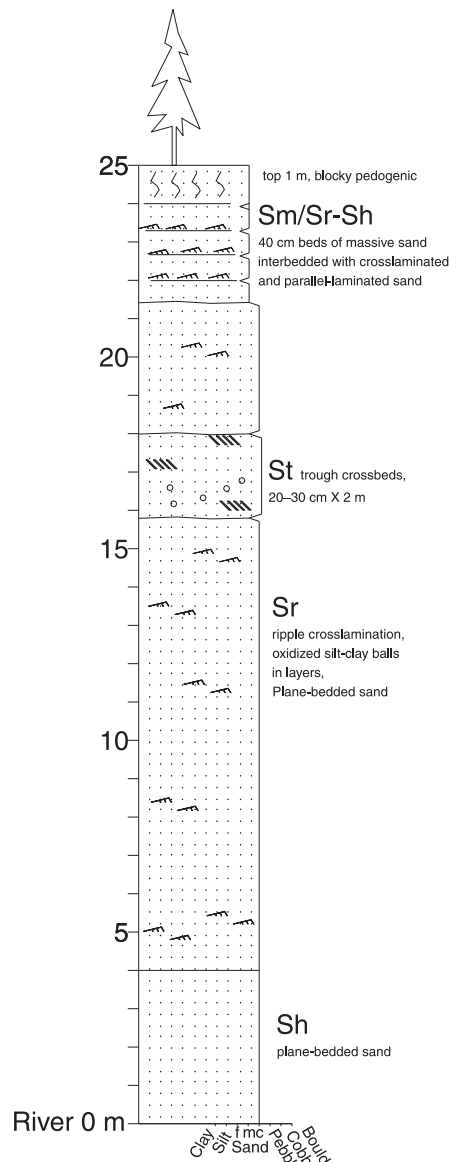


BJB010155  
Muskeg River

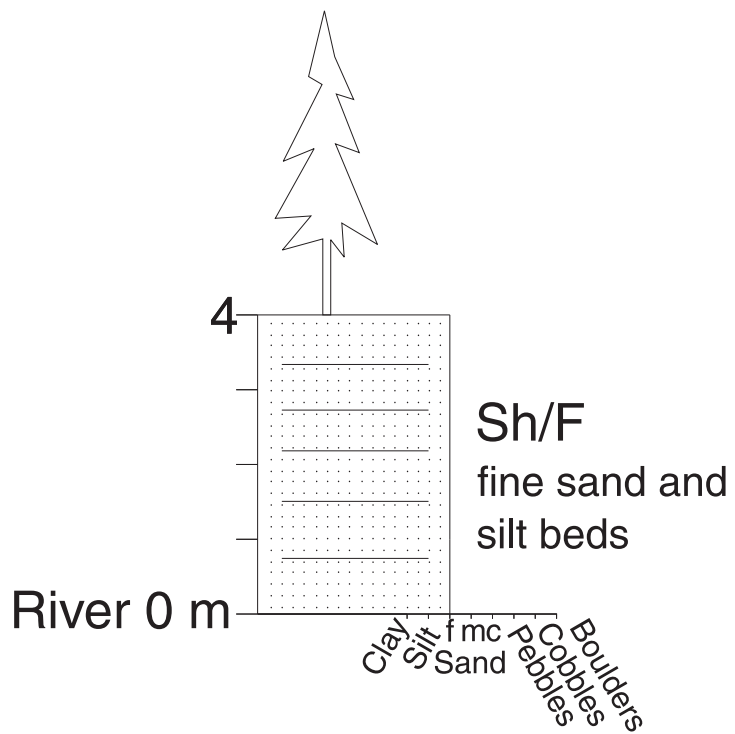




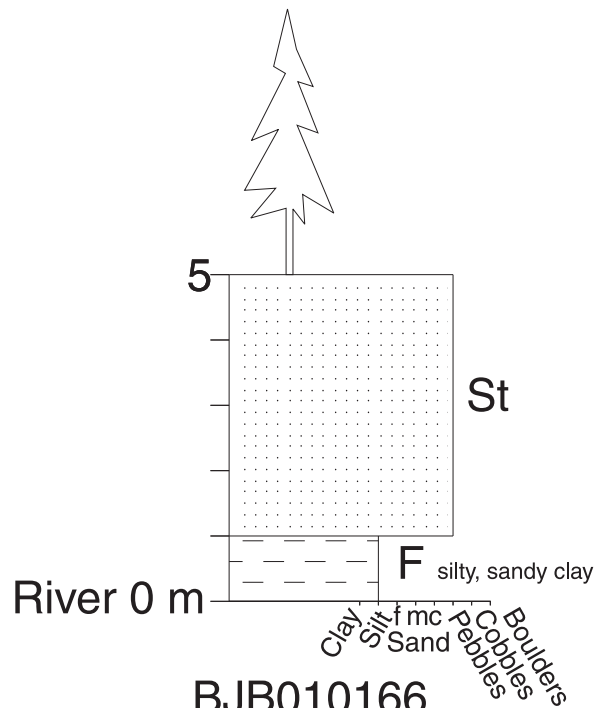




BJB010163  
Liard River,  
downstream part of  
exposure, BJB010162



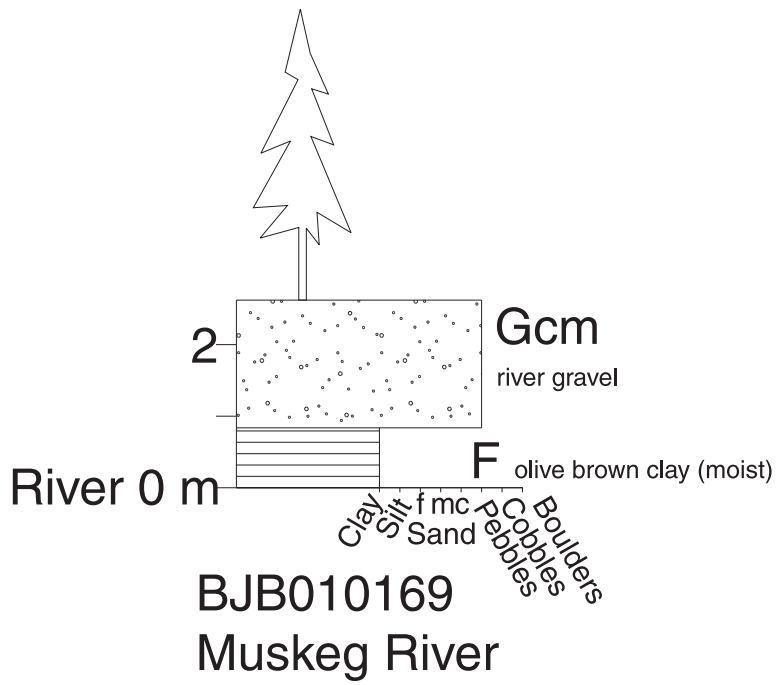
BJB010165  
Liard River

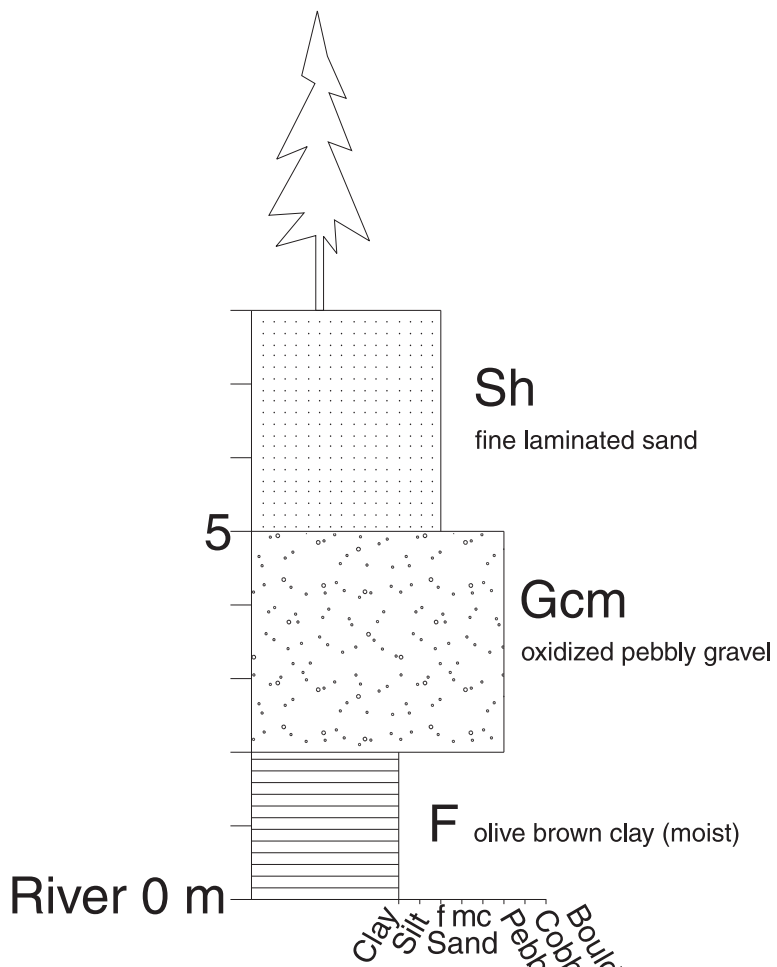


BJB010166

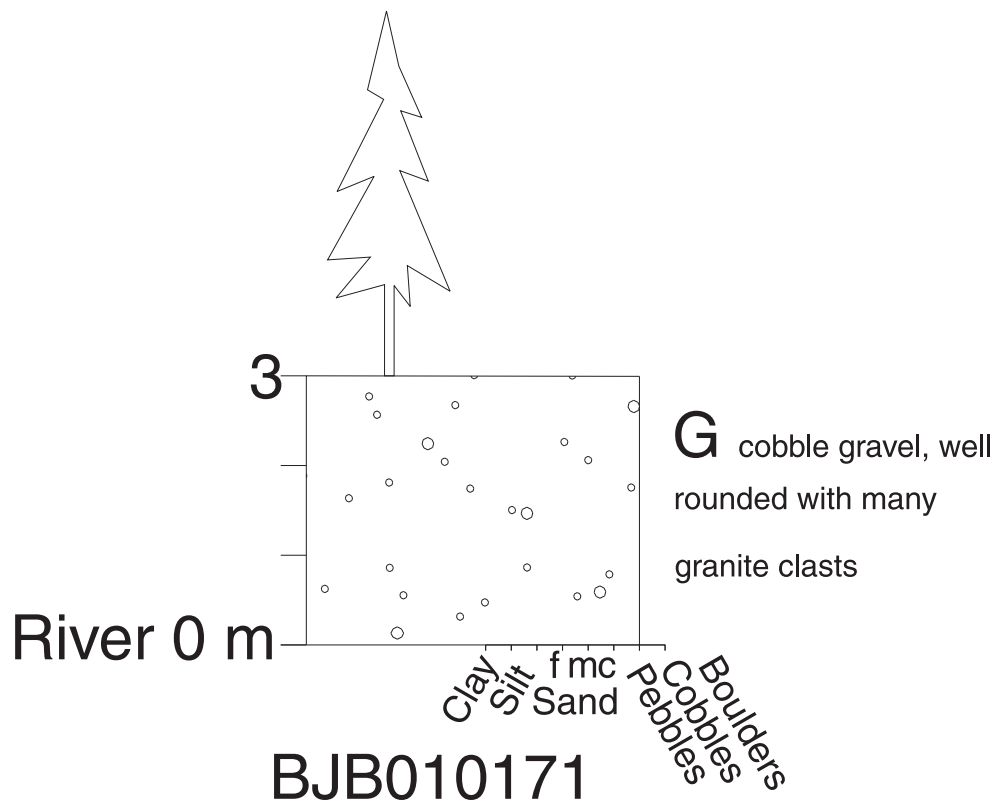
Liard River, slumped  
area







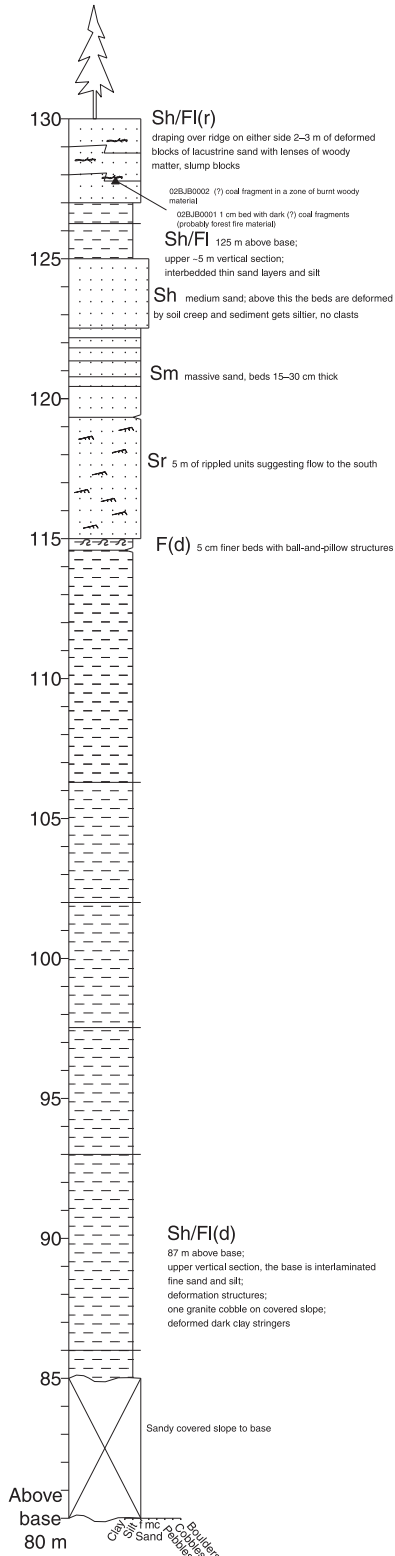
**BJB010170**  
**Muskeg River**



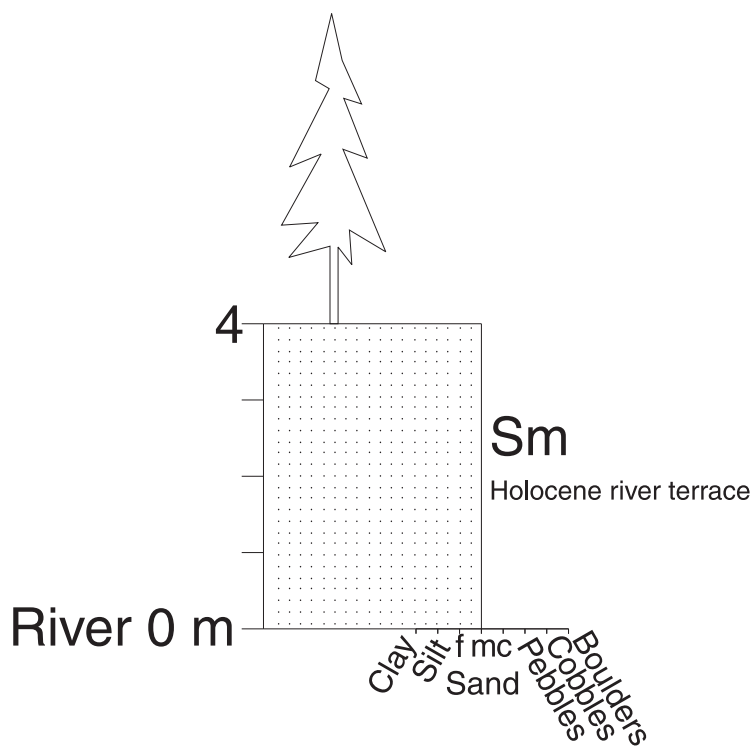
**BJB010171**

**Liard River, east side channel**

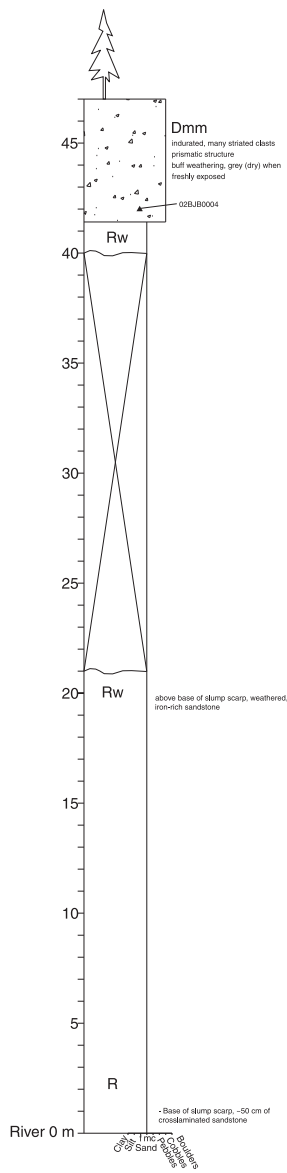
Lacustrine deposits form a sharp-crested ridge between tributary creeks



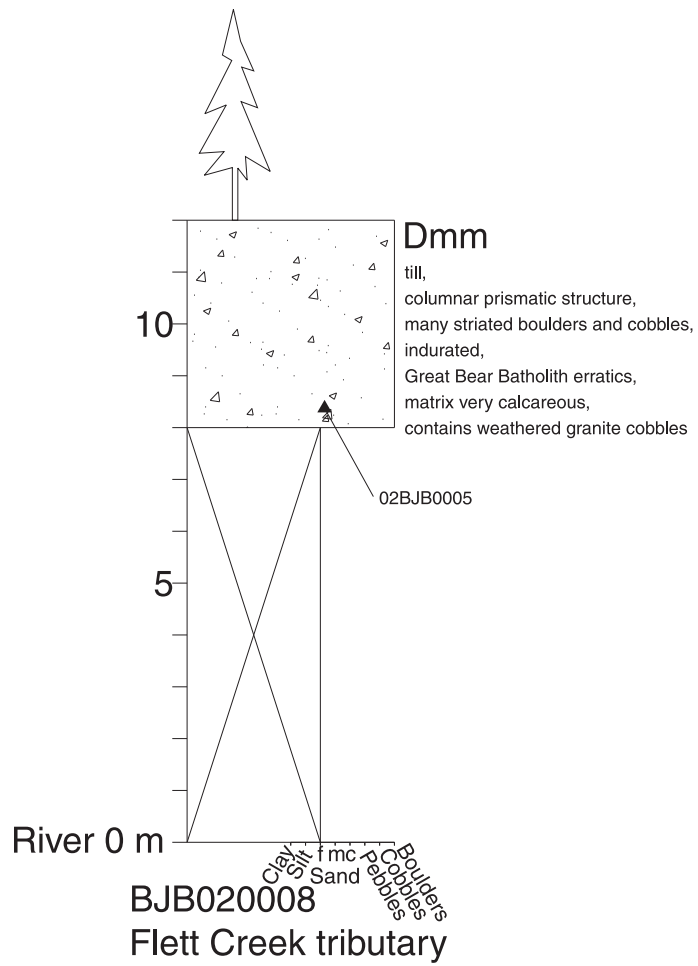
BJB020001  
Kotanelee River  
tributary

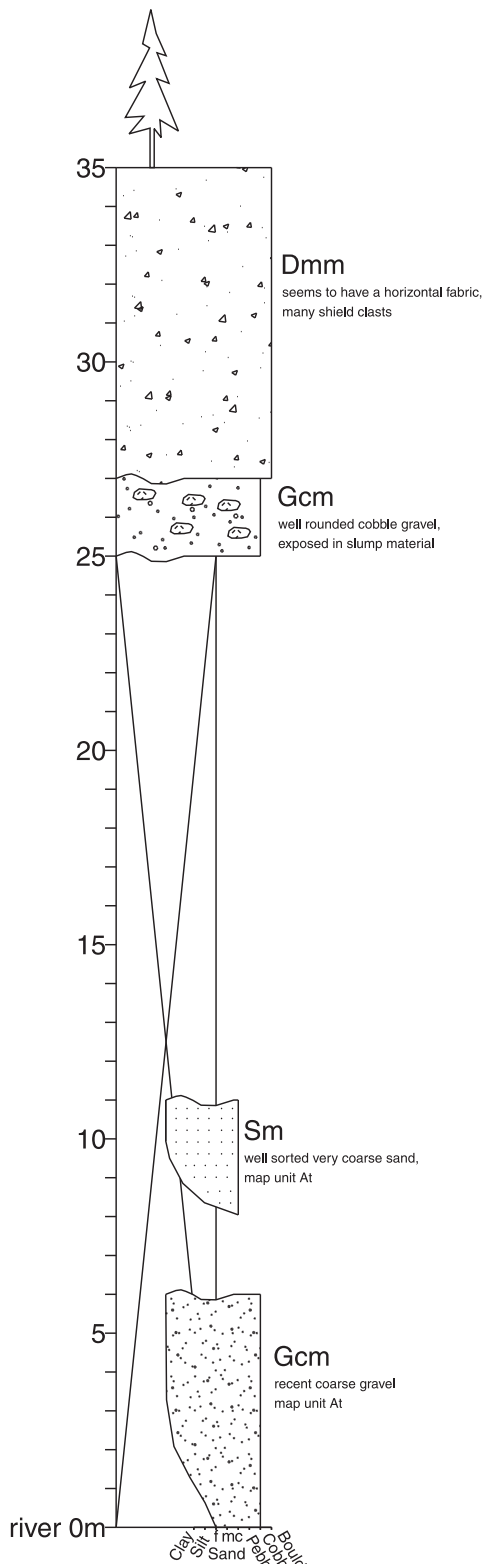


BJB020004  
Kotaneelee River



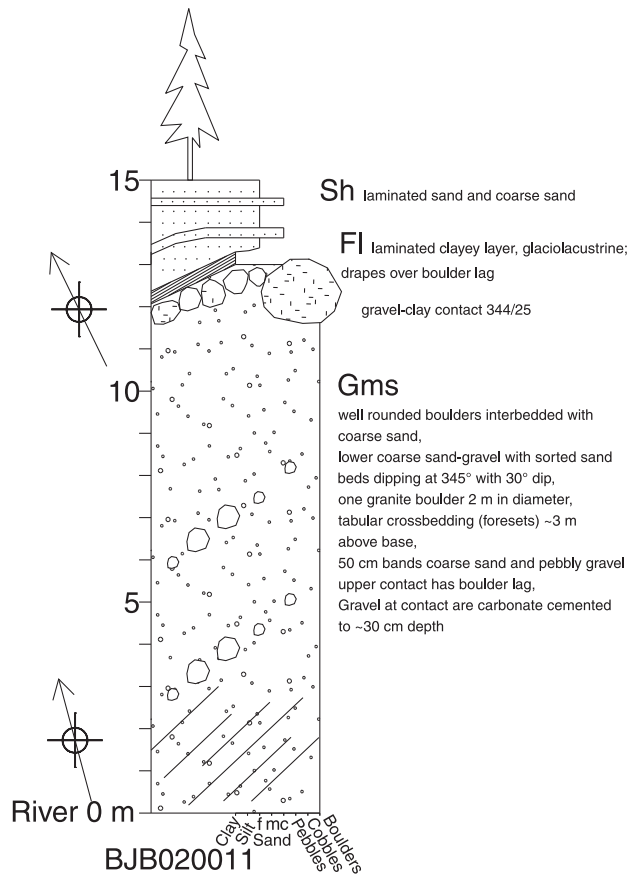
BJB020005  
 Kotaneelee River



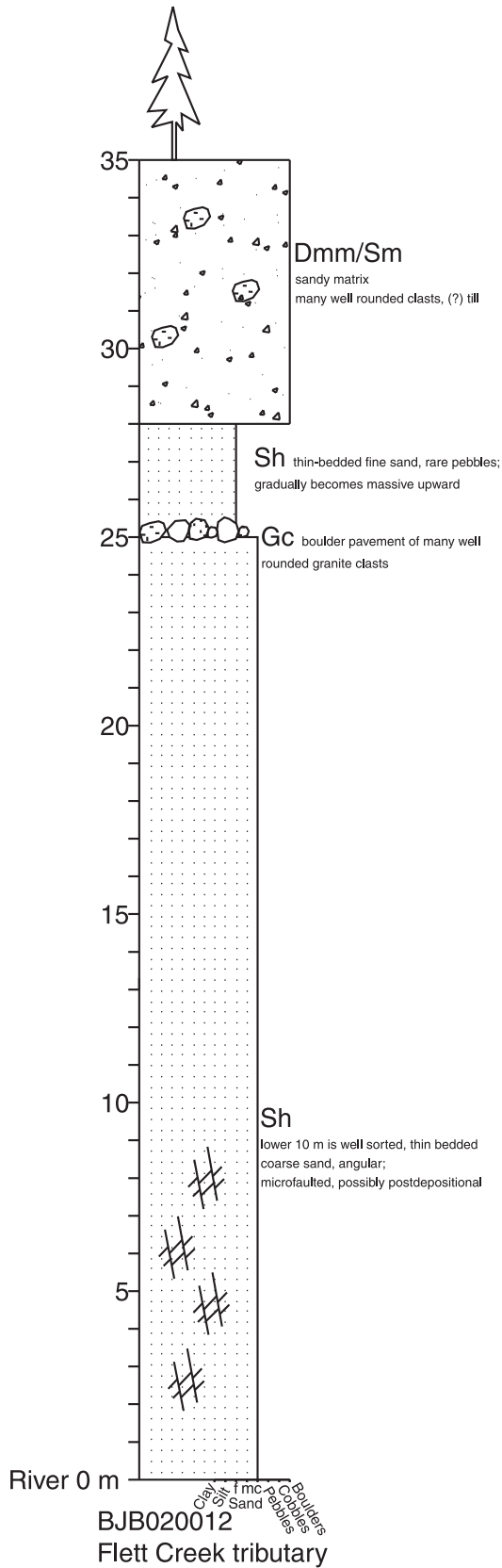


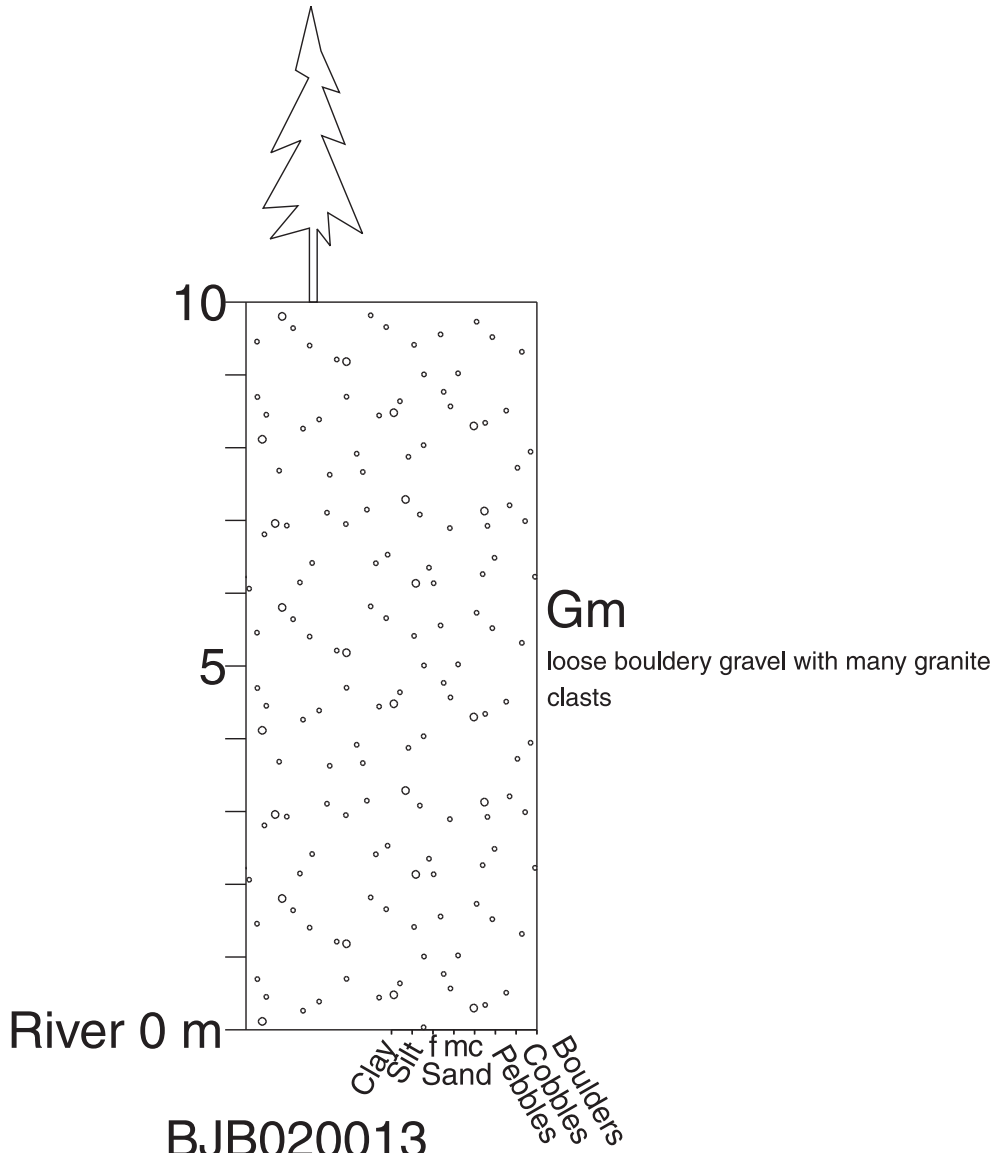
BJB020010  
Flett Creek tributary



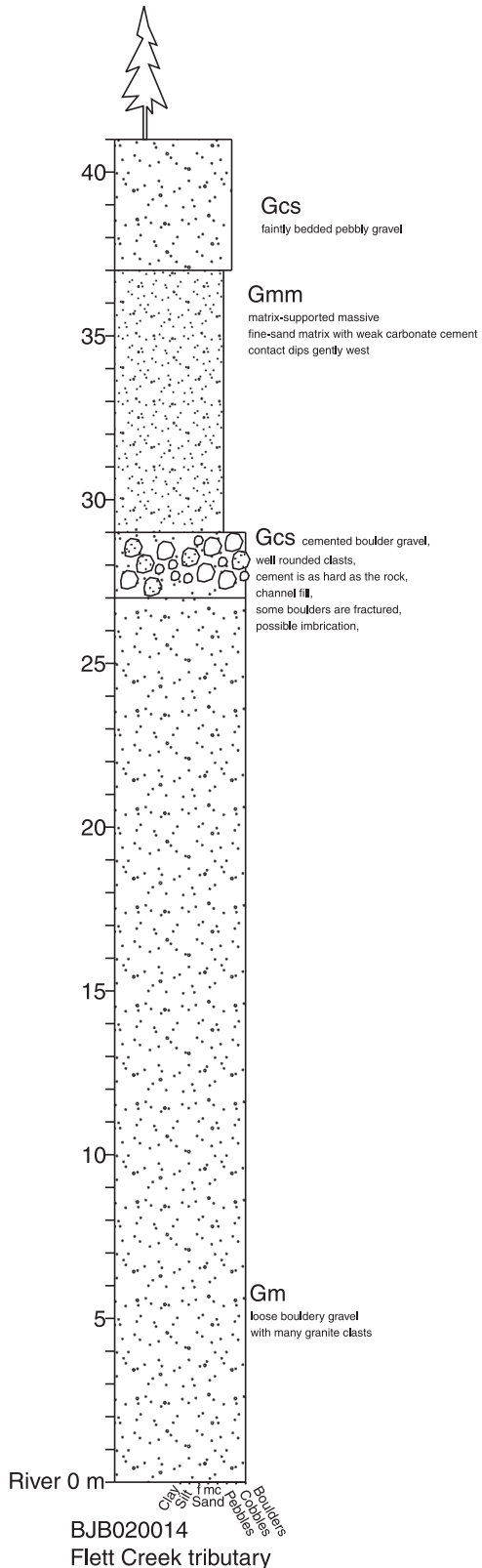


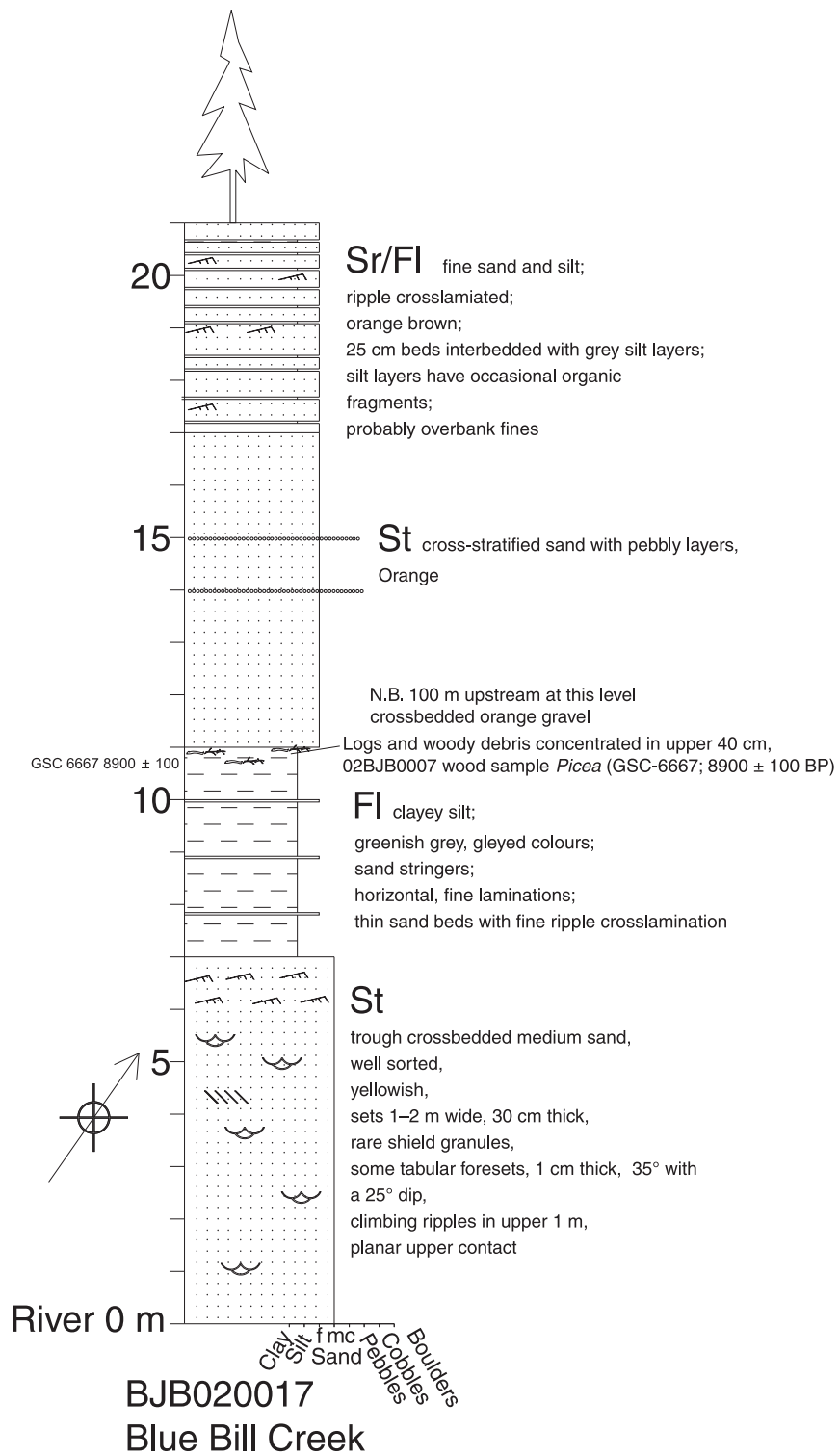
BJB020011  
Flett Creek tributary,  
cross-section through  
ridge

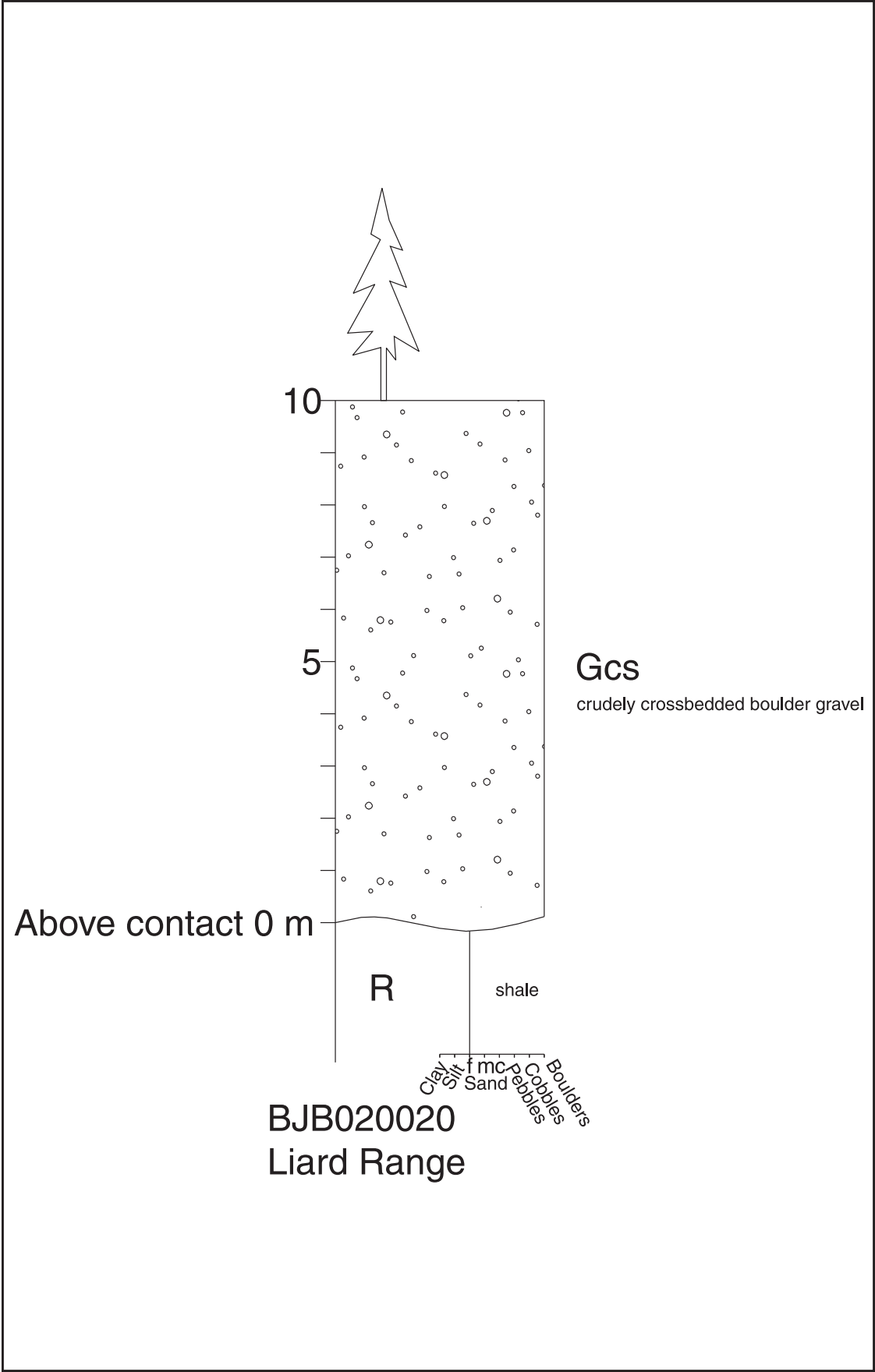




BJB020013  
Flett Creek tributary







10

5

Above contact 0 m

R

shale

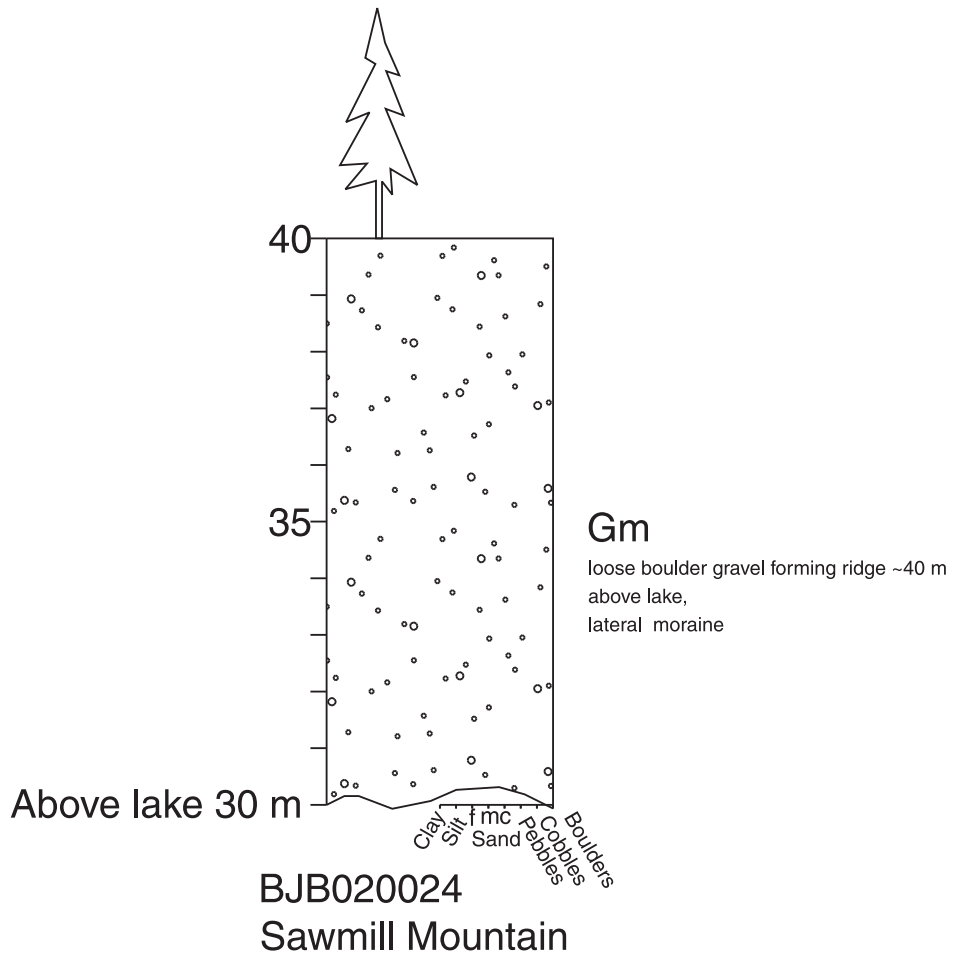
Gcs

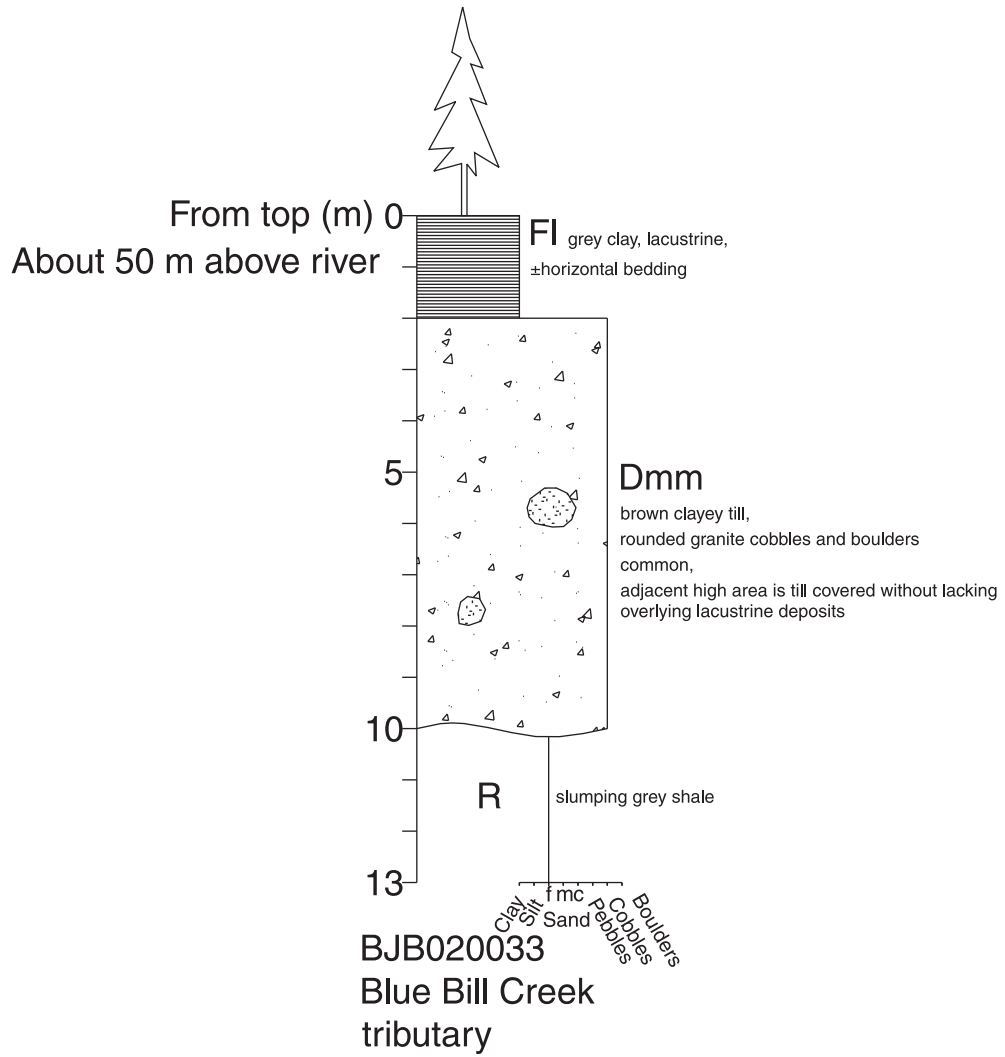
crudely crossbedded boulder gravel

Clay  
Silt  
Sand  
pebbles  
Cobbles  
Boulders

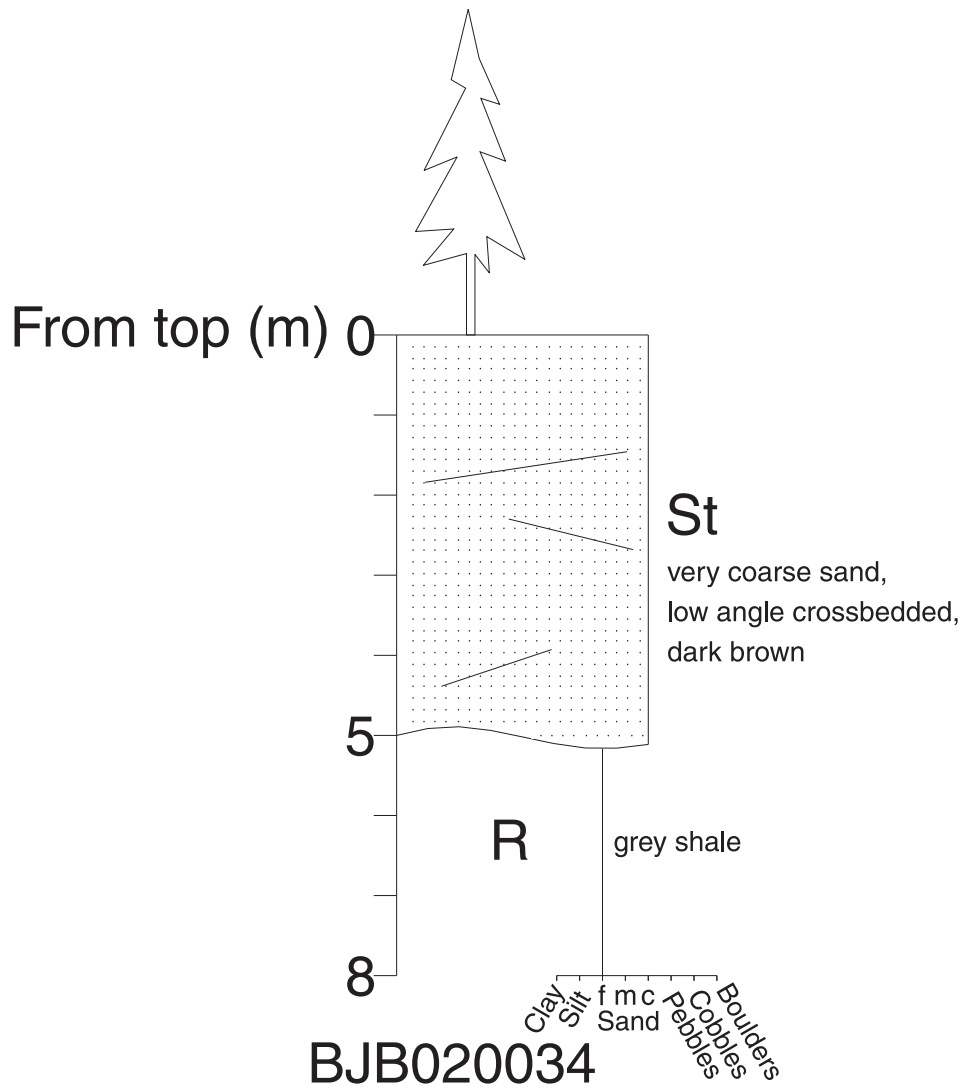
BJB020020

Liard Range



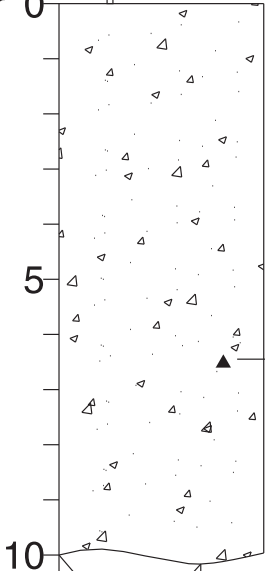






**BJB020034**  
**Blue Bill Creek**  
**tributary**

About 50 m above river 0



**Dmm(r)**

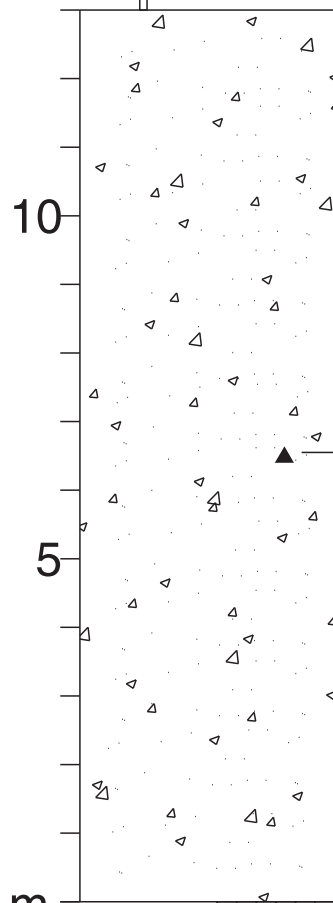
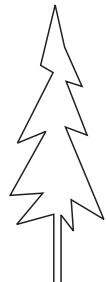
colluviated till in slump face;  
clayey matrix;  
many angular to subangular  
sandstone clasts, some subrounded  
granite clasts;  
dark olive brown (moist)

02BJB0009

From top 13 m

Clay  
Silt  
Sand  
fmc  
Pebbles  
Cobbles  
Boulders

BJB020035  
Blue Bill Creek  
tributary



### Dmm

dark grey, buff-weathering;  
clayey till;  
many granite clasts in riverbed; Great  
Bear Batholith erratics;  
many striated clasts, indurated matrix  
blocky structure

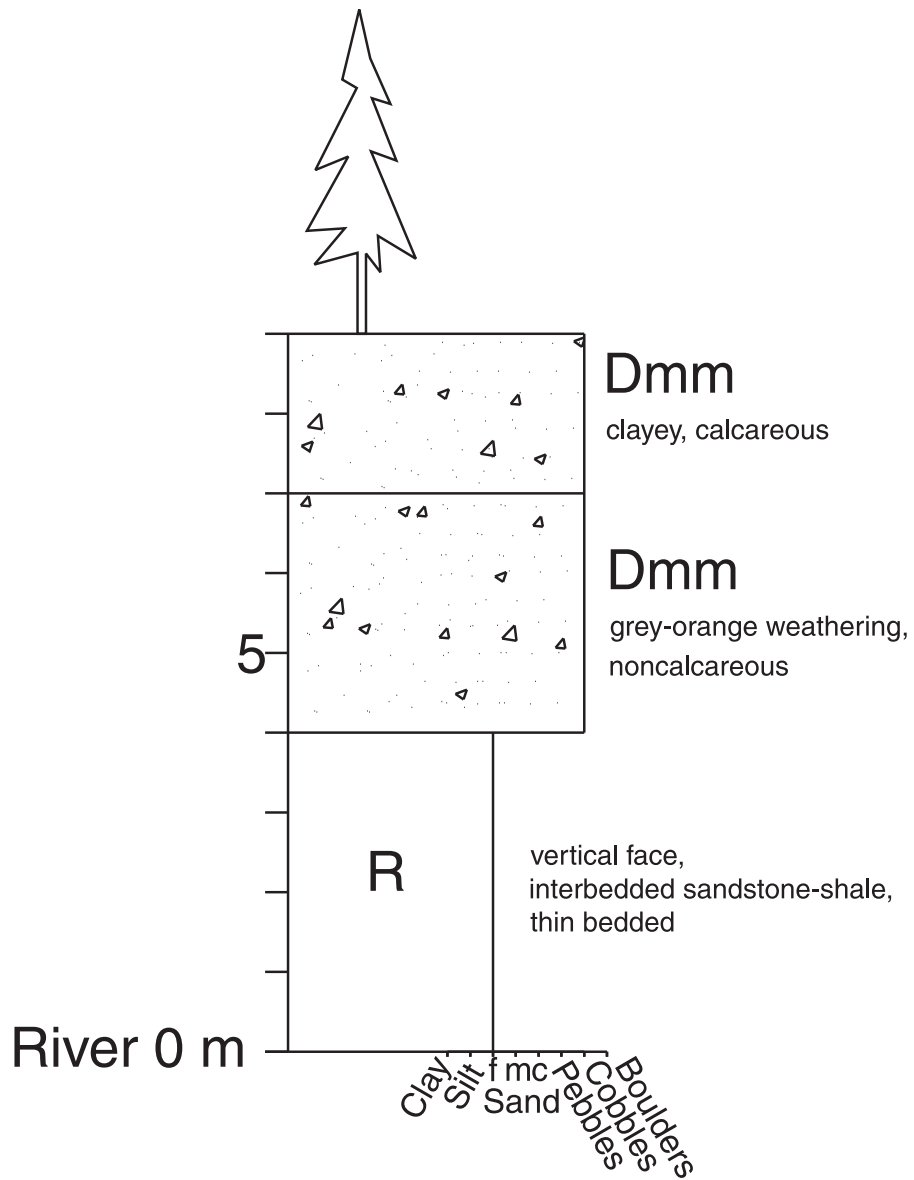
02BJB0010

River 0 m

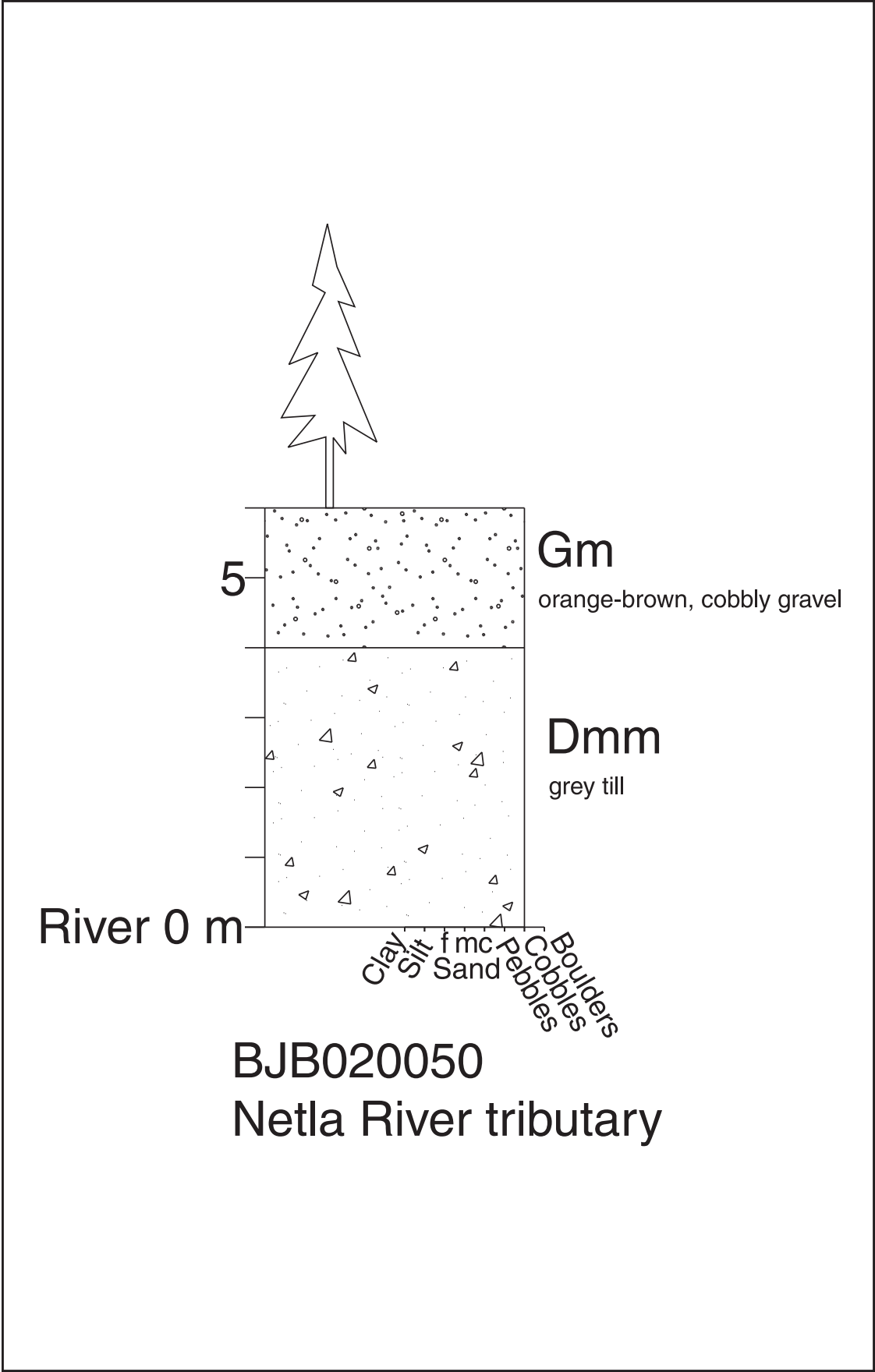
Clay  
Silt  
fmc  
Sand  
Pebbles  
Boulders

BJB020041

Arrowhead River



**BJB020042**  
**Arrowhead River**



5

**Gm**

orange-brown, cobbly gravel

**Dmm**

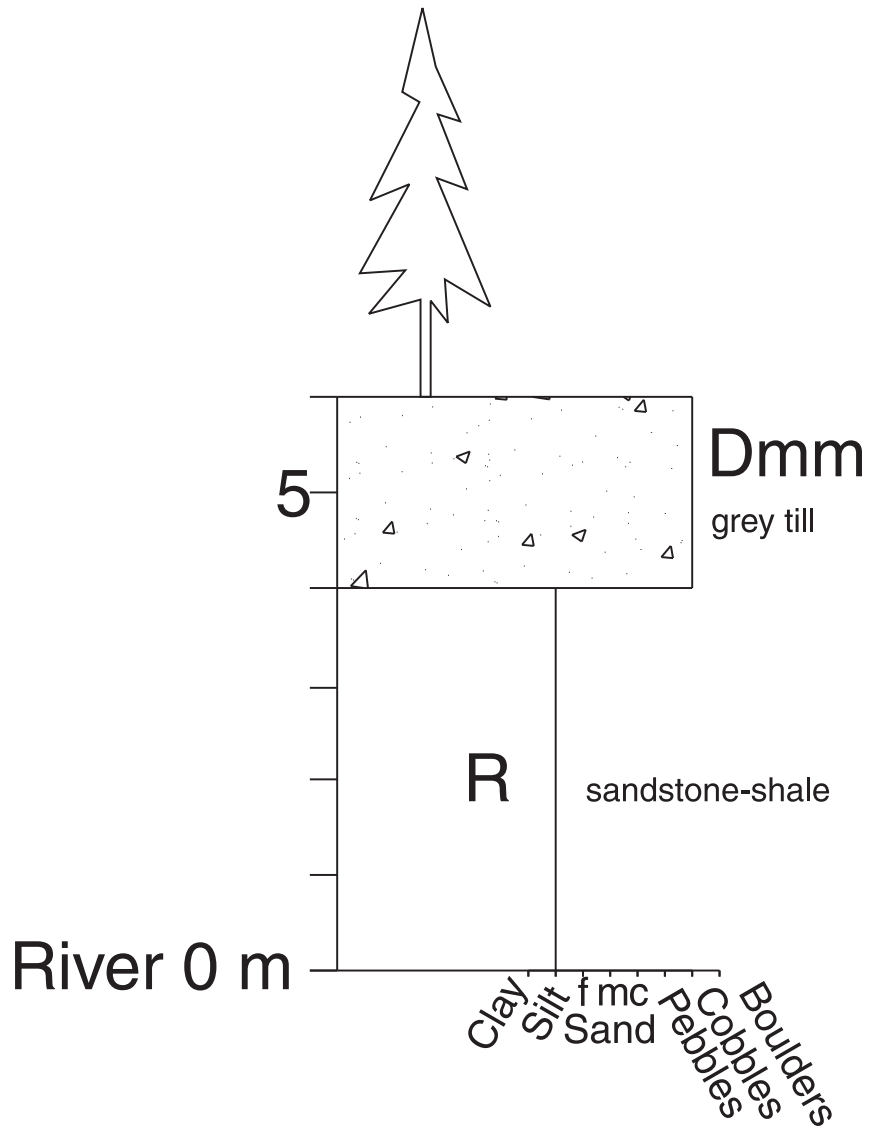
grey till

River 0 m

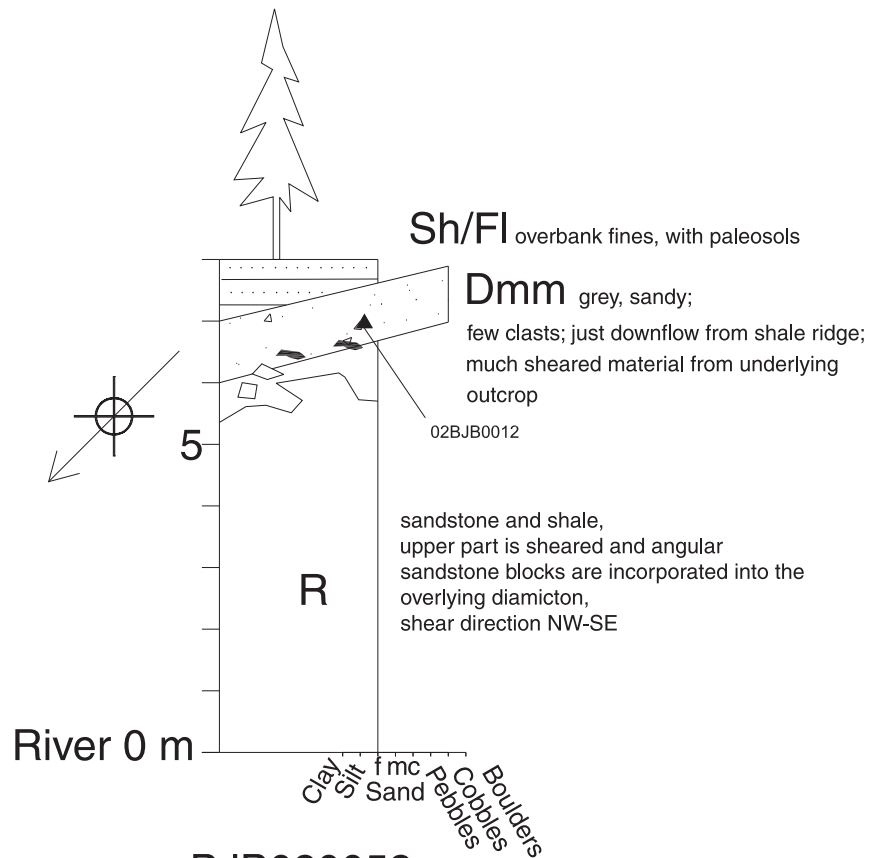
Clay Silt f mc P C Pebbles Boulders

**BJB020050**

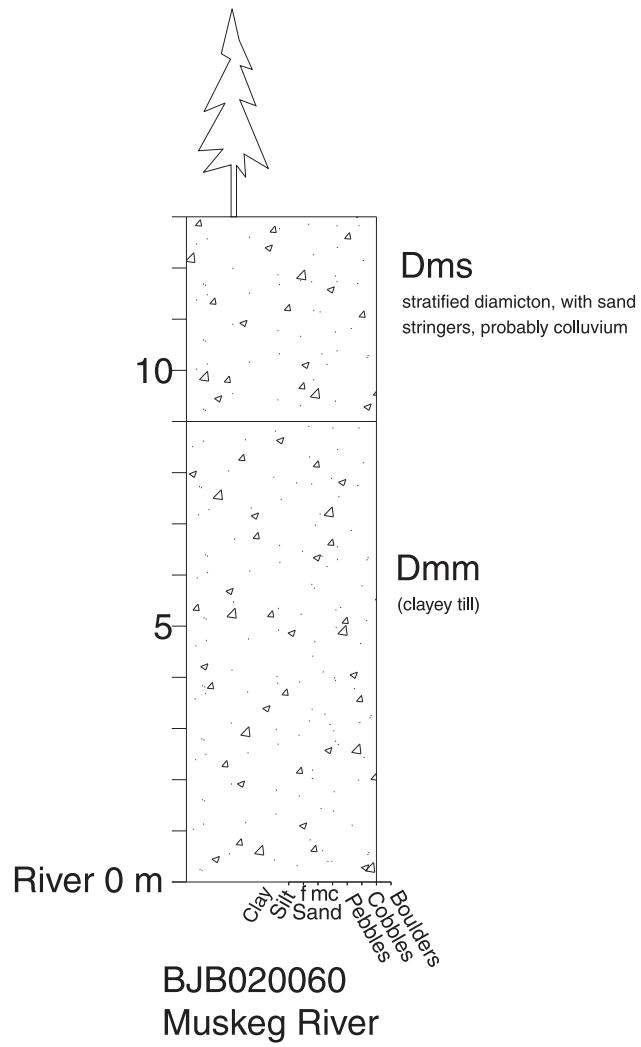
**Netla River tributary**



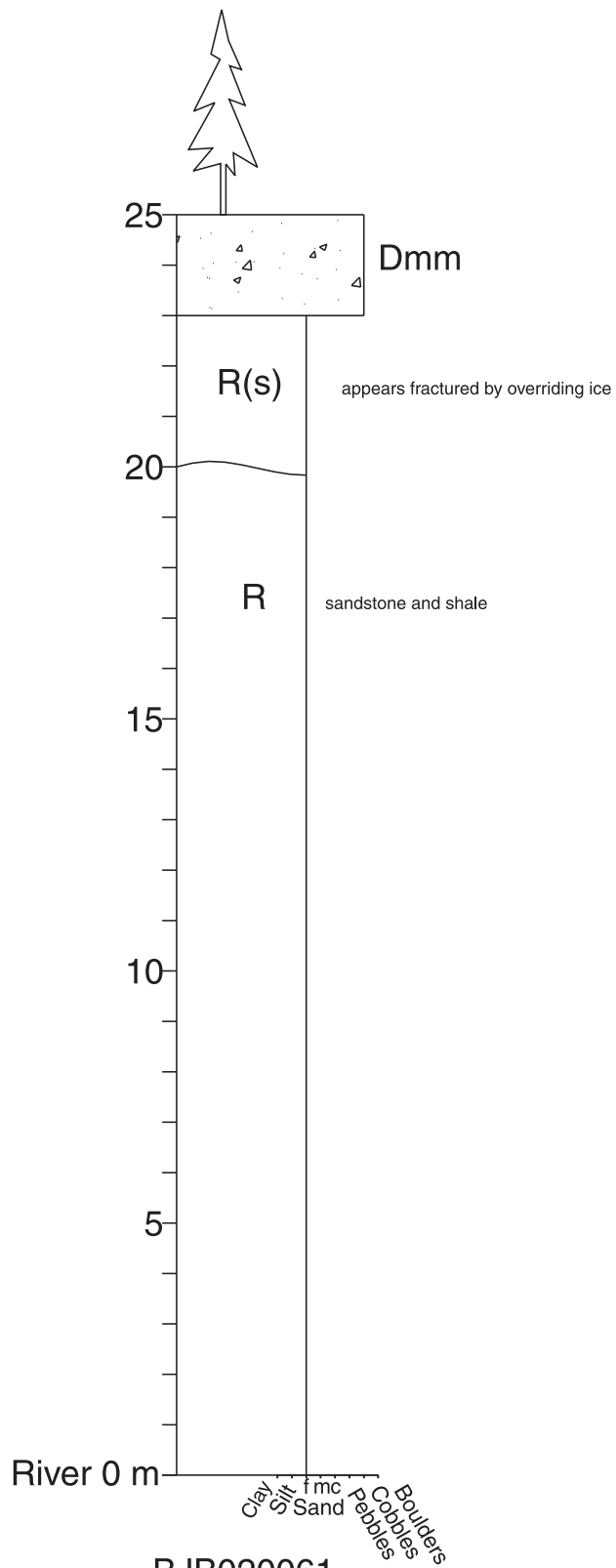
BJB020051  
Netla River tributary



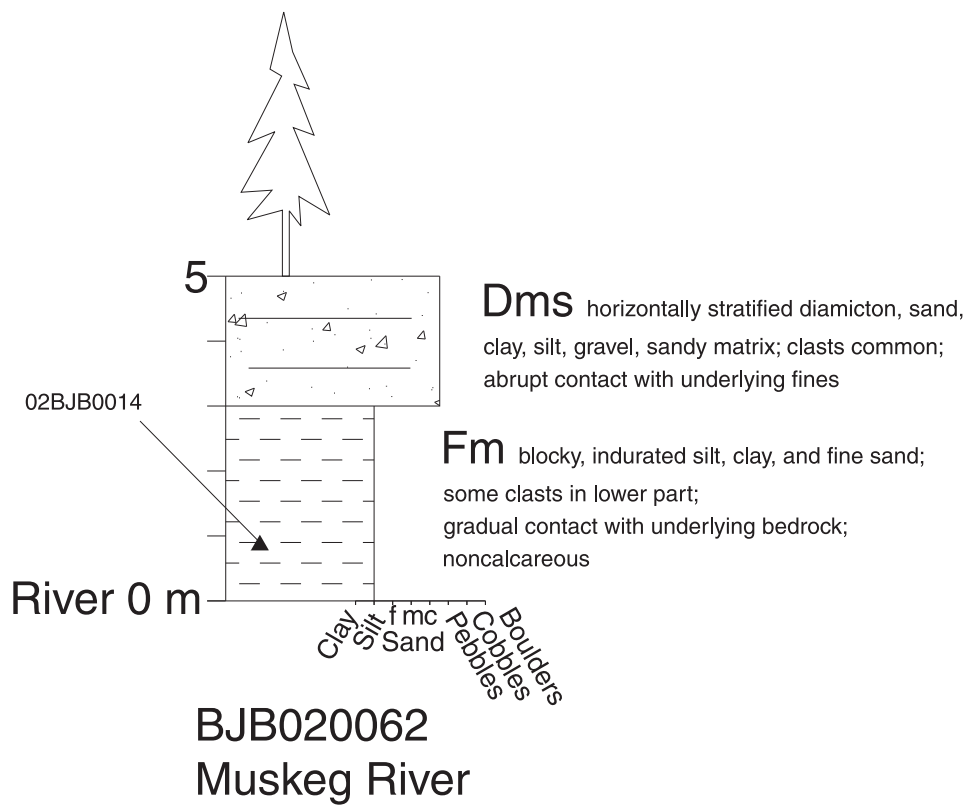
BJB020052  
Netla River tributary

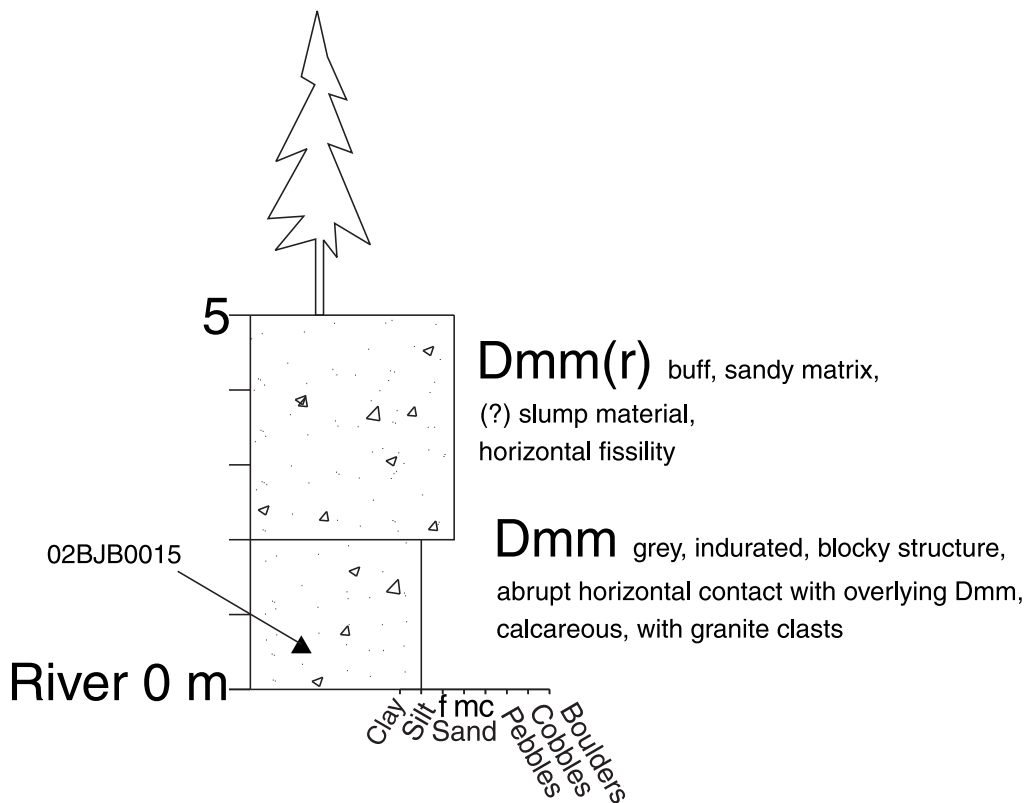




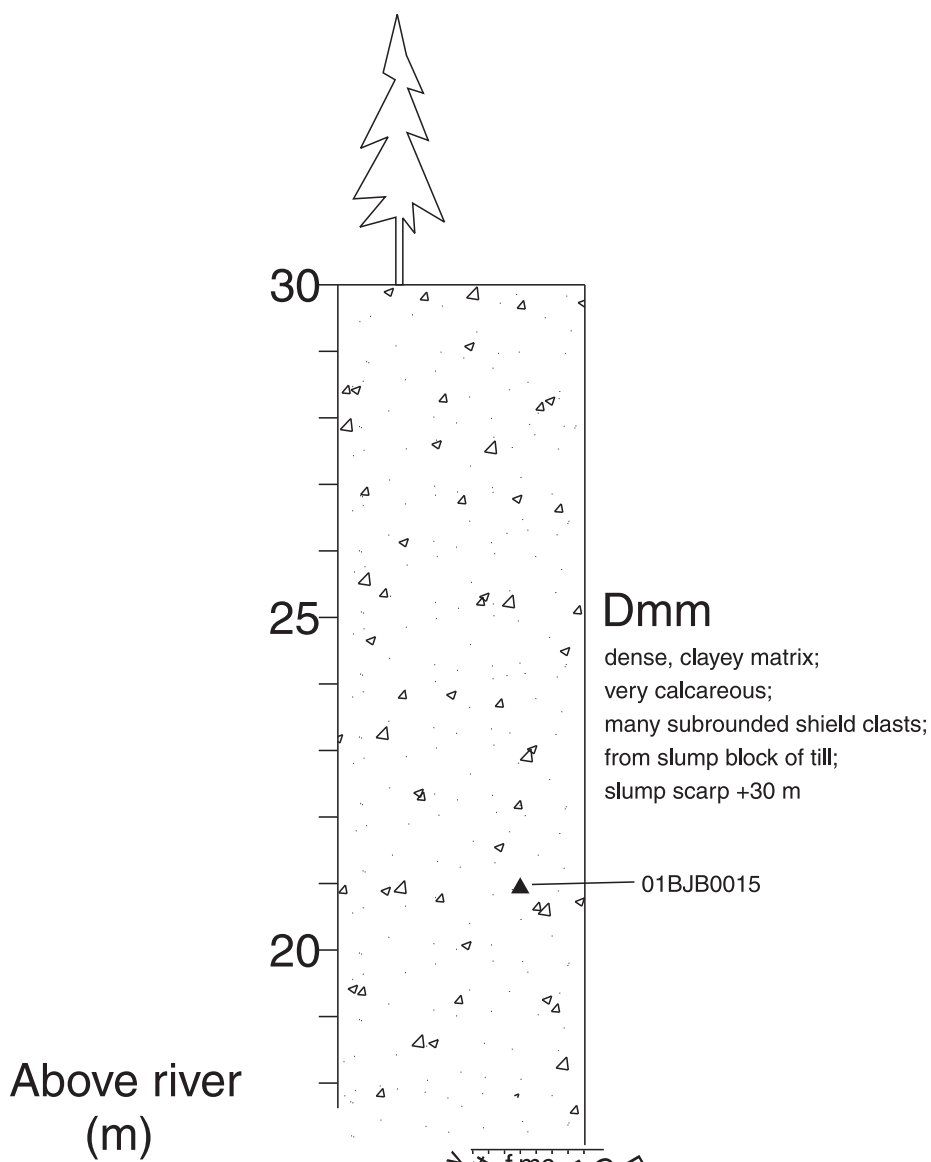


BJB020061  
Muskeg River

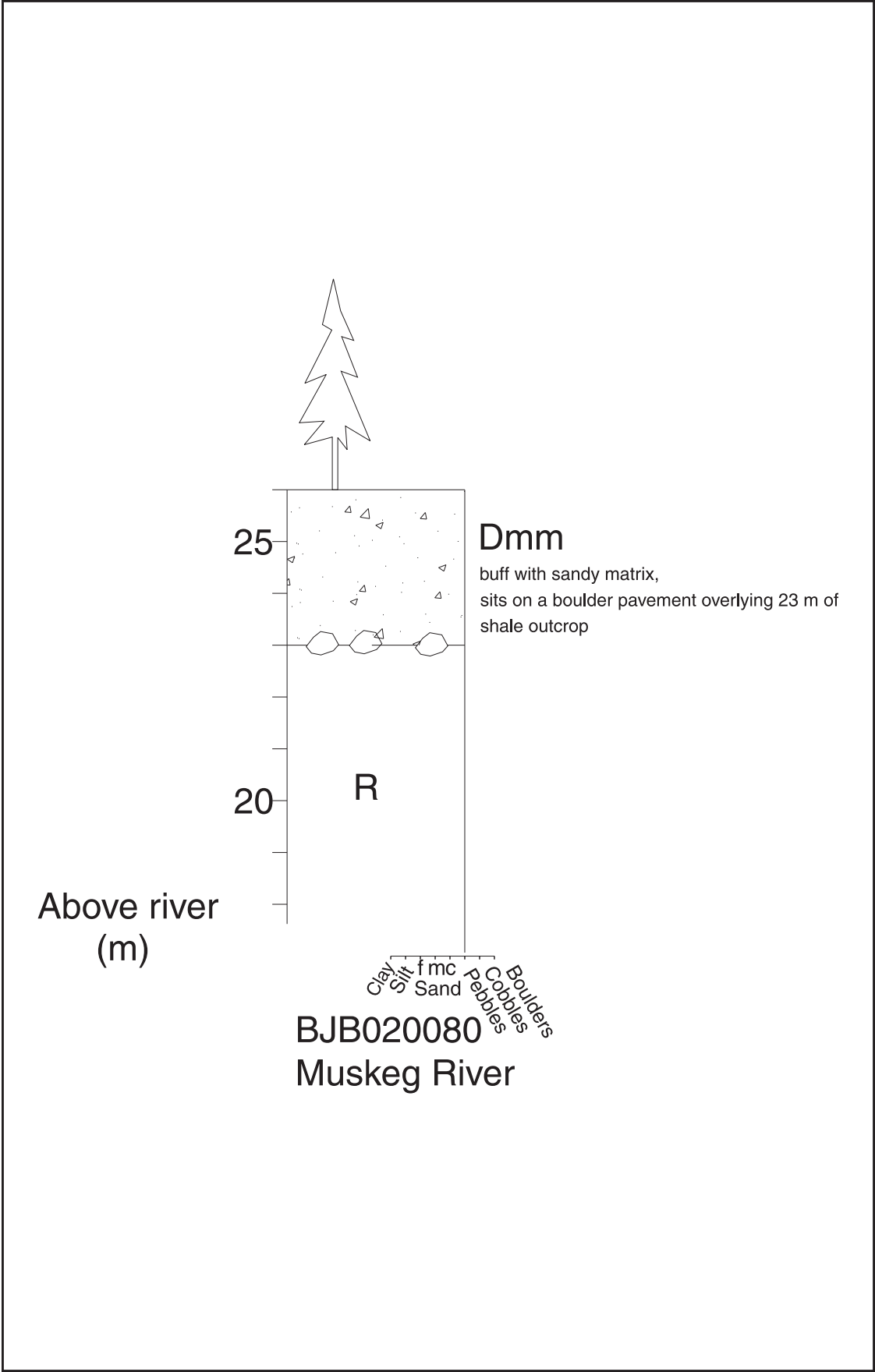


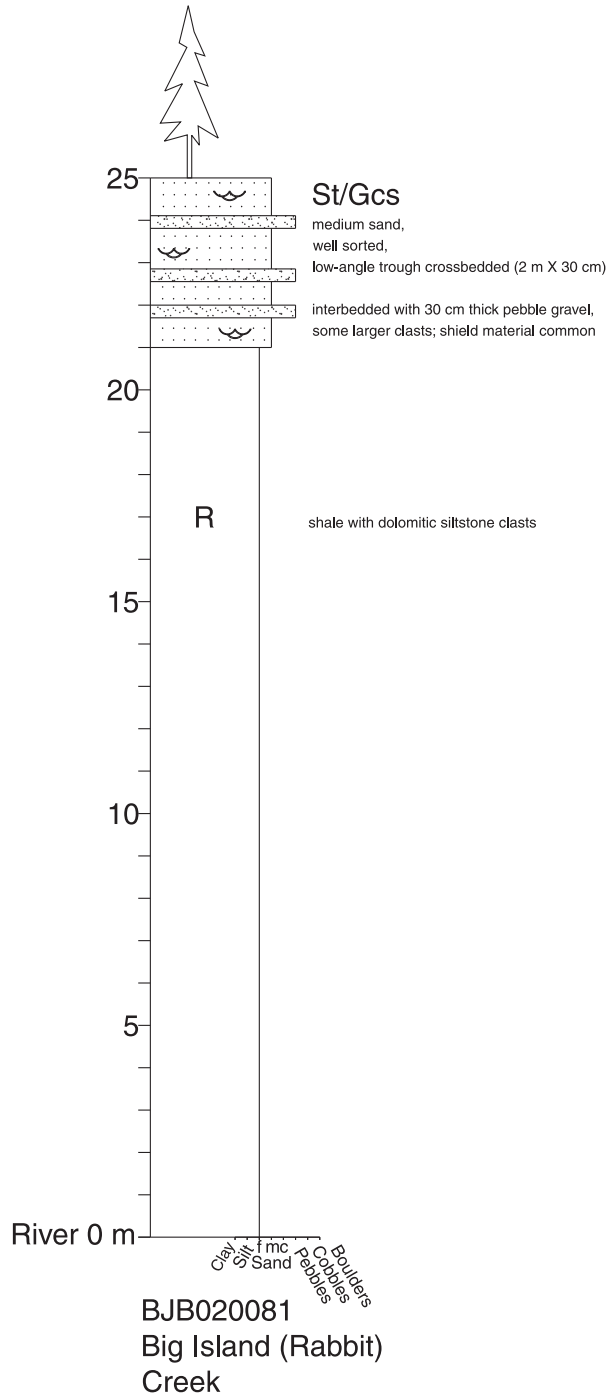


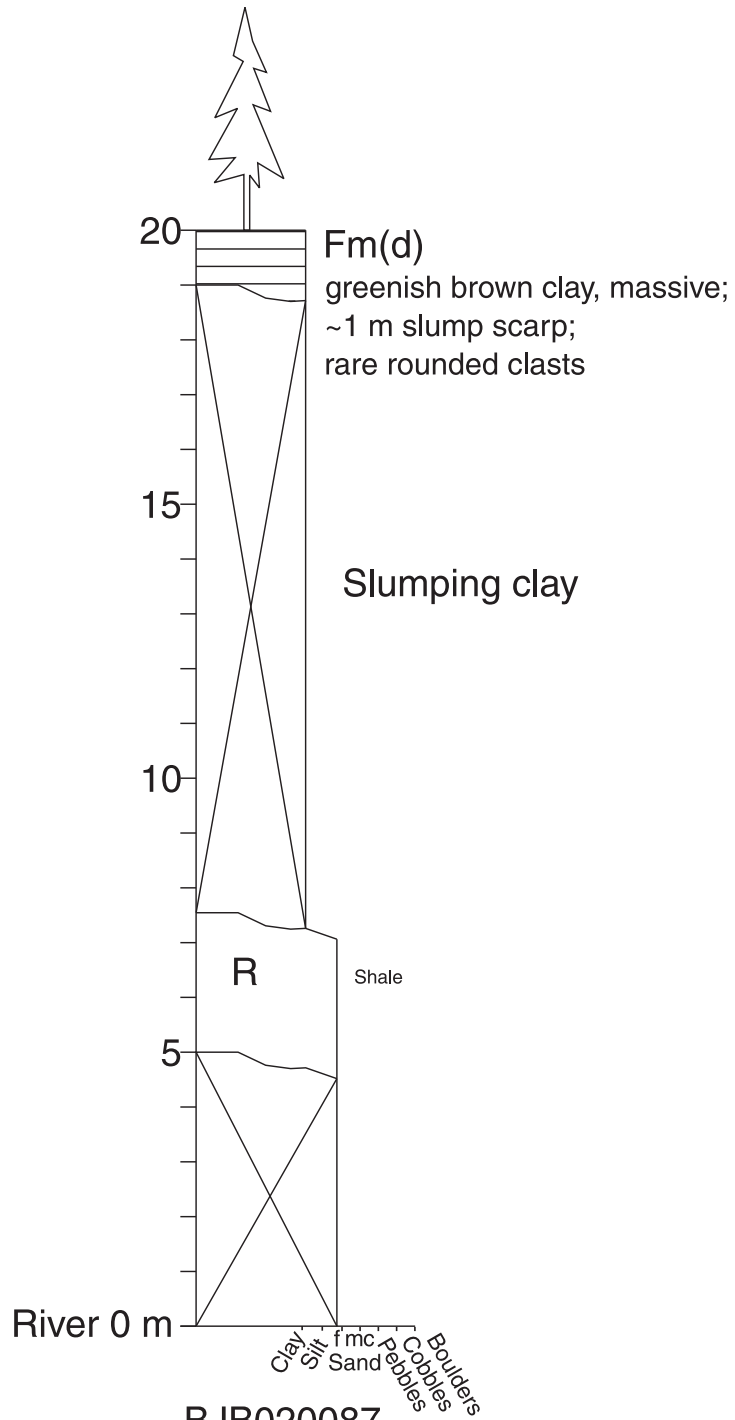
**BJB020066**  
**Muskeg River**



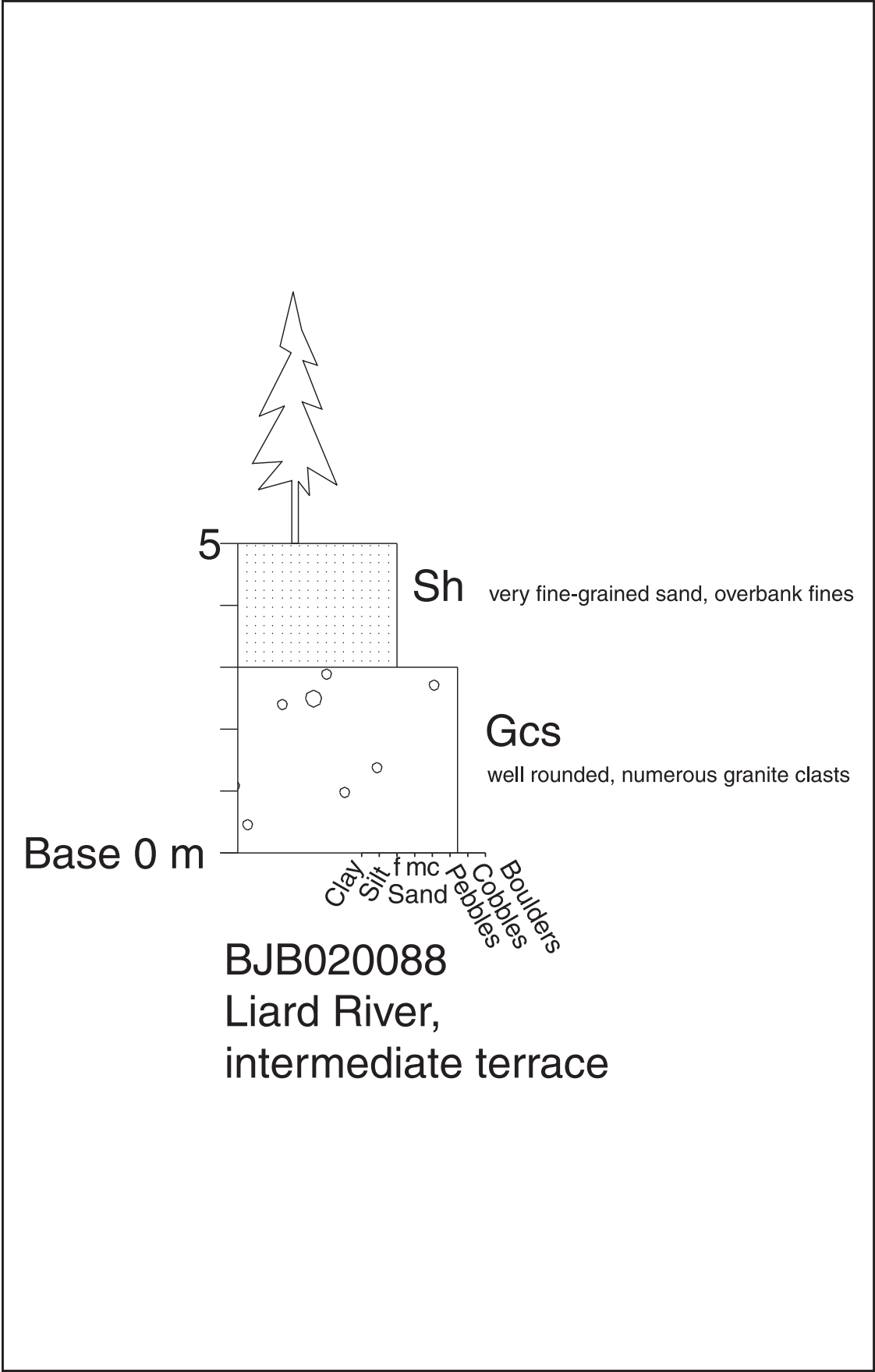
**BJB020077**  
**Muskeg River**



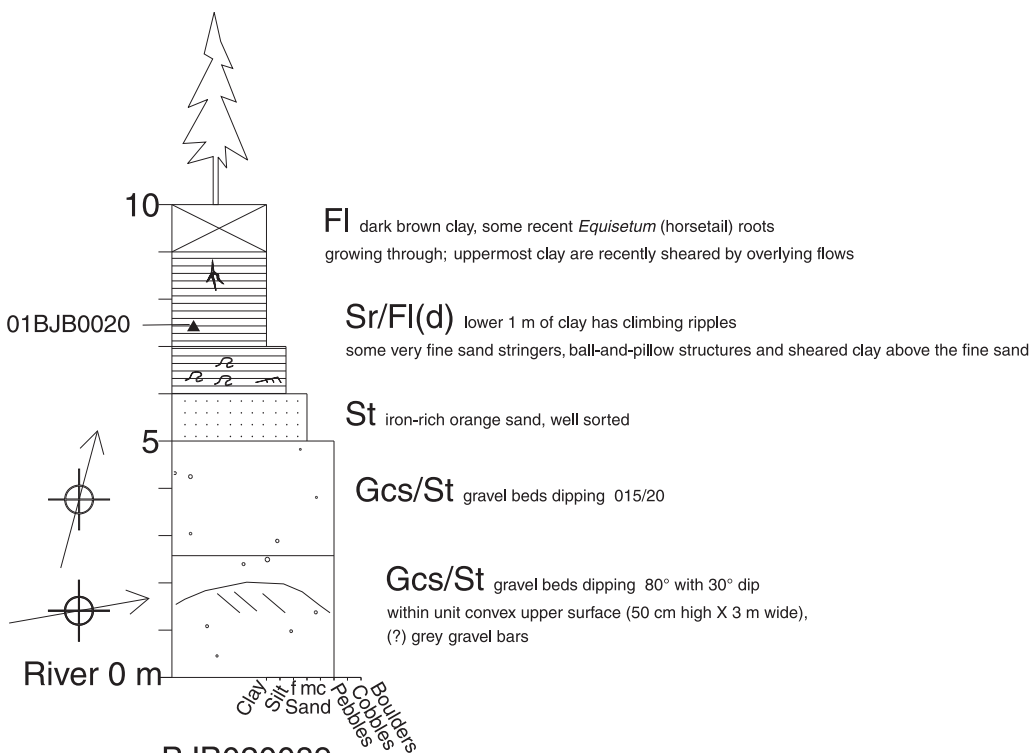




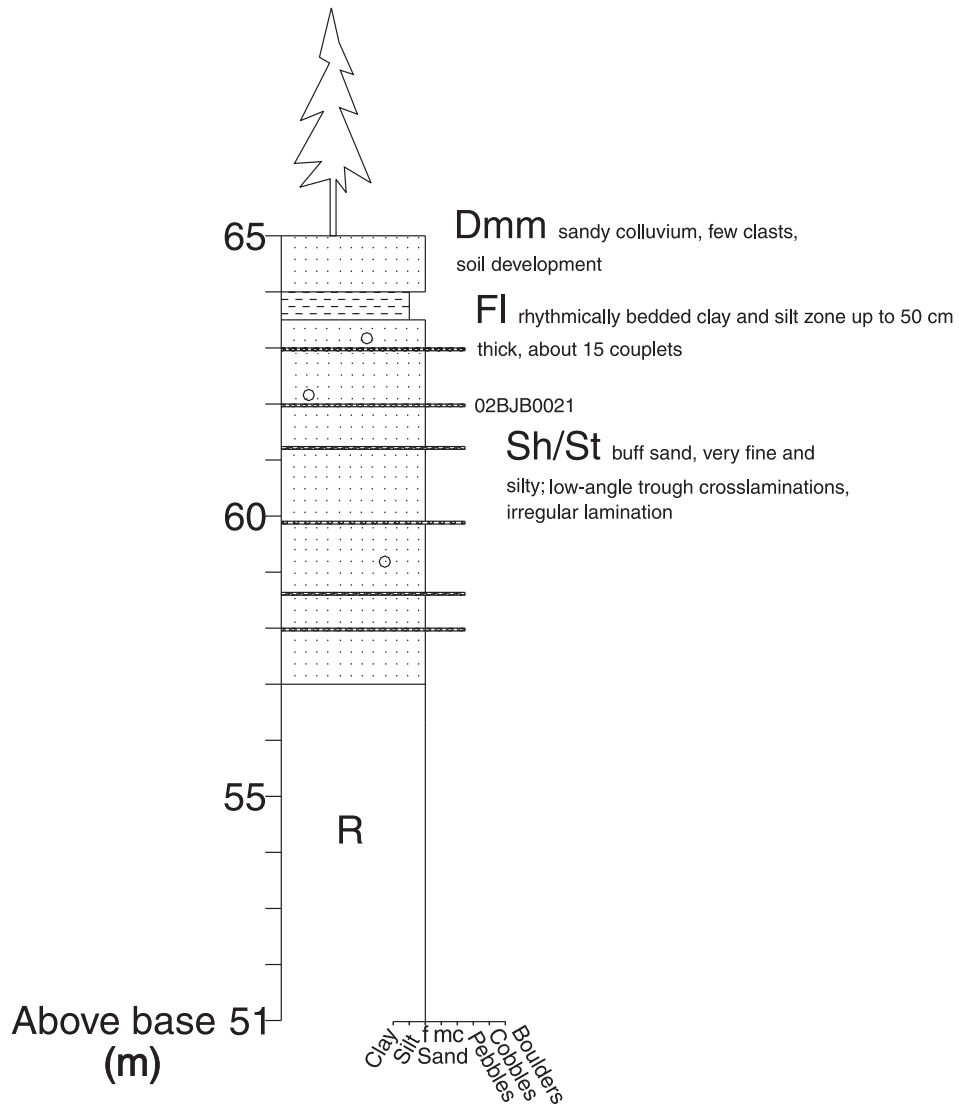
BJB020087  
Fisherman Lake  
airstrip



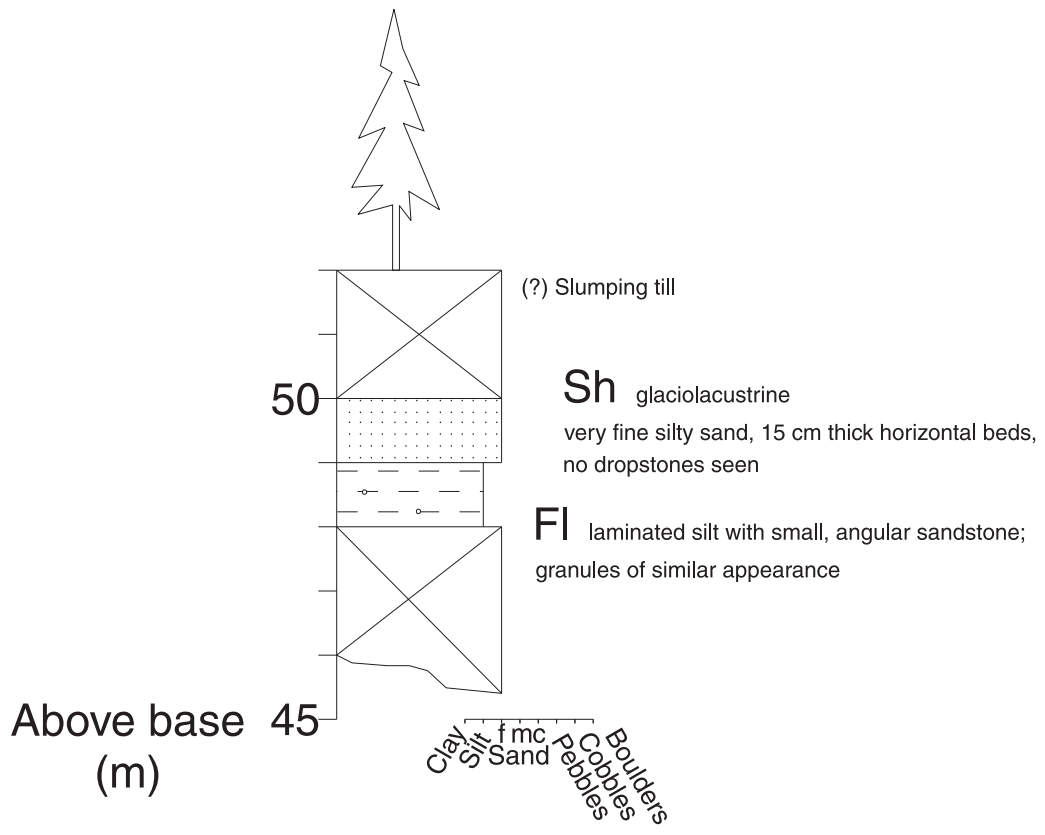




**BJB020089**  
**Big Island Creek**



BJB020094  
 Liard River,  
 glaciolacustrine



BJB020095  
Petitot River

