

July 21st, 1952

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copy to E.H.C.*

EXTRACT FROM FIELD NOTES OF D. D. CAIRNS

SATURDAY, AUGUST 8th, 1914

Y 411

A		
	A.B.	
	J.I.	
	G.C.A.	
	G.E.	
	G.L.G.	
	M.H.F.	
	R.D.S.	

I go with Smith to the Copper properties at head of Quill Creek west of Tetamagouche Creek again. Commencing about 5 miles up the creek: greenish and reddish, brownish to nearly black (bluish black) shales and argillites along the left limit of the creek in places. Tetamagouche Creek about 6 - 7 miles long. Went past head of creek which heads with a small sub-tributary of Wade Creek. Also went past head of Quill Creek. (See sketch).

All the hills north of Burwash and east of Tetamagouche are dominantly greenstone, but occasional patches of shale - argillite - greywacke - conglomerate - limestone group occur. All the main top of the high ridge between the heads of Quill and Tetamagouche Creek are these sediments.

Some bright vermillion patches up Quill Creek proved to be tuffs. There are numerous red zones or bands traversing greenstone, the red being due to iron oxide.

Hills around the head of Quill Creek are very rugged and the creeks flow in typical canyon valleys in most places.

All the hills east of Tetamagouche Creek, north of Burwash, south of Quill Creek, and around the head of Quill Creek have been largely located as copper claims. Claims first staked about 1908. More or less copper in the form of seams showing calcite, quartz, malachite, azurite and bornite, ramify these hills. Went to Sam May's property between the heads of Tetamagouche and Quill Creek. Works mostly caved in, but rock outcrop over most of side hill and no deposit exposed. Thus most that is possible there to occur is more or less disseminated stain plus occasional calcite and quartz stringers with which are associated some malachite, azurite and

bornite. These probably nowhere over 2" - 6". Saw nothing over 2".

Then went over to a large tributary of Quill Creek entering it on its right limit near its head. About 1½ miles up this creek on its left limit a zone about 70' wide of reddish basalt, in places amygdaloidal, through which copperstain is somewhat evenly and plentifully distributed. Saw no other copper mineral. Took average sample of the 70'.

The copper minerals are everywhere associated with the greenstone and dominantly with the reddish amygdaloids.

Lenses or orebodies well mineralized reported to be 4' or more in thickness, but did not see them. Nearest approach are 4' zone seen on Thursday and Jacquot 18" deposit. Others absolutely valueless.

Follows some general geology of the hills on Burwash Creek.

Footnote:

B From 70' showing on left limit of pup (small creek) into Quill Creek in right limit.

Thursday, August 6th

I go to see copper claims with Mr. Smith.

Copper claim on Mt. top. Bar. Elev. 6660.

About a 4' zone impregnated with malachite and bornite. Some open cutting and trenches but deposit poorly exposed. Rock is the reddish amygdaloidal and in places freely impregnated with bornite, streak 1" to 3" almost solid massive finely textured bornite. Great amount of epidote and epidote plus calcite in rock.

Jacquots Bar. Elev. 6520

Ore 1' to 2' - where sampled is 18". Is in dark dense reddish basalt, in places amygdaloidal - ore following fault zone and replacing basalt - malachite and bornite mainly - some azurite - noticed no chalcopryrite. Deposit nearly or maybe 5° - 10°. (See sample).

A Average of 18" deposit.

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Coming up Tetamagouche Creek this morning found rock of all the typical greenstones, among which greenish and reddish amygdaloidal are prominent. Then about  $\frac{1}{2}$  mile above mouth of creek crossing reddish band about 1,000' wide. This is a mineralized and somewhat brecciated and faulted zone in the greenstones and is red everywhere with ironstain. Contains considerable calcite and quartz. Shortly above here cross some almost black basaltic appearing rock which are much serpentized. All surfaces exposed have coating or layer of soapstone or serpentine. Rock in places may have been a pyroxenite. Turned up pup (small creek) of Tetamagouche Creek (?) on left limit about  $1\frac{1}{2}$  miles from mouth. Up this creek continued to summit. Crossed one small block of limestone midway to summit. This is only 100' or so wide and overlies greenstone. All other rocks are greenstones and are much epidotized - whole blocks of rocks being intensely altered to epidote. Amygdaloidal continues to be very prominent. Copper stains and some bornite noted in places. Whole mountain range along left limit of Tetamagouche Creek contains small and ramifying veins

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or deposits of copper up to 4' or so thick - mainly only few inches.

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Coming up creek noted old placer workings in several places. Can make about \$3.00 per day sluicing below canyon, i.e., in first ?? of creek, in a number of places.

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Gold in Burwash is all coarse on benches but much finer - quite fine in creek.

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Some platinum.

Coming down Tetamagouche Creek noted soft friable slates and shales outcropping about  $\frac{1}{2}$  mile on left limit about 3 miles above mouth of creek.

Also small area of granitic intrusive on sidehill on left limit, about 4 miles upcreek.

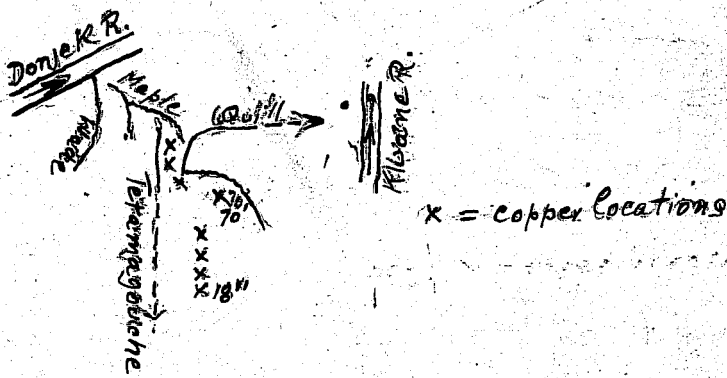
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Noted on a typical copper claim that the copper and calcite deposited along seams and joints or fracture planes in the greenstones. These traverse rock in various directions and in them are in places small veinlets of calcite and in places some copperstain and rarely some bornite. Along the mineralized seams the greenstone is also in places, bleached to a white or light yellow colour for as much as 6" - 12" on either side.

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Sketch from D.D.C. District Notes 1914  
Apr 1914



July 21st, 1952  
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COAL

EXTRACT FROM D. D. CAIRNS' FIELD NOTES

JULY 28th, 1914

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	A.D.	
	J.P.	
	G.O.A.	
	G.E.	
r	C.L.G.	
	M.H.F.	
	R.D.S.	

Large seams of good clean lignite at least 6' thick near head of Sheep Creek. Several seams lignite - sampled 3' seam.

Rocks: Limestone - white grey, yellow and dark grey to black.

Near mouth of canyon interbedded with dark reddish weathering cherts. These overlying greenstones - Tertiary beds invariably above.

August 10th.

Went with Flint to see coal at extreme head of left fork of Burwash Creek. Here the Kenai beds are well exposed extending in a N.W. direction past head of main fork or right fork of Burwash or extending in N.E. direction down Granite Creek (tributary to Duke River). Kenai beds or Kenai trough or basin high up in mountains here 1/2 mile to 4 to 5 miles wide on Granite Creek and extending north westerly along face of basalt mountain; at head of main Burwash maybe 1/2 mile wide - 1 mile wide head of left fork.

Took sample coal from seam opened by Flint. Only place in vicinity where a seam stripped. Neither top nor bottom of seam seen. Top eroded away. Frost prevented digging down to footwall. 4 1/2' exposed. (sampled. see Sample A Page 33 1914 report). Went over there to basalt hill on left limit of Granite Creek. There the summit of the hill is composed of the newer volcanics lavas, amygdaloids, tufts--same as seen last season in White River district--red black greyish, etc.

Occasional intercalated beds of sediments. One prominent greyish coarse sandstone bed about middle of lavas, perhaps 10' thick. Lavas 500' in thickness. Underlying lavas are 1200' - 1500' of Kenai beds--almost flat and little if at all disturbed. Splendid section seen in huge amphitheatre 1000' deep. Beds also extend to N.W. along face of lava hill. Beds consist of shales, clays, sands and gravels, only partly or loosely consolidated.

Black and greyish shales, yellowish and greyish sands and gravels. General series looks like ordinary unconsolidated Recent or Pleistocene sediments in distance.

Counted 12 coal seams 1' or more in thickness. There are probably more. They are distributed throughout beds from top to bottom of series and range from a few inches up to 5' in thickness. At least 30' of coal in sight in seams over 12" in thickness and probably at least 50'.

These Kenai beds extend to S.W. of Wade Creek \* down towards Donjek River. Reported to reach river.

See Samples B. and C. Page 33 of 1914 report.

\* Wade Creek also called Maple Creek.

On August 12th he examined Wade Creek, noticed the Kenai beds, but coal seams only thin; inch thickness.

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