FIELD BOOK

Depth of sample
moisture
vegetation
angle of slope.

↑ ↓ on sample bag

6" below ash

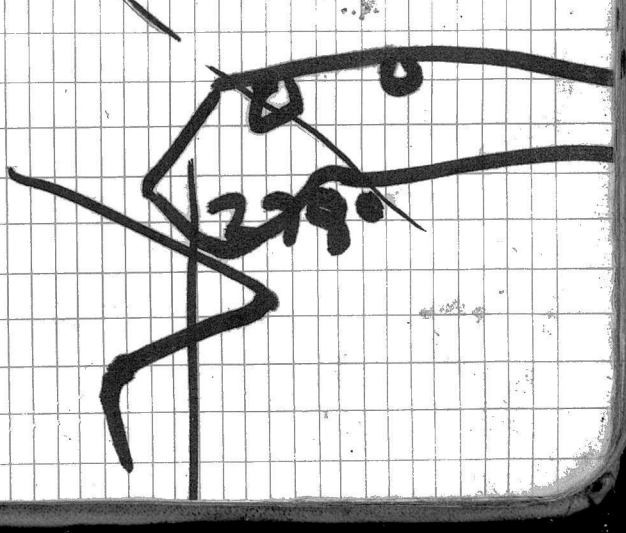
C.
#5 furthest white
snow north on top of
ridge is 230°

C.F. #22
269°/45S
good ll cleavage
N stain o min

#9 277°/45S

324° fr
No.

210°/10°SE



1000 paces.

9 samples
beg 29

Ret S. W

1400 paces
end 3500 p

Then stretch line NE

1400 paces

662 paces
hit road going
due east

1400
662
---
738 = x
= 100
40

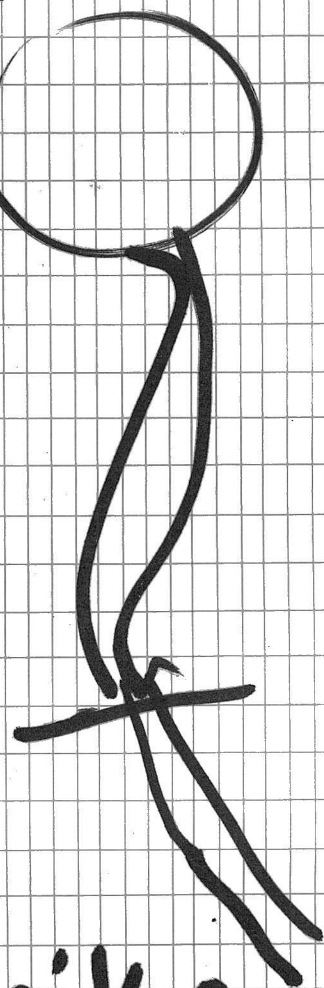
$\frac{x}{100} = \frac{738}{40}$

1845ft

40) 73800
40
338
32
180
160

hylite

83°
June 26



Strike
24

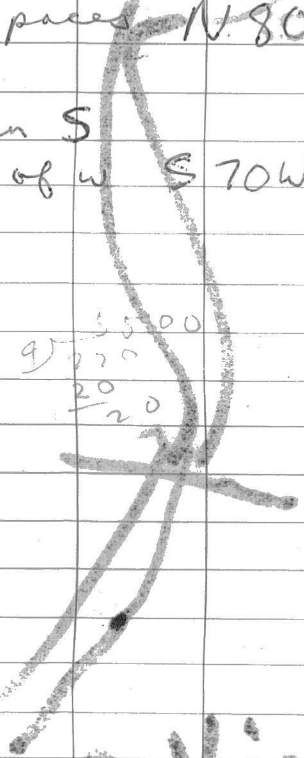
Dip 2 50°
South

S. 35 W home.

7000 ft. at
40

2800|00 paces N 80° W

& turn S
Run S of W S 70W



2200
40

5000
220
20
20

40 paces past C. F. #40 to a striking surface
124
diping 15° NE

Nearly 1 mile
1 3/4 inches

5000 ft
40
200|00

C.F#23
phylite 107/60° NW S
on nob
no stain min

at Big tree #42
little bump
2998
last
snow 236

// fracturing
C.F.#21 at 303/89° SW
Red stain but
not prominent
at RW27

#43 top canyon graywacke

22 samples left

170°

3200 ft

1

1280 paces.

20 samples

7500
40
300000

1776 paces
SE of camp hit
pepply greywacke
with faitly abundant
qtz stringers ½" wide
fractured at 55°
– 125°
fracturing ll to bed-
ding obscure
at Hides ll bedding
114°/79° SW

at 2850 ft
past start hit
large clearing in
slight depression
after #70
Quartzite
90° fracture
at tip of pen with
island at 325°
centre Mt 42°
this fwd
2nd) runs 315°

63 / 75E

T. P. O. J. F. = Top Plane of Joint Fracture

June 20/68 C. F. #1 rock chip of subgreywacke taken 1350 ft WSW from camp. No attitudes obtainable Note: calcite cement

June 21 C. F. #2 rock chip of a ~~quartzite~~ or possibly silicified dolomite no possible attitudes

June 21 C. F. #3 Lithic fossiliferous limestone. Note: this graded into a subgreywacke with visible cross laminations.

June 21/68 C. F. #4 subgreywacke cemented with calcite very similar to #1 C.F. sample 255° / 15° NWW (Bedding Plane)

June 23/67 C.F.#5 subgreywacke 313° / 13° SWS T.P.O.J.F. Note plant fragments. location 55,000 ft N80°W of camp

June 23/67 C. F. #6 black chert 220° / 25 NW location 400ft from start of sample line in 600ft gorge

June 27

C.F. #10 shale 295°/20° S.W.S.

June 28 T.P.O.J.F.

Hit subgreywacke

on hill at 172° again

C.F. #11 June 28/68

light colored chert very attitudes

268°/6° S 102 paces upstream

from fork. T.P.O.J.F.

C.F. #12 shale June 28/68

40° /17° S.E. Bedding Plane

C.F. #13 shale slightly foliated

concentricly. 298/20° SW

C.F. #14 shale 136°/20° SW (bedding Pl.)

C.F. #15 bedded black chert unconformibly

over concentric folded shale

bedded: 143/6° S.E location

253 paces up junction of Creek

C.F. #16 800 ft up same junction #15

more black chert containing pyrite probably formed

in reducing enviornment.

40°/22° SE T.P.O.J.F.

T.P.O.J.F. = T.P.O.J.F.

C.F. #17 light bedded chert

244/20° S.E.S. T.P.O.J.F

C.F. # 18 July 1/68 phylite host

294°/70° S.W.S. (Bedding Pl.)

Qtz veins desseminated in cracks

averging from $\frac{1}{16}$" – 3" manly

in area 10' high and 16' accross

A stained zone in same deep

red in color in patches and

veins from 15" ± 1".

outcrop is small but stain

and Qtz veins appear to extend

under water refer to sample C.F #18B

(X)

C.F. # 18 July 2/68 Silicified dolomite

small possible outcrop 1 yd. sq. containg

2 fractures: 89°/70° S T.P.O.J.F.

location on top of ridge where bend

in pelley river with island at 246°

stained zone by last creek we are

to traverse near apex of ridge 206°

staining: too small to be signifigent

specimen is fine grained and highly

silecious

C.F. # 19 Graphitic phylite a few $\frac{1}{4}$" qtz fractures and a few 4" stained zones which appear to be secondary
attitudes 89° / 40°S (Bedding PL)

C.F. #20 ~~Atitudes indicate silecified phylite~~ but looks like silecified Subgwke. Randomely orientated Qtz veins cover 35% of large outcrop at sample site C.F. 93. A bit of staining but not prominent. Random fracturing. No atitudes obtainable. No mineralization Grades into C.F # 20 B fine grained limestone 300ft from 1st sample A. and then grades back into phylite C.F #19
259°/45°S at 305 ft from C.F #20
No attitudes, mineralization or staining in limestone.

C.F. # 21 Fine grained black chert forms cliffs on both sides of creek beggining at of sample location R.W. #27 Red stain fills crooks and ∥ fractures but not exceptionaly prominent. Fractures: 303 / 89° S.W
T.F. Q T.F.

stain may be secondary

C.F. #22 C.F. #23 C.F. #23B July 2/68
slightly metamorphosed shale. Bedding has been destroyed but no new minerals have formed. Atitudes on all three sample sites were nearly the same or as close as I could get them with rough compass: 280°/50°S
Almost no stain. No mineralization. Number 23 seems softer then C.F. #22 and 23B but is probably more weathered

C.F. #24 July 4/68
Fine-grained silicified dolomite below were Brent had mapped on large nob.
221.5/45° NW (top surface of ll joint fracture plane ie ll possible bedding)
location on side of nob 1400 from lake

July 5 /68

C.F. # 25 Meta calcareous shale. Location 125 ft from camp. This shale may not be in place for it is quite a small outcrop sticking out from soil. no attitudes were taken

July 8, 1968

C.F. #26 turbidite greywacke generally quite fine grained showing lithic inclusions and convolute bedding. In places highly silicified to hardness of chert. Some quartz veins averaging about 1". Minute quantities of pyrite and chlorite. Graded bedding barified by type of weathering.

July 8, 1968

C.F. #27 fine grained argilite or metamorphosed black shale bedding: 329°/60° W.S.W. A few Quartz concretions containing minute amts. of pyrite and hematite.

Further up creek a vein of Qtz and yellow and red stain outcrops. I could find no mineralization except possible Uranium oxides and uraninite of which I took rock samples. The vein is ± 30' wide ± 22' long and strikes and dips 11 with bedding of black grey argillite: 322 / 60° S.W.

July 8, 1968

C.F. No 28 Fine grained dark grey limestone no visible bedding. Prominent fracturing some pockets of fine grained grey chert. No mineralization. Very little staining.

C.F. #29 June 10, 1968 meta-siltstone lineations or metamorphic foliations which are ⊥ to prominent fractures run: 62°/25° S.E.S. abundant staining in creeks appears to be caused by small amounts of pyrite. A few qtz veins roughly ⊥ to bedding exist ± 230 /75° W N W. average from ½" to 5" thick but carry no mineralization

June 11, 1968

C.F. #30 metamorphosed shale approaching a phyllite. A few qtz veins ||and ⊥ with bedding. Quite graphitic around some veins which are ½" to 4" thick and don't outcrop to very great lengths. Staining in cracks is abundant and probably secondary for no mineralization was observed. Asymmetric ^large angle minor folding throughout with fold axis plunging 16° in a N.E direction. Attudes of beds varried because of local movements but were 222°/38° S.E. on an outcrop that appeared to be in place.

C.F. #31 unfolded slate, not enough exposure to take any reliable attitudes. No rock sample taken.

Down stream it is somewhat stained graphitic and phyllitic with minor folds and a little qtz veining.

C.F. #32 stained black sericitic phyllite. a few ¼" qtz veins no mineralization. reliable attitudes. Staining is prominent in cracks and is probably secondary much same as #30

C.F. #33 Foliated grey phyllite Foliations and Fracture (top) planes run 208/38° ESE little staining or qtz veining no mineralization sample taken

C.F. #34 Dolomite, serrisite, garnet hornfels or metasomatized siliceous rock. some desiminated iron pyrite quite a few (randomely oriented in fractures) dolomite veins. Some are mainly qtz and range from ½" to 8" thick. Staining is moderately abundant. Block Fracturing with top Face 202/36° ESE and prominent ||side faces 179°/70° W grades into what seems to be graphitic black phyllite past #C.F. 35 which contains pyrite and small qtz or dolomite veins. Refer to C.F. #36 and 37

C.F. 36 hard grey fined grained quartzite little staining a few small vugs of pyrite and a couple of 3/4" qtz veins. I believe that the quartzite may be regarded as consisting of material belonging to a later stage of the reaction series than basaltic magma.

C.F. 37 It appears as if a large nearly mass of pure silica has intruded a phylite host and thus backed it. The silica corresponds to C.F. # 37 attudes on phylite host 206/36° E.S.E (top layer) further down creek about 1500 ft occur numerous outcrops some predominently silica and others phylite. at 900ft there is an outcrop of slight stained phylite containing a few 1/2" qtz veins. 180°/45° E I will call it 37 B. C.F. 38 At 1500' a large out crop of silicified phylite with a little yellowish staining and numerous oriented 1/4" qtz veins. No sample taken.

C.F. # 38B End of silicified phylite. Sample taken.

C.F. # 39 Orthoquartzite
Bedding 270°/ 70° S little staining
some randomly crossing Qtz veins
location silt sample site 125 C.F.

July 14 / 1968

C.F. # 40 silisified quartzite
probably mesasomatic residual rock
fine interwoven 1/8" to 1/2" qtz veins. Some
staining but not abundant. No visible
mineralization Location 256 paces down
stream from silt C.F. # 139

C.F. # 41 Fine grained, grey dolomite
crossing small 1/16" - 3/4" white dolomite
stringers, no sign of mineralization
very little staining Location 58 paces
past soil C.F. # 209

C.F. # 42 Fine grained light grey
fossiliferous limestone. No qtz veins
or mineralization 2 prominent fracture
plane 202 / 13° ESE

C.F #43 Subgreywacky or greywacke sandstone. Laminations and beds of shale and sand are either varves or turbidite bedding. 254 / 22° SES (This is how most of the bedding was however there was quite a bit of local slumping and these attitudes could be inaccurate) (very little if any cross bedding) Some biotite and pyrite mineralizatio in cracks. Quite a few fine grained veins of silica ll to beding and range from 1" to 8" thick

C.F 44 silicified subgrey wacky abundant disseminated pyrite and qtz veins ranging from 1" to 12" thick. block fracturing, moderate to abundant staining

July 15/68

C.F #45 phylite, too much local slumping to get reliable at location 63 paces from silt 152

C.F 46 phylite 200 pace from 152 stained, ½" to 1½" qtz veins somewhat graphitic

C.F. 47 225 paces from 152 silt. and accross creek. Quartzite interbeded orthoquartzite Bedding 168°/ 60° ENE. Yellow staining a few random 1/8" quartz stringers outcrop extends past silt 153

C.F. 48 Finely laminated argilite little staining

July 16/68

C.F #49 highly silecous garnet hornfels much the same as C.F #34 Garnet indicates dry unmineral bearing residual silecous liquid. Fairly abundant secondary staining. No min. Whole outcrop is covered with crossing small qtz veins. Host is too altered for positive identification but may be quartzite. Garnet is restricted too veins and patches rather the deseminated throughoot. Further down remotely possible cinnebar (with red streak) is finely dessiminated in patches of outcrop. Rock chip samples taken, but redish mineral rather sparce

July 16/68

C.F. #50 fine grained grey siltstone, cross laminations, a few 1/4" to 3/4" qtz veins. no staining or mineralization. No sample taken

C.F. #51 sandy grey colored quartzite. no staining or min. a few randome Qtz. veins sample taken

C.F. #52 highly silecified quartzite desiminated pyrite mineralization abundant crossing qtz veins staining in cracks. Sample taken

C.F. #53 White orthoquartzite Quartz veins very abundant in all directions and range from 1/8" to 14". Some staining but no mineralization sited. Samp 188°

C.F. #54 Silicified greenish-black fine grained limestone or dolomite. No mineralization, some staining, Small outcrop in between orthoquart

and looks like it was protruding into Mt. but to badly weathered and too much talus or overburden to fine any contacts.

C.F. #55 Ore bearing float, types of mineralization: mica, chlorite, actinolite, galena, pyrrhotite, malachite, chalcopyrite and qtz. Metals were dessiminated in altered host. Every highly stained rather rounded boulder contained some or all of the above mineralization. About 20 float boulders were opened at silt sample sites; C.F. #178, C.F. #179, C.F. #180 and C.F #181. An average galena bearing sample was taken.

C.F. #56 July 20/68 altered black graphitic phyllite 347 paces upstream from 1st junction structure: part of limb of overturned fold. Fairly abundant qtz veining ($\frac{1}{2}$" to 5" thick) and dessceminated pyrite moderate staining. Sample of

Qtz veining taken with a bit of sphalerite (?) in it. Mineralization very sparse. About 60 ft up creek just before sample C.F. #194 a sub angular piece of qtz. float containing small bits of Azurite, Malacite and chalcopyrite was found.

From 41 to 81 after silt C.F. #195 same type of phyllite outcrop

At 100 to 120 paces same outcrop. Top || fracture plane 233/20° S.E

C.F. #57 Black metal shale, abundant staining, a few quartz veins 2"-$\frac{1}{4}$" roughly || to bedding. A little pyrite mineralization 195°/14° E

4 " 19

C.F. # 58 unaltered shale 347 paces downstream from junction

C.F. # 59 subgreywacke sandstone abundant calcite veins, nomin. or alteration. Fine grained in places and grades into pebbly greywacke approaching a conglomerate.

C.F. # 60 grey silicified shale or pelitic hornfels, red staining abundant qtz veins $\frac{1}{16}$" to 1" thick, pyrite mineralization dessominated

C.F. # 60A same as C.F. # 60

C.F # 61 yellowish red staining abundant. limited if any qtz veins.

C.F. # 62 muck same as 61

C.F # 63 light - grey silicified shale, pyrite mineralization abundant, purplish red staining abundant. few small qtz veins.

#64 Silicified pelite

moderate no. of about 1" qtz veins orange red staining very abundant.
quite folded in places.
mineralization? sulfur

#65 black shale, staining sparse to moderate 13°/13°E later on a few ~5" ± ½" qtz veins.

#66A highly silicified pelite
Qtz stringers from 16" – ¼" thick and moderately abundant staining moderately abundant

219 to # 227

July 22/68

C.F. #66 location 240 paces upstream from C.F. #225
highly baked phylite staining moderately abundant. Pyrite min. in host. In some places on host muscovite has formed. A mass of porous stained silica containing very small amts pyrite min., green mal.? stain and chalcopyrite (8 ft long, 5 ft high and 2½ ft thick) has intruded host. Faces of phylite are curved indicating folding

C.F. #67 location C.F. SILT #241
altered black argillite, very abundant staining but no visible min. very fine qtz stringers disseminated through whole outcrop

C.F. #68 Galena showing in side wall of joint fracture ≅ 260°/75°S Galena was restricted to about a .5 foot exposure line on wall. Rock chip samples were taken at about 20 ft levels 40 ft below showing, 20 ft

above showing and 20 ft to either side of showing. location; end of Jakes Creek (sampled). 227° and top of Mt. near snow patch (ie S.E. side of cliff) is 292.1°

Over burden completely covers any possible vein of mineralization within fracture, but the over burden could be dug out with a pick and shovel.

69 Silicified turbidite greywacke staining moderate to sparse 256°/15°S

July 26 68

#70 highly silicified argillite sparse staining, sparsely disseminated pyrite Qtz veining in fractures // to altered bedding planes which are roughly in an upright position posibly due to folding; exact attitudes: 135°/82° N.E.

#71 location silt sample sight C.F 262 black silicified argillite orange stain abundant no visible mineralization; some small qtz veining 150°/30° NE A facis boundary further up where beds grade into silicified subgreywacke showing curves, qtz veining, some pyrite mineralization. Same attitudes sparse staining. Sample taken.

#72 location 500 ft upstream from sample C.F 268 same type of subgreywacke as in #71 accept minor faulding, qtz veins up to 4" thick

containing dessceminated pyrite and moderately stained.

#72 occurs again at sample #269 specimen taken here. Shale is metamorphosed to a phylite

#73 occurs at sample site #270 near granite. I would call it a pelitic hornfels. This large outcrop as shown on map appears to be pelitic hornfels extention of laminated subgreywacke #71. The shaley parts in places have a coating of muscovite. In spots of this outcrop staining and qtz veining is abundant and contains dessceminated pyrite and pyrrhotite. In at least one place the outcrop was intruded by granitic magma containing probably magmatic stopped ~~stopp~~ siliceous pebbles. Much material in this was made over to biotite. Staining in this was abundant and probably due to finely dessiminated amts of pyrite

I just ruined my piece containing typical siliceous pebbles at camp, but I labeled an untypical piece of this intrusion in the pelatic hornfels

#74. Atypical piece of the hornfels toward the granodiorite is #73B

Accross the lake atypical piece of hornfels containing magnetite and pyrrhotite is #73C

#75 Biotite rich granodiorite

#76 silicified subgraywacke ie pelitic hornfels moderate staining, dessemindated pyrite abundant small qtz veins

location - gravel bed at 16°

July 21 '68

#77 MoS_2 in place in granodiorite along at least 12" wide qtz vein. Extent of outcrop containing molybdenite also some dessiminated chalcopyrite and pyrite is unknown because only small part of vein was exposed in amass of talus and overburden. Only small bits

of dessiminated moly were found. A few talus boulders contained chalco., moly., pyrite qtz., ceccisite, ferromolybdite, and possibly sulfur. Abundant staining. Qtz veining mainly in fractures.

July 30/68 #78 MoS_2, Qtz, pyrite and muscovite in small shears along fractures in granodiorite. Maximum thickness of moly vein is ½". All of this was found in talus in large cut bounded by large granitic blocks. Staining was moderate and qtz veining was fairly sparse. The moly was only found in two pieces of angular talus which must have slid down from top of cut. I climbed ¾ way up cut but retreated when rocks started sliding down on me. The moly outcrop could be classified as almost inaccessable and since only in small fractures unprofitable. Since it is already noon and I have to

Aug 3/68

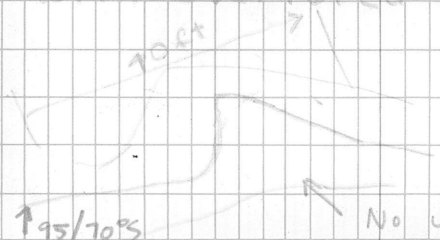
Fine grained,

C.F. 81 Interbedded black and white pelitic hornfels below water line of creek at RM=2. Abundant red staining. Dessiminated pyrite in cracks.

C.F. 82 Same as 81

Aug 4/68

C.F. 83 Fine grained siltstone interbeded in shale. Very strong folded with overturned asymetric fold.



Location 70 p after 325

fold axis plunges about 80° in a southerly direction. No min. or qtz veining. slightly stained

Aug 5/68

C.F. 84

med. grey colored argilite at sample site C.F. 334. No: min., qtz veins or staining. Average attitude: 76/70°NNW but varied 50 paces down creek to 96/86°S which looks like this was possibly due to folding on a larger scale than was visible

C.F. 85 same as C.F. 84 except moderate staining and extremely varying attitudes possibly due to local slumping, however I suspect this is due to folding and uplift because again all outcrops dip close to 90° but strike in varying directions.

C.F #86 light grey phylite 130 – 420 paces downstream from SITE C.F 449 secondary calcite and pyrite, no staining or qtz veining 132/90°

August 8/68

C.F. 86 Interbedded shale and siltstone. No mineralization or qtz veining. Sparse to moderate staining. Location: outcrop begins 141 p downstream from C.F. silt 352. Too much local slumping at this point for reliable attitudes.

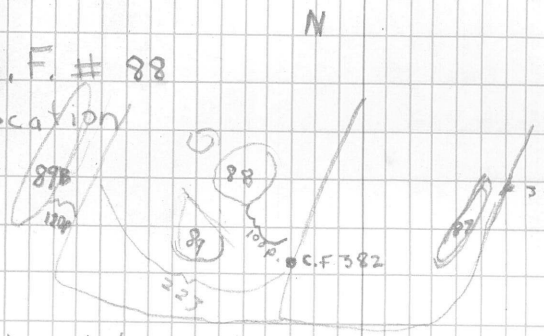
C.F. # 87

Aug 13/68 Fine grained dark grey lithic

No metalic mineralization or staining. A few ½" qtz stringers. Their is evidence of a calcareous silicate present probably tremolite-actinolite. Location: 20-60 ft past # 381. Some small calcite veins up to about ¼" th. No possible bedding attitudes.

C.F. # 88

location



highly siliceous med. grey hornfels. a few specks of desseminated chalcopyrite in qtz veins which range from 18" - ½" and are very abundant. Very sparse staining. Rock contains a little disseminated biotite and a green soft mineral which I cannot identify.

C.F. # 89 Dark grey to black argillite with interbedded veins of silica ll to bedding 42°/35° N.W staining very sparse and no visible mineralization. Very minor folding.

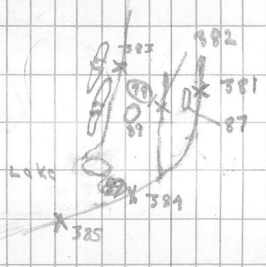
C.F # 89 B same as 89 The fine grained silica may be interlayered bedding with siltstone but it is just too fined grained to know for

surf. In any event the silicg is always ll with bedding: 52°/ 20° NW

Map of Area (No Air Photos)

Drawn to scale

N



C.F. # 90

C.F. # 91
August 13 / 68 med. grey argilite
a few pure white qtz veinis up to
2 ft thick. almost no staining
or mineralization 80° / 40° N

C.F # 92 August 20 / 68 dark grey
bedded siltstones qtz veining
// and ⊥ to block fracturing. ⅓ in
bands moderate staining. and sparse
staining. Dessiminated pyrite.
bedding: 340° / 40° W Qtz veining
¼" to 12" carrys no mineralizati

This rests unconformably upon
strongly minor folded and
strongly stained altered argilite.
Qtz veins up to 24" carry
pyrite, dolomite, and tremolite - actinolite
ie #93 Argilite contains
moderate amt. dessiminated pyrite