Traverse 33K Aug. 15, 1968

812574

South End Tagish Lake (Taku Arm)

Air Photo A11390-343

Geology - Silt sampling traverse up the small creek approx. 350 yards East of camp

Geology: no o.c. along creek until approx. 7,000' up the stream. At that point rock is a coarse grained, pyritized Biotite Granite pyrite occurs as small disseminations and seams total metallics ~1% (visual estimate) ~$\frac{1}{2}$% epidote also present along seams

between 6,000' and 6500' up stream two areas (each 10'x10') of angular rusty granite blocks - only minor pyrite present

the float in the creek is mainly this coarse grained, porphyritic (in places) Biotite Granite with minor dissem. pyrite.

the composition of the rock is:

Quartz 15%

Biotite 10%

Hornblende 5%

Orthoclase 50% possibly more

Traverse 34K Aug. 16, 1968

South end Tagish Lake

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Geology along shoreline, proceeding East from camp

A1-34K approx 400 yards East of camp oc 5'x15' of quartz-biotite schist - schistosity 080/25 the rock is well indurated, and contains up to 1% pyrite as disseminations and along small quartz veinlets and fractures biotite abundance varies from place to place but generally comprises 60-80% of the schist - quartz varies from 5-20% and occurs mainly as veinlets (<1/2" wide) which conform to schistosity

weathered surfaces generally dark grey

with abundant rust stain from pyrite

1 sample # 5

biotite is fine to med. grained, pyrite occurs as irreg. masses up to $\frac{1}{8}$"

100' N of 'O' KK35 is another o.c. 10'×15' of the quartz-biotite schist pyrite up to 3% along fractures and disseminated - some clear-quartz veins cross-cut the schistosity at high angles these veinlets trend 175° but dip is highly variable several of the veins ~2" apart, but not over entire o.c.

also present, a zone of sericite altern. conforms to schistosity width 6" no mineralization this could only be traced for a few feet

several qtz-biotite layers ~80% qtz - these are up to 2" wide and generally conform to schistosity but do show cross-cutting in places

pyrite is very common in these layers, mainly with biotite

1 sample #6

another 100' N an old prospect pit into sidehill - shows schist has many pinch and swell veinlets and veins of "granitic" material fine to med. grained - this "granitic" material occurs in veins up to 18" wide, both conformable and cross-cutting - minor ($<\frac{1}{4}\%$) pyrite in the veins schistosity $\frac{\top}{35}$ 085

150' N of prospect pit - good o.c. of schist $\frac{\top}{50}$ 070 with 5-10% "granitic" material both cross cutting and conformable

the granitic material generally has almost the same trend as the schistosity at this o.c. several small quartz veins up to $\frac{1}{2}$" wide

strike 000° - dip is quite variable but always steep - these crosscut schistosity and granitic veins (?) but contain only minor pyrite

no sample

On the point, many veins + veinlets of quartz with N-S trend - average spacing 6-18" - these dip irregularly but the dip is always steep.

The rocks on the point are highly contorted and appear to represent the [illegible] axis of a fold - quartz and 'granitic' veins are abundant (~5% of o.c.) and range from $\frac{1}{2}$" to 12" wide - conform. - the schist contains 2-3% dissem. pyrite the veins $< \frac{1}{2}$% - minor ($\frac{1}{2}$%) epidote in both schist and veins - fold axis trends 115°

100' E of point schistosity $\frac{070}{25}$

2-5% veins - almost all are conformable

lower part of o.c. is qtz-biotite gneiss with dissem pyrite - the gneiss also has veins of "granitic" material - these are up to 18" wide and are conformable with gneissosity - the mica within these veins is foliated // to gneissosity

1 sample gneiss #7

1 sample 'granitic' vein #8

250' E of point schistosity $\frac{095}{20}$

gneiss and schist are interbedded - schist ~95% biotite - conformable 'granitic' veins up to 10% of outcrop in places

epidote occurs as pods and small stringers all along o.c. - ~$\frac{1}{2}$% of whole o.c.

'granitic' veins usually conformable - probably small offshoots into sedimentary host rock - clear quartz veins have many attitudes - all crosscutting schistosity

~80% schist, 20% gneiss along this beach

another prospect pit attitude of schistosity 45/130

on point just east of prospect pit, o.c. is of biotite schist - ~5% granitic veins, all showing ptygmatic folding - pyrite 1-2% mainly along small qtz-filled fractures ~1% epidote along fractures

schistosity 20/130

A2-3AK On East side of small bay biotite schist - attitude 40/125 - with

lineation trending 025°

approx. 5% 'granitic' veins 1"-6" wide, mainly conformable or slightly discordant

gneiss and schist 200°N

good jointing ↑ 175 and ↗ 110

-granitic veins contorted, much pinch and swell

schistosity also distorted

AB-34K rock along the E side of this bay is ~90-95% biotite schist, ~5% qtz-biotite gneiss

both lithologies contain dissem. pyrite - all qtz veins have rusty stain - however, nothing other than pyrite observed

attitude of schist at point 130/25

A4-34K outcrop at NE point of bay 2 bays East of our camp

- long exposure 30' high x several hundred feet long

at south end of outcrop mainly a fine grained biotite with minor (5%) biotite-feldspar gneiss + minor ($\leq \frac{1}{2}$%) pyrite is dissem. in both lithologies - the schist here is finer grained than previously and contains small, concordant quartz and "granitic" veins up to 5% of o.c.

proceeding N, the feldspar-bi gneiss is becoming more abundant

the gneiss contains 1-3% conformable 'granitic' veins up to 12" wide - attitude 45 135

the gneiss contains ~15% feldspar porphyroblasts up to $\frac{1}{2}$" in size. av ~ $\frac{1}{8}$" - $\frac{1}{4}$"

as well as 10-15% more feldspar as small blebs biotite is fine to med. grained pyrite is dissem throughout gneiss (~$\frac{1}{2}$%) 1 sample #9

pyrite usually most abundant near small fractures

several rust zones along this o.c. - contain only pyrite 1 sample #10

1-2' wide dyke 065/85 cuts through gneiss grey-green on fresh surface comp. ~ dacite 1 sample #11

gneissosity at end of point 40/145

across point o.c. of biotite schist with dissem. pyrite

limey zone 50' wide - some quartz veins to 6" wide contain minor galena and pyrite - total metallics ~ 3%

100' N of limey zone - veining shows core of fold

azimuth 215° plunge unknown but steep, at least 60° to SW

Traverse 35K Aug. 17, 1968

South End Tagish Lake

Air Photo A11390-343

Proceeding west from camp, along the shoreline

△1-35K

On point 200 yards West of our camp

- coarse grained Biotite Granite

15% Biotite

20% Quartz

65% Feldspar (mainly orthoclase)

1 phenocryst of orthoclase $\frac{3}{4}$" long noted in specimen

small, dissem. rust stains from pyrite within granite $< \frac{1}{2}$% metallics

at this point rock is unveined - quite homogeneous although a few (<1%) rounded inclusions were noted - these were ~60% biotite (f.g.) with 5% feldspar porphyroblasts - remainder was fine grained feldspar

1 sample #15

continuing around the point rock is still coarse grained intrusive - but looks more like a Granodiorite than a Granite - still contains minor (~$\frac{1}{4}$%) dissem. pyrite - also ~5% m.g. hornblende

one small zone of alteration noted in intrusive - area 10'×15' was slightly less resistant than rest of granite - biotite and hornblende were partially altered to chlorite. the zone was more rusty weathering but didn't appear to have any over-abundance

of pyrite mineralization

A2-35K

still in c.g. Biotite Granite (Granodiorite?) with minor dissem. pyrite

prominent jointing in intrusive — 035° and — 75° 105 - here closely fractured (~6" apart) usually fractures ~ 2'-3' apart

at this point the intrusive has been altered very slightly, the mafics going to chlorite - no mineralization other than the usual dissem. pyrite -

1 sample #16

this a.c. occurs ~ 150 yds N of large creek (NN#6)

△3-35K 15'×40' oc. of fine to medium grained, leucocratic, well foliated intrusive (possibly even a sill ?)

~5% f.g. biotite gives fol'n - attitude of foln 10 / 105°

this rock weathers to very light grey colour - only very minor pyrite $\ll \frac{1}{4}\%$

float of this rock type observed first 100 yards east of this station

1 sample #17

50' further west the o.c. contains med. grained biotite schist conformably overlain by this f.g. intrusive - so this intrusive is

only a layer within the schist

1 sample of the feldspar-biotite schist #18

△4-35K o/c. 5'×20' of c.g. Biotite Granodiorite, with moderate foln ↘20 →145

the intrusive contains ~20% m.-c.g. Biotite

60% feldspar

10% quartz

2-3% epidote

minor sphene(?)

no veining or mineralization noted here

1 sample #19

Traverse 36K Aug. 18, 1968

South Tagish Lake Area

Air Photo A11390-343

△1-36K occurs on stream due south of camp - same location as Silt NN# 15

f.g. biotite schist 060 15°

2-3% concordant 'granitic' veins

minor dissem. pyrite

no sample

between Silt NN# 15 and NN# 16 - almost continuous exposure of the fine grained biotite schist with ½% dissem. pyrite

~1% randomly oriented quartz veins and veinlets - these carry very minor pyrite

at NN# 16 a small shear zone

~2" wide X 155° - rubbley weathering with 5% pyrite - mainly in quartz in the shear

- too rubbley weathering to get a sample

schistosity 200' North of NN#17

25 / 110

200' N of NN#14

gentle, open folding in the schist

Fold Axis Azimuth 045°

appears to plunge gently toward 045° but amount of plunge couldn't be measured probably ~10°

Northern part of schist is cut off by

coarse grained intrusive

- abundant aplite veining here, containing pyrite as small stringers and disseminations

Traverse 37K Aug. 19, 1968

Traversing West from camp - a continuation of traverse 35K

△1-37K 100' up from lake and approx 400' West of silt #59 (KK)

20'x20' oc. of coarse grained, well foliated Biotite-Hornblende Granodiorite

fol'n was hard to measure, appears to be flat lying

biotite 15
hornblende 15
epidote 3
quartz 10
feldspar 55

no mineralization or veining here

1 sample #20

See Silt Sample Location Map for South Tagish Lake Area

South Tagish Lake Area

Data on Kirkland Silts Aug. 15/68

Silt #35 - 15' up stream from lake creek 4' wide, 6" deep, fairly rapid flow silt and medium sand

Silt #36 - ~500' upstream creek is rapid flowing 3' wide x 1' deep silt and fine sand

Silt #37 ~1000' upstream rapid flowing 2' wide x 6" deep silt and fine to med. sand

Silt #38 ~1500' upstream fairly rapid flowing 18" wide x 6" deep silt and fine to med. sand

Silt #39 18" wide x 6" deep rapid flow
silt to med. sand ~2000' upstream

Silt #40 ~2500' upstream 18" x 4" deep
silt to med sand rapid flow

Silt #41 ~3000' upstream 18" x 4" deep
silt to med. sand rapid flow

Silt #42 same as #41

Silt #43 ~4000' upstream 18" x 4" deep
silt to coarse sand rapid flow

Silt #44 ~4500' upstream many small
pools av. width 12"-18"
silt to coarse sand

Silt #45 ~4900' upstream from a small seepage into the creek sample taken 15' from main creek

Silt #46 ~5,000 upstream creek mainly in pools 12"-18" wide rapid flow mainly silt and coarse sand

Silt #47 ~5,500' upstream creek ~12" wide, 2-4" deep rapid flow mainly med. to coarse sand

Silt #48 ~6,000' upstream creek 12" wide steep gradient mainly boulders and coarse sand

Silt #49 ~6,500' upstream creek as before mainly boulders and coarse sand

Silt #50 ~7,000' up stream stream has steep gradient width ~ 12"-18"
sample taken beside o.c. of granite
sample mainly fine to coarse sand

Silt #51 ~7400 up stream small creek enters from the west sample taken on small creek 20' above junction
creek ~8" wide, very shallow cut with high gradient
silt to med. sand

Silt #52 ~7500 up stream - sample taken on main stream
creek ~12" wide fast flowing
silt to med. sand

Silt #53 now proceeding up a different branch of the stream this location is ~3,000' upstream from lake

this creek ~ 18" wide, 2"-6" deep, many pools sample silt to med. sand

Silt #54 creek 12"-18" wide many pools silt and fine sand ~3500 up stream

Silt #55 creek 12" wide many pools ~4,000' upstream silt and fine sand

Silt #56 creek 12" wide 2"-4" deep ~4500 upstream silt to med. sand

Silt #57 at 4950' up stream sample from a small hidden (underground) stream which emerges only 15' E of junction with the

main stream - sample is silt, taken where creek emerges

Silt #58 ~5,000' up stream - this branch is now very small and often goes underground silt and fine sand

Aug. 17 West of camp - along shore

Silt #59 ~300' E of Δ4-35K small creek 2" deep, 1' wide fairly rapid silt and fine sand - 15' inland from lake

Aug. 17

Silt #60 150' E of #59 sample taken from small underground stream which emerges 5' from shore - stream only 1" deep - 6" wide silt + fine sand

Silt #61 200 yds E of #60

small underground stream emerges from granitic talus pile ~5' from lake 12" wide 2" deep fine sand

Silt #62 150' E of #61 underground stream emerges 10' from lake fine to med. sand

Silt #63 same as #62 occurs 15' E of #62

Silt #64 200' W of NN #29

small (24" wide x 6" deep) fast stream mainly fine to coarse sand

Claim Posts

~500' E of camp

#1 Post

Zuk #15

R. McGechaen for Idaho Silver

June 7, 1968

#2 Post 1500'S

Claim extends 1500' East

same post is #1 Post for Zuk #16 which has same data but #16 extends 1500' West