1971 Logs 015954

71-1
-2
-3
-4
-5
-DS 1
-DS 2

DDH = 71-1 ; JULY 17, 1971

0 - 132

Calcareous Quartz Chlorite Biotite Schist:

0 - 53.5 - OVERBURDAN

53.5' - 155'

FOLIATION - 25° More massive in the first one foot due to higher percentage of silica.

55' - Sericite associated with Quartz.

55' - FAULTED CONTACT.

4" inches of gouge consisting of chlorite & mica foliae in clay matrix

55 - 100 Cal. Qua. Chl. Bio Sch.

About 15% of the core is lime with occasional segregated lime stone bands.

fo: 62°. Lime stone tends to occur as thin bands segregated within schistose and Py. partings. Sericite to occasionally present.

100 - 155

calc Schist continued.

117 - 120 - Qtz chl Biotite Sch.

fo: 73°.

118 - F₁ is crenulated

125 - 127 - Fracture zone

140' - cu Py & Py, Po disseminated in qtz vein < 0.5% by volume.

154 - cu Py, Ga & Sph. associated Quartz vein of 0.5" dia.

155 - 165 Calc Sch conts.

165 - 175 - Quart. Bio. chl. calcite Schist.

Gradational contact.

FO: 64°.

Limo decreases but still persists to a minor extent. Of [illegible] veinlets cutting across the foliation.

178 - crenulations

175 - 218 - Qtz Bio chl calcite Schist.

Fo: 72°

205 - cu Py, Sph. associated with Qtz band and disseminated in the schist.

212 - Py, SP associated with continuable Qtz band

217 - Py band occurs

[illegible] F₁ fold.

218 - 226 - Qtz Bio chl cal Sch.

226 - 240 -

Qtz Gr chl Schist:

Cr-lcd : 85° sharp, continuable.

fo: 85°.

229-230 - Quartz vein.

231-235 - Qtz Bio Chl Gra Schist.
Py assoc-ted with calcite.

235 - 251 calc. Qtz Bio Chl Schist.

fo: 69°.
calcite finely disseminated. Also occurs as veinlets. Minor Graphite.

251 - 259 - Qtz Graphite Bio. Schist.
fo: 67°.
crenulations are common.
F1 is crenulated within the delta of F2.

259 - 332 -
calc. Qtz Bio. Chl Schist:

fo: 58°

Segregated quartz bands.
Minor amount of Ser. occurs throughout.
315-320 - Graphite occurs.

332 - 352 calc. Qtz Bio Chl Ser Schist;

352 - 443 calc. feldspathic
chlorite Actinolite Schist.
Gradational contact.

Green Schist with no preferred orientation of foliation.
Highly contorted at microscopic level with coarse chlorite
folia oriented in several directions and crenulated. Acicular actinolite is noted in places but not common constituent.
Py & Po amount to 1% or less in places. Py occurs as microscopic lenses associated with feldspathic veins.
Could be met. equivalent to Andesitic tuff.
Gradational contact.

443 - 606.5 : Quartz chl. Bio Ser Schist

446 - 1cm wide Galena vein.

454 - fo: 84°
469 - Graphite occurs as a foot interval.
488 - Contorted.
493.5 - 504 - Increase in Bio.
514 - Minor faulting; Trend not clear.
Py fills fracture zone.
519 - Minor movement.
Py deposition.
522 - fo: 65°
529' - 529.5' - Quartz vein -
- associated with are Py & Ga specks.

1971 Logs

71-1
-2
-3
-4
-5
-DS 1
-DS 2

DDH - 71-1 ; JULY 17, 1971

0 - 132

Calcareous Quartz chlorite Biotite Schist :

0 - 53.5 - OVERBURDAN

53.5' - 155'

FOLIATION - 25° More massive in the first one foot due to higher percentage of silica.

55' - Sericite associated with quartz.

55' - FAULTED CONTACT.

4" inches of gouge consisting of chlorite & mica folia in clay matrix.

55 - 100 Cal. Qua. chl. Bio Schi

About 15% of the core is lime with occasional disaggregated lime stone bands.

fo: 62°. Limestone tends to occur as thin bands segregated within schistose and phy. partings. Sericite is occasionally present.

100 - 155

calc Schist continued.

117 - 120 - Qtz chl Biotite Sch.

fo: 73°

118 - F_1 is crenulated

125 - 127 - Fracture zone

140' - cu Py & Py, Po disseminated in qtz vein < 0.5% by volume.

154 - cu Py, Ga & Sph associated quartz grain of 0.5" dia.

155 - 165 Calc Sch conts.

165 - 195 — Quart. Bio chl. calcite Schist.

Gradational contact.

Fo: 64°.

Limonite decreases but still persists to a minor extent. Occurs as veinlets cutting across the foliation.

178 - crenulations

195 - 218 — Qtz Bio chl calcite Schist.

fo: 72°

205 - cu Py, Sph associated with Qtz band and disseminated in the schist.

212 - Py, Sp associated with continuable qtz band

217 - Py band occurs

11 - F_1 fold.

218 - 226 — Qtz Bio chl cal Schi

226 - 240 —

Qtz Gr chl Schist :

Contact : 85° sharp, continuable.

532 – 534 – enhancement in Seri. calcite occurs filling fractures and finely disseminated Py occurs within it. Py also occurs as filling veins.

539 – 548 – MYLONITE ZONE.

Brecciated qtz. chlorite Sericite Schist Zone. Sericite septa oriented in several directions. Preferred orientation of foliation measures 14° steepness * caused by faulting. Contact not apparent due to poor recovery of coc & broken pieces. Mylonite related to faulting. increase in Seri. Py occurs as widely distributed throughout the Mylonite Zone.

548 – 605 – Qtz Chl Bio Ser Schist: fo: 82°.

565.5' – calcite vein.

567 – fol almost flat measures 83°.

584 – fo: 82°

586 – Disseminated Py in Qtz vein.

594 – 595 – Qtz vein.

593 – fo: 72°.

593 – 594 – Ser. Schist.

599 – Diss. Py.

606.5 – Sharp cont. contact. fo: 81°.

607.5 – 614 – Qtz. Ser. Schist.

609.5' – cont. Py vein (1/4 to 1/2 in dipping 12° from horizontal.

Andalusite occurs occasionally in this increment white lustrous commonly foliated Qtz And Ser Schist. Bleached in places. Distribution of Py increases throughout and ≈ amounts to 0.5% of the rock in places.

614 – 615.5' – Qtz Sva Schist

fo: 78°

disseminated sulphides. Essentially Py – amounts to 1/2 – 4% of rock.

615.5' – Sharp Contact.

Massive Sulf.

Cont – 81°

615.5' – 616.5' – Massive Sulfs.

Po, Py, Sph & Ga occur in decreasing order of abundance

Silica band and sulphide gangue.

Po is fine grained & Py occurs as coarse porphyroblasts. Coarse Qtz grains scattered throughout & sulphides and fine Sp disseminations.

616.5 — 624.5 : Qtz Bio Ser. Schist:

well foliated schist dips 76°. Disseminated Sulphides occur throughout

624.5 — 630 — Qtz Ser. Schist.

fo : 68°

Disseminated sulphides occur throughout

630 — 662.5 chl Ser Schist.

fo : 55°

F_2 is folded at several places and developed wrinkle lineations at an oblique angle of 36° to fol plane.

644 — fo : 58°

Qtz occurs as fragmented bands & silvery Ser as the most common mineral

Andalusite occurs occasionally.

658.5 — 658 Minor fault zone gouge.

661 — Diss. Py.

662.5 — 700 —

Qtz chl Bio Ser Schist:

fo : 58°

663 — Coarse Py. Concentrated throughout.

700 — END OF DDH.

532 – 534 – enhancement in Seri. calcite occurs filling fractures and finely disseminated Py occurs within it. Py also occurs as filling veins.

539 – 548 – MYLONITE ZONE.

Brecciated qtz. chlorite Sericite Schist Zone. Sericite septa oriented in general directions. Preferred orientation of foliation measures 14° steepness # caused by faulting. Contact not apparent due to poor recovery of core & broken pieces. Mylonite related to faulting. increase in Seri. Py occurs as widely distributed throughout the Mylonite Zone.

548 – 605 – Qtz Cl Bio Ser Schist: fo: 82°.

565.5' – calcite vein.

567 – fol almost flat measures 83°.

584 – fo: 82°

586 – Disseminated Py in Qtz vein.

594 – 595 – Qtz vein.

593 – fo: 72°.

593 – 594 – Qz. Schist.

599 – Diss. Py.

606.5 – Sharp cont. Contact. fo: 81°.

606.5 – 614 – Qtz. Ser. Schist.

608.5' – cont. Py Vein (1/4") 60° dipping 12° from horizontal.

Andalusite occurs occasionally in this increment

White lustrous coarsely foliated Qtz And Ser Schist. Bleached in places. Distribution of Py increases throughout and ≈ amounts to 0.5% of the rock in places.

614 – 615.5' – Qtz Sva Schist: fo: 78°

disseminated sulphides, essentially Py – amounts to 1/2 – 4% of rock.

615.5 – Sharp Contact.

Massive Sdes.

Cont – 81°

615.5 – 616.5 – Massive Sdes.

Po, Py, Sph & Ga occur in decreasing order of abundance

71 - 2

0 - 41.7 - O.B.

41.7 - 298 - Calc. Q+z Bio chl. Sev. Schist.

41.7 - 122.5

Calc. Q+z. Diopside chl. Sev Gneiss with phy. partings & Schistose bands.
Fol - 69°. Schistosity and banding well.
Diopside
Massive Qtz carbonate bands occur throughout within phy. partings.
Diss. Py rarely occurs filling minor fractures.
Lineations are commonly seen and dip 8°.

122.5 - 298 - Calc. Qtz. Bio. chl. Sev. Schist.

Fo. 83°
This grade of metasm. increases and the rocks are well deformed and prominent Bio. sch. bands occur at several intervals.
Diopside still persists but to a minor extent.
Massive Qtz Diop. carb. bands occur occasionally.

135 - finely diss. Py occurs along a fracture.

152
Fo - 74°.

180.5 Finely diss. Py.
Bio. Schi. & Q+z. diop. carb. are well segregated by metasm. Gneiss tends to break in Bio schi along fol. planes. Qtz Diop. carb. bands exhibit Gneissic texture in places.

249 Fo: 75°

254 - 259

FAULT ZONE.
Minor breccia & gouge.
fol's/lin's are not disturbed.
Appears to be a minor dip slip.

260 - 260.5

FAULT ZONE.
Same as above

434 - 459.5'

Qtz chl bio ser schist;

fo: 81°.

456.5' — Minor brecciation.

459.5' — 460.5'

Ser. schist.

460.5 — 471

Gr. Schist.

fo: 72°

471 — 503

Sericite Schist;

fo:

481 — 483

FAULT ZONE.

fault breccia, gouge;

Steepening of foliations.

folns. measure 12°.

Smooth & steeply dipping dip slip fault.

Minor Sulp. deposition.

503 - 532

Qtz Gr. Schist; contact not apparent due to broken core.

fo: 66°

514.5' — 517 — Highly circulated.

Minor Sp Py disseminated and asso. with Qtz stringers.

520 - 523 — Ser. schist.

cont. contact dips 65°.

Bleached & easily friable.

Disseminated Py in Ser. schist.

Lower contact - 78°.

523 — 532

Qtz Gr. Schist.

fo: 63°.

532 - 539 Quartzite.

532 - Abrupt contact. Attitude not apparent due to broken core.

532 – 532.6 Massive Py unit with little Ga & Sf.
Dissem. Sp. occurs throughout.

539 – 546 Massive Sdes.
Contact irregular and not abrupt. Generally dips 8°
Massive fine grained Po, Sp & Ga asso.
Lower contact – 27°.
Last 4" of core highly enriched in Marmitekam Sphalerite.

546 – 555.5 Qtz.
Impure Quartzite consists of rich horizons of Gr & Ser.
Fol: 38°
Diss. Sph. occurs throughout.

555.5 – 578.5
Qtz Gr. Schist:
Cont: 32°
Coarsely foliated Qtz Gr.
Schist with minor Ser.
Fol / bladed ends with depth & measures 62° @ 563'.
Cremulations are common throughout the enclosure.

578.5 – 589
Qtz Ser Schist.
Gradational contact.
Minor diss. Sp. occurs – ~3% – 8% by Vol in places.

589 – 603
Quartz Sericite Schist;
Fol: 7° Drag folds are common @ 589. The steepening of foliation appears to be related to hinge zone.
593.5 – Qtz vein of 6" width
594 – Fol: 45°.

603 – END OF DDH.

434 – 459.5'

Qtz chl bio ser schist;

fo: 81°.

456.5' – Minor brecciation.

459.5' – 460.5

Ser. schist.

460.5 – 471

Gr. schist.

fo: 72°

471 – 503

Sericite schist;

fo:

481 – 483

FAULT ZONE.

fault breccia, gouge;

Steepening of foliations.

Folns. measure 12°.

Sericists steeply dipping dip slip fault.

Minor sulp. deposition.

503 – 532

Qtz Gr. schist, contact not apparent due to broken core.

fo: 66°

514.5' – 517 – Highly cremulated.

Minor sulphy disseminated and asso. with qtz stringers.

520 – 523 – Ser. schist.

cont. contact dips 65°.

Bleached & cavity filling.

Disseminated in Ser. schist.

Lower contact – 78°.

523 – 532

Qtz Gr. Schist.

fo: 63°.

532 – 539 Quartzite.

532 – Abrupt contact. Attitude not apparent due to broken core.

71-2

0 - 41.7 - O.B.

41.7 - 298 - Calc. Q+z Bio chl. Sev. Schist.

41.7 - 122.5

Calc. Q+z. Diopside chl. Bio Sev Gneiss with phy. partings & Schistose bands.

Fol - 69° Schistosity and banding well.

Diopside
Massive Qtz carbonate bands occur throughout within phy. partings.

Diss. Py rarely occurs filling minor fractures.

Lineations are commonly seen and dip 8°.

122.5 - 298 - Calc. Qtz. Bio. chl. Sev. Schist.

Fol 83°

The grade of metasm. increases and the rocks are well deformed and prominent Bio. sch. bands occur at general intervals.

Diopside still persists but to a minor extent.

Massive Qtz Diop. carbo. bands occur occasionally.

135' - finely diss. Py occurs along a fracture.

152

fol - 74°

180.5 finely diss. Py.

Bio, Schi. & Qtz diop. carb. are well segregated by metasm. dark tends to break in Bio schi along fol. planes. Qtz Diop carb. bands exhibit Gneissic texture in places.

249 fol: 75°

254 - 259

FAULT ZONE.

Minor breccia & gouge.

fol/lithologies are not disturbed.

Appears to be a minor dip slip.

260 - 260.5

FAULT ZONE.

Same as above

286

FO: 81°

287 Minor Gr. Sch. Associated with occurs Py.

298 – 459.5

Q+z Bio chl. Ser Schist;

FO: 76°

298 – 301.5' – Q+z chl schist.

301.5 – 302.5' – Gr. Schist.

310.5 – 312.5 – "

318 – 319 – FAULT ZONE.

MINOR BRECCIA & GOUGE.

Schist is bleached.

322.5' – dusted Py.

348 – 356.4

Gr. Schist.

348.5' – Py filling a vug.

362 – 365' – Minor faulting.

Gouge & Sericitization.

369.5' – 394 – fault zone;

Gouge;

Sericitization;

378 – 385 – fault zone.

Gouge; Sericite Schist.

394 – 394.5' cont; 65°

Argillized band of intr.

coarse feldspar (Ortho) crystals.

414 – FO: 78°

416 – 434

Q+z chl Act. Schist;

~~No~~ No preferred foliation.

Py mineralizn. throughout.

Approx – 2% – 4%

Porphyritic Metc. equivalent of Andesite.

wrinkles in f2 are commonly observed.

353 – 355 – Chl Ser Schist
360 – 363 – SLIGHTLY GRAPHITIC.
365.5 – 366 MINOR BRECCIA.

Py occurs along fracture planes.

383 – 391 – chl ser Schi band

422 – 439 –

Qtz Bio Gta Schist;

Carb. contact.
fo: 73°

Pure Gt Schist bands interbanded foliated with qtz bio schi bands.
Py is common sulphide and approx. 2%

Py occurs as small stringers along foln Planes.

a minor amount of calcite occurs filling fractures.

439 – 500.5 Quartz Bio Chl.

Ser. Schist.

439 –
fo: 83°

454 – 458 – Qtz Garnet Bio ser schist.

f2 is generally crenulated.

482 – 483 – FAULT ZONE

500.5 – 526

Qtz Gt Schist;

fo: 83°

Sulphides – essentially Py & SP.

Qtz occurs as segregated bands & crenulated.

526. fo. 45°

526 – 547 – Massive Sfen.

Sharp contact.

526 – 533.5 – enriched in Py

526.5 – 532 – Po, cu Py, SP mineralization

532 – 542 – Py, Po, Cu & SP
mineralization

533.5 – Breccia

547 – 560.5

Qtz Gr. Schist.

Fo: 63°.
wide sept. of Gr & Qtz
Diss Py & SP

560.5 – 570 –

Qtz Bio Ser Schist

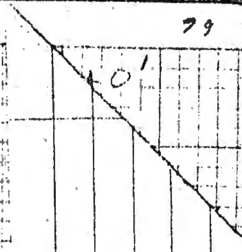
Fo: 55°

560.5 – 564 – minor Diss Sdes

562 – 563 – banded Py & SP

563 – 570 – minor diss. Py – 2%

570 END of DDH.



507 – 514 – Gr. Schist.

Fo: 81°

Grad. contact.

514 – 517.5 – Qtz Gr. Schist.

Fo: 78°.

Consists of Diss. sulphides.
Mostly Py along foln. planes
Dissted Copper.

517.5 – 527.5 MASSIVE SULPHIDES.

contact: 68°

The contact zone of one foot is enriched in Py and to a minor extent by Sp.

The total sulphide mass approximates to 85% – 95% and Py ~~[illegible]~~ amounts to 60%. Altered Iqn. material occurs as small phenocrysts.

527.5 – 547

QUARTZITE – QUARTZ Ser. Gr. Schist.

DISSEMINATED – BANDED SULPHIDES

contact is [illegible] and flat while foliation dips @ 45°

Sp. occurs along foln. planes

Galena occurs as [illegible] and [illegible] cutting foln.

540 – 541 – BRECCIA ZONE.

547 – 560.5 – Qtz – Ser. Gr. Schist. Fo: 63°

Diss. Sphalerite [illegible] occurs || along foliation planes

560.5 – 567

Qtz Ser Gr Schist.

Fo: 62°

561 – 562 – FAULT ZONE.

~~[illegible]~~

Nil amount of diss. Sul.

384 — 450

Qtz Chl Ser Bio Schist;

fo; 81°

386.5 — Py associated with Qtz Veins.

The Chl & Bio folia are well separated and range in .05" — 0.1" width.

100 — Microscopic fault displ — 0.1"

407 — DDH intersected through hinge zone shown by Kink structures.

417 — 420 — FAULT ZONE.

Upon contact dips 42°.

enrichment of chlorite in the fault zone. Brecciated.

Lower cont. not apparent.

425.5 — Fo associated with Qtz Vein

426 — fo; 63°

436.5 — fracture displaced the folia minutely.

446 — 447 — fault zone — Brec. Chl.

447 — 448 — Qtz. Andalusite vein.

450 — 455 — Gr. Schist.

Chl — fo; 45°

452 — 455 — FAULT ZONE.

469'

455 — [redacted] Faulted contact

BRECIATED SER. Chl. Schist:

fo; 460' — 32°

Appears the whole unit is subjected to movement exhibited by Strep folds & bleaching — Note gouge occurs commonly throughout.

459 — fo — 0°

469 — 501 — Qtz Bio Chl. Ser Schist:

fo; 76°

483 — 483.5 — Qtz Vein

kolinite clay mineral occurs along fracture zones.

234 - Minor fault zone recognized by different orientation of foliations and gouge to some extent. Appears the bleaching caused by movements within the unit.

244 — 257 - Gr. Schist. Cont. Contact.

Fo: 78°

257 - 305 Quartz. Bio. chl. Ser. Schist.

Fo: 79°

Segregated bands of Bio. Schist and qtz. present throughout.

290 F_1 dips @ 78° and at the margins transposed into F_2.

288 — 294 - Breccia Zone.

No fault gouge. Appears to be local fracturing and collapse breccia (?)

290 - Py occurs associated with Quartz Vein.

294.5 - Py along fracture zone.

295 - F_1 74°.

305 - 332

Chl. Ser. Bio. Schist.

Fo: 71°

Coarsely foliated Grey to white schist.

320 - Py occurs filling a fracture.

332 - 355 — Gr. schist.

Fo: 66°

336 — 338 — FAULT BRECCIA.

342 — 345 — " "

= Two parallel faults — The movement does not appear to be great due to lack of stretching of foliations. The folds within the rocks dip 61°. However the weak zone caused by movement along graphite folia.

355 — 384 — Qtz chl Gr. Ser. Schist.

Fo: 62° Cont. Contact.

Coarsely foliated Schist consists of cont. Qtz. bands recrystallized.

kolinite clay mineral occurs along fracture zones.

234 – Minor fault zone recognized by different orientation of foliations and gouge to some extent. Appears the bleaching caused by movements within the unit.

234 – 257 – Gr. Schist. cont. Contact.

Fo: 78°

257 – 305 Quartz Bio. Chl. Ser. Schist.

Fo: 79°

Segregated bands of Bio. Schist and qtz. present throughout.

290 F_1 dips @ +8° and the margins transposed into F_2.

288 – 294 – Breccia Zone.

No fault gouge. Appears to be local fracturing and collapse breccia (?)

290 – Py occurs associated with Quartz Vein.

294.5 – Py along fracture zone.

295 – Fo 74°.

305 – 332

Chl. Ser. Bio. Schist.

Fo: 71°

Coarsely foliated Grey White Schist.

320 – Py occurs filling a fracture.

332 – 355 – Gr. Schist.

Fo: 66°

336 – 338 – FAULT BRECCIA.

342 – 345 – " "

= Two parallel faults – The movement does not appear to be great due to lack of stepping of foliations. The fols. within the zones dip 61°. However the weak zone caused by minor slips along graphite folia.

355 – 384 – Qtz Chl Gr. Ser. Schist. Fo: 62° Cont. Contact.

Coarsely foliated Schist containing cont. qtz. bands & lenses.

593 — 598 — Massive SULPHIDES

Contact — 79°.
Generally irregular contact but along a specific surface measured 79°.

596 — 596.5' — Highly enriched in Qtz and almost Qtz

598 — 640 — Quartz Graphite Schist:

fo: 82° @ 601'

620 — fo: 27°

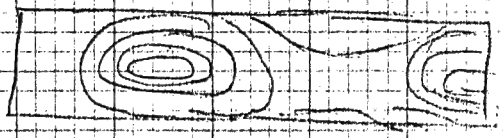
Well banded well to fz.

Segregated bands of Qtz & folia of Graphite impart a well banded appearance to core.
Diss. Sp, Ga, py & minor Cpy occur throughout.

629 — 631

The drill hole intersected known mining holds indicated through these zones indicated by

circular bands.



hinge zones are about 2'

640 — 643' —

Qtz Ser Schist:

fo: 29°

Crenulated folded white Qtz Ser micaceous Schist.

643' — End of DDH.

71-5

0-14' — OVERBURDEN.

14'-165' — Calc. Qtz Bio chl. (Sericite) Schist:

fo: 57°.

Qtz bands occur parallel to fz. Original schist occurs as disrupted bands of 0.1" wide separated by Qtz rich bands. Calcite occurs as finely disseminated as well as veins.

56-86.5 — Qtz Vein.

100 — band of PY 0.05" wide occurs filling a fracture in dime sized band.

105-110 — Highly enriched in Calcite.

133-144 — Massive calc. Qtz Bio Diopside band with Phy. partings. Schistose bands occur occasionally.

149 — fo: 78°

158-163 — FAULT ZONE.

fault Gouge occurs throughout and the zone is enriched in calcite & chlorite.

The contacts and attitudes are not apparent.

165-216 — calc. Qtz Bio chl. (Carb) Schist:

fo: 63°

171-181 — chl. schist. No preferred orientation of foliation.

The core is fractured throughout probably related to above fault zone.

198-204 — Graphitic Schist.

fo: 79°

Disseminated PY occurs commonly throughout the schists.

204-216 — Calc. Qtz Bio chl (Grt) Schist.

fo: 82°.

216-221 — Gr. Schist.

221-244 — Bleached Ser. Schist — PY.

242 — fo: 86°

Upper contact not clear due to broken core.

wrinkles in f2 are commonly observed.

353 - 355 - Chl Ser Schist
360 - 363 - SLIGHTLY GRAPHITIC.
365.5 - 366 MINOR BRECCIA

Py occurs along fracture planes.

383 - 391 - Chl ser Schi band

422 - 439 -

Qtz Bio Gra Schist;

Cont. contact.
Fo: 73°

Pure Gr Schist bands interbedded with Qtz Bio Schi bands. (foliated)
Py is common [illegible] and often 2%

Px occurs as small stringers along foln planes.

a minor amount of calcite occurs filling fractures.

439 - 500.5 Quartz Bio Chl.

Ser. Schist.

439 -
Fo: 83°

441 - 458 - Qtz Garnet Bio Ser Schist.

f2 is generally crenulated.

482 - 483 - FAULT ZONE

500.5 - 526

Qtz Gr Schist;

Fo: 83°

[illegible] - essentially Py & Sp.

Qtz occurs as segregated bands & crenulated.

526 - Fo 45°

526 - 547 - Massive Sfen

Sharp contact.

526 - 533.5 - enriched in Py

526.5 - 532 - P_o, [illegible] Px, Sp [illegible]

532 - 547 - Px, P_2, Gr, Sp [illegible]

533.5 - Breccia.

507 – 514 – Gr. Schist.

Fol 81°

Grad. contact.

514 – 517.5 – Qtz Gr. Schist.

Fol 78°.

Consists of Diss. sulphides.

Mostly Py along foln planes.

Rusted copper.

517.5 – 522.5 MASSIVE SULPHIDES

contact: 68°

The contact zone of one foot is

enriched in Py and to a

minor extent by Sp.

The total sulphide mass

approximates to 85% – 95%

and Py ~~exceed~~ amounts to

60% Altered Ig. material

occurs in small phacoyds.

522.5 – 547

QUARTZITE – QUARTZ SER.

Gr Schist:

DISSEMINATED – BANDED

SULPHIDES.

contact to massive and

blat while foliation dips

@ 45°

Sp. occurs along foln planes

Galena occurs as coarse xls

and inclusions cutting foln.

540 – 541 – BRECCIA ZONE.

547 – 560.5 – Qtz – Ser

Gr Schist. Fol 63°

Pyrite. Sphalerite

Strong diss // elong foliation

planes.

560.5 – 567

Qtz Ser Gr Schist.

Fol 62°

561 – 562 –

~~Vein~~ FAULT ZONE.

Mod. amount of diss Sp.

DDH - 71 - 4 Sept 1, 1971

0-17 — OVERBURDEN.

17-196 —

Calc. Qtz Bio Chl Ser Schist; (Epidote)

fo: 62°

Plot 1113" ck.F. space!

Calcite occurs as massive bands & disseminated. Segregated bands of Biotite Schist [illegible] against massive cal bands. Biscuits. bands of Bio [illegible]

91-91.5 — Qtz Vein

118-123 — Qtz Bio Schist.

fo: 65°

139-145 — Amphibole chl er. Schist bands of 3" wide occur occasionally.

185 — 2" wide Qtz band

185.5 — fz is crenulated.

196-204 — AMPHIBOLITE

Mainly Tremolite & Plagioclase (Cordierite?) Minor Chlorite

Acicular Amphiboles, no preferred oriented fol. quickly dips @ 69°

Common minor Py.

Bio Qv. schist bands of 0.5" wide occur occasionally.

204-312 Quartz Biotite Chlorite (Staurolite) Sericite Schist;

fo: 69°

Conf. Contact.

229-233 — Qv. Schist.

234 — Minor brecciation.

285 Staurolites increasingly [illegible] and wider bands of 0.5" [illegible] throughout the [illegible]

312-422 Qtz Bio Chl (Staur) Ser Schist

fo 67°

Qtz occurs as bands [illegible]

593 — 598 — Massive Sulphides

Contact — 79°

Generally irregular contact but along a specific contact measured 79°.

596 - 596.5' — Highly sericitized Qtz and almost Qtz

598 — 640 — Quartz Graphite Schist:

fo: 82° @ 601'

620 — fo: 27°

Well banded 11° to f_2.

Segregated bands of Qtz & folia of Graphite impart a well banded appearance to core. Dess. Sp, Ga, py & minor Cp/Py occur throughout.

629 - 631

The drill hole intersected through minor folds indicated through these zones indicated by

circular bands.

hinge zones are about 2'.

640 - 643' —

Qtz Ser Schist:

fo: 29°

Coarsely folded white Qtz Ser minor Chl Schist.

643' - End of DDH.

'Py' enhanced in this increment and occurs as fine stringers & coats & foliation.
Also occurs associated with segregated Qtz bands.
The width of Qtz bands varied from 0.1" — 0.5".

504 — coarse prismatic Andalusite crystals occur as porphyro blasts and Graphitic folia are twisted around and foliation is irregular.

504 — 575

Qtz. Bio. chl ser Schist.

Fo: 83°

finely foliated in the first 4 feet of the increment and get coarser down the hole.

527.5 — Andalusite occurs associated with Qtz vein.

528 — 529 — Highly crenulated.

540.8 — 541.2 — Qtz vein

546 — Minor fracture zone associated with it occurs Gouge.

554 — Spongy Py. occurs filling a fracture.

56 — Py occurs as disseminated.

561 ft fine xln Py occurs associated with Qtz vein.

572

Fo: 72°

575 — 583 — Qtz Ser Schist, ABRUPT CONFORMABLE CONTACT.

Fo: 83°

Pale buff white silvery Quartz Sericite Schist consists of Andalusite Porphyro blasts occasionally. Py mineralization is predominant in places amounts to 5% over 1" core.

583 — 593 — Quartz Gr. Schist.

Fo: 81°

Abrupt conf. Contact.

Disseminated Sulfs occur throughout. Pseudo. mineral is Py. Minor Cupy, Cdesane essentially associated with Qtz veins that occur throughout & pervasively developed by Gr. folia.

(contd)

367 – 376 – Qtz Gr. Schist.

Fo: 49°.

very well developed F_2 folm.
and highly separable septa.

382 – 384 – fault zone.

398 – 403 Qtz Bio scr Schist,

403 – 417 Qtz Bio scr Schist.

Fo: 68° finely foliated Qtz Biotite
Schist consisting of F_2 bands of
Qtz.

Dirty by < 1% occurs occasionally.

417 – 432.5 – calc. chl Schist.

Fo: 81°

Coarsely foliated wide septa
of chlorite separated by
calcareous bands.

Probably a meta equivalent
of Andesite.

432.5 – 469

Qtz chl Bio Scr Schist

Fo: 85° – FLAT.

wide bands of Qtz occur
throughout.

449 – 454 – bleached scr
causes even breaking of
core and susceptible for
breaking.

469 – 486

Qtz Bio Scr. chl. Schist:–

473 – Fo: 87°.

finely foliated Qtz Bio Scr chl
Schist, almost flat foliation
consists of segregated Qtz bands.

478.5 – Andalusite altered
altered with Quartz veining and
Sericite micas.

486 – 504

Qtz. Graphite Schist;

487 – Small scale fault
displaces folia by 0.3".

492 – Fo: 67°.

367 — 376 — Qtz Gr. Schist.

Fo: 49°.

very well developed F_2 folds and highly separable septa.

382 — 384 — fault zone.

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403 — 417 Qtz Bio scr Schist.

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486 — 504

Qtz. Graphite Schist;

487 — Small scale fault displaces fol'n by 0.3".

492 — Fo: 67°.

141 – 307

Calcareous Qtz Bio. chl. Ser. Schist:

Fo: 68°.

Segregated Bio schi bands occur quite commonly. Massive Skarn bands occur occasionally. Minor amount of Py is usually present associated with fractures and joints.

184 – 187 – High. calc.

199 – Fo: 65°

228 – 235 – fracture Zone.

233 – A stringer of Ga, Sp & Cu Pyj occurs filling a fracture.

257 – F_2 is crenulated and associated D_3 cleavages dip @ 48°.

262 – F_1 is recognizable and dips 37°

273 – 286 – Fine ment in Graphite. – Phyllitic bands occur occasionally.

305 – Disseminated Py & Po & Cu Py. This zone is highly siliceous.

The calcite gradually decreases in the last 30' and gradationally changes to Qtz chl Bio Ser schist

307 – 403 – Qtz. Bio. chl. Ser. Schist:

Fo: 76°

328 – 329 – Rich in Graphite.

The earlier structs are destroyed and the only common feature is well developed F_2 foliation and crenulated F_2 foliation.

71-3 JULY 27, 1971.

53-98 calcite Diopside Quartz Indiadite(?) Skarn — calcareous Quartz chl. Bio Schist;

0-71- massive calc Diopside Skarn with few phyllitic partings- Banded occasionally that measures 63°.

71-98 - Some Schistose bands exist mostly enriched in Biotite where foliation measured 55°.

76- f, foliation is seen as highly emphasized between F_2 bands and the crenulations ~~are~~ disappear in massive Skarny core.

~~F2~~ Throughout the increment, the fractures are readily filled by coarsely xne calcite.

98-141 calcite Diopside Quartz Skarn — calcareous Quartz chl. Bio. Schist.

Fo: 72°

~~Massive Skarn, highly calc-~~ ~~and~~ Highly calc. massive Skarn consisting of several small bands of foliated Biotite Schist. Sometimes the foliations terminate abruptly against massive calcareous core.

105 - 105.5' — FRACTURE ZONE

113 - Banding dips @ 67°

118 - 141 FAULT ZONE:

Associated gouge, breccia is present throughout the zone. Lime content increases in the fault zone.

The upper contact is not apparent, but at lower contact the foliations dip 79° and exhibit no disturbance. This suggests a strike slip fault or an oblique fault.

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98-141 calcite Diopside Quartz Skarn — calcareous Quartz chl. Bio. Schist.

F_0: 72°

~~massive Skarn, highly calcareous~~ Highly calc. massive Skarn consists of several small bands of foliated Biotite Schist. Sometimes the foliations terminate abruptly against massive calcareous core.

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