

GM 09121-B

DIAMOND DRILL HOLES

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Énergie et Ressources
naturelles

Québec 

D.D.H. - D. M. # 1

Location: L 80 W, 17 + 50 W + 100 W

Core: AXI

Bearing: N 3° E

Dip at collar: 45°

Dip at 300' : 32° 30'

Length: 318'

O. O. Casing

88.0 META-TUFF (?)

88.0

Fine grained, hard dark blue grey, weakly foliated at 45°-50° cn. Foliation marked by parallel colour banding of lighter and darker blue grey bands. Joint surfaces chloritized. Occasional quartz carbonate stringers accompanied by chloritic alteration, minor py. These are generally parallel to the foliation.

91.0: 8" fragmental RK (?), hard, dark blue grey and buff sections, the latter apparently elongate fragments, joints chloritized, foliation 50° cn. Some dark blue qtz. or cordierite.

101.2 - 102.7: Sparse small ovoid lighter coloured (more feldspathic?) patches. Possibly deformed fragments or lapilli.

118.9: Cavity lined with calcite xls.

124.0 - 128.0: Fragmental RK (?). Contacts gradational. Foliation 50° cn. Dark chloritic bands and occasional feldspathic lenses in matrix of tuff (?). Some blue quartz eyes.

138.0 - 156.5: Colour banding conspicuous at 50° cn. Numerous elongate lens-shaped bands of darker colour than bulk of rock.

156.5

156.5 META-FRAGMENTAL
RK (?)

Contact with last gradational. This rock consists of dark grey and brownish bands, with occasional elongate white qtz. grains (pebbles? "eyes") and ovoid feldspathic fragments. The dark bands are in part at least elongate fragments. Large amount of a reddish bronze micaceous mineral in the brownish bands. Rock hard, strongly foliated 30-50° cn. Considerable variation percentage of fragments, grading locally to tuff (?) as 88.0 to 156.5.

Trace disseminated py., cp. (?), sp. (?).

160.0 - 225.0: Joints frequently have limonite-carbonate coatings.

168.2 - 169.8: Numerous very large feldspathic fragments (maximum diameters about 1".)

170.0 - 173.0: Weak shearing? Trace py., cpy., sp. (?).

206.0 - 207.3: Extensive replacement by white to grey qtz., minor carbonate. Limonite - filled cubic cavities, probably replacing py. Tr. sp. (?)

210.4 - 211.5: Several 1/4" to 1/2" milky qtz. veinlets 45° to 50° cn. Trace py.

Started: Jan. 3/59
Completed: Jan. 13/59
Logged: P. L. Money

Ministère des Richesses Naturelles, Québec
SERVICE DE LA
DOCUMENTATION TECHNIQUE

Date:

No GM: 9/21-B

19

225.0 - 230.0: Rock strongly chloritized. Numerous qtz - calcite stringers accompanied by hematite, limonite.

230.2 - 232.5: Similar to last but rock badly broken, more iron oxides, considerable qtz., calcite. Euhedral xls of the latter implying an open cavity. Possible shear zone or water seam.

232.5 META-TUFF (?)

232.5

As that between 88.0 and 156.5-

238.0 - 250.0: Colour banding like that between 138.0 and 156.5 conspicuous at 35° - 40° cn. Dark bands a little coarser grained than light?

243.5: 1/4" qtz - carb. veinlet at 70° cn. Minor iron stain.

NOTE: - Core badly jumbled - about 50% missing between 250 - 275
Refer to old log.

260.0 (?) GABERO

260.0(?)

Fine grained to medium grained, dark greenish grey, hard, slightly magnetic, equigranular, texture non-directional to strongly foliated. Trace disseminated py., occasional py. stringers.

275.0 - 277.5: RK fine - grained, no foliation.

277.5 - 287.0: RK medium grained, weakly foliated at 30° cn.

Contacts with last gradational.

287.0 - 295.0: RK medium to fine - grained, no foliation,

290.1: Irregular 1/8" py. stringers.

291.0: 1/2" epid. stringer at 35° cn.

292.8: Irregular 1/4" py. stringers.

295.0 - 301.0: RK medium grained, strongly foliated at 30° cn.

298.8: 1" serpentized zone at 30° cn.

301.0 - 307.0: RK fine grained, no foliation.

307.0 META-TUFF (?)

307.0

As that between 88.0 and 156.5. Contact with last indistinct. weak foliation at 35° to 45° cn.

310.0 - 311.5: Numerous qtz. pink feldspar veinlets surrounded by chloritic alteration.

314.8 META-FRAGMENTAL (?)

314.8

Contact with last gradational. RK. as that between 156.5 and 232.5. Foliation and banding at 35° to 45° cn.

318.0 END OF HOLE

318.0

D. D. H. D.M. # 2

Location: L 68 + 00 W - 1500' N

Azimuth: N 3° W

Dip at collar: 43°

Dip at 300' : 28°

Dip at 600' : 22°

Elevation: Blue Lake
Plus 5.0 Feet

Core: AXT

Cement: Nil

Started: Jan. 14/59

Completed: Jan. 21/59

Logged: F. G. Harriman

O. O. Casing

- 8.0
8.0 GABBRO Medium grained gabbro, dark green ground mass., 15% white feldspar. Euhedral phenocrysts, scattered epidote stringers. Across the structure slightly schistose, $cn = 30^\circ$.
- 10.3 - 10.3 - 10.5
Narrow, very fine grained dyke, little fine pyrite near footwall, contact 30° .
- 11.3 - 15.0: Little coarser textured, mild schistosity developed $cn = 30^\circ$.
- 24.8
24.8 GABBRO Medium to coarse grained gabbro. Dark green.
27.2 - 28.5: Fine grained phase coarser in centre.
32.0 - 34.8: Very fine grained dark green dyke.
36.6 - 37.2: As above.
39.0 - 39.5: As above, $cn = 30-60^\circ$.
41.0 - 43.0: Fine to coarse grained with white feldspar phenocrysts. At 43.0 on, moderate schistose. $Cn = 30^\circ$. Gradational changes, in both colour and texture.
- 85.2
85.2 DYKE Dissiminated pyrite, epidote on contact, $cn = 50^\circ$. Fine grained, dark green dyke.
- 87.9
87.9 GABBRO Medium grained, dark green, massive gabbro. Prominent black phenocrysts in fine groundmass. Several inches from contacts. 3" fine grained dykes at 94.2 and 95.1
- 102.0
102.0 GABBRO Moderate schistose, varying shades, dark green, $cn = 30^\circ$. Medium grained, local sections have 2-3" black phenocrysts. At 107.5 and 109.0 - slight magnetite.
114.7: Epidote alteration, having no sharp contacts. Gradational change to dense, massive, dark grey with reddish phenocrysts.
123.3: One inch grey white quartz, glassy, pyrite, magnetite. Schistosity from 125.0 - 128.0, $cn = 30^\circ$. Chloritic bands. At 126.0 and 133.0 epidote and quartz eyes. Gradational change to contact.

D. M. # 2

- 135.7 TUFF (?) 135.7
Tuff (?) very fine to medium grained, dark grey, highly schistose, cn = 30°, scant fine pyrite, brownish altered platy mineral.
165.0 - 166.5: Dark green dyke, fine grained.
166.5 - 168.6: Possibly gabbro, dense, dark green, fine grained, dark green, dark mineral prominent as phenocrysts.
173.0 - 174.6: Badly broken ground, considerable hematite, on joint planes and in stringers. parallel to schistosity. Cn = 30°. Possible fault (?).
- 195.5 LAVA OR TUFF 195.5
Very fine grained, dark grey, dense, considerable hematite on joint planes and in narrow stringers, occasional one inch epidote alteration with sub angular dark mineral, (similar to above, but more highly altered.)
- 209.0 FRAGMENTAL (?) 209.0
Mottled, reddish, elongated. Lenses alternating with fine grained dark green bands, cn = 30°. Resembles partly developed gneissic texture, very hard, vitreous.
- 233.4 LAVA OR TUFF 233.4
Fine grained, dark green, fine schistosity cn = 20°. regular spaced chloritized rims with glassy quartz centres.
253.4 - 253.8: Quartz, little chlorite, talcy, trace of galena.
- 253.8 FRAGMENTAL (?) 253.8
Mottled, light reddish brown, alternating with grey to greenish bands, chlorite. Similar in colour and texture to 209.0.
- 274.7 LAVA OR TUFF 274.7
Moderate schistosity, light green, cn = 20°. Highly chloritized, light brown alteration, little magnetite.
- 278.7 FRAGMENTAL (?) 278.7
Similar to 253.8, light grey, extremely hard.
- 304.0 LAVA OR TUFF 304.0
Grey green, fine grained, mildly to highly schistose, cn = 20°
- 345.0 GABBRO 345.0
Highly schistose, dark green, fine grained, few quartz stringers across schistosity.
- 349.0 LAVA 349.0
Brownish grey, fine to medium grained. Short sections coarse grained, gradational, to light green, moderate schistose, fine to medium grained.
356.0 - 367.0: Fine grained green dyke
390.7 - 392.7: As above.
395.0 - 397.4: As above.
- 397.0 LAVA (?) 397.0
Light green, dense, light greenish green banding.
- 416.0 DYKES 416.0
Reddish grey, medium grained, dense, massive dykes.
437.3 - 438.2: Light green, fine grained, dense possibly lavas, cn = 30°.
442.1 - 443.2: As above
455.2: Highly schistose, dark grey to light reddish grey, considerable chlorite, possibly highly granitized (?)
460.0 - 462.0: Reddish grey, light grey lenses. Prominent dark mineral, cn = 20°

D.D.H. D.M. # 2

462.0 - 479.0: Medium grained, fine to coarser centres.

487.0

487.0 FRAGMENTAL

Light grey to reddish grey, elongated lenses, gradually decreasing to a more dense, more banding and less elongation.

502.1

502.1 TUFF

Dark green, medium grained, moderate schistose, $cn = 30^\circ$, gradually changing very fine grained, less schistosity, highly altered, chlorite, Mud seam, from 509.0 - 510.0.

526.0

526.0 GABBRO

Fine to medium grained gabbro, light schistosity $cn = 30^\circ$. Dark green, badly broken, few fine quartz stringers, considerable hematite in seams.

528.0 - 520.0: Fine grained, green dyke

532.3 - 532.4: One inch patch white quartz (on one side of core)

Heavy chalcopyrite and pyrrhotite.

536.0 - Heavy epidote alteration

541.0: Heavy epidote alteration.

Stringers reddish feldspar and $\frac{1}{4}$ " quartz. Little cubic pyrite.

547.0

547.0 LAVAS

Dark grey, fine grained, highly schistose, with fine lineation, (platy, possibly micas)

551.0 - 553.0: Reddish lenses, dark brown banding chloritized.

604.0

604.0 ~~GABBRO~~ TUFFS

~~Medium grained gabbro~~, slightly schistose, sections very fine grained, epidote and quartz along joint planes. Fine pyrite

600.0 - 601.0: Very fine grained, some hematite on joint planes and in stringers. Several medium grained gabbroic dykes

614.0

614.0 DYKE

Fine grained green dyke.

619.0

619.0 GABBRO

Fine grained with coarser sections, dark green, slightly schistose $cn = 20^\circ$, fine pyrite, hematite stain.

647.0: Reddish banded, elongated lenses, alternating with dark green bands. Fine grained, $cn = 20^\circ$. Mottled appearance, gradual change to more massive, lighter grey, less schistosity.

663.0

663.0 END OF HOLE

N.B. Thin section work and relogging suggests the above changes and a correlation of the rock in this D.D.H. between 547.0' and 614.0' with that between 116.3 and 159.2 in D.M. 3, as indicated on the sections for these holes.

D.D.H. - D. N. # 3

Started: Jan. 22/59
Completed: Jan. 27/59
Logged : G. A. Krause
(checked and more
details added by
P. L. Money)

Location: L 68 + 00 W - 1950' W

Asimuth: N 3 W

Dip at collar: 42°

Dip at 250' : 35°

Dip at 450' : 34°

Length: 520'

Core: AKT

O. O. Casing

60.0

60.0 GABBRO

Med. to dark grey, fairly fine grained, mod. magnetic, marked lineation of mag. grains, 35° cn. Cut by a few very fine quartz epidote hairs across lineation. Trace of min.

61.0: 2" quartz stringer 50° cn. - good py., some cpy.

69.5: Lineation is marked by a fairly co. banding in places suggestion of a tuff.

74.5: Banding disappears. Still lineated. Biotite rich, dark gn. Traces scat. min.

81.3: 3" quartz vein, 40° cn., good py., trace cpy.

81.6: Grain size increases to medium. Lineation as before but less marked. Equigranular.

93.5: Gabbro gets medium co. gr., scat. white phenos. give a porphyritic texture, still faintly lineated. Slight increase in mag.

2' fine grained, dense, massive, hard dark gn. sill or dyke at 94.5

Both contacts sharp, 45° cn. Diabase?

98.5: 3" silky qtz. vein, 40° cn., fair py.

100.4: Abrupt decrease in grain size to fairly fine. It is possible that a contact is missing here.

100.4

100.4 DARK GN. DYKE

(GABBRO)

Very fine where near contact should be, grading to medium fine grained within, dense hard, sl. schistose. 30-40° cn. Identical in centre to 100.0, probably core is mixed. Trace scat. fine min. Sl. magnetic in places. Cut by a few very fine calc. and qtz. stringers.

116.3

116.3 (META-FRAGMENTAL

ROCK?)

Tuffaceous, possibly a co. ash, dark grey gn. to faintly buff chloritized, high in biotite, co. gr. marked pale buff banding at start. 40° cn but this becomes less distinct by 120.0. Dark gn. elongated frags. give a fragmental appearance. Sections mod. well magnetic.

(In this section cordierite-anthophyllite rock. Some retrogressive meta.)

Four 1" - 2" co. chloritized pyroxenite stringers 35° cn. at 130.5, 131.0 - 131.4 - 131.6.

131.6: Marked pale banding like at the start of this section.

133.4

133.4 META-VOLCANIC(?) Dark gn., highly chloritized, fairly fine gr., schistose and sl. sheared. 35-40° cn., in places contorted. Sl. mag. in places. A little scat. fine py.

(Thin section at 137.0 cordierite-anthophyllite rock which has undergone some retrogressive meta to sericite etc..)

142.0: Text. increases to med. fine.

148.2: 4" of breccia.

Shear surfaces have a thin skin of red lineatites from 149.0-151.0

From 152.6 - 153.8: Rock grades in and out of two co. gr., mass. feldspathic patches that are slightly more magnetic than surrounding material.

160.0: Texture decreases to fine grained.

160.7

160.7 META FRAGMENTAL
ROCK

Tuffaceous grey green to slightly buff green, schistose, contains dark green spots and lenses, high mica content, very sl. sheared 45-50° en. Near contact marked by a 7" band of pyroxenite 50° en. There are co. white felds. spots and clusters in places suggesting that in part this section is gabbro. Sl. mag. Possibly this hole so far is in a border area containing a mixture of gabbro sills and volcanic material. (Probably a cordierite-anthophyllite rock as 133.4 - 160.0 and 175.7 - 212.0 (?).)

169.2

169.2 GABBRO SILL

Distinct contact 35° en. Med. fine grained, 40-50% light mins., schistose, very sl. shearing, dark grey green, chloritic. From 170.9 to 173.0: Fine gr., faintly bedded or banded suggesting a tuff, sl. mag.

175.7

175.7 META FRAGMENTAL (?)

Faint brownish banding not unlike 116.3 with med. fine gr. gabbro between the bands. Looks like lit-par-lit injection of a tuffaceous horizon. Banding is 35° en. Tr. of scat. min., no mag.

(178.0: Thin section of cordierite-anthophyllite rock, some retrogressive metamorphism to chlorite, biotite.)

185.0: Fine gr. sl. lighter grey, schistose, no more bands. Some very fine streaks of py. No mag. (Gabbroic sill ?)

198.5: A faint lineation develops produced by dark grey streaks and irregular lenses suggestive of tuff with fine gr. gabbro between the lenses. Trace fine scat. min. Well chloritized. No mag. 8" very fine gr. dark green dyke 30° en. at 205.7. 2' dyke like above at 210.1. Cut by num. fine calc. stringers, some with red hematite. Banded at contacts.

201.0: Thin section of cordierite anthophyllite, some retrogressive metamorphism to sericite, biotite, chlorite.

212.1

212.1 GABBRO SILL(3)?

Faintly banded gabbro, fairly fine grained, chloritic with medium green patches. Contains a few fine quartz stringers across lineation. Numerous fine calc. str. containing red hematite between 216.8 - 218.6 1.7' fine gr. gn. highly chloritic dyke at 219.6, schistose.

222.2: Grain size decreases to fine, very sl. sheared, fine streaks of qtz-calc., highly chloritic.

5 - 10% py. in fine streaks between 223.0 and 223.5

235.0: Chlorite decreases to med.

241.0: Grain size increases to med., still schistose.

243.2: Fine grained again, fairly hard. Some fine streaks of py.

245.5: Med. grained again, sl. lineation.

248.7: Fine gr., schistose and very sl. sheared.

3" barren milky qtz. vein at 249.5.

256.2: Biotite rich, med. to co. gr., highly chloritized, faint banding like 160.7.

260.0: Fine gr. faint bedding like 170.9, 9" milky qtz. vein
50° cn. at 264.6 - Tr. py.

265.6: Following the qtz. vein a mass., co. gr. gabbro, dark gn.
No mag. Far contact indicated that this gabbro is older than the
following rock. Grain size. Suggest G. (An.)

272.1: Gabbro Sill - Gy. gn., very fine gr., highly chloritized
at first, schistose and sl. sheared // the contact at 25° cn. Some
very fine streaks of py. at first.

281.7

281.7 PYROXENITE DYKE? Very dark gy. gn., fine gr. at first grading to med., mass., hard,
sl. feldspathic in places but cleavage faces mostly prominent.
Contains patches with fair fine scat. py. Looks gabbroic in centre.
Contact relationships with preceding rock obscure; it may even
grade from 272.1

301.0: Develops a lineation 25-30° cn.

5% py. in very fine streaks from 305.8 - 308.0

308.0: Lineation 40° cn.

310.7

310.7 GABBRO SILL? Fine gr., dark gy. gn., looks very similar to 281.7, but in places
grades to a med. gr. gabbro at 50% light mine. Faint lineation
25-30° cn. According to contact this sill or dyke is younger than
preceding Rk.

320.2

320.2 ANORTHOSITE Co. to very co. granitic text., mass. sl. mag., 85% epidote felds.,
very pale cream green. This is probably an inclusion because of
fine gr. gabbro on both ends.

323.1

323.1 GABBRO SILL? Very fine gr., hard, dark gn., looks mass. at first but develops
a lineation 40° cn. Cut by a few fine qtz-stringers. Scat. streaks
of py. It is not certain if this is same rock as 310.7
12" fine gr. gy. gn. dyke 35° cn. at 328.1, num. scat. very fine blk.
spots and a few small white phenos.

7" of 15% py. at 332.0

333.7: Gabbro becomes abruptly med. gr. Definite foliation 10° cn.
of pale pyrox.

336.0: Fairly fine gr. again, sl. brownish due to high mica content,
schistose 10-20° cn. (Probably meta-tuff inclusion. Thin section
quartz - biotite - sericite)

6" pale green p'phtic. dyke at 341.0. Matrix has an unusual coales-
cent text. and encloses the white phenos.

338.0: Like 323.1

342.0: Pale gn., fine gr. dyke, uniform text., mass. Contacts
bleached 40-50° cn.

344.7: Like 336.0

352.7

352.7 F. P. DYKE Fine gr. contacts 45° cn., pale gy. gn., med. to co. gr., lineated
//contacts, num. elongated white phenos. Heally a series of dykes
separated by narrow fine gr. gabbro? Rk is soft, altered and sl.
sheared, normal to core. Fractures coated with hematite.
13" qtz. - epidote - hematite bx. zone, 60° cn. at 355.0. Core is
badly broken up from here but contains mostly F. P.

361.0

361.0 GABBRO? Gy. gn., fine gr., highly chloritic, schistose 45° cn. Contains
scat. fine streaks of py. and irregular qtz. stringers. Very sl.
sheared 45° cn. with hematite on fracture surfaces. Some short
bx. patches.

12" pale gn. dyke with fine black spots 45° cn. at 372.0.

3" pale F. P. dyke 45° on. at 375.3.

375.6

375.6 META TUFF

Fragmental in places, foliated and schistose and mod. sheared. 35-40° on. Some qtz., calc. and limestone. No min. Gy. gn., fairly fine gr. some dark gy. gn. frags. or lenses. Core broken up in places.

Short sections look like fine gr. gabbro.

½" qtz.-limestone vein 50° on., at 380.0

1½" qtz. at 384.7

387.0: Thin section of quartz - sericite - biotite - chlorite rock.

2" qtz. vein at 396.0

3" qtz. vein at 403.5

Core frags. show some bx'n. From 404.7 - 406.0. Looks more like conglomerate because frags. look assorted and are rounded. Qtz - chl. hematite bx. zone flat to core, from 414.5 - 415.4. Shearing now 10-20° on.

415.4

415.4 POSSIBLE GN. DYKE

(GABBRO ?)

Gy. gn., fine gr., mod. chl., sl. sheared.

417.5

417.5 META-TUFF

Gy., very sl. brownish, fine gr. schistose and mod. sheared 10-20° on. no bedding. Some scat. blue qtz. eyes, rich in mica. Contains bleached streaks // shearing and fine calc. qtz. stringers.

418.0: Thin section qtz - sericite - chlorite - carbonate rock.

1.2' pale buff epidotized at 421.6

qtz. eyes spares after 424.0. Looks fragmental in places. Tr.

min. 4" pale gy. F. P. dyke 25° on. at 437.8

438.1: Tuff but finer grained and dark grey to black. Faint bedding in places // mod. shearing 20° on. Fine scat. py. No qtz. eyes.

449.0: No more bedding otherwise the same, but very slight shearing.

453.7: Fairly wide beds 25° on. up to ½"

455.0: Bedding or lamination gets very fine, colour is red. to pale gy. with irregular streaks and patches bleached pale buff, very fine gr., probably originally a rhyolite tuff. Cut by fine calc. - qtz. stringers. Traces scat. py. Lamination now 35° - 40° on.

(463.0: Thin section is quartz - biotite - muscovite - chlorite rock.)

504.0: 3" white felds. - qtz. vein, 35° on., co. gr., no min.

520.0

520.0 END OF HOLE

D.D.H. D. N. # 4 H

Started: Feb. 6/59
Completed: Feb. 9/59
Logged: P. L. Money

Location: 68 + 00 W
32 + 60 N

Bearing: N 3° W

Core: AXI

Elevation: Blue Lake + 5.0'

Dip at collar: 51° 30'

Dip at 200' : 50°

Dip at 400' : 50°

Length: 497'

O. O. Casing

- 89.0
89.0 GRANITE Grey white to pink, coarse grained, weak foliation 50° cn due to parallel alignment of mafics. Feldspars generally euhedral to subhedral, white and pink or flesh coloured. Mafics consist of hornblende, biotite. Minor quantities muscovite(?), epidote, some hematite on joints.
- 98.5
98.5 LAVA (?) Fine-grained, dark green, high mafic content, weak foliation 50° cn marked by slight colour changes. Upper contact 45° cn, lower contact 30° cn. A few granitic stringers. Minor epidote on joints.
- 108.1
108.1 GRANITE As 89.0 to 98.5. Lower contact missing.
- 117.5
117.5 LAVA (?) As 98.5 to 108.1. Weakly foliated 45° to 65° cn.
- 120.0
120.0 GRANITE As 89.0 to 98.5. Contacts at 10°.
- 120.5
120.5 LAVA (?) As 98.5 to 108.1. Numerous 1" granitic stringers at 45° to 70° cn. 124.2: 2" barren milky quartz vein with epidotized margins.
- 126.1
126.1 PEGMATITE DYKE(?) Upper contact irregular, lower contact 45° cn. Pink, consisting of very coarse pink feldspars (K₂ feldspars), grey qtz., minor epidote, biotite. Chlorite on joints.
- 128.6
128.6 LAVA (?) As 98.5 to 108.1
- 136.0 - 149.1: Many granitic veinlets, a few irregular patches granitic rock with indistinct boundaries (granitization?) lava (?) highly schistose, contorted, but at about 50° - 70° cn. Colour banding fairly pronounced.
- 140.0 - 141.0: Considerable hematite staining. Possible water seep.
- 145.0 - 146.2: Heavily epidotized - about 90% epidote.
- 149.1
149.1 GRANITE Much as 89.0 to 98.5. Colour variable, pink to pale grey, composition variable, coarse grained. Generally rock with white feldspars has a higher mafic content, lower quartz content and a weak foliation. This rock apparently contains more assimilated lava(?).

- As the foliation is due to alignment of mafics it may be an inherited feature (from the lava). Occasional very co. pink pegmatitic phases.
- 149.1 - 150.5: Very coarse pegmatitic facies lacking mafics. Sharp contact with normal granite at 25° cn.
- 162.0 - 164.7: Possible inclusion of lava (?) heavily epidotized, light green, with K - feldspar "dents de cheval".
- 173.5: Foliation at 70° cn.
- 179.0 - 227.0: Pale green highly altered granitic rock, original grain boundaries destroyed giving rock a fine-grained appearance, mafics chloritized, feldspars sericitized or epidotized, local areas unaltered. Unaltered areas in part equigranular slightly foliated grey granite, in part slightly porphyritic pink granite - the two types are gradational.
- 196.3: Above Rk out by 1" pink aplitic dyke at 30° cn.
- 198.4: 2' similar dyke. Upper contact at 30° cn, lower contact at 10° cn.
- 227.0 - 297.0: Granite mainly equigranular, grey, weakly foliated low in quartz - the less acidic facies. Feldspars slightly epidotized. At 227.0 foliation at 45° cn.
- 234.0 - 244.2: Pale green altered section as 179.0 to 227.0.
- 245.0: 1" pink K-feldspar - grey qtz. pegmatite intruding the granite at 50° cn.
- 250.0: Foliation is at 40° cn.
- 263.0: Foliation is at 45° cn.
- 268.0 - 271.0: Numerous partially digested inclusions, probably of the lava (?) described above.
- 288.0 - 297.0: Numerous similar small inclusions in white to pink equigranular granite.
- 289.1 - 306.0: Coarse grained, slightly porphyritic pink granite mainly. No directional textures, rather high in quartz. The more acidic facies. Minor epidote.
- 306.0 - 320.0: The above type of granite and the type between 227.0 and 297.0 alternate. Contacts gradational. Minor epidote, chloritic alteration.
- 315.4: Large partially digested inclusion fine-grained black to dark green rock. Probably the lava (?) described previously.
- 320.0 - 350.0: Mainly grey, slightly foliated granite - the less acidic facies. Foliation 40° - 60° cn. As 227.0 to 297.0. Numerous 1" quartz stringers and small aplitic and pegmatitic dykes, usually with minor associated epidote. Hematite on some joints.
- 321.1: Qtz. hematite stringer at 80° cn.
- 326.3: 2" pink aplitic dyke at 20° cn.
- 330.4: 2" pink aplitic dyke at 50° cn.
- 335.8: 5" pegmatite dyke at 80° cn.
- 336.6: 3" aplitic dyke. Contacts irregular.
- 350.0 - 357.3: Pink slightly porphyritic granite with inclusions lava (?).
- 352.3 - 353.5: Probably aplitic dyke, pink, upper contact indistinct, lower contact normal to core.
- 357.3 - 363.0: Altered granite as 179.0 to 227.0.
- 363.0 - 408.0: Granite - alternating in type between the less acidic grey foliated facies and the more acidic pink porphyritic facies.
- 385.0: Foliation at 50° cn.
- 408.2 - 414.0: As 179.0 to 227.0.
- 414.0 - 422.5: As 363.0 - 408.0. Foliation where present at 40° - 50° cn.

- 422.5
As 98.5 to 106.1. Large inclusion.
- 423.1
Grey, slightly foliated co. grained equigranular granite - the less acidic type for the most part. Foliation 40° - 50° on.
433.0 - 440.0: Considerable hematite, several red feldspar stringers.
441.0 - 447.6: Altered granite as 179.0 to 227.0. Original texture partially preserved.
447.6 - 466.0: As above but occasional patches almost unaltered pink weakly foliated granite.
486.0 - 487.0: Altered granite as 179.0 to 227.0. Very highly sericitized, chloritized.
- 497.0
497.0 END OF HOLE

D.D.H. D.M. # 5
Property: Dumas Option

Started: Feb. 16/59
Completed: Feb. 18/59
Logged: P. L. Money

Location: L 92 + 00 W; 1 + 00 S

Bearing: 29° Due S

Length: 350.0

Core: AXT

Elevation: B/L

Dip at collar: 42°

Dip at 150' : 37°

Dip at 300' : 35°

O. O. Casing

13.0 GABBRO

13.0
Fine grained, dark greenish grey, equigranular, weakly foliated 35 - 40° cn. with parallel alignment of mafies, magnetite. Joint surfaces serpentinized. 55% mafies. Trace disseminated py.
15.5 - 22.0: Gabbro medium grained, slightly porphyritic, 70% mafies, otherwise as above. A few scattered deep blue quartz eyes.

22.0 SILICIFIED GABBRO
22.0
Medium grained to coarse grained, dark greenish grey, generally equigranular but locally slightly porphyritic, strongly foliated 60-70° cn, foliation marked by parallel orientation and segregation of mafies. Minor magnetite. Trace py. Numerous ovoid deep blue to purplish quartz eyes generally elongate parallel to the foliation. A few narrow irregular stringers of similar material. Cut by scattered milky quartz veins and stringers accompanied by epidote and/or chlorite commonly.
26.4: 4" quartz vein, milky to grey. Chloritic alteration.
27.7 - 28.8: Silicified "G.T." to locally "A.T." layer. 55% - 70% feldspars, light grey colour, very coarse grained. Texture normal porphyritic with feldspar phenocrysts separated but finer mafies to (in more felsic varieties) a texture in which the feldspars coalesce leaving rod-like areas of mafies between them. Numerous deep blue quartz eyes as in the gabbro. Contacts sharply gradational.
32.3 - 34.0: As above, locally weakly foliated 50-60° cn.
37.6 - 39.8: As 27.7 - 28.8.
41.2 - 42.3: As 27.7 - 28.8, contacts gradational over 5 - 6"
44.1 - 47.0: As 27.7 - 28.8
47.0 - 49.0: "G.T." similar to above but strongly foliated 60° - 70° cn., in part almost equigranular, medium grained.
49.0 - 51.0: As 27.7 - 28.8, contacts sharply gradational at about 45° to 55° cn.
53.3 - 54.7: As 27.7 - 28.8, mainly a good porphyritic texture.
55.7 - 57.5: As 27.7 - 28.8, weakly foliated in part 65° cn.
59.0 - 61.2: As 27.7 - 28.8 but weakly foliated 60° cn.
77.2: Irregular patch of milky quartz and pink feldspar surrounded by chloritic alteration.

75.4 - 84.0: Silicified "G.T." as above, locally with fine-grained appearance (particularly near 84.0) where silicification has apparently destroyed crystal boundaries.

81.6: As 77.2.

82.6: As 77.2.

86.0: 2" irregular grey quartz vein with euhedral feldspar laths growing from the walls. High temperature (?).

87.1: As 86.0: Chloritic alteration along hanging wall.

91.6: 3" milky white quartz vein at 45°. Minor associated chlorite, epidote. Trace py.

114.9

114.9 GABBRO DYKE (?)

Very fine grained, massive equigranular with very weak foliation 60° cn., dark greenish grey, silicified, containing numerous deep blue quartz eyes. Dyke (?) fairly sharp contacts 50° cn.

116.6: 4" grey to white quartz vein. Minor associated epidote and chloritic shreds.

121.2: 2" similar vein at 30° cn. Minor epidote.

124.7

124.7 SILICIFIED "G.T."

Grades locally to "A.T." and to gabbro, 55% - 30% mafies. Coarse grained, porphyritic, light grey color. Numerous deep blue quartz eyes. Weak foliation 40-50° cn. Similar to 27.7 - 28.8. Part of gabbro-anorthosite complex. Trace py.

134.9

134.9 SILICIFIED GABBRO

Contacts gradational with last. Medium grained, equigranular to slightly porphyritic, dark greenish grey, generally about 65% mafies but locally gradational to G.T. Well foliated 50° cn. Numerous deep blue quartz eyes, minor magnetite py.

138.4: 2" milky quartz vein at 30°. Minor chlorite, epidote.

144.7

144.7 GABBRO DYKE (?)

Upper contact sharp at 40° cn., lower at 60° cn., very fine grained, dark greenish grey, equigranular non-directional texture. A few scattered blue quartz eyes.

144.8: Irregular stringer milky quartz.

151.0: 3" irregular and milky quartz vein. Chloritic alteration.

152.8

152.8 QUARTZ DIORITE (?)
DYKE

Upper contact 60° cn., lower contact 30° cn., younger than last, medium grained, equigranular, non-directional texture, reddish grey, very hard. Minor py., magnetite.

158.8

158.8 SILICIFIED GABBRO

Medium to coarse grained, greenish grey gabbro. Generally schistose and/or foliated. Averages about 65% mafies but grades locally to "G.T." Numerous deep blue quartz eyes. Occasional bluish quartz stringers. Traces py. throughout, commonly magnetic. Joints usually serpentized. Scattered milky white quartz veins generally with chlorite and epidote and a trace py.

158.8 - 165.0: Moderately schistose 40-50° cn.

165.0 - 171.3: Gabbro strongly foliated, schistose at 50-60° cn. Heavily serpentized.

175.0 - 275.0: Numerous milky to glassy, white to grey quartz veins and stringers.

176.0: 7" milky qtz. vein, irregular. Chloritic alteration. Trace py. present.

178.1 - 179.1: Milky qtz. vein sub-parallel (?) to ore. Epidote and chloritic alteration. Trace py.

- 197.7: 12" irregular milky qtz. vein. As above.
- 211.7: 4" white qtz. vein 50° cn. Chloritic alteration, trace py.
- 213.2: 3" irregular white qtz. vein. Chloritic alteration, trace py.
- 222.0 - 225.5: layer of "G.T.", coarse grained, glomeroporphyritic, non-directional. Texture giving a mottled appearance, light grey. Minor py., magnetite.
- 228.1: 4" irregular quartz vein as 211.7.
- 230.8 - 233.0: Layer of "G.T." as 222.0 - 225.5. Some of feldspars pink.
- 235.5: Irregular 2" glassy grey quartz stringer containing a few red garnets. High temp. (?)
- 237.2: 5" irreg. qtz. vein as 211.7.
- 243.0 - 315.0: Joints often hematite coated.
- 258.2: 4" milky quartz vein at 30°cn. Chloritic and epidote alt. Trace py.
- 275.8: 4" irreg. stringer as above.
- 285.0 - 315.0: Gabbro strongly schistose, foliated, irregular to 50-60° cn.
- 296.4: 4" irregular milky qtz. vein with considerable associated hematite, strong epidote alteration.
- 299.2: 6" irreg. white qtz. vein with inclusions of gabbro. Chloritic and epidote alteration.
- 308.0: 10" white quartz vein as 211.7. Upper contact 30° cn, lower contact 45° cn.
- 339.2: 2" milky qtz. vein 60° cn. As 211.7.
- 341.0 - 346.0: G. T. as 222.0 - 225.5. Numerous quartz eyes. Trace py., po. (?)

350.0

350.0 END OF HOLE

ASSAY RESULTS

<u>Sample Number</u>	<u>Section of Hole</u>		<u>Sample Length</u>	<u>AU.</u>	<u>CU.</u>
	<u>From</u>	<u>To</u>			
S 7913	176.0	176.5	0.5	Tr	Tr
7914	177.8	178.2	0.4	Tr	Tr
7916	188.4	190.6	1.2	Tr	0.05
7915	197.6	199.0	1.4	Tr	Tr
7917	307.5	308.5	1.0	Tr.	Tr

D.O.H. - D. M. # 6

Started: Feb. 23/59
Completed: Feb. 27/59
Logged: P. L. Money

Property: Dumas Option

Location: 1365 S, L 58 + 00 W

Bearing: N 3° W

Core: AXT

Dip at collar: 45°

Dip at 200' : 36°

Dip at 400' : 36°

Length: 443'

O. O. Casing

115.0 GABBRO

115.0

Very co. grained, markedly porphyritic gabbro. 65% mafics, dark greenish grey, feldspars white, mainly euhedral, mafics mainly subhedral. No foliation. Minor magnetite, py., slight epidote alteration. Joints frequently hematite coated.

124.0 ALT'D. GABBRO

124.0

Gabbro becomes fine - grained, perhaps some increase in mafics content. Fairly strongly epidotized, scattered epidote - quartz stringers. 1% or less disseminated cubic py., minor magnetite .
131.0 - 135.7: Marked schistosity at 25° - 30° cn. Irregular patches white feldspar.

141.8 - 144.7: Marked schistosity at 30° - 35° cn.

148.0: Gabbro becomes porphyritic to glomeroporphyritic with irregular patches of large sub-hedral white to pink feldspar grains. Occasional qtz. - epid. - pink feldspar stringers.

156.4: 3" massive brownish green epid. at 50° cn.

157.5: 1" milky qtz. vein at 55° cn.

159.5: 1' 80% epid. at 50° cn. Possibly altered A.T. or anorthosite layer.

164.0: Strong foliation due to epidotized bands at 60° cn.

180.0 - 217.1: Innumerable epidote and pink feldspar stringers in all directions. Sparse py. stringers, usual disseminated py. Weak to strong schistosity throughout.

200.9: Schistosity at 70° cn.

211.4: Irregular schistosity strongly developed for 3', part of rock apparently brecciated.

217.1

217.1 ALT'D. "G.T.-"A.T." (?) Rock co. porphyritic to glomeroporphyritic to blotchy, very pale greenish grey, considerable epidote. Either originally a more felsic layer or more heavily epidotized. Part of section gradational to gabbro. Minor py., magnetite .

220.0 - 221.3: Strongly schistose 20-30° cn. 2% py.

232.1: Foliation at 40° cn.

236.8: Foliation at 35° cn.

238.2: Slightly brecciated for 2'. Estimated 3% dissem. py. and py. stringers.

240.0: 6" of 3% py. Brecciated (?)

241.0 - 249.2: Core badly broken, rock highly schistose 50-60° cn., some leaching (?) considerable hematite, about 1% py. throughout, generally assoc. with grey to white vein qtz. Possible water seam, shear zone (?)

D.D.H. D. N. # 6

- 249.2 ALT'.D GABBRO 249.2 As 148.0 - 180.0. Joints generally coated with hematite or hematite and qtz. Vuggy in part with development qtz. crystals. Considerable epid.
256.8: 3" layer of 95% feldspar mainly altered to epid. Possibly altered anorthosite.
- 262.0 GABBRO 262.0 Co. grained porphyritic, gradational to G.T., 70% - 45% mafics, most of feldspars white, some red, occasional epidote. Trace py., magnetite, minor hematite on joints, quartz.
- 273.6 GABBROID (?) DYKE 273.6 Aphanitic, dark grey green, trace fine disseminated py. Contacts missing.
- 275.2 GABBRO 275.2 As 262.0 to 273.6. Locally feldspar phenocrysts up to 1/2" maximum diameter.
276.3: 2" dark green, fine grained appearing rock with 40% magnetite. Pyroxenitic layer (?) or perhaps just altered rock.
- 281.0 GABBROID (?) DYKE 281.0 As 273.6 to 275.2. Upper contact irregular but about 50°cn., lower etc. missing. Cut by several qtz - pink feldspar veinlets at 60 - 70° cn. Hematite stain on joints.
- 291.8 GABBRO 291.8 Mainly co. grained, great variations composition, texture. For most part dark green almost equigranular rock with about 70% mafics. Occasional white feldspar phenocrysts and numerous blotchy patches of up to 95% feldspar i.e. anorthositic, the latter up to 2" long. Overall effect mottled, overall composition gabbroic or possibly G. T.
296.1: Rocks becomes highly altered, slightly brecciated, considerable epidote and minor amounts of a powdery white mineral ("leucocene")? present. Feldspars pinkened, slight shearing has resulted in weak foliation at 30° cn.
- 300.2 DYKE (?) 300.2 Aphanitic ground mass., scattered phenocrysts, light grey, replaced by black min. (?) 6" to 7" from contacts, pale greenish grey. Weak foliation 30° cn. F. W. contacts highly chloritized, 2" leached section. H. W. contact indistinct - probably due to alteration.
- 304.7 GABBRO 304.7 as 291.8 to 296.1. Anorthositic - A. T. patches up to 4" in diameter.
306.6: 3" of euhedral to subhedral feldspar phenocrysts up to 3/4" long.
314.8: 1' 95% epid. Scattered quartz eyes. Anorthositic layer?
- 326.0 A. T. 326.0 Gabbro grades to A. T., locally anorthosite, very coarse slightly porphyritic, occasional G. T. to Gabbroic patches. Feldspars creamy white to buff to pale green to pale grey, depending on degree, type of alteration. Usual minor epidote, py.
329.0: 5" moderately schistose at 20° cn.
- 331.2 GABBRO - G.T. 331.2 Above rocks grades into coarse - grained, almost equigranular to slightly porphyritic gabbro to G. T. with 40% to 80% mafics.

- Occasional feldspar phenocrysts up to 1/2" diameter. Usual minor epid., py., magnetite.
 337.0 - 339.2: Dyke as 300.2, contacts schistose at 50° cn.
 346.0: 2" grey to white quartz at 60° cn.
- 360.0 G. T. - A. T. 360.0
 Very coarse grained, equigranular to porphyritic, much as above rock but 50% to 80% feldspars. Minor epid., py., magnetite. Contacts with last gradational.
- 364.0 DYKE (?) 364.0
 As 300.2 to 304.7. Contacts sharp at 60° cn.
- 367.6 G. T. - A. T. 367.6
 As 360.0 to 364.0
- 371.0 GABBRO 371.0
 Co. grained equigranular to very co. porphyritic with up to 1/2" feldspar phenocrysts. About 65% mafics. Contacts gradational. Usual minor epid., py., and magnetite.
- 374.8 "G.T." 374.8
 As last but higher feldspar content - about 45% to 60%. Contacts gradational. Local gabbroic sections.
- 387.0 GABBRO 387.0
 Medium grained to coarse grained equigranular for most part, locally porphyritic, highly magnetite, 70 - 70% mafics, occasional patches coarsely porphyritic G. T. Minor py., epid. Contacts gradational.
 398.0: 4" pyroxenite (?) layer, 50% magnetite, dark green, almost no feldspars.
- 418.0 "G. T. " 418.0
 Coarsely porphyritic, feldspars 1/4" to 1/2", mafics 1/8" to 1/4", a few sections epidote up to 2", fair amount epidotization of feldspars. Minor py., magnetite.
 422.4: 3" patch anorthosite or A. T.
- 424.4 GABBRO 424.4
 Medium grained to co. grained essentially equigranular gabbro - averaging 70% mafics. Minor epidote, py., magnetite throughout. Quite fresh, unaltered. Contacts gradational.
 433.6: 3" layer peridotite (?), 30% magnetite, dark green color, practically lacking feldspars, contacts fairly sharp at 45 - 55° cn.
 435.3: Similar 2" section. 40% magnetite.
 436.1: Similar 3" section. 55% magnetite. Contacts 55° cn (?)
- 436.5 "G.T." to "A.T." 436.5
 Very co. porphyritic, feldspars xlls to 1/2" diameter, mafics almost as coarse. 55% - 80% feldspars - locally gradational to gabbro, anorthosite. Minor epid., py. Quite fresh. Contacts gradational.
 440.0 - 441.3: Layer of 95% epidote, probably replacing feldspar A little introduced quartz. Co. grained, 1% py. Possibly anorthositic layer.
- 441.3 GABBRO 441.3
 As 424.4 to 436.5.
- 443.0 END OF HOLE 443.0

ASSAY RESULTS

<u>Sample Number</u>	<u>Section of Hole</u>		<u>Sample Length</u>	<u>AU.</u>
	<u>From</u>	<u>To</u>		
S 7918	341.4	345.0	3.6	Tr
7920	130.0	131.2	1.2	Tr
7923	212.7	214.6	1.9	Tr
7922	225.1	226.1	1.0	Tr
7921	241.1	242.1	1.0	Tr
7919	245.0	247.7	2.7	Tr