

015099

TABLE 1
ANVIL DISTRICT
DETAILED LOGGING LITHOSTRATIGRAPHIC CODE
MAIN DEPOSIT AREA

Unconsolidated Overburden

Unit 11	11	A	Triconed, no recovery
	11	B	Till, silt, sand - all unconsolidated

Intrusive Rocks

Unit 10	928	10	AB	Granite - Anvil Batholith
				10AB _{mm} Mt. Mye phase biotite-muscovite
				10AB _o Orchay phase biotite-hornblende
				10AB _m Majorie phase biotite-hornblende
	939	10	C	Pegmatite
	934	10	E	Biotite-hornblende granite porphyry
	925	10	F	Smokey quartz-feldspar porphyry
	938	10	Q	Bull qtz veins/pods
				1 Foliated/lineated
				2 Porphyritic
				3 Aphanitic
				4 Smokey qtz-bearing
				5 Muscovite-bearing
				6 Kspar-bearing
				7 Biotite-bearing
				8 Amphibole-bearing
				9 Altered (kaolinite, montmorillonite)
				0 Normal (equigranular)

Vangorda Formation

Unit 5	936	5	A	Variably calcareous, graphitic phyllite (= 1E, hosts Units 2/4)
		5	A*	Graphitic fault rock with shear band fabric and vein quartz, altered metabasite clasts
	920		B	Calcareous muscovite-chlorite+/- biotite phyllite (greenschist equivalent of 3D)
	908		C	Metabasite (includes pyroxenite)
	910		D	Chloritic phyllite (also logged as 5F locally)
	904		E	Phyllitic marble and silicated marble
	949		G	Variably calcareous, graphitic phyllite (above basal graphitic unit)
				1 Siliceous
				2 Carbonaceous
				3 Calcareous
				4 Altered, pyritic (white mica envelope)
				5 Banded/laminated
				6 Non-calcareous
				7 Chlorite laminations
				8 Chloritic
				9 Sulfide-bearing
				0 Normal
			*	Carbonate-bearing

Vangorda Formation
 Unit 3 913 3 D Calc-silicate phyllite/schist (amphibolite facies equivalent of 5B)

Faro, Grum, Vangorda, DY Deposits Conformable Contact
 Unit 2/4 922 2/4 A Sulfide-bearing, ribbon-banded, graphitic quartzite
 915 B Pyrite-free quartzite (may contain base metal sulfides)
 916 C Base metal-poor, pyritic quartzite
 942 D Base metal-bearing, pyritic quartzite
 918 E Massive pyritic sulfides
 923 F Buckshot facies, massive pyritic sulfides
 928 G Baritic facies, massive sulfides/sulfates (>10% BaSO₄)
 924 H Pyrrhotitic facies, massive sulfides
 949 J Non-pyritic, massive sulfides/oxides (vein type sulfides)
 921 K Dolomite-bearing, massive pyritic sulfides
 1 Siliceous
 2 Fine pyrite/marcasite-bearing
 3 Coarse, porphyroblastic pyrite-bearing
 4 Sphalerite and/or galena-bearing
 5 Carbonaceous
 6 Barite-bearing
 7 Pyrrhotite-bearing
 8 Magnetite-bearing
 9 Chalcopyrite-bearing
 0 Normal
 * Carbonate-bearing

Alteration Facies for Metapelite Units

Unit 2/4L White muscovite>qtz-chl-bio-phyllite (generally sulfide-bearing)
 1 Siliceous
 2 Pyrite-bearing
 3 Talc/kaolinite-bearing
 4 ZnS and/or PbS-bearing
 5 Carbonate-bearing
 6 Chl-bio>qtz-musc phyllite
 7 Pyrrhotite-bearing
 8 Magnetite-bearing
 9 Chalcopyrite-bearing
 0 Normal

Mt. Mye Formation (Greenschist Facies)

Unit 3 916 3-I Graphitic quartzite in non-calcareous phyllite/schist
 941 G Non-calcareous muscovite-chlorite+/biotite phyllite/schist (= 1C, 1D)
 906 F Marble and silicated marble (=1G)
 963 E Graphitic phyllite/schist (= 5A)
 913 D Calc-silicate phyllite/schist

908	C	Metabasite (includes pyroxenite)
946	B	Chloritic phyllite/schist (c.f. 5D)
912	3-A	Transition zone with Unit 1 (interbanded chloritic phyllite, graphitic phyllite, and pelites of Vangorda and Mt. Mye Fms.)
	1	Siliceous
	2	Non-calcareous
	3	Calcareous
	4	Altered, pyritic (wme)*
	5	Banded/laminated
	6	Sulfide-bearing
	7	Chlorite laminations
	8	Chloritic
	9	Carbonaceous
	0	Normal

Mt. Mye Formation (Amphibolite Facies)

Unit 1	902	1-B	Tactite and silicated marble (=3F)
	943	C	Quartzo-feldspathic, biotite-muscovite gneiss/schist (= 3G)
	947	D	Carbonaceous biotite-muscovite-andalusite schist (= 3G)
		1CD	Biotite-muscovite-andalusite schist (= 3G) transitional between 1C and 1D
	967	E	Graphitic schist (=5A)
	908	F	Metabasite (=3C), chloritic schist/amphibolite
	901	G	Marble and silicated marble (= 3F)
	910	1-H	Chloritic schist (c.f. 5D)
		1	Siliceous
		2	Carbonaceous
		3	Calcareous
		4	Altered, pyritic (wme)*
		5	Banded
		6	Clotted
		7	Staurolitic
		8	Chloritic
		9	Sulfide-bearing
		0	Normal

*(wme) White mica envelope

Carbonates

* carbonate
calcite
\$ dolomite
@ ankerite

pigage\lithocod
March 9, 1990

Anvil District

①

LEGEND

Geological contact

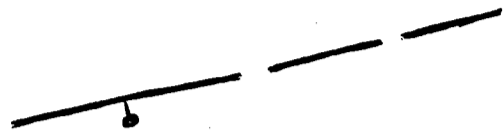
definite, approximate, inferred



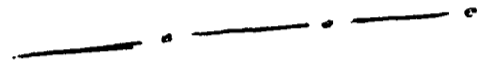
Fault

definite, approximate

(ball on downthrown side)



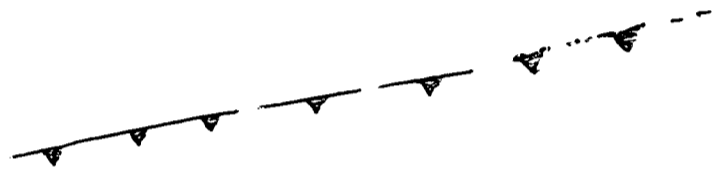
Lineament



Thrust fault

(teeth on overthrust panel)

definite, approximate, inferred

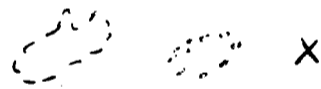


Limit of mapping



Outcrop

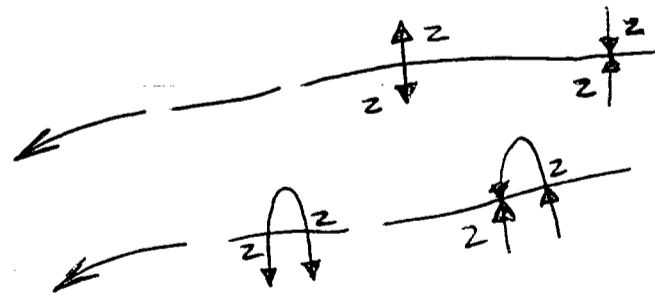
(subcrop, spot)



Fold axial surface trace, with phase

(plunge direction, if known)

(upright, overturned)



Stratigraphic younging



Diamond drill hole

- location approximate
- ⊙ location defined in field
(overburden depth, total depth) in meters

Rotary drill hole

- location approximate
- ⊠ location defined in field
(overburden depth, total depth) in meters

Trench

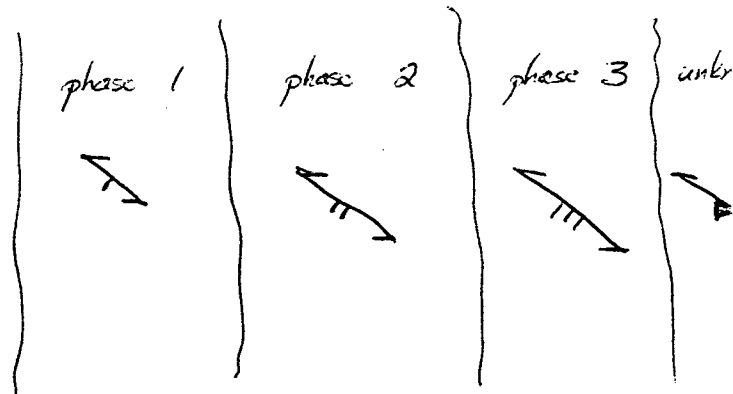


Bedding (So), compositional layering
(upright, overturned)
vertical

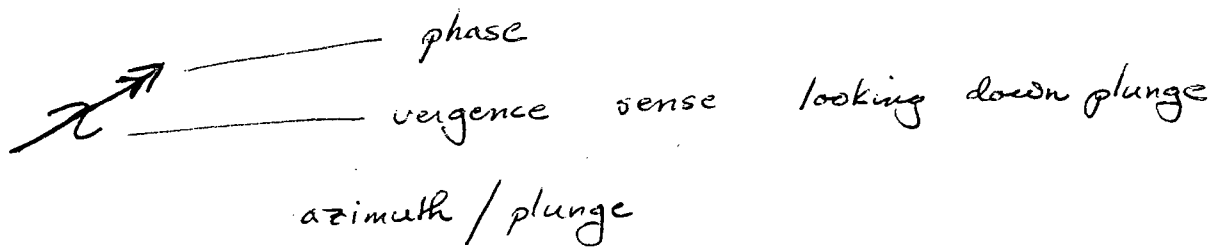


strike / dip

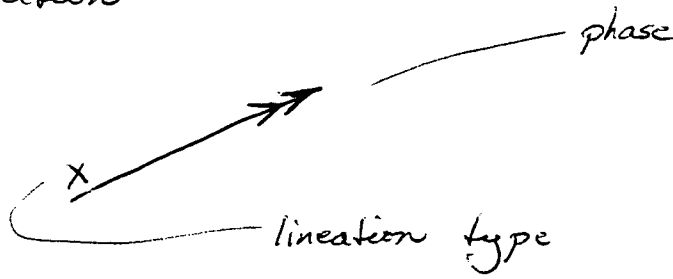
Foliation / Cleavage



Fold Axis



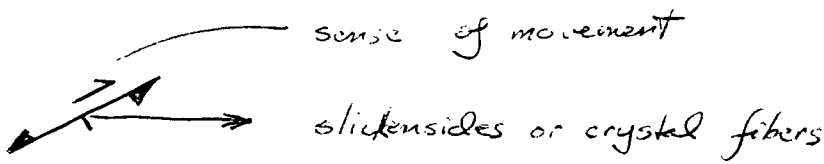
Lineation



azimuth/plunge

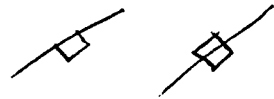
- E elongation/stretching
- M mineral
- P prismatic phenocrysts
- B boudin axes
- S intersection of planes
- C crenulations

Shear — shear zone



Fracture / Joint

inclined, vertical



Glacial striae



Vein



Mineral isograd

(marks on high grade side)



Ore Types

20 (4A) Ribbon-banded, carbonaceous quartzite

Dark gray finely banded quartzite with alternating interbands of light gray to white quartz-sulphides.

Banding on a scale of 2mm - 2cm. Sulphides pyrite ± sphalerite (reddish) ± galena.

Hard - nail or knife leaves metal on surface

St surfaces are dark gray to black and typically mark the fingers

Typically has a well developed micro lichen texture

If pyrite content > 30% then call it pyritic 20

30 (4C/4D) Slightly pyritic quartzite

Pale grey to creamy white, generally noncarbonaceous quartzite.

Contains thin ribbons and bands of sulphides - pyrite,

commonly contains ^{sphalerite, galena} accessory chalcopyrite along fractures.

Hard - nail or knife leaves metal on surface

Typically sulphide bands show micro lichen texture

St surfaces are pale grey with discontinuous streaks of muscovite. Typically leaves no mark on fingers.

Full gradation exists between 20 and 30. If St surfaces are medium grey - i.e. slightly to moderately carbonaceous the rock should be called carbonaceous 30 (and NOT 20!)

If pyrite content > 30% then call it pyritic 30 or 40

40

(4EC) Siliceous pyritic sulphides - semi-massive sulphides

Intermediate rock type which is typically logged either as pyritic 30 or siliceous 50

Brassy yellow, fine grained, noncalcareous, moderately hard pyrite.

Typically low grade.

locally finely laminated with thin streaks and bands of fine grained magnetite

Contains diffuse bands and lenses of grey to white quartz. Quartz also disseminated in matrix. -

pyrite constitutes 30-60% of unit. Banding is on scale of 1cm to 10cm.

locally may contain small clasts of dolomite.

50

(4E) Pyritic massive sulphides

Brownish yellow, fine grained, moderately hard, pyrite with sulphides. Pyrite constitutes 60-100%

Diffuse banding parallel 52 with variations in sphalerite-galena content.

Contains clasts and lenses of carbonate (calcite, dolomite) and quartz.

Typically high grade.

Typically interbanded with 60 on a scale of cm to metres.

For up to 10% barite rock should be called baritic 50.

55 (4K) Pyritic massive sulphides with ankerite/dolomite.

Similar to rock type 50 except it contains large anhedral blebs of flesh-coloured dolomite/ankerite

It should not be used for massive sulphides with disseminated matrix carbonate.

60 (4G) Baritic, massive pyritic sulphides

Pyritic massive sulphides with >10% barite visually. Brownish to purplish, banded to laminated pyritic sulphides with barite.

Soft.

"Burns black" on cut surface as pyrite streak shows on soft barite

Typically high grade - sphalerite is honey coloured and can be overlooked.

Typically magnetite-bearing

Typically interbanded with rock type 50 on scale of cm to metres.

Typically concretionary although locally it may contain disseminated carbonate and/or carbonate clasts - lenses

70 (4H) Pyrrhotitic, massive sulphides

Fine-grained, reddish bronze pyrrhotitic massive sulphides

Magnetic because of pyrrhotite

Moderately hard.

Generally moderate to high grade

Strongly laminated deformation texture. Shows ductile flow textures around clasts of carbonate, white quartz, phyllite, metabasite

Not a common rock on Ungava Plateau - occurs mainly at margins of sulphide intersections.

May indicate fault zone in sulphides - i.e. high strain zone

80 (4J) Nonpyritic massive sulphides

Unusual, rare rock type

Coarse to medium grained sphalerite-galena with porphyroblasts of magnetite and pyrite. May also contain anhedral porphyroblasts of carbonate and diffuse quartz bands or lenses.

Typically high grade.

Colour reddish brown to dark brown.

100 (3G) Noncalcareous muscovite-chlorite phyllite

Moderately soft, noncalcareous, medium grey phyllite.

Well developed, pervasive S2 foliation. S2 surfaces silvery grey to steely grey. No readily visible individual micas

Homogeneous to poorly laminated or banded.

Laminae defined by shades of grey variations - not by siltstones.

For S2 surfaces dark grey to dark steely grey, log as carbonaceous 100 and NOT 130.

110 (1C, 1CD, 1D) Noncalcareous muscovite-biotite schist

Moderately soft, noncalcareous, brownish grey schist

Well developed, pervasive S2 foliation, S2 surfaces silvery with brownish biotite streaking. Individual mica flakes are visible.

Some varieties are strongly compositionally banded with biotite-rich bands and quartz-rich bands

May contain clots and bands of biotite-andalusite, staurolite, garnet.

Coarser-grained than phyllite. Typically brownish hue as biotite overshadows carbon.

130 (5A, 5G, 3E, 1E) Carbonaceous phyllite / schist

Dark grey to black, moderately soft, carbonaceous phyllite / schist.

S2 surfaces are dark steely grey to black and typically mark the fingers.

Locally will contain thin pale grey quartz ± calcite ± dolomite siltstone laminae / bands

Locally will contain interbands of dark grey to black marble with thin white beaded calcite laminae.

Should not be used for only moderately carbonaceous phyllite / schist. S2 surfaces should be dark and mark fingers.

Siltstone bands should be noted

Carbonates (if present) should be noted

140 (5E, 3F, 1G, 1B) Marble and silicified marble

Medium crystalline, medium to pale grey calcite marble.

May locally be very fine grained with mylonitic texture.

Typically contains thin bands of pale to dark green calc-silicate and/or dark brown biotitic silicates

Silicate bands are commonly boudinaged.

May contain coarser stony textures.

On Vangorda Plateau this is shut down rock

locally will be carbonaceous dark grey to black with thin laminae of white, beaded calcite defining S2.

150 (5C, 3C, 1F) Metabasite

Poorly foliated, dark green, noncalcareous to slightly calcareous, chloritic metabasite.

Typically relict igneous texture with grey to white altered plagioclase.

Moderately hard to hand.

Altered variants are typically strongly foliated with anastomosing chlorite streaks in a grey to tan-grey carbonate matrix. May contain streaks or bands of bright green "fuchsite". This variant has been called zebra rock.

160 (5C, 3C, 1F) Pyroxenite

Poorly foliated, dark green, noncalcareous to slightly calcareous, chloritic metabasite.

Typically serpentinized and therefore slightly magnetic. Relict igneous textures show pyroxene "bastites".

170 (5D, 3B, 1H) chloritic phyllite

Foliated, pale olive green, moderately soft, moderately calcareous, chloritic phyllite.

locally diffusely banded with speckled off-white calcite ± quartz bands.

Typically has thin white quartz-calcite veins parallel 52

S2 surfaces are silvery pale green and have a slightly gritty texture.

Pervasive S2 foliation.

Marginal contacts with metasediments are sharp.

Altered variants are pale tan with streaks of muscovite on S2 surfaces. Carbonate is typically dolomite/ankerite. Commonly contains specks of bright green "fuchsite"

180

(5C, 3C, 1F) Amphibolite

Foliated, dark green to bluish green, moderately hard hornblende amphibolite.

Commonly contains pale grey to white streaks parallel S2. locally calcareous.

200

(5B0) Calcareous phyllite

Silvery grey to pale grey, moderately soft, muscovite-chlorite phyllite.

Contains thin pale grey to off-white quartz-carbonate (calcite or dolomite) siltstone laminae to bands.

Siltstones give core on overall calcareous aspect.

Siltstones are 1-5 cm thick.

S2 surfaces are silvery grey. Darker S2 surfaces should be logged as carbonaceous. 200 and NOT 130.

Typically S2 foliation defined crenulation cleavage — microlithons.

Typically contains scattered, isolated pyrite/pyrrhotite porphyroblasts.

210 (3D) Calc-Silicate

Hard, noncalcareous to slightly calcareous, minantly striped pale green calc-silicate & dark brown biotitic pelite. Banding ~~is~~ on a scale 1-10 cm. Proportions of ~~bi~~ and calc-silicate vary greatly.

Unit is fine-grained. Noncalcareous schist (110) are typically coarser grained.

250 (4L) White mica envelope - altered phyllite

Moderately soft, pale grey to off-~~white~~ muscovite-quartz \pm chlorite phyllite. More grey than ~~green~~

Generally sulphide bearing with discontinuous streaks of pyrite or pyrrhotite \pm sphalerite galena.

locally may be siliceous = hard, ~~it~~ should be noted in modifiers.

Typically pervasively foliated — microlithoned.

S2 surfaces are silvery white for fine muscovite.

Typically noncalcareous.

Represents highly altered metapelite.

260 (4L6) Slightly altered muscovite-chlorite phyllite

Moderately soft, pale creamy green, muscovite-chlorite phyllite. More green than grey.

May be sulphide-bearing with discontinuous pyrite or pyrrhotite streaks.

Typically pervasively foliated - not micro-lithoned

Typically non-calcareous

Represents more slightly altered metapelite.

"Stungered" variant has discontinuous dark green chlorite-pyrrhotite stringers

"Spotted" variant has discrete scattered grains of brownish carbonate up to 2mm. across.

300 (10Q) Bull quartz vein

Coarse grained, milky white, vein quartz. May be sulphide-bearing.

310 (10AB) Anvil Batholith (Biotite-muscovite granite)

Equigranular to slightly foliated, biotite-muscovite, granite. Medium to coarse grained.

May contain large K-feldspar megacrysts.

Near Tie Fault will have S-E mylonite texture.

320

(10C) Pegmatite

Coarse grained granite to pegmatite. Typically occurs as dykes in pelites or Anvil Batholith. Typically contains tourmaline

330

Aplite

Fine-grained, "sugary-textured", creamy white K-feldspar-plagioclase-quartz granite/aplite. Typically unfoliated. Typically contains garnet and/or tourmaline. Not common in drill core.

340

(10E) Hornblende-biotite quartz diorite.

Medium grained, equigranular, unfoliated, medium grey, hornblende-biotite quartz diorite.

Marginal phase is fine-grained, brown, gneissic matrix with scattered biotite and hornblende phenocrysts

May contain hornblende phenocrysts.

350

(10F) Smoky quartz-feldspar ± biotite porphyry

Pale cream, fine-grained granite with numerous phenocrysts of dark brown smoky quartz, biotite, white feldspar. Quartz phenocrysts are commonly euhedral.

Very soft and punky when altered. Upon weathering typically breaks apart — contains swelling clays. Unfoliated — may contain banding and streaking which looks like flow banding texture.

400 (*) OVERBURDEN — GENERAL

Unspecified overburden

410 (*) OVERBURDEN — TRICONED

Triconed — no recovery

420 (*) OVERBURDEN — TILL / SILT / SAND

430 (*) OVERBURDEN — FERRICRETE

Rock fragments cemented by orange to brownish fine grained hematite / limonite / goethite iron oxides.

ROCK CODE SUMMARY

ATTACHMENT # 1

QUARTZITES:

2	4A	Ribbon banded carbonaceous quartzite
3	4C/4D	Pyritic quartzite (<30% pyrite)

SULPHIDES:

4	4EC/4E1/4C3	Semi-massive siliceous pyritic sulphides sulphides (30-60% pyrite)
5	4E/4F	Massive pyritic sulphides (60-100% pyrite)
6	4K	Massive pyritic sulphides with clasts of dolomite/ankerite
7	4G	Baritic pyrite sulphides (> 10% barite)
8	4H	Pyrrhotitic sulphides
9	4J	Nonpyritic sulphides & oxides - pyrite poor

METASEDIMENTS:

20	3G	Noncalcareous, muscovite-chlorite, medium grey phyllite
22	1C/1CD/1D	Noncalcareous, biotite-muscovite-quartz ± staurolite ± andalusite ± garnet ± fibrolite schist
30	5A/5G/3E/1E	Carbonaceous phyllite/schist
32	5E/3F/1G	Marble ± calc-silicate bands
33	1B	Skarn and "silicated" marble
36	3D	Calc-silicate
40	5B	Calcareous, silvery grey, muscovite-chlorite phyllite

META-IGNEOUS ROCKS:

44	5C/3C/1F	Metabasite, poorly foliated greenstone with relict igneous texture
45	5C/3C/1F	Pyroxenite -commonly serpentinized - with relict bastites
46	5C/3C/1F	Amphibolite - bluish green hornblende - plagioclase - quartz amphibolite
47	5D/3B/1H	Chloritic phyllite/schist. pale olive green

ALTERED ROCKS: - (DOMINANTLY METASEDIMENTS)

52	4L0	Muscovite > chlorite - quartz phyllite/schist - very pale cream to white
54	4L6	Chlorite > muscovite-quartz phyllite/schist - pale green

CRETACEOUS INTRUSIVES:

60	10Q	Quartz vein- - white bull quartz vein
61	10AB	Anvil Batholith - Mt Mye phase of Anvil plutonic suite. Muscovite - biotite granite
65	10C	Pegmatite
66	-	Aplite
68	10E	Hornblende-biotite quartz diorite - massive and unfoliated
69 massive	10F	Smokey quartz - feldspar porphyry - and unfoliated

FAULT ROCK:

To be used only if parent cannot be identified - use rarely!

- | | |
|----|------------------|
| 72 | Gouge |
| 74 | Tectonic breccia |
| 76 | Mylonite |

OVERBURDEN:

- | | |
|----|------------------------|
| 82 | Unclassified - general |
| 84 | Triconed - no recovery |
| 86 | Till - silt -sand |
| 88 | Ferricrete |
| 99 | Air |

MINERAL IDENTIFIERS

CARBONATES:

c	calcite
k	ankerite
v	carbonate - non specific
w	dolomite

MICAS: (LAYER SILICATES)

b	biotite
j	fuchsite
l	chlorite
m	muscovite
s	sericite
t	talc

FELDSPARS - QUARTZ

f	feldspar
q	quartz (fine-grained)
o	kaolinite (clay minerals)
p	potash feldspar
Q	quartz (vein)

CALC-SILICATES

a	actinolite
e	epidote
h	hornblende
i	diopside

ALUMINO-SILICATES/PELITE MINERALS

d	andalusite
n	garnet
r	fibrolite
u	staurolite
z	chloritoid

OXIDES/SULPHIDES/SULPHATES

A	Arsenopyrite
B	Barite
C	Chalcopyrite
G	Galena
L	Limonite (iron oxides)
M	Magnetite
P	Pyrite
R	Pyrrhotite
Z	Sphalerite

OTHER

g	carbon
x	noncalcareous

ROCK TEXTURES

ATTACHMENT # 3

+	equigranular
!	foliated
=	laminated/banded/ribbon-banded
>	coarse-grained
^	medium-grained
<	fine-grained
\	clotted
*	porphyroblastic (buckshot)
%	porphyritic
#	interstitial
@	porous
:	weathered
~	fault gouge - ie. mud-more than broken core
X	fault breccia (tectonic)
?	mylonite
"	altered
-	"stringered"
.	"spotted"

ATTACHMENT # 4

GRADE

N	=	no sphalerite or galena	(N = none)
W	=	1 - 3% PbS/ZnS	(W = waste)
L	=	3 - 5%	(L = low grade)
H	=	5 - 10%	(H = high grade)
V	=	10% +	(V = very high grade)

ATTACHMENT # 5

ROCK CODE CONSTRUCTION

ROCK #: MINERAL IDENTIFIERS: TEXTURE: GRADE

NOTES:

- 1) The most abundant rock type comes first if the rock is a hybrid.
- 2) Parentheses are used to separate subordinate rock types.
- 3) Textural codes are appended after the mineral identifier(s).
- 4) Baritic ore ("7") must contain more than 10% barite. If barite content is less than 10% use the appropriate rock code (Not "7") with the mineral identifier for barite ("B").
- 5) Pyritic quartzite is assumed to have no more than 30% pyrite.
- 6) The grade descriptor for zero grade (i.e. N) may be omitted.
- 7) Mineral identifiers when more than one are used are in order of abundance.
- 8) Beware of redundancies when using mineral identifiers (eg. chloritic phyllite is "47" , not "471"; though possibly the latter could be used for a rock containing extraordinarily large amount of chlorite). In general, characteristics which are normally found in a rock type should not be indicated by a mineral or textural identifier.
- 9) Not all four parts of the rock code construction shown above are necessarily used. Rock number alone is mandatory. It must be accompanied by a grade descriptor if the rock is a sulphide (ie. rock units 4-9)

ROCK CODE SUMMARY

ATTACHMENT # 1

QUARTZITES:

- | | | |
|---|-------|--------------------------------------|
| 2 | 4A | Ribbon banded carbonaceous quartzite |
| 3 | 4C/4D | Pyritic quartzite (<30% pyrite) |

SULPHIDES:

- | | | |
|---|-------------|--|
| 4 | 4EC/4E1/4C3 | Semi-massive siliceous pyritic sulphides sulphides (30-60% pyrite) |
| 5 | 4E/4F | Massive pyritic sulphides (60-100% pyrite) |
| 6 | 4K | Massive pyritic sulphides with clasts of dolomite/ankerite |
| 7 | 4G | Baritic pyrite sulphides (> 10% barite) |
| 8 | 4H | Pyrrhotitic sulphides |
| 9 | 4J | Nonpyritic sulphides & oxides - pyrite poor |

METASEDIMENTS:

- | | | |
|----|-------------|---|
| 20 | (3G) | Noncalcareous, muscovite-chlorite, medium grey phyllite |
| 22 | 1C/1CD/1D | Noncalcareous, biotite-muscovite-quartz ± staurolite ± andalusite ± garnet ± fibrolite schist |
| 30 | 5A/5G/3E/1E | Carbonaceous phyllite/schist |
| 32 | 5E/3F/1G | Marble ± calc-silicate bands |
| 33 | 1B | Skarn and "silicated" marble |
| 36 | 3D | Calc-silicate |
| 40 | 5B | Calcareous, silvery grey, muscovite-chlorite phyllite |

META-IGNEOUS ROCKS:

44	5C/3C/1F	Metabasite, poorly foliated greenstone with relict igneous texture
45	5C/3C/1F	Pyroxenite - commonly serpentinized - with relict bastites
46	5C/3C/1F	Amphibolite - bluish green hornblende - plagioclase - quartz amphibolite
47	5D/3B/1H	Chloritic phyllite/schist. pale olive green

ALTERED ROCKS: - (DOMINANTLY METASEDIMENTS)

52	4L0	Muscovite > chlorite - quartz phyllite/schist - very pale cream to white
54	4L6	Chlorite > muscovite-quartz phyllite/schist - pale green

CRETACEOUS INTRUSIVES:

60	10Q	Quartz vein - - white bull quartz vein
61	10AB	Anvil Batholith - Mt Mye phase of Anvil plutonic suite. Muscovite - biotite granite
65	10C	Pegmatite
66	-	Aplite
68	10E	Hornblende-biotite quartz diorite - massive and unfoliated
69 massive	10F	Smokey quartz - feldspar porphyry - and unfoliated

[]

FAULT ROCK:

To be used only if parent cannot be identified - use rarely!

72	Gouge
74	Tectonic breccia
76	Mylonite

OVERBURDEN:

82	Unclassified - general
84	Triconed - no recovery
86	Till - silt -sand
88	Ferricrete
99	Air

MINERAL IDENTIFIERS

CARBONATES:

c	calcite
k	ankerite
v	carbonate - non specific
w	dolomite

MICAS: (LAYER SILICATES)

b	biotite
j	fuchsite
l	chlorite
m	muscovite
s	sericite
t	talc

FELDSPARS - QUARTZ

f	feldspar
q	quartz (fine-grained)
o	kaolinite (clay minerals)
p	potash feldspar
Q	quartz (vein)

CALC-SILICATES

a	actinolite
e	epidote
h	hornblende
i	diopside

ALUMINO-SILICATES/PELITE MINERALS

d	andalusite
n	garnet
r	fibrolite
u	staurolite
z	chloritoid

OXIDES/SULPHIDES/SULPHATES

A	Arsenopyrite
B	Barite
C	Chalcopyrite
G	Galena
L	Limonite (iron oxides)
M	Magnetite
P	Pyrite
R	Pyrrhotite
Z	Sphalerite

OTHER

q	carbon
x	noncalcareous

ROCK TEXTURES

ATTACHMENT # 3

+	equigranular
!	foliated
=	laminated/banded/ribbon-banded
>	coarse-grained
^	medium-grained
<	fine-grained
\	clotted
*	porphyroblastic (buckshot)
%	porphyritic
#	interstitial
@	porous
:	weathered
~	fault gouge - ie. mud-more than broken core
X	fault breccia (tectonic)
?	mylonite
"	altered
-	"stringered"
.	"spotted"

ATTACHMENT # 4

GRADE

N	=	no sphalerite or galena	(N = none)
W	=	1 - 3% PbS/ZnS	(W = waste)
L	=	3 - 5%	(L = low grade)
H	=	5 - 10%	(H = high grade)
V	=	10% +	(V = very high grade)

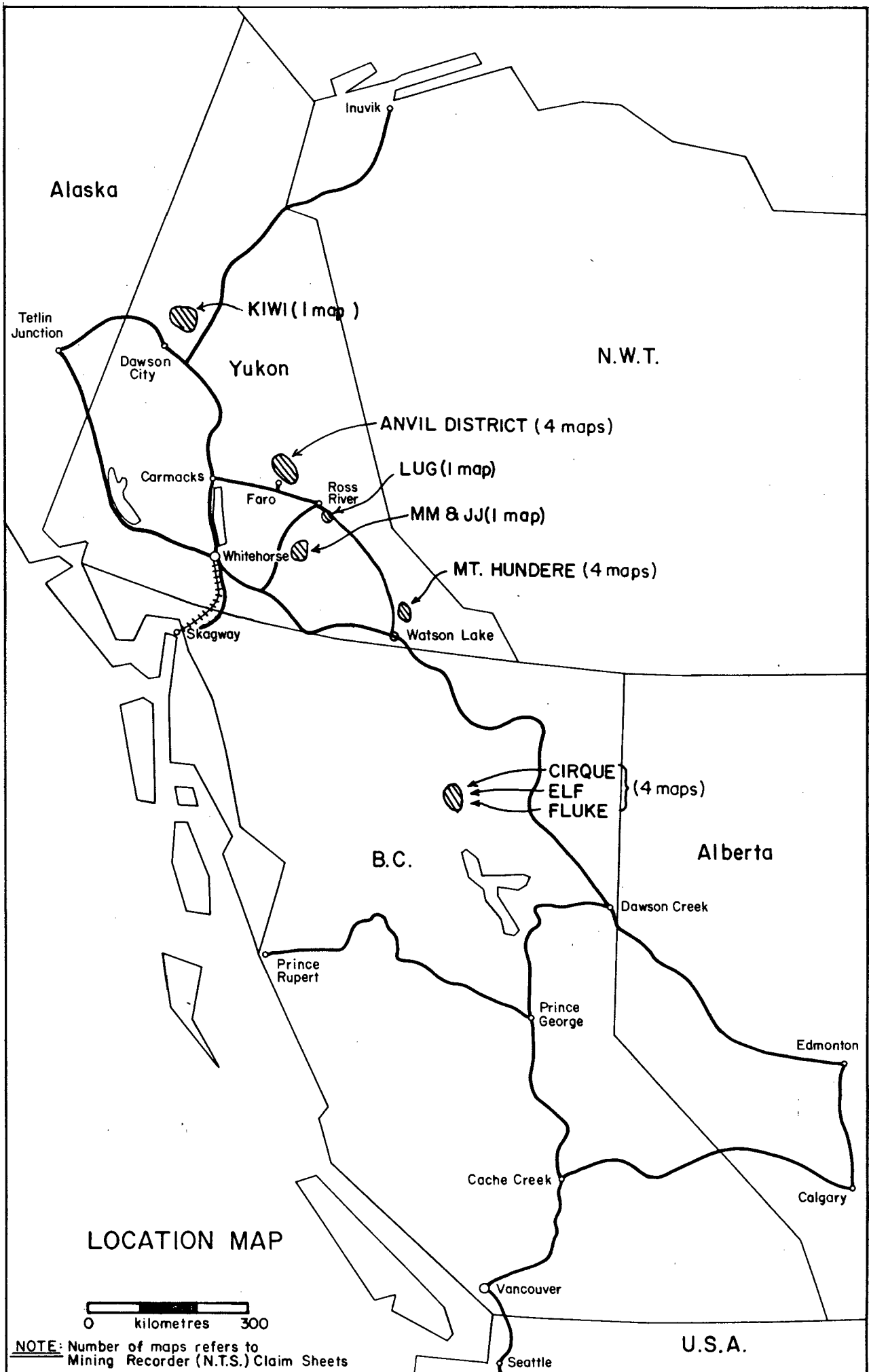
ATTACHMENT # 5

ROCK CODE CONSTRUCTION

ROCK #: MINERAL IDENTIFIERS: TEXTURE: GRADE

NOTES:

- 1) The most abundant rock type comes first if the rock is a hybrid.
- 2) Parentheses are used to separate subordinate rock types.
- 3) Textural codes are appended after the mineral identifier(s).
- 4) Baritic ore ("7") must contain more than 10% barite. If barite content is less than 10% use the appropriate rock code (Not "7") with the mineral identifier for barite ("B").
- 5) Pyritic quartzite is assumed to have no more than 30% pyrite.
- 6) The grade descriptor for zero grade (i.e. N) may be omitted.
- 7) Mineral identifiers when more than one are used are in order of abundance.
- 8) Beware of redundancies when using mineral identifiers (eg. chloritic phyllite is "47" , not "471"; though possibly the latter could be used for a rock containing extraordinarily large amount of chlorite). In general, characteristics which are normally found in a rock type should not be indicated by a mineral or textural identifier.
- 9) Not all four parts of the rock code construction shown above are necessarily used. Rock number alone is mandatory. It must be accompanied by a grade descriptor if the rock is a sulphide (ie. rock units 4-9)



Alaska

Tetlin Junction

Dawson City

Yukon

N.W.T.

KIWI (1 map)

ANVIL DISTRICT (4 maps)

LUG (1 map)

MM & JJ (1 map)

MT. HUNDERE (4 maps)

Carmacks

Faro

Ross River

Whitehorse

Watson Lake

Skagway

CIRQUE
ELF
FLUKE } (4 maps)

B.C.

Alberta

Dawson Creek

Prince Rupert

Prince George

Edmonton

Cache Creek

Calgary

LOCATION MAP



NOTE: Number of maps refers to Mining Recorder (N.T.S.) Claim Sheets

U.S.A.

Seattle

Vancouver