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COMINCO LTD.

EXPLORATION

WESTERN DISTRICT
January 31, 1980

PETROGRAPHIC STUDY OF BASIC HORNFELS

FROM "M" ANOMALY, JEAN PROPERTY

T.S. 9392

Hand Specimen: dark grey-green porphyritic basic volcanic rock; 10% dark green or black phenocrysts up to 2 mm long.

Thin Section: 54% Hornblende; pleochroic from oatmeal to green to dark blue-green occurs as phenocrysts or felted laths in matrix.
40% Plagioclase; relict laths riddled with inclusions of amphibole; forms matrix to amphibole.
2% Ilmenite; disseminated grains.
4% Biotite(?); occurs as fibrous aggregates near ilmenite grains.

Rock Type: metamorphosed hornblende andesite or hornblende basalt: hornblende-hornfels facies.

T.S. 9393

Hand Specimen: not present.

Thin Section: 60% Hornblende; phenocrysts and felted crystals in matrix.
38% Plagioclase; relict laths.
1% Opaques; disseminated.
1% Sphene; disseminated.

Rock Type: metamorphosed basic volcanic rock.

T.S. 9395

Hand Specimen: fine grained equigranular dark greenstone containing 1 mm plagioclase vein with chalcopryrite.

Thin Section: 60% Hornblende; felted.
40% Plagioclase.
1% Opaques.
1% Biotite.

Rock Type: metamorphosed basic volcanic.

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T.S. 9396

Hand Specimen: metamorphosed basic volcanic rock - fine grained and equigranular.

Thin Section: Similar to T.S. 9395.

SUMMARY

All the rocks inspected are fine grained metamorphosed basic volcanic rocks, some of which originally contained 2 mm phenocrysts of augite or hornblende. The metamorphic mineral assemblage is hornblende + plagioclase ± sphene ± biotite. The rocks are hornfelsic in texture and belong to the hornblende hornfels facies.

Report by: _____

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