

PETROGRAPHIC REPORT ON THREE SAMPLES:
#7, #6, and Welded NM

By

Jennifer S. Getsinger, Ph.D., P. Geo.

For

INMET Mining Corporation

January 22, 1996

TABLE OF CONTENTS

SUMMARY REPORT ON PETROGRAPHY OF THREE SAMPLES: #7, #6, and Welded NM	p.3
STATEMENT OF QUALIFICATIONS -- Jennifer S. Getsinger, Ph.D., P. Geo.	p.7
APPENDIX I -- HAND SPECIMEN AND THIN SECTION DESCRIPTIONS	p.8

**SUMMARY REPORT ON PETROGRAPHY OF THREE SAMPLES:
#7, #6, and Welded NM**

This report is written at the request of Ian R. Morrison , District Geologist, and Peter Daubeny, INMET Mining Corporation, Vancouver, B.C. The purpose is to answer specific petrologic questions and to describe three hand specimens and thin sections, each from a different location and geologic setting.

Three rock samples (labelled #7, #6, and Welded NM) were provided with one thin section for each. Detailed hand specimen and thin section descriptions are in Appendix I, including interpretations of alteration history and conditions of formation. Summary comments on the three petrographic samples are presented below, each on a separate page for inclusion in the appropriate file or report.


Sample "Welded NM" is from the New Moon Property, 80 km SSE of Smithers, B.C., from the lower Jurassic Hazelton Group volcanics. The main question was, is it a *welded* tuff? It is most certainly an andesitic lithic lapilli tuff containing a lot of volcanic glass, but it may not count as completely "welded". However, presence of lensoidal *fiamme* and some vitroclastic texture suggests at least incipient welding. It looks very much like Figure 9-2C in Williams, Turner, and Gilbert (1982), *Petrography*. Origin is more likely an ash-flow tuff from a subaerial, land-based volcano, rather than an aquagene tuff from an undersea eruption.

STATEMENT OF QUALIFICATIONS

I, Jennifer S. Getsinger, do hereby certify:

1. That I am a consulting geologist with offices at 2150 Macdonald Street, Vancouver, B.C. V6K 3Y4.
2. That I have studied geology and anthropology at Harvard University (A.B. 1974), and have graduate degrees in geology from the University of Washington, Seattle (M.S. 1978), and from the University of British Columbia, (Ph.D. 1985).
3. That I have practiced within the geological profession since 1974.
4. That I am a Fellow of the Geological Association of Canada and a member of the Geological Society of America.
5. That I am a Professional Geoscientist and member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, as of 1992.
6. That the opinions, conclusions, and recommendations contained herein are based on petrographic analysis and research done by me.
7. That I hold no direct, indirect, or contingent interest in the subject property, or in any shares or securities of the owner or operator of the property, or in any associated companies.
8. That this report may be utilized for inclusion in a Prospectus or Statement of Material Facts.

Signed



Jennifer S. Getsinger, Ph.D., F.G.A.C., P.Geo.

January 22, 1996
Vancouver, B.C.

APPENDIX I
HAND SPECIMEN AND THIN SECTION DESCRIPTIONS
(SAMPLES #7, # 6, and Welded NM)

PETROGRAPHIC REPORT

by J.S. Getsinger, PhD



For: INMET Mining Corporation
Project: New Moon Property
Sample: "Welded NM"

Date: January 1996
Collector: Ian Morrison (?)
Date Collected: 1995

LOCATION: New Moon Property, 80 km SSE of Smithers, B.C., from lower Jurassic Hazelton Group volcanics

ROCK TYPE: Intermediate lithic lapilli tuff, incipiently welded

LITHOGEOCHEMISTRY: None provided

HAND SPECIMEN: Grab sample is of a dry, reddish-brown, angular volcaniclastic rock; largest cut piece is approx. 3 x 5 x 6 cm. Fragmental clasts are 1 mm to 5 cm, and consist of angular to subangular, aphanitic maroon-brown volcanic (?) rock, and rounded to lensoidal scoriaceous lava (one grain 1 cm in diameter contains vesicles 0.5 to 1 mm). Lensoidal, vesicular clasts may be pumiceous *fiamme*. Rock has a dry, baked character. Non-magnetic. Irregular vesicles are either empty or amygdaloidal with calcite (reacts to HCl). Rock could be volcaniclastic breccia (intermediate lithic lapilli tuff) or welded tuff.

THIN SECTION (Polished):

Percent (Approx.) MINERALS (and observed diagnostic properties and textures)

Total brown to black opaque volcanic glass is about 40-50%. Other minerals include laths of plagioclase feldspar altered to sericite and calcite, and chlorite filling vesicles, and greyish, round spherulitic devitrification features.

40-50% Lithic Fragments: Aphanitic, brown to opaque volcanic glass fragments with some feldspar laths; also bits of feldspar-porphyritic rock. Some fragments are amygdaloidal, with chlorite filling vesicles. Locally lensoidal clasts are interpreted as *fiamme*.

40-50% Matrix / Groundmass: Also contains about 40-50% brown to opaque volcanic glass, and abundant plagioclase laths altered to calcite and sericite. Some odd, curvy, triangular shapes of crystal grains or fragments are believed to be glass shards.

ROCK TEXTURES/STRUCTURES: Lithic fragments are either aphanitic or porphyritic with plagioclase laths, indicating volcanic origin. Some lensoidal *fiamme* are vesicular, probably squished pumice. Vitroclastic texture is indicated by glass shards and odd shaped fragments throughout. Volcanic glass dominates texture. Round vesicles are filled with chlorite. Some round features may be devitrification spherulites.

PROTOLITH: This rock is a relatively fresh andesitic volcaniclastic tuff

ALTERATION/MINERALIZATION: Glass has become very dark brown, almost opaque, in hardening. Some may be devitrifying in little round spherulites. Plagioclase feldspar is altered to sericite and perhaps other clay-type minerals, and calcite. Some vesicles are filled with chlorite.

CONDITIONS OF FORMATION/HISTORY: This rock is a subaerial tuff, probably from an ash-flow eruption, of an intermediate (andesitic) volcano. The rock could be considered incipiently welded, due to large amount of glass and some *fiamme* features. However, it is not particularly fused, or squished overall, so not from the most welded part of the ash-flow tuff.