



OPEN FILE 1989-12 GEOLOGY OF THE GERMANSEN LANDING AREA ANALYTICAL PROCEDURES FOR GEOCHEMISTRY

ANALYTICAL PROCEDURES FOR 1989 MOSS-MAT GEOCHEMISTRY

Inductively Coupled Plasma-Emission Spectroscopy (ICP-AES) A 0.500 gram sample is digested with 3 ml 5:1 HCl:HNO3:H2O (aqua regia) at 90°C for one hour and is diluted to 10 ml with water. This is almost total for base metals, but partial for Fe, Mn, Sr, Ca, Mg, Ba, Ti, B, W, and is limited for Na, K, and Al.

ANALYTICAL PROCEDURES FOR 1989 HEAVY-MINERAL SEPARATES GEOCHEMISTRY

Nuclear Activation Analysis A 10+ kilogram sample was divided into three fractions (45+80, 80+170, and 170 ASTM mesh). The sieved sample was then immersed in bromoform (density = 2.96), producing the heavy-mineral separate. The heavy-mineral separate was washed and analyzed by non-destructive neutron activation.

ANALYTICAL PROCEDURES FOR 1989 STREAM SILT GEOCHEMISTRY

Fire Assay/Atomic Absorption A 0.5 Assay Ton (approx. 15 gram) sample weight is subjected to a standard fire assay technique to generate a Au/Ag bead. The bead is dissolved in acid and Au is measured to a detection limit of <20 ppb and Ag is measured to a detection limit of <0.5 ppm by atomic absorption analysis.

Trace Elements (Pb, Sr, Y, Zr, Nb, Mo, Th, Ba, U, Th, Co, Cr, Ni, W) Atomic Absorption Samples are digested using a mixed acid attack which includes HF. The dilute acid dissolution of the residue is further diluted to a specific volume and the elements are measured using AAS.

Fluorescence An approximate 1 gram pulverized sample is mixed with boric oxide and a fusion flux (lithium tetraborate and lithium metaborate) and fused at 1150°C until completely dissolved in a platinum crucible. The resulting fused digest is then subjected to the x-ray fluorescence spectrometer.

Mercury Cold Vapor/Atomic Absorption A 0.1 g to 1 g sample is subjected to a HCl and HNO3 digestion followed by the generation of Hg vapour using SnCl2 as a reducing agent. The vapour is swept through a cell in the AAS light path and measured.

Hydride Generation A 1 g sample is digested using a mixture of HCl and HNO3. A portion of the diluted sample solution is treated with NaOH and the liberated hydride compound is swept onto a boron cell in the light path of the AAS unit. The hydride decomposes to give a vapour of the element which is measured.

As samples are crushed using tungsten carbide equipment inevitable contamination may occur.

Notes: 1) Whole rock and trace element data is unavailable. 2) Negative values in the heavy-mineral separate indicate unreliable detection values. Differences in the negative detection values are attributed to different sample matrices.

1983 REGIONAL GEOCHEMICAL SURVEY

Table with columns: ID, UTM EASTING, UTM NORTHING, Zn, Cu, Pb, Ni, Co, Ag, Mn, Fe, Mo, W, As, Hg, U, UIN WATER, PIN WATER, SLOP WATER. Contains data for various sample locations.

1989 HEAVY MINERAL SEPARATES - RESULTS

Table with columns: FIELD NO., H.M.G. SAMPLE, Ba, Cr, Cu, Fe, La, Pb, Sr, Sm, Ta, Th, U, W, Zr. Contains data for heavy mineral separates.

1989 LITHOGEOCHEMISTRY RESULTS

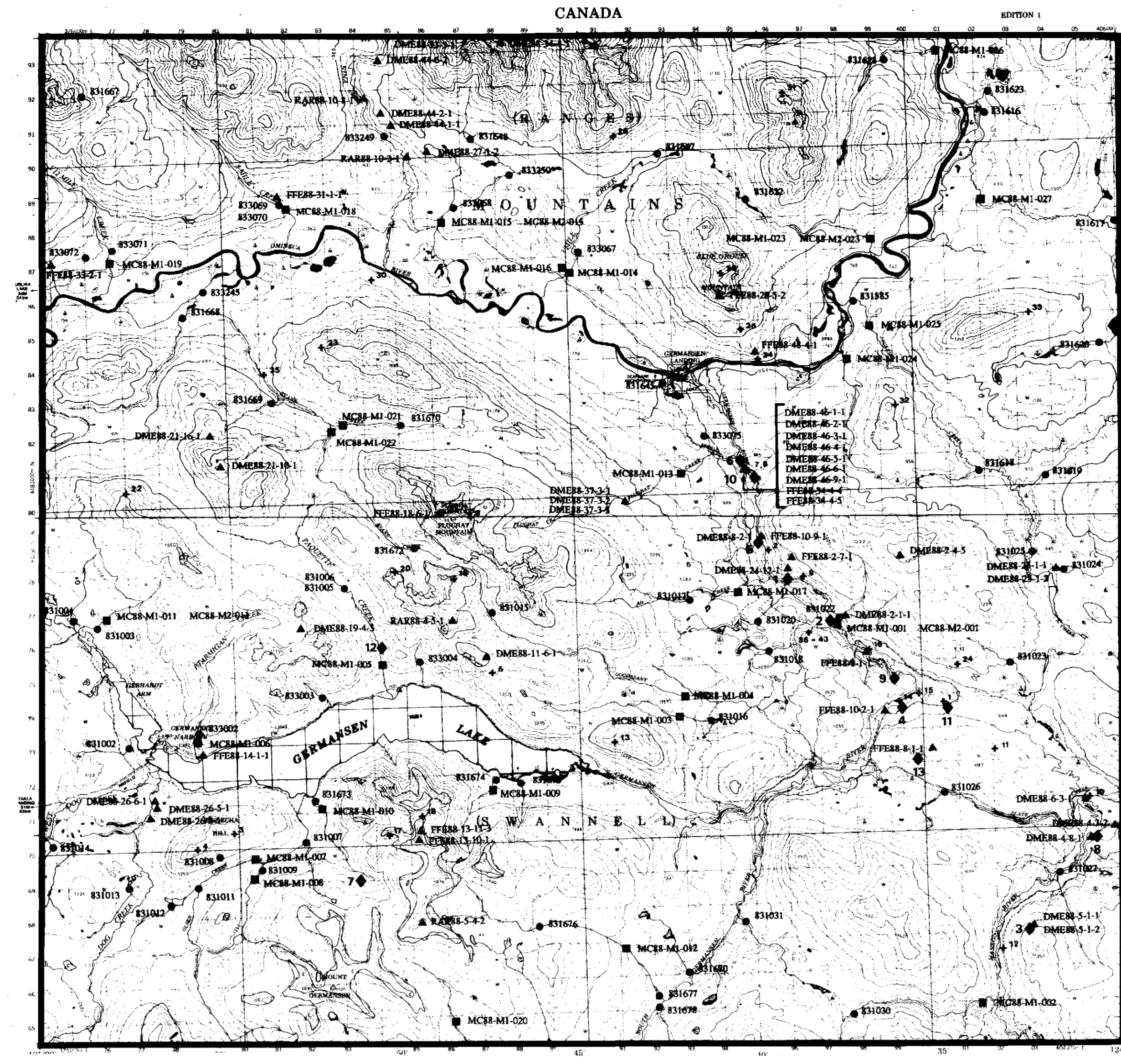
Table with columns: FIELD NO., UTM EASTING, UTM NORTHING, ROCK TYPE, Au, Ag, Cu, Pb, Zn, Co, Ni, Hg, As, Sb. Contains data for lithochemical results.

1989 HEAVY MINERAL SEPARATES - CONCENTRATIONS

Table with columns: FIELD NO., (45+80) SAMPLE, Au, (80+170) SAMPLE, Au. Contains data for heavy mineral concentrations.

1989 HEAVY MINERAL SEPARATES - GOLD CONCENTRATIONS

Table with columns: FIELD NO., (45+80) SAMPLE, Au, (80+170) SAMPLE, Au. Contains data for heavy mineral gold concentrations.



1989 REGIONAL GEOCHEMICAL SURVEY - MOSS-MAT RESULTS

Table with columns: FIELD NO., UTM EASTING, UTM NORTHING, Au, Ag, Cu, Pb, Zn, Ni, Co, As, Hg, U, UIN WATER, PIN WATER, SLOP WATER. Contains data for moss-mat results.

1989 HEAVY MINERAL SEPARATES - RESULTS

Table with columns: FIELD NO., H.M.G. SAMPLE, Ba, Cr, Cu, Fe, La, Pb, Sr, Sm, Ta, Th, U, W, Zr. Contains data for heavy mineral separates.

1989 LITHOGEOCHEMISTRY RESULTS

Table with columns: FIELD NO., UTM EASTING, UTM NORTHING, ROCK TYPE, Au, Ag, Cu, Pb, Zn, Co, Ni, Hg, As, Sb. Contains data for lithochemical results.

1989 HEAVY MINERAL SEPARATES - CONCENTRATIONS

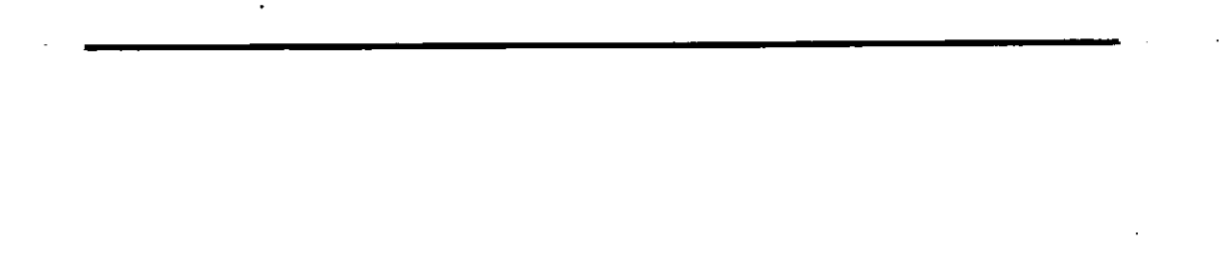
Table with columns: FIELD NO., (45+80) SAMPLE, Au, (80+170) SAMPLE, Au. Contains data for heavy mineral concentrations.

Province of British Columbia Ministry of Energy, Mines and Petroleum Resources MINERAL RESOURCE DIVISION GEOLOGICAL SURVEY BRANCH

GEOCHEMISTRY AND MINERAL OCCURRENCES OF THE GERMANSEN LANDING AREA

NTS 93/10(NORTH HALF), 93N/15(SOUTH HALF) FILIPPO FERRI AND DAVID M. MELVILLE

SCALE 1:100 000



- 1983 Regional Geochemical Survey
1989 Regional Geochemical Survey
Minfile Mineral Occurrences
1989 Lithochemistry
Whole Rock, Trace Element
Geochemistry

MINERAL OCCURRENCES

Table with columns: No., MINFILE No./Name, Economic Commodities. Lists mineral occurrences with sample numbers and commodity types like Asbestos, Ni, Pt, Au, etc.

1989 LITHOGEOCHEMISTRY RESULTS

Table with columns: FIELD NO., UTM EASTING, UTM NORTHING, ROCK TYPE, Au, Ag, Cu, Pb, Zn, Co, Ni, Hg, As, Sb. Contains detailed lithochemical data.