



Polymetallic Ag-Pb-Zn  
Weighted sums model  
(Principal Component Residuals)  
Sheet 4 of 6

SCALE 1:250 000

Use diagram only to obtain numerical values  
APPROXIMATE MEAN DECLINATION 2016  
FOR CENTRE OF MAP

116A LARSEN CREEK	106D NASH CREEK	106C NADALEEN RIVER
115P MCQUESTEN	105M <b>THIS MAP</b>	105N LANSING RANGE
115I Cammacks	105L Glenhyon	105K Tay River

As described in the methodology report accompanying this map (Mackie *et al.*, 2015) and a previously completed pilot study (Heberlien, 2013), two approaches have been used to subdue the influence of background lithological variation and secondary absorption on the composition of stream sediments. One uses data levelled by the dominant geology mapped within each catchment

The effectiveness of historical sampling coverage has been assessed empirically using graphs of WSMs plotted against catchment surface area to determine the ideal maximum catchment size (14 km<sup>2</sup>). Catchments that cover larger areas (shown on the map with bold outlines) are interpreted to have been under-sampled and thus require further sampling to properly evaluate the area for geochemical anomalism. Given the likelihood that a mineralization 'signal' would be progressively diluted with increasing catchment size, marginally high WSM scores in large catchments may also be of interest.

[illegible]

<sup>a</sup>Polymetallic Ag-Pb-Zn type includes vein and manto styles; SEDEX = sedimentary exhalative; MVT = Mississippi Valley-Type Zn-Pb; VMS = volcanogenic

<sup>1</sup>Raw data following a log<sub>10</sub> transformation

■ 98-100th percentile

MACKIE, R., ARNE, D. AND PENNIMPEDE, C., 2016. Weighted sums model for Polymetallic Ag-Pb-Zn deposits using principal component residuals. In: Enhanced interpretation of stream sediment geochemical data for NTS map sheet 105M. Yukon Geological Survey, Open File 2016-27, scale 1:250 000, sheet 4 of 6.

Catchment basin polygons generated by the Yukon Geological Survey (J. O. Bruce).

Any revisions or additional geological information known to the user would be welcomed by the Yukon Geological Survey.

Paper copies of this map and the accompanying report may be obtained from the Yukon Geological Survey, Energy, Mines and Resources, Government of Yukon, Room 102-300 Main St., Whitehorse, Yukon, Y1A 2B5. Ph. 867-667-3201, Email [geology@gov.yk.ca](mailto:geology@gov.yk.ca).

A digital PDF (Portable Document File) file of this map may be downloaded free of charge from the Yukon Geological Survey website: <http://www.geology.gov.yk.ca>.

Friske, P.W.B. and Hornbrook, E.H.W., 1989, National Geochemical Reconnaissance stream sediment and water geochemical data, central Yukon (105M). Geological Survey of Canada, Open File 1962.

Heberlein, D.R., 2013. Enhanced interpretation of RGS data using catchment basin analysis and weighted sums modeling: examples from map sheets NTS 105M, 105O and part of 105P. Yukon Geological Survey, Open File 2013-16.

Jackaman, W., 2012. Regional Stream Sediment Geochemical Data, Mayo Area, central Yukon (NTS 105M) Yukon Geological Survey, Open File 2012-8.

Mackie, R., Arne, D. and Brown, O., 2015. Enhanced interpretation of regional stream sediment (RGS) geochemical data Yukon: catchment basin analysis and weighted sums modeling. Yukon Geological Survey Open File Report 2015-10.

Yukon MINFILE, 2015. Yukon MINFILE – A database of mineral occurrences. Yukon Geological Survey, [www.data.geology.gov.yk.ca](http://www.data.geology.gov.yk.ca), accessed May 2015.

Yukon Geological Survey  
Energy, Mines and Resources  
Government of Yukon

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**Weighted sums model for Polymetallic Ag-Pb-Zn deposits  
using principal component residuals (NTS 105M)  
Sheet 4 of 6**

by

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