

Value of manganese in rocks and soils expressed in parts per million (ppm) after the data were treated as follows: The data were gridded to a rectangular coordinate system with mesh points 1,000 ft. (305 m) apart. The original data points were transposed to with firesh points 1,000 ft. (305 m) apart. The original data points were transposed to grid coordinates or mesh points by drawing a circle of radius 800 ft. (244 m) around each mesh point, and shifting the coordinates of data points within each circle to the coordinates of the mesh point. Accompanying the shift of coordinates, each point was weighted according to its distance from the mesh point; as a result, close-lying data points had more influence than outlying data points on the final value used at the mesh point. After data points were weighted and projected to a mesh point, the multiplicity of values created at the mesh point was removed by averaging

MINE WORKINGS

- ROCK ISOPLETHS—Areas where samples contain more than 1,000, 3,000, or 5,000, ppm of manganese. Dashed where inferred. No isopleths less than 1,000 or more than 5,000 ppm shown
- SOIL ISOPLETHS—Areas where samples contain more than 1,000, 3,000, or 5,000 ppm of manganese. Dashed where inferred. No isopleths less than 1,000 or more than 5,000 ppm shown
- Concentrations of manganese were determined by six step semiquantitative spectrographic analyses (Grimes and Marranzino, 1968). Determinations were made by E. L. Mosier, D. J. Grimes, J. M. Motooka, C. L. Forn and R. T. Hopkins

REFERENCES

Grimes, D. J., and Marranzino, A. P., 1968, Direct-current arc and alternating-current spark emission spectrographic field methods for the semiquantitative analysis of geologic material: U.S. Geol. Circular 591, 6 p.

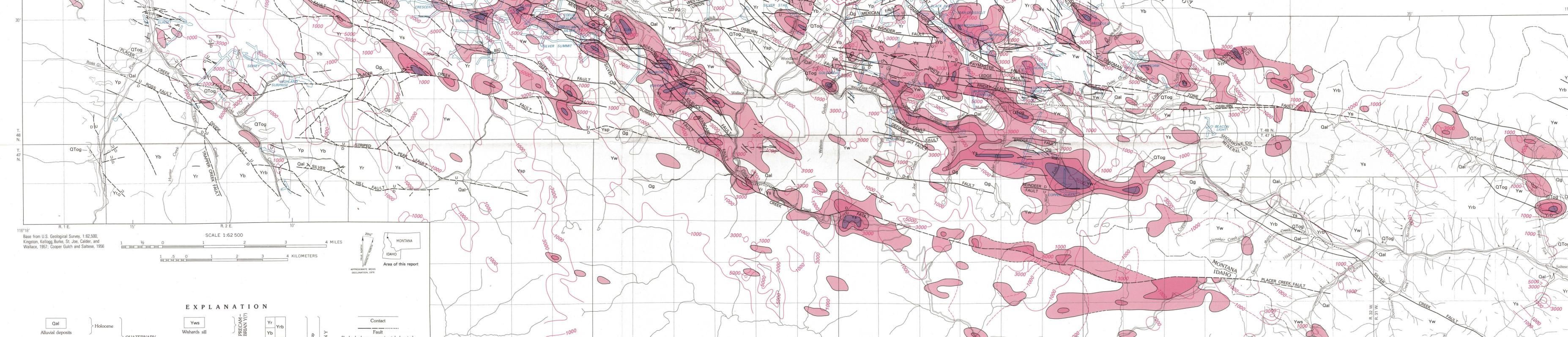
GENERAL DISTRIBUTION OF MANGANESE IN ROCKS AND SOILS IN THE COEUR D'ALENE DISTRICT, IDAHO AND MONTANA





Geology west of 115°42'30" and mine workings modified from S. W. Hobbs and others, 1965; Geology east of 115°42'30" from R. E. Wallace and J. W. Hosterman, 1956 Data computation and program by Jack B. Fife Data reduction by Theodore M. Billings

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DEPARTMENT OF THE INTERIOR

Qg

Glacial and glaciofluvial deposits

QTog

Channel and terrace gravels

Km

Monzonite and associated rocks

UNITED STATES GEOLOGICAL SURVEY

Wishards sill

Ysp

Striped Peak Formation

Yw

Wallace Formation

Ys

DISTRIBUTION AND ABUNDANCE OF MANGANESE

IN ROCKS AND SOILS

QUATERNARY AND TERTIARY

CRETACEOUS

Revett and Burke Formations

Yr, Revett Formation Yb, Burke Formation

Yrb, undifferentiated

Yp

Prichard Formation

Dashed where approximately located;

dotted where concealed