



Special Publication, No. 1

Geology and Metallogeny of Sulfide Deposits Noril'sk Region U.S.S.R.

Editors

O.A. Duzhikov and V.V. Distler

Translated by Galya Rylkova with assistance from A.J. Naldrett
Patricia Sheahan, Series Editor

SOCIETY OF ECONOMIC GEOLOGISTS, INC.

Special Publications of the Society of Economic Geologists

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First Edition, 1988

Revised, 1992

Additional copies of this publication can be obtained from

Society of Economic Geologists, Inc.
7811 Shaffer Parkway
Littleton, CO 80127
www.segweb.org

ISBN: 978-1-629496-19-1

INTRODUCTION

The Noril'sk volume is a valuable contribution to the economic geology profession. The translation which is a very literal one from the Russian original, has been 'donated' to the Society of Economic Geologists by *Falconbridge* and *Inco*. This is the first special publication for the Society. We have two successful series, Reviews in Economic Geology and our Guidebook series. When we were offered this translation we initiated this special publication series. It is hoped that we will continue to pursue and publish other monographs of direct economic interest for our members and the economic geology community at large.

This volume and the accompanying figures (maps), tables and plates presents an excellent overview of the Noril'sk area and the mineralization specific to this region. Considerable awareness of the Noril'sk area has been available through various translations of Russian literature and ever increasing opportunities for western world geoscientists to visit the region. The Society is proud to have this opportunity to provide this comprehensive volume to economic geoscientists.

Many individuals contributed their time, expertise and support. We would like to acknowledge A.J. Naldrett for his efforts in obtaining this translation from *Inco* and *Falconbridge* on our behalf. He was also our liaison with the original authors and was very supportive throughout the editing process. *Falconbridge* initiated the translation and G. Rylkova was contracted to produce a literal translation and we chose to substitute, or identify, a few non-familiar Russian terms with equivalent English language terms. However, the substance of the translation has not been changed. The editing concentrated on consistency, accuracy and limited grammatical re-interpretation. A location map and a stratigraphic section were added to the introduction. Suggestions for editing consistency were gratefully received from A. Craigie and R. Horn.

Additional support for production and distribution was received from T. Thompson, J. Robertson, K. Clark.

All figures, tables and plates were redrafted with their interpreted legends by *Inco*. W. Saftic and W. Peredery provided additional suggestions for drafting format and continuity. *Inco* and *Falconbridge* shared all drafting costs and donated this service to the Society of Economic Geologists as well as the translated text. P. Lightfoot gave permission to include the location map and the stratigraphic section in the introduction.

The cover design was produced by C. Podashinsky and the WP formatting was contracted to Keystrokes Business Support Services. Production and printing of the volume was contracted to Citizen Printing Co. Inc. of Fort Collins.

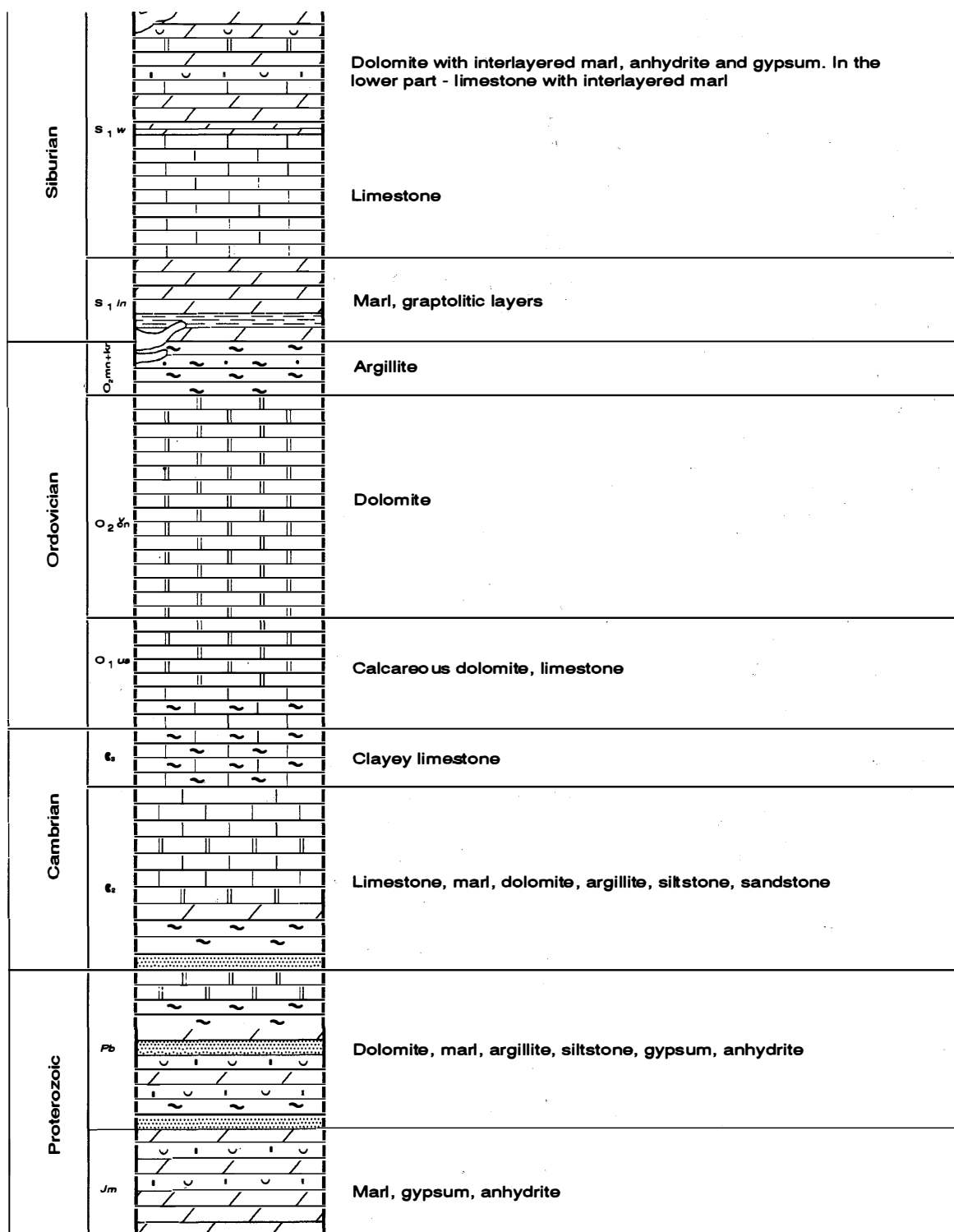
The original ISBN no. 5-02-002639-5 issued in 1988 has been identified on the inside cover and the present volume has been issued in 1992 as ISBN no. 0-9613074-9-8.

We were pleased to have PUBCO distribute this volume on our behalf. We gratefully acknowledge their supportive efforts for this and our other Society publications.

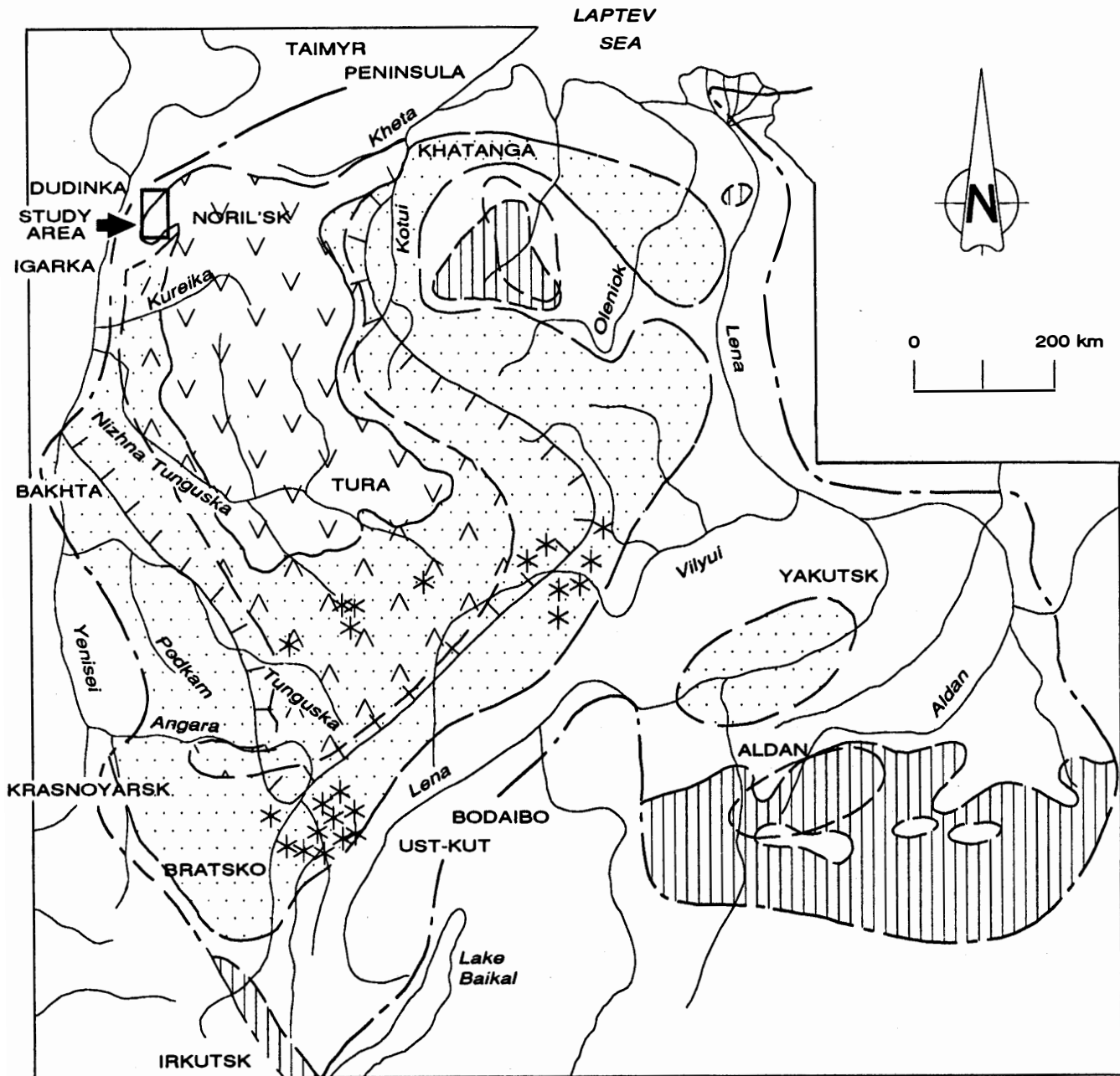
Patricia Sheahan

Introductory Figure A - Stratigraphic Column

| Period | Suite | Column | Brief Description |
|----------|---------------------|--------|---|
| Triassic | T ₂ km | | Glomeroporphyritic basalts with interlayered tuff |
| | T ₂ hr | | Basalts: poikilo-ophitic; porphyritic; glomeroporphyritic; ophitic; glomeroporphyritic with interlayered tuff, tuffite and agglomeratic tuffs |
| | T ₁ mk | | Sequences of aphyric, poikilo-ophitic and porphyritic basalts with interlayered tuffite and agglomeratic tuffs |
| | T ₁ mr | | Aphyric, poikilo-ophitic, porphyritic basalts; tuffite |
| | T ₁ nd | | Glomeroporphyritic, porphyritic, aphyric basalts interlayered with tuff and tuffite |
| | T ₁ tk | | Tholeiitic basalts |
| | T ₁ gd | | Agglomeratic tuffs and tuffites with lenses of porphyritic basalt. Picritic basalts, tuffite, and poikilo-ophitic basalts |
| | P ₂ su | | Basaltic sequences, characterized by tholeiitic composition |
| | P ₂ iv | | Agglomeratic tuffs; two-feldspar basalts, andesitic and Ti-augite tuffites |
| | P ₂ am | | Sandstone, conglomerate, siltstone |
| Permian | P ₂ kr | | Siltstone, argillite, layers of coal, conglomerate |
| | P ₂ sm | | Siltstone, argillite, sandstone, coal |
| | P ₁ dl | | Siltstone, argillite |
| | P ₁ rd | | Siltstone, argillite, sandstone, limestone lenses |
| | C ₁ | | Limestone, marl with interlayered anhydrite |
| | D ₃ fk | | Interlayered dolomite, marl and limestone; layers of anhydrite |
| | D ₃ kl | | Dolomite, limestone. Dolomite with interlayered of anhydrite and marl |
| Devonian | D ₃ nk | | Marls |
| | D ₂ jk | | Dolomite |
| | D ₂ ml | | Marl with interlayered dolomite, anhydrite and gypsum Noril'sk - type intrusions |
| | D ₁₋₂ rz | | Argillite with interlayered limestone, siltstone and sandstone |
| | D ₁ kr | | Argillite, marl |
| | D ₁ zb | | Dolomitic marl with interlayered anhydrite and gypsum. |
| | | | |
| | | | |



Introductory Figure A - Stratigraphic Column



Introductory Figure B - Location Plan

LEGEND

| | | | |
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| | Boundary of Tunguska Basin | | Basement Outcrop |
| | Basaltic Trap | | Platform Sedimentary Sequence |
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