

Metalliferous Black Shales and
Related Ore Deposits—
Proceedings, 1989 United States
Working Group Meeting,
International Geological Correlation
Program Project 254

Edited by RICHARD I. GRAUCH and HOLLY L.O. HUYCK

U.S. GEOLOGICAL SURVEY CIRCULAR 1058

CONTENTS

Geochemistry of the Ordovician high-calcium black shales hosting major gold deposits of the Getchell trend in Nevada, by E.I. Bloomstein and J.B. Clark	1
Geochemical control on the abundance of vanadium in black shales and related rocks, by George N. Breit, Richard B. Wanty, and Michele L. Tuttle	6
Nickel-molybdenum-platinum-gold deposits in black shales of southern China—A new ore type with possible analogs in Pennsylvanian rocks of the U.S.A., by Raymond M. Coveney, Jr., and Chen Nansheng	9
Geochemical and mineralogical comparison of the upper Pennsylvanian Stark Shale Member of the Dennis Limestone, east-central Kansas, with the Middle Pennsylvanian Mecca Quarry Shale Member of the Carbondale Formation in Illinois and of the Linton Formation in Indiana, by G.A. Desborough, J.R. Hatch, and J.S. Leventhal	12
Organic ligands and metal-organic complexing in ore fluids of sedimentary origin, by Thomas H. Giordano	31
When is a metalliferous black shale not a black shale?, by Holly L.O. Huyck	42
Recent Black Sea sediments—Leg 4, 1988 Black Sea Expedition, by Timothy W. Lyons	57
Organic geochemical studies of metalliferous parts of the Middle Proterozoic Nonesuch Formation of northern Michigan, by Philip A. Meyers, Eileen S. Ho, and Jeffrey L. Mauk	59
Organic geochemical and petrological investigations of a natural reactor and its environs at Oklo, Gabon—A preliminary report, by Bartholomew Nagy, Joel S. Leventhal, and F. Gauthier-Lafaye	65
Midcontinent Virgilian (Upper Pennsylvanian) black shales in eastern Kansas, by R.B. Schultz and J.B. Maynard	68
Membership of the U.S. Working Group of the International Geological Correlation Program Project 254	79
Author index	85