

SME D.C. Section May Meeting – Hoover Award

JAMES B. HEDRICK

Criteria for the Evaluation of REE Deposits

Rare earths occur in a plethora of minerals and geologic environments with a complex set of criteria to be economic. They require both a favorable political climate and good logistics. Economic deposits require rare-earth minerals and soils with a suitable distribution of the lanthanide elements, yttrium, and occasionally scandium. The ore mineral must be of sufficient grade and tonnage to warrant the long-term investment of many millions of dollars over an extended period of time. A rare-earth deposit must also have acceptable low-values of accompanying thorium, uranium, and other deleterious impurities that include mine waste approvals. A final prerequisite is a minimum impact on the environment. Lower production costs can significantly reduce the grade requirements.

Date: Wednesday, May 16, 2018 **Please Note Change of Date**
Time: Social Time: 11:30 am - Noon
Section Business/Luncheon: Noon - 1:30 pm
Location: Houlihan's located in the Hilton Hotel
6550 Loisdale Road, Springfield, VA 22150
Choice: Buffet (typically a meat, fish, potatoes or rice, and a vegetable)
Includes coffee, tea, soft drink, and a dessert
Cost: \$18 for DC Section Members; \$23 for guests
RSVP: Please reply by email to Jackie Seguin at
jmseguin1@verizon.net by noon Monday, May 14, 2018

Mr. James B. Hedrick, also known as Jim, serves as the President of Hedrick Consultants Inc. Mr. Hedrick formed Hedrick Consultants, Inc. in Burke, Virginia. He studied all aspects of the rare-earth elements for the U.S. Government since 1981. His responsibilities were to prepare the U.S. Government's reviews and publications on a variety of minerals and metals. He served with the U.S. Bureau of Mines at their headquarters in Washington, DC, as the Rare-Earth Commodity Specialist for the U.S. Geological Survey from 1980 to 2010, including yttrium and scandium. He served increasing number of mineral commodities including thorium, mica, hafnium and zirconium. He started his government career in Oregon in 1978 as an Engineering Geologist with the U.S. Army Corps of Engineers-civilian. He transferred with the government to Pittsburgh, Pennsylvania to the U.S. Bureau of Mines to research strategic deposits, prepare cost feasibility studies and review environmental impact statements for the Director of the Bureau of Mines. Mr. Hedrick served as Chairman of Advisory Board at U.S. Rare Earths, Inc. since December 15, 2010. He served as a Member of Advisory Board at Stans Energy Corp. since January 2010. He has been a Member of Advisory Board at Texas Mineral Resources Corp. since January 10, 2014. He serves as a Member of Advisory Board at Rare Earth Industries Ltd. He served as a Member of Advisory Board and Director of U.S. Rare Earths, Inc., a subsidiary of U.S. Rare Earths, Inc. He served as a Member of Advisory Board at Great Western Minerals Group, Ltd. since November 1, 2010. He served as Chairman of various sessions on rare earths and strategic and critical minerals in both the United States and Europe. He continues to write articles for the minerals industry. He has published over 300 articles and professional papers on mineral commodities, including over 100 since arriving at the U.S. Geological Survey in Reston, Virginia in 1995. Mr. Hedrick is an honors graduate of James Madison University with B.S. degrees in Geology and General Science and did graduate study at North Carolina State University.