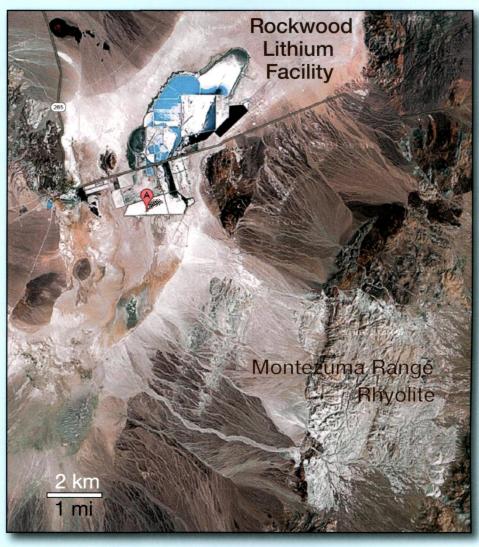
## Economic BULLETIN OF THE SOCIETY OF ECONOMIC GEOLOGISTS

**NOVEMBER 2013** 



**VOLUME 108 / NUMBER 7** 

LITHIUM BRINES AT CLAYTON VALLEY, NEVADA



## IN THIS ISSUE

- Advanced Argillic Alteration
- Porphyry Cu Systems, Yunnan, China
- Pb Isotopes in Placer Gold, Rich Hill, Arizona
- Geochronology of Lupa Goldfield, Tanzania
- Structural Controls, Lupa Goldfield, Tanzania
- In & As in Kusatsu-Tamagawa Hot Springs, Japan
- U at McArthur River, Athabasca Basin, Canada
- Li brines, Western United States
- Shagou Ag-Pb-Zn Vein Deposits, China
- Origin of Mount Keith Ni Deposit, Australia
- Limoeiro Ni-Cu-PGE Deposit, Brazil
- Ok Tedi Cu-Au Deposit, Papua New Guinea

## **CONTENTS**

Pa	pers

Lupers		
Modeling the Formation of Advanced Argillic Lithocaps: Volcanic Vapor Condensation Above Porphyry Intrusions	Jeffrey W. Hedenquist and Yuri A. Taran	1523
Porphyry Cu Mineral Systems of Yunnan,	Yong-Jun Lu, Robert Kerrich, Anthony I.S. Kemp, T. Campbell McCuaig, Zeng-Qian Hou, Eraig J.R. Hart, Zheng-Xiang Li, Peter A. Cawood, Leon Bagas, Zhi-Ming Yang, John Cliff, Elena A. Belousova, Fred Jourdan, and Noreen J. Evans	1541
Insights from Pb Isotopes for Native Gold Formation During Hypogene and Supergene Processes at Rich Hill, Arizona	George D. Kamenov, Erik B. Melchiorre, Faye N. Ricker, and Ed DeWitt	1577
Re-Os Molybdenite, Pyrite, and Chalcopyrite Geochronology, Lupa Goldfield, Southwestern Tanzania: Tracing Metallogenic Time Scales at Midcrustal Shear Zones Hosting Orogenic Au Deposits	Christopher Lawley, David Selby, and Jonathan Imber	1591
Structural Controls on Orogenic Au Mineralization During Transpression: Lupa Goldfield, Southwestern Tanzania	Christopher Lawley, Jonathan Imber, and David Selby	1615
Fractionation and Deposition of Indium and Arsenic from the Kusatsu and Tamagawa Acidic Hot Springs Japan: Possible Man-Made Analogues for Rare Meta Concentrations onto Lake Beds?	, Naotatsu Shikazono, Kenta Iwane,	1641
Mineralogical and Geochemical Evolution of the Unconformity-Related McArthur River Zone 4 Orebody in the Athabasca Basin, Canada: Implications of a Silicified Zone	Ronald Ng, Paul Alexandre, and Kurt Kyser	1657
Silicate Melt Inclusion Evidence for Extreme Pre-eruptive Enrichment and Post-eruptive Depletion of Lithium in Silicic Volcanic Rocks of the Western United States: Implications for the Origin of Lithium-Rich Brines	A. H. Hofstra, T. I. Todorov, C. N. Mercer, D. T. Adams, and E. E. Marsh	1691
Crustal-Extension Ag-Pb-Zn Veins in the Xiong'ershan District, Southern North China Craton: Constraints from the Shagou Deposit	Zhan-Ke Li, Jian-Wei Li, Xin-Fu Zhao, Mei-Fu Zhou, David Selby, Shi-Jian Bi, Ji-Xiang Sui, and Zhen-Jun Zhao	1703
Extrusive Origin and Structural Modification of the Komatiitic Mount Keith Ultramafic Unit	Martin J. Gole, Jesse Robertson, and Stephen J. Barnes	1731
The Limoeiro Deposit: Ni-Cu-PGE Sulfide Mineralization Hosted Within an Ultramafic Tubular Magma Conduit in the Borborema Province, Northeastern Brazil	Jonas Mota-e-Silva, Cesar Fonseca Ferreira Filho, and Maria Emilia Schutesky Della Giustina	1753
Scientific Communications		
Grade Distribution of the Giant Ok Tedi Cu-Au Deposit, Papua New Guinea	Michiel Van Dongen, Roberto F. Weinberg, and Andrew G. Tomkins	1773

## ELECTRONIC ACCESS TO ECONOMIC GEOLOGY

Contact subscriptions@segweb.org

Claims for non-receipt of *Economic Geology* must be made within 90 days of the cover date for replacement at no charge.

Interesting Papers in Other Journals

1783