

SOCIETY OF ECONOMIC GEOLOGISTS

Michael J. Fitzgerald Student Mapping Course Copper Flat Mine, New Mexico

Course Leaders: William X. Chávez, Jr., Ralph A. González, Erich U. Petersen, Adrian Landstedt

The inaugural **Michael J. Fitzgerald Student Mapping Course** was offered November 4 to 9, 2019, at the Copper Flat porphyry-breccia Cu-Mo-Au mine (**THEMAC Resources**), New Mexico. Sixteen participants, comprising students and young professionals representing 11 countries, were selected from 41 applicants in a competitive application process. Copper Flat mine staff **Jeff Smith** and **Clay Hein** supported this field course through their energetic and dedicated efforts to prepare our field mapping areas and ensure safe mapping conditions throughout the course.

Participants mapped rock types, lithologic contacts, and vein structures at detailed mine map scales (1:240 and 1:480) and conducted a ground magnetometer survey along a mine bench in order to locate a buried basaltic andesite dike. Students were grouped into teams for each exercise, allowing students and young professionals having different backgrounds to collaborate and share field mapping techniques. Map areas offered variable exposures of mine wall-rock and host-rock units, so participants were challenged to classify rock units, assess ore-mineral veinlet structural settings, and determine lithologic contacts. To complement our field mapping, discussion sessions presented students with the salient characteristics of porphyry systems, with emphasis on the mineralogy and geochemistry of large hydrothermal systems, ground magnetometer surveys, and supergene processes.

This course was supported by the estate of Michael and Marisa Fitzgerald—Michael, a University of Minnesota graduate, was a long-time supporter of students and field geology programs, and the Fitzgerald estate continues to enhance student and young professional potential through generous support of this SEG field course. Course leaders thank sincerely Jeff and Clay for their enormous support of this field course, and special thanks goes to **Marisa Fitzgerald** for her endorsement of our instructional efforts and her continued interest in enriching student experiences as preparation for careers in economic



Participants of the Michael J. Fitzgerald Student Mapping Course included (back row, left to right) Luis Paredes, Vicente Garcia, Joy Carter, Charles Hoffman, Vasilli Svistunov, Vanessa Elongo, Susanna Metso, Constantine Rossberg, Ian Kallio, Nicholas Brodeur, Adrian Landstedt, (bottom row, left to right) Renate Smoke, Ricardo Molano, Bill Chávez, Koray Tasbicen, Gemma Lawson, and Jordan Pearson. Not pictured: Brandi Lawler.

geology. We also very much thank **Vicky Sternicki** of the SEG office in Littleton for her tireless efforts as she ensured the organizational success of this course—we appreciate your dedication and enthusiasm for helping to make these SEG courses fruitful!

The next Michael J. Fitzgerald

Student Mapping Course will be offered in autumn of 2020; information concerning this next offering will be sent to SEG Student Chapter advisors and presidents and will be advertised in the *SEG Newsletter*; please consult these sources for updates on the upcoming MJF Student Mapping course.



There is a pot of gold at the end of the rainbow, according to course participants.