

**SEG FOUNDATION STUDENT FIELD TRIP 12**  
**MAJOR COPPER–MOLYBDENUM PORPHYRY SYSTEMS, SOUTHWESTERN USA**  
**March 9 – 16, 2014**

— Itinerary —

| <b>Date</b>         |   | <b>Overnight</b> |
|---------------------|---|------------------|
| 9 March<br>Sunday   | <p><b>Prior to 6:00 p.m.</b>, Participants arrive and check in at <u>Best Western Plus Tucson International Airport Hotel &amp; Suites</u>, Tucson, AZ</p> <p><b>6:00 p.m.:</b> <b><u>REQUIRED</u></b> Safety and Logistics Meeting for all Participants</p> <p><u>Lodging:</u> Best Western Plus Tucson International Airport Hotel &amp; Suites      Tucson, AZ<br/>6801 S Tucson Boulevard<br/>Tucson, AZ 85756-7012<br/>Tel: 520.746.3932</p>   |                  |
| 10 March<br>Monday  | <p><b>6:30 a.m.:</b> Travel to ASARCO <b>Ray Mine</b>, Kearny, AZ.</p> <p>Discuss ages of porphyry systems situated in the southwestern US and adjacent Sonora, Mexico.</p> <p><u>Contact:</u> Stirling Cook, Chief Geologist<br/>Tel: 520.356.7811 (Hayden office)<br/><a href="mailto:Stirling.Cook@ASARCO.com">Stirling.Cook@ASARCO.com</a></p> <p><b>Late Afternoon:</b> Travel to Globe, AZ</p> <p><b>6:00 p.m.:</b> <u>Presentation:</u> <b>Characteristics of Southwest US Porphyry Systems</b></p> <p><u>Lodging:</u> Quality Inn      Globe, AZ<br/>1565 East South Street<br/>Globe, AZ 85501<br/>Tel: 928.425.7575</p> |                  |
| 11 March<br>Tuesday | <p><b>6:30 a.m.:</b> Depart for Redhawk Copper office and core storage facility in San Manuel.</p> <p>Core review of <b>Copper Creek</b> mineralized breccias and relationship to porphyry targets.</p> <p><u>Contact:</u> K. Brock Riedell<br/>Consulting Geologist<br/>4732 Willow Creek Road<br/>West Vancouver, B.C. V7W 1C4<br/><a href="mailto:kbriedell@shaw.ca">kbriedell@shaw.ca</a></p> <p><b>Late Afternoon:</b> Travel to Safford, AZ</p> <p><u>Lodging:</u> Best Western Desert Inn      Safford, AZ<br/>391 W Thatcher Boulevard<br/>Safford, AZ<br/>Tel: 928.428.0521</p>  |                  |

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|-----------------------|---|-----------|
| 12 March<br>Wednesday | <p data-bbox="380 205 1443 237"><b>6:30 a.m.:</b> Depart for Freeport McMoRan Copper &amp; Gold <b>Safford Mines</b>, Safford, AZ.</p> <p data-bbox="380 275 1443 338">Observe an incipient, supergene copper-oxide profile and discuss the influence of host rock alteration mineralogy on the formation, and type, of weathering products.</p> <p data-bbox="380 384 821 485"><u>Contact:</u> Seth Henry, Mine Geologist<br/>Tel: 928.965.2106<br/><a href="mailto:Seth_Henry@fmi.com">Seth_Henry@fmi.com</a></p> <p data-bbox="380 527 781 558"><b>Late Afternoon:</b> Travel to Tucson</p> <p data-bbox="380 600 1443 735"><u>Lodging:</u> Best Western Plus InnSuites Tucson Foothills Hotel &amp; Suites                      Tucson, AZ<br/>6201 N. Oracle Road<br/>Tucson, AZ<br/>Tel: 520.297.8111</p>                 |           |
| 13 March<br>Thursday  | <p data-bbox="380 810 1443 842"><b>6:30 a.m.:</b> Travel to ASARCO <b>Mission Copper</b> (skarn-porphyry system)</p> <p data-bbox="380 884 1443 978">Observe and discuss the relationship of protolith composition and skarn mineralogy, and the mobility and enrichment of supergene metals. Surface examinations and drill core review.</p> <p data-bbox="380 1020 829 1121"><u>Contact:</u> Bruce Veek , Chief Geologist<br/>Tel: 520.648.2500<br/><a href="mailto:bveek@ASARCO.com">bveek@ASARCO.com</a></p> <p data-bbox="380 1163 789 1194"><b>Late Afternoon:</b> Return to Tucson</p> <p data-bbox="380 1236 1443 1260"><u>Lodging:</u> Best Western Plus InnSuites Tucson Foothills Hotel &amp; Suites                      Tucson, AZ</p>   |           |
| 14 March<br>Friday    | <p data-bbox="380 1304 1443 1335"><b>6:30 a.m.:</b> Travel to Freeport McMoRan Copper &amp; Gold <b>Sierrita Mine</b>, Green Valley, AZ</p> <p data-bbox="380 1377 1443 1472">Observe and discuss the economics of low-grade, large-tonnage mines with particular focus upon the importance of revenue contributions from co- and by-product metals. Visit includes drill core inspections and mill tour.</p> <p data-bbox="380 1514 919 1614"><u>Contact:</u> Craig Mason, Senior Mine Geologist<br/>Tel: 520.393.2000<br/><a href="mailto:Craig_Mason@fmi.com">Craig_Mason@fmi.com</a></p> <p data-bbox="380 1656 789 1688"><b>Late Afternoon:</b> Return to Tucson</p> <p data-bbox="380 1730 1443 1755"><u>Lodging:</u> Best Western Plus InnSuites Tucson Foothills Hotel &amp; Suites                      Tucson, AZ</p> |           |

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| 15 March<br>Saturday | <p data-bbox="380 205 1382 237"><b>6:30 a.m.:</b> Travel to Augusta Resources' <b>Rosemont Copper Project</b> (porphyry-skarn)</p> <p data-bbox="380 275 1377 306">Observe and discuss the field relationships of porphyry intrusions and related skarn.</p> <p data-bbox="380 344 930 554"><u>Contact:</u> Jeff Cornoyer, Senior Mine Geologist<br/>Rosemont Copper Project<br/>2450 Ruthrauff Road #180<br/>Tucson, AZ 85705<br/>Tel: 520.495.3509<br/><a href="mailto:jmcgeo@live.com">jmcgeo@live.com</a></p> <p data-bbox="380 596 789 627"><b>Late Afternoon:</b> Return to Tucson</p> <p data-bbox="380 665 1289 697"><b>6:00 p.m.:</b> <u>Pre-dinner discussion:</u> <b>Skarn and replacement-style ore deposits</b></p> <p data-bbox="380 701 1248 732"><b>7:00 p.m.:</b> <u>Closing Dinner</u> and Presentation of Certificates to participants</p> <p data-bbox="380 770 1019 802">Field Trip ends following dinner and closing ceremony</p> <p data-bbox="380 840 1442 877"><u>Lodging:</u> Best Western Plus InnSuites Tucson Foothills Hotel &amp; Suites Tucson, AZ</p> |
| 16 March<br>Sunday   | <p data-bbox="380 951 1325 982"><b>Early a.m.:</b> Shuttle to airport; participants depart Tucson on their own schedule</p>  |

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**Leaders:**

Dr. William. X. Chávez, Jr.  
New Mexico School of Mines  
Socorro, New Mexico 87801  
[wxchavez@msn.com](mailto:wxchavez@msn.com)  
Office: 575.835.5317  
Mobile: 505.250.0354

Dr. Erich U. Petersen  
University of Utah  
Salt Lake City, Utah 84112  
[eupetersen@gmail.com](mailto:eupetersen@gmail.com)  
Office: 801.585.6656  
Mobile: 801.440.1069