

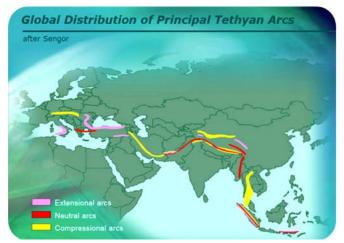


# 9<sup>th</sup> Annual International Ore Deposits Field Trip:



## Western Anatolia, Turkey

May 16 - May 30, 2009

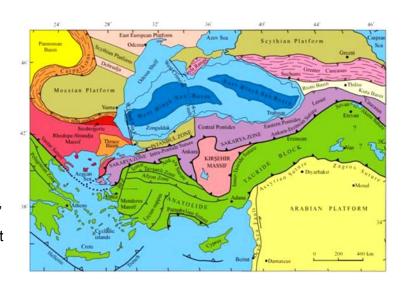


Turkey is the host of several major metallogenic zones due to the development of a Tethyan magmatic arc along the length of the country. Although Turkey is rich in mineral resources, mining activity only accounts for ~1.5% of the GDP. This is largely due to control over the mining industry by the government; however, in recent years, limitations on exploration by foreign companies have been relaxed, which makes Turkey an increasingly attractive area for mineral exploration and development. This trip will provide an opportunity to see several deposits typical of the Tethyan arcs in an area that has only recently become recognized internationally as a major metallogenic belt.

The trip will be led by Dr. Ilkay Kuscu, Geology Professor from Mugla University and past MDRU Research Associate for the project: "Metallogenesis of the Tethyan collage, Turkey" (2005-2007).

### **GEOLOGICAL OVERVIEW:**

Most of Turkey is part of the Alpine Mountain Belt that extends from the Atlantic Ocean through to the Himalayan Mountains. This belt formed through the Tertiary as the Arabian, African, and Indian continental plates began to collide with the Eurasian Plate; these processes are still at work today as the African Plate converges with the Eurasian Plate and the Anatolian Plate escapes towards the west and southwest along strike-slip faults. These faults comprise the North Anatolian Fault Zone, which forms the present day plate boundary of Eurasia near the Black Sea coast and, the East Anatolian Fault Zone, part of the boundary of the North Arabian Plate in the southeast.



The Biga Peninsula in western Turkey is known to be one of the most prospective belts for porphyry and epithermal style Cu-Au mineralization along this mountain belt. Mineralization is related to the extensional tectonics and magmatism along the Neo-Tethyan metallogenic belt in western Anatolia, Turkey: a major zone of magmatic arc-related mineralization that extends across central and southeast Europe, Turkey, Iran, Pakistan, through the Himalayan region into Burma, Malaysia, Indonesia and Papua New Guinea. It contains a wealth of large ore deposits. The western (European) portion that includes Turkey has received less attention, but hosts several world class gold provinces (e.g., Kişladağa; 6.9 Moz Au) and has the potential to place southeastern Europe and western Turkey on the map as major metal producing regions.

### TRIP OUTCOMES:

- General knowledge of the regional geology, tectonics, magmatism, and metallogenic belts of along the western Anatolia Turkey.
- An understanding the geological framework and genesis of magmatic arc-related deposits such as Cu-Au porphyry systems, low-sulfidation Au epithermal systems, Fe and Fe-Cu mineralization, and the world's richest borate district.
- An understanding the use of various exploration techniques and tools for finding mineralization, including geological mapping techniques, geochemical analysis, ground geophysical surveys, and drilling operations.
- An understanding of gold mineralization in oxide, leached, and supergene enrichment zones, open pit mining, and heap leach gold extraction processes.

**Deposit Route** 

### **MINE AND DEPOSIT TOURS**

In Turkey we are planning to visit eight deposits in the Western portion of the country:

• **Kirka** mine: one of the world's largest borate

deposits

• **Koru** deposit: hydrothermally brecciated.

stockwork, vein and veinlets Pb-

Zn-(Ag-Ba)

Halilaga deposit: calc-alkaline Cu-Au porphyry
 Ovacik deposit: low-sulphidation epithermal Au

Kisladag deposit Au porphyry
 Ayazmant mine: Fe-skarn
 Samli deposit: Fe-Cu skarn

• Kucukdere mine: low-sulphidation epithermal Au

# Return Route Deposit Tours Geologic Sites Roman Ruins Site-seeing Stops Canakkale Canakkale Canakkale Bur Canakkale Bur Canakkale Bur Canakkale Bur Canakkale Canakkale Bur Canakkale Bur Canakkale Canakkale

### **TRIP DATES**

The trip is expected to take place from May 16 to May 30, 2009, however the actual dates may fluctuate by a day or two due to flight schedule, car rentals, and availability of mine tours. Please confirm the trip dates with us before making any bookings!

### **COST FOR PROFESSIONAL PARTICIPANTS:**

Including all transportation (*including* international flight), accommodations, and 3 group dinners:

4000.00 Can\$

From Istanbul, Tukey, including all transportation (*excluding* international flight), accommodations, and 3 group dinners:

2800.00 Can\$

### MORE INFORMATION OR TO REGISTER:

For more information concerning to trip, or to make a deposit on a space for the trip, please contact Karie Smith (ksmith@eos.ubc.ca) or Kirsten Rasmussen (krasmussen@eos.ubc.ca).

**SPACE IS LIMITED!** 

**REGISTER EARLY!**