



**SEG 2017**  
Beijing, China



Ore Deposits of Asia: China and Beyond

September 17-20, 2017 ★ Beijing, China



## SEG 2017 Field Trip Itinerary - Preliminary

### FTo3 - Porphyry Cu-Au and Cu-Mo Deposits of Southern Mongolia

**Date:** September 11-15, 2017

**Location:** Departing from and returning to *Ulaanbaatar, Mongolia*

**Leader:** Jargalan Sereenan

**Flights/Airfare:** Not included in cost of trip

**Accommodation, Food, Local Ground Transport:** Included



South Mongolia is rich in various types of mineral deposits, including Cu-Au and Cu-Mo porphyry deposits and occurrences located within the middle to late Paleozoic island arc terranes of the Central Asian orogenic belt. This trip will visit the Tragaan Suvarga, Kharmagtai, and giant Oyu Tolgoi deposits. We will observe different styles of porphyry mineralization at the various occurrences. At the Tsagaan Suvarga Cu-Mo deposit (240 Mt at 0.53% Cu and 0.018% Mo), ore-related sericitic alteration can be observed overprinting the dominant potassic (K-feldspar) alteration of the main syenogranite. Chlorite-epidote alteration associated with Cu-Au mineralization overprints potassic (biotite-magnetite) alteration at Kharmagtai, with much of the mineralization related to a large tourmaline breccia system. The visit to the Cu-Au-Mo–mineralized quartz monzodiorite intrusions at the Oyu Tolgoi group of deposits (43 million tonnes Cu, 1,850 t Au) will include examination of muscovite- and pyrophyllite-bearing alteration associated with Cu-Au mineralization that was subsequently upgraded by advanced argillic alteration at the Hugo Dummett orebody.

### Approximate Distances

Calculated approximate distances between mine sites:

- Ulaanbaatar → Choir: ~270 km, paved road
- Choir → Sainshand: ~200 km, paved road
- Sainshand → Tsagaan Suvarga Cu-Mo mine: ~180 km, country road
- Tsagaan Suvarga → KhanBogd: ~150 km, country road
- Khanbogd → Oyu Tolgoi Cu-Au mine: ~45 km, country road
- Oyu Tolgoi → Kharmagtai Cu-Au camp: ~130 km, country road
- Kharmagtai → Tsogt Ovoo village: ~90 km, country road
- Tsogt Ovoo → Mandalgobi: ~190km, paved road
- Mandalgobi → Ulaanbaatar: ~270 km, paved road

### Day 1 - Monday, September 11, 2017

Departure from Ulaanbaatar at 08:00. Approximately 3-4 hours drive (paved road) followed by lunch near Choir city. Drive to Tsagaan Suvarga mine through Sainshand city with short stops included. Arrive at Tsagaan suvarga mine around 18:00 for dinner and overnight at the mine camp.

## Day 2 - Tuesday, September 12, 2017

- 08:00: Breakfast
- 09:00 - 12:00: Mine tour
- 13:00: Lunch at Tsagaan suvarga mine camp
- 14:00 - 16:00: Core house
- 16:00: Leave Tsagaan Suvarga
- 19:00: Arrive at KhanBogd village and have dinner

### Accommodation

Hotel (TBD)

## Day 3 - Wednesday, September 13, 2017

- 08:00: Breakfast
- 09:00: Departure from KhanBogd
- 10:00: Arrive at Oyu Tolgoi mine
- 10:00 - 12:00: Safety induction and core house
- 12:00 - 13:00: Lunch at Oyu Tolgoi mine camp
- 13:00 - 17:00: Underground mine observation
- 17:00 - 18:00: Dinner at Oyu Tolgoi mine camp
- 18:00: Departure from Oyu Tolgoi mine
- 19:00: Arrive at KhanBogd village

### Accommodation

Hotel (TBD)

## Day 4 - Thursday, September 14, 2017

- 08:00: Breakfast
- 9:00: Departure from Khanbogd
- 11:00: Arrive at Kharmagtai exploration camp
- 11:00 - 12:00: Safety induction and brief introduction of Kharmagtai deposit
- 12:00 - 13:00: Lunch at Kharmagtai exploration camp
- 13:00 - 14:00: Core observation
- 14:00 - 18:00: Field trip at Kharmagtai exploration camp
- 18:00: Dinner at Kharmagtai exploration camp

### Accommodation

Hotel (TBD)

## Day 5 - Friday, September 15, 2017

- 08:00: Breakfast
- 09:00: Departure from Khanbogd
- 13:00 - 14:00: Lunch at Mandalgobi
- 14:00 - 18:00: Arrive at Ulaanbaatar

Excursion Routes

