



GENERAL INFORMATION

The 61st annual Institute on Lake Superior Geology meeting will take place **Tuesday May 19th to Sunday May 24th, 2015** at the Best Western Plus Hotel and Conference Centre in **Dryden, Ontario** ([meeting website](#)). The 1.5-day technical session will be held on Thursday May 21st and the morning of Friday May 22nd. Pre-meeting, and post-meeting field trips are scheduled in half-day, full-day and two-day formats covering a wide range of topics highlighting the geology of the Western Superior Province (details below).

Full registration for the meeting is available through an Eventbrite Space which allows for easy registration and payment via credit card (link below).

[REGISTER NOW](#)

Any questions regarding the meeting and the registration process can be directed to co-chairs Pete Hinz or Robert Cundari:

Pete Hinz
Co-Chair 61st ILSG
435 James St. S., Suite 332
Thunder Bay, Ontario
P7E 6S7
(807) 472-1285
pete.hinz@ontario.ca

Robert Cundari
Co-Chair 61st ILSG
435 James St. S., Suite B002
Thunder Bay, Ontario
P7E 6S7
(807) 475-1126
robert.cundari@ontario.ca

CALL FOR PAPERS

Abstracts for oral and poster presentations must be submitted by **April 1st 2015**. Electronic submission of abstracts and figures in MS Word format is strongly encouraged. Templates including page limits and formatting details will be made available through the ILSG website ([link here](#)). Abstracts are to be submitted to Mark Smyk (Editor, Abstract Volume) mark.smyk@ontario.ca.

Participants are encouraged to express whether they would like to provide an oral presentation or a poster presentation. Presentations are typically 15 minutes in length with 5 minutes allotted for questions. Presentation times may be reduced to 12 minutes with 3 minutes for questions, depending on the number of presenters. Poster spaces are approximately 4' (vertical) by 8' (horizontal) and are velcro friendly.



STUDENTS

Students are encouraged to participate in all aspects of the ILSG meeting. Travel subsidies are available for qualified students who attend the 61st ILSG meeting. Applications are available on the ILSG website (link below). Applications must be completed and returned by April 15th, 2015. Applications can be sent to Robert Cundari (co-chair) robert.cundari@ontario.ca. Cash prizes will be awarded to the best student-authored presentations.

<http://lakesuperiorgeology.org/eisenbreyaward.html>

ACCOMMODATIONS

The ILSG meeting is being held at the Best Western Plus in Dryden, Ontario (807-223-3201) where a block of rooms has been set aside for ILSG participants, please reference *ILSG 2015* when making your reservation. Other hotel accommodations are available close to the main venue including the Holiday Inn Express (807-223-3000) and the Comfort Inn (807-223-3893). Other accommodations may be found on the [City of Dryden website](#).

TRANSPORTATION

Dryden is located on the Trans-Canada Highway approximately 3.5 hours west of Thunder Bay. Bearskin Airlines services Dryden 5 times weekly from Thunder Bay.

Surface Distance to Dryden from:

| | |
|-------------------|---------------------|
| Winnipeg: | 352 km (218 miles) |
| Thunder Bay: | 353 km (219 miles) |
| Duluth: | 482 km (300 miles) |
| Minneapolis: | 663 km (412 miles) |
| Sault Ste. Marie: | 1034 km (642 miles) |
| Sudbury: | 1335 km (829 miles) |

FIELD TRIPS

Pre-Meeting:

1. Red Lake Geology (2 day)

Tuesday May 19th and Wednesday May 20th, 2015

Leaders: Andreas Lichtblau (OGS) and Carmen Storey (OGS)

The Red Lake greenstone belt records ca. 300 Ma of episodic magmatism, sedimentation and tectonothermal activity along the southern margin of the 3 Ga North Caribou terrane. Gold production from the world-class Red Lake deposit exceeds 22M ounces. The field trip comprises a 20 km transect through the central portion of the camp, and focuses on several different styles of gold deposition and associated host rock alteration.

This trip requires an overnight stay in Red Lake on the evening of Tuesday, May 19th (accommodation included in trip cost; price based on double occupancy).

2. Western Wabigoon Subprovince Transect (Dryden to Meggisi Lake)

Wednesday May 20th, 2015

Leaders: Mark Puumala (OGS) and Dorothy Campbell (OGS)

Journey back in time 2.7 billion years to experience the Neoarchean geology of the Western Wabigoon Subprovince. This trip follows the Highway 502 corridor between the City of Dryden and Meggisi Lake and will include opportunities to view beautiful exposures of isoclinal folds in the Thunder Lake metasedimentary rocks, exceptionally well preserved three-dimensional metavolcanic pillows, flow top breccias and “eyebrow” structures in the Wapageisi basalts, giant pillows of the Pincher Lake group, polymictic conglomerates of the Manitou group, granitic rocks of the Atikwa batholith, and finishing off with a stop at a classic exposure of Archean lode gold mineralization.

3. Mine Reclamation and Legacy Issues at the South Bay Mine

Wednesday May 20th, 2015

Leader: Rob Purdon (MNDM)

This one day trip will explore environmental and legacy issues associated with the former South Bay Mine site 70 km NE of Ear Falls on Confederation Lake. This copper-zinc producer operated from 1971 to 1981, producing 1.4 million tons of concentrate. Following closure, surface infrastructure was removed and an aesthetic cover was placed on the tailings. Although these measures met the requirements of the time, acid rock drainage from underground workings, tailings, mill site and waste rock areas has impacted surface water courses and there are several flow paths carrying this drainage to downstream lakes, including Confederation Lake which has a productive lake trout fishery. The site was returned to the Ontario government in 1990 and the successor company attempted remediation through natural wetlands and ecological engineering. These efforts were not successful and, commencing in 2004, MNDM has initiated design work for more conventional rehabilitation efforts. The field trip will include stops at contaminant source areas, acid rock drainage areas and impacted lakes. Discussion will include past efforts, options, current plans for site rehabilitation and the challenges to implementation.

4. Geological Setting of the Thunder Lake Gold Deposit / Gold occurrences of Van Horne Township

Wednesday May 20th, 2015

Leaders: Treasury Metals Inc. Representative

This field trip will examine drill core and exposures at Treasury Metals Inc. Goliath Project located in the Wabigoon subprovince 20 km east of Dryden. The mineralized zones at the Thunder Lake deposit are hosted within a felsic/intermediate volcanic schist, appearing as sub-vertical, tabular composite units defined on the basis of anomalous to strongly elevated gold concentration, increasing sulphide content and distinctive altered rock units which are concordant to the local stratigraphy. This trip will be paired with numerous gold occurrences hosted by the Lower Wabigoon Volcanics exposed in Van Horn Township approximately 8 kilometers south of Dryden. The area was a hotbed of gold exploration from 1897 to 1920, during which time, 16 production mine shafts were sunk. This field trip will examine exploration trenches around



Flambeau Lake including some of the best examples of the complex volcanic stratigraphy and the quartz-carbonate vein systems that host the gold mineralization.

Half-Day:

5. Classic outcrops of the Dryden Area

Friday May 22nd, 2015

Leader: Pete Hinz (MNDM)

The geology of the Dryden Area is highlighted in three stops within the Western Wabigoon subprovince. The stops are part of a larger eight-stop field trip which was developed to educate high-school students on the geology of the Dryden area. The stops will include photo-worthy outcrops including pillowed mafic lavas of the Boyer Lake Group, isoclinally folded Warclub Group sediments and finally folded iron formation displaying parasitic folds and contact metamorphic assemblages including garnet-biotite-sillimanite.

6. Gold Occurrences of Van Horne Township

Friday May 22nd, 2015

Leader: Steve Meade (OGS)

Numerous gold occurrences are hosted by the Lower Wabigoon Volcanics exposed in Van Horn Township approximately 8 kilometers south of Dryden. The area was a hotbed of gold exploration from 1897 to 1920, during which time, 16 production mine shafts were sunk. This field trip will examine exploration trenches around Flambeau Lake including some of the best examples of the complex volcanic stratigraphy and the quartz-carbonate vein systems that host the gold mineralization.

7. Unique mineralizing event at the Pidgeon Molybdenum Occurrence

Friday May 22nd, 2015

Leaders: Craig Ravnass (OGS)

During this ½ day field trip the molybdenite mineralizing event related to structure and lithology will be examined in an exposure located in the eastern part of the Lateral Lake felsic intrusion located 40 km northeast of Dryden.

Post-Meeting:

8. Historic Pickle Lake Camp (1.5 day)

Friday May 22nd and Saturday May 23rd, 2015

Leaders: Mark Smyk (OGS) Peter Hollings (Lakehead University) and Neil Pettigrew (PC Gold Inc.)

This one-day trip will highlight base metal and gold deposits and recent exploration activity in the Meso- to Neoproterozoic Pickle Lake greenstone belt. The past-producing Thierry (Cu-Ni), Pickle

Crow (Au) and Dona Lake (Au) mines will be featured in a modern lithostratigraphic and structural context.

This trip requires an overnight stay in Pickle Lake on the evening of Friday, May 22nd (accommodation included in trip cost; price based on double occupancy).

9. Ghost Lake Batholith and related pegmatites

Saturday May 23rd, 2015

Leader: Shannon Zurevinski (Lakehead University)

This 3/4 day field trip that will examine the 2685 Ma Ghost Lake Batholith, a peraluminous, S-type granite that is associated with rare-element pegmatites. Outcrop visits will highlight some spectacular pegmatitic mineralogy.

10. Mattabi/Sturgeon Lake Historic VMS Camp (2 day)

Friday May 22nd and Saturday May 23rd, 2015

Leader: George Hudak (UMD)

The nearly 20 million tons of massive sulfide mineralization mined between 1972 and 1991 in the Sturgeon Lake region of northwestern Ontario were formed in a Neoproterozoic, piecemeal, explosive subaerial to submarine caldera complex known as the Sturgeon Lake Caldera Complex. The Sturgeon Lake Caldera Complex is considered one of the best-preserved Neoproterozoic caldera complexes in the world, and is considered by many to be the "type" Neoproterozoic explosive caldera complex. This two-day field trip will investigate key mineralogical, lithological and geochemical features related to the physical volcanology, hydrothermal alteration, syn- and post-volcanic structures, and VMS-style mineralization within this volcanic center. An emphasis will be placed on recognizing key lithological types and stratigraphic sequences that can be used to identify ancient caldera complexes, as well as distinguishing and evaluating various greenschist facies metamorphosed hydrothermal alteration mineral assemblages that can be used by exploration geologists to identify and distinguish synvolcanic- and post-volcanic structures that are utilized for targeting prospective VMS mineralization within caldera settings.

This trip requires overnight stays in Ignace on the evenings of Friday, May 22nd and Saturday, May 23rd (accommodation included in trip cost; price based on double occupancy).

11. Geological Setting of the Goldlund Gold Deposit

Saturday May 23rd, 2015

Leader: Tamaka Gold Corp. Representatives

A one-day field trip will examine drill core and exposures at Tamaka Gold Corp. Goldlund Project located in the Wabigoon subprovince 40 km northeast of Dryden. Mineralized zones at the Goldlund Deposit are associated with easterly trending intermediate intrusive rocks. Gold is found in sub-structures within these intrusive rocks but also in surrounding mafic volcanic rocks.

SCHEDULED ACTIVITIES AND FIELD TRIPS

Tuesday, May 19th, 2015

8:00 a.m. – 6:00 p.m. Field Trip 1

Wednesday, May 20th, 2015

8:00 a.m. – 6:00 p.m. Field Trip 1
Field Trip 2
Field Trip 3
Field Trip 4
7:00 p.m. – 10:00 p.m. Registration at Best Western
Poster Session / Ice Breaker Social
(Cascade Ballroom)

Thursday, May 21st, 2015

8:00 a.m. – 12:00 p.m. Registration continues
8:30 a.m. – 12:00 p.m. Technical Session I
12:00 p.m. – 2:00 p.m. Lunch (provided)
2:00 p.m. – 5:00 p.m. Technical Session II
6:00 p.m. – 7:00 p.m. Mixer / Cash Bar
7:00 p.m. – 10:00 p.m. Annual Banquet, Keynote Speaker and Awards Presentation
(location tbd)

Friday, May 22nd, 2015

8:30 a.m. – 12:00 p.m. Technical Session III
12:00 p.m. – 1:30 p.m. Lunch (provided)
1:30 p.m. – 6:00 p.m. Field Trip 5
Field Trip 6
Field Trip 7
Field Trip 8 (depart for Pickle Lake)
6:00p.m. – 8:00 p.m. Field Trip 10 (depart for Ignace)

Saturday, May 23rd, 2015

8:00 a.m. – 6:00 p.m. Field Trip 8 (return to Ignace)
Field Trip 9 (return to Dryden)
Field Trip 10 (return to Ignace)
Field Trip 11 (return to Dryden)

Sunday, May 24th, 2015

8:00 a.m. – 6:00 p.m. Field Trip 10 (return to Dryden)