

# GAC CORDILLERAN SECTION

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## Exploration Series Morning Talks

**Tuesday, November 5, 2019**

**8:00 am: Registration – Networking**

**8:15 am: Presentation begins**

**Discovery Center, Geological Survey of Canada  
1500 - 605 Robson Street, Vancouver, BC**

**Cost: \$5 – Pay at Door – Coffee & muffins provided**

**RSVP: space is limited; please pre-register by email at: [talks@gac-cs.ca](mailto:talks@gac-cs.ca)**

## Discovery of a Precious Metals-rich VMS Deposit Yellowknife Greenstone Belt, NWT

**Discussion Leader: Dave Webb, PhD, PEng, PGeo, President & CEO  
Sixty North Gold Mining Ltd.**

The Archean Yellowknife Greenstone Belt is known for its shear zone-hosted gold deposits, dominated by the Giant Yellowknife Mine (pp 8.1 m oz. Au), Con Mine (pp 6.1 m oz. Au) and the high-grade vein deposit Discovery Mine (pp. 1 m oz. Au). The greenstone belt extends from beneath the waters of Great Slave Lake northwards to beyond the Discovery Mine for over 100 km. Minor volcanic, quartzite and banded iron formation of the Central Slave Cover Group are overlain by mafic-dominated tholeiitic volcanic rocks of the Kam Group. These in turn are overlain by calc-alkaline intermediate and felsic volcanic rocks of the Banting Group which near the top are interbedded and overlain by turbiditic sediments of the Burwash Group. A number of distinct syn and post-depositional intrusions form dykes, sills and plutons within the greenstone belt. A number of precious metal-rich VMS deposits are known to exist within these rocks, including a discovery in 2018 that was found using biogeochemical sampling.

The Nelson Lake precious metal-rich VMS deposit was discovered within the Kam Group by following up a property-wide biogeochemical survey conducted in 2018. Initial grab samples up to 2.30 gpt Au, 360 gpt Ag, 3.83% Pb, and 1.94% Zn was followed up by a VTEM Plus<sup>®</sup> airborne survey where seven isolated anomalies were prioritized. Recent trenching on the 5656 anomaly has exposed 0.4 to 2.1 m wide sulphide zones dominated by tetrahedrite, pyrrhotite, sphalerite, galena, arsenopyrite, and galena.



**David R. Webb, Ph.D.** is a Registered Professional Geologist (NAPEG, EGBC) and Registered Professional Engineer (NAPEG) with over 40 years of experience in mineral exploration, development and production in Canada and internationally. The last 30 years have included work in the Yellowknife Greenstone Belt, NWT. He has discovered, and as president, developed two gold projects to production and advanced a third project to the permitting stage, raising over \$70 million in development funds for this last project. As a consultant, he co-authored the qualifying report recommending the acquisition and development of the Nico Project, NWT, a gold, cobalt IOCG deposit hosting the world's largest reserves of bismuth. Dr. Webb is President of a private gold development company, Vice President of Exploration for Etruscus Resources Ltd., Director of Metallis Resources Inc., and a past Director and past President of three listed companies. He continues to provide consulting services worldwide to private and public companies and is an advisor to B.C.'s Centre of Training Excellence in Mining.