

SEG 100 Conference: Celebrating a Century of Discovery

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History and Geopsychology of the Tintina Gold Belt

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The following is a summary of the history and psychological impacts of the Tintina Gold Belt in Alaska and the Yukon Territory by a person who was there on the day of its birth. During the late 1970s and early 1980s, Alaska was emerging from a decades-old lode gold exploration and mining hiatus dating back to World War II. As the gold price rose through the 1970s and peaked in 1980 at over \$800 per ounce, the mining industry was developing new ways to find and mine gold deposits. Heap leach technology, new and better mining equipment, computer technologies, and advances in geochemical and geophysical exploration helped create a rapidly changing environment for exploration and mining. And perhaps most important of all, a new army of geologists and engineers trained in these new technologies began to take over exploration, development, and mining all over the world, creating a brain trust that held the seeds of new discoveries. This coalescing of mining science and technology created the critical mass that was needed to set off a wave of new gold discoveries in the 1980s and 1990s, particularly in the western U.S., Australia, and South America. Alaska lagged behind those front-runners, but by the mid-1980s, Alaska started to reap the benefits of this mining industry revolution. Fort Knox was the first of the “new breed” of gold deposits discovered in Alaska. Many others soon followed, and Alaska’s gold resources grew from a few million ounces in 1985 to over 200 million ounces by 2021. Alaska and the adjacent Yukon Territory experienced a wave of new gold discoveries that covered a broad arc from the western Yukon through east central Interior Alaska into southwestern Alaska. During the 1990s and early 2000s, deposits like Fort Knox (14 Moz), True North (1.3 Moz), Donlin (+40 Moz), Dolphin (6.5 Moz), Ryan Lode (2.3 Moz), Vinasale (1.9 Moz), Pogo (10 Moz), Livengood (20.5 Moz), Dublin Gulch (+6 Moz) and others were discovered and advanced, some to production. Although each of these deposits had some characteristics that were unique to itself, they contained enough similarities to suggest they might share a common genetic ore deposit model. Academic research at a number of universities around the globe began to quantify these common denominators and, by the mid-1990s, a new genetic model known as the Intrusive-Related Gold (IRG) deposit model was being assigned to many of these gold deposits. It was in this environment that the Tintina Gold Belt was “created” in the spring of 1997 by an Alaskan exploration geologist and three junior mining company Presidents while sitting at an outdoor café in Montreal, Quebec. This presentation will detail the circumstances leading up to the creation of the Tintina Gold Belt, the personalities involved, and the impact its creation had on the mining industry’s technical and financial communities.