

*My Recollections of the
Cinnabar Creek Mine,
Aniak District,
Alaska, in 1970*

By Henry Djerlev

In June of 1970 I graduated from the University of Minnesota, Duluth, with a degree in geology. Several weeks earlier I had interviewed for a summer job in Alaska being offered by Pickands Mather Company of Cleveland, Ohio. The job would be at a cinnabar (mercury) mine located “in the bush.” Pickands Mather was looking for a junior geologist who would perform the responsibilities of “company representative” at a small mining operation named Cinnabar Creek, which was a joint venture among three parties.

I had my hopes up because I was really interested in seeing the Alaskan wilderness, as I had never travelled more than a few hundred miles from my home in Duluth, Minnesota. The day of the job interview I was violently ill, however, and didn’t make it to the campus at all. The following day I met some of my classmates and asked them who got the job in Alaska. That’s when I found out that no one wanted to take the job because it only paid \$500 per month. I also learned that the interviewer was staying for another half day to see if anyone else would interview. I almost ran to the interview room, which was one of the geology labs, and found the Pickands Mather representative reading a novel while seated on one of the lab stools. He looked up at me and asked if I wanted the job and it took me only a second to say “yes!”

There was a bit of paperwork to complete and then it was like pulling teeth to find out some of the details of the position. It turned out that this fellow had held that same job the previous summer and thought it was horrible. I was to find out many of the details of his summer at Cinnabar Creek about half way into my stint there.

A week or two later I attended my commencement ceremony on a Friday night and the following Monday I flew to the Pickands Mather offices in Cleveland. This, by the way, was my first airplane flight. I spent

two or three days in Cleveland learning what types of reports they wanted and how to fill out my timesheets, expense accounts, etc. My supervisor in Cleveland filled me in briefly on some of the details regarding the Cinnabar Creek mine. This would be the second season of mining under a joint venture involving Frances McClure, who owned the mine; Haday, Inc., the general mining contractor; and Pickands Mather, which was fronting the operating money.

I believe it was Wednesday when I boarded a plane for a three thousand-mile flight to Anchorage. Thinking about that job interview placed some second thoughts in my mind, but by then it was too late. Coming off the Northwest Airlines flight in Anchorage I was met by Alan Hubbard, camp boss, and Frances McClure, the mine's owner and sister of its previous owner, the legendary Alaskan prospector Russel Schaefer.

Cinnabar Creek was a "fly-in" mine accessible only by air, so after quick introductions we headed off to a smaller airport to board Cessna 206 number 3999G—"three triple niner gulf"—loaded with groceries and supplies. Only the two forward seats were in the plane so I threw my suit-



The young geologist Henry Djerlev at Cinnabar Creek just south of the mine camp. This was the only place that the mine could acquire wood for stove fuel and claim posts; this photo was probably taken in October on a trip to cut claim posts.

case in the storage compartment, climbed into the back area, made myself "comfortable" reclining on some of the supplies, and prepared myself for the four hundred-mile flight to Cinnabar Creek. I didn't have much of a stomach for flying at that point, and the weather wasn't great heading almost due west through the passes of the Alaska Range. The discussion coming from the front of the plane was hard to hear, but consisted of pointing out a number of crash sites on the mountainsides below. I'm still not sure if this was just for



The Cessna 206 flying through, not over, the Alaska Range.



The camp at Cinnabar Creek photographed from the air strip. The building farthest left is one of two workers' bunkhouses, red-painted plywood shacks mounted on wannigan skids for easy transport. The second bunkhouse is to the right, its roof visible behind owner Frances McClure's corrugated tin bunkhouse, which sits in front of the cook shack. The building just to the right of that housed a Witte diesel generator, while behind the power pole sat two buildings used as repair shops.

the benefit of the greenhorn in the back.

I might also mention that some of the supplies onboard were repair parts for the Cessna, since it had a "small crash" at the Cinnabar Creek dirt strip on the first flight in for the season. Apparently there was a "white out" on the approach and the landing gear struck a snow bank plowed up at the end of the runway. The Cessna nosed over on the runway bending the propeller and damaging the nose cone and other sheet metal. They, of course, didn't tell me about this until we climbed out of the plane at Cinnabar Creek . . . and I was glad.

That evening, in the cook shack, Allan Hubbard introduced me to Herb Egnaty and Francis Alayousis, Alaska Natives hired to work at the mine. Herb was a Cat skinner from Sleetmute and Francis was a laborer from Aniak. They worked the entire season except for one flight home to visit their families. During the season the mine had several other part-time employees for brief

periods of time. They included a couple of traveling laborers from San Francisco, Jay McClure (a college student and son of the owner), and two others from Aniak.

It took several weeks before the crew warmed up to me and I began to find out about some of the problems they experienced during the summer of 1969 with the young man I was replacing. He wasn't happy there and let them know it. He apparently stayed in his bunkhouse except for meals in the cook shack and infrequent trips up to the mine for his reporting duties. He had brought several boxes of novels with him (recall our interview) and, more importantly, a .357 Magnum handgun specifically forbidden by Pickands Mather. It was relayed to me that later in the summer he once brandished the handgun when Allan Hubbard attempted to "roust him from his bunkhouse for some work." Needless to say, everyone was on edge that season.

The mining operations at Cinnabar Creek



Francis Alayousis seated on one of the cinnabar barrels.

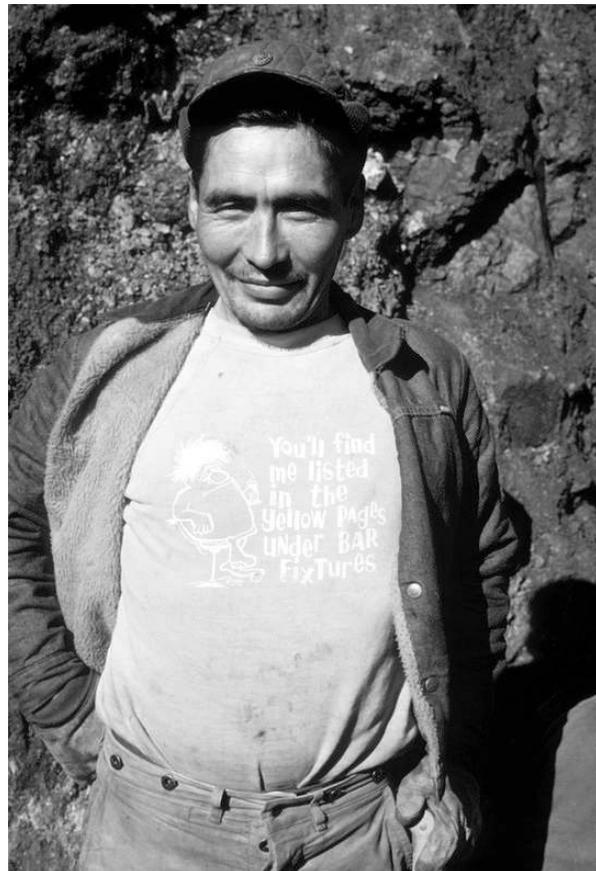
consisted of occasional blasting with dynamite, ripping with a D-6 Cat, and then loading and hauling with a Hough Payloader front-end loader. Often high-grade ore would be recovered by “hand cobbing” in the pit. Following blasting or ripping, we would walk over the area and grab ore chunks that were fist-sized or larger and place them in a gunny sack or five-gallon pail. These were hauled to the plant and placed in a pile. When the pile got big enough, the material was fed directly into the crusher, reduced to half-inch size, and then packed in war-surplus, eleven-gallon barrels for shipping.

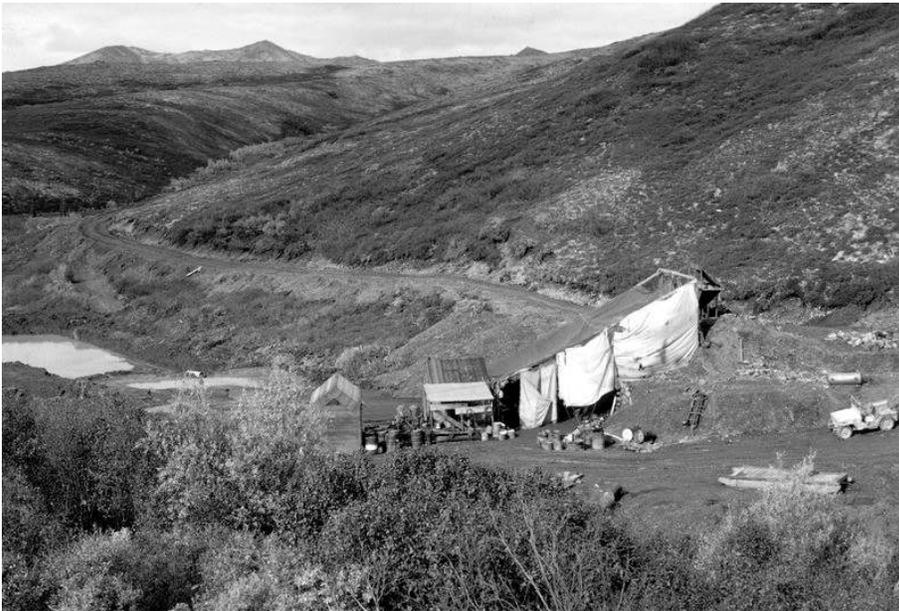
Lower-grade materials traveled the entire length of the process circuit, which consisted of a loading pocket with a grizzly to separate oversize material then fed to a 6-inch jaw crusher. Secondary crushing took place in a one-ton-per-hour

Straub ball mill approximately six feet in diameter. The sized product moved by gravity to two banks of three flotation cells, with the waste discharged into a small tailings pond.

I remained at Cinnabar Creek for the entire mining season, which ended on October 27. My main responsibilities were to observe the production of cinnabar ore products, which included the hand-cobbed ore, jig concentrate, and flotation concentrate, and to produce both weekly and monthly reports. The ore was shipped in barrels. As these were loaded into the plane I tabulated the shipment for total weight. Most of the ore was flown by the Cessna 206 to Aniak, on a weekly if not daily basis, and then air freighted to Anchorage by Wein’s Consolidated Airlines. Toward the end of the season it was necessary to add commercial flights by mid-sized prop planes from

Herb Egnaty standing in front of exposed cinnabar.





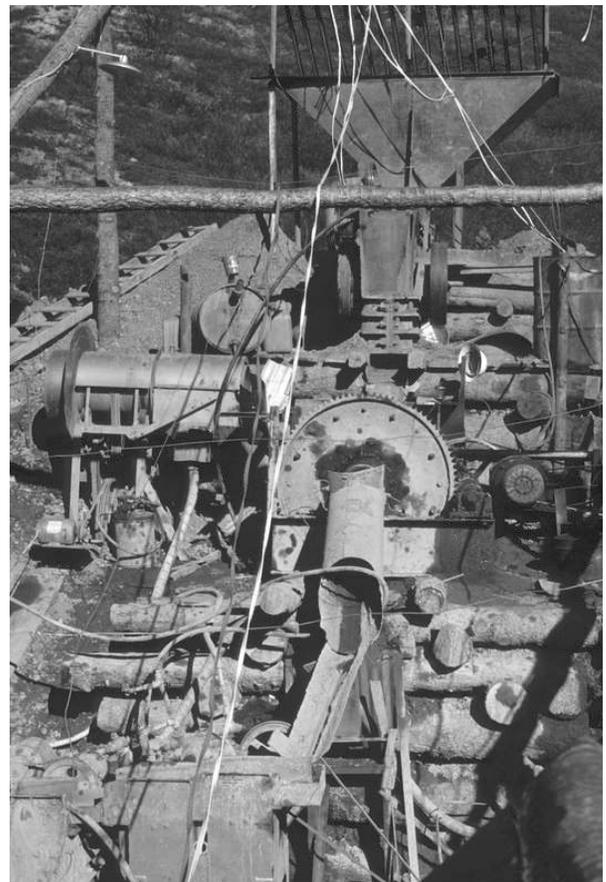
An overview of the Cinnabar Creek recovery plant. The canvas covering was for rain protection during the summer months. At the end of the mining season the canvas was taken down and the machinery left outside to winter over. One of the shacks housed a diesel generator, the other a lunchroom-laboratory.

Cinnabar Creek to Aniak.

I also conducted sampling and on-site testing of the three ore products. There was a crude laboratory set up in a mine shack that allowed for testing the percentage of mercury. This would give us an idea of the potential end product of mercury following retorting. During that 1970 season we produced approximately 550 flasks of mercury. A "flask," the traditional method still used to pack and ship mercury (Hg), contains seventy-six pounds of the metal.

We conducted some claim staking during the autumn months at Cinnabar Creek, and I made some geological maps of those claim sites in addition to producing one of the main "Princess Pit." I also tried my hand at some panning and prospecting, which was more just for fun and the experience.

The Cinnabar Creek processing plant with the canvas removed just prior to fall shutdown. The triangle at the top is a four-ton hopper with grizzly. The square box directly below that is an 8 by 10-inch jaw crusher. The cylindrical machinery broadside farthest left is a trommel classifier, and the cylinder at center with the teeth is a one-ton-per-hour ball mill. At lower left sit 8 by 10-inch duplex jigs.





An aerial view of the Princess Pit taken in December.

Cinnabar Creek was one of several prospects discovered and worked by “one of Alaska’s ‘tough guy prospectors,’” Russel R. Schaefer. Schaefer was inducted into the Alaska Mining Hall of Fame in 2007, according to its website, for his “amazing feats of mining and prospecting in...the Kuskokwim Mineral Belt.” Tales of Schaefer’s single-handed adventures make up the folklore that is the definition of the Alaskan prospector. My time spent with Frances McClure, his sister, allowed me to gather some details about his career. We all had our meals together in the cook shack during that summer and although McClure wasn’t all that talkative she would occasionally reminisce. I’ll try to retell her stories here as well as possible considering the forty year lapse; no notes, just a fading memory.

Apparently Schaefer did not get along well with his father and ran away from home at an early age. He ended up in the Matanuska Valley of Alaska working as a farm tractor operator. I believe it was there that he might have met Harvey Winchell and they became partners, but that’s just a guess.

McClure told me one story about when Schaefer spit from Winchell. I don’t believe that I was ever told the name of Schaefer’s partner, but here I’m using the listing for Schaefer on the Alaska Mining Hall of Fame Foundation’s website. Apparently Winchell was the bush pilot part of their partnership, so when they split Russ had to purchase a used airplane and learn how to fly. As McClure told the story, he went to Anchorage, stopped at the public library, checked out a book on “How to Fly,” read it for several hours and then went and purchased an old used plane. He immediately had it fueled and then flew it the four hundred miles directly to Cinnabar Creek through those notorious mountain passes. This whole scenario occurred over the span of one day! Of course, Schaefer may very well have acquired the basics of flying during many flights with his partner Winchell.

Another story involved the Red Devil mine and the D-6 Caterpillar that was still at Cinnabar Creek that summer of 1970. Apparently the Red Devil had the Cat out doing some assessment work in a swampy area near where Schaefer was

Herb Egnaty at the controls of the D-6 that Russ Schaefer recovered from the mud at the Red Devil mine.

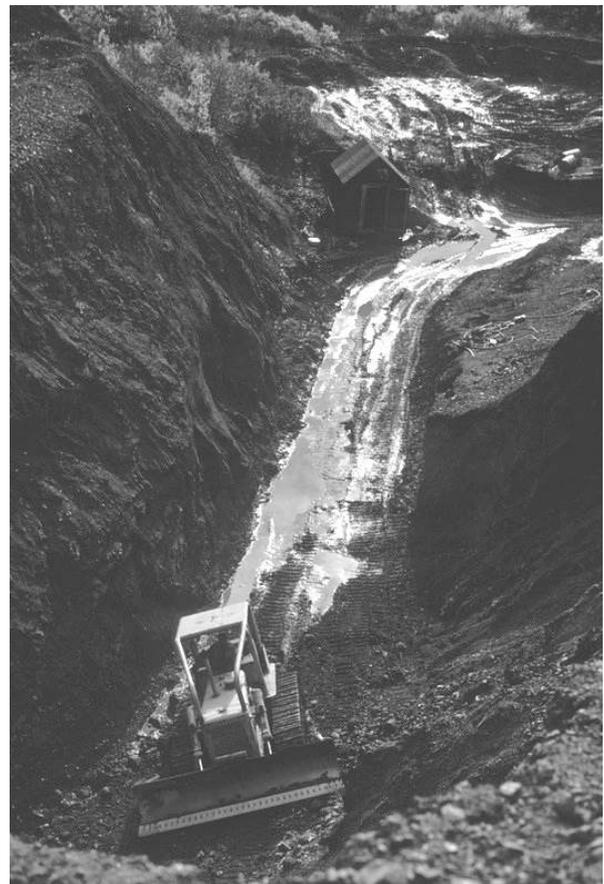


working. The crew buried the Cat over the top of its tracks in the muskeg. They attempted to extricate it over the period of several days but finally gave up. Schaefer went to the mine superintendent and rubbed some salt in the wound, as you could imagine a “tough guy prospector” might do to a larger mining operation.

That seemed to do the trick; the superintendent told Schaefer that if he thought he could get it out then he should give it his best and if he recovered the D-6 he could have it. You guessed it; it took Schaefer more than a week of trying, but he finally extracted the Cat. The trick he used was to cut pine trees down and chain one across the front from track to track. He then walked the Cat the just the length of the track, unchained the log, and wrestled it back up to the front—over and over again. No telling how many times he had to do that, but he dearly needed a Cat at his mine. Once freed, he walked it directly to Cinnabar Creek and the Red Devil folks never saw it again.

During that summer of 1970 I had time to wander all over the area of the Cinnabar Creek Mine and examine Schaefer’s earlier work. He created or invented many gadgets to accomplish tasks with only himself and his two hands available. One especially notable device, used to secure and position his airplane, was a triangular platform

The D-6 at work in the Princess Pit.





Russel Schaefer's grave lies at the edge of the runway, visible under the left wing of a Twin Otter landing at Cinnabar Creek.

mounted just off the ground on a heavy steel pipe with a bearing mounted on top. Schaefer would taxi the plane onto the ramp and secure it. Once in place, the aircraft would automatically point into the wind, its tail acting as a weathervane pivoting around the pipe. His invention meant that Schaefer did not have to constantly reposition the airplane to face the wind as it changed directions. The ramp was still there, just off the edge of the runway near the camp shacks.

Charles C. Hawley, on the Alaska Mining Hall of Fame Foundation's website, recorded Bob Lyman's account of discovering Russel Schaefer dead at Cinnabar Creek. Lyman, worried because he hadn't heard from Schaefer via radiotelephone for some time, flew to Cinnabar Creek and, wrote Hawley, "found him dead, apparently from a heart attack."

Frances McClure told me that Schaefer was clearly developing symptoms of mercury poisoning. His friends in Aniak and at the Red Devil mine told him he needed to avoid the mercury fumes coming from his retorts. My recollection is that just behind the camp buildings sat two gen-

erations of retorts. One was a tall, twenty to thirty foot, steel shaft furnace and the other looked more like a brick pizza oven. McClure had been told that he often welded on the steel retort when it was operating.*

McClure told me that it was thought that Schaefer was on his way to his airplane to fly out when he collapsed. Because the animals had gotten to him before Bob Lyman found him he was just buried where he had fallen. Thus the grave is actually almost on the dirt airstrip itself. I'm sure that Lyman didn't want to relate, or even recall, the details of his close friend's death. I believe that it is better just said that he died of a heart attack, but I thought I should explain why Schaefer's grave was on the Cinnabar Creek air strip.

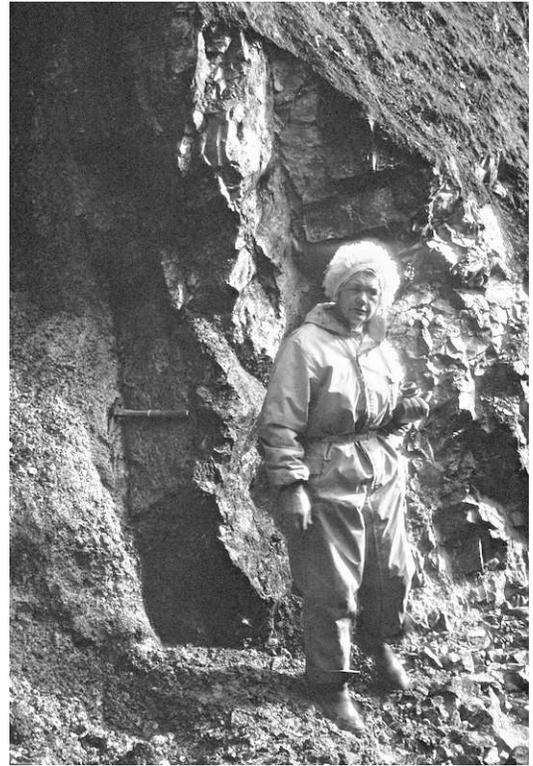
Schaefer willed his properties, including Cinnabar Creek and the placer gold '47' Creek, to McClure. She told me that she had been married

* I've been trying to locate a stack of black and white photos of Schaeffer's handmade equipment and the retorts that I took that summer of 1970. I hope I'll yet rediscover where these photos are after more than forty years and about five moves between three states and one Canadian province.

to a vice president of General Dynamics Corporation and after their divorce she decided to travel to Alaska to examine the property willed to her by Schaefer. Having done that, she decided that she would try to get the Cinnabar Creek mine up and running again. Not having any mining experience, she placed an advertisement in the *Wall Street Journal* to attract a mining company or engineering firm. This might have been in the mid to late 1960s.

Unfortunately she was scammed out of her money by some crooks, which seemed to have permanently affected her attitude toward men in general and made her vary wary of business dealings. Slightly later, through friends I believe, she contacted a man in Salt Lake City who had mining contacts in Odessa, Texas, and with Pickands Mather Company. This eventually brought about the joint venture at Cinnabar Creek starting in 1969, but I recall being told that some of the Pickands Mather people that first visited the property were waved off by McClure as they tried to land on the dirt strip at Cinnabar Creek. It took some smooth talking over the radio to convince her to allow them to land.

We worked almost every day of that summer of 1970, but one day Allan Hubbard flew us to



Frances McClure, owner of the Cinnabar Creek mine during the author's summer there, photographed in the Princess Pit.



An overview of the Cinnabar Creek camp from the hill above showing, from left, the two repair buildings, the generator building with the black wall, the group of three buildings together being McClure's cabin, the cookhouse, and one red bunkhouse back to front, and, farthest right, the other red bunkhouse and the Cessna 206.



An aerial view, taken in 1988, demonstrates why the mine did not operate year round, although Russel Schaefer wintered over for years.

Schaefer's Forty-Seven Creek claims. I, Jay McClure, and his sister all spent the day at that prospect sluicing and panning for a bit of gold show. This brings me to one last story about Frances McClure. I believe she had caught the prospecting and mining fever from her brother. Schaefer had built a sluice box large enough to drive a small Cat into the upstream opening, but only really during the spring thaw was there sufficient water to process any gold.

Schaefer would push piles of gravel upstream of the sluice during the summer months and then the following spring he would shove these "stockpiles" into the sluice during break-up. Following "cleanup" he filled a number of fifty-gallon barrels with the "black sand" concentrate containing gold and scheelite (tungsten). These barrels were stockpiled at the claims and I was told that at the end of the 1969 season at Cinnabar Creek, McClure had two barrels flown out to Aniak and

then air freighted to New York City where she had an apartment. That winter of 1969-70 she panned gold in her apartment near Central Park! She really did take after her brother.

We scooped out "concentrate" gravel from a few remaining barrels for our day of gold mining at Forty-Seven Creek in 1970. I know that I wasn't very good at panning, but everyone gave me a lesson or two and I ended up with several small flakes of gold. Later that summer I tried my hand at panning again, but this time for mercury at Cinnabar Creek. I scooped out and weighed twenty-seven pounds of fault gouge from along the main vein in the main Princess Pit. Here I could easily see abundant beads of mercury "perspiration." I took this down to the creek and over a period of half an hour I panned nine pounds of native (liquid) mercury. If I remember right that was just the amount that would fill a tall slender horseradish jar. It was also easy to pan out small

nuggets of almost pure cinnabar from the creek gravel. Schaefer had made the original discovery at Cinnabar Creek by panning the streams, as there were few outcrops in the area.

All in all, the summer of 1970 was a real adventure for me and probably the best job during my entire career. I dream that someday I'll be able to travel back to the Kuskokwim River Valley and revisit the Cinnabar Creek mine. Maybe I would only be able to fly over the property, but I'd really love to spend an hour or two on the ground there. I see that there is a hunting and fishing guide who works that area; maybe I'll have to contact him through his website and see what the possibilities are. I'd better not wait too long because my knees and back aren't getting any younger! ■

Henry Djerlev graduated with a B.A. in geology from the University of Minnesota, Duluth, in 1970. He first worked for Pickands Mather Company, which was eventually absorbed by Cleveland Cliffs, its long-time competitor in the Lake Superior Iron Ore District. After four years as an exploration geologist in Alaska, the western U.S., and western Canada, he was the mine geologist at the Hibbing Taconite Company's iron mine at Hibbing, Minnesota, from its inception until his retirement in 2000. For the past thirteen years he has been a consulting geologist and owner of Superior GEO-Services, located in Hibbing, Minnesota.

