



Leonard Harris

Leonard (Len) Harris was born in Yeppoon, Queensland, Australia in 1927. His father, Joseph Harris, was a first generation Irish Australian and followed his father as a miner. His mother, Edith Beatrice Littlejohns, was a first generation Cornish Australian.

In 1937 Len's family moved to Mt. Morgan. Len completed his primary and high school education in Mt. Morgan and enrolled in the Mt. Morgan Technical College to study metallurgy. During this time, he hired on to Mt. Morgan Ltd. as a Cadet Metallurgist under an indentured six-year period. All tuition, fees and books were paid for by the company. While working as a Cadet Metallurgist, he spent most of his time as an Assayer/Chemist. In 1949 Len received a Diploma in Metallurgy from the Queensland

Department of Education and was promoted to Research Metallurgist.

Mt. Morgan Ltd. was a significant producer of copper. During World War II, the employees were exempt from the draft as this operation was considered to be a "protected industry". Employees were expected, however, to take part in civil duties and Len joined both the town and the company fire brigades. Mt. Morgan was a very generous company with respect to community aid. During his employment at Mt. Morgan, Len experienced the value of a company that was engaged in the community and the lives of the employees as well as others in the surrounding communities. However, Len also saw first-hand issues like acid rock drainage and polluted rivers and waterways, which left an impression on him. Len also experienced a severe work place accident that put him in the hospital. These were experiences, which helped form Len's values and passions that drove his career to making "mines safer and more responsible."

In 1951 Len went to work at Mt. Isa Ltd. in Mt. Isa Queensland. He worked there for two years as an Assayer/Chemist, and as a Mill Shift Boss. Len was attracted to Mt. Isa because they paid a bonus tied to the sales price of lead. Mt. Isa Ltd. was also a very generous company with respect to community assistance. They built swimming pools, playgrounds, recreational parks and a golf course.

In 1953 Len took up the position of Metallurgical Engineer at the Radium Hill Uranium Project in South Australia. Radium Hill was located in the desert west of the big mining town of Broken Hill. Radium Hill was owned by the South Australia government and overseen by the Australian and U.S. Atomic Energy Commissions. The entire operation was top secret.

Later in 1953, Len left Australia and made his way to London, where he accepted a job in the Gold Coast as a Technical Officer with Taquah & Abosso Mines Ltd. The contract was only for 15 months working in a gold plant.

Len left the Gold Coast in 1955, and went on to Lima, Peru. Len traveled to La Oroya by train. La Oroya at 3,000 meters altitude was the center of Cerro de Pasco Corporation mining operations. Len started as a Research

Metallurgist and was quickly promoted to Senior Hydrometallurgist. He went to work in the smelters as Lead Smelter Metallurgist, Copper Smelter Metallurgist, Deputy Lead Superintendent, Copper Smelter Superintendent, and finally as Director of Metallurgy. In this position Len had 30 metallurgists from all over the world working for him on a variety of projects in the concentrators, smelters and refineries. Cerro de Pasco Corporation produced a host of base metals and rare metals. This was one of the most complex metallurgical operations in the world -- receiving ores and concentrates from their five other Peruvian operations, concentrates from other Peruvian mines and from mines overseas.

Cerro de Pasco Corporation engaged in extensive community assistant services for the families of the employees. The workers were allocated free housing, free health services and free schooling and sporting facilities. The staff occupied subsidized housing and enjoyed free schooling and health programs. There was a large department of social workers engaged in these programs.

In 1956 Len met a nurse from the company hospital, Rosa Haydee Navarro Talavera, at a company dance. They married in 1957 and are still married today, 60 years later.

During his 16 years at Cerro de Pasco Len saw many good things but he also experienced some very difficult times in worker strikes and attempts to overthrow the government. Len gathered these experiences and his passion and desire to operate a mine with fair treatment and providing benefits to the community continued to grow, knowing "that we can do better."

Len left Peru in 1971 and returned to Australia as Mine Manager of Texada Mines Ltd. Texada's operations were located at Lake McCloud, a dried-up lake some 50 miles from the city of Carnavon in West Australia with 4,400 acres of evaporation ponds and a wash plant. The salt was transported in trucks 15 miles to the company-owned port of Cape Cuvier and loaded on ships bound for Japan. Len became manager of the salt operations and Port Captain over time. On arrival at Lake McCloud, the plant was producing some 300,000 tons of salt per year. When Len left two years later, it was producing four million tons of salt per year.

In 1973 Len received an offer from his former company, Cerro de Pasco Corporation, to work in their headquarters in New York City. He travelled between the Peruvian operations and New York but later, worked with a team on a major project involving a new copper smelter and refinery in Pine Bluff, Arkansas and a fluospar mine and mill in Paducah, Kentucky. On January 1, 1974 all the Peruvian operations were nationalized by the Velasco government and the company virtually collapsed. Later in 1974, the entire company was purchased by the Pritzker Group from Chicago, which finally terminated Cerro de Pasco, which had started operations in Peru in 1901.

In November 1974 Len joined Newmont Mining Corporation in New York City. Len spent 16 years with Newmont initially as a Research Metallurgist at their facilities in Danbury, Connecticut and worked his way to Vice President of Research and Development and Vice President of Metallurgical Operations. During this time, he visited and worked on five continents of the world finding opportunities for new projects and assisting those in existing operations. Len became a Director of Newmont Exploration Ltd., Newmont Mines Ltd., Newmont Australia Ltd., O'okiep Copper Company, and an Alternative Director of Pallabora Mining Company and Tsumeb Corporation in Namibia.

On July 26, 1992 Newmont decided to put the Yanacocha gold property in Peru into operation together with two partners, namely the BRGM (40%), Buenaventura (20%) and Newmont (40%) as manager. Len was named General Manager of the newly formed Minera Yanacocha Company. He immediately moved to Peru. In a very

short period of time from exploration through testing, the first gold bar was produced on August 7, 1993 with the production increasing to 1.0 million ounces in 1995 and later expanded to 3.3 million ounces per year.

On the negative side, however, Peru was in the midst of a civil war and terrorism, orchestrated by The Shining Path and Tupac Amaru. These groups had killed 80,000 people and caused billions of dollars of damage to the Peruvian infrastructure. Roads were in terrible condition across the country, the people were on edge and health care in the general vicinity of the Yanacocha mine operations was extremely limited.

Len was worried about the communities in close proximity to the mine, so he set up a community assistance program which began with a social/cultural study of the communities, i.e., what were their needs, concerns and aspirations. The results were shocking. A high degree of poverty, malnutrition, and disease existed in both the children and the adults, and scabies and head lice were very prevalent amongst the children. On his own initiative Len hired two doctors to conduct a survey of the villages, which found 70-80 percent of the children suffering from malnutrition. He attacked these problems in a joint venture fashion with the help of the mine owners, government organizations, non-government organizations (NGOs), the military, the churches, and contractors and suppliers of goods and services to the mine.

Len also requested that his wife, Rosa, assist by forming a Ladies Association, along with his continued guidance and assistance, to help resolve the health and education problems of the children and their families. Rosa, a native Peruvian, eagerly accepted the challenge. This association originally consisted of 12 women and ultimately grew to over 100 women under Rosa and Len's leadership and guidance. Their work spread from 900 children to 5,000 children living in the villages and hamlets around the mine. A lunch program was set up and the company was able to receive food supplies from USAID, using the help of US Ambassador Alvin Adams. Minera Yanacocha supplied wood-fired cooking stoves and the community mothers did the cooking. This was well received by the communities and immediately increased the number of children (especially young girls) attending school. The Ladies Association also sponsored school supplies and school furniture for the school children. In order to improve the nutritional program for the school population, a quinoa planning project was introduced and aimed at augmenting the food for the school lunches. Quinoa is widely grown and eaten throughout the Andes of South America. Before this program began at Yanacocha, the local community only used quinoa to feed turkeys and chickens. Quinoa is a high protein grain that grows in high altitudes. The project continues today with large success.

At the same time, Minera Yanacocha, under Len's direction, installed numerous portable water plants and latrines with the help of C.A.R.E. Clean, potable water was a critical issue in Peru as was identified by the Peruvian Minister of Mines as a priority.

The Ladies Association continued their work in the communities for ten years which included the start of school vegetable garden plots to help put food in the cooking pots; the treatment of scabies with creams provided by donations from doctors in the U.S.; and increased attention to dental hygiene with tooth brushes and tooth paste, also provided by donations. Another initiative of the ladies' health program was the treatment of head lice. Treatments for lice were provided by the Peruvian contract drilling company Geotec. Young military draftees helped by providing haircuts.

The Ladies Association created a program for the training of midwives in the communities with the help of the School of Obstetricians and Doctors in Cajamarca. They were taught how to deliver and position babies to prevent the high mortality rate of mothers and children at the time of birth and diminish infections by using better antiseptic practices. The program was subsequently passed on to the Cajamarca Regional Hospital.

High school age children were trained in trade occupations such as carpentry, sewing and dressmaking, basic electricity, bakery and cheese making. As a result of the tremendous success of this program a local village school was officially named Rosa de Harris. Such a gesture of naming a school after any individual in Peru is a rare event.

The Ladies Association work was carried out with the help and donations of the contractors, suppliers of goods and services and individuals. Meanwhile, the company under Len's leadership and the community relations team were engaged in numerous projects, which included the installation of first aid posts, the repair and building of new schools, upgrading and building roads, planting trees and the reforestation and restoration of the land that had been disturbed during the mining operations. Several excess water treatment plants were also installed to supply water to the farmers.

The ultimate objective of these programs was to create a peaceful neighborhood to allow the company to operate at ease and to create a sense of sustainability whereby the future lives of the people would be greatly improved. This was not a hand-out program but rather a hand-up program designed to prevent dependency and paternalism.

Len stated on numerous occasions, "I recommend that all mining companies have a community assistance program modeled after the program at Minera Yanacocha Operations."

Len left Minera Yanacocha at the end of 1994 and was named President and General Manager Newmont Peru and Vice President and General Manager Newmont Latin America. He continued to be based in Peru.

Len retired from Newmont in mid-1995 and returned to his home in Denver.

In mid-1996 Len took up another career as a mining company director and consultant. He holds the following positions today, Chairman, Resource Development Inc.; President, B&H Mine Services; Director, Solitario, Resources and Royalty Company; Director, Canarc Resource Corp.; Director, Cardero Resources; and Director, Wealth Minerals. Len currently consults with Minera Titan del Peru, Vena Resources, Indico Resources, Golden Arrow Resources Corporation, JVS Ingenieros, JD Bowery & Associates, and H&H Metals Corporation.

Len previously was a Director of Corriente Resources, Alamos Gold, Glamis Gold, Castle Gold, Pediment Gold, Sulliden Gold, Indico Resources, Coronet Metals, Golden Arrow Resources Corporation, Golden Alliance, Morgain Minerals, Aztec Metals, and Endeavour Silver Corporation.

In the past, he was Chairman of the Technical Committee of the International Copper Research Association, Chairman of the Mining, Oil and Gas Task Force of the Chamber of the Americas, Director of the International Lead and Zinc Research Organization, President and General Manager of the Smelter Control Research Association, President and General Manager of the Smelter Emissions Control Association, and Chairman of the International Congress on Environmental Safety and Social Responsibilities Congress, twice Chairman of the Gold and Silver Symposium held in Lima, Peru, President of the New York Mining Club, Advisor to the Company Complete Metallurgical Plants, Member of Frank Veneroso's Mining Investment Team, and Senior Associate of Behre Dolbear Company.

Organizations that Len currently belongs to include:

Golden Fellow Member of the Australasian Institute of Mining and Metallurgy (since 1944); Legion of Honor Member of the Society for Mining, Metallurgy and Exploration Inc. (since 1954), former Trustee of SME Foundation; Member and Past Chairman of Colorado MPD group of the Colorado SME section; Past Chairman

(14 years) and Current Member, SME International Committee; Member and Past President and Founder of Denver Section of the Mining and Metallurgical Society of America; Fellow of the Institution of Mining and Metallurgy; Life Member of the Canadian Institute of Mining and Metallurgy; Member (and former Director) of the Peruvian Institute of Mining Engineers; Honorary Member of the Peruvian College of Engineers; Member of the Peruvian Society of Engineers; Honorary Member of the Mexican Association of Mining, Metallurgical and Geological Engineers; Benefactor Member (and former Director) of the National Mining Hall of Fame and Museum, Leadville, Colorado; Member of the Southwest Mining Association, Tucson, Arizona; Life Member of the American Society for Metals; Member of Colorado Mining Association (Member International Committee); Former President of New York Mining Club and former Program Chairman and Member, New York SME Section (16 years)

AWARDS

Hoover Medal - ASME Gold Medal for Lifetime Achievement - Mining and Metallurgical Society of America The William Lawrence Saunders Gold Medal Award - AIME Community Assistance Award - SME - presented to Len and Rosa Harris Krumb Lecture Award - SME The Arthur C. Daman Lifetime Achievement Award – Colorado MPD-SME Subsection Medal of Merit - Southwest Mining Association Mining Man of the Millennium - Randol Gold & Silver Forum Engineer of the Year Award - Peruvian Society of Engineers Gold ‘Tumi’ Award and Diploma from the Peruvian College of Engineers Peruvian College of Journalism Award - A Paper Presented at the National University of Central Peru in Huancayo as a Keynote Speaker at a Conference of Mining Technology Today Cerro de Pasco Operations Award - Improvements Made in the La Oroya Lead Smelter Newmont Chairman Award - Development and Operation of Minera Yanacocha Past Master - Gold Metal Roof of the World Lodge Len has been named the Godfather of a Graduation Class of Metallurgical Engineers from the Lima University of Engineers and as Godfather of a Graduating Class of Mining Engineers from San Marcos University in Lima. Len holds several patents covering metallurgical processes and has published numerous technical papers about the mining industry.

In this interview, Harris discusses the evolution of the mining industry over the past forty years.