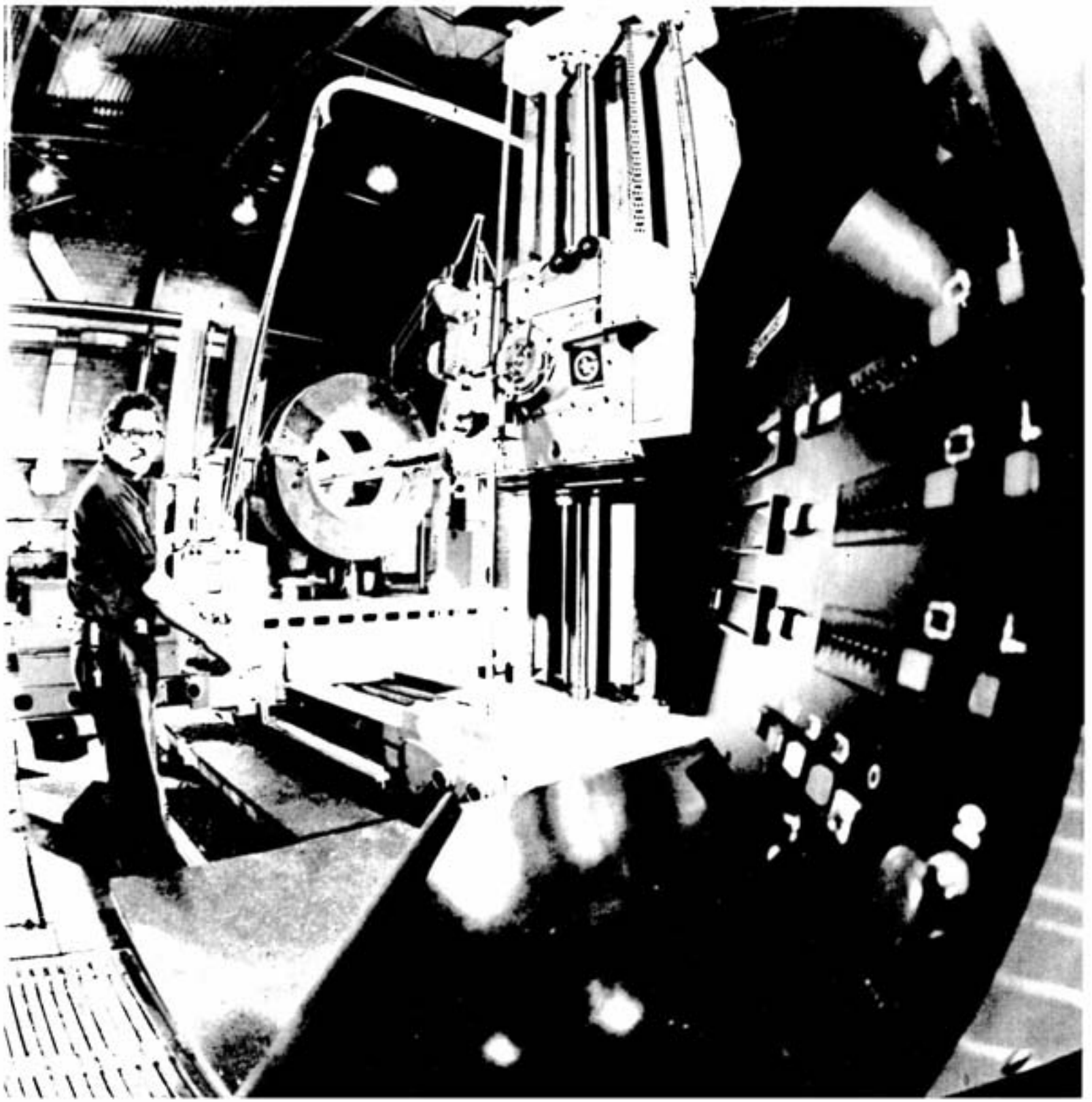
THE Triangle

AUGUST 1980



Triangle

Publications Editor:
Peter vom Scheidt

Writer:
Meribeth Dingwall

Port Colborne Correspondent:
Dino Iannandrea

On the cover

Richard Urysz, a graphic designer in the training and development's audio visual group, used a fish eye lens to render this view of first class machinist Chris Nadjiwan boring out a crusher bearing on the horizontal boring mill in the machine shop. The machine shop is part of the new divisional shops complex which was officially opened on August 23. A description of the new facilities begins on page 16.

August 1980
Vol. 40 No. 8

Published by the public affairs department for employees of the Ontario division of Inco Metals Company, Copper Cliff, Ontario, P0M 1N0.
Phone 705-682-5425

Printed in Canada
by Journal Printing Company,
Sudbury, Ontario.

Inco reaffirms commitment to occupational health and safety and the environment

Inco Metals Company is very concerned about recent publicity which may give the impression that the Company is not committed to meeting its responsibilities in the areas of occupational health and safety and the environment.

Two recent articles in the Globe and Mail ("Inco workers allege coverup on pollution", July 17, 1980, and "Province to probe Inco dust allegations", July 18, 1980) which contain factual errors, incomplete descriptions of conditions and incorrect statements of Inco policy are cases in point which the Company feels it must address.

These articles may lead the reader to believe that Inco is reducing manpower or letting equipment efficiency go down at the expense of worker safety or environmental control.

In the article of July 18th, a Ministry of the Environment official, Les Fitz, is quoted as saying a recent statement of Inco Metals President Walter Curlook was "simply not true". Dr. Curlook had cited emission figures which he said were "based on 16 recent Ministry of the Environment — supervised stack sampling procedures . . . " Mr. Fitz said that the Ministry had no input and did no auditing on those tests. Dr. Curlook was mistaken, based on honest belief, that the tests were supervised; they were not, and the Company accepts responsibility for this error. It is true, however, that the tests were conducted in accordance with the Ministry's Control Order, and officials of the Ministry were aware of the procedures to be followed. While the Ministry had always supervised such tests in the past, it chose not to supervise these tests.

In his statement, Dr. Curlook said the tests showed that total dust emissions have been reduced "to about six tons per day at current production levels." According to the Globe article of July 18, Mr. Fitz said the Ministry "believes" the total dust emissions from our smelter stack are 20-25 tons a day. Inco has not seen any data on which the Ministry bases such belief and, therefore, cannot comment. The Company is confident that its tests were carried out properly and the results are valid.

The article also says Mr. Fitz estimates that 49 tons of particles are emitted by all Sudbury smelter activity (both Inco and Falconbridge) everyday, based on 1977 figures. The fact is that production rates today are lower than 1977, and particle emissions are correspondingly lower.

Baseball Fun at Levack

The Levack mine complex softball tournament was held recently at the Onaping baseball field with some 80 Levack area employees participating Eight teams battled for the number one position, and the Levack mine shaft crew emerged the winner.

"We had such a good time, we're planning to have another tournament before the summer is over," said Janie Therrien, secretary at Levack mine.

Racing to home plate is Gerry St. Louis, right, as catcher Yvon Goudreau prepares to tag him. Yvon is a ventilation assistant in the Levack engineering department.

Gerry St. Louis, general foreman at Levack mine, top, collides with Jamie Porteous, son of Earl Porteous, foreman at McCreedy West mine, as they attempt to catch a fly ball. Jamie acted as a spare for one of the teams which was short one player.

A tight squeeze! Janie Therrien, secretary at Levack mine, left, throws the ball to Margaret Young, plant clerk at Levack mine, right, who tries to tag Rick Thibault as he steals a base. Rick is a member of the surface department at Levack mine.

LOOKING BACK

THROUGH THE PAGES OF THE TRIANGLE

1939

Quite a bit of the July Triangle in 1939 was devoted to reporting the visit of Their Majesties King George VI and Queen Elizabeth to Sudbury and, more particularly their tour of Company operations in the areas. His majesty had made a specific request to see Frood Mine, then the world's largest producing nickel mine. Since a mine holiday had been declared there was only a skeleton crew on hand to grant the King his last minute wish of seeing the underground workings. Even so the tour went off without a hitch as every facet of mining was shown the royal couple. On the reaction of the King and Queen to what they saw at Frood Mine the Triangle said: *Throughout the trip both the King and Queen displayed absorbing interest in every detail of their visit, constantly asking questions which showed how quickly they grasped the principles of the various operations they witnessed . . . Often, when they happened to be close together during the visit, they turned to comment to one another, and it was obvious that both thoroughly enjoyed this most interesting and unusual departure from their normal routine.*

1957

By July, 1957 great progress had been made in establishing Inco's new nickel mining project in northern Manitoba. Throughout the previous winter 30,000 tons of equipment and supplies had been brought to the site by day-and-night cat train over the frozen muskeg in a race against the spring thaw. The Company planned to open two new mines, build a mill and a reduction plant and establish a new town for 8,000 with all the modern conveniences in the inhospitable wilderness 400 miles north of Winnipeg. Dr. John F. Thompson, chairman of Inco, and the man after whom the town would be named, was on hand to inspect the work. The Triangle reported that Dr. Thompson was surprised with the amount of work which had already been done and was impressed with the "fine spirit and enthusiasm of our people."

King George VI and Queen Elizabeth visited Frood mine.

1970

The big story in July, 1970 was the work being done on the big chimney - the super-stack. Only about half way to its ultimate height of 1,250 at the time, the growth rate of the super-stack was placed at approximately one foot an hour. Once finished the structure would contain 21,564 cubic yards of concrete and would weigh something like 43,000 tons. Its width at the base was set at 116 feet 5¼ inches, while across the top it would measure 51 feet 9½ inches. The reason cited for its remarkably fast climb into the Sudbury skyline was the use of a precision high speed slipforming method of German design, and non-stop, round-the-clock work being done on the stack.

July, 1970 seemed to be a month of superlatives for the Company. Not only did it examine the super-stack, but it reported the efforts of one super mine rescue team, the Garson mine rescue team. The Garson team of Gerry Charron, Jack Laking, vice-captain John Dagenais, captain Denis Lepage, Gerry Clyke and Paul Dubois captured the Ontario mine rescue team championship and received the Mines Safety Appliance trophy.

Blasting Caps. . .

Sgt. Fred Doyle of the Ontario Provincial Police, displays examples of some used blasting caps and some which have remained intact.

It's hard to imagine such a small object could be dangerous. But a blasting cap can be if not handled properly. According to Sergeant Fred Doyle of the Ontario Provincial Police, blasting caps are deceptive and should be most feared. "They are so handy, so portable, so innocent looking . . . until they go off," he says.

During the years 1968-1975, and 1975-1978, incidents in the misuse of blasting caps have, almost without exception, involved children and teenagers, according to the report of the Explosives Branch, Department of Energy, Mines and Resources. Many of those incidents were the result of children being unaware of the potential danger of blasting caps or other explosives. Children became victims of their own curiosity.

Many children as well as adults are unfamiliar with what a blasting cap is, what it looks like or what it can do if not handled properly.

"A blasting cap is a detonator which is used to initiate an explosive," explains Bob Roach, technical services representative of Canadian Industries Limited. "Each blasting cap contains a small explosive charge and a timing device. It is not a toy," Bob emphasizes. "It's a tool which is used primarily in the mining and construction industries."

Blasting caps are silver-colored and copper-colored metal cylinders about one-quarter of an inch in diameter and range in length from one to three inches. "The potency is the same in all caps, whatever their length," Bob adds. The cap has colored wires or a cord attached to one end of it. The words "DANGER EXPLOSIVE" are written in both English and French on each cap.

Though small, a blasting cap can

. . . Extremely dangerous

At left, Armand Ruel, training instructor at the Frood-Stobie mine complex, explains the hazards of blasting caps while showing examples to trainees Mike Beausoleil and Robert Deroy.

create a great deal of damage if not treated with respect. According to Sgt. Doyle, a single cap can blow a gaping hole in a metal oil tin along with several perforations from bits of steel, or it can disintegrate a large chunk of a baseball.

Blasting caps have been found in all kinds of locations, in fields, vacant buildings, near dumps, construction sites and along roadsides.

What should you do if you find anything that resembles a blasting cap? "Don't touch it! Leave it where you found it," cautions Bob Roach. "Immediately report it to your teacher, fire department or the police."

Local police forces, the Sudbury Regional Police, R.C.M.P. and O.P.P. have combined efforts to assist area citizens dispose of unwanted blasting caps and other explosives. They have inaugurated the Explosive Disposal Program which began in May. The local police, through the local media, asked residents who had or knew of unwanted explosives to contact the proper authorities who would send in a disposal team to remove and destroy the items. According to Sgt. Doyle, the program "has been working fairly well" with many people calling his disposal squad to get rid of blasting caps, dynamite and ammunition which, until the program's commencement, were ignored in some nook in the basement or outdoor shed.

The Explosive Disposal Program is aimed not only to help people get rid of explosive materials that could maim or possibly kill someone, but it also has an educational function.

A blasting cap can disintegrate a large chunk of a baseball, as Sgt. Doyle clearly points out.

Sgt. Doyle holds a metal oil tin with perforations damaged by a single blasting cap.

Children in particular are being taught to recognize what blasting caps and other explosives look like and how dangerous they can be. This heightened awareness, officials hope, will save a lot of pain and anguish in the future.

Inco Metals is similarly eager to promote its own explosive awareness course, an induction course which is part of the overall underground training program at its central training centre located at the Frood-Stobie mine complex. Through the use of manuals and hands-on practical training, employees learn all aspects of underground mining operations, including the operation of mine tools and materials such as blasting caps and other explosives, and how to safely handle them.

"The course deals with the identification of different types of explosives and their safety features, the construction of fuses, detonators, ignitor cords and burning speed," explains Hugh Ferguson, training supervisor of all mines at the Frood-Stobie mine complex. "It also includes the handling and storage of explosives, how and where to store them. In the induction driller program, employees learn to properly handle drills, position holes and load them, and wire all fuses and light them. They also learn to safely guard blasts.

"We hope the knowledge gained here about what blasting caps and other explosives are, what they look like and how dangerous they can be, will reach home to the employee's family," Hugh says.

Remember, if you or any member of your family should find any sort of explosive material, do not touch it. It may be extremely volatile with advanced age. Notify your teacher, the fire department or the police department. Tell them what you have found. It is important that you give some description of the material including type, amount, location, markings, approximate age and condition so that proper precautions may be taken for its safe removal.

AUGUST APPOINTMENTS

Raymond Allison, safety foreman, Garson mine

Gordon Annis, project leader, Clarabelle mill

John Ayre, programmer analyst computer services, Copper Cliff

Richard Bonlinen, process data analyst, Copper Cliff

Lawrence Burton, safety foreman, Garson mine

Frank Carbone, designer, engineering, Copper Cliff

Lawrence Cochrane, area geologist, Creighton No. 9

Jim Curry, supervisor of employment, Personnel and Office Services

Karen Curry, public affairs co-ordinator, Copper Cliff

Marvin Degazio, capital expenditures analyst, Copper Cliff

Monica Delorme, maintenance clerk-steno, Levack mine

Cathy Dionne, capital expenditures analyst, Copper Cliff

Robert Epps, safety foreman, Frood mine

Grant Fleury, senior draftsman, general engineering, Copper Cliff

Yacker Flynn, capital expenditures analyst, Copper Cliff

Sanlo Fragomeni, senior draftsman, general engineering, Copper Cliff

Gregg Gavin, salary administrator, Copper Cliff

Joseph Gaydos, incentives administrator, mines engineering, McCreedy West mine

Robert Gillespie, water regulator, Central Utilities

Harold Granthien, senior geologist Copper Cliff South mine

Irvin Hrytsak, supervising systems analyst, computer services, Copper Cliff

Raymond Hyde, supervisor of technical support, computer services, Copper Cliff

Roman Krause, surveyor, mines engineering, Copper Cliff

Shahan Legault, maintenance foreman, Copper Cliff mill

Mike Levesque, process foreman, Copper Cliff smelter

Robert McDonald, superintendent roaster kiln, I.C.R.P.

Laura Mitchell, office supervisor, nickel refinery

Brenda Modesto, senior purchasing clerk, Clarabelle mill

Joseph More, senior process assistant, copper refinery

Brian Oster, process chemist, matte processing

Robert Reyburn, general foreman engineer, Port Colborne nickel refinery

William Ryan, safety foreman, Stobie mine

Gunnar Saare, safety foreman, Garson mine

Ronald Tarnopolsky, surveyor, Frood mine

Roderic Tate, assistant manager, mines exploration, Copper Cliff

Sharon Taylor, process assistant, copper refinery

Brian Thompson, supervisor surface drills, mines exploration, Copper Cliff

Edward Vessel, division supervisor, mines engineering, Coleman mine

Fay Waler, staff opportunities co-ordinator and administrator of international service employees, personnel and office services

J. Alfred Ward, electrowinning foreman, copper refinery

Leanne White, accounting steno, Copper Cliff

"Listen to your heart" is motto of Cecile an

In January, 1978, the Triangle featured an article on the adoption of a Korean girl named Lisa Jane by Cecile and Guy Chute of Val Caron. Guy is Inco's central maintenance training co-ordinator.

Cecile and Guy were delighted again a year ago with the arrival of a second addition to the family — another Korean daughter by the name of Kim Alyson.

Cecile recorded in a diary the moment at the airport when she, Guy and Lisa finally saw Kim, the little girl they had long been writing to and waiting for.

" . . . We sat down by the stairs to make sure you would see us or vice versa. When everyone had come down and no Kim, we didn't know what to do. Then someone said over the loud speaker: 'Will Mr. and Mrs. Guy Chute of Sudbury come upstairs to the ticket office?' Lisa had already gone there with her dad, so after waiting a few seconds for them, I went up, and as I got close to you (I knew you right away), you turned around and ran to me and hugged me so tight calling 'Modder, Modder.' You had not seen Lisa or Daddy yet, then as I let go of you, you were asking me: 'Lisa? Lisa?' so I pointed at Lisa and Daddy and you ran and she ran towards you and you hugged and kissed for such a long time. How happy you were and your smile was delightful. Then Daddy had his turn of hugs and kisses. This was a very touching moment . . . "

Cecile and Guy have children of their own, all are grown up now and have their own families. The Chute household seemed empty, and Cecile found she had plenty of free time while Guy was working. For many years they had been financially supporting underprivileged children overseas, but adoption became more and more appealing. Lisa was everything the Chutes had hoped for, and soon they yearned to adopt another child, a sister for Lisa.

After seeing a photo of Kim two years ago in a foster parent publication, Cecile and Guy immediately fell in love with her. They contacted the American adoption agency sponsoring Kim to inquire if she was still available for adoption. Yes, she was. Quickly Cecile and Guy contacted the Children's Aid Society and the Immigration Department to start proceedings.

Guy and Cecile Chute of Val Caron with their second family, Lisa Jane, second from left, and the newest addition, Kim Alyson.

d Guy Chute

They eagerly made preparations at home. They purchased a new bedroom suite for Kim and painted and wallpapered the spare bedroom.

Finally, after 13 months of waiting, in February, 1979, Cecile, Guy and Lisa greeted the newest member of their family at the airport. "It has brightened our lives once again," Guy says.

Adjusting to the Canadian way of life has been a bit challenging for Kim, Cecile says. "Kim was adopted at a late age, she was 10 when we got her, so it's taking her a little longer to learn to read, write and speak English, but that's coming at school. She still thinks of her country and the language. But she is doing very well considering she hasn't been here that long."

"She's very happy to be here," Cecile says. "And that's the most important thing." Cecile fondly recalls the day Kim said to her: "Modder, I so happy you adopt me. You nicer Modder in whole world."

Giving to underprivileged children around the world has always been a keen interest of the Chutes. "We love kids and feel they shouldn't have to suffer," Cecile says. "Adopting these children has been a wonderful experience," Guy adds. "We've always wanted to help children and we did for these girls by giving them a good home and, of course, love. They've had nothing, so they appreciate everything. "It's very gratifying to come home from work and see these happy faces, that makes my day."

Cecile and Guy continue to support underprivileged children around the world. "We want to give to any child who needs help," Cecile says. "Our hearts say we should give, and that's what we will do as long as we can."

Kim practices some cords on her guitar.

Lisa, above, participates in a sing-along with sister Kim.

X-Ray equipment to St. Lucia

At the request of the Azilda Lions' Club, Inco Metals recently donated an x-ray machine and x-ray table from the Copper Cliff Clinic as part of a shipment of medical aid equipment destined for a hospital in Soufriere, St. Lucia. "The x-ray equipment is in very good condition and will be most useful at the hospital in St. Lucia," says Bob McAllister, international project chairman with the Azilda Lions' Club.

The Azilda Lions' Club, as well as other Lions' Clubs around the world, have long been supplying aid to Third World countries. "It's simply a matter of wanting to help," Bob explains. "We work in conjunction with non-governmental organizations in the country requesting aid. The Lions' Club in St. Lucia, for example, asked us for medical equipment for one of its hospitals. We have helped other countries such as Dominica and Granada. When Dominica was hit by a hurricane some time ago, we sent hospital supplies and construction materials there. We are now receiving requests from the South American countries such as Surinam and Guiana."

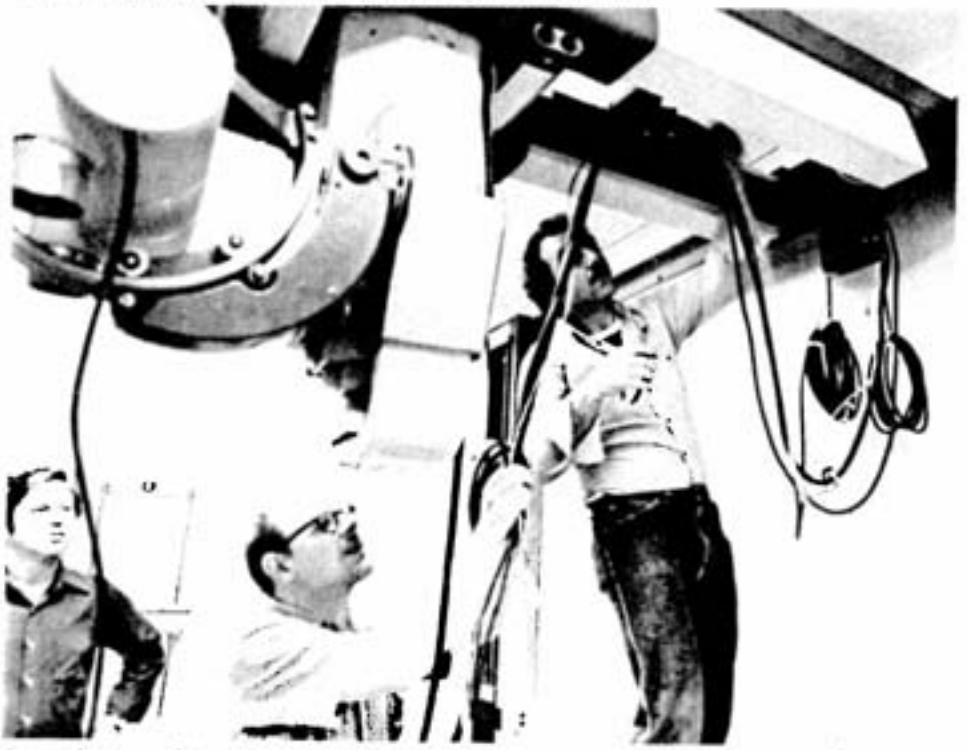
The activities of the Lions' Clubs are publicized by word of mouth, in newspapers, or at club conferences, Bob says. "The aid we send to these countries is not only viewed as a gift from the Lions' Club, but as a gift from Canada which is held in very high esteem down there."

Response for donations from various companies and organizations has been astounding, Bob adds. "Any donation, however big or small, is highly valued in these countries."

The x-ray machine and x-ray table were dismantled by some members of the Azilda Lions' Club who are also Inco personnel, then packed in crates ready for shipment to St. Lucia. The x-ray equipment, along with donations from various organizations, will soon be sent to St. Lucia. Bob says. "We are awaiting word from the Department of National Defense as to when the next air training mission will be heading that way so they can take the shipment along with them. If air transportation is not available, a sea shipment will be arranged."

The Azilda Lions' Club has been honored by Prime Minister Trudeau and former Prime Minister Clark for their charitable work. "We also received a letter of thanks from the Prime Minister of St. Lucia. He extended his country's gratitude to the people of Canada for all their help."

Dr. Wally Woychuk, Inco's director of occupational health, second from right, presents the x-ray equipment to members of the Azilda Lion's Club. They are, from left, Ken Blacklock, Gary Riehl, Bob McAllister, Marcel Landry, and at right, Gilles Pelland.



From left, Henry Zohar, John Allan and Marcel Landry, members of the Azilda Lions' Club begin to dismantle the x-ray unit

Rolling strikes for championships

When Pat and Gord Davidson (Iron Ore Plant) decided to make bowling a family affair they probably did not know the extent to which their youngsters would dominate local five pin circles. Proof of Davidson prowess on the lanes is the seemingly endless line of trophies, medals and other awards that line the living room mantle. Rolling strikes for championships has, for the Davidson girls, extended beyond local, regional and provincial classes into the very select national category.

In 1974 daughter Debbie made the team representing Northern Ontario at the Canadian bowling championships. Two years later sister Peggy donned Northern livery at the national event and bowled to a silver medal. Following the biennial pattern, the youngest member of the Davidson clan, Cathy, stepped into Canada's final tournament for bantam aged bowlers. The then eight year old Sudburian finished fifth. It was left up to another family member, Diana Davidson, to bring home a gold. Finally Cathy, in her second attempt at the bantam title earlier this spring carried off top honours . . . The Canadian bowling crown.

At the five day tournament held in London, Ontario Cathy competed against the best bantam age bowlers in the land. After 20 games she found herself having lost but three encounters, an impressive record. Even before the finals were played on a Sunday Cathy knew, after the great performance she had delivered in the previous three days, that she had won the gold medal.

Copping the Canadian crown does not come without dedication and perserverance. Cathy competes and trains throughout the long bowling season which stretches from September to May. Before major tournaments, like the provincial playdowns, she practices every night for two weeks. Inspite of the drawn out season Cathy has little trouble in maintaining a normal lifestyle. She has progressed successfully into the sixth grade of Lansdowne Public School. Diving, swimming, baseball and soccer earn the considerable attention and talents of this young athlete.

The road to the throne of Canadian bowling has been a long one for Cathy. She was a mere tyke of four and a half years of age when she first picked up a ball and rolled it in two handed fashion towards the phalanx of pins at the other end. That particular moment Cathy can't recall through her first strike remains indelibly imprinted on her mind. Her mother, Pat, maintains that Cathy showed signs of bowling prowess at an even more tender age. As a two and half year old toddler she had begun setting up cans and knocking them over with a puck. Says Mrs. Davidson: "I think she was born with it."

One of the most important things Cathy has learned lately concerns determining who the real enemy is in a bowling match. Local bowling organizations presented a film entitled "The Dreamer" for the young rollers where the hero learns that his fight is not with an opponent but rather with the pins. Cathy knows that the game has everything to do with demolishing pins not competitors.

Cathy intends to return to her St. Anne's Bowling Lanes base in September. She will be building on her .194 average in the senior age class. If she decides to carry on with this sport then she may, in later years, attempt to join the professional ranks as a Master Bowler. For any youngsters wishing to learn the secret to Cathy's success she offers but one word . . . "energy."

Debbie Davidson shows winning form.

Matte processing golf tournament

The recent Matte Processing Golf Tournament, held at the Lively Golf and Country Club, was a success with more than 70 people attending.

The day began with the mysterious, costumed "Mr. Processing" following the golfers around the course, offering refreshments and encouragement where needed.

Awards were presented to the top 8 golfers, along with a prize for the most honest golfer, won by Werner Wittmer, from the maintenance department. The top winner for the second year in a row, was Lawrence Mochizuki, general foreman in the fluid bed roaster building. He was presented with a personal trophy and the Annual Golf Plaque.

The tournament was topped off with a barbeque steak dinner.

From left, Hazel Trembley, secretary, Linda Taback, laborer in the separation building, and Stella Lauzon, laborer in the FBR building, wait their turn as Pauline Henrie, laborer in the trailers, prepares to putt. "Mr. Processing", far right, offers encouragement.

From left, Ernie Hywarren, instrument foreman, Gerry St. Amant, maintenance foreman, and Jim Amson, maintenance general foreman, at right, watch as Charlie Linehan, maintenance supervisor, attempts to make a crucial putt.

"Are you fishing, or golfing?" Gerry St. Amant, maintenance foreman, right, asks Ernie Hywarren, instrument foreman.

Family Album

Jack Trainor, a foreman at Frood mine three shaft, has a happy family of seven children. Front row, from left, is Jack's wife, Jean, sitting with Wayne, 8. Five year old Nancy stands next to her father. From left, back row, is Peter, 21, Mrs. Lina Courchesne, 22, Mrs. Ann Sandiford, 24, Ruth, 25, and Glen, 19.

Most of the older children are living out of town now, but Jack and Jean still have the two little ones at home to keep them company. They all enjoy camping, fishing, and travelling with their truck camper. The Trainors have journeyed right across Canada. "But we haven't been to Newfoundland, yet," Jean explained.

Jan Fyn, a driller at Frood mine, has an interesting hobby. He enjoys collecting sophisticated stereo equipment, and has built himself two sets of speakers. Other hobbies Jan, his wife Nancy and daughter Shannon-Marie, 5, enjoy include weekend travelling to nearby cities such as Sault Ste. Marie and North Bay, and teaching the fourth member of the family, "Sir Rusty", their ten month old purebred poodle, obedience training and tricks. The family plans to buy a hard-top tent trailer so that they can head for the wilderness to do some camping.

Domenico Tavano is a 25 year veteran of the Port Colborne nickel refinery and is currently working in the shearing department. In his off hours, he does the repair work that crops up around the house and works a small vegetable garden. Wife Josephine said that the beans and peppers look like they are going to be very good this year. She enjoys cooking, knitting and looking after the family in general. Sam is training to be a store manager at Zellers in Cambridge. Sera, a newlywed, is Mrs. David Daisley. Tony is a grade 12 student at Lockview Park Secondary School and Mary is in grade 8 at Our Lady of Good Counsel School.

INCO

Second

Earnings

The Company's earnings for the second quarter of 1980 were $46.1 million, or 53 cents a common share, compared with earnings of $16 million, or 13 cents a share, for the second quarter of 1979. Earnings for the first six months of 1980 were $143.6 million, or $1.74 a common share, compared with earnings of $16.6 million, or seven cents a share, in the corresponding period of 1979. Results in the 1979 periods were adversely affected by the 8½ month Sudbury strike which ended on June 3, 1979. Earnings per share are calculated after allowances for preferred dividends which totalled $12.9 million in the first half of 1980 and $11.4 million in the first half of 1979.

Net sales to customers in these periods were as follows (in millions of dollars):

	Second Quarter		First Half	
	1980	1979	1980	1979
Inco Metals Company	$323	$230	$ 749	$ 464
Inco ElectroEnergy Corp.*	198	192	405	379
Formed Metal Products Group	189	143	366	268
Other Business**	10	10	21	19
	$720	$575	$1,541	$1,130

*Includes batteries and related products and electric motors.
**Includes safety equipment and other products.

The improvement in earnings for the second quarter and the first half of 1980, as compared with the strike-affected corresponding periods last year, reflects sharply improved nickel prices and higher prices for formed metal products and precious metals. The 1980 periods also benefited from the sale of copper which was unavailable for sale during most of the first half of 1979 due to the Sudbury strike. Costs and expenses attributable to the Sudbury strike totalled $35 million for the second quarter and $76 million for the first half of 1979.

As compared with the Company's record first quarter 1980 earnings of $97.5 million, second quarter 1980 earnings decreased substantially due mainly to lower nickel and copper deliveries, lower copper prices and unfavorable currency translation adjustments.

The Company's consolidated earnings were affected by currency translation adjustments as follows (in millions of dollars):

	1980	1979
First Quarter gain (loss)	$ 4.0	$(5.4)
Second Quarter (loss)	(8.9)	(6.3)
First Half (loss)	$(4.9)	$(11.7)

Deliveries of nickel in all forms were 87 million pounds in the second quarter and 200 million pounds in the first half of 1980, compared with 98 million pounds and 222 million pounds in the respective periods last year. The decline in second quarter 1980 deliveries were attributable mainly to the downturn in business activity, primarily in the United States, and consequent inventory reductions by nickel inventories totalled 104 million pounds at June 30, 1980, 80 million pounds at March 31, 1980 and 104 million pounds at June 30, 1979. The Company considers its normal finished nickel inventory to be in the range of 100 to 120 million pounds. Several steps have been taken and others are under consideration to reduce production in accordance with the Company's policy to maintain a prudent balance between production and deliveries. Copper deliveries totalled 57 million pounds in the first half of 1980, compared with three million pounds in the second quarter and first half of 1979.

During the last half of 1980, the Company's earnings are expected to continue to be adversely affected by the recessionary conditions experienced in the second quarter of this year.

Environmental Developments — Ontario

On July 18, 1980, the Ontario Ministry of the Environment advised the Company of its intention to issue a Control Order which, among other things, would establish new limits on sulphur dioxide emissions from the Company's Copper Cliff smelter. This facility is currently operating under a control order which extended to June 30, 1982 a limit on sulphur dioxide emissions of 3,600 tons per day

Quarter Report / 1980

averaged over a year. The proposed Control Order would, upon its effective date, limit sulphur dioxide emissions to 2,500 tons per working day averaged over a year. Such Order would also require the installation or construction by December 31, 1982 of facilities necessary for further reductions to an average of 1,950 tons per working day averaged over a year and by June 30, 1983, require that such facilities be fully operational and optimized to achieve the greatest reduction of sulphur dioxide emissions from the Copper Cliff smelter.

The Company has not yet determined whether it will appeal all or any portion of the proposed Control Order if it is issued in its present form. Under applicable environmental legislation, an appeal would stay the effectiveness of the proposed Control Order (or the portion thereof appealed) until the appeal was decided by the relevant administrative or judicial body.

Based upon current production levels, emissions from the Copper Cliff smelter total about 2,500 tons per working day on an annualized basis. The proposed Control Order therefore, would not affect current levels of production. Assuming continued use of present facilities and processes, however, the proposed 2,500 ton per day limitation would limit the nickel production capacity of the Copper Cliff smelter to about 280 million pounds per year for the next three years, or about 60 million pounds below its current productive capacity, and the proposed limitation of 1,950 tons per day would limit production at the Copper Cliff smelter to about 230 million pounds annually starting in mid-1983. The Company continues to explore a number of possibilities for reducing sulphur dioxide emissions at the Copper Cliff smelter which, if successfully implemented, would permit annual nickel production of 280 million pounds to continue beyond mid-1983 while at the same time complying with the sulphur dioxide limitations contained in the proposed Control Order.

The most promising possibility would involve the introduction of a process which would physically separate additional pyrrhotite, a sulphur-bearing material, from nickel concentrates prior to smelting without a significant loss in metal values, if laboratory results can be duplicated. This process could result in approximately a 25 per cent reduction in sulphur dioxide emissions at whatever level the Copper Cliff smelter was then operating. Thus, at current production levels, a 1,950 tons per day emission level could be met with the successful implementation of the process. The process currently under study utilizes a chemical reagent which itself results in effluent waters which do not meet provincial water quality criteria and thus cannot be released to the receiving watercourse. If such reagent was not utilized, the process might not achieve the full 25 per cent reduction in sulphur dioxide emissions. Based upon very preliminary assessments, the capital cost of the pyrrhotite separation system could, if implemented, be in the range of $30 to $60 million.

Facilities and Operations

On June 17, the Company announced that construction of an electrocobalt plant would begin immediately at the Port Colborne, Ontario nickel refinery. The facility, which will cost an estimated $22 million, is expected to commence operation by the end of 1982 or early 1983. It will have an annual capacity of two million pounds of high-purity cobalt metal which is used in the production of various alloys, particularly for aerospace applications. The Company will continue to produce cobalt oxides in Canada and cobalt salts in the United Kingdom.

In May 1980, production of iron ore pellets from the pelletizing section of the Company's Iron Ore Recovery Plant in Sudbury was suspended and the section placed on standby due to market conditions. Nickel oxide and sulphuric acid will continue to be produced at the plant.

New divisional shops complex is

Inco's divisional shops complex, built at a cost of $14 million, is one of the most modern such facilities anywhere. Few, if any, shops incorporate more modern concepts of design, materials handling and equipment.

The complex was designed to provide a wide range of centralized shop support services for the company's mines, mills and surface plants in the Ontario division. The new facilities will centralize in one location many services previously provided in individual shops located at each mine and plant in the area, although certain shops services will continue to be provided at individual locations.

The new building completes phase one and two of the construction and covers approximately 140,000 square feet of floor space. It includes a machine shop, a component repair centre, a winding shop and a self-sustaining warehouse.

Future plans call for the addition of a steel fabrication and repair centre, a welding shop, a skip and cage repair shop, a bucket repair shop and a sand blast and paint shop.

Apprentices, tradesmen, leaders, foremen, management and outlying shops provided the input for the design of the divisional shops. The co-ordination for the design was through a divisional shops task force which was established in the spring of 1976.

Machine Shop

The machine shop, covering almost half the area in divisional shops complex, is divided into four large bays which house a variety of hoists with lifting capacities up to 25 tons.

To facilitate efficient work flow and material handling, the machine shop consists of four major function areas. The production section utilizes equipment such as an automated numerically controlled lathe and a turret lathe for high volume and repetitive type work. The random and emergency machining area is used for emergency work or for the fabrication or repair of low volume items. In the light and heavy duty assembly area, bad order equipment is dismantled, cleaned and inspected for repairs.

The machine shop is staffed by a force of highly skilled personnel consisting of maintenance mechanics, machinists and apprentices. This force is supported by planners, schedulers, and programmers to obtain maximum efficiency in the operation of the shop equipment.

Component Repair Center

The component repair centre or the CRC shop, is used for the testing and overhauling of mobile mining equipment and parts. The CRC is divided into five major areas. These

The machine shop

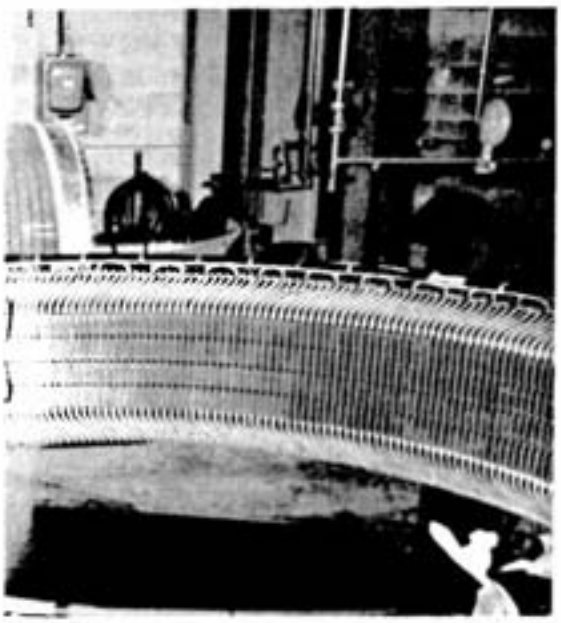
The winding shop

one of most modern anywhere

consist of the repair, power train repair, hydraulic test room, engine assembly and mobile equipment overhaul.

All areas within the centre are well-equipped with a variety of hoists with lift capacities up to five tons. When a part of mobile mining equipment arrives at the CRC, it is taken to the cleaning area where it is completely stripped and cleaned. Once the engine is cleaned and dismantled, its various components are distributed to the proper areas for repairs. The components are then tested, reassembled and shipped into the field. The CRC shop is staffed by a force of qualified personnel consisting of mechanics, mechanic leaders and welders.

The warehouse



The Winding Shop

The winding shop, which is one of the most modern in Canada, receives electrical motors and equipment for routine maintenance or major overhaul. The shop has four major areas: dismantling and reassembly, small motor and tool repair, coil fabrication, and rewinding and testing.

The highly skilled personnel in this shop, consisting of winders and apprentices, have access to some of the most advance equipment available to maintain maximum efficiency in the flow of work.

The Warehouse

Not only is the warehouse a storage area for shop materials, it is also the central core for the receiving and distributing of all materials, including bad order units. It has a team of qualified storemen who are trained to safely operate all the machinery used in the warehouse and carry out all facets of warehousing procedures.

With today's competitive nickel markets, Inco Metals continues to strive for maximum efficiency in all of its operations. The new divisional shops complex is a further step in that direction.

The component repair centre.

Inco Sponsors Northern Ontario Quarter Horse Show In Chelmsford

The Chelmsford farm held all the charms of a country fair. There were lots of friendly people, the sounds of children at play, and good home cooked food was in abundance.

It wasn't a fair, though. It was a quarter horse show, put on by the Northern Ontario Quarter Horse Association, Inc., on Saturday and Sunday, July 12 and 13. The Sunday competition was sponsored by Inco Metals Company, and there were quite a few Inco employees and their families in the event.

To many people, showing horses is very serious business, and even though families milled around greeting friends and enjoying themselves, the competitors worked on their horses, and rubbed their hands nervously, for only a few could win.

The quarter horse is the most popular breed in the world, with a population of over 800,000 animals registered worldwide. Originating in the pre-Revolutionary United States, the quarter horse was bred from European racing stock (there were no thoroughbreds then), and small, hardy Spanish horses owned by the Indians.

The quarter horse is known for this beautiful build. His neck is slightly arched, chest is broad, and hindquarters are heavily muscled. His head is short and wide, and ears are small and dainty. A calm disposition makes him a pleasure to own.

The quarter horse is known to be one of the most versatile horses in the world. There is no job too big for this animal. From ranchwork, to English jumping, to pulling carriages, this animal can be found competing with the best.

The Sunday show was held at Foothills Farm in Chelmsford. Owned by Bill and Connie Inch, it has the largest indoor arena in Northern Ontario, and has accommodations for 23 horses. A healthy turnout included people from southern Ontario, and many from Sudbury, North Bay, and Sault Ste. Marie.

George Quecke, who works with diesel equipment at McCreedy West mine, did very well on his two-year old stallion. In the last 7 shows with this horse, he has come away with 35 first place ribbons, and all the rest were seconds and thirds. George's animal is a performance horse, which means that he is entered in classes that show the horses versatility and ability to listen to his rider.

The horse must be very obedient and must do what the rider asks immediately, or he can be disqualified by the judge. The horses are asked, by way of body and reins positioning by the rider, to turn, walk, trot, canter, and back-up, among other things. But it isn't as easy as it sounds!

George's horse is so well trained, that he can make him do all these things without a bit in the horse's mouth, which is what usually controls the animal to some extent. He merely puts a rope around the horse's neck to use like reins, and the horse obediently does everything he is asked to do.

George, who owns one other quarter horse and 8 standardbreds, is also a black-smith, teaches horsemanship at the New Liskeard College, and is a former executive on the Northern Ontario Quarter Horse Association committee. He has been an asset to horses and horsemen in Northern Ontario for many years now.

Above, Kathy Keown, on Sudbia, waits for the next class to begin.

Herb Sapia, who retired in 1972 from Frood-Stobie mine, owns two quarter horses. His 11 year old horse, Amigo Panol Leo, netted him one first, two seconds, and one third in trail classes over the weekend show. Trail class is similar to an obstacle course, and again shows the horse's versatility and trust in his rider. Herb still finds riding a pleasure and continues to win ribbons although his back gives him trouble.

Kathy Keown, 14, who is the daughter of Barry Keown, a garage mechanic at Inco, owns 2 quarter horses. She won a second place ribbon on Miss Kitty Dee in the English Pleasure event and rode her other quarter horse, Sudiba, in several of the games competitions.

The games competitions display the horse's speed and condition, and how the horse is ridden is not important. The games are timed events, and the faster the horse goes through the obstacle course, the better. It could be said that the games horses are the athletes of the breed, although all the horses must be fit if they want to win ribbons.

The announcer for the horse show on both days was Harold Diebel, supervisor of data control at Inco. Harold, whose daughter owns a quarter horse, is very active in the Northern Quarter Horse Association Inc. His wife, Ethel, is a very knowledgeable horse woman who is secretary-treasurer for the association. She is a former western riding instructor.

The people at these events joke that after the dusty day, you don't have to eat because you already have a stomach full of sand. Still they keep coming back for more, because they love the registered quarter horse, and they are proud to see this breed becoming so popular in the Sudbury area.

A rider takes her horse around a barrel in the games competition barrel race.

George Quecke leads his horse, Regal Bar Jet, out of the ring.

A competitor heads for the finish line during the barrel race.

PEOPLE

George Johnston, Frood Stobie complex engineer and chairman of the local chapter of The Canadian Mining and Metallurgical Foundation educational committee, presented a check to **Laura MacLean,** a teacher at Algonquin Rd. Public School in Sudbury, for $200 to cover the cost of the Identity Curriculum Research Project workshop held recently in Sudbury. The workshop, which is co-sponsored by the National Committee of C.I.M. and the Faculty of Education at the University of Toronto, is geared to encouraging schools to teach students about the mineral industry.

Dave Dumencu, a Western University student working at Creighton 5 shaft for the summer, holds up the nine iron that helped him score a hole-in-one during a game of golf with friends recently, at the Lively Golf and Country Club. He said the ball bounced about eight feet in front of the pin, bounced one more time, then went in. "I attribute it to luck," Dave explained. "I'm still working on my skill." Dave is the son of **Bill Dumencu,** a maintenance mechanic at Creighton 3 shaft.

Two blood donor clinics were held recently at the copper refinery and a total of 76 pints of blood were donated to the Sudbury Branch of the Canadian Red Cross Society.
At right, **Suzanne Corbeil,** a clinic assistant with the Sudbury and District Red Cross Society, carefully monitors a donation from **Rocky Lazowik,** garage mechanic, who is giving his twenty-fifth pint of blood.

PEOPLE

Mine foreman **Pat Scott's** crew at Creighton mine's no. 9 shaft has gone three days shy of a year without a medical aid injury or any reported first-aid dressings. "This is the first time my crew has achieved this record, and I'm very proud of them," Pat said. Members of his crew are, back row, centre, **E. Carrier;** middle row, from left, **E. Quance, R. Norman, J.C. Giroux, G. Luck, M. Calback, T. Carnrite, E. Robb, M. Tomassini** and **Pat Scott;** front row, from left, **L. Miller, J.P. Delisle, G. Desmoreaux, R. Richer, R. Roussel, J. Ricard, D. Kiviaho,** and **K. Shore.** Missing is **D. Ricard, G. Gill** and **W. Debassige.**

From left, **Reg Hebert,** a scooptram operator at Copper Cliff South mine, and **Frank Parrick,** both members of the Old-time Radio-Show Collectors Association (O.R.C.A.), discuss their tape selection with Laurentian Hospital patient **David E. Smith.** O.R.C.A. has been in existence for a little more than a year now, says Reg. Besides spending time collecting old radio shows, members of O.R.C.A. visit hospitals and handicapped groups on a volunteer basis. The association now possesses over 2,200 reel to reel tapes containing such oldie goldies as War of the Worlds and Ma Perkins. It has donated three hours of programmes to a local library so more people can have the opportunity to hear some of these classic radio shows.

Heads must have turned recently in Copper Cliff, when some 160 members of the Historical Automobile Society of Canada drove their vintage cars to Inco's tour centre at the McClelland Community Centre. Hosted by the Nickel Region chapter, the group toured Inco's surface facilities, one of the many activities they enjoyed during their visit to the Sudbury area. From left, **Jeff Luck,** a central maintenance foreman at Inco and president of the local chapter, proudly displays his 1934 Dodge Coupe, while **Al Zelinsky,** an electrician in the utilities department and activities chairman of the Nickel Region automobile chapter, shows off his pride and joy, a 1955 Chev in mint condition.

Summe perform

In the Sudbury region this year, Inco hired more than 1,100 students in various areas of operation to provide vacation relief for employees during the summer months.

For Inco, the hiring of students means that employees get extra help during the summer holiday peak.

The following comments were made by students in various work areas, explaining how they feel about working for inco:

123

Joel Gonnella

Joel Gonnella, 18, spent his first summer at Inco this year, as a helper at Copper Cliff South mine. "Most of the guys are good down there. They help you out," he explained. The summer job will help him continue his education at Windsor University, where he is pursuing a business degree. His career goal is to work in an accounting department. "All in all, Inco has been good to me," Joel explained.

Angela Krucas

Angela Krucas, 20, is spending her first summer at Inco as a clerk in accounts payable. "This job has given me some understanding of how a company operates," Angela explained. "It has also made me more disciplined, more careful with details." The job requires patience. Angela, an Inco scholarship winner, will attend the University of Toronto in the fall for her second year, where she is pursuing a commerce degree, minoring in fine arts. Her career goal is to be employed in a public relations department, working in advertising.

Peter Pederiva

Peter Pederiva is an honors graduate with a Bachelor of Commerce degree at Laurentian University, and plans to return there for post-graduate studies in the fall.

Peter has worked for four summers with Inco in the transportation department as a brakeman. He works on the engines and assists the engineer.

Peter says he enjoys the work. At the same time as financing a large portion of his education, Peter feels that it has given him a broader view of railroading, and experience in working with other people. "It's vital that you have teamwork and good communication in this job," he explained.

r students at Inco variety of jobs

Greg Lalonde

Greg Lalonde, 19, plans to attend Seneca College to pursue the computer sciences course. His first year at Inco had him working as a plugger in the Copper Cliff copper refinery. Greg felt that working at Inco was an asset in many ways because it has helped him financially, and it has taught him several new skills. "I have learned the use of various equipment," he explained, "and I was also able to make a lot of new friends."

Sandra Jurgilas

Sandra Jurgilas, 21, will be entering her third year of mathematics at Laurentian University in the fall. Sandra's first summer job at Inco was main receptionist at the general offices. Although this job hasn't given her any experience in her field of study, she really enjoys it. "I meet a lot of people here," she explained. "It's been really great working here, and the employees are friendly and helpful."

Brent Duncan

Brent Duncan, 17, is a student of Lo-Ellen Park Secondary School. This is Brent's first summer working at Inco, where he is employed in the winding shop. Brent really enjoys the work there. "We work on motors brought in from the mines and various areas at Inco. I've learned a lot from the guys there this year."

Teachers learn about mining

From left, Jim Darrach, environmental studies consultant with the Sudbury Board of Education, points out the simulated ore-bodies in the "core samples" from a scaled-down mining operation in a sandbox, to teacher Laura MacLean, and George Johnston, chairman of the C.I.M. educational committee. This is just one of the many tools used in the identity approach which children will learn as well as enjoy.

The Identity Curriculum Research Project was held recently in Sudbury, with some 15 teachers across Canada attending.

The project, co-sponsored by the Faculty of Education, University of Toronto and the Canadian Mining and Metallurgical Foundation, was initiated to make teachers more aware of the mineral industry so that they can then provide their elementary school students with a comprehensive course.

In her address to the group of teachers July 1 at the Sheraton Caswell Motor Hotel, Minister of State (mines) Judy Erola, said there was a lack of Canadian professionals in the mineral industry and that this project might encourage students to pursue this area.

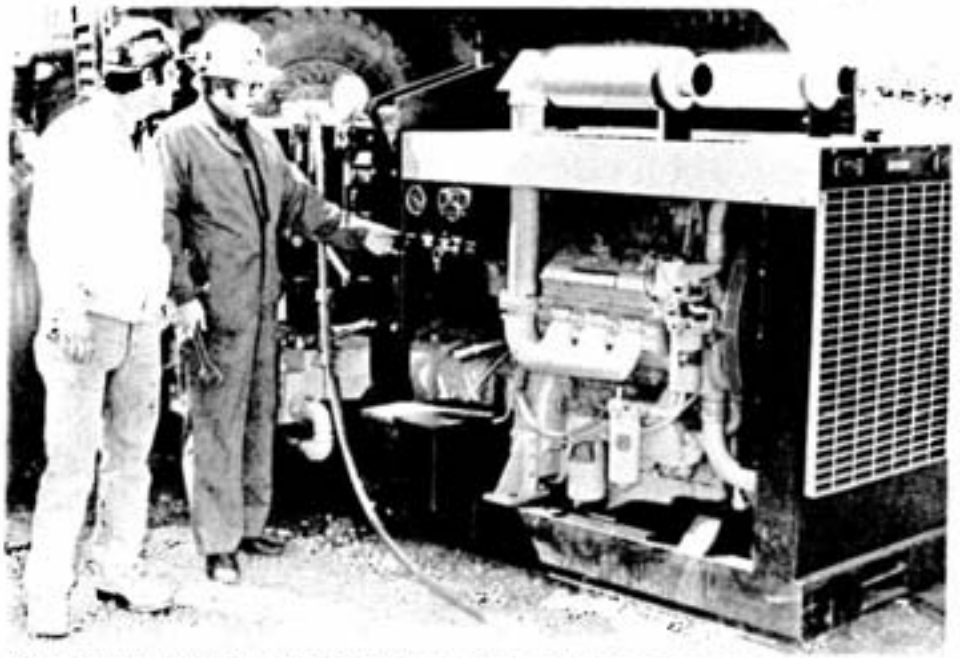
By using the identity approach, teachers offer the children an opportunity to learn and enjoy at the same time. The Identity Curriculum Research Project is helping the children by teaching the teachers, and by providing free access to specially designed resource kits that encourage the children to participate in one of Canada's most important resources — the mineral industry.

From left, Alan Howard, a Calgary public school teacher, discusses the Identity Curriculum Project texts with Keith Smith, a Welland separate school teacher, and George Allan, a Lively public school teacher. Alan was sponsored by the C.I.M. Petroleum Society, and George was sponsored by Inco Metals.

Alex Blair, manager of training and development, Quebec Cartier Mining Company, right, points out mineral samples to Shirley Domansky, a Thompson, Manitoba public school teacher and Richard Pinatti, public school teacher and major of Elkford, British Columbia, during the workshop.

High pressure water jet reduces maintenance costs underground

The continuous drainage of millions of gallons of water daily through various phases of the underground operations causes numerous minerals and salts such as calcium, potassium, and other particles inherent in our sand backfill to become dissolved in this water.



Rick LeBourque, left, from industrial engineering and maintenance foreman John Hawes do an equipment check on the new water jetting unit.

Harvey Gratton tests the action of the water jet in the storage yard at North mine.

These salts and minerals, over periods of time, deposit themselves on the inside of pipelines, drain-holes and valves. They will eventually choke the lines off completely, which will necessitate re-routing the water or, in some cases, could result in overflows onto the level.

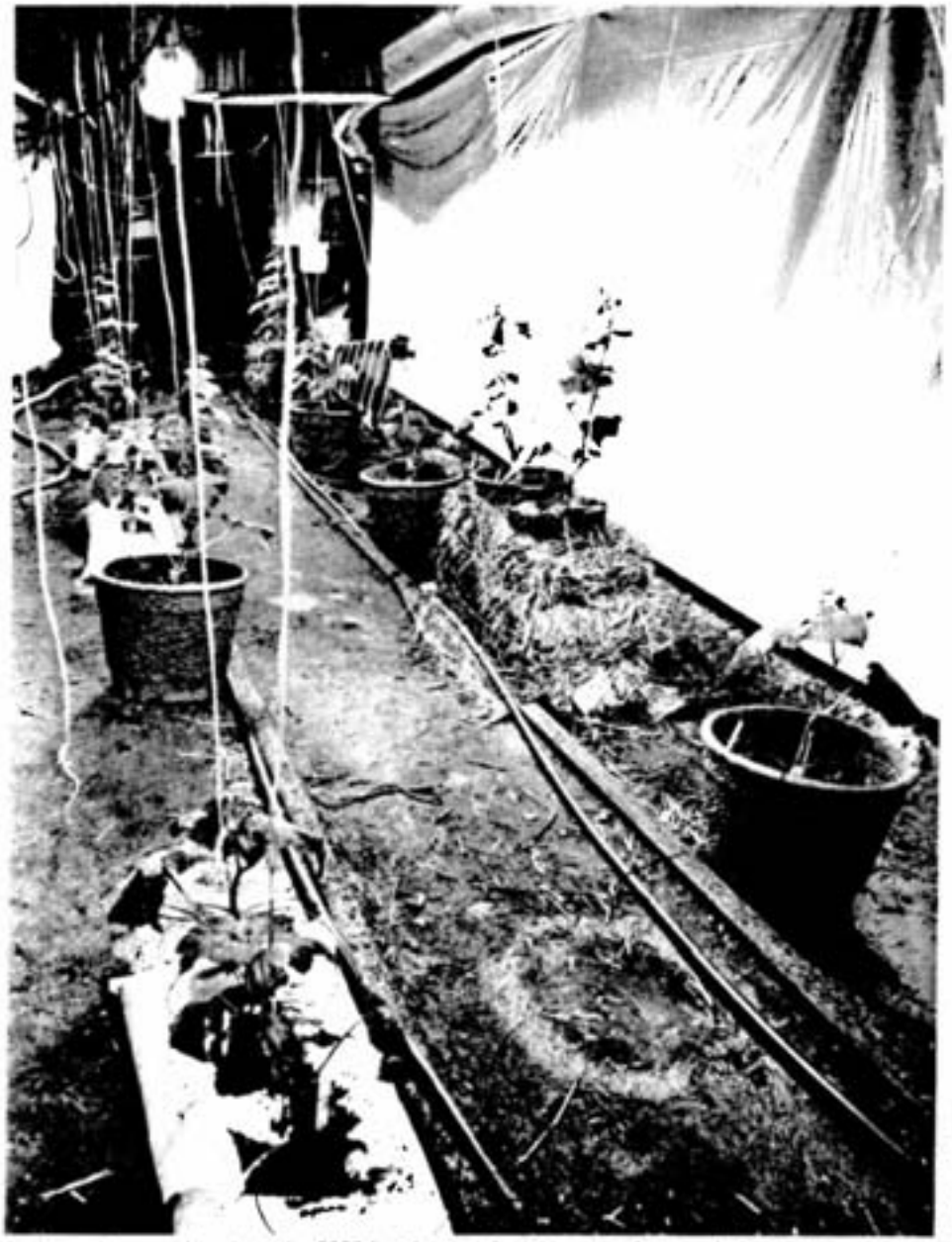
Once this occurs, holes have to be redrilled or outside specialists must be brought in. But this shouldn't happen anymore.

An addition of a high pressure water jetting unit to the Ontario division's already large assortment of sophisticated equipment in use underground is expected to reduce the costs incurred in hiring outside specialists to come in and clean such things as drain-holes, pipelines and boiler tubes which are located at all mines.

The new equipment consists of a 160 h.p. diesel engine coupled to a very high pressure triplex reciprocating pump, capable of delivering 14,500 pounds of pressure per square inch.

A two-man crew can safely and effectively operate this unit which has many built-in safety features. Such things as an automatic throttle control for the gun, pressure relief valves, high temperature controls, high and low water controls ensure safe operation. A failure of any of these components will result in automatic engine shut-down.

The suppliers of this equipment have provided training and expertise in the successful two-month trial done late in 1979.



In the underground oasis at the 5600-foot level at Creighton mine's nine shaft, cucumber plants live in a warm and moist climate.

Undergrou

It is dark and quiet in the drift. Only the sound of human footsteps breaks the silence. The air is cool and moist as you walk on. Around a corner the drift seems to disappear into a galaxy of lights - blue, purple, white and pink hues.

From a distance the lights look like one huge spotlight, but as you get nearer they accentuate the star performers, the tomato and cucumber plants. There they stand, tall and green, in rows some 100 feet long in the drift.

The area is like an underground oasis, warm (80 degrees F) and relatively moist (50 per cent humidity) with timed sprinkler systems providing water and nutrients for the plants.

Such is the scene at the 5600-foot level at Creighton mine's nine shaft, where a research and development project has commenced as of July 1, to develop a method of using geo-thermal heat for the production of food in the mining areas of Canada's mid-north.

The idea was conceived three years ago by Dr. Joseph Shorthouse, a biologist at Laurentian University. He wanted to make use of local resources and conditions to produce food. Spiralling energy costs and produce quality were also factors which prompted him to pursue the experiment.

At the same Creighton mine location, a feasibility study was implemented in July, 1978 by Laurentian University with the co-operation of Inco Metals. Although some problems arose during the experiment, tomatoes were grown. It was concluded in March of 1979 that the concept of underground food production was potentially viable.

The whole study has blossomed into a three year $60,000 research and development project granted to Laurentian University and Inco Metals by the National Sciences and Engineering Council of Canada. Inco is supplying the lighting, electricity, and plumbing as well as agricultural department employees who will help maintain the project.

Dr. Doina Serbanescu, a horticulturalist, was hired July 1 as an employee of the grant to oversee the project. "We needed a person with the expertise who could devote herself to the project on a full-time basis," explained Alex Gray, leader of the project and a member of Inco's agricultural department.

Dr. Serbanescu's work in the underground greenhouse involves the monitoring of atmospheric conditions, the mixing of nutrients for the tomato and cucumber plants, ensuring the plants receive enough light and noting how they react to it. "I spray the plants with fertilizer and prune the leaves," explained Dr. Serbanescu. "I also check for any evidence of decay and disease."

"We're in the initial testing stages of the project," the horticulturalist added. "Because of the different conditions down here, we continue to

nd Oasis at Creighton mine

experiment with the types and amounts of nutrients and artificial light to give the plants. But we're close to achieving the correct blend of food and light for them. This is a great place for germination and the plants are doing well so far. We expect them to bear fruit in approximately six weeks."

According to Tom Peters, Inco's agriculturalist, the benefits of this project will be substantial in terms of energy and monetary savings. But there are other benefits as well. "The availability of fresh vegetables is very limited here in the mid-north in the winter. By utilizing the geo-thermal heat underground to grow produce free of disease and insecticides, we eventually may be able to market food we have grown here in the mid-north. The system could also be adapted to mining areas further north, particularly the more isolated mining areas. The produce will be of good quality and it will be fresh," Tom said.

"We will be saving Canadian dollars," Tom continued, "since we're growing produce here in the north rather than importing it from the south. At the same time our heating requirements will be minimal because we are using a natural source of heat."

The plants are germinating in different types of bases to determine which method of growing is most effective in that climate. One is the standard pot base, another is a bolster or pillow shaped plastic container and a third is a straw bale base. The stalks of the plants grow in an upward direction with the support of fine ropes attached to the mine screening. Various kinds of artificial lights, such as high pressure sodium and flourescent lights are used. In the greenhouse area, the walls of the drift are lined with white plastic which acts as a reflector of light. With this kind of care, these plants are sure to flourish.

"At the present time we are more concerned with achieving the desired taste than the desired size," said Tom Peters. "We'd like to have quality first before we have quantity. It will be interesting to see the end results."

Who knows, the fresh produce you'll enjoy in the future may have been grown underground!

Dr. Doina Serbanescu, left, demonstrates the pruning procedure to Alex Gray, project leader, centre, and Tom Peters, Inco's agriculturalist.

Mike Peters, an Inco agricultural technician, wires the straw bale base of a cucumber plant intact.

Bill Peacock
$1,655

Donald Benoit
$1,600

August Suggesti

$1,655	William Peacock	Creighton mine	Purchase bulk charcoal and refill water filters
$1,600	Donald Benoit	I.O.R.P.	Method to eliminate use of soda ash baghouse
$1,055	Raymond Laakso	Central Utilities	Transfer telephone lines from C.C. smelter PAX to Clarabelle mill PAX
$860	Victor Mallette Edward Coupal	Levack mine	Install Levack mill air dryer in Coleman sandplant
$615	Arthur Reid Stan Rice	Garson mine	Rebuild flange on LM56 Copco loader wheels
$380	Edgar Levasseur	Coleman mine	Relocate cement pinch valves below auto air valves
$295	Steve Dominick	Divisional Shops	Install clean out door on spray washers
$290	Allan Kaven	Frood mine	Replace bearings on Teledyne ditch digger boom pivots with bushings
$220	Vern Holla Lionel Cormier	Creighton mine	Manufacture replacement front centralizer for Montabert electric jumbos
$150	David Kozachanko Jean Roy Robert Laffrenier	Coleman mine	Install 100 ft. hose on u/g fuel pump for reaching tracks
$150	Howard Pacaud Dominic Campiti	Garson mine	Revert ST2 scooptram oscillating boxes

Ray Laasko
$1,055

Victor Mallette, left, and Ed Coupal
shared $860

on Plan Awards

$150	Ernest Savelli	Matte Proc.	Use fiberglass patch on Denver cell hoods
$150	John Szendrey	Frood Stobie mill	Modifications for access to conveyor belt transfer chutes
$140	Steve Boyuk	Matte Proc.	Use rubber on forms when pouring roaster drop holes and air lift entries
$130	Franz Kreitz Armond Fiset	Matte Proc.	Split housing on no. 7 bldg. heater
$130	Eugene Mullen Eric Kelly	Little Stobie mine	Extend conveyor belt pieces the full length of loop dividers
$125	Leonard Matson	I.O.R.P.	Install smoke heat detector into oil pump house fire alarm system
$115	Duncan White	Copper refinery	Fabricate new forging block for crane hooks
$105	Bruno Frattini Ernest Woodbury	C.C. mill	Construct hoisting bar to handle Denver units
$100	Gino Cacciotti	Clarabelle open pit	Method to prevent air lines from freezing in no. 5 rotary drill
$100	Ross Franklin	I.O.R.P.	Install rapper on kiln oversize pipes.
$100	Ben Mullen	Clarabelle mill	Fabricate removable blower supports on indirect fired heating equipment

Suggestions Continued On Next Page

Suggestion Plan Awards — Continued

$95 awards were presented to:

Frederick Schick	Matte Proc
Adhemus Van Drunen	Garson mine

$90 awards were presented to:

Marcel Lafontaine	Levack mine
Robert Wood	
Willid Lagace	

$85 awards were presented to:

William Melvor	Coleman mine
Allan Wingrave	I O R P

$75 awards were presented to:

Douglas Breakal	Levack mine
Patrick Kidd	I O R P

$70 awards were presented to:

James Harper	C C S M
George Heale	Clarabelle mill
Frank Horsfal	Garson mine
Frederick Moxam	O R P
Marco Rainville	C C mill

$65 awards were presented to:

Donald Armstrong	Copper refinery
Frederick Moxam	I O R P
Ted Pluta	Clarabelle mill
Mykola Rapchinsky	C.C. mill

$60 awards were presented to:

Lorne Elford	Smelter
Wilfred Goulais	C C mill
Lorne Elford	Smelter

$55 awards were presented to:

Denis Clement	C C N R
Robert Gauthier	I O R P
Maurice Lajeunesse	I O R P
Bernie Raymond	C C N R

$50 awards were presented to:

Len Bedard	Copper refinery
Daryl Bowers	I O R P
Richard Gareau	Copper refinery
Frank Kreitz	Matte Proc
Armand Fiset	
Allen Level	Copper refinery
Joseph Mathieu	
Lawrence Lachowix	Copper refinery
Jean Guy Quesnel	Levack mine
Dave Robertson	Shebandowan mine
William Klees	
Martin Repnik	Copper refinery
Pat Sevigny	I O R P
Roger Zaruk	I O R P
Raymond Lachance	

$45 awards were presented to:

Richard Arbour	I O R P
Harry Armbruster	Copper refinery
John Cochrane	Levack mine
Nick Hawrysheyszyn	Clarabelle mill
Ray Lajeunesse	O R P
Maurice Lajeunesse	
Garry Nahwegahbow	C C N R
Bernie Raymond	C C N R
Martin Repnik	Copper refinery

$40 awards were presented to:

Jim Brown	I O R P
Frank Chuka	Frood Stobie mill
Bernard Cusack	I O R P
Ross Franklin	
Denis Desjardin	Copper refinery
James Berger	
Andrew Graf	Creighton mine
Saverio Guido	I O R P
Manfred Hackenfers	Misc
George Kennedy	Central Utilities
Hermann Klescher	Clarabelle mill
Maurice Lajeunesse	I O R P
Paul Llewellyn	Central Utilities
Eugene MacDonald	Clarabelle mill
Gerald Maley	C C mill
Kevin Vincent	
Alpo Punkinen	Frood Stobie mill
Ron Ray	Copper refinery
Dale Richards	Matte Proc
Normand Simoneau	Levack mine

$35 awards were presented to:

James Berger	Copper refinery
Steve Byrnes	C C mill
Len Duffy	O R P
Raymond Gueve	Creighton mine
Edward Hastings	I O R P
William Ingram	Copper refinery
Raymond Kennedy	Matte Proc
Ernie Rochelleau	Clarabelle mill

$30 awards were presented to:

Denis Boucher	Copper refinery
Dave Moore	
Anthony Boyer	Clarabelle mill
Roland Demers	Matte Proc
Sylvio Desormeaux	Frood Stobie mil
Edgar Dore	I O R P
John Duguay	Frood Stobie mil
Leo Dulbarme	Frood Stobie mil
Doug Gray	I O R P
Mike Pellant	
Lellerino Castella-Valenzi	Copper refinery
Tony Kobzniak	Matte Proc
Len Belanger	
Tauno Ikkanen	
Karl Koop	Creighton mine
Pat Lapolle	Matte Proc
Jack Tupling	
James Reluse	Matte Proc
Richard Thyne	
Laurier Charette	
Charles Wilson	Clarabelle mill
Bryan Wolgram	Copper refinery

$25 awards were presented to:

Samuel Armitage	Smelter
Robert Bouchard	Smelter
Denis Bresseau	Central mine forces
Richard Brown	Divisional Shops
Enrico Carbone	O R P
Edwin Carmichael	Smelter
Rene Carriere	Levack mine
Robert Charsley	Copper refinery
Vic Smrke	
Jack Curry	Coleman mine
Normand Dalcourt	Copper refinery
Alfred Doherty	Copper refinery
John Duguay	Frood Stobie mill
Joseph Durkac	C C N R
Philip Dyer	Garson mine
Edward Hastings	I O R P
Marco Henri	Coleman mine
William Ingram	Copper refinery
Eugene Kelly	Transportation
Ken Kosar	Frood Stobie mill
Marcel Lapointe	Matte Proc
Maurice Leonard	Divisional Shops
Chester MacLean	I O R P
Victor Malette	C C Mill
Arthur Matthews	Matte Proc
Don Morrison	I O R P
Ray Newman	Smelter
George Paru	Divisional Shops
David Platt	Frood mine
Graham Priest	Smelter
Harold Reid	Clarabelle Open Pit
Dave Roberts	Divisional Shops
Anthony Rubaroni	Coleman mine
Robert Sawyer	Copper refinery
Al Stewart	Levack mine
Don Strain	Copper refinery
Richard Temple	Divisional Shops
Antti Tuomislampi	Stobie mine
Keith Vincent	C C mill
Vina Walli	Frood Stobie mill

LOOKING BACK

THROUGH THE PAGES OF THE TRIANGLE

1937

Publicity for one of its products is welcomed by any firm. The Triangle in August 1937 discovered that one of Inco's products, nickel plating, was receiving a lot of free advertising from an unlikely source. In 1881, just about the time that nickel was discovered in the Sudbury area, the New York, Chicago and St. Louis Railroad was being completed. A Ohio newspaper figured the new line would bring tremendous new trade possibilities. Referring also to the impressive financial backing the railroad had received, the paper had dubbed it the Nickel Plate Road. The name stuck and eventually became the company's official trade mark. This interesting item followed a story on the developing nickel plate industry.

During the summer of 1937 the International Nickel Company decided to proceed with the sinking of a new 2,000 foot shaft at Levack. The existing mine had been dormant since 1931 after a decline in the world nickel market forced its closing. Now that demand for nickel and copper was on the rise, company officials foresaw the wisdom of opening another mine. The dimensions of the new shaft were the same as the recently completed Creighton No. 5 shaft. The estimated cost of the Levack undertaking was $2,500,000.

1957

Twenty years later the Triangle joined with many Inco employees in paying a tribute to the retiring Harry Towns. Towns joined the company in 1926 and over the next three decades worked at Murray mine, the warehousing and the Frood yard and then back to the Murray yard. He was known far and wide for his involvement in the local sporting community. Wrapped up in both baseball and hockey, Towns made scouting trips throughout the province to bring talent to company-sponsored teams. As manager of the Frood Tigers in 1937 he brought in some players which helped that team capture the Allan Cup, the senior championship of the Dominion.

Lead stereotype castings, from which large newspapers are printed, were placed in a nickel plating bath.

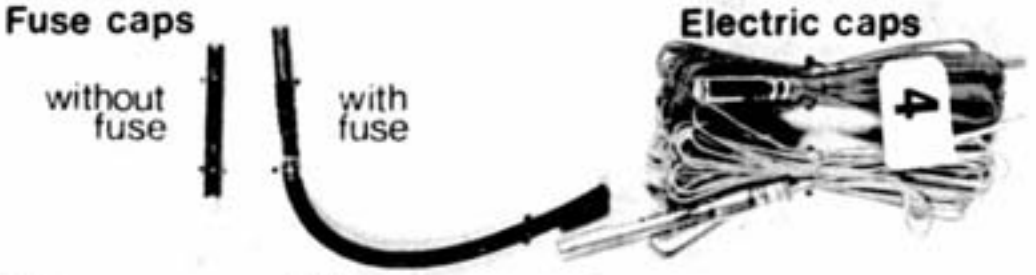
That same August, 1957 issue of the Triangle presented readers with a little bit of trivia concerning the company's work underground. It said: "Underground development at International Nickel's mines in the Sudbury district now totals 410 miles, or more than the distance between New York City and Toronto."

1970

A glimpse of Inco's activities at Shebandowan was offered in the August Triangle of 1970. In developing the 2,900-ton-per-day nickel mine on the shores of Lake Shebandowan northwest of Thunder Bay, the company took a number of precautions to protect the environment when the mine would come into full production in the autumn of 1972. One such precaution came in the establishment of a continuing program of water quality monitoring to keep track of even the smallest changes in the aquatic environment. Another precaution was a tunnel linking the mine shaft to the mill half a mile inland. Ore, instead of being trucked overland, would be conveyed by belt in order to limit surface activity and noise on the lake shore.

Danger
Don't touch!

Blasting Caps



Dynamite

Local police forces in the Sudbury area have combined efforts to assist citizens in disposing of unwanted explosives. A major part of their program involves educating children about the dangers of blasting caps and explosives. If you or your children find any of the objects shown above - **call the police** - but above all **don't touch.** A more detailed explanation about blasting caps begins on page five.

Chart courtesy of Canadian Industries Limited.