

These Inco geologists are looking for ore to mine in the 21st Century. See pages 8&9 for pictures and story.

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1991

Environmental work sparks Prince's interest

Prince Charles third in Royal line to visit Inco

The Royal Countdown is on!

By 12 noon Thursday, the Copper Cliff Smelter Complex will be awhirl with Royal watchers, Prince seekers and unabashed monarchists in anticipation of the first member of the Royal Family to visit Inco since Queen Elizabeth Il went underground to the 1,000foot level of Frood Mine in 1959.

When His Royal Highness The Prince of Wales, the son and heir to Queen Elizabeth, steps out of his limousine in Nickel Park at 2:10 p.m. to greet Inco chairman Don Phillips, he will be the third generation of the Royal Family to grace Inco property in more than 50 years.

In this era of enlightenment, it's worthy to remember that Queen Elizabeth (the present Queen Mother and HRH's grandmother) was the first woman permitted to go underground into any Inco mine when she accompanied King George VI to Frood Mine in 1939.

Tomorrow, the tradition con-

Appearing in Copper Cliff in an 18-car motorcade in a whirlwind tour with a pack of journalists in tow, Prince Charles will depart with a vivid portrait of life at Inco today.

He will learn of Inco's success in revegetating industrially-stressed lands when he tours the tailings' area in the company of Environmental Coordinator Ellen Heale, Marty Puro, Superintendent of Copper Cliff Mill, Reclamation and Water Management, and Mick Throssell, manager of Central Mills.

When he makes the historic official tap of the new flash furnace with tapping gun operator Ron Van Mierlo, he'll know firsthand the dramatic steps taken by the Company to clean up the environment.

And when he returns to the special visitors' pavilion inside the smelter for a private 20-minute discussion with company, civic, government and labor leaders, he'll get a clear understanding of how Sudburians are united in making the region a better, greener place in which to live.

Invited to share their ideas at this informal meeting will be Premier Bob Rae, Northern Development and Mines Minister Shelley Martel, Sudbury regional chairman



A visitors' pavilion being built inside door 120 at the Smelter. The first visitor will be Royalty.

Tom Davies, Leo Gerard, National Director of the United Steelworkers of America and Local 6500 President Dave Campbell.

From Inco will come Mr.

Phillips, vice-chairman Walter Curlook, Inco president Mike Sopko and Ontario Division president Jim Ashcroft.

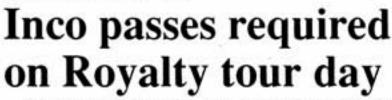
The Royal tour is not just a day for pomp and splendour.

Along the way, His Royal Highness will hear how Inco will commemorate the Royal visit in a unique, distinctively Inco fashion.

The Prince Charles Forest has a nice ring to it. And a special forest preserve in honor of HRH The Prince of Wales will become a reality next spring. Mr. Phillips is expected to announce 10,000 pine seedlings grown underground at Creighton Mine will be planted next year to symbolize Prince Charles' strong personal commitment to protecting and enhancing the environment worldwide.

And on behalf of Inco's 8,000
Ontario Division employees and
10,000 pensioners in the region,
Inco will make a major commitment to health care needs of residents of northeastern Ontario. The
commitment will be in the form of

Continued on Page 2



Don't forget your Inco identity card on Royal Tour day Thursday.

If you leave home without it, chances are you won't get to work.

As a key measure in the intense security laid on for the visit by His Royal Highness The Prince of Wales to the Copper Cliff Smelter, Inco photo cards are a must for Inco employees.

Coordinator of Plant Protection Services Chuck Greenough issued the advisory as a last-minute reminder to employees.

Incharge of security within Inco for the first Royal visit to Inco since Queen Elizabeth II in the late 1950s, Chuck said the Inco cards must be produced to ensure that only authorized people are on Inco property. The order's in place until Prince Charles departs at approximately 3:30 p.m.

Signs advertising the need to produce Inco passes were posted at Smelter Complex and tailings site entrances earlier this week. Plant protection officers also handed out cards advising employees to have the cards ready.

"This is a security requirement of the RCMP which is co-ordinating all the security arrangements in Ontario for the visit by Prince Charles and Princess of Wales," Chuck added.



Cool work, hot place

Sulphur Dioxide Abatement Project contractors work inside the new flash furnace uptake, a chamber that carries gases from the furnace up to the quench chamber. When the flash furnace becomes operational, the temperature where these men are standing will be over 2,000 degrees farenheit.



Vice President of Human Resources, Administration Jose Blanco, Vice President of Mining John Kelly, Sr. Vice President of the Northeastern Division of the Toronto Dominion Bank Jim Hudson and Copper Cliff Branch Manager Bruce Labelle make a ceremonial transaction to commemorate 90 years of close relationship between inco and the bank.

When the Copper Cliff branch of the Toronto Dominion Bank held its 90th anniversary recently, Inco attended the party.

"There's been a close relationship between the company and the bank over the years," said branch manager Bruce Labelle. "We started here back in 1901 at the request of the Canadian Copper Company. We were the Bank of Toronto back then."

Mr. Labelle said the bank was one of only a handful of company town properties that was privately

"We were the exception. When the city took over here with the coming of regional government in the mid-'70s, there was us and the post office. The rest was company

He said that with the cooperation of Inco, all area TD branches coincided with sites of the company's mines. "The Copper Cliff branch was the branch of account until the corporate offices were moved away. But even today there is a close relationship between us and Inco."

He said even today, the largest percentage of Inco employees still do their banking at the branch.

The special relationship had its responsibilities as well as advantages. When hard times hit the mining industry, the bank made special arrangements and accommodations to help keep out of work

miners from losing their homes and life savings. "Mortgages were restructured and special payment arrangements were made," said

Bruce. "Because of the long, special relationship we had with Inco and Inco people, we tried to be as flexible as possible."

Mining group sets date for '92 Mining Week

We're barely into the fourth quarter of 1991 and the Ontario Mining Association is already planning for next year's activi-

The association has announced that the third annual Ontario Mining Week has been scheduled for June 1 to June 7

The OMA would like to see an upsurge of activities during the week on a local scale as well as at the provincial level.

The association has asked local communications committees to urge employees in their respective companies to plan or get involved in related activities

Royal visitor tours Inco operations

a donation to the Canadian Cancer Society's new lodge, the Daffodil Terrace that's associated with the Northeastern Regional Cancer Treatment Centre.

For hundreds of Inco employees and special guests, the day should be a day to remember.

His Royal Highness won't know it.

But for an army of Inco volunteers, their weeks of work will bear fruit with a spectacular environmental show that even sophisticated southerners might

The 70-minute tour climaxes when His Royal Highness steps aboard the glass and metalenclosed tapping gun platform. Prince Charles will be wearing a protective clear plastic facial shield when he climbs aboard the machine with the opeator.

The machine will then move to the furnace and His Royal Highness, along with the operator, will drill away the clay plug that will ceremoniously start the first tapping and operation of the

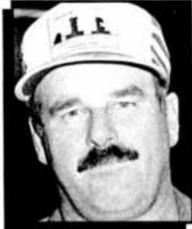
Are employee publications important to you?



Roger Sensabaugh, environmental control analyst, Port Colborne Refinery: "I think it's valuable for people.. It tells them what's happening in other areas. Also, it's interesting to read about what people are doing outside the company . . . the personal side."



Martin Maxemuck, blacksmith, Port Colborne Refinery: "It's important to people, particularly the new people. It's an introduction to the place, to see what we are about. People seem to like the personality stories about what others are doing in their spare time."



Fern Mainville, lampman, Creighton: "Employee publications are very important. Most of us move around, so we like to keep up with what's going on at other locations. It's interesting to find out what people you used to work with are doing now,"



Perron. Creighton: "I always read the Triangle as soon as it comes out, cover to cover. I think it's important to have it because it keeps you in touch with what your fellow workers are doing on the job or even other activities outside Inco."



Jim Kavanagh, driller, North Mine: "We need it. It keeps the employees informed about Inco. I read the other stuff, too. What people are doing in their spare time. It shows people that there's more to a miner than working underground."



Chris Barker, electrician, Clarabelle: "I think it relates well to Inco people. It's a way to keep communications open and that's the best way to improve the relationship with employees and management. The Triangle gives employees a voice."



Norm Daoust, apprentice mechanic, Clarabelle: "I think it is very important. It's more personal than what you read in the local newspaper. I like to read about what we are doing for the environment. We're doing a lot more than other companies."



Bob Nesbitt, scoop operator, Stobie: "I read it (Triangle) from cover to cover. Every now and then you read about somebody you know. It keeps people in touch. People would miss it if it was cancelled. But you should go back to putting in family portraits."

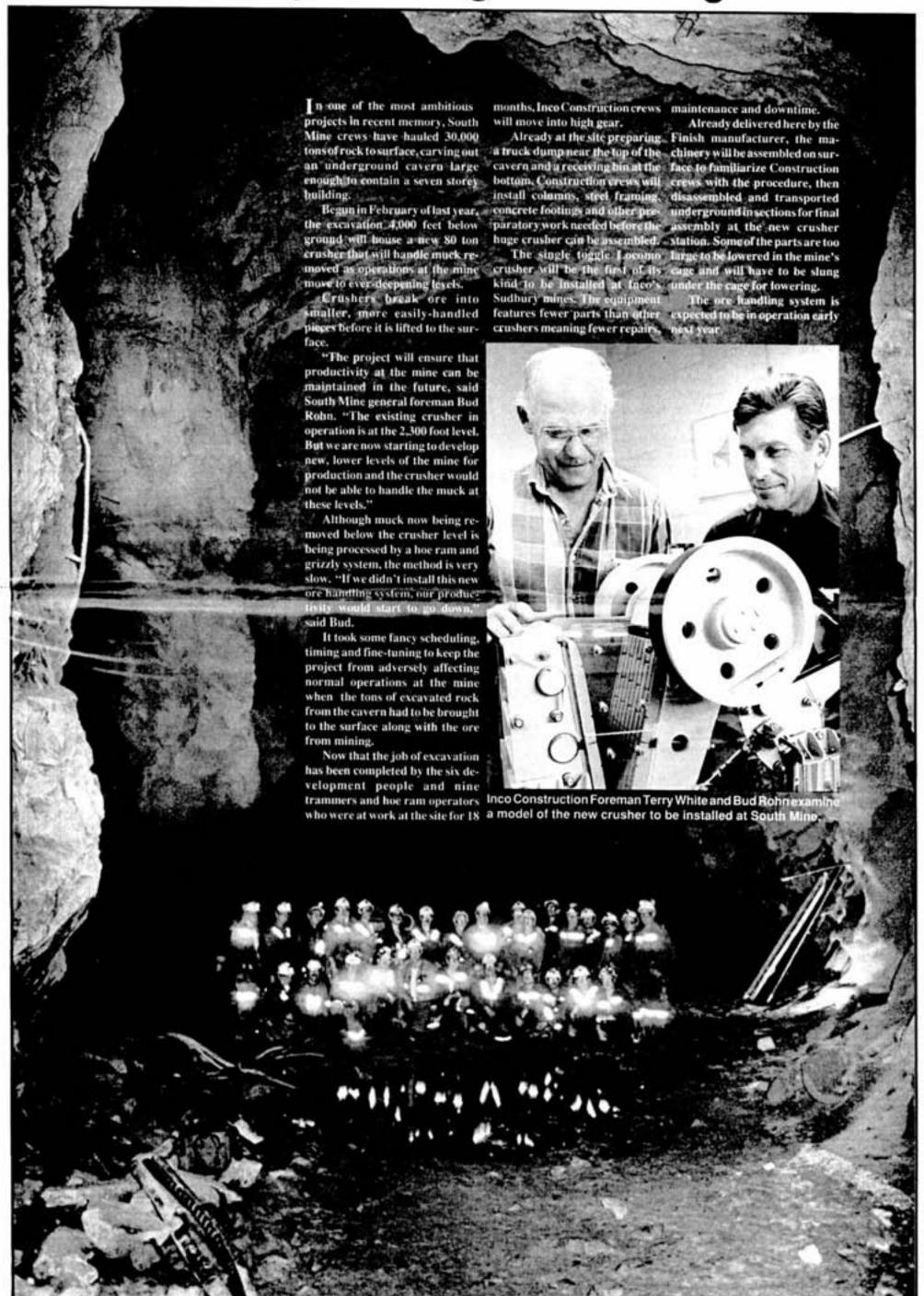


Bob Ballantyne, mine foreman, Frood: "I find it interesting. It's a good way to keep in touch with people you've met over the years, to find out what's going on at different Inco operations. It's geared to everybody, and it doesn't lecture employees."



Mike Gaudet, cage tender, North Mine:"It's kind of inspiring sometimes. You read about suggestion plan winners, I read it just as soon as it comes out. I like most things, but I don't read much about what people do outside of Inco."

South Mine: Not your average hole-in-the-ground!



They're writing the book(s) on Inco's abatement project

Pssst. Hear about the new Inco production? A half-billion budget, cast of thousands, high-tech special effects, nail-biting excitement as deadlines come and go, leading roles by old favourites and panoramic scenery of changing skylines.

But then, you can wait for the book. They're writing it now.

When surface plants training coordinator Stan Pasierowski was given the job of overseeing the creation of some 140 manuals to cover operation and maintenance of the Sulphur Dioxide Abatement Project, he wasn't looking for a stable of Hemmingways.

"No high felutin' words," said Stan as he flipped through the pages of one of the completed manuals. "The idea is to make it interesting, but in a format and words that are simple enough that everyone can understand."

The project began over two years ago. Even with the abatement project still on the drawing boards, researchers were determining what should be covered and how many manuals would be required to do the job.

The main areas to be covered by the manuals are the Smelter. Clarabelle Mill and the new acid and oxygen plants. Equipment, process and manpower changes are some of the things that demand updates or completely new manuals.

"Once we determined the scope of the changes, we knew how many people we needed to do the writing," said Stan. Today, with 80 per cent of the manuals completed, writers are still at it after two years of the occasional attack of writers' cramp.

"We're not assuming people running the new plants and processes will be experienced Inco technicians with some knowledge of similar operations," said Stan.
"The idea is to gear the manuals to
the plant operators and maintenance
personnel, as if all the people are
new to the equipment and proc-

If the crews running the new acid plant aren't neophytes, the people doing the writing certainly are. "It's the first time (writing) for all these people," said Stan, "It's not just a matter of the writing, but there's a lot of research first. We had to go out and get the details from the manufacturers, the designers, the builders and some of the people at the plant sites. Then it all had to be put into a logical order."

Former Frood-Stobie Mill foreman-turned writer Henry Bielanski recalls visiting the site of one of the areas he was creating a manual for. "It's important to see where the equipment is to be located. You can't see that from engineering drawings. Then you talk to people involved. Their input is important as well."

Henry volunteered for the project. "I've always wanted to get into something like this. I've

learned a lot of new things here, from computer assisted drafting, word processing

and other computer support programs."

Former Frood-Stobie process foreman Gerry Dellaire was sent to Boston for a three-day training session from the manufacturer of a computer control system. "If you're going to write about how to run it, you have to know how to run it," he said. "Of course, any experience of your own helps when writing



Debi Rosato, Lisa Ducharme and Tina Leschishin look on as Kathie Spencer makes some final changes in the production of one of the manuals.

these things up."

Still, after researching and familiarizing himself with all the electronic gadgetry, the hard part have to have manuals ready as equipment comes on line. There's a whole list of deadlines that we have to meet. Sometimes it's a

> rush as a major deadline approaches. Everybody's doing extra duty. Full

Revision, a word hated by all here I'l the prowordsmiths, is a matter of routine here.

"We expect it," said Stan. "In fact, there's time allotted for it. As hands-on experience reveals needed changes, we have to go back to the manuals to make these changes."

The manuals, some as thick as a phone book but the majority with an average of 50 pages, each take an average of about two months to produce. After the writing, they're put into the proper style by secretarial staff at the training office and returned to the writers for proofing. Once the final changes are made, the manual is printed in Inco's own shop.

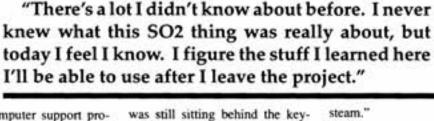
While few of the writers even dream about turning out their first novel, most see the project as a way of expanding their knowledge and making themselves a more valuable member of the Inco team.

"No doubt about it," said Henry, "I've learned about many different phases of the operation. There's a lot I didn't know about before. I never knew what this SO2 thing was really about, but today I feel I know. I figure the stuff I learned here I'll be able to use after I leave the project."

Said Gerry: "I'm a mill man writing manuals for the smelter. I can go anywhere and use what I've learned here."

Other writers involved in the project include process foreman Gerard Leduc and Smelter maintenance foreman Colin Craig. Others, such as Allen Ward, Bob Smedley, Rick Flesch, Allen Beers and Pieter Bregman also spent time writing manuals at different stages of the project.

Electrical manuals were written by a separate group of writers that included Paul Llewellyn, Randy Stack, Brian King, Al Walker, Rick Thomas, Gerry Seguin and Roger Gagnon.



"The biggest part was to put it

Writing is actually just part of

all in perspective, in everyday lan-

guage so that the next guy can

the job, according to Stan. The

manuals are full of computer-cre-

ated flow charts, schematics, illus-

trations and drawings . . . and not a

stick man in site. All were written

by people who had never done any-

thing more complicated before than

one-fingering a sentence or two on

people has been enormous," said

coordinated with what's actually

happening out at the plants. We

"The learning curve for these

"The writing project has to be

a computer terminal.

understand it," said Gerry.



Bob Smedley, Gerry Dellaire and Henry Blelanski review a computer created flow chart for a circuit at the Smelter.



Colln Craig and Stan Pasierowski keep an eye on a tight abatement project writing schedule.

Training to run abatement project

Inco vets prove ready for high tech controls

Like a large erector set, Inco's Sulphur Dioxide Abatement Project is changing the Inco skyline almost daily as new structures, pipes and other equipment are fit together like a huge jigsaw puzzle by both contractors and Inco workmen.

Unseen by the passersby, the changes going on inside both old and new facilities are revolutionary. Many working inside are regularly caught by surprise at the rapidity of changes. "You need your hard hat on and your eyes open even more than before," mused one Smelter veteran, "or you might walk into a furnace that wasn't there yesterday."

The new work and the adaptation of existing equipment is stateof-the-art technology. Some is still considered experimental, theoretically sound but untried. It's all meant to give a huge push forward in the fight against pollution, a leap that is expected to lower emissions by 60 per cent when the project is complete by 1994.

Running all the high-tech equipment will be something like switching from the steering wheel of a Volkswagen Beetle to the controls of an airplane.

It'll be Inco veterans who have proved reliable, dedicated and motivated in the past and who are proving once again that enthusiasm is the trick when it comes to adapting to new challenges. They've been hitting the books, attending lectures and rehearsing behind the controls of simulated equipment since mid-April, and the enthusiasm has left project management pleasantly

"Frankly I was a little concerned at first," said the Smelter's Operations General Foreman Homer

Carr. "All this talk about our aging workforce gave me some concerns. There's a common belief that as people get older, they get resistant to changes. Quite the contrary, our people are eager to learn, enthusiastic and able. They're eating this stuff up."

Homer is one of five people assigned to the training portion of the Abatement Project. Along with Murray Prpic from Maintenance, Allan Holm of Electrical/Instrumentation, Gord Pearce of Safety and Training and Pat Thompson of the Acid Plant, his primary role initially was to check the "general layout" and issues concerning operability and maintenance. A Failsafe Team was assigned and a review of the entire design was conducted.

"The idea was to eliminate problems before they arose," he said. "It's easier to make these changes during engineering rather than later, when systems are in place.

Once the initial stage was complete the next phase was to identify the "Start-Up" Teams to operate and maintain the new Flash Furnace, Acid Plant and all associated equipment through the commissioning/start-up phase. Joint union/management meetings determined the selection strategy and teams were formed consisting of



Angelo Colosimo of Operations, Angela Dorsey of Technical Services, Jim Armitage of Instrumentation and Chris Dugas of Maintenance examine a flow chart for a segment of the new Sulphur Dioxide Abatement Project as part of their training.

personnel from Operations, Maintenance, Technical Services and Engineering groups.

The huge task of training these

"There's a common belief that as people

get older, they get resistant to changes.

Our people are eager to learn, enthusiastic

teams began as early as the 4th

and able. They're eating this stuff up."

The start-up teams perform precommissioning checks on the many subsystems to identify deficiencies in construction or design before the

> gears are set in motion. The Distributed Control System (D.C.S.) which will control and operate the new Flash Furnace and

Acid Plant is a radical departure from previous control methods. The D.C.S. operators are busy day and night behind the controls checking the numerous control loops as commissioning of the equipment takes place. "The team approach used for training and start-up has also been applied to the operation of the new furnace" said Homer. "The jobs have been defined very broadly in scope whereby the furnace operator will learn to operate all equipment associated with the furnace and job rotation by each member of the team will provide a more effective and interesting job for those at the controls."

The training went very smoothly and the level of competence demonstrated by the participants was noticed by many.

"It's amazing how eager our people were to get involved" said Rick Howatt, one of the Start-Up Operating Foremen. "It was unreal. They dug right in. Don't forget that the average age of these people is 40 to 45 and they've been out of school for many years. Some of the questions they asked even sent us back to the text books for answers. It was a pleasant experience."

Commenting on the success of the project to date Homer said, "We are very pleased with the results of training we have seen so far. The real test will be when we start operating and maintaining the new equipment. We are confident our people will meet the challenge which lies ahead and attain the desired results.

duarter of 1989 and continued through the commissioning phase currently in progress. Upgrade training for operators was provided by hands-on experience with similar existing equipment, namely No.9 Flash Furnace. In-house and vendor-sponsored courses for Instrumentation and Electrical personnel prepared them for all the new control equipment. Foremen were trained as Trainers to instruct

AnstruIf Safety their crews on the operation and maintenance of the new equipment using training manuals prepared by the Divisional Training Group.
If Safety their crews on the operation and maintenance of the new equipment using training manuals prepared by the Divisional Training Group.
If Safety their crews on the operation and using manuals prepared by the Divisional Training Group.
If Safety their crews on the operation and maintenance of the operation and maintenance of the "brain" of the new Flash Furnace and Acid Plant, the Distributed Control System, were given indepth training using simulators and

Foxboro training courses.

In April of this year all teams were assembled into one for a one week Common Core Training Program. This provided the group with an overview of the scope of the S02 Abatement Project, the various process flows and new equipment in the Milling and Smelting processes. Specialized training followed, from May, 1991 until startup, which involved studying the training manuals and hands-on experience as equipment was completed and commissioned.



Mark Provencher of process control equipment supplier Foxboro Canada trains operating foreman Harold Wall.



Dad may be president of the company, but son Mark Ashcroft looks like he was born behind the controls of a remote scooptram. From left are Jim and Margaret Ashcroft, sons Brendan, Andrew and Mark, remote operator Norm Mitchell and McCreedy West Superintendent Don Gibson.

McCreedy West Family Day was a scream

Screaming contests, remote scooptrams and burgers too. No wonder that a mine with 130 employees attracted 500 people to its Family Day.

It was the first Family Day at McCreedy West since the mid-'80s, and miners, pensioners and their families at one point filled a bus and six jeeps for the underground

"We have a ramp here so we were able to take over 400 people on the underground tour," said geologist Pat Raymond, one of the organizers of the event.

Very popular was a try at the controls of a remote controlled scooptram. "With years of experience on video games, some of these kids catch on faster than we do," said Pat.

Perhaps the most unusual event was a screaming contest for the youngsters with noise monitors normally used at the mine to monitor underground noise levels.

While family and friends of

employees showed keen interest in some of the new equipment and methods, it was the pensioners who were often most surprised at the rapid changes in the workplace.

"We had a lot of pensioners here and some of them haven't seen the mine in years," said Pat "They're often amazed at the changes that have taken place in only a few years.

"The pensioners are perhaps in the best position to appreciate the changes in the business."



Geologist Pat Raymond's daughter Dawn finds the scoop of a scooptram is a great cooler.



Chowing down are production miner George Robinson, development foreman Don Wighton, maintenance foreman Jim Rousselle and industrial evaluator Bob Lacelle.



Guest Noah Hambly tries out the dosimeter while sister Rachel wished he wouldn't. Noah's voice peaked at 140 decibels, a level that McCreedy miners swear beats a jet engine.



A volunteer fireman demonstrates the newest in fire fashion.



Vince Vienneau with the newest in miners' fashion.

Suspending the work load keeps miners in comfort

Tightening our belts is clearly the way to go if Inco is to remain competitive, but if you're working at some jobs underground it isn't a good idea at all.

"I'll bet some of these guys have 30 or 40 pounds hanging around their middle," said Creighton electrician Vince Vienneau. "When there's that much weight hanging on your safety belt you have to make it so tight you can barely breath. If you don't, the belt and tools end up around your knees."

Vince is one of a growing number of people who are taking advantage of a new, simple, and practical piece of equipment that encourages underground crews to loosen their belts . . . literally.

It's a pair of specially-crafted suspenders. Not only does it allow for breathing room with a belt fully loaded with lamp batteries, tools and other equipment needed for working underground, but the suspenders are equipped with strips of reflective material that make miners hard to miss in the pitch-black underground environment.

"It's a lot more comfortable wearing one of these things and you sure feel a lot safer. You feel like people can at least see you," said Vince. "Inotice that it doesn't take much light to reflect off these things. You can see them on other people flashing all over the place when the light hits them."

Like others. Vince complained that often he'd have to pull a belt loaded with tools so tight that he'd have a rash at the end of the day where the belt rubbed. "It was very uncomfortable," he said. "With these suspenders, you can have your belt loose and still hold up a lot of weight."

Manufacturer Elmar Company of Elliot Lake claims the suspenders are recommended by doctors, chiropractors and occupational health nurses to ease the stress and strain of a heavy belt on the lower back muscles.

Fred Nicholson of the Safety Department said the suspenders were made available on a subsidized basis after two years of testing proved their value.

The reflective tape on the suspenders fits in with a new Inco policy calling for the wearing of reflective surfaces while working underground.

The policy was adopted last month.

John Saddington of Purchasing said almost 400 pairs have been purchased so far.

Inco food drive expanding

Boxing day before Christmas

A drop in the bucket.

That's what plate shop machine operator Edgar Burton last year called his Inco Christmas campaign to help the community's needy.

This year, the drop in the bucket is beginning to look like a flood.

When Edgar launched a Christmas Canned Goods for the Needy campaign four years ago, he began with two collection boxes placed strategically at Inco plants and offices and received only moderate response from fellow employees who were asked to donate canned goods and other non-perishables for those in the community less fortunate.

This year, the number of boxes will grow to 22 and Edgar has every indication that he'll get the \$10,000 in food that he's shooting for.

"The first year we collected about \$400 worth of food and it's grown every year since. Once people became familiar with what I was trying to do, they gave me overwhelming support," said the 18-year Inco veteran.

Need for the project became evident to Edgar when his sister's Chelmsford home burned down and the community pitched in. He's had lots of cooperation and help from Inco people as the project has grown, but he's been the driving force behind it.

And the campaign has not gone

"On behalf of the children, the aged, the sick and the less fortunate who share in your benevolence," states a card sent to Edgar from Ruth Lamber of the Salvation Army, "we send grateful thanks to you."

With this year's expansion of the project, Edgar figures he's involving about 75 per cent of Inco locations. He's confident in the response.

"Inco people have always been generous and willing to help," he said. "Miners have always been that way. You can see it by the boxes at the mines. They're always filled to the top."

Although he began preparations for the expanded drive back in June this year, Edgar has tried not to let the project interfere with his regular work.

As the project has expanded, he's relied on others to help out. Superintendent of Personnel Scott McDonald arranged for the manufacture of the additional collection boxes and safety foreman Don Dumontelle helped coordinate the effort. The Smelter's General foreman of Safety and Training Steve Oreskovich was also very supportive, he said.

"Divisional Shops management provided the time to go out and organize this thing," he said. "I tried to keep the time down to a minimum, but whenever I needed some time they were supportive."

Welding and plate shop foremen Bernie Piche and George Dempsey were also helpful with the project, he said.

Boxes were scheduled to be in place by the last week in October.

"I guess I always kind of knew it would get this big. I've always been confident in the generosity of Inco people. I know I never had to ask people twice for anything that was needed."



Edgar Burton: Boxed in for Christmas.



aking bets new ore bodies in Sudbury

hen you take on the e Victor and the of

ners. Denugled.

d burned." 600 square **mid**e Sudbury Basin

prodded pieces of

Seelectromagnetic surveying can "s

easy ones have all been found: Today that look promising

bash on new research, methods and equipment. ye We study what we see on the surface or front old drillings, we polymetraheories to see what we come up with.

science," he mused, "It can be

into the ground up to

"But it's still not an exact something of a crap shoot. All we

Driller Richard Despatie with tubings longs used to 'break' rods as they come to the surface. This one comes from located 3,000 feet from Inco's 6,510 feet below the surface.

time, medern mining drains ore pockets at a rate undreamt of just few years ago, so new ore . badies thust be larger to make the operation worthwhile. To make it all pay, the ore body must be of sysufficient high grade. And then there's nickel price and the "fortunes of the market." mines need years of lead time and fullions in development costs before the first one is entitled. A good price on the hickel exchange when digging begins doesn't guntantee the price per pound won't have plummeted when the first miner goes underground

at Victor. It can be something of a crap "It's a gamshoot. All we have is potential. ble ">
Until we drill, we just don't know." Wayne ble." sirrugged

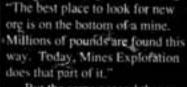
most examined. have is potential. Until we drill. we fust don't know

> Formed to look desper, Explanation must now overcome the other major handle.

economies.
The deepers are costly to mine

When the Sumory Basim group split off from Ontario Division and came under Inco Exploration two years ago, the group's assigned prime responsibuilty was to find new ore bodies.

"Drilling continues at existing mines where the majority of new bee bodies are found," he said.



Wayne Garland examines core samples removed from the bore hole just hours before.

But the same general theory still applies to Inco Exploration as well. "Now we're looking for new ore bodies away from mines , where Mines Exploration can't reach:

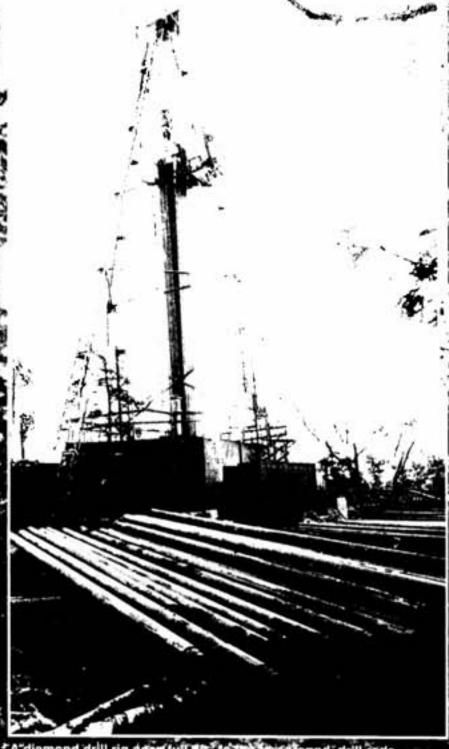
The new Levack find is McCreedy East Mine.

A geologist with Inco for 20 years. Wayne is confident that new techniques, research and equipment will continue to make his job easier. Geophysics is the newest tool used by Exploration, he said, and the method allows geologists to "see" ore bottles within 800 feet of a bore hole. It was the key ingredient to finding the Victor oge body he said.

A loop of wire one square. kilometre is placed around a bore hole and an electric current is run



Members of the Sudbury team are, from left, (seated)Maurizio Na Everett Makela, Caesar Battochio, Don Reid, Wayne Garlaod, A







fluctuation in the magnet for that may have been caused by ore body.

"Before, we had to drill fight Into the ore body to know it was there," he said. "We could have missed one by only a few feet and never known it. This way, e can get close and still see it. The method has been used for years now, but we're getting

He said drill as they drilling your 24 hours I day five the week, are operated by contribe tors) are the key to the operations These guys know what they redoing. They have to. They re at mile down, drilling with a ptpe the thickness of your baby finger.

Drillers can even curve the bore hole underground a degree and a half thime. To make that work takes affore 25 per cer

A test tube fr lowered down sipe. The acid dissolves the glass, leaving a mark like a athtub ring!- -:

"We measure the angle of the dissolved glass to tell us where we're going. That's not high " tech, but it's good tech," he said.

A compass can also be .. lowered into the bote hole along of the reading.

Core samples from the centre has the case it wouldn't be any the technique of the hollow diamond drill rod are examined daily by Exploration odds are improving for less. tion geologists.

Aircraft surveys and geophysics aside, Inco's geologists don't sit at a computer ferminal all day. "Going out on site and chipping

away on the rock is still part of the business," said Wayne. You've got to understand what's happening on the surface and work your way downs There's a lot of intuition, a feel for it first develops with experience. figure computers and electronies will never be able to replace that

that.

Bob Martindale agrees. Senior seologist responsible for theories, striking paydirt is something that happens only too

He punts on the experience of his people to put the data in people tive, a process both of derlener, insight, teme into

Our reason for being is to find new ore bodies. Fate if were playing the of he a with only the hint of a smile. be better off in Reno."

Yet Bob seems to enjoy the challenge. "You try to figure out what stelow. It snot just Manket drilling. You just don't with a camera that takes a picture "drill a hole every few feet. If there were the case, if wouldn't be any an eleph

Today, the tube shaped drill bi with industrial diamonds imbedded in the face of its circular rim can be driv 9,000 feet into solid roc

Like Wayne, Bob! realthy respect for the who do the ddl ty rigid on th like a spage you get it was start fordeviatesia

"Drillers on even curve the bore hole book of underground a degree and a half at a lime. To make that works do a about 25 per cent science and personal art."

the Sudhure Basile Exploration the Sudhure Basile Exploration the Sudhure Basile Exploration ord Montson, and Dennis Low. Missing is Ros Johnson of Ballyte new techniques and

prospectors. "Mining and techniques are improving the true," said Bob. "We can't wine ateason to the would have been imposs able only backs

much of the ga drilling pl better all the 2.000 feet of the

Sons and daughters of Inco emplo

High marks only part of achievement

Academic excellent may be the most obvious achievement of the 20 Inco Reserved Scholarship recipients this year, but cold figures alone don't reveal what makes these students winners.

A thorough study is made not only of the complete academic record. but also the characterization of the applicant as supplied by the high school and the personal information supplied by the applicant.

An independent (Inco takes no part in the selection process) scholarship selection committee of educators is interested in the qualities which may indicate success at university work and those strengths and weaknesses which differentiate an applicant from his or her peers.

While scholarship achievement and ability are a primary basis for awarding scholarships, other attributes are also considered. They may include capability for sustained work at studies, a coherent approach to problem solving, stability of character, reaction to setbacks and criticism, breadth of interests, relationships with peer groups and with teaching staff, leadership abilities and even unusual obstacles that the student may have had to overcome.

The application procedure includes a personal essay, in handwriting, that should include a description of the applicant's chief interests, extracurricular activities, community achievements, accomplishments,

and even past paid jobs.

This year 20 winners were selected from 105 eligible applications.

The committee consisted of members Donald J. Booth, Chairman. retired Principal, Lockview Park Secondary School, Port Colborne; Michael K. Lawson, retired Principal. Lockerby Composite School, Sudbury; Thomas J. Bertrim, Principal, Lively District Secondary School, Sudbury and Hugh Fraser, Principal, R.D. Parker Collegiate, Thompson. Among them they have 43 years of experience on the committee.

Fifteen scholarships were awarded to children of northern Ontario employees, three to children of Manitoba Division employees and two to children of other employees, i.e., southern Ontario, the rest of Canada and ex-pats. The distribution is based on the number of employees in each area.

The full scholarships are valued at \$2,500 annually and are renewable for a possible further three years.

Three Finalist Award winners were also selected, two from southern Ontario and one from Sudbury. The Finalist Awards are valued at \$1,000 and are awarded for the first year of university only. They are intended to reward an applicant who has achieved a level of academic excellence which merits a full scholarship but who is excluded from winning because the standard of applications is very high.

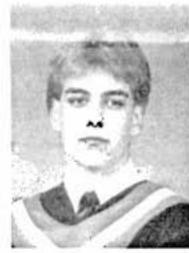
That was the case again this year.

Inco Scholarship Winners

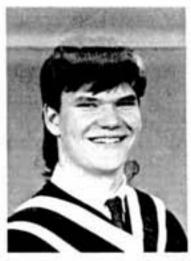
Northern Ontario



Joey Bray of Ecole Secondaire Macdonald-Cartier, son of Robert Bray, Shipper, Copper Cliff Nickel Refinery (deceased). Joey plans to take the electrical engineering program at the University of Ottawa.



Neal Bouffard of St. Mary's High School, Brockville, son of Robert Stanley Bouffard, Utility Labour, Copper Cliff. Neal will attend Carleton University in Ottawa for his Bachelor of Competer Science Honors.



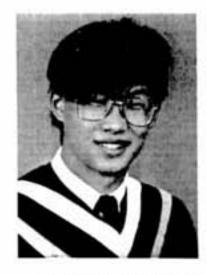
Brad Dever of Lo-Ellen Park Secondary School, son on Norman Dever, Maintenance Instructor, Iron Ore Maintenance Training Centre. Brad will go to the University of Waterloo for a cooperative mathematics program.



Tiffany Dube of Lasalle Secondary School, daughter of Jack Dube, Electrician, Divisional Shops, Tiffany will take a natural Sciences program at McMaster University in Hamilton.



Debra Fabricius of Lockerby Composite School, daughter of Peter Fabricius, Sr. Environmental Analyst, Copper Cliff. Debra will take a Bachelor of Arts, Honours, Art, History and Arachitecture and Carleton University.



Wayne Lee of Lo-Ellen Park Secondary School, son of Louis Lee, Power Engineer, Copper Cliff.Wayne will study Natural Science (Biology) at McMaster University.



Christopher McFarlane of Lockerby Composite School, son of Robert McFarlane, Exploration Assistant, Copper Cliff. Christopher will attend the University of Toronto's Trilnity College for a four year program specializing in Astrophysics.



Brian Merits of Sudbury Secondary School, son of Arli Merits, Maintenance Mechanic, 1st Class, Copper Cliff. Brian will take civil engineering at the University of



Jody McCaskill of Marymount College, daughter of lan McCaskill, Assistant Landman, Copper Cliff. Jody will take a pharmacy course at the University of Toronto.



Jennifer Moule of Lively District Secondary School, daughter of Donald Moule, Process Evaluator, Copper Cliff. Jennifer will take a cooperative Chemical Engineering course at the University of Waterloo.

yees earn company scholarships



John Park of St. Charles College, son of Choon Park, Superintendent. Technical Services. Levack. John will take Biochemistry and other pre-med courses at Laurentian University.



Marco Vignuzi of Lockerby Composite School, son of Alberto Vignuzi, Designer, General Engineering. Copper Cliff. Brian will take a Bachelor of Science course at McGill University.



Philip Wiebe of Lockerby Composite School, son of Art Wiebe, Superintendent of Assay Stations, Field Exploration, Phil will take Engineering at McMaster University.



Jennifer Wunsch of Lively District Secondary School, daughter of Garth Wunsch, Senior Geological Technologist, Frood Mine Jennifer will take an Honours Communications course at the University of Windsor.



Trisha Wyman of Lasalle Secondary School, daughter of Jack Wyman, Machine Operator, Central Maintenance, Copper Cliff. Trisha will attend the University of Guelph for an Honors Biological Science course.

SouthernOntario&Ex-Patriates



Hilary Conard of Oakville Trafalgar High School, daughter of Bruce Conard, Scientist, Sheridan Park. Hilary will take Finae Arts (Theatre) at York University.



Vallbacka of Oakville Trafalgar High School, daughter of David Vallbacka, Research Technologist, Sheridan Park. Jennifer will take Engineering McMaster University

Finalist Award winner



Northern Ontario

Melanie Power of Marymount College, daughter of Gordon Cuthbert, Section Leader, Copper Cliff Nickel Refinery.

Southern Ontario and ex-patriots



Matthew Aiken of Dunbarton School, Pickering, son of Victor Aiken, Civil Engineer, P. T Inco.(No picture))

INCO

Reserved Scholarship Competition for Children of Canadian Employees and Pensioners 1992 Awards

Up to twenty 4-year university admission scholarships will be awarded in the 1992 competition. The awards are valued at \$10,000 each (\$2,500 annually). Up to five \$1,000 finalist scholarships may also be awarded.

ELIGIBILTY

Children of Canadian employees, pensioners, expatriates from Canadian locations and of deceased employees are eligible to enter the competition. Candidates must have a strong academic record and be enrolled in a secondary school program of studies required for university admission. Award winners are expected to enter university in 1992.

SELECTION

An independent committee of high school principals will select award winners on the basis of the complete academic record, SAT scores and information supplied by the applicant and the high school. Award winners will be announced in mid-August, 1992.

APPLICATION

Application forms will be available from September 2, 1991 at local schools, your place of work, and at: Office of the Administrator

Inco Limited Scholarship Program Box 44, Royal Trust Tower Toronto-Dominion Centre Toronto, Ontario M5K 1N4 (416) 361-7844

THE APPLICATION DEADLINE IS APRIL 10, 1992

SAT TEST DEADLINE

TA-0043

APPLICANTS MUST REGISTER FOR AND WRITE THE SCHOLASTIC APTITUDE TEST ADMINISTERED BY UNIVERSITIES AND SCHOOLS ACROSS CANADA. PLEASE NOTE REGISTRATION DEADLINES AND TEST DATES. TEST DATES IN OTHER COUNTRIES MAY VARY.

REGISTRATION DEADLINES

September 23, 1991 October 28, 1991 December 16, 1991

TEST DATES November 2, 1991 December 7, 1991 January 25, 1992

SAT Test material is available at the applicant's school

Special events planned for Legion's 60th year

by Marty McAllister

Nowhere is the depth and substance of the Inco family more honourably reflected than in the 60-year history of R.L. Beattie Branch #224, Royal Canadian Legion, Copper Cliff. Of its 360 members, about 85 percent are active or retired Inco employees—including its current, three-time president, Bill Van Allen. Still respected and fondly remembered throughout Ontario Division maintenance circles, Bill

gives generously of his big heart and impressive energy to the Legion cause. But this year is special.

It is the Copper Cliff branch's Diamond Jubilee, and a committee was formed to plan and execute eleven special events, including the Gala Charter Night on December 12. Van Allen was named chairman of the committee, but he and his wife Edna undertook yet another chore — a labour of love.

Together, they devoted nearly eight hundred hours to the



By Ellen L. Heale, P.Ag.

With grocery stores, farmers markets and roadside stands, fresh fruits and vegetables are readily available on a daily basis. However, if you have a garden, pick-your-own, or buy in bulk proper storage of seasonal crops is important. You may choose freezing, canning, pickling, drying, making jams or jellies or other methods of preserving. Since fruits and vegetables deteriorate rapidly, preservation or proper storage are essential.

From the Ontario Farm Fresh Marketing Association "it is estimated that Canadians buy about 500 pounds of fresh fruits and vegetables per person each year, almost twice as much as our American neighbours. Canada's top five fruit in 1989 were apples, bananas, oranges, grapes and grapefruit. On the vegetable side, potatoes led, followed by lettuce, tomatoes, carrots and onions. "Keys to storing fresh produce include slowing down respiration, preventing excessive water loss, slowing deterioration and preventing the development of microorganisms. This may be accomplished by controlling storage temperature and humidity, reducing the amount of oxygen and harvesting at the proper stage of maturity. Select quality fruits and vegetables with no evidence of blemishes, damage (bruising), insect injury or disease. Also, all produce should be handled very gently.

Very small quantities of ethylene gas are released by plant tissues. This is a naturally-occurring process. Exposure to ethylene causes certain growth reactions and responses in plants at very low concentrations. One of the principal effects of ethylene is on fruit ripening. In a shipment of green bananas and partially ripe oranges, it was found that the bananas ripened unusually fast. This process occurred naturally from the ethylene produced by the oranges. (Bananas only ripen to optimum quality when they are picked off of the plant.) Apples respire more than most fruits and give off extra amounts of ethylene gas which influences the ripening phase of other fruits. Ethylene gas will degreen oranges, cause uniform ripening of bananas and induce flowering of pineapples. Apples will help to ripen bananas, pears, peaches and tomatoes. Punch a few small holes in a brown paper bag. Put unripened fruit in the bag (without crowding) and add one ripe apple. Fold over the top of the bag and set it on a shelf at room temperature. Be sure to check the fruit every day for ripeness or any sign of decay.

Apples and potatoes should never be stored close together and apples will make carrots taste bitter. Fruit will also absorb odours from potatoes, turnips, etc.

To test if apples are ready for picking lift one up in the palm of your hand and twist gently. If the apple is ready it will release easily with the stalk intact. Do not remove the stalk, breaks in the skin will allow bacteria to enter and cause rot. Early varieties of apples (ready in the early fall) do not store well for more than a few days and are best eaten as soon as they are picked. Mid-season and late varieties are ripe from late fall to early winter. Storage life ranges from five days for Melba, I and a half months for Courtland, 2 months for McIntosh and Red and Golden Delicious to 3 months for Northern Spy. Do not store the different varieties together. From the Reader's Digest Illustrated Guide To Gardening In Canada "after picking the apples, place them in a cool, well-ventilated room or shed to sweat for 2 or 3 days. After they have sweated, sort them out for storing, placing to one side any damaged or diseased fruits or any without a stalk." Apples will last longer and retain more flavour if they are wrapped individually in tissue paper. Small quantities may be placed in perforated plastic bags and stored in your refrigerator crisper. Baskets of apples should be covered with perforated plastic and stored in a dark, ventilated place between O and 4°C, at 85 to 90% humidity. Too much ventilation causes excessive moisture loss and fruits will shrivel, too little ventilation will cause internal rot.

The skin on oranges contains a mixture of green, orange and yellow pigments. Colour is not always a sign of maturity in oranges. The predominance of a particular pigment depends on the time of year. For example, in the spring ripe oranges may be tinged with green. Oranges with tight skins, such as Navel and Valencia are picked by pulling the fruit away from the stem. Tangerines (with loose skins) are clipped with 1.25 cm of stem attached. Oranges should be unwrapped and inspect them often for spoilage. Store Florida oranges at 0°C and 85 to 90% humidity. Florida oranges will keep for 8 to 10 weeks. Oranges from California require a slightly warmer temperature (2 to 3°C) and may be stored successfully up to six to eight weeks.

Once grapes have been picked they will not ripen further so be sure to harvest them when they are fully mature. The best indicator is taste. Grapes should be aromatic and sweet and stems will be brown. Clip bunches of grapes from the vines with sharp shears or a knife during the coolest part of the day. Handle the bunches gently, by the stem and remove any overripe or diseased fruits. After picking, spread the bunches in single layers and cool to 10°C until the stems start to shrivel. Place the grapes on trays (no more than 10 cm deep) and store at 4°C in a slightly humid atmosphere. Depending on the variety grapes will keep for several months.

The potato is the only vegetable among the 5 principal world food crops. Early varieties of potatoes can be dug at any time. However, storage varieties must be handled differently. When the leaves of potato plants start to turn yellow and wither, water the plants well. Potato tubers continue to grow until the 'vines' die. After 1 to 2 weeks cut away all stems and leaves and wait another 5 to 7 days. Do not harvest potatoes after or during a heavy rain or on a hot day. Potatoes can remain in the ground but be sure to dig them up before the first heavy frost. Wait for a cool, overcast day and carefully dig up potatoes with a spading fork. Avoid bruising or damaging the crop. At this stage potato skin is thin and will easily rub off the potato, so they must be 'conditioned' or 'cured'. Do not leave the potatoes out in the sun or wind. Condition at 16°C and 85 to 90% humidity for a week. Sort through potatoes and keep only the good (undamaged), disease-free ones. Brush off excess dirt, if you wash them, potatoes must be dried thoroughly before storage.

Potatoes must be stored in the dark, any exposure to light (sunlight or artificial) will cause potatoes to turn green. This green pigment is called solanine (an alkaloid) and it must be cut off prior to cooking and eating. Green potatoes are bitter, can cause digestive upsets or may be toxic if eaten in large quantities. Potatoes may be stored in crates or boxes (not piled too deep) at temperatures between three and four C and 80 to 90% humidity. Cooler storage temperatures will cause potatoes to turn sweet. To recondition sweet potatoes store them at 21°C for 1 week. Potato sprouts should be removed whenever they appear. Never store potatoes with apples.

Harvest tomatoes before the first killing frost. Ripe tomatoes have the best flavour, colour and texture. Pick tomatoes from the plants and remove stems. Wash the tomatoes in a sink full of water containing 3 tablespoons of bleach. Rinse the tomatoes thoroughly and dry. Separate the green from the partially ripe tomatoes and stack them (no more than 2 deep) in shallow boxes or trays. Some people wrap tomatoes individually in newspaper. Green tomatoes will ripen in 4 to 6 weeks at 13 to 21 °C and 80 to 90% humidity.

Carrots will withstand frost if the soil is dry. They should be harvested after night temperatures reach -1 °C. The full colour and flavour of most varieties develops at maturity. Remove tops to within 1.25 cm of the crown. Do not wash the carrots. Place them in boxes or bins between layers of moist sand or peat or put carrots in large freezer bags with a dozen 1.25 cm holes punched in the bag. Store just above freezing at O to 4°C and a relative humidity of 90 to 95% for up to 6 months.

Onions are another top rated vegetable. For storage choose 'good keeping varieties'. When the tops start to yellow and fall over, push them flat to the ground. Do not water the plants further. After 3 weeks carefully dig up the onions. Harvest them before a heavy frost. At this stage onions must be cured. Lay onions on newspapers, outdoors in a dry, shady spot (to prevent sunscald), protected from rain for at least 10 days. Turn the onions so the outsides dry evenly. Bruised or thicknecked onions do not store well. Trim the tops (to within 1.25 cm of the bulb) and roots, brush any dirt off of the onions and store them in baskets or mesh bags hung up in a dry (60% humidity) storage area at 0.5 to 4°C. Check occasionally and remove any rotting bulbs. Roots will appear if the air is too humid and onions will sprout if the temperature is too warm.

For further information on home storage of fruits and vegetables consult library books such as Putting Food By and Stocking Up. your favourite cook books, an Ontario Ministry of Agriculture and Food Factsheet on Home Storage of Vegetables or the Ministry of Agriculture and Food Consumer Information Centre at 801 Bay Street, Toronto, M7A 2B2, (416) 326-3400.

development of a beautiful commemorative book that has just come off the press. More than an anniversary souvenir, the History of Branch #224 is an important addition to the recorded history of the Sudbury region.

While working on the project, "we often stayed up until two in the morning, looking at pictures, reading old minute books ... and talking," said Bill. "It was a very emotional thing, at times."

It will be hard for any long-time Incoite to get all the way through the book in one sitting. There are simply too many memories to digest.

The "Copper Cliff Branch #224 of the British Empire Service League" received its charter on December 12, 1931. Its first president was Dr. R.B. Harris, an Inco physician. The secretary was Robert Leslie Beattie, who would rise to become an Inco VicePresident and General Manager, and for whom the branch would be renamed in 1954.

Generations of familiar Inco names and faces appear on page after page: Percy Clement, Dunc Finlayson, George Norman, Fred Heale, and Tony Merrifield, among the founders; Wes McNeice Sr. and Wes McNeice Jr., from World Wars I and II; Mac Forsyth, who Purchasing oldtimers will never forget and "Red" Pianosi, not an Incoman but always one of Copper Cliff's favourite sons.

Photos from the 1939-45 war years remind us how young and brave were so many friends we came to know in later years. George and Ellwood Trezise looked so handsome and serious. Hitton Fowler had the same smile even then, Bernie Scharf has changed only a little, Bert Smythe has gained a little weight and there's the same Charlie Lineham who appears in the Royal Visit story in this issue.

The book also contains two pages of photos and news clippings of Copper Cliff sons who did not return from World War II. Theirs are familiar family names. It is very moving to realize that some of our friends and co-workers had relatives who made the Supreme Sacrifice for their country. Reading these clips again will be a special, private moment for those who remember, so this brief piece will mention no names.

There are excerpts from branch minutes throughout the years. "They appear in the book just as they were written in the minute book," Van Allen said. "Edna and I didn't change a word or a line of grammar."

Stories and photos of Legion special events and public service activities abound in the new history. As in any organization, the same people crop up again and again: the late George Clare, Dick Dopson, Jack Quennville, Reta Flynn, wife of the late Herk Flynn ... and, of course, the good-looking young navy radio operator, Bill Van Allen.

As in its companion branches around the region and the country, members of R.L. Beattie Branch #224 do not glorify war. Rather, they are "rededicating themselves to the preservation of peace." They know its importance.

Planning, pride in job a major factor

Mills teamwork slashes SAG Mill downtime

Bigger, better, more efficient, Clarabelle's new semi-autogenous (SAG) grinding mill never fails to impress even the most seasoned of mill workers as the 32-foot diameter piece of spinning machinery crushes ore like a clothes dryer tumbles laundry.

Processing ore at up to five times the rate of its older, smaller cousins, the SAG mill's super capacity and high efficiency creates its only drawback. Downtime is devastating to productivity.

That disadvantage may never become a serious problem if future maintenance crews follow the example of the handful of people who managed to cut in half the time allotted for the mill's first regular liner change.

"You have provided another major building block for the plant in your efforts to get the project upheavals behind us," stated Central Mills manager Mick Throssell in a memorandum circulated to the approximately two dozen people involved in the 48-hour project.

The original plan was to change 24 of 60 rows of shell liners during a 48 hour shutdown scheduled for that purpose. According to Ralph Toivonen, general foreman of Inco's mills rationalization project, the time estimates were obtained by consulting with other mill sites.

For people like Clarabelle Mill superintendent Lloyd Strong, the major concerns were to do the job safely, but at the same time minimize lost production.

Approaching the first-time job on a brand new piece of equipment like a well-planned military campaign, the crew managed to change 40 rows of liners in just 45 hours.

"It was an excellent example of using TQI (total quality improvement) tools and methods in planning a new job," said Mick Throssell. "The job proceeded at twice the planned rate and in a safe and orderly fashion. The morale of the crews was clearly very high."

In a series of preparatory meetings with all the people involved, every detail was discussed and organized.

"You might say it was almost

possible angles," said Gates. "We doubled up on everything, tools, supplies and other equipment. We wanted no snags. Everybody came up with ideas. It was the accumulation of all the small points that made this thing go smoothly. There was an ownership, a pride in this project that brought the best out in everybody. I figure that's the major reason for the record time."

In at least one case, the project's organizers can give a concrete example of a major delay avoided by doubling up on supplies.

"If we are going to remain competitive and increasingly productive with fewer people, we're going to have a lot more of this kind of teamwork in the future."

like a dress rehearsal," said TQI facilitator John Kanerva. "It was a new job for us, demanding different procedures and a lot of thought had to go into it before it was done. We applied TQI, Failsafe, Job Procedures and everything else to try to anticipate all eventualities. In short, it was the team approach, and everybody had their input."

The 11 maintenance and operations people on each of two shifts volunteered to work 12 hours straight. Harry McKinnon and Larocque were the foremen on the project, and both confirm that the extra, detailed planning and the input of all involved was the key to success.

"We approached it from all

"At one point we unexpectedly ran out of propane for the forklift," said Harry McKinnon. "It was the middle of the night, and we couldn't very well run out and get the tanks filled at a gas station. The extra propane tanks was one of the things we decided to double up on early, during the planning stage. It was just a small glitch that could have turned into a major delay."

Harry said getting the input of the people on the job not only makes for good morale, but it makes sense. "These are the people who have the on the job experience. A lot of them have excellent ideas, although sometimes they're too intimidated to speak up. This way, we are asking them to get involved. As you can see, it pays off."

"The project is a good example of the Internal Responsibility System where the team developed the process themselves," said Harry. "If we are going to remain competitive and increasingly productive with fewer people, we're going to have a lot more of this kind of teamwork in the future."



Some of the people who made the SAG mill maintenance job the success it was are, from left (front) Frank Prevost, Denis Savarie, Paul Courchesne, Andy Belanger, Ken Kusan (rear), maintenance foreman Harry McKinnon, Frank Boyd, Gerry Paquette, Rene Brosseau, Dennis Rayner, Ernie Vachon, Harry Patey, Tom Wright, maintenance foreman Gates Larocque. All, including those not present when the picture was taken, were commended for a job well done.

Earn another \$50,000 if he had the time

Idea chains former maintenance man to \$10,000

George Watmore has a somewhat unique view of those nagging problems at work, the constantly repeating kind, the kind that make you wish you'd never gotten out of bed.

He loves 'em.

Take the nickel reverb back-

track where the railroad trackmounted slag pots are filled for transportation for dumping.

Since as far back as anyone can remember, the cable and pully system for maneouvering the pots under the loading chutes would break down an average of 40 times a week

Each time maintenance mechanics found themselves replacing a section of chain, the weak link in the system.

After the slag pots are deposited at the backtrack by locomotive, they are hooked onto a pullymounted cable that runs the entire length of the track through the building. The pots are attached to the cable with a chain that runs from the cable to the pots. As power is applied and the pully moves the cable along the track, the pots are moved along like laundry on a backyard clothesline.

Each pot in turn is lined up under the slag chute, filled with the hot slag, and parked for delivery by locomotive to the slag dumping area.

It was the short chain from the cable to the pot that was causing all the problems. Whenever the pressure was applied, the chain would twist and eventually break.

The problem was a constant annoyance to both operating and maintenance personnel in the reverb building. Hundreds of hours were spent repairing, replacing and fabricating the linkage.

For George, the problem was a classic example of what he's looking for to prime the Inco Suggestion Plan pump. It was annoying, costly in time and money . . . and it was easy to fix.

A former maintenance mechanic at the Smelter now with Safety and Training, George suggested a swivel be installed on the chain to eliminate the twisting.

When the swivel was installed

over five months ago, the problem was virtually eliminated.

The idea put \$10,000 of Suggestion Plan cash in his pocket.

George has made lots of suggestions over the years, so many that he can't say exactly how many. But it was the first time he's earned the maximum, however.

"The biggest award I've received previous to this was \$1,100," he said.

George said he actively searches for problems to fix. "I figure that if I had the time to look around a bit more I could earn another \$50,000 a year just from the Suggestion Plan alone.

"The problems aren't hard to find. Look where things keep going wrong. Examine the repair you've been doing over and over again for years and think of a way to get rid of it or change it. Not only is there (Suggestion Plan) money sitting there, but you'll end up making your job a lot easier."

Discouraged by small awards you've earned?

"Don't be, "said George. "Keep plugging away. They all add up. I treat every suggestion I submit like it was a \$10,000 winner."

And rather than moaning about those persistant annoying problems, you'll learn to love them . . .

Like George.



George Watmore shows the chain and swivel that solved a nagging problem.

Inco's Sudbury miners have a long

By Marty McAllister

Beatrice Legge showed her profound affection for the British Royal Family by contributing a poem to the September 26, 1901 edition of The Sudbury Journal. Her greeting to the Duke and Duchess of Comwall and York began:

"To this, my fair domain, all rich with autumn's bounty,

My mountains, vales, and waters — my wide and foam-tossed shore —

My forests regal in their garb of orange, purple, crimson,

I bid you heart-deep welcome, a thousand times, and more."

There is some doubt that the future King George V and Queen Mary actually read the Sudburian's poem on their cross-Canada tour that fall, but its sentiment remains intact, ninety years later.

The Sudbury tradition continued in a deeply personal way on the warm afternoon of September 3, 1919 ... when Elgin Street was still Station Street. At Central School, just across from the C.P.R. station, flag-waving children watched as the train they awaited pulled in at precisely 2 o'clock. The Sudbury Star reported that, when His Royal Highness the Prince of Wales emerged, five thousand people "tendered the Prince a magnificent welcome."

In his tweed suit and grey fedora, Prince Edward inspected the Copper Cliff Cadets and Veteranskof the Great War. Cheers of appreciation went up from the veterans when Edward asked them to look on him as a comrade in peace time, as they had in war, when he had met so many of them at the front.

The twenty-five-year-old Prince had to shake the hands of Sudburians with his left, because "my right arm is nearly broken" from the tumultuous welcome he had received since his arrival in Canada. (This condition greatly concerned Queen Mary, but her son was too taken with Canada and its people to slacken his pace.)

At the conclusion of the brief



King George VI (third from right) and entourage go down in the Frood cage during 1939 visit.

but "perfect" visit to Sudbury, the handsome soldier-prince doffed his fedora and continued waving until the Royal Train had moved slowly onto the Algoma Branch, en route to Sault Ste. Marie. The throng watched with misty eyes. Even through difficult times that would

follow, they would not forget him.

On June 5, 1939, Sudbury and Incomoved into the royal limelight. On the first visit to Canada by a reigning monarch, Their Majesties King George VI and Queen Elizabeth unexpectedly asked that their Sudbury itinerary include a wisit to the world famous Frood Mine. No other mine or industrial plant was to be included in the entiretour of Canada and the United States. None other, Just us.

A special editorial in The Inco Triangle commented: "To the people responsible for the production of nickel this was a source of deep pride and satisfaction."

"We took them underground, you know," remembers Ted Guetz, then Operating Engineer at Frood.

Indeed they did. His Majesty was escorted by Donald MacAskill. Inco's Vice-President and General Manager, and Queen Elizabeth by Ralph D. Parker, General Superintendent of Mines and Smelters. It was the first time any woman had gone underground at our mines — but Her Majesty quickly convinced superstition to take the day off.

Both the King and Queen were keenly interested in every detail of their visit, asking questions that revealed how quickly they grasped what they were seeing and hearing, and both made lasting impressions as to their instinctive charm and friendliness. But, anyone who has watched "the Queen Mom" in the decades since will not be surprised at the genuine thrill she inspired in those who came under her spell.

Her Majesty did little things ... spontaneous, thoughtful things. And the tough, hard-working men melted. Wearing her hard hat "at a jaunty angle," the Queen readily offered her infectious smile to those workers who transported the royal party or demonstrated our operations.

When the cage returned to surface, after the King had stepped out, Her Majesty turned to cagetenders Danny Fitzpatrick and Ed Staples. Shaking their hands, she said: "A lovely ride. Thank you so much."

For Rosemary Ovens, who acted as lady-in-attendance to the Queen for the Inco tour, it was the thrill of a lifetime. And it would be repeated — twice.

Young lady. . . big job

Twenty years later, many of the same Inco people reached out to welcome a new Royal couple: Her Majesty Queen Elizabeth II, and His Royal Highness Prince Philip, Duke of Edinburgh.

The itinerary was similar. The



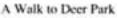
Lunch With My Friend

by Marty McAllister

At mid-morning, aisles were empty on the northbound subway. With all travellers seated and none needing bats in late August, I had a clear view of each passing station. Not much had changed, I thought, from thirty-five years before. The conductor's whistle sounded the same, and I still knew which stop followed which.

At Summerhill, I thought of the big old In & Out store we used to visit

there, and how the clear-bottled pilsener used to go skunky in the landlady's window. It had been worth it, though, just to see her mortified expression at the way those amber vessels shone in the glow of the street light. The train accelerated away, and I stood up. As it had been in my Radio College days, the next stop was mine.



Yonge and St. Clair has changed gracefully. Looking west from the corner, I could see the same sign in front of Fran's Restaurant — and I recalled a Sunday morning twenty-odd years ago, when my wife and I

had stopped there for breakfast. On the way to our booth, I had been surprised to see T.M. Gaetz, former Inco vice-president, former General Manager at Copper Cliff until 1965, reading the paper over morning coffee. He wouldn't know me, but he knew my father, so I stopped and spoke for just a moment.

Now, after all those years, I was going to speak to him again. My pace slowed a little as I felt the quiet, unhurried dignity of Deer Park, only a long block from the hustle and bustle of Yonge Street.

In the lobby, the security man raised his head as I reached to press the buzzer for a second time. Deciding I didn't look very threatening, he told me to go ahead up. The door I wanted was directly opposite the elevator, and the sound of the vacuum cleaner explained why no one had heard the intercom. The noise stopped, but had made me feel that I would be received more as company than as a business caller.

I was there to do an interview, in connection with the royal visit story that appears elsewhere in this issue, but I had a hidden agenda; I was more than anxious to see this grand old gentleman again. Answering the door, his nurse. Mary, radiated a quiet, cheerful competence as she led me to the living room.

Although I'm past the age of majority for at least the second time, I couldn't bring myself to call him Ted as we shook hands. No matter what, he's still **Mister** Gaetz to me.



Ted Gaetz

And We 'Did Lunch'
The hour flew by, and I was a little taken aback when Mary gently interrupted and asked Mr. Gaetz: "Would you and your friend care to have lunch?"

So much about him hasn't changed at all - neither the tall, patrician

At eighty-five, his hearing allows him to filter out things that aren't

bearing — the white, flowing hair — the firm, warm handshake — nor

the trademark smile that tugs those blue eyes into a wise, gentle squint.

so important anymore, but his mind and memory are crystal clear. One

memory is fresh and particularly painful, and he addressed it early, to

stress its importance to him. This summer, Mrs. Gaetz passed away, one

have friends, my own age, who have been here all this time. It's nice to

have someone to clap you on the back while you wait for the elevator."

that occured twenty years apart, and Mr. Gaetz reminisced easily as he

Quarterly revealed a continuing interest in his old alma mater, from

which he graduated in 1930, just before joining Inco as an efficiency

55 Yonge St., where he was given an executive parking spot that he

don't change. He enjoys keeping in touch with company affairs, and

looks forward to speical occasions with old friends. Each year, for

example, he is "invited downtown to the Annual Meeting," and to the

rarely used. "I've always been a subway fan," he grinned.

They came to love this apartment - home since the late sixties, "I

I had brought photocopies of old Triangle articles about royal visits

On the coffee table in front of us, the current issue of the Queen's

We talked about his 1965 promotion to the Toronto office, then at

We gossiped about changes at Inco, and about some things that

year short of their diamond wedding anniversary.

read patiently through each one.

Golden Nickel get-together in Sudbury.

engineer at Creighton.

It was very special to be thought of as his friend, and to continue our easy conversation over a salad and sandwich. Mary hurried to help with the heavy teapot, but my host made it very clear that he would pour. And he did, with a hand still steady and strong.

Now more important to him than ever, his children and grandchildren keep a careful watch on Mr. Gaetz. When I asked if he still drove a car, he laughed: "Yes ... when my family lets me."

It is the family that brings alive his tree farm near Uxbridge, where he has "forty-eight acres of trees and two acres cleared." Tree farms, he assured me, get some pretty good tax breaks. The in-ground pool, of course, helps bring the young folks out of the city — as does the long-established family cottage on Little Penage lake, west of Sudbury. His eyes mirror the joy his grandchildren bring and share with him.

Just A Wee Knot

Our lunch ended, it was an appropriate time for me to leave. We said our farewells, and I had to swallow a wee knot in my throat, thinking how this had been very like a visit I would love

to have had once again with my own father. They would be very close in age — and they too were friends.

I thanked him for his time, and he thanked me for coming. "I won't forget it," he said softly.

Neither will I, Mr. Gaetz neither will I.

A very special note of thanks to Deirdre Lane-Cooper, Press Relations Officer in our London office, for her valuable and cheerful help with this multi-part project.

history of hosting Royal visitors

site was again Frood Mine, and once more the lady-in-attendance was Rosemary Ovens. This time, Ted Gaetz was Manager of Mines ... and one of the Inco people accompanying the Royal Party.

"My mother was from Yorkshire," he said in a recent interview. "Maybe that made me feel closer ... made the occasion more special. It was one of the greatest moments of my life."

Leafing through an old Triangle, seeing the picture of himself standing beside Her Majesty, Mr. Gaetz offered no apology for the lone tear that dropped to the page. "Wonderful ... wonderful. She was such a young lady ... with such a big job. But she was so gracious, and so natural. She enjoyed her visit ... was interested in everything."

Looking at the photo of the drilling demonstration that had been put on for the Royal visitors by Len St. Amand and Jean Cyr, Mr. Gaetz laughed: "Those things were pretty noisy ... pretty startling for anyone not used to it."

In the hoistroom, where the Queen signed a special guest book, Prince Philip "was quite interested in the hoist (the same one that had transported the King and Queen in 1939). He even asked to sit at the controls, although I don't think he actually ran it."

Scanning the photos again, the proud son of a Yorkshire lady smiled: "I'll never forget it ... never."

A woman seems to know

The 1959 royal route included a ride down Durham St. This writer was one of those who watched in awe ... as did Creighton electrician Charlie Lineham. At work the following Monday, Charlie was bursting with news.

"My wife took one look at the Queen," Charlie said authoritatively, "and she knew right away: Her Majesty is expecting again!"

The news wasn't officially released until the Queen and Prince Philip returned to England, but Charlie's wife had been right — and Prince Andrew was born the following February.

When Queen Elizabeth returned to Sudbury in 1984, she presided over the grand opening of Science North. Although no Inco visit took place that time, a special, aging Inco lady was allowed yet a third opportunity to meet her Queen. Her Majesty remembered Rosemary, and remembered that she had also attended her mother in 1939, so their brief conversation was nostalgic.

Now, if it is so that spirits watch over things they loved during their turn on this mortal soil, that of Rosemary Ovens will surely add her blessing to the visit of Their Royal Highnesses Prince Charles and Princess Diana.



Queen Elizabeth, Inco vice-president and General Manager Donald McAskill and General Superintendent, Ralph Parker leave Frood Mine after 1939 visit.

The flight of Pegasus . . . a little Royal musings

It would make an historical novel of epic proportions, if one pursued the tantalizing 'what if' posed years ago by our Prince of Wales.

When he was a younger man, Prince Charles wrote a critique of the popular opinion that King George III was wholly responsible for the loss of the American colonies. The Prince noted that the 18th-century King was virtually unknown in America. Had that not been so, the dissatisfaction in those colonies would surely have been less violent. What if, our novel might speculate, George III had initiated royal tours at the beginning of his reign, in 1760? The map of North America might today look very different.

Far-fetched? The results in British North America would suggest not.

200 years of Canadian tours

Albeit a little late, George III did eventually order the first royal tour of the New World - by his third son, Prince William, who would one day be King William IV. The trip was neither intended nor taken as a reward, but William had once too often tried the patience of a father with already enough on his mind. An extended trip abroad would be just the thing. William balked mightily, but to no avail. His only consolation was to be promoted to the command of the 28-gun frigate Pegasus, which was summarily ordered across the Atlantic. Many modern parents, having had days like that, will feel a new empathy for George III.

The Pegasus, named after that great winged horse of Greek mythology, arrived off the coast of Newfoundland in the summer of 1786. Prince William's first impression belied his mood: "Truly deplorable. ... a most dreadful, inhospitable, and barren country."

The Prince's remarks were soon answered in kind by bitter autumn weather, thus setting an easilysurpassed standard for succeeding royal visits. Indeed, in the two centuries since, the well over one hundred royal journeys to Canada have been so successful as to prompt a companion question to that of Prince Charles: "What if the Royal Family had not given so much of itself to Canada — nor been received so warmly?"

Y'all might have been swallowed up ... eh?

Inco Limited knows something

of the trials and triumphs to be met in two hundred years of change and growth. Appropriately but coincidentally, our roots can be traced to a short few years before the Pegasus sailed, through a great subsidiary founded in Sheffield by one Daniel Doncaster.

The young filemaker was awarded his double-D trademark on the completion of his apprenticeship, "... in the Eighteenth Year of the Reign of our Sovereign Lord George the Third ... and in

the Year of our Lord One Thousand Seven Hundred and Seventy Eight."

It is a reasonable assumption that Daniel Doncaster never met Prince William, but their descendants did, two centuries later. In 1975, Richard Doncaster welcomed the Prince of Wales to the Doncasters Monk Bridge operations in Leeds.

At the beginning of the tour, Prince Charles was shown the making of blade forgings for aircraft engines. One such engine powers the famous Harrier Jump-Jet.

The name of that great engine?
.... Pegasus.

Royal visits to Inco and elsewhere

For each royal visit made, perhaps a dozen or more invitations must regretfully be declined. The Inco family can be proud, therefore, that it has so often extended its hands of friendship to members of the Royal Family — not just at Sudbury, but elsewhere in Canada and abroad.

In 1944, King George VI and Queen Elizabeth made a timely visit to our Clydach refinery, in Wales. It was a clear acknowledgement of the importance of nickel to the Allies, and proof that Their Majesties were willing to risk their own personal safety to encourage those who fought in the trenches of industry. Photographs of that day reveal smiles of perhaps a growing hope that the unravelling of the Third Reich would soon be complete.

In July of 1970, Her Majesty Queen Elizabeth II was accompanied to Thompson, Manitoba by Prince Philip, Prince Charles, and Princess Anne. The tour by so large a royal contingent was to mark the centenaries of both Manitoba and the Northwest Territories.

The stop at Thompson gave special meaning to the municipality's elevation to city status, and to the opening of the new municipal building.

The late-day schedule was full, and included a two hundred foot display at the Inco plantsite. It was fortunate that summer finds Thompson a 'land of the midnight sun', or, as author Graham Buckingham later wrote, "... most of the Queen's engagements in the new city would have been carried out in the dark."

As described in The Flight of Pegasus, the Doncaster organization was host in 1975 to HRH the Prince of Wales, at its Leeds operation then known as Doncasters Monk Bridge, now changed to IEP Airfoils Limited, Monk Bridge Division.

Privately, friends were hoping that 'Mister Richard' (Richard Doncaster, Chairman of Daniel Doncaster and Sons) would wear something other than his trademark wool vest under his jacket. However, the photograph on the cover of the special edition of Shape, published to commemorate the visit, shows that their worst fears were realized. Mister Richard appears quite relaxed — as if he had known all along that the Prince would understand.

In 1984, Prince Philip returned to Thompson, en route to the Olympic Games at Los Angeles. The occasion was the presenting of the Duke of Edinburgh Awards to various residents of Manitoba, Saskatchewan and Alberta, Dan McSweeney and Ken Cherney, both of Inco Public Affairs (Dan of Thompson and Ken now of Toronto), were members of the organizing committee for the visit. They were on hand at the Thompson airport when the royal aircraft arrived, and anxiously made sure that the red carpet was swiftly rolled into place for His Royal Highness.

Dan still blushes: "We were really surprised, because Prince Philip emerged from a different door, we hadn't expected him to fly the plane! When he stepped down onto the tarmack, he noticed the carpet a few feet away and smiled, inquiring: 'Is that for me? How nice."

Time after time, place after place, the loyalty and friendship like the list of fond memories has continued to grow. Long shall it be so.



The Queen and former Inco Chairman, the late Henry S. Wingate, during Frood tour in 1959.





Foot & Hanging Wall &Golf Ball

The annual Foot and Hanging Wall Society Golf Tourament was held at the Pine Grove Golf and Country Club and 65 people, most of them geologists and geophysicists from Inco operations in Sudbury, did their best to swing away from the unusual rock formations that usually capture their attention. Above, left, Inco Exploration and Technical Services

administrative assistant Nina Leroux scratches her head in bewilderment as she finds her golf ball partially submerged in a pond. She can see it, but can she make it? And what club would you use? At right, IETS senior draftsman Ray Parisotto demonstrates superb concentration... as he takes a bead on the hole.



Christmas Contest Inco writers, poets, photogs, artists

Send us your short story, poem, photograph or work of art (cartoons, too!) with a Christmas theme and preferably with an Inco connection. A first prize of \$100 in the short story and poetry section and in the photography and art category will be awarded. Your material

> could be published in the Triangle. All entries must be received by Dec. 9, 1991.

Entries should include your name, job title, the department where you work and your work and home telephone number. A brief description of any photo or art work should also be included. Send entries to:

Christmas Contest, Inco Ltd., Public Affairs Department, Copper Cliff, Ont. POM INO

Contest open to all Inco employees and pensioners

It's on the (service) record, Charles has the days on Bill

Electrician Charles O'Reilly was understandably upset when he read a story in the September issue of the Triangle about Inco's longest serving employee Bill Koivu.

Bill, a plant protection and first aid officer, counted 44 years, 131 days of Inco service up until he retired this past July. He started working for Inco in February of

Charles was upset because, with almost 45 years of Inco service, he

has the destinction claimed for Bill. Charles began working for Inco on July 31, 1946.

Fact is, both are right and we are wrong

Bill retired as the senior staff employee, a destinction we failed to make in our September story.

According to the records, Charles has indeed served the most years of any of our employees, staff or hourly.

Sorry, Charles.



AMITI SIRKKA 46 BALSAM STREET COPPES CLIFE UNITABIO

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