

Div Shops, High Falls teams were all wound up to fix this rig. See page 14 for more pictures, story.

INCO Triangle

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Inco environmental project barely . . . er . . . bearly approved



Never mind hot-shot environmental consultants, sharp-pencilled government inspectors, company experts and tree huggers. Inco has the growl of approval for its revegetation work from the ultimate authority.

"In the end, that's who you've got to please," said Inco's Environmental Control grounds specialist Darl Bolton as he leaned out a helicopter window to get a better view of three bears lounging on lush green grass that now covers what was once a piece of land scarred by a 75 by 35 by 30-foot-deep open pit mine.

"Looks like they think it's okay," mused Darl. "They should know."

Darl, Sudbury region and other industry representatives were making an aerial survey of industrial stressed lands in the Sudbury region when they spotted what appeared to be a family of black bears on what was formerly the Howland Pit.

About a mile west of Crean Hill Mine, the century-old open pit mine was filled in by Inco in 1992 and was recapped with clay and revegetated last year. Since the bears were spotted, some 2,000 tree seedlings were also planted in Inco's ongoing revegetation program. From the air, the land looks more like a park than an abandoned mine site.

"This was probably typical of an abandoned mine site," said Darl, visibly pleased that wildlife had returned to the site.

"Considering that the revegetation work was just completed last year, that's pretty good," he smiled.

The aerial survey of abandoned roast yards, mine sites, smelters and pits revealed a surprising amount of environmental "rebounding" as nature attempts to repair the stressed lands.

"But the survey also reminded us that there is still a lot of work to be done," said Darl.

Levack complex rescuers keep trophy at Inco

It's a bit misleading to say the Levack Complex Mine Rescue Team 'captured' the championship trophy at the 1994 Provincial Mine Rescue competition. More accurately, the team kind of took it off the shelf for a while. Or maybe gave it some fresh air. Or just gave it a brief change of scenery.

Says Peter Buratti: "Inco just took it out for a little drive."

The Levack win marks the second year in a row that an Inco team has claimed top honors at the provincials. On their way to the Kirkland Lake

tourney, the Levack team took the trophy from the shelf of last year's winners, Frood-Stobie-Garson Mine Complex, and brought it back to their own display case.

Seven other teams, the best of about 1,000 mine rescuers across Ontario, competed in the two-day event on June 10 and 11. Besides Peter, Levack team members are Dennis Gosselin, Marc Kenny, Bob Coupal, Bruce McKee, Mitch Mirka, Andy Giroux and Mike Gillis. Levack earned the right to represent Inco at the

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The Levack Mine Complex Rescue Team's win at the provincial Mine Rescue competitions means the trophy will stay at Inco for the second year in a row. From left are; (front) Mark Kenny, Dennis Gosselin, Mike Gillis, Peter Buratti (rear) Andy Giroux, Bruce McKee, Bob Coupal, Mitch Mirka and Inco's Andy Scott who placed third in the technician's category for the second consecutive year.

• **Chrétien plants millionth Inco seedling Wednesday!** •
A full report in Thursday's InContact

Interest growing in Inco's archives



More and more people are seeking information at the archives, says Inco archivist Ron Orasi.

Requests for information and material from company archives have increased dramatically.

Records Centre archivist Ron Orasi told a recent meeting with Corporate Records and Information Management representatives that particular interest is being shown,

from sources outside Inco, in videos from Inco's historical film collection.

It was suggested at the meeting that a database should be created to track and provide detailed statistics on archival activities.

Ron said that 2,200 cubic feet of archival records are

stored at the Copper Cliff Records Centre. Of this, 90 per cent has been inventoried and indexed in a computer information management program. He also reported that the initial inventory, which was recorded by Laurentian University history students and made possible through a grant from the Social Science and Humanities Research Society of Canada, took approximately 16 weeks to complete.

In order to inventory and index the remaining 10 per cent of archival records, approximately three or four weeks of full-time support will be required. In the event Copper Cliff Records Centre staff is unable to complete the inventory process, it was suggested that application be made for a second grant. Ron will discuss this with Matt Bray of Laurentian University and report his findings to the archives committee.

The committee requested that in addition to the New York Office, a copy of the archives index be forwarded to Toronto and that updated copies be distributed to applicable parties, as needed.

Other methods for the distribution of the voluminous index will also be examined such as transferring the index electronically or forwarding the computer version of the index by means of a floppy diskette through inter-office mail.

Ron advised of the possible relocation of the Copper Cliff

Records Centre from the rented facility on Lorne Street to company-owned space. This relocation may take place on or before January, 1997, when the current lease expires.

Suggested alternatives included:

- Utilize a portion of the vacant Rolling Mill Plant, which must be upgraded to records centre specifications at a substantial cost.
- Extend the lease of the present records centre facility.
- Purchase the building in which the records centre is located at a cost yet to be determined.

Corporate Art

A discussion on the dispersal of Corporate Art Collection records between the Toronto office and Corporate Archives led to the following action:

*Detail Corporate Art Collec-

tion and identify its current value.

* Index related records that are maintained in the Toronto Office and at corporate Archives.

* Renegotiate retention policy to ensure preservation for historical purposes.

* Update existing policy governing the Corporate Art Collection and perform dispersal methods to ensure protection of this document.

Other developments at the records centre include the utilization of acid-free boxes for the preservation of archival and vital records and the organizing and indexing of historical photographs. Yoshi Okida of Port Colborne requested information that will assist in reorganizing Port Colborne records. The committee will forward a copy of its recently issued policies and procedures manual.

For the Record

Archival activities

Total No. of requests	342
Requests internal	167
Requests external	175
Videos copied from Inco Historical film collection	65
Videos copied for internal use	17
Videos copied for external use	48
Historical photos loaned and/or copied	133
Photos loaned and/or copied for external use	15
Photos loaned and/or copied for internal use	118
Requests for information	144
Internal requests	32
External requests	112
Requests by Nickel Development Institute	8
Outsiders permitted to research files in-house (four university professors and five students)	9

Exchange students hosted by employees

Five visiting exchange students will return home knowing how Inco produces nickel after a recent tour organized by Transportation supervisor Mike Mayer.

The young women left their homelands of Germany, Japan and Australia to come to Sudbury as part of the American Scandinavian Student Exchange.

After his wife and daughter showed interest in hosting a student, Mike said that forms were filled out with the organization and a letter was sent off to Antje Schroeder in Berlin. By the time Mike learned that she accepted their offer to stay with them she had already packed her bags and was on a flight to Canada.

It's been quite the experience for both the host families and the students themselves. "We have learned a lot about her culture and she has learned a lot about ours," he said.

During a meeting with the other host families, Mike brought up the idea of taking the students on a tour of Inco. They had wanted to do the tour last fall but decided to wait until the weather turned warmer.

Mike volunteered to set up the trip. "It was a matter of a

few phone calls to organize the trip."

About 20 people, including the host families and their exchange students, participated in the tour which included a brief stop at North Mine, a visit to the tipple at Clarabelle Mill and the Copper Cliff Smelter. The highlights of the tour included seeing a slag pour and riding the electric train.

Electrician Dave Nichols, who works at the Copper Refinery, brought his exchange student, Felicitas Weber. Both enjoyed the tour.

"It gives me an opportunity to show her where I work," said Dave, who benefited from the tour, too. "I have been working across the highway and haven't been in this area for about 16 years."

Dave said that he and his family enjoyed the many conversations they've had with Felicitas and meeting her parents who visited over the Christmas holidays.

"She's part of our family now," Dave said, adding that "it will be sad to see her go home."

In addition to learning some German words and gaining an appreciation for music from Felicitas, who plays the piano, Dave said he and his family now have a contact in

Germany should they travel there someday.

The other students participating in the 10-month-exchange include Karin Anders

of Germany, Tiana Choy of Australia and Mamiko Tsujioka of Japan. The students' families paid for the trip while host families like

Mike and Dave provided room and board. If anyone is interested in hosting a student, call Mike's wife, Joanne at 692-9235.

Contest most difficult in years

continued from page 1
provincial championships after winning the district title earlier this month.

The competition was the most difficult experienced by Inco's Andy Scott, a six-year veteran of the provincial championship who placed third in the technician's category for the second consecutive year.

"Only six demerit points separated first and third place," said Bob Coupal. "That's tight. It could have been anybody's game."

Demerit points are deducted for the smallest of errors, and the perspiration of being under oxygen mask for the entire 3 1/2 hours of the exercise was augmented by the pressure of 15 judges marking down every team member's action.

"It's like being under glass," said Bruce McKee.

Nerves are a big problem

only initially, all agreed. "The waiting around can get you, the anticipation is the worst," said Mike Gillis. "But a minute or two on the (competition) floor, and your training automatically takes over."

Few had any doubts they were bringing the trophy there and back. They credit teamwork for the special spark.

Teamwork vital

If there was a critical element, an overriding reason for the slight edge over their provincial counterparts, they said that it was the special way they all worked together. "We went with a positive attitude. Teamwork is everything in these competitions," said Bob, "and we knew we worked together particularly well."

Dennis Gosselin said that all areas of training were tested. "Everything was thrown at us, from First Aid and

firefighting to ventilation and the use of specialized equipment such as the foam generator and hydraulic bolt cutter," he said.

The competition was about as close to the real thing as they ever want to get. "All the pressure is there," said Marc Kenney. "Nobody ever wants to see the need for a real rescue."

The team is an insurance policy, and indications are that fellow miners are bolstered by their presence.

"We're like the fire department," said Bruce McKee. "People know you're there, just in case."

"The competition was intense," said Tom Gunn, Inco's general foreman of safety for mines. "But our team was sharp. I think the calibre of competition at these events tells us that Ontario miners are among the best trained in the world."

Inco Night at Theatre Cambrian



A large number of performers in the production of *Evita* had family members working or retired from Inco. Bottom left Peggy Hatch, Marcia Ranger; second row Lisa Brankley, Shannon and Sarah Spencer and Tony Skopyk; third row Katie Hamilton, Alanna Ranger, Dave Hamilton and Dale Proulx; and back row Andre Brosseau, Kirsten Zinkie, Sam Stedman and Melissa Dupuis.

Theatre Cambrian applauded Inco for filling the house during a recent showing of *Evita*.

It was a boost for the performers to look out and see a packed audience during a special performance for Inco employees. Kirsten Zinkie, who played the lead role of Eva, was thrilled.

"Their support is very much appreciated," she said. "It wouldn't be possible to put on a show like this if it weren't for Inco and I speak for all the cast and crew."

'Inco Night' is special, explained Kirsten. She has two grandfathers retired from Inco, Graham Masecar and Elmar Zinkie, and an uncle, Mike Peters, with Inco's reclamation and decommissioning department.

"When they buy out the

house it makes us money, but it also helps build up our confidence and makes us do a better performance."

Sam Stedman couldn't agree more. "It was our first full house and it felt really good. 'When you look out and see the audience, you feel loved.'"

Playing the part of the revolutionary Che Guevara, Sam said that more people and more audience reaction lends more energy to the actors while performing on stage.

His father Curry, who works in the water treatment plant, attended the production on opening night. "It's really nice to have the family support," said Sam.

Mines Technical Services secretary Carol Lang and her husband, David, a pensioner

from Inco, had two reasons for coming to the show. Daughter Marcia Ranger was part of the chorus and granddaughter Alanna Ranger performed as one of the young Argentinos.

Marcia has been involved with Theatre Cambrian for a number of productions but it was a first for her eight-year-old daughter, Alanna. Both have been bitten by the acting bug - "like mother, like daughter," said Carol.

"Poor Marcia. I had to keep myself from not just watching Alanna because it was the first time we had seen her act on stage," she said. "We were very, very proud of both of them!"

David and Carol had to arrive early to get their seats in the second row. It didn't take long to fill the auditorium at Cambrian College.



Alanna Ranger gets a little backstage help to tie her bow from her mom, Marcia, before the performance.



Kirsten Zinkie prepares herself before going on stage to play the part of Eva Peron. Her uncle Mike Peters works in Land Decommissioning and Reclamation Department.



Peggy Hatch, who played a peasant woman in *Evita*, helps Melissa Dupuis with her costume before the curtain went up.

ium at Cambrian College.

For the past four years Inco has sponsored Theatre Cambrian's annual spring musicals including *West Side Story*, *Jesus Christ Superstar* and *Grease*.

"Inco has always supported community endeavors like this," said Carol.

Based on the Andrew Lloyd Webber production of *Evita*, Theatre Cambrian's performance follows the life story of Eva Peron, second wife of Argentine president Juan Peron. Eva was born in 1919, illegitimate, poor and without privilege, but she became the most powerful woman her country had ever seen climbing the ladder of fame and fortune to become the first lady of Argentina. Her life was cut short at the age of 33 when she died of cancer in 1952.

Popular songs such as *On This Night of a Thousand Stars* and *Don't Cry for Me Argentina* had the audience singing along on Inco Night.

Other performers who have family working or retired from Inco include Melissa Dupuis (uncle Danny Dupuis at Copper Cliff Refinery), Dale Proulx (mother Jane at Copper Cliff Refinery), Andre Brosseau (uncles Ron Marsh, Rick Dubreil and Richard Pilon) Dave and Katie Hamilton (Arthur Hamilton at Clarabelle Mill), Peggy Hatch (husband James, retired engineer), Lisa Brankley (retired grandfather Edward Brankley), Shannon and Sarah Spencer (grandfather Dennis D'Arcy) and Tony Skopyk (brother-in-law Marcel Gauthier a lab technician).

Research, production functions blend in unique partnership

Inco's superb research facility along the Queen Elizabeth Way just southwest of Toronto is reminiscent of Hollywood's version of the scientist's lofty labyrinth.

The laboratory glistens on an expanse of well-kept lawn that's surrounded by Sheridan Park brain factories, think tanks and high-tech real estate. There's an aura of cranial cloistering. The people stride these hallways not only plan the Brave New World, they've left the rest of us behind by joining it. The people here certainly don't dirty their hands.

So much for Hollywood.

Sleeves are rolled up here, ties undone. Hands get dirty... right up to the elbows.

"More than ever before," said J. Roy Gordon Research Laboratory Process Research Director Bruce Conard, "young scientists spend as much time as they can out in the field. They usually come back with a much better appreciation of the problems and constraints of whatever it is they are working on."

"These days," he said, "they get their hands good and dirty."

For a scientist, getting sweaty isn't only good for the soul or keeping feet planted firmly on terra firma. It's educational, too.

Ironically, says Bruce, scientists and high-tech wizards learn some of their most valuable lessons from the people on the shop floor, in the mines or plants, the very people who sometimes see science and technology as having nothing to do with a wrench, hammer or broom.



Cedrick Kelly and Heida Mani work with the electron microscope.

tion pay big dividends. It's teamwork not only among the lab's approximately 100 people, but close cooperation with people outside the lab as well.

"We need to continually expand contacts between the people here and the people in the plants," said Bruce.

The advantages of cooperation work in both directions.

"The technical people in the Copper Cliff Smelter were involved in all aspects of the

ous options might fit in. People in the plants are experts in these areas, not us."

Sheridan Park lab technologist Glen Robertson and Jeff McLaughlin of Clarabelle Mill used to work together at Sheridan Park before Jeff moved to the mill in 1993.

"These guys cram as much into these trips as they possibly can. The hours they put in are pretty long," said Jeff.

Glen made about four trips to Sudbury including three for the low sulphur tailings production project. "This trip was to assist with the plant testing a way to float more sulfide out of the final tailings," he said. "It's nice to come up here because it gives you a better perspective when you get to see the operation."

Jeff agreed, pointing out that it's not effective if scientists stay in their labs. "We get so tied up on the day-to-day running of the plant that it's essential to have them come up here to help us."

"The tests that they perform are invaluable," said Jeff. "During the low sulphur testing the results were bang on what we wanted!"

If there would be one change in the exchange, Jeff said that he would like to see more people from Sudbury going down to Sheridan Park to see what goes on down there in the lab. "We've had a lot of success working with Sheridan Park," said Jeff. "Sheridan Park is part of the improvement process."

Sheridan Park's Bruce Love thinks the close cooperation between the lab and the operation is important. Bruce has been working closely with the Copper Cliff Copper Refinery in programming the electrolyte analyzer there. "We have



Supervisor of Information and Office Services Lucille Green files a manual in the library.



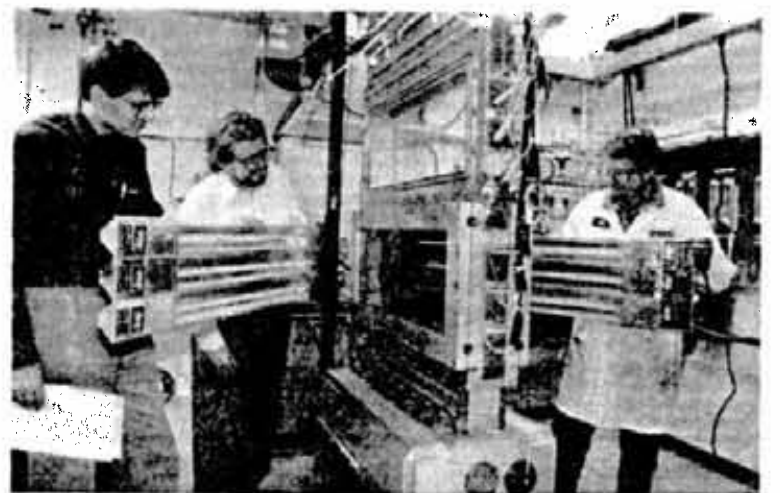
Senior Research technologists Ralph Slayer and Juan Hrepic examine some test results for the tuyere of the MK reactor.

"For example, we have a number of scientists and technologists working on low sulphur tailings production working with the people at the mills. They learn things that turn out to be extremely valuable to their research."

As with other Inco operations, the lab is discovering that teamwork and coopera-

changes at the Smelter, from initial research to development of the final process. These are the people who will be responsible if things go wrong. They understand what's going on. They serve as liaison between the laboratory and operations.

"For us, this information is extremely valuable. We have to be made aware of how vari-



Inspecting the reactor are senior research physicist Vladimir Paserin, chemist John Ambrose and senior research technologist Rick Adams.

been doing modifications to further automate the system. "It's so important to work together. We helped the Copper Refinery get their system operating and we're continuing to make improvements."

Vladimir Paserin, senior research physicist, is accustomed to going from the lab to the plant. From his first trip to Sudbury in the summer of 1992 when the first nickel foam plater was built at the Nickel Refinery, he has been an advocate of the process. "I think people exchange is absolutely essential and there should be a lot more of it."

There is much to be benefited by getting out of the lab and into the operation. "It's really helpful when you are there to watch and see what is going on," he said. "You can learn a lot about the project through the interaction."

Problems can be identified more easily when the scientists who built the models are right there to see the actual project rather than trying to explain it in a memo. "This is not a straightforward machine and when you scale it up from the lab scale there are going to be some problems," the added.

Vladimir has worked on the project since 1989 and has seen the product develop in pyrex tubes all the way up to the stage where it is now, close to the first commercial sale of the product.

Over the years, Vladimir has worked closely with both Dave Lemmon and Wayne Leavoy in the Copper Cliff Nickel Refinery carbonyl plant seeing the scale up of the mini-plant at the lab. His role was to act as a liaison and transfer technology.

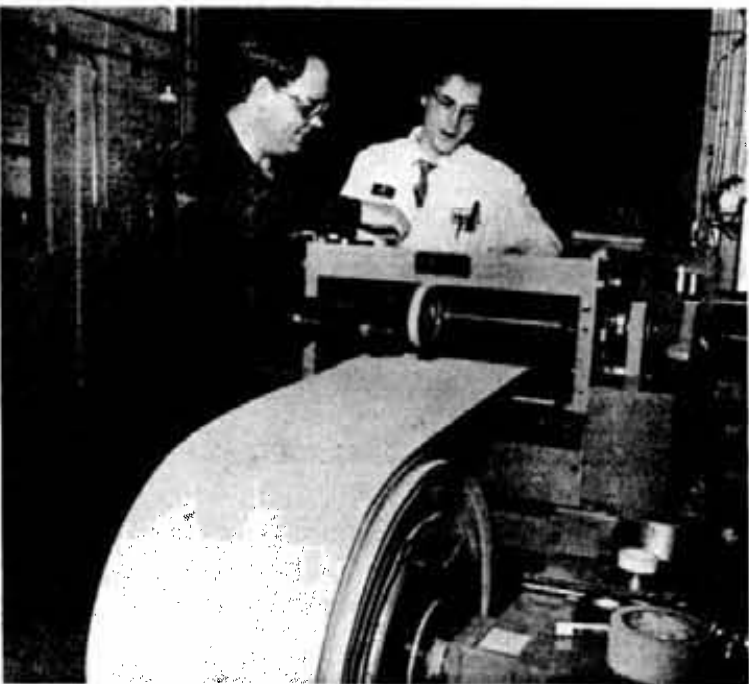
But lab-borne brain power has made a difference as well. There's perhaps no better example of the value of the lab's research function than the financial dynamics of the company in the current financial downturn. While the nickel price has slumped below production costs, specialty products - many developed, improved or adapted by researchers here - remain profitable. While hardly enough to counteract the nickel slump, the men and women at the research facility continue to develop not only innovative new ways to use nickel, but more cost-effective ways to do what the nickel mining industry has done for a century.

So far, Inco's investment in research and development has kept the company ahead of the pack. "We compete with the Germans, Japanese, Chileans, Australians and others. So far, people have purchased technology from us. I don't think we'd ever want to get to the point where we have to go out and buy all the technology we use," said Bruce.

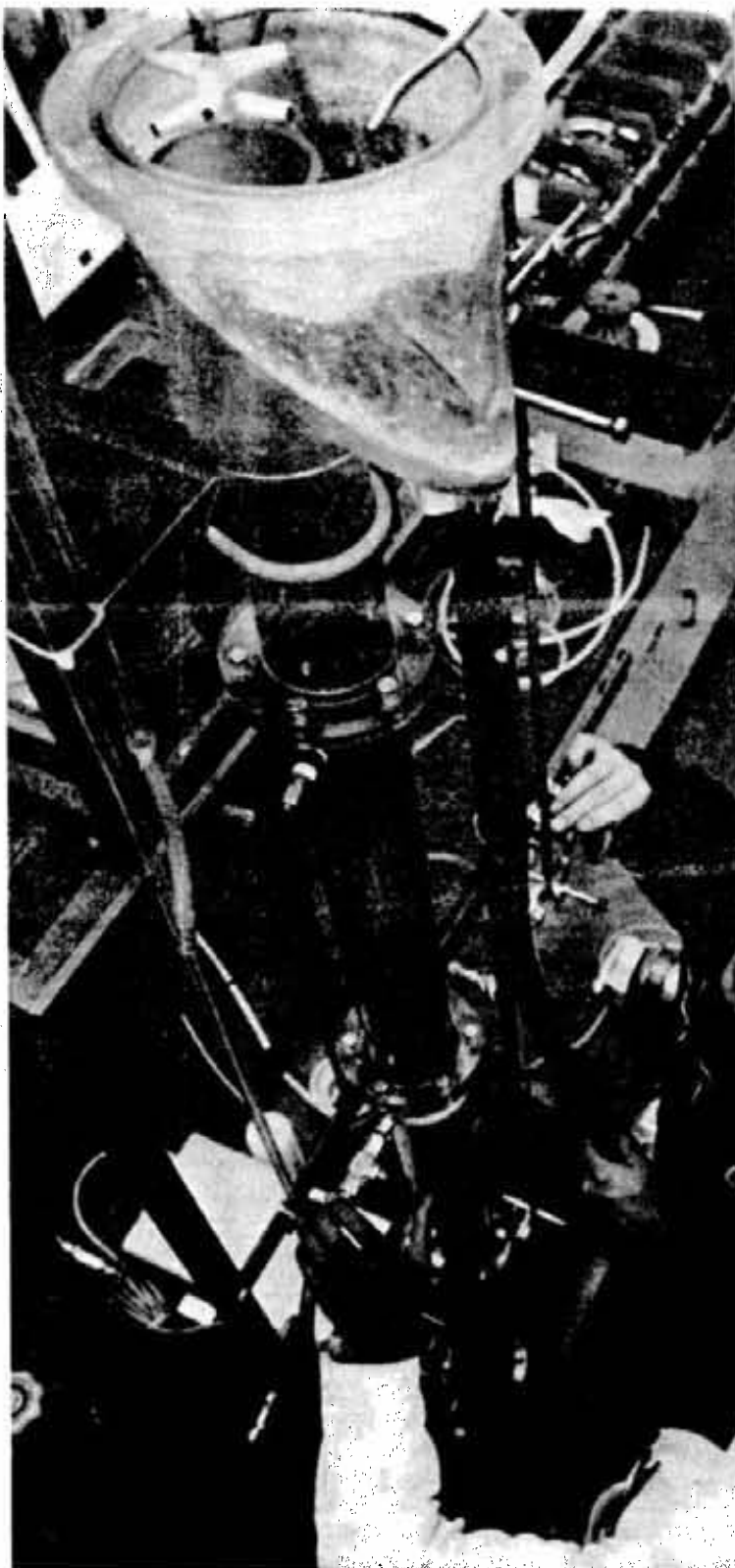
Most of Inco's state-of-the-art processes and plants run on Inco-developed technology. Research has brought about the highly versatile high pressure carbonyl Nickel Refinery, a pressure leaching plant for separating copper from cobalt and precious metals, and Port Colborne's cobalt refinery and precious metals upgrading plant.

Key elements in Inco's sulphur dioxide emissions reduction program while maintaining high production owe at least part of their success to lab research.

Research and development has its risks, with success or failure measured not only by the new bells and whistles that scientists and technologists can devise, but also by the



Technologist Scott Campbell and engineer Eric Wasmund trim nickel foam in the quality control process.



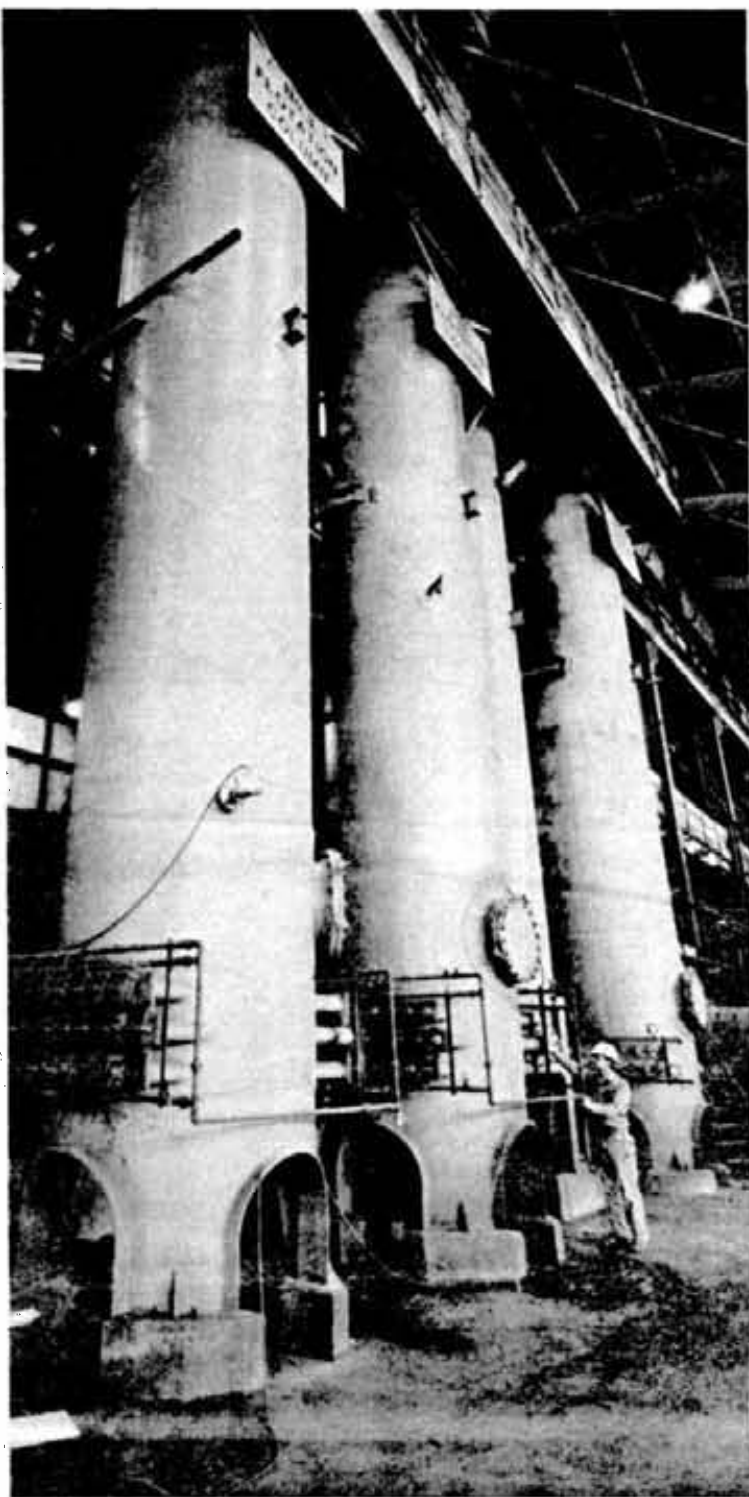
Pete Quinn and Manqiu Xu with a miniature version of huge flotation columns used in Sudbury's matte separation process. Using the small lab version, processes can be tested before scaling up on the full-size counterparts at Matte Processing (see inset).

accuracy of crystal-ball gazing.

Currently under development is a sheet material designed to enhance battery performance. Appearing like sandpaper from a distance and a bottomless bubblebath under a microscope, nickel foam will be poised to give Inco a foot up the ladder when

non-polluting, energy efficient electric vehicles begin to roll off production lines as anticipated.

The foam utilizes the battery-enhancing qualities of nickel, and if adopted by a future booming electric car industry, should greatly enhance the future use of nickel. But the gamble is two-fold.



Technologist Frank Robinson climbs the ladder to inspect the equipment while engineer Eric Wasmund and senior research technologist Randy Shaubel watch.

Electric power is competing with other alternate fuels, low-polluting fuels. Even if electricity wins out, nickel foam must compete with other battery enhancing technologies.

Other potential Inco products, well into the testing stages, are showing great promise. Nickel-coated carbon fibres, used for making composite materials for electromagnetic interference shielding for computers, sensitive aircraft electronics and lightning strike protection equipment, promise a small but very profitable market.

Sometimes success or fail



Technologist Mustafa Fezzano takes a matte sample from the verital tube furnace while engineer Peter Lee watches.



Lab technologists Glen Robertson, Kevin Stewart, Pete Quinn and Chris Massey examine a miniature version of a Clarabelle Mill flotation cell. When tests are completed, improvements will be adapted to the full-size production unit.



Kevin Stewart evaluates ore at the lab.

environmentally safe," said Bruce.

Going from a research paper to a multi-million dollar plant or process can also be a gamble, but the lab's step-by-step procedure has removed much of the risk.

First the lab carries out fundamentals using the traditional "test tubes and beakers" approach. The process is then tested on a small scale.

"Then we may go to a still

larger scale by actually building a small version of the equipment here at the lab," said Bruce.

On the lab's shelves are miniature flotation cells, magnetic separators, rod and ball mills and wrist-thick versions of the 40-foot high columns found at Matte Processing.

"We have a small version of a flash furnace. The models mimic the chemical processes that take place in the real

thing."

What's coming in the future?

Bruce envisions molecular recognition technologies tailored to selectively recover any metal from slurries. Another futuristic idea involves pacman-like microbes that digest only certain minerals to solubilize valuable metals.

"We're talking pure speculation at this point in time, but who can say?"

ure has little to do with the quality of the product. When the federal government wanted bids on producing the new \$1 coin, Inco spent thousands of research and development dollars and three years to come up with a coin that met the government's specifications. One of the specifications was that the coin maintain its shiny gold color for 20 years. The Inco-developed coin's nickel-gold alloy boasted exceptional tarnish and wear resistance.

But the coin lost out due to the government's mid-course rule change. A copper-tin coated coin - what we know as the Loonie - won the bid. It was cheaper, but tarnished easily.

Yet even failed ventures can have a silver - or gold - lining. The Inco technology that was

developed for the loonie is being adapted to other uses such as computer electronic contacts.

The lab's product research mandate - finding new uses for nickel by developing new products needed by customers - is perhaps the most visible. Other mandates include improving established operations and procedures, finding ways to increase productivity, lowering costs and enhancing safety, reducing environmental impacts, and training technicians and researchers for the future.

The mushrooming of environmental concerns has probably had the most dramatic effect on the work at the lab. "Over the past 26 years, environmental work has escalated. Every development here has to be not only workable, but



Sheridan Park lab technologist Glen Robertson and Clarabelle Mill's Jeff McLaughlin at the mill's control room: operations and research working together.

MAKING Change

saves cash

One thing you can always be sure of is that the people of Divisional Shops are always looking at ways to make their operations more cost-effective and efficient.

The shops are into Phase 2 of their maintenance study. As the result of many interviews and surveys conducted by the three study teams, a huge list was compiled of innovative cost-saving and improvement ideas.

Developing these ideas into actual improvements will be the job of each and everyone in the shops. It is easy to state a problem, but much harder to focus energy into the implementation of a solution. A group of employees in the Machine Shop feels it can make its job easier and save money in the long run.

The focus of the group is tooling and modernizing the shop. Eliminating any waste of money when the shop buys tooling is key. In the past, a maintenance mechanic has been the person who buys the replacement tools in the Machine Shop.

Team members Larry Solski, Deiter Wehner, Joe Guido, Mac Bell, Glen McKay and Denis Clement agree that the maintenance mechanic has done a fine job, but they also feel that because they are the trade using the tools, they would have better input. The goals of the team are global to the shop but simple: 1) make the Machine Shop more competitive, 2) reduce the time it takes to do a job, 3) reduce contracting out, 4) improve the quality.

The way the team will realize these goals will be to look at all the shops' present equipment, send team members to look at other shops in the area, meet with salespeople to see what tools are available, meet with their

customers to find out what they want and lastly to establish a budget. There are some ground rules in place as well - progress will be assessed after a one-year trial, team members will rotate for more ideas and majority rules in any discussions.

The team ventured out to Bristol Machine Works, a local competitive machine shop, to benchmark their equipment and to look at Bristol's costs. The manager of Bristol, John Eddy, told the team that the Div Shops' Machine Shop is the best equipped shop around, but there is a need for upgraded digital readouts on some machines. Eddy showed the team a machine that Bristol purchased from an Inco mine years ago as scrap. The machine has been updated with a digital readout and is now one of their most productive and accurate machines. After some investigations back at the shop, the team figured a savings of \$3,000 a year on the repair of Mather & Platt pump shafts could be realized if a digital readout were to be installed. Good team effort.

There should be mention of another team in the shops that has done a great deal of work with very little time allowed. This is Team C from the maintenance study. Leader Bob Todd and team members Karen Taggart, Richard Coupal, Paul Elson, Rick Blais and Bud MacDonald somehow found the time to investigate their mandate, study their findings and present quality recommendations to the management of the shops. Klaus Truderung, who is the acting superintendent, felt that all three teams showed excellent results for their work. Teams A and B also agreed that Team C did an excellent job. Now that there are many indicated areas for improvement, the shops will be better able to serve the mines and plants of Inco in the future.



The turnout was moderate, but Inco's Occupational Medicine department expects Sneaker Day will only get better in the future. A kickoff for Canada's Fitness Week, the day saw scores of people navigate Nickel Park in Copper Cliff. From left are Vera Primorac, Byron Eastman, Pauline Tario and Pam Tobin. All but local resident Byron Eastman are with Occupational Medicine.

Inco's McIvor wins coveted CIM award



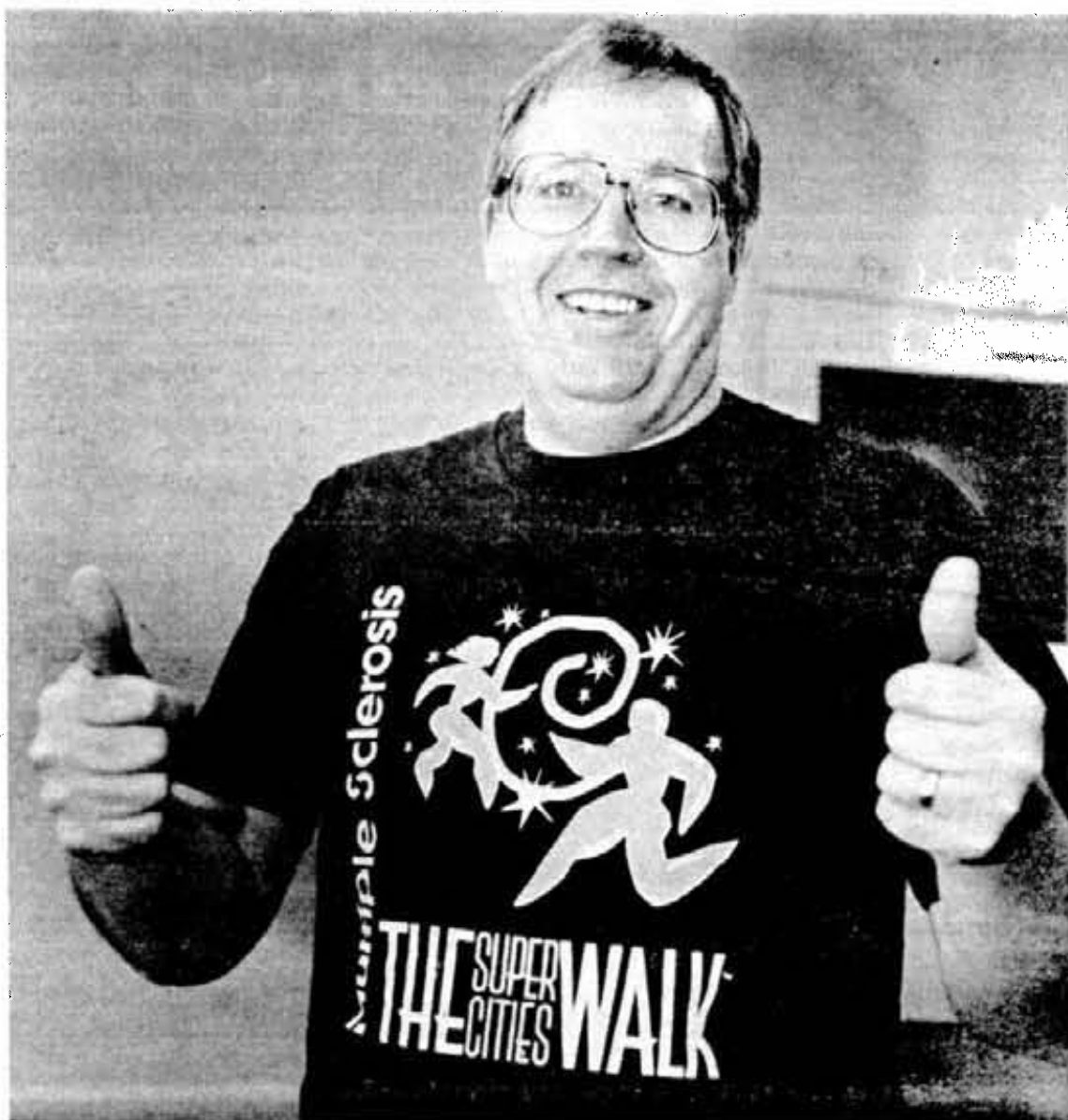
Richard McIvor and medal: an outstanding contribution to the industry.

General Engineering's Richard A. McIvor was awarded the Donald J. McParland Memorial Medal at the Canadian Institute of Mining, Metallurgy and Pe-

troleum's annual dinner held at the Metro Toronto Convention Centre recently.

He was recognized for his outstanding contributions to the mining industry in the field

MS Walk tugs at heartstrings, shoelaces



Ontario Division comptroller Doug Hamilton sports a new MS T-shirt and a thumbs-up for making it through the 10 km Super Cities Walk.

The recent Super Cities Walk for Multiple Sclerosis touched home for Inco comptroller Doug Hamilton.

Just before starting the trek on Laurentian University's nature trail he explained how MS has touched his family.

He said his sister Heather, who lives in Manitoba, was diagnosed with the disease when she was 24. Now 39, she is in remission and is raising a family - including two children.

The disease affects the central nervous system, causing speech, vision and mobility problems in varying degrees

from mild to severe. Multiple Sclerosis most often strikes young adults between the ages of 20 and 40. Women are affected almost twice as often as men.

To raise funds the Multiple Sclerosis Society of Canada's Sudbury chapter organized a walk-a-thon on June 5.

More than 350 people, including Doug, Ontario Division President Jim Ashcroft, Vice-President of Production John Kelly and Vice-President Technical Services Stew Gendron took part in the event.

"It's kind of appropriate that it's for multiple sclerosis," said Doug, who joined the others to show Inco's support.

"It's a good response by the community to a worthwhile cause."

Stew agreed. He described both the actual walk and the event as "absolutely first class."

Though the morning started off with sun the clouds rolled in about 10 a.m. and a bit of rain fell as the walk got under way. But it didn't dampen spirits.

"We all found it very enjoyable," said Stew. "We did the whole 10 km and covered every square foot of it."

of mine hoist plant engineering and maintenance, as well as his dedicated service to CIM at the national and branch levels.

The medal is awarded for outstanding performance in civil engineering design, general plant design, project engineering and/or management of mine plants, and may also recognize innovations in mine plant installations or in operating and maintenance methods, as well as major improvements in equipment used in the mining or equipment manufacturing industry.

Dick was born in Chatham,

N.B., and graduated from the University of New Brunswick in 1971 with a Bachelor of Science degree in mechanical engineering. He joined Inco Limited after graduation and works as a specialist engineer (Hoisting) in the Mines Construction and Hoisting group.

During his career at Inco, Dick has been involved in the operation, maintenance and upgrading of the company's mine hoisting plants including headsheaves, shaft conveyances and hoist breaking systems.

He has written and presented many technical papers on the subject.

He's actively involved in the CIM Maintenance/Engineering Division and is second vice-chairman on the national executive. He was involved in the technical program for the International Conference on Hoisting held in Toronto in 1988 and was Program Chairman for the 6th CIM M/E Operators Conference held in Sudbury in 1990. Dick was a CIM Distinguished Lecturer in 1992-1993.

He was a founding member of the CIM Sudbury Branch M/E Section in 1983 and served in various executive positions including two years as chairman.

Inco-sponsored Olympic sailor will sail in France with company colors

Inco Limited will be sailing the French seas in high style this July and helping bring an Olympic dream closer to reality.

Susan Banbury, 21, daughter of Larry Banbury, manager of Safety, Health and Environment, is one of five Canadian Olympic Class sailing team members who will compete at the World Sailing Championships July 8 to 15 in France.

The Inco logo will sail with Susan, emblazoned on her sail

in recognition of the company's corporate sponsorship, as she continues working towards her goal of competing at the 1996 Olympics in Atlanta.

An accomplished sailor, Susan is now learning the role of pitchwoman as she solicits financial backing to help realize her Olympic dream.

The latter role is tougher, she admits.

"Soliciting sponsors is tiring and takes away from sailing time, but it's absolutely

necessary," said Susan. "Sailing is ridiculously expensive and that's why I have to thank Inco so very much. Without that kind of support I couldn't do what I'm doing."

What Susan does, and does so well, is sail and win. She first took up the sport at age seven and over the years has compiled several honors trophies and accolades. This will be her first time representing Canada in an Olympic class boat. She had been to the world championships two

times previous as a member of the Canadian Laser Team.

"The Olympic Class is a 12-foot boat, weighing about 100 pounds and is a lot more technical to sail than many of the craft I've used over the years," said Susan. "It's also," she repeated, "ridiculously expensive."

Susan's craft requires a mast of baked carbon-fibre that retails in the neighborhood of \$2,000. Her sail, on which the Inco wordmark will fly, will be cre-

ated by world-renowned sail maker Jorgen Holm, of a special sail cloth containing no resin. It retails for about \$1,000.

Susan's previous best at the world's was a 23rd in the Laser competition that saw her sailing against men and women. This time around, she will compete against women only.

Ironically, she says, sailing is the oldest Olympic sport but it wasn't until 1988 that it became an event open to women competitors, and Europe only recognized the Olympic Class boat in 1992.

Susan's focus is directed squarely on the 1996 Olympics in Atlanta and she will head to that American city directly after the world championships to familiarize herself with the water and sailing conditions.

"Proper advance planning is very important," she said, "including knowing the conditions and knowing whether to gain or lose weight in order to optimize your performance."

Susan's advance planning was helped by a family of sailors that included father Larry, mother Adrienne, and older siblings Jane and David.

In her first regatta, Susan placed fourth at the Canadian Youth Championships in 1987 where she was the youngest competitor at age 16. The following year, she was poised to capture first place when a dislocated shoulder forced her to withdraw.

The disappointment of that setback was erased just two weeks later when she was the surprise winner of the Ontario Women's Regatta competing against older, more experienced women in a race she admits she "probably shouldn't have entered because of the sore shoulder."

She came within an eyelash of defending her provincial crown the next year but, still hampered by shoulder problems, placed second in one of the closest finishes ever.

Two years ago, Susan underwent surgery on her shoulder and is back pursuing her Olympic dream with full fervor. Away from the lake, she is currently in a four-year Bachelor of Commerce program at Laurentian University and hopes to become a chartered accountant.

Those ties to Sudbury — school and home — are another reason she views Inco's support as something special.

"I love Sudbury," she said, "and hopefully I'm going to live here for the rest of my life. In Sudbury, everyone knows about Inco and the company enjoys a good reputation. Hopefully, I can act as an ambassador for the company and promote it wherever I can."

Those duties begin this summer in France and will continue . . . Susan hopes . . . in Atlanta in 1996.



Canadian Olympic Sailing Team member Susan Banbury hoists the sail for a practice run.



Little Stobie's Ernie Lamore perched among the mine's discards.

Ernie digs up paycheque in Little Stobie salvage yard

Little Stobie's Ernie Lamore has no problem proving he earns his pay, despite the fact his job is garbage.

At least once a day, the eagle-eyed dryman dons a jacket, hardhat and safety glasses and takes a walk to the mine's salvage yard where he enthusiastically picks through the Froid-Stobie-Little Stobie Complex discards for anything of value.

He finds something

every day.

"I found around \$5,000 in scrap steel alone one month," he said. "In a two-month period, I came up with almost \$20,000 in scrap steel, and that's besides all the other things I come across that can be salvaged or repaired. It's hard to put a value on that stuff, but it's substantial. I get a real sense that I'm earning my pay here. Besides that, I get out in the fresh air, a break from

my routine."

A 27-year Inco veteran, Ernie has been around mines long enough to know what's valuable and what isn't.

The project began initially as a search to help collect plastic buckets that the mine was collecting to get a refund for charity (see the October 29 issue of Incontact, Page 1), but the hawk-eyed dryman picked up other things he was sure could be recycled.

"I pick up anything we can

use or repair," said Ernie. "You'd be surprised what a quick search will uncover. Along with scrap steel, I've found drill bits, air grinders, hydraulic jacks, ratchets, shelving, drill steel, brackets, clamps and even a jackleg drill.

"In one day I've picked up over \$2,200 worth of stuff."

Other materials like vent tubing and lumber that can't be reused at the mine is offered free to employees.

"A lot of people use the heavy plastic vent tubing as a cover for boats and wood piles. Anything that can be recycled here is recycled.

"This is a nice change from my job. It's kind of interesting and you get the feeling that you're doing something worthwhile."

Material that can't be recycled or salvaged is buried and covered with rock in a designated industrial landfill site for the complex.

South Mine's scrap-in-the-muck



A truck is loaded with some scrap drill rods. More than a dozen trucks filled to the brim with steel scrap left the South Mine yard. The scrap was sold for \$19,000.



Some of the scrap recovered in the South Mine yard.

At South Mine, what began as scrap in the muck has evolved into big bucks in the backyard.

Armed only with a suspicion and the cooperation of their fellow miners, supplyman Mike Paquet and construction leader Fred Belanger prospected the South Mine yard to discover a wealth in recyclable scrap steel and thousands in repairable equipment and refundable items.

"We had a hunch that there was a lot of money buried out there, but we never realized there was that much," said Mike.

"We had 14 trucks go out of here with a full load of scrap steel. That gave us \$19,000 to invest back into our recycling program."

The two make up the mine's scrap-in-the-muck team, and both agreed that the heightened awareness of everybody at the mine is going to mean less waste in the future and enough cash coming in from recyclable material for the program to pay for itself.

"This all began as an attempt to remove discarded plastic pails from the muck," he said. "The plastic pails and other foreign materials in the muck were causing a lot of problems further down the line, particularly at the mill." (See Aug. '93 Triangle Pgs 8 & 9)

In April, the mine will return hundreds of plastic pails and collect a \$500 refund from the supplier. The money will be donated by the mine to a

Sudbury soup kitchen.

The pennies in buckets has fueled the suspicion of people like Fred and Mike about what other valuables might be just waiting to be picked up. The yard, with its stockpiled steel, equipment and parts was a good place to start.

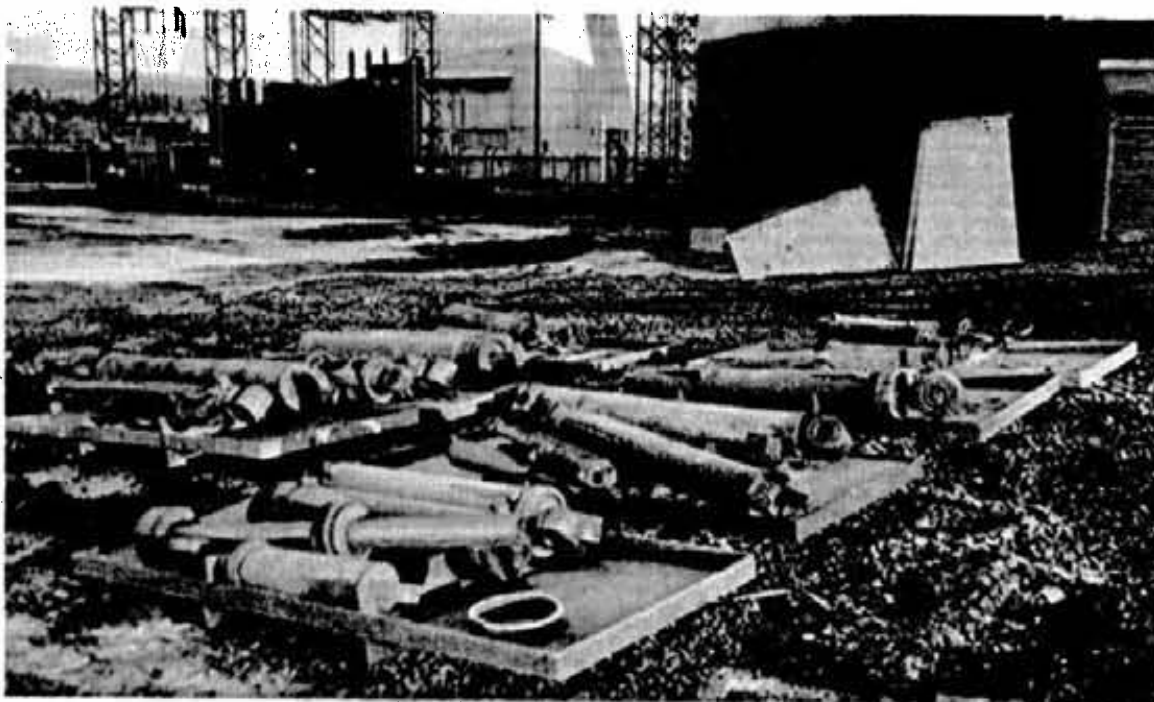
"There wasn't just the obvious stuff, the stuff that was piled up, but there was material buried or halfburied," said Fred.

With the help of others, the two began cleaning up the yard last summer. First they cleared a basin in the yard to use as a storage area for the scrap. They commandeered the forklifts during noon hours, when they were sitting

idle, and spent the lunch hour picking up material in the yard.

"We got a lot of help from the people here," said Mike. "They knew what we were doing, so everybody did their best to help out," said Fred. "When scrap came up from underground, the forklift operators put it in our storage area."

With full cooperation from the yard and electrical bosses who identified equipment as repairable or scrap, the two unearthed buried steel, yanked half-buried parts out of the ground and piled the material in the scrap basin and in areas designed for repairable items.



Some of the repairable cylinders recovered in the South Mine yard.

Converted to money-in-the-bank



Fred Belanger and Mike Paquet stand by one of the new bins purchased with cash earned in a clean-up project.



Refunds on these reels are expected to be substantial.

Miners squeeze refunds from non-returnables!

If it takes a frugal person to collect deposits on pop bottles, who does it take to get a refund on non-returnables?

Fred Belanger and Mike Paquet.

South Mine's "pop bottles" are huge wooden reels used to ship and dispense cable like garden hose on a drum. The two scrap-in-the-muck team members not only discovered that there was a refund available for most of the larger reels, but managed to collect a donation on the smaller, non-refundable "no-name" reels.

"A local company is going to give us a donation for the smaller reels. The money will go to a Sudbury charity soup kitchen," said Fred.

Scores of wooden reels were one of the side products uncovered in a South Mine

yard clean-up project that saw almost \$20,000 earned from the sale of scrap metal and countless thousands from reusable and repairable parts and equipment. The yard project has evolved into an excoriated salvage and recycling program at the mine that will pay for itself by continuing to save money every year.

"We sent four big transport truck loads of reels to the supplier in Toronto," said Mike. "From now on, we'll store each empty wreel as we get them and return them for refund as soon as we get a full truckload."

Up until recently, nobody realized that the huge cable drums were refundable. It was only a hunch at first for Mike and Fred. They delved into the books and discovered the reels had to be purchased

along with the cable. There was, they discovered, a provision for refunds.

"Maybe we rediscovered it," said Fred. "People must have known about it a long time ago but forgot about it or just ignored it. I guess it wasn't worth all the trouble of shipping them back for a refund. Nowadays, every dollar helps."

They have no idea what the refund on the huge reels is and won't know until payment is received for the more than 100 shipped south. "We expect the amount to be substantial," said Fred.

The two aren't through by a long shot. They're in the initial stages of launching a battery collection system.

It seems they've discovered a refund on spent batteries.

But that's another story . .



Many boxes of material, parts and equipment were sent to Divisional Shops for repair.

Among the items found were scissor truck platforms, half a scooptram and half a jeep, a diesel locomotive, miles of vent pipe, steel rails and many in-hole drill rods.

The two thought ahead. A shaft guide replacement project at the mine during the recent production shut-down would produce an estimated 1,700 feet of steel guides, and the two made arrangements before the shut-down to ensure the scrap would be deposited in the yard basin.

Recently, the pile of scrap

went to the highest bidder.

Tons of repairable material were sent to Divisional Shops. "Inco probably had all this stuff in our inventory," said Mike, "but I figure us packing it up and sending it away served as a reminder that it was here."

Although no value has been placed on the total amount of repairable material found in the yard clean-up, a sampling was carried out on just a few boxes of the material and parts.

"We came up with a figure of between \$30,000 and

\$40,000," said Mike. "And that estimate is on only a small fraction of what we found."

Few times in their Inco careers were the positive results of their work so immediately evident.

"It makes you feel pretty good when you can see in dollars that your efforts have been worth it," said Fred.

In fact, the project hasn't killed two birds with one stone, it's knocked off a half-dozen.

"We make some money, we use the money to enhance the program, we clean up our yard, make the mills happy

with less scrap in the muck, take the pressure off our landfill sites and at the same time spend less on disposal contracting," said Fred.

Both agree the best part of the project is that the savings will be ongoing rather than a one-shot deal.

With the money made from the sale of scrap, 10 new scrap boxes were purchased for the mine. In what Fred and Mike say is the best idea that came out of the project, the "lugger boxes" were purchased to fit on the railed flat cars used underground on all

levels.

"We used to collect the stuff on the flat cars, but the scrap had a tendency to fall off and loading and unloading them was a real problem. This way, people load the special boxes and then the material is brought to the surface for disposal, recycling or sale."

"In a single month we've had as many as 50 dumps of the boxes. A lot of this stuff was going into the muck circuit before, and that's why we got into all this. The money we're making off this stuff is gravy."

MAKING *Change*



These men and others at Frood Mine are responsible for a good chunk of savings. From left, (front) Blackie Levac, Claude Piche and John Falconer and (back) Gord Stewart and Gerry Flood.

Frood's big savings come in small chunks

The most important item that's come along in the last 20 years.

That's how Frood driller 'Blackie' Levac describes the new way the mine is tackling oversized chunks of rock.

"Rock sorting is a positive step in maintaining this mine as one of the lowest cost producers around," he said.

Blackie and other Frood miners expect annual savings of more than \$600,000 from the rethink of the oversized chunks procedure at the mine.

A saving of almost \$170,000 in the first four months of the project has already been realized, at the same time enhancing the prospect of increasing mine grade, reducing sandfill costs, better housekeeping and adding time to the life expectancy of Frood Mine.

In the continuing effort to reduce operating costs, a mine production Total Quality Improvement team identified "big muck" as a major problem.

About 75 per cent of Frood's tonnage comes from sub-level cave mining and the remainder from vertical retreat mining.

The tonnage exists in old pillars between blasthole and cut and fill stopes.

At one time these reserves were said to be unmineable because of adverse ground conditions. But with the use of shotcrete, Frood miners have been able to develop safely these areas.

While it is challenging

enough to drill the remnant pillars and even more challenging to scoop the muck once it is blasted, the result is oversized muck.

Blaster Gord Stewart said the key to coming up with the new procedure was the involvement and cooperation of everyone at the mine. "From the miner to management, everybody worked together," he said. "This goes a long way in supporting the value of teamwork and keeping Inco a world class, low cost producer."

The team, consisting of Blackie, Gord, geologist John Falconer, scooptram operator Gerry Flood, TQI coordinator Bob Kerr and grader operator Claude Piche, tackled the problem in stages.

First, a chunk control sheet was drawn up. It provides up-to-date information on the status of chunks underground when production crews come on shift.

The sheet is filled out by the scoop operators, blasters and drillers at the end of each shift, so when the next shift comes in they know exactly what to do without travelling through the beat to see the existing conditions.

Not only is less time being wasted, but miners can direct this additional time towards improving the workplace conditions and attaining some additional production.

The second stage of the program was the separation of the rock and ore chunks as they were being mucked at the draw point. Both rock and ore blasting chambers were

established on main mucking horizons.

Scoop operators can now separate the rock and ore chunks as they appear at the drawpoint. When the rock blasting chamber is filled with rock chunks they are retrimmed to open stopes and used as rockfill.

In the past, rock and ore chunks went to one blasting chamber where they were drilled and blasted and mucked into the ore pass. Rock chunks are now being separated from the ore at a rate of about 60 tons per day.

"Everybody at Frood real-

izes that reducing costs is imperative if we want to keep our jobs," said John Falconer. "There was no problem getting scoop operators and others on board."

"Likewise, cooperation from both management and operating staff is vital for the success of the rock sorting program."

Not only have cost savings been realized, but mine grade has increased from 1.16 to 1.19 nickel in the last quarter of 1993. This has been achieved predominantly because of the removal of rock chunks from production ore.

For the program to work, the availability of open vertical retreat panels is crucial for rock disposal. This will also lead to reduced sandfill costs.

Better housekeeping has already been noticed, since rock and ore chunks are not being stored in every available heading.

For mine superintendent Bob Russell, the project is one of the best examples of the kind of teamwork necessary to ensure Inco's competitive edge.

"An excellent project," he said, "driven by the people who do the work."

Frood buckets go from scrap to charity cash

Inco's buckets of trouble continue to be transformed into buckets of money... and it's turning out to be a boon for the community as well as Inco.

What began as an effort by Inco's scrap-in-the-muck teams to remove plastic buckets and other garbage from "going with the (ore) flow" has led to an Inco-wide treasure hunt for the discarded pails and a growing list of refund donations to charity.

Frood Mine recently was

added to the growing list of Sudbury operations where employees have collected the pails, collected the 25 cents per bucket refund from Shell Oil and donated the cash to a local charity.

The five gallon HD 30 oil pails are a Shell product. The three-month (December to March) rebate agreement saw a donation of \$400 turned over to the Sudbury Cancer Society.

Not only were local cancer society officials beaming, but the Frood scrap-in-the-

muck team members who sponsored the initiative were smiling as well.

The cheque presentation was only a part of the story, according to John Larsen. "More importantly, the donation is the side product of a program that has proven successfully by significantly reducing scrap in the muck."

Terry Short, Gerry Dumont, Remi Deraiche and John gave a unified "thank you" to those who made the effort a success... the people at Frood Mine.

MAKING *Change*

Nickel circuit, McCreedy Mine both winners of top Division safety awards



They're smiling at McCreedy West Mine and (below) the nickel circuit at Copper Cliff Refineries. Both are safety award winners for 1993.

There's no shortcut to safety.

It's a general rule acknowledged by people who work above or below ground, and the Copper Cliff Refining and McCreedy West Mine winners of the vice-president's Safety Award trophies are no exception.

"People are taking fewer shortcuts these days," said Copper Cliff Refineries/nickel circuit maintenance mechanic Jim Haddow. "We couldn't have come up with our safety record if we'd depended on luck."

Jim figures the nickel refinery has always been the safest place in the Division, but admits that the Vice-President's Safety Award for Surface Plants came from Port Colborne to be displayed at the nickel refinery.

The refinery's 1993 win was no hit-and-miss thing, according to Jim. "There are strict procedures in place at this plant and everybody sticks to

them. It's that kind of place. And the heavy emphasis on safety reflects on the way our people do their individual jobs. You have to keep your wits about you around here."

There's not question, according to the nickel refinery's Lindsay Fournier, that luck had nothing to do with the win. "You can't order safety. It's up to the individual people, from the shop floor to supervision."

"Safety doesn't just happen," said McCreedy's Howard Murphy. "It takes a conscientious effort by everybody."

Howard said the mine's relatively small workforce (about 100 people) serves to enhance communication, a vital factor in making the mine the top in safety in 1993.

"We have good communications here. We make a 10 minute weekly video here that outlines the work to be done in the following week. Everybody knows exactly what's coming up."



General Office project separates waste

Annual savings of about \$4,000 in waste disposal costs are expected from a unique General Office recycling project that asks employees to separate waste material right at their desks.

The project, another step in the General Office's contribution to an ever-growing, Inco-wide environmental effort to recycle, is the

brain-child of a waste reduction team of Purchasing's Jack Young, Benefits' Nancy Baldisera, Accounting's Dick Bontinen, Information Services' Cy Mac-Leod and Harvey Wickenden and Carol Lang of Mines Technical Services.

With a goal of diverting as much recyclable material from landfill sites as possible,

the team came up with a method of garbage disposal that eliminates some fees altogether (compactor fees) and sharply reduces others. The project counts on the cooperation of employees, asking that they empty one of two baskets supplied for each desk.

Under the new system, existing garbage cans will be used exclusively for recycla-

ble waste (fine) paper items and a smaller "sidebasket" designed to clip on the side of the garbage can will be designated for all other garbage. Employees are asked to empty the paper basket at their convenience into recycling bins located on each floor of the General Office building.

The sidebasket contents are

emptied nightly by the cleaning staff. The team expects the increased use of recycling containers will reduce garbage and garbage handling costs and demonstrate employee commitment to improving the environment.

The team announced that employees will be kept informed as new ways are found to reduce waste.

MAKING Change

People power keeps Inco power on-line

When High Falls winds down, less money winds up in Inco accounts.

That's why Power Department, Winding and Machine Shop employees worked around the clock and in close cooperation to get a 4,000 horsepower High Falls generator back on line in time to take advantage of the electrical power available with the abundant water from the annual spring run-off on the Spanish watershed.

"Everybody here knew that every day the generator wasn't operating, it was costing money," said Winding Shop's Nick Zawierzeniec.

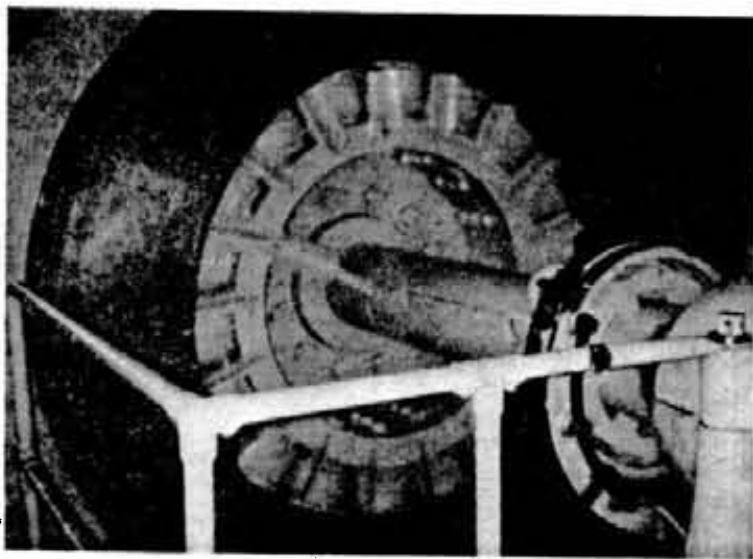
"We knew High Falls was waiting to get it back. All of the guys here gave it their best."

"There's no doubt that if it wasn't for everybody working together, this could have cost us a lot more," said High Fall's Vince Wierzbicki.

The 2.5 megawatt generator, representing a substantial percentage of the Inco-generated power that helps reduce the company's Ontario Hydro electricity bill, was scheduled for cleaning, repair and servicing this summer, but the almost 30-year-old piece of equipment shut itself down in March, before the scheduled service.

"We were approaching the time when there's an abundance of water from the spring run-off, when we can get as much as we can use from the system," said Vince.

Inco-generated power



High Falls #4 generator.

accounts for about 20 per cent of the Ontario Division consumption. The advantage of Inco generating its own power is multiplied by Ontario Hydro's peak period rule. During peak periods, Ontario Hydro costs multiply. Applying Inco's own hydro during the peak periods means hundreds of thousands of dollars saved annually.

While kilowatt savings average about \$2,100 per day, said Vince, "blowing" a peak period can cost more than \$21,000... per day.

Well aware that the downed generator represented some \$25,259 of lost generation every week, the combined effort of crews from the Machine Shop and Winding Shop got the motor back on line within 20 days.

"That's quite an accomplishment," said Div Shop's Vince Lacroix. "The rewind involved the removal of 162 coils and replacing the coils and connectings."

"There was cooperation and teamwork all the way down the line," he said, "from the High Falls removal and re-installation of the 13-ton generator to the work in the shop."

According to Nick, the 12-hour, round-the-clock shifts were just part of it. "I think there was a conscientious effort by everybody - a team effort - to get it out as quickly as possible. It's precision work and the guys realized it had to be done right. This is a good example of how everybody working together makes a big difference."

The Winding Shop team



Divisional Shops people involved included Jack Dube, Robert Pilkington, Spencer Rooney, Rheal Castonguay, Hamid Abouhanna, Nick Zawierzeniec, Dave Bain, Don Phillips, John Maslakewycz, Connie Menard and Robert Fournier. Absent when the picture was taken were Joe Urban, Robert Storie, Brian Vellow, Charlie LaPierre, Wayne Wither, and Dave Mei.

included Nick, Jack Dube, Robert Pilkington, Joe Urban, Robert Storie, Brian Vellow, Charlie LaPierre, Spencer Rooney, Rheal Castonguay, Wayne Wither, Hamid

Abouhanna, Dave Bain, Dave Mei, Don Phillips and John Maslakewycz.

Machine Shop employees included Connie Menard and Robert Fournier.

Port shop teamwork earns dividends

The men of Port Colborne's maintenance shop Total Quality Improvement Action Team take pride in their work.

And it shows.

Not only are they known throughout the plant for achieving many organizational and safety milestones, they have recently received well-deserved recognition for their efforts in acquiring a new hydraulic press brake.

"We put a lot of research into buying this," says team member Joe Dulaj. "We really needed this. Not only is it safer, it's more productive."

The quest for a new press brake began early in 1993 when the team put on a presentation to management, reviewing their serious safety concerns as well as productivity and quality deficiencies

with the old "make shift" Bertram punch. Management was supportive and initiated a capital project for a new press brake. Immediately, the men of the shop TQI Action Team were at work studying various options and looking for equipment that best met the needs of the plant.

The result is a new 320-ton Accupress brake which can bend and form steel plate three-eighths of an inch thick, up to 12 feet in length, in a safe and efficient manner. Greater thicknesses can also be bent on shorter lengths.

"Our team works to make our work and equipment safer so we can produce more," says Joe.

The acquisition of the press brake also means employees are now doing more in-house fabricating. Use of the new press brake, for example, con-

tributed significantly to the recent #2 furnace rebuilding in the #4 building.

"The team deserves a lot of credit for this project," says shop foreman Glen Sevenpifer. "They realized there were safety concerns with the old unit. It was also difficult to operate, inaccurate and very slow. The new machine is not only safer, it improves the quality of our work, saves time and helps make our shop competitive with outside firms."

The mission statement of the shop TQI Action Team is to make continuous improvements to the shop's working environment through safety, cost reduction and productivity. Its current members are Joe, Glen, Mario D'Uva, Jamie Miller and Greg Royal.

"We sit down together and

plan what needs to be done," says Ian, adding that he values the variety of skills the men bring to the team.

"We have a electrician, a welder, a carpenter, a machinist and an industrial tradesman. There is a lot of knowledge on this team."

Jamie agrees, adding he particularly enjoys having the opportunity to increase his knowledge of what equipment is currently available. Acquiring the brake press, he admits, was both an interesting and challenging experience.

"We go to a lot of trade shows to get new ideas on different technology," he says. "It's a great opportunity."

When it comes to the new press brake, however, the men all agree that one of the things they like best about it was that it Canadian-made.

"We did a cost and quality analysis and this met our needs," says Dick. "We contacted four or five brake press builders before deciding on this one."

For his part, Jamie says giving the shop TQI Action Team the opportunity to find the ideal press brake was a logical step for Inco to take.

"We got what we wanted," he says. "We are the people who are going to use it."

The team also built a large metal feed table for handling large sheets of steel in order to use the press brake with greater safety and efficiency.

But then coming up with new and good ideas is nothing new for this team.

Already their ideas and designs for dozens of improvements have changed the shop environment.

MAKING *Change*

Creighton Mine's rock piles shrink as cash savings grow

It seems only natural that what goes up must come back down, but for miners, nature usually works the other way around.

Except at Creighton.

Leave it to the innovative bent of the Creighton miner to come up with a way to fool Mother Nature and save millions of dollars in the process.

With everyone working together, the mine has managed to minimize the dilution of ore due to contamination from development rock by eliminating large tonnages of development rock from the ore system.

In short, bring valuable ore up, leave waste rock below.

"We've found the ideal landfill site," said driller Mike Cranston. "Leave the stuff where we found it in the first place."

Mike figures the problem was solved through teamwork. "We have everybody involved, looking at the problem. There were scoop operators, drillers, management types and just about everybody else. The solution to this thing, to fine-tune a system that would work, demanded that everybody work together."

As a result of teamwork by Creighton personnel, the quality of the mine's product has improved, backfilling costs have been reduced, energy and manpower costs to hoist worthless rock have been diminished and the environmental effect of a surface waste rock pile was reduced.

Estimated savings? About \$1.5 million.

More importantly, the time previously required to hoist 125,000 tons of rock can now potentially be used to hoist an equivalent tonnage of ore.

Gross value of the ore? About \$12 million over an 18-month period.

"And we're not through yet," said scoop operator Denis Ricard. "We want to eventually have no rock hoisted to surface."

The problem to be solved at Creighton involved the deterioration of the main rock pass and the absence of a separate rock handling system in other areas that made it difficult to dispose of rock from most development headings at the mine. As a result, large tonnages of development rock were entering the ore system and contaminating the ore. Waste rock was either lifted to the surface along with ore or the shipment of ore had to be halted while waste rock was lifted to surface.

Starting in September 1992, all sources of development rock entering the ore



Scoop operator Denis Ricard, drift driller Mike Cranston and geologist Mary Anne Tregenza: Creighton's rock piles are getting smaller.

system were identified. Discussions were held with development and tramming crews, foremen, general foremen, Mines Technical Services, Engineering and Geology personnel, to find ways to minimize or eliminate rock entering the ore flow system. These discussions identified three main initiatives to reduce the rock dilution:

- Modification of engineering layouts to minimize development in rock.
- Development of systems to dispose of rock in mined-out stopes.
- Scheduled rock only hoists with rock batched through the ore system when no other disposal method was available.

Due to the efforts of many employees, there have been some impressive improvements over the first two years. Underground rock storage was increased, lowering sandfill requirements and freeing up time for ore hoisting.

One example of the many improvements is the work of Mike Cranston's crew on 5,000 level, which excavated a drop raise into an open stope and installed a car dumper to dispose of development rock. Since June 1993, 600 feet of rock development, for a total of 5,000 tons, has been excavated and dumped into this cavity.

Denis Ricard and the crews on 7,000 and 7,200 level have made major contributions to rock disposal in their areas as

well.

Development crews excavated connector drifts to stope topsills on 7,000 level while maintenance crews refurbished a truck which allowed major rock development on 7,200 level and below to be hauled up and dumped into mined out stopes.

This rock disposal system, along with scheduled rock hoists, not only kept up with on-going development of 48,000 tons in 1993, but also cleaned up a backlog of 20,000

tons stored on the level.

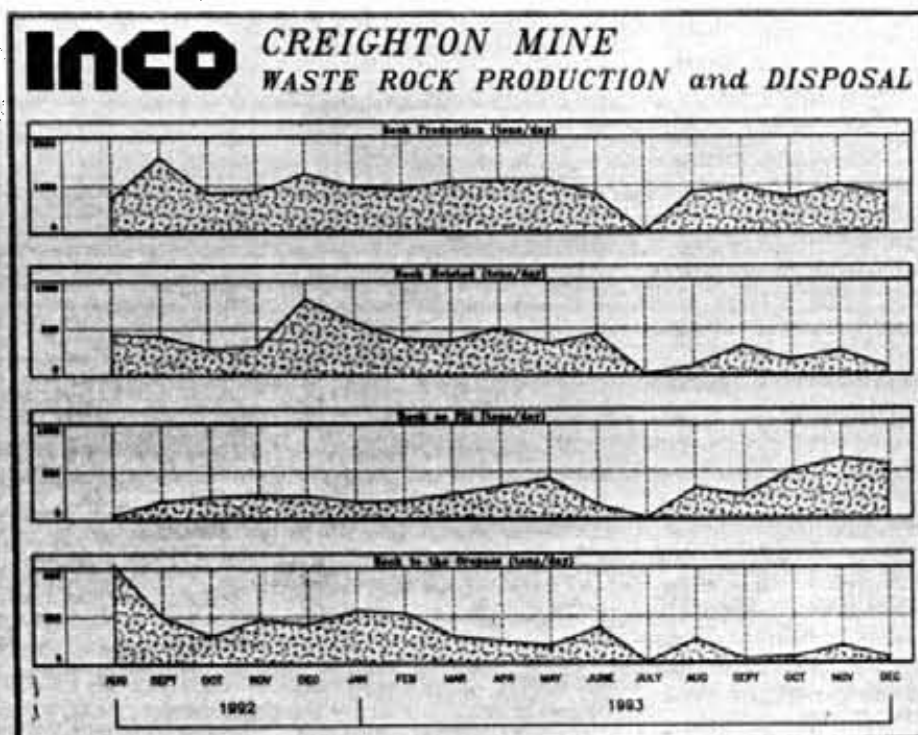
"I was astounded that we got this kind of success," said chief mine geologist Don McKenzie. "I knew our people could do it, but this kind of result would have been considered impossible before we got started. In August of 1992 about 9,800 tons of rock entered the ore system. By September last year, it was reduced to 500 tons a month."

Ore dilution due to contamination from development rock has been steadily reduced

from 514 to 20 tons of rock per day.

Meanwhile, 125,000 tons of rock have been disposed of in mined-out stopes. This tonnage has increased from an average of 46 tons per day in August 1992 to a high of 615 tons per day in March of this year.

The amount of rock hoisted has shown a corresponding decrease from 437 tons in August of 1992 to a low of 77 tons per day in December of last year.



in touch

Pensioner Days: good food, good company, good ol' times



Years of dedicated service are represented at this table. From left are June Stelmack, who retired from the comptroller's office this year after 30 years of service; Elvi Mikkola, who retired in 1991 with 31 years of service; Dina Minardi, who retired in 1984 with 40 years of service; Helen McParland, who retired in 1992 with 31 years of service; Florence Husson, who retired in 1973 with 30 years and Jo Walmsley, who retired in 1973 with 31 Inco years.

There are now over 12,000 Inco retirees, and about 10,000 of them are right in and around the Sudbury area. Each year in June, about 40 per cent of that local number take advantage of Pensioner Days – that time when Inco makes it possible for retirees to get together, play games, exaggerate a bit and have lunch.

And, they are greeted and name-tagged by volunteers from the plants, mines and offices. Sounds simple enough, but all these early retirements make it very confusing, especially if you only recently landed here in the bramble bush. You're just not sure who's working and who's not. Like . . . will the real retirees please stand up?

On Friday, for example, I spent half the morning thinking how glad Blaine Gareau and Bob Stanzel were to see their fellow retirees – until Blaine finally informed me



Rene Marleau, 69, who retired as a Smelter operator in 1985 after 41 years of service, is registered by Smelter process clerk Joyce Donohue and Central Mills process clerk Mary Dukovic.

that he's still very much on the North Mine payroll (with 36 years' service, the old fox!). To avoid further embarrassment, I eavesdropped until I heard Bob explain that he still works at Environmental Control.

And the boundary gets even fuzzier: this year, Wally Taylor and Marilyn Harper were in as volunteers, taking those keepsake Polaroid pictures. That's great . . . but Marilyn will be retired by the time this issue hits the mailbox, and Wally won't be far behind. Next year, they'll both arrive on the same day, only as guests. Poor Marilyn will be trying to visit and somebody will want their picture taken.

We pensioners do have our problems.

But, on a more serious note, Pensioner Days isn't one of them.

It has truly become an institution, one quite rare in this or any other industry, that



Armond Arseneault, who retired as a skimmer at the Smelter in 1988 after 36 years with Inco, throws a horseshoe as John Jennings, who retired in 1991 with 24 years of service, looks on.



Line-ups at the food tables show the enthusiasm of Pensioner Days celebrants.

allows retired employees to preserve a treasured connection with the company and the people and the years that became so much a part of them. However physically fit or challenged they might be, their minds are clear – and focused on embracing this wonderful moment out of space and time.

Inco has been providing this important forum . . . for well over twenty years now . . . through good and bad times.

On the otherside, to merely suggest that Pensioner Days is appreciated would be a profound understatement.

And, there can be few who feel any better about the outing than Bill Taylor. I know . . . there are probably more Bill Taylors than John Smiths around, but I'm talking this time about the dad-of-John-and-Doug-and-Bill-and-Wayne-and-Wally-and-Wilda Bill Taylor, who retired from the Power Department in 1971.

Between Bill and his family – including the late Frank, who had 14 months' service when he died in a car accident – these Taylors have more than 206 years (my tally, so blame me if it's off a day or 10) of Inco seniority. I don't know if that's a record, but it's a hell of an average!

Bill came to Copper Cliff in 1942, after being refused entry into the Service the year before. With an expression that bears a remarkable re-

semblance to his son Doug, the 88-year-old chuckled: "They said I wasn't physically fit for the army – a couple of pounds shy – but I've lasted pretty well!"

Except for 1993, Bill has attended every Pensioner Days outing since they began. 22 or 23 times, he figures.

More? Less? Who really cares? Please don't somebody go into the company records and really prove when the

whole thing started! Don't spoil good-natured debate with documented proof. It's part of the mystique, you know. However long it's been going on, Bill Taylor and the rest of us love it.

Gosh knows, I love it! At home, it's become fashionable to look upon me as an old guy – but at Pensioner Days, I'm still a kid . . . for now.



Eveline Bernier, who retired in 1969 after 12 years with Inco, and Rita Lapalme, who retired in 1985 after 25 years with Inco, enjoyed the food and good company.



Power Department secretary Marilyn Harper reviews the photograph she just took with 'models' Ivan Topolskod, 83, who retired in 1967 after 20 years with Inco, and Alex Dekin, 80, who retired in 1980 after 30 years.



Aldo Bardeggia, 88, who retired in 1970 after 40 years with Inco, gets some advice from Benefits supervisor Terry Duncan. Also interested in the Benefits booth is (left) Louis Deluisa, 62, who retired in 1991 after 39 years with Inco.



Benefits' Lorna Seguin greets Mike Armillotta, who retired in 1991 after 32 years with Inco. In the morning she was an employee greeting old friends. At closing time, she was one of the celebrants. It was Lorna's last day on the job before retiring herself.



HERITAGE T H R E A D S

by Marty McAllister

No bean-counter, he

You'll likely remember folks who crossed your path at certain critical points – people who, for one reason or another, happened to say or do significant things at just the right time. In doing so, whether either of you then realized it, they altered and/or reinforced your outlook on your working life at Inco. Just by being who they were, they made you better.

People like Jim Fowler.

Many of you will remember Jim from his time in the Ontario Division – both before and after he became division comptroller. Then, when he was promoted into the corporate hierarchy, back in those halcyon days when Inco Metals and Exide were active words in the Inco lexicon, some lost touch with him.

More through good luck than good management, I've managed to run into Jim every now and then during the last fifteen years, in the darnedest places.

A funny thing happened . . .

Like the last time I took my wife to the Caswell for breakfast, a month or so ago. It had nothing to do with being tired of the porridge at home. The idea was to get her day off to a good start. After all, the still-working spouse of a pensioner deserves a reminder every now and then that the extra effort is appreciated. And, it is – especially by those of us with expensive hobbies.

So there we were, already halfway through our thoroughly decadent, high-cholesterol plates of bacon and eggs and home-fries and toast (no butter for Mrs. McAllister, thank you) when some Inco folks sat at a nearby table. They couldn't figure why I was up so early, and I, in turn, wondered why they weren't at work.

But when I saw Fowler sitting among them, I was grateful to whoever or whatever for the delay.

Jim is, or at least will be until this July (if he really does retire this time), Inco's assistant comptroller in New York. And he occupies a spot high on the list of those who had a positive impact on my attitude toward the company and its people.

That will probably surprise him as much as anyone – because I never worked for him, we were not daily associates, and we rarely met outside the Inco context.

What he did weren't big things, nor were they large in number. They just . . . well, decide for yourself . . .

A turning point

Around 1969 or 1970, I was still working in the Maintenance office at Crean Hill. People were starting to get more training. We'd take courses in what was being heralded as the modern way to manage, go back to the plant fired up to do great things . . . and be promptly reminded that the wheel of change grinds slowly. But, grind it did.

Some of the more practical sessions were held to simply let us know how Inco's various support departments worked. At one of those, dealing with the Accounting Department's many roles, a bright chartered accountant and former Price-Waterhouse professional told some rather basic truths. Jim Fowler wasn't yet the division's Numero Uno accountant, but he showed qualities that would take him there.

What I remember is just a little thing, but it struck me as important, and it has stayed with me always. Someone asked Jim a question about the company's tax obligations.

His simple, unequivocal answer went something like this: "Inco doesn't like paying unnecessary tax any more than anyone else, but it always pays what it should."

Straight talk. Nothing fancy. And I took it as a commentary on more than just taxes: *successful companies shouldn't spend money frivolously, but neither should they cheat.*

An impressive power

A half-decade later, I spent many challenging and gratifying hours with Charlie Nicholson and others on the subject of budgeting for maintenance. Charlie and I had a few points to make, and were given a chance one day to plead our case with the same Jim Fowler, who by then was indeed the division comptroller.

Jim was far more than a bean-counter. He took a deep interest in the goings-on behind the numbers, and made it his business to know what was important to Inco's business. Because Charlie and I thought this was important, Jim wanted to hear it.

The comptroller listened, asked a pertinent question here and there, made the odd little note . . . and listened some more. At the end of the afternoon, when Charlie and I had gone, Jim closed his door and talked into the old Dictaphone.

Next morning, the tape went to Dina Minardi, Jim's now-retired but still-lovely secretary (I saw her at Pensioner Days). By noon, Charlie and I had copies of Jim's transcribed notes.

I'll never forget, and I know Charlie will agree if he reads this, how perfectly Jim had sensed what we had been trying to put across. His summary agreed with some things, disagreed with others, but there was absolutely no doubt that *he had listened and understood* – and had then been able to articulate all of it.

If I ever received a lesson in the power of active listening, that was it. (Sure it helps if you're smarter than the average bear, but that's beside the point.)

And time just to be Jim

Still later, Jim was Inco's main financial man on the Exide team when the Sudbury Internal Audit crew visited Philadelphia to do some number-crunching in the early 1980s. For reasons that still elude me, I was part of that crew. On our first day in the Exide headquarters, Dave Clarke and I ran into Jim – mere days before he would return to Inco's New York office for good.

Exide had been Inco's biggest-ever diversification, and here it was – like **a turkey being readied for Thanksgiving. I can only now begin to appreciate just how incredibly busy and preoccupied Jim must have been with those** mega-dollar details. He was right in the middle of trying to drain the swamp . . . and along comes these two gators, one tall and one short (I was the short one), wanting to chat.

But Jim wanted to chat too, and wasn't content with just a warm handshake in a cool hallway. So, after work, the three of us met for dinner in Philadelphia's historic quarter and talked for hours. Even with so many complex Inco things on his mind, Jim confidently stowed all of that on the back burner – so he and Dave and I could visit, just as old Copper Cliff friends.

Author Stephen Covey makes a bundle nowadays, writing that highly effective people have habits like that. As Jafar's parrot says: "What a surprise! I think I'll have a heart attack and die, I'm so surprised!"

But now, Jim, you say you're gonna retire, continue living in 'Joisey, and help your wife get her real estate day off to a good start. I can't think of a more prudent investment.

Have a long and fulfilling retirement, my friend; if whatever you plan is important to you – your track record suggests it will be genuinely so.

Good luck . . . and, by the way, thanks.

In Memoriam

NAME	AGE	DIED	YEARS SERVICE
Antonioni, Vilio	69	May 25	40
Bellaire, Isidore	74	May 10	37
Cerantola, Primo	87	May 14	39
Coulter, Maurice	81	May 15	35
Drisdelle, Edgar	73	May 25	33
Dumont, Wilfred	72	May 17	29
Grenier, Albert	85	May 18	36
Grigutis, Alfonsas	75	April 20	28
Head, Michael	65	Feb. 12	30
Holler, Anton	84	May 23	39
Lacroix, Andre	56	May 31	26
Lapienis, Felix	87	May 21	29
Maciag, Stanislaw	73	May 2	30

NAME	AGE	DIED	YEARS SERVICE
McCuaig, Hugh	91	May 27	33
McDonald, John	79	May 2	17
Peachy, Brian	58	May 1	21
Renaud, Adrien	68	May 31	29
Regimbal, Rodolphe	77	May 8	40
Rupoli, Ontario	79	May 20	40
Scott, William	53	May 18	30
Sheppard, Kenneth	67	May 28	5
Sowka, Jozef	80	May 26	30
Strakauskas, Antanas	87	May 6	19
Stopciati, Ivan	71	May 8	31
Walker, A. Allegra	90	May 11	24
Wilson, Gordon	69	May 4	21

Inco Cup skiers all winners

Most people are thinking about camping, not skiing these days. But for coaches and skiers attending the Inco Cup banquet, snow and skis were foremost on their minds.

The 22nd annual banquet was held recently at the Copper Cliff Club to honor those competing in this year's series.

The evening wasn't about winners and losers, but a celebration of those who had done their best.

"A winner is not the winner of the race," said



Top individual male and female award winners Lise-Marie Acton and Jeff Griffith of the Searchmont Ski Runners are congratulated by Inco's Jeff Grieve.

Northern Ontario Head Coach Roger Hetu. "A winner would always go and give it his or her best." No matter where racers place, whether first or last, it is more important to feel that they did their best, he explained.

Ron, who now works with the Canadian Alpine Ski Team in Banff, Alberta told the young skiers that it takes a lot of hard work to achieve their personal best. "You have to realize that you have to dig deep and get your goals met," he said.

Jeff Grieve, senior environ-

mental analyst with Inco, agreed with their advice. "There's really only a few awards and that is top female and male individual awards and the winning team," he said. "Not everyone can place first. What's more important is achieving your own personal goals."

The top individual male and female awards went to Lise-Marie Acton and Jeff Griffith of the Searchmont Ski Runners. The Inco Cup went to the Searchmont Ski Runners, coached by Gord Acton and Ron Griffith.

EVH

FOR YOUR HEALTH

From the Occupational Medicine Dept.

We prepare our car for a long trip and for winter. We prepare wood before we paint it. We prepare our garden and our camp for winter. But do we prepare ourselves for different seasons and activities?

By the time we are 35 years old we should start to prepare ourselves so that we do not get stiff, sore or injured because we are not fit for new activities, even though we may do physically demanding work of another type.

As we age, the tough, gristle-like connective tissue that makes up our cartilage, tendons and thin outside coating of our body, just under our skin, starts to tighten up. We can reverse this process by doing gentle exercises that use the muscles opposite to those used each day, keeping the connective tissue flexible and the muscles in balance.

When normally unused muscle is used for strenuous work, the connective tissue gets irritated and we get tendonitis, an irritation of the connective tissue of that particular muscle.

Tennis elbow and carpal tunnel syndrome are both types of tendonitis.

Many other things change the connective tissue, including what we eat and how we think. If we're uptight, the connective tissue is tighter. Smoking increases the tightness of the connective tissue. If you smoke, it is even more important that you exercise.

Being active and feeling good regardless of age

Twenty minutes of exercise every day is adequate for muscle/joint systems for an active individual. Include some additional strengthening exercises for the muscles opposite to those used every day. If not active, you should do an additional 10 minutes of strengthening exercises. Water exercises are excellent, especially if you have soreness. Add a regular walk or ride on a stationary bicycle.

Don't overdo it. "No pain, no gain" is for fools. Pain will cause the muscles and tissue to tighten up.

Warm up, warm down

Do a few gentle exercises to warm up and warm down your muscles before starting and after an activity. A shower is also a good way to warm up. Do not take a bath or whirlpool before doing physical activity as the excess heat relaxes the muscle too much.

Plan your home, work routines

Doing activities that use the same muscle groups or keeping the body in the same position for more than 15 minutes will increase the risk of soreness or injury. This can be caused by using the same muscle groups but doing different activities or staying in the same position doing the same activity or doing different activities.

Make a list of the things that you want to do and then list what different positions they can be done in. Plan what you are going to do so that you only stay in one position or use the same groups of muscles 15 minutes or less. Alternate your activities or do a few gentle exercises that use the muscles opposite to those that you were just using.

Change positions often

It will take longer to feel better and increase your chance of injury if you stay at an activity until you start to notice your muscles or joints aching.

If you are doing a repetitive activity such as shovelling, raking, sawing or working overhead, move into the opposite position for a few seconds every few minutes or every shovel load.

Avoid over-efficiency

Efficient usually means doing the activity in the shortest time possible with the least amount of movements and wasted time. This usually means staying at the same task until experiencing muscle strain and sprains. This is less efficient in the long run.

Look after yourself this summer

Prepare for changes in activities at work and home

Whenever you know that you will be doing something different, start doing some exercises and activities that will be using the same muscle groups as the new activity. Do them in a similar position so that your muscles and joints are in shape and ready for the extra demands. It is important that you think ahead for seasonal activities and get yourself fit in the "off" season

Lift, reach and bend smart

Follow good lifting practices at home as well as at work. This topic will be covered more completely in the next issue of the Triangle.

Since the connective tissue is meant to be contracted and stretched, doing nothing is not the answer. Inactivity, as well as overactivity, makes the connective tissue tight.

Staying in one place, even if it is sleeping, is not usually good for staying flexible, energetic and pain free. When we stop moving, the tough connective tissue tends to tighten up and makes us feel stiff.

The key factors are the length of time that you take a rest and what position you are in when you are 'resting'. For many people sitting is one of the worst activities.

Pay attention to your seat or chair. Lawn/deck chairs, easy chairs and lazyboy chairs do not make a lot of people feel better. Have the best chair for you or adapt an existing chair in the areas where you sit the most. If you like a roll behind your back or use an insert, take it with you when you go visiting or to a meeting.

When driving a car or as a passenger, adapt the seat to suit you for a short trip as well as a long trip. Try a soft roll or an insert. Fidget often and don't sit still too long. Stop often for a short stretch break.

Sleep on the floor

If you are sleeping in an unfamiliar bed that doesn't feel right, you should consider putting the mattress on the floor. This often makes a less-than-ideal mattress comfortable. Get help so you do not strain yourself getting it on and off the bed.

If you think that you have overdone an activity, start your own treatment the same day. Don't wait to be stiff and sore tomorrow.

Hot or Cold

Cold is the treatment of choice for 98 per cent of people with muscle/joint injuries. It is as good for chronic pain as it is for new strains. Get a flexible ice pack at the drug store, wrap it in a thin towel and put it on the sore area for at least 20 minutes. Evaluate its effect after you remove it. If it helps, you can use it every hour and before and after an activity. The heat and massage aspect of a hot shower helps the muscles relax a little but not enough to take the stretch out of them and make them weak. Take several if sore. Hot water bottles, heating pads, long baths or whirlpools are not recommended for more than seven minutes as the heat after this time takes the stretch out of the muscle and makes it too relaxed and weak. Usually in an hour or so the muscle actually tightens up, often even more than before. Alternating heat and cold. Up to five minutes of warm and cold repeated several times will make the connective tissue heal faster. It is usually best to end with colds but if the part aches after this treatment then end with a few minutes of warm. A sauna does not penetrate the muscle enough to get the bad effects but does relax the muscle and connective tissue enough so that it is more flexible and less painful.

There are two main types of creams. One type gives one the sensation of heat or cold and interrupts the pain. They can be used if they help give some relief. The penetrating sports creams do not give you a hot or cold sensation but often give some relief after applying.

Wearing a support on the part that tends to get sore is a way to decrease the stress on a specific area while still staying active. Some common devices are elastic back supports, rib, soft collar, tennis elbow, wrist, thumb, knee and ankle supports. These are available at specialty drug stores and are often part of the program for muscle joint injuries at Inco's Occupational Medicine Department.

Yesterdays today's



Iron Ore Recovery Plant makes history

40 Years Ago

In 1954, it was going to be the tallest chimney in the British Commonwealth. Rising 615 feet into the air, the chimney, to be used at the Iron Ore Recovery Plant in Copper Cliff, was eclipsing the record held by two stacks at the Copper Cliff Smelter by 115 feet.

But it did not stop there. The Iron Ore Recovery Plant was making history in a number of ways.

The \$16 million facility, using a trail-blazing process of extracting iron from pyrrhotite, developed by Inco research staffs, would produce a higher grade of iron than any other large producer of iron in North America, plus 120,000 pounds of nickel in the next five years.

The Commonwealth's new 'champion' chimney, with an outside diameter of 63 feet three inches at the base and 33 feet at the top, would weigh 17,000 tons. It would contain 500,000 pounds of reinforcing steel and nearly 100,000 pounds of insulating material. Wall thickness would be seven feet, 11 inches at the base and three feet at the top.

Other stories that month:

- "Sullivan Men Win the Medal for Bravery"
- "Some Pictures of Eskimos by Hank Vuori"
- "Shareholders Hear Splendid Nickel Survey"

25 Years Ago

Albert P. Gagnebin, president of International Nickel, said environmental control was one of the most critical issues of our time while addressing the management plenary conference at the 98th annual general meeting of the Canadian Manufacturers' Association in Toronto in 1969.

He called it an awesome challenge that would take the best efforts of science and technology to solve.

But he cautioned against overreaction to the problem by legislators, who might be pushed by impetuous people to impose impractical and oppressive solutions that would stifle economic activity and cut back production and affect jobs.

He cited Inco's advanced initiatives: the recovery of sulphur dioxide from smelter emissions, the stabilization of acidic tailings areas and the treatment and recycling of waste water.

But to those who advocated zero emission of sulphur from smelter smokestacks he advanced a thought-provoking rejoinder: "the only solution to no sulphur dioxide coming out of the stack, was no nickel coming out of the smelters."

He said we must find ways to reduce pollution, but not at the expense of technological progress and our economy.

Other stories that month:

- "Field Engineers Fill Varied Role"
- "Millions' In Safety at Creighton Mine"
- "Levack-Onaping Festival Praised by Adjudicator"

14 Years Ago

Happy Birthday! It was the 50th anniversary of the Copper Cliff Refinery and the Smelter.

For both, the decades had been years of advancement and growth.

For the refinery, they had been years of technological change, too.

- In 1936, the first direct-arc furnaces for the continuous melting of copper cathodes were installed in the refinery. In the same year, it received its first hot metal car of blister copper from the smelter.

- Bunker oil replaced pulverized coal as feed in the anode reverberatory furnaces in the early 1940s and in 1958 oil was replaced with natural gas.

- In the late 1960s there was an extension to the tankhouse and in 1969 another extension provided space for 200 more electrolytic plating cells.

- In 1970, a new facility was installed to process residues from the new Copper Cliff Nickel Refinery.

- And from 1970 to 1974, three new vertical shaft furnaces replaced the original electric furnaces.

Not to be outdone by the refinery, the smelter went through its own metamorphosis during those same years.

- In 1930, it eliminated the problem of open yard-roasting, with the installation of 30 multi-hearth roasters, while five reverberatory furnaces and eight converters were also installed.

- In 1934, four additional converters were installed.

- 1936 saw the installation of two more reverberatory furnaces and seven more converters.

- Three years later, dust collecting equipment and an additional reverberatory furnace were added.

- In 1948, the separation of copper sulphide and nickel sulphide was achieved through bessemer matte casting and controlled cooling, an Inco research development.

- In 1952 an Inco-designed fuel-efficient oxygen flash furnace was installed and in 1965 an Inco-designed fluid bed roaster was installed to replace the original multi-hearth roasters.

INCOME ideas

by Susan LeMay, CMA

Disappearing capital gains exemptions

Who cares? Maybe you do!

The capital gains exemption was eliminated in the federal budget February 22, 1994. Most of us believe that this change doesn't affect us, that it only affects the wealthy who wheel and deal and make large gains on the stock market. The reality is that most of us have not yet sold any of our assets that would be eligible for the Capital Gains Exemption. But we will eventually, since assets are considered sold when we die, even if they are only transferred to family members.

Your cottage is a taxable asset

Why bring this up now, as we all get ready to enjoy the summer? Going to your camp/cottage for any part of the summer? If you are, and you have owned your property since 1991, then you ARE affected by the changes in the Capital Gains Exemption, and you have an opportunity to act now and save yourself or your children significant taxes in the future.

Typically, real estate in general and waterfront property in particular have increased in value over the years. When you sell your property, it is the difference between what you paid for it and what you sell it for that is a capital gain. After February 1994, 75 per cent of all capital gains is to be included in income. You say, - Your cottage won't be sold, it is going to be given to your children to enjoy, so you don't have to worry. As soon as the name on the deed changes, someone will have to pay the tax on the capital gain (Unless the property is being transferred from one spouse to another). If the change occurs without any actual receipt of cash, you or your children may be forced to sell the cottage to raise the money to pay those taxes on what Revenue Canada will see as a capital gain.

Reduce future taxes

There is an opportunity when you file your 1994 income tax return to accrue the increase in the value of your cottage for tax purposes. This means that you can record the increase in value up to February 1994, declare a capital gain and use your capital gains exemption to eliminate the need to pay taxes on the gain accrued to that time.

An Example

Let's look at a typical scenario just to highlight the benefits of accruing that capital gain. We will make two assumptions: You have your full Capital Gains Exemption still available for use and you have not had any losses from investments.

June 30, 1982 purchase of cottage	\$20,000
February 22, 1994 value of cottage	\$90,000
June 30, 1995 sale of cottage	\$95,000

If you elect to accrue the capital gain on the cottage in 1994, then you have a deemed capital gain in 1994 of \$70,000. You would expect the new cost base to be \$90,000, but because of the 1992 federal budget, it is less. In this case, the eligible gain is about \$63,500. The new cost of your cottage is \$83,500 (\$20,000 + \$63,500).

In June 1995, when you sell, the taxable gain and tax are:

Selling price	\$95,000
Less adjusted cost	\$83,500
Capital gain	\$11,500

Taxable gain (75 per cent of capital gain) \$8,500
The \$8,500 would have to be added to income, and if we assume a 50 per cent tax bite, then the bill would be \$4,250.

If you do not elect to accrue the gain in 1994, then this is what happens	Selling price	\$95,000
	Less adjusted cost	\$20,000
	Capital gain	\$75,000
	Taxable gain (75 per cent)	\$56,250

The \$56,250 would be added to income and we can assume a 50 per cent tax bite, so the bill would be \$28,125. This is \$23,875 more than you would have had to pay if you had made the election in 1994. This is a simplified explanation since every case is different, and the important point is that there is a considerable saving to be gained.

What you can do

Everyone's situation is different, but the tax savings in the example are large enough to encourage you to examine your own situation to determine if you should take the necessary steps to make

the election on your 1994 income tax return. The cost of professional advice is small compared to the potential future tax costs.

If you make the election, when you do actually dispose of your property, you will need an objective valuation to satisfy Revenue Canada that your 1994 cost base is reasonable. The easiest way to ensure this is to hire a qualified appraiser to appraise your cottage. While you are enjoying the cottage this summer, you might talk to some of your cottage neighbors and see if you can't get an appraiser to come and do a number of properties at one time. There could be some savings in this especially if you pay for travelling time.

If you have a cottage, which has appreciated in value since you purchased it, then you need to consider this issue carefully.

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